CS531, CS632, C2335, CS639 Printers

Service Manual

April 2024

www.lexmark.com

Product information

Product name:
Lexmark C2335, Lexmark CS531dw, Lexmark CS632dwe, Lexmark CS639 Printers
Machine type:
5031
Model(s):
270, 280, 290, 635, 675, 685

Edition notice

April 2023

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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.

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

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 196.

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 99.
  - 64 and 66. See 61–66 user attendance error messages on page 142.
  - 71.04, 71.05, and 71.20. See 71–72 user attendance error messages on page 144.
  - 680.50. See 600-680 error messages on page 164.
- Added the following service checks in the Diagnostics and troubleshooting chapter:
  - Weather station service check. See Weather station service check on page 151.
  - Engine error service check. See Engine error service check on page 176.
  - Fuser error service check. See Fuser error service check on page 155.
  - Main fan service check. See Main fan service check on page 164.
  - Tray not ready for picking service check. See Tray not ready for picking service check on page 169.

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 86.

November 7, 2023

- Added the Power cords topic in the Parts catalog chapter. See Power cords on page 459.

July 18, 2023

- 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 112.

June 1, 2023

- Added parts removal links in the Sensor locations topic of the Component locations chapter. See Sensor locations on page 426.

May 23, 2023

- Added the Rear cover removal link in the Covers topic of the Parts catalog chapter. See Covers on page 443.
- Added the Pick roller removal link in the Trays topic of the Parts catalog chapter. See Trays on page 454.

April 25, 2023

- Product announce.

General information

Printer model configurations

The Lexmark™ C2335, CS531dw, CS639, and CS632dwe SFPs are color, network-capable 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
C2335	2.8-in. color touch screen display, duplex print, networking, ISD and hard disk support, optional tray support, wireless module support	5031-290
CS531dw		5031-270
		5031-280
CS639	4.3-in. color touch screen display, duplex print, networking, fax, multi-feed detection, ISD and hard disk support, optional tray support, wireless module support	5031-635
CS632dwe		5031-675
		5031-685

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.

Selecting preprinted forms and letterhead

- Use grain long paper.
- Use only forms and letterhead printed using an offset lithographic or engraved printing process.
- Avoid paper with rough or heavily textured surfaces.
- Use inks that are not affected by the resin in toner. Inks that are oxidation-set or oil-based generally meet these requirements; latex inks might not.
- Print samples on preprinted forms and letterheads considered for use before buying large quantities. This action determines whether the ink in the preprinted form or letterhead affects print quality.
- When in doubt, contact your paper supplier.
- When printing on letterhead, load the paper in the proper orientation for your printer. For more information, see the *Paper and Specialty Media Guide*.
- When printing on letterhead, load the paper in the proper orientation for your printer.

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

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		
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.)	✓	✓	✓	✓	✓	**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.)	✓	✓

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

Paper size and dimension	Scanner	Automatic document feeder
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**
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**

Paper size and dimension	Scanner	Automatic document feeder
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**

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	Optional 650-sheet duo tray	Optional 550-sheet tray	Two-sided printing	
550-sheet tray	Multipurpose feeder				
60–200 g/m^2 (16–53-lb bond)	60–200 g/m^2 (16–53-lb bond)	60–162 g/m^2 (16–43-lb bond)	60–162 g/m^2 (16–43-lb bond)	60–162 g/m^2 (16–43-lb bond)	60–105 g/m^2 (16–28-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 162 g/m^2 (16–43-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 44.

   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 on page 0.
3. If the effect of the jumper reset is disabled, then replace the controller board. For more information, see Controller board removal on page 351.

Using the security reset jumper

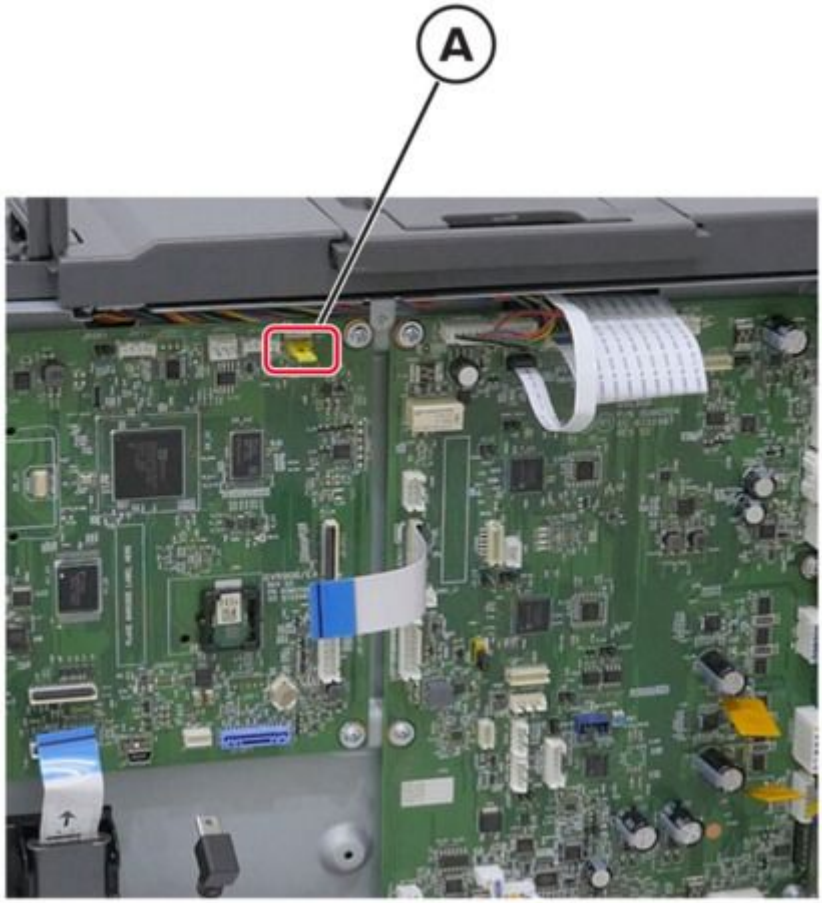
Note:

- Before changing the security settings, ask for permission from your administrator.
- Resetting the printer deletes all security settings.
- Replacing the controller board deletes all security settings.
- If LDAP is used to authenticate the copy function in MFPs, then the LDAP configuration and copy function are no longer protected.
- To prevent the tampering of the jumper, secure the controller board cage with a Kensington lock.
- To disable the effect of the jumper reset, select **No Effect** from the Security Reset Jumper Setting section in the Security menu. In this setting, if the password is forgotten or lost, either an Out of Service Wipe needs to be performed, or the controller board needs to be replaced.
- If Enable Audit is activated from the Security Audit Log section in the Security menu, then the printer logs a message each time the jumper is reset.

To reset the jumper:

1. Turn off the printer.
2. Access the controller board.
3. Locate the jumper (A) on the controller board.

Notes
The jumper is located next to a lock icon on the controller board.



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

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

5. Turn on the printer.

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:

- Intelligent Storage Drive (ISD)
- Engine board
- Controller board
- Optional hard disks

> **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 e-mail the signed form to the number or e-mail 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:

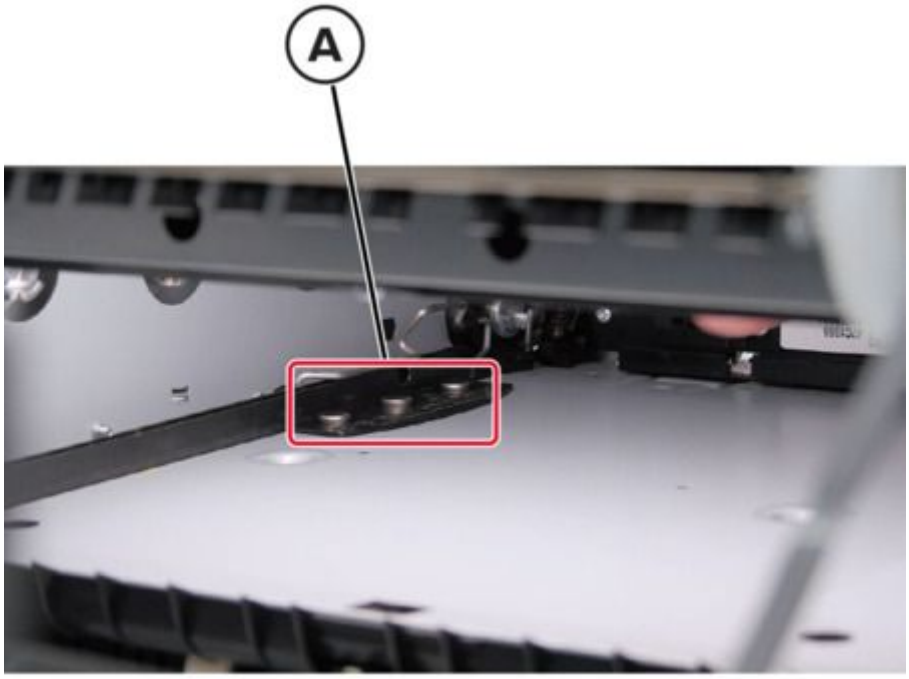
Supply item	Part number
Developer units	• 75M0D10—150K page black developer unit • 75M0D20—150K page cyan developer unit • 75M0D30—150K page magenta developer unit • 75M0D40—150K page yellow developer unit
Imaging kits	• 75M0Z10—150K page black imaging kit • 75M0Z50—150K page black and color imaging kit • 75M0ZK0—150K page black return imaging kit • 75M0ZV0—150K page black and color return imaging kit
Toner cartridges	Check the supplies guide for the part number of the cartridge used in your printer.
Waste toner bottle	75M0W00—30K pages

Blurred print

Notes
Before doing this print quality check, see Initial print quality check on page 45.

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 269.
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 303.

   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. For more information, see HVPS removal on page 263.
10. Check the transfer module for damage, contamination, and improper installation. For more information, see Transfer module removal on page 303.

11. Check the controller board for damage, contamination, and improper installation. For more information, see Controller board removal on page 351.

Misaligned color

Notes
Before doing this print quality check, see Initial print quality check on page 45.

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 66.
4. Check the printhead for damage, contamination, and improper installation. For more information, see Printhead removal on page 364.

Toner easily rubs off

Notes
Before doing this print quality check, see .Initial print quality check on page 45

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 244.

Gray or solid background

Notes
Before doing this print quality check, see Initial print quality check on page 45.

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 269.
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 364.
    c. Check the controller board for damage, contamination, and improper installation. For more information, see Controller board removal on page 351.
3. Check the HVPS cable for discontinuity, damage, contamination, and improper installation.
4. Make sure that the HVPS contacts are properly positioned and can freely move up and down.

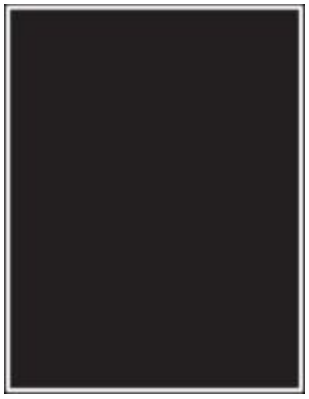
    a. Remove the transfer module. For more information, see Transfer module removal on page 303.
    b. Make sure that the three HVPS contacts are properly positioned and can freely move up and down.

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

    a. Check the HVPS for damage, contamination, and improper installation. For more information, see HVPS removal on page 263.

b. Check the controller board for damage, contamination, and improper installation. For more information, see Controller board removal on page 351.

Solid color or black image



Notes
Before doing this print quality check, see Initial print quality check on page 45.

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 269.
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 364.
   c. Check the controller board for damage, contamination, and improper installation. For more information, see Controller board removal on page 351.
3. Check the HVPS cable for discontinuity, damage, contamination, and improper installation.
4. Make sure that the three HVPS contacts are properly positioned and can freely move up and down. Do the following:

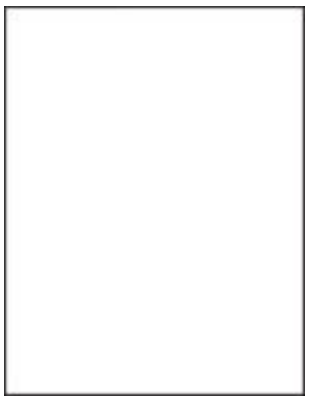
   a. Remove the transfer module. For more information, see Transfer module removal on page 303.
   b. Make sure that the three HVPS contacts are properly positioned and can freely move up and down.

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

   a. Check the HVPS for damage, contamination, and improper installation. For more information, see HVPS removal on page 263.

b. Check the controller board for damage, contamination, and improper installation. For more information, see Controller board removal on page 351.

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 59.

Service check

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 269.
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 269.
    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 46.
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 364.
5. Check the HVPS cable for discontinuity.
6. 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 303.
    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. For more information, see HVPS removal on page 263.
    b. Check the controller board for damage, contamination, and improper installation. For more information, see Controller board removal on page 351.

Horizontal white lines

Notes
Before doing this print quality check, see Initial print quality check on page 45.

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 269.
3. Check the HVPS for damage, contamination, and improper installation. For more information, see HVPS removal on page 263.
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 45

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 269.
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 61.

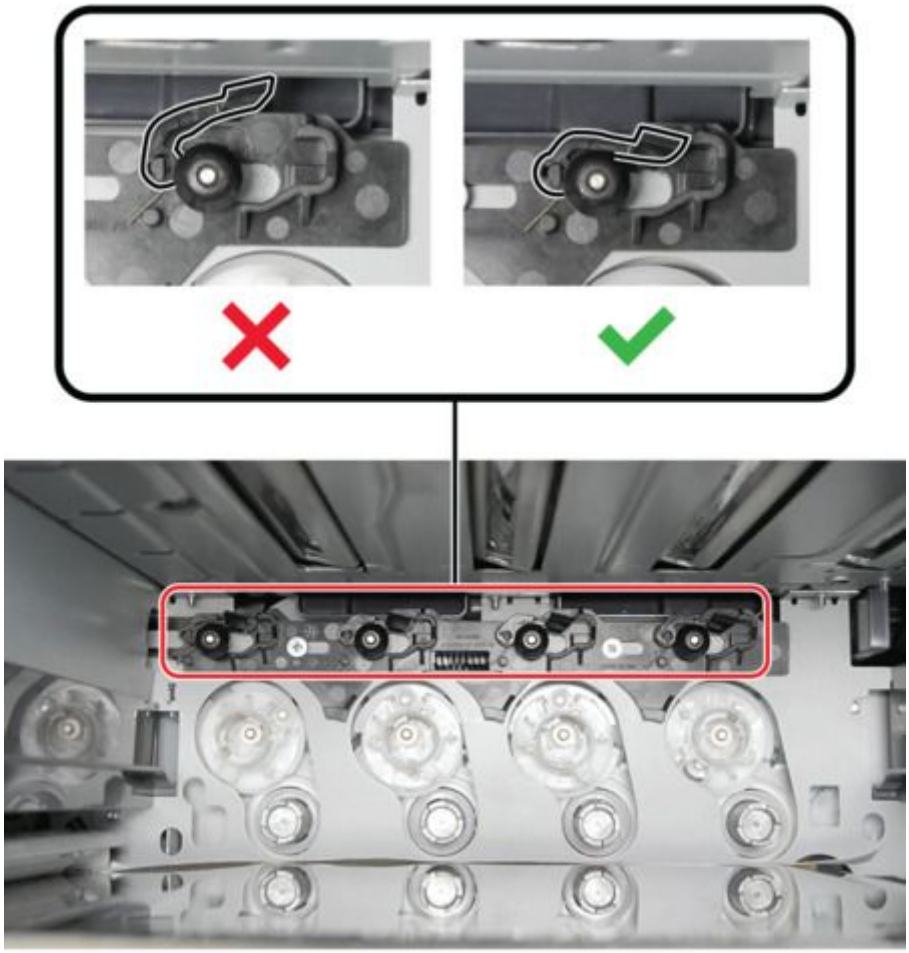
Text or images cut off

Notes
Before doing this print quality check, see .Initial print quality check on page 45

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 269.
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 45.

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 269.
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 46.

6. Check the photoconductor unit for damage, contamination, and improper installation. For more information, see Supplies used to resolve print quality issues on page 46.
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 292.

8. Check the transfer module for damage, contamination, and improper installation. For more information, see Transfer module removal on page 303.

Vertical white lines

> **Notes**
> Before doing this print quality check, see Initial print quality check on page 45.

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 269.
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 303.
5. Check the photoconductor unit for damage, contamination, and improper installation. For more information, see Supplies used to resolve print quality issues on page 46.
6. Check the transfer module for damage, contamination, and improper installation. For more information, see Transfer module removal on page 303.
7. Check the printhead for damage, contamination, and improper installation. For more information, see Printhead removal on page 364.

Ghost images

Notes
Before doing this print quality check, see Initial print quality check on page 45.

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 269.
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 269.

6. Check the developer unit for damage, contamination, and improper installation. For more information, see Supplies used to resolve print quality issues on page 46.
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 292.

Vertical colored lines or banding

> **Notes**
> Before doing this print quality check, see Initial print quality check on page 45.

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.
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 269.
4. Check the developer unit for damage, contamination, and improper installation. For more information, see Supplies used to resolve print quality issues on page 46.
5. Check the transfer module for damage, contamination, and improper installation. For more information, see Transfer module removal on page 303.

    > **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 292.

Dark print

Notes
Before doing this print quality check, see Initial print quality check on page 45.

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 65.
6. Check the HVPS cable for discontinuity, damage, contamination, and improper installation.
7. Check the HVPS for damage, contamination, and improper installation. For more information, see HVPS removal on page 263.
8. Check the transfer module and its contacts for damage, contamination, and improper installation. For more information, see Transfer module removal on page 303.

Missing color

Notes
Before doing this print quality check, see Initial print quality check on page 45.

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 269.
5. Check the waste toner bottle for damage, contamination, and improper installation. For more information, see Waste toner bottle removal on page 275.
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.

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. For more information, see HVPS removal on page 263.

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 269.
    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 240.
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 269.
    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 240.
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. For more information, see HVPS removal on page 263.
14. Check the printhead for damage, contamination, and improper installation. For more information, see Printhead removal on page 364.
15. Check the controller board for damage, contamination, and improper installation. For more information, see Controller board removal on page 351.

Uneven print density

Notes
Before doing this print quality check, see Initial print quality check on page 45.

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see Imaging kit removal on page 269.
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. For more information, see Cleaning the printhead lenses on page 431.

Repeating defects

Notes
Before doing this print quality check, see .Initial print quality check on page 45

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 46

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 45.

1. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
2. Depending on your operating sysStem, 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 269.
7. Check the developer units for damage, contamination, and improper installation. For more information, see Developer unit removal on page 261.
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. For more information, see Cleaning the printhead lenses on page 431.
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 303.
    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 HVPS. For more information, see HVPS removal on page 263.
12. Check the transfer module for damage, contamination, and improper installation. For more information, see Transfer module removal on page 303.

13. Check the HVPS for damage, contamination, and improper installation. For more information, see HVPS removal on page 263.

Skewed print

Notes
Before doing this print quality check, see .Initial print quality check on page 45

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 233.
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 51.

   If there is an issue found and resolved, perform the auto alignment service check. For more information, see Auto alignment service check on page 66.
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 66.
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 sensors (toner patch). For more information, see Sensor (toner patch) removal on page 258.
   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 51 or Missing color on page 59.
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 303.
5. Make sure that the sensors (toner patch) are free of dust or debris.
6. Replace the sensors (toner patch). For more information, see Sensor (toner patch) removal on page 258.
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.

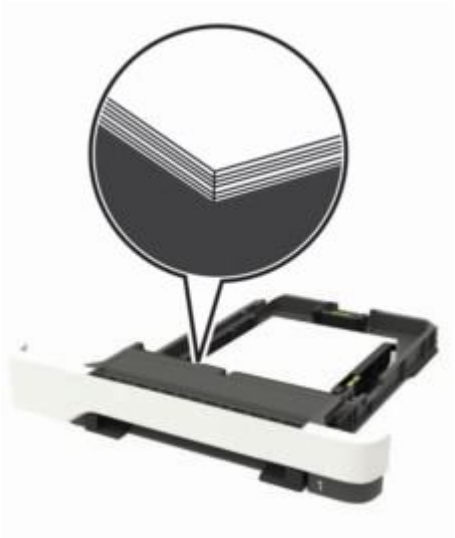
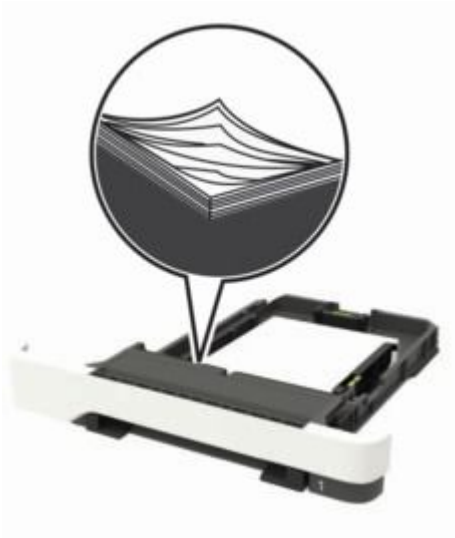
4. From the home screen, navigate to **Settings > Troubleshooting > Print Quality Test Pages**.
5. On the CalSet section of the test page, check if the color alignment stat value is equal to 0. If the value is 0, then contact the next level of support.

Paper jams

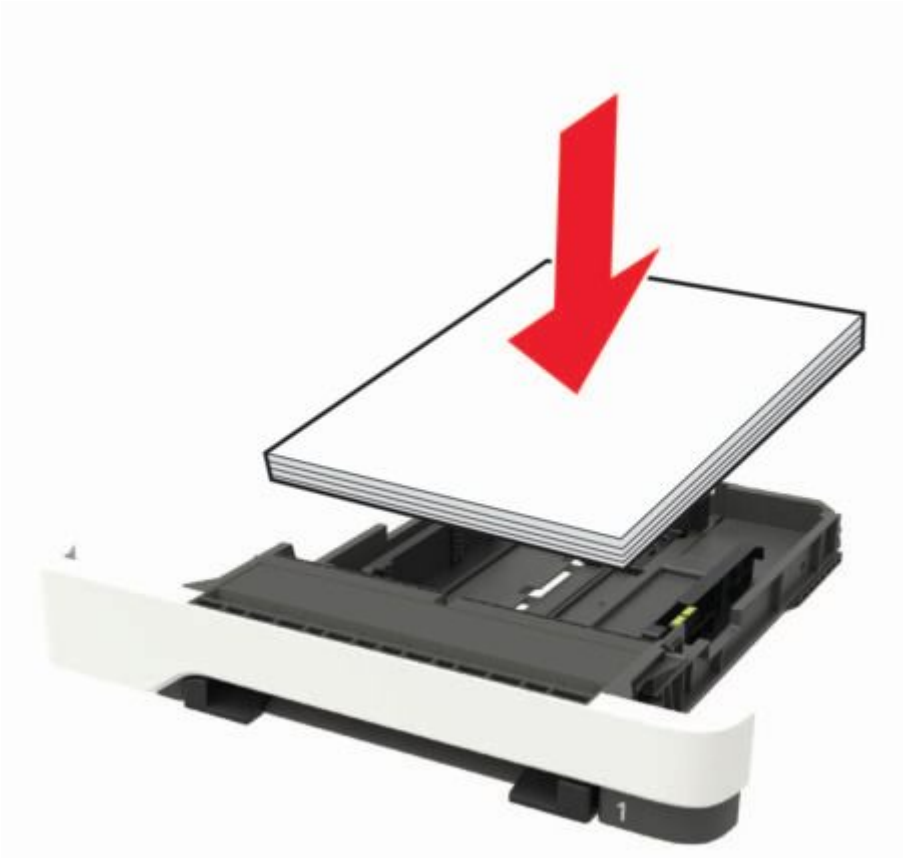
Avoiding jams

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.

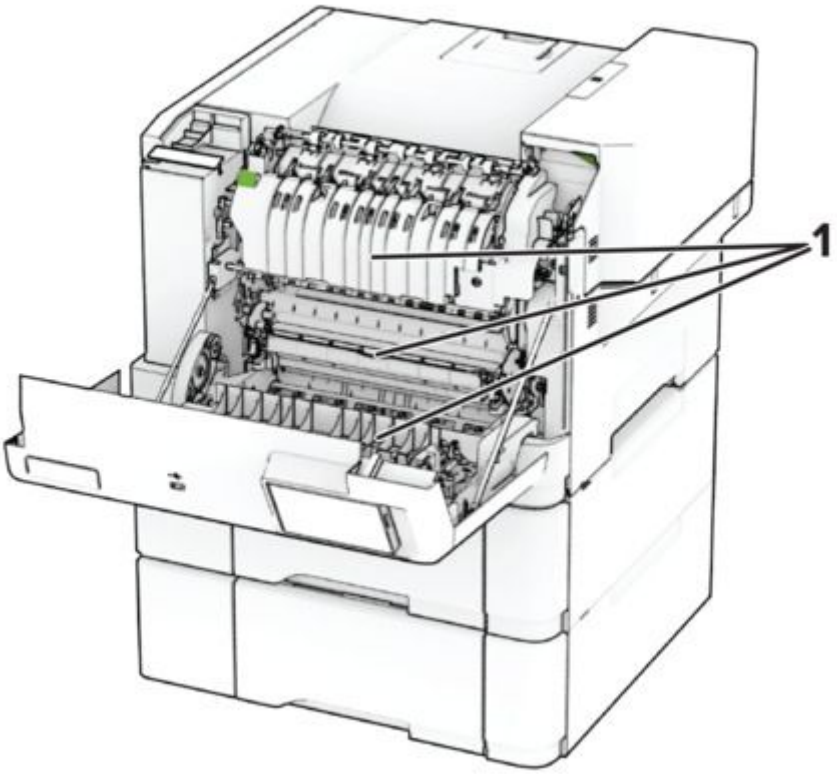
- Do not load paper that is wrinkled, creased, damp, bent, or curled.
- Flex, fan, and align the paper edges before loading.

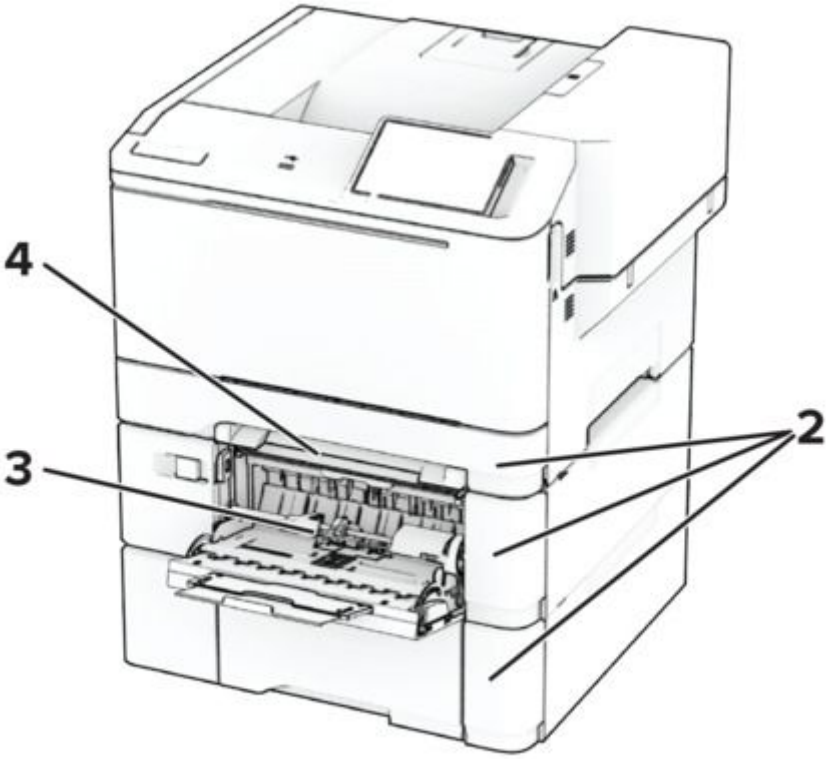
- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure that the paper size and type are set correctly on the computer or printer control panel.
- Store paper according to manufacturer recommendations.

Identifying jam locations

Notes

- 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	Door A

	Jam locations
2	Trays
3	Multipurpose feeder
4	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 77.
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 75
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 75.
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 76
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 75
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 77.
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 77.

Error code	Description	Action
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 77
200.15	Paper fed from tray 1 never cleared the sensor (input).	See .Sensor (input): Paper failed to clear jam service check on page 77
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 75
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 78.
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 78.
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 79.
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 79.
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 78.
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 78.
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 79.
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 79.

Error code	Description	Action
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 78.
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 78.
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 79.
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 79.
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See Sensor (input): Static jam service check on page 80.
200.95	An unexpected page showed up when flushing the paper path.	See Sensor (input): Static jam service check on page 80.
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 65.

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 68.
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 68.
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. For more information, see Tray 1 media feeder removal on page 339.

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 68.
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 68.
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 331.

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 68.
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. 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 292.

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 68.
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. 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 292.

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 68.
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 68.
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. 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 68.
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 331.
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 292.

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 68.
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 331.
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 68.
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 331.
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 292.

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 68.
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 68.
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 331.
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 292.

Sensor (input): Static jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 68.
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 331.

Recommended parts to replace

Customer replaceable unit

- 250-sheet tray insert
    - For the part number, go to Trays on page 454.

Field replaceable unit

- Sensor (duplex)
    - For the part number, go to Cables on page 452.
    - For the removal procedure, go to Sensor (duplex) removal on page 331.

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 82

Error code	Description	Action
202.04	Paper fed from the MPF or manual feeder cleared the sensor (fuser exit) earlier than expected.	N/A
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 83
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 82
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 83
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 83
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 84
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 83
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 84
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 83

Error code	Description	Action
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 84
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 84.

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 68.
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. 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 292.

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 68.
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 292.

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 68.
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 292.
    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 68.
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 331.
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 292.

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 68.
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 331.
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 292.

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 86.
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.	

Error code	Description	Action
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.	
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 89.
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 89.
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 89.
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 89.
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 89.

Error code	Description	Action
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 89.
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 89.
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 89.
232.42	Paper fed from tray 4 arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
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 89.
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 89.
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 89.
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 89.

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 68.
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 68.
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 90.
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 90.
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 90.

Error code	Description	Action
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 90.
241.91	Paper remains detected at the sensor (input) after the printer is turned on.	See Sensor (input): Static jam service check on page 80.

Motor (tray 1 pick) jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 68.
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
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 98.
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 98.
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 98.

Error code	Description	Action
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 98.
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 98.
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 98.
242.33	Paper fed from tray 3 never reached the sensor (tray 2 pass-through).	See Optional tray sensors jam service check on page 98.
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 98.
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 98.
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 98.
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 98.
242.43	Paper fed from tray 4 never reached the sensor (tray 2 pass-through).	See Optional tray sensors jam service check on page 98.
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 98.

Error code	Description	Action
242.47	Paper fed from tray 4 never cleared the sensor (tray 2 pass-through).	See Optional tray sensors jam service check on page 98.
242.70	The motor (tray 2 transport) does not turn on.	See Optional tray motors jam service check on page 99.
242.71	The motor (tray 2 transport) does not turn off.	See Optional tray motors jam service check on page 99.
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 99.
242.73	The motor (550-sheet tray 2 transport) stalled.	See Optional tray motors jam service check on page 99.
242.74	The motor (tray 2 transport) ran too slow.	See Optional tray motors jam service check on page 99.
242.75	The motor (tray 2 transport) ran too fast.	See Optional tray motors jam service check on page 99.
242.76	The motor (550-sheet tray 2 transport) ran too long.	See Optional tray motors jam service check on page 99.
242.80	The motor (tray 2) did not turn on	See Optional tray motors jam service check on page 99.
242.81	The motor (tray 2) did not turn off.	See Optional tray motors jam service check on page 99.
242.82	The motor (tray 2) speed did not ramp up to the expected level.	See Optional tray motors jam service check on page 99.
242.83	The motor (tray 2) has stalled.	See Optional tray motors jam service check on page 99.
242.84	The motor (tray 2) ran too slow.	See Optional tray motors jam service check on page 99.
242.85	The motor (tray 2) ran too fast.	See Optional tray motors jam service check on page 99.

Error code	Description	Action
242.86	The motor (tray 2) ran too long.	See Optional tray motors jam service check on page 99.
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 99.
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 99.
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 99.
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 99.
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 99.

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 98.
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 98.
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 98.

Error code	Description	Action
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 98.
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 98.
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 98.
243.43	Paper fed from tray 4 never reached the sensor (tray 3 pass-through).	See Optional tray sensors jam service check on page 98.
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 98.
243.47	Paper fed from tray 4 never cleared the sensor (tray 3 pass-through).	See Optional tray sensors jam service check on page 98.
243.70	The motor (550-sheet tray 3 transport) does not turn on.	See Optional tray motors jam service check on page 99.
243.71	The motor (550-sheet tray 3 transport) does not turn off.	See Optional tray motors jam service check on page 99.
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 99.
243.73	The motor (550-sheet tray 3 transport) has stalled.	See Optional tray motors jam service check on page 99.
243.74	The motor (tray 3 transport) ran too slow.	See Optional tray motors jam service check on page 99.
243.75	The motor (tray 3 transport) ran too fast.	See Optional tray motors jam service check on page 99.

Error code	Description	Action
243.76	The motor (550-sheet tray 3 transport) ran too long.	See Optional tray motors jam service check on page 99.
243.80	The motor (550-sheet tray 3 pick/lift) does not turn on.	See Optional tray motors jam service check on page 99.
243.81	The motor (550-sheet tray 3 pick/lift) does not turn on.	See Optional tray motors jam service check on page 99.
243.82	The motor (550-sheet tray 3 pick/lift) does not turn off.	See Optional tray motors jam service check on page 99.
243.83	The motor (550-sheet tray 3 pick/lift) has stalled.	See Optional tray motors jam service check on page 99.
243.84	The motor (550-sheet tray 3 pick/lift) ran too slow.	See Optional tray motors jam service check on page 99.
242.85	The motor (550-sheet tray 3 pick/lift) ran too fast.	See Optional tray motors jam service check on page 99.
242.86	The motor (550-sheet tray 3 pick/lift) ran too long.	See Optional tray motors jam service check on page 99.
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 98.
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 98.
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 98.
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 98.

Error code	Description	Action
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 98.
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 98.

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 98.
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 98.
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 98.
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 98.
244.70	The motor (550-sheet tray 4 transport) does not turn on.	See Optional tray motors jam service check on page 99.
244.71	The motor (550-sheet tray 4 transport) does not turn off.	See Optional tray motors jam service check on page 99.
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 99.

Error code	Description	Action
244.73	The motor (550-sheet tray 4 transport) has stalled.	See Optional tray motors jam service check on page 99.
244.74	The motor (550-sheet tray 4 transport) ran too slow.	See Optional tray motors jam service check on page 99.
244.75	The motor (550-sheet tray 4 transport) ran too fast.	See Optional tray motors jam service check on page 99.
244.76	The motor (550-sheet tray 4 transport) ran too long.	See Optional tray motors jam service check on page 99.
244.80	The motor (550-sheet tray 4 pick/lift) does not turn on.	See Optional tray motors jam service check on page 99.
244.81	The motor (550-sheet tray 4 pick/lift) does not turn off.	See Optional tray motors jam service check on page 99.
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 99.
244.83	The motor (550-sheet tray 4 pick/lift) has stalled.	See Optional tray motors jam service check on page 99.
244.84	The motor (550-sheet tray 4 pick/lift) ran too slow.	See Optional tray motors jam service check on page 99.
244.85	The motor (550-sheet tray 4 pick/lift) ran too fast.	See Optional tray motors jam service check on page 99.
244.86	The motor (550-sheet tray 4 pick/lift) ran too long.	See Optional tray motors jam service check on page 99.
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 98.

Error code	Description	Action
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 98.
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 98.
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 98.
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 98.
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 98.

Optional tray sensors jam service check

1. Make sure that paper is supported and loaded properly. See Avoiding jams on page 68.
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 68.
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.

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 100.
8.01	Door A was detected as open.	See Undetected door service check on page 100.
8.02	Door B was detected as open.	See Undetected door service check on page 100.
8.03	ADF top cover was detected as open.	See ADF top cover open service check on page 100.
9.00	A problem caused the printer to restart automatically.	See Auto reboot error service check on page 101.

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 104.
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 104.
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 104.
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 104.
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 104.

Error code	Description	Action
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 104.
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 104.
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 104.
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 104.
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 104.
11.71	An unsupported orientation was detected for an envelope loaded.	See Mismatched paper size and paper printer setting error service check on page 104.
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 104.
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 104.
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 104.
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 104.
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 104.

Error code	Description	Action
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 104.
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 104.
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 104.
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 104.
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 104.
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 104.
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 104.
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 104.
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 104.
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 104.
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 104.

Error code	Description	Action
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 104.
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 104.

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 104.
29.00	Packing material present on supplies.	See Removing the packing material from the supplies on page 105.
29.08	Packing material present on supplies.	See Removing the packing material from the supplies on page 105.

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 124.
31.35	Waste toner bottle smart chip or sensor communication problem.	See Waste toner bottle error service check on page 124.
31.40	The toner cartridge is missing or unresponsive.	See Toner cartridge (K) error service check on page 124.
31.40A	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40AN	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40B	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40C	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.

Error code	Description	Action
31.40CN	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40D	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40E	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40F	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40FN	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40G	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40GN	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40H	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40K	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40R	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.
31.40Y	A black toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (K) error service check on page 124.

Error code	Description	Action
31.41	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.41A	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.41B	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.41C	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.41CN	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
31.41D	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.41E	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.41F	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.41FN	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
31.41G	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.41H	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.

Error code	Description	Action
31.41K	A cyan toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.42	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.42A	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.42B	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.42C	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.42CN	A non-Lexmark magenta toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
31.42D	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.42E	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.42F	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.42FN	A non-Lexmark magenta toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
31.42G	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.

Error code	Description	Action
31.42GN	A non-Lexmark magenta toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
31.42K	A magenta toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.43	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.43A	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.43B	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.43C	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.43CN	A non-Lexmark yellow toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
31.43D	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.43E	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.43F	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.43FN	A non-Lexmark yellow toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.

Error code	Description	Action
31.43G	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.43H	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.43K	A yellow toner cartridge smart chip or sensor communication error was detected.	See Toner cartridge (CMY) error service check on page 124.
31.60H	The imaging unit is missing or unresponsive.	See Imaging unit (K) error service check on page 125.
31.60A	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 125.
31.60AN	A non-Lexmark black imaging unit was detected.	See Imaging unit (K) error service check on page 125.
31.60B	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 125.
31.60C	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 125.
31.60CN	A non-Lexmark black imaging unit was detected.	See Imaging unit (K) error service check on page 125.
31.60D	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 125.
31.60E	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 125.
31.60F	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 125.

Error code	Description	Action
31.60G	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 125.
31.60H	A black imaging unit smart chip or sensor communication error was detected.	See Imaging unit (K) error service check on page 125.
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 125.
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 125.
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 125.
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 125.
31.65CN	A non-Lexmark black and color imaging kit was detected.	See Imaging unit (CMY) error service check on page 125.
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 125.
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 125.
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 125.
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 125.

Error code	Description	Action
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 125.
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 125.
31.65TN	A non-Lexmark black and color imaging kit was detected.	See Imaging unit (CMY) error service check on page 125.

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Error code	Description	Action
32.40	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 124.
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 124.
32.40B	The black toner cartridge is unsupported—Failed capacity class/model compatibility check.	See Toner cartridge (K) error service check on page 124.
32.40C	The black toner cartridge is unsupported—Failed OEM check.	See Toner cartridge (K) error service check on page 124.

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 124.
32.40E	The black toner cartridge is unsupported—The supply is on the revoked list.	See Toner cartridge (K) error service check on page 124.
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 124.
32.40G	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 124.

Error code	Description	Action
32.40H	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 124.
32.40I	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 124.
32.40J	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 124.
32.40K	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 124.
32.40L	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 124.
32.40M	The black toner cartridge is unsupported.	See Toner cartridge (K) error service check on page 124.
32.41	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.41A	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.41B	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.41C	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.

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 124.
32.41E	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.41EN	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
32.41G	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.41H	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.

Error code	Description	Action
32.41I	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.41J	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.41K	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.41L	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.41M	Cyan toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.42	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.42A	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.42B	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.42C	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.

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 124.
32.42E	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.42G	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.42H	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.42I	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.

Error code	Description	Action
32.42J	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.42K	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.42L	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.42M	Magenta toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.43	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.43A	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.43B	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.43C	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.

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 124.
32.43E	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.43G	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.43H	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.43I	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.

Error code	Description	Action
32.43J	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.43K	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.43L	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.43M	Yellow toner cartridge unsupported error.	See Toner cartridge (CMY) error service check on page 124.
32.65	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 125.
32.65A	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 125.
32.65B	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 125.
32.65C	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 125.

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 125.
32.65E	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 125.
32.65F	Black and color imaging kit or photoconductor unit unsupported error.	See Imaging unit (CMY) error service check on page 125.

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Notes
For more information, see Non-Lexmark supply on page 126.

Error code	Description	Action
33.40	A non-Lexmark black toner cartridge was detected.	See Toner cartridge (K) error service check on page 124.
33.40A	A non-Lexmark black toner cartridge was detected.	See Toner cartridge (K) error service check on page 124.
33.40AN	A non-Lexmark black toner cartridge was detected.	See Toner cartridge (K) error service check on page 124.
33.40BN	A non-Lexmark black toner cartridge was detected.	See Toner cartridge (K) error service check on page 124.
33.41	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
33.41AN	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
33.41B	An inauthentic cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
33.41BN	A non-Lexmark cyan toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
33.42	A non-Lexmark magenta toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
33.42AN	A non-Lexmark magenta toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
33.43	A non-Lexmark yellow toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
33.43A	An inauthentic yellow toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
33.43AN	A non-Lexmark yellow toner cartridge was detected.	See Toner cartridge (CMY) error service check on page 124.
33.65	An inauthentic black and color (CMY) imaging unit or imaging kit was detected.	See Toner cartridge (CMY) error service check on page 124.

Error code	Description	Action
33.65A	An inauthentic black and color (CMY) imaging unit or imaging kit was detected.	See Toner cartridge (CMY) error service check on page 124.
33.65AN	A non-Lexmark black and color (CMY) imaging kit was detected.	See Toner cartridge (CMY) error service check on page 124.
33.65B	An inauthentic black and color (CMY) imaging unit or imaging kit was detected.	See Toner cartridge (CMY) error service check on page 124.
33.65BN	A non-Lexmark black and color (CMY) imaging kit was detected.	See Toner cartridge (CMY) error service check on page 124.
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 126.
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 126.

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Error code	Description	Action
37.01	The memory is insufficient to collate the job.	See Insufficient memory service check on page 126.
37.03	The memory is insufficient to collate the job.	See Insufficient memory service check on page 126.
38.00	The scan job is too long.	See Insufficient memory service check on page 126.
38.01	The memory is full.	See Insufficient memory service check on page 126.
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 126.
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 126.

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 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.
6. Clean the toner cartridge contacts for any toner contamination.
7. Check the toner cartridge contacts for damage.
8. 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 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.
6. Clean the waste toner bottle contacts for any toner contamination.
7. Check the waste toner bottle contacts for damage.
8. 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 465.

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

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Error code	Description	Action
42.01	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.02	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.03	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.04	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.

Error code	Description	Action
42.05	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.09	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.10	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.10K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.12	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.12C	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.12K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.12M	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.12Y	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.13	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.13C	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.13K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.13M	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.13Y	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.14	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.14C	Printer region mismatch.	See Mismatched supplies service check on page 134.

Error code	Description	Action
41.14K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.14M	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.14Y	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.15	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.19	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.20	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.21	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.21C	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.21K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.23	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.23C	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.23K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.23M	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.23Y	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.24	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.

Error code	Description	Action
42.25	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.25K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
24.26K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.29	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.30	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.31	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.32	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.34	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.34K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.35		
42.39	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.40	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.40K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.41	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.

Error code	Description	Action
42.41K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.42	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.43	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.43C	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.43K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.43M	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.43Y	Printer region mismatch.	See Mismatched supplies service check on page 134.
42.45	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.46	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.46K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.49	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.50	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.51	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.52	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.

Error code	Description	Action
42.52K	The black toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.53	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.54	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.59	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.60	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.60K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.61	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.61K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.62	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.62K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.63	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.63K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.64	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.64K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.

Error code	Description	Action
42.90	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.91	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.92	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.93	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.94	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.94K	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.
42.95	The toner cartridge and printer regions are mismatched.	See Mismatched supplies service check on page 134.

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 134.
43.40Y	A black toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 134.
43.40Z	A black toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 134.
43.41	A cyan toner cartridge toner mete cycle error was detected.	See Toner meter card error service check on page 134.
43.41Y	A cyan toner cartridge toner mete cycle error was detected.	See Toner meter card error service check on page 134.

Error code	Description	Action
43.41Z	A cyan toner cartridge toner mete cycle error was detected.	See Toner meter card error service check on page 134.
43.42	A magenta toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 134.
43.42Y	A magenta toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 134.
43.42Z	A magenta toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 134.
43.43	A yellow toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 134.
43.43Y	A yellow toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 134.
43.43Z	A yellow toner cartridge toner meter cycle error was detected.	See Toner meter card error service check on page 134.

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).

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 › 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.

Error code	Description	Action
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.
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.	
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.

Error code	Description	Action
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.

Error code	Description	Action
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.
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.

Error code	Description	Action
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.
88.40	The color cartridge is beyond end-of-life.	Replace the cartridge.
88.47	Replace the cartridge.	
88.48	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 151.
100.04	The printhead temperature is out of range.	See Printhead error service check on page 152.
100.04D	The printhead temperature is out of range.	See Printhead error service check on page 152.

Error code	Description	Action
100.25	The sensor (toner patch) temperature is out of range.	See Toner patch sensing service check on page 65.

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 462.
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 152
110.21	A printhead power was off when the laser servo started.	See .Printhead error service check on page 152
110.31	A printhead error (no first HSYNC) was detected.	See .Printhead error service check on page 152
110.32	A printhead error (lost HSYNC) was detected.	See .Printhead error service check on page 152
110.33	A printhead error (lost first HSYNC) was detected during servo.	See .Printhead error service check on page 152
110.34	A printhead error (mirror motor lost lock) was detected.	See .Printhead error service check on page 152
110.35	A printhead error (mirror motor never got first lock) was detected.	See .Printhead error service check on page 152

Error code	Description	Action
110.36	A printhead error (mirror motor never stabilized) was detected.	See .Printhead error service check on page 152
110.37	A printhead error (undetermined printhead type) was detected.	See .Printhead error service check on page 152
110.41	A printhead NVRAM read failure occurred.	See .Printhead error service check on page 152
110.70	A printhead NVRAM values are incorrect.	See .Printhead error service check on page 152
110.92	A printhead NVRAM checksum mismatch occurred.	See .Printhead error service check on page 152

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 364.

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 153.
120.81	The motor (fuser) does not turn off.	See Motor (fuser) error service check on page 153.
120.82	The motor (fuser) failed to achieve the expected speed.	See Motor (fuser) error service check on page 153.
120.83	The motor (fuser) stalled.	See Motor (fuser) error service check on page 153.
120.84	The motor (fuser) is ran too slow (under-speeding).	See Motor (fuser) error service check on page 153.
120.85	The motor (fuser) is ran too fast (overspeeding).	See Motor (fuser) error service check on page 153.

Error code	Description	Action
120.86	The motor (fuser) ran too long.	See Motor (fuser) error service check on page 153.

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 (fuser) 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) removal on page 252.
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 292.

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 155.
121.01	During an attempt to heat up, the fuser was not detected.	See Fuser error service check on page 155.
121.02	The fuser went over the required temperature (during EWC/line voltage detection).	See Fuser error service check on page 155.
121.03	The fuser hardware and driver mismatch.	See Fuser error service check on page 155.
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 155.

Error code	Description	Action
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 155.
121.09	The fuser fell below the minimum required temperature for motors.	See Fuser error service check on page 155.
121.10	The fuser did not reach the required temperature (during start of EWC/line voltage detection).	See Fuser error service check on page 155.
121.11	The fuser reached the required temperature too late (during final EWC/line voltage detection).	See Fuser error service check on page 155.
121.12	The fuser did not reach the required temperature (during final EWC/line voltage detection).	See .Fuser error service check on page 155
121.13	The fuser reached the required temperature too fast (during final EWC/line voltage detection).	See Fuser error service check on page 155.
121.22	Open fuser relay was detected.	See Fuser error service check on page 155.
121.32	The fuser did not reach the required temperature at 100% power.	See Fuser error service check on page 155.
121.33	The fuser did not reach the required temperature while thepage is in the fuser.	See Fuser error service check on page 155.
121.34	The fuser did not reach the required temperature during steady state control.	See Fuser error service check on page 155.
121.36	An open fuser relay was detected with very cold, or unknown ambient temperature.	See Fuser error service check on page 155.
121.50	The fuser went over the required temperature during global over-temp check.	See Fuser error service check on page 155.

Error code	Description	Action
121.52	The main thermistor temperature is out of range.	See Fuser error service check on page 155.
121.53	The main thermistor temperature change rate is out of range.	See Fuser error service check on page 155.
121.71	The fuser main heater thermistor was detected open.	See Fuser error service check on page 155.
121.81	The fuser backup roll thermistor was detected open.	See Fuser error service check on page 155.
121.86	Backup thermistor temperature is out of range.	See Fuser error service check on page 155.
121.87	Backup thermistor temperature change rate is out of range.	See Fuser error service check on page 155.

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. For more information, see Fan removal on page 354.
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 292.

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 156.
126.05	The LVPS power dropped but the printer was not in sleep mode.	See LVPS error service check on page 156.
126.06	LVPS 25 V line error was detected.	See LVPS error service check on page 156.
126.07	LVPS 5 V rail was down during power-on.	See LVPS error service check on page 156.
126.10	No line frequency was detected.	See LVPS error service check on page 156.
126.11	Line frequency has exceeded the operating range.	See LVPS error service check on page 156.
126.12	LVPS mismatch was detected.	See LVPS error service check on page 156.
126.13	LVPS mismatch was detected.	See LVPS error service check on page 156.
126.14	LVPS relay is stuck or closed.	See LVPS error service check on page 156.

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 157.
142.81	The motor (CMY) does not turn off.	See Motor (CMY) drive failure service check on page 157.
142.82	The motor (CMY) failed to achieve the expected speed.	See Motor (CMY) drive failure service check on page 157.
142.83	The motor (CMY) stalled.	See Motor (CMY) drive failure service check on page 157.
142.84	The motor (CMY) is running too slow (under-speeding).	See Motor (CMY) drive failure service check on page 157.
142.85	The motor (CMY) is running too fast (overspeeding).	See Motor (CMY) drive failure service check on page 157.
142.86	The motor (CMY) ran too long.	See Motor (CMY) drive failure service check on page 157.

Motor (CMY) drive failure service check

1. Perform a POR.
2. 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)**.
3. Make sure that the connections between the motor (CMY developer) 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 240.
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.

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 158.
151.81	The motor (K) does not turn off.	See Motor (black) drive failure service check on page 158.
151.82	The motor (K) failed to achieve the expected speed.	See Motor (black) drive failure service check on page 158.
151.83	The motor (K) stalled.	See Motor (black) drive failure service check on page 158.
151.84	The motor (K) is running too slow (under-speeding).	See Motor (black) drive failure service check on page 158.
151.85	The motor (K) is running too fast (overspeeding).	See Motor (black) drive failure service check on page 158.
151.86	The motor (K) ran too long.	See Motor (black) drive failure service check on page 158.

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 240.
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 163.
161.81	The motor (tray 1 pick/lift) does not turn off.	See Motor (tray 1 pick) lifting error service check on page 163.
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 163.
161.83	The motor (tray 1 pick/lift) stalled.	See Motor (tray 1 pick) lifting error service check on page 163.
161.84	The motor (tray 1 pick/lift) ran too slow.	See Motor (tray 1 pick) lifting error service check on page 163.
161.85	The motor (tray 1 pick/lift) ran too fast.	See Motor (tray 1 pick) lifting error service check on page 163.
161.86	The motor (tray 1 pick/lift) ran too long.	See Motor (tray 1 pick) lifting error service check on page 163.

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 163.
162.81	The motor (tray 2 pick) does not turn off.	See Optional tray pick drive error service check on page 163.
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 163.

Error code	Description	Action
162.83	The motor (tray 2 pick) stalled.	See Optional tray pick drive error service check on page 163.
162.84	The motor (tray 2 pick) ran too slow.	See Optional tray pick drive error service check on page 163.
162.85	The motor (tray 2 pick) ran too fast.	See Optional tray pick drive error service check on page 163.
162.86	The motor (tray 2 pick) ran too long.	See Optional tray pick drive error service check on page 163.
163.80	The motor (tray 3 pick) does not turn on.	See Optional tray motor error service check on page 163.
163.81	The motor (tray 3 pick) does not turn off.	See Optional tray motor error service check on page 163.
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 163.
163.83	The motor (tray 3 pick) stalled.	See Optional tray motor error service check on page 163.
163.84	The motor (tray 3 pick) ran too slow.	See Optional tray motor error service check on page 163.
163.85	The motor (tray 3 pick) ran too fast.	See Optional tray motor error service check on page 163.
163.86	The motor (tray 3 pick) ran too long.	See Optional tray motor error service check on page 163.
164.80	The motor (tray 4 pick) does not turn on.	See Optional tray motor error service check on page 163.
164.81	The motor (tray 4 pick) does not turn off.	See Optional tray motor error service check on page 163.
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 163.

Error code	Description	Action
164.83	The motor (tray 4 pick) stalled.	See Optional tray motor error service check on page 163.
164.84	The motor (tray 4 pick) ran too slow.	See Optional tray motor error service check on page 163.
164.85	The motor (tray 4 pick) ran too fast.	See Optional tray motor error service check on page 163.
164.86	The motor (tray 4 pick) ran too long.	See Optional tray motor error service check on page 163.

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 163.
166.81	The motor (tray 2 transport) does not turn off.	See Optional tray motor error service check on page 163.
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 163.
166.83	The motor (tray 2 transport) stalled.	See Optional tray motor error service check on page 163.
166.84	The motor (tray 2 transport) ran too slow.	See Optional tray motor error service check on page 163.
166.85	The motor (tray 2 transport) ran too fast.	See Optional tray motor error service check on page 163.
166.86	The motor (tray 2 transport) ran too long.	See Optional tray motor error service check on page 163.
167.80	The motor (tray 3 transport) does not turn on.	See Optional tray motor error service check on page 163.

Error code	Description	Action
167.81	The motor (tray 3 transport) does not turn off.	See Optional tray motor error service check on page 163.
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 163.
167.83	The motor (tray 3 transport) stalled.	See Optional tray motor error service check on page 163.
167.84	The motor (tray 3 transport) ran too slow.	See Optional tray motor error service check on page 163.
167.85	The motor (tray 3 transport) ran too fast.	See Optional tray motor error service check on page 163.
167.86	The motor (tray 3 transport) ran too long.	See Optional tray motor error service check on page 163.
168.80	The motor (tray 4 transport) does not turn on.	See Optional tray motor error service check on page 163.
168.81	The motor (tray 4 transport) does not turn off.	See Optional tray motor error service check on page 163.
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 163.
168.83	The motor (tray 4 transport) stalled.	See Optional tray motor error service check on page 163.
168.84	The motor (tray 4 transport) ran too slow.	See Optional tray motor error service check on page 163.
168.85	The motor (tray 4 transport) ran too fast.	See Optional tray motor error service check on page 163.
168.86	The motor (tray 4 transport) ran too long.	See Optional tray motor error service check on page 163.

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 339

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 462.
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. For more information, see Fan removal on page 354.

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 164.
171.83	The main fan stalled.	See Main fan service check on page 164.
171.84	The main fan ran too slow.	See Main fan service check on page 164.
171.85	The main fan ran too fast.	See Main fan service check on page 164.

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 462.
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 169.

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 169.
602.28	The tray 2 timed out while waiting for the ILN command.	See Tray not ready for picking service check on page 169.
602.29	The tray 2 failed to become the input source ready for picking.	See Tray not ready for picking service check on page 169.
602.38	The tray 3 timed out while waiting for the ILN command.	See Tray not ready for picking service check on page 169.
602.39	The tray 3failed to become the input source ready for picking.	See Tray not ready for picking service check on page 169.
602.48	The tray 4 timed out while waiting for the ILN command.	See Tray not ready for picking service check on page 169.
602.49	The tray 4 failed to become the input source ready for picking.	See Tray not ready for picking service check on page 169.
602.58	The tray 5 timed out while waiting for the ILN command.	See Tray not ready for picking service check on page 169.
602.59	The tray 5 failed to become the input source ready for picking.	See Tray not ready for picking service check on page 169.
611.32	Lost Hsync errors were detected. The laser safety interlock system may be the cause.	See Printhead error service check on page 152.
611.34	A mirror motor lock error was detected.	See Printhead error service check on page 152.
620.80	The motor (fuser) does not turn on.	See Motor (fuser) error service check on page 153.
620.81	The motor (fuser) does not turn off.	See Motor (fuser) error service check on page 153.
620.82	The motor (fuser) failed to achieve the expected speed.	See Motor (fuser) error service check on page 153.

Error code	Description	Action
620.83	The motor (fuser) stalled.	See Motor (fuser) error service check on page 153.
620.84	The motor (fuser) is running too slow (under-speeding).	See Motor (fuser) error service check on page 153.
620.85	The motor (fuser) is running too fast (overspeeding).	See Motor (fuser) error service check on page 153.
620.86	The motor (fuser) ran too long.	See Motor (fuser) error service check on page 153.
621.01	The fuser heater was too cold when paper entered the fuser nip.	See Fuser error service check on page 155.
662.80	The motor (tray 2 pick) does not turn on.	See Optional tray motors jam service check on page 99.
662.81	The motor (tray 2 pick) does not turn off.	See Optional tray motors jam service check on page 99.
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 99.
662.83	The motor (tray 2 pick) has stalled.	See Optional tray motors jam service check on page 99.
662.84	The motor (tray 2 pick) ran too slow (under-speeding).	See Optional tray motors jam service check on page 99.
662.85	The motor (tray 2 pick) ran too fast (overspeeding).	See Optional tray motors jam service check on page 99.
662.86	The motor (tray 2 pick) ran too long.	See Optional tray motors jam service check on page 99.
663.80	The motor (tray 3 pick) does not turn on.	See Optional tray motors jam service check on page 99.
663.81	The motor (tray 3 pick) does not turn off.	See Optional tray motors jam service check on page 99.
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 99.

Error code	Description	Action
663.83	The motor (tray 3 pick) has stalled.	See Optional tray motors jam service check on page 99.
663.84	The motor (tray 3 pick) ran too slow (under-speeding).	See Optional tray motors jam service check on page 99.
663.85	The motor (tray 3 pick) ran too fast (overspeeding).	See Optional tray motors jam service check on page 99.
663.86	The motor (tray 3 pick) ran too long.	See Optional tray motors jam service check on page 99.
666.80	The motor (tray 2 pass-through) did not turn on.	See Optional tray motors jam service check on page 99.
666.81	The motor (tray 2 pass-through) did not turn off.	See Optional tray motors jam service check on page 99.
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 99.
666.83	The motor (tray 2 pass-through) has stalled.	See Optional tray motors jam service check on page 99.
666.84	The motor (tray 2 pass-through) ran too slow (under-speeding).	See Optional tray motors jam service check on page 99.
666.85	The motor (tray 2 pass-through) ran too fast (overspeeding).	See Optional tray motors jam service check on page 99.
666.86	The motor (tray 2 pass-through) ran too long.	See Optional tray motors jam service check on page 99.
667.80	The motor (tray 3 pass-through) did not turn on.	See Optional tray motors jam service check on page 99.
667.81	The motor (tray 3 pass-through) did not turn off.	See Optional tray motors jam service check on page 99.

Error code	Description	Action
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 99.
667.83	The motor (tray 3 pass-through) has stalled.	See Optional tray motors jam service check on page 99.
667.84	The motor (tray 3 pass-through) ran too slow (under-speeding).	See Optional tray motors jam service check on page 99.
667.85	The motor (tray 3 pass-through) ran too fast (overspeeding).	See Optional tray motors jam service check on page 99.
667.86	The motor (tray 3 pass-through) ran too long.	See Optional tray motors jam service check on page 99.
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

Error code	Description	Action
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 172.
900.70	Unrecoverable RIP software error/illegal trap.	See 900 error service check on page 172.
901.01	A RIP firmware error has occurred.	See 900 error service check on page 172.
901.02	A RIP firmware error has occurred.	See 900 error service check on page 172.

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 196.
   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 351

912 errors

912 error messages

Error code	Description	Action
912.00	An engine software error occurred.	See 900 error service check on page 172.
912.05	An engine error occurred.	See 900 error service check on page 172.
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 172.
912.33	An engine error occurred.	See 900 error service check on page 172.
912.35	An engine error occurred.	See 900 error service check on page 172.
912.38	An engine error occurred.	See 900 error service check on page 172.
912.40	An engine error occurred.	See 900 error service check on page 172.
912.42	An engine error occurred.	See 900 error service check on page 172.
912.44	An engine error occurred.	See 900 error service check on page 172.
912.45	An engine error occurred.	See 900 error service check on page 172.
912.46	An engine error occurred.	See 900 error service check on page 172.
912.48	An engine error occurred.	See 900 error service check on page 172.

Error code	Description	Action
912.49	An engine error occurred.	See 900 error service check on page 172.
912.50	An engine error occurred.	See 900 error service check on page 172.
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 172.

Error code	Description	Action
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 172.
912.80	An engine error occurred.	See Engine error service check on page 176.
912.82	An engine error occurred.	See Engine error service check on page 176.
912.85	An engine error occurred.	See 900 error service check on page 172.
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 172.
912.99	RIP command interface issue to the engine.	See 900 error service check on page 172.

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 172.
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 172.
941.03	An engine communication error has occurred.	See 900 error service check on page 172.
950.10	An NVRAM mismatch error occurred—Non-generic FRU installed.	See 900 error service check on page 172.
953.99	An NVRAM chip failure with mirror part.	See 900 error service check on page 172.
958.99	A controller board NAND error has occurred..	See 900 error service check on page 172.

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 172.
980.02	An option communication error has occurred.	See 900 error service check on page 172.
980.03	An option communication error has occurred.	See 900 error service check on page 172.
980.04	An option communication error has occurred.	See 900 error service check on page 172.

Error code	Description	Action
980.05	An option communication error has occurred.	See 900 error service check on page 172.
980.11	An option communication error has occurred.	See 900 error service check on page 172.
980.13	An option communication error has occurred.	See 900 error service check on page 172.
980.14	An option communication error has occurred.	See 900 error service check on page 172.
980.15	An option communication error has occurred.	See 900 error service check on page 172.
981.91	An invalid paper port protocol error has occurred.	See 900 error service check on page 172.
982.92	A paper port error occurred.	See 900 error service check on page 172.
982.93	A paper port error occurred.	See 900 error service check on page 172.
982.94	A paper port error occurred.	See 900 error service check on page 172.
982.95	A paper port error occurred.	See 900 error service check on page 172.
982.96	A paper port error occurred.	See 900 error service check on page 172.
982.97	A paper port error occurred.	See 900 error service check on page 172.
983.98	An unsupported paper port command error has occurred.	See 900 error service check on page 172.
984.99	An invalid paper port parameter error has occurred.	See 900 error service check on page 172.
992.00	An option device software error has occurred.	See 900 error service check on page 172.
992.01	An option device software error has occurred.	See 900 error service check on page 172.

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

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:

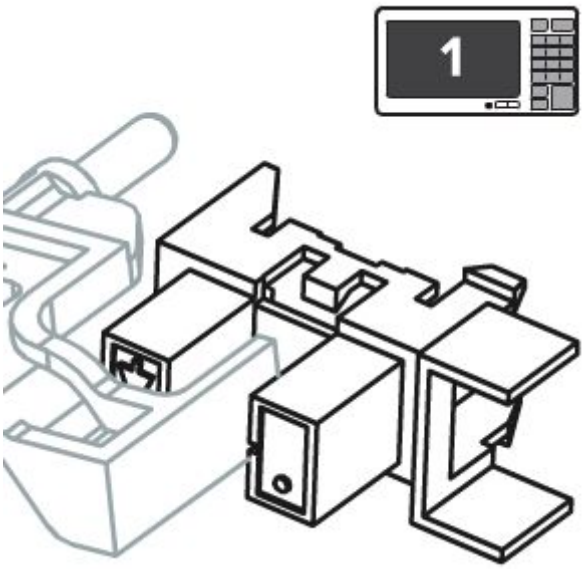
   Printer setup > EP setup
2. Select a setting.

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

Tests
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**.

> **Notes**
>
> - 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 233.

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. Select **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.

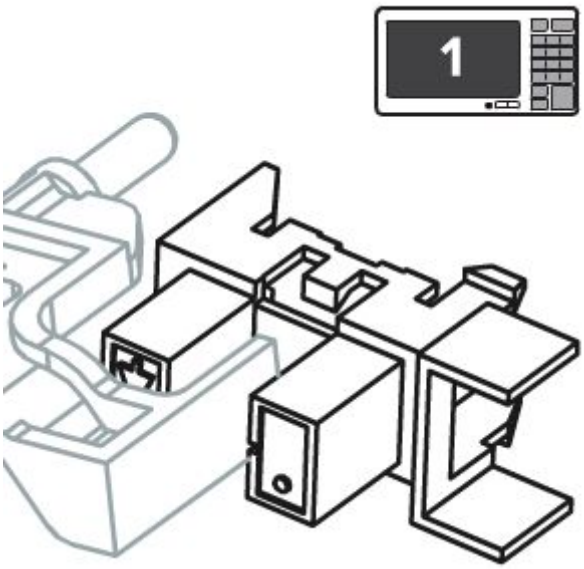
1. Enter the Diagnostics menu, and then touch **Input tray quick print**.
2. Select where you want to print the pages from.
3. Select whether to print a single or continuous test page, and then touch **Start**.

Additional input trays adjustments/tests

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**.

Notes

- 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)

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.

Menu item	Description
USB Configuration USB Speed Full Auto*	Set the USB port to run at full speed and disable its high-speed capabilities.
Tray Configuration Size Sensing Tray [x] Sensing (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. **Note** 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. **Note** For Multipurpose Feeder to appear, in the Paper menu, set Configure MP to Cassette.

Menu item	Description
Tray Configuration Action for Prompts Prompt user* Continue Use current	Set the printer to resolve paper- or envelope-related change prompts.
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 to the factory default level.
Supply Usage And Counters Reset Black Cartridge Counter Reset Cyan Cartridge Counter Reset Magenta Cartridge Counter Reset Yellow Cartridge Counter	Reset the counter after installing a new cartridge.
Supply Usage And Counters Reset Black Imaging Unit Counter	Reset the counter after installing a new black imaging unit.
Supply Usage And Counters Reset Color Imaging Kit Counter	Reset the counter after installing a new color imaging kit.
Supply Usage And Counters Reset Maintenance Counter	Reset the counter after installing a new fuser.
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.

Menu item	Description
Printer Emulations Enable Formsmerge Off* On	Activate Forms Merge to store the forms into the hard disk or Intelligent Storage Drive (ISD). **Note** A hard disk or an ISD must be installed.
Printer Emulations Enable Prescribe Off* On	Enable Prescribe emulation.
Printer Emulations Emulator Security Page Timeout (60 minutes*) Reset Emulator After Job (Off*) Disable Printer Message Access (On*)	Configure the security settings of the printer during emulation mode.
Print Configuration Black Only Mode Off* On	Set the printer to print always color content in grayscale .
Print Configuration Color Trapping Off 1 2* 3 4 5	Enhance the printed output to compensate for misregistration in the printer.
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.

Menu item	Description
Device Operations Quiet Mode Off* On	Change the amount of noise that the printer produces. **Note** 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 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.
App Configuration LES Applications Off On*	Enable Lexmark Embedded Solutions (LES) applications.

Note
An asterisk (*) next to a value indicates the factory default setting.

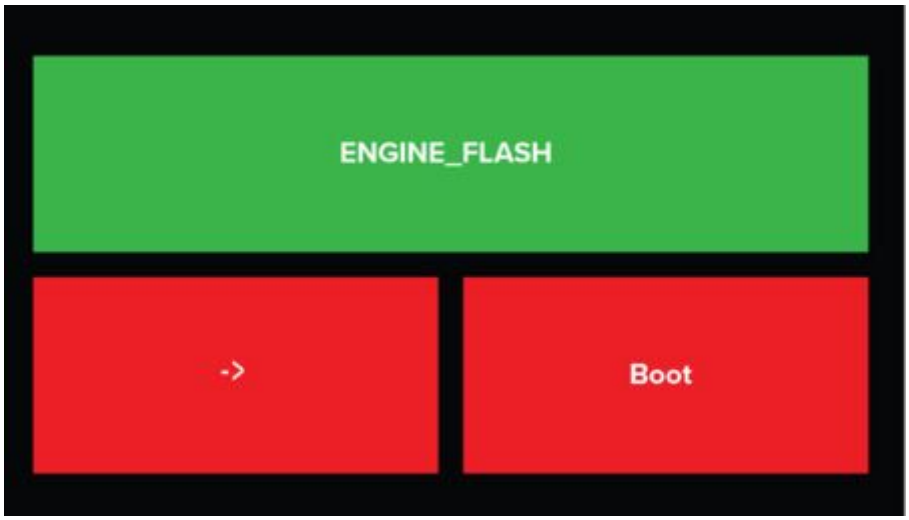
Entering Invalid engine mode

This mode allows the printer to load the correct firmware code. For more information, see Updating the printer firmware on page 212.

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.

> **Notes**
> 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:

Notes
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

Top level menu	Intermediate menu
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
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

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 engine board 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.

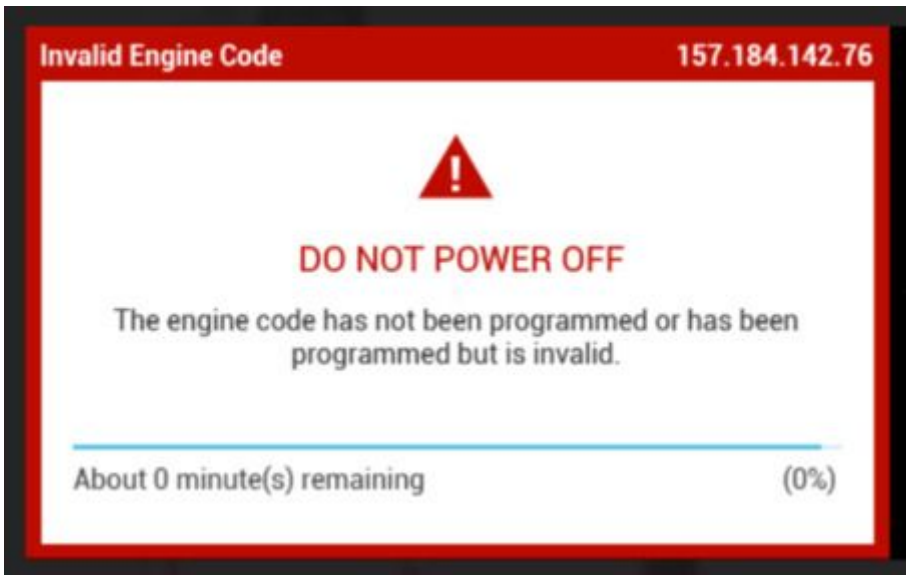
CAUTION—POTENTIAL INJURY
La batterie lithium de ce produit n'est pas destinée à être remplacée. Il existe un risque d'explosion si une batterie lithium est placée de façon incorrecte. Ne rechargez pas, ne démontez pas et n’incinérez pas une batterie lithium. Mettez les batteries lithium usagées au rebut 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.

Read the following instructions carefully before performing them. Practice accessing DIAGNOSTICS_MODE first before replacing the part. See Entering the Diagnostics Menu on page 180.

Warning—Potential Damage
An invalid engine code error occurs if the controller board and engine board are not on the same firmware level. Resolve the error shown with firmware updates. For more information, see Entering Invalid engine mode on page 195 and Updating the printer firmware on page 212.



Warning—Potential Damage
To avoid NVRAM mismatch issues, replace only one of the following components at a time:

- Engine board
- 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 lets you temporarily use the replacement part.

   Warning—Potential Damage
   Some printers 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 Service Restore Tool to download the software bundle, and then flash the printer settings and embedded solutions.

Notes

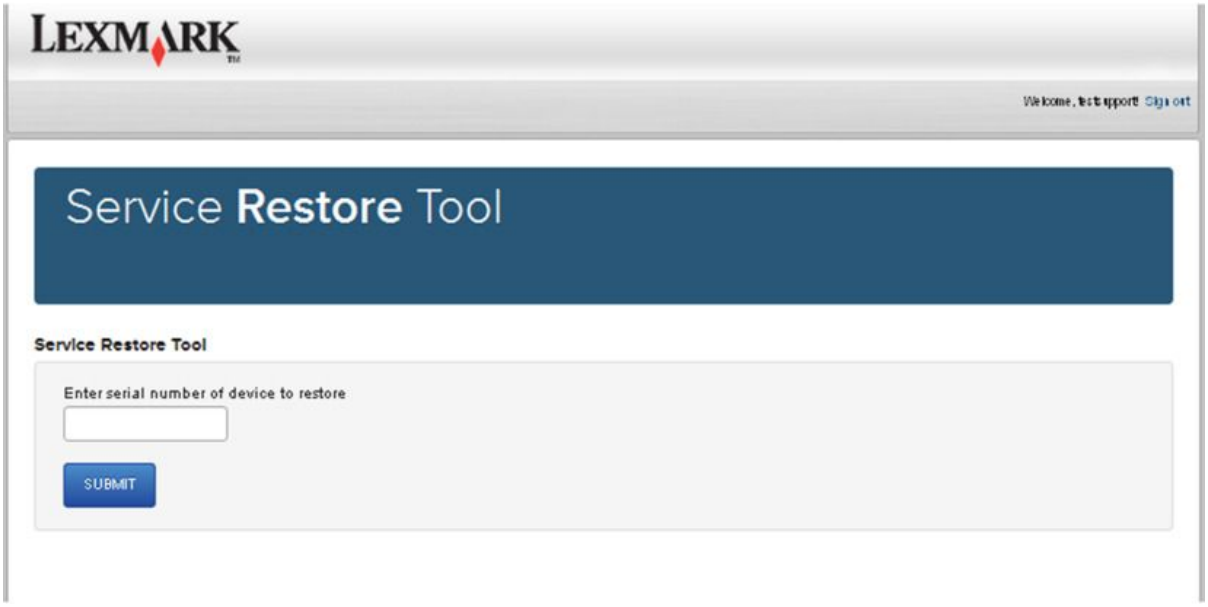
- If you do not have access to the tool, then contact your next level of support.
- The software bundle contains the latest version of the firmware, applications, and software licenses from Lexmark CFM and Package Builder. The printer firmware may be at a different level from what is used before replacement of the part.

Using Service Restore Tool

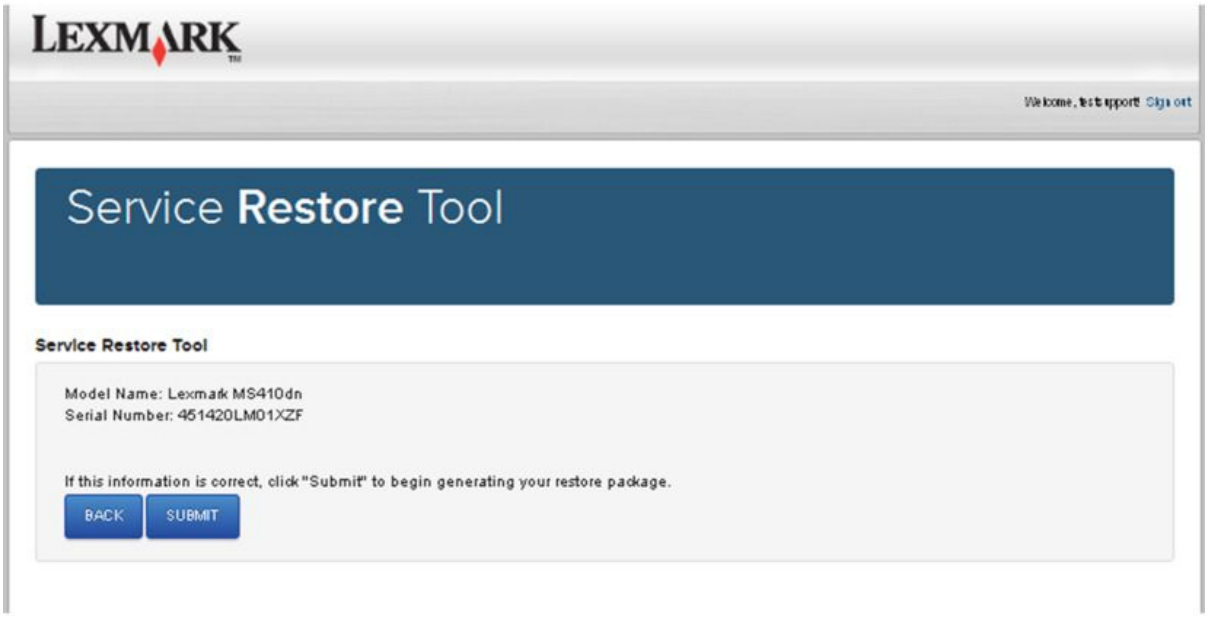
1. Go to https://cdp.lexmark.com/service-restore-tool/ to access the tool.
2. Log in using your Lexmark or partner login.

   If your login fails, then contact your next level of support.

3. Enter the printer serial number, and then submit the information.

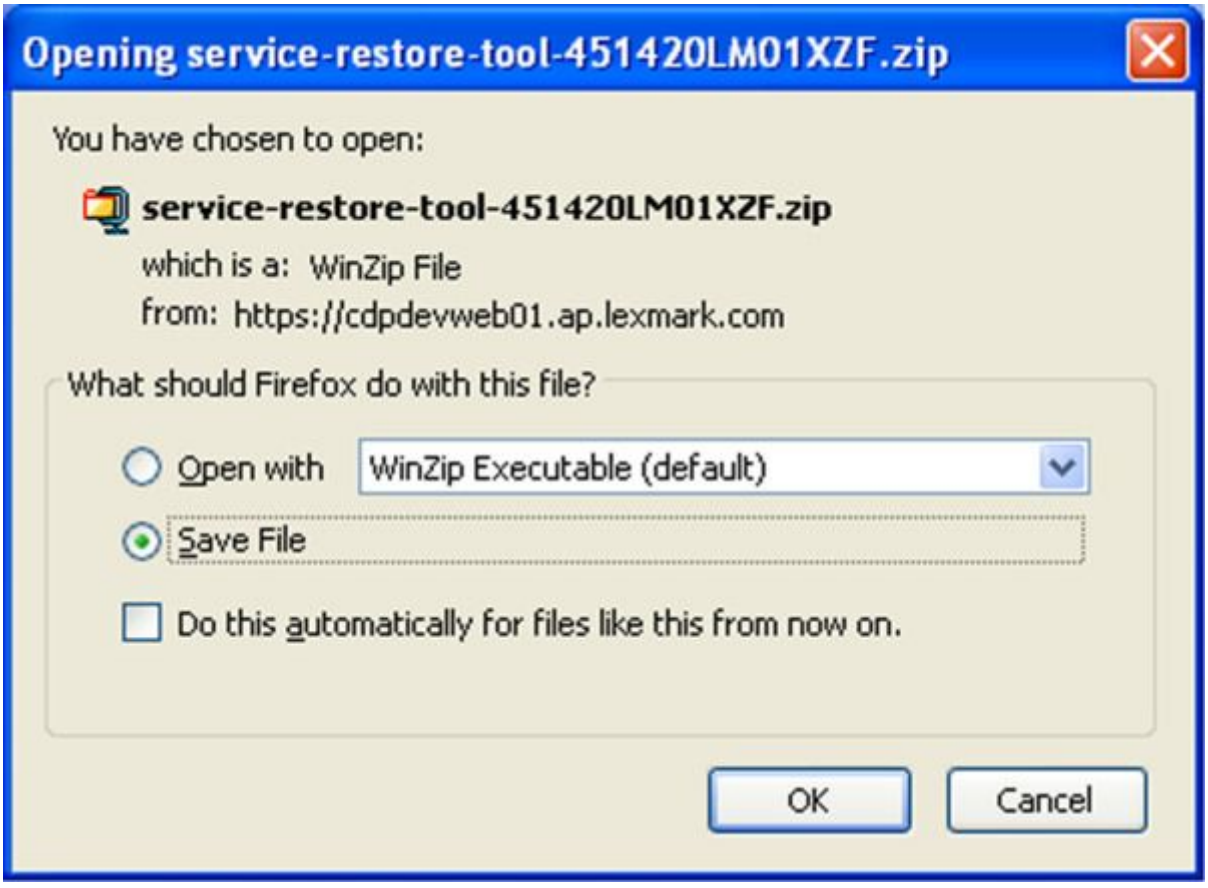


Note: Make sure that the serial number that appears on the verification screen is correct.



4. Save the zip file.

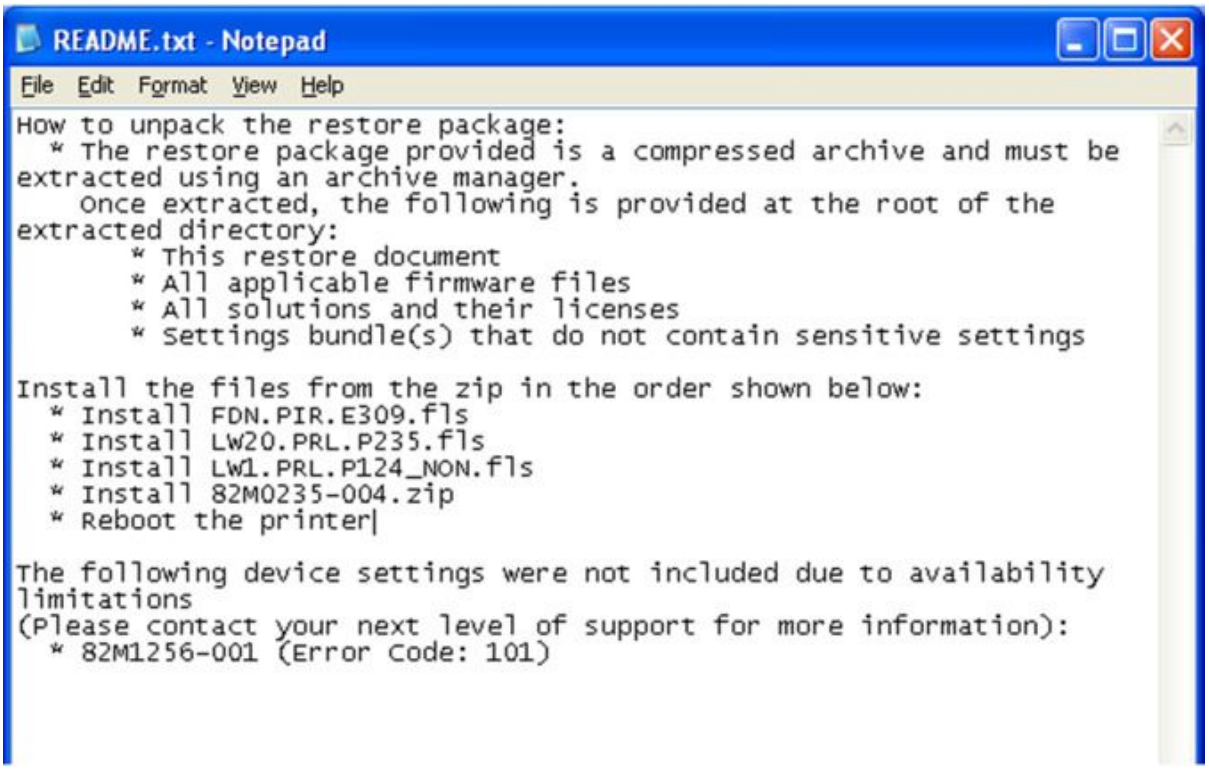
> **Note:** Make sure that the serial number in the zip file matches the serial number of the printer being restored.



5. Extract the contents of the zip file, open the *Readme* file, and then follow the instructions in the file.

Notes

- 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 printer firmware on page 212.
- To load the zip files that are extracted from the Service Restore Tool, see Restoring solutions, licenses, and configuration settings on page 211.



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.

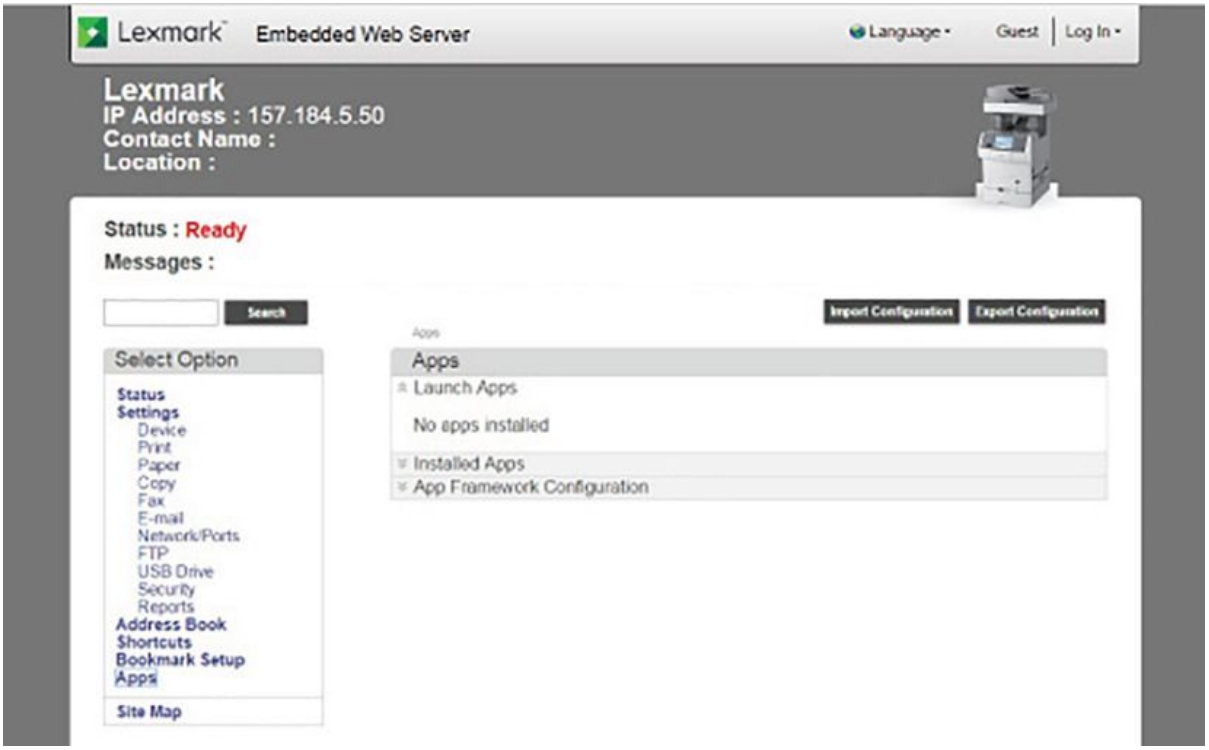
Notes

- 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.

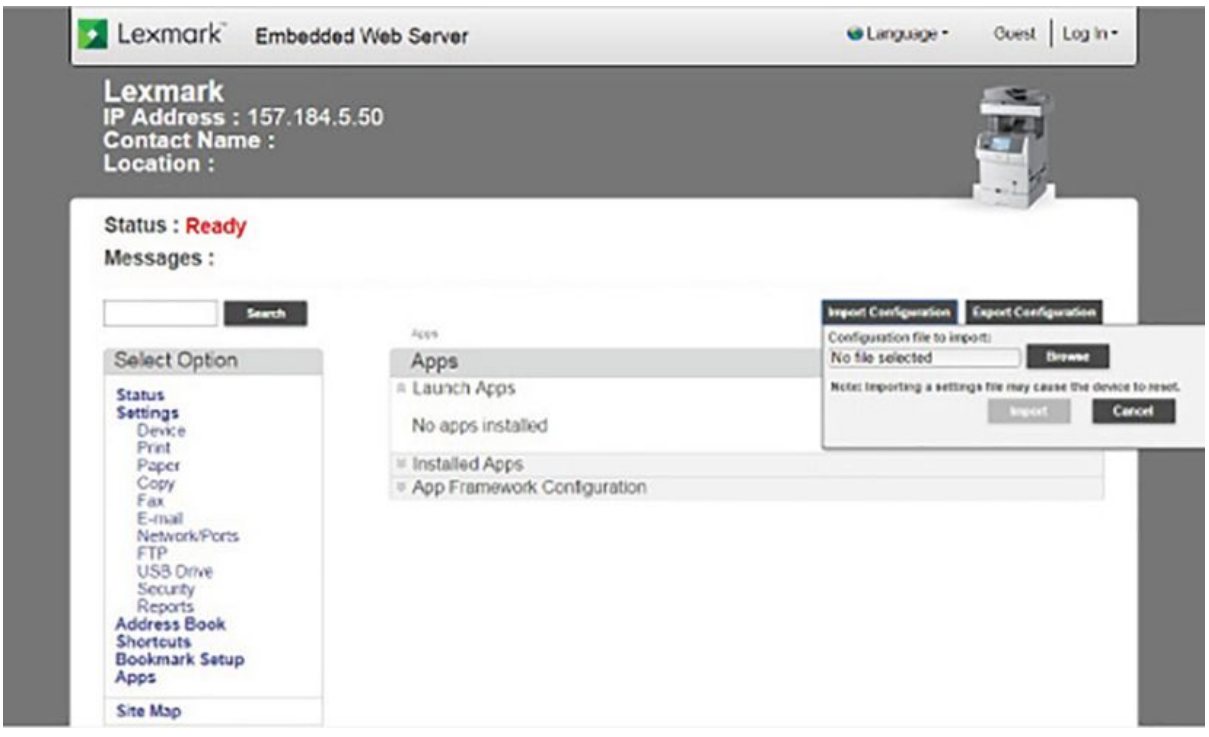
Restoring solutions, licenses, and configuration settings

To load the zip files that are extracted from Service Restore Tool, do the following:

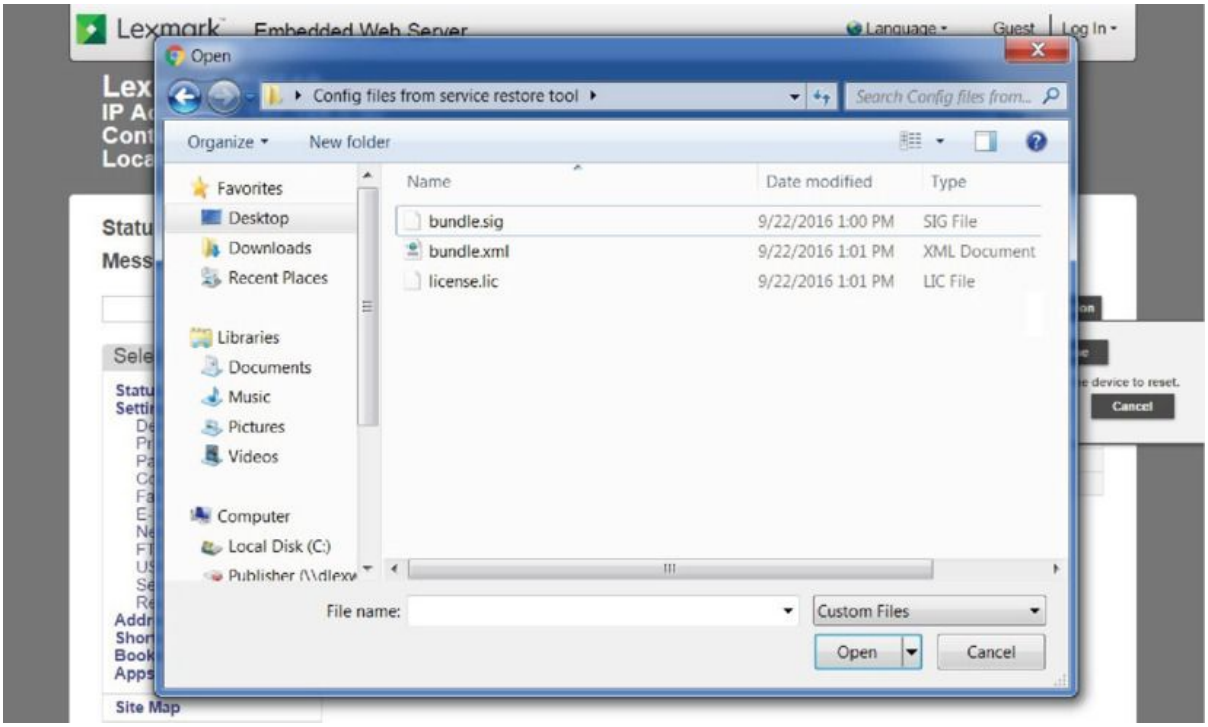
1. Open a web browser, and then type the printer IP address.



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.

Updating the printer firmware

> **Warning—Potential Damage**
> Before updating the printer firmware, ask the next level of support for the correct code. Using an incorrect code level may damage the printer.

The printer must be in ready state in order to update the firmware.

Using a flash drive

This option is available only in printer models with a front USB port.

Make sure to enable the Enable Drive and Update Code settings. You can find the settings in the Flash drive menu under the Settings menu.

1. Insert the flash drive.
2. Select the file that you want to flash.

> **Note:** Do not turn off the printer while the update is going on.

Using a network computer

Using the File Transfer Protocol (FTP)

Make sure that the printer is in ready state before flashing.

1. Turn on the printer.
2. Obtain the IP address:
    - From the control panel
    - From the TCP/IP section of the Network/Ports menu
3. From the command prompt of a network computer, open an FTP session to the printer IP address.
4. Use a PUT command to place the firmware file on the printer.

   The printer performs a POR sequence and terminates the FTP session.
5. Repeat step 2 through step 4 for the other files.

Using the Embedded Web Server

Make sure that the printer is in ready state before flashing.

1. Open a web browser, and then type the printer IP address.
2. From the home page, navigate to **Configuration > Update Firmware**.
3. Select the file to use.

   The printer performs a POR sequence and terminates the FTP session.
4. Repeat step 2 through step 4 for the other files.

Backing up eSF solutions and settings

> **Note:** 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 195.
2. Open a web browser, and then type the printer IP address.

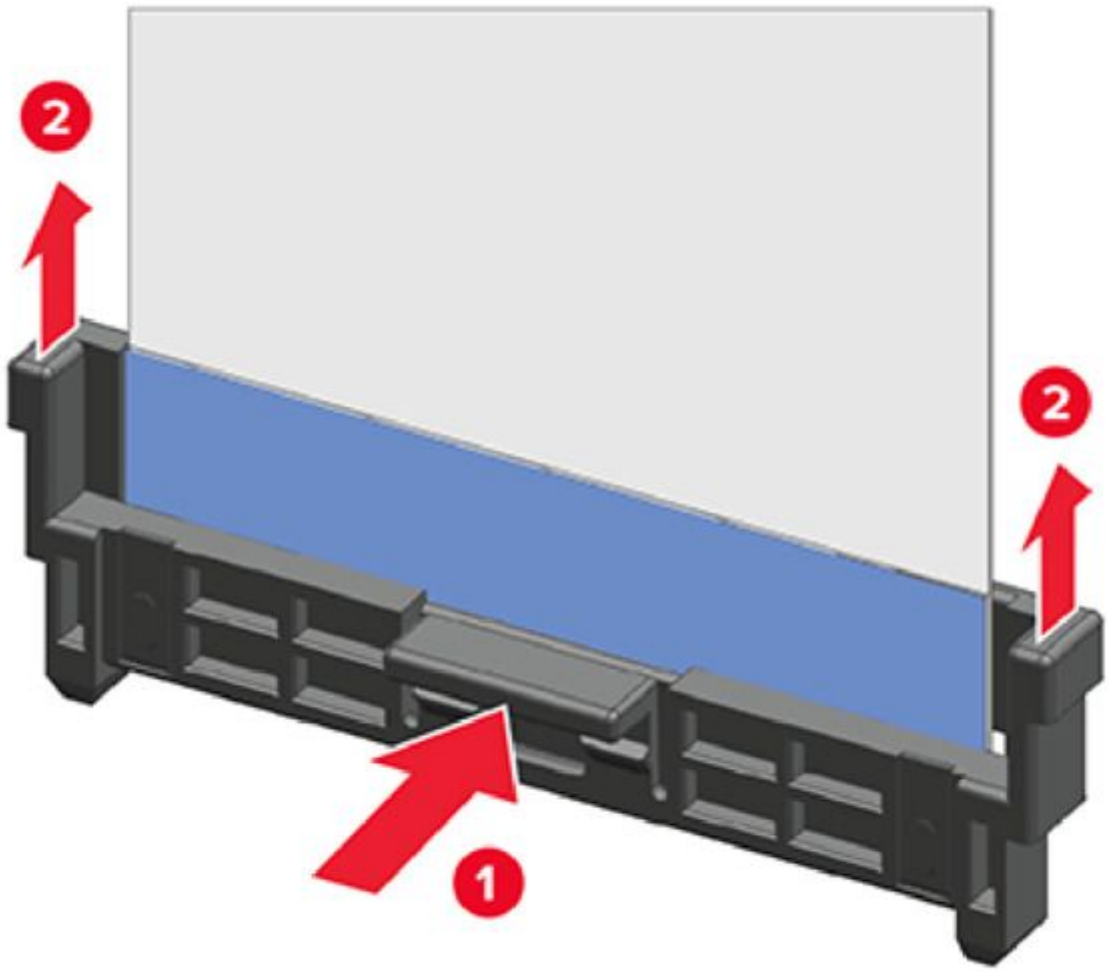
   > **Note:** If the web page cannot be accessed or an error occurs when starting the printer into Invalid engine mode, then data backup is not an option. Inform the customer that the data cannot be saved.

3. Click **Apps**, click **Export Configuration**, and then select one of the options in the dropdown menu.
4. Click **Export**.

Note: 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

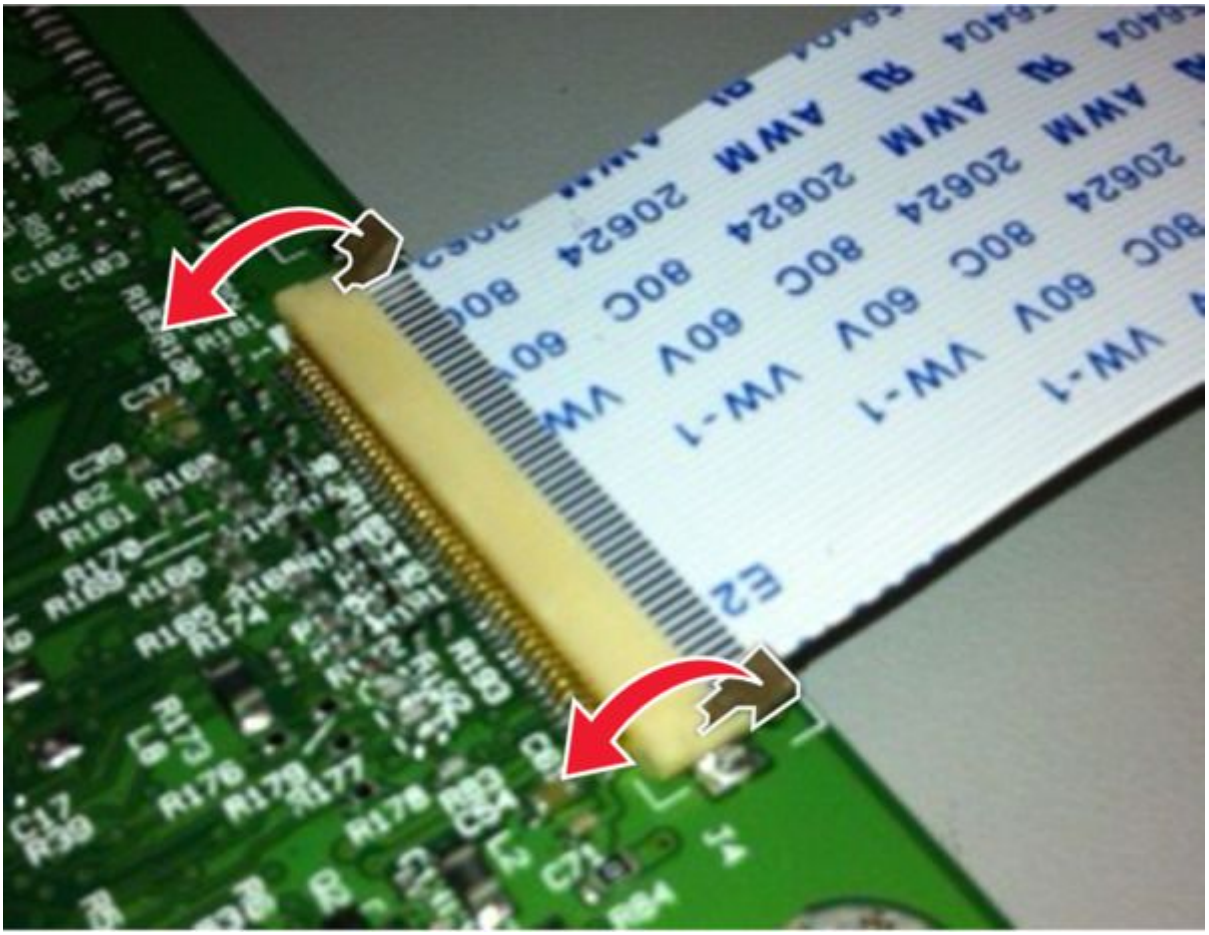
Horizontal top contact connector

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

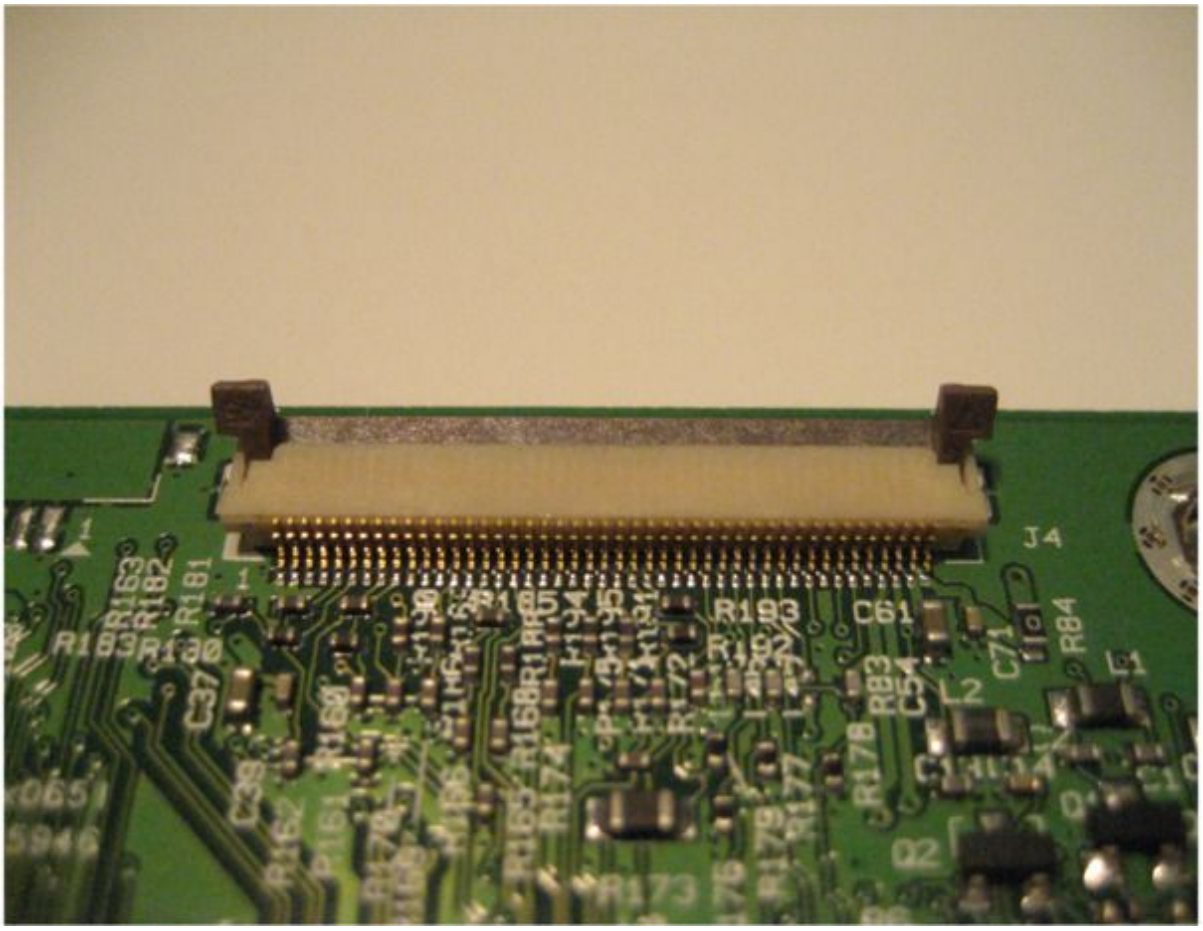
1. Place a finger at each end of the locking actuator, and then gently lift the actuator to the unlocked position.



2. Slide the cable out of the connector.

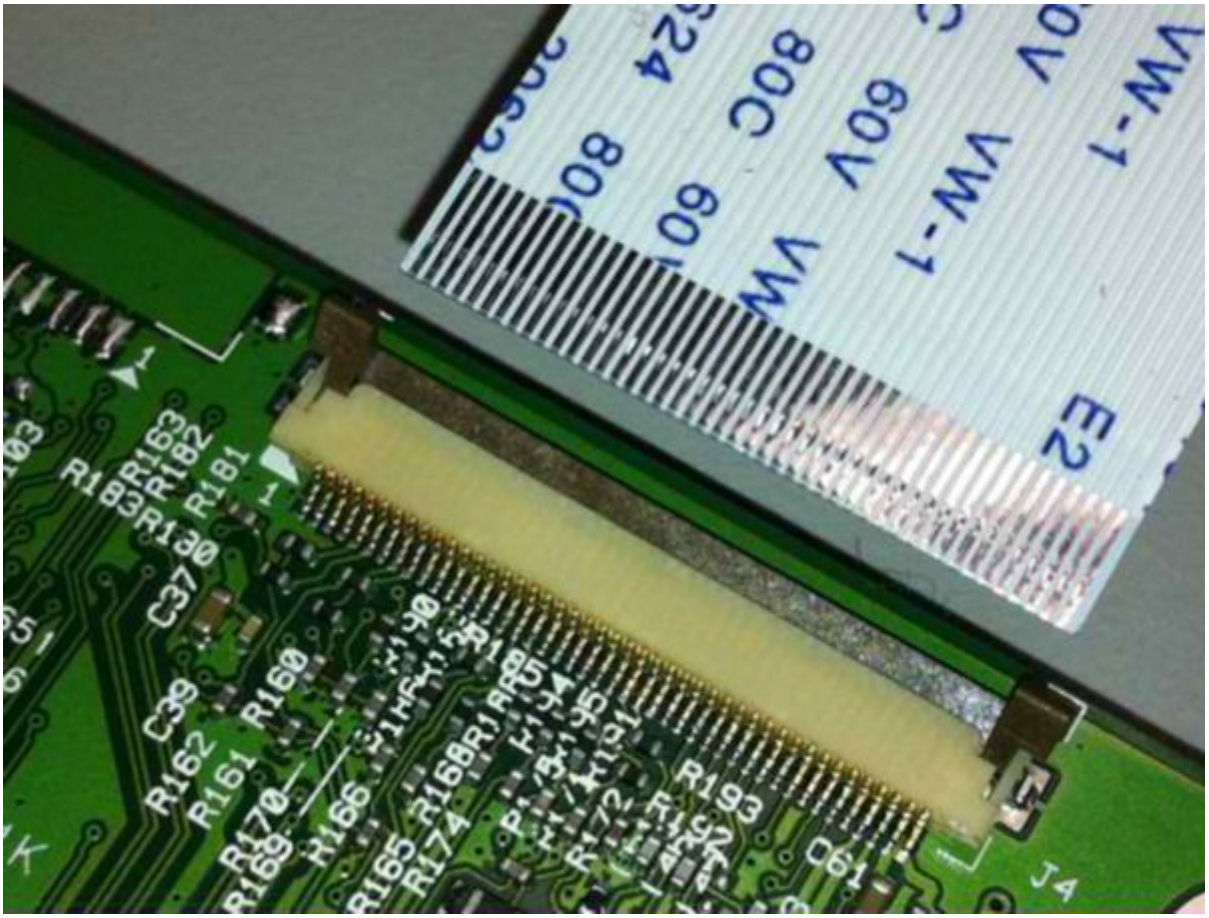
Inserting a cable into the horizontal top contact connector

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.

