MX532, MX632, XM3350 MFPs

Service Manual

Contents

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the PCL language. This means the printer recognizes PCL commands used in various application programs, and that the printer emulates the functions corresponding to the commands.PostScript is a registered trademark of Adobe Systems Incorporated in the United States and/or other countries.All other trademarks are the property of their respective owners.

Notices, conventions, and safety information

prescribed service conditions. The printer has a non-serviceable printhead assembly that contains a laser with the following specifications:Class: IIIb (3b) AlGaInPNominal output power (milliwatts): 15Wavelength (nanometers): 650–670

Safety informationThe 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.Other: 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.Other: 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.Other: 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.Other: To avoid the risk of fire or electrical shock, use only the power cord provided with this product or the manufacturer's authorized replacement.Other: 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.Other: 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.Other: 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.Other: 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 sécuritéLa 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.Autre : 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.Autre : 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.Autre : 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.Autre : 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.Autre : 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.Autre : 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.Autre : 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.Autre : 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 seguridadLa 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

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.Andere: 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.Andere: 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.Andere: 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.Andere: 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.Andere: 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.Andere: Verwenden Sie dieses Produkt nicht mit einem Inline-Überspannungsschutz. Die Verwendung von Überspannungsschutzgeräten kann zu Brandgefahr, Beschädigung von Eigentum oder einer eingeschränkten Druckerleistung führen.Andere: Wenn der Drucker mehr als 20 kg wiegt, sind zum sicheren Anheben mindestens zwei Personen notwendig.

Change history

General information

Diagnostics and troubleshooting

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 extracciónOther: 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.Other: 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.Other: 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.Other: 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.Other: 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 DemontageAndere: 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.Andere: 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.Andere: 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.Andere: Das Innere des Druckers kann sehr heiß sein. Vermeiden Sie Verletzungen, indem Sie heiße Komponenten stets abkühlen lassen, bevor Sie ihre Oberfläche berühren.Andere: 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.

Component locations

XM3350)Two-sided: 396 (MX532adwe); 406 (MX632adwe, XM3350)CopyThe product is generating hard-copy output from hard-copy original documents.684ScanThe product is scanning hard-copy documents.23.5 (MX532adwe); 24.8 (MX632adwe, XM3350)ReadyThe product is waiting for a print job.13.4 (MX532adwe); 15.3 (MX632adwe, XM3350)Sleep ModeThe product is in a high-level energy-saving mode.1.0 (MX532adwe); 1.1 (MX632adwe, XM3350)HibernateThe product is in a low-level energy-saving mode.0.1OffThe product is plugged into an electrical outlet, but the power switch is turned off.0.1The 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.

Noise emission levelsThe following measurements were made in accordance with ISO 7779 and reported in conformance with ISO 9296.Other: Some modes may not apply to your product.1-meter average sound pressure, dBAPrintingOne-sided: 55Two-sided: 55 (MX532adwe); 54 (MX632adwe, XM3350)Scanning52Copying57Ready15Values are subject to change. See www.lexmark.com for current values... 0

Temperature informationAmbient operating temperature10 to 32.2°C (50 to 90°F)Shipping temperature-40 to 40°C (-40 to 104°F)Storage temperature and relative humidity-40 to 40°C (-40 to 104°F)8 to 80% RH 0

Options and features

Theory of operation

Acronyms

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Product name:
Lexmark MX532adwe, Lexmark MX632adwe, Lexmark XM3350 MFPs

Product name:
Lexmark MX532adwe, Lexmark MX632adwe, Lexmark XM3350 MFPs

Machine type:
7020

Product information

Model(s):
476, 486, 676, 686, 689

April 2023

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Edition notice

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Notices, conventions, and safety information

Laser notice

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

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

Class: IIIb (3b) AlGaInP
Nominal output power (milliwatts): 15
Wavelength (nanometers): 650–670

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

January 10, 2024

- Added a note in step 3 of the ADF removal in the Parts removal chapter. See See "ADF removal" on page 503.
- Added a note in the 32.40D and 32.60D error codes in the 32 user attendance error messages topic of the Diagnostics and troubleshooting chapter. See See "32 user attendance error messages" on page 190.

October 26, 2023

- Updated the Tray 1 pick error service check topic in the Diagnostics and troubleshooting chapter. See See "Tray 1 pick error service check" on page 121.
- Updated the Sensor (input) Paper failed to arrive from the MPF jam service check topic in the Diagnostics and troubleshooting chapter. See See "Sensor (input): Paper failed to arrive from the MPF jam service check" on page 123.
- Updated the Sensor (input): Paper cleared too early from the MPF jam service check topic in the Diagnostics and troubleshooting chapter. See See "Sensor (input): Paper cleared too early from the MPF jam service check" on page 125.
- Updated the Sensor (input): Paper failed to clear from the MPF jam service check topic in the Diagnostics and troubleshooting chapter. See See "Sensor (input): Paper failed to clear from the MPF jam service check" on page 126.
- Updated the Sensor (input) Paper arrived too early or failed to arrive jam service check topic in the Diagnostics and troubleshooting chapter. See See "Sensor (input): Paper arrived too early or failed to arrive jam service check" on page 128.
- Updated the Sensor (input): Paper cleared too early jam service check topic in the Diagnostics and troubleshooting chapter. See See "Sensor (input): Paper cleared too early jam service check" on page 130.
- Updated the Sensor (input): Paper failed to clear jam service check topic in the Diagnostics and troubleshooting chapter. See See "Sensor (input): Paper failed to clear jam service check" on page 132.
- Updated the Sensor (input): Paper arrived too early from optional tray jam service check topic in the Diagnostics and troubleshooting chapter. See See "Sensor (input): Paper arrived too early from optional tray jam service check" on page 134.

August 9, 2023

- Updated the Sensor tests topic in the Service menus chapter. See See "Sensor tests" on page 299.
- Updated the Redrive removal topic in the Parts removal chapter. See See "Redrive removal" on page 486.

July 12, 2023

- Added a removal link to PN 41X1198 Pick tire in the Rollers assembly in the Parts catalog chapter. See See "Rollers" on page 603.
- Added the pick tire removal topic. See See "Pick tire removal" on page 463 .
- Added the duplex gear kit removal topic in the Parts removal chapter. See See "Duplex gear kit removal" on page 392.

- Updated the Sensor (redrive): Paper (duplex job) failed to arrive jam service check in the Diagnostics and troubleshooting chapter. See See "Sensor (redrive): Paper (duplex job) failed to arrive jam service check" on page 150.

June 5, 2023

- Updated the 980-992 error messages topic in the Diagnostics and troubleshooting chapter. See See "980-992 error messages" on page 268.

June 1, 2023

- Added parts removal links in the Printer sensor locations topic of the Component locations chapter. See See "Printer sensor locations" on page 563.

May 29, 2023

- Updated the following topics in the Diagnostics and troubleshooting chapter:

  ○ Added the Dead optional tray service check topic. See See "Dead optional tray service check" on page 274.
  ○ Updated the title of the Fuser error service check topic to Fuser temperature error service check. See See "Fuser temperature error service check" on page 229.
  ○ Updated the content of the Fuser temperature error service check. See See "Fuser temperature error service check" on page 229.

May 17, 2023

- Populated Parts catalog assemblies with their respective links to Removal topics.

May 12,2023

- Updated the following topics in the Parts removal chapter:

  ○ Fax card removal. See See "Fax card removal" on page 406.
  ○ Flatbed scanner removal. See See "Flatbed scanner removal" on page 506.
  ○ Control panel removal. See See "Control panel removal" on page 426.

May 8, 2023

- Updated the PN for Control panel hinge for MX632 and XM3350 from PN 41X4328 to PN 41X3708. See See "Control panel" on page 591.
- Added the PN 41X4535 (Bezel (blank)) in the Covers assembly in the Parts catalog chapter. See See "Covers" on page 589.
- Updated the graphic in the Sensors 1 assembly in the Parts catalog chapter. See See "Sensors 1" on page 597.
- Added the PN 41X4991 (Sensor (tray present)) in the Sensors 1 assembly in the Parts catalog chapter. See See "Sensors 1" on page 597.
- Added the PN 41X2848 ADF rollers maintenance kit in the Maintenance kits assembly in the Parts catalog chapter. See See "" on page 0.
- Added the PN 41X2848 Maintenance kit ADF in the Maintenance kits topic in the Maintenance chapter. See See "Maintenance kits" on page 565.
- Removed the following parts in the maintenance kits assembly/topic in the Parts catalog chapter and Maintenance chapter:

  ○ PN 41X5023—Maintenance Kit (100 V)
  ○ PN 41X5024—Maintenance Kit (110 V)
  ○ PN 41X5025—Maintenance Kit (220 V)
  See See "" on page 0 and See "Maintenance kits" on page 565.

Change history

- Updated the interconnect cable removal topic in the Parts removal chapter. See See "Interconnect cable removal" on page 397.
- Updated the Toner cartridge smart chip contact removal topic in the Parts removal chapter. See See "Toner cartridge smart chip contact removal" on page 411.
- Added a note in the Controller board removal topic in the Parts removal chapter. See See "Controller board removal" on page 402.

April 24, 2023

- Product announce.

General information

Printer model configurations

The Lexmark™ MX532adwe, MX632adwe, and XM3350 printers are network-capable, multifunction laser printers. The printers support monochrome printing and are embedded with home screen solutions and applications. All information in this service manual pertains to all models unless explicitly noted.
The printers are available in the following models:

MX532adwe, MX632adwe, and XM3350 models

Model	Configurations	Machine type/model number
MX532adwe	Monochrome with 4.3-inch touch-screen display, duplex print, duplex scan, networking, intelligent storage drive (ISD) and hard disk support, optional tray support, wireless module support	7020-476
MX532adwe	Monochrome with 4.3-inch touch-screen display, duplex print, duplex scan, networking, intelligent storage drive (ISD) and hard disk support, optional tray support, wireless module support	7020-486
MX632adwe	Monochrome with 7-inch touch-screen display, duplex print, duplex scan, networking, intelligent storage drive (ISD) and hard disk support, optional tray support, wireless module support	7020-686
MX632adwe	Monochrome with 7-inch touch-screen display, duplex print, duplex scan, networking, intelligent storage drive (ISD) and hard disk support, optional tray support, wireless module support	7020-676

Model	Configurations	Machine type/model number
XM3350	Monochrome with 7-inch touch-screen display, duplex print, duplex scan, networking, intelligent storage drive (ISD) and hard disk support, optional tray support, wireless module support	7020-689

Finding the printer serial number

Follow these steps to find the serial number of the printer.

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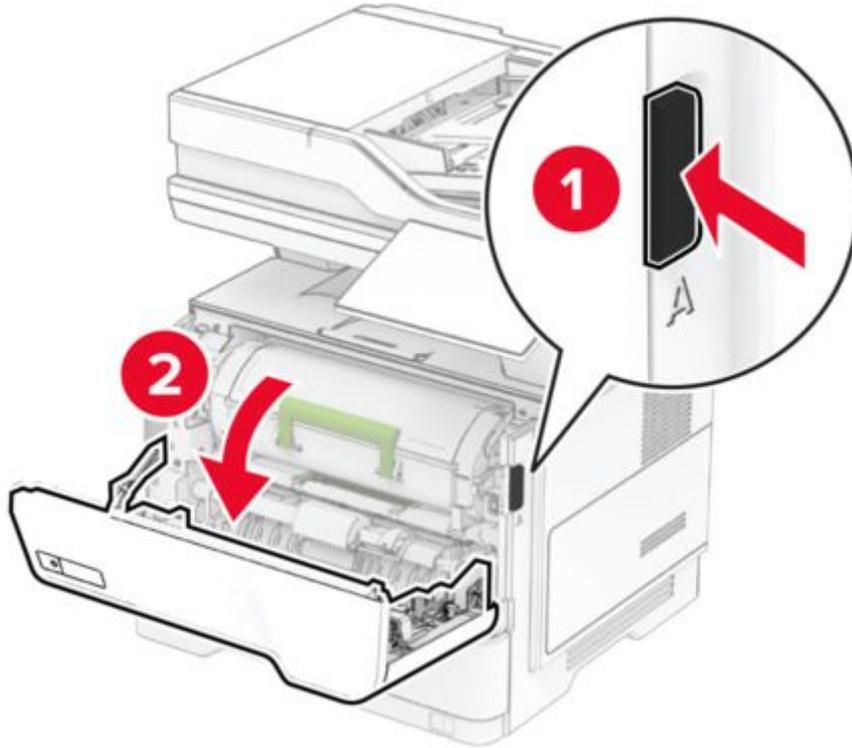
2. Locate the serial number.
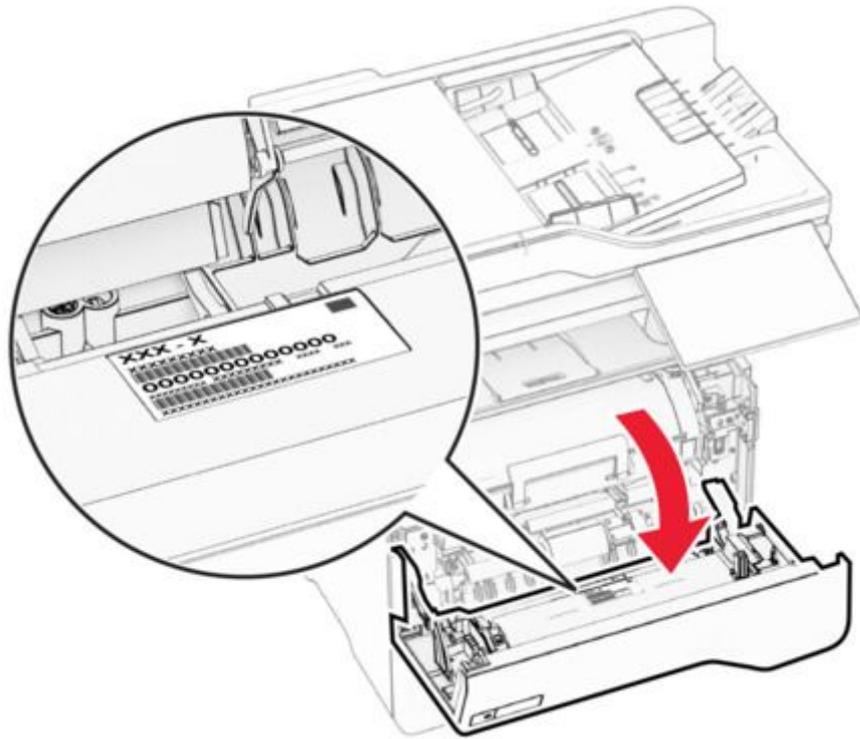
Selecting paper

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

Supported paper sizes

Paper size	Standard 550-sheet tray	Optional 250- or 550-sheet tray	Multipurpose feeder	Two-sided printing	Scanner glass	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.)	✓	✓	✓	X	✓	✓
A5 Landscape (LEF) [1] 210 x 148 mm (8.27 x 5.83 in.)	✓	X	✓	X	✓	✓
A6 105 x 148 mm (4.13 x 5.83 in.)	✓	X	✓	X	✓	✓
JIS B5 182 x 257 mm (7.17 x 10.1 in.)	✓	✓	✓	X	✓	✓

Paper size	Standard 550-sheet tray	Optional 250- or 550-sheet tray	Multipurpose feeder	Two-sided printing	Scanner glass	Automatic document feeder
Oficio (Mexico) 216 x 340 mm (8.5 x 13.4 in.)	✓	✓	✓	✓	✓	✓
Hagaki 100 x 148 mm (3.93 x 5.83 in.)	X	X	✓	X	✓	X
Statement 139.7 x 215.9 mm (5.5 x 8.5 in.)	✓	✓	✓	X	✓	✓
Executive 184.2 x 266.7 mm (7.25 x 10.5 in.)	✓	✓	✓	X	✓	✓
Letter 215.9 x 279.4 mm (8.5 x 11 in.)	✓	✓	✓	✓	✓	✓
Legal 215.9 x 355.6 mm (8.5 x 14 in.)	✓	✓	✓	✓	✓	✓
Folio	✓	✓	✓	✓	✓	✓

Paper size	Standard 550-sheet tray	Optional 250- or 550-sheet tray	Multipurpose feeder	Two-sided printing	Scanner glass	Automatic document feeder
215.9 x 330.2 mm (8.5 x 13 in.)						
Universal 2 105 x 148 mm to 215.9 x 359.92 mm (4.13 x 5.83 in. to 8.5 x 14.17 in.)	✓	✓	X	3	X	✓
Universal 2 76.2 x 127 mm to 215.9 x 359.92 mm (3 x 5 in. to 8.5 x 14.17 in.)	X	X	✓	X	X	X
Universal 2 25.4 x 25.4 mm to 215.9 x 355.6 mm (1 x 1 in. to 8.5 x 14 in.)	X	X	X	X	✓	X
7 3/4 Envelope	X	X	✓	X	✓	X

Paper size	Standard 550-sheet tray	Optional 250- or 550-sheet tray	Multipurpose feeder	Two-sided printing	Scanner glass	Automatic document feeder

Continued from page 51

Paper size	Standard 550-sheet tray	Optional 250- or 550-sheet tray	Multipurpose feeder	Two-sided printing	Scanner glass	Automatic document feeder
98.4 x 190.5 mm (3.875 x 7.5 in.)						
9 Envelope 98.4 x 225.4 mm (3.875 x 8.9 in.)	X	X	✓	X	✓	X
10 Envelope 104.8 x 241.3 mm (4.12 x 9.5 in.)	X	X	✓	X	✓	X
DL Envelope 110 x 220 mm (4.33 x 8.66 in.)	X	X	✓	X	✓	X
C5 Envelope 162 x 229 mm (6.38 x 9.01 in.)	X	X	✓	X	✓	X
B5 Envelope 176 x 250 mm (6.93 x 9.84 in.)	X	X	✓	X	✓	X

Paper size	Standard 550-sheet tray	Optional 250- or 550-sheet tray	Multipurpose feeder	Two-sided printing	Scanner glass	Automatic document feeder

Paper size	Standard 550-sheet tray	Optional 250- or 550-sheet tray	Multipurpose feeder	Two-sided printing	Scanner glass	Automatic document feeder
Other Envelope 76.2 x 127 mm to 215.9 x 359.92 mm (3 x 5 in. to 8.5 x 14.17 in.)	X	X	✓	X	✓	X

[1] The default support is short-edge feed.