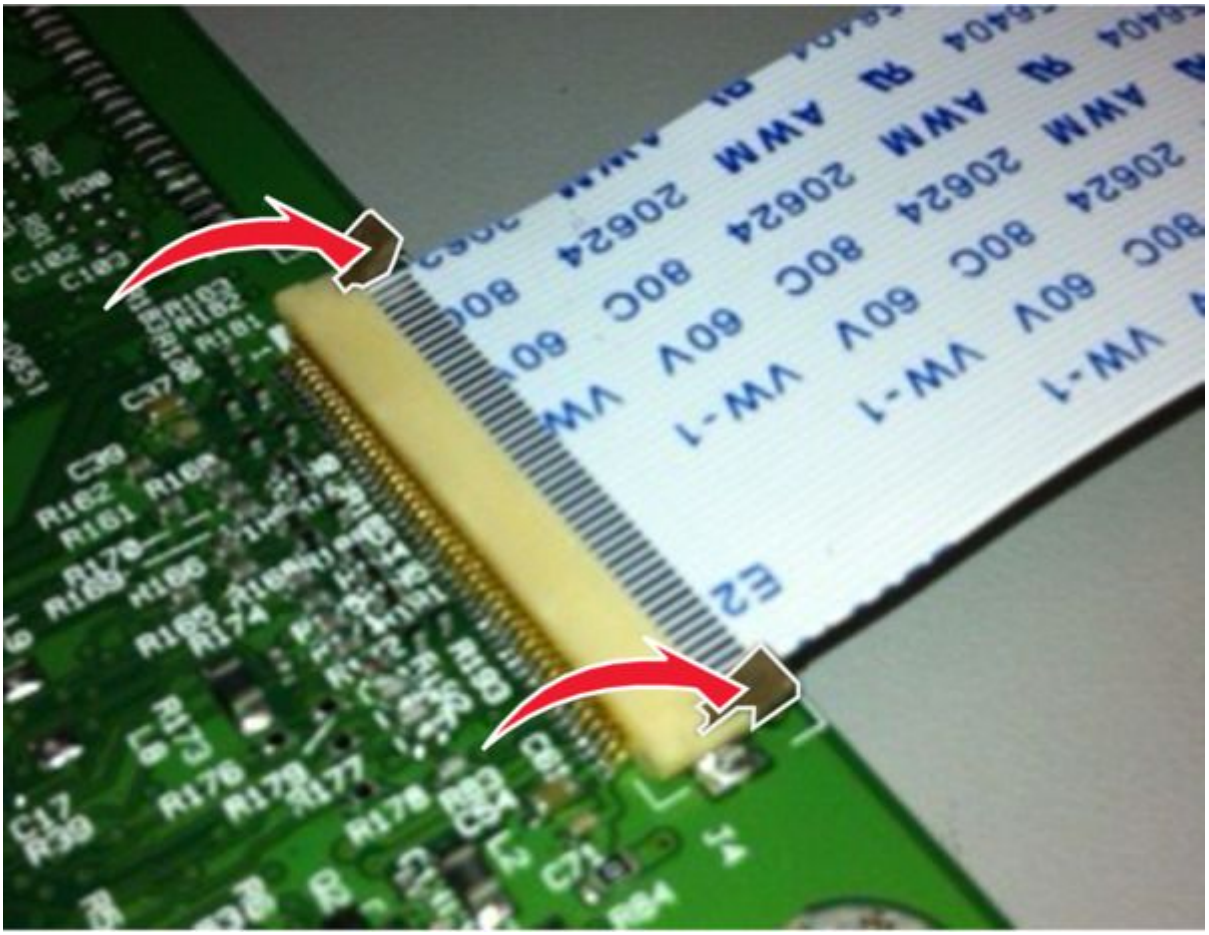


2. Insert the cable with the contacts on the cable facing up. Insert the cable on top of the actuator.

> **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.



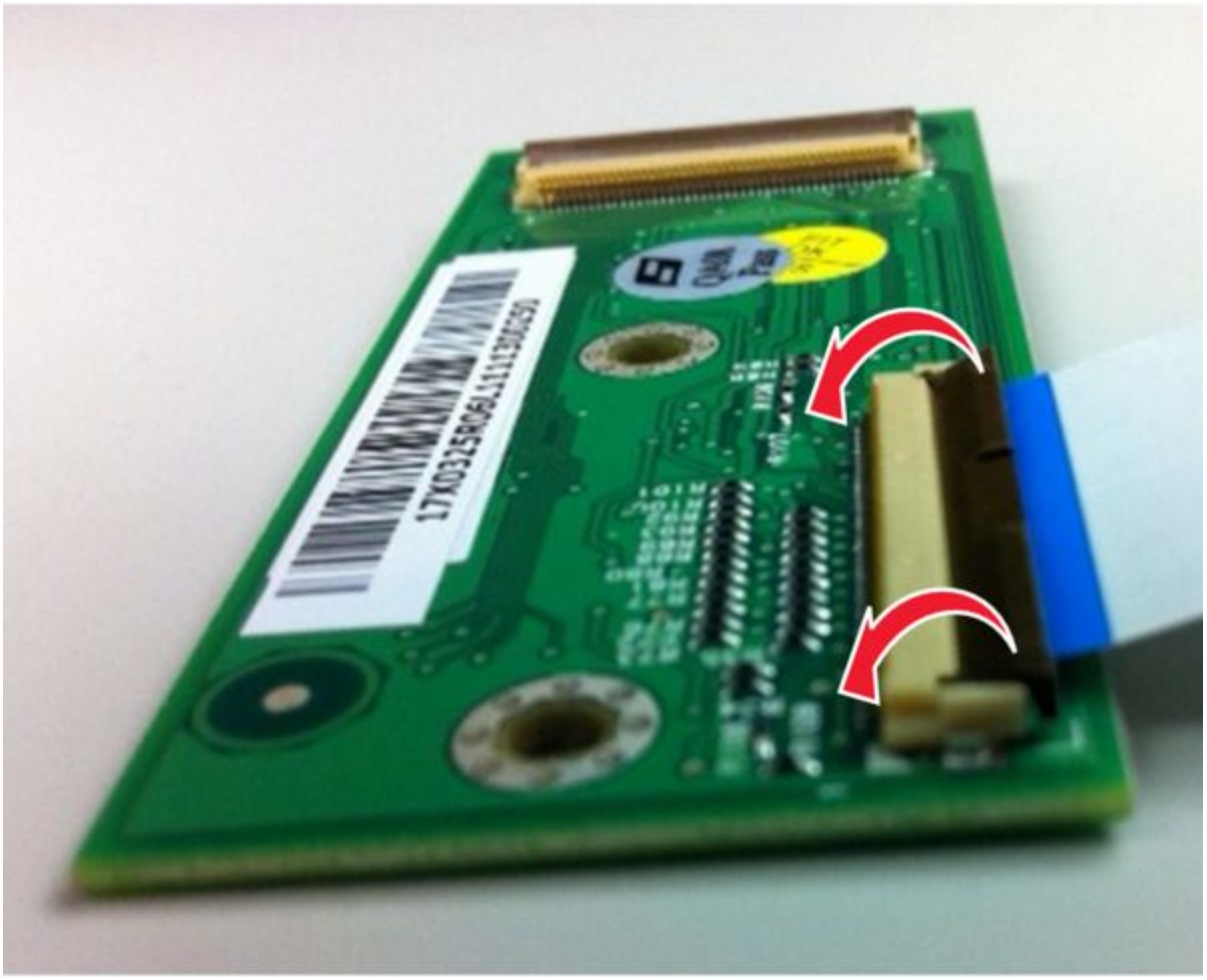
Horizontal bottom contact connector

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.

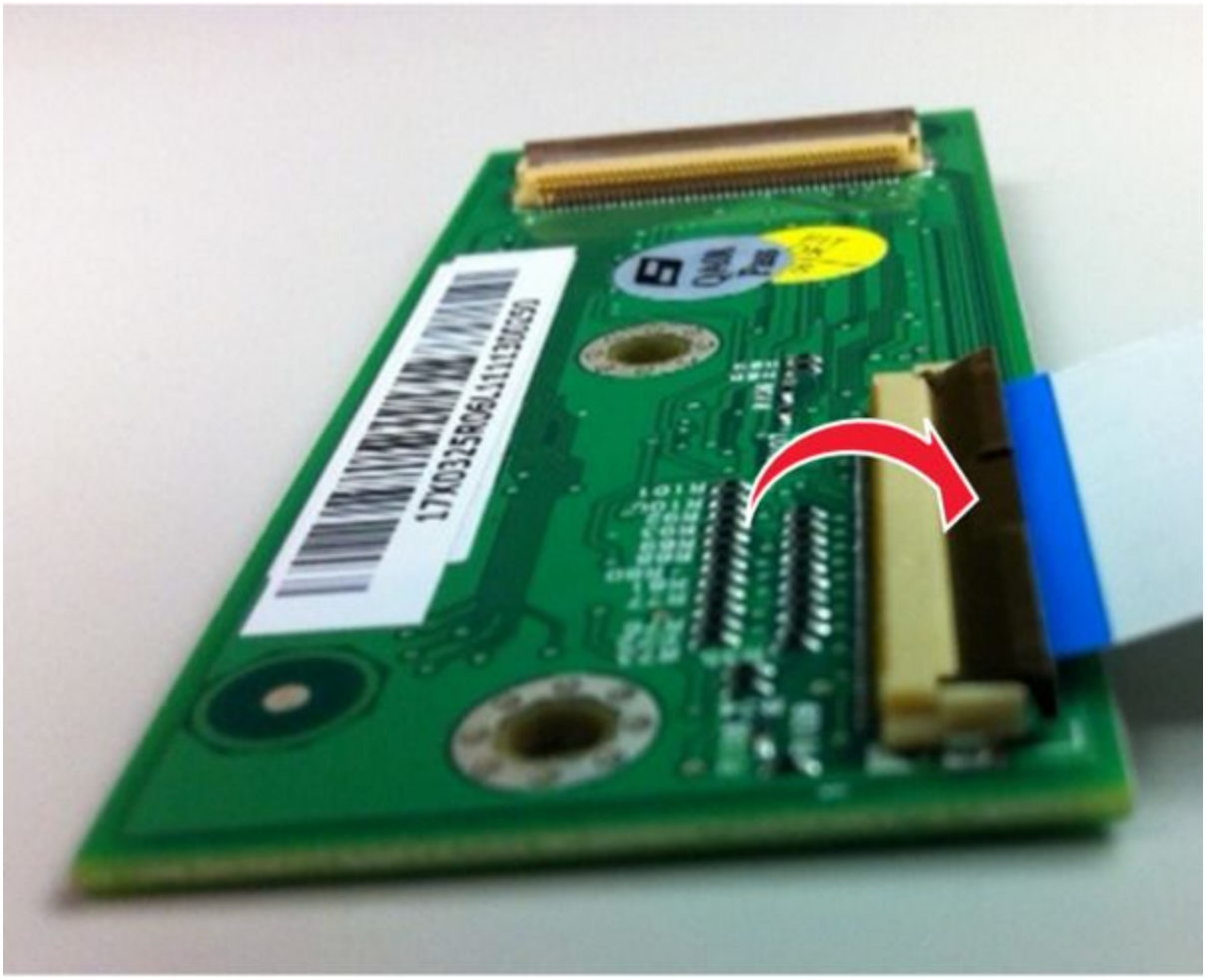
Inserting a cable into the horizontal bottom contact connector

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.



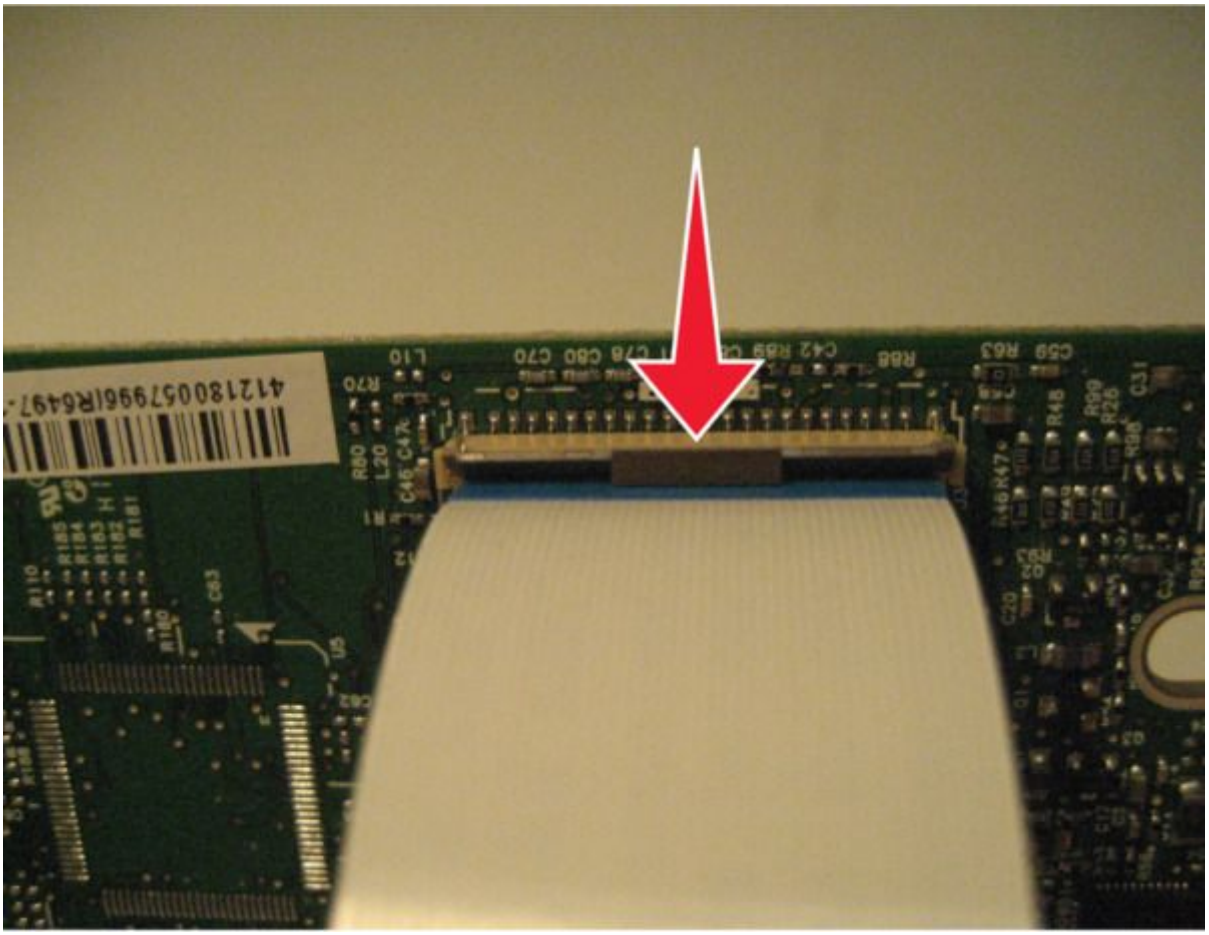
Vertical mount contact connector

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.

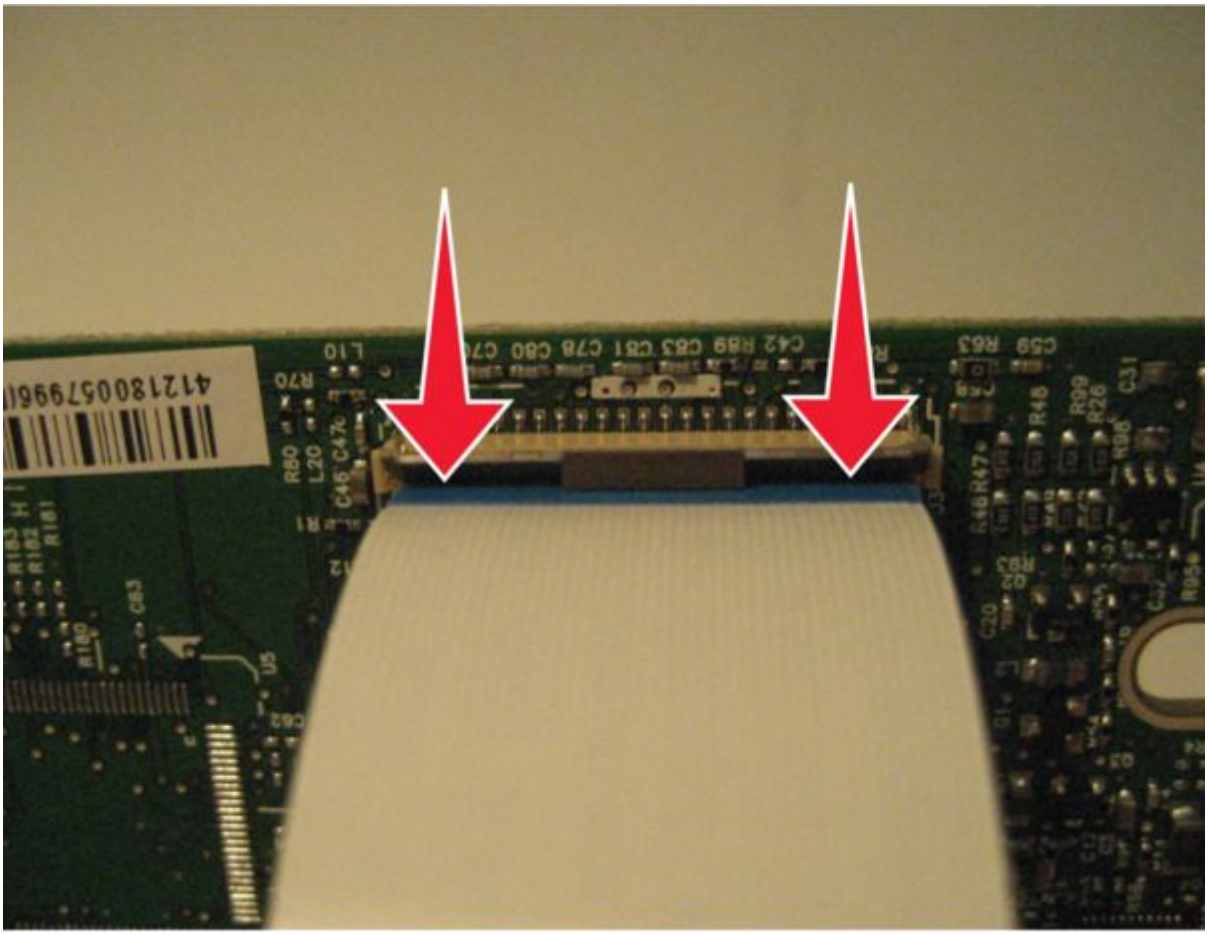
Inserting a cable into the vertical mount contact connector

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.



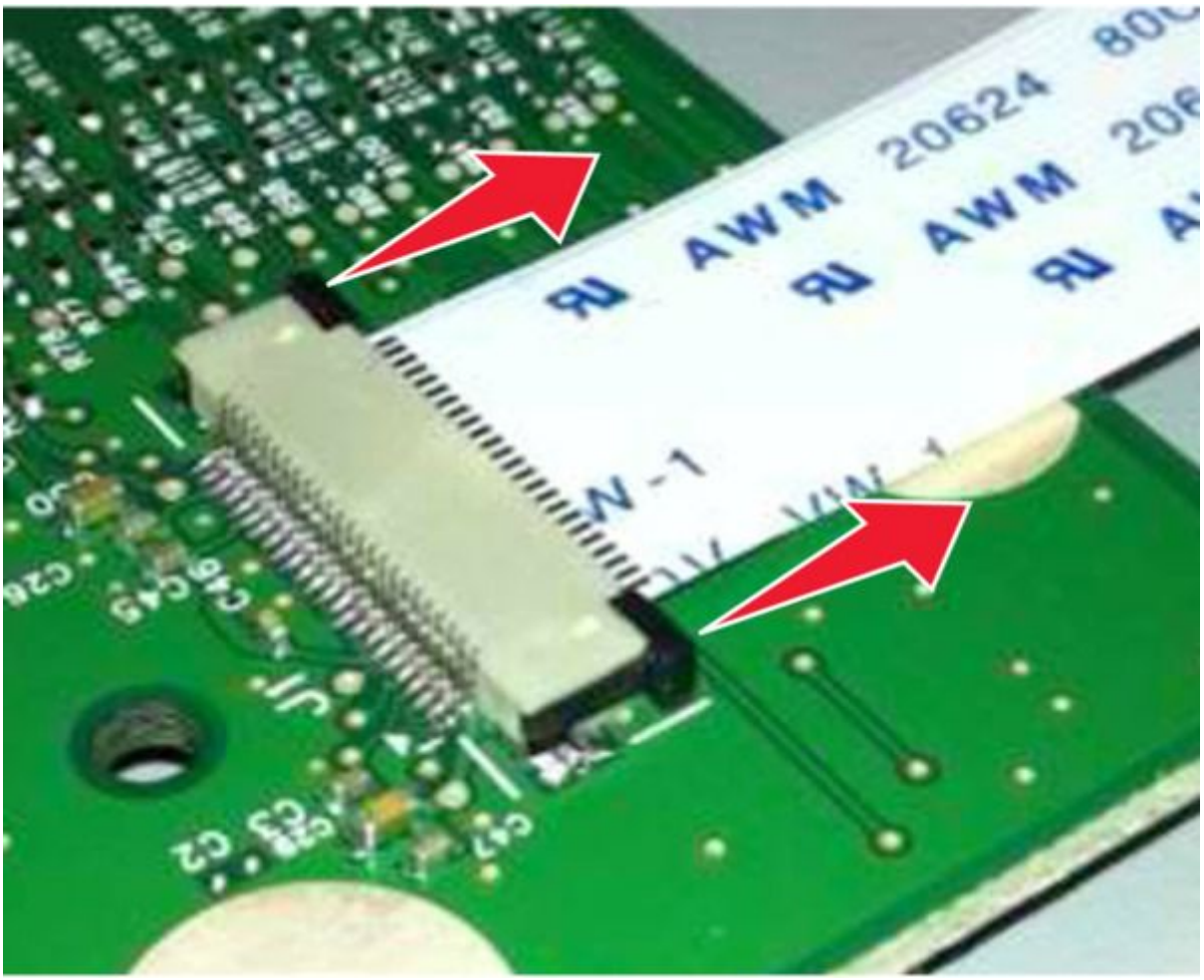
Horizontal sliding contact connector

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

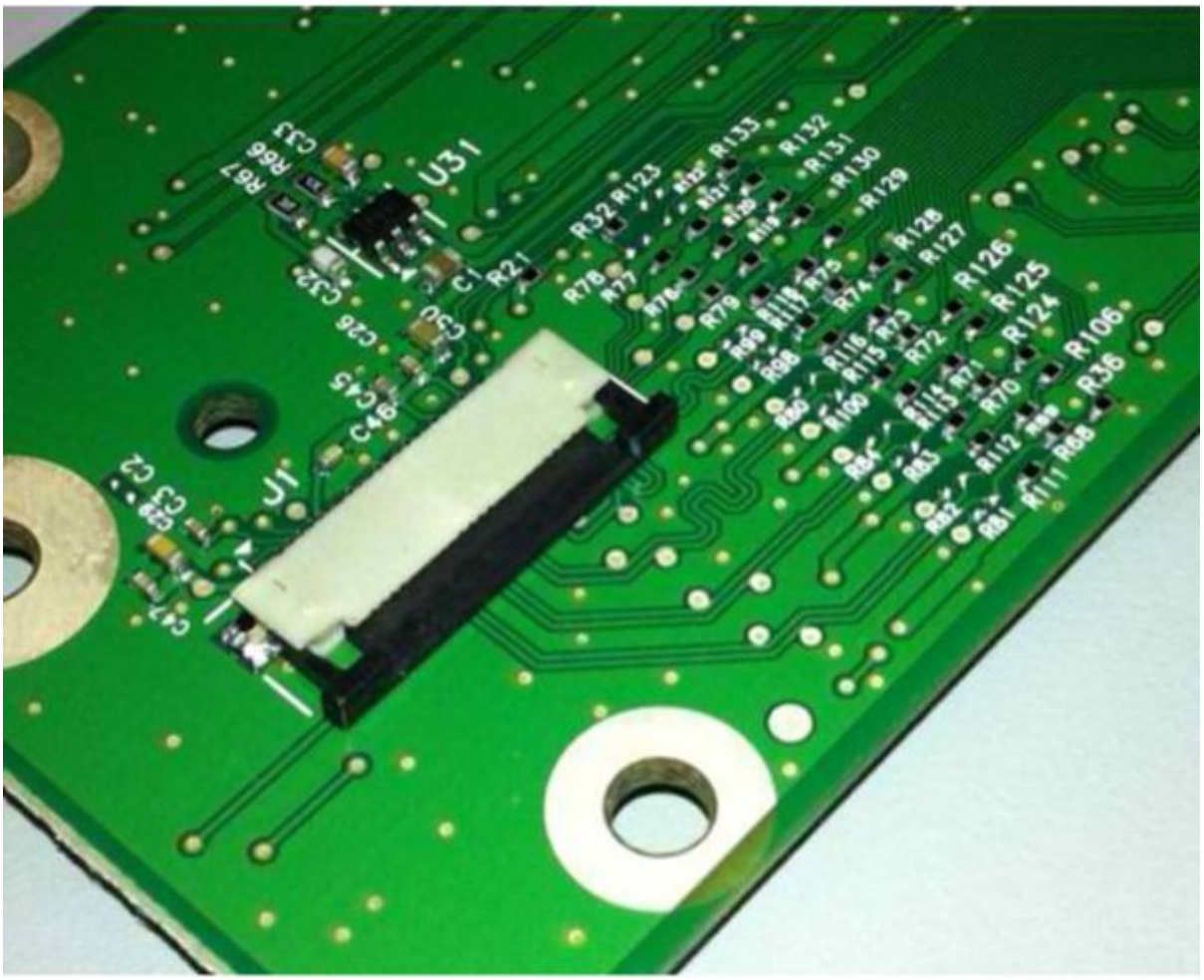
1. Simultaneously slide the two tabs on the ends of the locking actuator away from the connector.



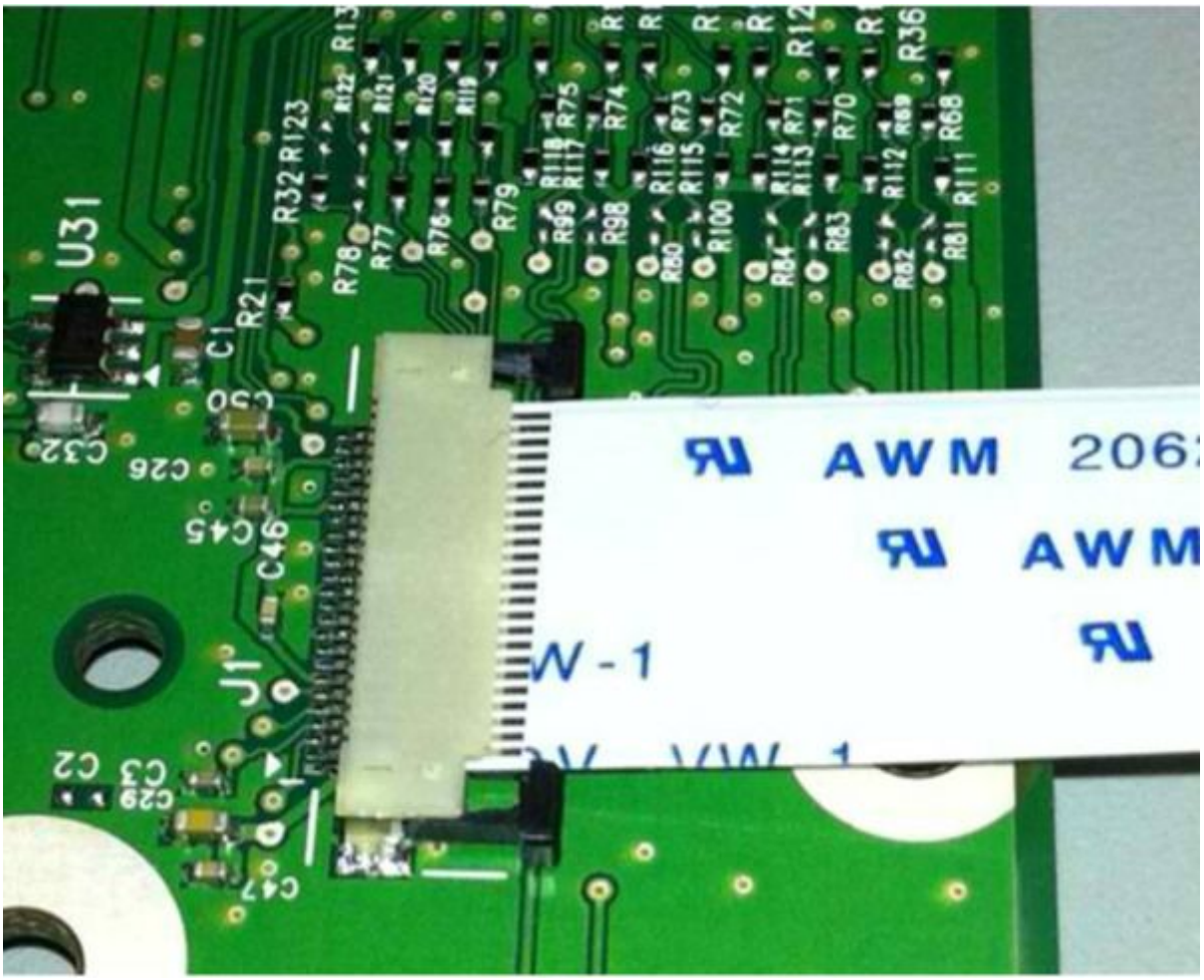
2. Slide the cable out of the connector.

Inserting a cable into the horizontal sliding contact connector

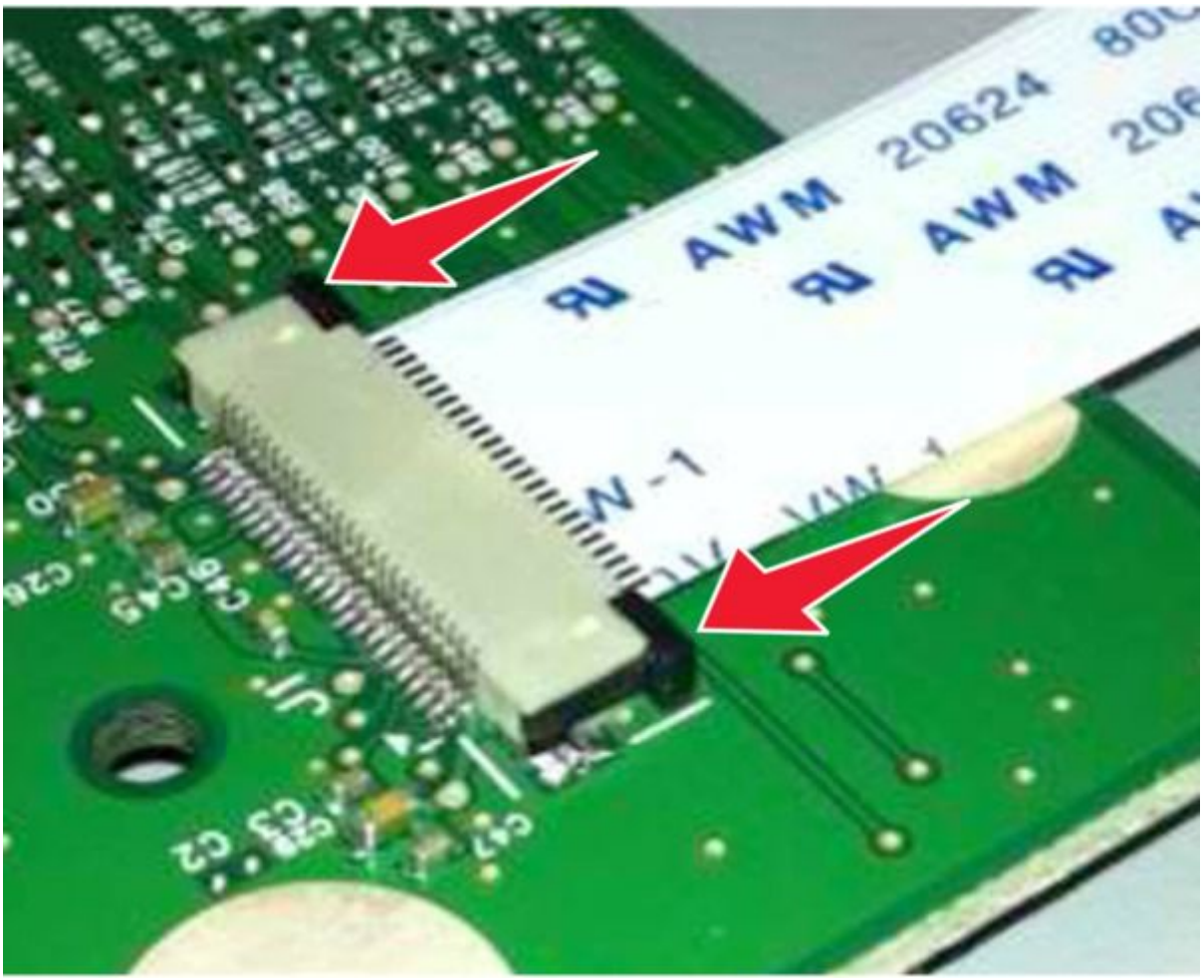
1. When installing the cable, check the locking actuator to verify it is in the open position. If you are opening the connector, then pull back on both end tabs using equal force to avoid breaking the connector.



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.

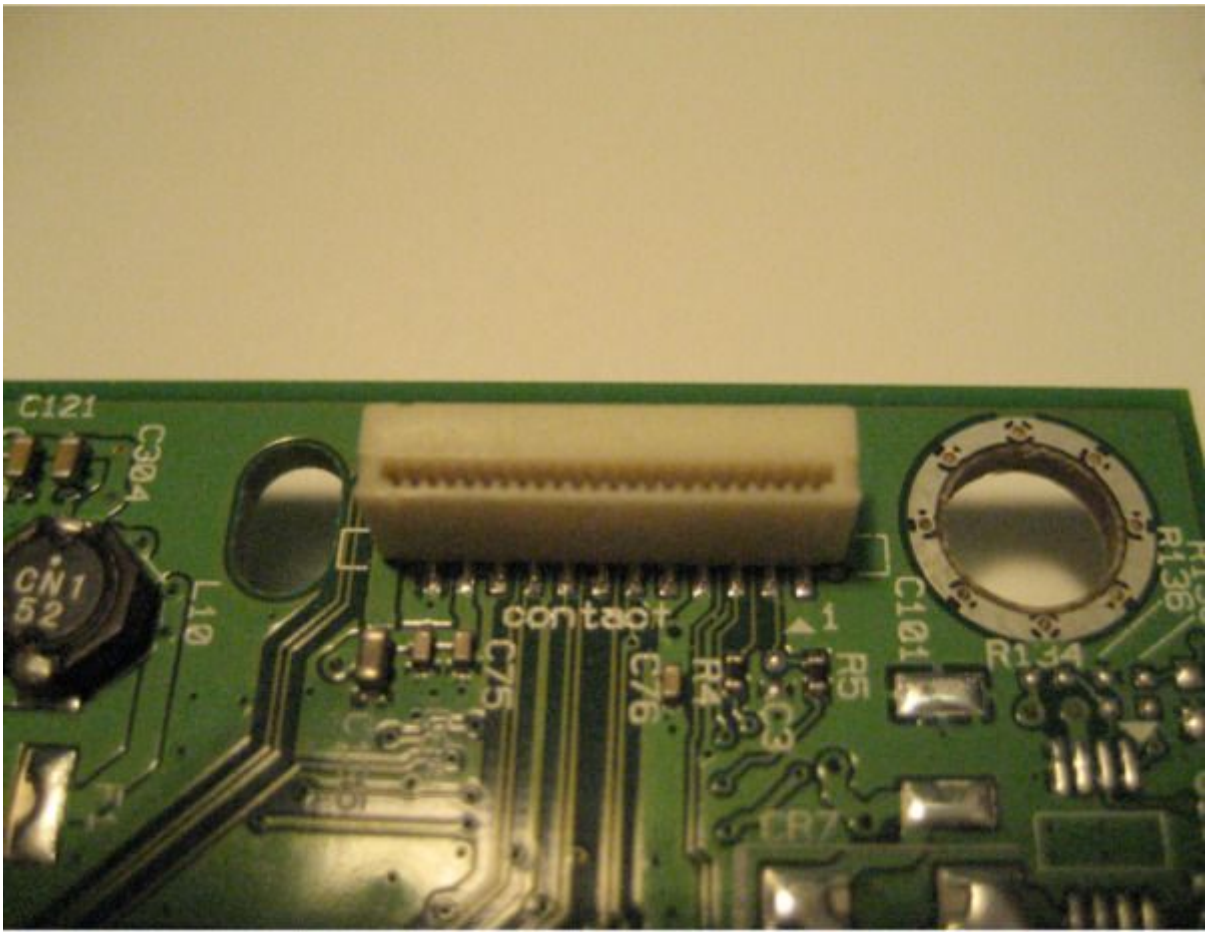


Low Insertion Force (LIF) connector

> **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.

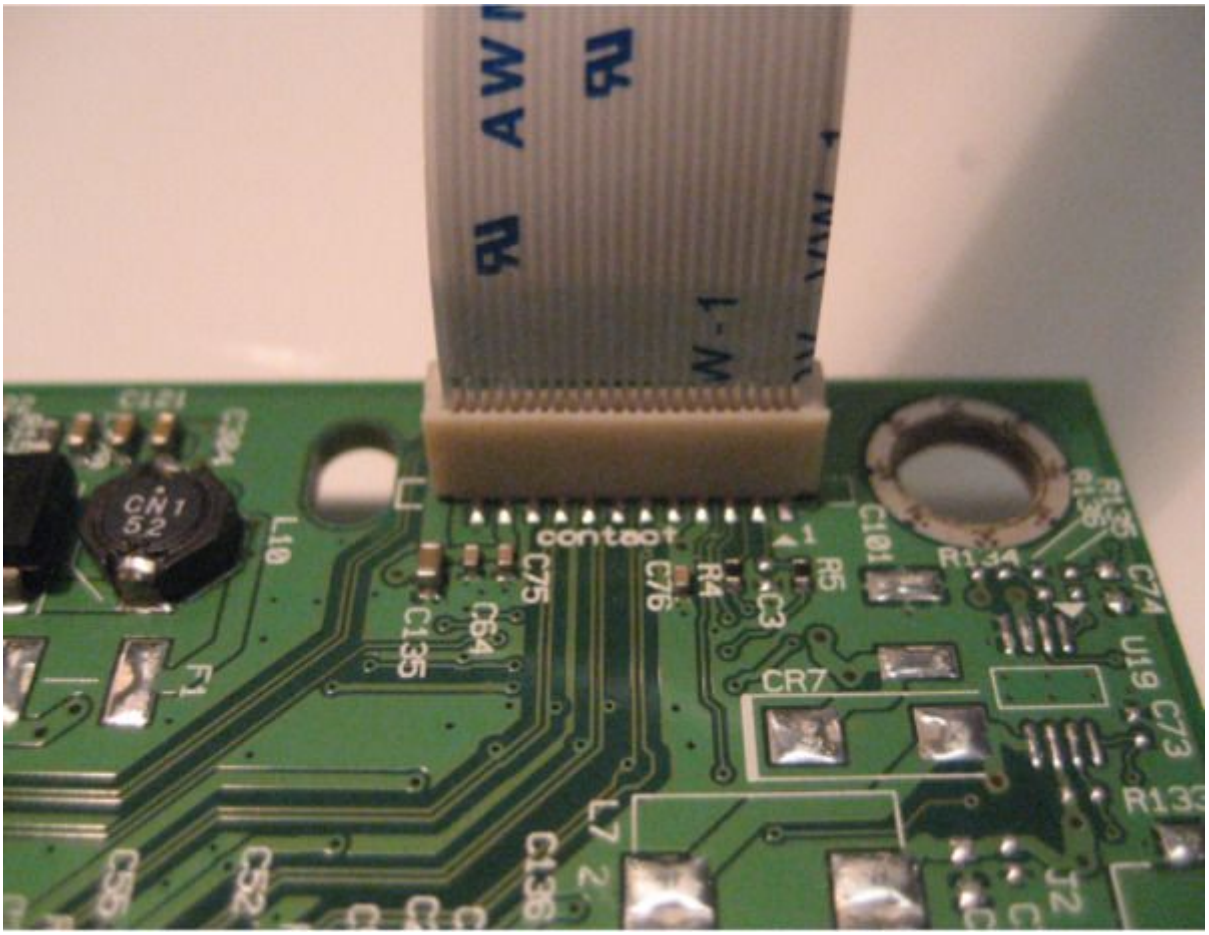
Inserting a cable into the LIF connector

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.

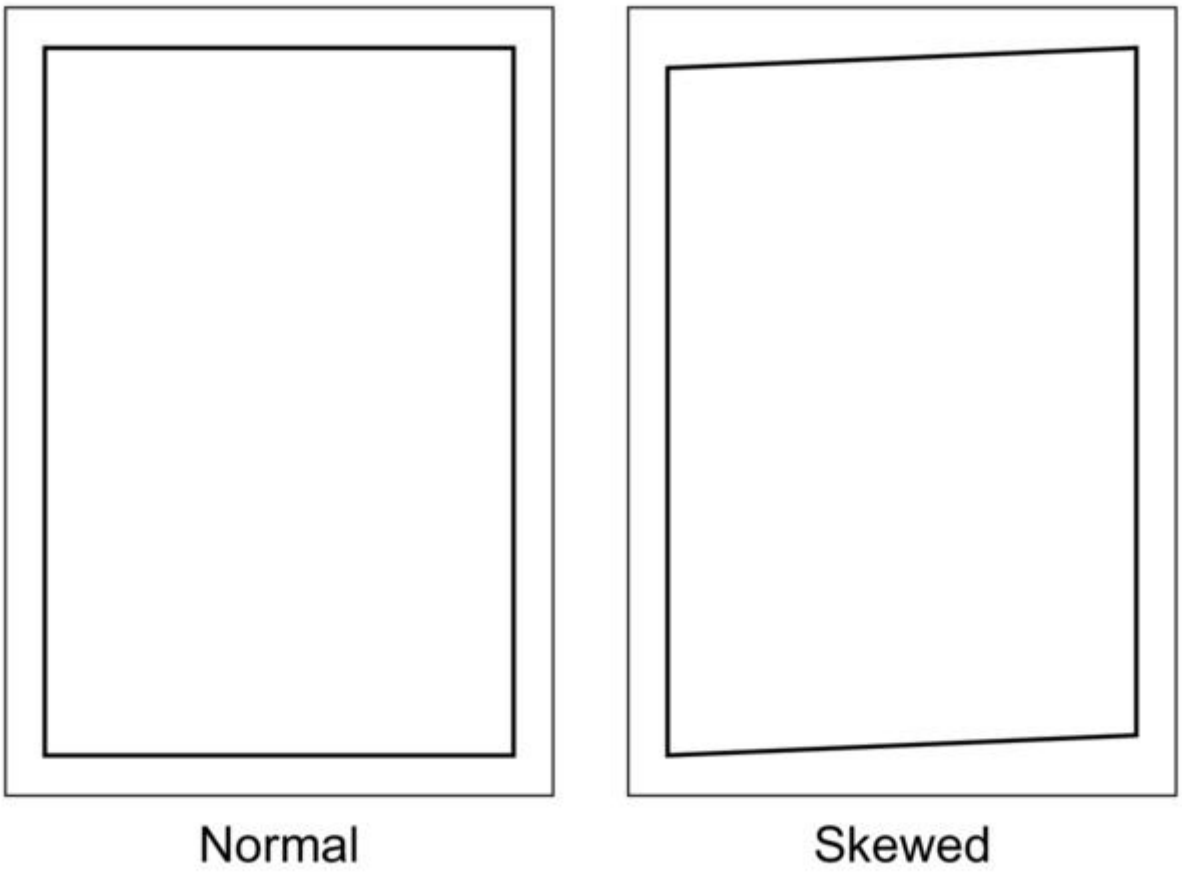
Changing the skew setting moves the right edge of the page up or down, and changes the angle of the top and bottom lines. If the skew is properly adjusted, then the horizontal line at the top of the page is parallel to the leading edge of the page.

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 233.

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.

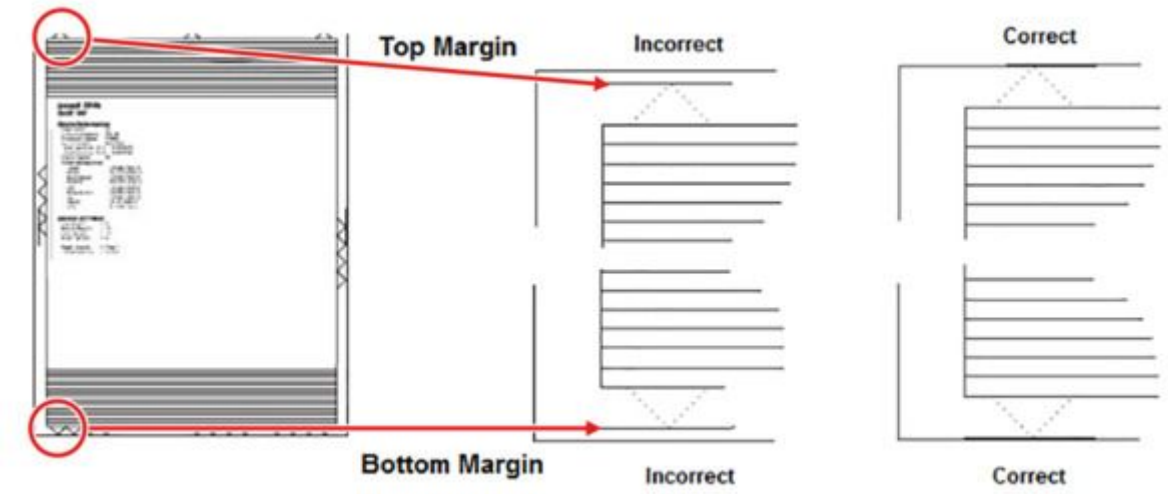
4. Select **OK**.
5. Print a Quick Test Page to verify the change.
6. Repeat step 1 through step 5 until the horizontal line is properly aligned with the leading edge of the page.
7. Check for proper margin alignment. See Registration adjustment on page 233.

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 233.

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.

Entering the TPS characterization data

After installing the new left or right TPS, access the Diagnostics menu to enter the 40-character string for the left or right sensor.
To enter the Diagnostics menu:

- For 4.3-, and 2.4-inch control panels, press *** * 3 6**.
- For 2-line control panel, press the left arrow button twice, press **OK**, and then press the right arrow button.

For 4.3-inch control panel

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

   Printer setup > EP setup > Toner patch sensor adjust
2. Touch **Right TPS calibration data** or **Left TPS calibration data**.
3. Enter the 40-character string for the sensor, and then touch **OK**.

For 2.4-inch control panel

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

   Printer setup > EP setup > Toner patch sensor adjust
2. Select **Right TPS calibration data** or **Left TPS calibration data**, and then press **OK**.
3. Press the backspace button to clear the field.
4. Enter the 40-character string for the sensor, and then press **OK**.

For 2-line control panel

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

   Printer setup > EP setup > Toner patch sensor adjust
2. Select **Right TPS calibration data** or **Left TPS calibration data**, and then press **OK**.
3. Press **X** to clear the field.
4. Press the right arrow button to enter the 40-character string for the sensor.

Notes

- Press **OK** after each digit.
- Repeat step 4 for all 20 digits.

Installation Note

1. After entering the data, perform a POR.
2. Enter Diagnostics menu, and then navigate to:

   Printer setup > EP setup > Toner patch sensor adjust
3. Perform the **Sensor gain characterization**.
4. Perform the **Sensor gain verification**.

   Note: Make sure that there are no red errors on the page.

5. Perform a POR, and then perform the **Full calibration**. For more information, see the Service menus chapter.

Removal procedures

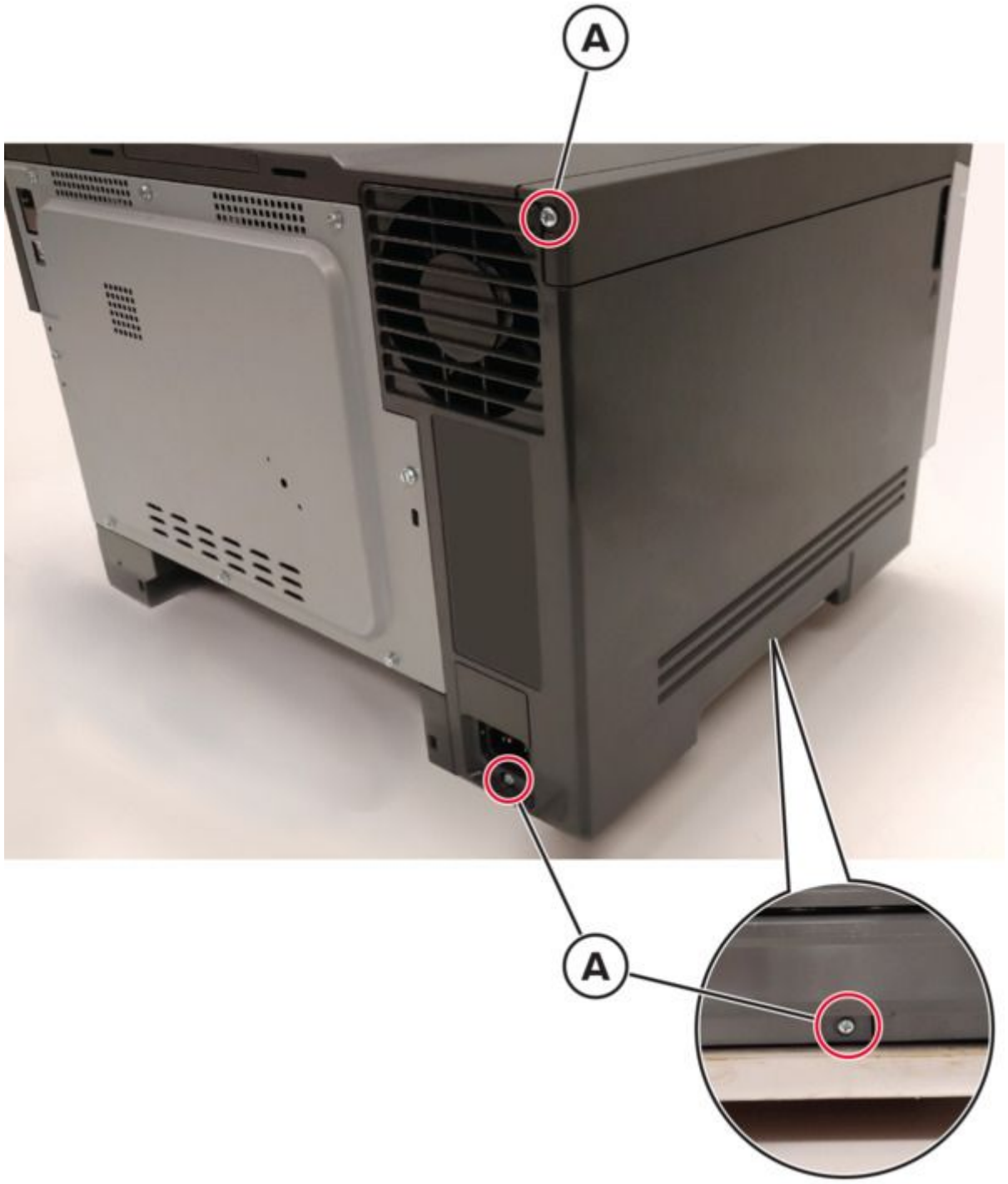
Keep the following tips in mind as you replace parts:

- 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.

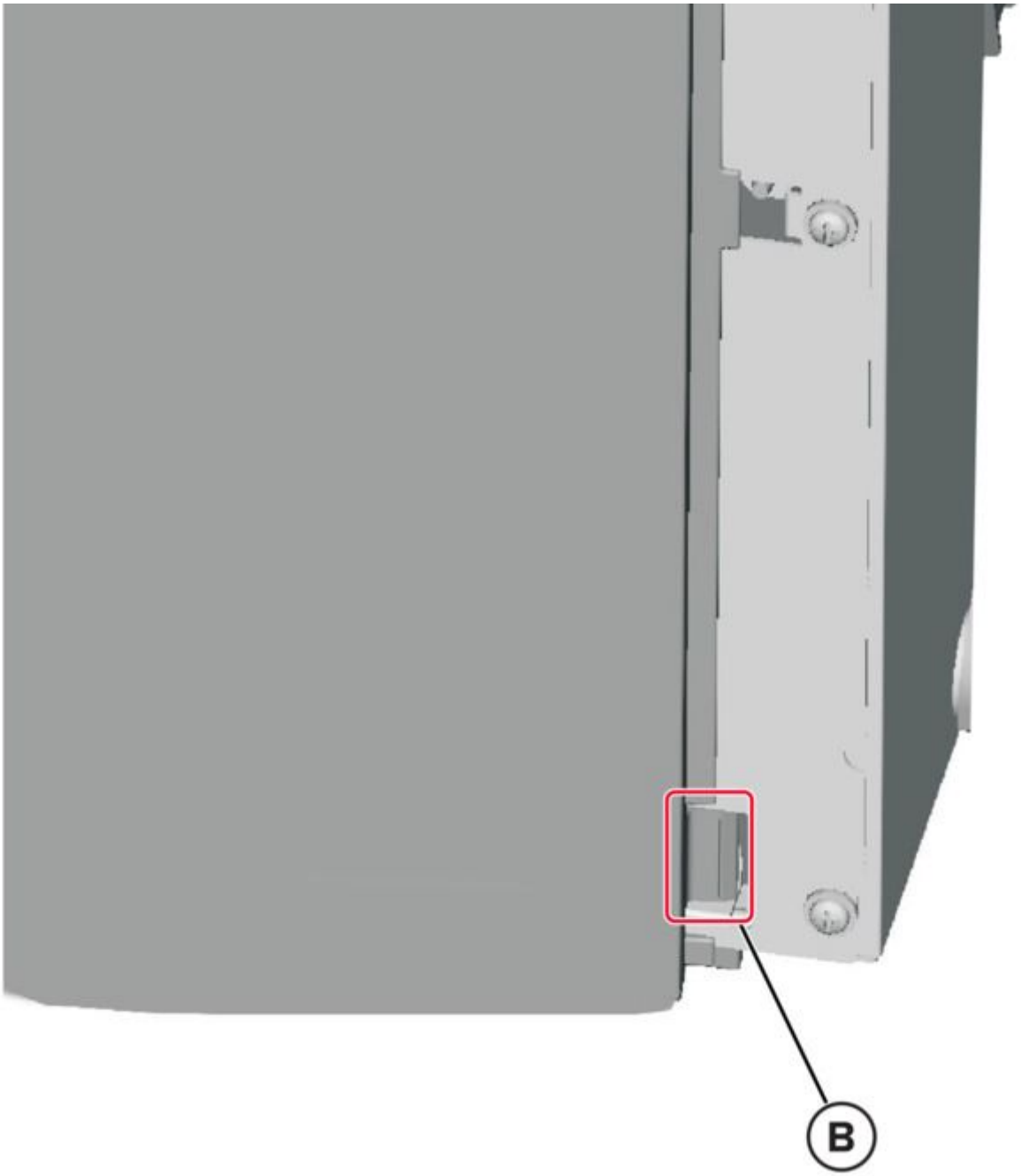
Left side removals

Left cover removal

1. Remove the tray insert.
2. Position the printer with the left side hanging over the edge of the table.
3. Remove the three screws (A).



4. Flex the cover slightly to unlatch the front bottom corner tab (B), and then remove the cover.



Installation Note
When replacing the left cover, slightly flex the cover to engage the tab.

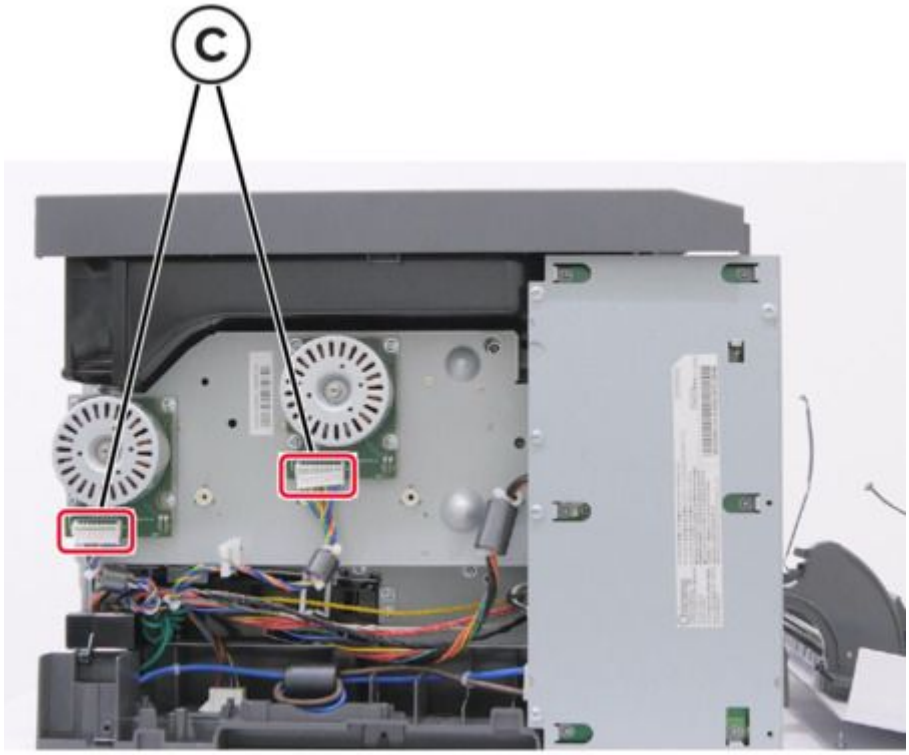
EP drive removal

Notes
For a video demonstration, see EP drive removal.

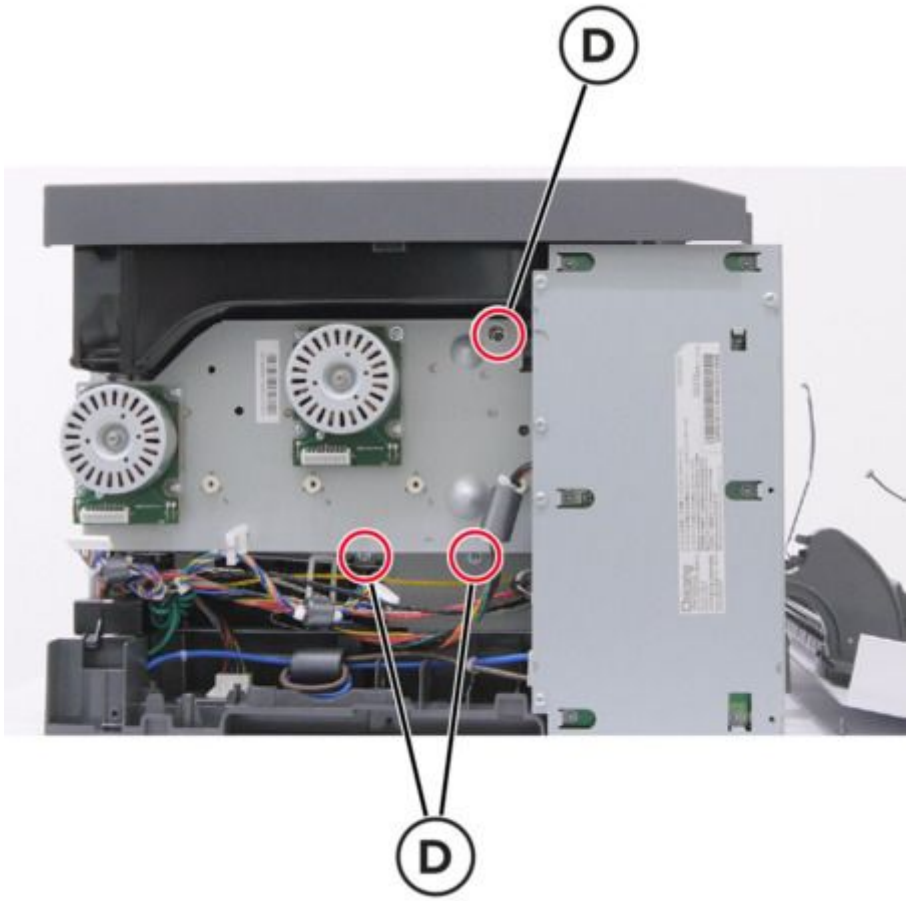
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the two screws (A) at the back.

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).



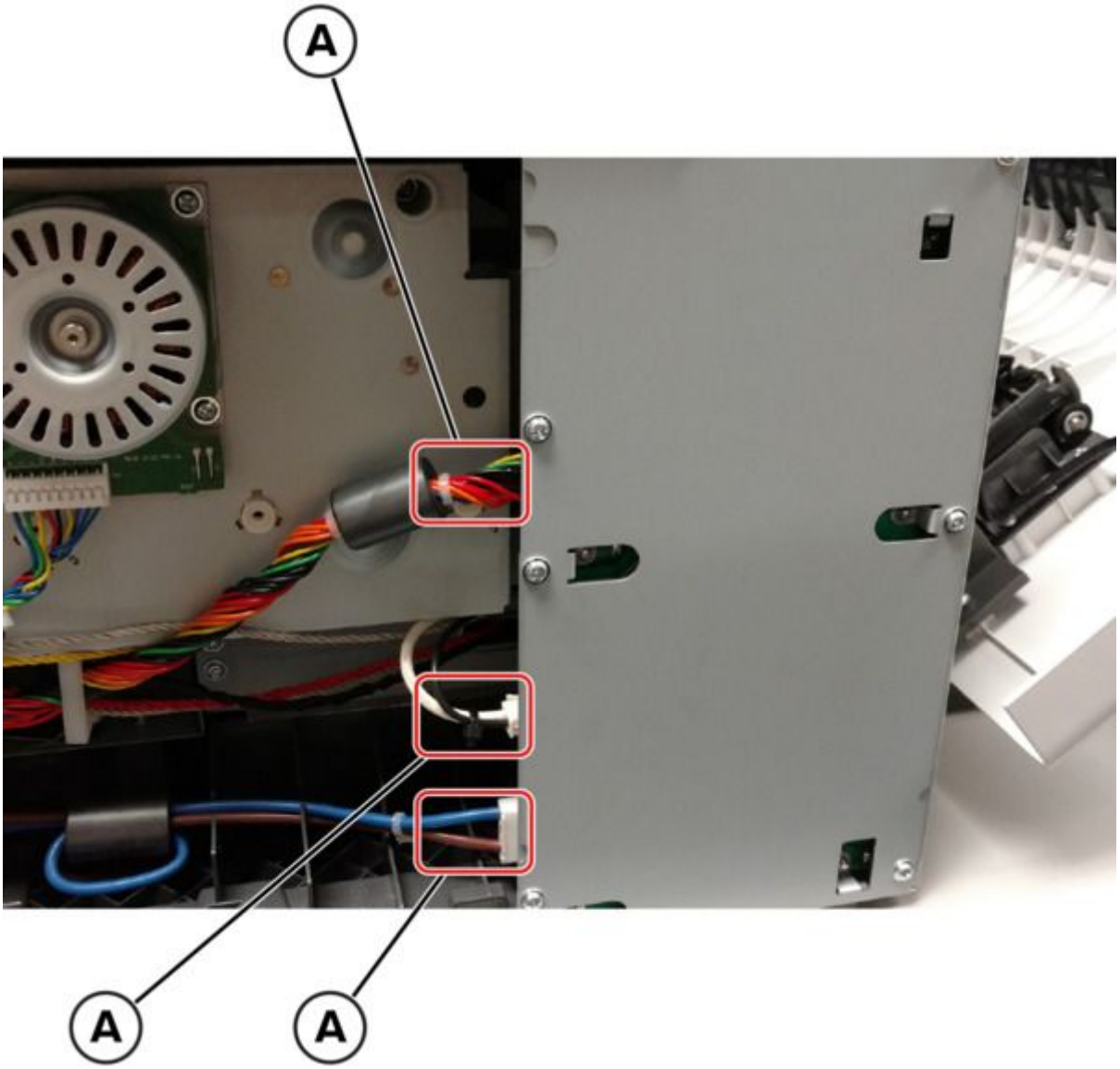
10. Remove the two screws (E).

11. Remove the EP drive.

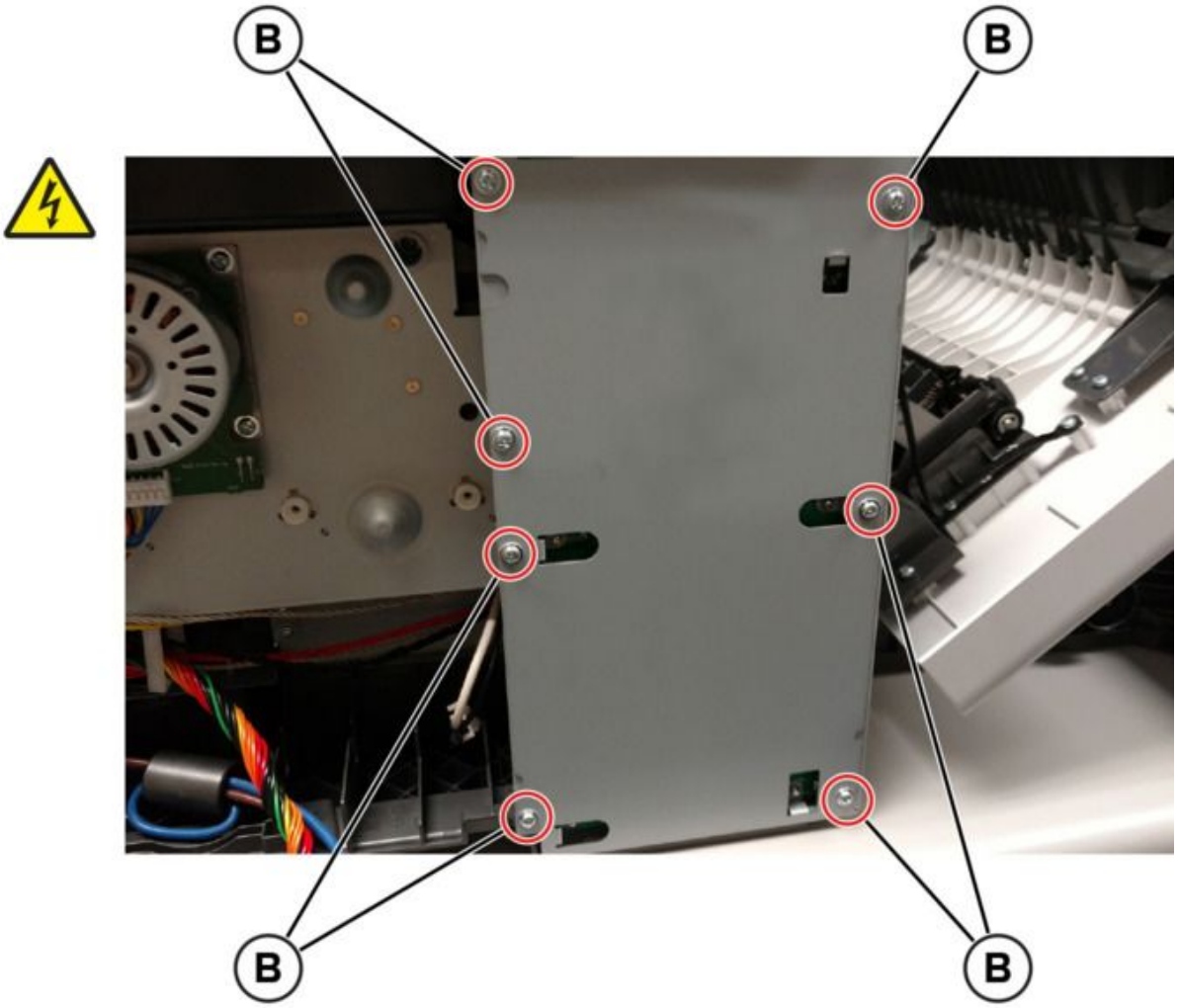
LVPS removal

> **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 238
3. Disconnect the three cables (A).

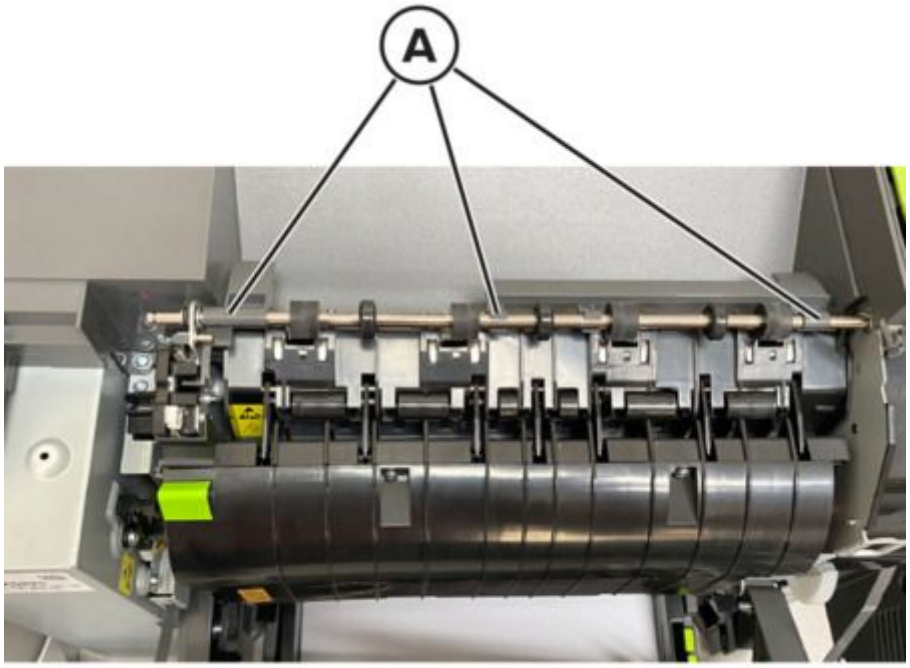


4. Remove the seven screws (B), and then remove the LVPS.

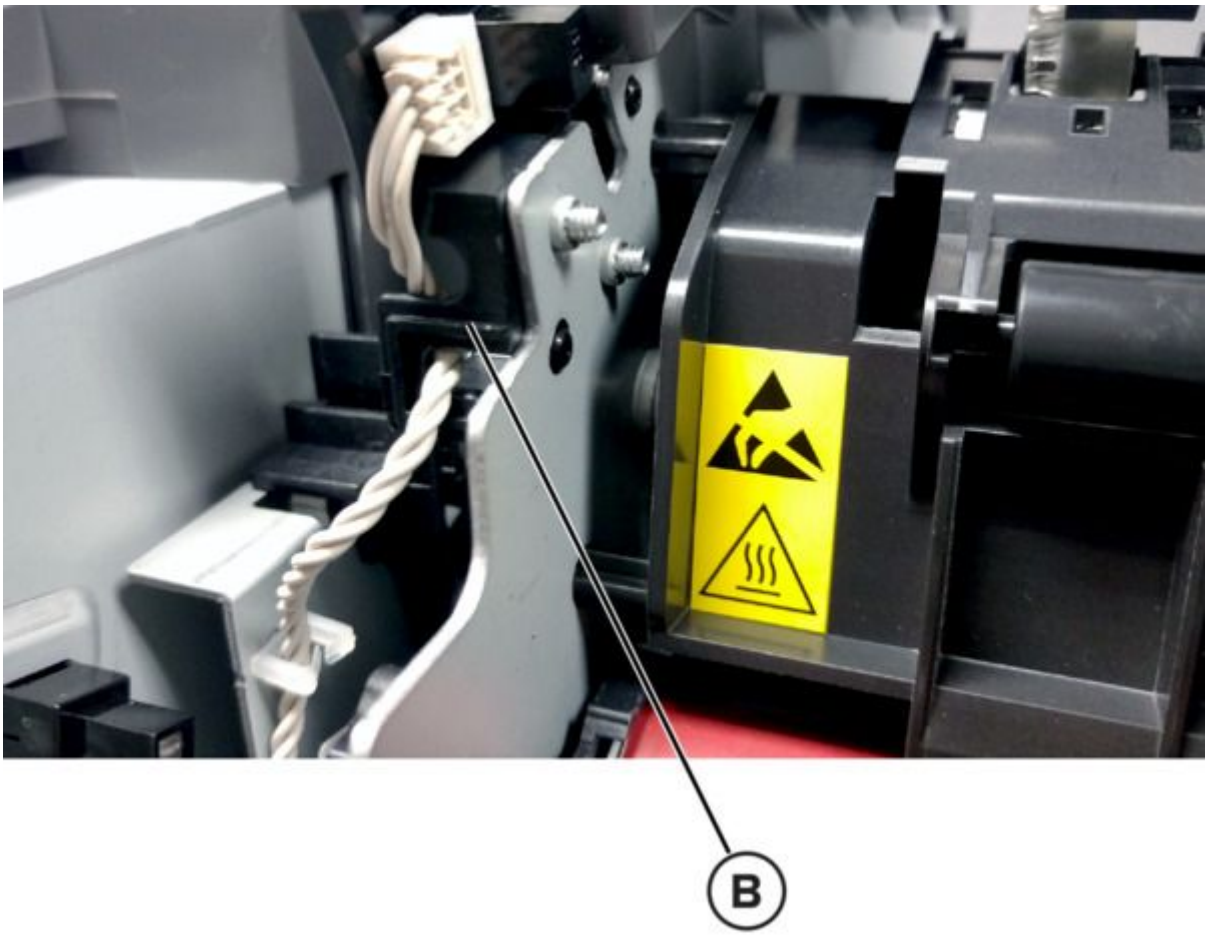


Sensor (fuser exit) removal

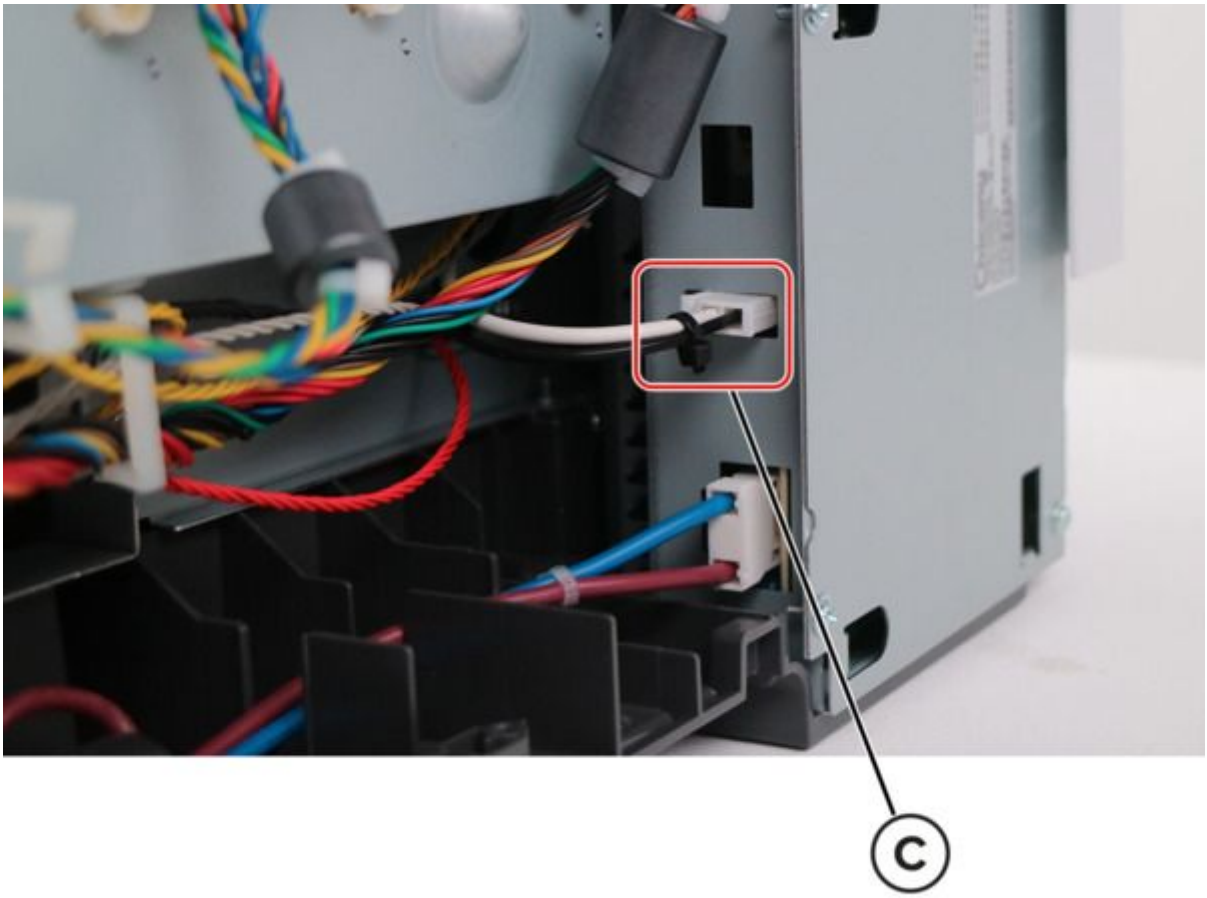
1. Remove the left cover. See Left cover removal on page 238.
2. Press to release the tabs (A), and then rotate the deflector to remove.



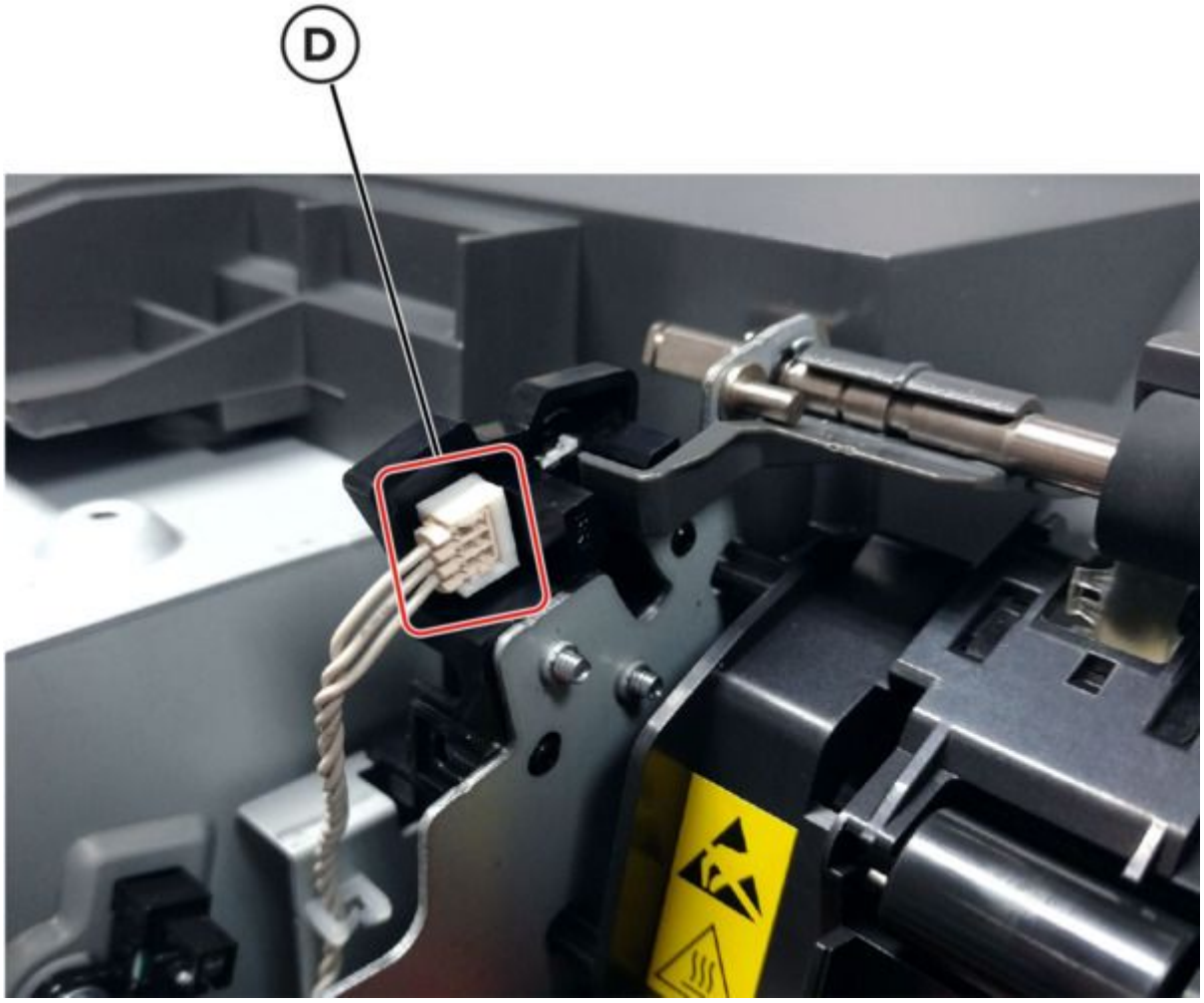
3. Remove the cable from its retainer (B).



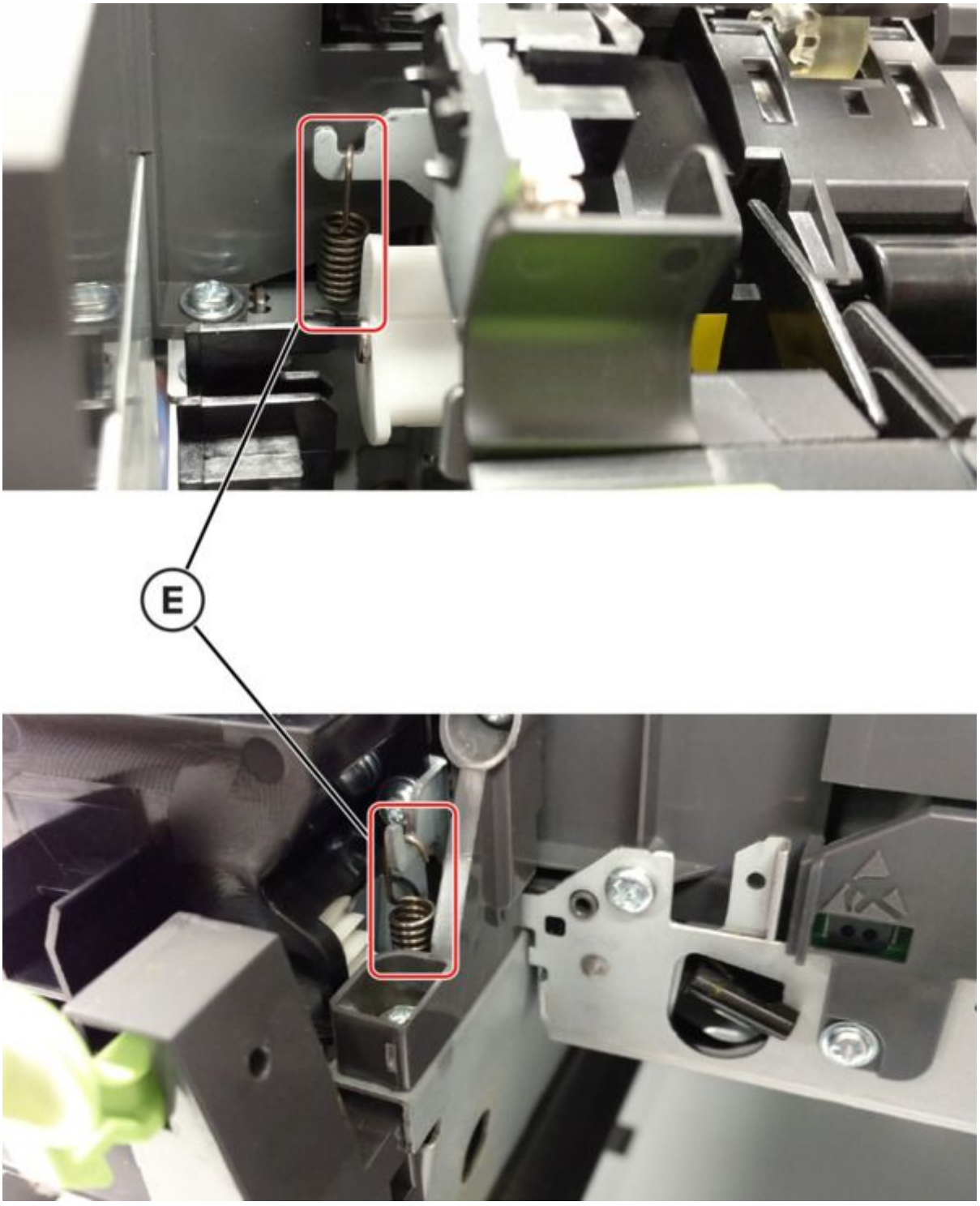
4. Disconnect the cable (C).



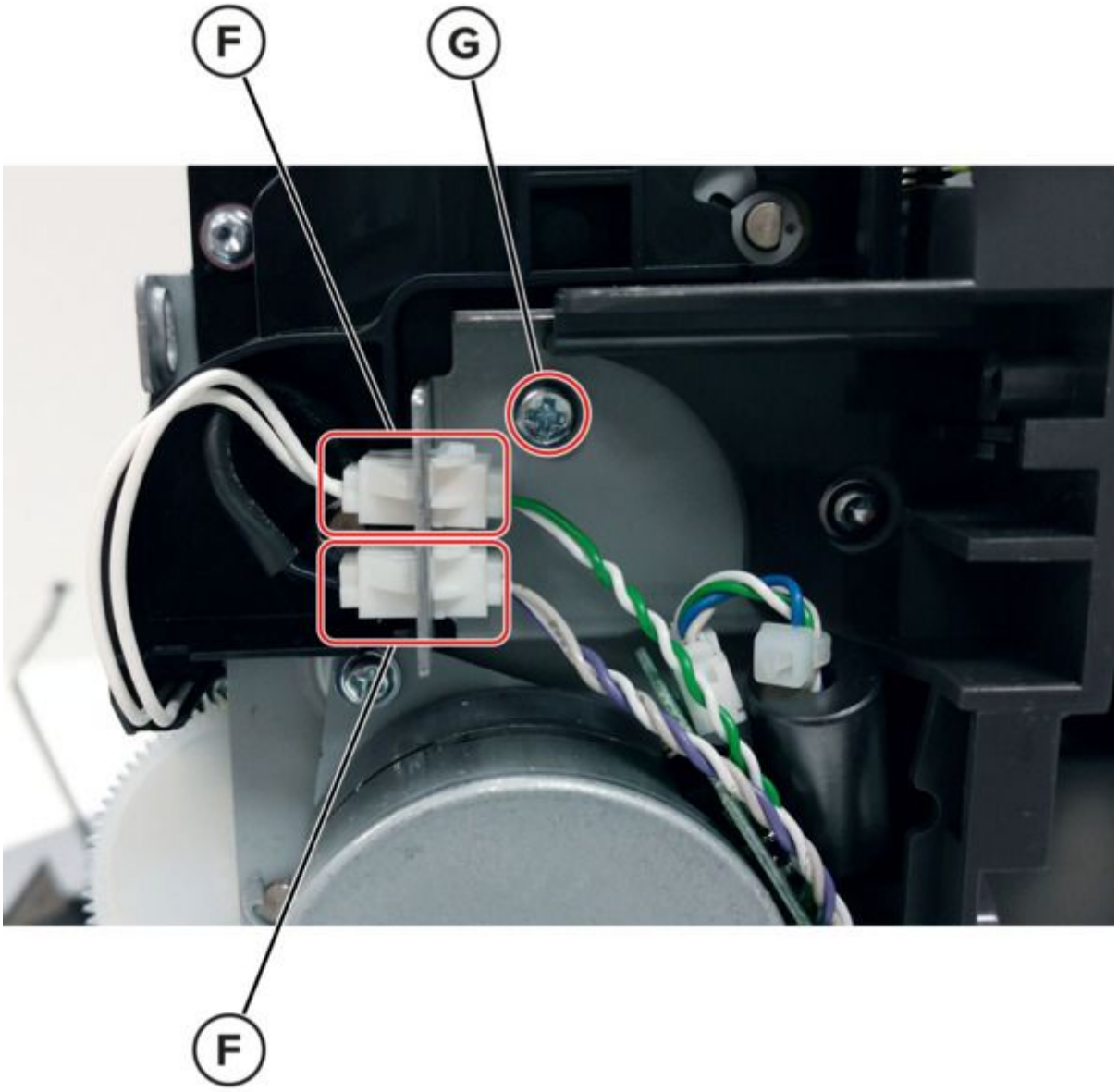
5. Disconnect the cable (D).



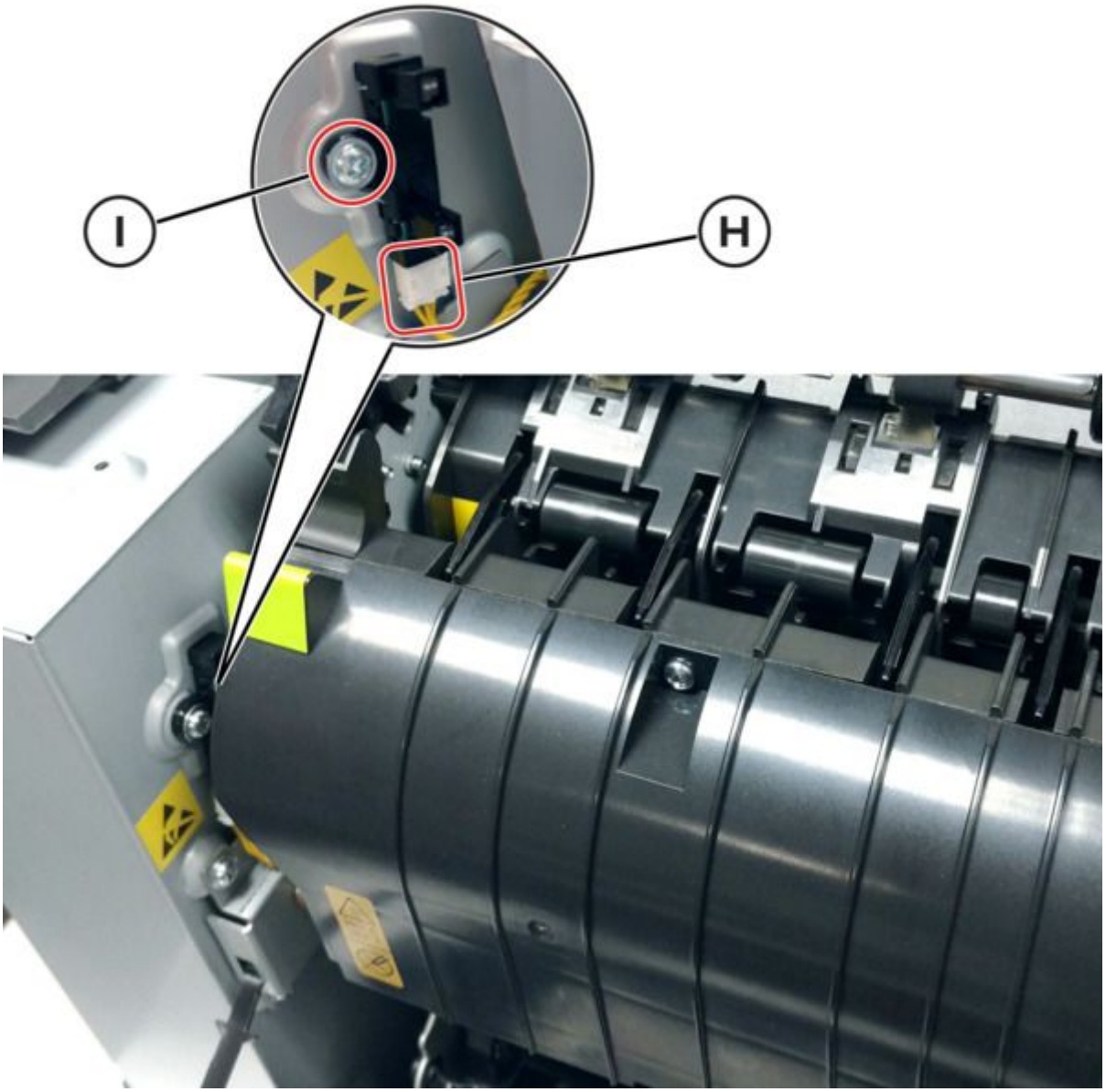
6. Unhook the two springs (E) from both sides of the fuser.



7. Disconnect the two thermistor cables (F), and then remove the screw (G).



8. Rotate the fuser toward the front, disconnect the cable (H), and then remove the screw (I).

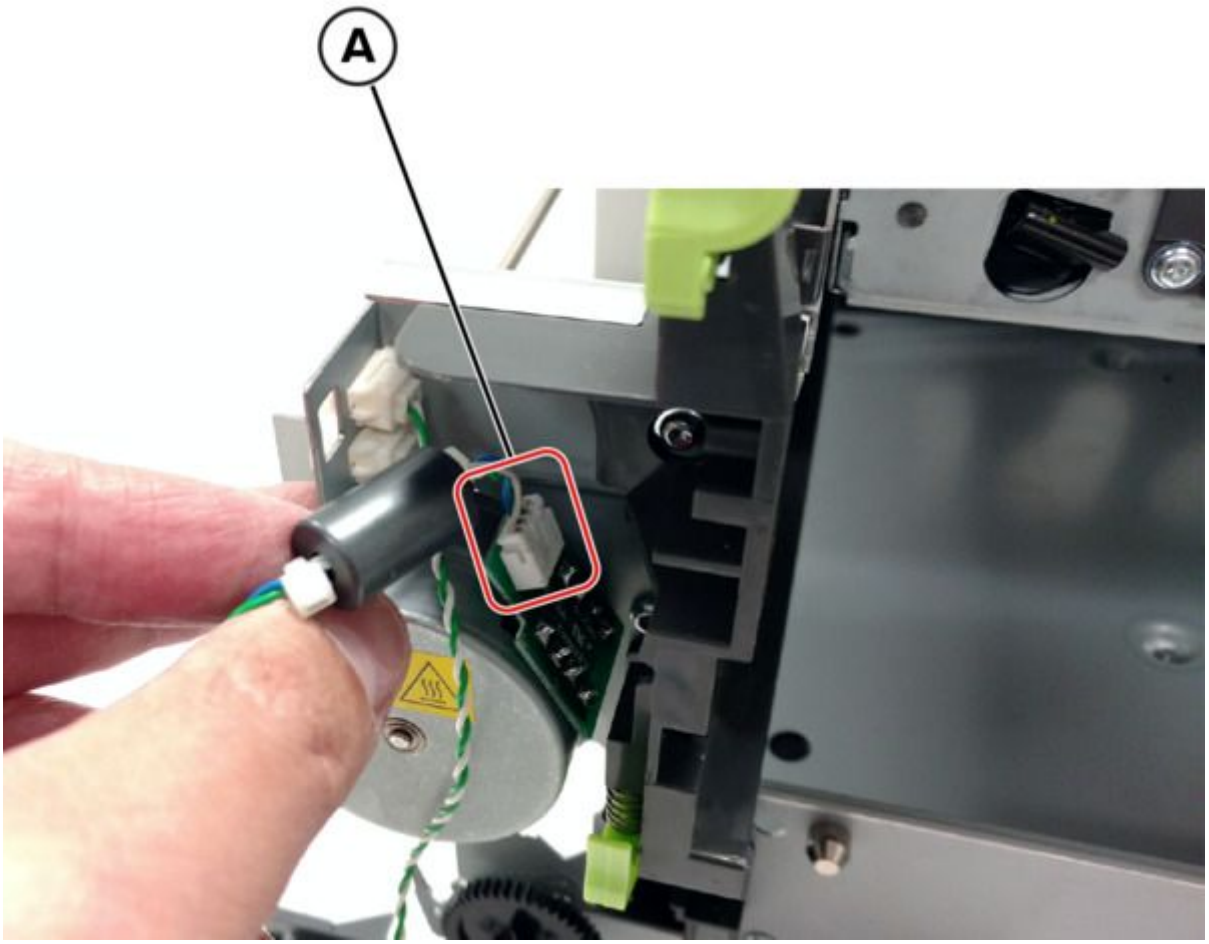


9. Using a flat-head screwdriver, remove the lower end of the sensor, and then gently pull the sensor from the frame.

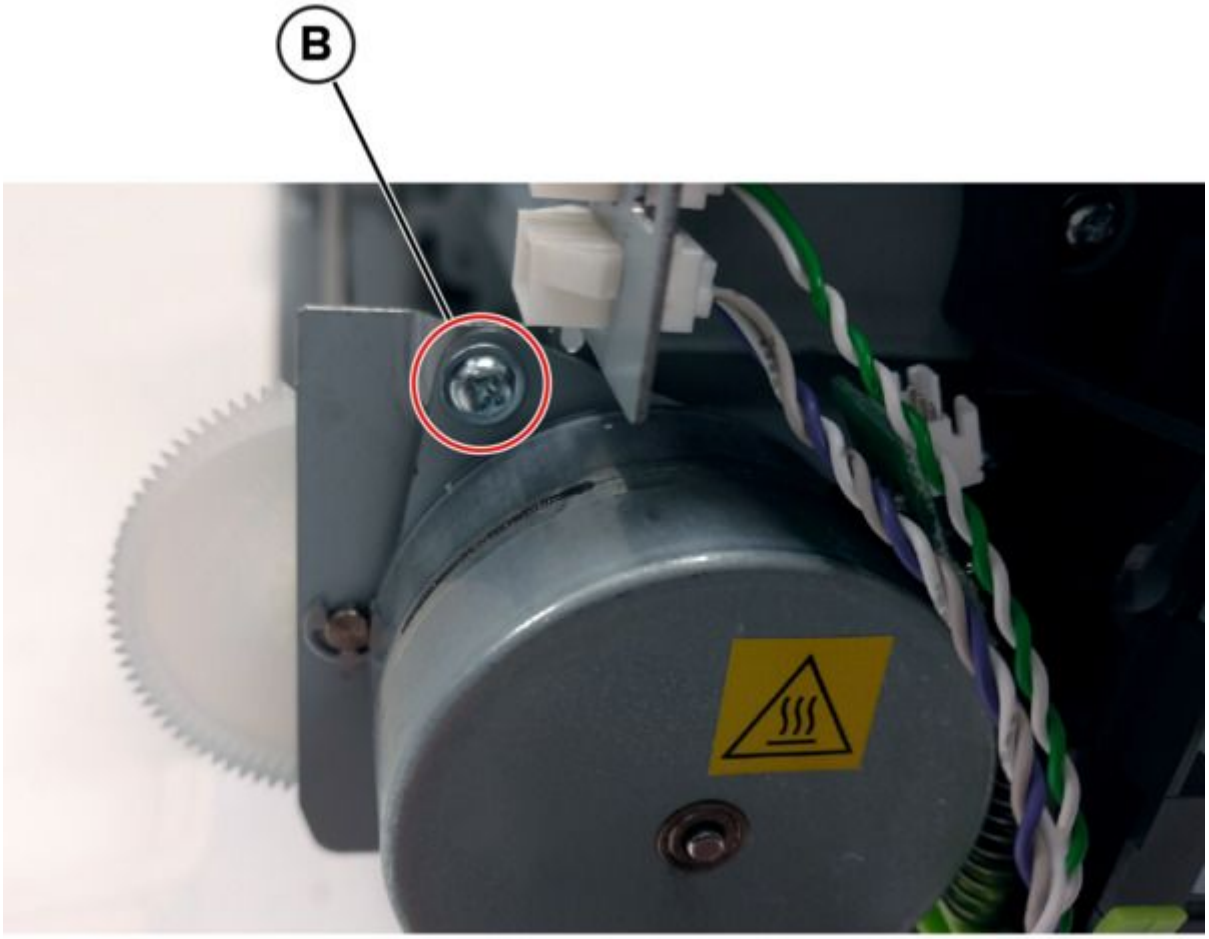
Right side removals

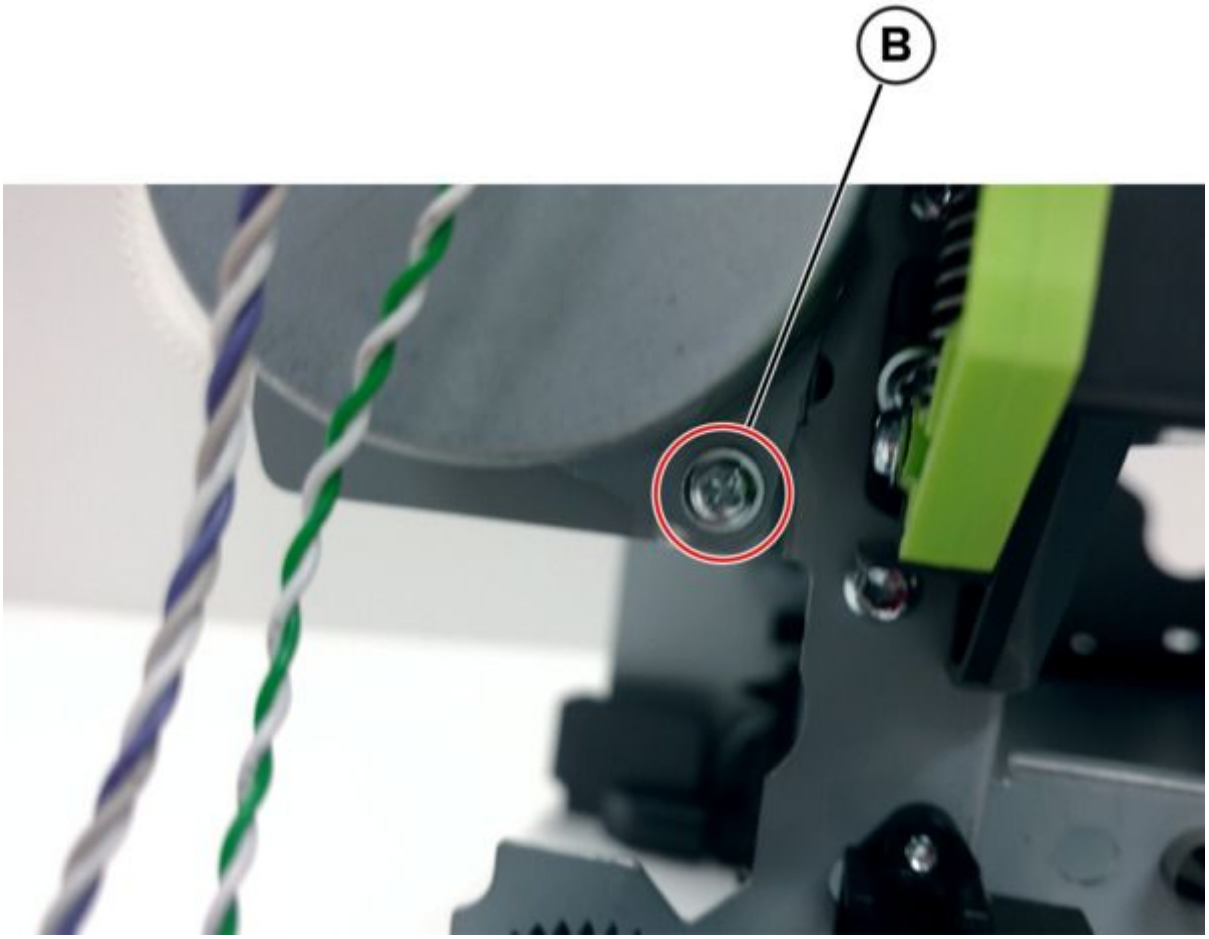
Motor (fuser) removal

1. Remove the right cover.
2. Disconnect the cable (A).



3. Remove the two screws (B), and then remove the motor.

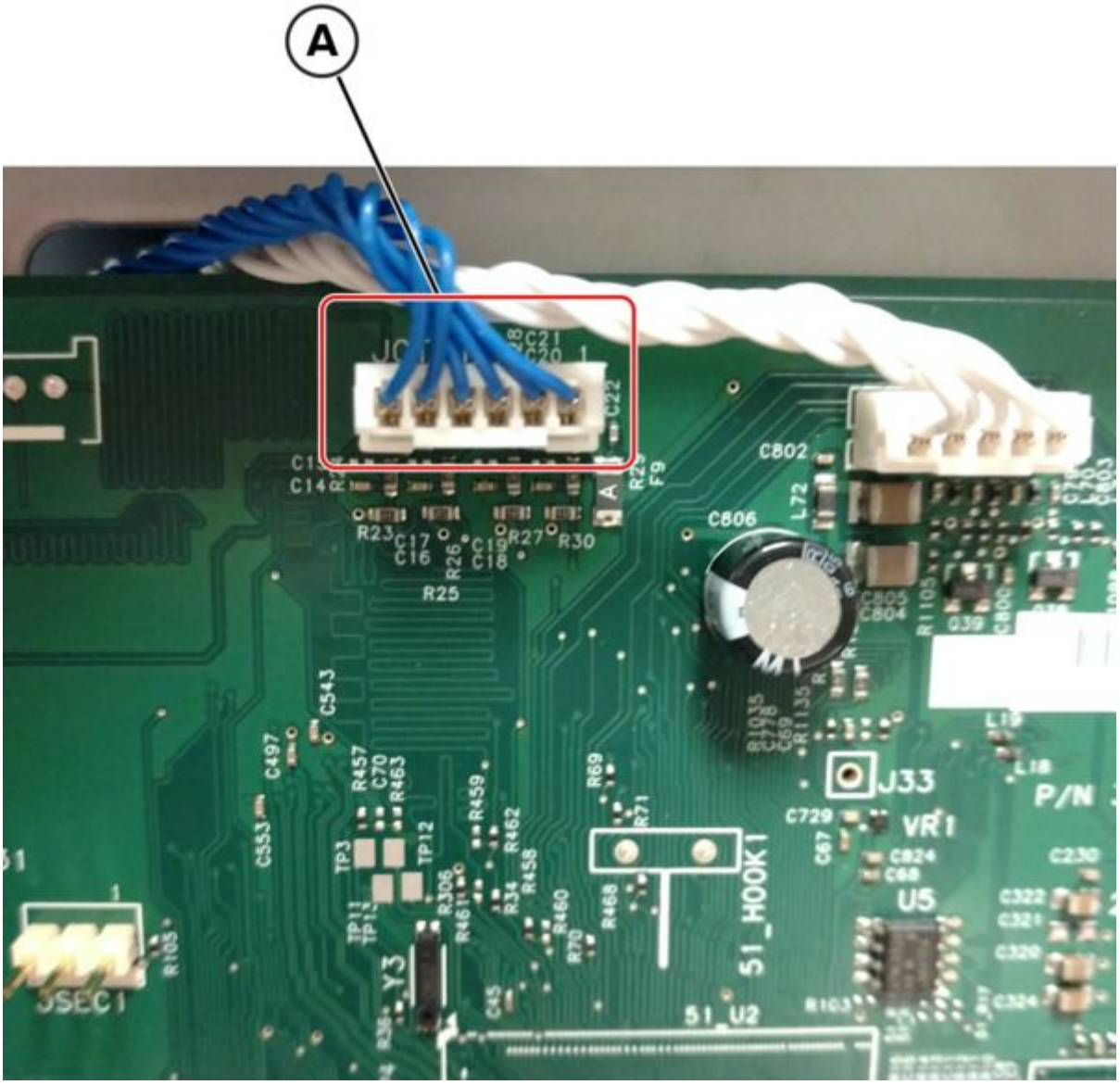

B


B

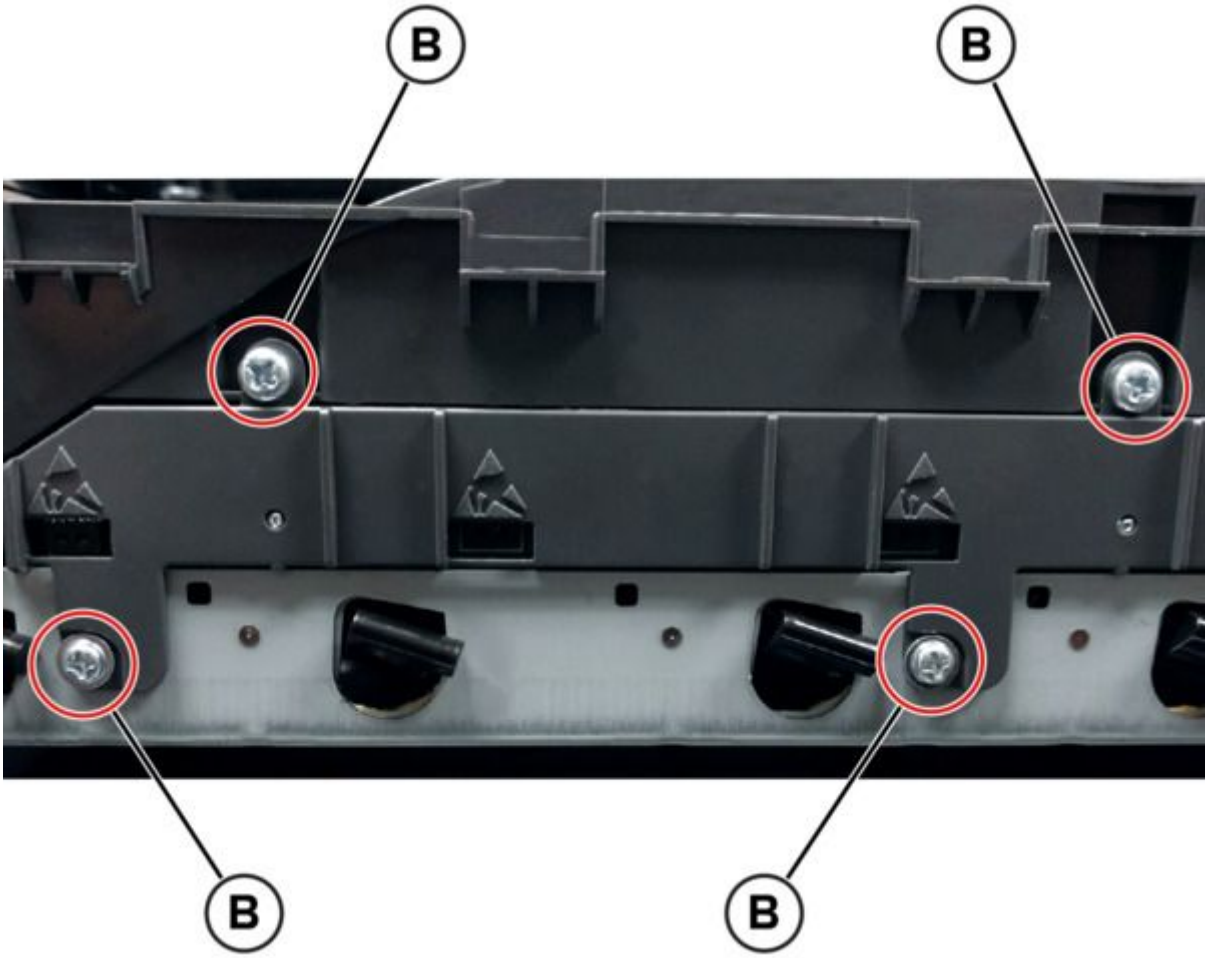
Toner meter card removal

1. Remove the imaging kit. See Imaging kit removal on page 269.
2. Remove the rear cover.
3. Disconnect the cable (A), and then push the TMC card cable through the frame opening.

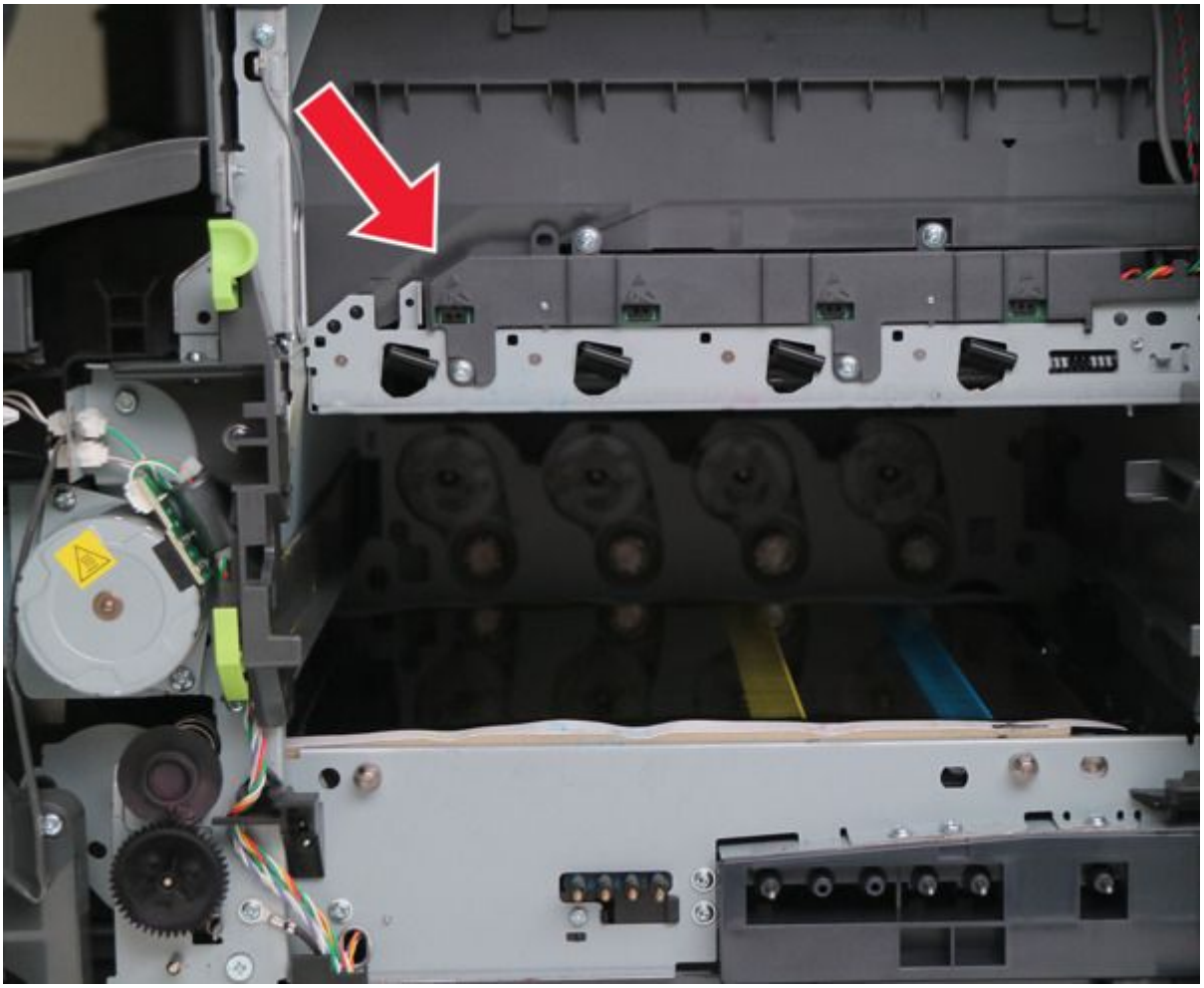
> **Notes**
> Pay attention to the cable routing.



4. Remove the four screws (B).

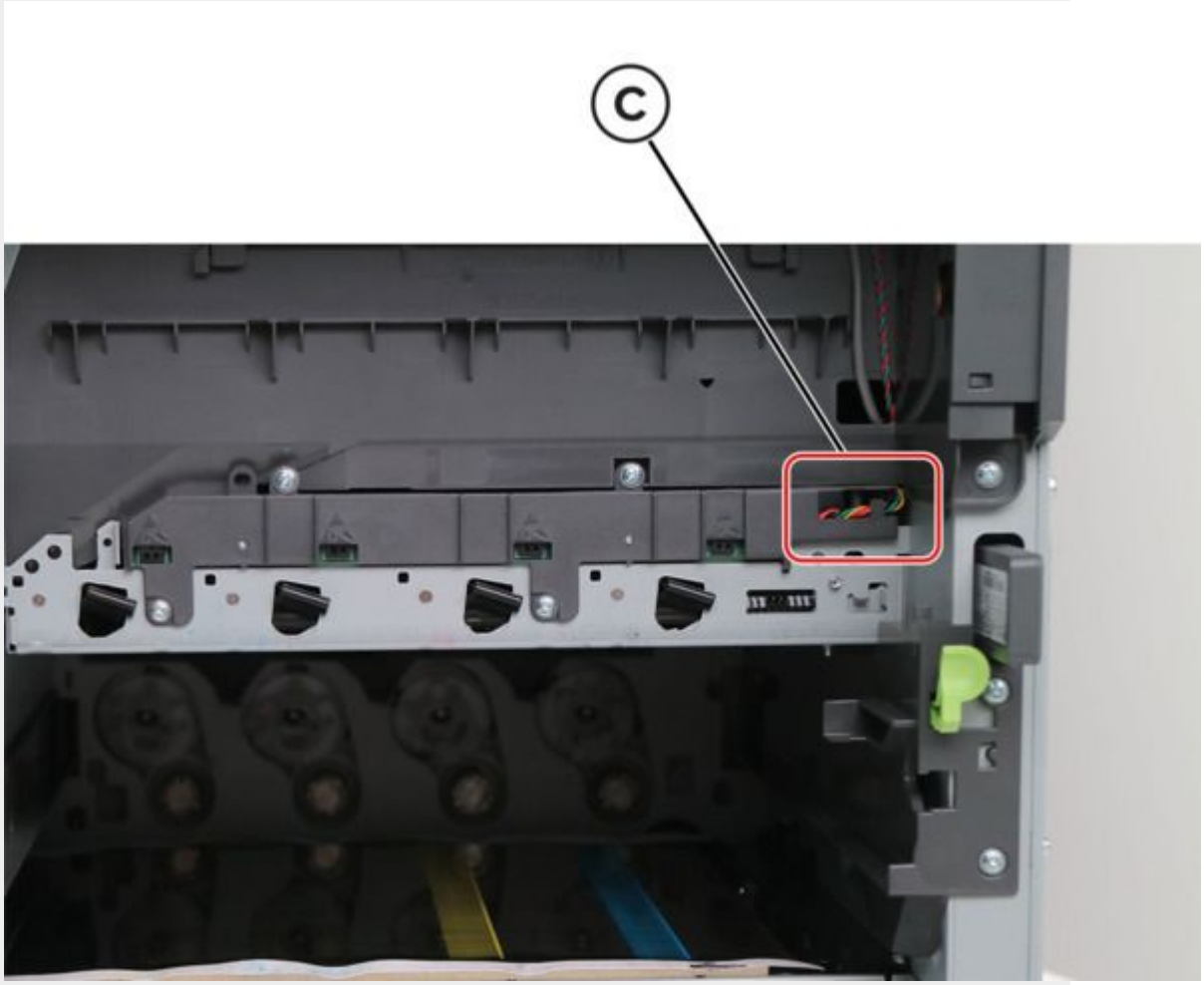


5. Insert a flat-head screwdriver into the left side of the frame, and then pry the card loose to remove it.



Installation Note

- Make sure to run the cable (C) through the retainer.

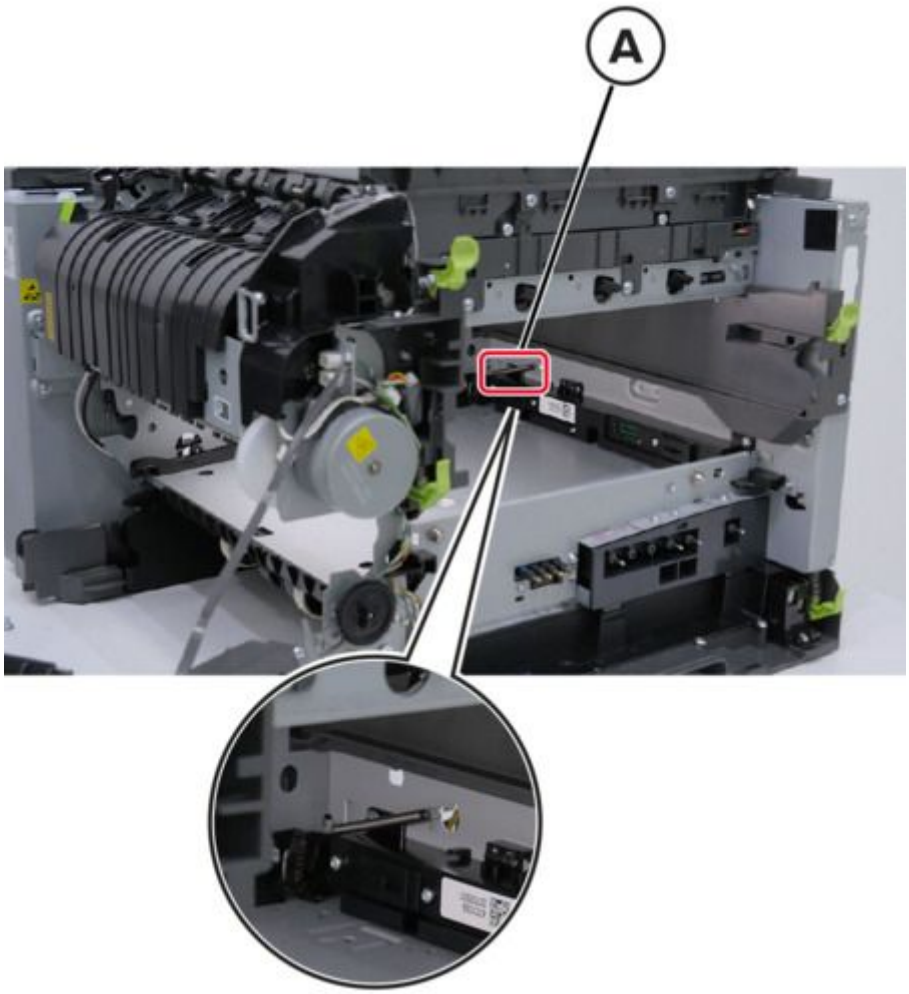


- The TMC card is a tight fit. Insert the bottom edge inside the frame first, and then push down on the top edge to clear the top cover.

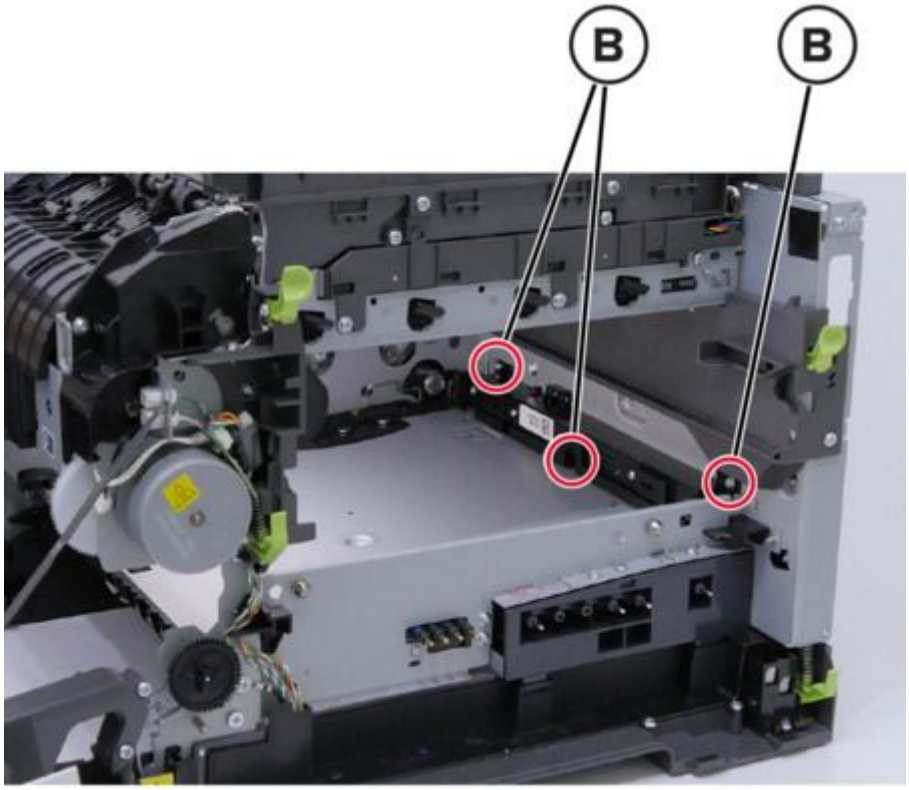
Sensor (toner patch) removal

Notes
For a video demonstration, see Sensor (toner patch) removal.

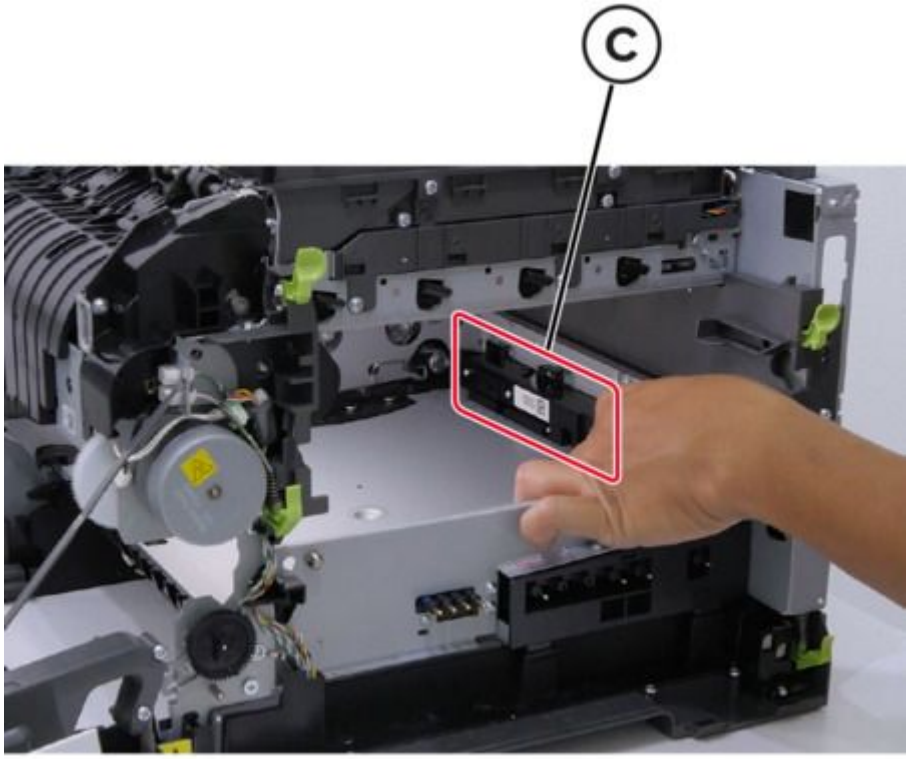
1. Remove the transfer module. See Transfer module removal on page 303.
2. Remove the spring (A).



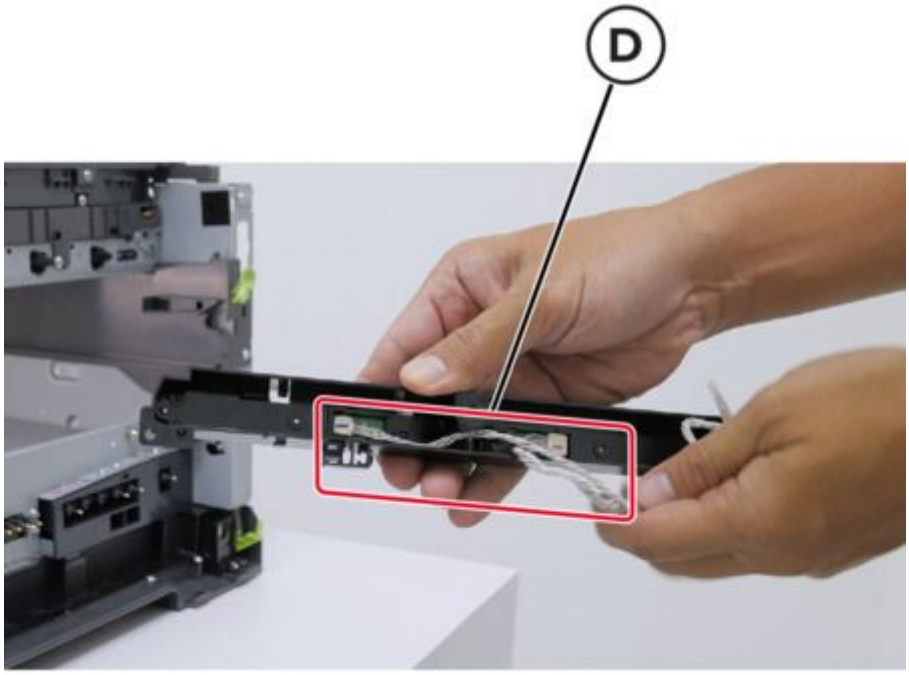
3. Remove the three screws (B).



4. Remove the sensor (toner patch) (C).



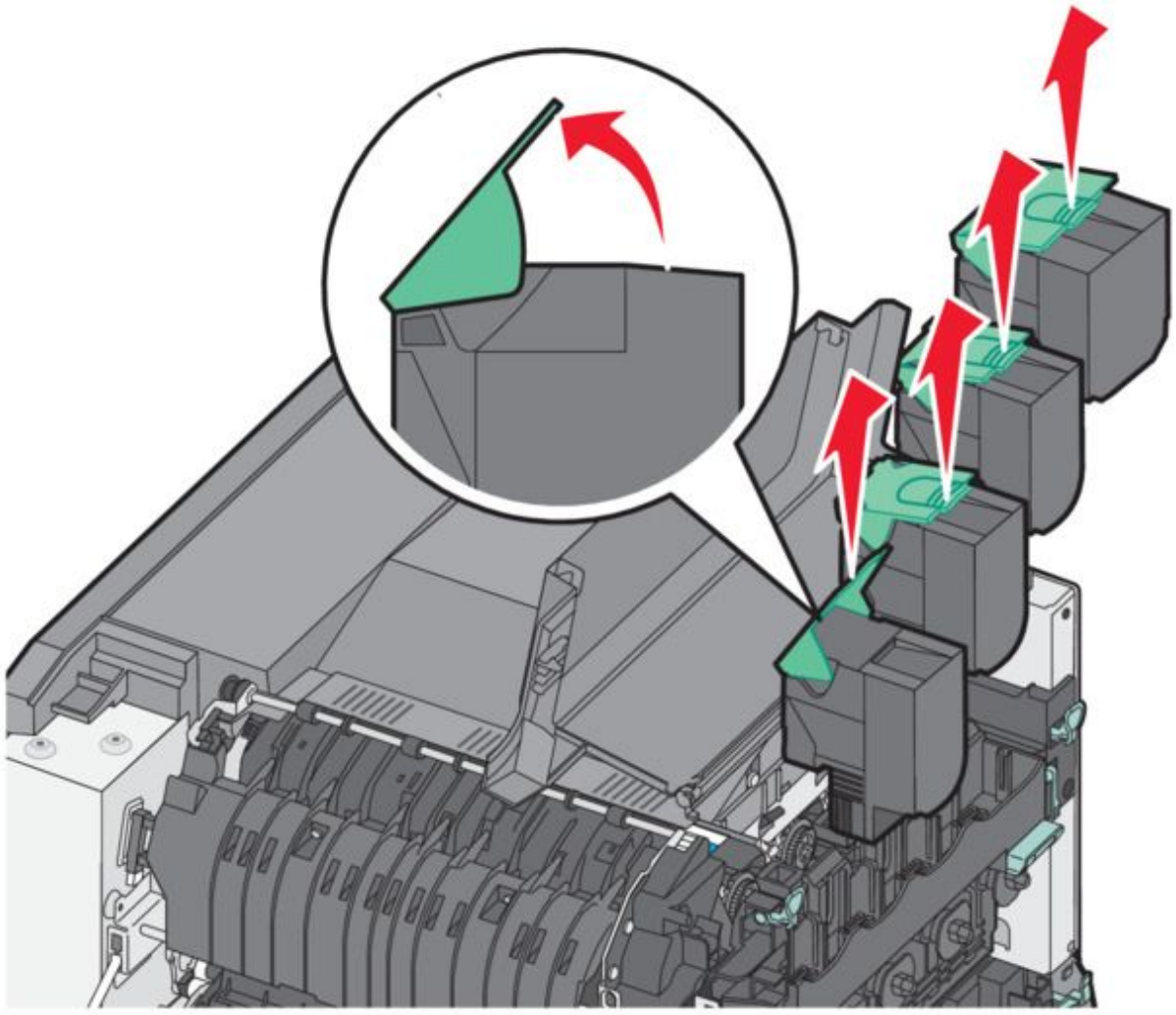
5. Disconnect the connector, and then unroute the cable (D).



Developer unit removal

> **Notes**
> The developer units are not FRUs.

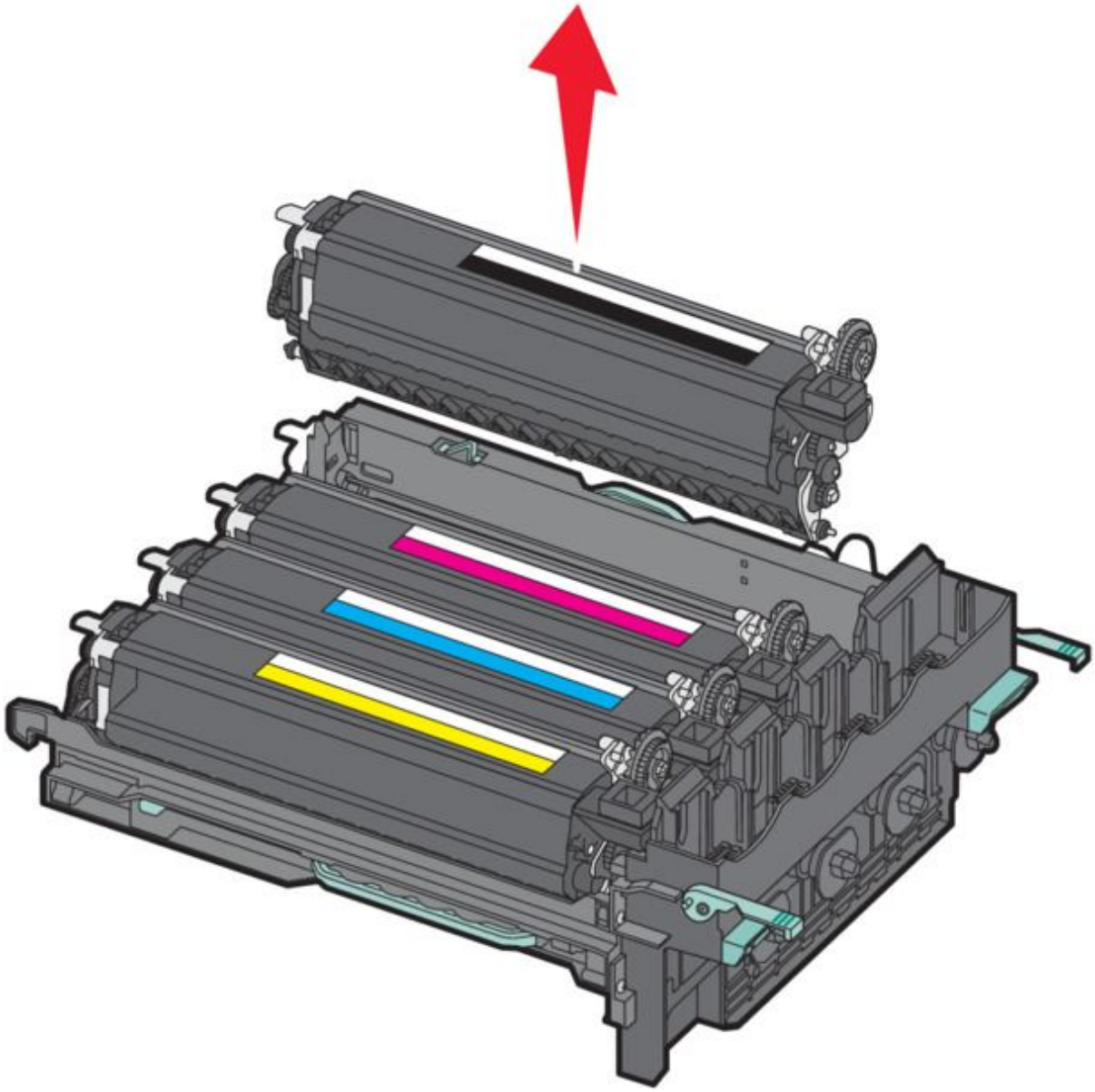
1. Open the toner access door.
2. Remove the toner cartridges.



3. Remove the imaging kit. See Imaging kit removal on page 269.

> **Warning—Potential Damage**
> Do not touch the underside of the imaging kit.

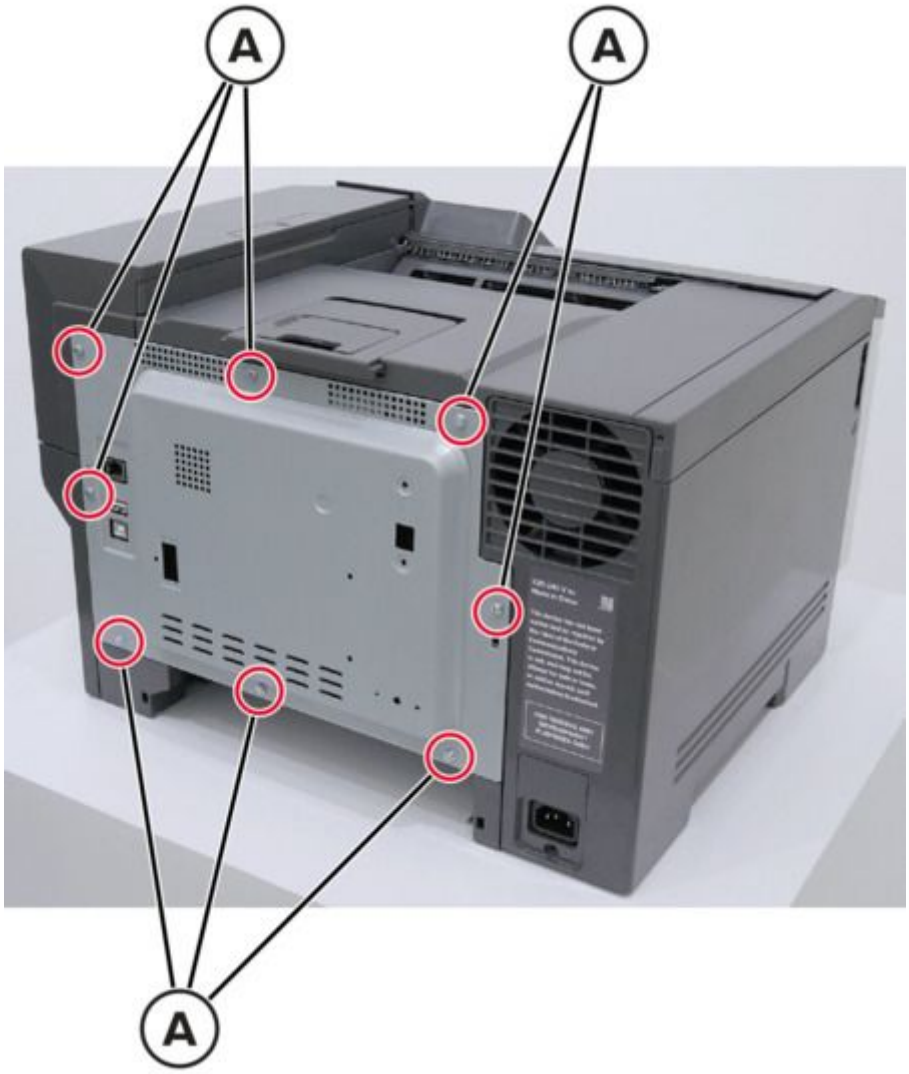
4. Remove the developer unit.



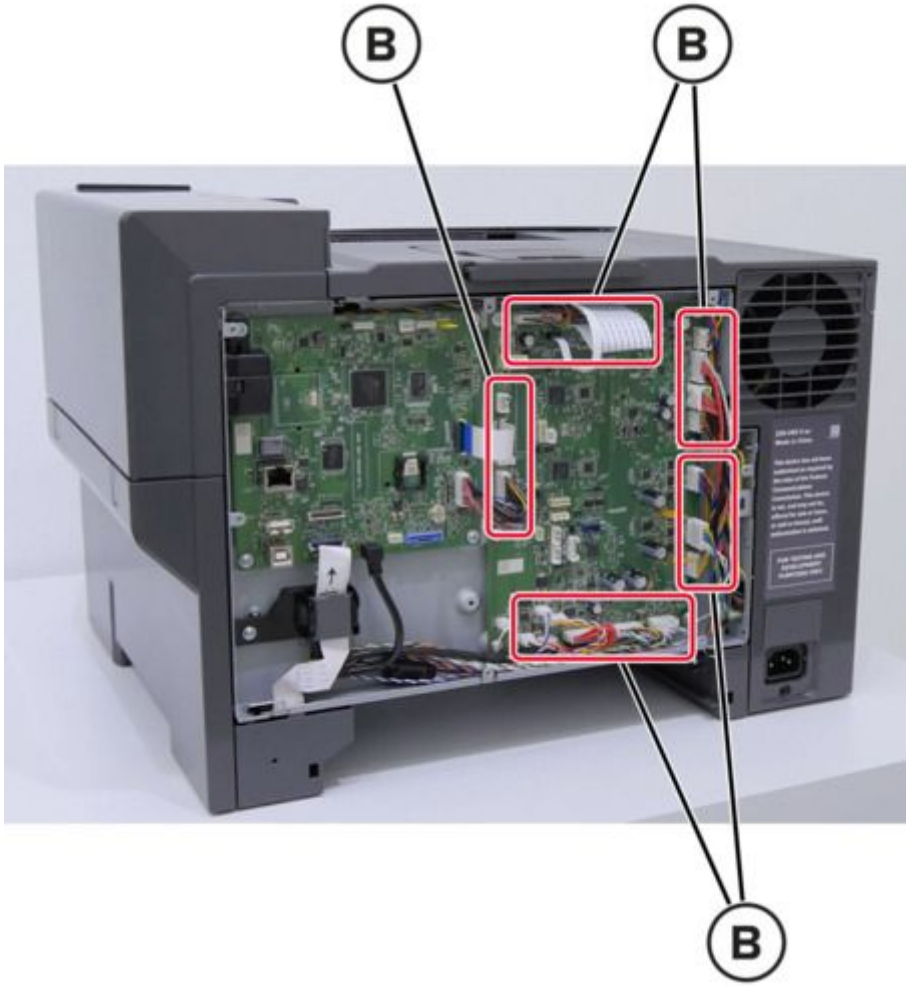
HVPS removal

Notes
For a video demonstration, see HVPS removal.

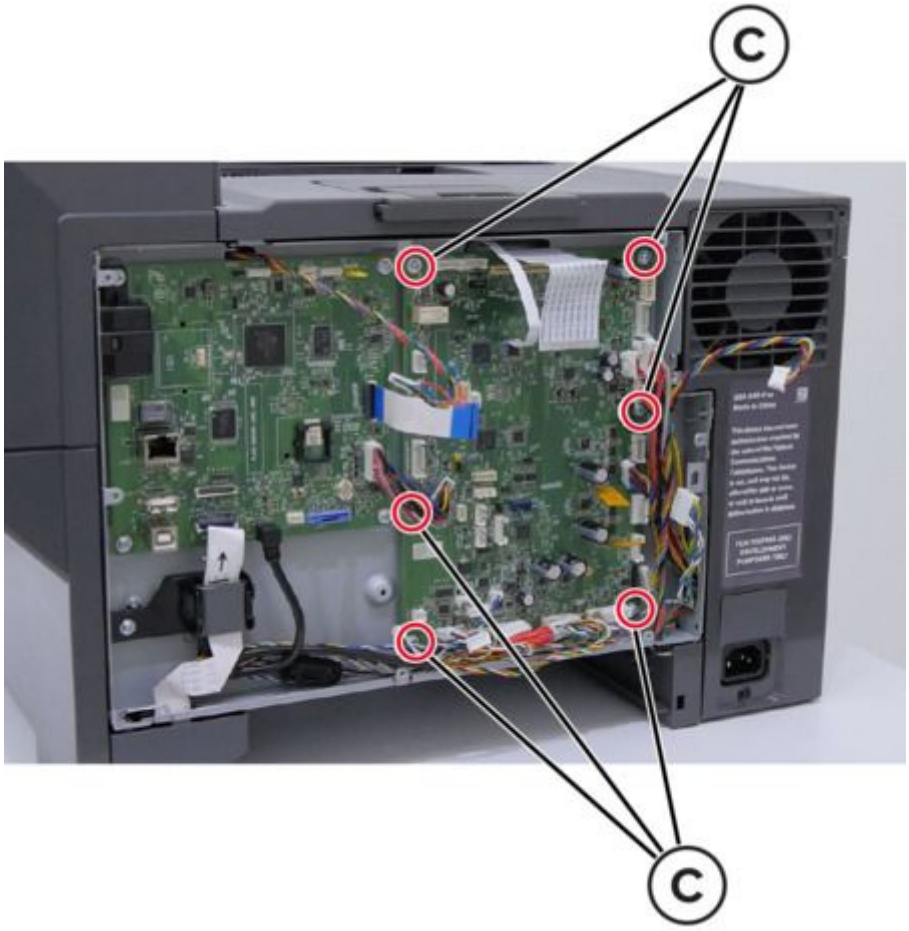
1. Remove the eight screws (A), and then remove the rear cover.



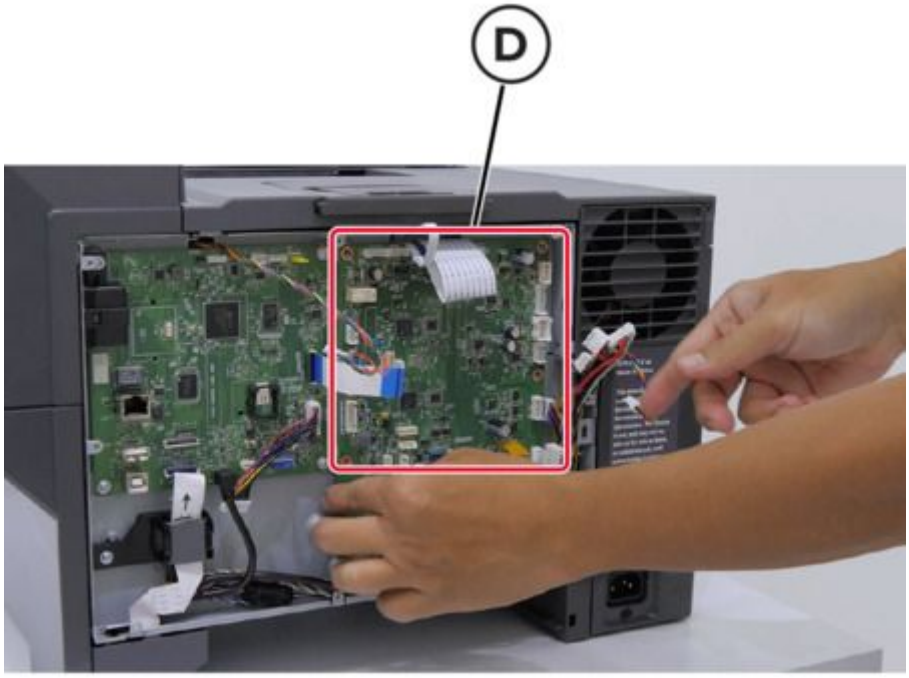
2. Disconnect all the connectors (B).



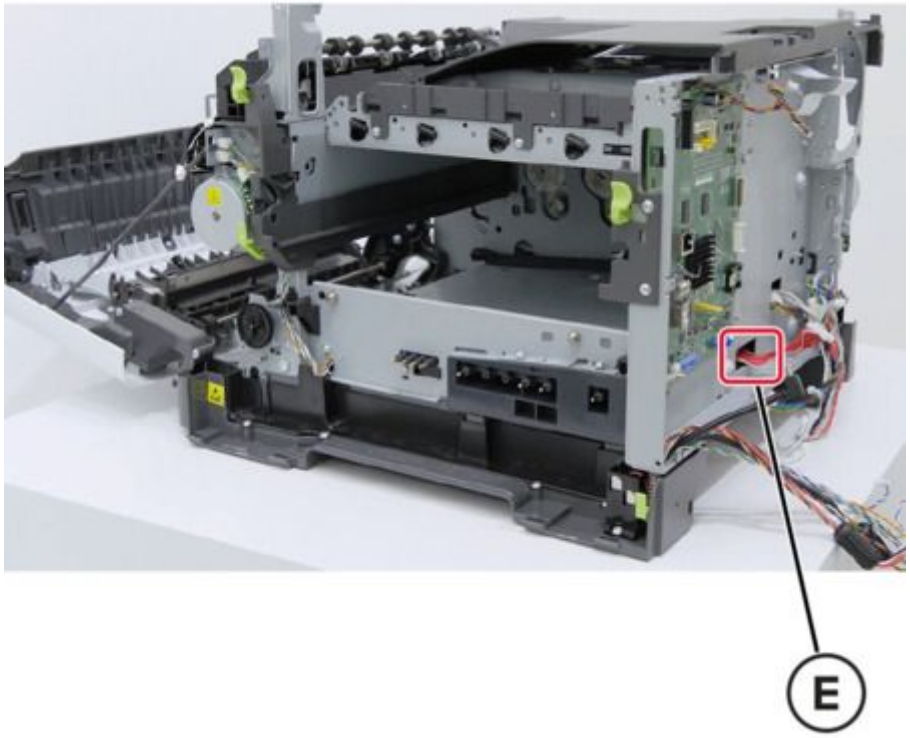
3. Remove the six screws (C).



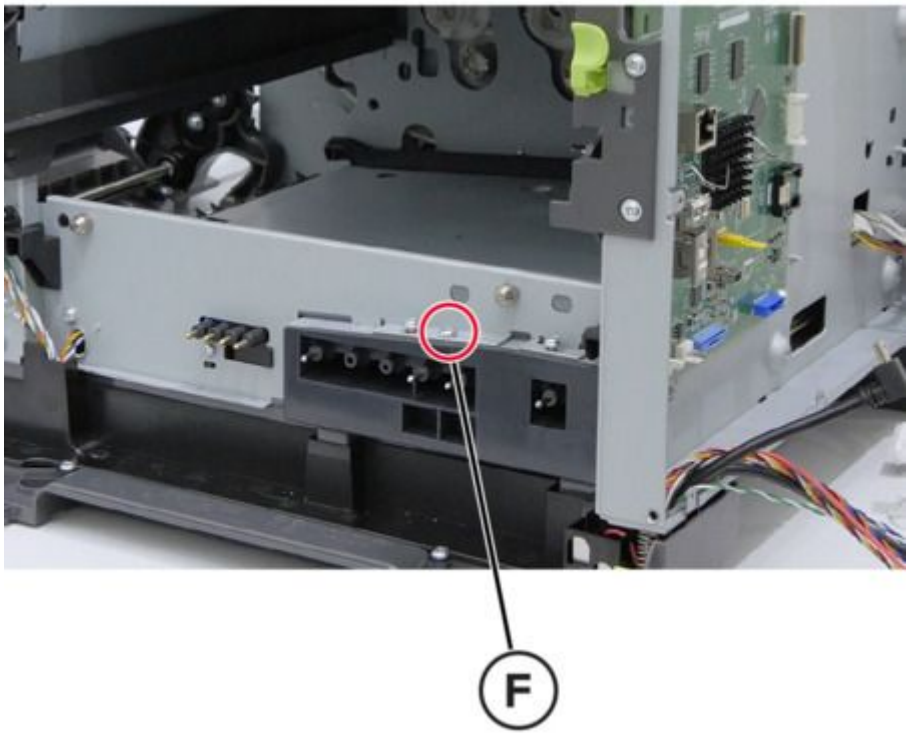
4. Remove the engine board (D).



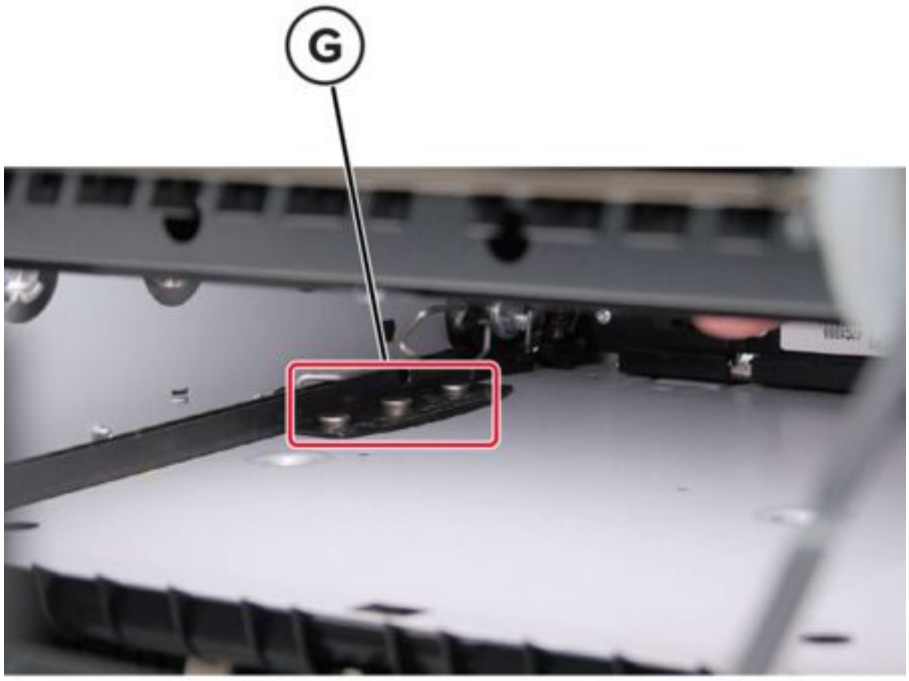
5. Remove the transfer module. See Transfer module removal on page 303.
6. Disconnect the connector (E).



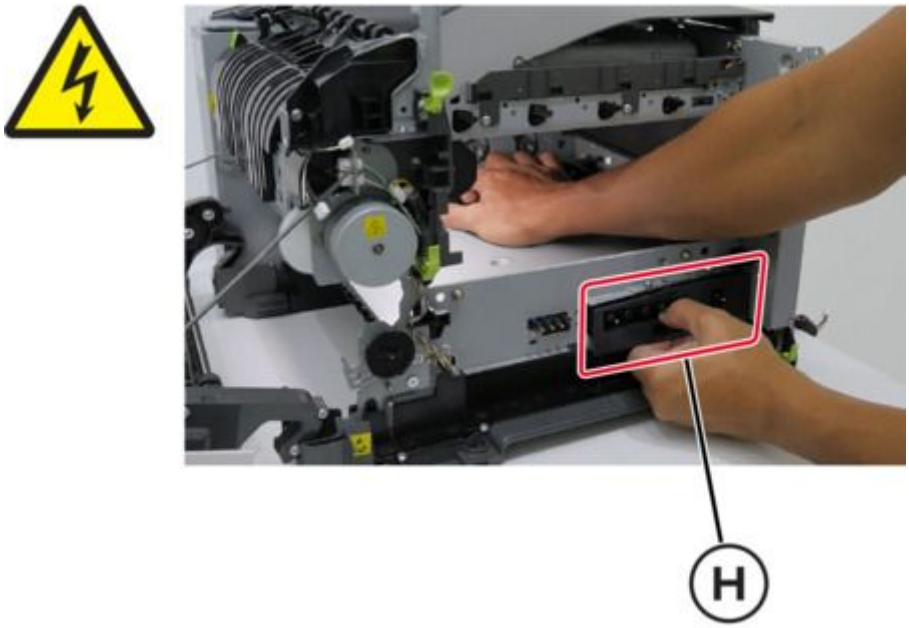
7. Remove the screw (F).



8. Press and hold the three transfer module contacts (G).



9. While pressing on the contacts, carefully pull out the HVPS (H).



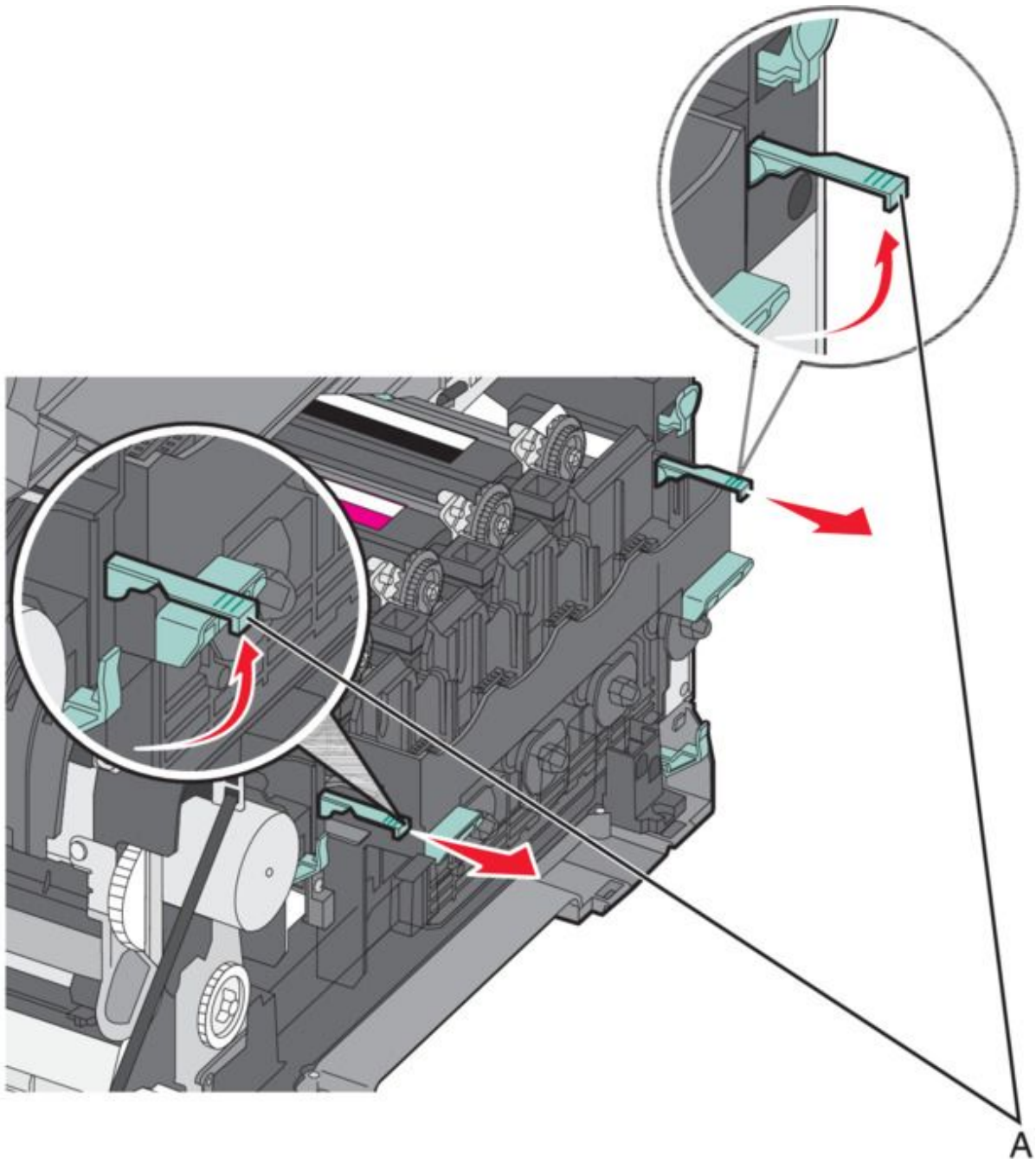
Installation Note
To avoid breaking the HVPS, slowly insert it during installation.

Imaging kit removal

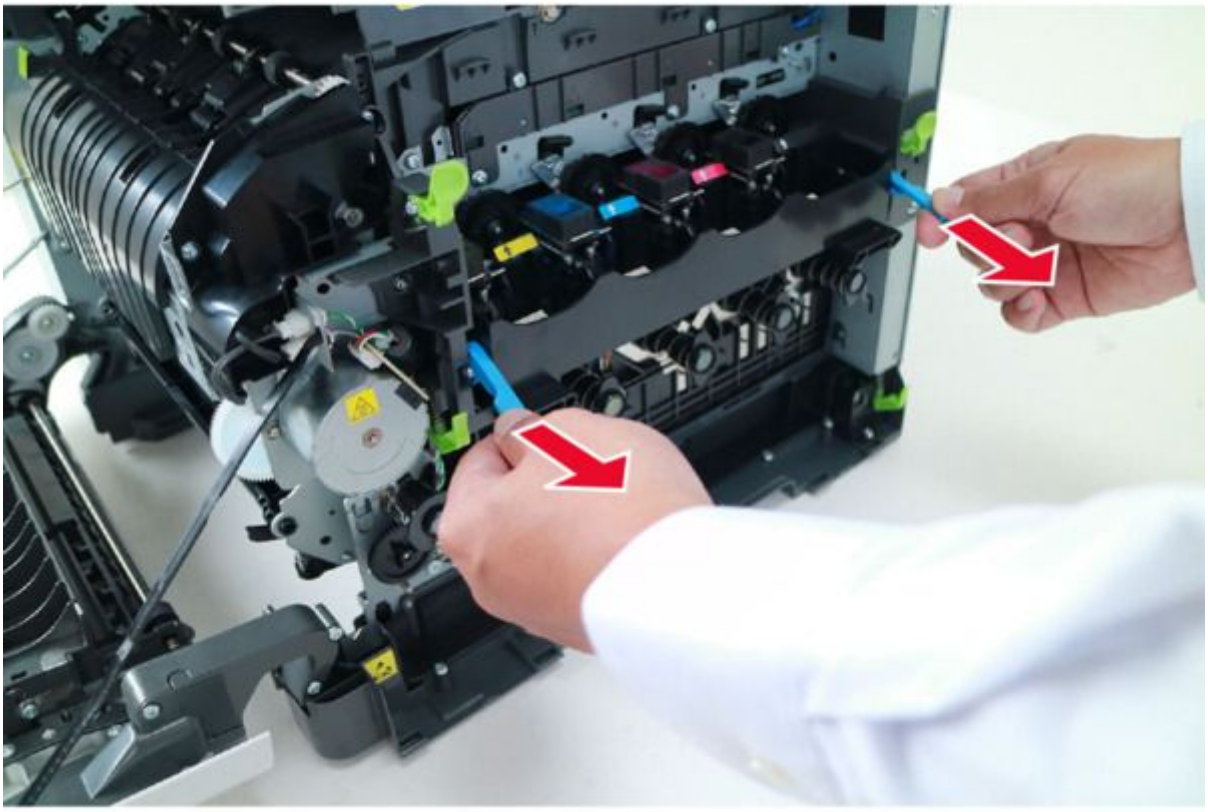
Notes
This is not a FRU.

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 275
2. Remove the toner cartridges.
3. Lift the two latches (A) to unlock the imaging kit.

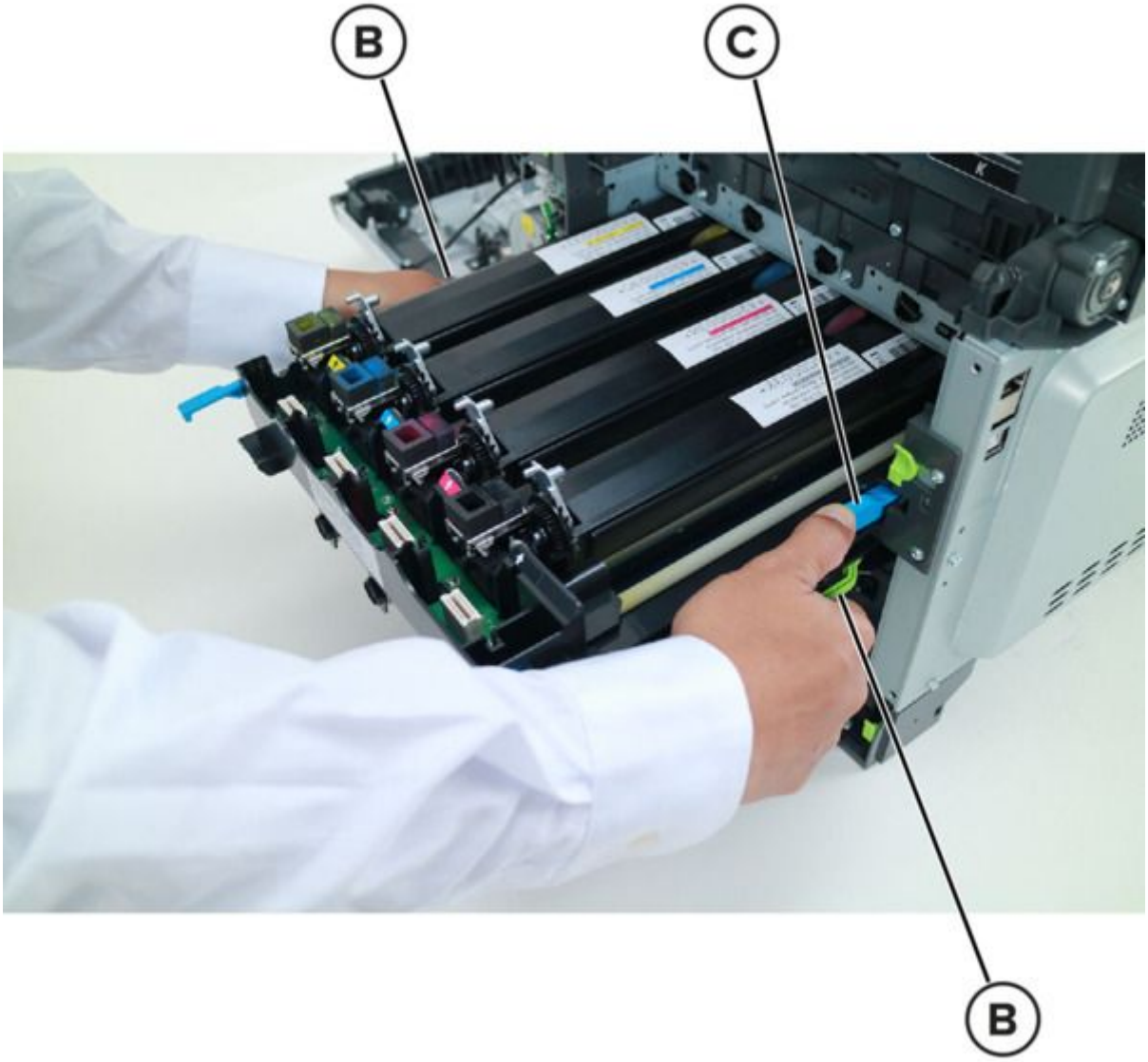


4. Pull the two latches.



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.

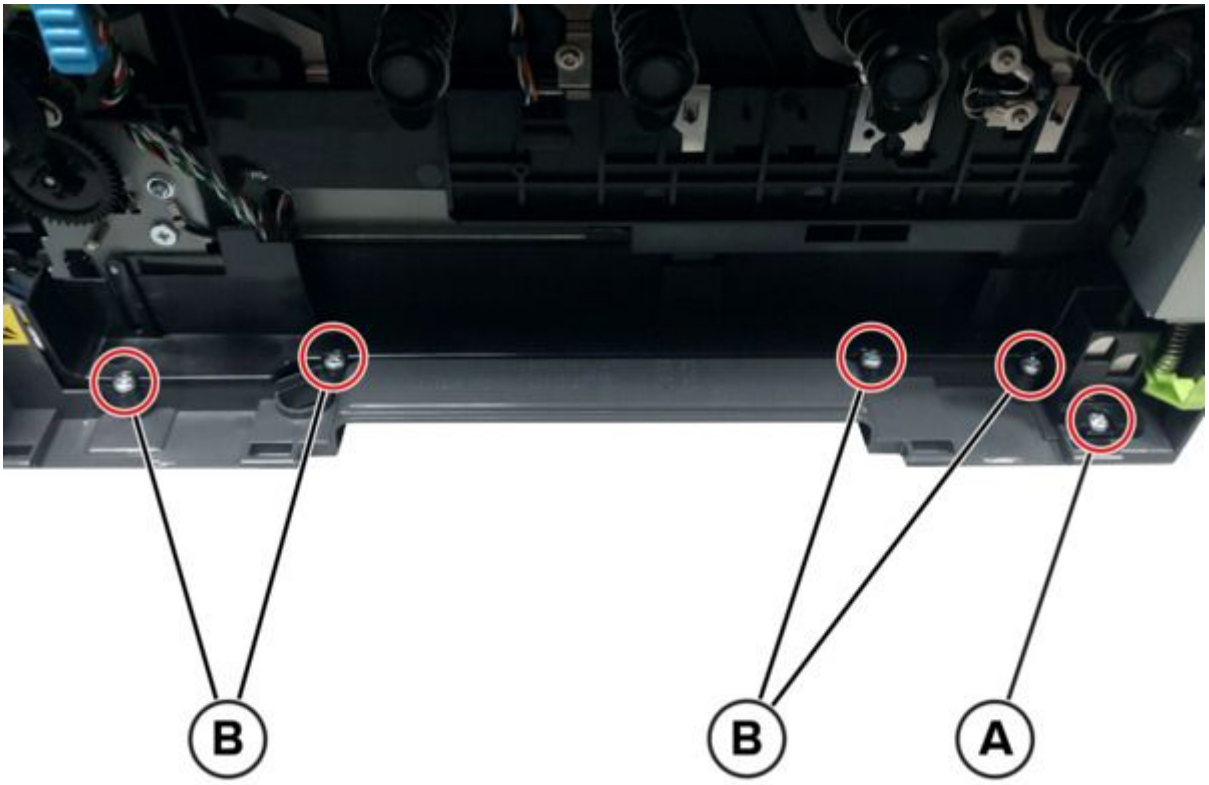


Toner cartridge contacts removal

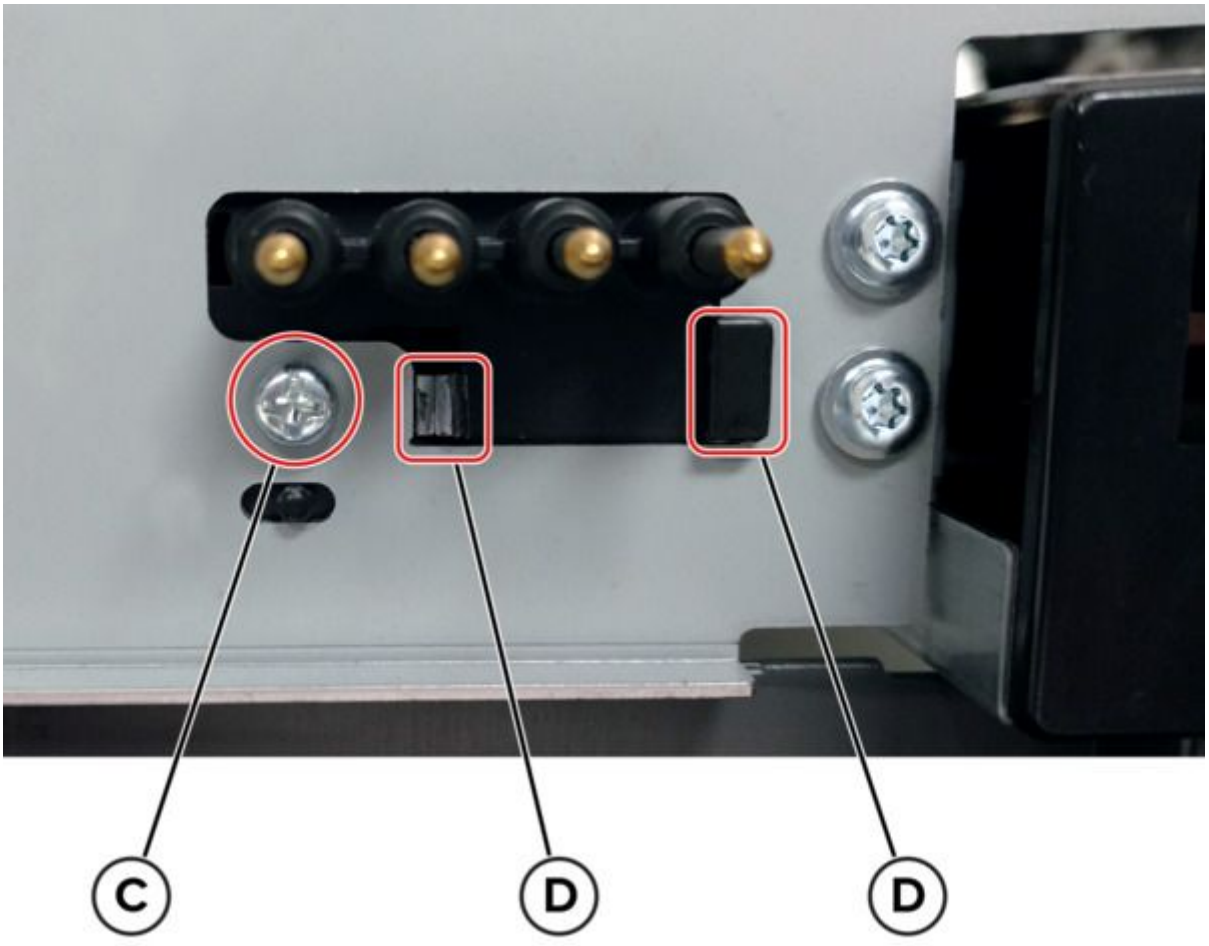
1. Remove the right cover.
2. Remove the waste toner bottle. See Waste toner bottle removal on page 275.
3. Remove the imaging kit. See Imaging kit removal on page 269.
4. Remove the rear cover.
5. Remove the screw (A) to allow access to the cable cover.

> **Notes**
> Do not remove the waste toner bottle contact block.

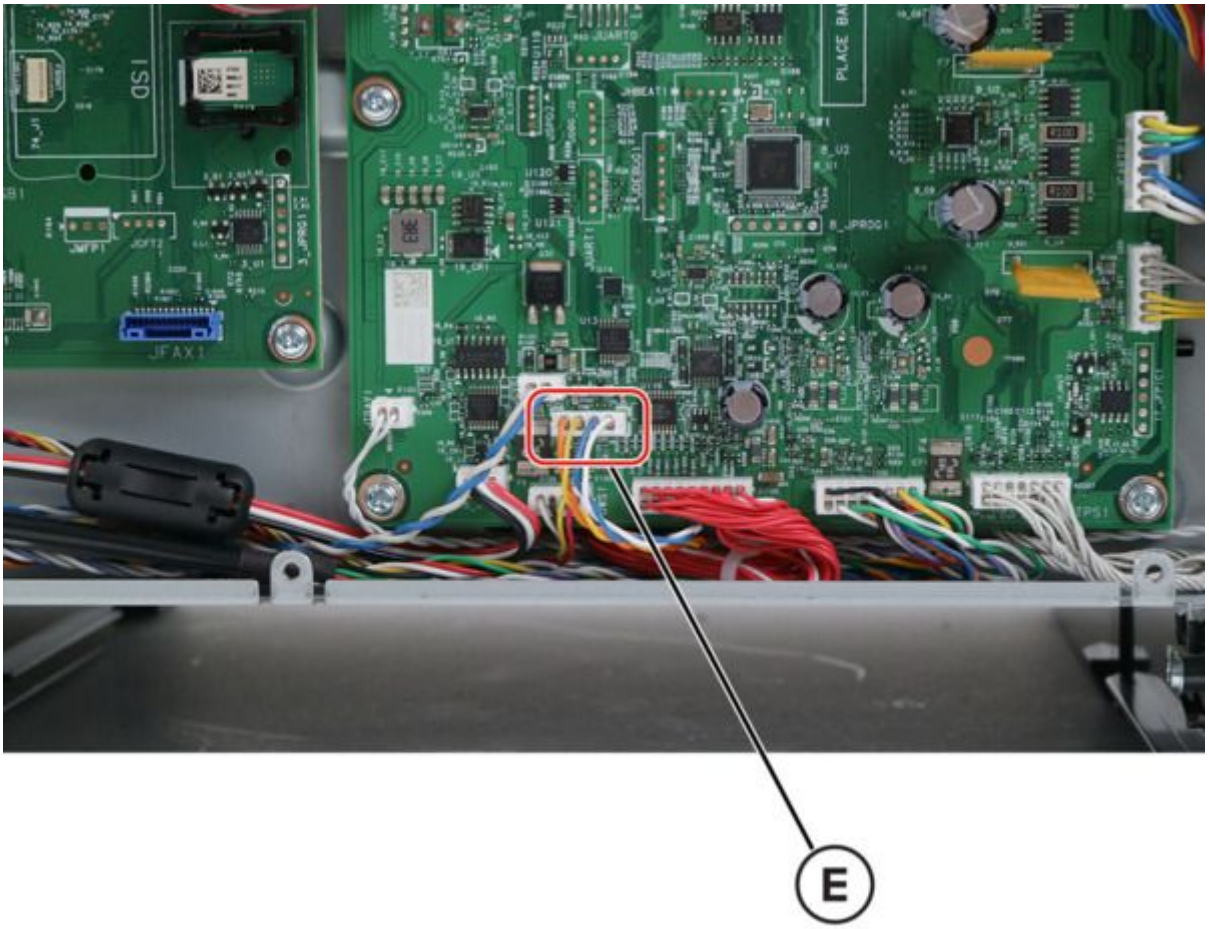
6. Remove the four screws (B), and then remove the cable cover.



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.

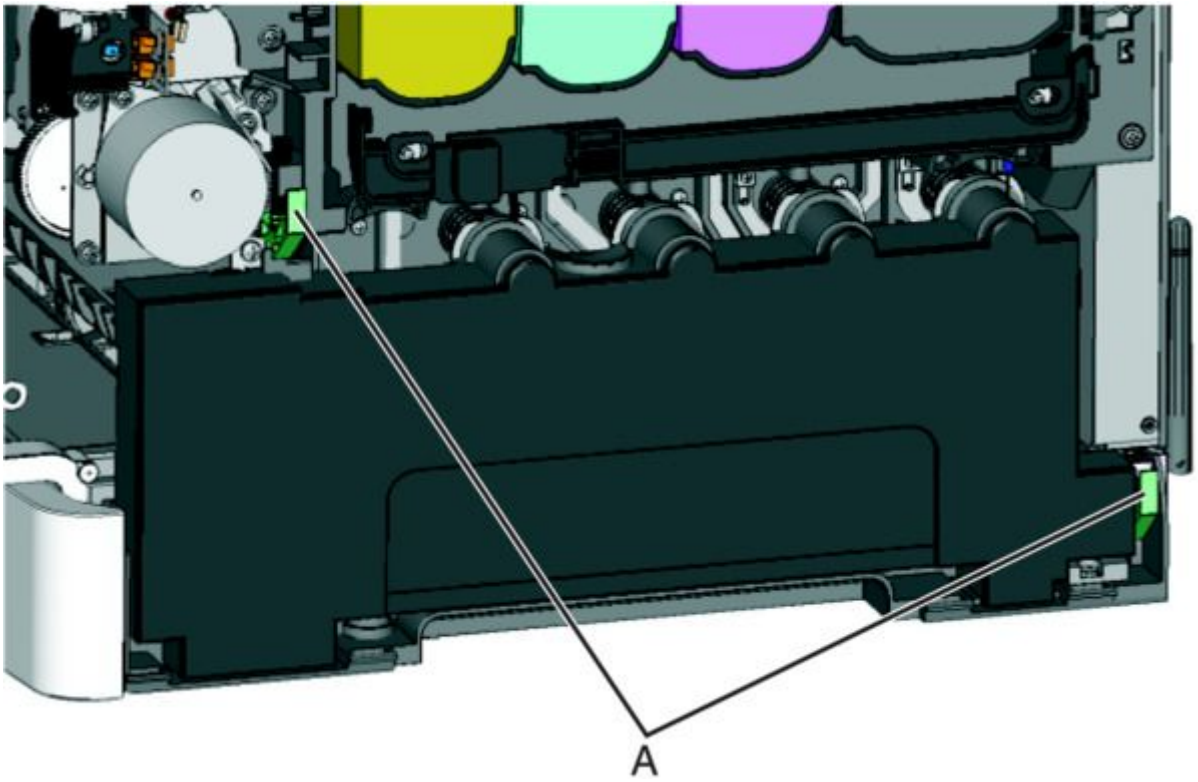
11. Remove the cable from its retainer at the bottom of the printer.
12. Extract the cable through the frame, and then remove the cable with the spring contacts.

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.

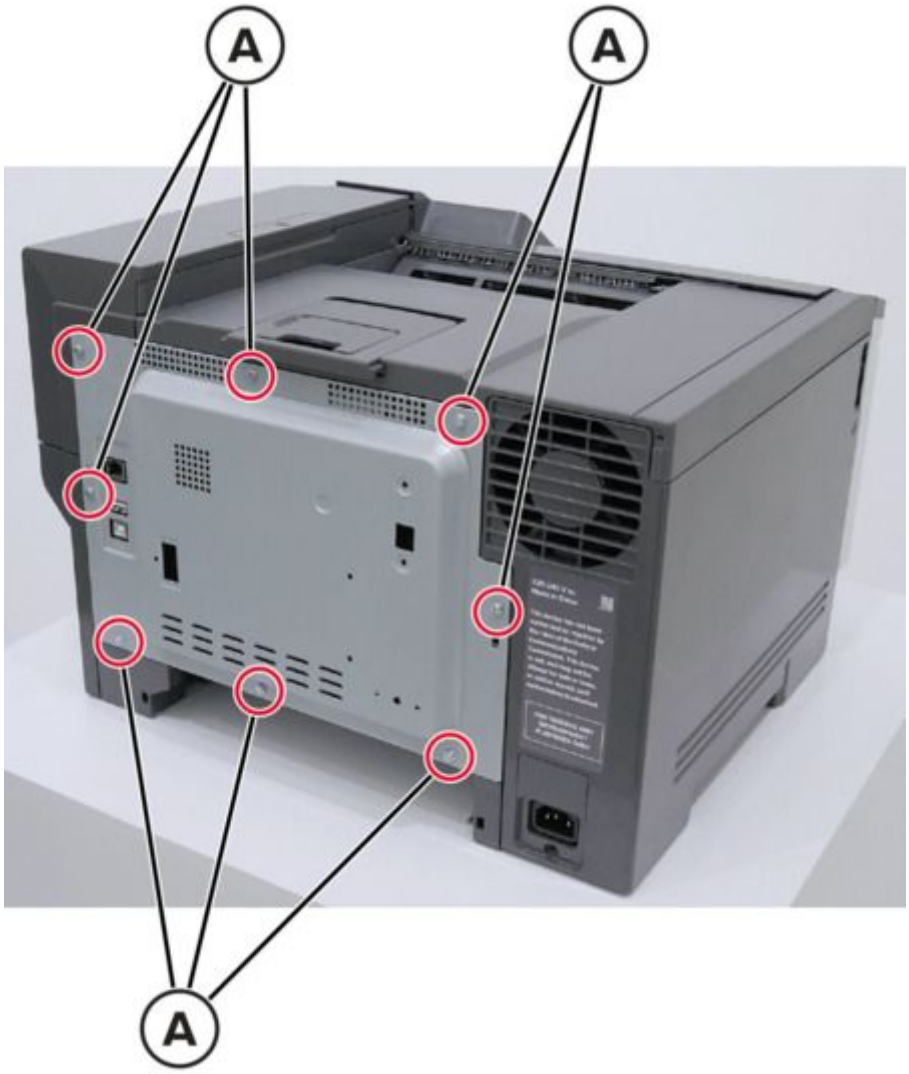
1. Remove the right cover.
2. Press the two tabs (A) to release the waste toner bottle.



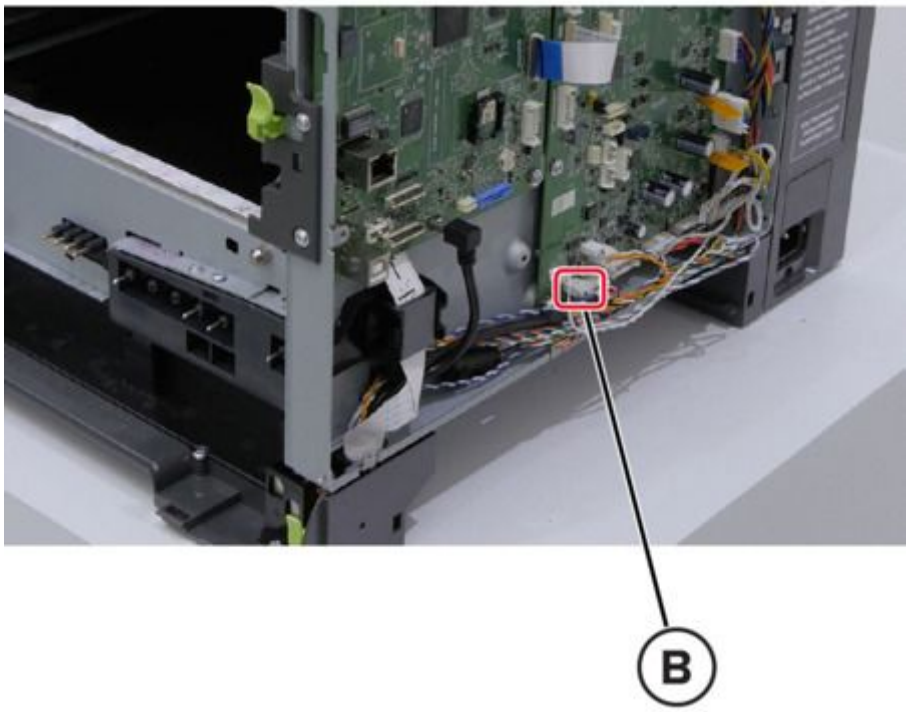
Waste toner bottle contact block removal

Notes
For a video demonstration, see Waste toner bottle contact block removal.

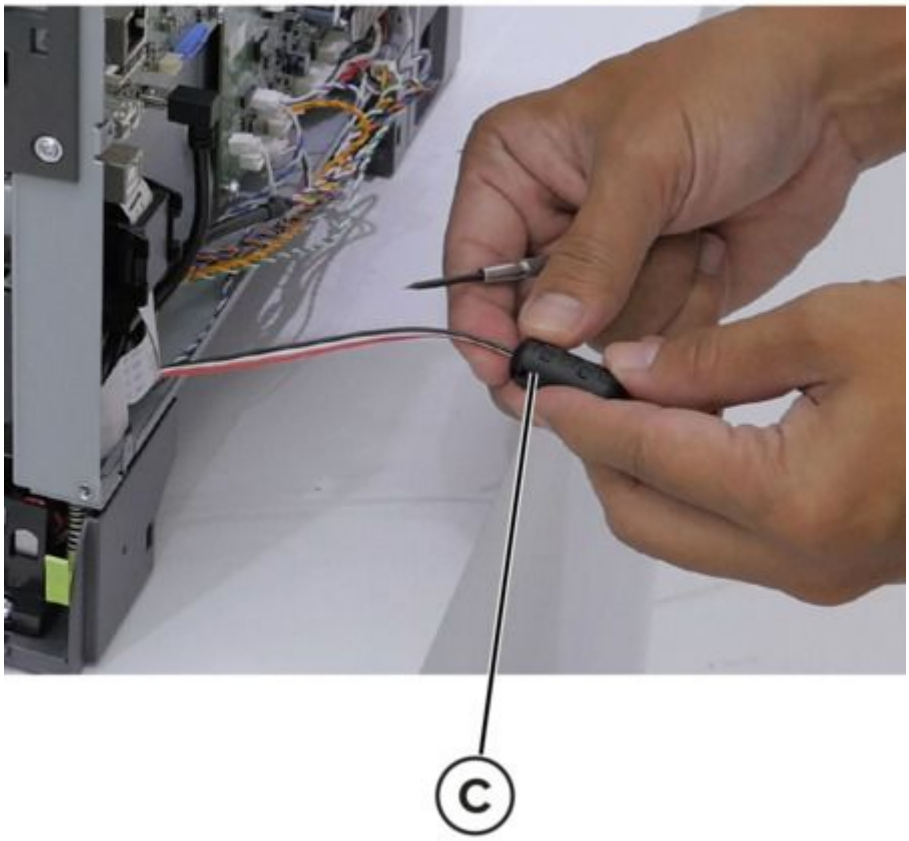
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the eight screws (A), and then remove the rear cover.



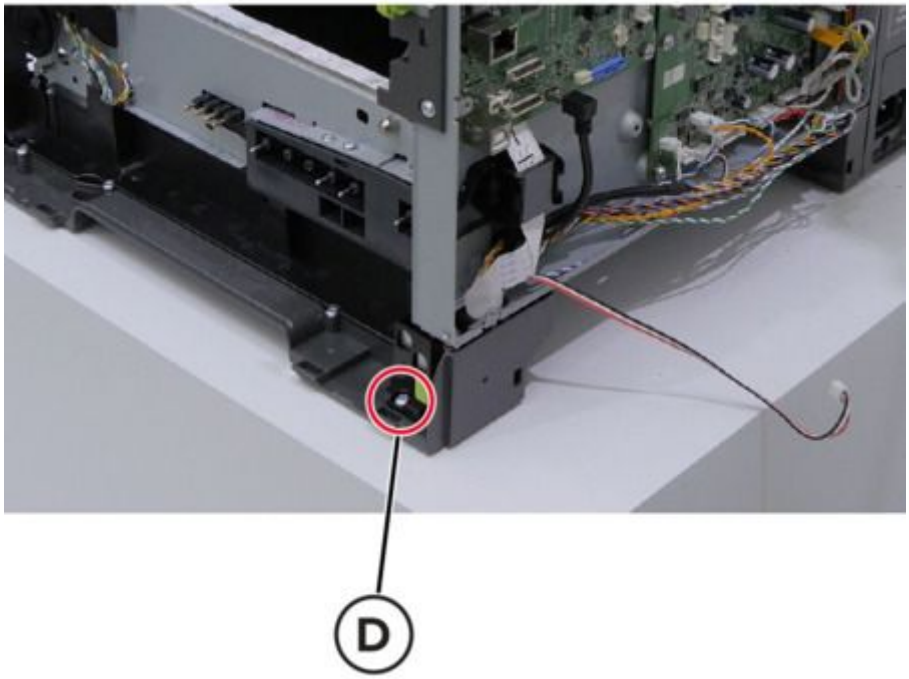
7. Disconnect the connector (B) from the engine board.



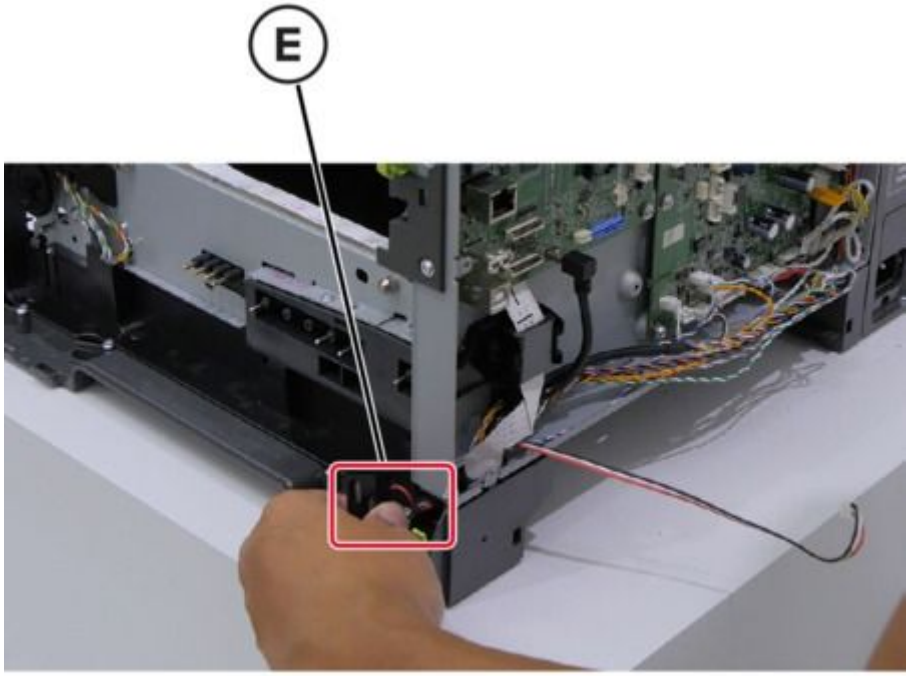
8. Unroute the cable, and then remove the toroid (C) from the cable.



9. Remove the screw (D).



10. Remove the waste toner bottle contact block (E).

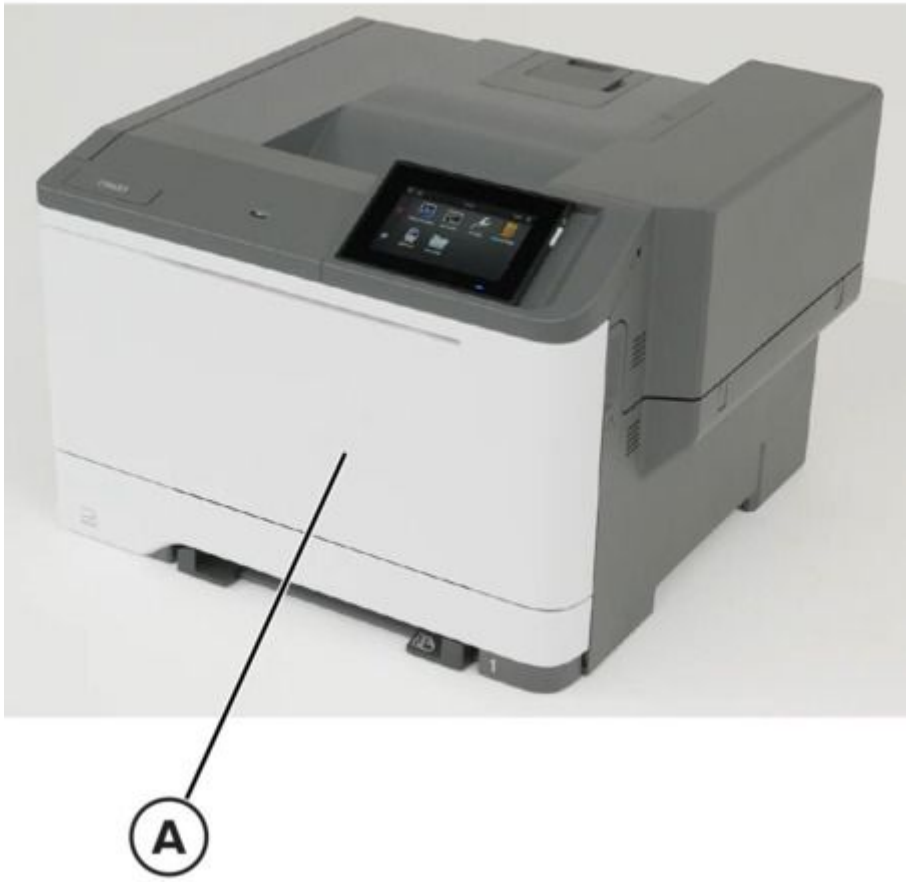


Front removals

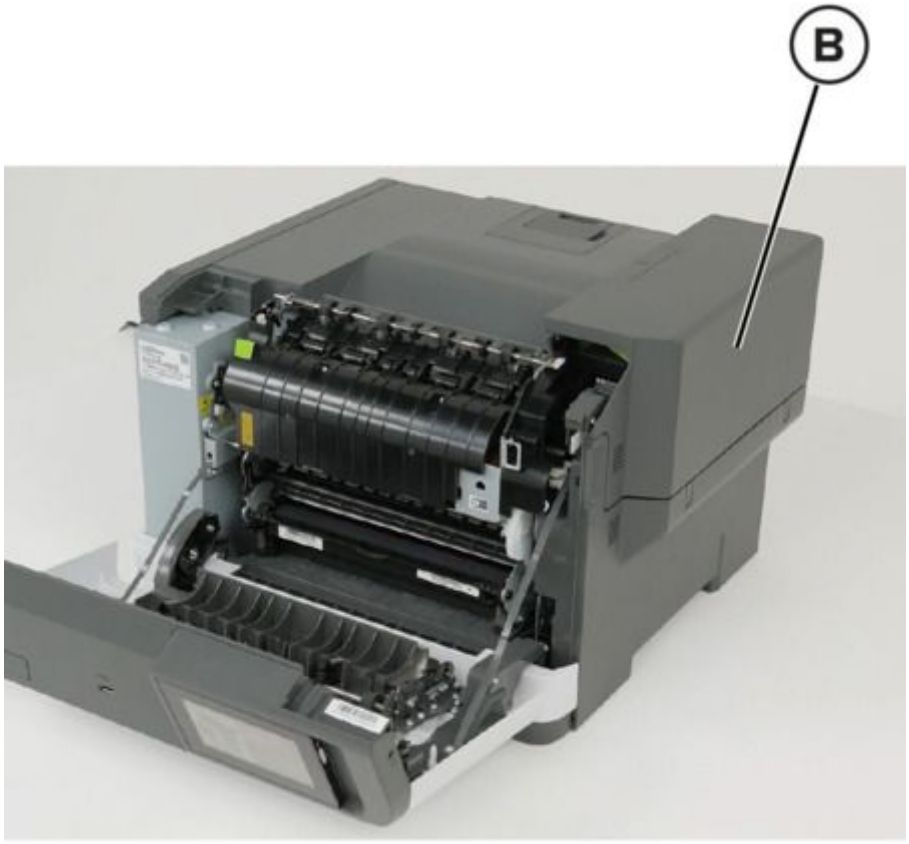
Front door removal

Notes
For a video demonstration, see Front door removal.

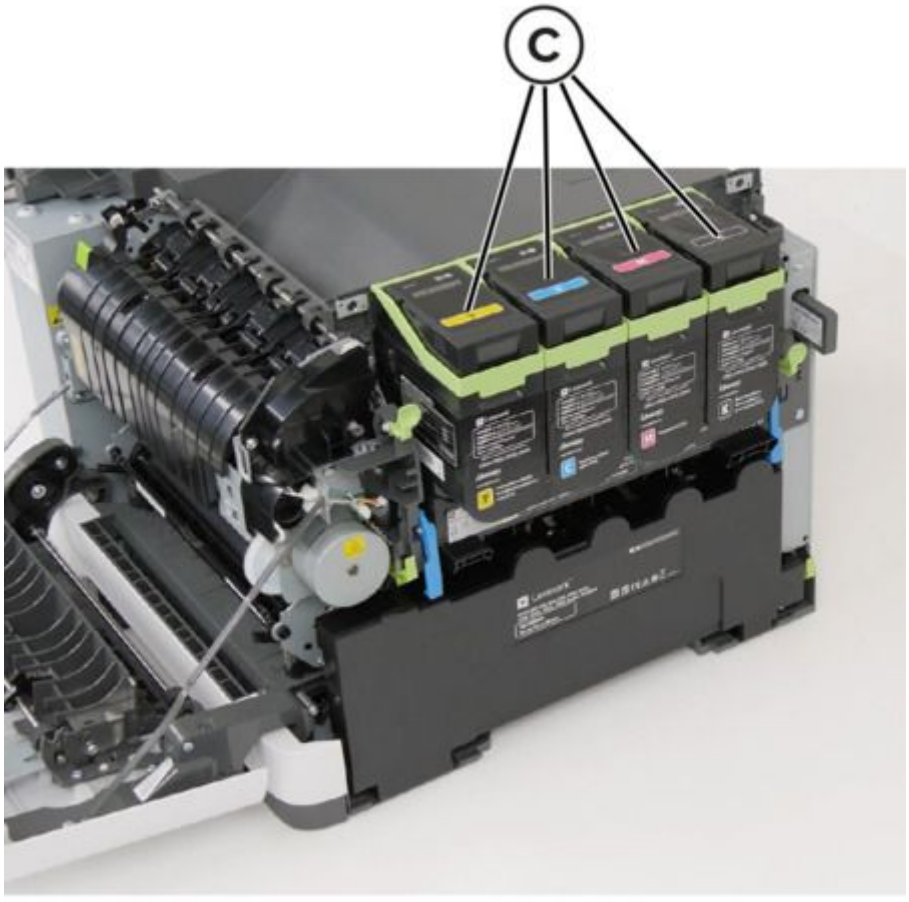
1. Open the front door (A).



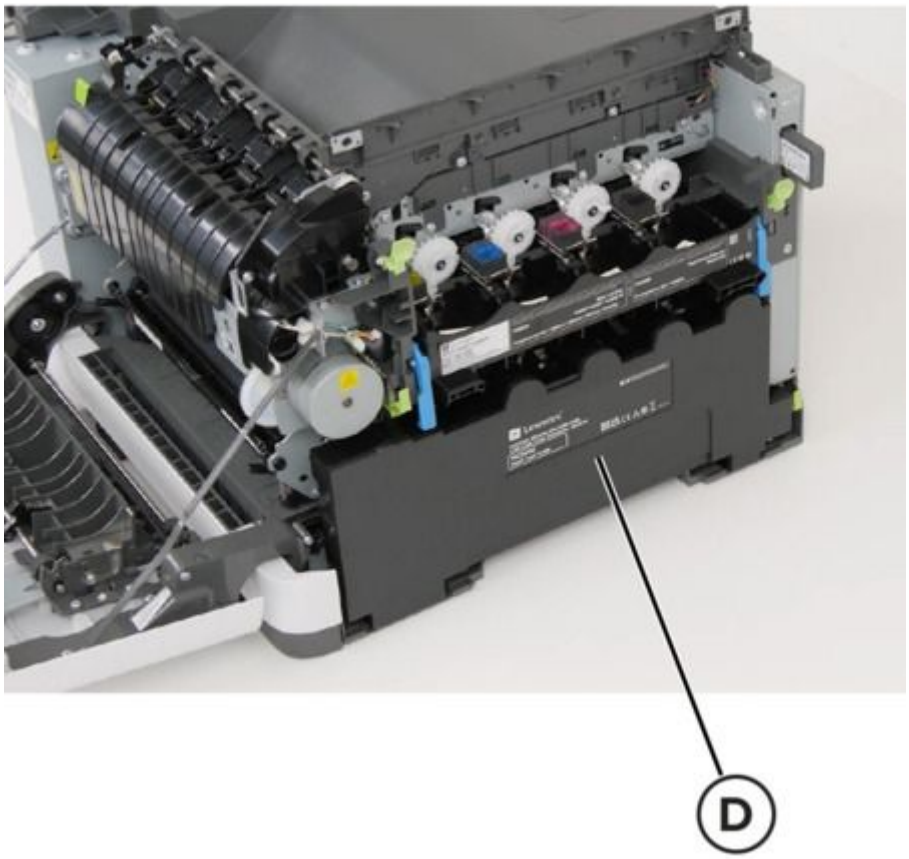
2. Remove the right cover (B).



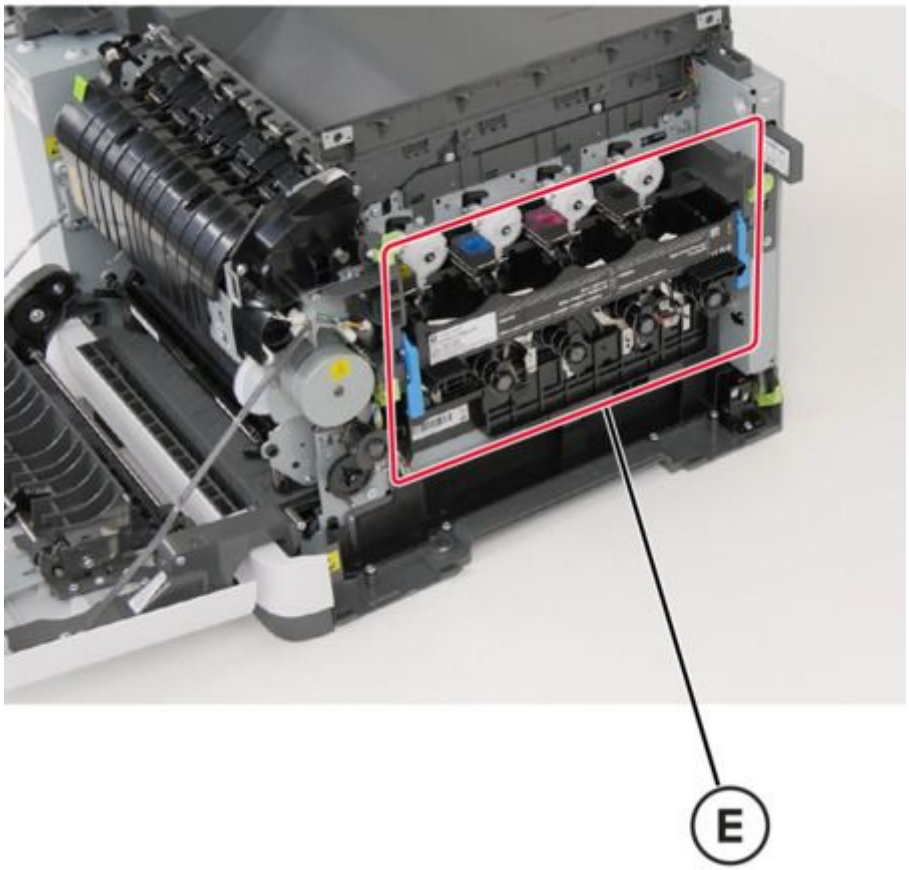
3. Remove the toner cartridges (C).



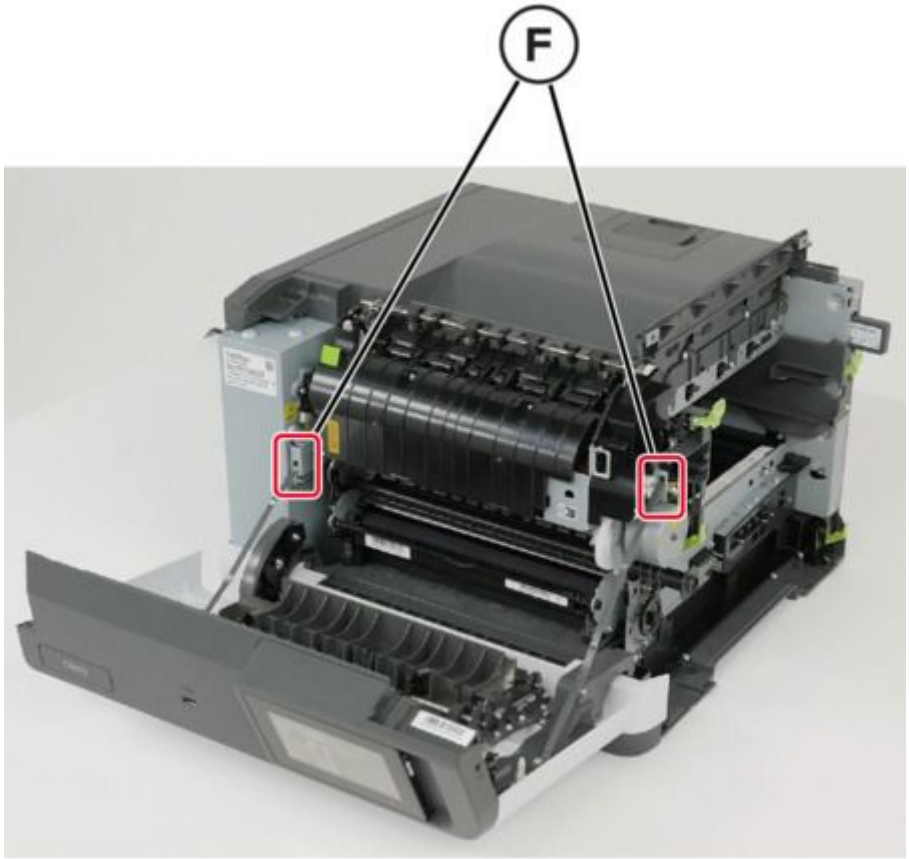
4. Remove the waste toner bottle (D).



5. Remove the imaging kit (E).



6. Release the left and right door straps (F).

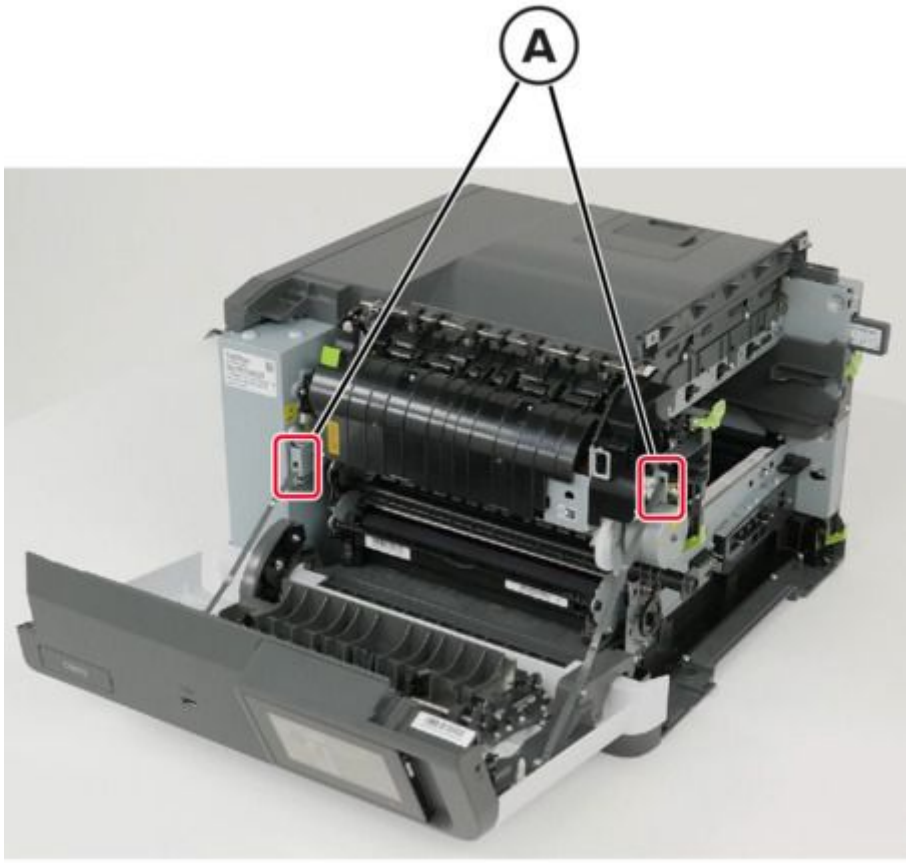


7. Remove the front door.

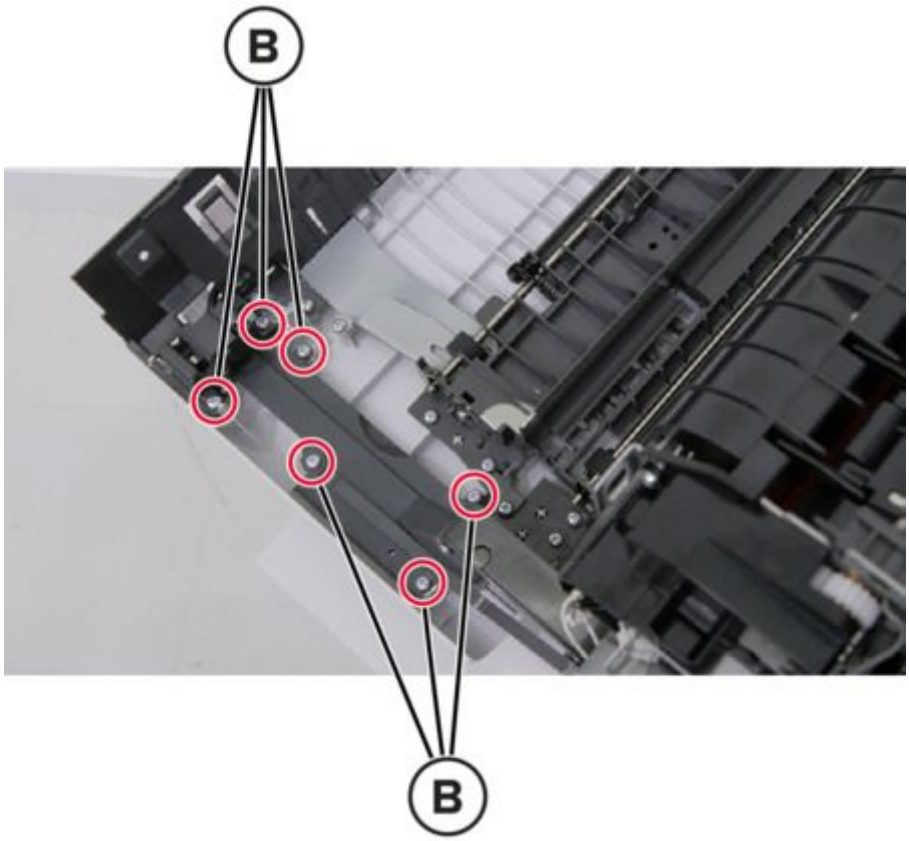
Sensor (front door) removal

Notes
For a video demonstration, see Sensor (front door) removal.

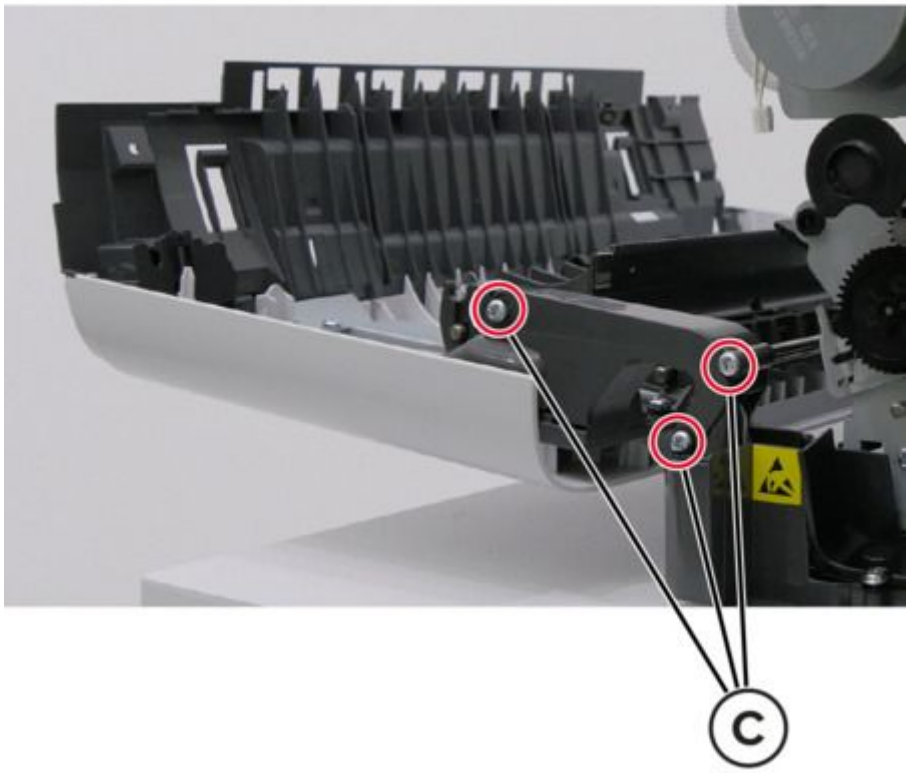
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Release the left and right door straps (A).