[2] When Universal is selected, the page is formatted for 215.90 x 355.60 mm (8.5 x 14 in.) unless specified by the application.

[3] Paper must at least be 210 mm (8.27 in.) wide and 279.4 mm (11 in.) long for two-sided printing.

Supported paper types

Supported paper types

Paper type	Standard 550-sheet tray	Optional 250- or 550-sheet tray	Multipurpose feeder	Two-sided printing	Automatic document feeder
Plain paper	✓	✓	✓	✓	✓
Card stock	X	X	✓	X	X
Recycled	✓	✓	✓	✓	✓
Paper labels*	✓	✓	✓	X	X
Bond	✓	✓	✓	✓	✓
Letterhead	✓	✓	✓	✓	✓
Preprinted	✓	✓	✓	✓	✓
Colored Paper	✓	✓	✓	✓	✓
Light Paper	✓	✓	✓	✓	✓
Heavy Paper	✓	✓	✓	✓	✓
Rough/ Cotton	✓	✓	✓	✓	✓
Envelope	X	X	✓	X	X
Rough envelope	X	X	✓	X	X

* One-sided paper labels are supported for occasional use of less than 20 pages per month. Vinyl, pharmacy, or two-sided labels are not supported.

Supported paper weights

Supported paper weights

Standard 550-sheet tray	Optional 250- or 550-sheet tray	Multipurpose feeder	Two-sided printing*	Automatic document feeder
60–120 g/m^2 (16–32 lb bond)	60–120 g/m^2 (16–32 lb bond)	60–216 g/m^2 (16–58 lb bond)	60–90 g/m^2 (16–24 lb bond)	52–120 g/m^2 (14–32 lb bond)

* Does not support card stock, labels, or envelopes.

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.

Power-on Reset (POR) sequence

When you turn on the printer, it performs a POR sequence.
Check for correct POR functioning of the base printer by observing the following:

1. The control panel indicator light turns on.
2. The control panel display turns on.
3. A splash screen appears on the display.
4. The cooling fan turns on.
5. The fuser heater turns on.

> **NOTES**
> The fuser takes longer to warm up from a cold start than from a warm start.

6. The main drive motor turns on.
7. The EP drive drives the developer shaft located in the imaging unit.
8. The exit rollers turn.
9. The control panel indicator light blinks.
10. Ready appears on the display.

Using Safe Mode

Safe Mode lets the printer continue to operate in a special limited mode in which it attempts to continue offering as much functionality as possible despite known issues.

WARNING—POTENTIAL DAMAGE
Safe Mode is intended as a short-term workaround and should be used only in the case of a non-critical error when a print job must be completed before service can be arranged to repair the printer. The printer must be returned to standard operating mode before diagnostics can be run or full-function printing can continue.

You can enter Safe Mode in one of the following ways:

- Enable Safe Mode from the Configuration menu, and then POR the printer.
- Press the **Stop** and **Back** keys, and then POR the printer.

Return the printer to standard operating mode to service the printer and return to full-function printing.

Safe Mode print behavior

The following table outlines the behavior for this printer model while in Safe Mode:

Safe mode print behavior

Safe Mode engine features	Engine behavior	Control panel behavior
Simplex printing only	Will report that no duplexer is installed.	Duplex print option will not be selectable.
Ignore duplex sensor		
Ignore bin full sensor	Bin full messages will not be reported.	Bin full messages will not occur.
Print at narrow media operating point	Pages will be printed slower.	N/A
Ignore narrow media sensor	Narrow media will print without restrictions.	N/A
Ignore all input options	Will report that only Tray 1 is installed.	Only Tray 1 and the MPF will be selectable.
Ignore all output options	Will not report any installed finishing options.	Finishing options will not be selectable.

Safe Mode engine features	Engine behavior	Control panel behavior
Use large interpage gaps	Pages will have large interpage gaps.	N/A

Safe Mode engine features	Engine behavior	Control panel behavior

Replace cartridge, printer region mismatch

Installing a cartridge with the correct region can resolve the 42 error message that appears on your printer display.

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.

Printer and toner cartridge regions

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

NOTES
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**.

Non-Lexmark supply

Remove any non-Lexmark supply from your printer to avoid damage. Installing non Lexmark supplies void the printer warranty.

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.

Securing the printer

Resetting the printer without admin credentials

- 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 .See "Data security notice" on page 70

   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 See "Using the security reset jumper" on page 68.

3. If the effect of the jumper reset is disabled, then replace the controller board. For more information, see .See "Controller board removal" on page 402

Using the security reset jumper

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

- To enable the effect of the security reset jumper, from the home screen navigate to: **Security > Miscellaneous > Security Reset Jumper > Enable "Guest" Access**.
- To disable the effect of the jumper, select **No Effect** from the Security Reset Jumper section in the Security menu. If the password is forgotten or lost, perform an Out of Service Erase or replace the controller board. See See "Resetting the printer without admin credentials" on page 67 or .See "Controller board removal" on page 402

1. Turn off the printer.
2. Remove the controller board shield.
3. Locate the security jumper (A) on the controller board.
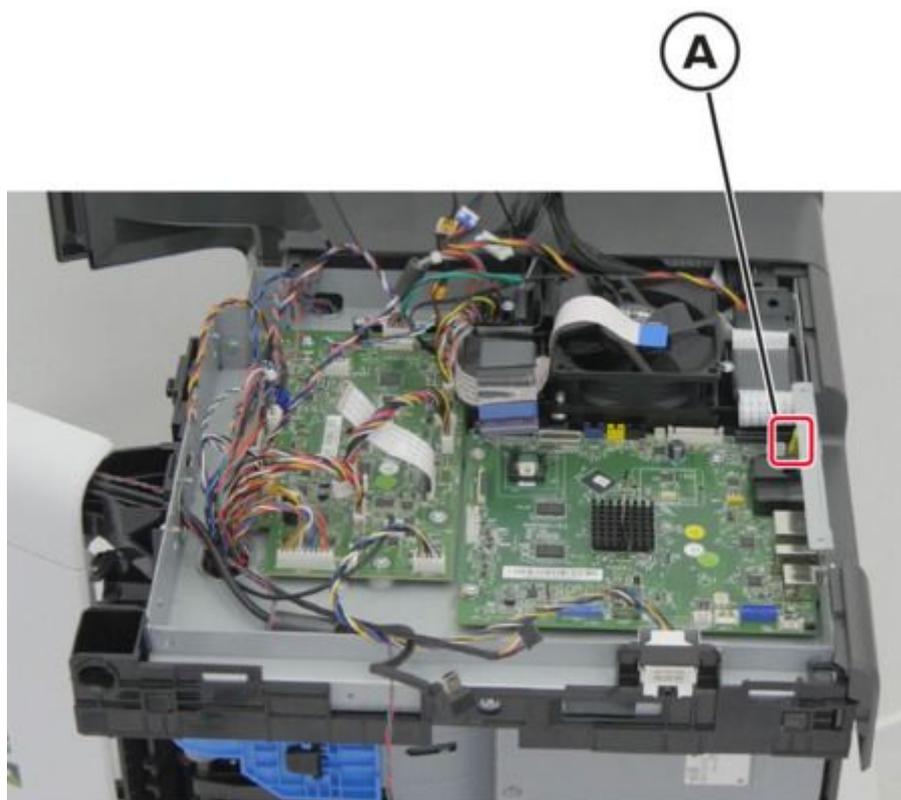
4. Move the jumper to cover the middle and exposed prongs.

NOTES
The movement of the jumper triggers the reset, not the jumper position.

5. Attach the controller board shield.
6. Turn on the printer.

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

Data security notice

Identifying printer memory

- **Volatile memory**—The printer uses standard random access memory (RAM) to buffer user data temporarily during simple print and copy jobs.
- **Nonvolatile memory**—The printer may use two forms of nonvolatile memory: EEPROM and NAND (flash memory). Both types are used to store the operating system, printer settings, network information, scanner and bookmark settings, and embedded solutions.
- **Hard disk memory**—Some printers have a hard disk drive installed. The hard disk is designed for printer-specific functionality and cannot be used for long-term storage of data that is not print-related. The hard disk does not let users extract information, create folders, create disk or network file shares, or transfer FTP information directly from a client device. The hard disk can retain buffered user data from complex print jobs, form data, and font data.

The following parts can store memory:

- Printer control panel
- User interface controller card (UICC)
- Controller board
- Optional hard disks

> **NOTES**
> The printer control panel 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.

> **NOTES**
> 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.

> **NOTES**
> 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 1200 IQ and the toner darkness is set to 8.
- 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.

Gray background or toner fog

Adjusting the toner darkness and specifying the correct paper type can help remove unwanted gray background from the printed page.
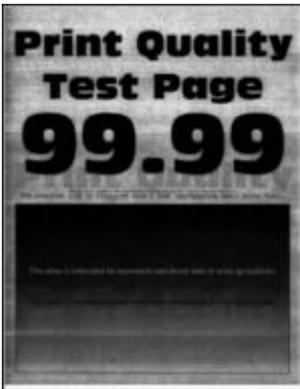
> **NOTES**
> Before doing this print quality check, see .

1. Restart the printer.
2. From the home screen, do the following:

    ◦ Increase the toner darkness in the Quality menu. Touch **Settings > Print > Quality**.

    > **NOTES**
    > 8 is the factory default setting.

    ◦ Set the paper type, texture, and weight in the Paper menu to match the paper loaded. Touch **Settings > Paper**.
3. 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 their supplier.

4. Check for any packing material left on the imaging unit, including the red plastic separator plastic (A).
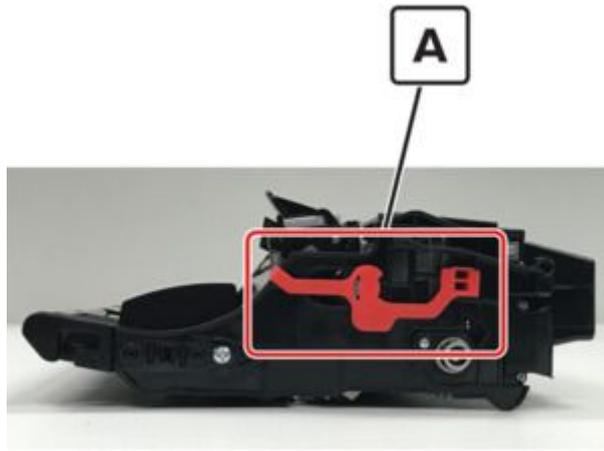
> **NOTES**
> You may need a pair of pliers to remove a piece of broken plastic inside the imaging unit.

5. Check the charge roller contact (B) on the right side of the imaging unit for damage and contamination.
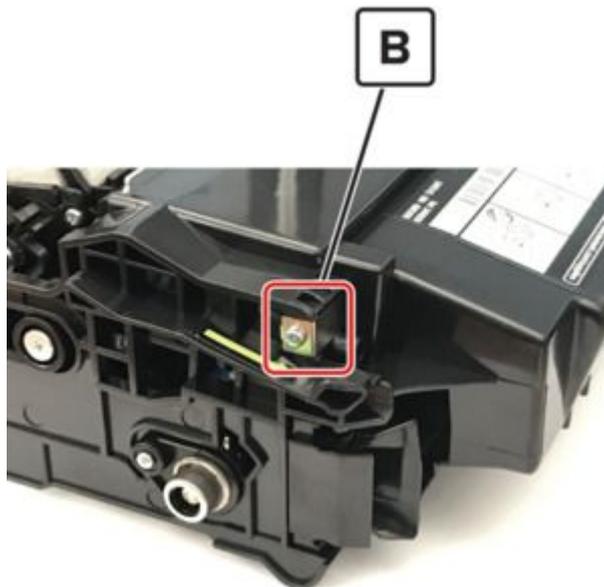
6. Make sure that the connections between the controller board and the power supply are properly connected.
7. Check the photoconductor charge contact (C) on the right side of the printer frame for contamination.
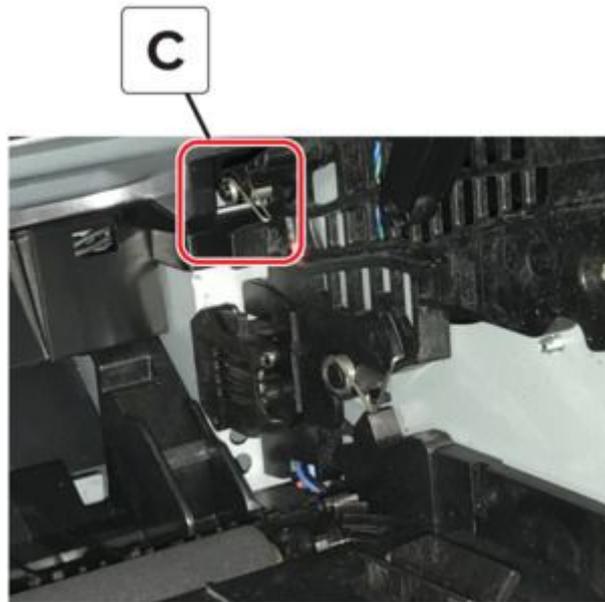
NOTES
Poor electrical contact to the photoconductor is the most likely source of a full-page background defect.

8. Check if the photoconductor charge contact is bent, damaged, or not in proper contact with the imaging unit.

Blank pages

Stop blank or white pages from appearing on your prints by checking for packing material in the imaging unit and redistributing the toner.

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 their supplier.

2. Check the imaging unit for the following:

   1. Residual packing material
   2. Damage and improper installation
3. Firmly shake the imaging unit to redistribute the toner, and then reinstall it.
4. With the imaging unit removed, do the following to check if the coupler is stuck.

   1. While slowly closing the door, observe if the coupler moves inward.

   2. While slowly opening the door, observe if the coupler moves outward.
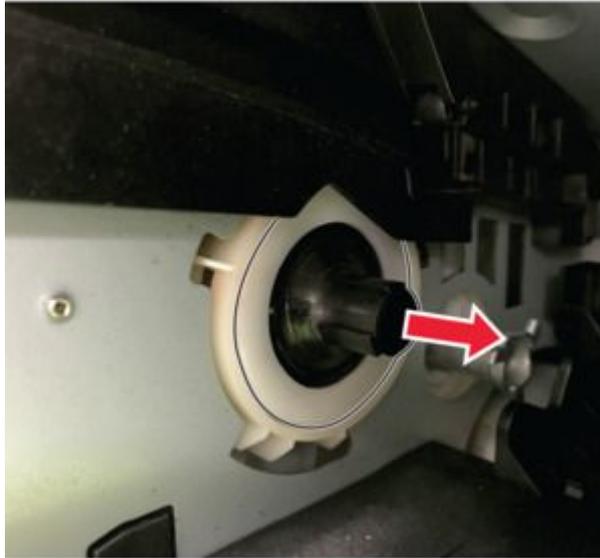
If the couple is stuck, then reach inside the printer and manually reposition the coupler as shown.
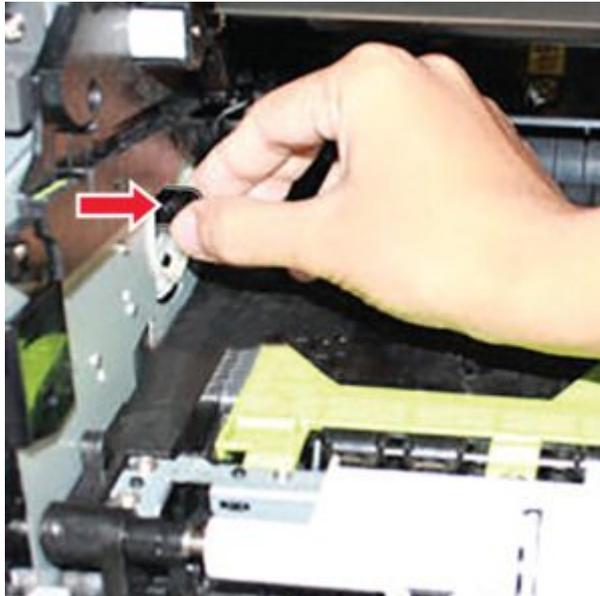
5. Check if the imaging unit contact (A) is bent, damaged, or not in proper contact with the imaging unit.
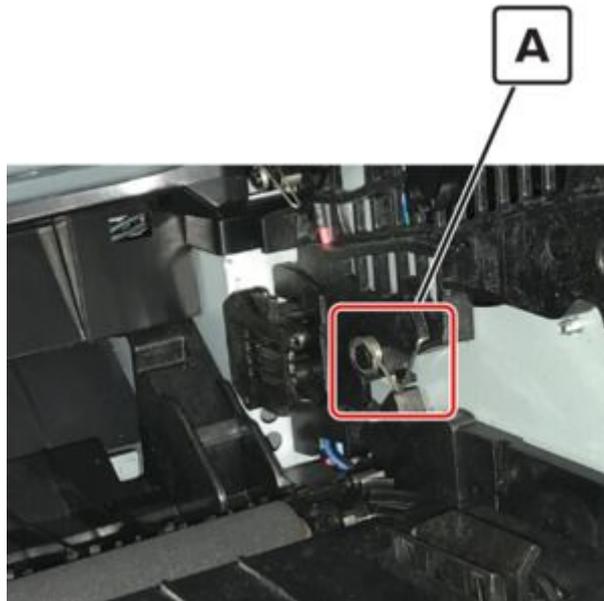
6. Make sure that the connections between the controller board and power supply are properly connected.
7. Check the transfer roller for the following:

    1. Improper installation
    2. Contamination and damage
    3. Damage on the transfer roller left contact spring in the transfer roller left arm
    For more information, see See "Transfer roller removal" on page 435.
8. Check the coupler for signs of damage. The coupler is on the main drive motor.

    ◦ Coupler in good condition

    ◦ Coupler in bad condition
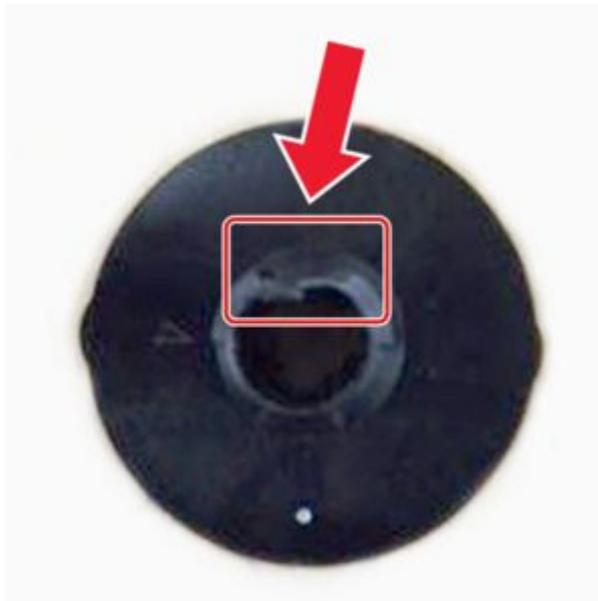
For more information, see See "Main drive gearbox removal" on page 372.

9. Make sure that the connections on the controller board and printhead are properly connected.
10. Check the printhead for damage and improper installation. For more information, see .See "Printhead removal" on page 494

Print is too dark

Are your prints too dark? Try adjusting toner darkness or loading paper from a fresh package.

NOTES
Before doing this print quality check, see See "Initial print quality check" on page 72.

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 their supplier.

2. Restart the printer.
3. From the home screen, do the following:

   ◦ Decrease the toner darkness. Touch **Settings > Print > Quality > Toner Darkness**.

      NOTES
   8 is the factory default setting.

   ◦ Set the paper type, texture, and weight in the Paper menu to match the paper loaded. Touch **Settings > Paper**.
   ◦ Depending on the operating system, specify the paper type from Printing Preferences or Print dialog.
4. Check if the imaging unit contacts (A) are bent, damaged, or not in proper contact with the imaging unit.
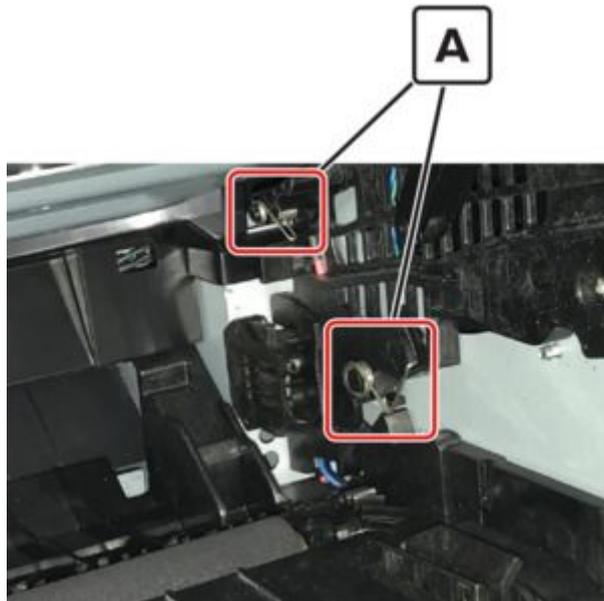
5. Make sure that the connections between the controller board and the power supply are properly connected.
6. Check the power supply for damage and improper installation. For more information, see .See "Power supply removal" on page 450

Print is too light

Adjusting toner darkness or using the recommended paper can prevent the light print quality issue from happening again.

> **NOTES**
> Before doing this print quality check, see See "Initial print quality check" on page 72.

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 their supplier.

2. Restart the printer.
3. From the home screen, do the following:

   ◦ Increase the toner darkness. Touch **Settings > Paper > Quality > Toner Darkness**.

     > **NOTES**
     > 8 is the factory default setting.

   ◦ Set the paper type, texture, and weight in the Paper menu to match the paper loaded. Touch **Settings > Paper**.
4. Push either side of the transfer roller to check if it depresses and bounces back into place.

   If the transfer roller does not depress and bounce back into place, then reinstall it by doing the following:

   1. Pull up the blue gear on the transfer roller.
   2. Pull out the blue gear from the right side to the left.
   For more information, see See "Transfer roller removal" on page 435.
5. Check the imaging unit for the following:

1. Damage to the shutter

> **NOTES**
> The shutter opens to receive toner from the toner cartridge.

2. Status of the imaging unit

   1. From the home screen, touch **Status/supplies**.
   2. Touch **View Supplies**.
3. Damage, contamination, and improper installation
6. Firmly shake the imaging unit to redistribute the toner, and then reinstall it.
7. Clean the printhead lens. For more information, see See "Cleaning the printhead mirror" on page 582.
8. Check the power supply for damage, contamination, and improper installation. For more information, see .See "Power supply removal" on page 450
9. Make sure that the connections between the controller board and the cartridge gearbox are properly connected.
10. Check the cartridge gearbox for damage and improper installation. For more information, see See "Cartridge gearbox removal" on page 387.
11. Check the controller board for damage, contamination, and improper installation. For more information, see .See "Controller board removal" on page 402

Paper curl

Use paper from a fresh package to prevent curling after it is printed on.

NOTES
Before doing this print quality check, see See "Initial print quality check" on page 72.

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 their supplier.

2. Make sure that the guides in the tray are in the correct position for the paper loaded.
3. From the home screen, do the following:

   1. Set the paper size, type, and weight in the Paper menu to match the paper loaded. Touch **Settings > Paper**.
   2. Depending on the operating system, specify the paper size from Printing Preferences or Print dialog.

Folded or wrinkled paper

Prevent paper from getting folded or wrinkled when printing. Follow these easy steps.

NOTES
Before doing this print quality check, see See "Initial print quality check" on page 72.

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 their supplier.

2. Check if the toner cartridge is compatible with the imaging unit.
3. Make sure that the fuser entry guide is free of waste toner and dust.

   WARNING—POTENTIAL DAMAGE
   Clean the fuser entry guide with a toner vacuum and cloth. Do not use compressed air.

4. Check if the fuser has reached end of life.

Solid black pages

Are you seeing completely black printed pages? Check if the imaging unit is properly installed or needs to be replaced.

> **NOTES**
> Before doing this print quality check, see See "Initial print quality check" on page 72.

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 their supplier.

2. Check for any packing material left on the imaging unit, including the red plastic separator (A).
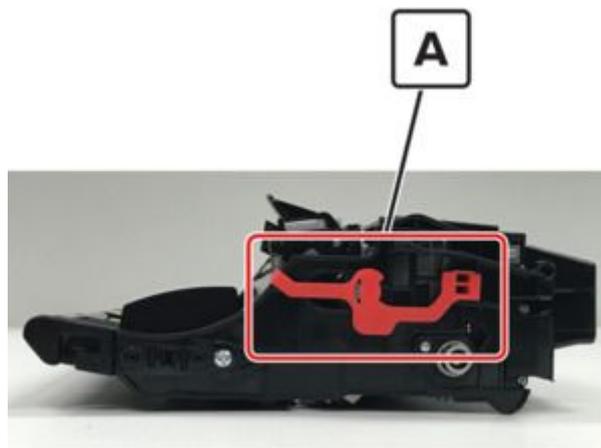
> **NOTES**

> You may need a pair of pliers to remove a piece of broken plastic inside the imaging unit.

3. Check the charge roller contact (B) on the right side of the imaging unit for damage and contamination.
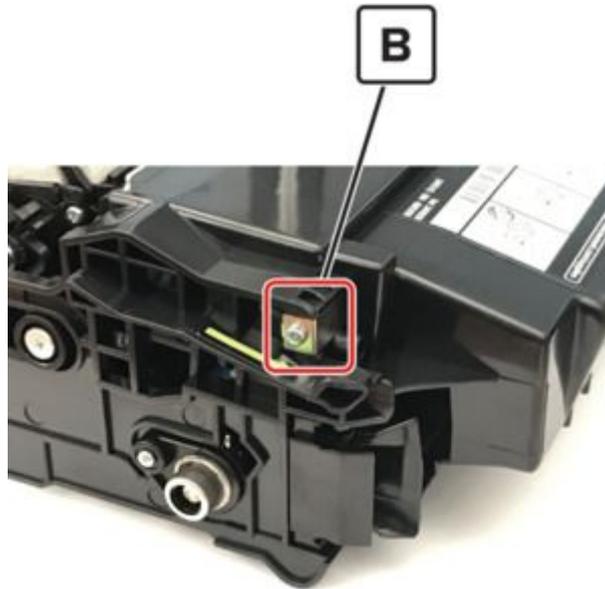
4. Check if the imaging unit contact (C) is contaminated, broken, or bent out of proper position.
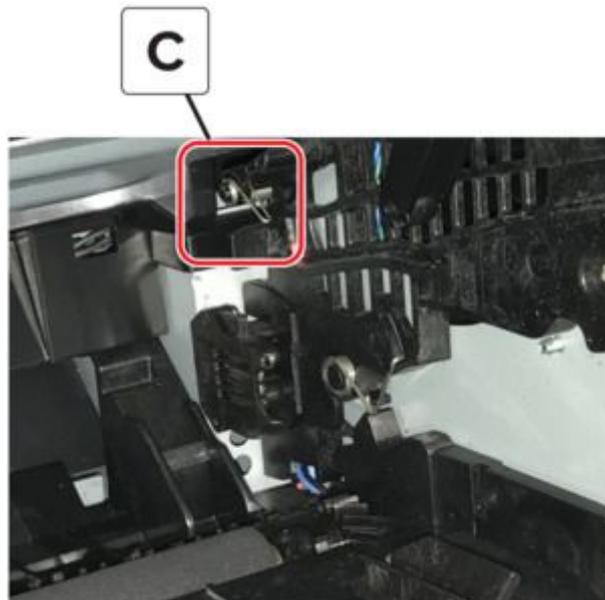
5. Check the high voltage metal contacts on the imaging unit for damage.
6. Make sure that the connections between the controller board and the power supply are properly connected.

Repeating defects

Identify which part or supply needs replacement by measuring the distance between repeating defects that appear on the page.

1. Using the Print Quality Test Pages, check if the distance between the repeating defects is equal to any of the following:

    ◦ 97 mm (3.82 in.)
    ◦ 47 mm (1.85 in.)
    ◦ 38 mm (1.5 in.)

    If the distance between the repeating defects is equal to the listed measurements, then check the imaging unit for damage, contamination, and improper installation.
2. Check if the distance between the repeating defects is equal to 3.15 inches (85 mm).

    If the distance between the repeating defects is equal to 3.15 inches (85 mm), then check the fuser for damage, contamination, and improper installation. For more information, see .See "Fuser removal" on page 487
3. Check the transfer roller for damage, contamination, and improper installation. For more information, see See "Transfer roller removal" on page 435.

Skewed print

Stop seeing crooked or skewed images on your prints. Fix the problem with these easy steps.

NOTES
Before doing this print quality check, see See "Initial print quality check" on page 72.

1. Make sure that the guides in the tray are in the correct position for the paper loaded.
2. Check the tray pick roller or MPF pick roller for wear, damage, and contamination. For more information, see See "MPF pick roller and separator pad removal" on page 440 andSee "Pick roller removal" on page 460.
3. Do a print test. Enter the Diagnostics menu, and then touch **PRINT TESTS > Tray [x]**.

NOTES
[x] refers to the tray where the skewed prints are printed come from.

4. Adjust the margins. Enter the Diagnostics menu, and then touch **REGISTRATION**.
5. Perform the paper skew adjustment. See See "Printhead adjustment" on page 366.

Streaked vertical lines appear on prints

Checking the toner and the imaging unit may help solve the issue of seeing vertical dark lines or streaks on your prints.

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 their supplier.

2. Check the imaging unit for damage, contamination, and improper installation.
3. Check the fuser for the following:

   1. Damage, contamination and improper installation
   2. Debris on the rollers and belts

Horizontal light bands

Prevent horizontal lines from appearing across your prints by checking the toner cartridge or the imaging unit.

NOTES
Before doing this print quality check, see .

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 their supplier.

2. Restart the printer.
3. Check the imaging unit contact block (A), including the white and red wires, for damage and improper installation.
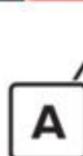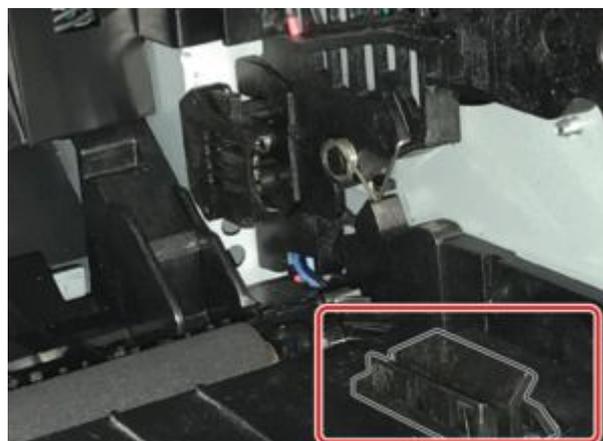
4. Check the power supply for damage, contamination, and improper installation. For more information, see .See "Power supply removal" on page 450

Vertical light bands

Check the toner cartridge if you see white bands or blank areas running across the page in vertical direction.

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, refer the users to their supplier.

2. Check the printhead for the following:

   1. Clean the printhead lens. See See "Cleaning the printhead mirror" on page 582.

      > **NOTES**
      > This step applies only to printer models that are installed with a galvo printhead. To determine whether the printhead is galvo, check the serial number of the printer. The sixth digit character must be in the 0–9 or B–N range. For example: 4514 20HH 007CR.

   2. Check for damage, contamination, and improper installation. For more information, see the .See "Printhead removal" on page 494
3. Check the imaging unit for damage, contamination, and improper installation.

Vertical dark bands

Prevent vertical dark bands from appearing across your prints by checking the toner cartridge.

NOTES
Before doing this print quality check, see .

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 their supplier.

2. Check the imaging unit for damage, contamination, and improper installation.
3. Check for any packing material left on the imaging unit, including the red plastic separator (A).
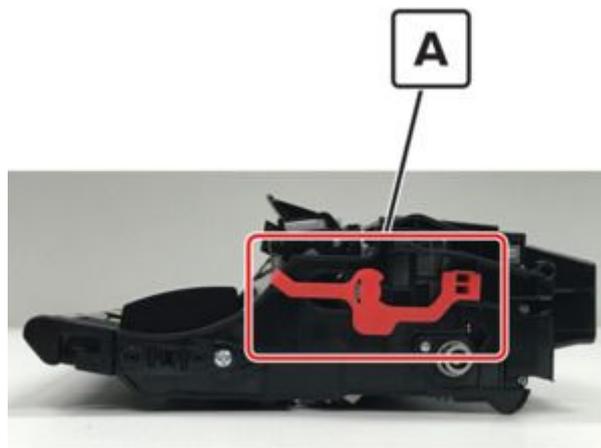
NOTES

> You may need a pair of pliers to remove a piece of broken plastic inside the imaging unit.

4. Make sure to block the bright light from entering the right side of the printer.

> **NOTES**
> In cases where the printer cannot be moved or relocated, add a cover to the fan inlet vent to block the light from entering the printer, or contact the next level of support.

Vertical dark streaks with print missing

Prevent vertical dark streaks with missing images on your prints by checking the imaging unit and toner cartridge.
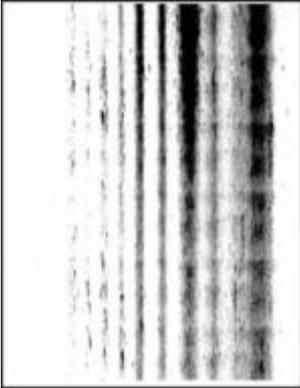

NOTES
Before doing this print quality check, see See "Initial print quality check" on page 72.

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 their supplier.

2. Check for any packing material left on the imaging unit, including the red plastic separator (A).
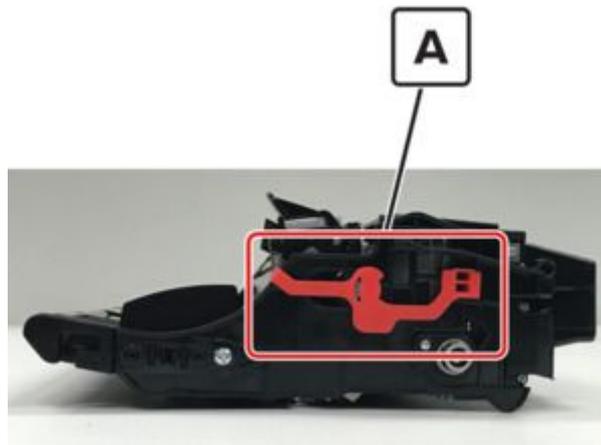
NOTES

> You may need a pair of pliers to remove a piece of broken plastic inside the imaging unit.