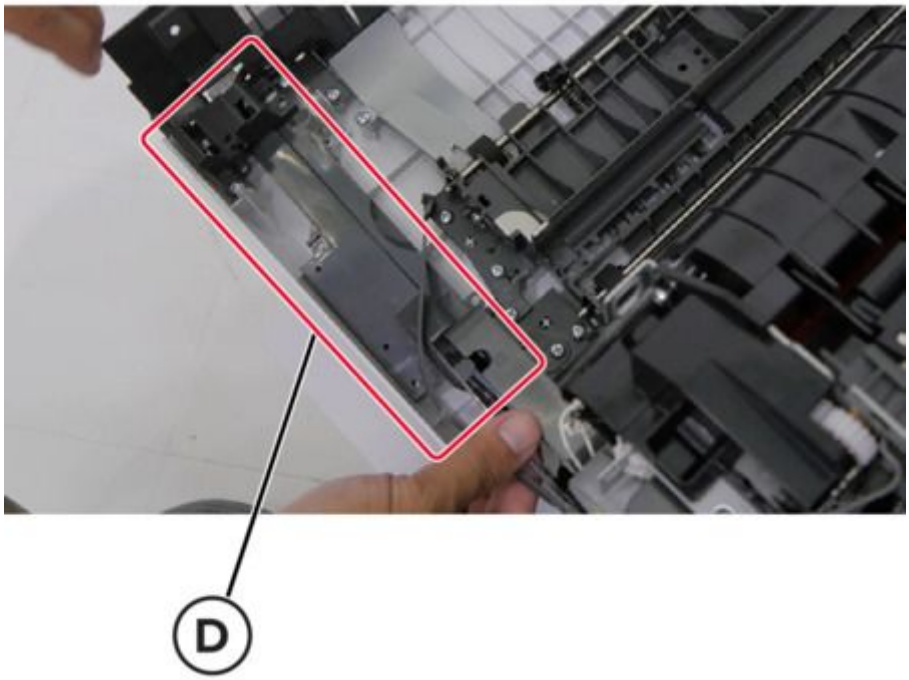
7. Remove the six screws (B).



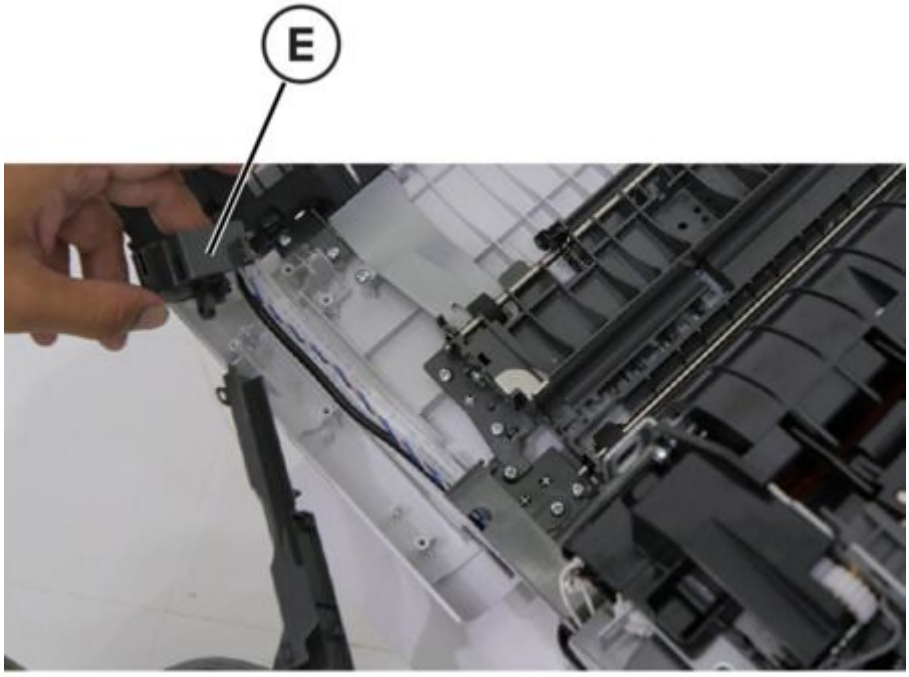
8. Remove the three screws (C).



9. Remove the cable cover (D).

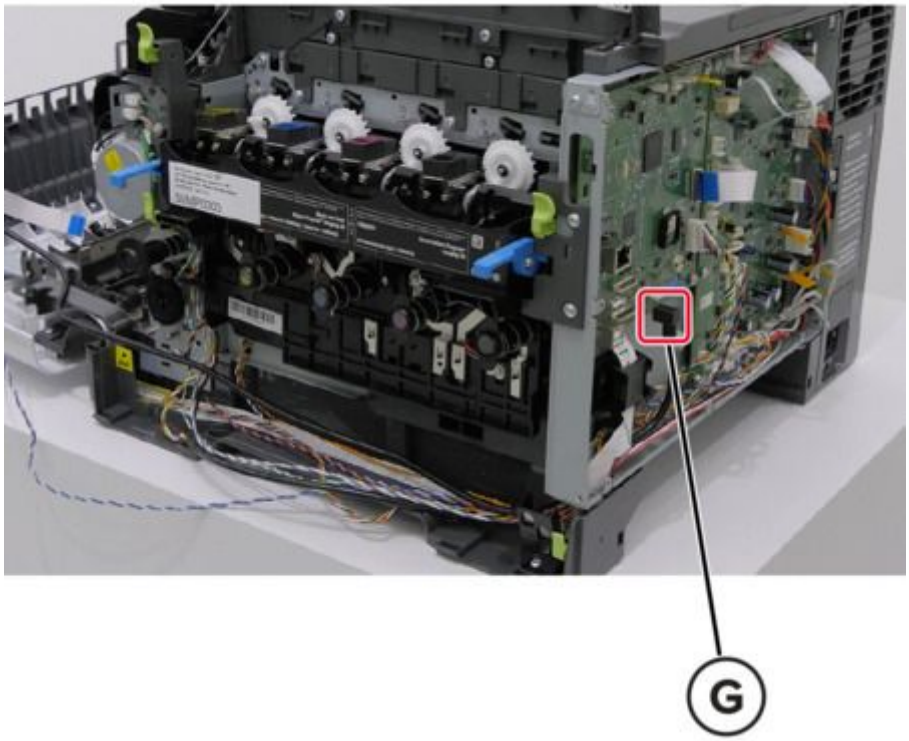


10. Unroute the interlock switch (E) cover away from the door.

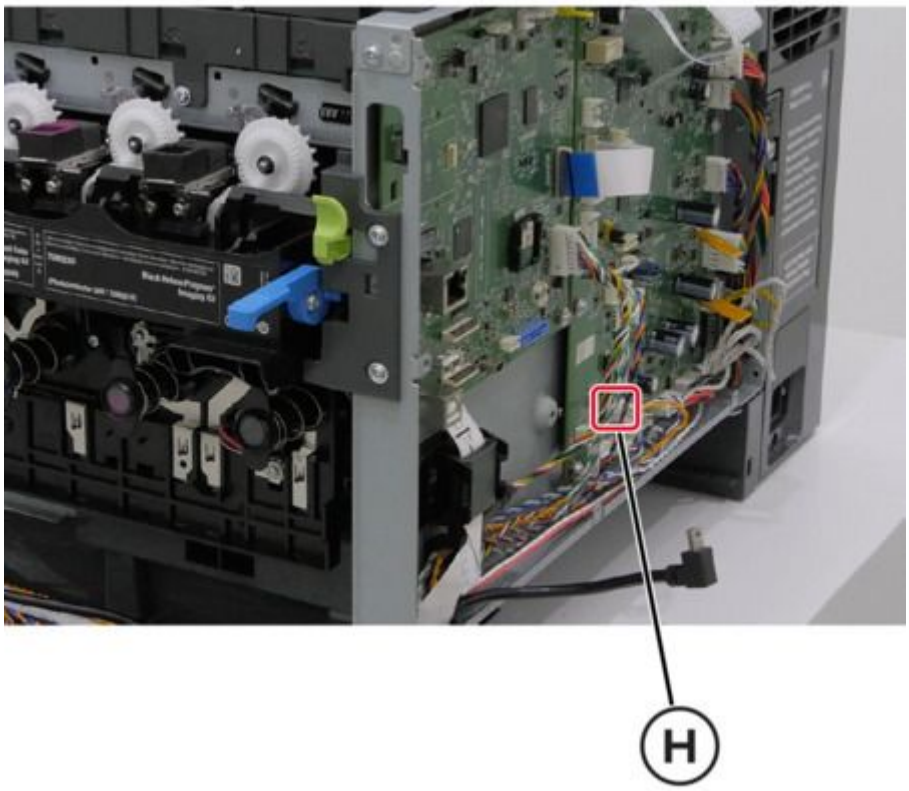


11. Remove the eight screws (F), and then remove the rear cover.

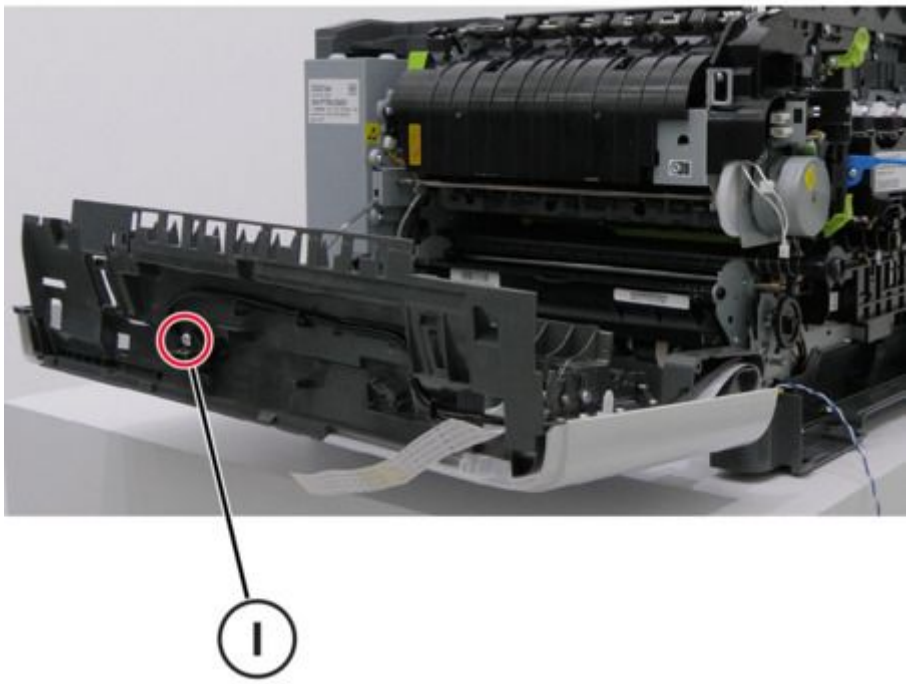
12. Disconnect the connector (G) from the controller board.



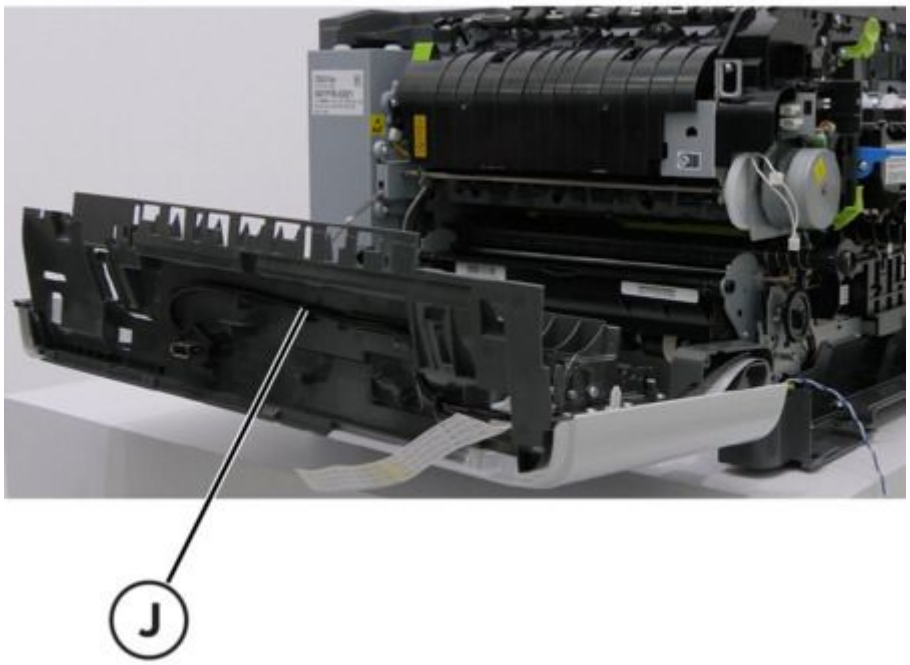
13. Disconnect the connector (H) from the engine board.



14. Remove the screw (I).



15. Remove the sensor, and then unroute the cable (J).

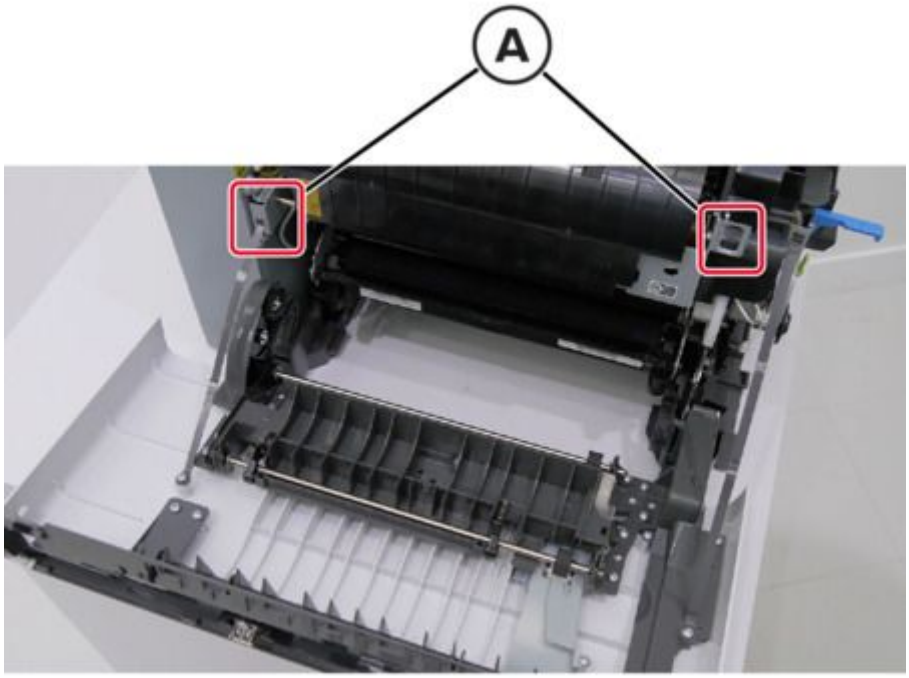


Front door inner paper feed guide removal

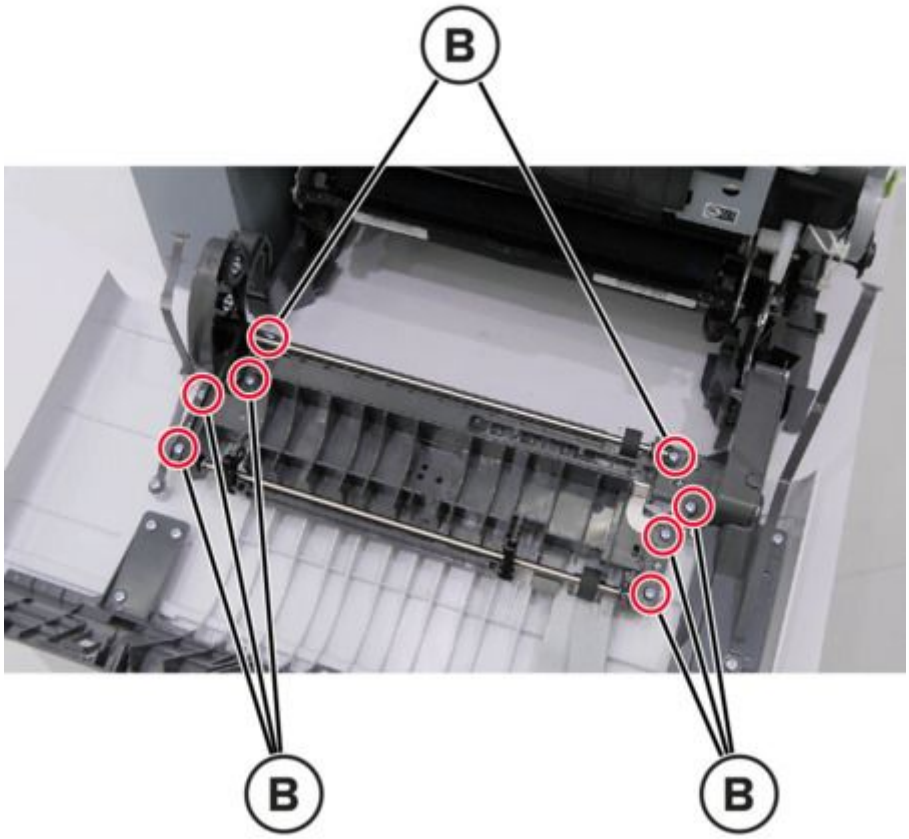
Notes
For a video demonstration, see Front door inner paper feed guide removal.

1. Open the front door.

2. Release the left and right door straps (A).



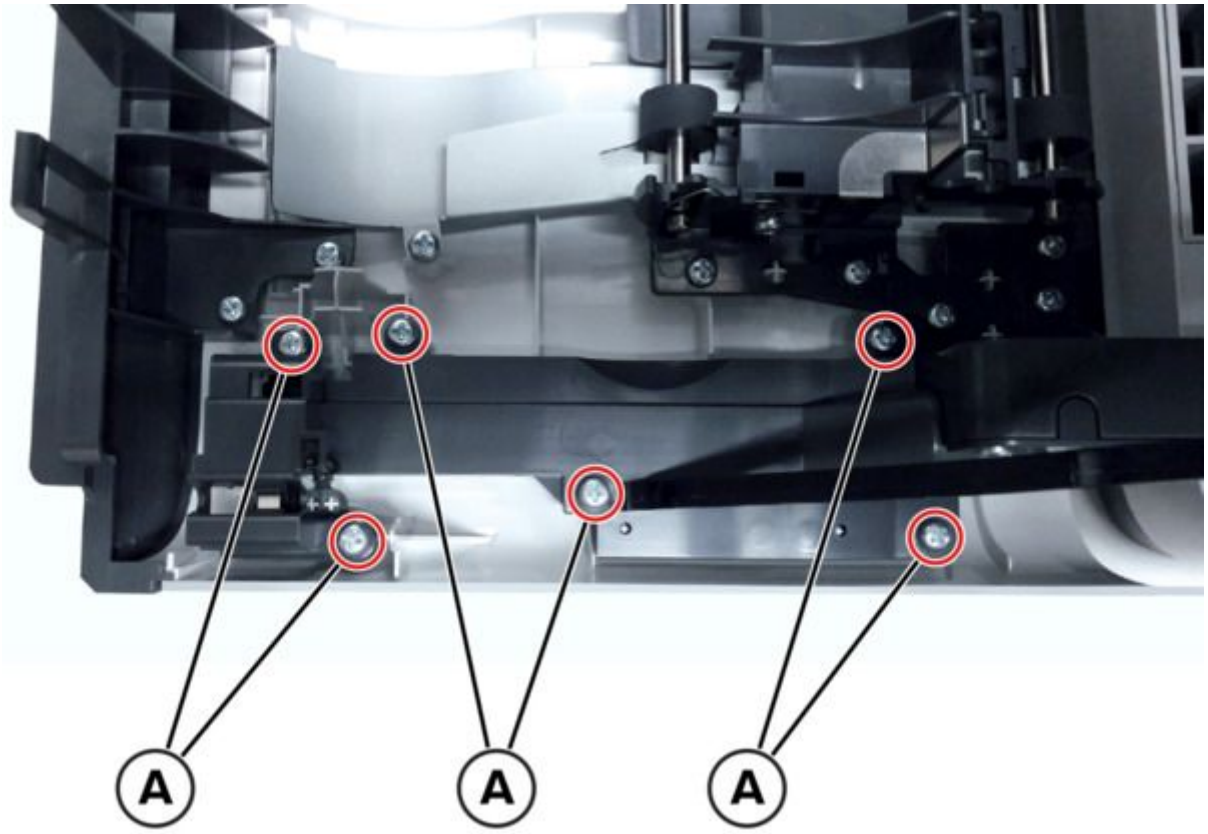
3. Remove the eight screws (B).



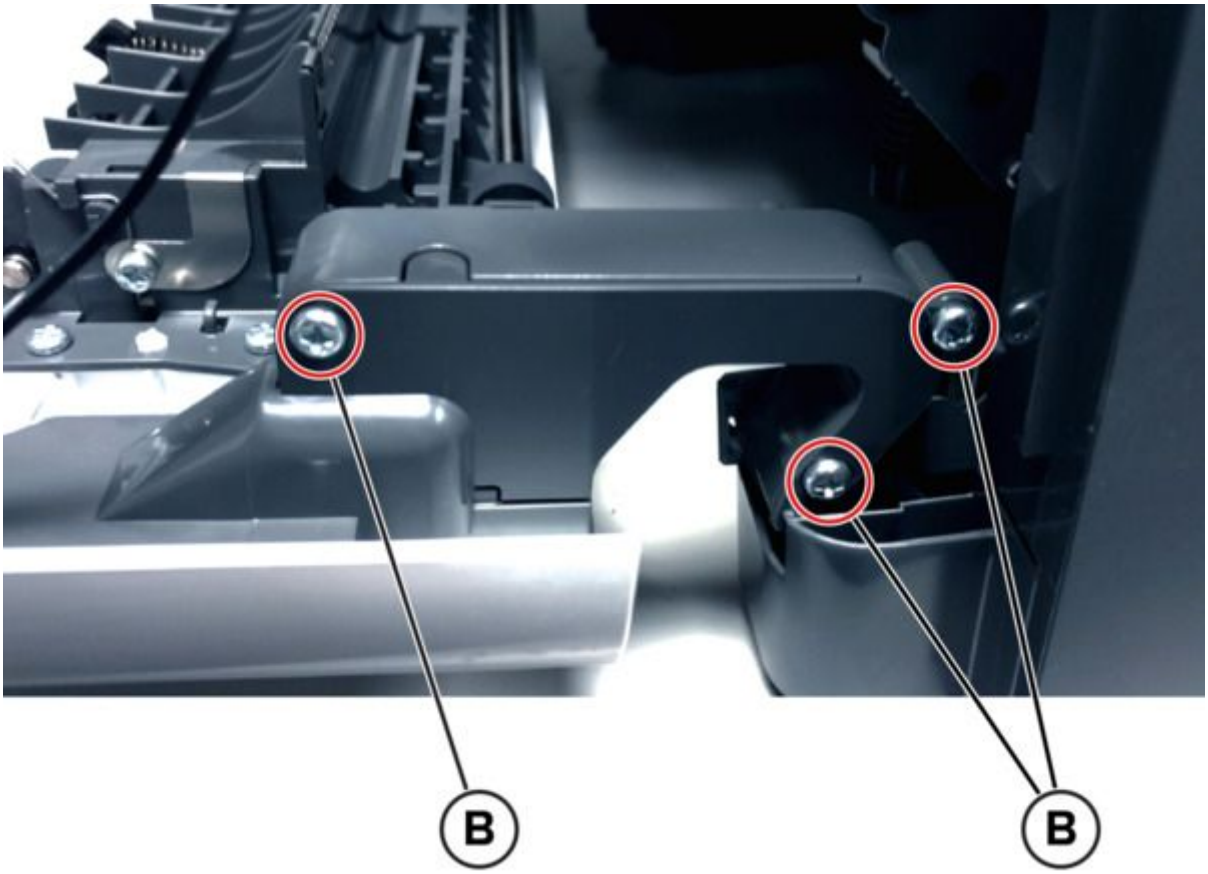
4. Remove the paper feed guide.

Interlock switch cover removal

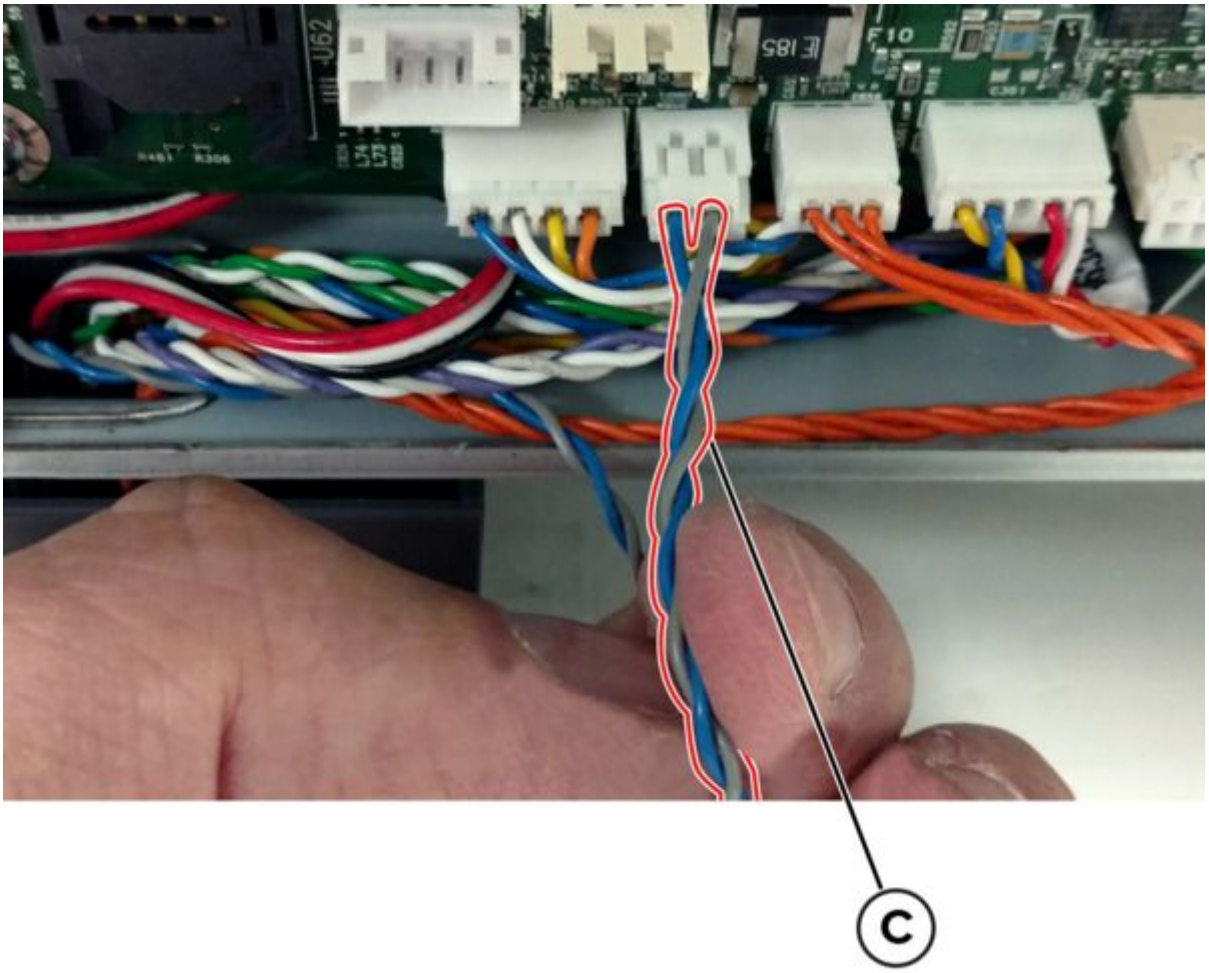
1. Remove the tray insert.
2. Open the front door.
3. Remove the six screws (A).



4. Remove the three screws (B).



5. Remove the right cover.
6. Remove the waste toner bottle. See Waste toner bottle removal on page 275.
7. Remove the rear cover.
8. Remove the waste toner bottle contact block. See Waste toner bottle contact block removal on page 275.
9. Remove the cable cover.
10. Disconnect the cable (C).



11. Route the interlock switch cover out of the frame.

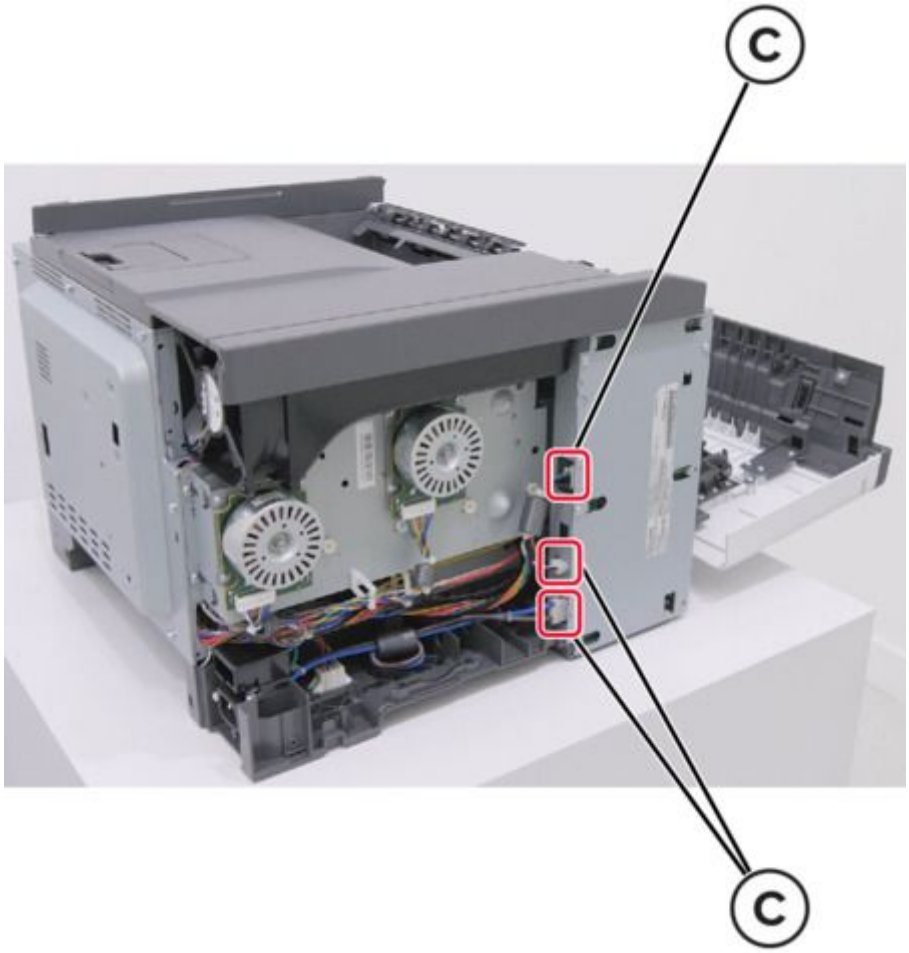
Fuser removal

> **Notes**
> For a video demonstration, see Fuser removal.

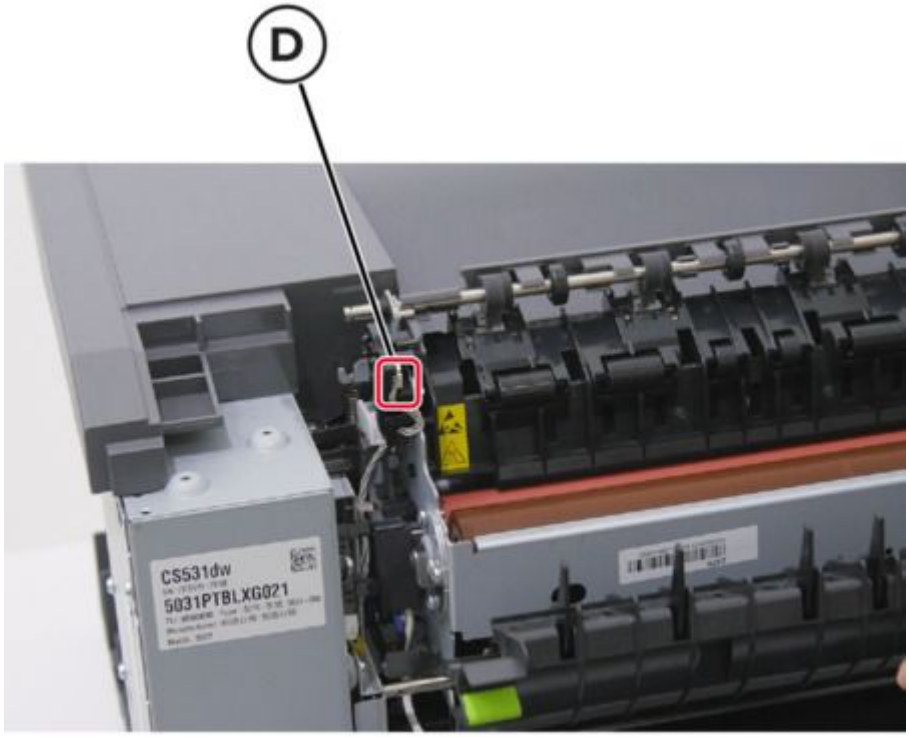
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the two screws (A) at the back.

7. Remove the screw (B) on the left side, and then remove the left cover.

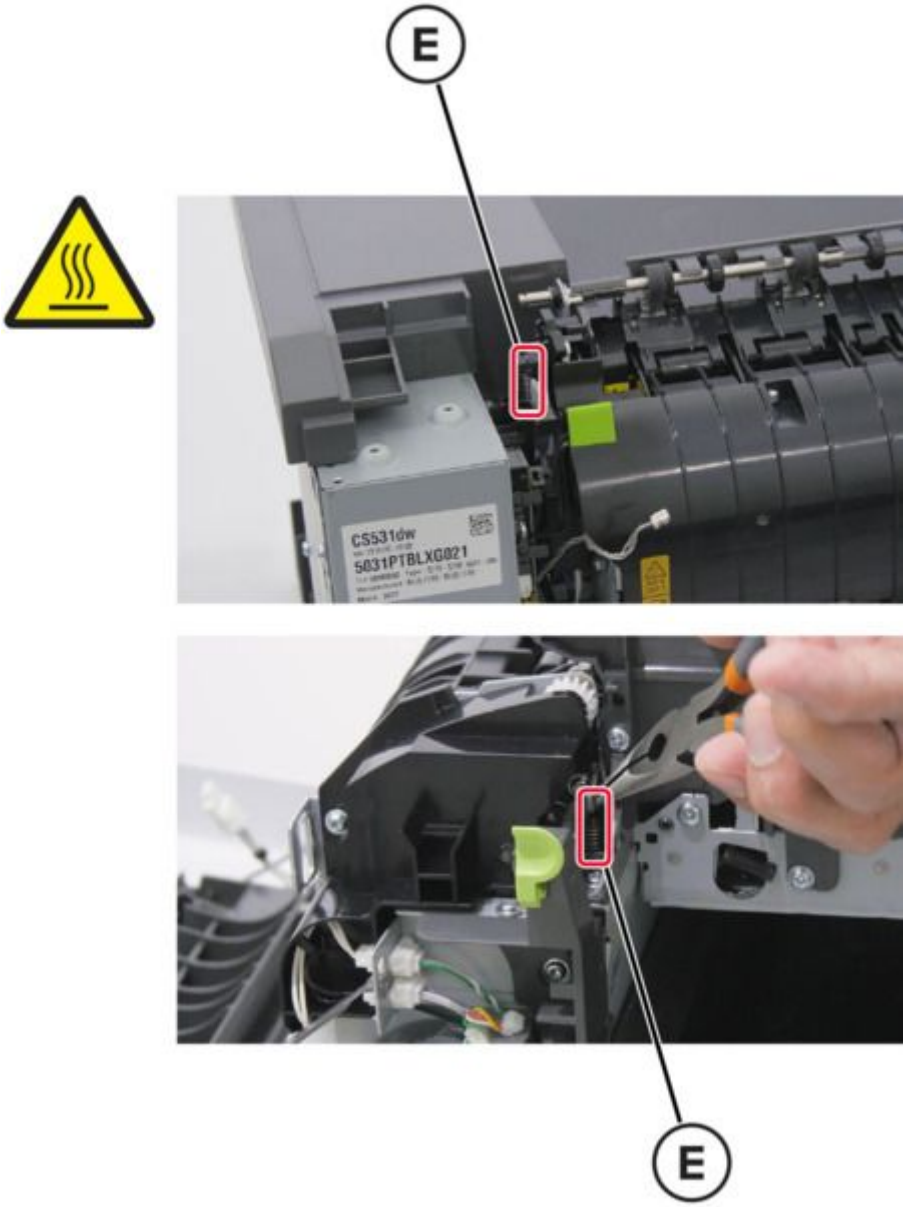
8. Disconnect the connectors (C) from the power supply.



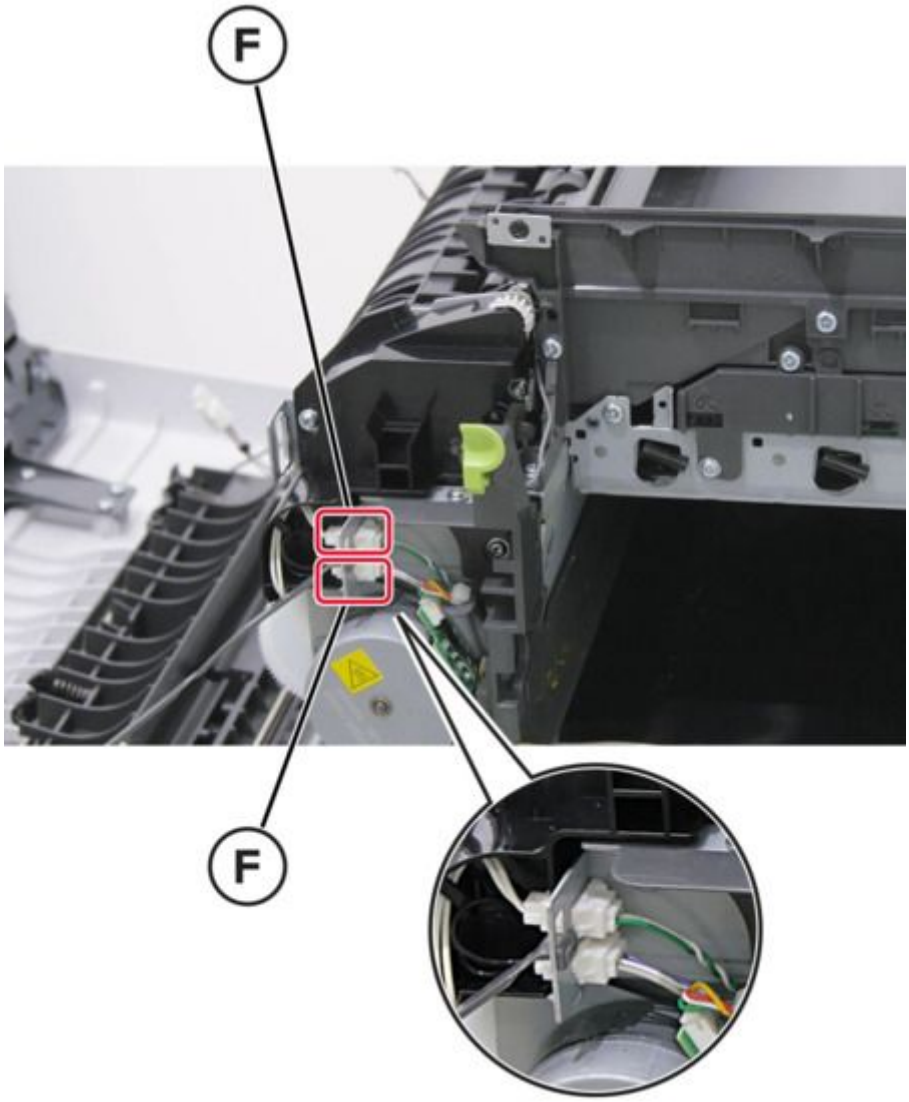
9. Disconnect the connector (D) from the narrow media/bin full flag, and then unroute the cable from its retainer.



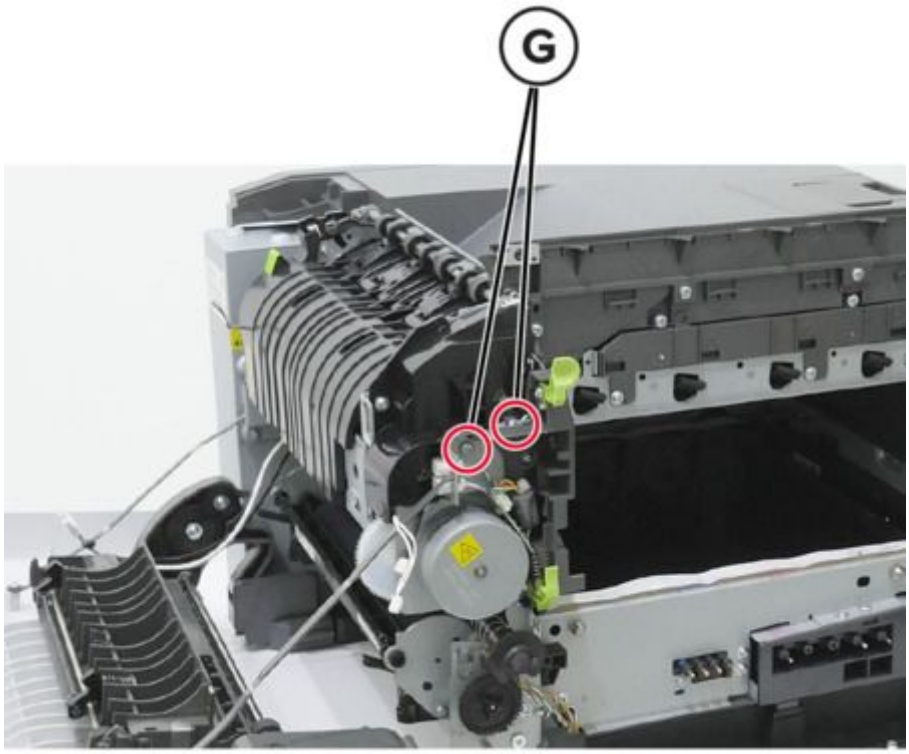
10. Disconnect the springs (E) from both sides of the fuser.



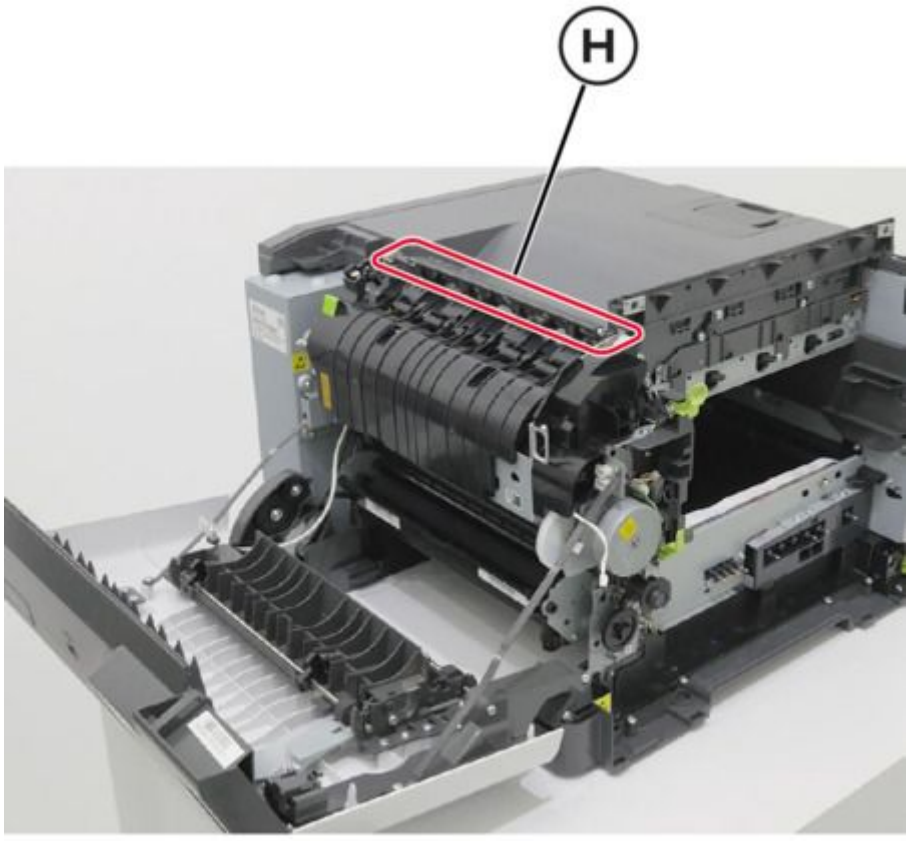
11. Disconnect the thermistor connectors (F).



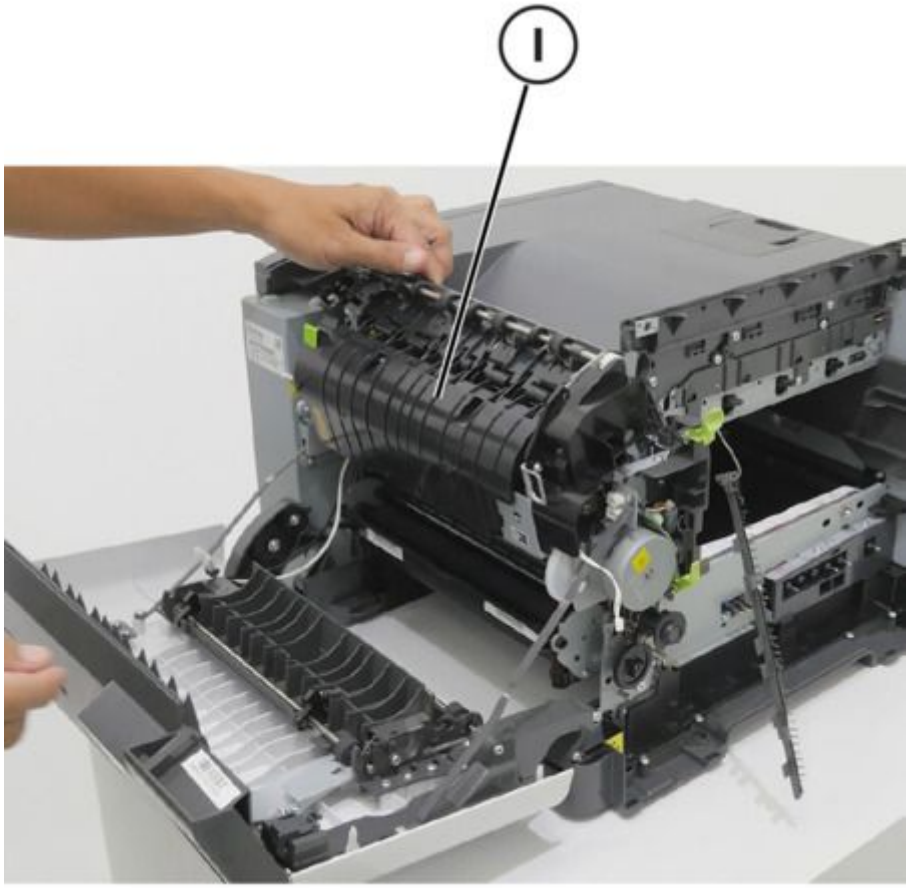
12. Remove the two screws (G).



13. Remove the static brush holder (H).



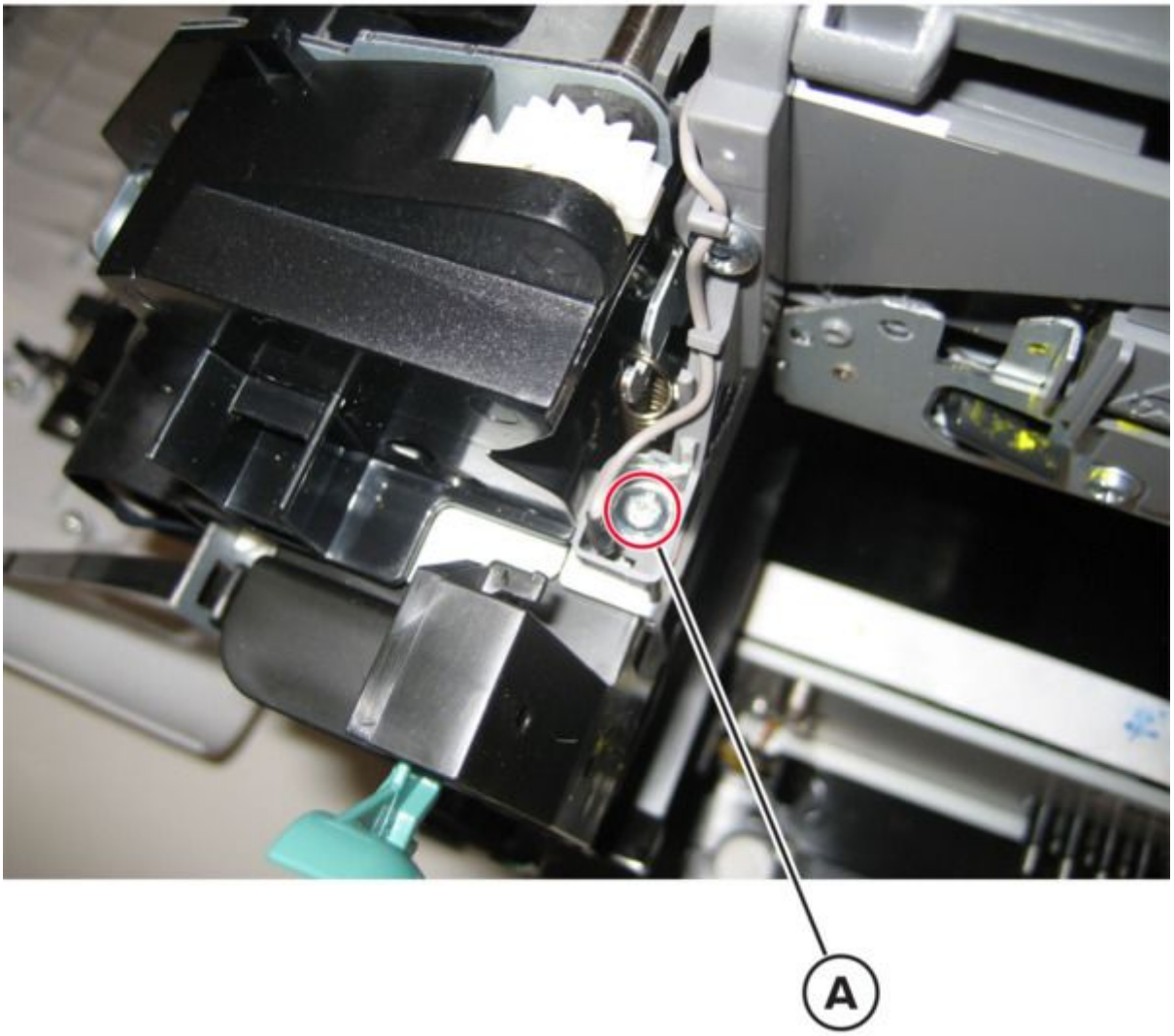
14. Remove the fuser (I).



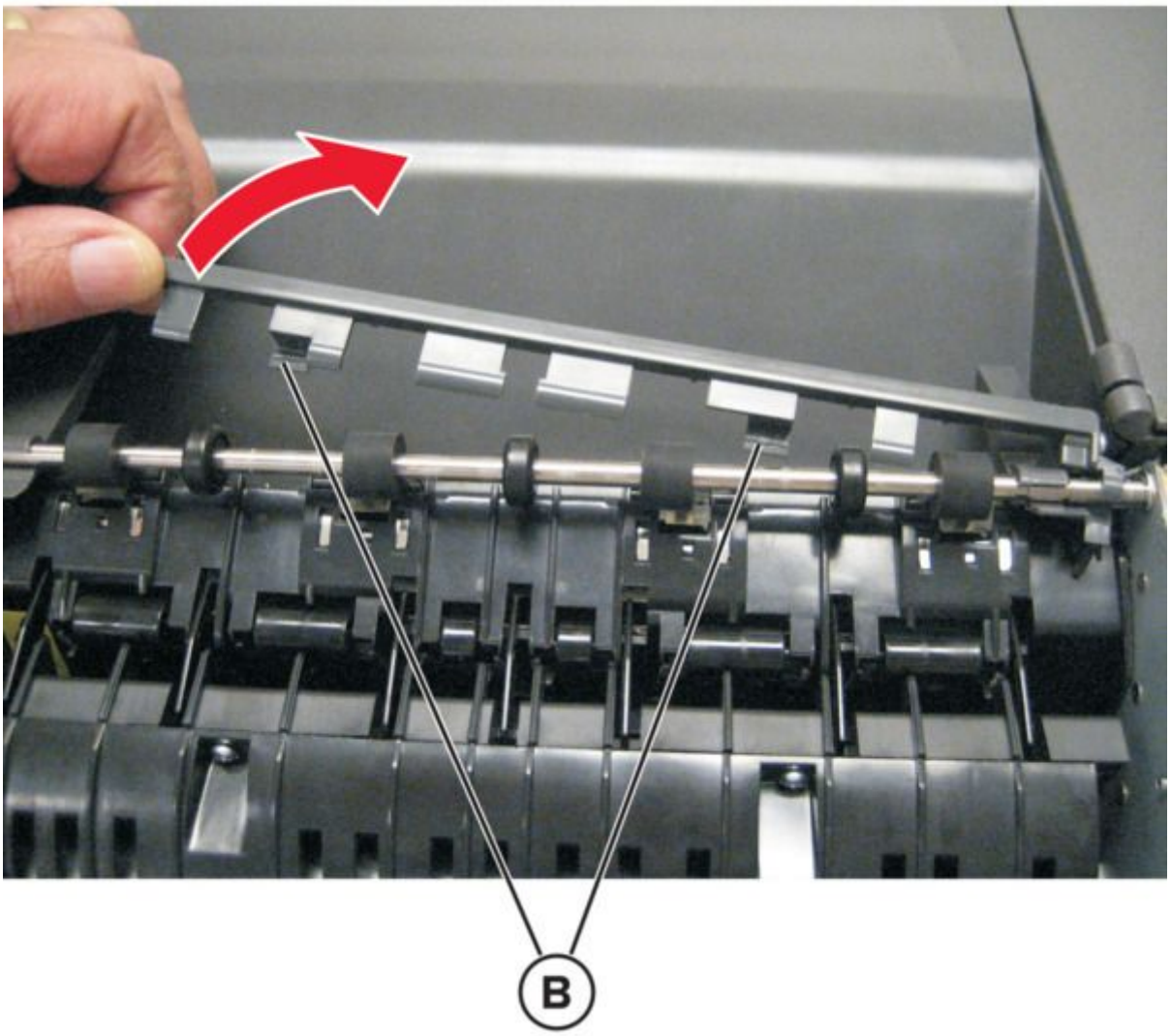
Exit deflector removal

1. Open the front door.
2. Remove the yellow toner cartridge.
3. Remove the exit deflector ground screw (A), and then remove the cable from its retainers.

> **Notes**
> Be sure to pay close attention to the routing of the cables through the retainers for reinstallation.



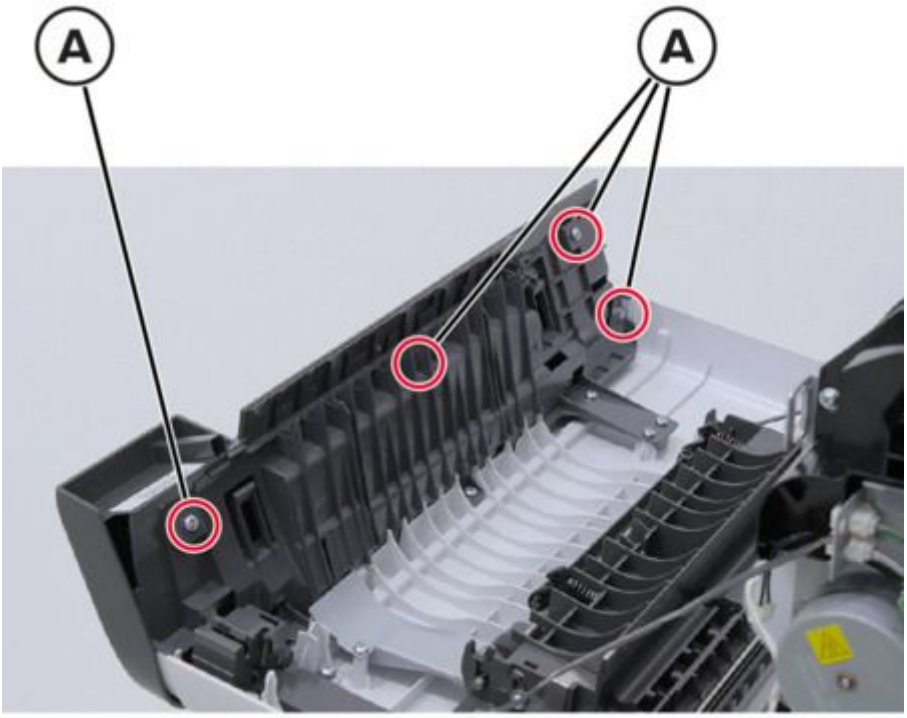
4. Press to release the tabs (B), and then rotate the deflector to remove.



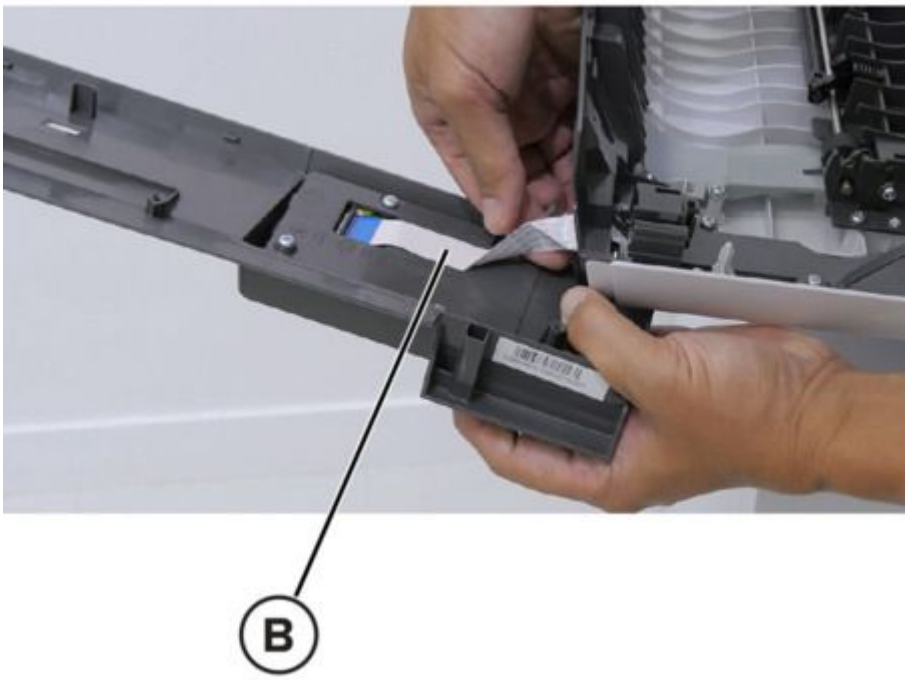
Control panel removal

Notes
For a video demonstration, see Control panel removal.

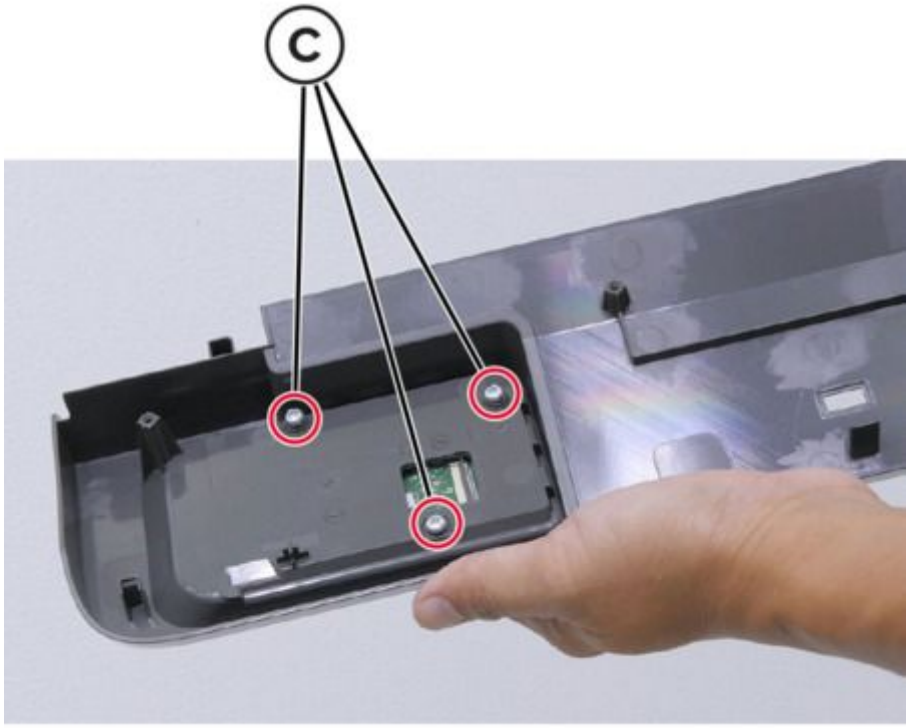
1. Open the front door.
2. Remove the four screws (A).



3. Disconnect the connector (B), and then remove the top front cover.



4. Remove the three screws (C).

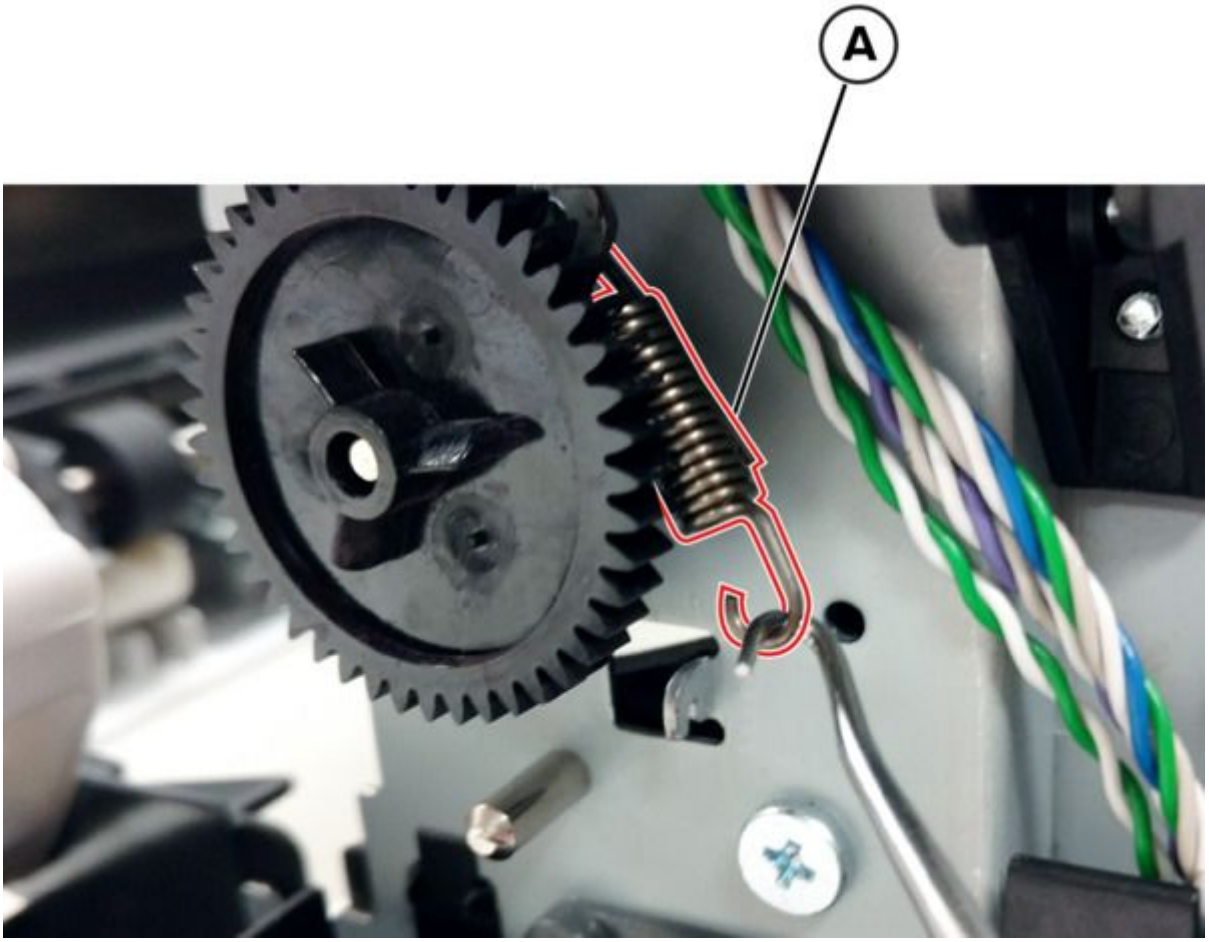


5. Remove the control panel.

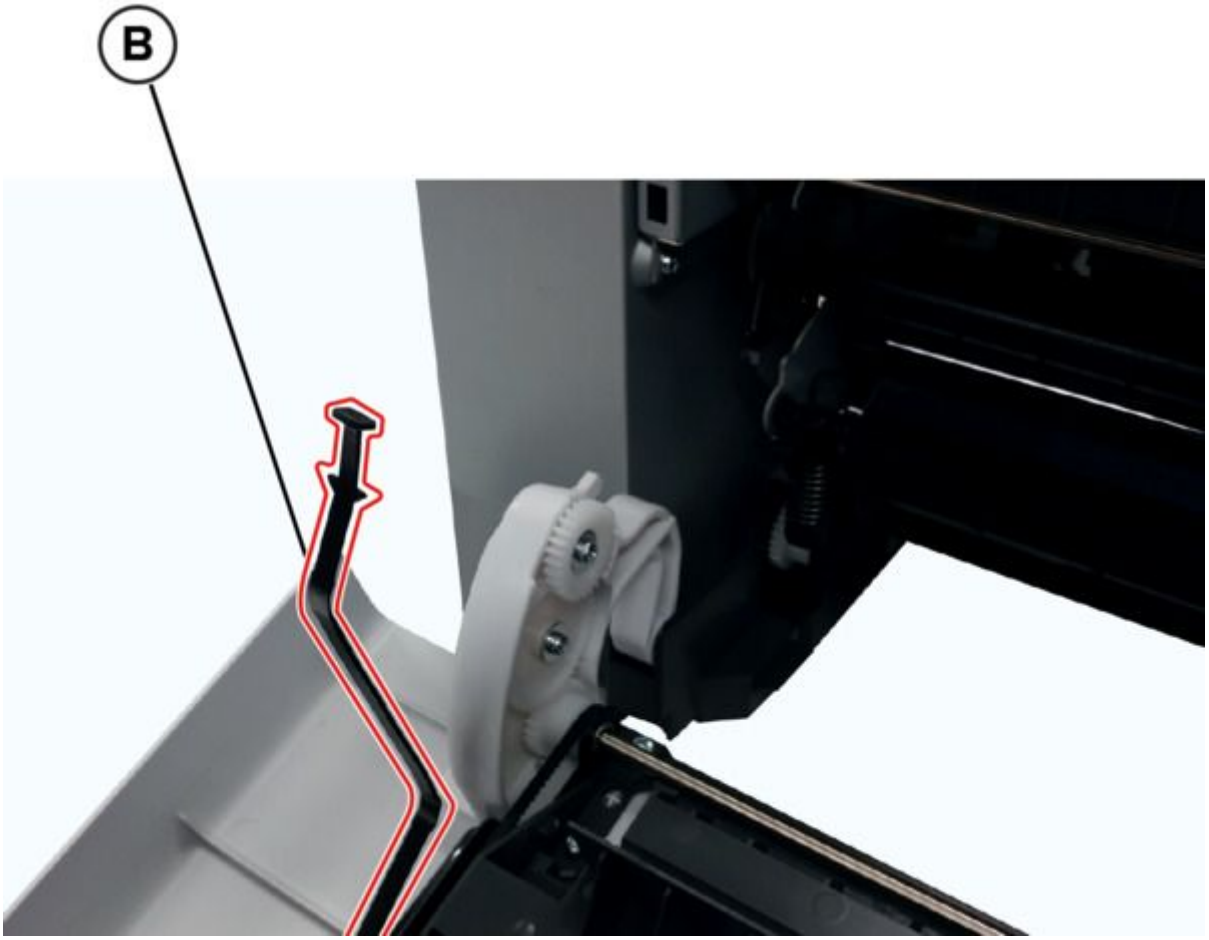
Transfer module removal

> **Notes**
> For a video demonstration, see Transfer module removal.

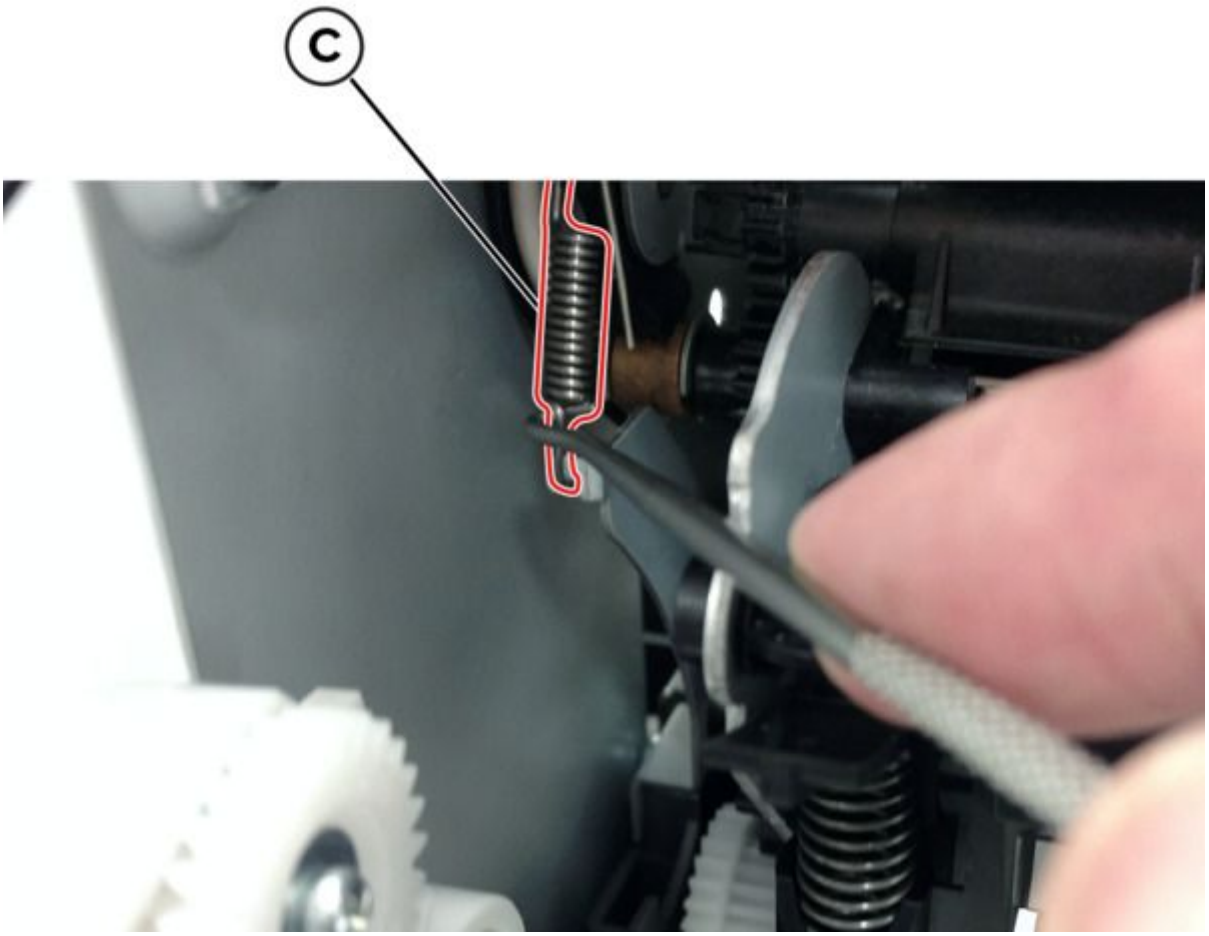
1. Remove the right cover.
2. Remove the waste toner bottle.
3. Remove the imaging kit. See Imaging kit removal on page 269.
4. Disconnect the spring (A) on the right side.



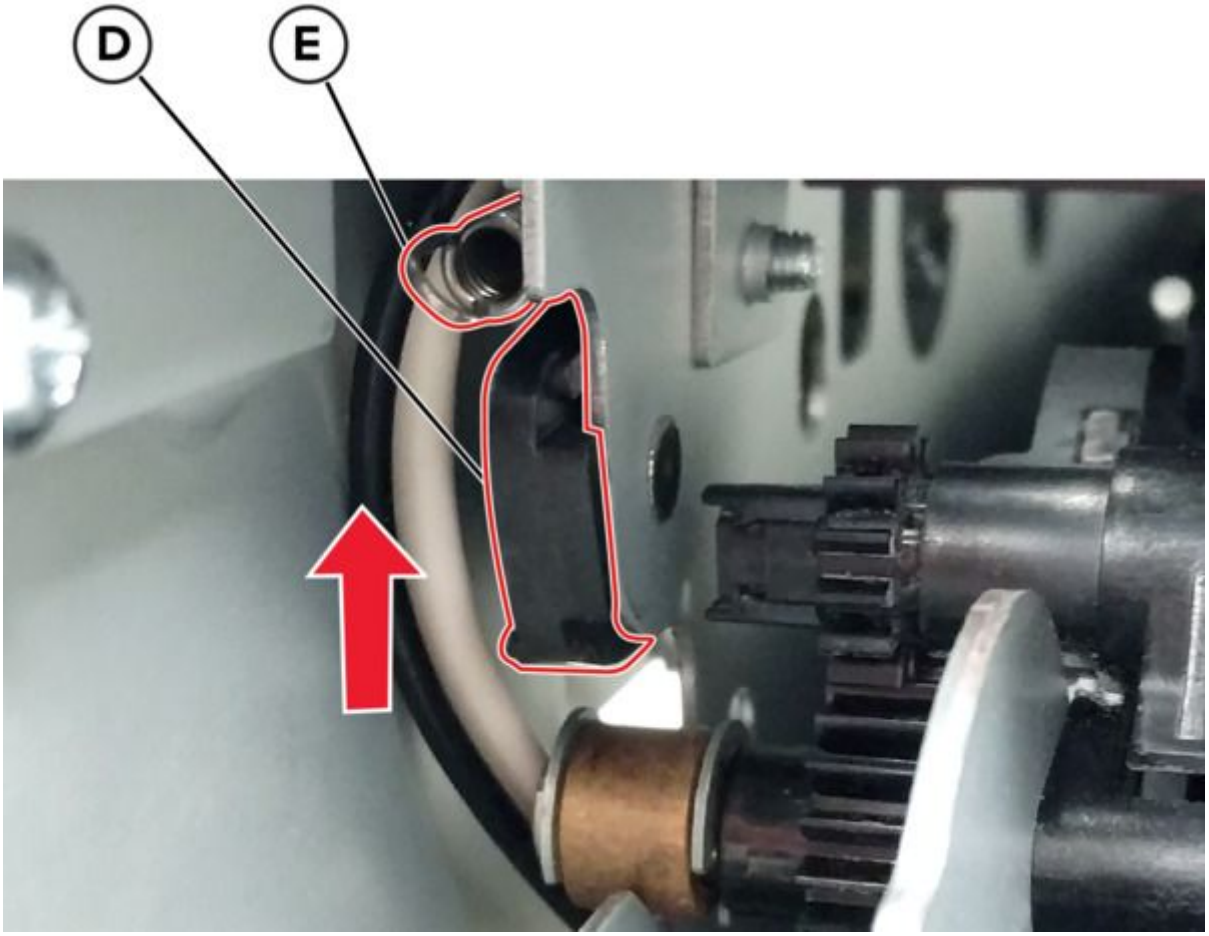
5. Release the left and right door straps (B).



6. Disconnect the spring (C).

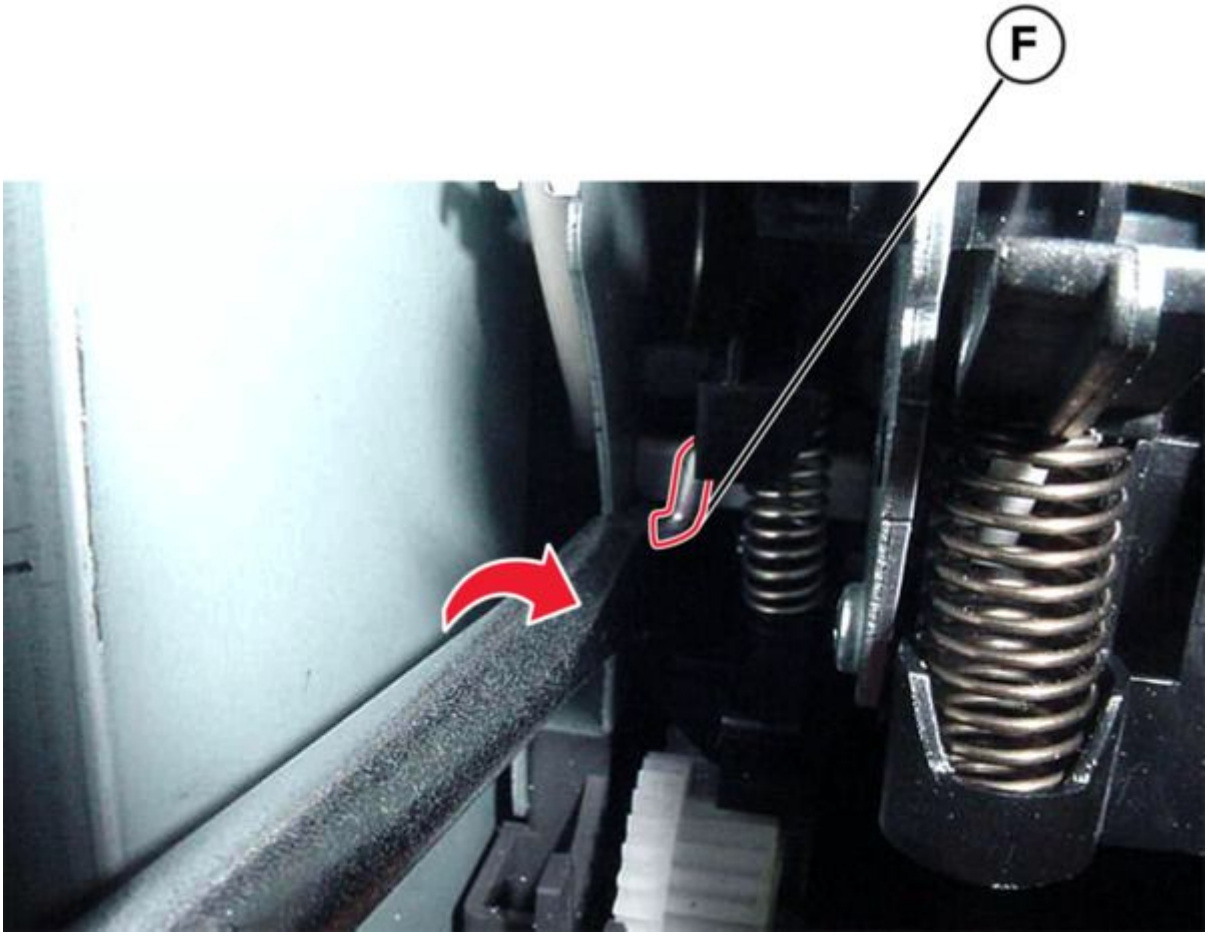


7. Raise the cam (D) and spring (E).

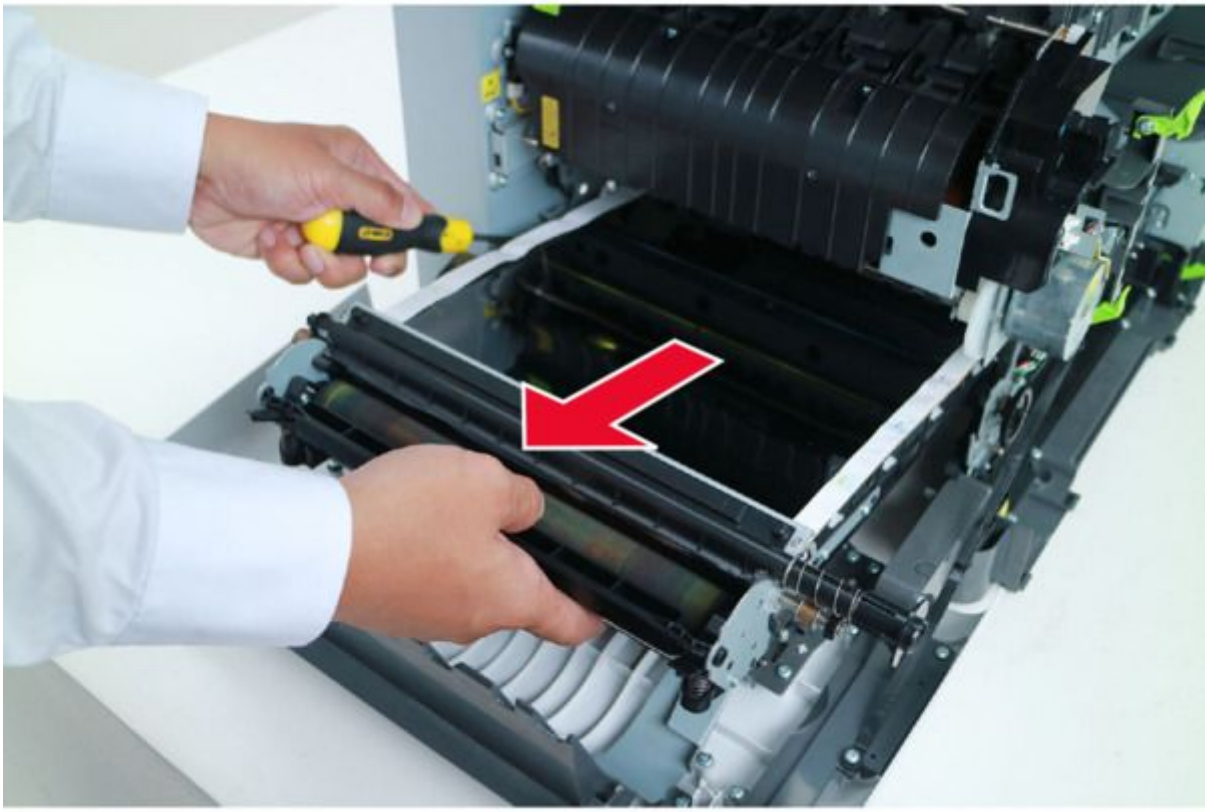


8. Place the tip of a flat-head screwdriver in between the release lever (F) and the frame, and then rotate the screwdriver to rotate the release lever and decouple the transfer module while pulling it toward the front.

> **Warning—Potential Damage**
> Make sure that the lever is in the fully released position before removing the transfer module.

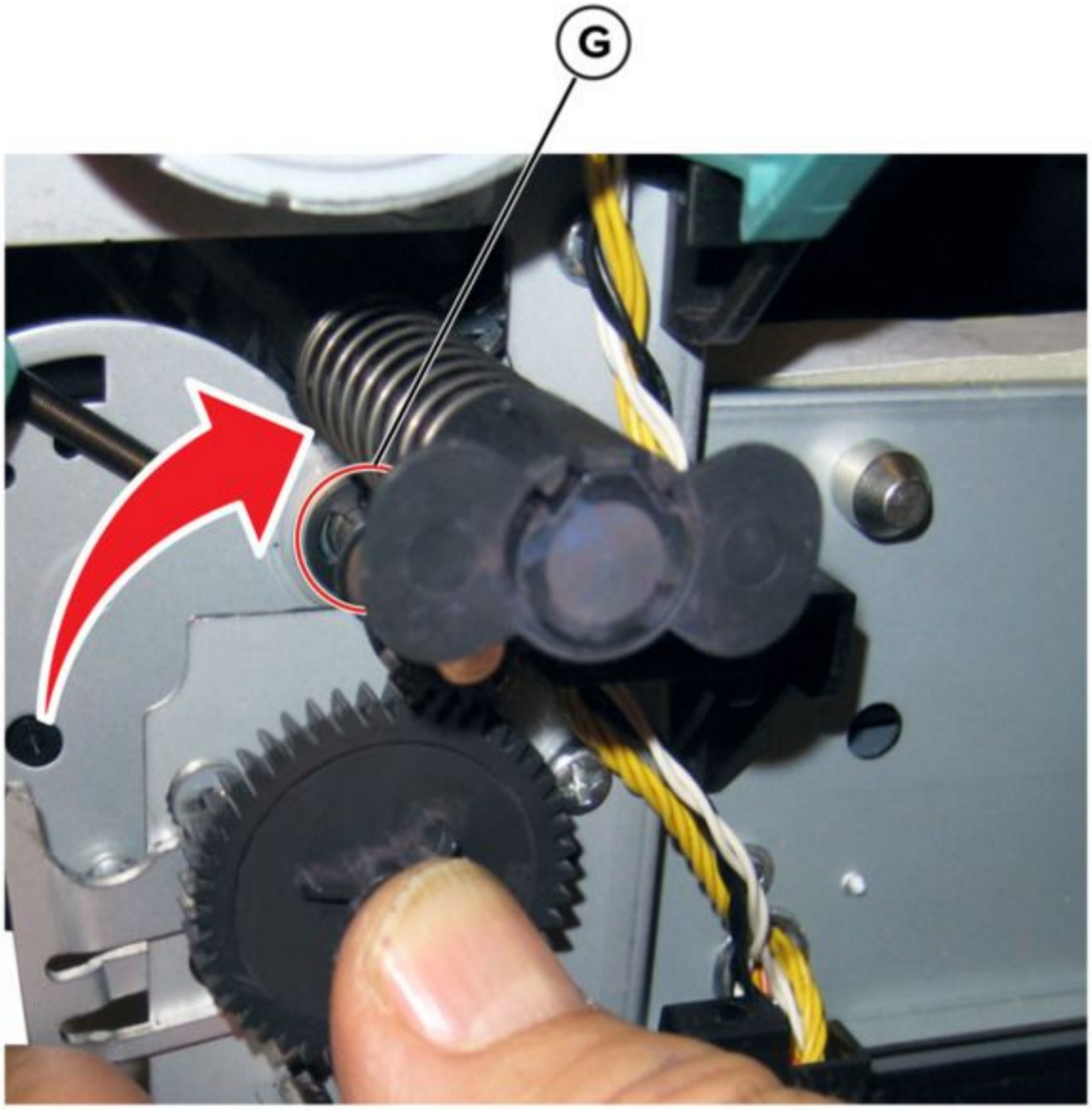


9. Hold the release lever as you pull out the transfer module for the first four inches (100 mm). A quick and firm pull should overcome the latch at this point.
10. Remove the transfer module.



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

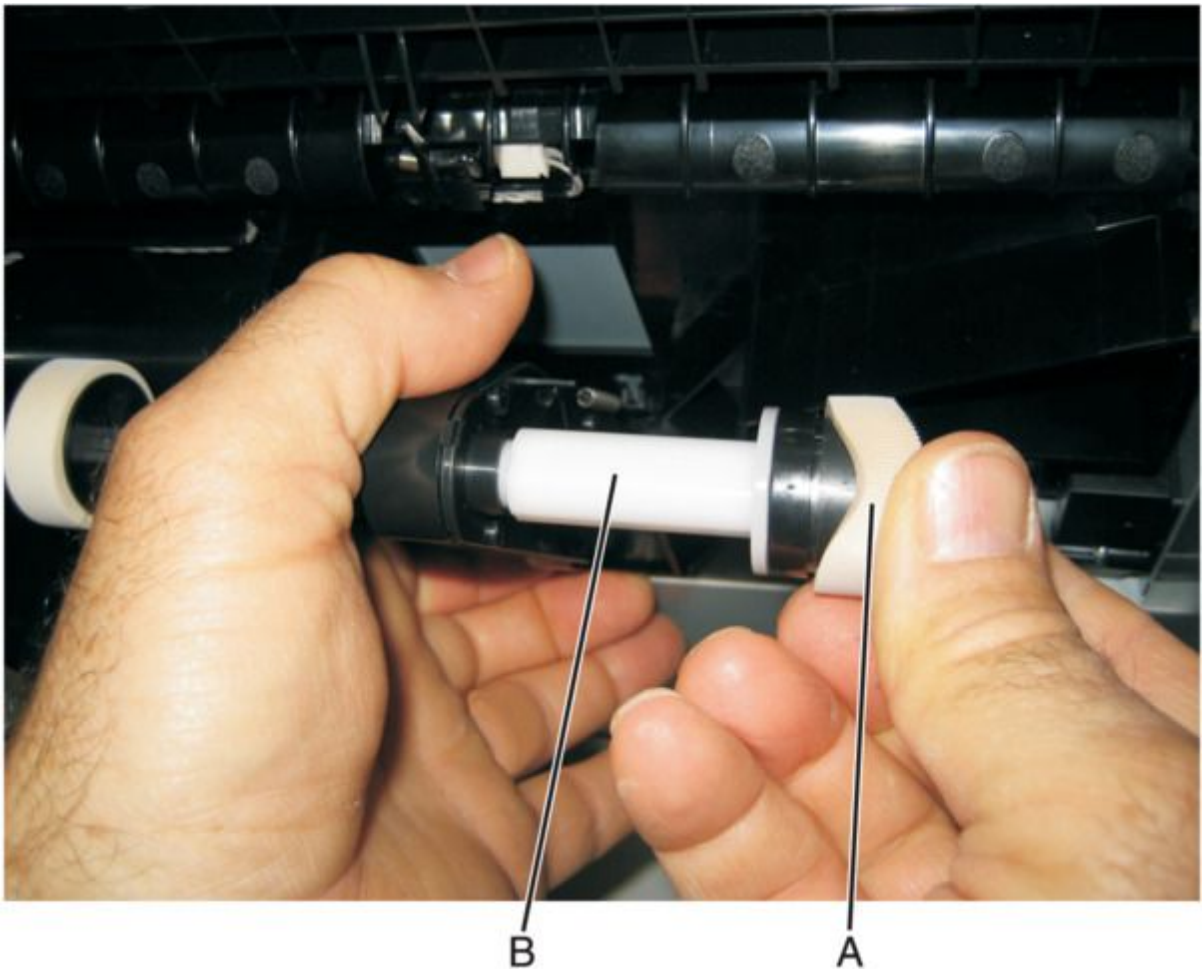
Bottom removals

Pick tires removal

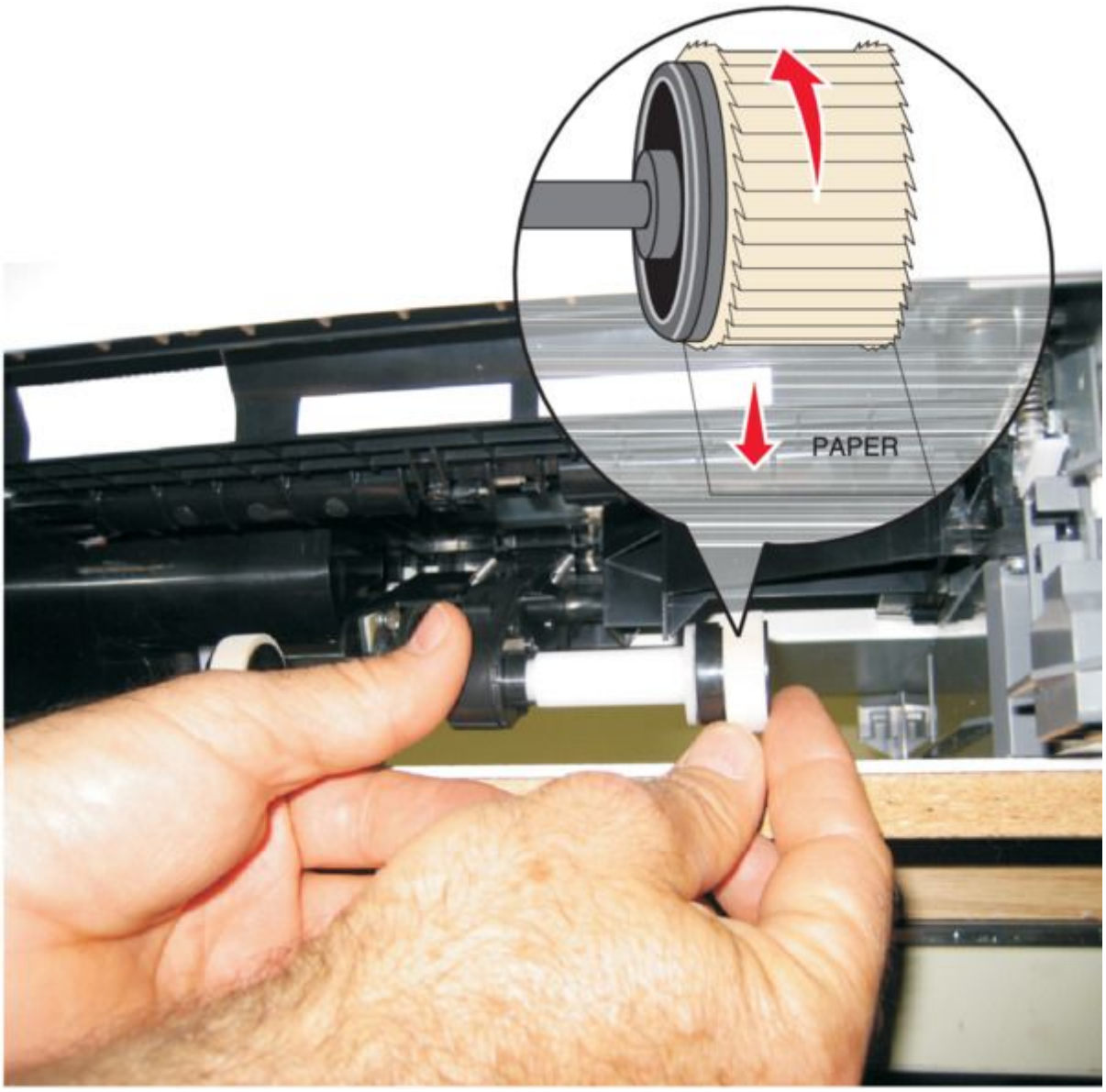
> **Warning—Potential Damage**
> Remove only the rubber tires and not the paper pick tire to avoid losing small parts.

1. Lower the paper pick motor drive .

2. Remove the rubber tire (A) from the pick roll (B). Repeat for the other tire.



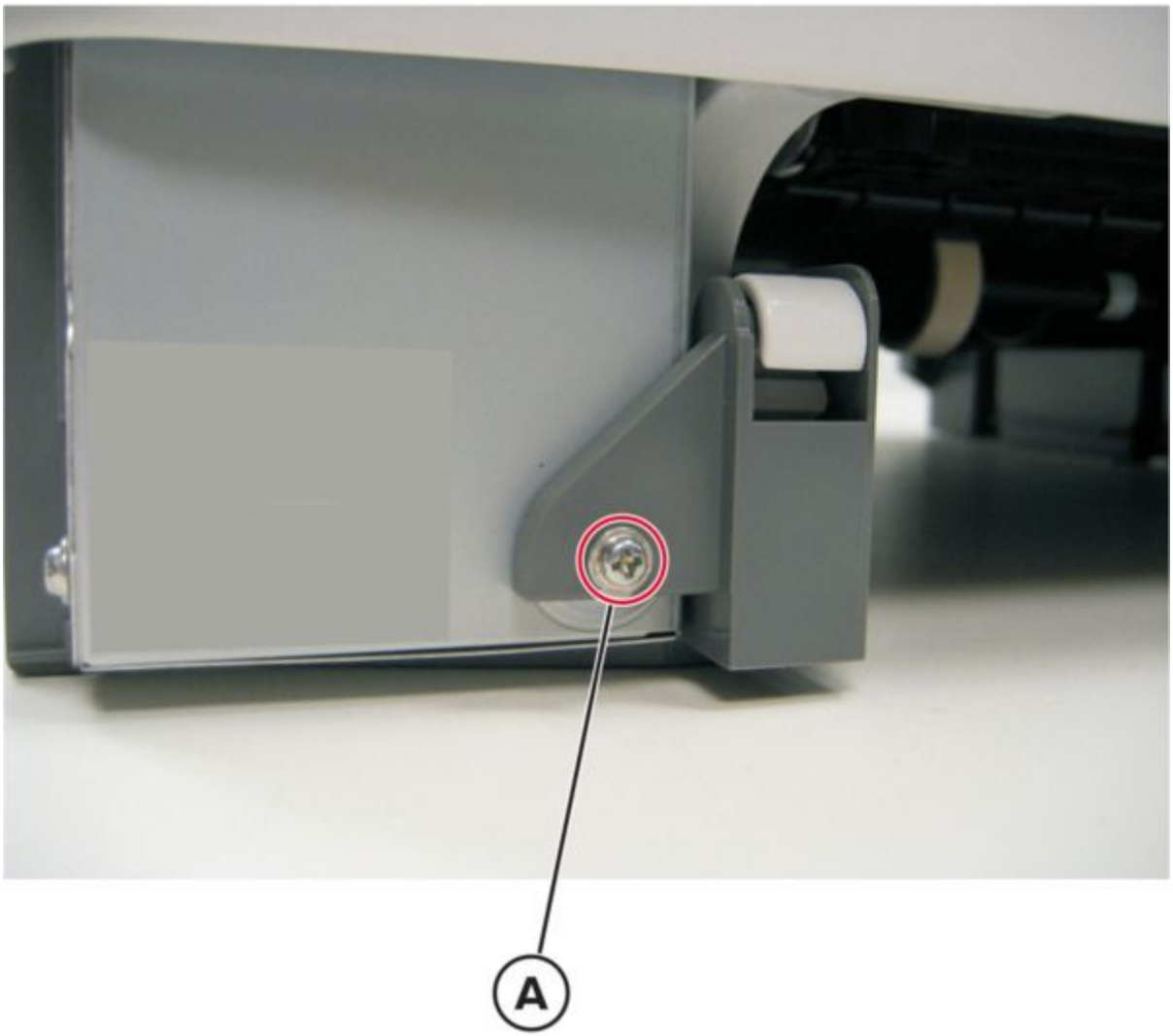
Installation Note
Install the new rubber tires with the surface texture turning in the direction as shown in the following:



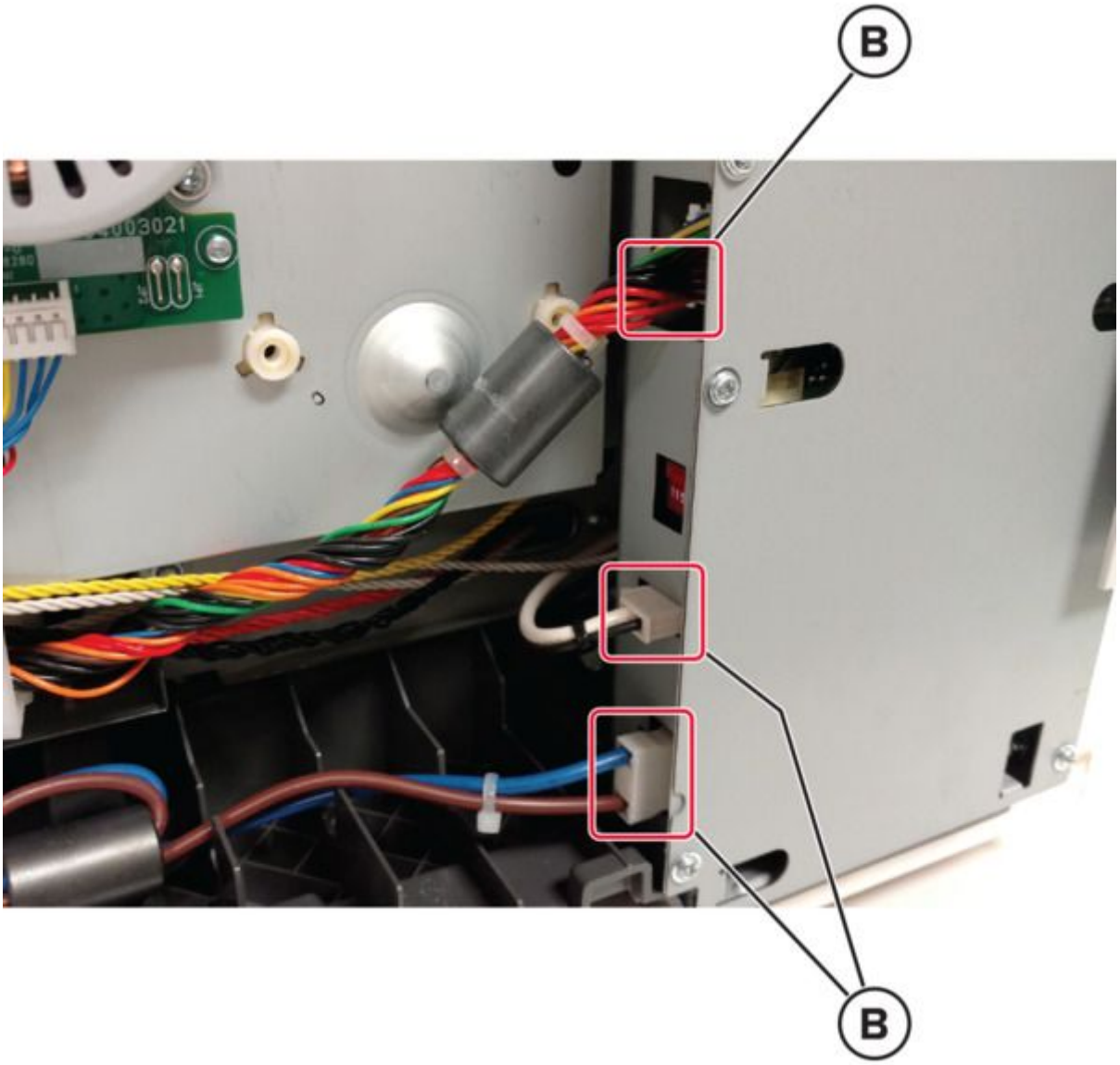
Notes
Feel each rubber surface to verify that it turns in the proper direction. The smoother surface pushes the paper toward the front of the printer.

Lower left frame removal

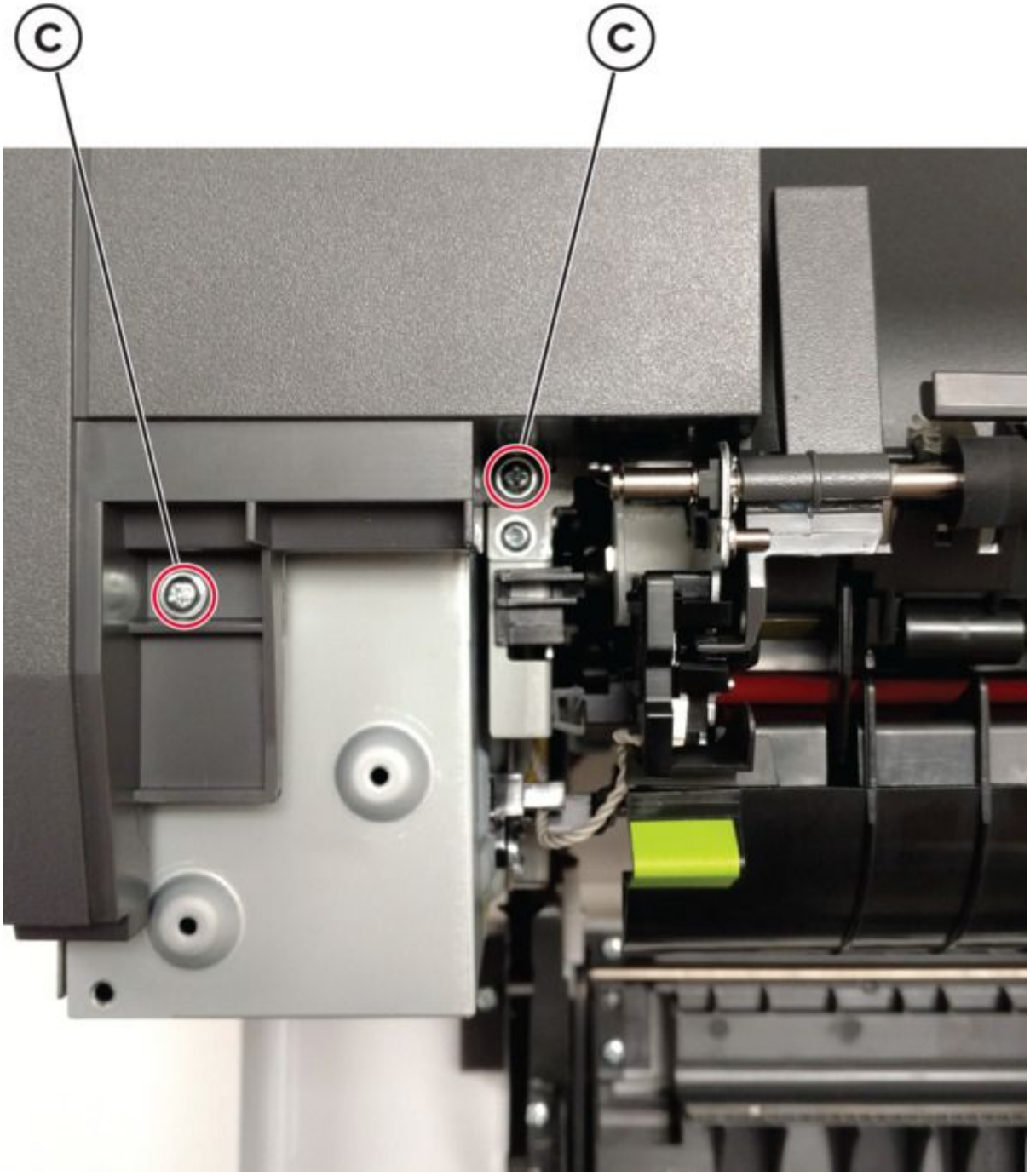
1. Remove the media tray, and remove the screw (A) from the front.



2. Remove the waste toner bottle. See Waste toner bottle removal on page 275.
3. Remove the imaging kit. See Imaging kit removal on page 269.
4. Remove the left cover. See Left cover removal on page 238.
5. Disconnect the three cables (B) from the LVPS.