3. Check the charge roller contact (B) on the right side of the imaging unit for damage and contamination.
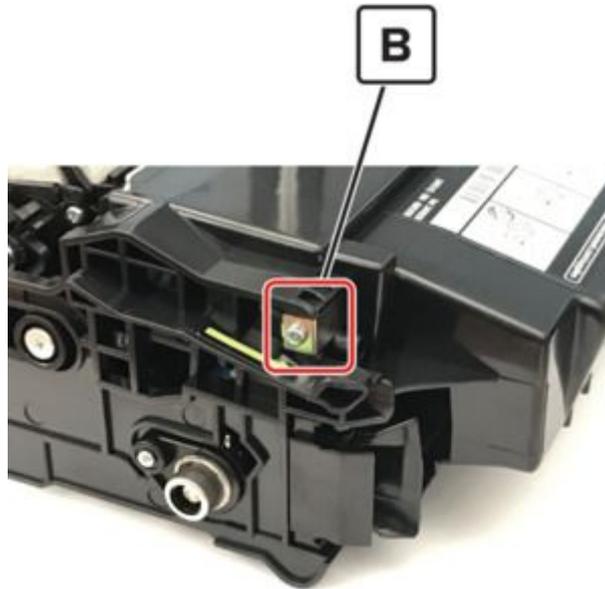
4. Check if the imaging unit contacts (C) are contaminated or bent out of proper position.
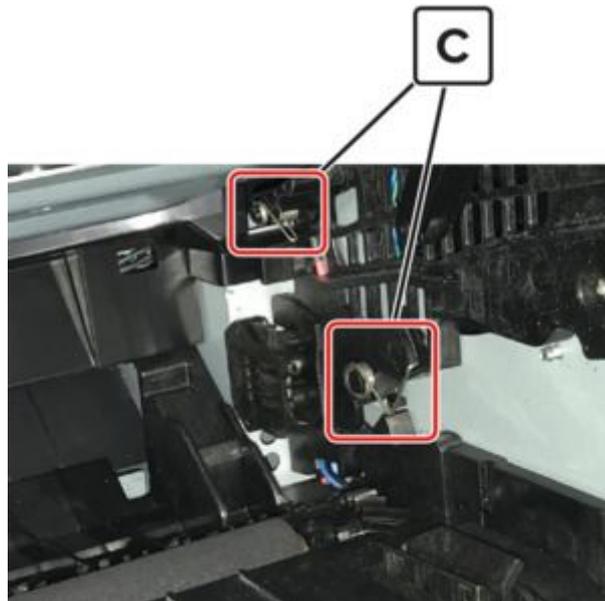
5. Check the imaging unit for damage, contamination, and improper installation.
6. Make sure that the connections between the controller board and the power supply are properly connected.
7. Check the power supply for damage, contamination, and improper installation. For more information, see .

White streaks and voided areas

Are there vertical white lines or voids on your prints? Check the toner and specify the correct paper setting to resolve this print quality issue.


NOTES
Before doing this print quality check, see See "Initial print quality check" on page 72.

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, do not replace the imaging unit. Refer the users to their supplier.

2. From the home screen, do the following:

   ◦ Set the paper type and weight in the Paper menu to match the paper loaded. Touch **Settings > Paper**.
   ◦ Update the firmware to the latest version available.
   ◦ Enter the Diagnostics menu, and then change the EngSetting 14 value to 48.

      NOTES
      You can also change the setting through a bundle file or NPA command.

   ◦ Set the Quiet Mode to **Off**. Touch **Settings > Device > Maintenance > Configuration Menu**.
   ◦ Review the Event Log Summary sheets and check if either error code 31.46 or 31.66 occurred for the imaging unit. If they did, check if they also occurred for the toner cartridge.
3. Check the shutter tab (A) on the toner cartridge for signs of damage.
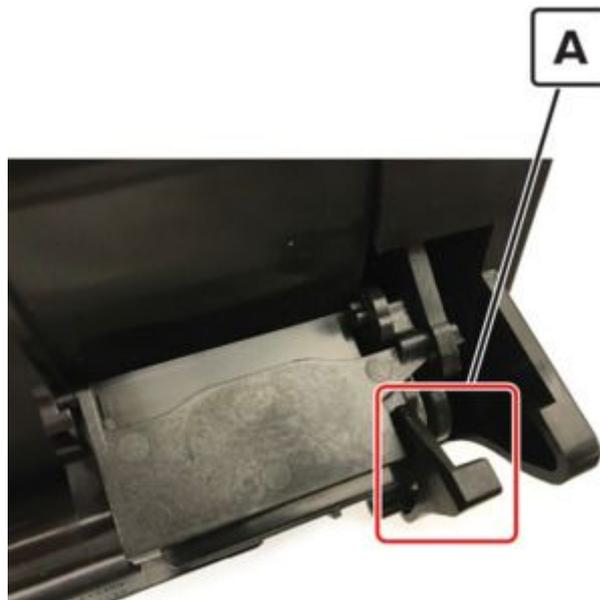
4. Check if the imaging unit contacts (B) are contaminated or bent out of proper position.
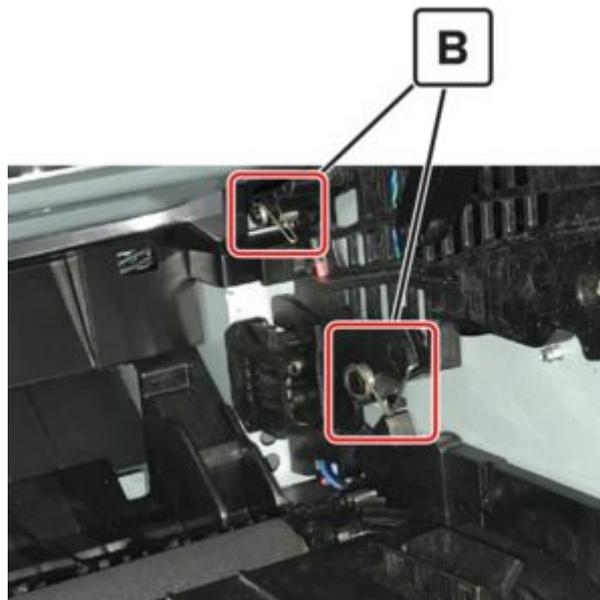
5. Check the toner cartridge and imaging unit for damage, contamination, and improper installation.
6. Make sure that the connections between the controller board and the power supply are properly connected.
7. Check the power supply for damage, contamination, and improper installation. For more information, see .See "Power supply removal" on page 450
8. Clean the printhead lens. For more information, see See "Cleaning the printhead mirror" on page 582.

> **NOTES**
> This is step applies only to printer models that are installed with a galvo printhead. To determine whether the printhead is galvo, check the serial number of the printer. The sixth digit character must be in the 0–9 or B–N range. For example: 4514 20HH 007CR.

9. Check the printhead for damage, contamination, and improper installation. For more information, see .See "Printhead removal" on page 494

Fine lines such as Chinese characters are not printed correctly

Are the fine lines or special characters not printed correctly? Check the toner cartridge and adjust the toner darkness of your printer.

> **NOTES**
> Before doing this print quality check, see See "Initial print quality check" on page 72.

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 their supplier.

2. From the home screen, do the following:

    1. Touch **Settings > Print > Quality > Pixel Boost > Fonts**.
    2. Increase the toner darkness to 7. Touch **Settings > Print > Quality > Toner Darkness**.

        > **NOTES**
        > Adjusting the Toner Darkness setting to 7 results in a slightly lighter print.

        > **NOTES**
        > You may leave the Toner Darkness value at 8 in order to maintain the darkness that you are used to, but this will result in decreased toner yield.

Text or images cut off

Stop seeing clipped pages or cut off images on your prints. Follow these steps to solve the issue.

Compressed images appear on prints

Stop seeing shrunk or squeezed images on your prints. Follow these steps to solve the issue.

NOTES
Before doing this print quality check, see See "Initial print quality check" on page 72.

1. Make sure that the white photoconductor coupler (A) is firmly connected to the imaging unit and does not freely rotate.
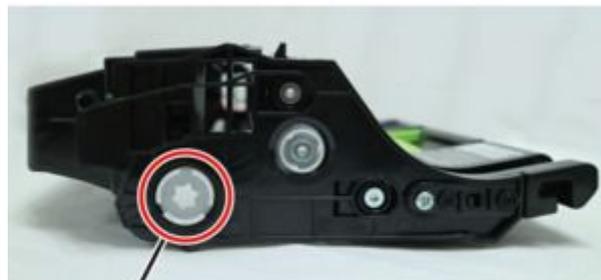
2. Check the imaging unit for damage, contamination, and improper installation.
3. Check the main drive gearbox for damage, contamination, and improper installation. For more information, see See "Main drive gearbox removal" on page 372.

Incorrect margins on prints

Are the margins wrong on your printed page? Check the positions of the paper guides in the tray and specify the correct paper size in the computer or the printer.

NOTES
Before doing this print quality check, see See "Initial print quality check" on page 72.

1. Make sure that the guides in the tray are in the correct position for the paper loaded.
2. From the home screen, do the following:

    ◦ Set the paper size in the Paper menu to match the paper loaded.
    ◦ Change the paper loaded to match the paper size specified in the tray settings.
    ◦ Depending on the operating system, specify the paper size from Printing Preferences or Print dialog.
    ◦ Adjust the margins as necessary. Enter the Diagnostics menu, and then touch **Registration**.

Toner rubs off

Prevent the toner from rubbing off easily from your prints by following these steps.

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 their supplier.

2. From the home screen, set the paper type, texture, and weight in the Paper menu to match the paper loaded.
3. Check the fuser for damage, contamination, and improper installation. For more information, see .See "Fuser removal" on page 487
4. Make sure that the connections between the controller board and the power supply are properly connected.
5. Check the power supply for damage, contamination, and improper installation. For more information, see .See "Power supply removal" on page 450

Mottled prints or dots

Rough paper may be causing the spots or blotches that you see on your prints. Find out how you can prevent this printing issue from happening again.

> **NOTES**
> Before doing this print quality check, see See "Initial print quality check" on page 72.

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 their supplier.

2. Check the status of the imaging unit.

   1. From the home screen, touch **Status/supplies**.
   2. Touch **View Supplies**.
3. Check the imaging unit for damage, contamination, and improper installation.
4. Using an approved toner vaccum cleaner, completely clean the printer, toner cartridge, and imaging unit of toner contamination.
5. Check the transfer roller for damage, contamination, and improper installation. For more information, see See "Transfer roller removal" on page 435.

Fixing scan quality issues

Dark image quality using the ADF or scanner

Are your scan copies too dark? Try performing a color adjust.

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

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

   ◦ ADF glass
   ◦ Scanner glass
   ◦ ADF glass pad
   ◦ Scanner glass pad
   ◦ ADF glass pad in door C
   ◦ ADF glass in door C

   For more information, see See "Cleaning the scanner" on page 571.
4. Check the controller board for damage and improper installation. For more information, see See "Controller board removal" on page 402.

Vertical lines (process direction using the ADF)

Check the ADF or the flatbed scanner if you see lines running across the scan copy in vertical direction.

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

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

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

   For more information, see See "Cleaning the scanner" on page 571.
3. Check the ADF glass on the scanner for cracks or damage.
4. Check in side the flatbed scanner for dust and contamination.
5. Identify which side of the paper the scan defect occurs. Perform a duplex copy job using the ADF.

   - If the scan defect occurs on the front side, then check the flatbed scanner for damage and improper installation. For more information, see See "Flatbed scanner removal" on page 506.
   - If the scan defect occurs on the back side, then check the ADF for damage and improper installation. For more information, see See "ADF removal" on page 503.

Spots using the flatbed scanner

A damaged scanner glass may be causing the spots or blotches that you see on your scan copies. Find out how you can prevent this printing issue from happening again.

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

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

   - Scanner glass
   - Scanner glass pad

   For more information, see See "Cleaning the scanner" on page 571
3. Check the scanner glass pad for damage and improper installation. For more information, see See "Scanner glass pad removal" on page 496.
4. Check inside the flatbed scanner for dust and contamination.
5. Check the flatbed scanner for damage and improper installation. For more information, see See "Flatbed scanner removal" on page 506.

ADF skew

Stop seeing crooked or skewed images on your scan copies. Fix the problem with these easy steps.

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

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

   > **NOTES**
   > The guides in the ADF tray must match the width of the document.

4. Make sure that the ADF paper path is free of debris and obstruction.
5. Make sure that the ADF top cover is properly closed.
6. Enable the ADF electronic deskew setting. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > ADF Deskew > ADF Electronic Deskew > On**.
7. Check the ADF pick roller and separator roller for wear and damage. For more information, see See "ADF rollers removal" on page 500.

Paper damage using the ADF

Prevent paper damage while using the ADF with these easy steps.

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

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

2. Make sure that the ADF paper path is free of debris and obstruction.
3. Make sure that the ADF top cover is properly closed.
4. Check the ADF pick roller and separator roller for wear and damage. For more information, see See "ADF rollers removal" on page 500.

Blank page copy

Stop blank or white pages from appearing on your scan copies by checking the orientation of your document.

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

   If the test page is blank, then resolve the print quality defect. For more information, see See "Blank pages" on page 76.
2. Make sure that the orientation of the document is correct.

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

3. Make sure that the connections between the ADF and the controller board are properly connected.
4. Make sure that the connections between the flatbed scanner and the controller board are properly connected.
5. Check the ADF and its FFC for damage and improper Installation. For more information, see See "ADF removal" on page 503.
6. Check the flatbed scanner and its FFC for damage and improper Installation. For more information, see See "Flatbed scanner removal" on page 506.
7. Check the controller board for damage and improper installation. For more information, see See "Controller board removal" on page 402.

Solid black page copy

Are you seeing completely black scan copies? Check if the ADF glass or scanner glass or needs to be cleaned.

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

   If the test page is solid black, then resolve the print quality defect. For more information, see See "Solid black pages" on page 86.
2. Make sure that the following parts are clean:

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

   For more information, see See "Cleaning the scanner" on page 571.
3. Make sure that the connections between the ADF and the controller board are properly connected.
4. Make sure that the connections between the flatbed scanner and the controller board are properly connected.
5. Check the ADF and its FFC for damage and improper Installation. For more information, see See "ADF removal" on page 503.
6. Check the flatbed scanner and its FFC for damage and improper Installation. For more information, see See "Flatbed scanner removal" on page 506.
7. Check the controller board for damage and improper installation. For more information, see See "Controller board removal" on page 402.

Paper jams

Avoiding jams

Find out how to prevent paper from getting stuck in the printer.

Load paper properly

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

Correct and incorrect loading of paper

Correct loading of paper	Incorrect loading of paper
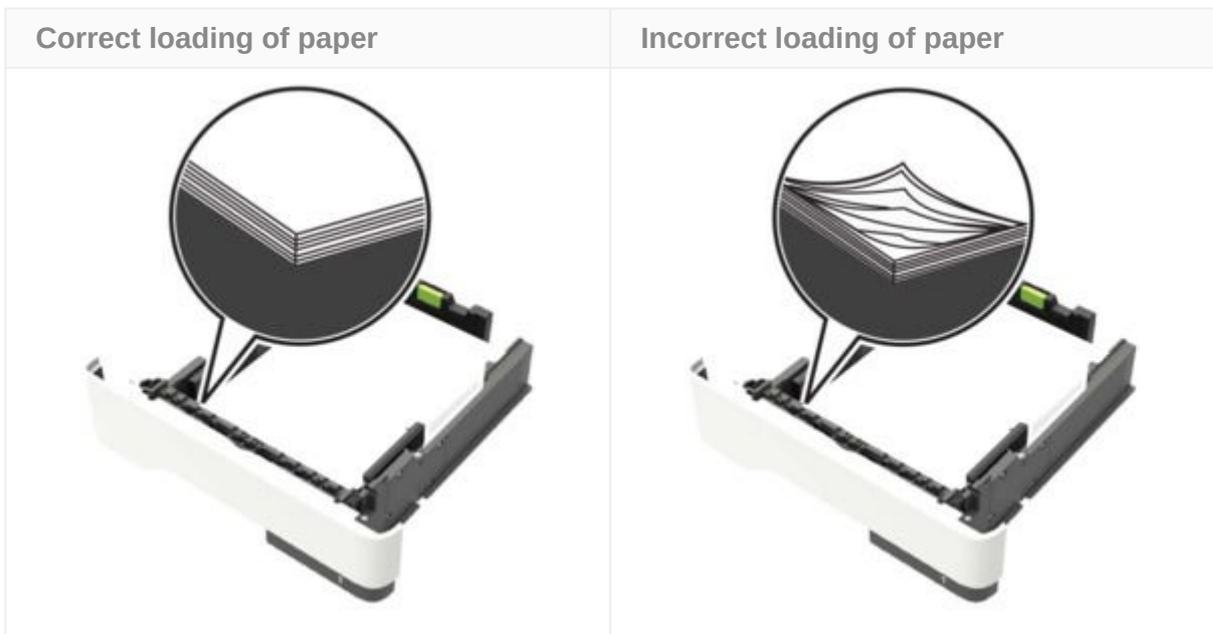
- Do not load or remove a tray while the printer is printing.
- Do not load too much paper. Make sure that the stack height is below the maximum paper fill indicator.
- Do not slide paper into the tray. Load paper as shown in the illustration.
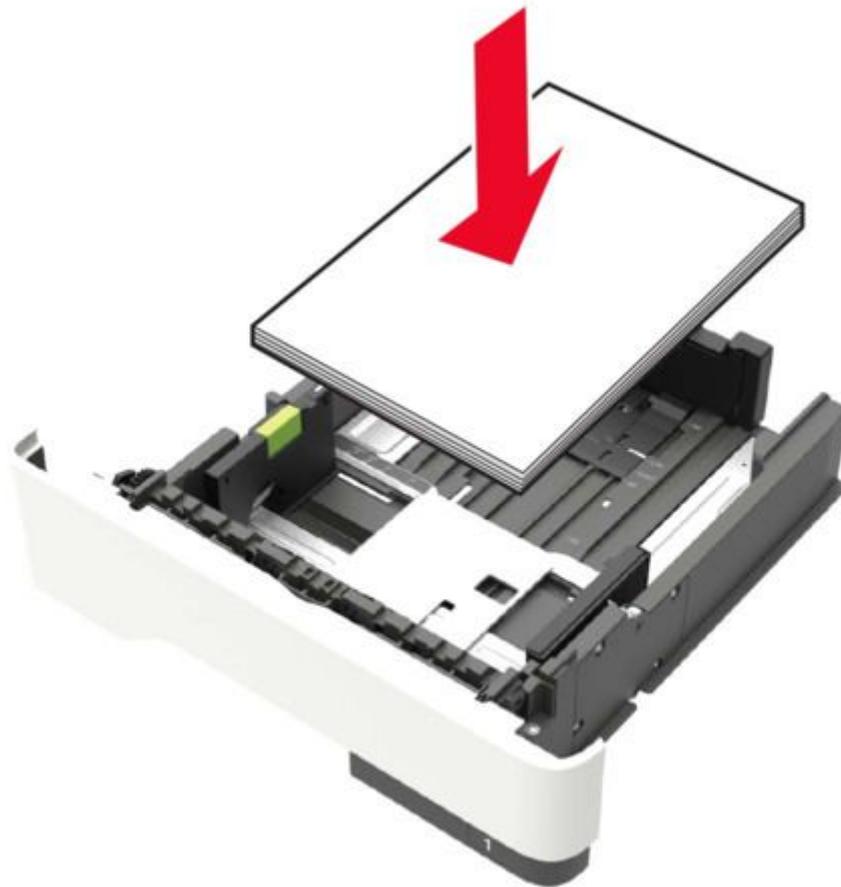
- Make sure that the paper guides are positioned correctly and are not pressing tightly against the paper or envelopes.
- Push the tray firmly into the printer after loading paper.