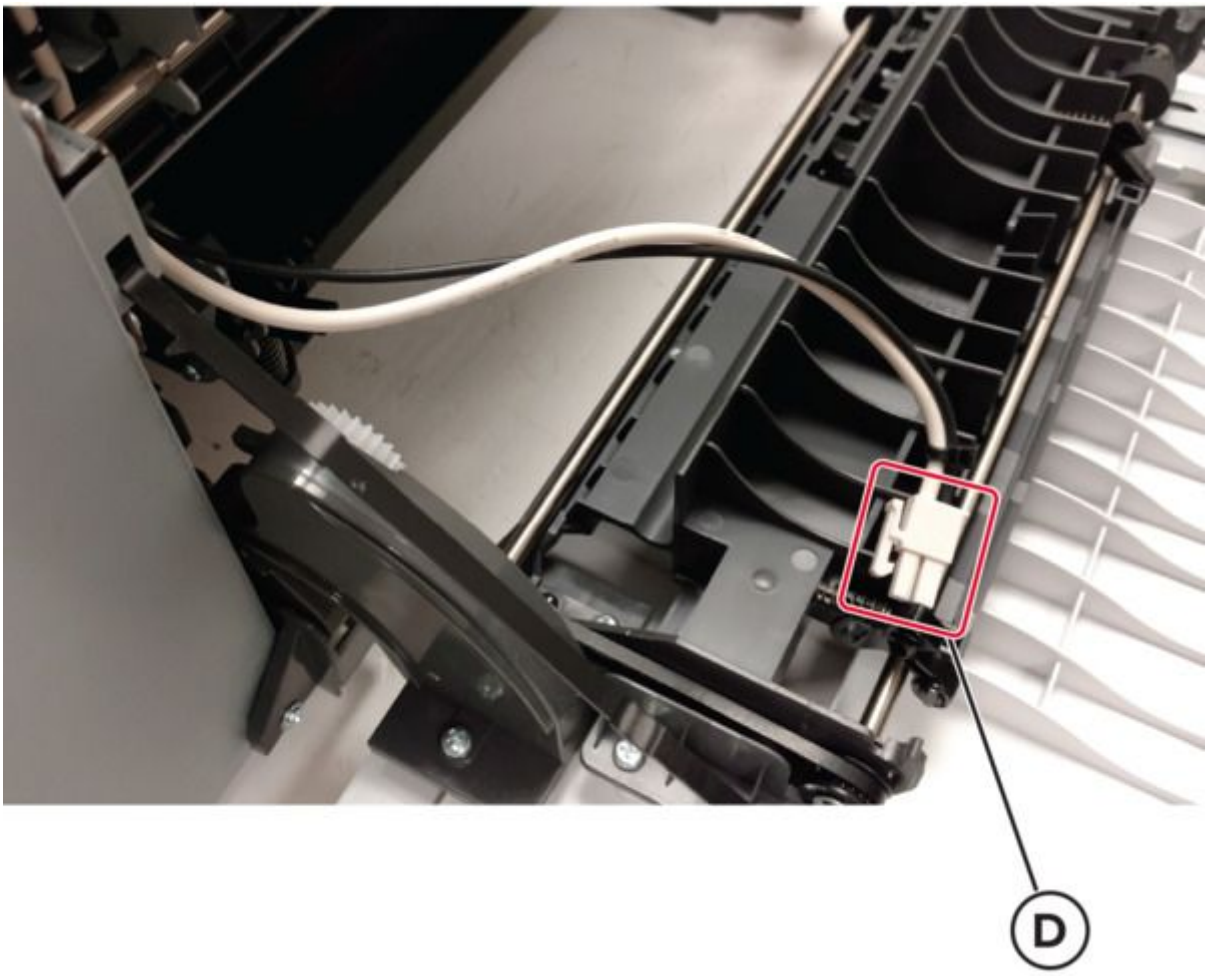


6. Remove the two screws (C).

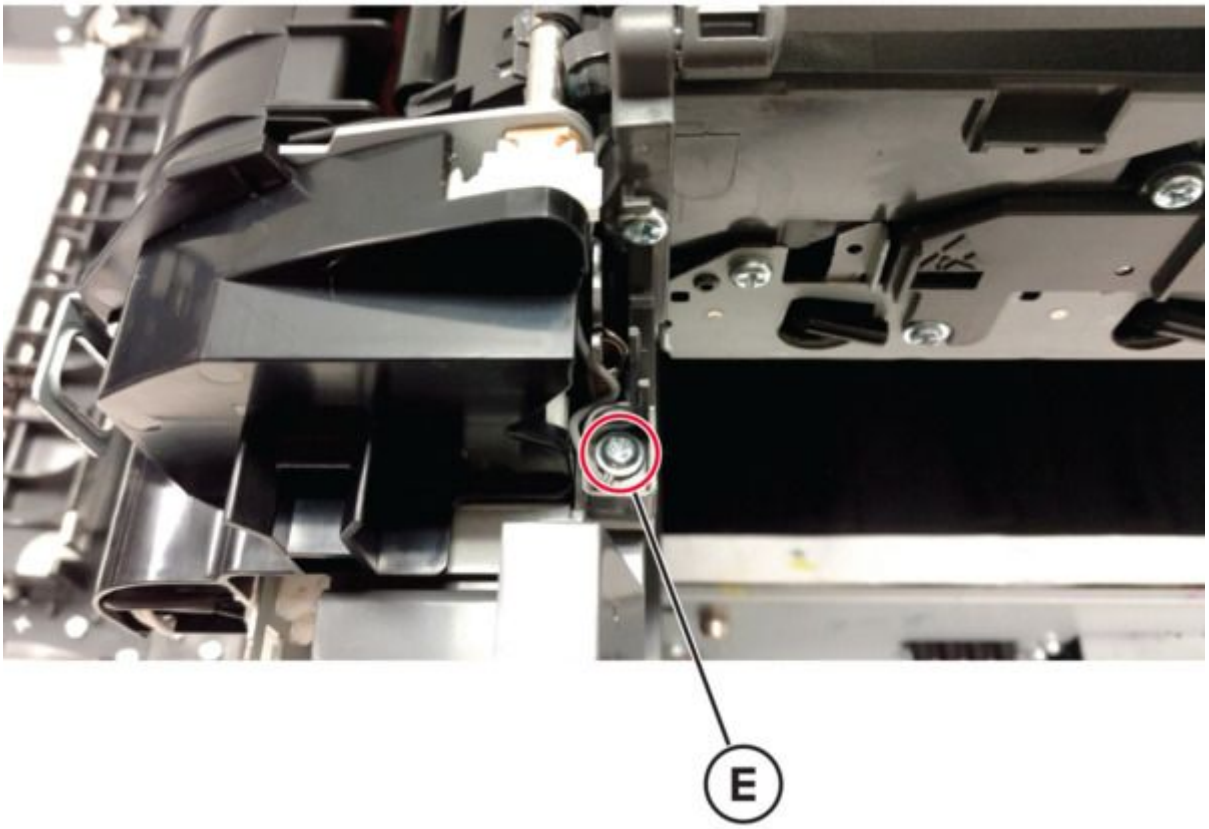


7. Position the fuser cable (D) so that it can be pulled through from the front of the printer, and then guide the cable through the front.

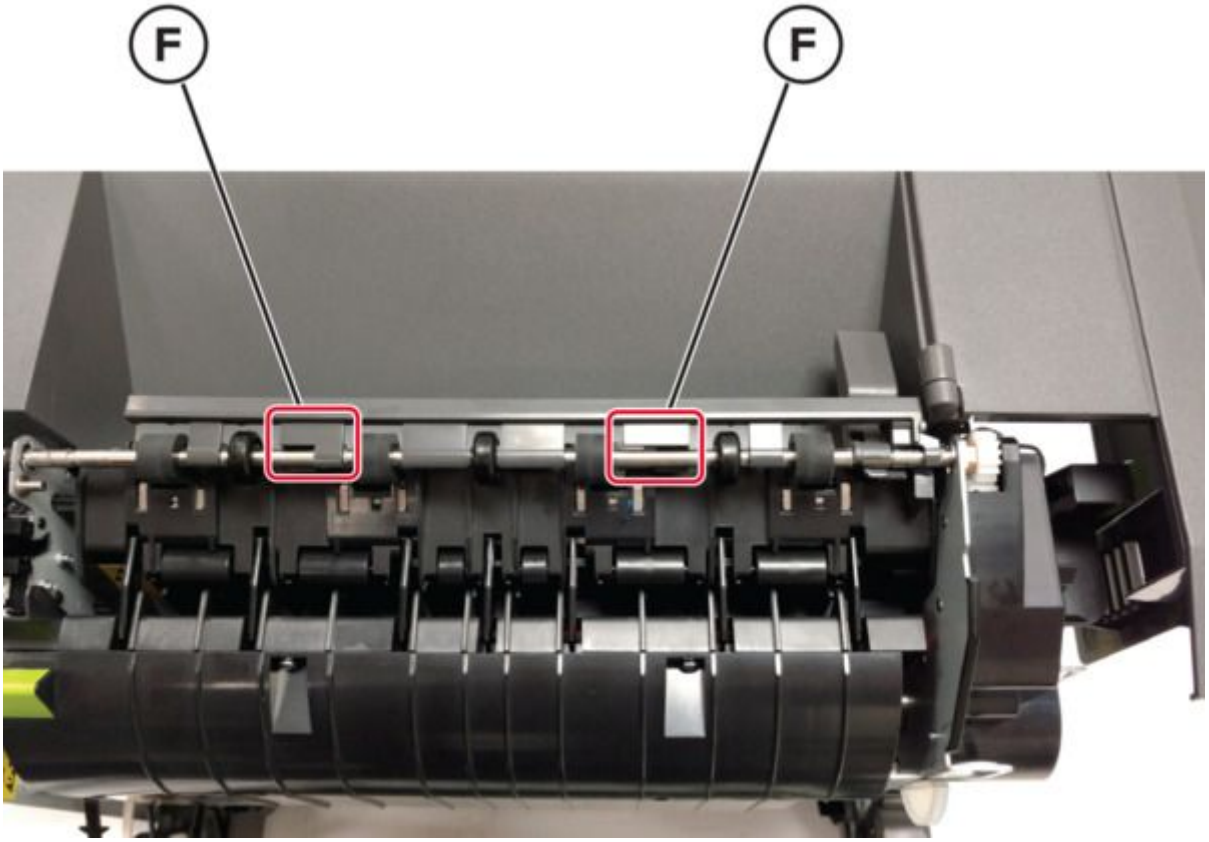
> **Warning—Potential Damage**
> Do not to damage the cable by pulling too hard or cutting the cable insulation.



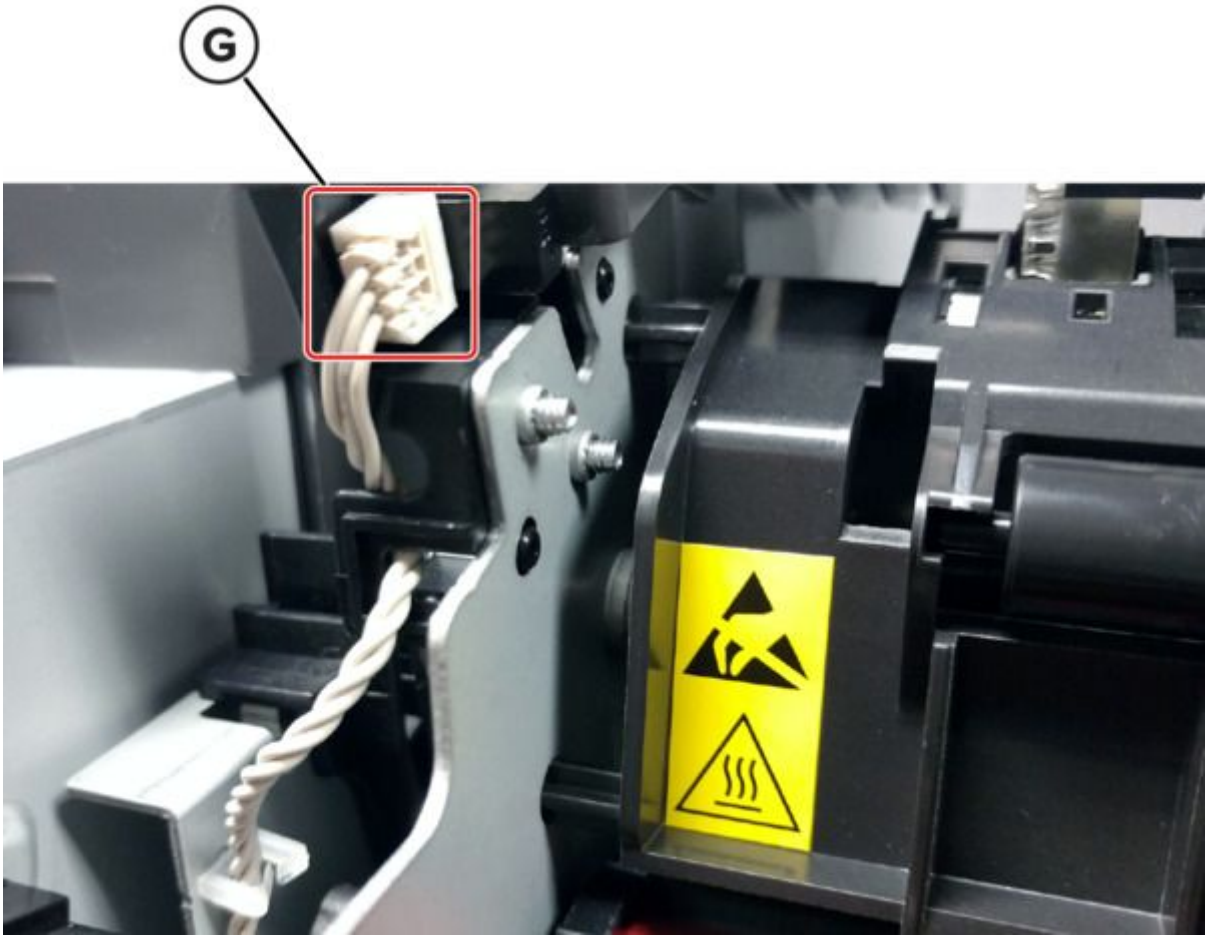
8. Remove the narrow media/exit sensor flag. See Narrow media/bin full sensor flag removal on page 363.
9. Disconnect the ground wire (E) from the front toner cover bracket, and then route it to the front of the printer.



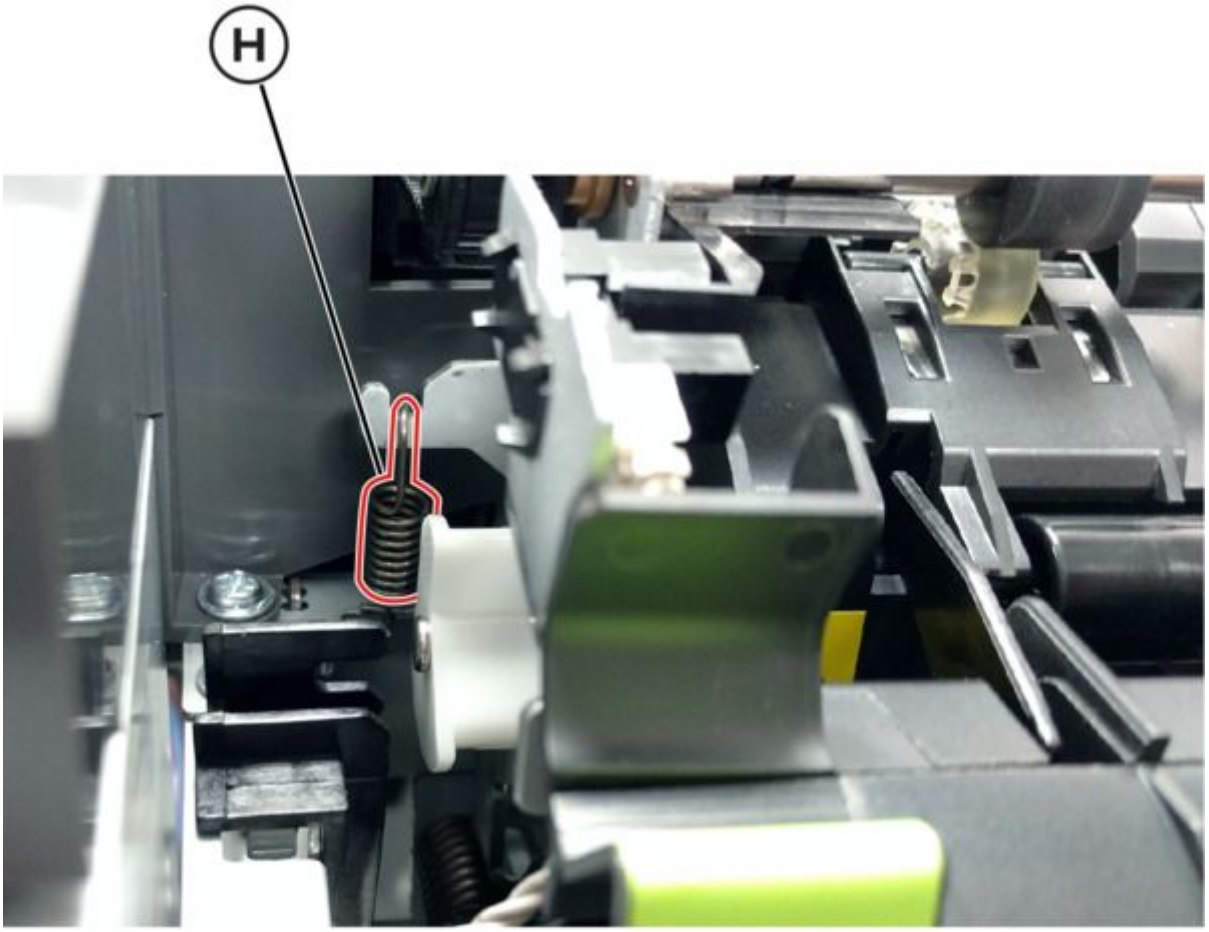
10. Release the tabs (F), and then rotate the exit deflector to remove.

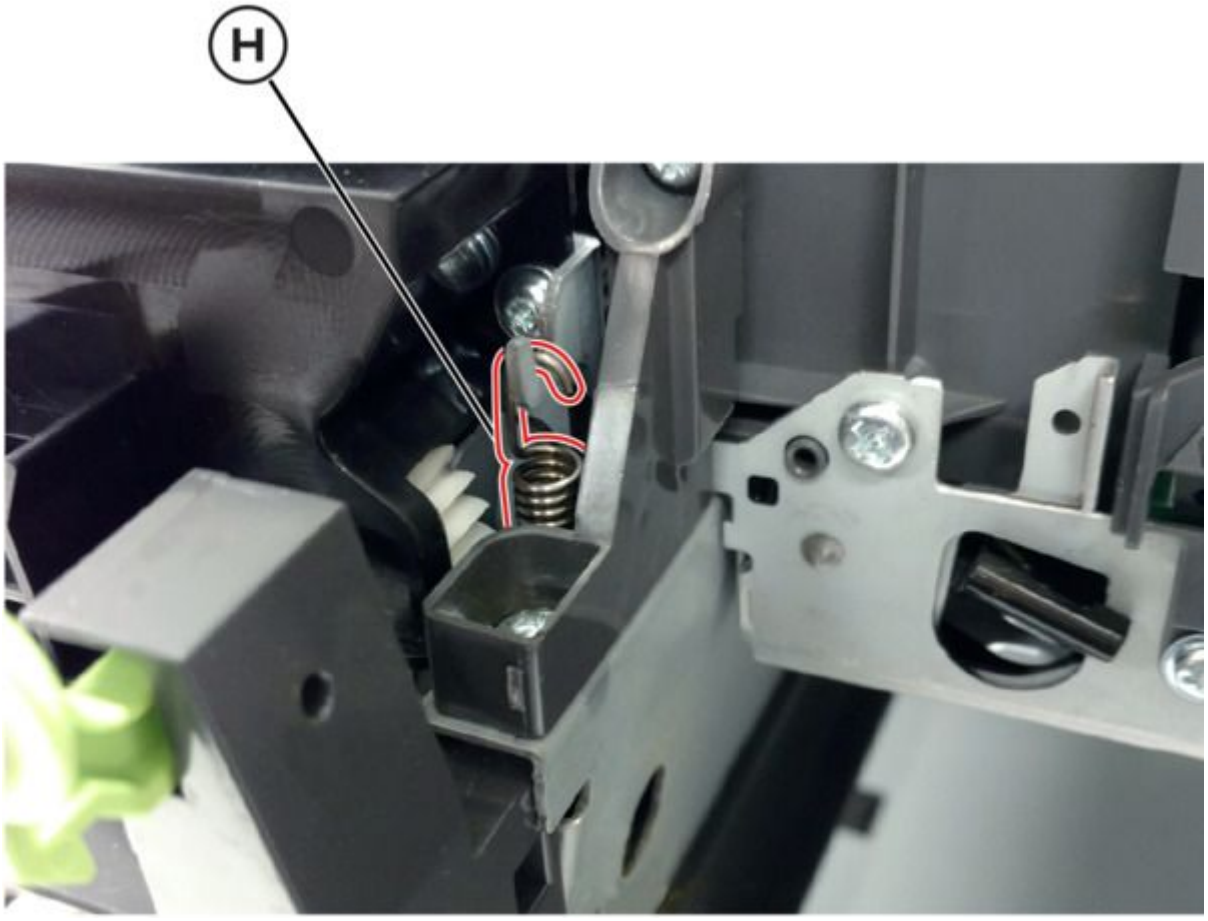


11. Remove the right out put bin deflector. See Right output bin deflector removal on page 369.
12. Disconnect the cable (G) from the bin-full/narrow media sensor, and then remove the cable from its retainer.

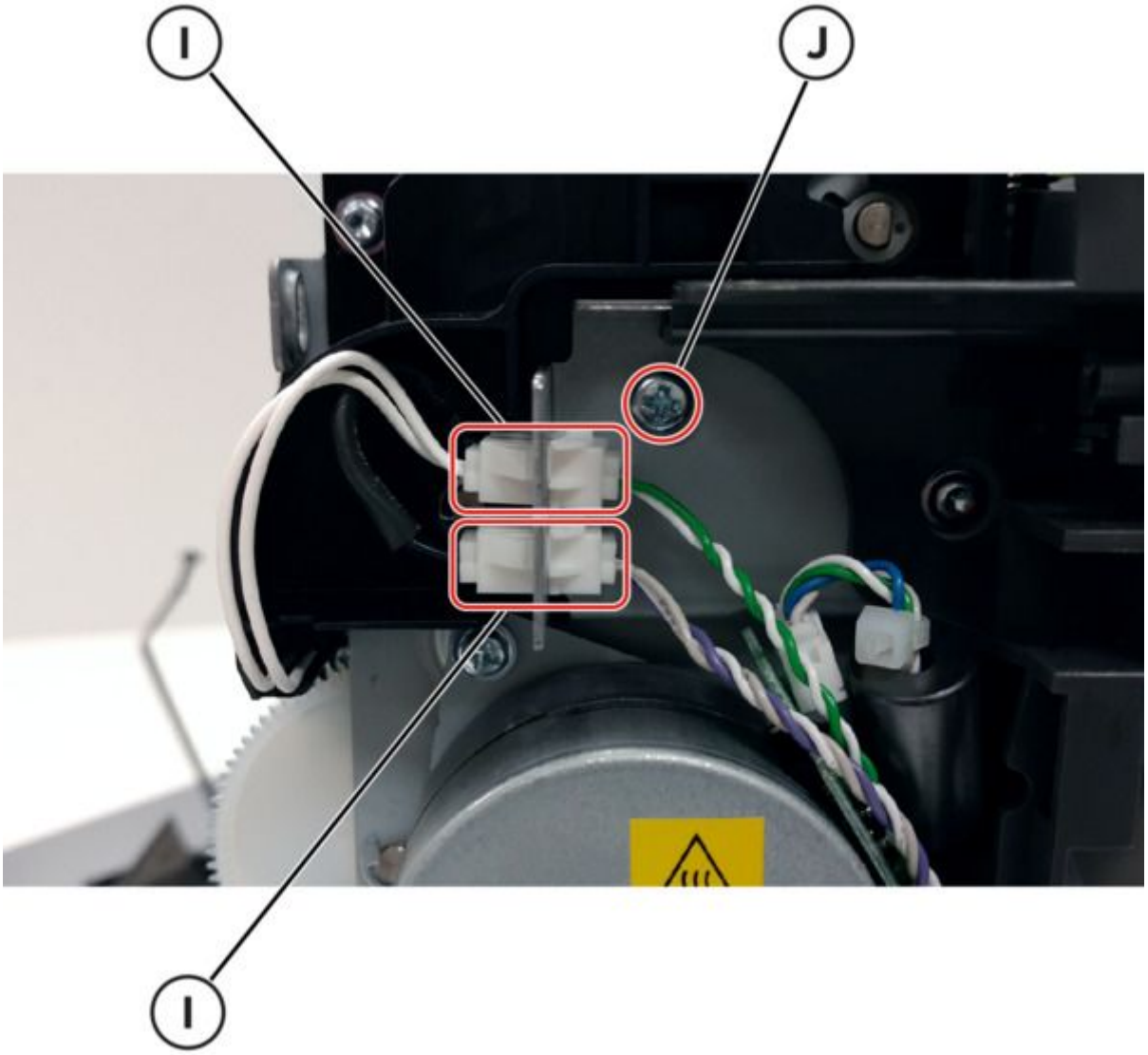


13. Unhook the two springs (H) from both sides of the fuser.

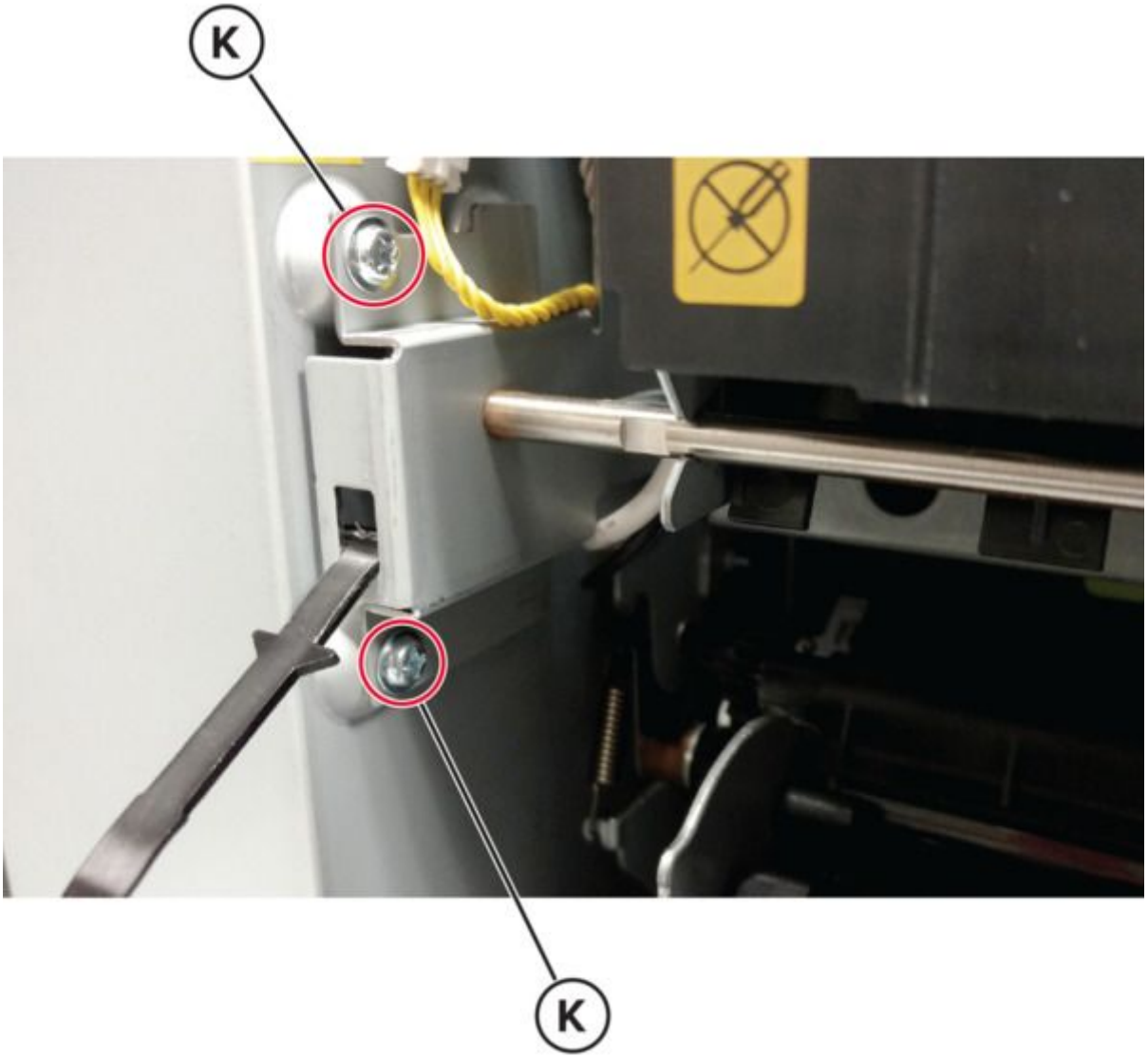

H


H

14. Disconnect the two cables (I), and then pull them over the retainer.
15. Remove the screw (J).



16. Remove the two screws (K).

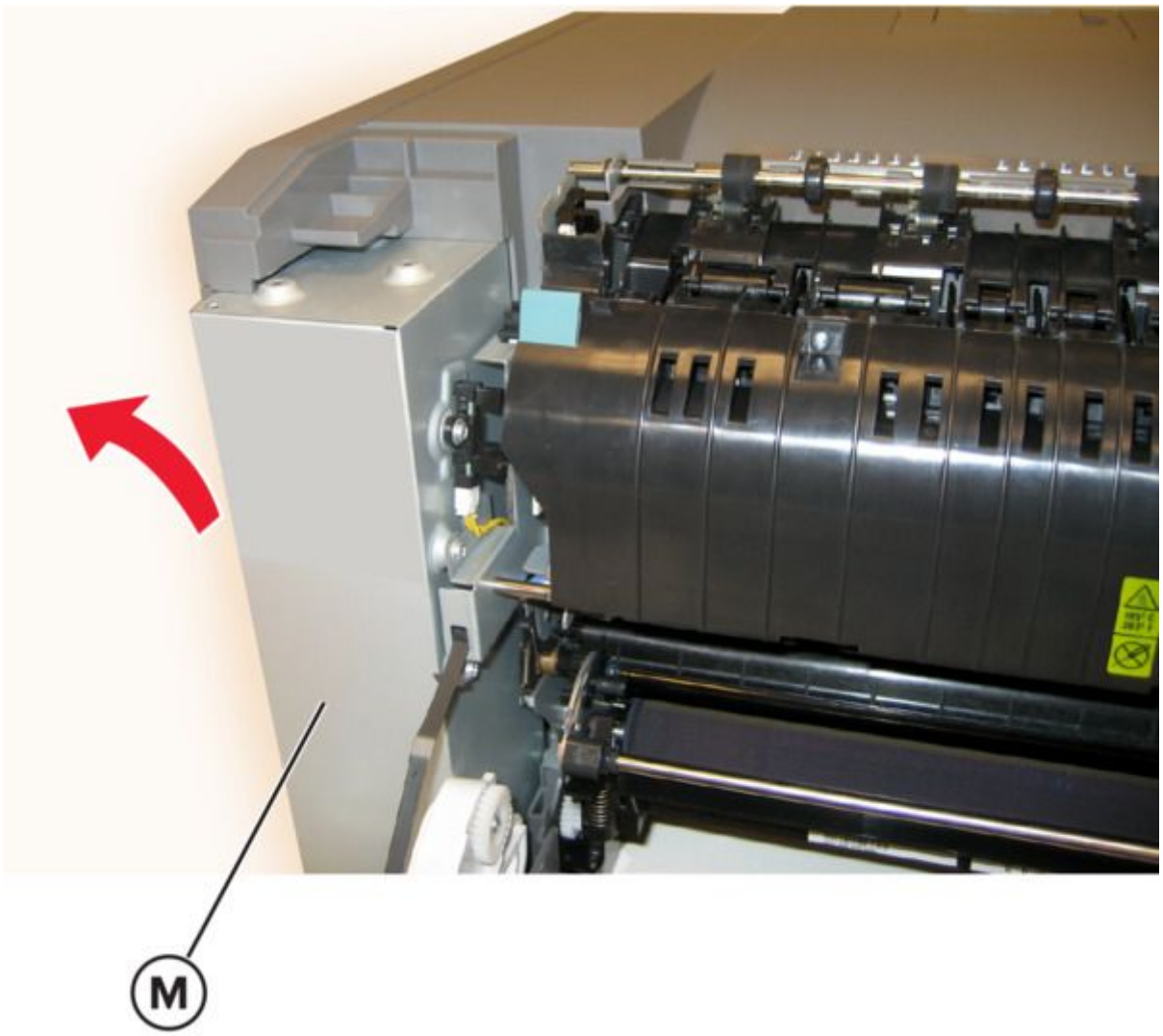


17. Rotate the top of the fuser toward the front, and then slide the fuser to the left to align the fuser side frames with the flat area of the shaft.
18. Disconnect the fuser exit sensor cable (L).

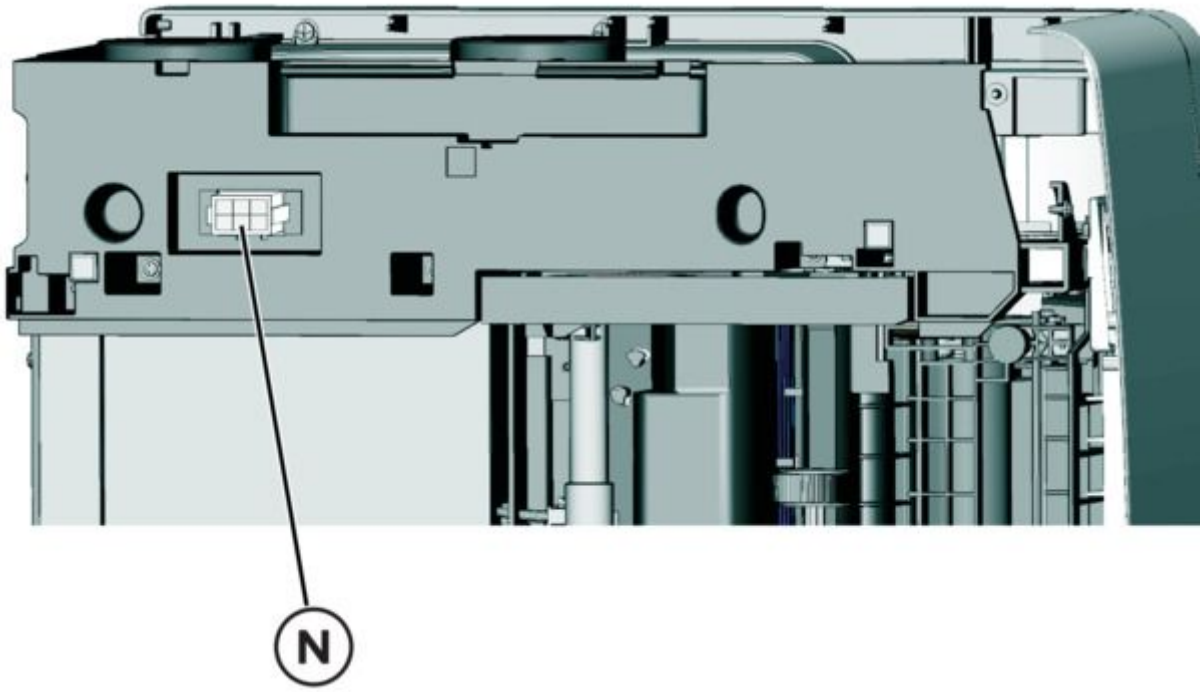
19. Lift the front left corner of the top cover, and then tilt the LVPS cage (M) to remove the cage.

Note:

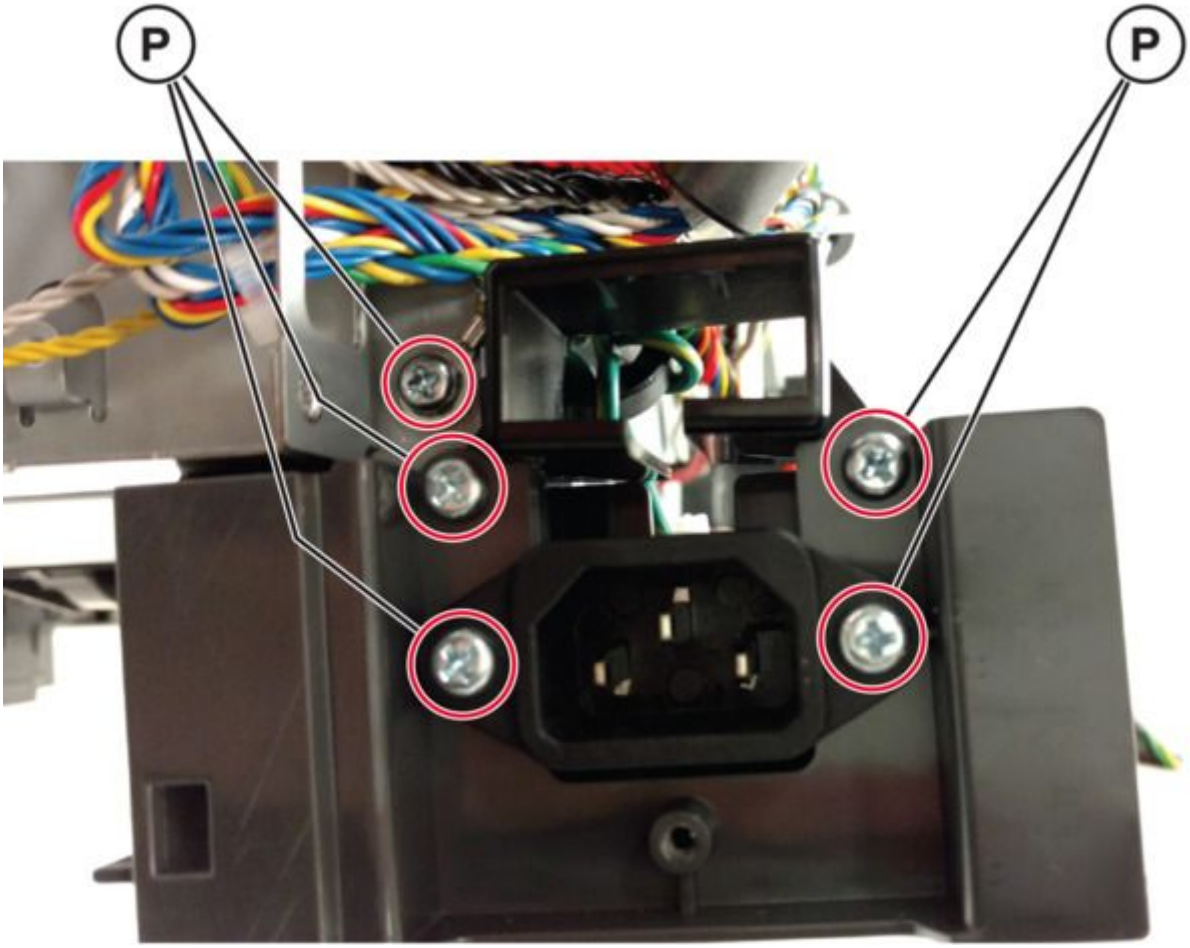
- There are two posts at the bottom of the cage on the left side that need to be disengaged.
- Pay attention to the sensor (fuser exit) which remains with the cage.



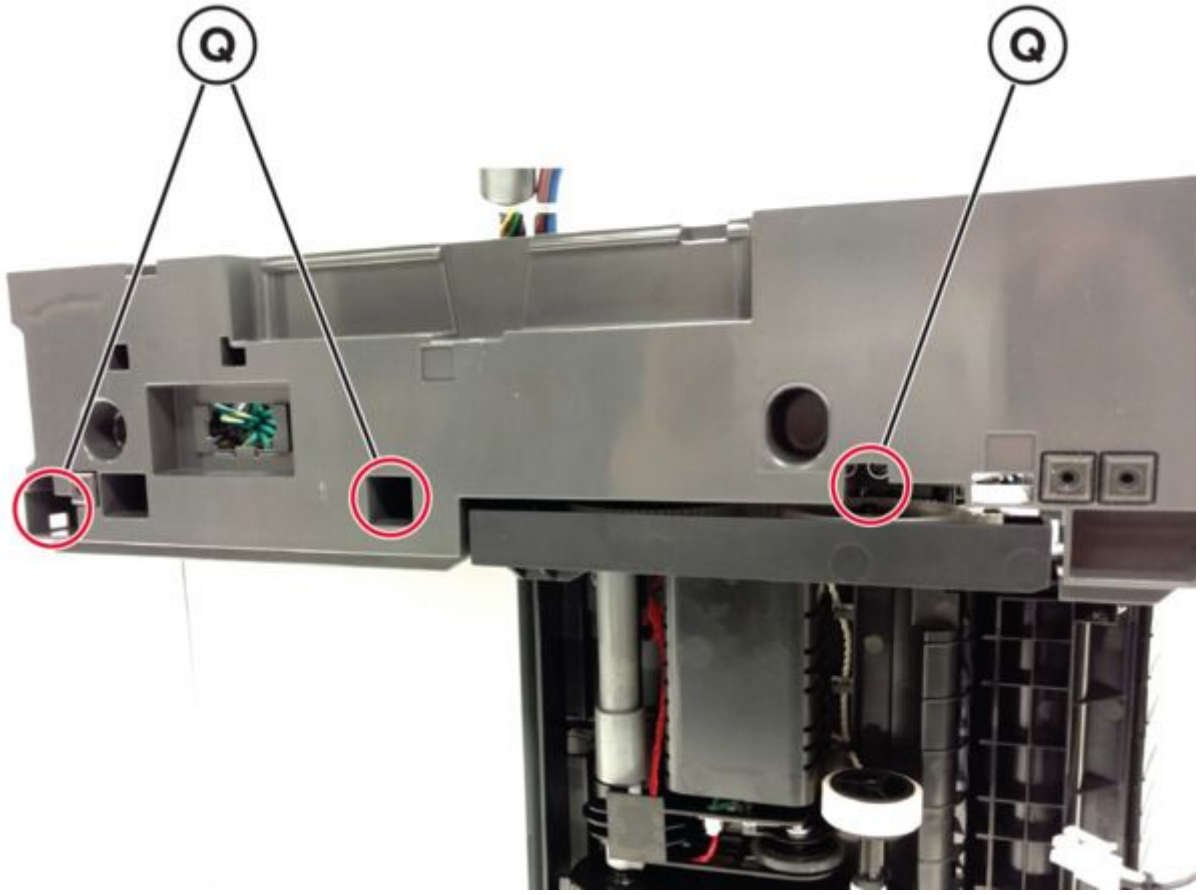
20. Place the printer on its right side.
21. Remove the connector (N).



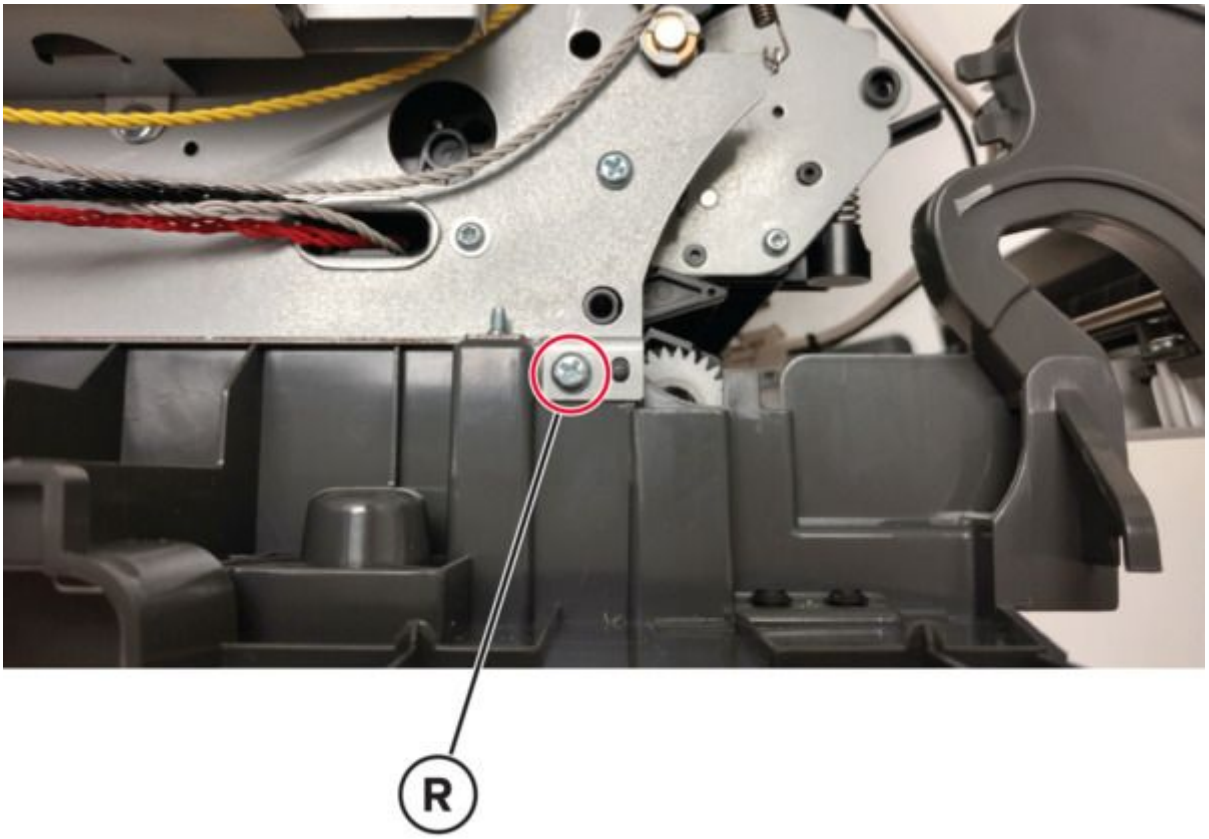
22. At the rear of the printer, remove the five screws (P).



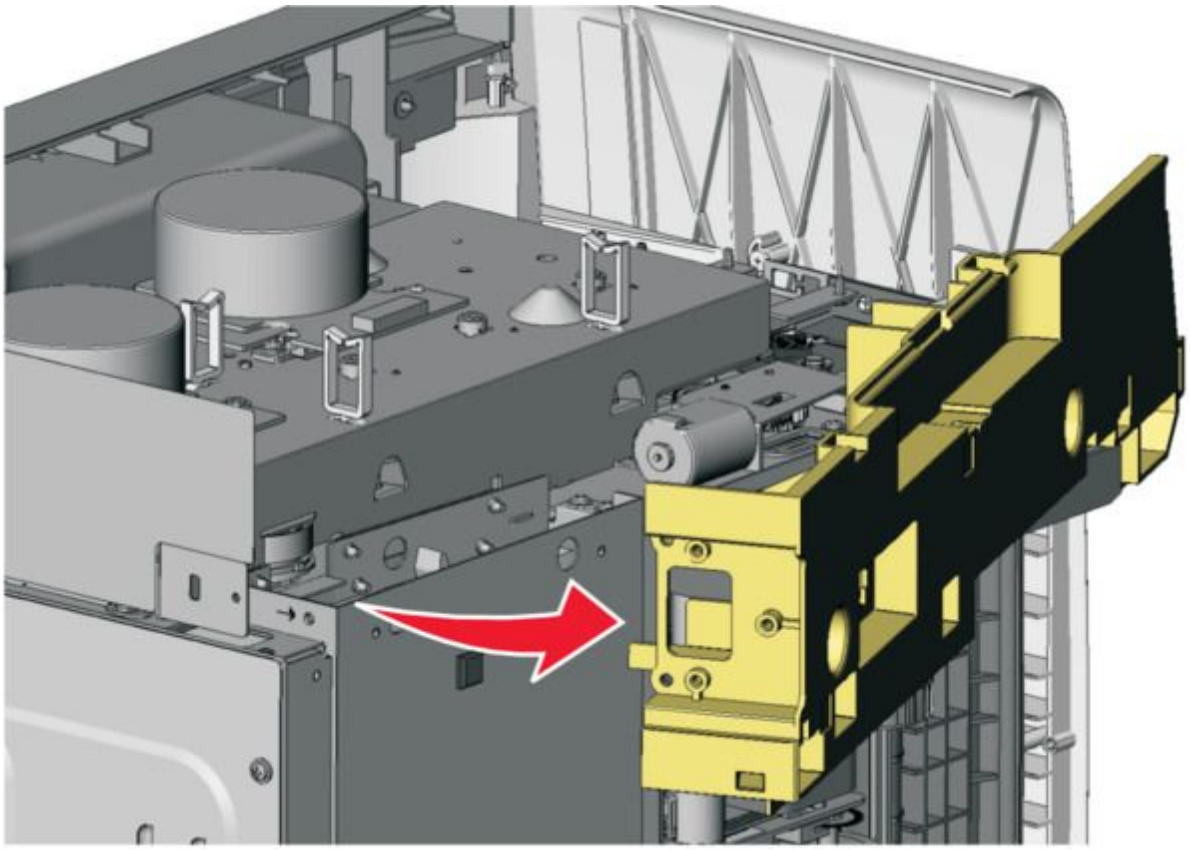
23. Remove the AC receptacle from the left lower frame.
24. Remove the three screws (Q).



25. Tilt the front door down, disconnect the left and right door straps, and then separate the door from the frame.
26. Remove the screw (R).



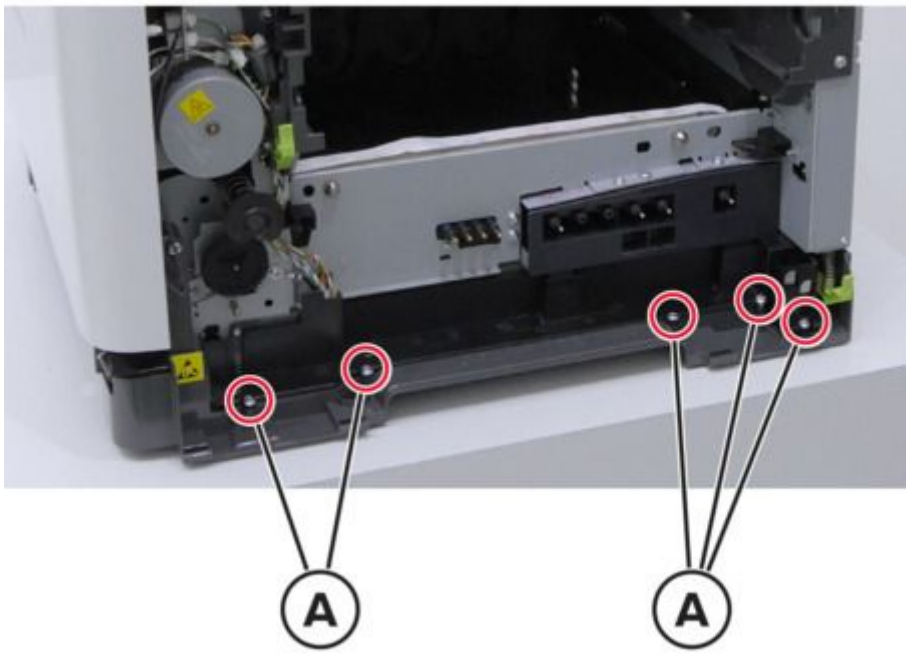
27. Swing the left lower frame away from the printer to remove.



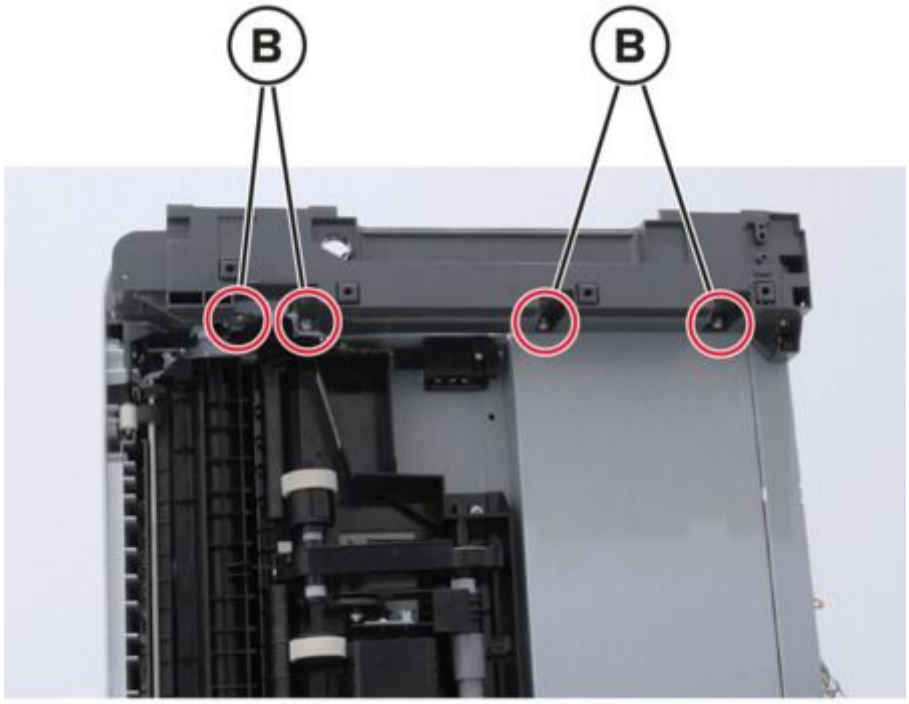
Lower right frame removal

Notes
For a video demonstration, see Lower right frame removal.

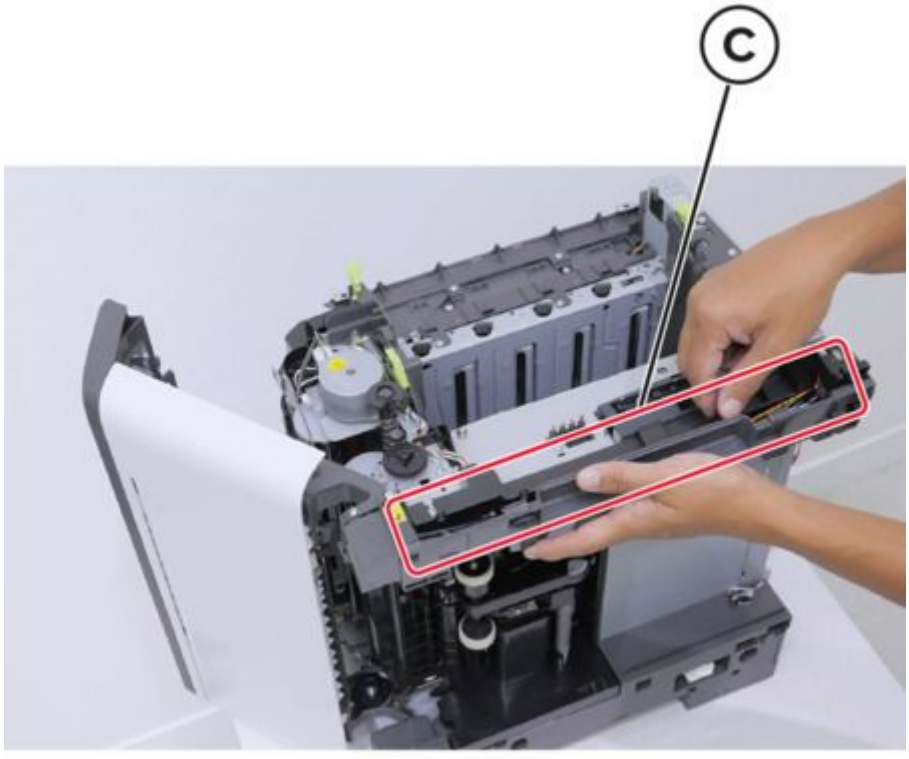
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the five screws (A).



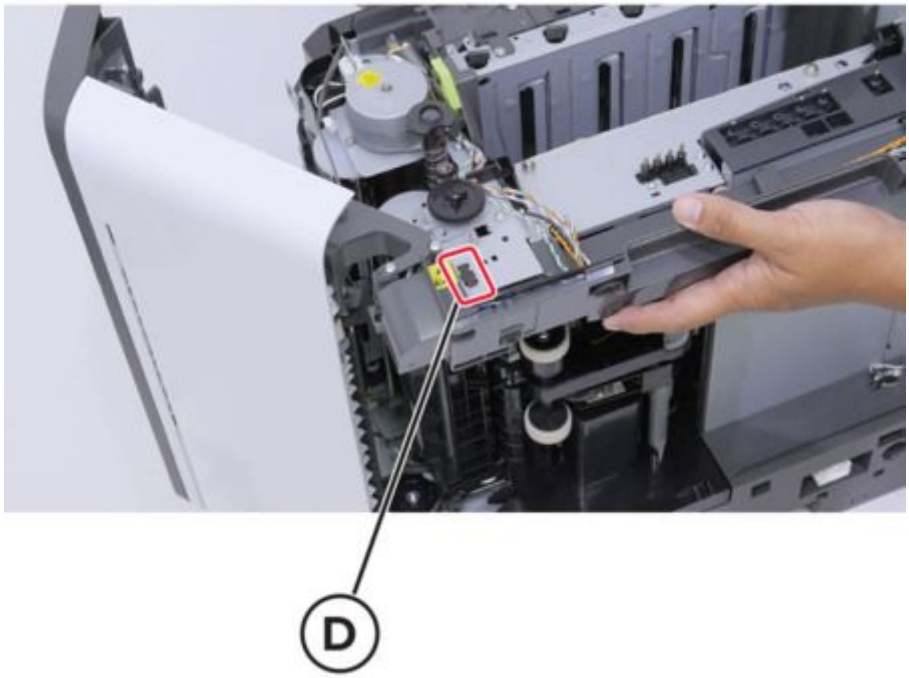
7. Place the printer on its left side.
8. Remove the four screws (B).



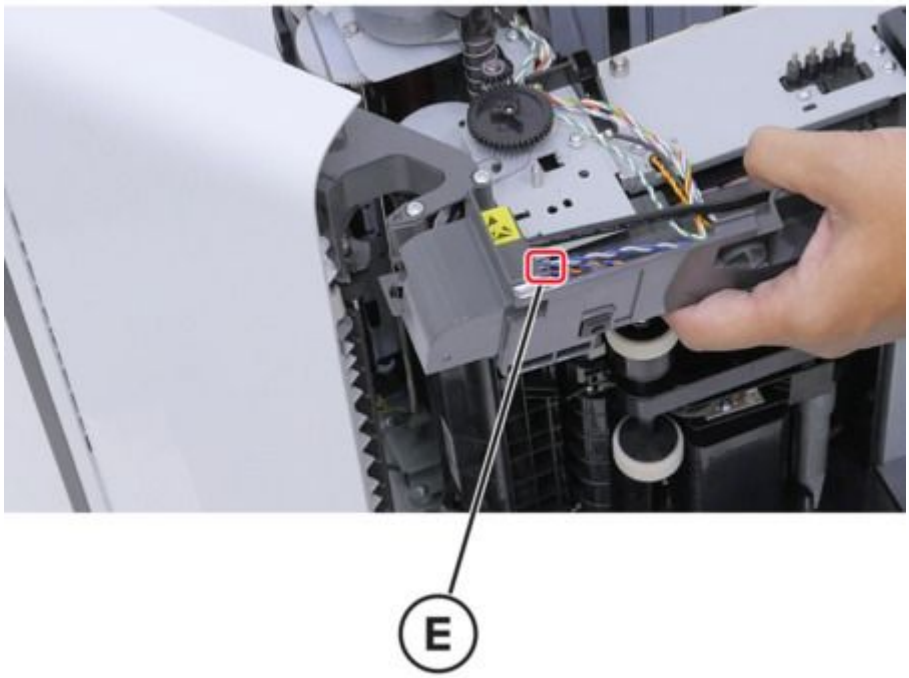
9. Remove the cable cover (C).



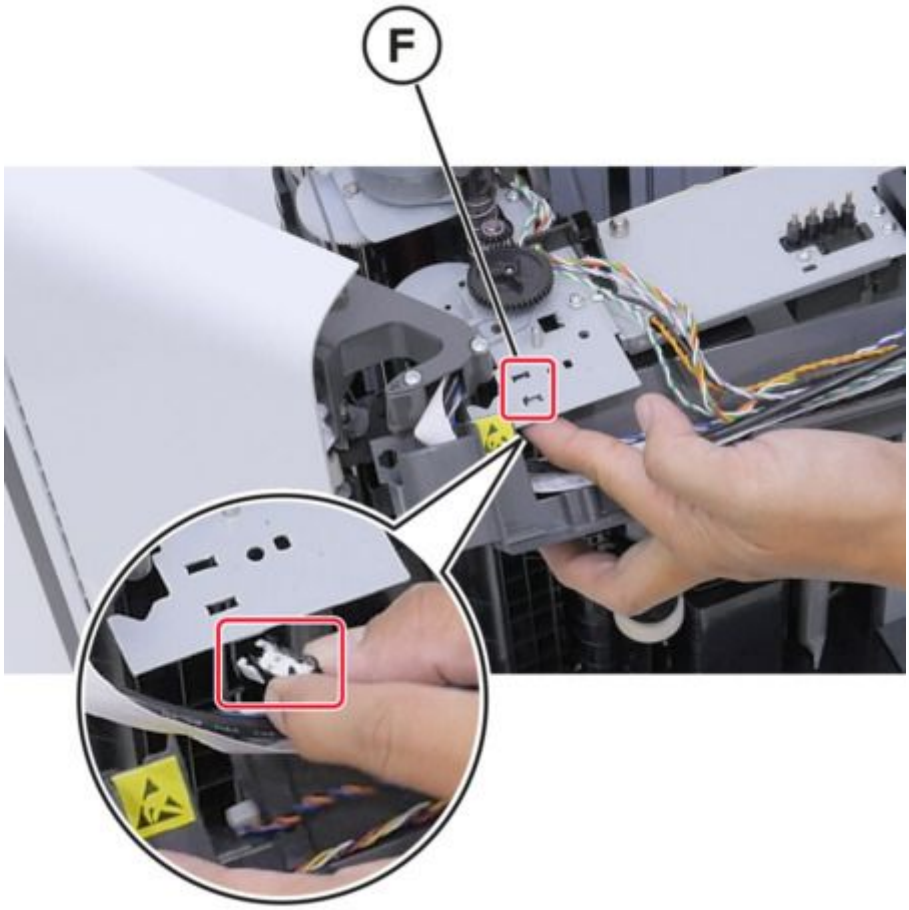
10. Remove the sensor retainer plate (D).



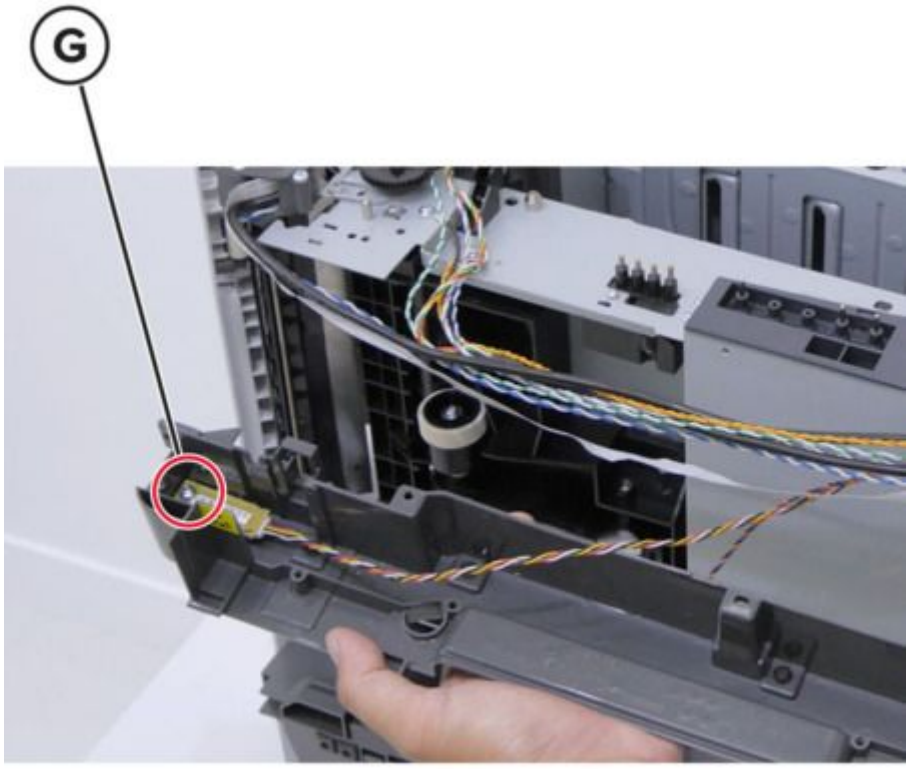
11. Disconnect the connector (E).



12. Remove the sensor (F).

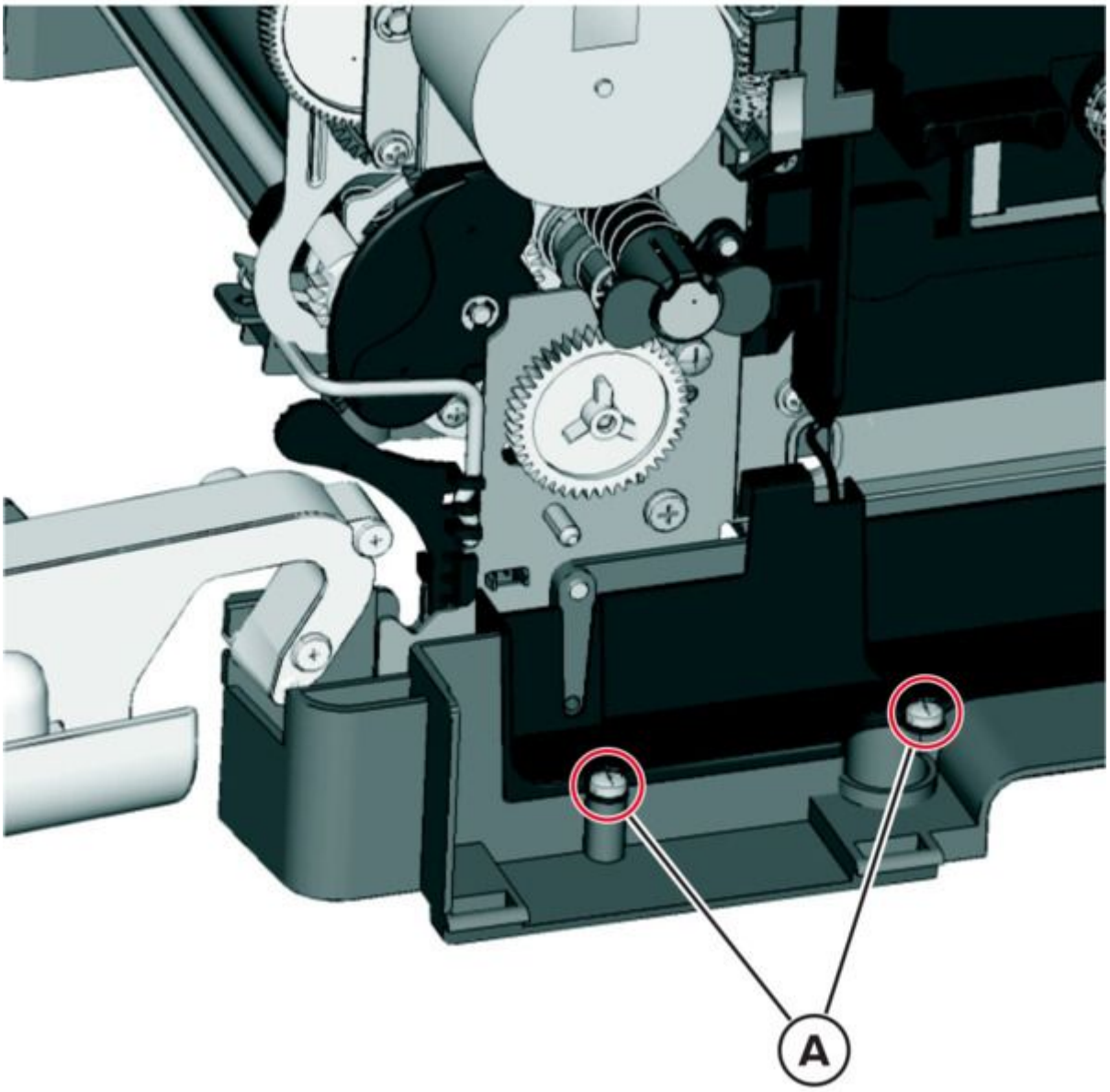


13. Remove the screw (G), and then remove the lower right frame.

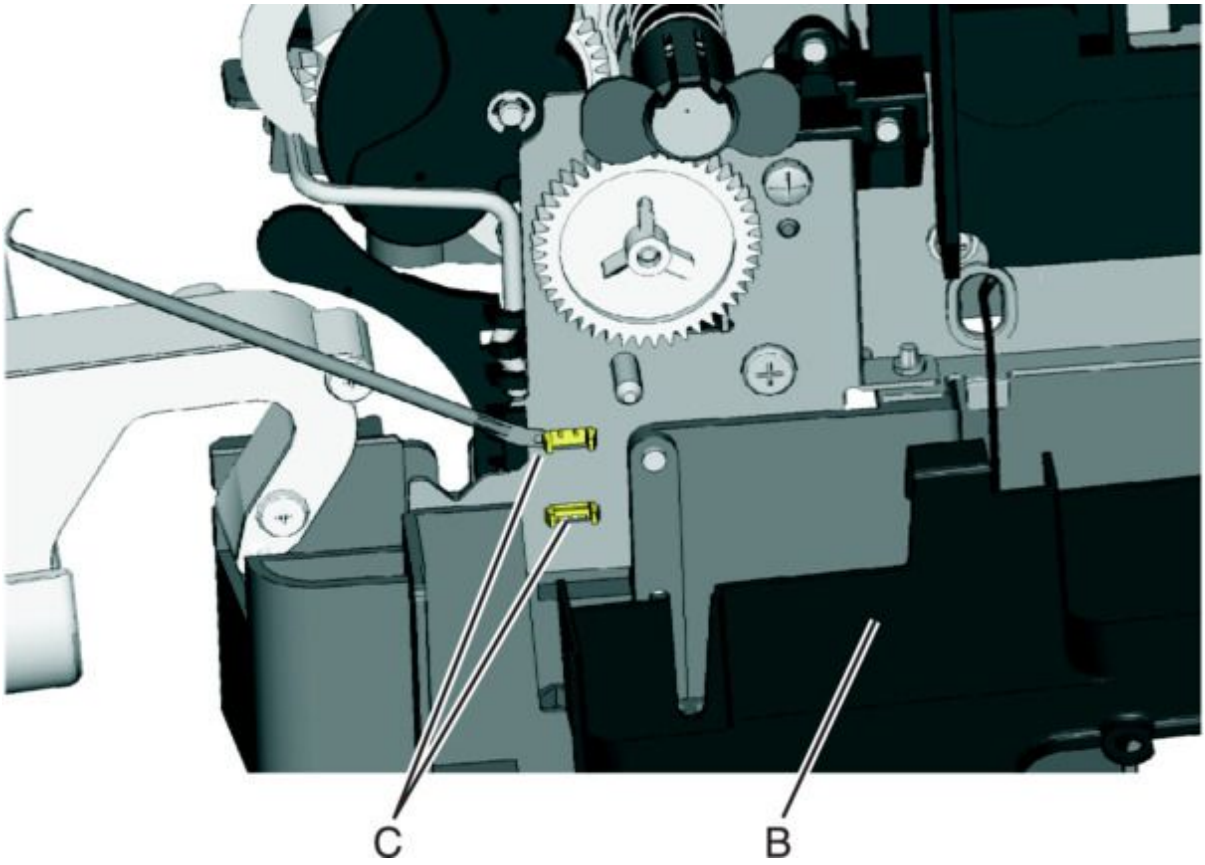


Sensor (duplex) removal

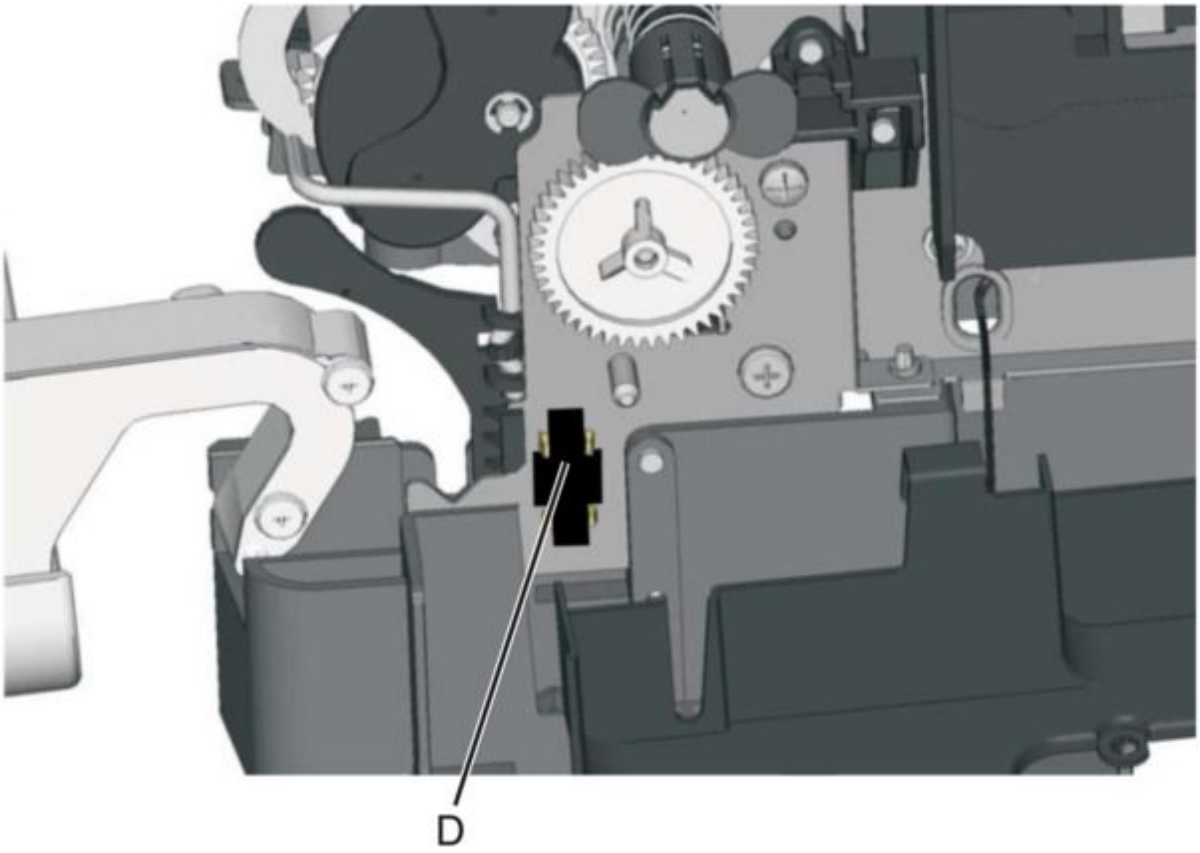
1. Remove the imaging kit. See Imaging kit removal on page 269.
2. Remove the two screws (A).



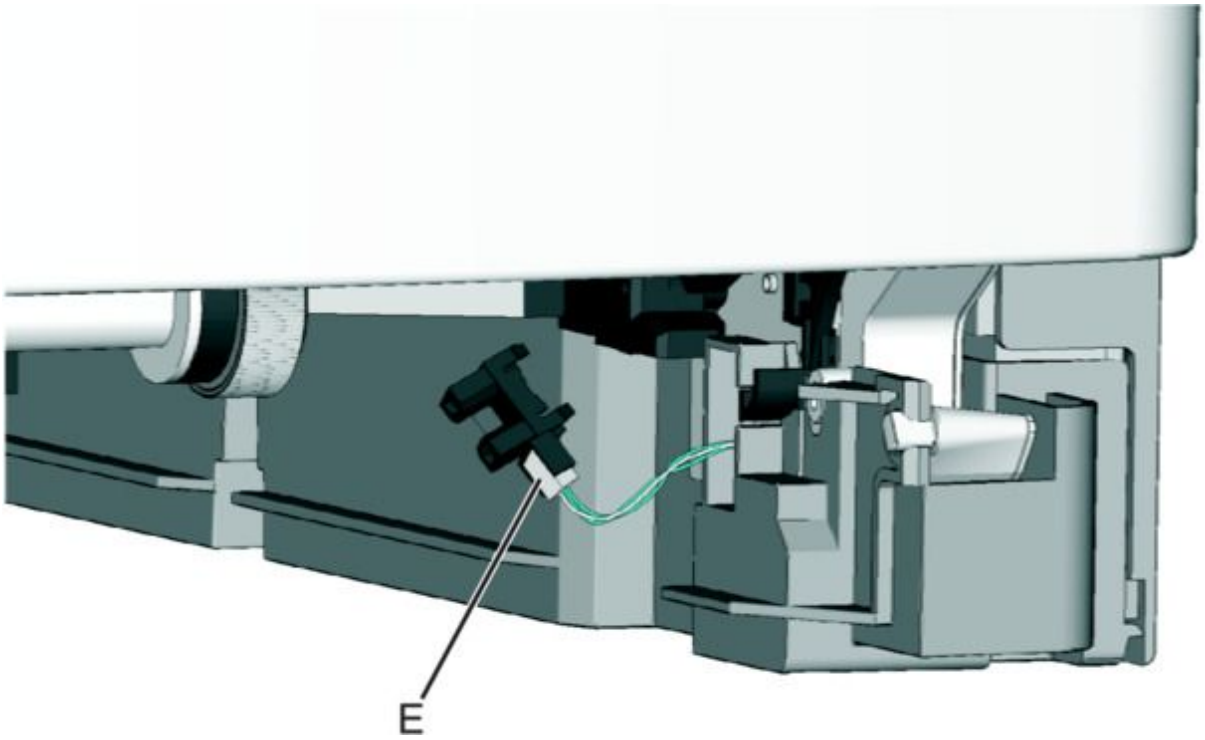
3. Pull the corner of the cable cover (B) away from the right side to access the two sensor posts (C).



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

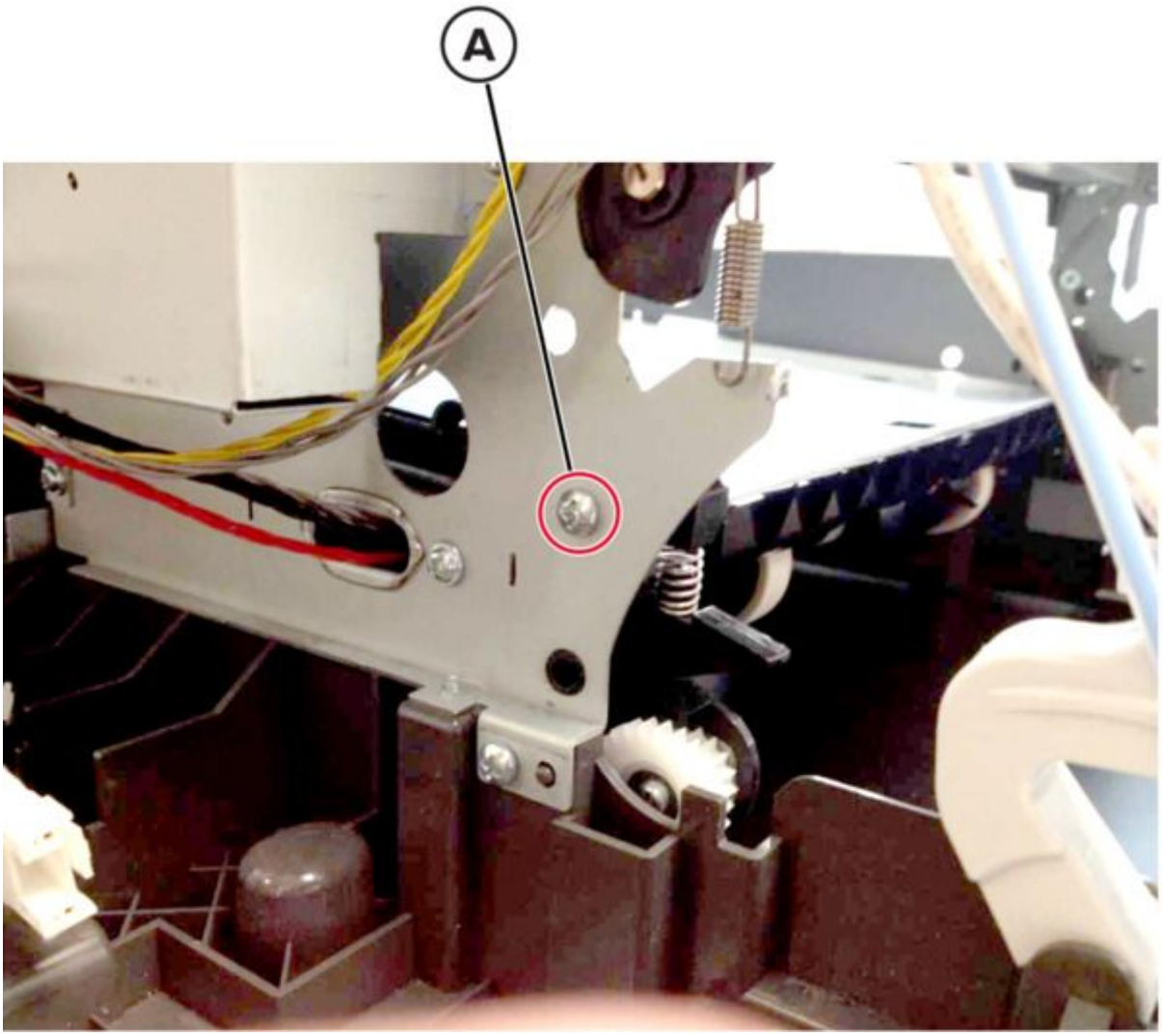
1. Clean the contact surface where the sensor retaining plate was removed before installing the new sensor.

   > **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.

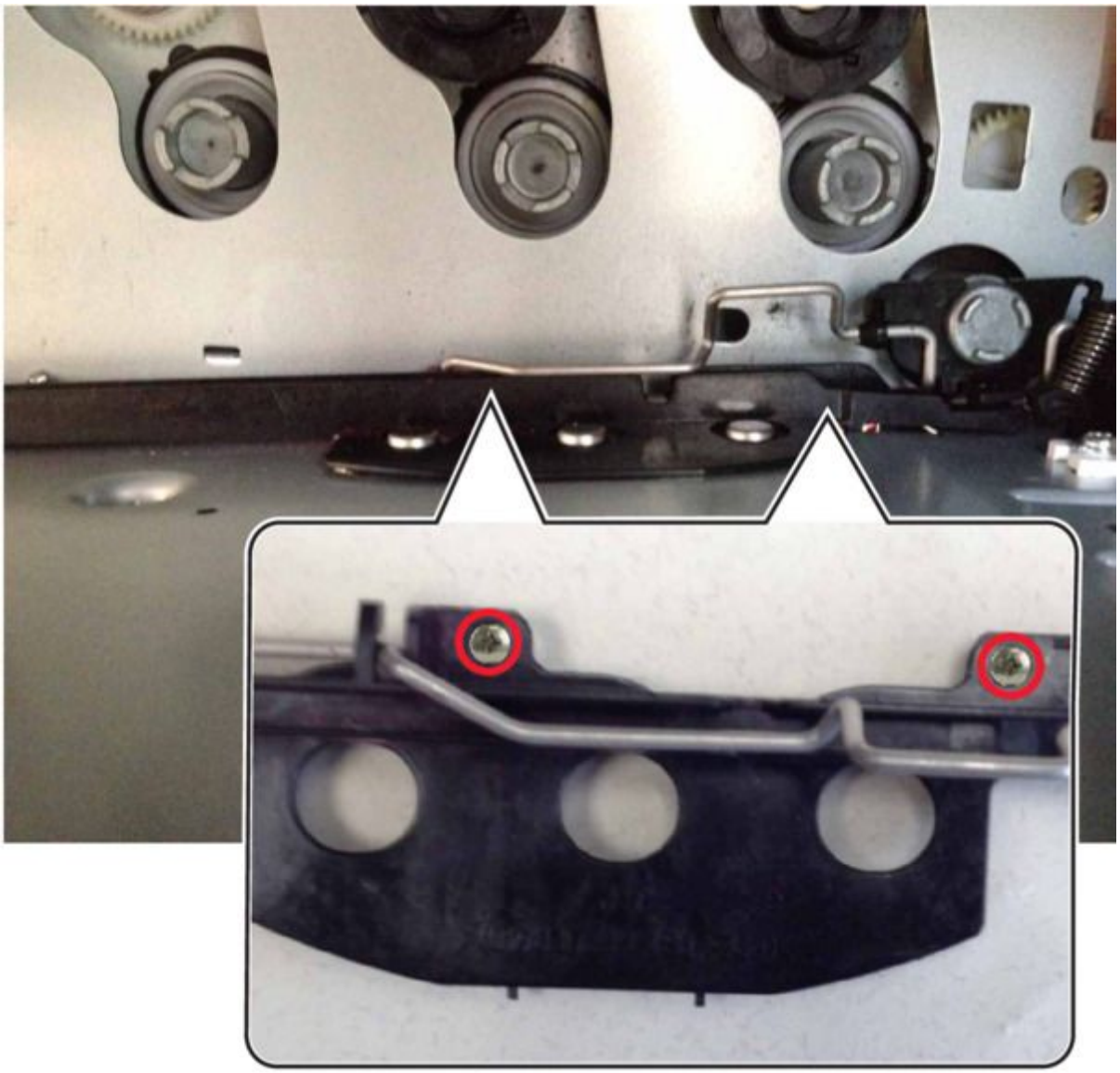
Transfer module guide removal

1. Remove the tray insert.
2. Remove the right cover.
3. Remove the waste toner bottle. See Waste toner bottle removal on page 275.
4. Remove the imaging kit. See Imaging kit removal on page 269.
5. Remove the transfer module. See Transfer module removal on page 303.
6. Remove the fuser. See Fuser removal on page 292.
7. Remove the left cover. See Left cover removal on page 238.
8. Remove the LVPS. See LVPS removal on page 244.
9. Remove the lower right frame. See Lower right frame removal on page 327.
10. Remove the screw (A).



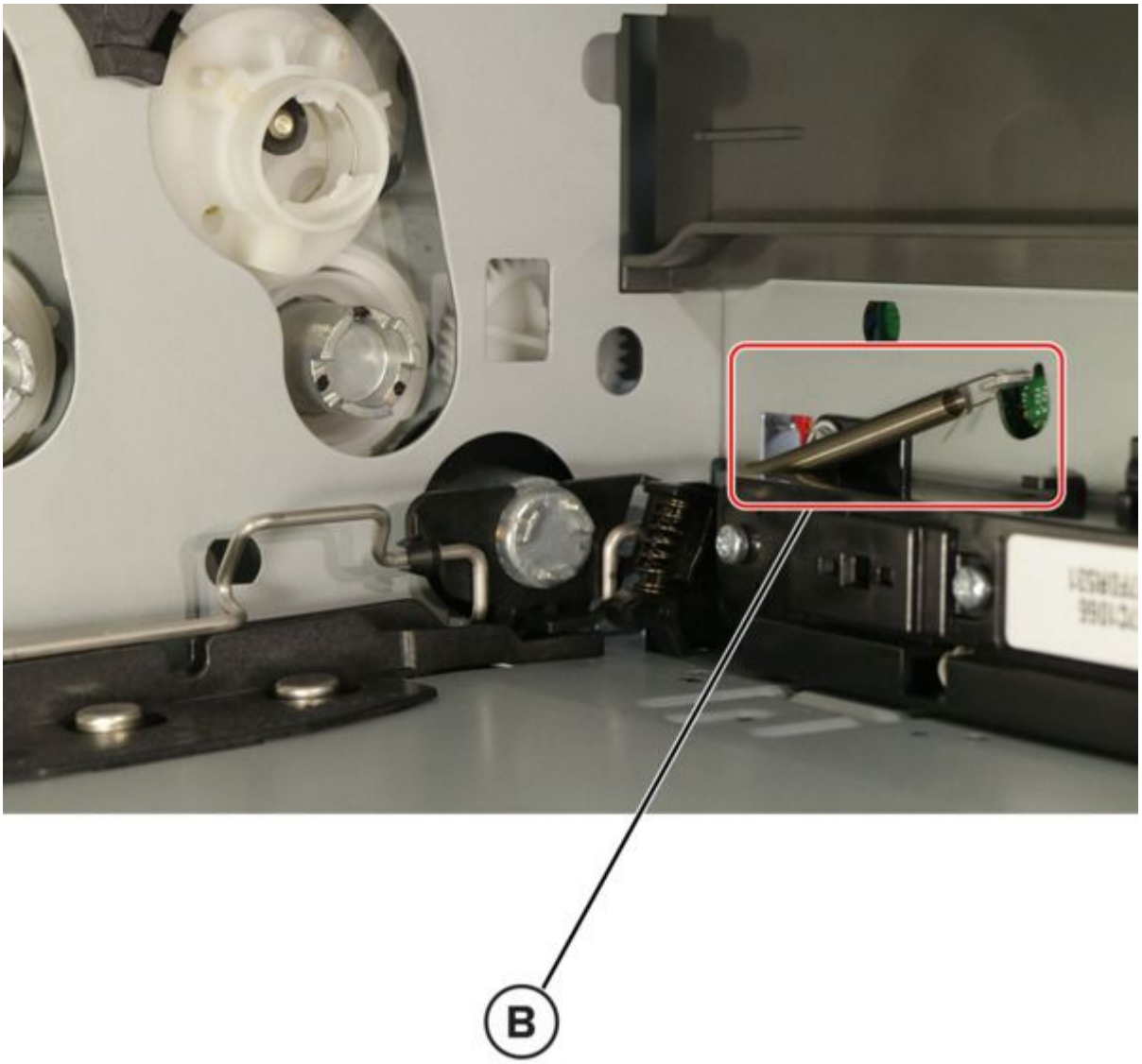
11. Remove the two screws securing the transfer module guide to the frame.

> **Notes**
> Use either a short #2 Phillips or a right angle screwdriver.

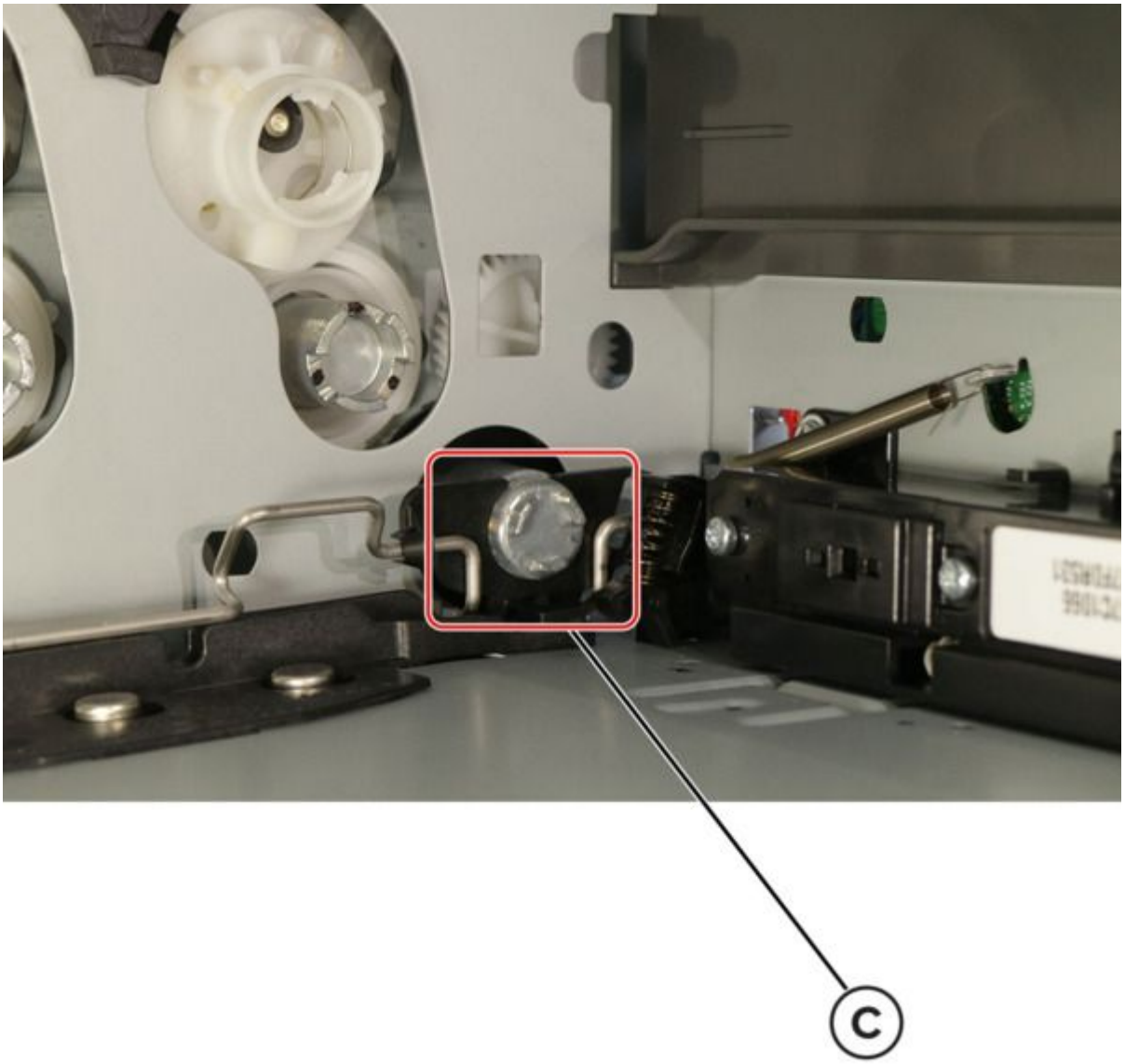


12. Remove the spring (B).

> **Note:** 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.

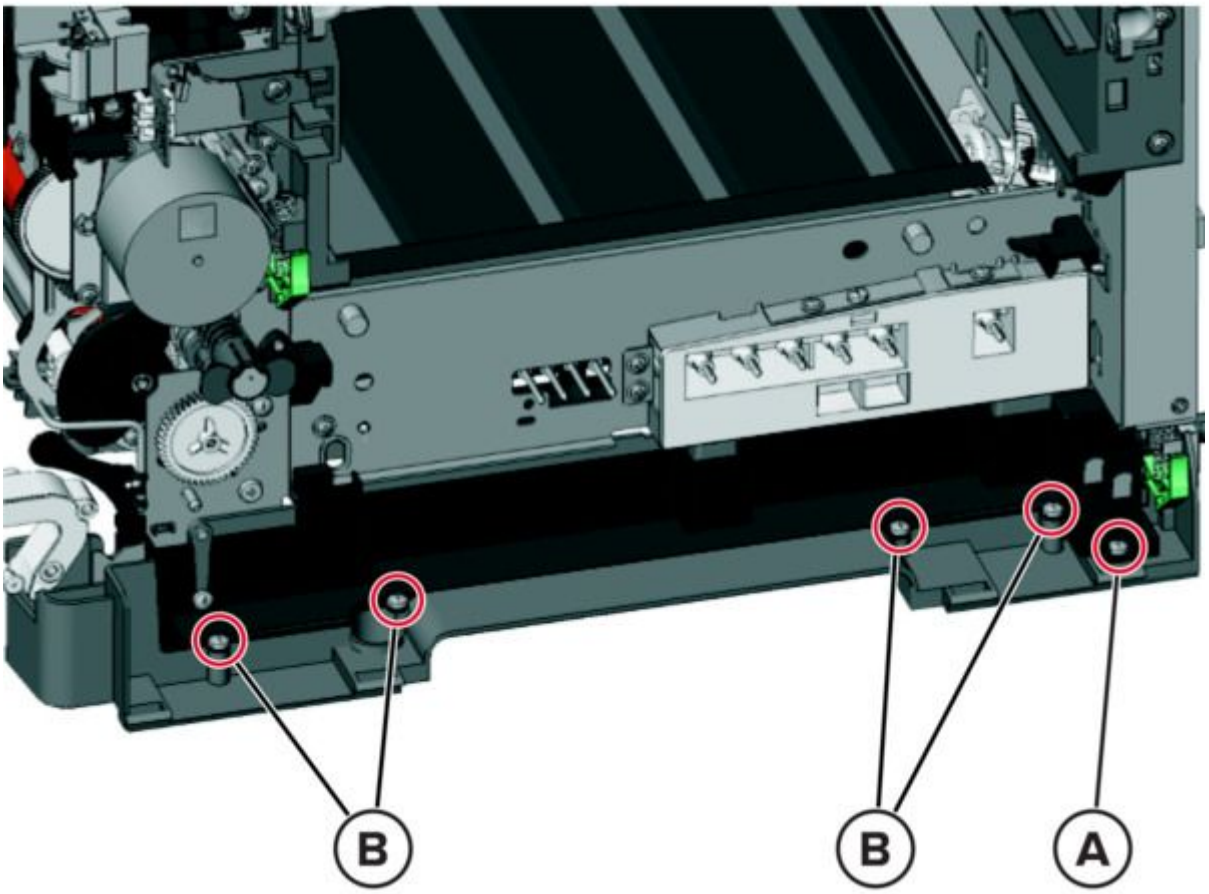


Sensor (tray present) removal

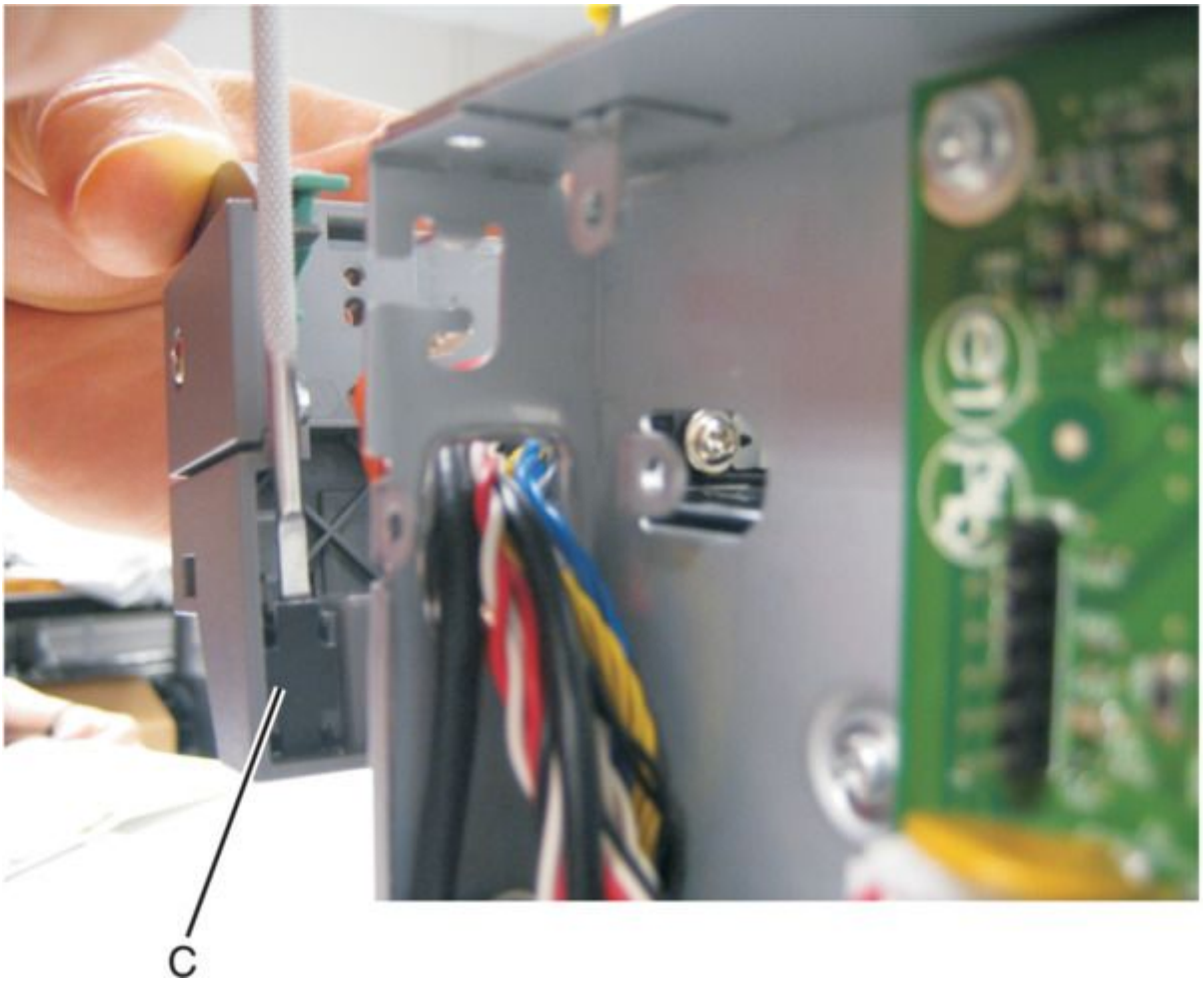
1. Remove the imaging kit. See Imaging kit removal on page 269.
2. Remove the screw (A) securing the waste toner bottle sensor contact to access the cable cover.

> **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 327
5. Remove the sensor retaining plate (C), and then press on the latches together to remove the sensor.



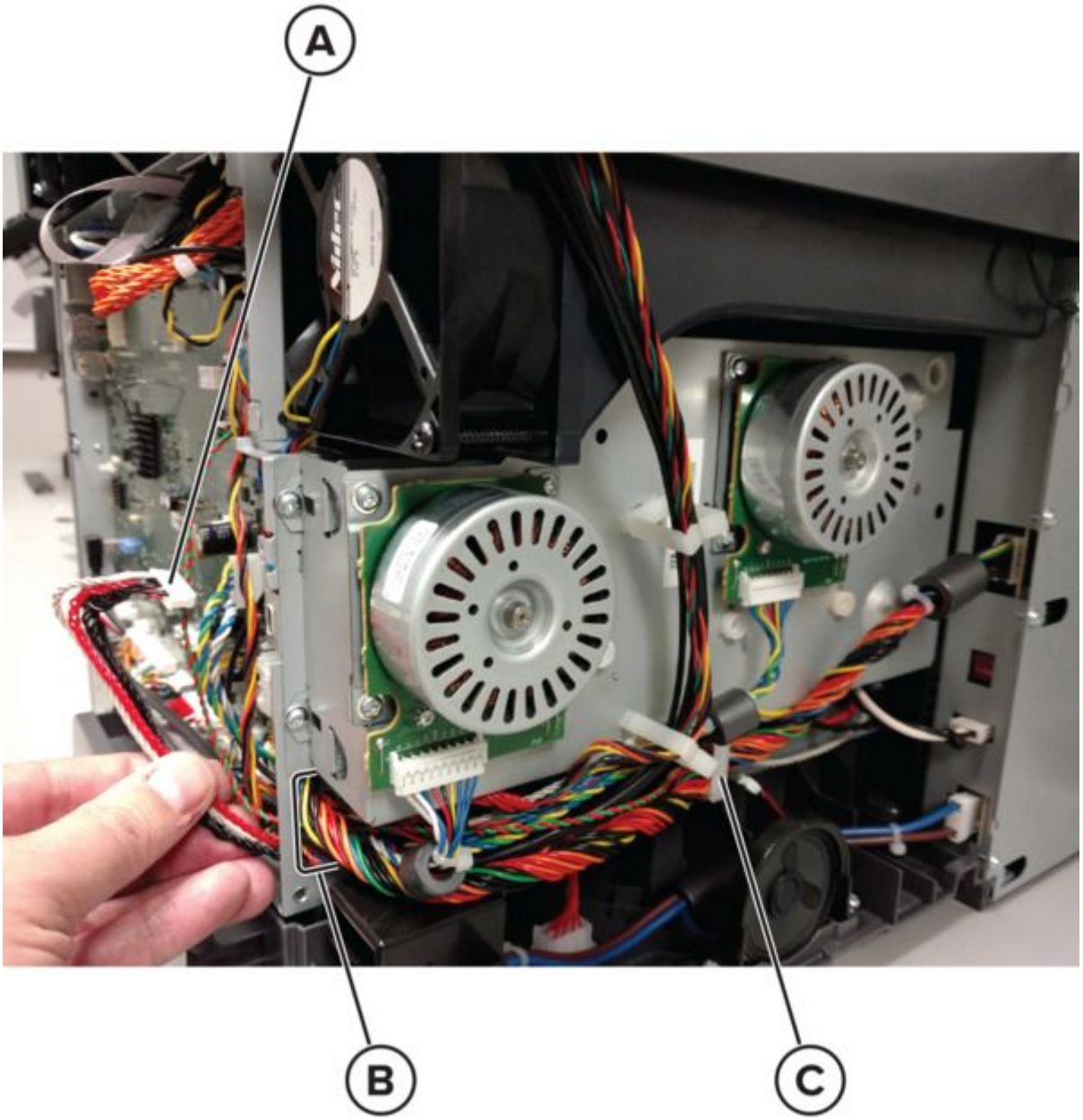
6. Disconnect the sensor cable.

Installation Note

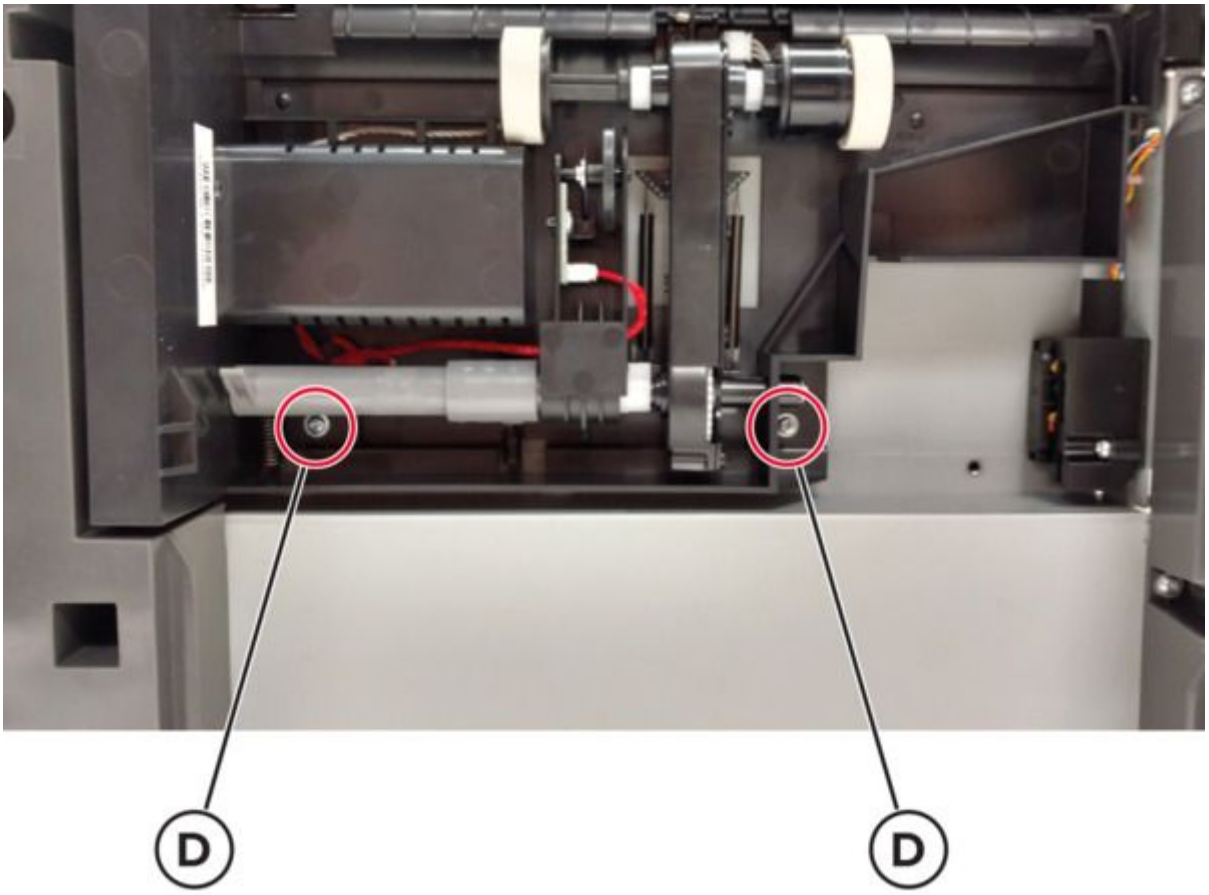
1. Clean the contact surface where the sensor retaining plate was removed before installing the new sensor.
2. Remove the backing from the new sensor retaining plate, and then place the plate on the surface between the sensor mounting latches.
3. Connect the cable to the sensor.
4. Replace the spring.

Tray 1 media feeder removal

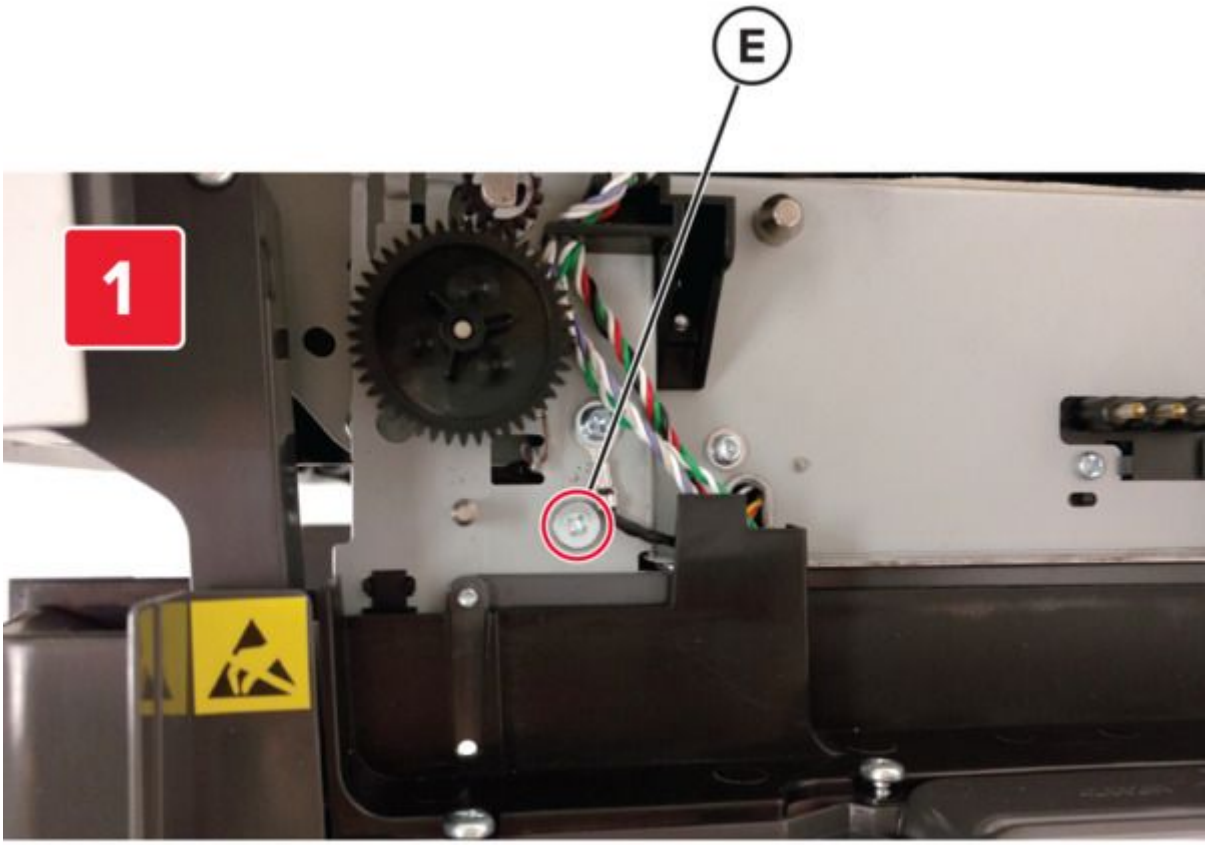
1. Remove the waste toner bottle. See Waste toner bottle removal on page 275.
2. Remove the imaging kit. See Imaging kit removal on page 269.
3. Remove the left cover. See Left cover removal on page 238.
4. Remove the rear cover.
5. Disconnect the cable (A) from the JSP1 connector on the controller board.
6. Route the cable through the opening (B), and then remove the cable from its retainer (C).

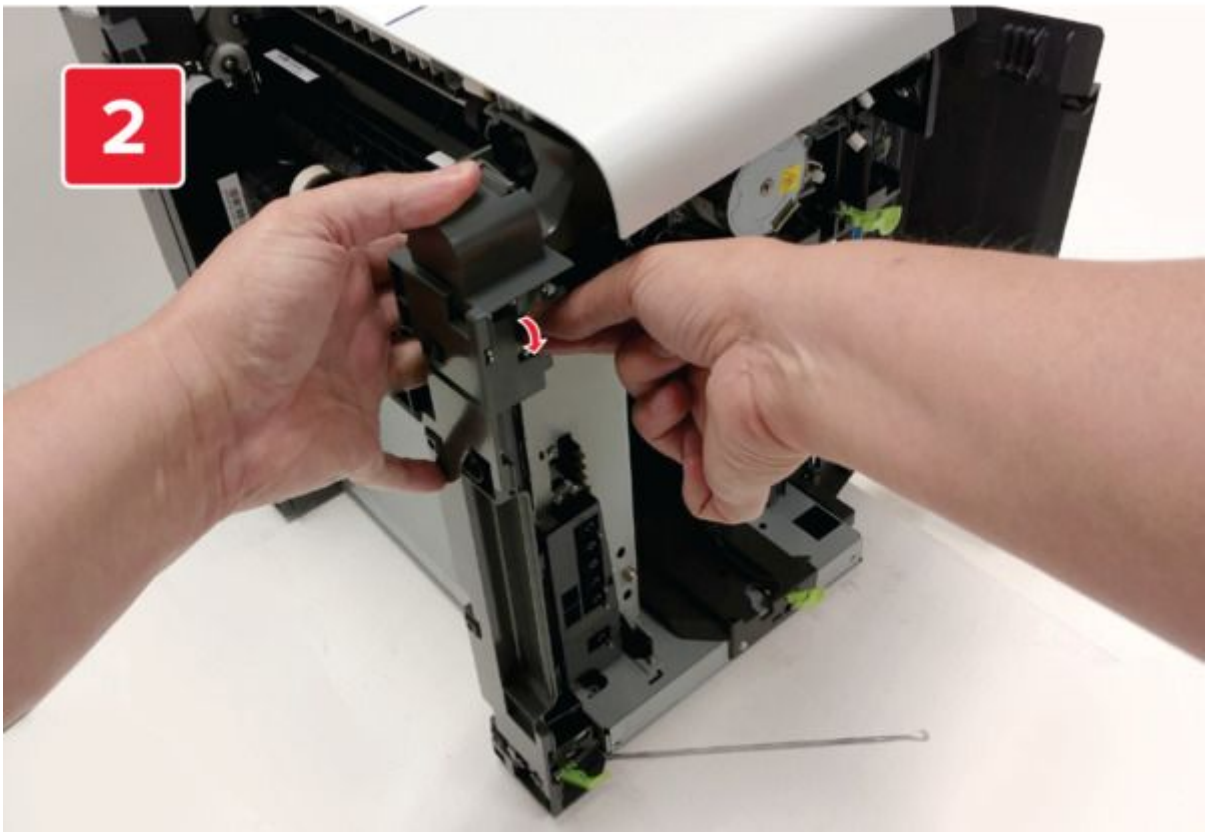


7. Partially reinstall the rear cover to protect the controller board.
8. Place the printer on its rear, and then remove the two screws (D).



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.

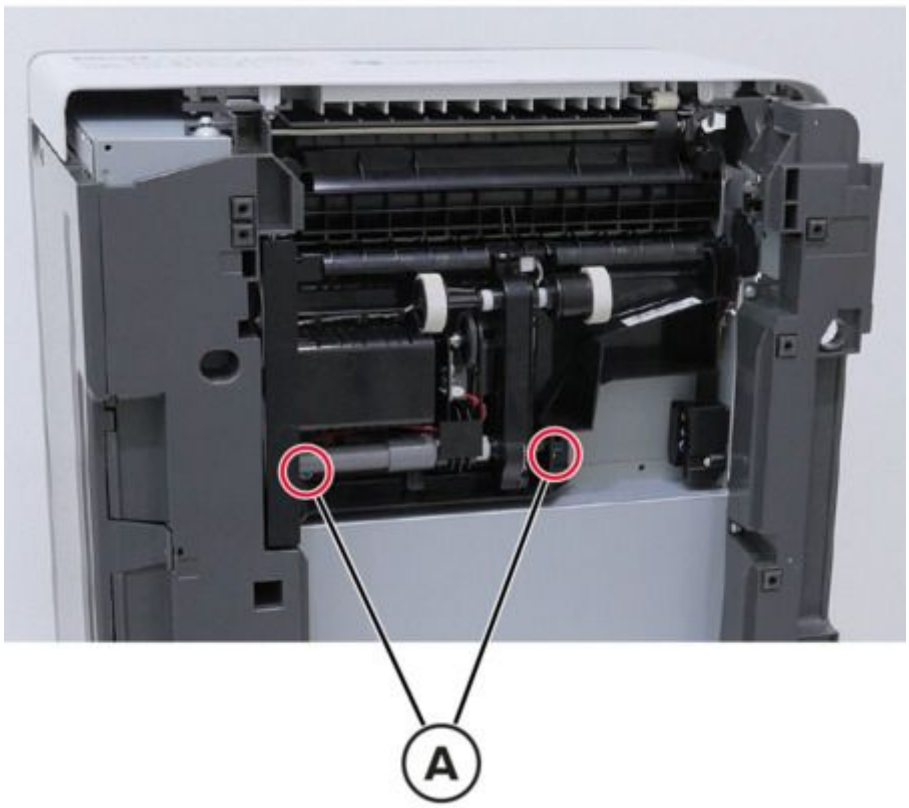
11. Remove the paper feed roller.

> **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.

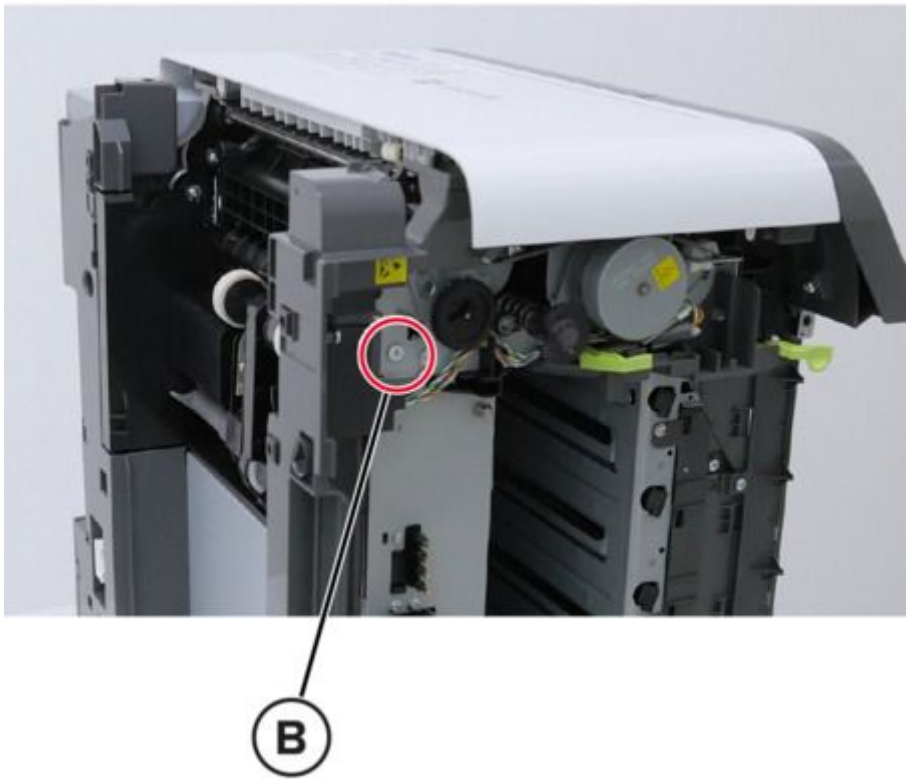
Pick roller removal

> **Notes**
> For a video demonstration, see Pick roller removal.

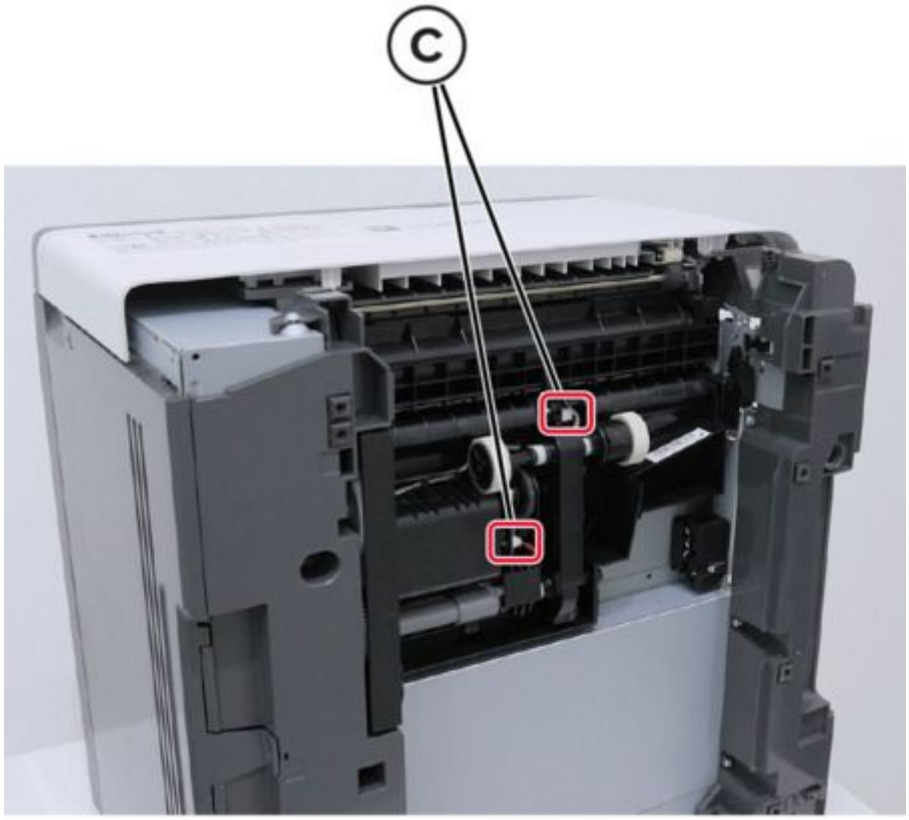
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Place the printer on its rear side, and then remove the two screws (A).



7. On the right side, loosen the screw (B).

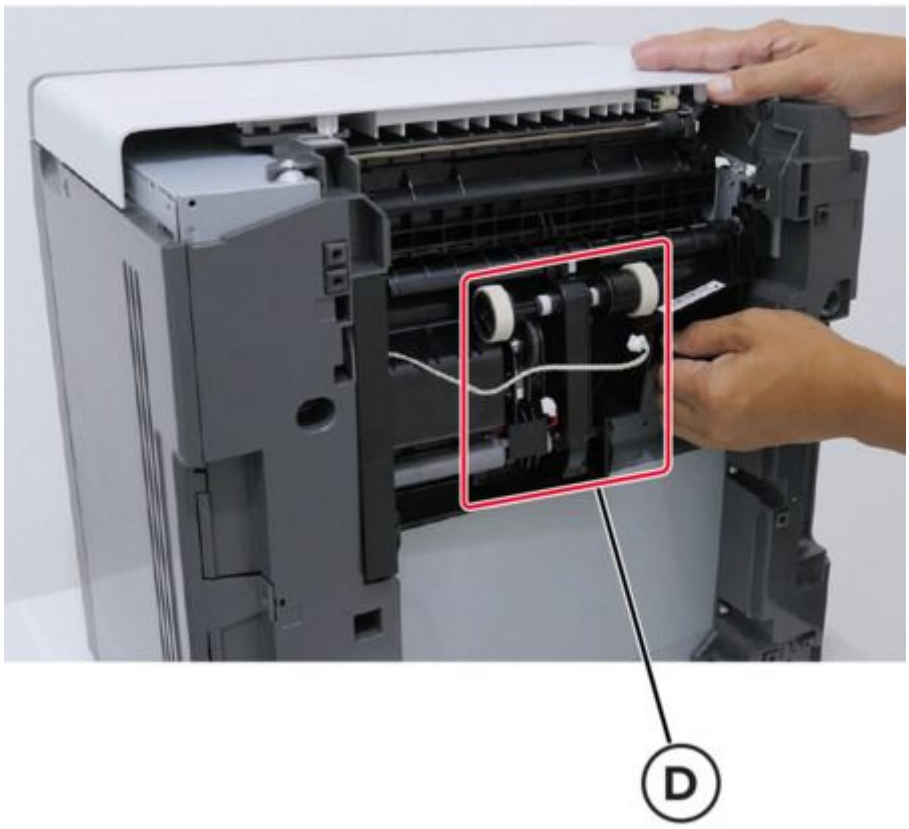


8. Disconnect the connectors, and then unroute the two cables (C).



9. Remove the pick roller (D).

   Disconnect the connectors before fully removing the pick roller.

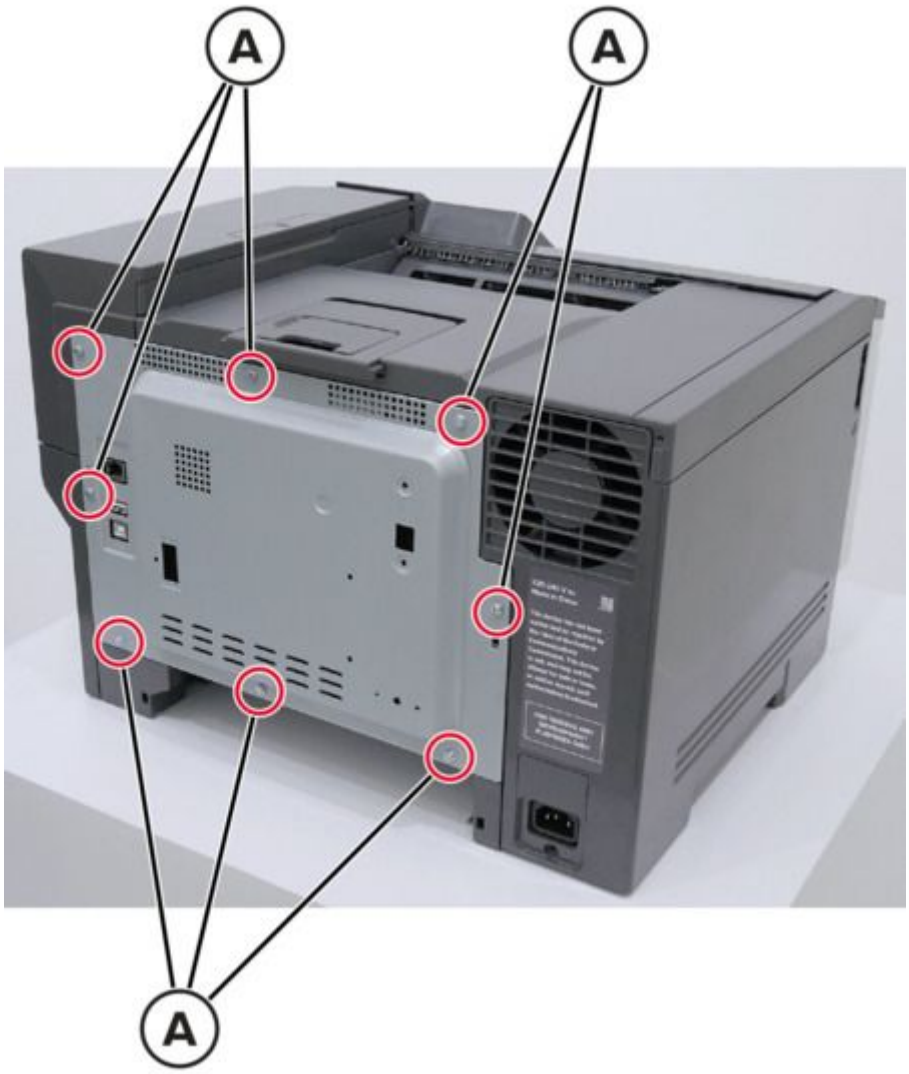


Rear side removals

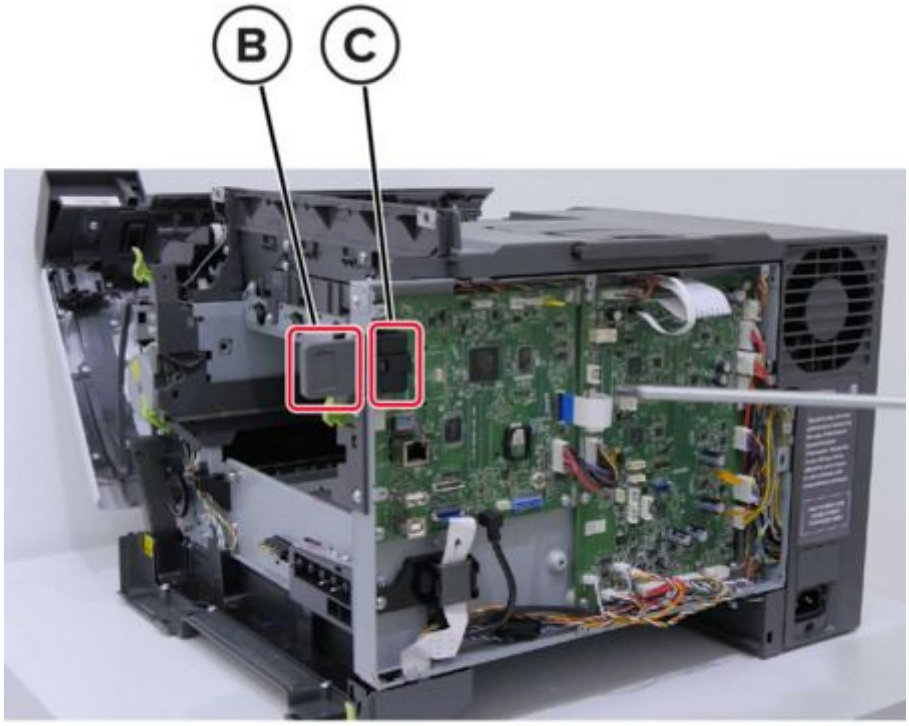
Wireless module removal

Notes
For a video demonstration, see Wireless module removal.

1. Remove the eight screws (A), and then remove the rear cover.



2. Open the front door.
3. Remove the right cover.
4. Remove the toner cartridges.
5. Remove the wireless module cover (B) and the wireless module (C).

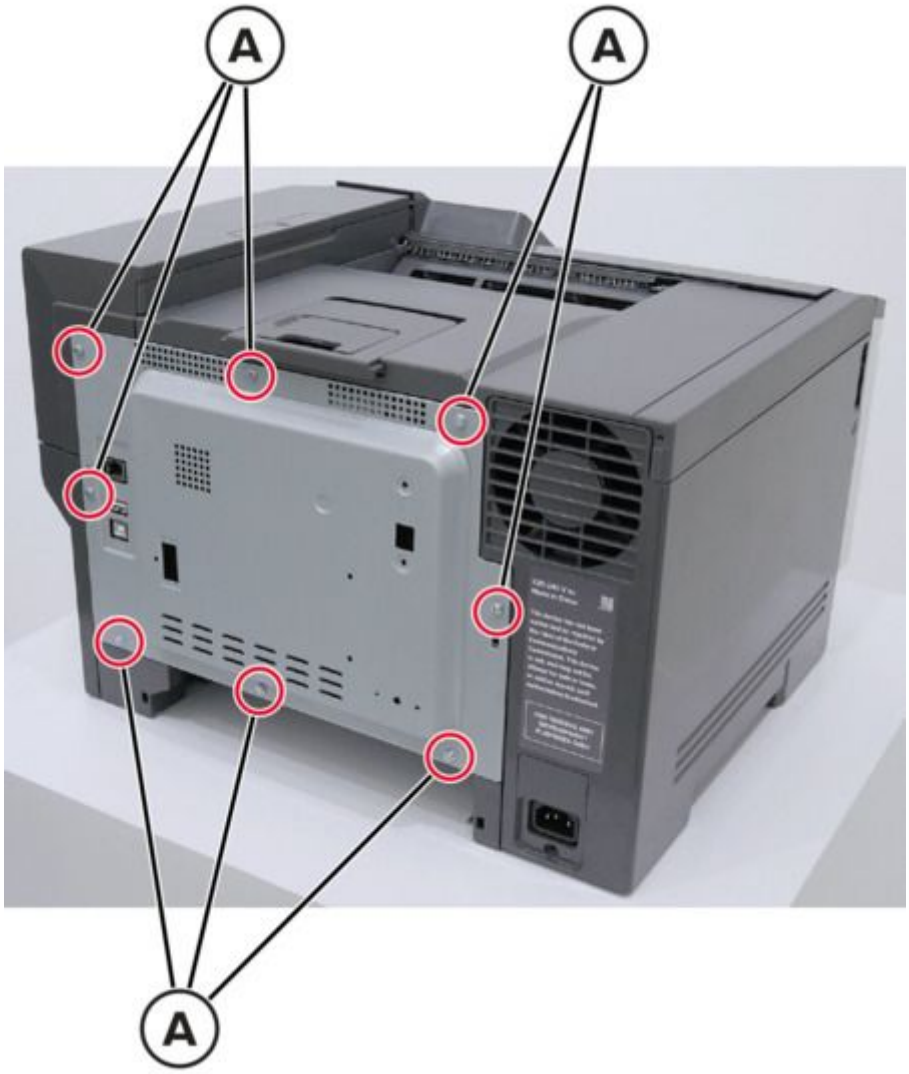


Engine board removal

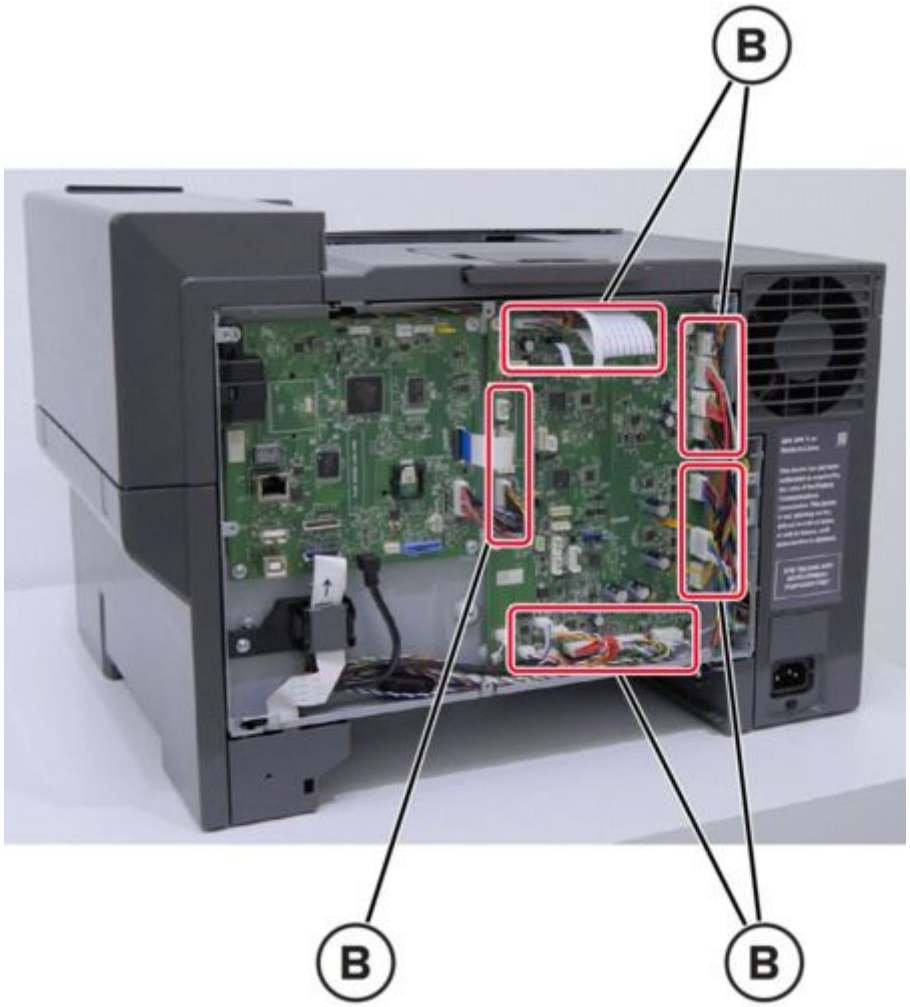
Notes
For a video demonstration, see Engine board removal.

Warning—Potential Damage
To avoid NVRAM mismatch issues, replace the engine board and controller board one at a time.

1. Remove the eight screws (A), and then remove the rear cover.



2. Disconnect all the connectors (B).

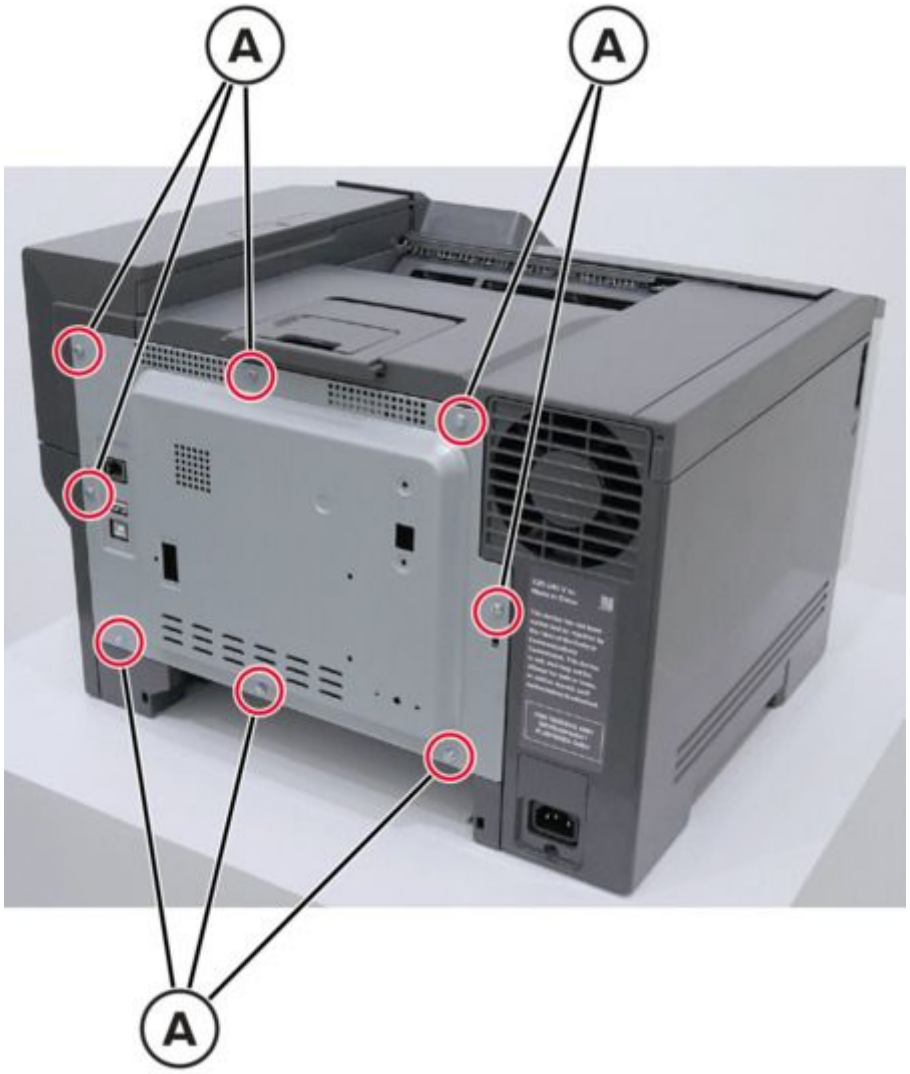


3. Remove the six screws (C).

4. Remove the engine board.

Rear cover removal

1. Remove the eight screws (A).

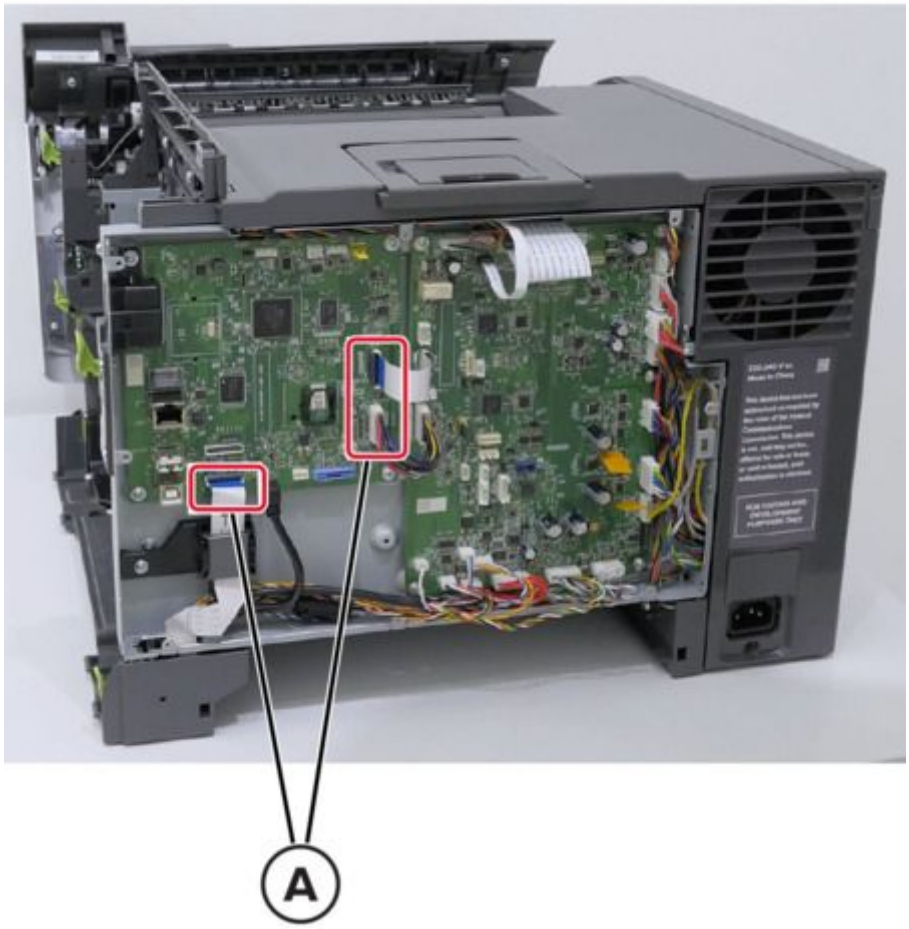


2. Remove the rear cover.

Controller board removal

Notes
For a video demonstration, see Controller board removal.

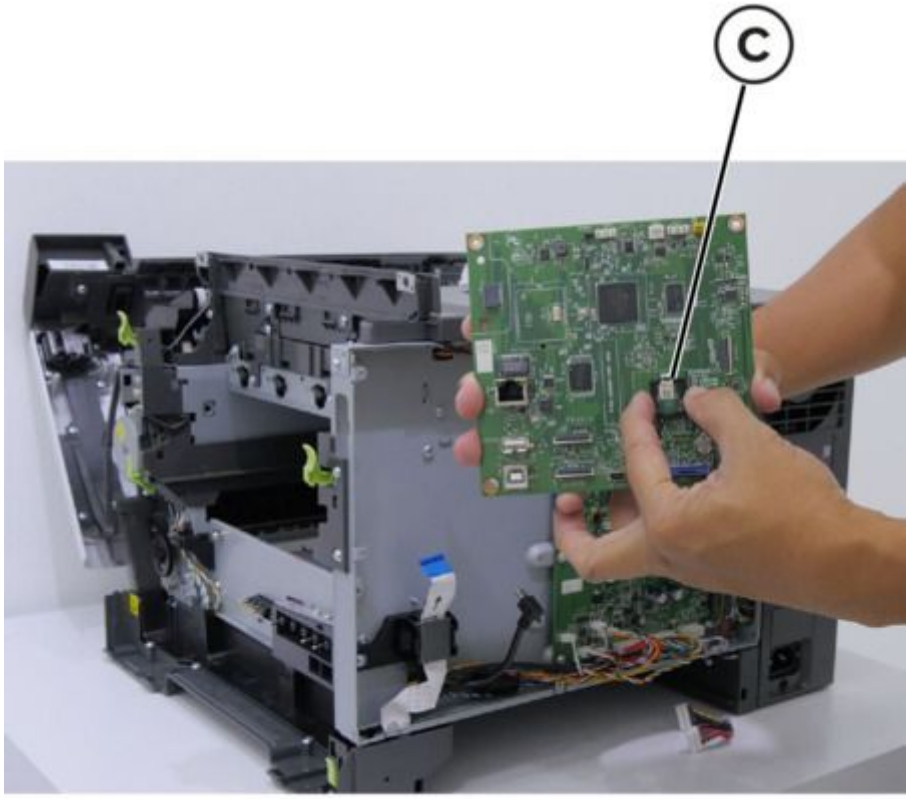
1. Remove the wireless module. See Wireless module removal on page 346.
2. Disconnect the two connectors (A).



3. Remove the four screws (B).

> **Notes**
> Before removing the last screw, remove the wireless module first.

4. Remove the controller board.
5. Remove the Trusted Platform Module (TPM) (C).



Installation Note
Reinstall the TPM back to the new controller board.

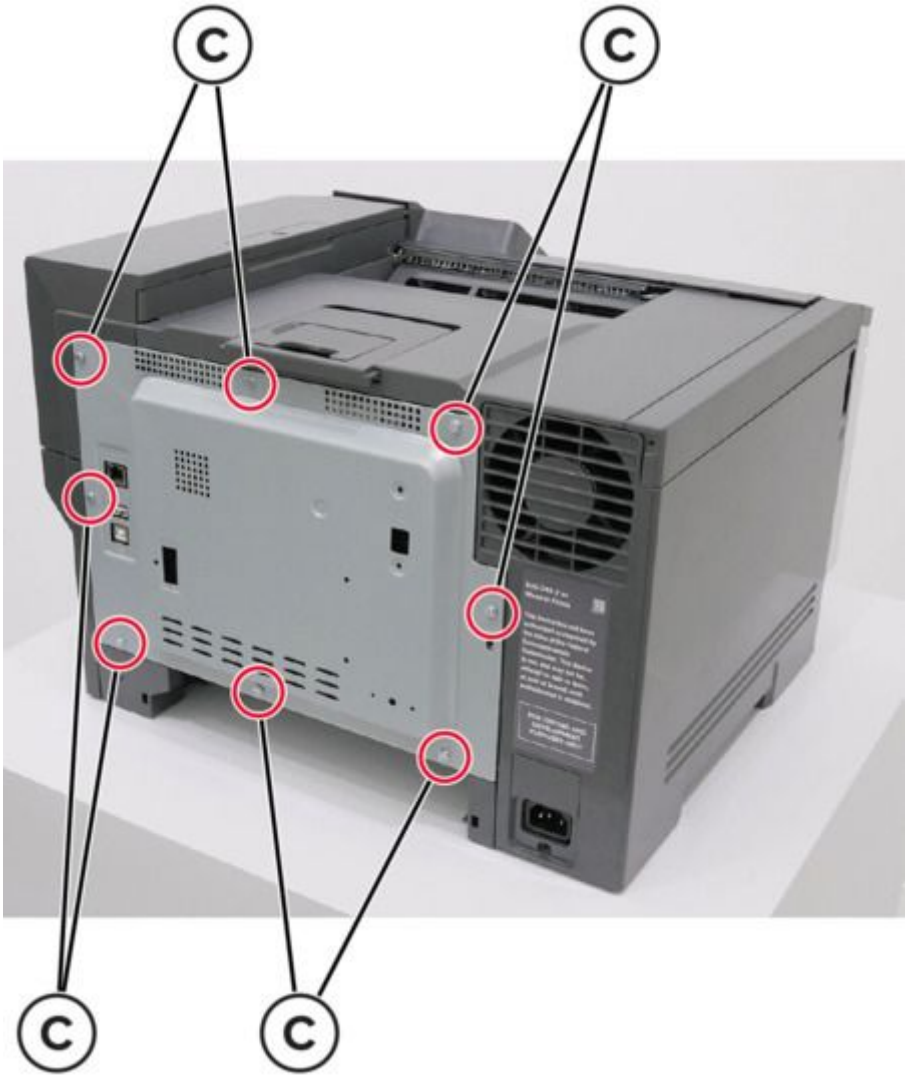
Fan removal

Notes
For a video demonstration, see Fan removal.

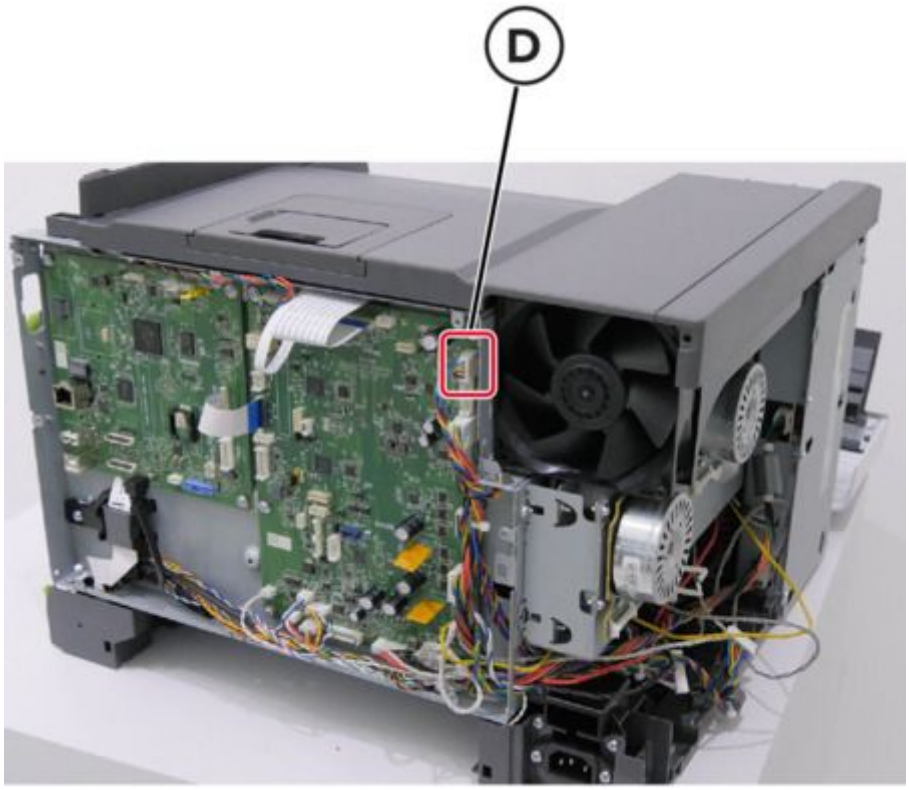
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the two screws (A) at the back.

7. Remove the screw (B) on the left side.

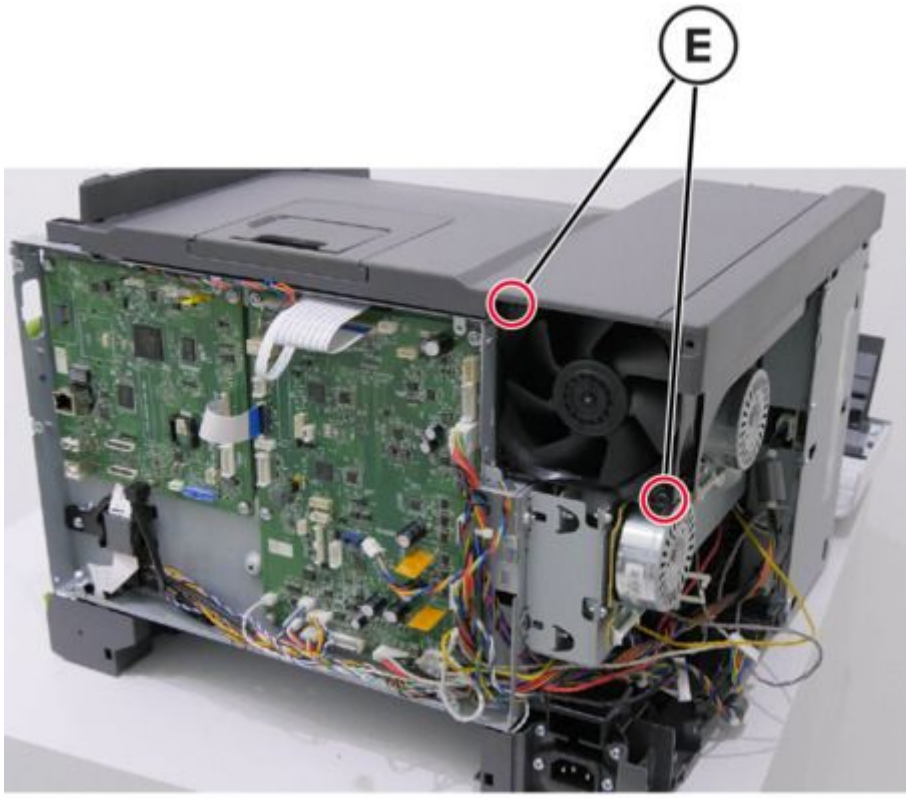
8. Remove the eight screws (C), and then remove the rear cover.



9. Remove the left cover.
10. Disconnect the connector (D) from the engine board.



11. Remove the two screws (E) from the fan.



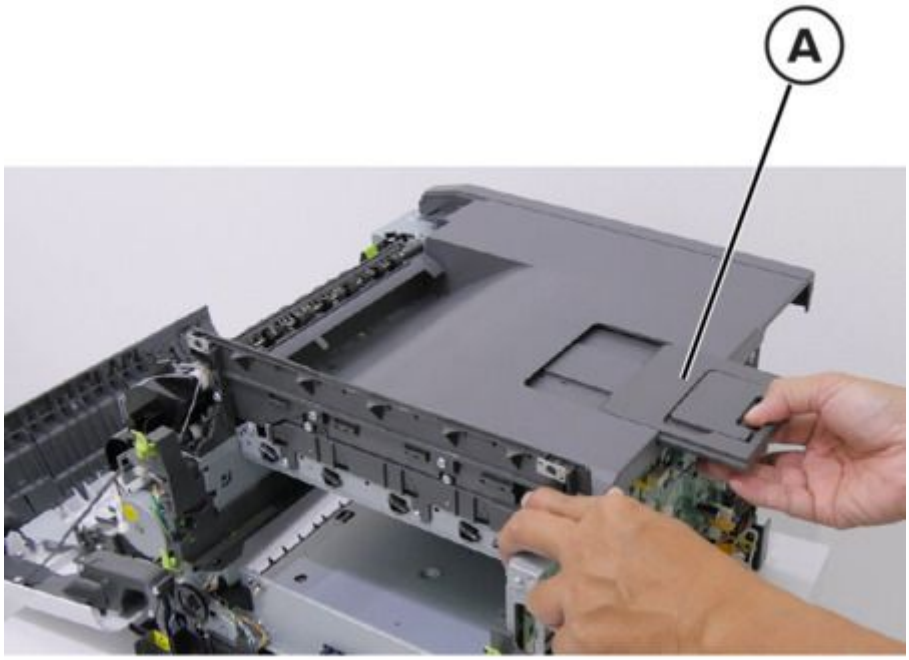
12. Remove the fan.

Top side removals

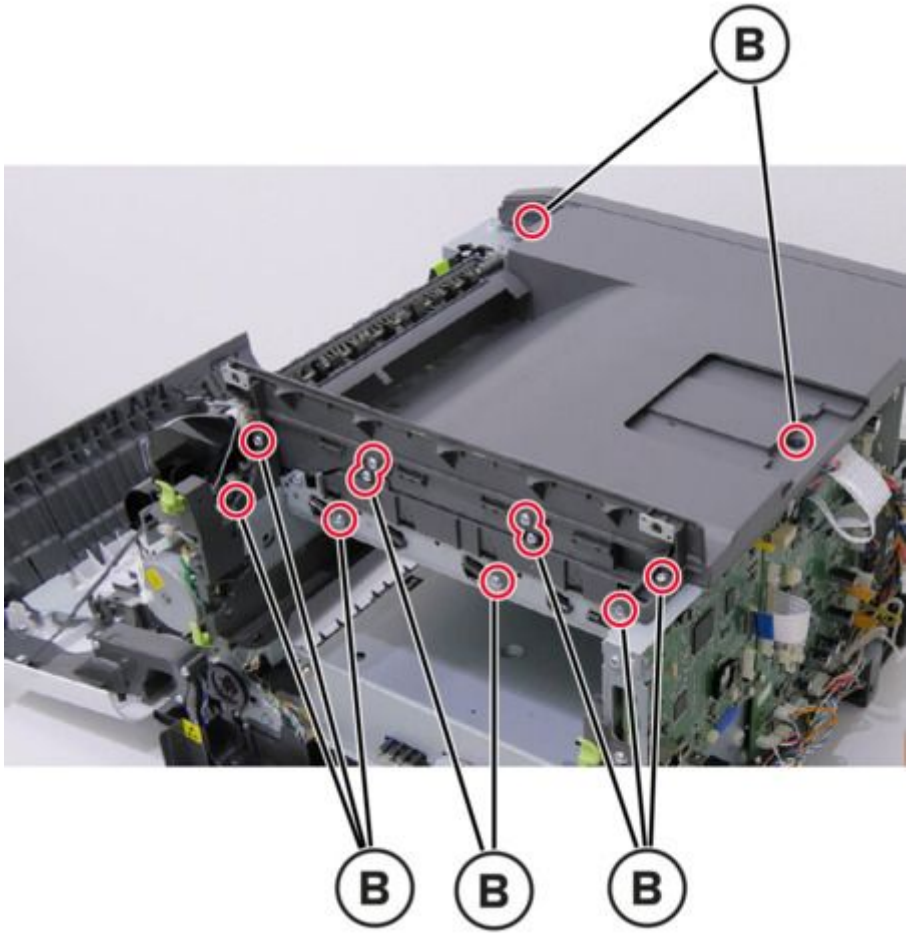
Top cover removal

Notes
For a video demonstration, see Top cover removal.

1. Remove the fan. See Fan removal on page 354.
2. Remove the bin extender (A).



3. Remove the 12 screws (B).

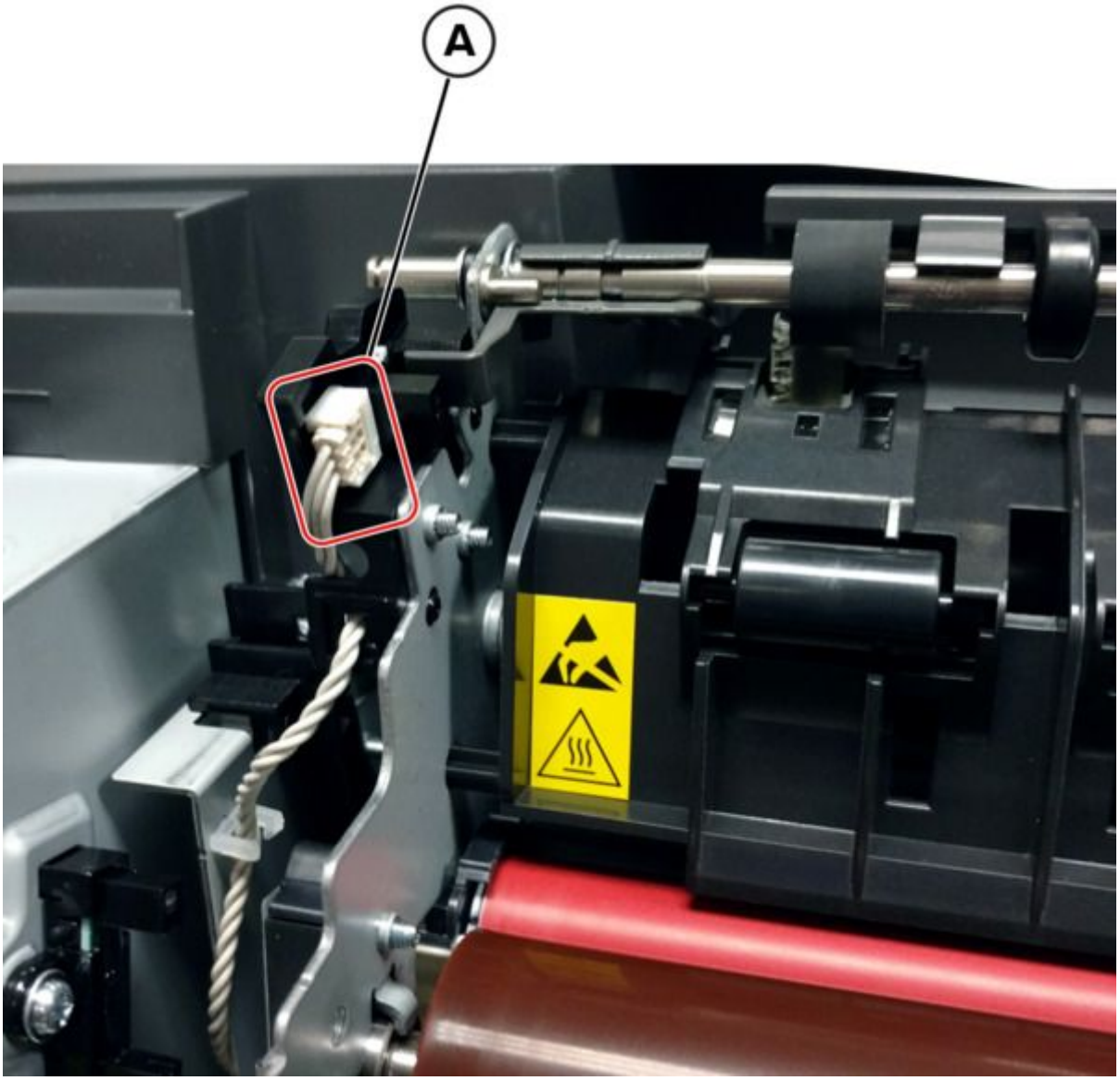


4. Remove the top cover.

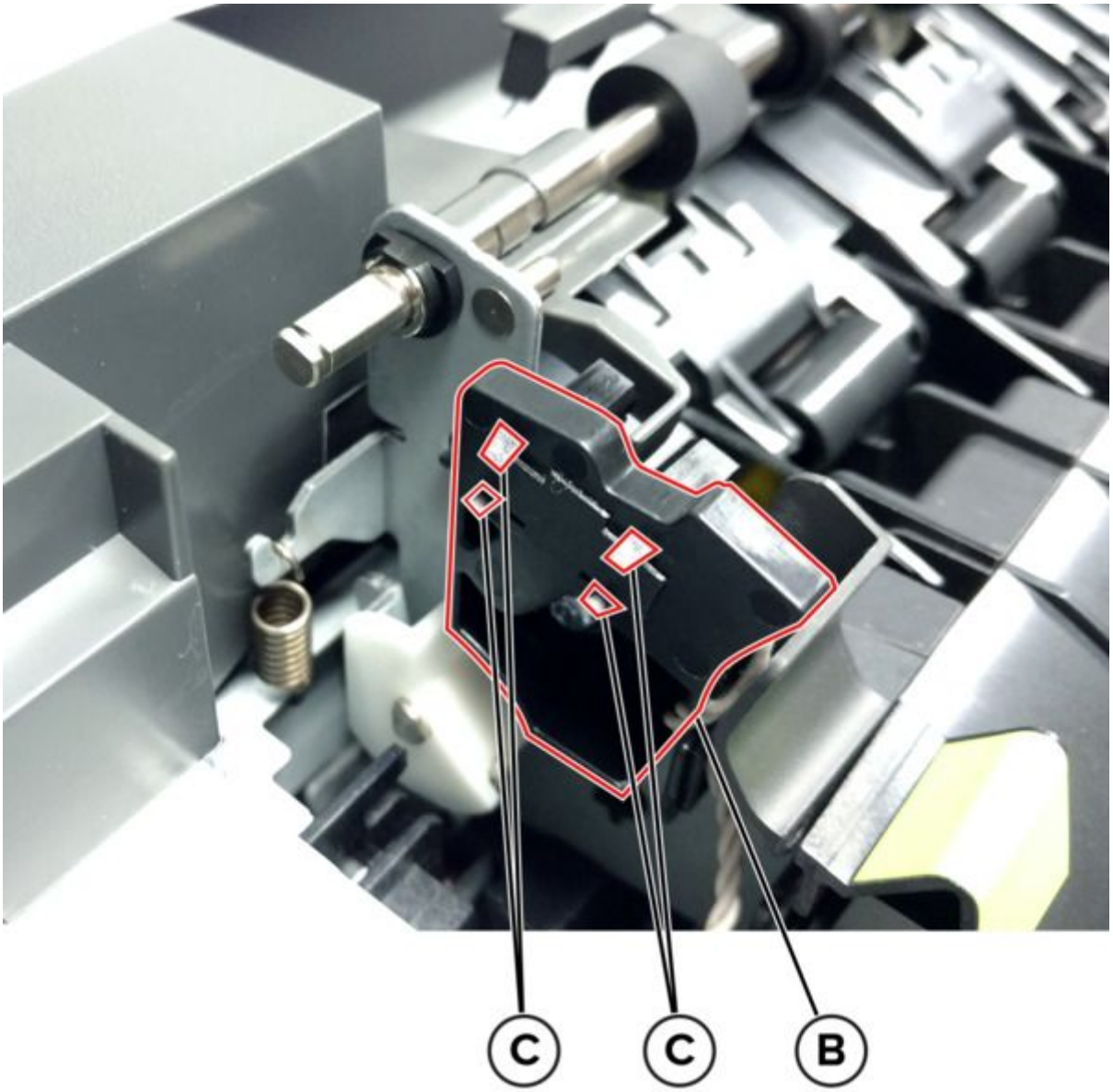
Sensor (narrow media/output bin full) removal

1. Open the front door.
2. Remove the cable (A) from its retainer, and then disconnect it.

> **Installation Note**
> Pay attention to the cable routing.



3. Remove the sensor retaining plate (B), and then pinch the four latches (C) to remove the sensor.

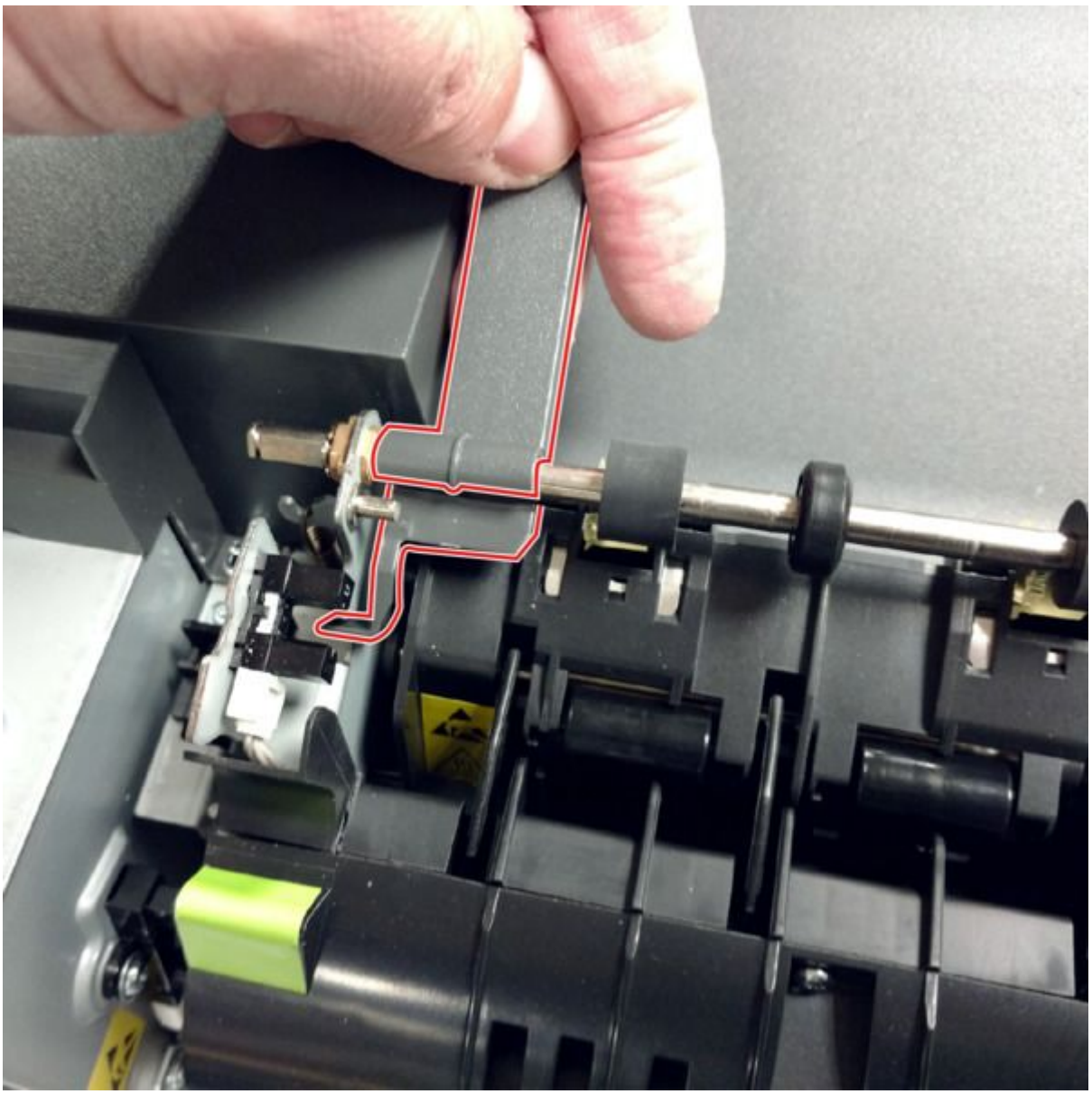


Installation Note

- Clean the contact surface where the sensor retaining plate was removed before installing the new sensor.
- Guide the latches that hold the sensor to the bracket.
- Squeeze the latches together until they latch to the frame.
- Remove the backing from the new sensor retaining plate, and then place the plate on the surface between the sensor mounting legs.
- Reconnect the cable, and then guide the cable through its retainer.

Narrow media/bin full sensor flag removal

1. Open the front door.
2. Push up on the tab to release the flag, and then remove it.



Notes
Be careful not to dislodge the sensor. The flag must be installed on the fuser while the fuser is out.

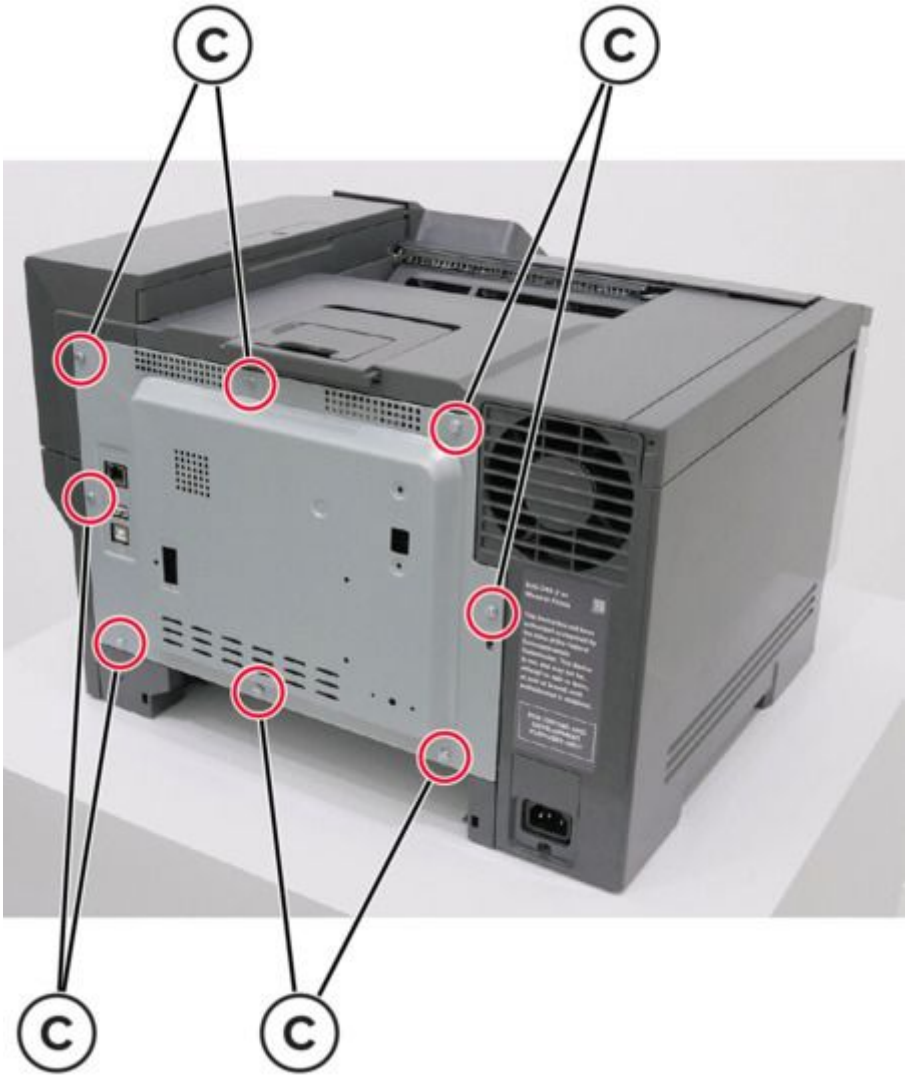
Printhead removal

Notes
For a video demonstration, see Printhead removal.

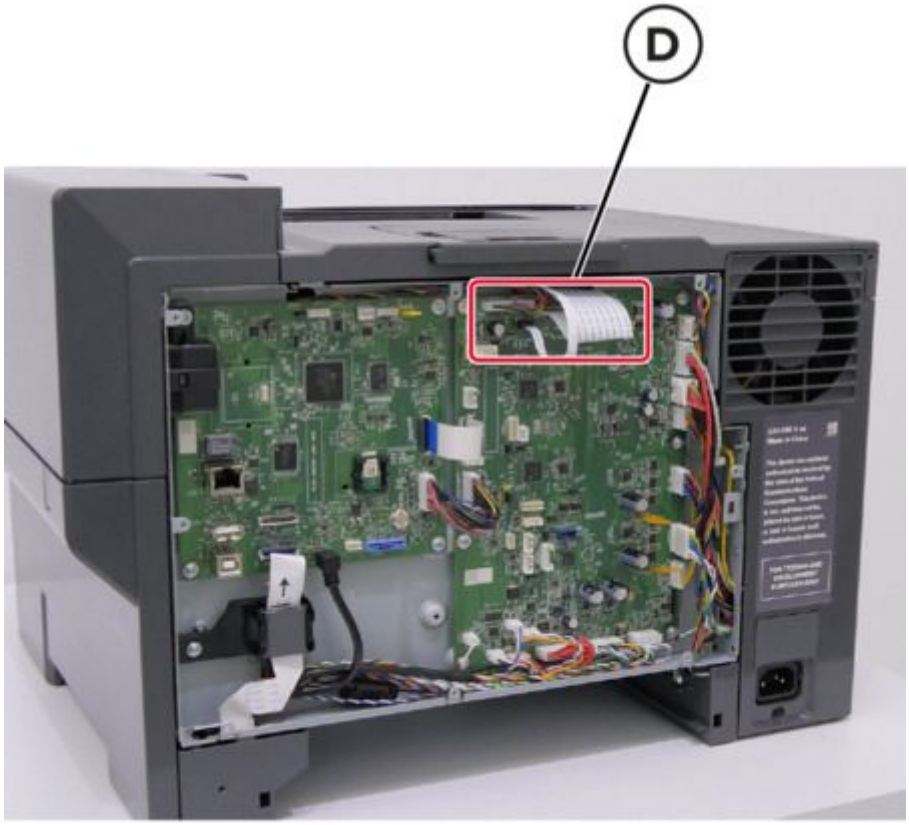
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the two screws (A) at the back.

7. Remove the screw (B) on the left side.

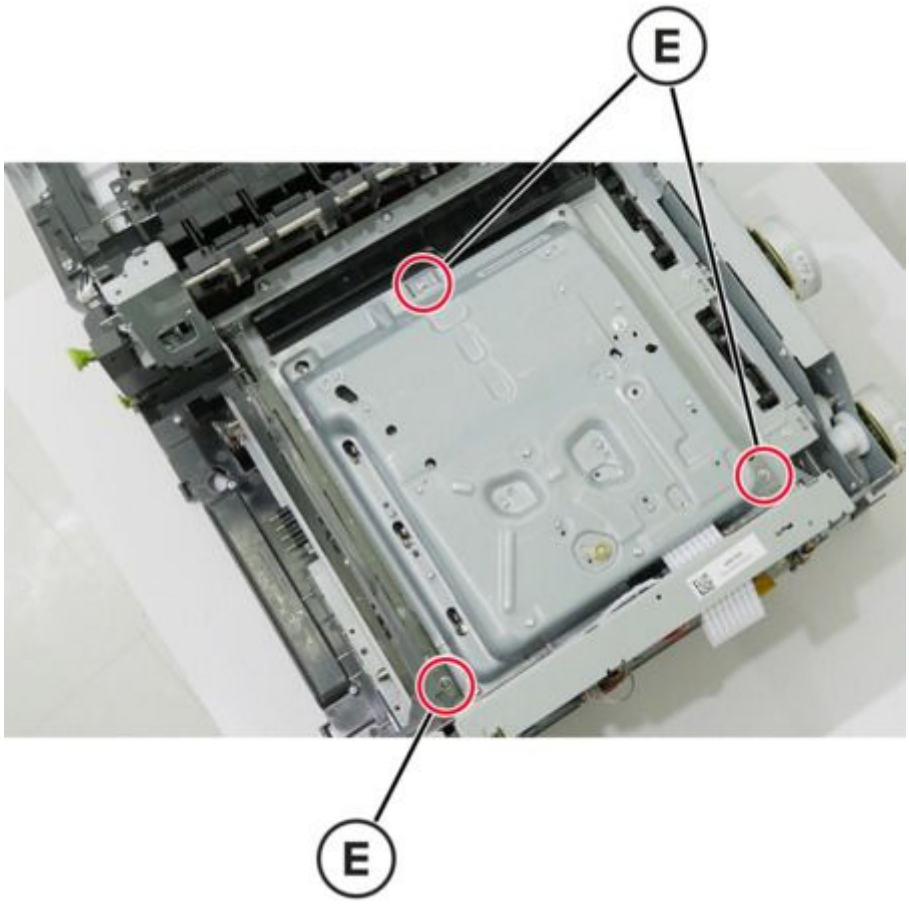
8. Remove the eight screws (C), and then remove the rear cover.



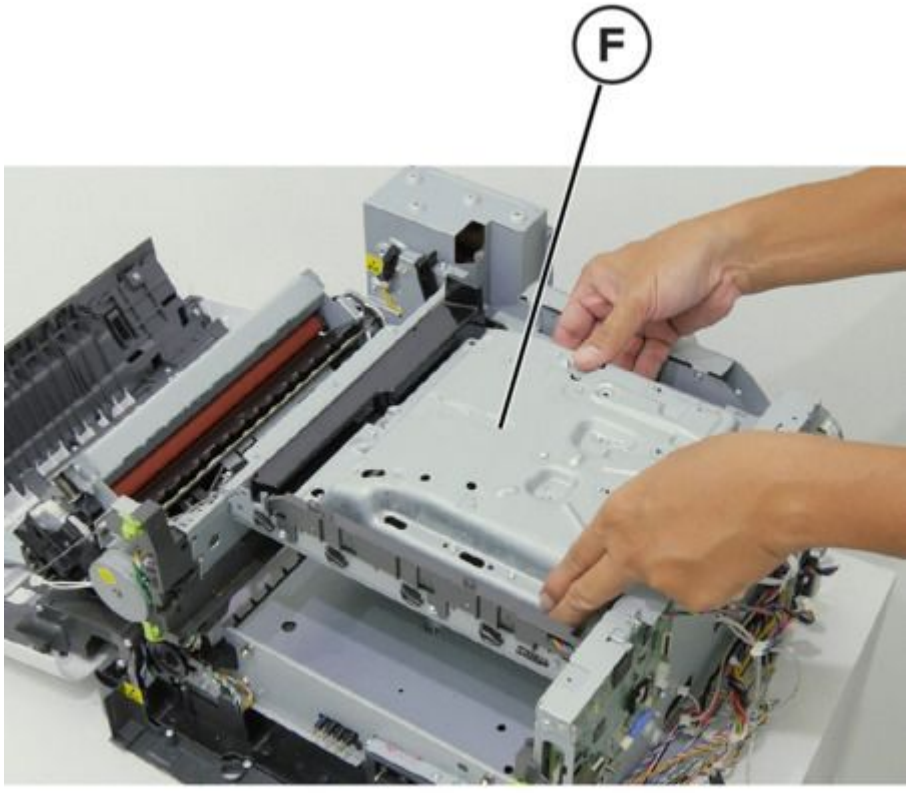
9. Disconnect the three connectors (D) from the engine board.



10. Remove the left cover.
11. Remove the fan. See Fan removal on page 354.
12. Remove the top cover. See Top cover removal on page 359.
13. Remove the three screws (E).

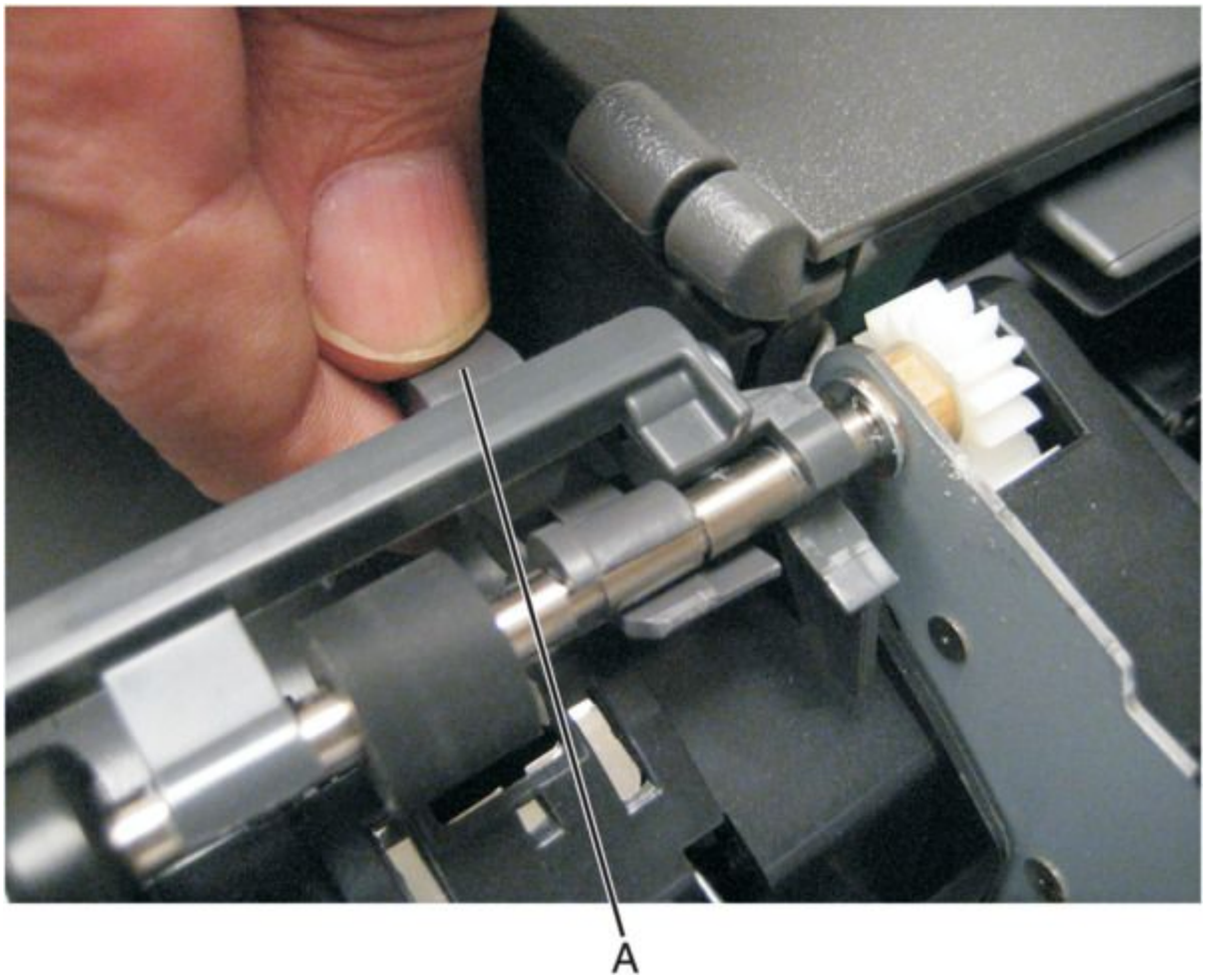


14. Remove the printhead (F).



Right output bin deflector removal

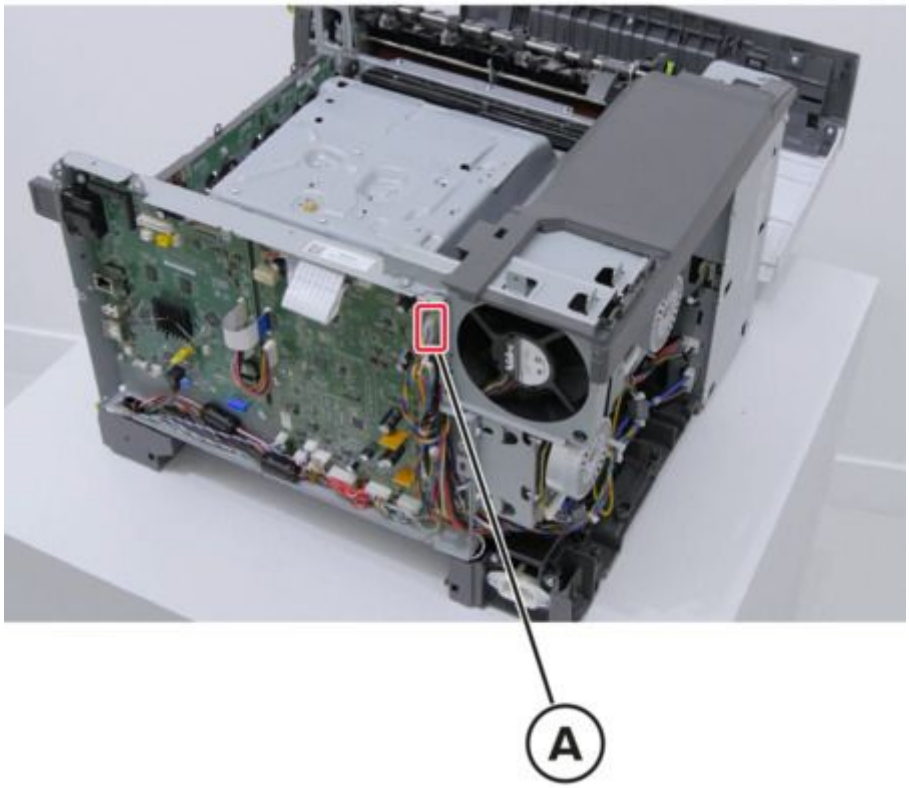
1. Open the front door.
2. Remove the deflector (A).



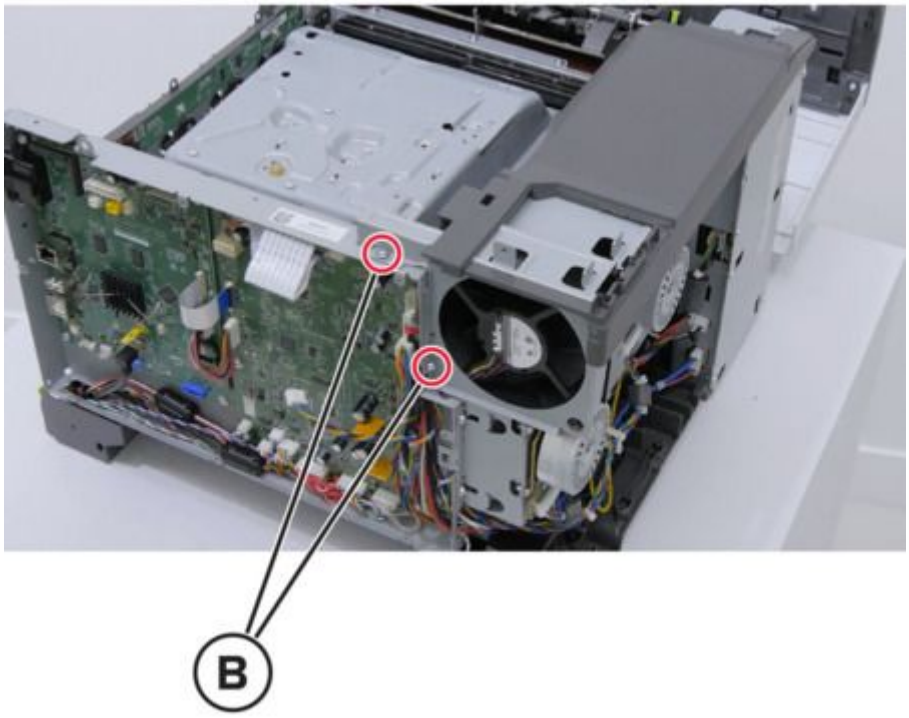
Top left cover removal

> **Notes**
> For a video demonstration, see Top left cover removal.

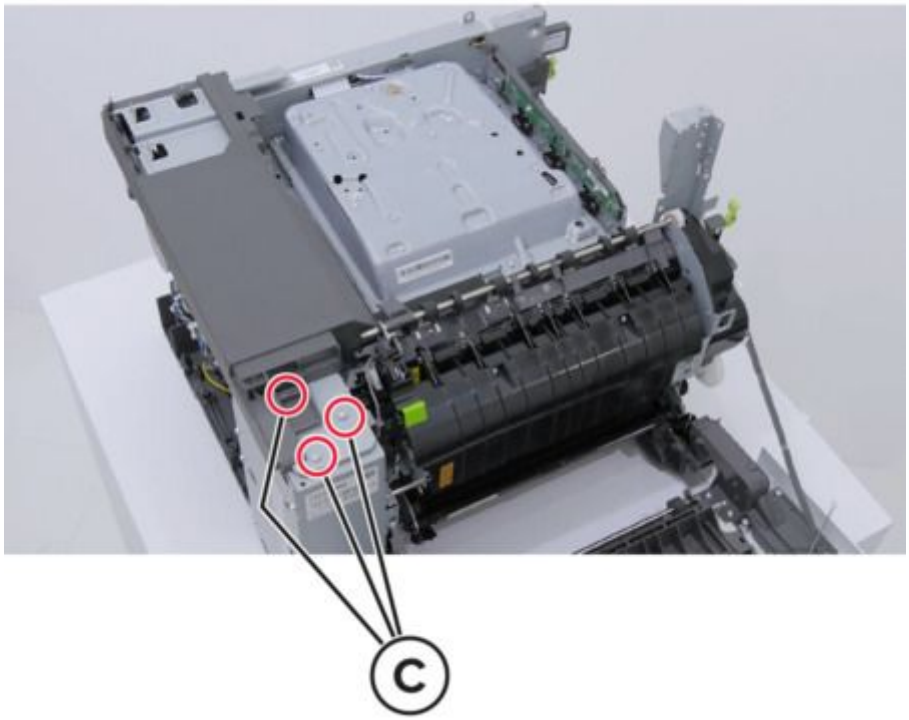
1. Remove the top cover. See Top cover removal on page 359.
2. Disconnect the connector (A).



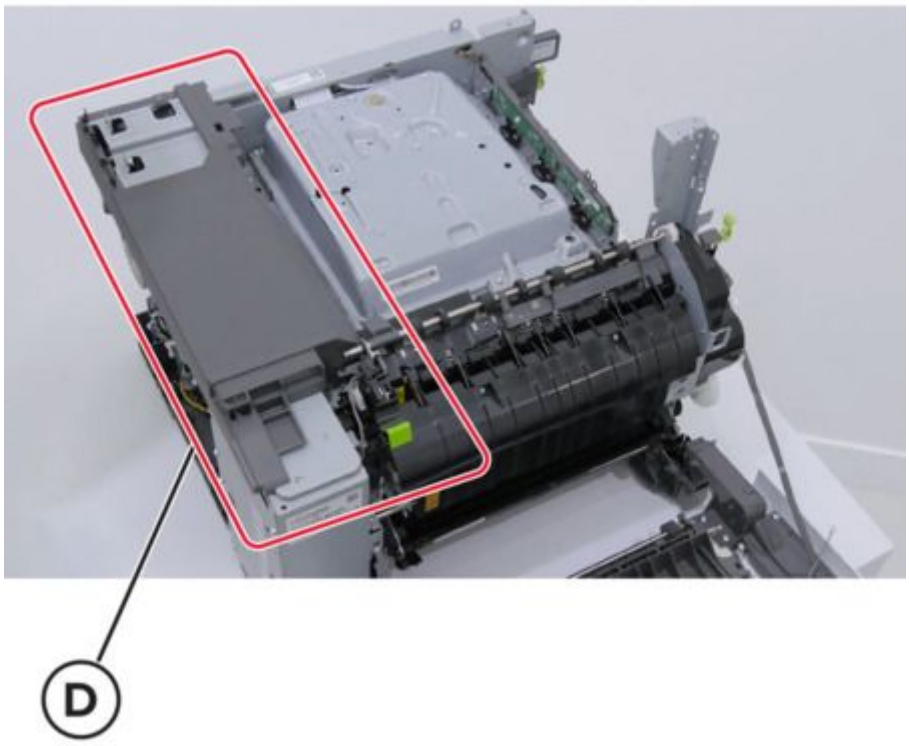
3. Remove the two screws (B).



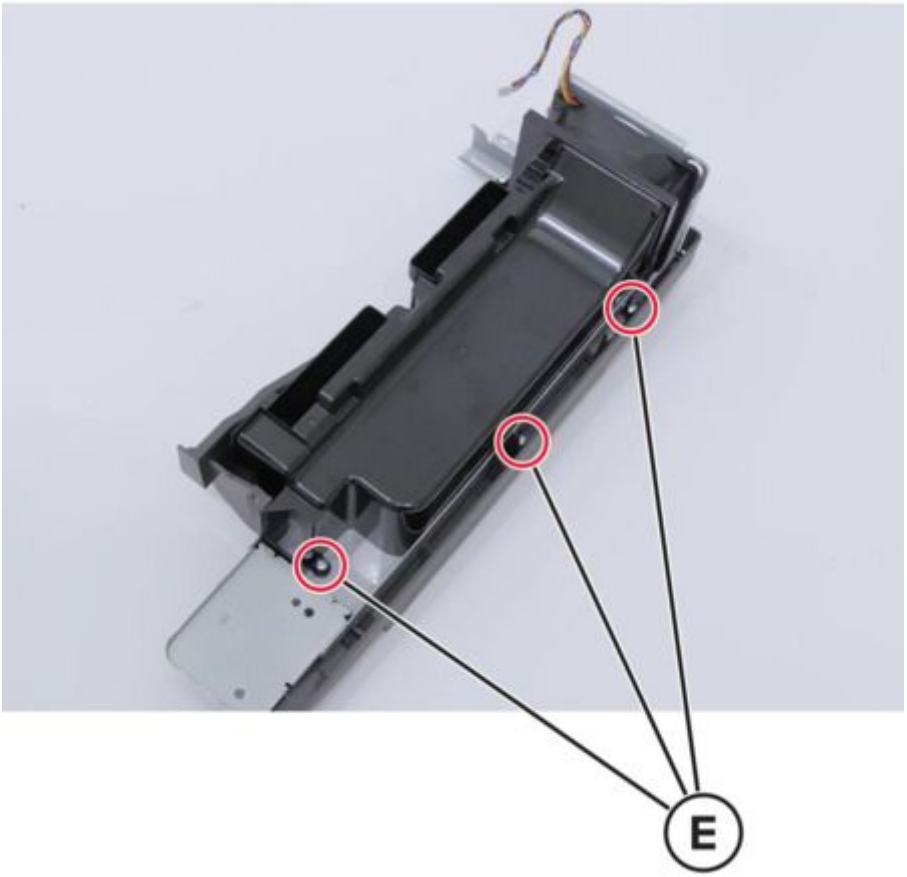
4. Remove the three screws (C).



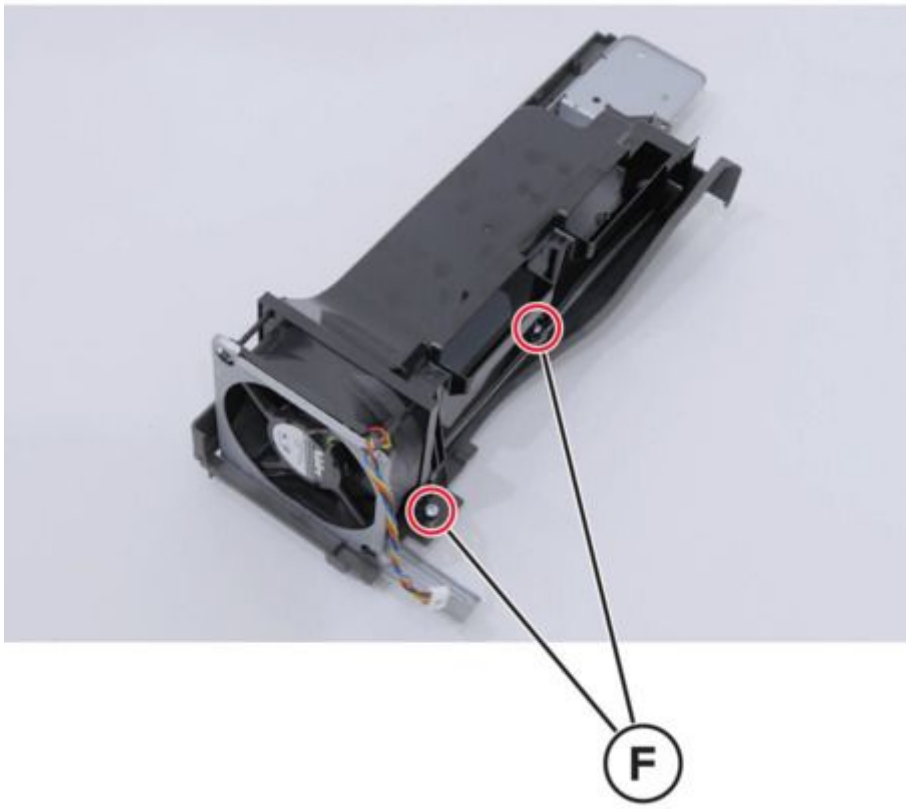
5. Remove the top left cover (D).



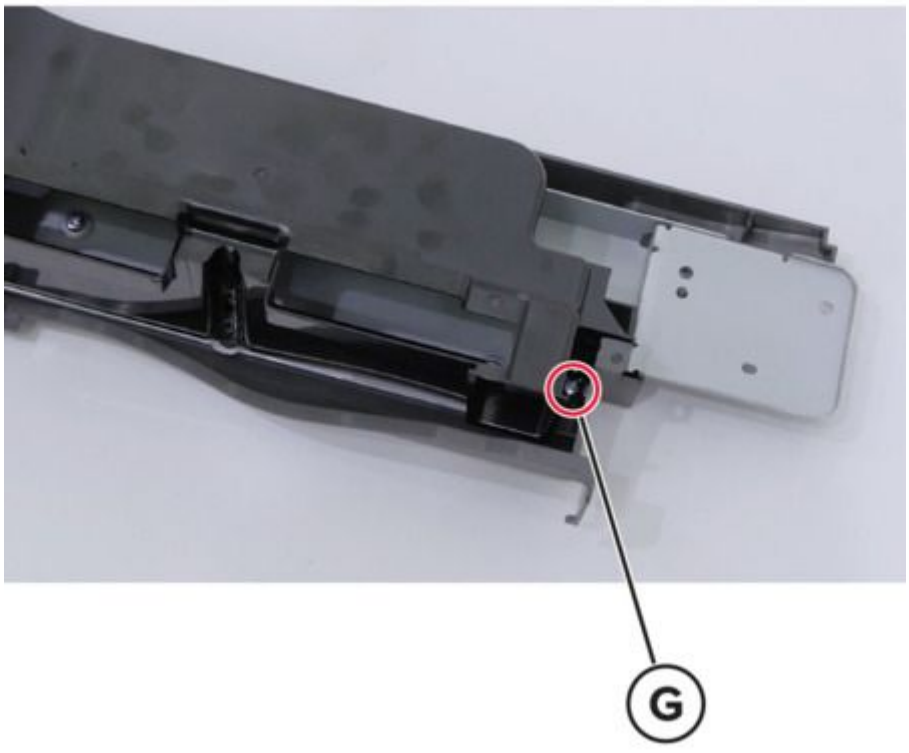
6. Remove the three screws (E).



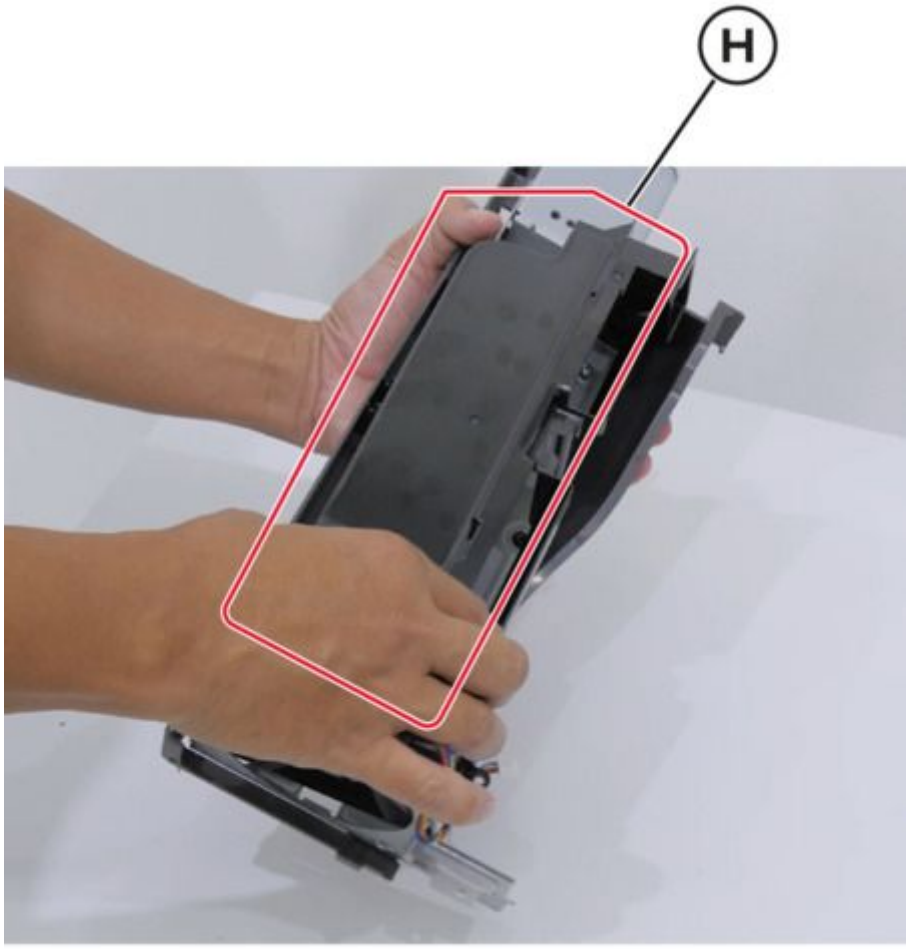
7. Remove the two screws (F).



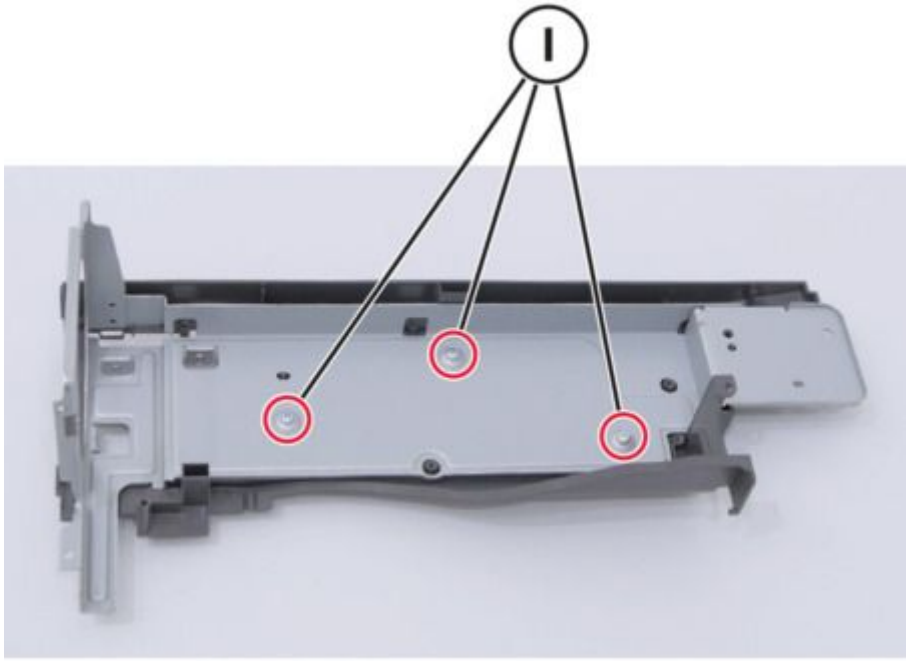
8. Remove the screw (G).



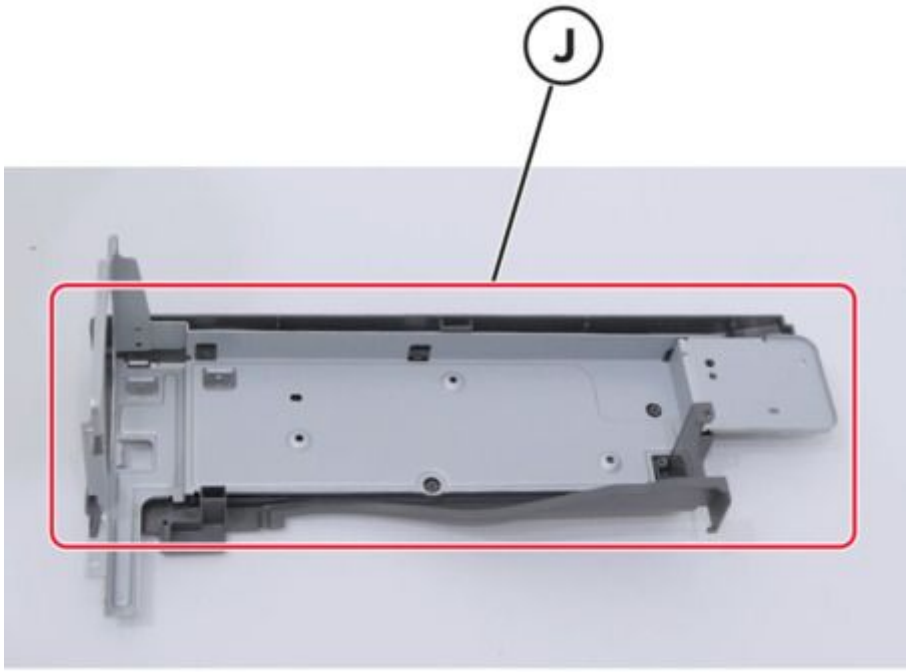
9. Remove the fan duct (H).



10. Remove the three screws (I).



11. Remove the frame (J).



Options removals

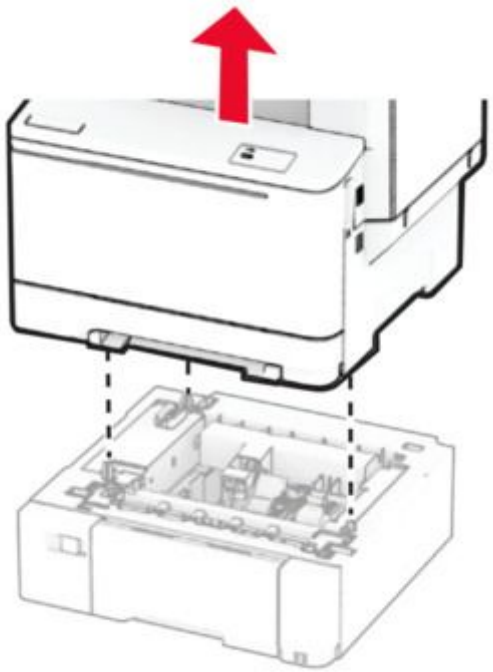
650-sheet duo tray insert removal

Pull out to remove the tray insert.

650-sheet duo tray removal

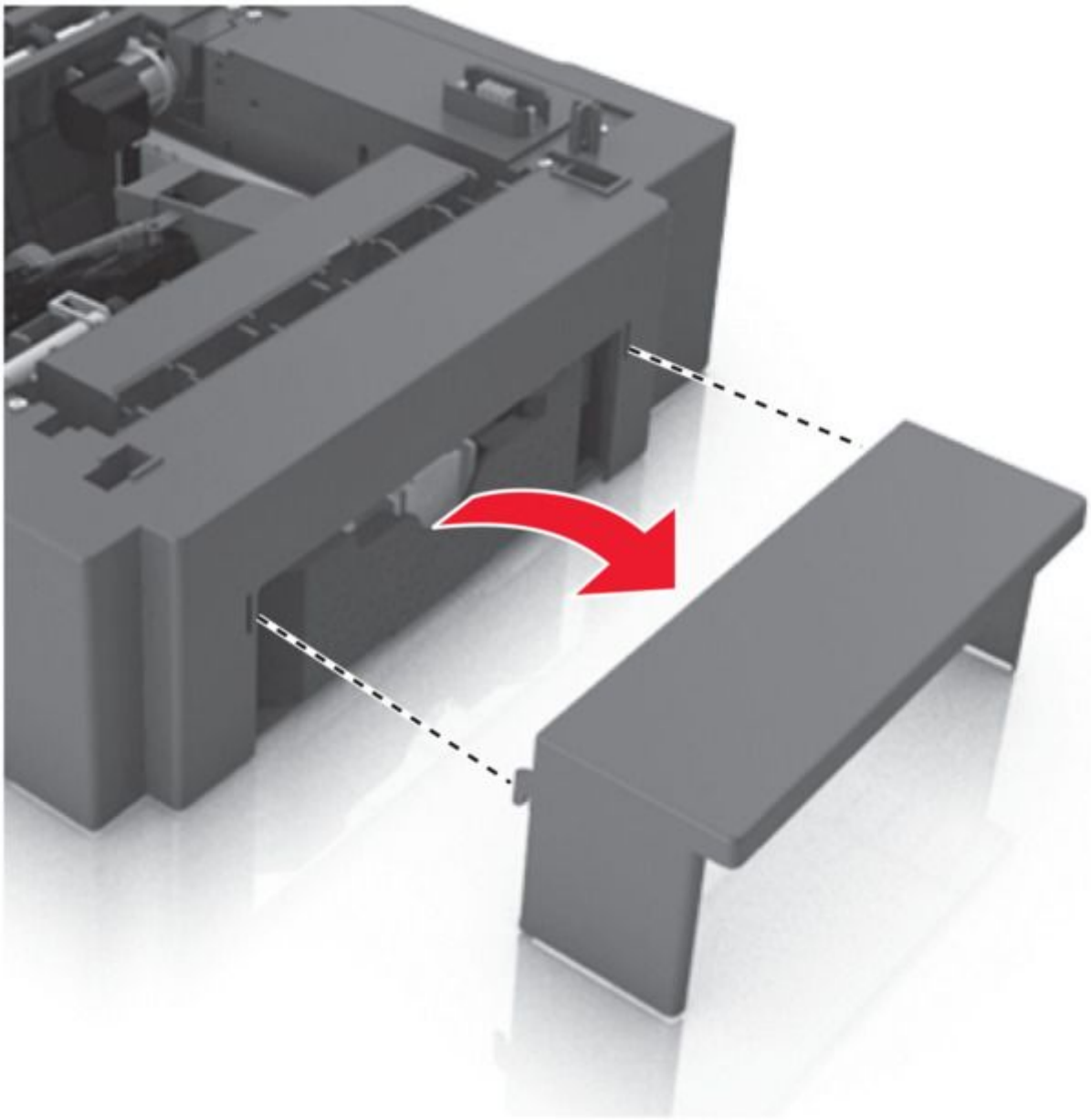
> **Warning—Potential Damage**
> Make sure that the printer is turned off before removing the tray.

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.

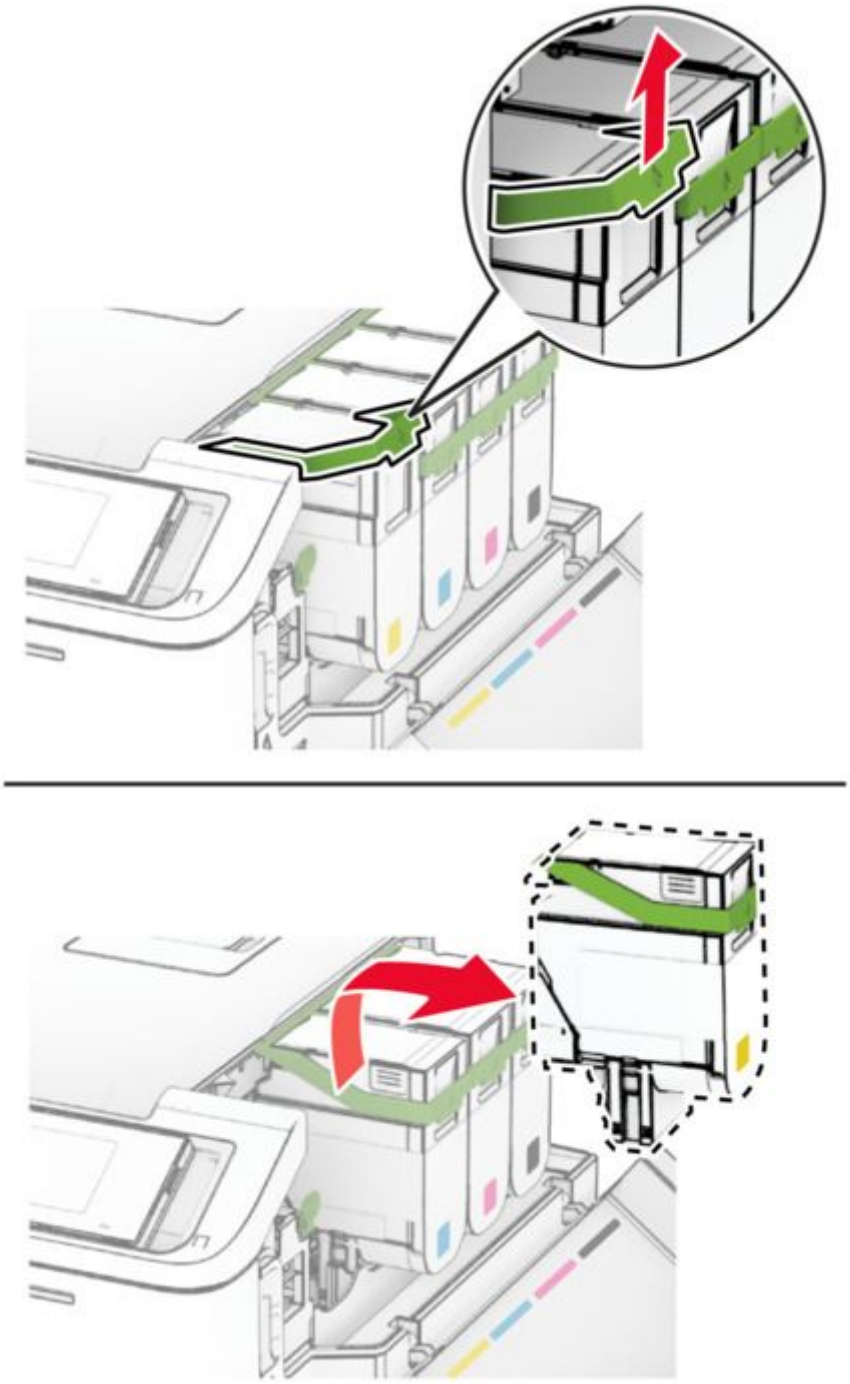


Replacing parts and supplies

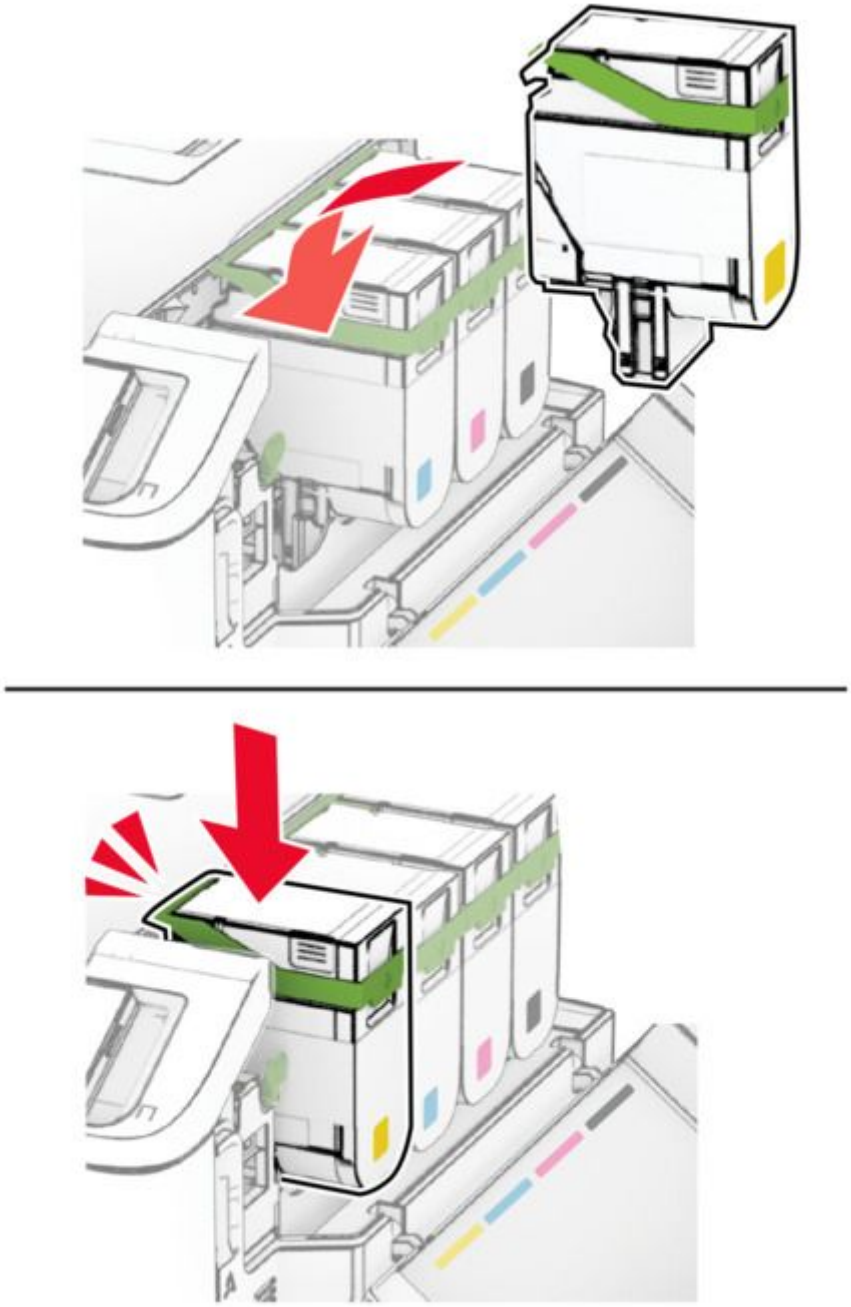
Replacing a toner cartridge

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.