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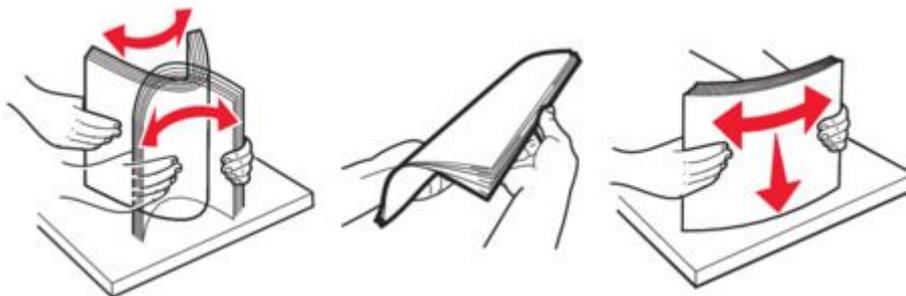
- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure that the paper size and type are set correctly on the computer or printer control panel.
- Store paper according to manufacturer recommendations.

Identifying jam locations

Locate each paper jam correctly for easier tracking and clearing of jams.

- 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.
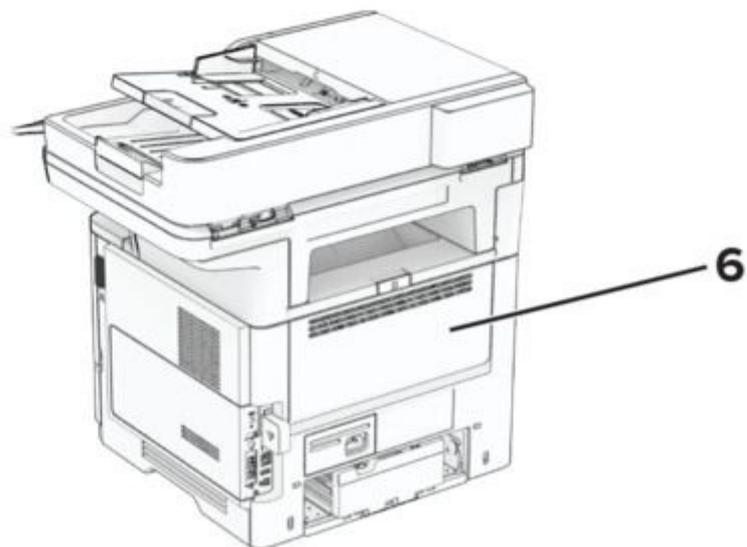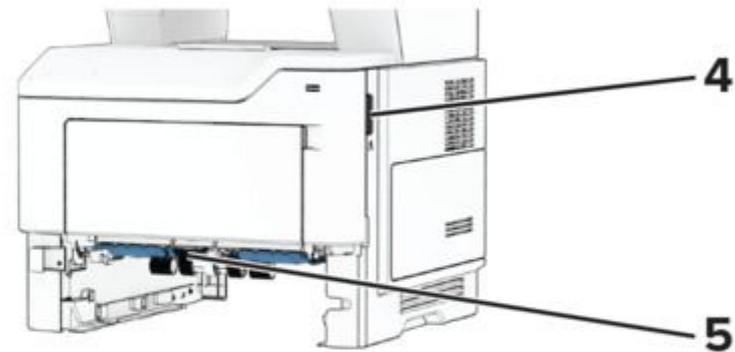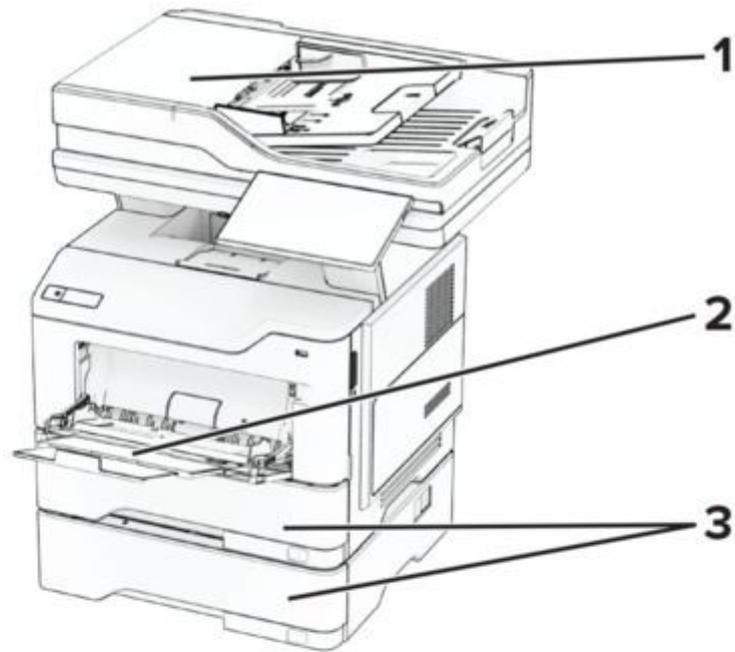
Jam locations

	Jam locations
1	Automatic document feeder
2	Multipurpose feeder
3	Trays
4	Door A
5	Duplex unit
6	Door B

200 paper jams

200 paper jam messages

200 paper jam messages

Error code	Description	Action
200.03	Paper fed from the MPF was detected later than expected or was never detected at the sensor (input).	See See "Sensor (input): Paper failed to arrive from the MPF jam service check" on page 123.
200.04	Paper fed from the MPF cleared the sensor (input) earlier than expected.	See See "Sensor (input): Paper cleared too early from the MPF jam service check" on page 125.
200.05	Paper fed from the MPF never cleared the sensor (input).	See See "Sensor (input): Paper failed to clear from the MPF jam service check" on page 126.
200.06	Paper fed from the MPF was detected later than expected or was never detected at the sensor (input).	See See "Sensor (input): Paper failed to arrive from the MPF jam service check" on page 123.
200.12	Paper fed from tray 1 was detected earlier than expected at the sensor (input).	See See "Sensor (input): Paper arrived too early or failed to arrive jam service check" on page 128.
200.13	Paper fed from tray 1 was detected later than expected or was never detected at the sensor (input).	See See "Sensor (input): Paper arrived too early or failed to arrive jam service check" on page 128.
200.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected.	See See "Sensor (input): Paper cleared too early jam service check" on page 130.
200.15	Paper fed from tray 1 never cleared the sensor (input).	See See "Sensor (input): Paper failed to clear jam service check" on page 132.

Error code	Description	Action
200.16	Paper fed from tray 1 was picked but it never reached the sensor (input).	See See "Tray 1 pick error service check" on page 121.
200.22	Paper fed from tray 2 was detected earlier than expected at the sensor (input).	See See "Sensor (input): Paper arrived too early from optional tray jam service check" on page 134.
200.23	Paper fed from tray 2 was detected later than expected or was never detected at the sensor (input).	See See "Sensor (input): Paper failed to arrive from optional tray jam service check" on page 136.
200.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected.	See See "Sensor (input): Paper cleared too early from optional tray jam service check" on page 137.
200.25	Paper fed from tray 2 never cleared the sensor (input).	See See "Sensor (input): Paper failed to clear from optional tray jam service check" on page 138.
200.32	Paper fed from tray 3 was detected earlier than expected at the sensor (input).	See See "Sensor (input): Paper arrived too early from optional tray jam service check" on page 134.
200.33	Paper fed from tray 3 was detected later than expected or was never detected at the sensor (input).	See See "Sensor (input): Paper failed to arrive from optional tray jam service check" on page 136.
200.34	Paper fed from tray 3 cleared the sensor (input) earlier than expected.	See See "Sensor (input): Paper cleared too early from optional tray jam service check" on page 137.
200.35	Paper fed from tray 3 never cleared the sensor (input).	See See "Sensor (input): Paper failed to clear from optional tray jam service check" on page 138.
200.42	Paper fed from tray 4 was detected earlier than expected at the sensor (input).	See See "Sensor (input): Paper arrived too early from optional tray jam service check" on page 134.

Error code	Description	Action
200.43	Paper fed from tray 4 was never detected at the sensor (input).	See See "Sensor (input): Paper failed to arrive from optional tray jam service check" on page 136.
200.44	Paper fed from tray 4 cleared the sensor (input) earlier than expected.	See See "Sensor (input): Paper cleared too early from optional tray jam service check" on page 137.
200.45	Paper fed from tray 4 never cleared the sensor (input).	See See "Sensor (input): Paper failed to clear from optional tray jam service check" on page 138.
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See See "Sensor (input): Static jam service check" on page 139.
200.95	Unexpected page showed up when flushing the paper path.	See See "Sensor (input): Static jam service check" on page 139.

Tray 1 pick error service check

Check the tray insert and its parts for damage and improper operation.

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs only when using tray 1, then do the following:

   1. Check the pick roller for wear, damage, contamination, and improper installation.
   2. Check the separator pad or separator roller for wear, damage, contamination, and improper installation. For more information, see See "Pick roller removal" on page 460.

      Check the separator pad or separator roller for wear, damage, contamination, and improper installation.

      > **NOTES**
      > The MS531 and MS63x printer models have different pick and tray mechanisms. Choose the appropriate part for each printer model. For more information, see See "Pick roller removal" on page 460 or See "" on page 0.

6. Check the pick arm and pick roller for damage and improper installation. For more information, see See "Pick roller removal" on page 460.

   Check the pick arm and pick roller for damage and improper installation.

   > **NOTES**
   > The MS531 and MS63x printer models have different pick and tray mechanisms. Choose the appropriate part for each printer model. For more information, see See "Pick roller removal" on page 460 or See "" on page 0.

7. The following instructions are not applicable to the MS531 printer model:

   1. Check the tray insert for damage and improper installation.
   2. Check the tray guides for damage and improper operation.
   3. Check the lift plate for damage and improper operation.
   4. Check the tray gears for wear and damage.

Most likely parts to replace

Customer replaceable unit

- Pick rollers

  - For the part number, go to See "Rollers" on page 603.

    For the part number, go to See "" on page 0 or See "" on page 0.

Field replaceable unit

- Pick roller assembly

    ◦ For the part number, go to See "Rollers" on page 603.

    For the part number, go to See "" on page 0 or See "" on page 0.

    ◦ For the removal procedure, go to See "Pick roller removal" on page 460.

    For the removal procedure, go to See "Pick roller removal" on page 460 or See "" on page 0.

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

Resolve a paper jam caused by paper, coming from the MPF, failing to arrive at the sensor (input).

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs only when using the MPF, then do the following:

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

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
        2. Select **MPF pick**.
    3. Check the MPF gearbox for wear, damage, and improper mesh. For more information, see .See "MPF gearbox removal" on page 375
6. If the paper jam error occurs regardless of the source tray, then do the following:

    1. Identify the location of the leading edge of the paper.
    2. 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. For more information, see See "Transfer roller removal" on page 435.
    3. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see .See "Fuser removal" on page 487

Most likely parts to replace

Field replaceable unit

- MPF pick roller and separator roller

    ◦ For the part number, go to See "Rollers" on page 603.

    For the part number, go to See "" on page 0.
    ◦ For the removal procedure, go to See "MPF pick roller and separator pad removal" on page 440.
- MPF gearbox

    ◦ For the part number, go to See "Paper feed" on page 601.

    For the part number, go to See "" on page 0.
    ◦ For the removal procedure, go to See "MPF gearbox removal" on page 375.

    For the removal procedure, go to See "" on page 0.
- Transfer roller

- For the part number, go to See "Rollers" on page 603.

  For the part number, go to See "" on page 0.
  - For the removal procedure, go to See "Transfer roller removal" on page 435.
- Fuser

  - For the part number, go to See "Electronics" on page 593.

  For the part number, go to See "" on page 0.
  - For the removal procedure, go to See "Fuser removal" on page 487.

  For the removal procedure, go to See "" on page 0.

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

Resolve a paper jam caused by paper, coming from the MPF, clearing too early at the sensor (input).

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 See "Avoiding jams" on page 113.
5. Make sure that the paper path is free of debris and obstructions.
6. Perform a POR.
7. Check if the paper jam error occurs when using other trays.
8. If the paper jam error occurs regardless of the source tray, then do the following:

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

      1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
      2. Find the sensor (duplex and input).
   3. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
   4. Check the sensor (duplex and input) for damage and improper installation. For more information, see See "Sensors (duplex and input) removal" on page 457.

Most likely parts to replace

Field replaceable unit

- Sensor (duplex and input)

  - For the part number, go to See "Sensors 2" on page 599.

    For the part number, go to See "" on page 0.
  - For the removal procedure, go to See "Sensors (duplex and input) removal" on page 457.

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs only when using the MPF, then do the following:

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

      1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
      2. Select **MPF pick**.
   3. Check the MPF gearbox for wear, damage, and improper mesh. For more information, see .See "MPF gearbox removal" on page 375
6. If the paper jam error occurs regardless of the source tray, then do the following:

   1. Identify the location of the leading edge of the paper.
   2. 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. For more information, see See "Transfer roller removal" on page 435.
   3. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see .See "Fuser removal" on page 487

Most likely parts to replace

Field replaceable unit

- MPF pick roller and separator roller

    ○ For the part number, go to See "Rollers" on page 603.

    For the part number, go to See "" on page 0.
    ○ For the removal procedure, go to See "MPF pick roller and separator pad removal" on page 440.
- MPF gearbox

    ○ For the part number, go to See "Paper feed" on page 601.

    For the part number, go to See "" on page 0.
    ○ For the removal procedure, go to See "MPF gearbox removal" on page 375.

    For the removal procedure, go to See "" on page 0.
- Transfer roller

    ○ For the part number, go to See "Rollers" on page 603.

    For the part number, go to See "" on page 0.
    ○ For the removal procedure, go to See "Transfer roller removal" on page 435.

- Fuser

  - For the part number, go to .

    For the part number, go to .
  - For the removal procedure, go to .

    For the removal procedure, go to .

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. Check the pick arm and pick roller for damage and improper installation. For more information, see See "Pick roller removal" on page 460.

   Check the pick arm and pick roller for damage and improper installation.

   > **NOTES**
   > The MS531 and MS63x printer models have different pick and tray mechanisms. Choose the appropriate part for each printer model. For more information, see See "Pick roller removal" on page 460 or See "" on page 0.

6. Do the following instructions:

   The following instruction applies to only the MS63x printer models.

   1. Make sure that the pick/lift motor gearbox is functional. Do the following:

      1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments › Motors tests**.
      2. Select **Motor (tray 1 pick/lift)**.
   2. Make sure that the connections between the motor (pick/lift) and the controller board are properly connected.
   3. Check the pick/lift motor gearbox for damage, contamination, and improper installation. For more information, see See "Pick/lift motor gearbox removal" on page 471.
7. The following instruction applies to only the MS531 printer model:

   1. Make sure that the pick roller clutch is functional. Do the following:

      1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments › Motors tests**.
      2. Select **Clutch**.
   2. Make sure that the connections between the pick roller clutch and the controller board are properly connected.
   3. Check the pick roller clutch for damage, contamination, and improper installation. For more information, see See "Pick roller clutch removal" on page 389.

Most likely parts to replace

Customer replaceable unit

- Pick rollers

  ○ For the part number, go to See "Rollers" on page 603.

Field replaceable unit

- Pick/lift motor gearbox

  ◦ For the part number, go to See "Motors" on page 595.
  ◦ For the removal procedure, go to See "Pick/lift motor gearbox removal" on page 471.

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. Check the pick roller for wear, damage, contamination, and improper installation. For more information, see See "Pick roller removal" on page 460.

   Check the pick roller for wear, damage, contamination, and improper installation.

   > **NOTES**
   > The MS531 and MS63x printer models have different pick and tray mechanisms. Choose the appropriate part for each printer model. For more information, see See "Pick roller removal" on page 460 or See "" on page 0.

6. Make sure that the reverse solenoid is functional. Do the following:

   1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments › Motors tests** .
   2. Select **Redrive solenoid**.
7. Check the reverse solenoid and its actuator for wear, damage, and improper operation. For more information, see .See "Reverse solenoid removal" on page 383
8. Check the redrive for wear, damage, and improper mesh. For more information, see .See "Redrive removal" on page 486

Most likely parts to replace

Customer replaceable unit

- Pick rollers

  - For the part number, go to See "Rollers" on page 603.