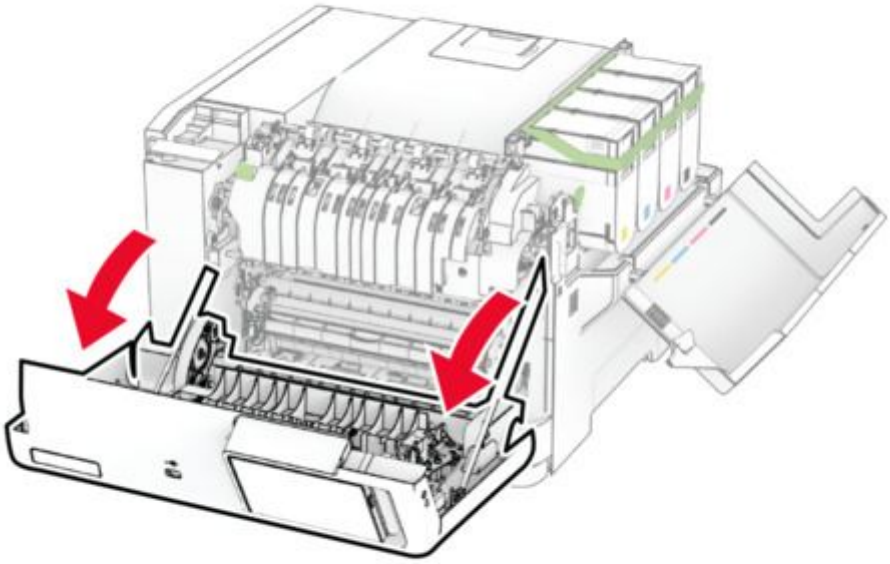


5. Close the door.

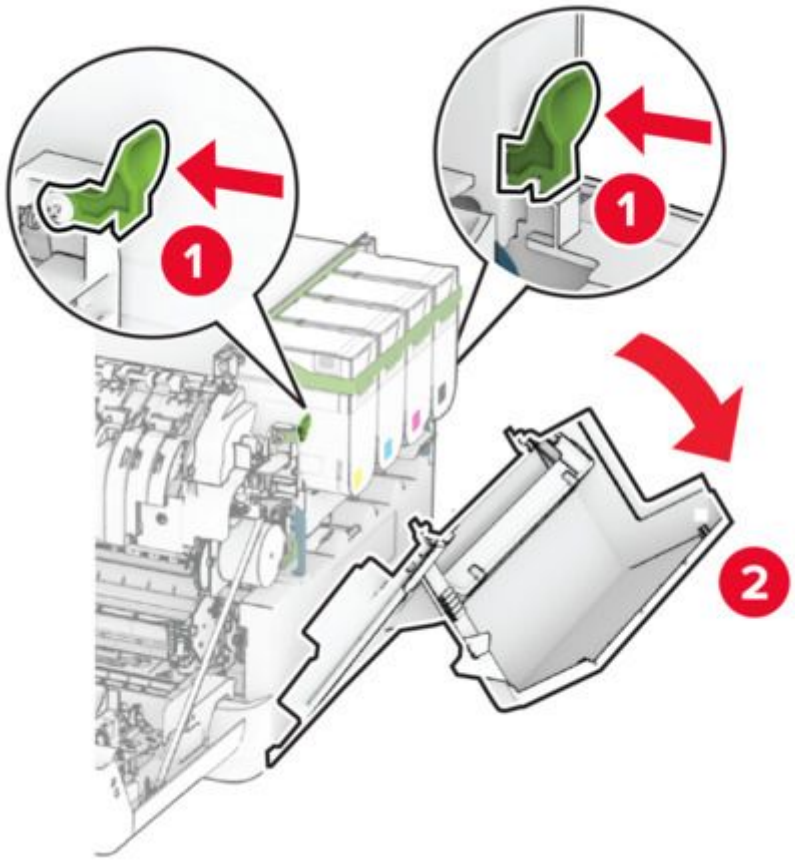
Replacing an imaging kit

1. Open door B.

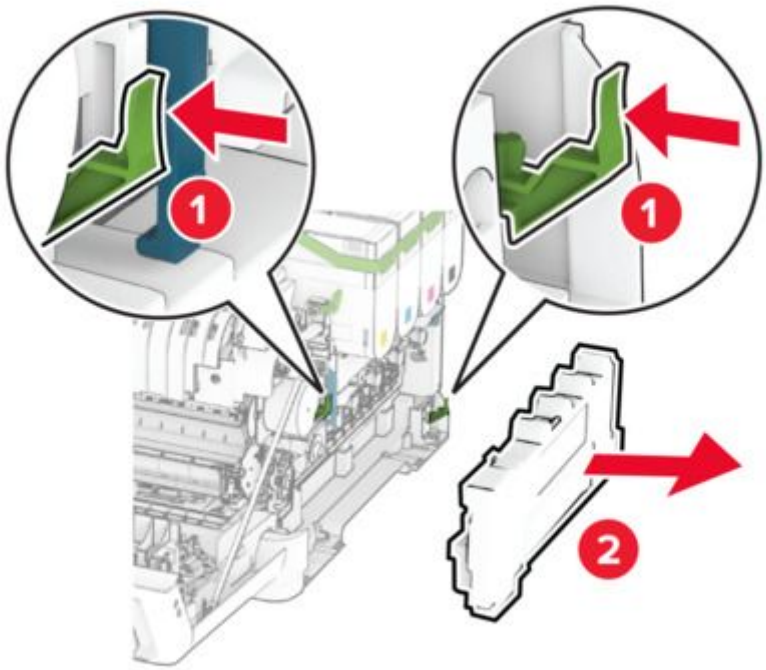
2. Open door A.



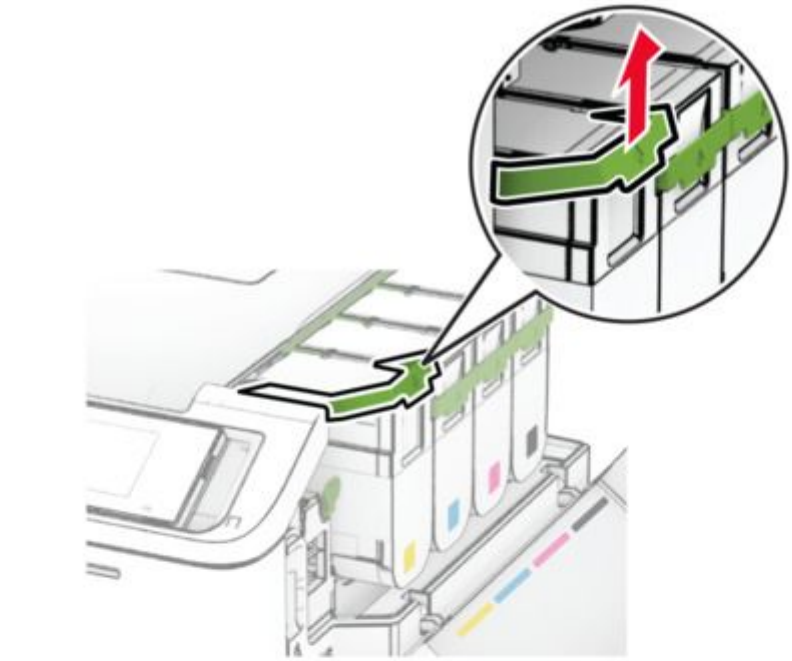
3. Remove the right cover.

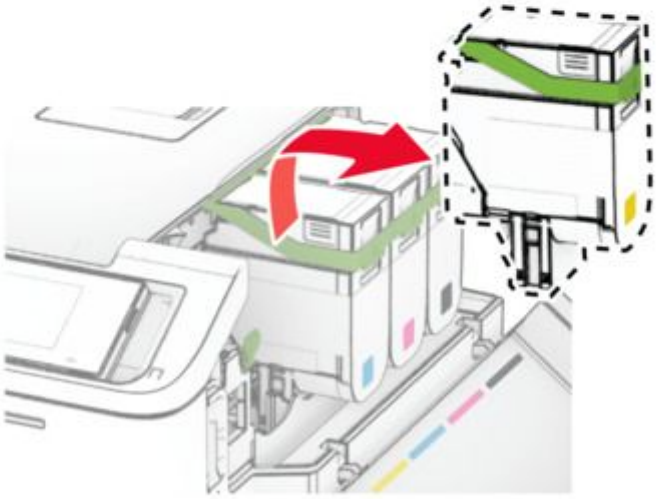


4. Remove the waste toner bottle.

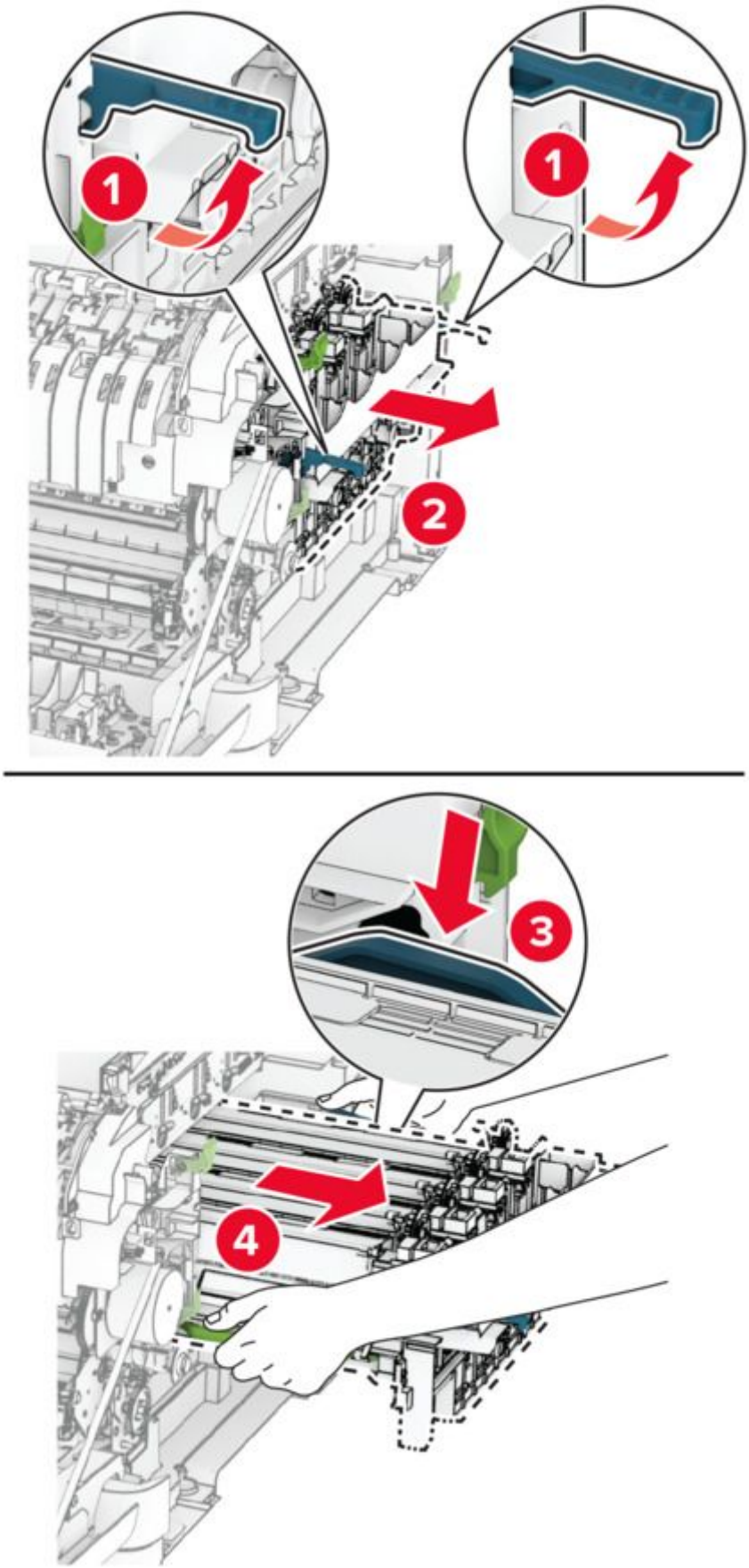


5. Remove the toner cartridges.

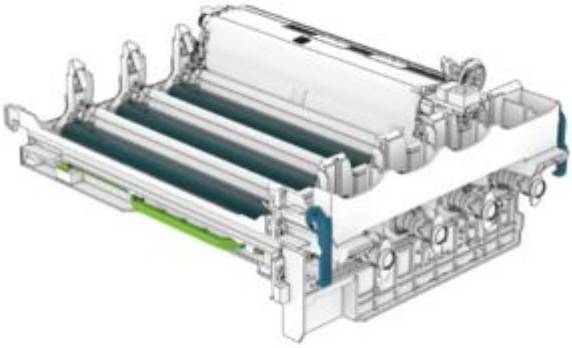
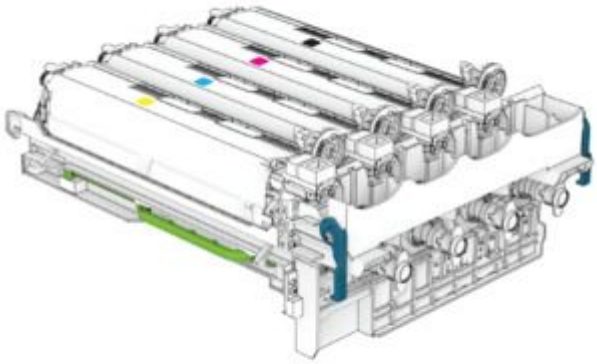




6. Remove the used imaging kit.



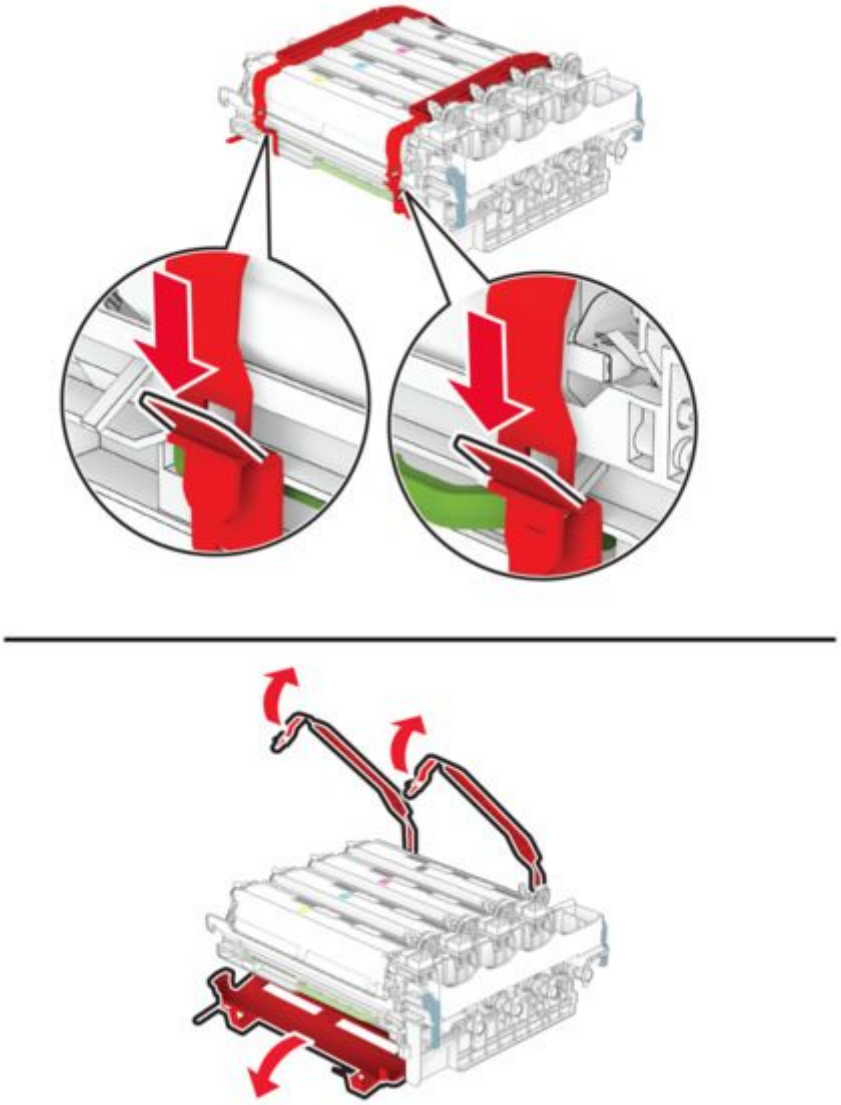
7. Unpack the new imaging kit.

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

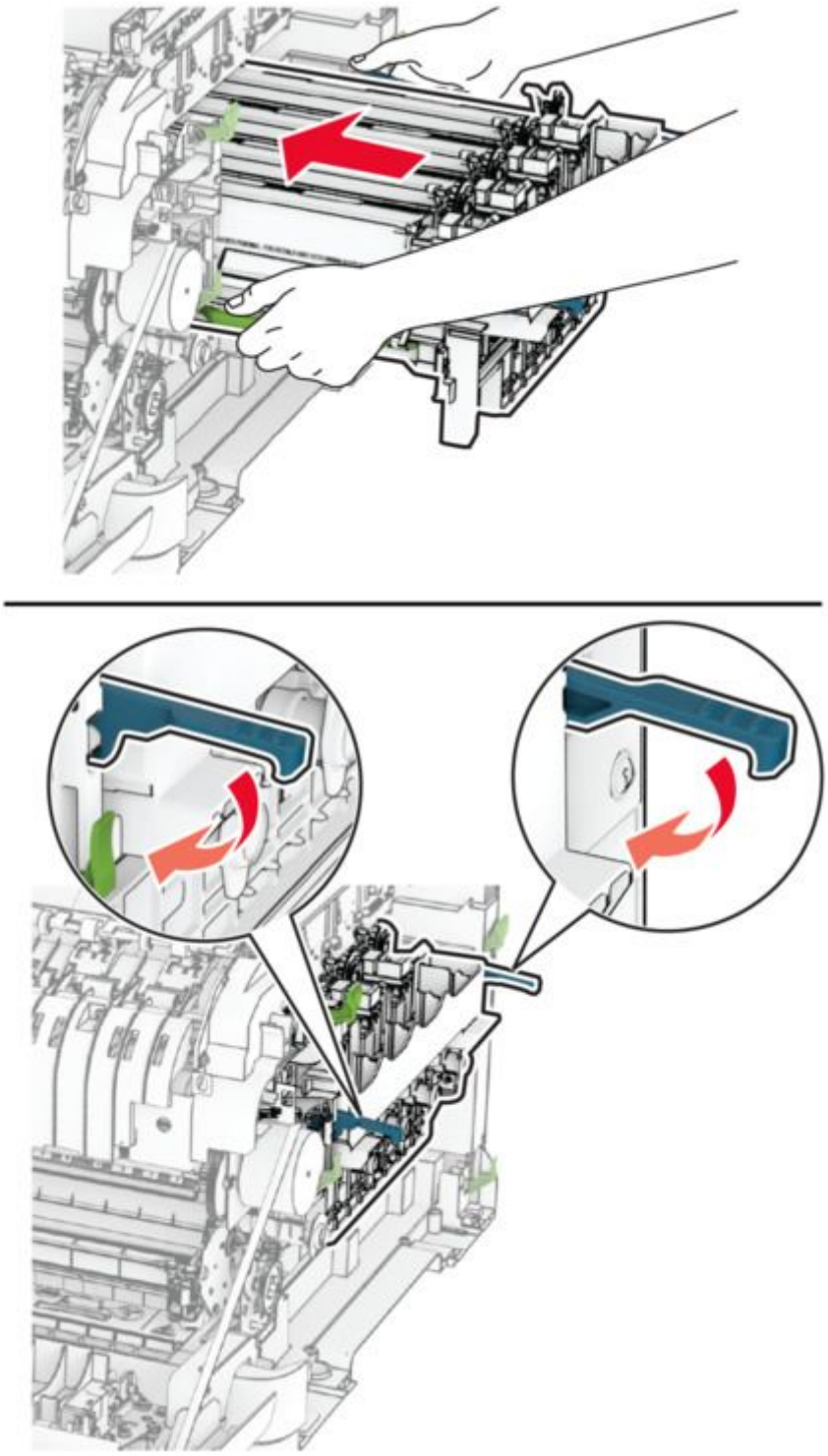
If you are replacing the black imaging kit, then insert the magenta, cyan, and yellow developer units into the new imaging kit.

Warning—Potential Damage

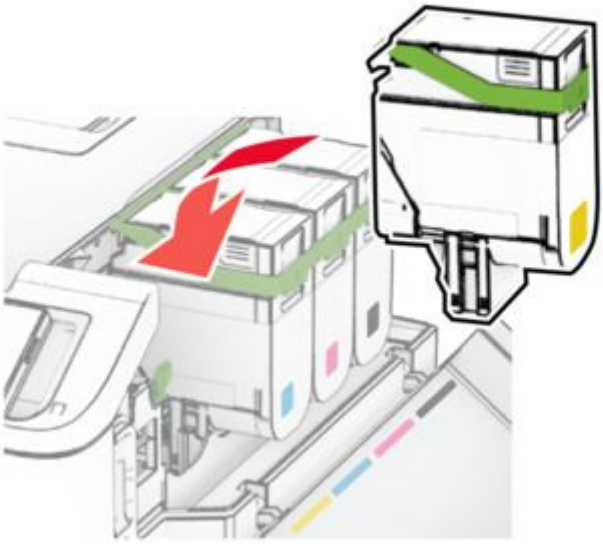
Do not expose the imaging kit to direct light. Extended exposure to light may cause print quality problems.

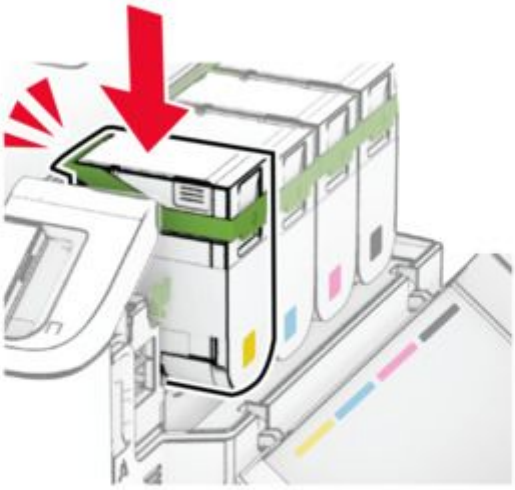
Warning—Potential Damage
Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.

9. Insert the new imaging kit until it is fully seated.

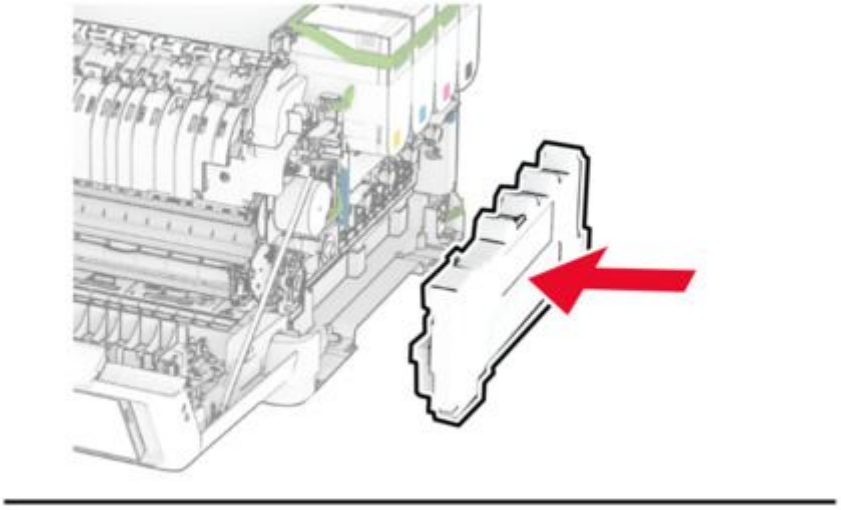


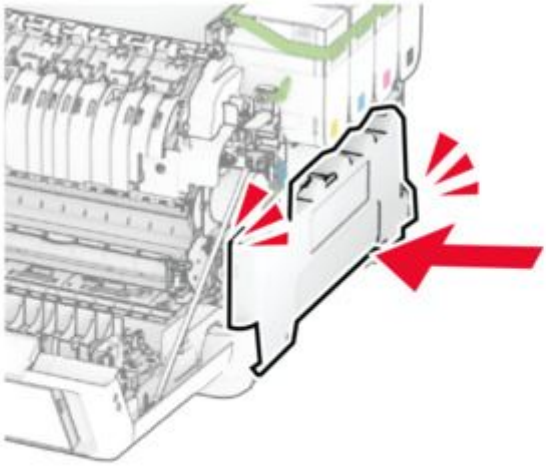
10. Insert the toner cartridges until they click into place.



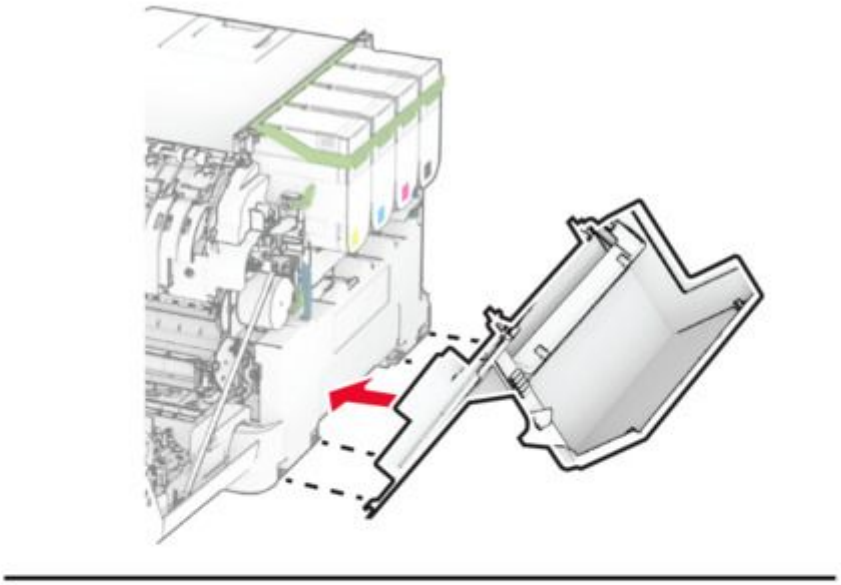


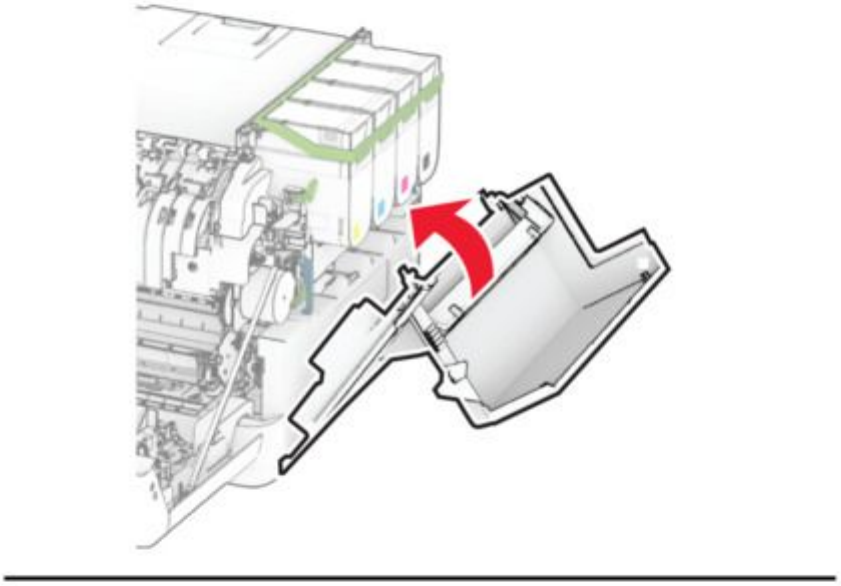
11. Insert the waste toner bottle until it clicks into place.

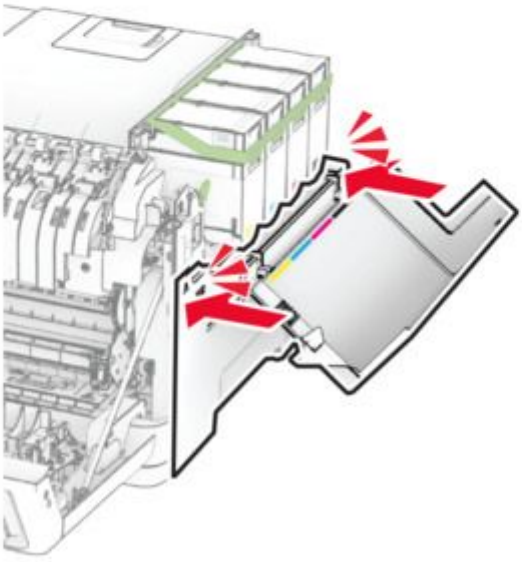




12. Attach the right cover until it clicks into place.





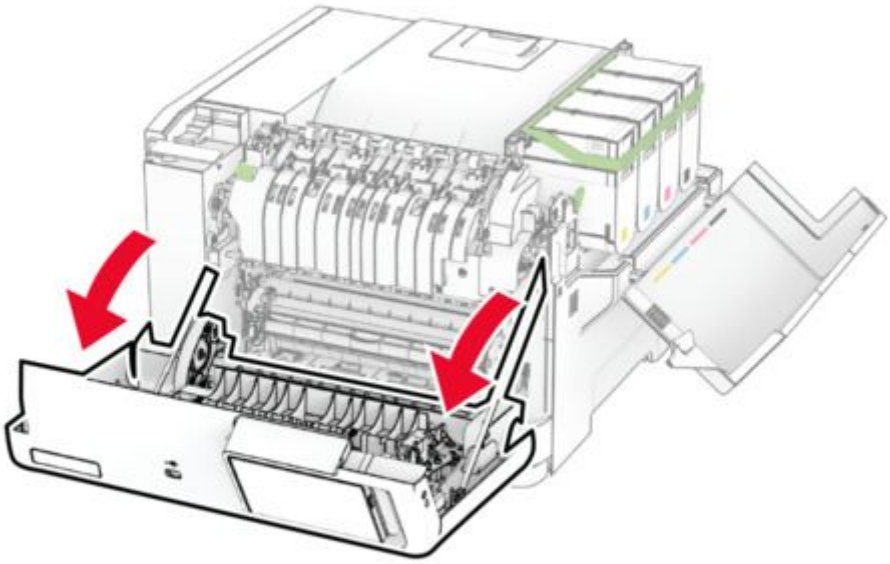


13. Close door A, and then close door B.

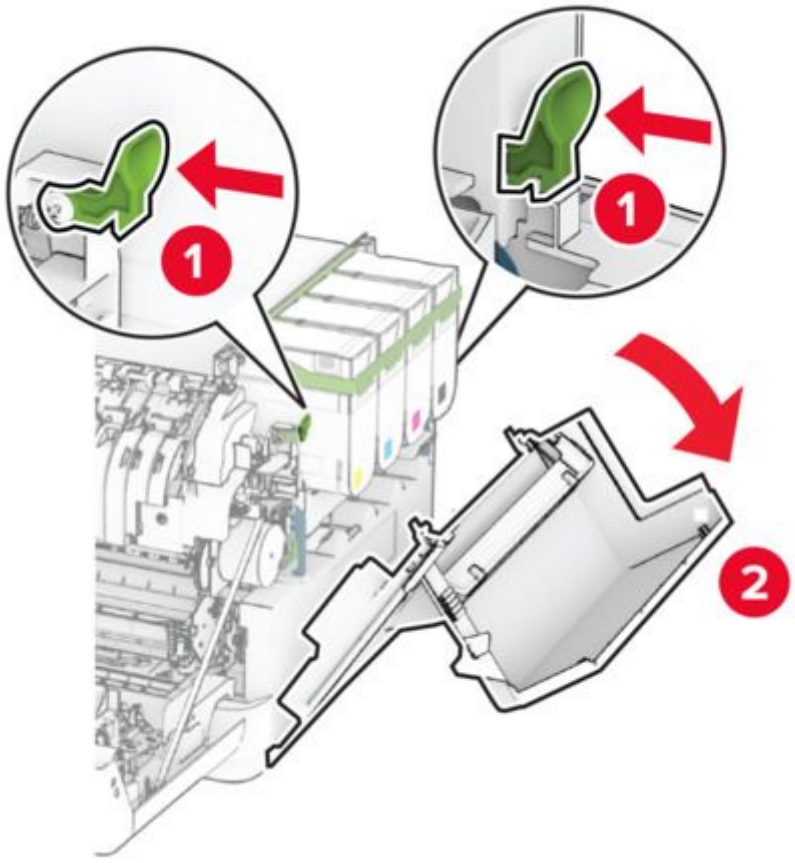
Replacing the waste toner bottle

1. Open door B.

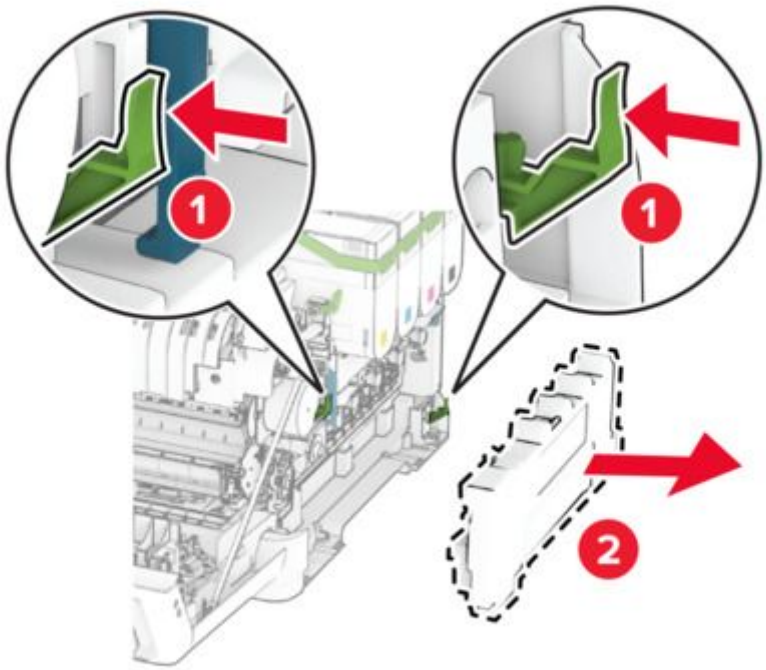
2. Open door A.



3. Remove the right cover.

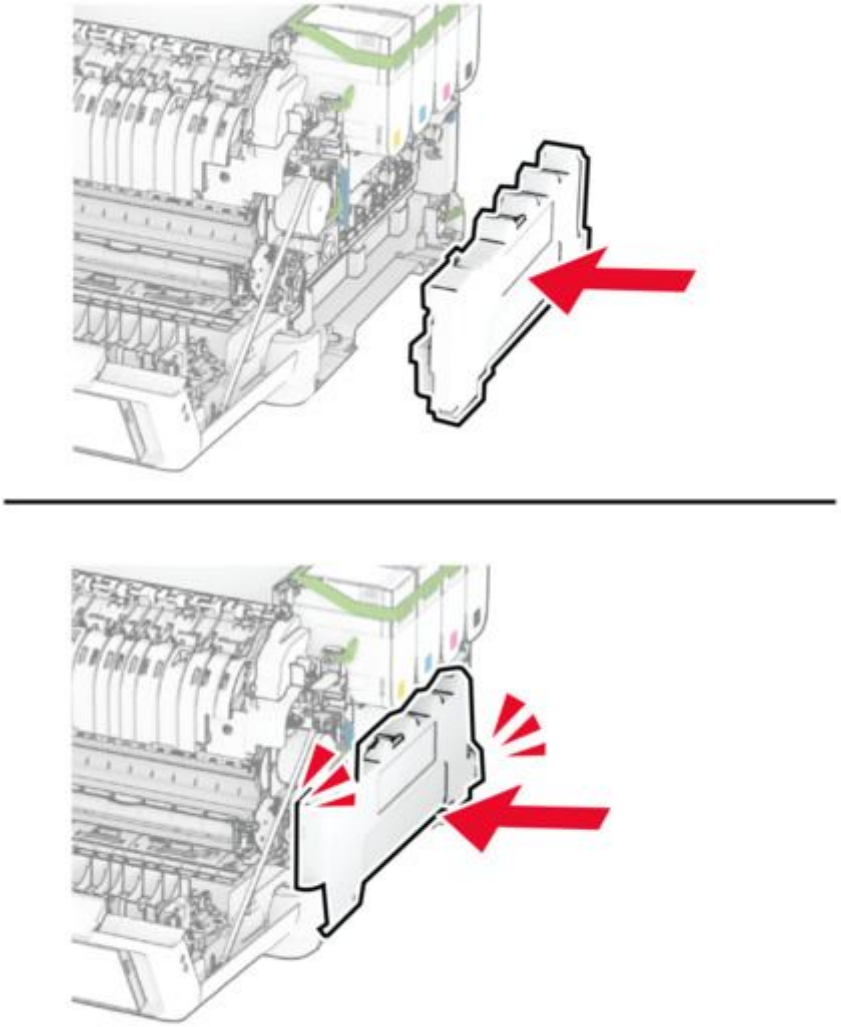


4. Remove the used waste toner bottle.

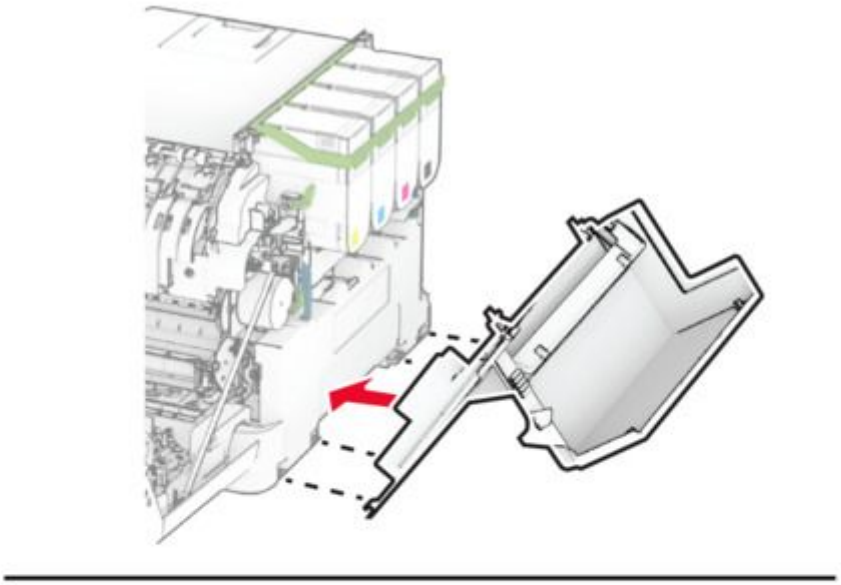


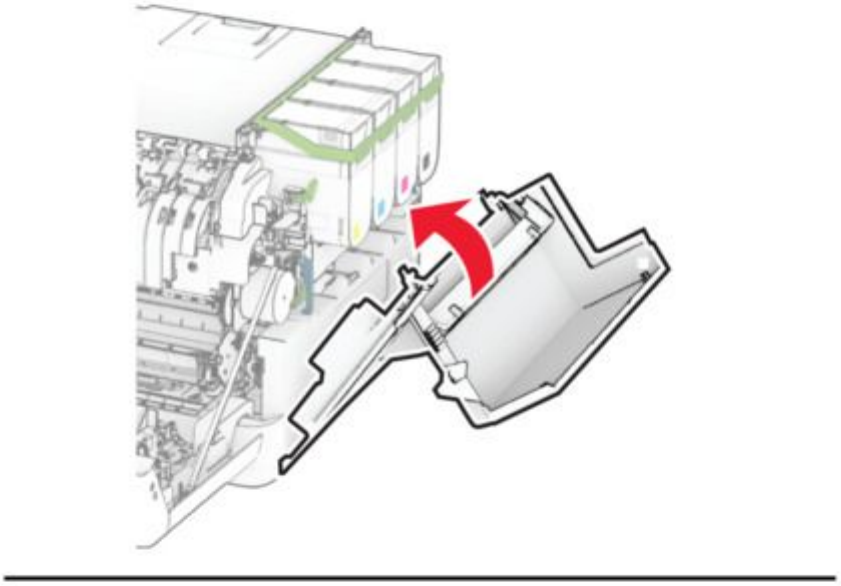
Notes
To avoid spilling the toner, place the bottle in an upright position.

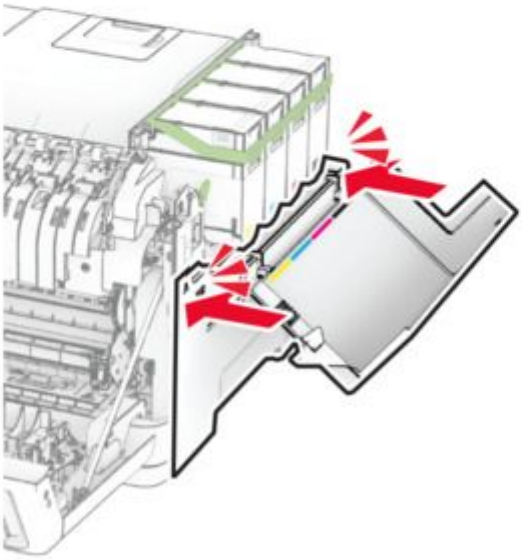
5. Unpack the new waste toner bottle.
6. Insert the new waste toner bottle until it clicks into place.



7. Attach the right cover until it clicks into place.





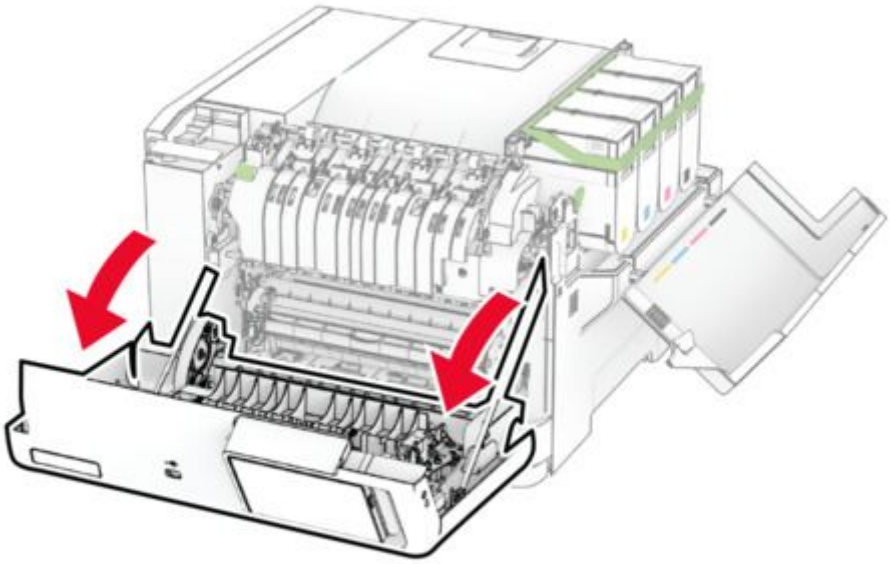


8. Close door A, and then close door B.

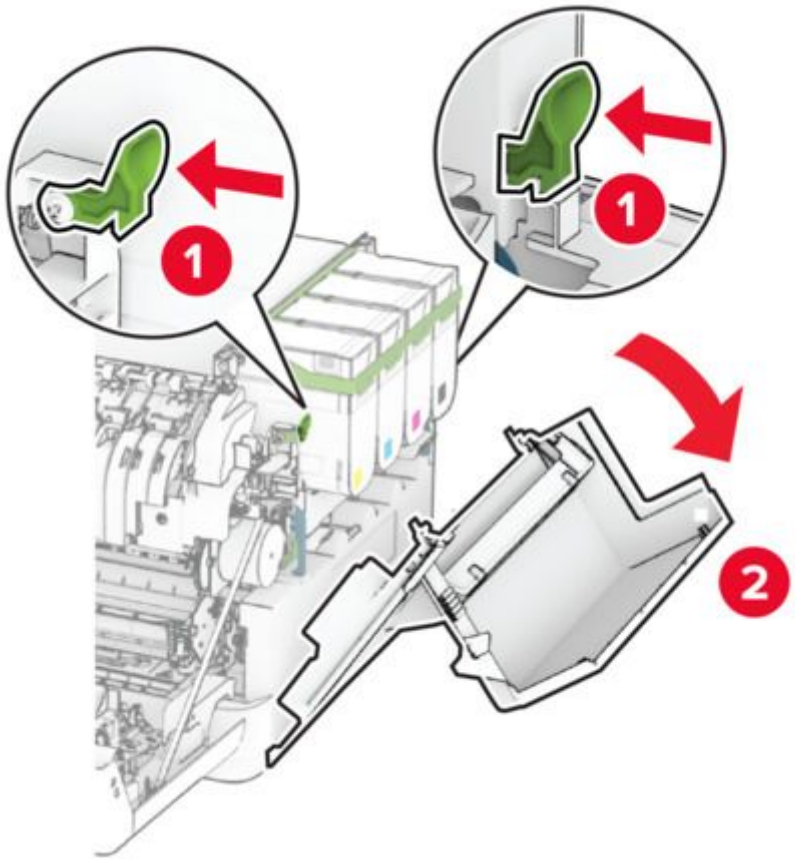
Replacing a developer unit

1. Open door B.

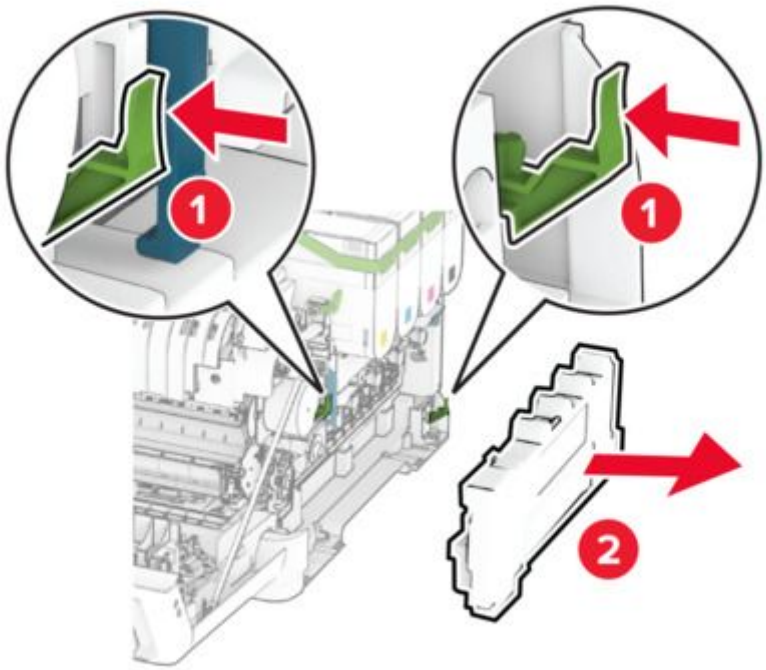
2. Open door A.



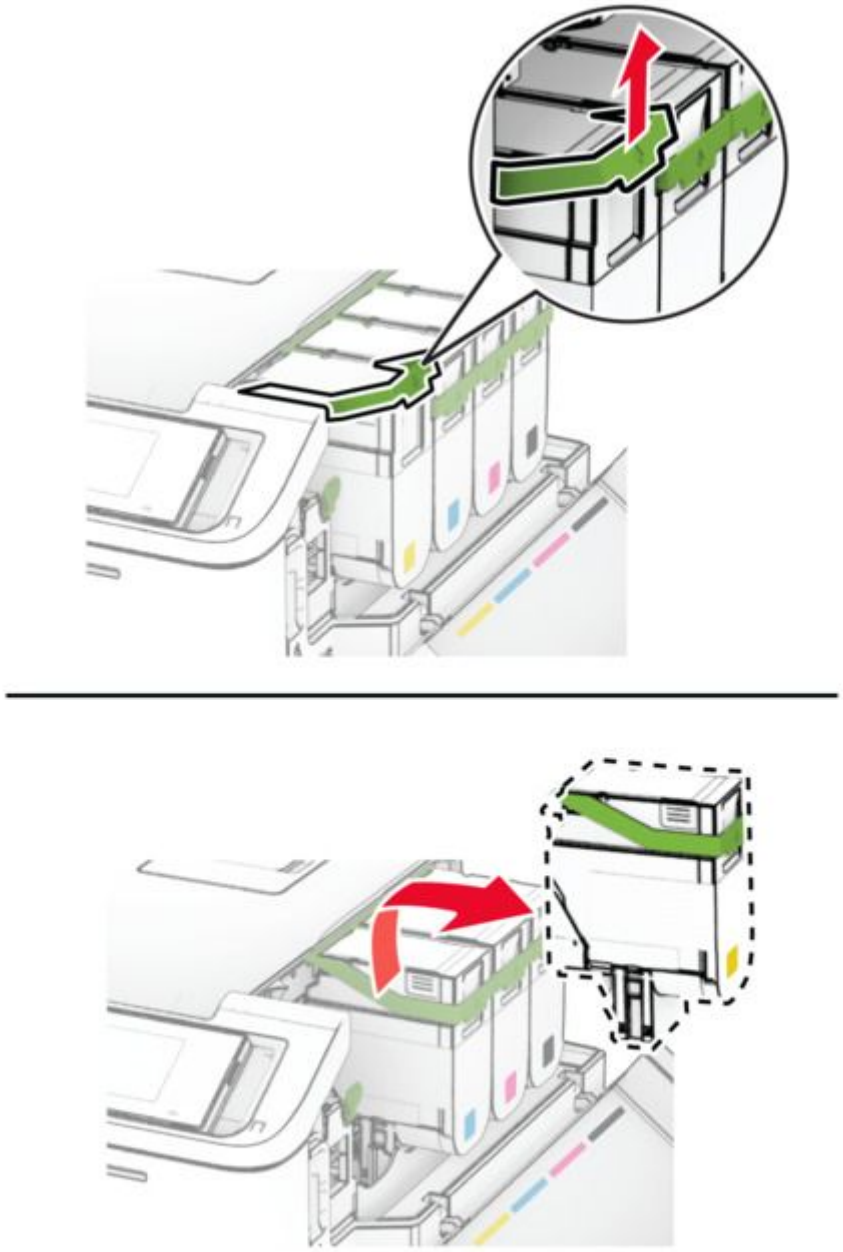
3. Remove the right cover.



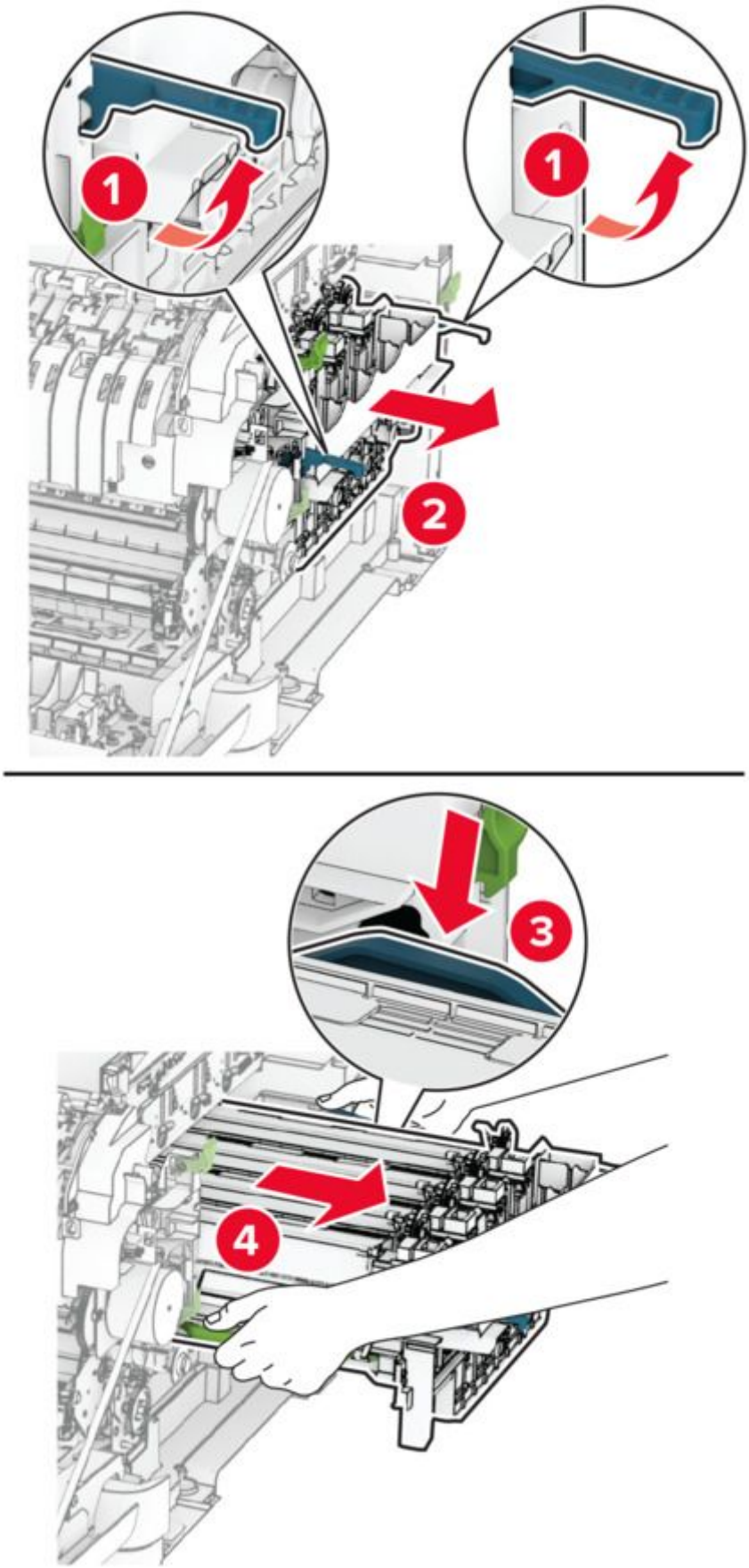
4. Remove the waste toner bottle.



5. Remove the toner cartridges.



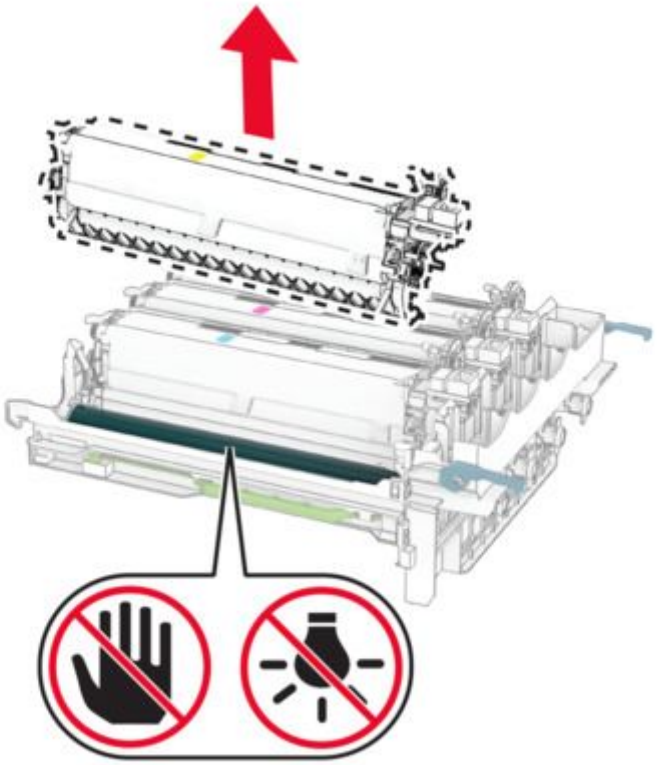
6. Remove the imaging kit.



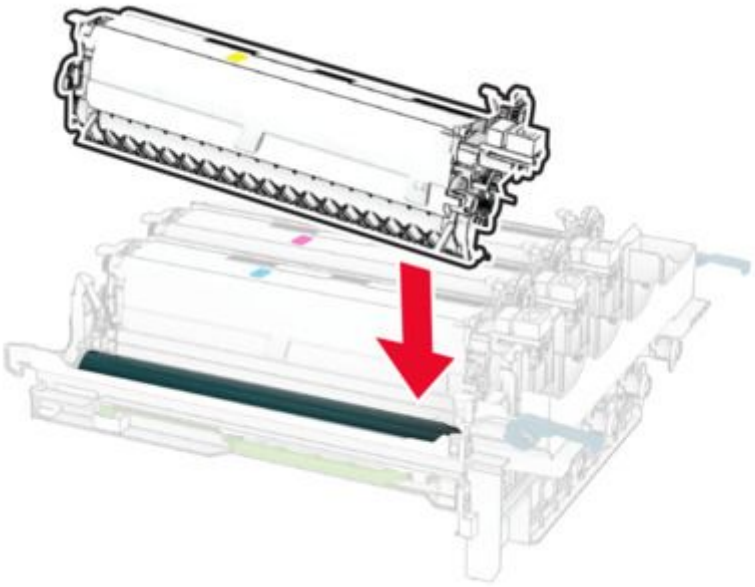
7. Remove the used developer unit.

Warning—Potential Damage
Do not expose the imaging kit to direct light. Extended exposure to light may cause print quality problems.

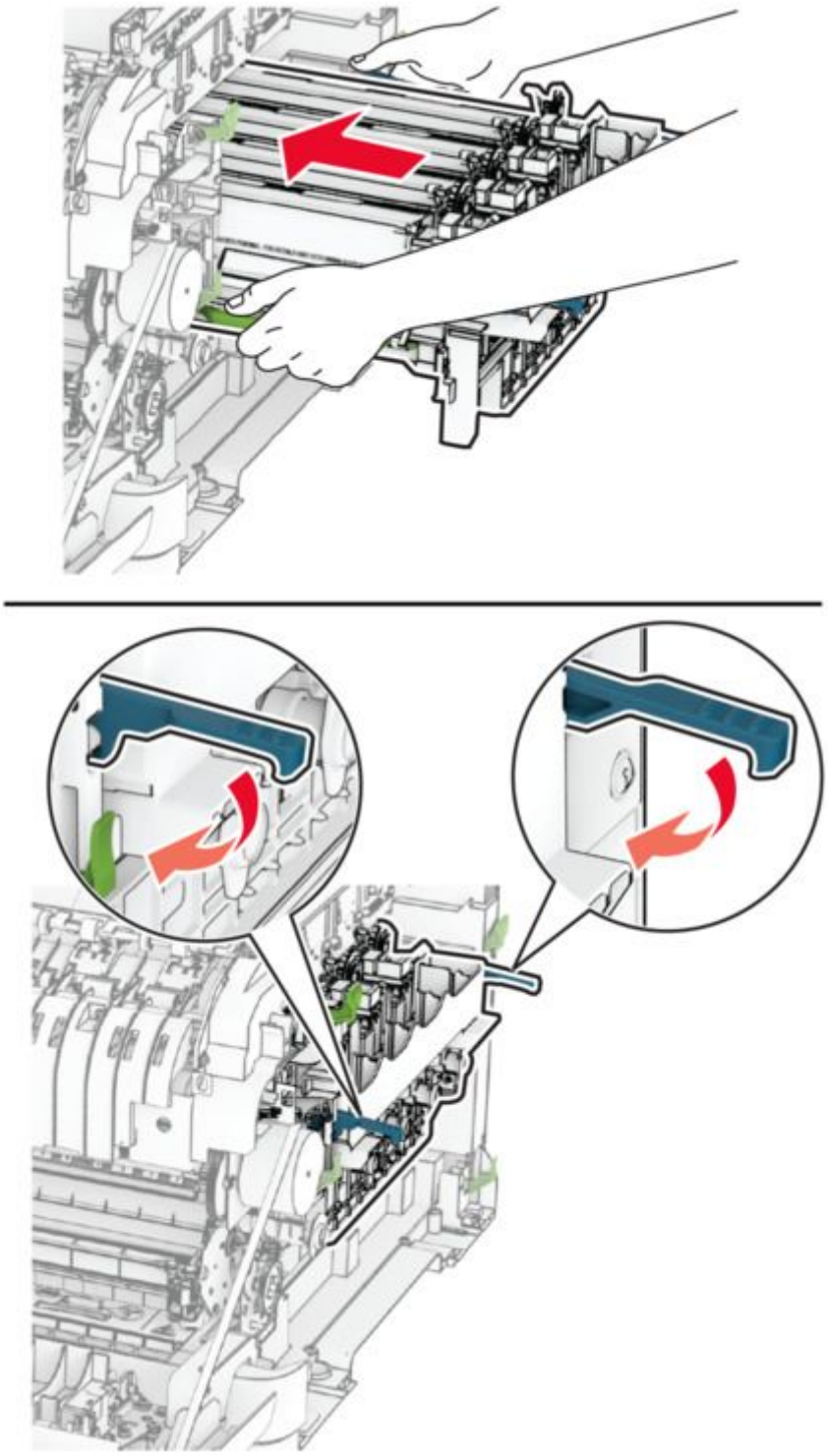
Warning—Potential Damage
Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.



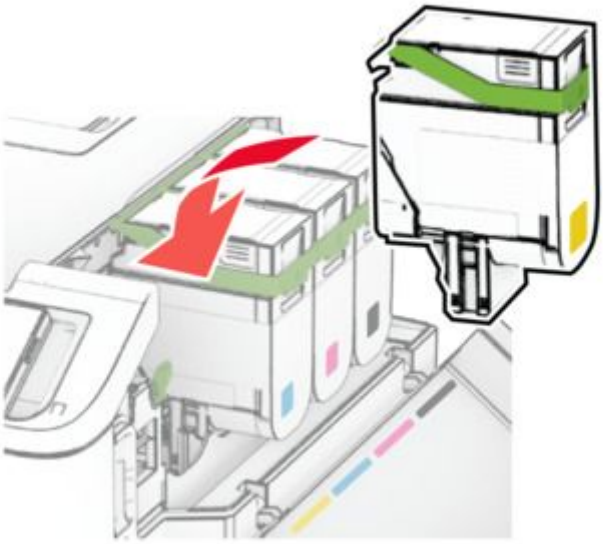
8. Remove the packing material.
9. Insert the new developer unit.

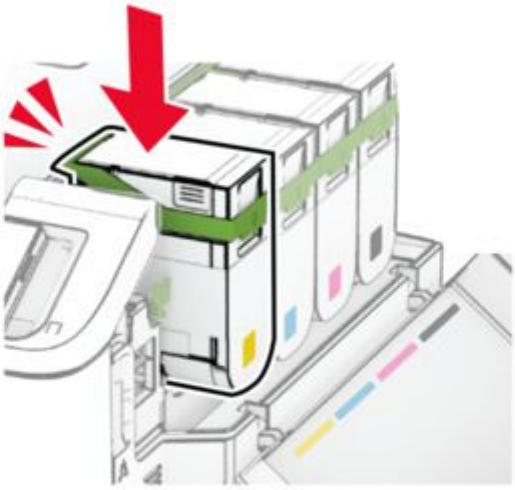


10. Insert the imaging kit until it is fully seated.

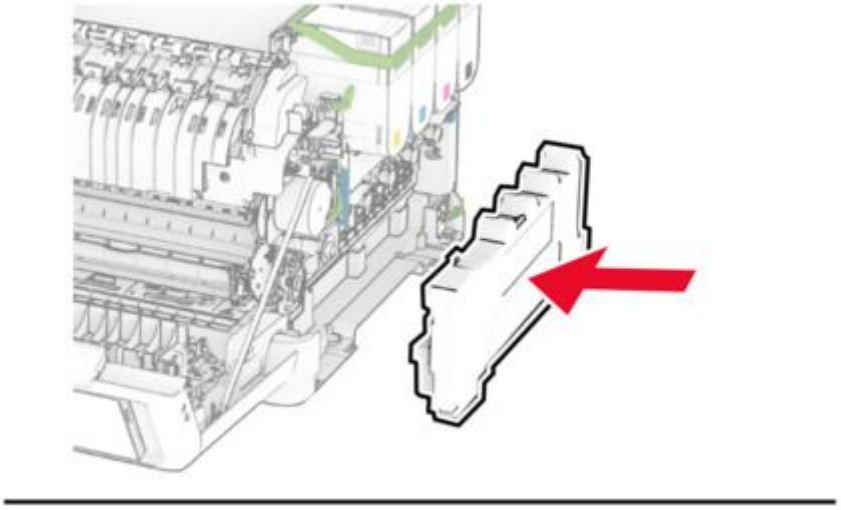


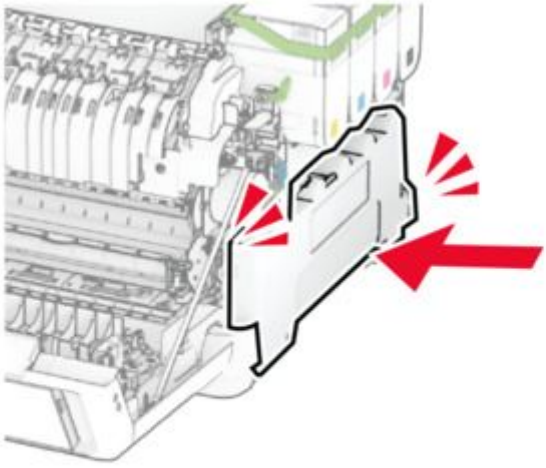
11. Insert the toner cartridges until they click into place.



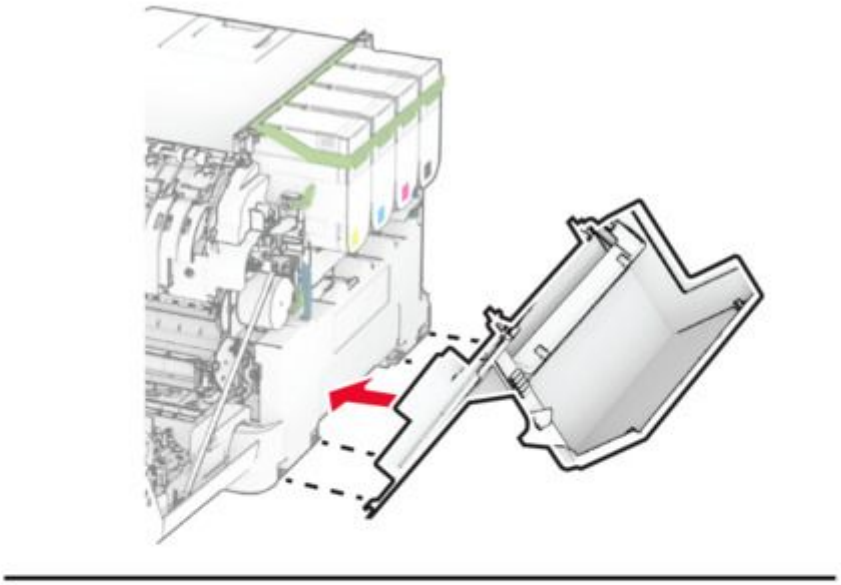


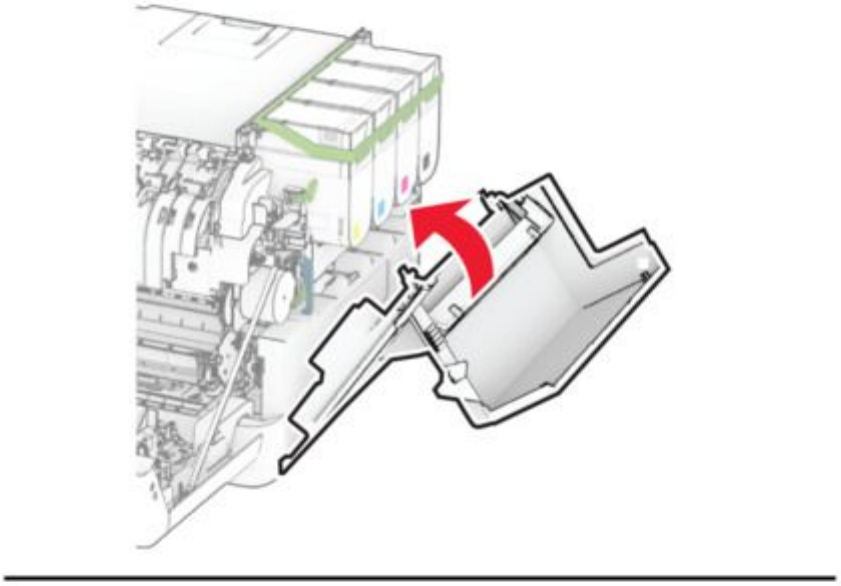
12. Insert the waste toner bottle until it clicks into place.

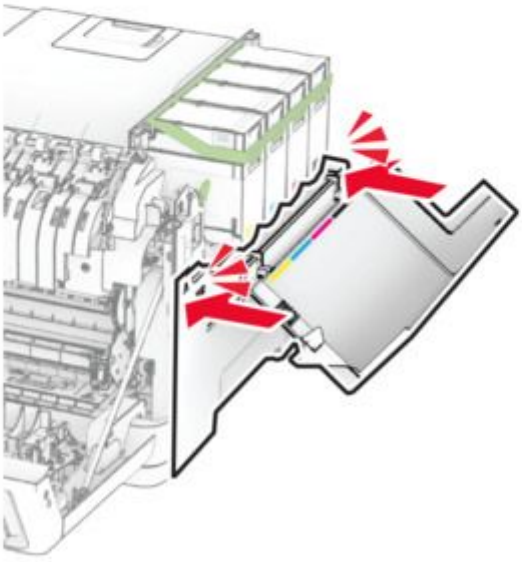




13. Attach the right cover until it clicks into place.



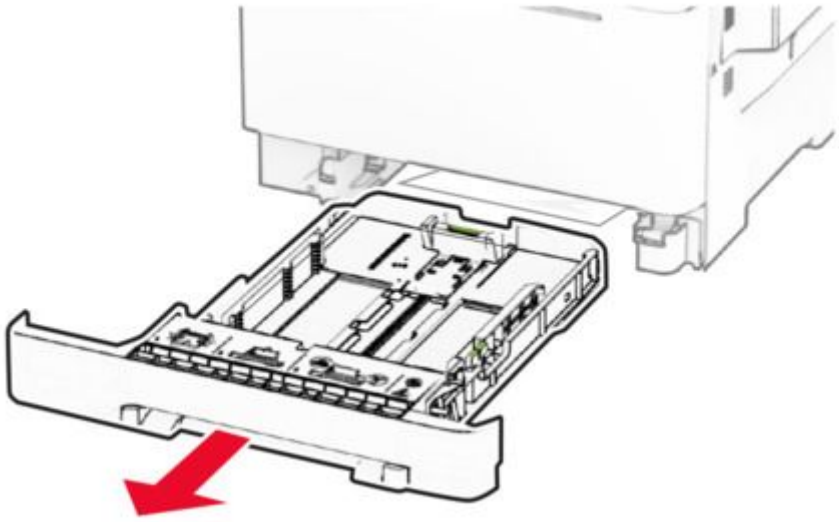




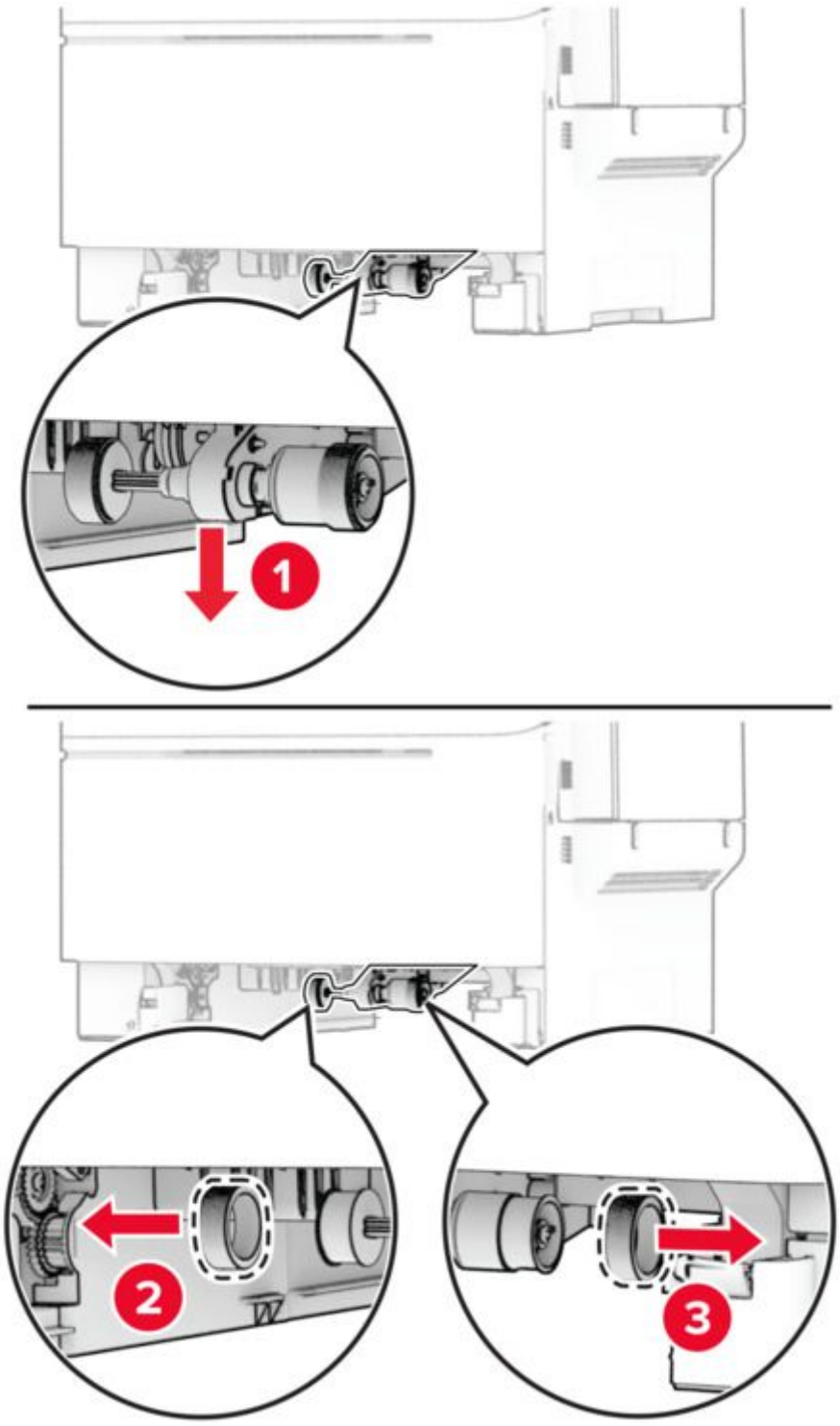
14. Close door A, and then close door B.

Replacing the pick tires

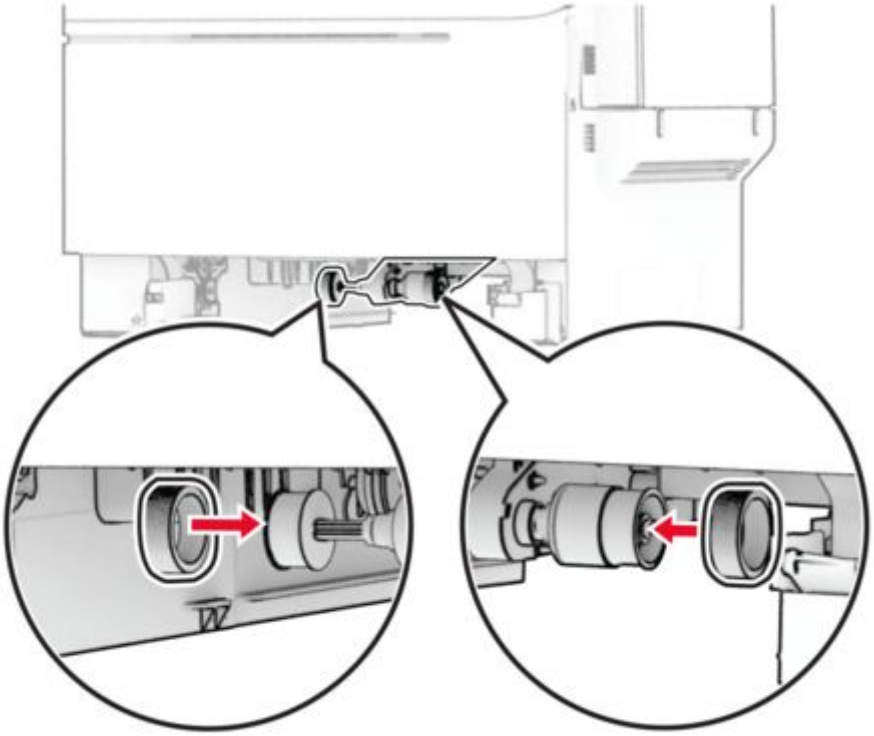
1. Remove the tray.



2. Remove the used pick tires.

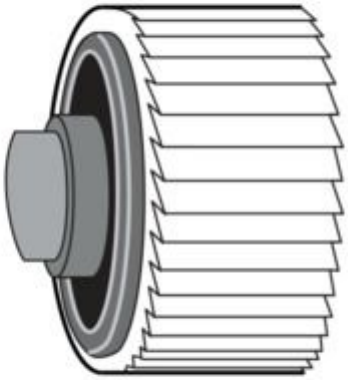


3. Unpack the new pick tires.
4. Insert the new pick tires.



Notes

Make sure that the edges of the pick tire treads are facing downward.

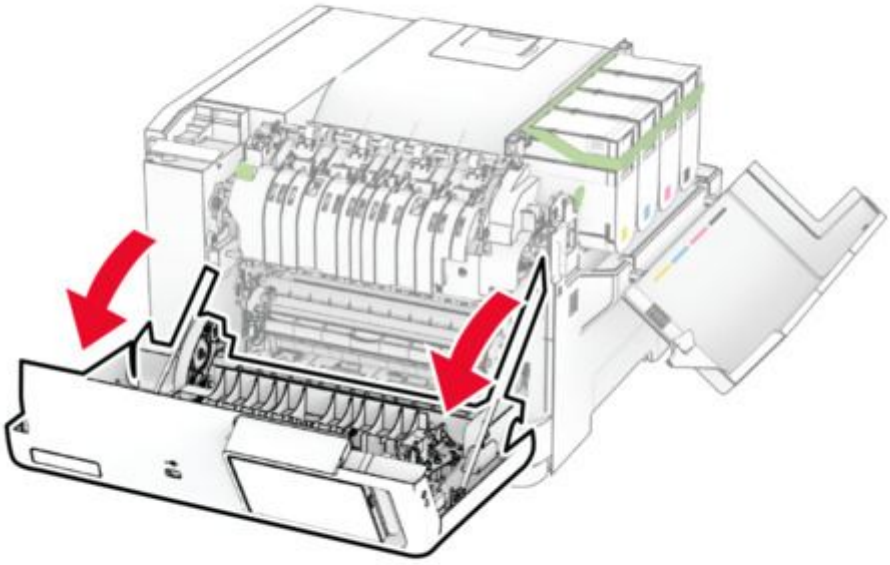


5. Insert the tray.

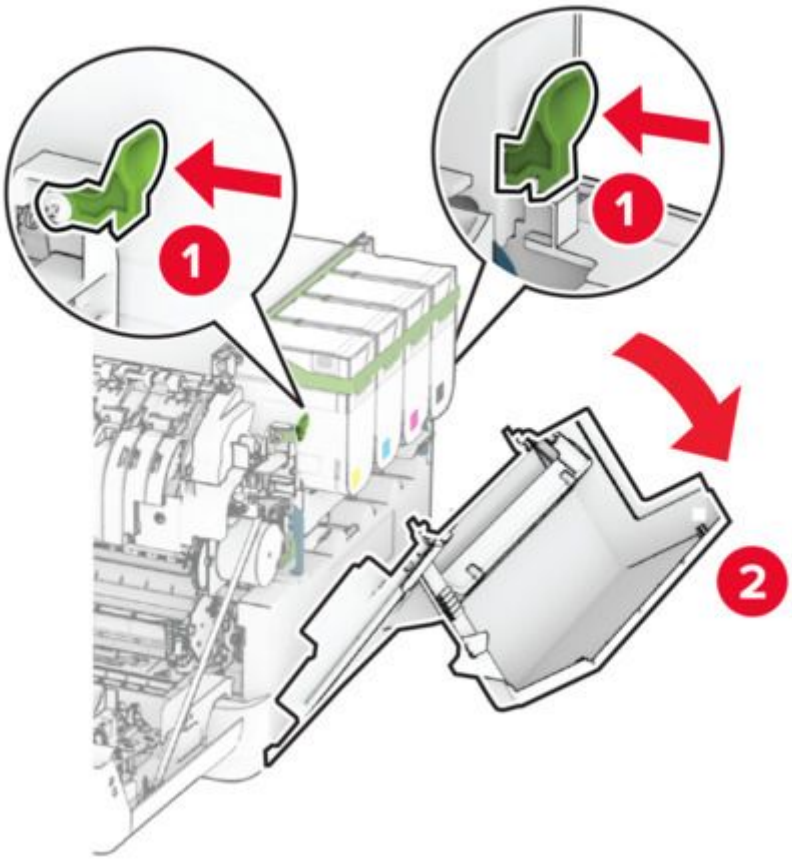
Replacing the right cover

1. Open door B.

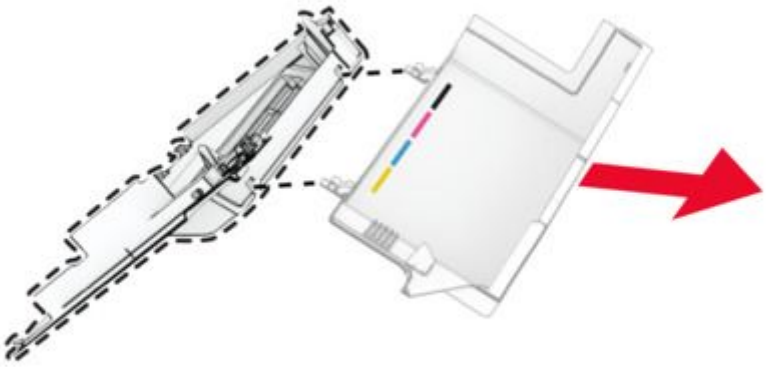
2. Open door A.



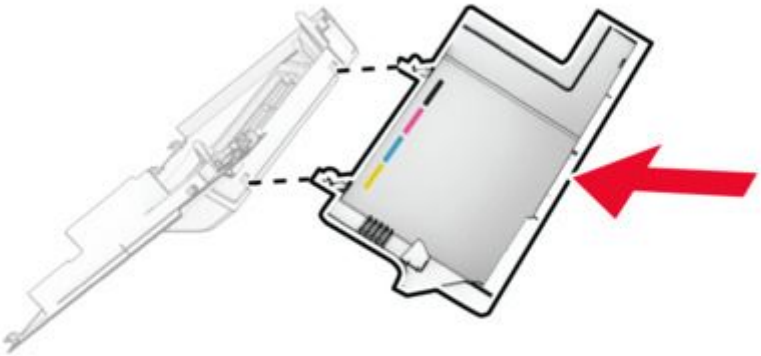
3. Remove the used right cover.



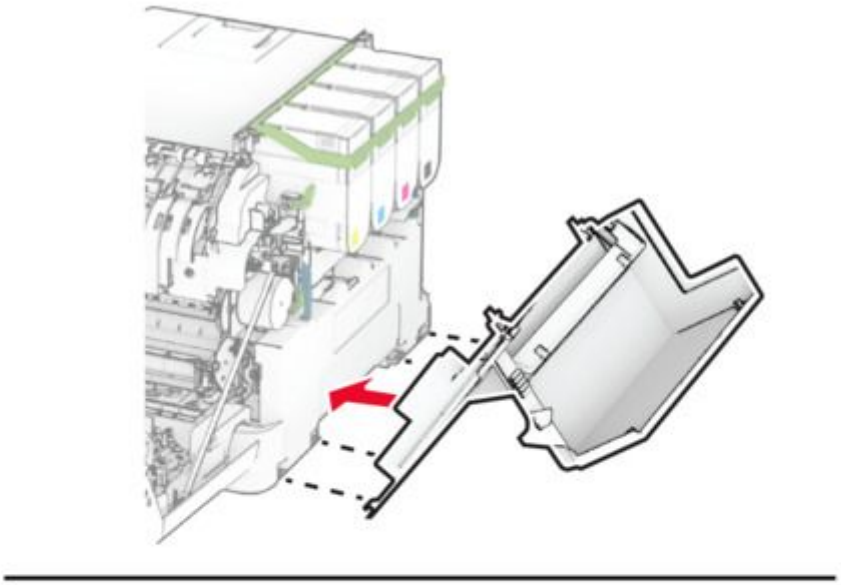
4. Remove door B from the used right cover.

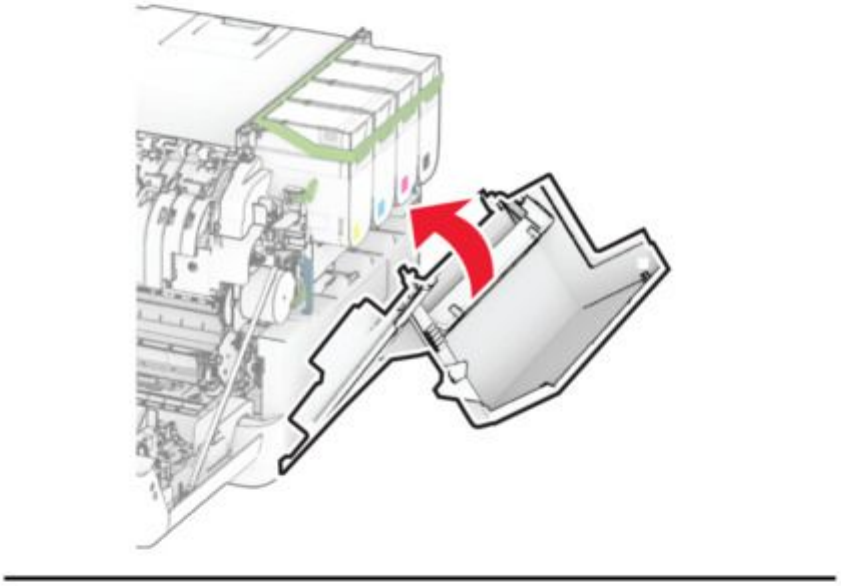


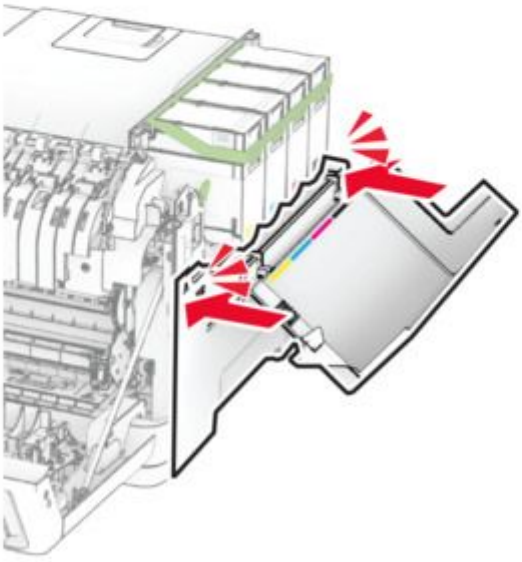
5. Unpack the new right cover.
6. Attach door B to the new right cover.



7. Attach the new right cover until it clicks into place.





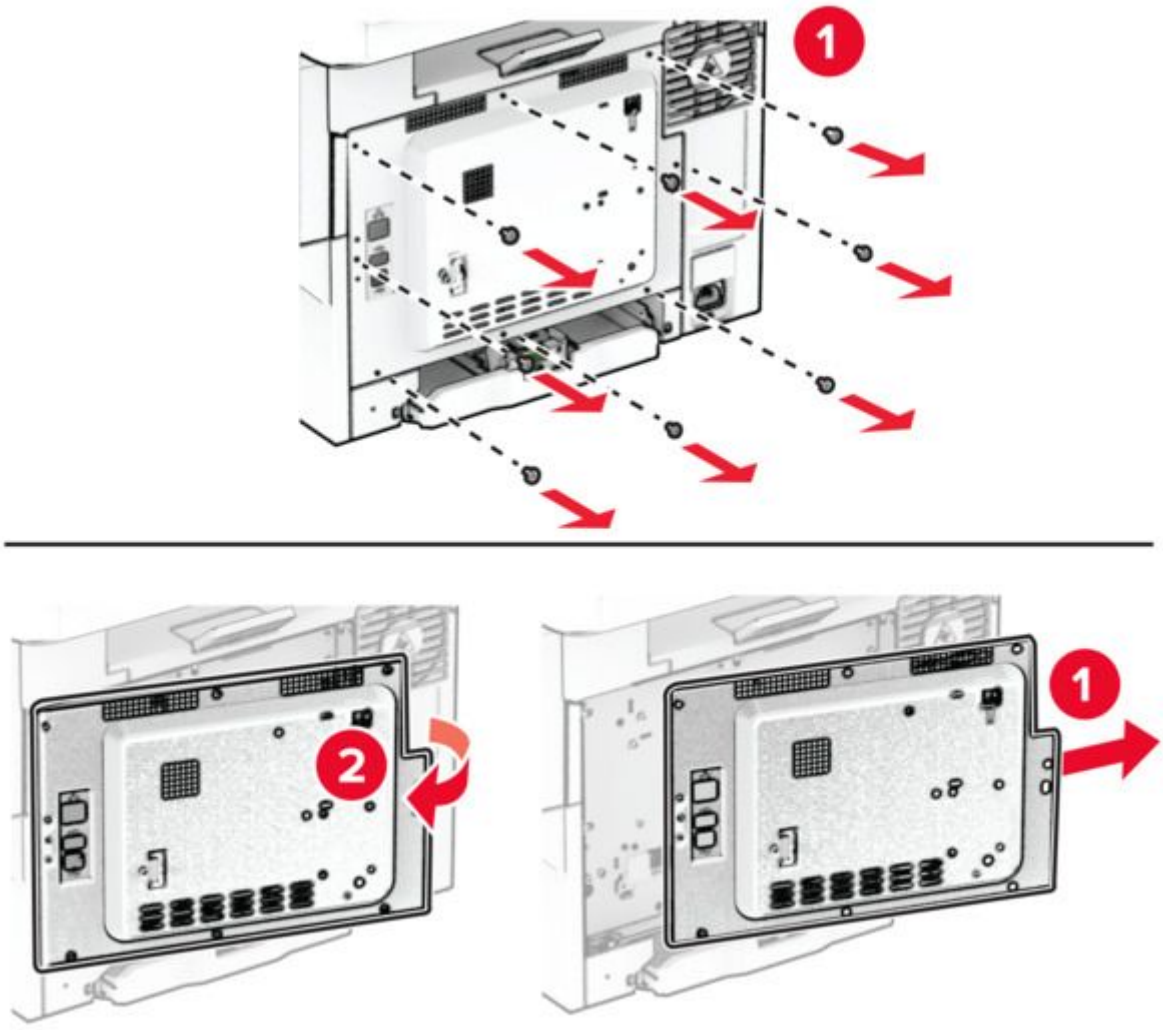


8. Close door A, and then close door B.

Replacing MarkNet™ N8450 Wireless Print Server

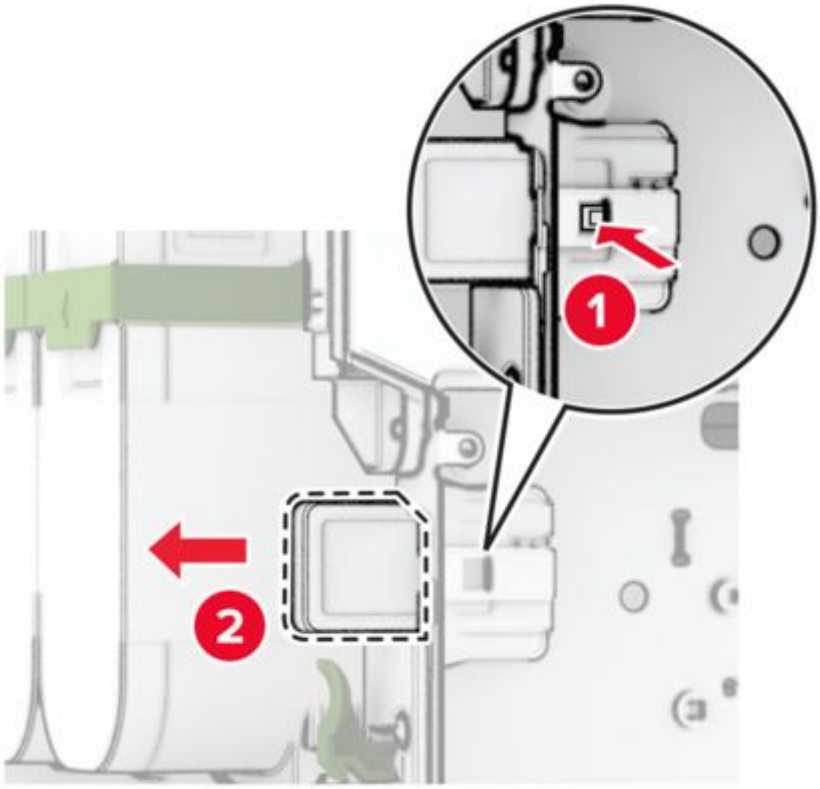
1. Turn off the printer.
2. Unplug the power cord from the electrical outlet.
3. Remove the controller board shield.

> **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.

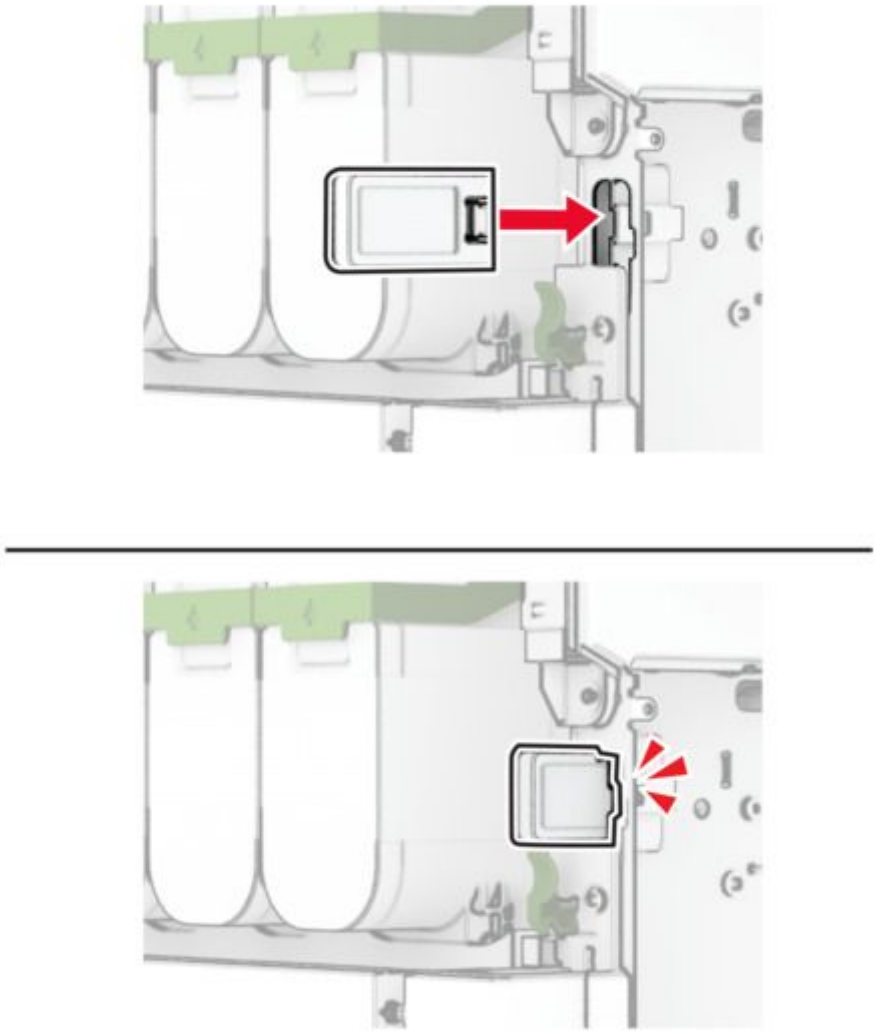


4. Open door B.

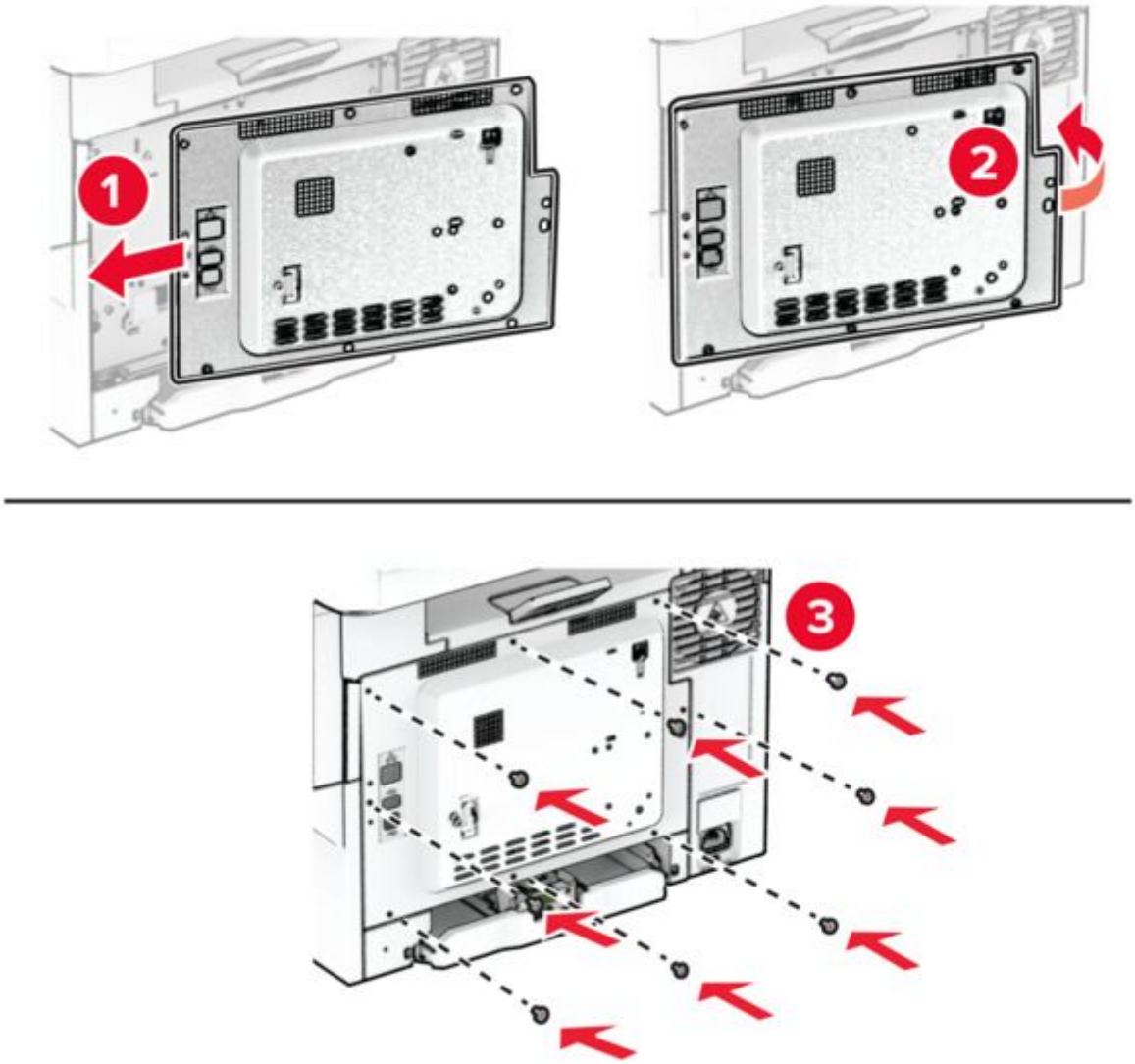
5. Remove the used wireless print server.



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 electrical outlet.
11. Turn on the printer.

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.

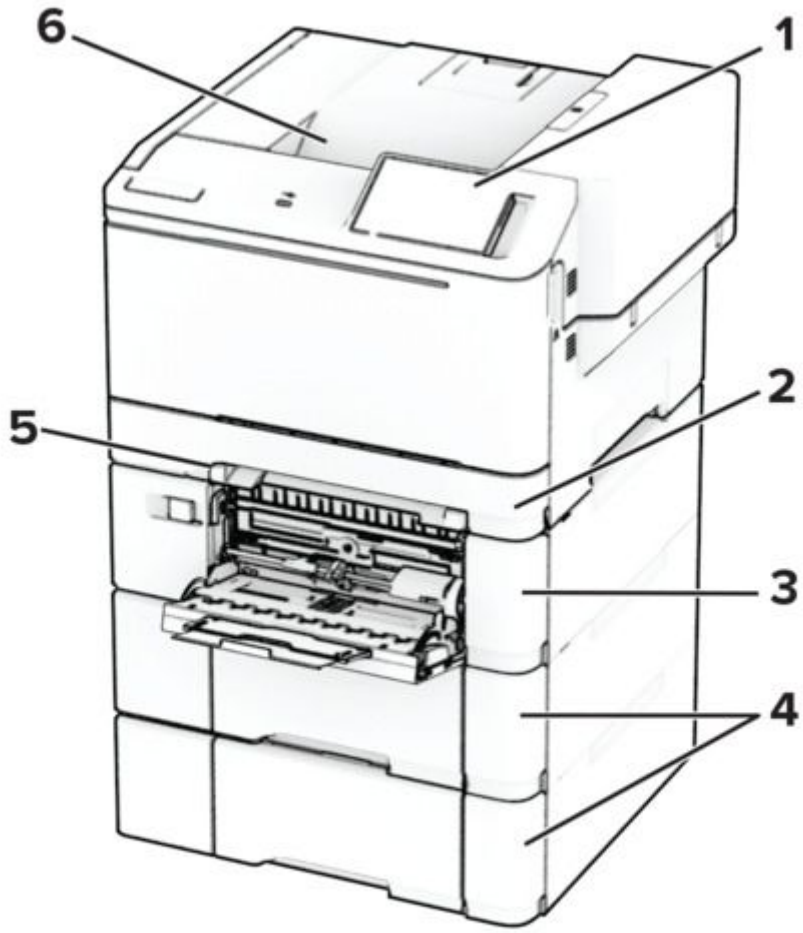
Component locations

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 420.



1	Control panel
2	Standard 250-sheet tray

3	Optional 650-sheet duo tray **Notes** The tray is composed of a 550-sheet tray and a 100-sheet multipurpose feeder.
4	Optional 550-sheet trays
5	Manual feeder
6	Standard bin

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

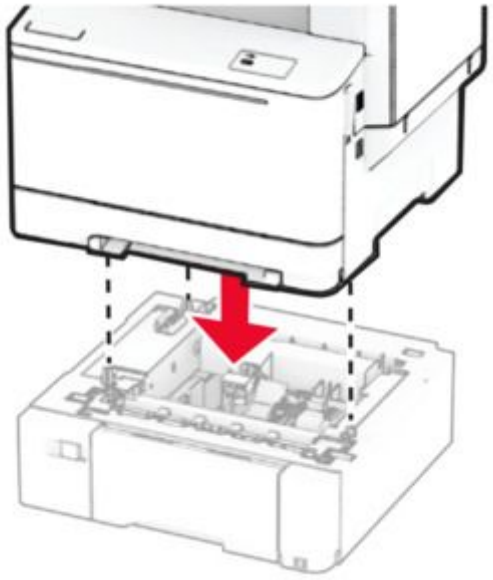
CAUTION—POTENTIAL INJURY
If the printer weight is greater than 20 kg (44 lb), then it may require two or more people to lift it safely.

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 422.

Adding available options in the print driver

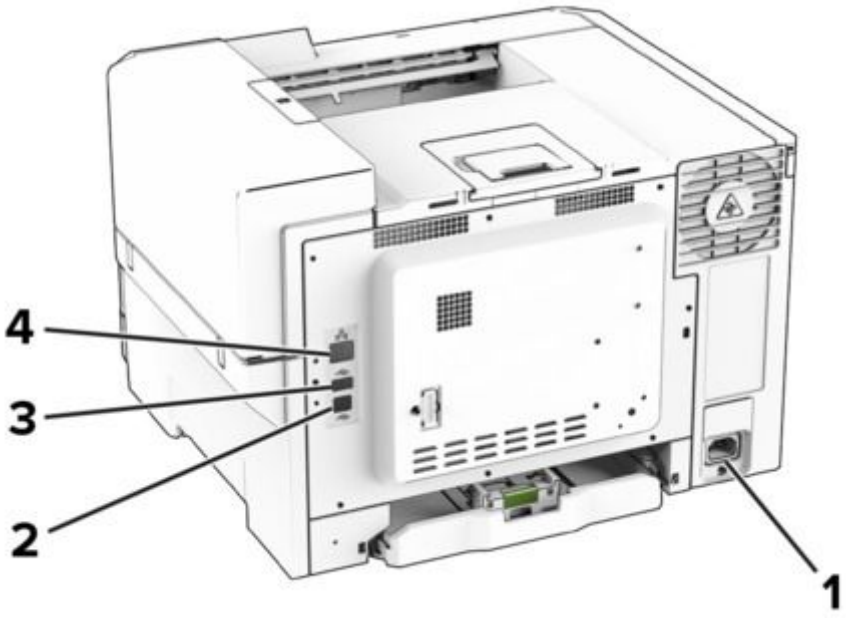
For Windows users

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.

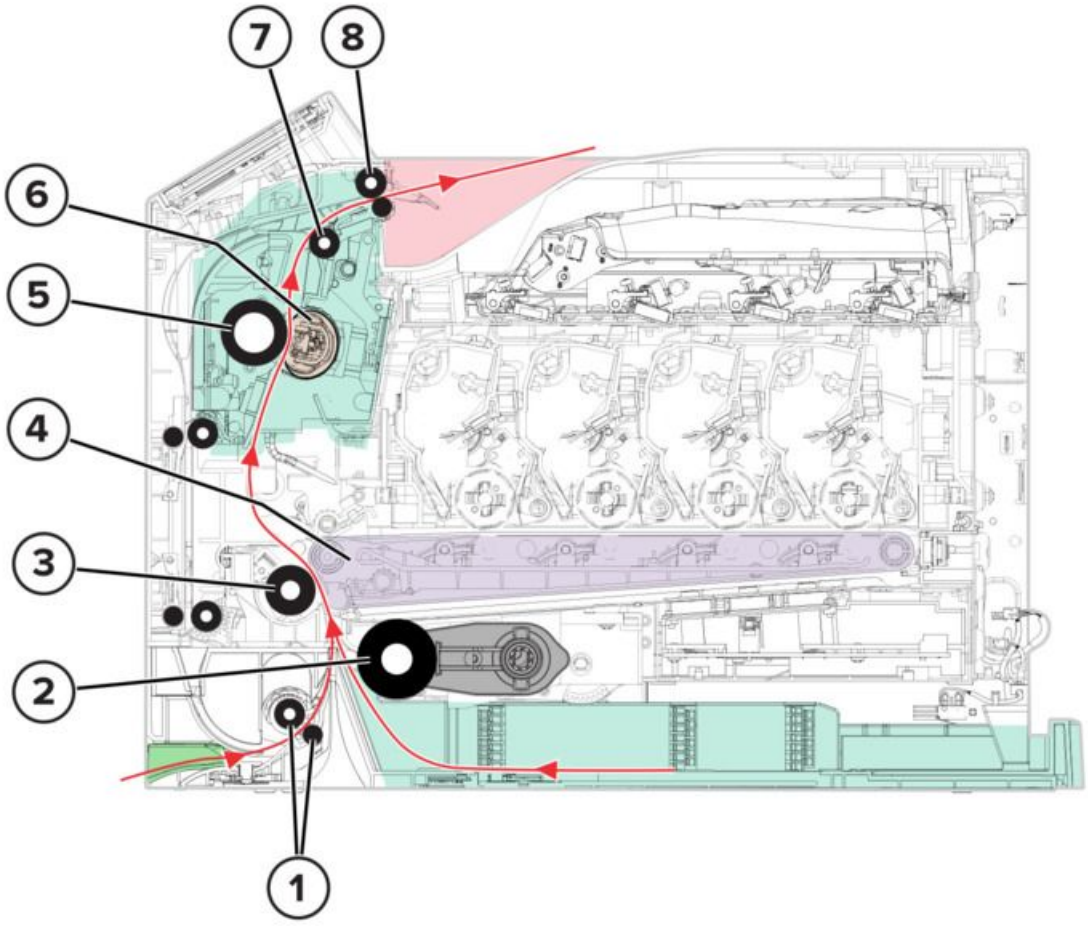
Port locations



	Printer port	Function
1	Power cord socket	Connect the printer to a properly grounded electrical outlet.
2	USB printer port	Connect the printer to a computer.
3	USB port	Attach a keyboard or any compatible option.
4	Ethernet port	Connect the printer to a network.

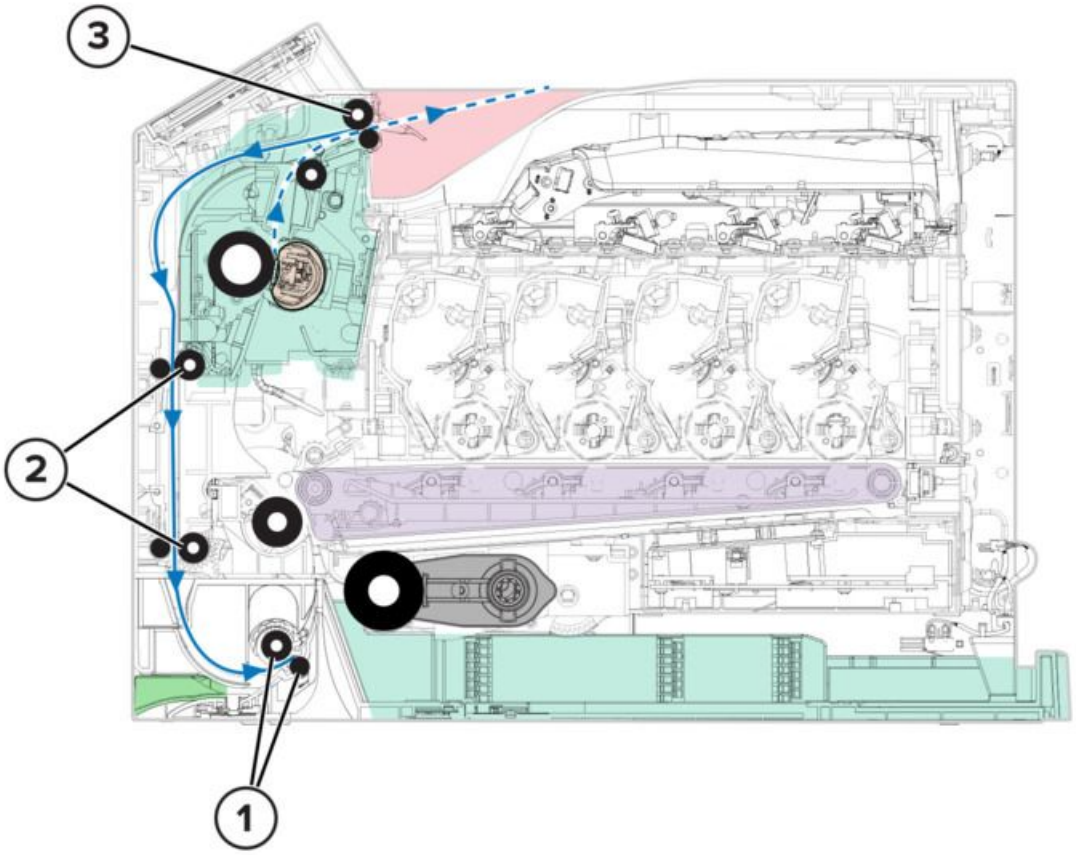
Roller locations

Standard paper path



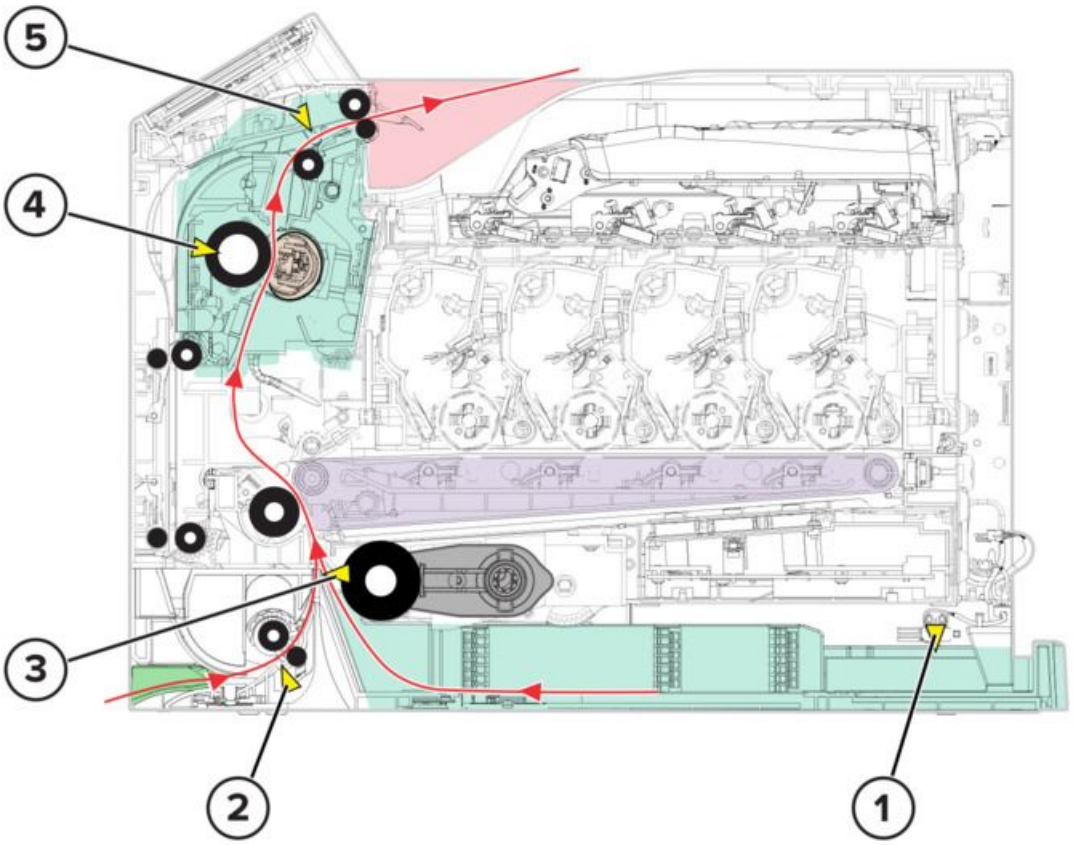
1	MPF feed rollers
2	Tray 1 pick roller
3	Second transfer roller
4	Transfer belt
5	Fuser roller
6	Fuser belt
7	Fuser decurl roller
8	Fuser exit rollers

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 337
2	Sensor (duplex/manual feed)	Sensor (duplex) removal on page 331
3	Sensor (input)	--
4	Sensor (fuser exit)	Sensor (fuser exit) removal on page 246
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

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
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	--

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, touch **Settings > Device > Maintenance > Configuration menu > Supply usage and counters > ITM Reset**.
2. Touch **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.

Note:

- 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.

   Note:
   - 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.

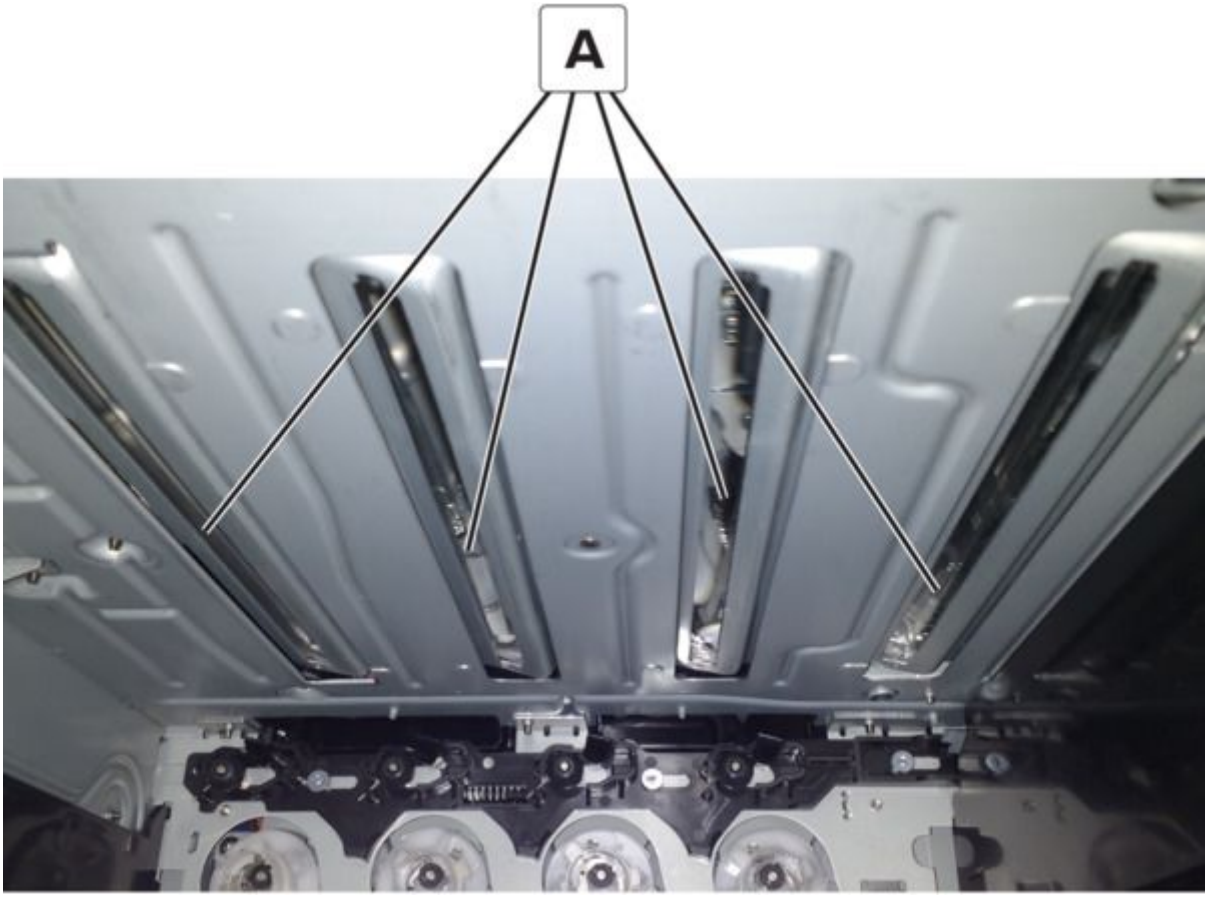
1. Turn off the printer, and then unplug the power cord from the electrical outlet.
2. Using a damp, soft, lint-free cloth, wipe the touch screen.

   Note:
   - 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 printhead lenses

1. Remove the waste toner bottle. See Waste toner bottle removal on page 275.
2. Remove the imaging kit. See Imaging kit removal on page 269.
3. Using a damp, soft, lint-free cloth, wipe the printhead lenses (A).



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

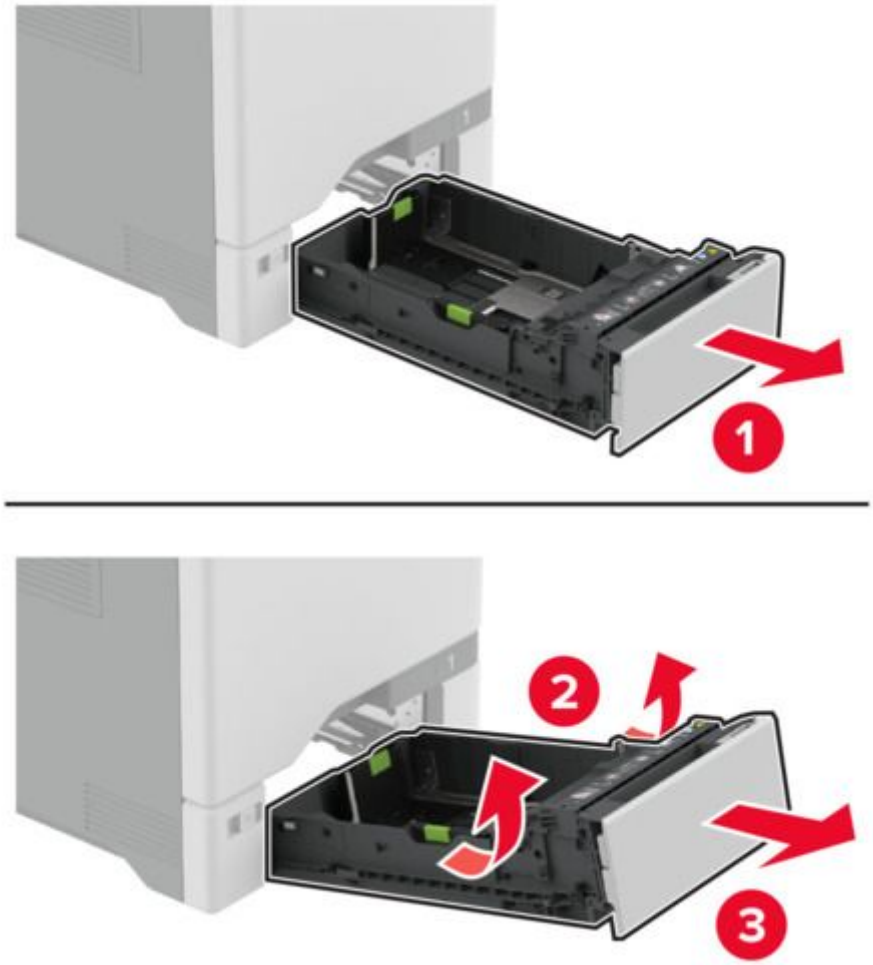
1. From the home screen, touch **Settings > Paper > Media Configuration > Universal Setup**.
2. Configure the settings.

Loading trays

CAUTION—TIPPING HAZARD
To reduce the risk of equipment instability, load each tray separately. Keep all other trays closed until needed.

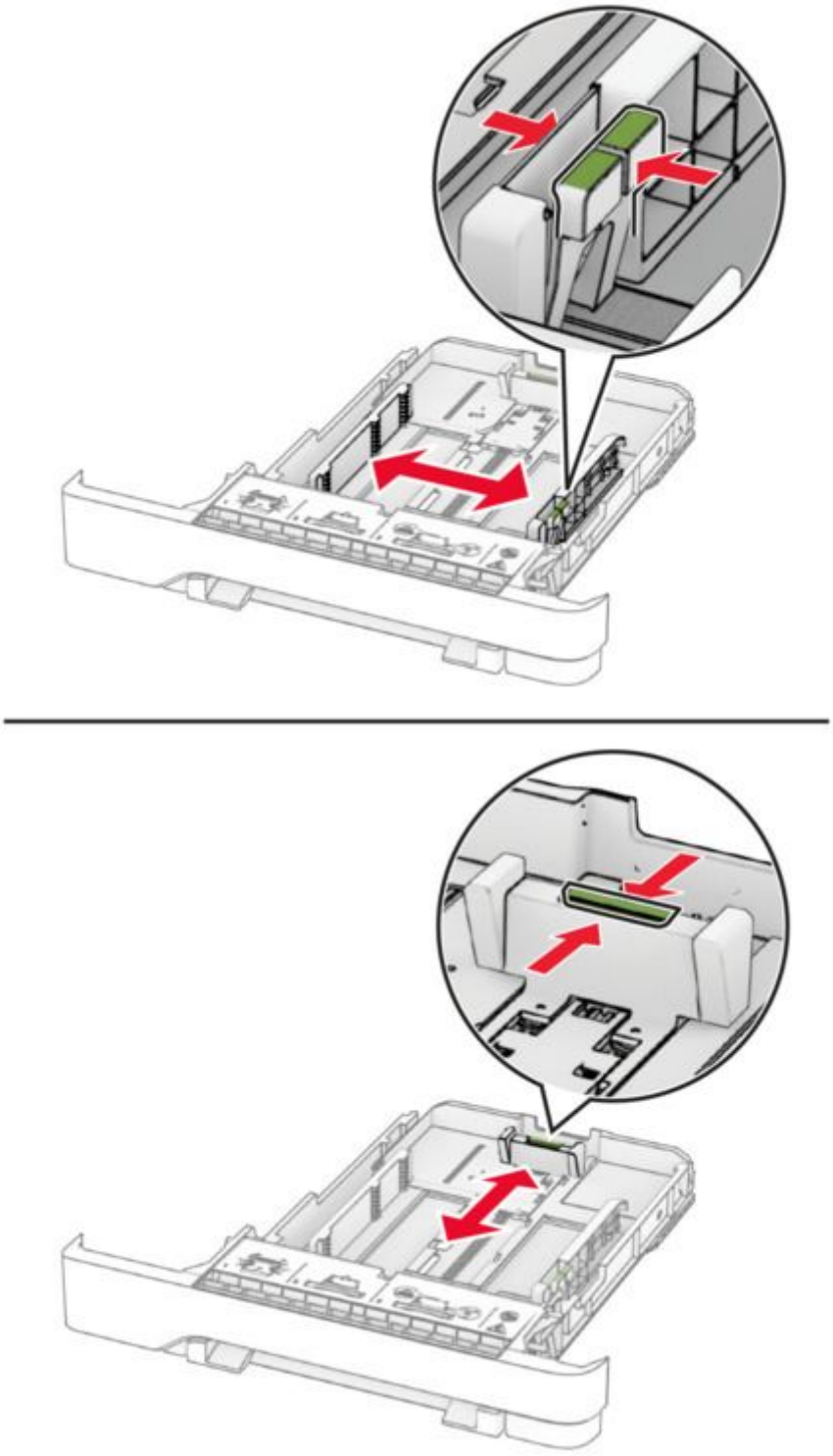
1. Remove the tray.

   Notes
   To avoid jams, do not remove trays while the printer is busy.



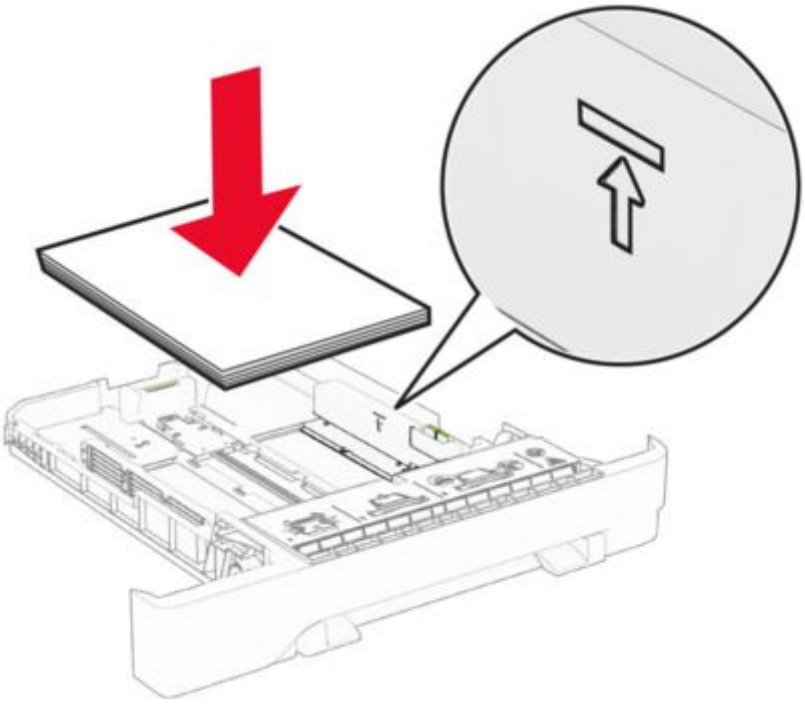
2. Adjust the guides to match the size of the paper that you are loading.

> **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.



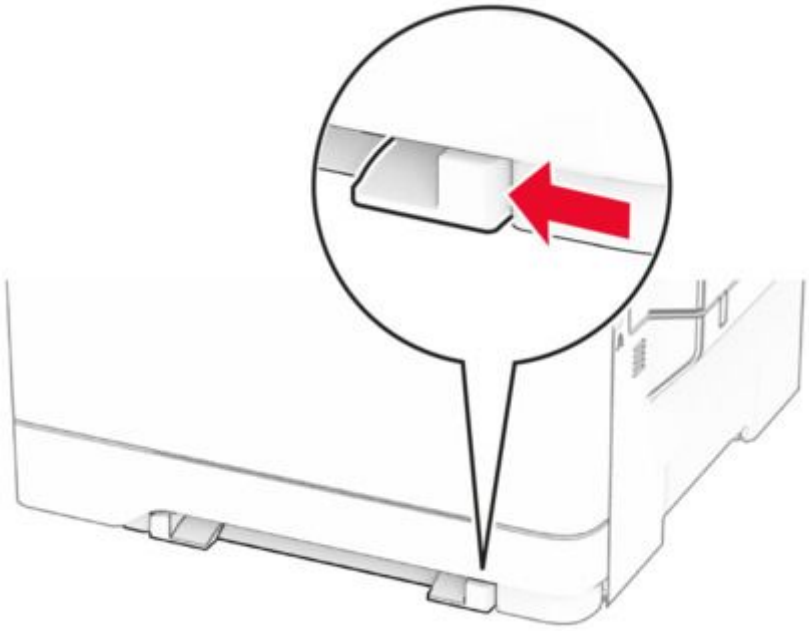
5. Insert the tray.

    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.

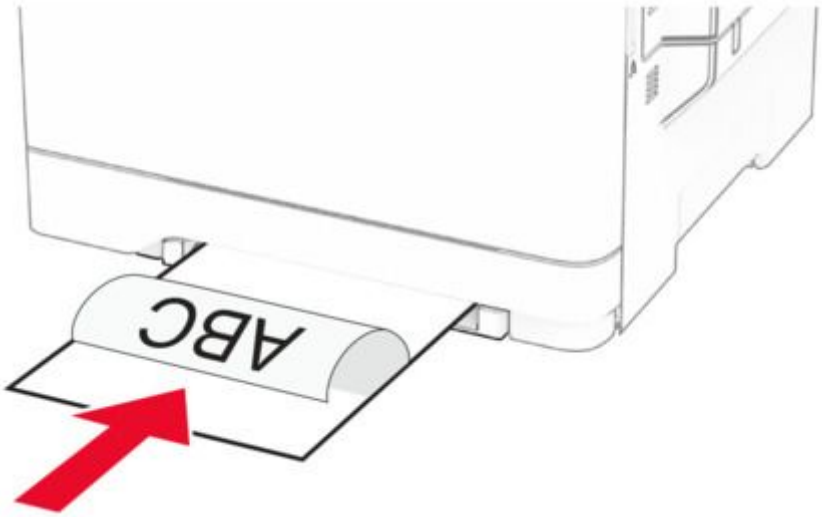
Notes
Make sure that the guides fit snugly against the paper, but not too tight as to cause the paper to buckle.



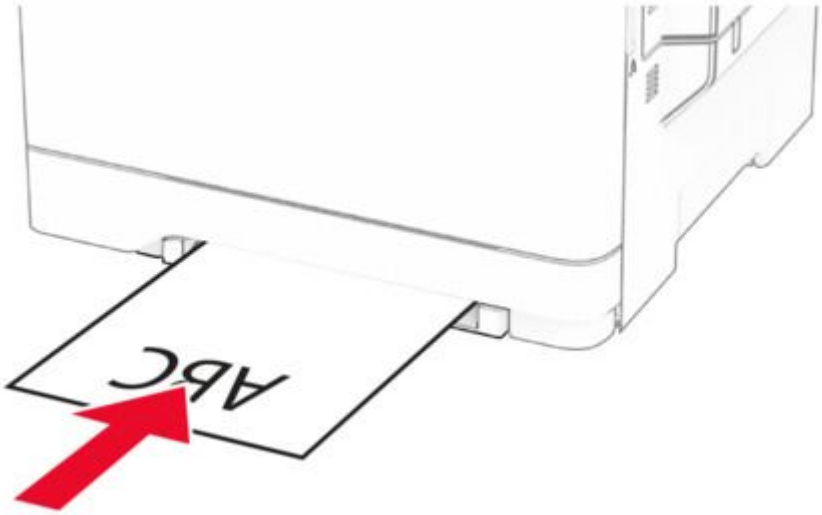
2. Load a sheet of paper with the printable side facedown.

Notes
Make sure that the paper is loaded straight to avoid skewed or crooked print.

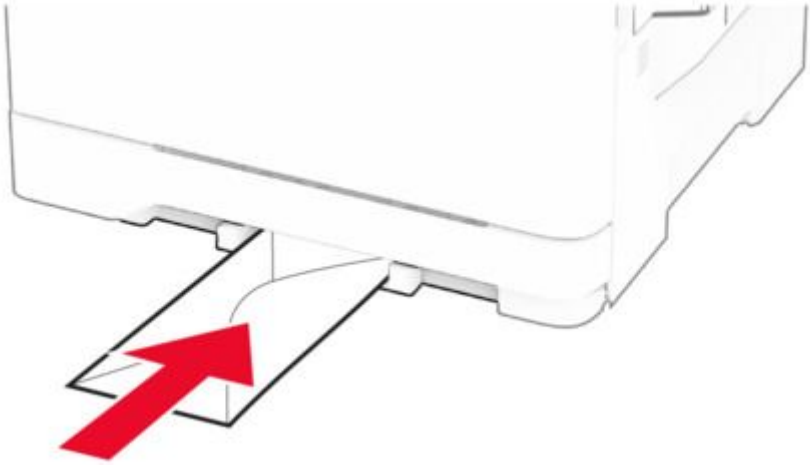
- For one-sided printing, load letterhead with the printable side facedown and the top edge entering the printer first.



- 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.



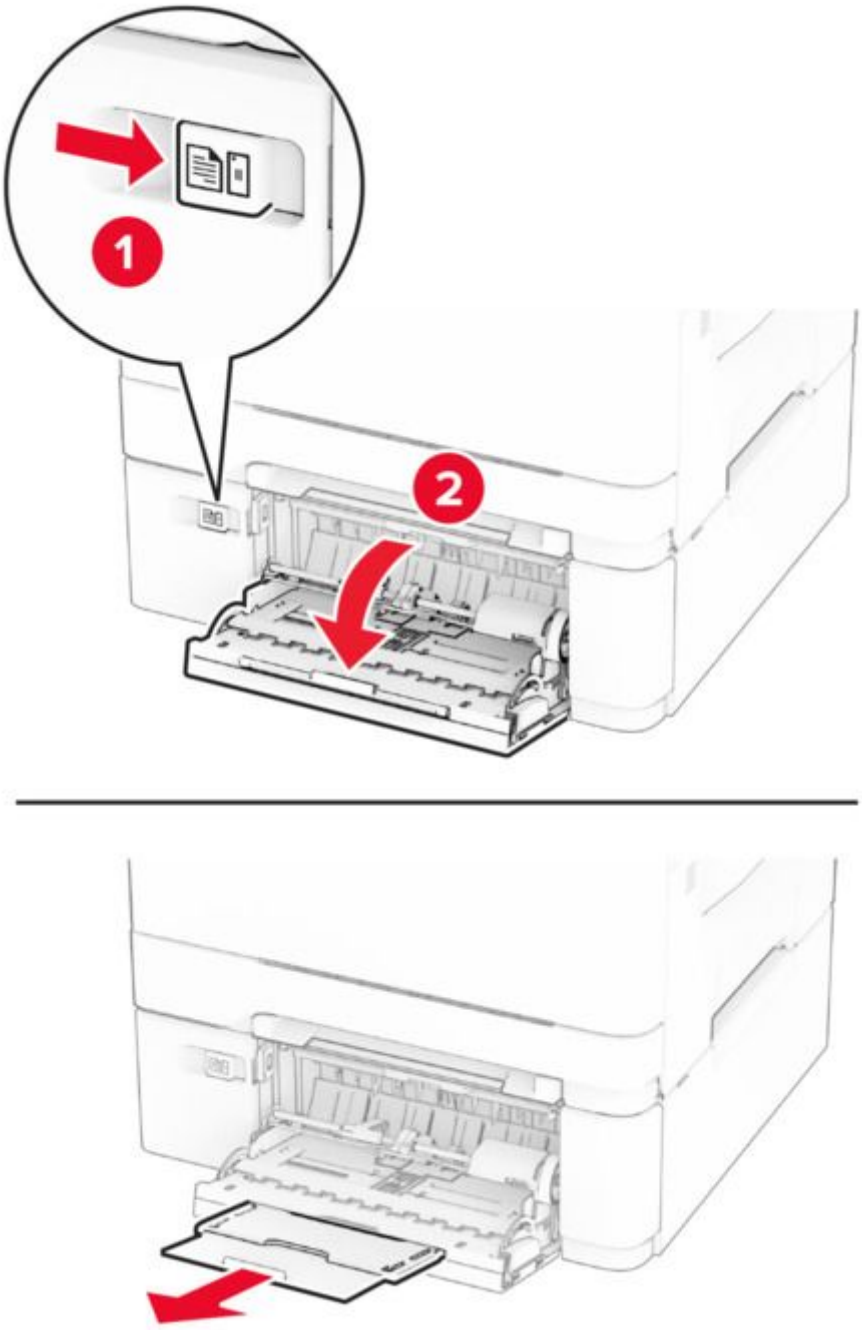
3. Feed the paper until its leading edge gets pulled in.

> **Warning—Potential Damage**
> To avoid paper jams, do not force paper into the manual feeder.

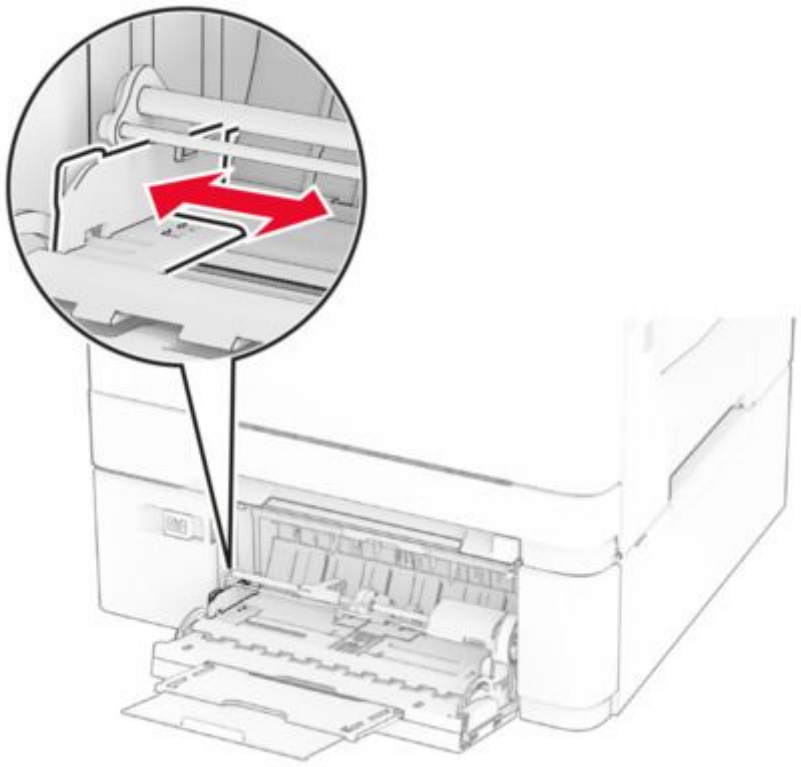
Loading the multipurpose feeder

> **Notes**
> The multipurpose feeder is available only if the optional 650-sheet duo tray is installed.

1. Open the multipurpose feeder.

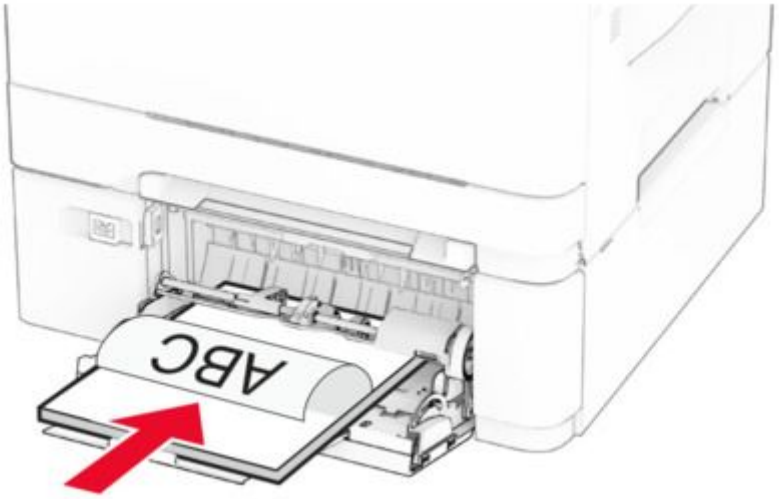


2. Adjust the guide to match the size of the paper that you are loading.

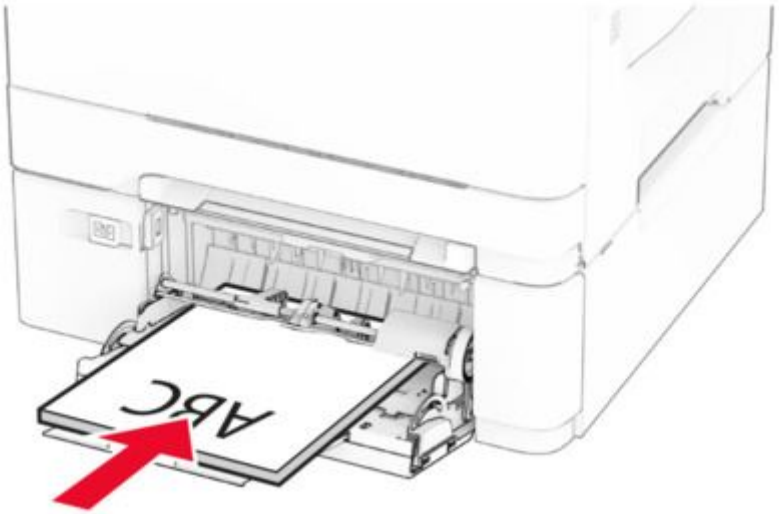


3. Flex, fan, and align the paper edges before loading.

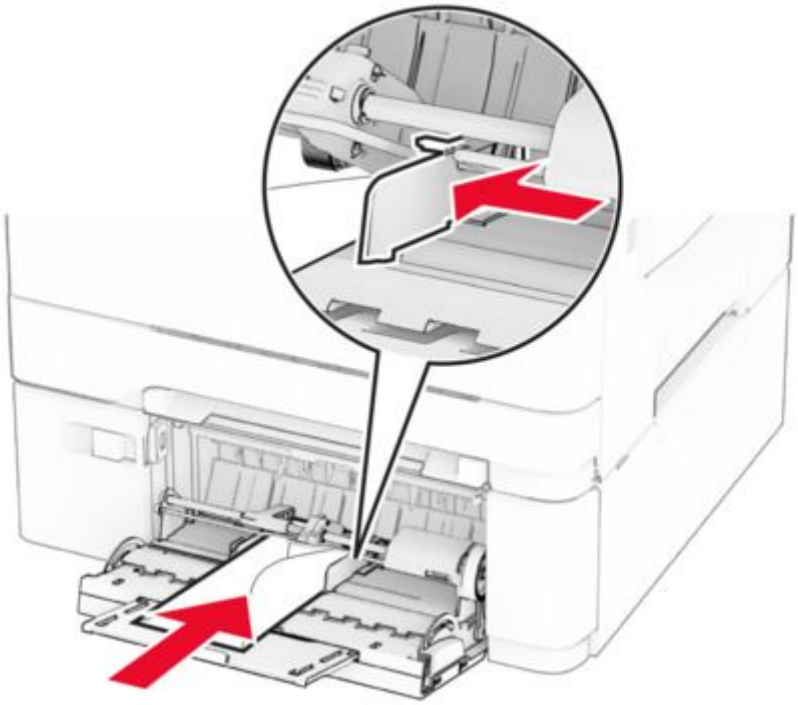
4. Load the paper.
    - For one-sided printing, load letterhead with the printable side facedown and the top edge entering the printer first.



- 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

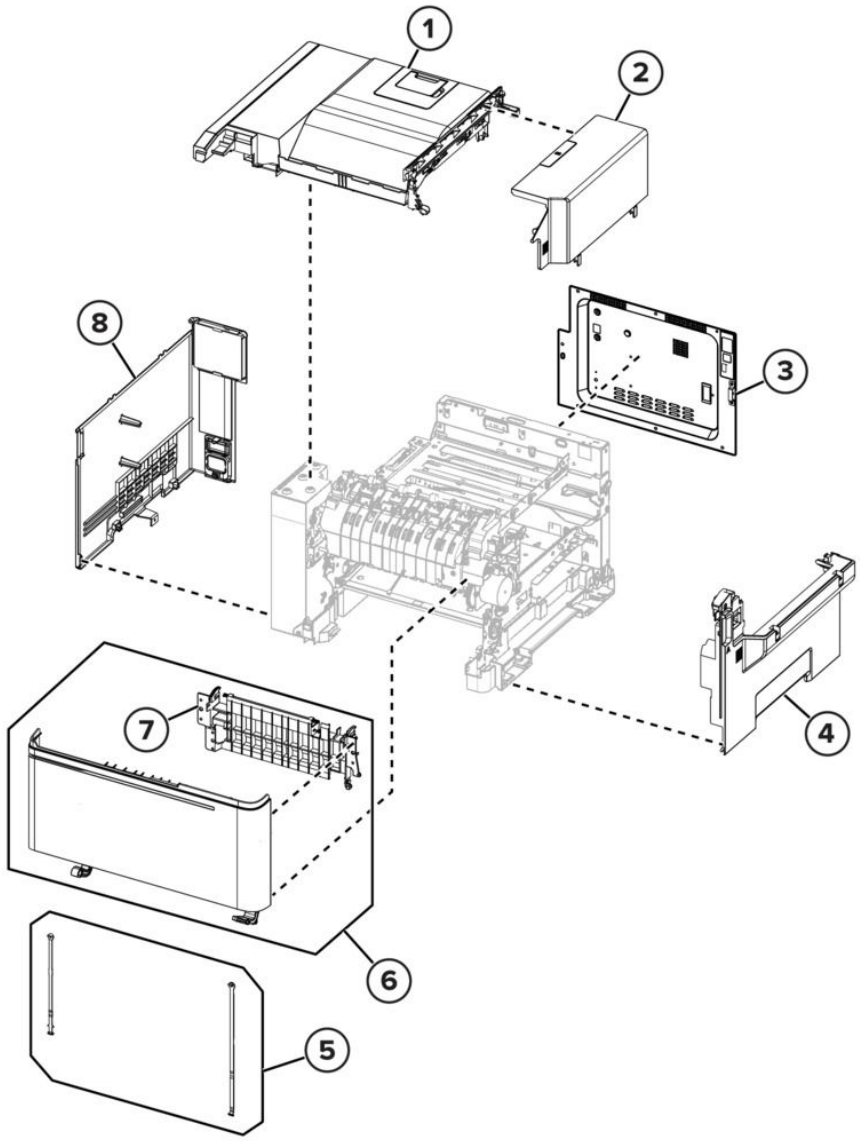
The following column headings are used in the parts catalog:

- **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.

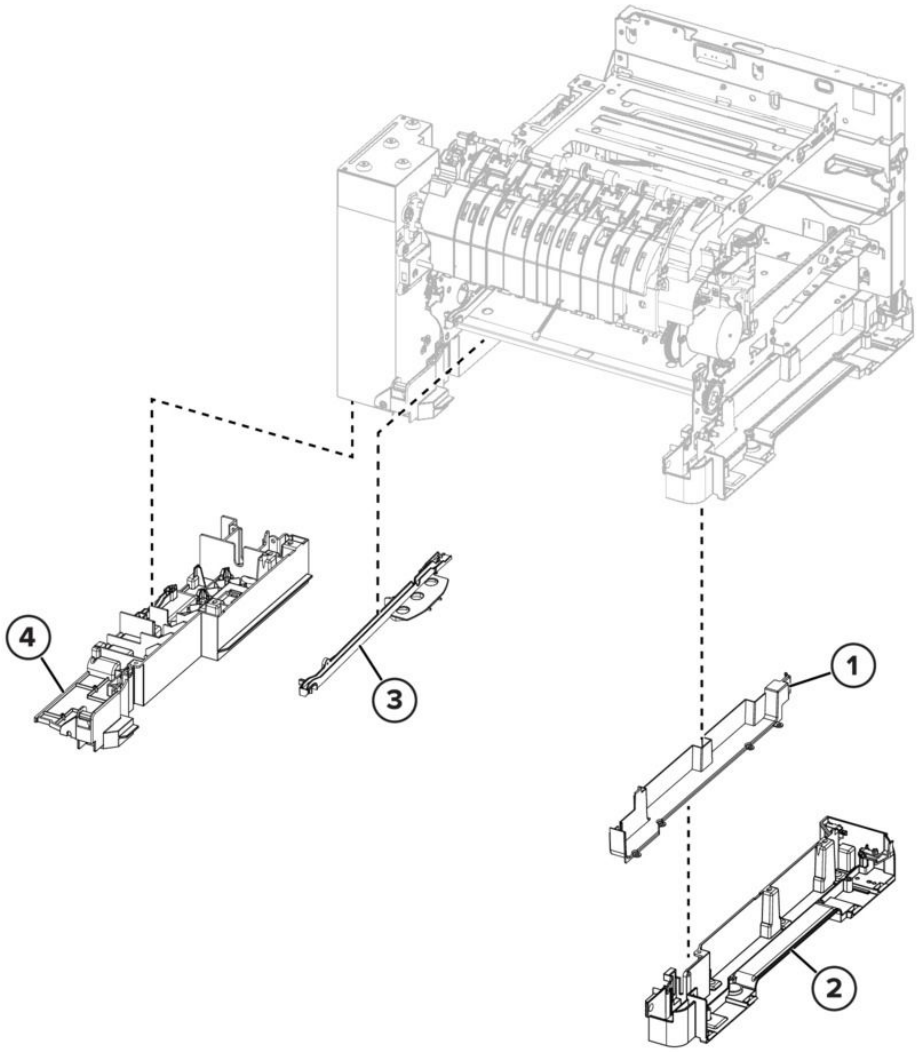
Covers



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X7633	1	1	Top cover	Top cover removal on page 359
2	41X4323	1	1	Toner cover	--
3	41X4350	1	1	Rear cover	Rear cover removal on page 350
4	41X4334	1	1	Right cover	--
5	40X7619	1	1	Door straps	--
6	41X4330	1	1	Front door	Front door removal on page 279
7	41X2663	1	1	Front door inner paper feed guide	Front door inner paper feed guide removal on page 288

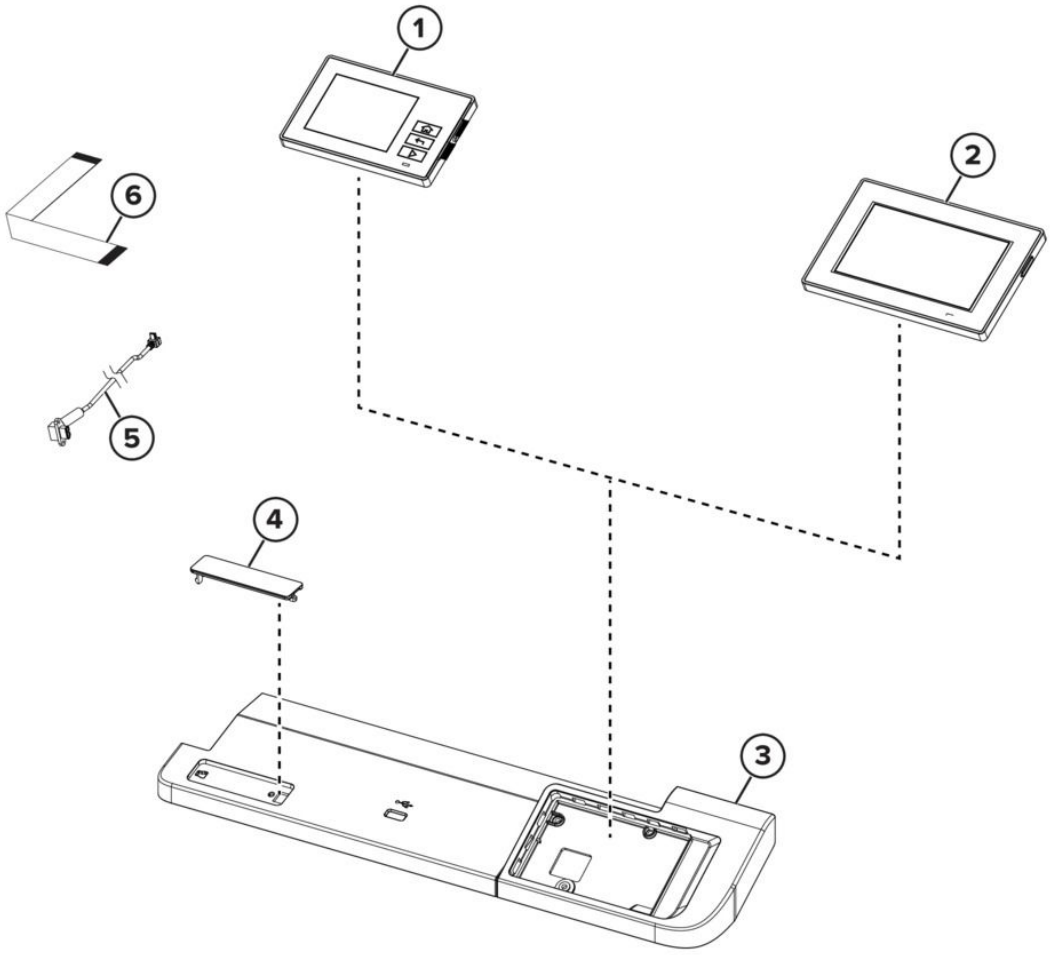
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
8	41X4342	1	1	Left cover	Left cover removal on page 238

Covers 2



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2327	1	1	Subframe cable cover	--
2	41X4354	1	1	Lower right subframe	--
3	41X0580	1	1	Transfer module guide	Transfer module guide removal on page 333
4	41X4924	1	1	Lower left subframe	--

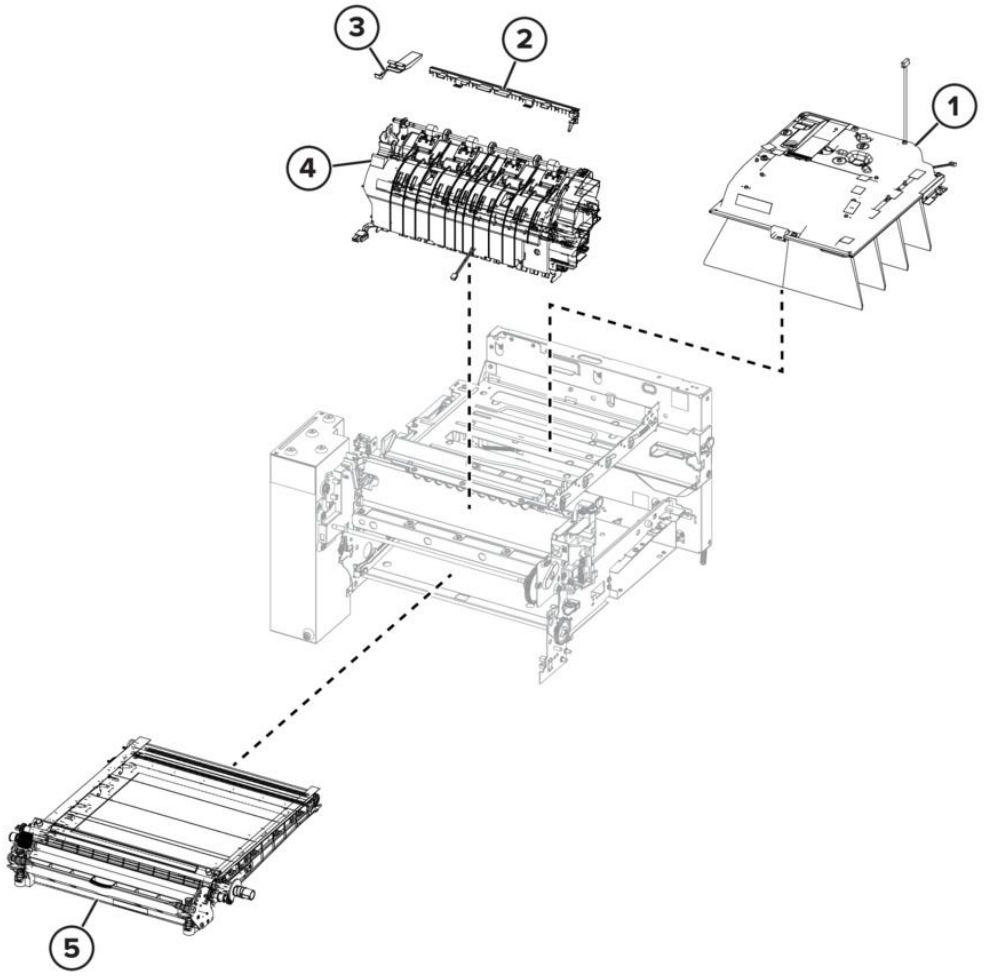
Control panel



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4359	1	1	Control panel (CS531 and C2335)	Control panel removal on page 301
2	41X4351	1	1	Control panel (CS639 and CS632)	Control panel removal on page 301
3	41X4328	1	1	Control panel base cover (CS531 and C2335)	--
3	41X4783	1	1	Control panel base cover (CS639 and CS632)	--
4	41X4358	1	1	Bezel for CS531	--
4	41X4357	1	1	Bezel for C2335	--

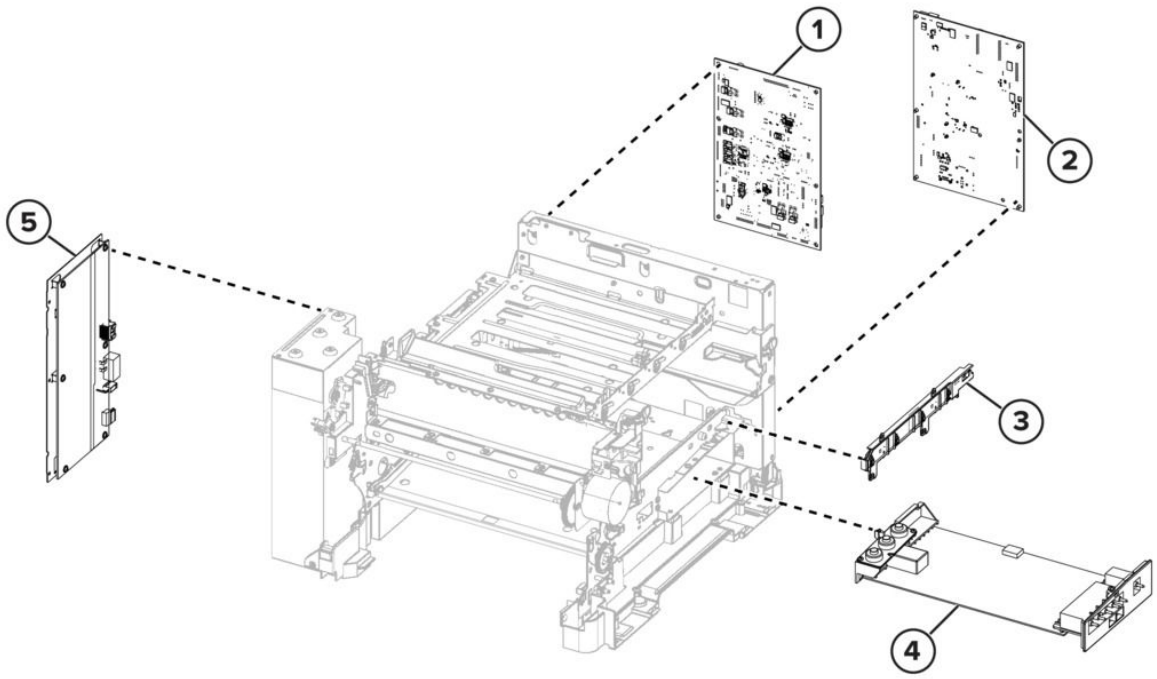
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
4	41X4348	1	1	Bezel for CS632	--
4	41X4421	1	1	Bezel (blank)	--
5	41X4370	1	1	Front USB cable	--
6	41X4339	1	1	Control panel flat cable	--

EP components



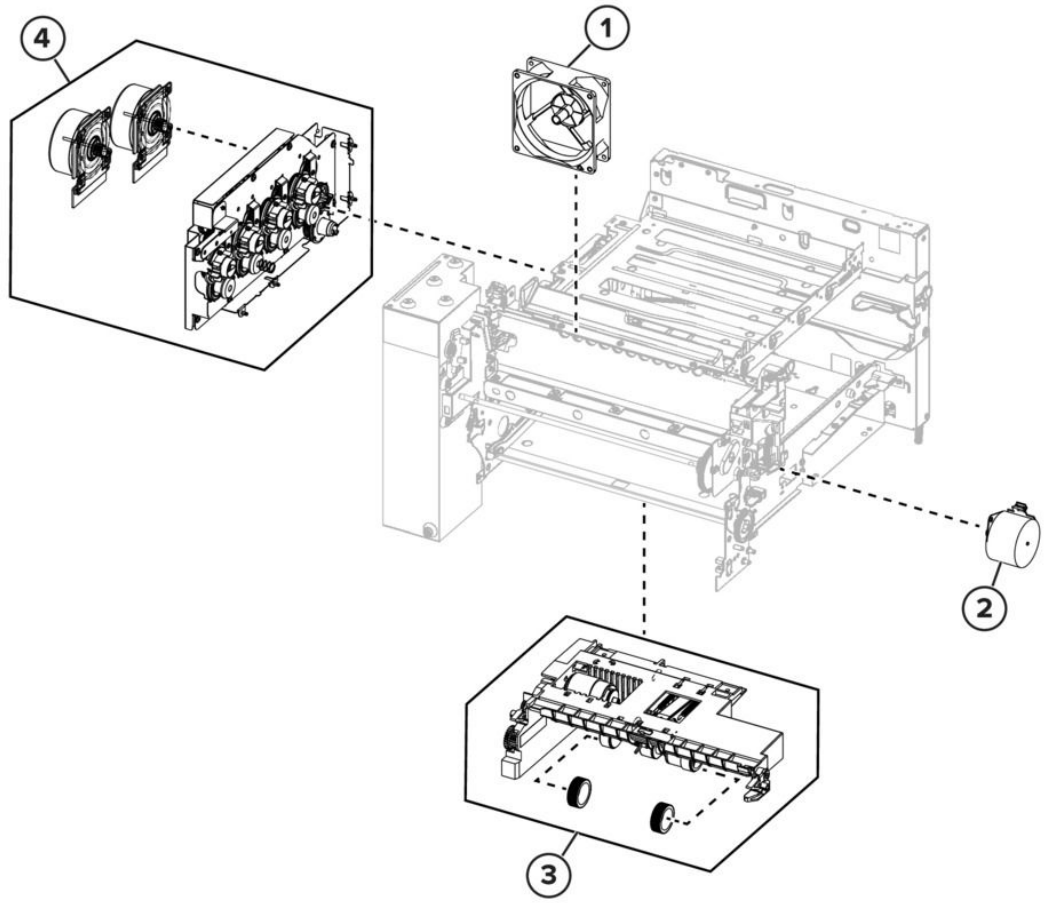
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2844	1	1	Printhead	Printhead removal on page 364
2	41X4337	1	1	Fuser deflector	--
3	41X4343	1	1	Narrow media/bin full flag	Narrow media/bin full sensor flag removal on page 363
4	41X4996	1	1	Fuser, 100 V	Fuser removal on page 292
4	41X4997	1	1	Fuser, 110 V	Fuser removal on page 292
4	41X4998	1	1	Fuser, 220 V	Fuser removal on page 292
5	41X1039	1	1	Transfer module	Transfer module removal on page 303

Electronics



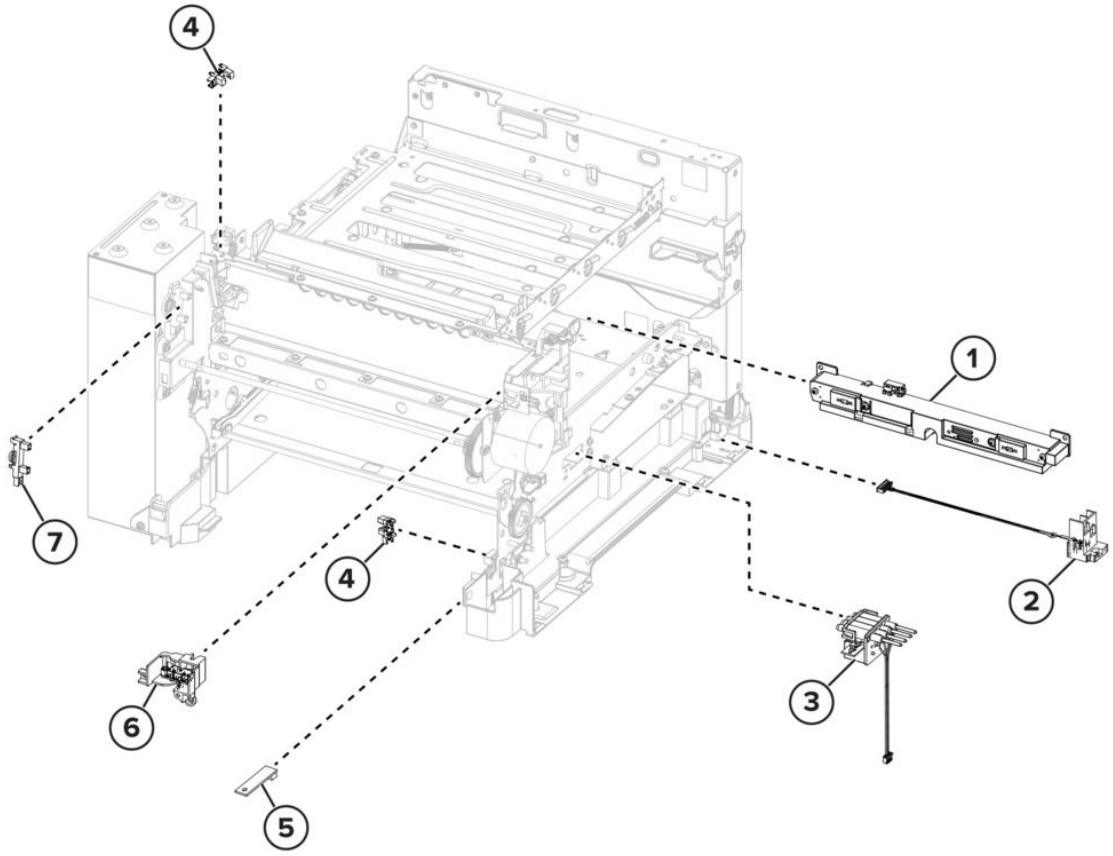
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4331	1	1	Engine board	Engine board removal on page 347
2	41X4326	1	1	Controller board	Controller board removal on page 351
3	41X4322	1	1	Toner meter card	Toner meter card removal on page 255
4	41X4346	1	1	HVPS	HVPS removal on page 263
5	41X4276	1	1	LVPS, 230 V	LVPS removal on page 244
5	41X4275	1	1	LVPS, 100 / 115 V	LVPS removal on page 244

Motors



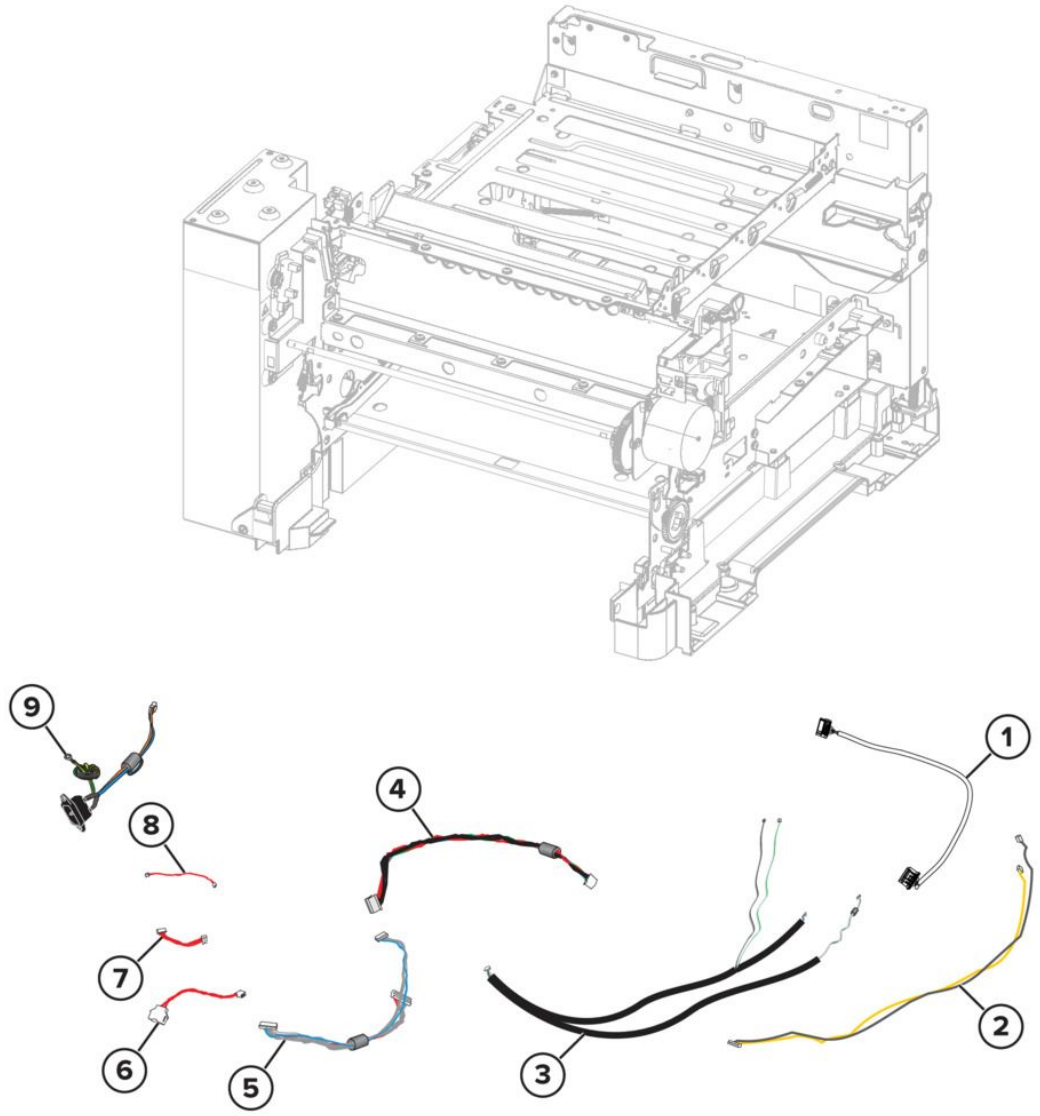
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0397	1	1	Fan	Fan removal on page 354
2	40X7629	1	1	Motor (fuser drive)	Motor (fuser) removal on page 252
3	41X1292	1	1	Media feeder	Tray 1 media feeder removal on page 339
4	41X1289	1	1	EP drive	EP drive removal on page 240

Sensors



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2832	1	1	Sensor (toner patch)	Sensor (toner patch) removal on page 258
2	41X4319	1	1	Waste toner bottle contact block	Waste toner bottle contact block removal on page 275
3	41X4336	1	1	Toner cartridge contact	Toner cartridge contacts removal on page 272
4	40X7301	2	1	Photo sensors: • Sensor (duplex) • Sensor (narrow media/bin full)	--
5	41X1290	1	1	Weather station	--
6	41X4344	1	1	Front and right side interlock switch cover	Interlock switch cover removal on page 290
7	40X5413	1	1	Sensor (fuser exit)	Sensor (fuser exit) removal on page 246

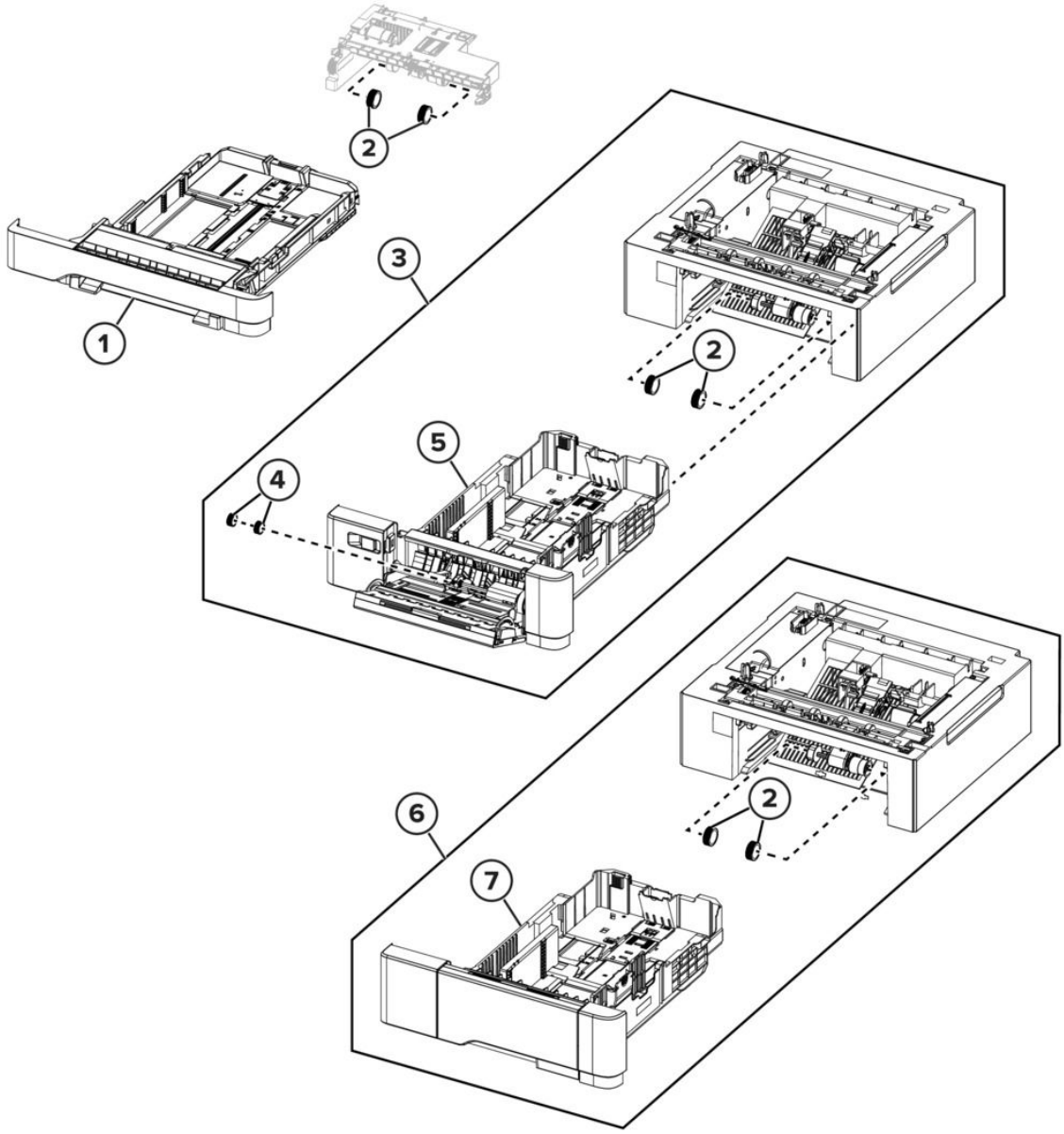
Cables



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	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
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	--

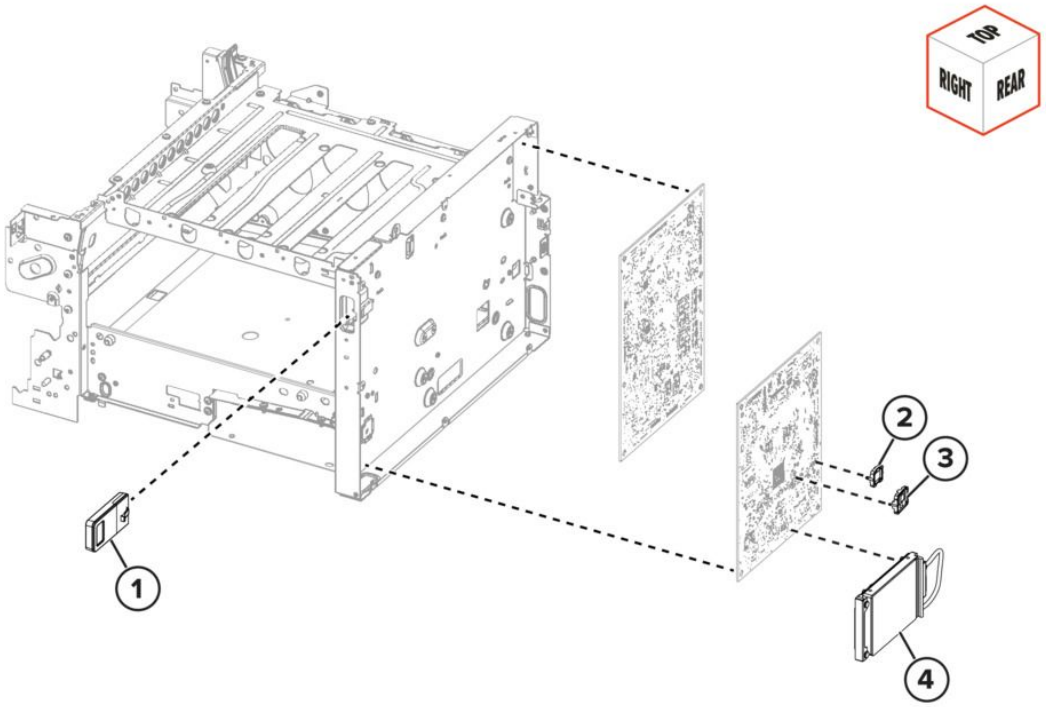
Trays



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4582	1	1	250-sheet tray insert	--
2	40X5168	2	2	Pick arm roller	Pick roller removal on page 343
3	41X4524	1	1	Optional 650-sheet duo tray	650-sheet duo tray removal on page 376
4	40X7178	2	2	650-sheet duo tray MPF rollers	--

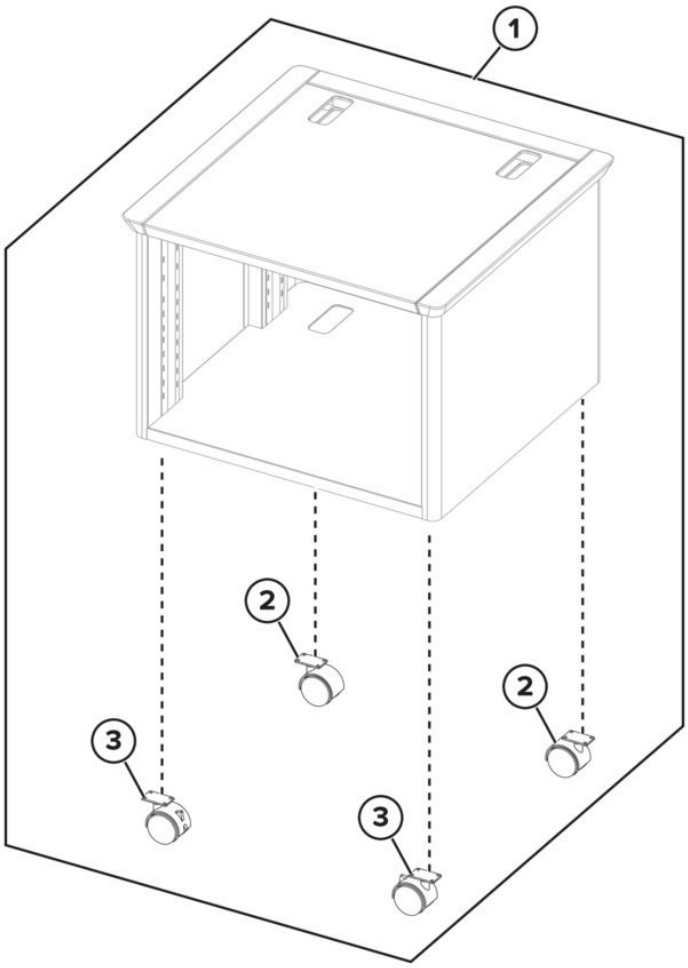
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
5	41X1784	1	1	650-sheet duo tray insert	650-sheet duo tray insert removal on page 375
6	41X4523	1	1	Optional 550-sheet tray	--
7	41X1781	1	1	550-sheet tray insert	--

Electronic attachments



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 CS632, 500GB	--

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	Removal procedure
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	--

Power cords

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	40X0269	1	1	Power cord, 2.5 m (straight)—USA, Canada	N/A
NS	40X3141	1	1	Power cord, 2.5 m (straight)—Europe and others	N/A
NS	40X0288	1	1	Power cord, 2.5 m (straight)—Argentina	N/A
NS	40X0271	1	1	Power cord, 2.5 m (straight)—United Kingdom	N/A
NS	40X0275	1	1	Power cord, 2.5 m (straight)—Israel	N/A
NS	40X1772	1	1	Power cord, 2.5 m (straight)—Switzerland	N/A
NS	40X1773	1	1	Power cord, 2.5 m (straight)—South Africa	N/A
NS	40X0273	1	1	Power cord, 2.5 m (straight)—Traditional Italy	N/A
NS	40X1774	1	1	Power cord, 2.5 m (straight)—Denmark	N/A
NS	40X4596	1	1	Power cord, 2.5 m (straight)—Brazil	N/A
NS	40X0303	1	1	Power cord, 2.5 m (straight)—China	N/A
NS	40X0270	1	1	Power cord, 2.5 m (straight)—Japan	N/A
NS	40X1792	1	1	Power cord, 2.5 m (straight)—Korea	N/A
NS	40X1791	1	1	Power cord, 2.5 m (straight)—Taiwan	N/A
NS	40X0301	1	1	Power cord, 2.5 m (straight)—Australia	N/A

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: 514 (C2335, CS531); 574 (CS632, CS639)Two-sided: 362 (C2335, CS531); 383 (CS632, CS639)
Copy	The product is generating hard-copy output from hard-copy original documents.	N/A
Scan	The product is scanning hard-copy documents.	N/A
Ready	The product is waiting for a print job.	20.8 (C2335, CS531); 21.3 (CS632, CS639)
Sleep Mode	The product is in a high-level energy-saving mode.	1
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):	15CS639: N/A

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 daysCS639: N/A

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

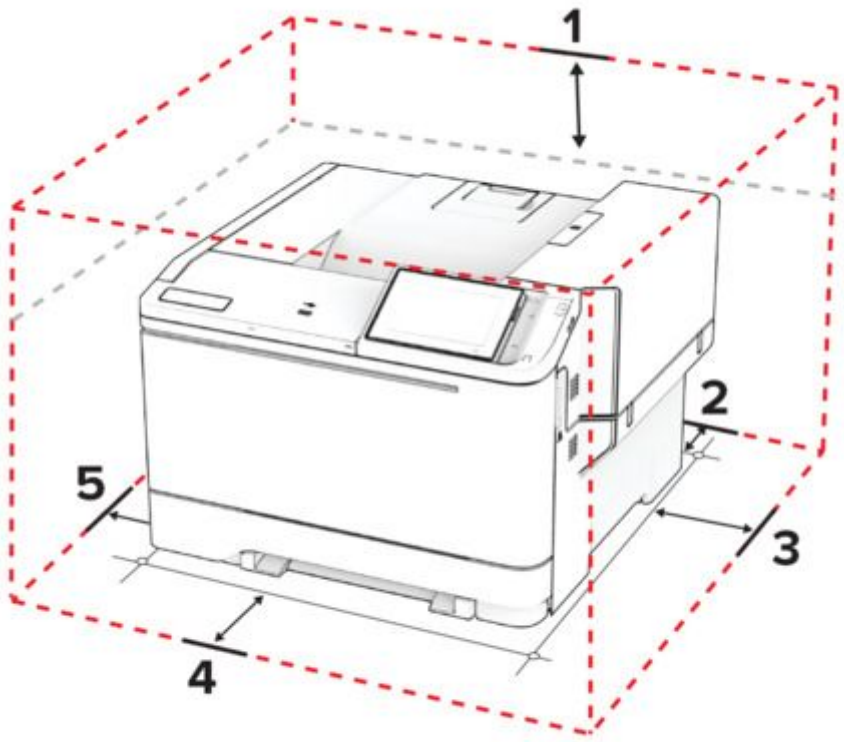
It is sometimes helpful to estimate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum 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	254 mm (10 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 printer is 75 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: 51 (CS531, C2335); 52 (CS632, CS639)Two-sided: 51 (CS531, C2335); 54 (CS632, CS639)
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. For more information, contact customer support on page 466.

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. For more information, contact the place where you purchased the printer.

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. For more information, contact your dealer on page 0.

Contacting customer support

Before contacting customer support, make sure to have the following information:

- Printer problem
- Error message
- Printer model type and serial number

Go to http://support.lexmark.com to receive e-mail or chat support, or browse through the library of manuals, support documentation, drivers, and other downloads.
Technical support via telephone is also available. In the U.S. or Canada, call 1-800-539-6275. For other countries or regions, go to http://support.lexmark.com.
Visit the place where you purchased your printer.

Contacting your dealer

Before contacting your dealer, make sure to have the following information:

- Printer problem
- Error message
- Printer model type and serial number

Theory of operation

POR sequence

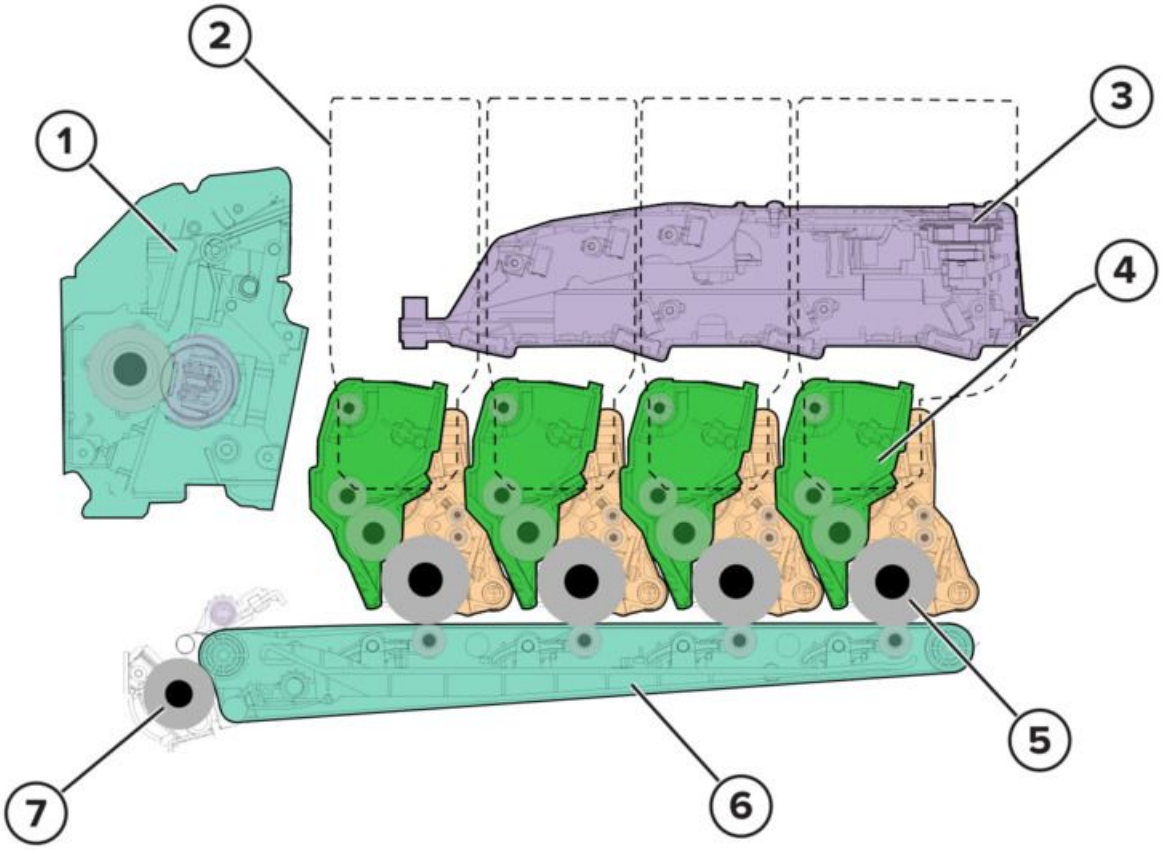
As the printer is turned on, the engine code goes through a series of tests to verify hardware integrity. If a hardware failure is detected, then it is reported to the printer. If the POR sequence cannot be completed successfully, then the printer may post an error message. The message states that service 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.

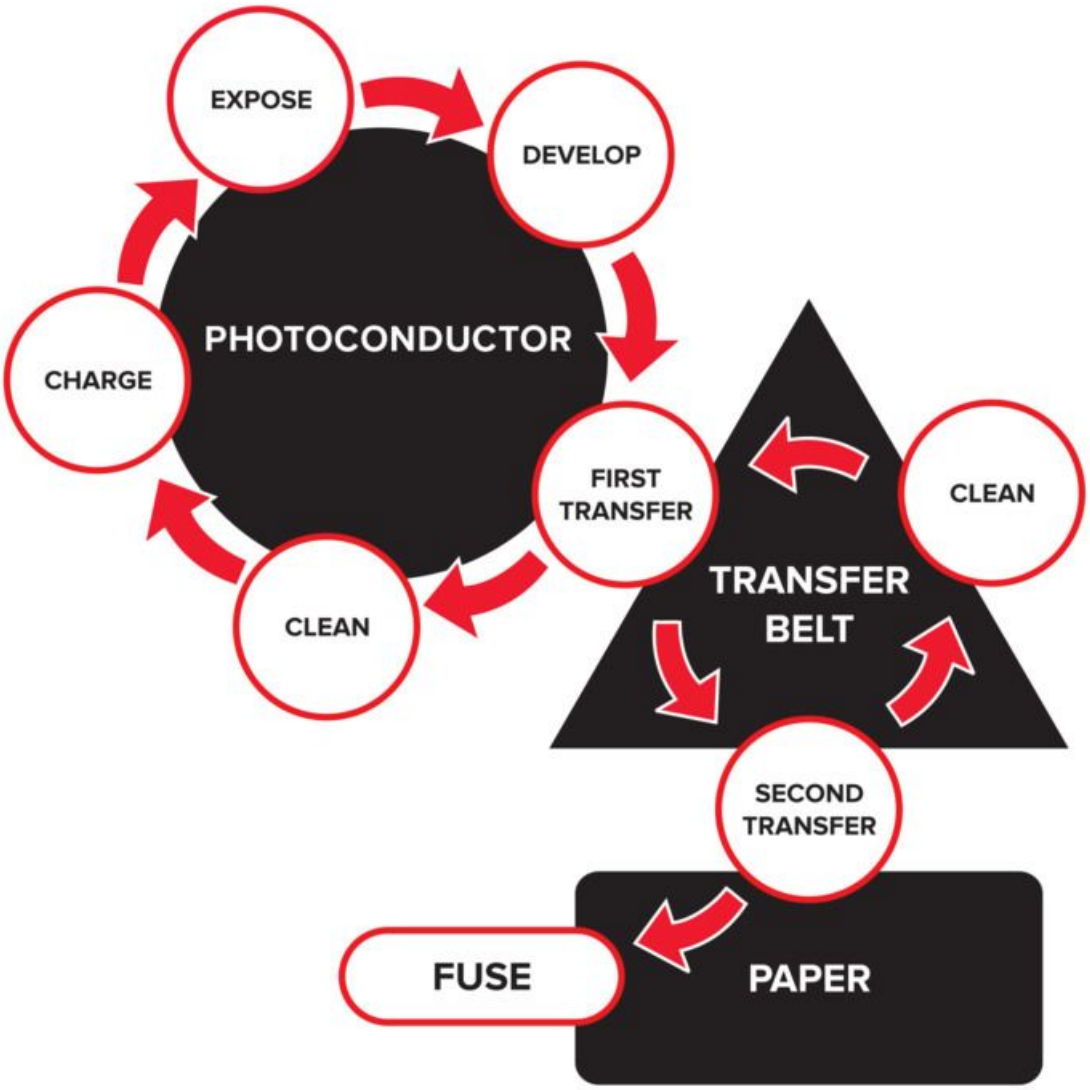
Electrophotographic (EP) process

Print engine layout



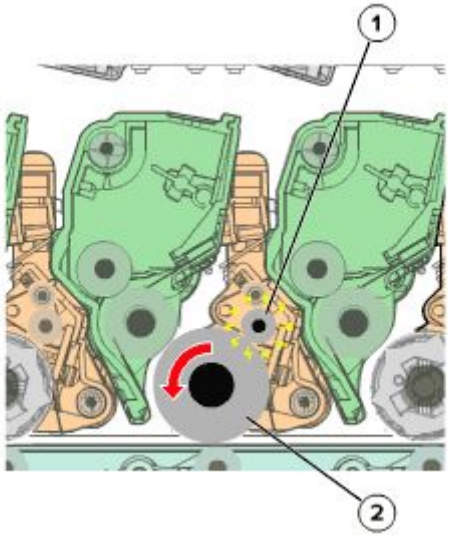
1	Fuser
2	Toner cartridges (Y, C, M, K)
3	Printhead
4	Developer unit
5	Photoconductor drum
6	Transfer belt
7	Second transfer roller

Flowchart


EXPOSE
DEVELOP
PHOTOCONDUCTOR
CHARGE
FIRST TRANSFER
CLEAN
CLEAN
TRANSFER BELT
SECOND TRANSFER
FUSE
PAPER

EP process

Charge



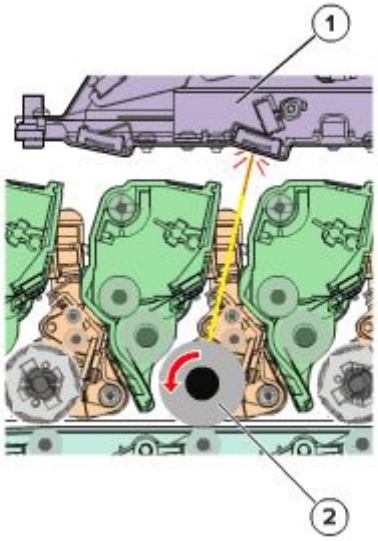
1	Charge roller
2	Photoconductor drum

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 61.
- 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



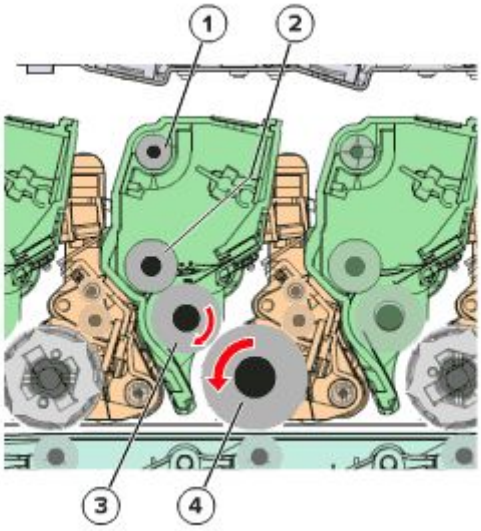
1	Printhead
2	Photoconductor drum

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

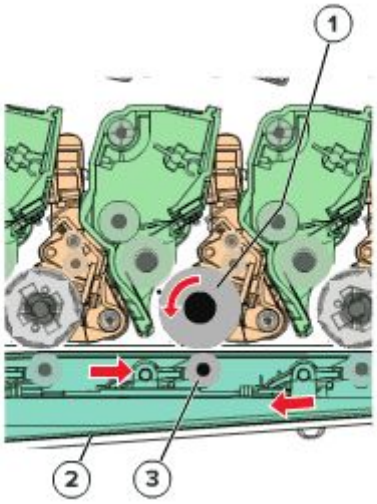
The developer roller applies the toner from the toner cartridge to the photoconductor drum. The relative opposite polarity in charge causes the toner particles to attract to the photoconductor drum areas which were exposed to light.

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 61.

First transfer



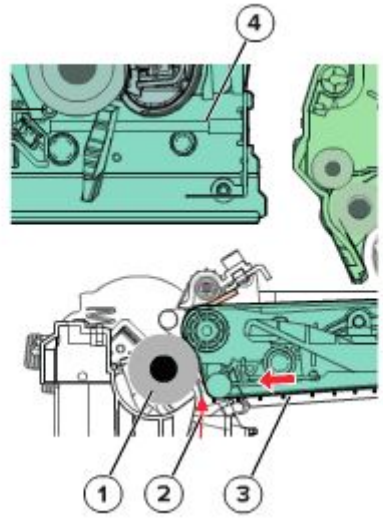
1	Photoconductor drum
2	Transfer belt
3	First transfer roller

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 61.
- 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

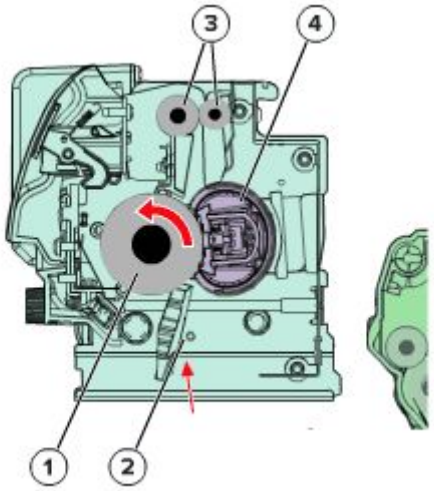
On the transfer belt, the four-color image is carried toward the second transfer roller until it reaches a set point. The paper pick is timed when the paper is at the exact position between the transfer belt and second transfer roller.

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 61.
- 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

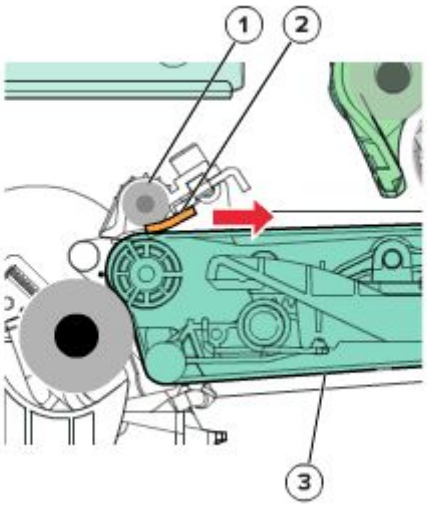
Even if the toner image is already on the paper, the toner particles are not yet permanently bonded to the surface. Paper is transported from the second transfer roller to the fuser where heat and pressure are applied to it. As a result, the toner particles melt and permanently fuse with the paper, completing 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

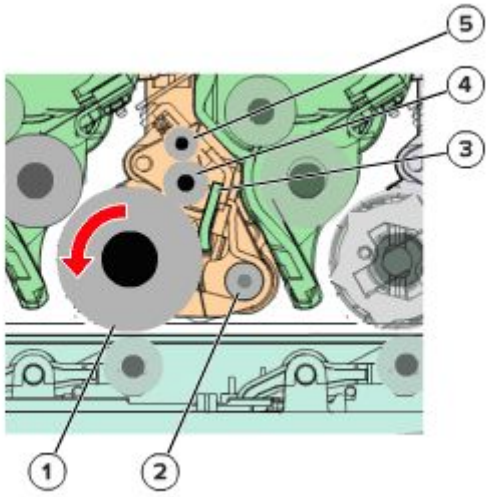
Two cleaning processes take place during the EP process. Both processes remove the residual toner from the system.



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.



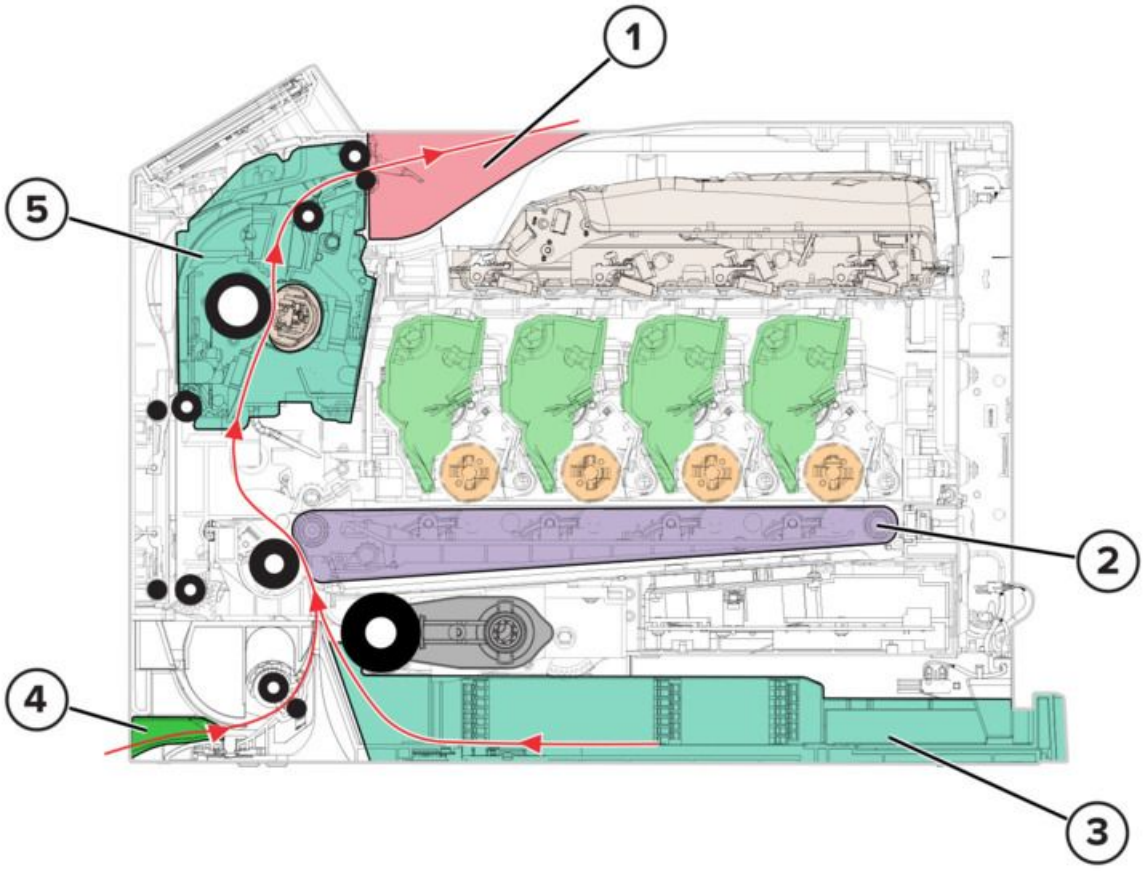
1	Photoconductor drum
2	Auger
3	Cleaning blade
4	Charge roller
5	Charge roller cleaner

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

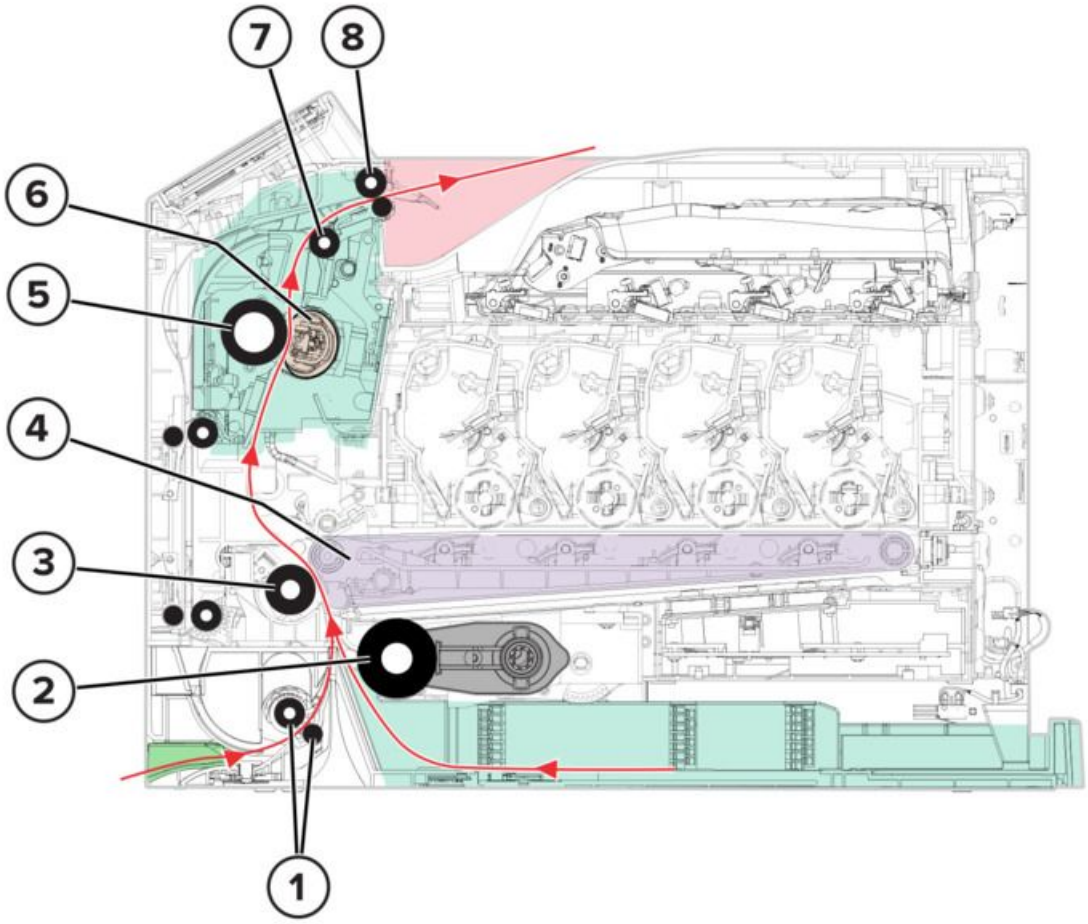
Printer sections



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

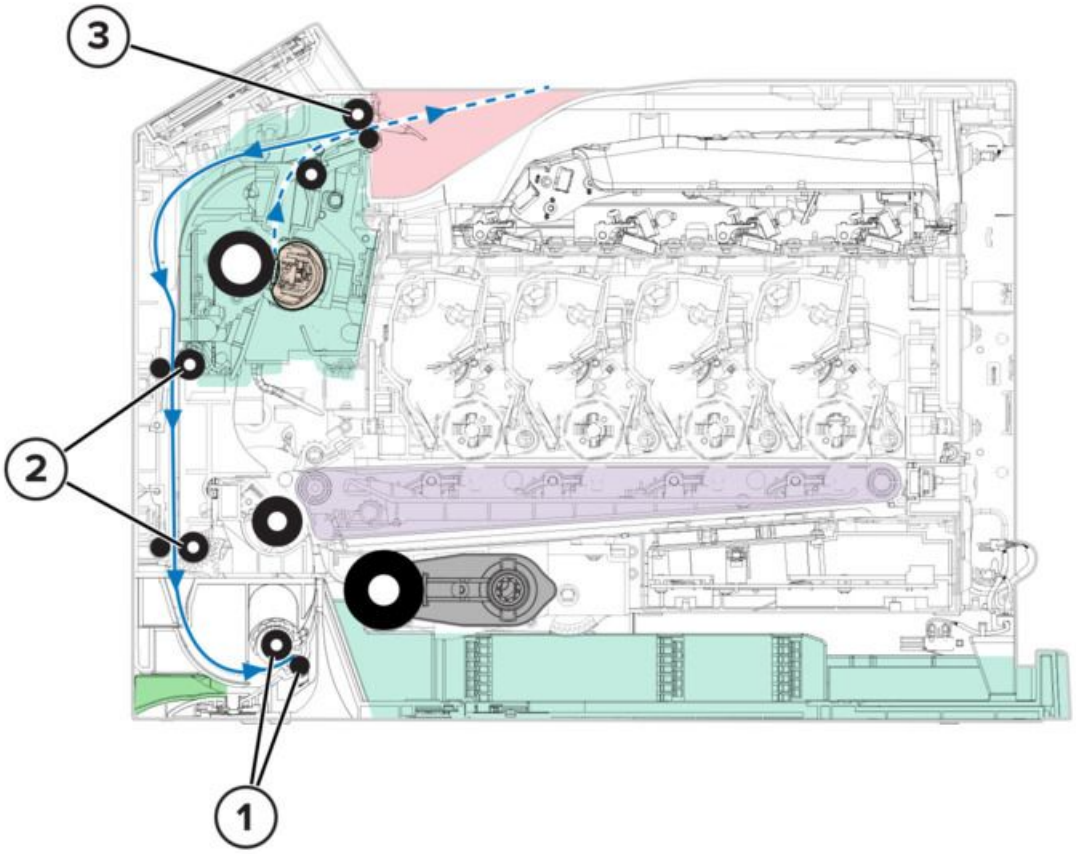
Paper is fed from the tray or MPF into the printer by pick or feed rollers.

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.

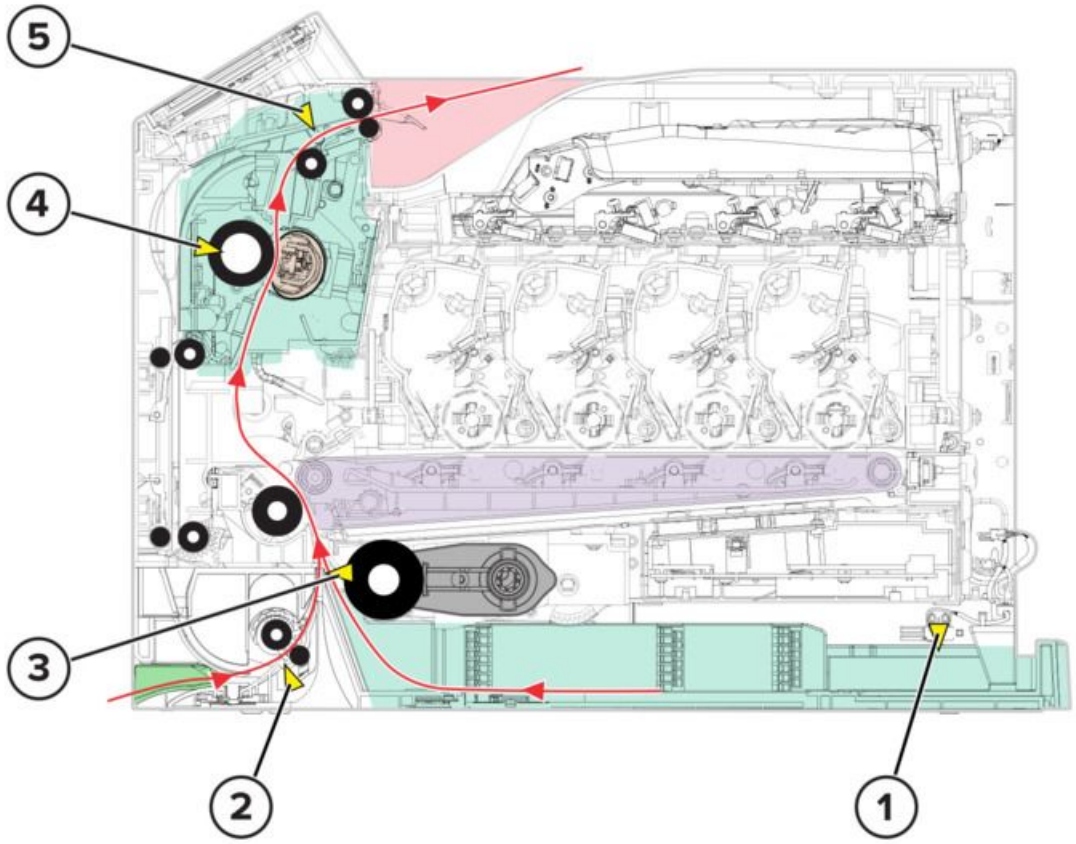
When the trailing edge of the media clears the fuser, the fuser engine rotates forward to prepare the fuser for the page traveling though the duplex unit. As the media reaches the

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)

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S

Service Manual