    For the part number, go to See "" on page 0 or See "" on page 0.

Field replaceable unit

- Reverse solenoid

  - For the part number, go to See "Motors" on page 595.

    For the part number, go to See "" on page 0.
  - For the removal procedure, go to See "Reverse solenoid removal" on page 383.

    For the removal procedure, go to See "" on page 0.
- Redrive

  - For the part number, go to See "Rollers" on page 603.

For the part number, go to .
- For the removal procedure, go to .

For the removal procedure, go to .

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs only when using tray 1, then do the following:

    1. Check the pick roller for wear, damage, contamination, and improper installation.
    2. Check the separator pad or separator roller for wear, damage, contamination, and improper installation. For more information, see See "Pick roller removal" on page 460.

       Check the separator pad or separator roller for wear, damage, contamination, and improper installation.

    > **NOTES**
    > The MS531 and MS63x printer models have different pick and tray mechanisms. Choose the appropriate part for each printer model. For more information, see See "Pick roller removal" on page 460 or See "" on page 0.

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

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

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        2. Find the sensor (duplex and input).
    3. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    4. Check the sensor (duplex and input) for damage and improper installation. For more information, see See "Sensors (duplex and input) removal" on page 457.
7. If the paper jam error occurs regardless of the source tray, then do the following:

    1. Identify the location of the leading edge of the paper.
    2. 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. For more information, see See "Transfer roller removal" on page 435.
    3. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see .See "Fuser removal" on page 487

Most likely parts to replace

Customer replaceable unit

- Pick rollers

    ◦ For the part number, go to See "Rollers" on page 603.

      For the part number, go to See "" on page 0 or See "" on page 0.

Field replaceable unit

- Sensor (duplex and input)

    ◦ For the part number, go to See "Sensors 2" on page 599.

      For the part number, go to See "" on page 0.
    ◦ For the removal procedure, go to See "Sensors (duplex and input) removal" on page 457.
- Transfer roller

    ◦ For the part number, go to See "Rollers" on page 603.

      For the part number, go to See "" on page 0.
    ◦ For the removal procedure, go to See "Transfer roller removal" on page 435.
- Fuser

    ◦ For the part number, go to See "Electronics" on page 593.

      For the part number, go to See "" on page 0.
    ◦ For the removal procedure, go to See "Fuser removal" on page 487.

      For the removal procedure, go to See "" on page 0.

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs regardless of the source tray, then do the following:

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

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        2. Find the sensor (duplex and input).
    3. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    4. Check the sensor (duplex and input) for damage and improper installation. For more information, see See "Sensors (duplex and input) removal" on page 457.
6. Check the pick arm and pick roller for damage and improper installation. For more information, see See "Pick roller removal" on page 460.

    Check the pick arm and pick roller for damage and improper installation.

    > **NOTES**
    > The MS531 and MS63x printer models have different pick and tray mechanisms. Choose the appropriate part for each printer model. For more information, see See "Pick roller removal" on page 460 or See "" on page 0.

7. The following instruction applies to only the MS63x, MX53x, and MX63x printer models.

    1. Make sure that the pick/lift motor gearbox is functional. Do the following:

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
        2. Select **Motor (tray 1 pick/lift)**.
    2. Make sure that the connections between the motor (pick/lift) and the controller board are properly connected.
    3. Check the pick/lift motor gearbox for damage, contamination, and improper installation. For more information, see .See "Pick/lift motor gearbox removal" on page 471
8. The following instruction applies to only the MS531 printer model:

    1. Make sure that the pick roller clutch is functional. Do the following:

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
        2. Select **Clutch**.
    2. Make sure that the connections between the pick roller clutch and the controller board are properly connected.
    3. Check the pick roller clutch for damage, contamination, and improper installation. For more information, see See "Pick roller clutch removal" on page 389.

Most likely parts to replace

Field replaceable unit

- Sensor (duplex and input)

  ◦ For the part number, go to See "Sensors 2" on page 599.

    For the part number, go to See "" on page 0.
  ◦ For the removal procedure, go to See "Sensors (duplex and input) removal" on page 457.

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:

    1. Check the pick roller for wear, damage, contamination, and improper installation.
    2. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
    3. 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:

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

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        2. Find the sensor (duplex and input).
    3. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    4. Check the sensor (duplex and input) for damage and improper installation. For more information, see See "Sensors (duplex and input) removal" on page 457.
7. If the paper jam error occurs regardless of the source tray, then do the following:

    1. Identify the location of the leading edge of the paper.
    2. 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. For more information, see See "Transfer roller removal" on page 435.
    3. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see .See "Fuser removal" on page 487

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 > 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 See "Avoiding jams" on page 113.
5. Make sure that the paper path is free of debris and obstructions.
6. Perform a POR.
7. Check if the paper jam error occurs when using other trays.
8. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:

   1. Check the pick roller for wear, damage, contamination, and improper installation.
   2. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
   3. 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 See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:

    1. Check the pick roller for wear, damage, contamination, and improper installation.
    2. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
    3. 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:

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

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        2. Find the sensor (duplex and input).
    3. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    4. Check the sensor (duplex and input) for damage and improper installation. For more information, see See "Sensors (duplex and input) removal" on page 457.
7. If the paper jam error occurs regardless of the source tray, then do the following:

    1. Identify the location of the leading edge of the paper.
    2. 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. For more information, see See "Transfer roller removal" on page 435.
    3. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see .See "Fuser removal" on page 487

Sensor (input): Static jam service check

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs regardless of the source tray, then do the following:

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

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        2. Find the sensor (duplex and input).
    3. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    4. Check the sensor (duplex and input) for damage and improper installation. For more information, see See "Sensors (duplex and input) removal" on page 457.

202 paper jams

202 paper jam messages

202 paper jam messages

Error code	Description	Action
202.03	Paper fed from the MPF never reached the sensor (fuser exit).	See See "Sensor (fuser exit): Paper failed to arrive from MPF jam service check" on page 142.
202.05	Paper fed from the MPF never cleared the sensor (fuser exit).	See See "Sensor (fuser exit): Paper failed to clear jam service check" on page 144.
202.13	Paper fed from tray 1 never reached the sensor (fuser exit).	See See "Sensor (fuser exit): Paper failed to arrive jam service check" on page 143.
202.15	Paper fed from tray 1 never cleared the sensor (fuser exit).	See See "Sensor (fuser exit): Paper failed to clear jam service check" on page 144.
202.23	Paper fed from tray 2 never reached the sensor (fuser exit).	See See "Sensor (fuser exit): Paper failed to arrive from optional tray jam service check" on page 145.
202.25	Paper fed from tray 2 never cleared the sensor (fuser exit).	See See "Sensor (fuser exit): Paper failed to clear from optional tray jam service check" on page 146.
202.33	Paper fed from tray 3 never reached the sensor (fuser exit).	See See "Sensor (fuser exit): Paper failed to arrive from optional tray jam service check" on page 145.
202.35	Paper fed from tray 3 never cleared the sensor (fuser exit).	See See "Sensor (fuser exit): Paper failed to clear from optional tray jam service check" on page 146.

Continued from page 140

Error code	Description	Action
202.43	Paper fed from tray 4 never reached the sensor (fuser exit).	See See "Sensor (fuser exit): Paper failed to arrive from optional tray jam service check" on page 145.
202.45	Paper fed from tray 4 never cleared the sensor (fuser exit).	See See "Sensor (fuser exit): Paper failed to clear from optional tray jam service check" on page 146.
202.91	Paper remains detected at the sensor (fuser exit) after the printer is turned on.	See See "Sensor (fuser exit): Static jam service check" on page 147.
202.93	The sensor (fuser exit) detected a jam during or after a flush action.	See See "Sensor (fuser exit): Static jam service check" on page 147.
202.95	Paper fed from an unknown tray never cleared the sensor (fuser exit).	See See "Sensor (fuser exit): Static jam service check" on page 147.

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs only when using the MPF, then do the following:

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

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
        2. Select **MPF pick**.
    3. Check the MPF gearbox for wear, damage, and improper mesh. For more information, see .See "MPF gearbox removal" on page 375
6. If the paper jam error occurs regardless of the source tray, then do the following:

    1. Identify the location of the leading edge of the paper.
    2. 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. For more information, see See "Transfer roller removal" on page 435.
    3. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see .See "Fuser removal" on page 487

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs only when using tray 1, then do the following:

    1. Check the pick roller for wear, damage, contamination, and improper installation.
    2. Check the separator pad or separator roller for wear, damage, contamination, and improper installation. For more information, see See "Pick roller removal" on page 460.

       Check the separator pad or separator roller for wear, damage, contamination, and improper installation.

    > **NOTES**
    > The MS531 and MS63x printer models have different pick and tray mechanisms. Choose the appropriate part for each printer model. For more information, see See "Pick roller removal" on page 460 or See "" on page 0.

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

    1. Identify the location of the leading edge of the paper.
    2. 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. For more information, see See "Transfer roller removal" on page 435.
    3. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see .See "Fuser removal" on page 487

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

1. Make sure that paper is supported and loaded properly. See .
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 other trays.
5. If the paper jam error occurs regardless of the source tray, then do the following:

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

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        2. Find the sensor (fuser).
    2. Make sure that the connections between the fuser and the controller board are properly connected.
    3. Check the fuser for wear, damage, and improper installation. For more information, see .
    4. Check the fuser actuator for wear, damage, and improper installation. For more information, see .
    5. Check the redrive for wear, damage, and improper mesh. For more information, see .

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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:

    1. Check the pick roller for wear, damage, contamination, and improper installation.
    2. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
    3. 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:

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

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
        2. Find the sensor (duplex and input).
    3. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
    4. Check the sensor (duplex and input) for damage and improper installation. For more information, see See "Sensors (duplex and input) removal" on page 457.
7. If the paper jam error occurs regardless of the source tray, then do the following:

    1. Identify the location of the leading edge of the paper.
    2. 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. For more information, see See "Transfer roller removal" on page 435.
    3. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see .See "Fuser removal" on page 487

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:

   1. Check the pick roller for wear, damage, contamination, and improper installation.
   2. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
   3. 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:

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

      1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
      2. Find the sensor (duplex and input).
   3. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
   4. Check the sensor (duplex and input) for damage and improper installation. For more information, see See "Sensors (duplex and input) removal" on page 457.
7. If the paper jam error occurs regardless of the source tray, then do the following:

   1. Identify the location of the leading edge of the paper.
   2. 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. For more information, see See "Transfer roller removal" on page 435.
   3. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. Fore more information, see .See "Fuser removal" on page 487

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:

    1. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics > Motors tests**.
    2. 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.

230 paper jams

230 paper jam messages

230 paper jam messages

Error code	Description	Action
230.03	Paper fed from the MPF never reached the sensor (duplex).	See See "Sensor (redrive): Paper (duplex job) failed to arrive jam service check" on page 150.
230.05	Paper fed from the MPF never cleared the sensor (duplex).	See See "Sensor (redrive): Paper (duplex job) failed to clear jam service check" on page 151.
230.13	Paper fed from tray 1 never reached the sensor (duplex).	See See "Sensor (redrive): Paper (duplex job) failed to arrive jam service check" on page 150.
230.15	Paper fed from tray 1 never cleared the sensor (duplex).	See See "Sensor (redrive): Paper (duplex job) failed to clear jam service check" on page 151.
230.23	Paper fed from tray 2 never reached the sensor (duplex).	See See "Sensor (redrive): Paper (duplex job) failed to arrive jam service check" on page 150.
230.25	Paper fed from tray 2 never cleared the sensor (duplex).	See See "Sensor (redrive): Paper (duplex job) failed to clear jam service check" on page 151.
230.33	Paper fed from tray 3 never reached the sensor (duplex).	See See "Sensor (redrive): Paper (duplex job) failed to arrive jam service check" on page 150.
230.35	Paper fed from tray 3 never cleared the sensor (duplex).	See See "Sensor (redrive): Paper (duplex job) failed to clear jam service check" on page 151.
230.43	Paper fed from tray 4 never reached the sensor (duplex).	See See "Sensor (redrive): Paper (duplex job) failed to arrive jam service check" on page 150.

Continued from page 148

Error code	Description	Action
230.45	Paper fed from tray 4 never cleared the sensor (duplex).	See See "Sensor (redrive): Paper (duplex job) failed to clear jam service check" on page 151.
230.52	Paper fed from tray 5 reached sensor (duplex) earlier than expected.	N/A
230.91	Paper remains detected at the sensor (duplex) after the printer is turned on.	N/A

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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. Make sure that the reverse solenoid is functional. Do the following:

    1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments › Motors tests**.
    2. Select **Redrive solenoid**.
6. Check the reverse solenoid and its actuator for wear, damage, and improper operation. For more information, see See "Reverse solenoid removal" on page 383.
7. Check the redrive for wear, damage, and improper mesh. For more information, see See "Redrive removal" on page 486.
8. Check the printed page count.

    1. Enter the Diagnostics menu, and then touch **Printer Setup**.
    2. If the page count is near 400K, then replace the duplex. For more information, see See "Duplex removal" on page 453.
9. Check the duplex paper path for jammed paper, debris, and obstructions.
10. Check the duplex rollers for debris, wear, damage, contamination, and improper installation. For more information, see See "Duplex gear kit removal" on page 392.
11. Check the duplex linkage and belt for damage and improper installation. For more information, see See "Duplex removal" on page 453.

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. If the paper jam error occurs regardless of the source tray, then do the following:

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

      1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
      2. Find the sensor (duplex and input).
   3. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
   4. Check the sensor (duplex and input) for damage and improper installation. For more information, see See "Sensors (duplex and input) removal" on page 457.
6. Check the printed page count.

   1. Enter the Diagnostics menu, and then touch **Printer Setup**.
   2. If the page count is near 400K, then replace the duplex. For more information, see .See "Duplex removal" on page 453
7. Check the duplex paper path for jammed paper, debris, and obstructions.
8. Check the duplex rollers for debris, wear, damage, contamination, and improper installation.
9. Check the duplex linkage and belt for damage and improper installation. For more information, see .See "Duplex removal" on page 453
10. Check the isolation roller for wear, damage, and contamination.

232 paper jams

232 paper jam messages

232 paper jam messages

Error code	Description	Action
232.03	Paper fed from the MPF was detected later than expected or was never detected the sensor (input) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to arrive jam service check" on page 154.
232.05	Paper fed from the MPF never cleared the sensor (input) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to clear jam service check" on page 155.
232.13	Paper fed from tray 1 was detected later than expected or was never detected the sensor (input) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to arrive jam service check" on page 154.
232.15	Paper fed from tray 1 never cleared the sensor (input) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to clear jam service check" on page 155.
232.23	Paper fed from tray 2 was detected later than expected or was never detected the sensor (input) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to arrive jam service check" on page 154.
232.25	Paper fed from tray 2 never cleared the sensor (input) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to clear jam service check" on page 155.
232.33	Paper fed from tray 3 never reached the sensor (input) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to arrive jam service check" on page 154.
232.35	Paper fed from tray 3 never cleared the sensor (input) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to clear jam service check" on page 155.

Error code	Description	Action
232.43	Paper fed from tray 4 never reached the sensor (pass-through) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to arrive jam service check" on page 154.
232.45	Paper fed from tray 4 never cleared the sensor (pass-through) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to clear jam service check" on page 155.
232.53	Paper fed from tray 5 never reached the sensor (pass-through) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to arrive jam service check" on page 154.
232.55	Paper fed from tray 5 never cleared the sensor (pass-through) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to clear jam service check" on page 155.
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 See "Sensor (input): Paper (duplex job) failed to arrive jam service check" on page 154.
232.95	Paper fed from an unknown tray never cleared the sensor (input) during a duplex print job.	See See "Sensor (input): Paper (duplex job) failed to clear jam service check" on page 155.

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. Check the printed page count.

    1. Enter the Diagnostics menu, and then touch **Printer Setup**.
    2. If the page count is near 400K, then replace the duplex. For more information, see .See "Duplex removal" on page 453
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. For more information, see .See "Duplex removal" on page 453

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

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. Check the printed page count.

    1. Enter the Diagnostics menu, and then touch **Printer Setup**.
    2. If the page count is near 400K, then replace the duplex. For more information, see .See "Duplex removal" on page 453

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. For more information, see .See "Duplex removal" on page 453
9. Check the isolation roller for wear, damage, and contamination.

241 paper jams

241 paper jam messages

241 paper jam messages

Error code	Description	Action
241.82	The motor (tray 1 pick) has stalled or did not reach the expected speed.	See See "Motor (tray 1 pick) jam service check" on page 157.
241.83	The motor (tray 1 pick) has stalled or did not reach the expected speed.	See See "Motor (tray 1 pick) jam service check" on page 157.
241.84	The motor (tray 1 pick) has stalled or did not reach the expected speed.	See See "Motor (tray 1 pick) jam service check" on page 157.

Motor (tray 1 pick) jam service check

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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 other trays.
5. The following instruction applies to only the MS63x, MX53x, and MX63x printer models.

    1. Make sure that the pick/lift motor gearbox is functional. Do the following:

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
        2. Select **Motor (tray 1 pick/lift)**.
    2. Make sure that the connections between the motor (pick/lift) and the controller board are properly connected.
    3. Check the pick/lift motor gearbox for damage, contamination, and improper installation. For more information, see .See "Pick/lift motor gearbox removal" on page 471

6. The following instruction applies to only the MS531 printer model:

    1. Make sure that the pick roller clutch is functional. Do the following:

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
        2. Select **Clutch**.
    2. Make sure that the connections between the pick roller clutch and the controller board are properly connected.
    3. Check the pick roller clutch for damage, contamination, and improper installation. For more information, see See "Pick roller clutch removal" on page 389.

7. Check the pick arm and pick roller for damage and improper installation. For more information, see See "Pick roller removal" on page 460.

    Check the pick arm and pick roller for damage and improper installation.

    > **NOTES**
    > The MS531 and MS63x printer models have different pick and tray mechanisms. Choose the appropriate part for each printer model. For more information, see See "Pick roller removal" on page 460 or See "" on page 0.

242–244 paper jams

242 paper jam messages

242 paper jam messages

Error code	Description	Action
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 See "Optional tray sensors jam service check" on page 166.
242.26	Paper fed from tray 2 was picked but it never reached the sensor (input).	See See "Optional tray sensors jam service check" on page 166.
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 See "Optional tray sensors jam service check" on page 166.
242.33	Paper fed from tray 3 never reached the sensor (tray 2 pass-through).	See See "Optional tray sensors jam service check" on page 166.
242.35	Paper fed from tray 3 cleared the sensor (tray 2 pass-through) later than expected.	See See "Optional tray sensors jam service check" on page 166.
242.37	Paper fed from tray 3 never cleared the sensor (tray 2 pass-through).	See See "Optional tray sensors jam service check" on page 166.
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 See "Optional tray sensors jam service check" on page 166.
242.43	Paper fed from tray 4 never reached the sensor (tray 2 pass-through).	See See "Optional tray sensors jam service check" on page 166.

Error code	Description	Action
242.45	Paper fed from tray 4 cleared the sensor (tray 2 pass-through) or sensor (tray 2 trailing edge) later than expected.	See See "Optional tray sensors jam service check" on page 166.
242.47	Paper fed from tray 4 never cleared the sensor (tray 2 pass-through).	See See "Optional tray sensors jam service check" on page 166.
242.70	Motor (tray 2 transport) does not turn on.	See See "Optional tray motors jam service check" on page 167.
242.71	Motor (tray 2 transport) does not turn off.	See See "Optional tray motors jam service check" on page 167.
242.72	Motor (550-sheet tray 2 transport) speed did not ramp up to expected level.	See See "Optional tray motors jam service check" on page 167.
242.73	Motor (550-sheet tray 2 transport) stalled.	See See "Optional tray motors jam service check" on page 167.
242.74	Motor (tray 2 transport) ran too slow.	See See "Optional tray motors jam service check" on page 167.
242.75	Motor (tray 2 transport) ran too fast.	See See "Optional tray motors jam service check" on page 167.
242.76	Motor (550-sheet tray 2 transport) ran too long.	See See "Optional tray motors jam service check" on page 167.
242.80	Motor (tray 2) did not turn on	See See "Optional tray motors jam service check" on page 167.
242.81	Motor (tray 2) did not turn off.	See See "Optional tray motors jam service check" on page 167.
242.82	Motor (tray 2) speed did not ramp up to expected level.	See See "Optional tray motors jam service check" on page 167.
242.83	Motor (tray 2) has stalled.	See See "Optional tray motors jam service check" on page 167.

Error code	Description	Action
242.84	Motor (tray 2) ran too slow.	See See "Optional tray motors jam service check" on page 167.
242.85	Motor (tray 2) ran too fast.	See See "Optional tray motors jam service check" on page 167.
242.86	Motor (tray 2) ran too long.	See See "Optional tray motors jam service check" on page 167.
242.91	Paper remains detected at the sensor (tray 2 pass-through) after the printer is turned on.	See See "Optional tray sensors jam service check" on page 166.
242.93	Paper fed from an unknown tray never arrived at the sensor (tray 2 pass-through).	See See "Optional tray sensors jam service check" on page 166.
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 See "Optional tray sensors jam service check" on page 166.
242.96	Paper fed from an unknown tray was picked but it never arrived at the sensor (input).	See See "Optional tray sensors jam service check" on page 166.
242.97	Paper fed from an unknown tray never cleared the sensor (tray 2 pass-through).	See See "Optional tray sensors jam service check" on page 166.

243 paper jam messages

243 paper jam messages

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 See "Optional tray sensors jam service check" on page 166.
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 See "Optional tray sensors jam service check" on page 166.
243.43	Paper fed from tray 4 never reached the sensor (tray 3 pass-through).	See See "Optional tray sensors jam service check" on page 166.
243.45	Paper fed from tray 4 cleared the sensor (tray 3 pass-through) or sensor (tray 3 trailing edge) later than expected.	See See "Optional tray sensors jam service check" on page 166.
243.47	Paper fed from tray 4 never cleared the sensor (tray 3 pass-through).	See See "Optional tray sensors jam service check" on page 166.
243.70	Motor (550-sheet tray 3 transport) does not turn on.	See See "Optional tray motors jam service check" on page 167.
243.71	Motor (550-sheet tray 3 transport) does not turn off.	See See "Optional tray motors jam service check" on page 167.
243.72	Motor (550-sheet tray 3 transport) speed did not ramp up to expected level.	See See "Optional tray motors jam service check" on page 167.
243.73	Motor (550-sheet tray 3 transport) has stalled.	See See "Optional tray motors jam service check" on page 167.
243.74	Motor (tray 3 transport) ran too slow.	See See "Optional tray motors jam service check" on page 167.

Error code	Description	Action
243.75	Motor (tray 3 transport) ran too fast.	See See "Optional tray motors jam service check" on page 167.
243.76	Motor (550-sheet tray 3 transport) ran too long.	See See "Optional tray motors jam service check" on page 167.
243.80	Motor (550-sheet tray 3 pick/lift) does not turn on.	See See "Optional tray motors jam service check" on page 167.
243.81	Motor (550-sheet tray 3 pick/lift) does not turn on.	See See "Optional tray motors jam service check" on page 167.
243.82	Motor (550-sheet tray 3 pick/lift) does not turn off.	See See "Optional tray motors jam service check" on page 167.
243.83	Motor (550-sheet tray 3 pick/lift) has stalled.	See See "Optional tray motors jam service check" on page 167.
243.84	Motor (550-sheet tray 3 pick/lift) ran too slow.	See See "Optional tray motors jam service check" on page 167.
242.85	Motor (550-sheet tray 3 pick/lift) ran too fast.	See See "Optional tray motors jam service check" on page 167.
242.86	Motor (550-sheet tray 3 pick/lift) ran too long.	See See "Optional tray motors jam service check" on page 167.
243.91	Paper remains detected at the sensor (tray 3 pass-through) after the printer is turned on.	See See "Optional tray sensors jam service check" on page 166.
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 See "Optional tray sensors jam service check" on page 166.
243.93	Paper fed from an unknown tray never reached the sensor (tray 2 pass-through).	See See "Optional tray sensors jam service check" on page 166.

Continued from page 162

Error code	Description	Action
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 See "Optional tray sensors jam service check" on page 166.
243.96	Paper fed from an unknown tray was picked but it never reached the sensor (tray 3 pass-through).	See See "Optional tray sensors jam service check" on page 166.
243.97	Paper fed from an unknown tray never cleared the sensor (tray 3 pass-through).	See See "Optional tray sensors jam service check" on page 166.

Error code	Description	Action

244 paper jam messages

244 paper jam messages

Error code	Description	Action
244.46	Paper fed from tray 4 was picked but it never reached the sensor (tray 4 trailing edge).	See See "Optional tray sensors jam service check" on page 166.
244.70	Motor (550-sheet tray 4 transport) does not turn on.	See See "Optional tray motors jam service check" on page 167.
244.71	Motor (550-sheet tray 4 transport) does not turn off.	See See "Optional tray motors jam service check" on page 167.
244.72	Motor (550-sheet tray 4 transport) speed did not ramp up to expected level.	See See "Optional tray motors jam service check" on page 167.
244.73	Motor (550-sheet tray 4 transport) has stalled.	See See "Optional tray motors jam service check" on page 167.
244.74	Motor (550-sheet tray 4 transport) ran too slow.	See See "Optional tray motors jam service check" on page 167.
244.75	Motor (550-sheet tray 4 transport) ran too fast.	See See "Optional tray motors jam service check" on page 167.
244.76	Motor (550-sheet tray 4 transport) ran too long.	See See "Optional tray motors jam service check" on page 167.
244.80	Motor (550-sheet tray 4 pick/lift) does not turn on.	See See "Optional tray motors jam service check" on page 167.
244.81	Motor (550-sheet tray 4 pick/lift) does not turn off.	See See "Optional tray motors jam service check" on page 167.
244.82	Motor (550-sheet tray 4 pick/lift) speed did not ramp up to expected level.	See See "Optional tray motors jam service check" on page 167.

Error code	Description	Action
244.83	Motor (550-sheet tray 4 pick/lift) has stalled.	See See "Optional tray motors jam service check" on page 167.
244.84	Motor (550-sheet tray 4 pick/lift) ran too slow.	See See "Optional tray motors jam service check" on page 167.
244.85	Motor (550-sheet tray 4 pick/lift) ran too fast.	See See "Optional tray motors jam service check" on page 167.
244.86	Motor (550-sheet tray 4 pick/lift) ran too long.	See See "Optional tray motors jam service check" on page 167.
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 See "Optional tray sensors jam service check" on page 166.

Optional tray sensors jam service check

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
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:

    1. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics > Sensor tests**.
    2. 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 .
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:

   1. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics > Motors tests**.
   2. Select **Pick (tray [x])** and **Pass-through (tray [x])**.
7. Make sure that the connections between the motors and the controller board are properly connected.
8. Check the motors for damage, and improper installation.

280 paper jams

280 paper jam messages

28y paper jams

Error code	Description	Action
280.06	Paper was not detected in the ADF tray during an ADF scan job.	See See "ADF paper undetected service check" on page 169.
280.11	Paper remains detected at the sensor (ADF scan 1) after the printer is turned on.	See See "Sensor (ADF scan 1) jam service check" on page 170.
280.13	Paper was never detected at the sensor (ADF scan 1).	See See "Sensor (ADF scan 1) jam service check" on page 170.
280.15	Paper never cleared the sensor (ADF scan 1).	See See "Sensor (ADF scan 1) jam service check" on page 170.
280.91	Paper remains detected at the sensor (ADF scan 1) after the printer is turned on. The ADF maintenance kit is beyond end-of-life.	See See "Sensor (ADF scan 1) jam service check" on page 170.
280.93	Paper was never detected at the sensor (ADF scan 1). The ADF maintenance kit is beyond end-of-life.	See See "Sensor (ADF scan 1) jam service check" on page 170.
280.95	Paper never cleared the sensor (ADF scan 1). The ADF maintenance kit is beyond end-of-life.	See See "Sensor (ADF scan 1) jam service check" on page 170.

ADF paper undetected service check

Resolve an ADF paper undetected error by checking the sensor (ADF media present) and its actuator for damage and improper installation.

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
2. Make sure that the sensor (ADF media present) is functional. Do the following:

    1. Enter the Diagnostics menu, and then touch **Scanner diagnostics > Sensor tests**.
    2. Find the sensor (ADF media present).
3. Make sure that the connections between the sensor (ADF media present) and the controller board are properly connected.
4. Check the sensor (ADF media present) and its actuator for damage and improper installation.

Sensor (ADF scan 1) jam service check

Resolve a sensor (ADF scan 1) error by checking the sensor (ADF scan 1) and its actuator for damage and improper installation.

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
2. Check the ADF pick rollers and separator rollers for wear, damage, contamination, and improper installation.
3. Check the ADF paper path for debris and foreign object.
4. Make sure that the ADF top cover and the ADF is properly closed.
5. Make sure that the sensor (ADF scan 1) is functional. Do the following:

    1. Enter the Diagnostics menu, and then touch **Scanner diagnostics > Sensor tests**.
    2. Find the sensor (ADF scan 1).
6. Make sure that the connections between the sensor (ADF scan 1) and the controller board are properly connected.
7. Check the sensor (ADF scan 1) and its actuator for damage and improper installation.
8. Make sure that the connections between the ADF and the controller board are properly connected.
9. Check the ADF pick drive for improper operation.
10. Check the ADF pick drive rollers and gears for wear and damage. For more information, see See "ADF top cover removal" on page 509.

284 paper jams

284 paper jam messages

28y paper jams

Error code	Description	Action
284.11	Paper remains detected at the sensor (ADF scan 2) during a duplex scan job.	See See "Sensor (ADF scan 2) jam service check" on page 172.
284.13	Paper did not reach the sensor (ADF scan 2) during a duplex scan job.	See See "Sensor (ADF scan 2) jam service check" on page 172.
284.15	Paper never cleared the sensor (ADF scan 2) during a duplex scan job.	See See "Sensor (ADF scan 2) jam service check" on page 172.
284.91	Paper remains detected at the sensor (ADF scan 2) during a duplex scan job.. The ADF maintenance kit is beyond end-of-life.	See See "Sensor (ADF scan 2) jam service check" on page 172.
284.93	Paper did not reach the sensor (ADF scan 2) during a duplex scan job. The ADF maintenance kit is beyond end-of-life.	See See "Sensor (ADF scan 2) jam service check" on page 172.
284.95	Paper never cleared the sensor (ADF scan 2) during a duplex scan job.. The ADF maintenance kit is beyond end-of-life.	See See "Sensor (ADF scan 2) jam service check" on page 172.

Sensor (ADF scan 2) jam service check

Resolve a sensor (ADF scan 2) error by making sure that the connections between the sensor (ADF scan 2) and the controller board are properly connected.

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
2. Check the ADF pick rollers and separator rollers for wear, damage, contamination, and improper installation.
3. Check the ADF paper path for debris and foreign object.
4. Make sure that the ADF top cover and the ADF is properly closed.
5. Make sure that the sensor (ADF scan 2) is functional. Do the following:

   1. Enter the Diagnostics menu, and then touch **Scanner diagnostics > Sensor tests**.
   2. Find the sensor (ADF scan 2).
6. Make sure that the connections between the sensor (ADF scan 2) and the controller board are properly connected.
7. Check the sensor (ADF scan 2) and its actuator for damage and improper installation.
8. Make sure that the connections between the ADF and the controller board are properly connected.
9. Check the ADF pick drive for improper operation.
10. Check the ADF pick drive rollers and gears for wear and damage. For more information, see See "ADF top cover removal" on page 509.

29y paper jams

291-295 paper jam messages

291-295 paper jams

Error code	Description	Action
291.06	The scanner cover was open before an ADF job.	See See "Sensor (ADF cover) service check" on page 174.
295.01	An imagepipe error occurred. Gap between scanned pages is too small.	See See "ADF imagepipe jam service check" on page 175.

Sensor (ADF cover) service check

Resolve a sensor (ADF cover) error by checking the ADF top cover for foreign objects.

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
2. Make sure that the sensor (ADF cover) is functional. Do the following:

   1. Enter the Diagnostics menu, and then touch **Scanner diagnostics > Sensor tests**.
   2. Find the sensor (ADF cover).
3. Make sure that the connections between the sensor (ADF cover) and the controller board are properly connected.
4. Check the sensor (ADF cover) and its actuator for damage and improper installation.
5. Make sure that the connections between the ADF and the controller board are properly connected.
6. Check the ADF top cover for foreign objects.
7. Check the ADF top cover for damage and improper installation.. For more information, see See "ADF top cover removal" on page 509.

ADF imagepipe jam service check

Resolve an ADF imagepipe error by removing the jammed paper in the ADF.

1. Make sure that paper is supported and loaded properly. See See "Avoiding jams" on page 113.
2. Remove the jammed paper in the ADF.
3. Perform a POR.
4. Resent the copy job.

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

User attendance messages

0y user attendance errors

2-9 user attendance messages

2–9 user attendance messages

Error code	Description	Action
2.01	A supply is needed for a job.	N/A
8.00	A door was detected as open.	See See "Undetected door service check" on page 177.
8.01	Door A was detected as open.	See See "Undetected door service check" on page 177.
8.02	Door B was detected as open.	See See "Undetected door service check" on page 177.
8.03	ADF top cover was detected as open.	See See "ADF top cover open service check" on page 178.
9.00	A problem caused the printer to restart automatically.	See See "Auto reboot error service check" on page 179.

Undetected door service check

Resolve an undetected door error by making sure that the door links and hinges are properly interlocked and the sensor actuator is not damaged.

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:

   1. Enter the Diagnostics menu, and then touch **Printer diagnostics and adjustments > Sensor tests**.
   2. 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

Resolve an ADF top cover open error by checking the sensor (ADF top door interlock) actuator for damage and improper installation.

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:

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

Resolve an auto reboot error by clearing the intervention message, and then sending the print job again.

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 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

11–12 user attendance messages

Error code	Description	Action
11.11	A wrong paper type or size was detected on tray 1.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
11.12	A wrong paper type, size, or orientation was detected on tray 1.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
11.21	A wrong paper type or size was detected on tray 2.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
11.22	A wrong paper type, size, or orientation was detected on tray 2.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
11.31	A wrong paper type or size was detected on tray 3.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
11.32	A wrong paper type, size, or orientation was detected on tray 3.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
11.41	A wrong paper type or size was detected on tray 4.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
11.42	A wrong paper type, size, or orientation was detected on tray 4.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
11.71	An unsupported orientation was detected for an envelope loaded.	See See "Mismatched paper size and paper printer setting error service check" on page 183.

Error code	Description	Action
11.81	A wrong paper type or size was detected on the MPF.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
11.82	A wrong paper type, size, or orientation was detected on the MPF.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
11.91	A wrong paper type or size was detected on the MPF.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
11.92	A wrong paper type, size, or orientation was detected on the MPF.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
12.11	A wrong setting for paper type or size was detected on tray 1.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
12.12	A wrong setting for paper type, size, or orientation was detected on tray 1.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
12.21	A wrong setting for paper type or size was detected on tray 2.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
12.22	A wrong setting for paper type, size, or orientation was detected on tray 2.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
12.31	A wrong setting for paper type or size was detected on tray 3.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
12.32	A wrong setting for paper type, size, or orientation was detected on tray 3.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
12.41	A wrong setting for paper type or size was detected on tray 4.	See See "Mismatched paper size and paper printer

Diagnostics and troubleshooting

Error code	Description	Action
		setting error service check" on page 183.
12.42	A wrong setting for paper type, size, or orientation was detected on tray 4.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
12.81	A wrong setting for paper type or size was detected on the MPF.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
12.82	A wrong setting for paper type, size, or orientation was detected on the MPF.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
12.91	A wrong setting for paper type or size was detected on the MPF.	See See "Mismatched paper size and paper printer setting error service check" on page 183.
12.92	A wrong setting for paper type, size, or orientation was detected on the MPF.	See See "Mismatched paper size and paper printer setting error service check" on page 183.

Mismatched paper size and paper printer setting error service check

Resolve a mismatched paper size and paper printer setting error by replacing with the correct paper type or size.

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.

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2–9 user attendance messages

Error code	Description	Action
2.01	A supply is needed for a job.	N/A
8.00	A door was detected as open.	See See "Undetected door service check" on page 177.
8.01	Door A was detected as open.	See See "Undetected door service check" on page 177.
8.02	Door B was detected as open.	See See "Undetected door service check" on page 177.
8.03	ADF top cover was detected as open.	See See "ADF top cover open service check" on page 178.
9.00	A problem caused the printer to restart automatically.	See See "Auto reboot error service check" on page 179.

Removing the packing material from the supplies

Make sure to remove 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.

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Error code	Description	Action
31.00	An MICR print cartridge is required.	See See "MICR supplies service check" on page 196.
31.40	The toner cartridge is missing or unresponsive.	See See "Toner cartridge (K) error service check" on page 197.
31.40A	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40AN	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40B	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40C	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40CN	See See "Toner cartridge (K) error service check" on page 197.	
31.40D	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40E	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.

Error code	Description	Action
31.40F	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40FN	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40G	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40GN	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40H	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40K	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40R	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.40Y	A black toner cartridge smart chip or sensor communication error was detected.	See See "Toner cartridge (K) error service check" on page 197.
31.60	The imaging unit is missing or unresponsive.	See See "Imaging unit (K) error service check" on page 198.
31.60A	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60AN	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.

Error code	Description	Action
31.60B	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60C	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60CN	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60D	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60E	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60F	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60G	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60H	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60Q	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60R	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60T	A black imaging unit smart chip or sensor	See See "Imaging unit (K) error service check" on page 198.

Error code	Description	Action
	communication error was detected.	
31.60U	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60V	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
31.60Z	A black imaging unit smart chip or sensor communication error was detected.	See See "Imaging unit (K) error service check" on page 198.
Error code	Description	Action

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Error code	Description	Action
32.40	The toner cartridge is unsupported.	See See "Toner cartridge (K) error service check" on page 197.
32.40A	The black toner cartridge is unsupported—Unsupported memory map version in the smart chip.	See See "Toner cartridge (K) error service check" on page 197.
32.40B	The black toner cartridge is unsupported—Failed capacity class/model compatibility check.	See See "Toner cartridge (K) error service check" on page 197.
32.40C	The black toner cartridge is unsupported—Failed OEM check.	See See "Toner cartridge (K) error service check" on page 197.
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	See See "Toner cartridge (K) error service check" on page 197.

Error code	Description	Action
	cartridge only with a newly ordered aftermarket toner cartridge compatible with the printer.	
32.40E	The black toner cartridge is unsupported—The supply is on the revoked list.	See See "Toner cartridge (K) error service check" on page 197.
32.40F	The black toner cartridge is unsupported—The print cartridge is MICR, and the release does not support MICR.	See See "Toner cartridge (K) error service check" on page 197.
32.40G	The black toner cartridge is unsupported.	See See "Toner cartridge (K) error service check" on page 197.
32.40H	The black toner cartridge is unsupported.	See See "Toner cartridge (K) error service check" on page 197.
32.40I	The black toner cartridge is unsupported.	See See "Toner cartridge (K) error service check" on page 197.
32.40J	The black toner cartridge is unsupported.	See See "Toner cartridge (K) error service check" on page 197.
32.40K	The black toner cartridge is unsupported.	See See "Toner cartridge (K) error service check" on page 197.
32.40L	The black toner cartridge is unsupported.	See See "Toner cartridge (K) error service check" on page 197.
32.40M	The black toner cartridge is unsupported.	See See "Toner cartridge (K) error service check" on page 197.
32.40Z	The black toner cartridge is unsupported.	See See "Toner cartridge (K) error service check" on page 197.

Error code	Description	Action
32.60	The imaging unit is unsupported.	See See "Imaging unit (K) error service check" on page 198.
32.60A	The black imaging unit is unsupported.	See See "Imaging unit (K) error service check" on page 198.
32.60AN	The black imaging unit is unsupported.	See See "Imaging unit (K) error service check" on page 198.
32.60B	The black imaging unit is unsupported.	See See "Imaging unit (K) error service check" on page 198.
32.60C	The black imaging unit is unsupported.	See See "Imaging unit (K) error service check" on page 198.
32.60D	The black imaging unit is unsupported. **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	See See "Imaging unit (K) error service check" on page 198.

Error code	Description	Action
	with the printer.	
32.60E	The black imaging unit is unsupported.	See See "Imaging unit (K) error service check" on page 198.
32.60F	The black imaging unit is unsupported.	See See "Imaging unit (K) error service check" on page 198.

Error code	Description	Action

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> **NOTES**
> For more information, see See "" on page 0.

33 user attendance error messages

Error code	Description	Action
33.40	An inauthentic black toner cartridge was detected.	See See "Toner cartridge (K) error service check" on page 197.
33.40A	An inauthentic black toner cartridge was detected.	See See "Toner cartridge (K) error service check" on page 197.
33.40AN	An inauthentic black toner cartridge was detected.	See See "Toner cartridge (K) error service check" on page 197.
33.40BN	An inauthentic black toner cartridge was detected.	See See "Toner cartridge (K) error service check" on page 197.
33.60	An inauthentic black imaging unit was detected.	See See "Imaging unit (K) error service check" on page 198.
33.60A	An inauthentic black imaging unit was detected.	See See "Imaging unit (K) error service check" on page 198.
33.60AN	An inauthentic black imaging unit was detected.	See See "Imaging unit (K) error service check" on page 198.
33.60B	An inauthentic black imaging unit was detected.	See See "Imaging unit (K) error service check" on page 198.
33.60BN	An inauthentic black imaging unit was detected.	See See "Imaging unit (K) error service check" on page 198.
33.60C	An inauthentic black imaging unit was detected.	See See "Imaging unit (K) error service check" on page 198.

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Error code	Description	Action
37.01	The memory is insufficient to collate the job.	See See "Insufficient memory service check" on page 199.
37.03	The memory is insufficient to collate the job.	See See "Insufficient memory service check" on page 199.
38.00	The scan job is too long.	See See "Insufficient memory service check" on page 199.
38.01	The memory is full.	See See "Insufficient memory service check" on page 199.
39.01	The page is too complex to print. The printer memory is not enough for the details on the page.	See See "Insufficient memory service check" on page 199.
39.02	The page is too complex to print. The printer memory is not enough for the details on the page.	See See "Insufficient memory service check" on page 199.

MICR supplies service check

Resolve a MICR supplies error by making sure that the toner cartridge and imaging unit are not damaged, not leaking, genuine, and support MICR supplies.

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.

Toner cartridge (K) error service check

Resolve a toner cartridge (K) error by cleaning the toner cartridge contacts for any toner contamination.

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.

Imaging unit (K) error service check

Resolve an imaging unit (K) error by making sure that the connections between the controller board and the toner cartridge are properly connected.

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.

Insufficient memory service check

Resolve an insufficient memory error by upgrading the printer memory through adding additional RAM or installing an ISD.

1. Erase the printer memory. Do the following:

   1. Turn off the printer, and then disconnect the power cord from the electrical outlet.
   2. 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 .

Non-Lexmark supply

Remove any non-Lexmark supply from your printer to avoid damage. Installing non Lexmark supplies void the printer warranty.

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.

Using genuine Lexmark parts and supplies

Keep your printer performance at top level. Use only Lexmark branded parts and supplies.

Your Lexmark printer is designed to function best with genuine Lexmark parts and supplies. Use of third-party supplies or parts may affect the performance, reliability, or life of the printer and its imaging components. It can also affect warranty coverage. Damage caused by the use of third-party parts and supplies is not covered by the warranty. All life indicators are designed to function with Lexmark parts and supplies, and may deliver unpredictable results if third-party parts and supplies are used. Imaging component usage beyond the intended life may damage your Lexmark printer or its associated components.

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.

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41-42 user attendance messages

Error code	Description	Action
41.60	The imaging unit and toner cartridge are mismatched or incompatible.	N/A
41.60A	The imaging unit and toner cartridge are mismatched or incompatible—Toner type mismatch.	N/A
41.60AN	The imaging unit and toner cartridge are mismatched or incompatible—Toner type mismatch.	N/A
42.01	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.02	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.03	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.04	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.05	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.09	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.10	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.

Error code	Description	Action
42.10K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.12	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.12K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.13	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.13K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.14	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
41.14K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.15	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.19	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.20	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.21	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.21K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.23	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.

Error code	Description	Action
42.23K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.24	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.25	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.25K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.26K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.29	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.30	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.31	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.32	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.34	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.34K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.35	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.39	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.

Error code	Description	Action
42.40	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.40K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.41	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.41K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.42	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.43	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.43K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.45	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.46	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.46K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.49	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.50	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.51	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.

Error code	Description	Action
42.52	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.52K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.53	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.54	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.59	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.60	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.60K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.61	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.61K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.62	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.62K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.63	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.63K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.

Error code	Description	Action
42.64	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.64K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.90	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.91	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.92	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.93	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.94	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.94K	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.
42.95	The toner cartridge and printer regions are mismatched.	See See "Mismatched supplies service check" on page 209.

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Error code	Description	Action
43.40	A toner cartridge sensor error was detected.	See See "Toner meter card error service check" on page 210.
43.40Z	A black TMC error was detected.	See See "Toner meter card error service check" on page 210.
44.40	The toner cartridge and printer are mismatched or incompatible.	See See "Replace cartridge, printer region mismatch" on page 65.
44.40B	The toner cartridge and printer are mismatched or incompatible.	See See "Replace cartridge, printer region mismatch" on page 65.
44.60	The imaging unit and printer are mismatched or incompatible.	See See "Replace cartridge, printer region mismatch" on page 65.

Mismatched supplies service check

Resolve a mismatched supplies error by making sure that the toner cartridge is free of toner buildup.

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

Resolve a toner meter card error by making sure that the toner meter card is properly installed.

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:

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

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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.	1. Turn off the printer, and then unplug the power cord from the electrical outlet. 2. Remove one or more trays. 3. Connect the power cord to the electrical outlet, and then turn on the printer.
58.00A	Too many optional trays were detected.	1. Turn off the printer, and then unplug the power cord from the electrical outlet. 2. Remove one or more trays. 3. Connect the power cord to the electrical outlet, and then turn on the printer.
58.00B	Too many optional trays were detected.	1. Turn off the printer, and then unplug the power cord from the electrical outlet. 2. Remove one or more trays. 3. Connect the power cord to the electrical outlet, and then turn on the printer.

Error code	Description	Action
58.00C	Too many optional trays were detected.	1. Turn off the printer, and then unplug the power cord from the electrical outlet. 2. Remove one or more trays. 3. Connect the power cord to the electrical outlet, and then turn on the printer.
58.00D	Too many optional trays were detected.	1. Turn off the printer, and then unplug the power cord from the electrical outlet. 2. Remove one or more trays. 3. Connect the power cord to the electrical outlet, and then turn on the printer.
59.00	An unsupported option was detected. The option software version is not supported by the engine.	1. Turn off the printer, and then unplug the power cord from the electrical outlet. 2. Remove the indicated tray. 3. Connect the power cord to the electrical outlet, and then turn on the printer.
59.00C	An unsupported option was detected.	1. Turn off the printer, and then unplug the power cord from the electrical outlet. 2. Remove the indicated tray. 3. Connect the power cord to the electrical outlet, and then turn on the printer.

Error code	Description	Action
59.00D	An unsupported option was detected.	1. Turn off the printer, and then unplug the power cord from the electrical outlet. 2. Remove the indicated tray. 3. Connect the power cord to the electrical outlet, and then turn on the printer.

6y user attendance errors

61–66 user attendance error messages

61–66 user attendance error messages

Error code	Description	Action
61.00	The hard disk is defective.	Replace the defective storage drive.
62.00	The hard disk is full.	Try one or more of the following: • Touch **Continue** to clear the message. • Delete fonts, macros, and other data stored in the printer hard disk. • Install a printer hard disk.
63.00	The hard disk is not formatted.	To format the storage drive later, do the following: 1. From the home screen, touch **Settings > Device > Maintenance > Out of Service Erase**. 2. Touch **Erase Intelligent Storage Drive**, and then touch **ERASE**.
64.00	The hard disk format is unsupported.	--
66.00	The hard disk needs to be formatted.	--

7y user attendance errors

71–72 user attendance error messages

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.	N/A
71.05	An invalid FoIP license was detected.	N/A
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
71.20	The fax partition is not working.	N/A
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

80 user attendance error messages

Error code	Description	Action
80.00	The maintenance kit is nearly low.	Touch **Continue** to clear the message or see See "Maintenance kit service check" on page 223.
80.01	The maintenance kit is nearly low. The backup roll or fuser page count threshold has been reached.	Touch **Continue** to clear the message or see See "Maintenance kit service check" on page 223.
80.03	The maintenance kit is nearly low.	Touch **Continue** to clear the message or see See "Maintenance kit service check" on page 223.
80.09	The maintenance kit is nearly low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message or see See "Maintenance kit service check" on page 223.
80.11	The maintenance kit is low. The backup roll or fuser page count threshold has been reached.	Touch **Continue** to clear the message or see See "Maintenance kit service check" on page 223.
80.13	The maintenance kit is low.	Touch **Continue** to clear the message or see See "Maintenance kit service check" on page 223.
80.19	The maintenance kit is low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message or see See "Maintenance kit service check" on page 223.
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 or see See "Maintenance kit service check" on page 223.
80.23	The maintenance kit is very low.	Touch **Continue** to clear the message or see See "

Diagnostics and troubleshooting

Error code	Description	Action
		Maintenance kit service check" on page 223.
80.29	The maintenance kit is very low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message or see See "Maintenance kit service check" on page 223.
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.	Touch **Continue** to clear the message or see See "Maintenance kit service check" on page 223.
80.33	Replace the maintenance kit.	Touch **Continue** to clear the message or see See "Maintenance kit service check" on page 223.
80.39	Replace the maintenance kit. The user-selected EWS set point has been reached. The fuser may continue to function beyond end of life.	Touch **Continue** to clear the message or see See "Maintenance kit service check" on page 223.

84 user attendance error messages

84 user attendance error messages

Error code	Description	Action
84.00	The black imaging unit is nearly low.	Touch **Continue** to clear the message.
84.01	The black imaging unit is nearly low.	Touch **Continue** to clear the message.
84.02	The black imaging unit is nearly low.	Touch **Continue** to clear the message.
84.03	The black imaging unit is nearly low. The side count set point has been reached.	Touch **Continue** to clear the message.
84.09	The black imaging unit is nearly low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
84.11	The black imaging unit is low.	Touch **Continue** to clear the message.
84.12	The black imaging unit is low.	Touch **Continue** to clear the message.
84.13	The black imaging unit is low. The side count set point has been reached.	Touch **Continue** to clear the message.
84.19	The black imaging unit is low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
84.20	The black imaging unit is very low.	Touch **Continue** to clear the message.
84.21	The black imaging unit is very low.	Touch **Continue** to clear the message.
84.22	The black imaging unit is very low.	Touch **Continue** to clear the message.
84.23	The black imaging unit is very low. The side count set point has been reached.	Touch **Continue** to clear the message.

Error code	Description	Action
84.29	The black imaging unit or CMY imaging kit is very low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
84.30	The black imaging unit has reached end-of-life.	See See "Replacing the imaging unit" on page 521.
84.31	The black imaging unit has reached end-of-life.	See See "Replacing the imaging unit" on page 521.
84.32	The black imaging unit has reached end-of-life.	See See "Replacing the imaging unit" on page 521.
84.33	The black imaging unit has reached end-of-life.	See See "Replacing the imaging unit" on page 521.
84.41	The black imaging unit has reached beyond end-of-life.	See See "Replacing the imaging unit" on page 521.
84.42	The black imaging unit has reached beyond end-of-life.	See See "Replacing the imaging unit" on page 521.
84.43	The black imaging unit has reached beyond end-of-life.	See See "Replacing the imaging unit" on page 521.

Error code	Description	Action

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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 or see See "Maintenance kit service check" on page 223.
86.33	The ADF maintenance kit is at end-of-life	Replace the ADF maintenance kit or see See "Maintenance kit service check" on page 223.

88 user attendance error messages

88 user attendance error messages

Error code	Description	Action
88.00	The black toner cartridge is nearly low.	Touch **Continue** to clear the message.
88.01	The black toner cartridge is nearly low.	Touch **Continue** to clear the message.
88.08	The black toner cartridge quanta error has occurred.	Touch **Continue** to clear the message.
88.09	The black toner cartridge is nearly low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
88.10	The black toner cartridge is low.	Touch **Continue** to clear the message.
88.18	The black toner cartridge is low.	Touch **Continue** to clear the message.
88.19K	The black toner cartridge is low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
88.20K	The black toner cartridge is very low.	Touch **Continue** to clear the message.
88.28K	The black toner cartridge is very low.	Touch **Continue** to clear the message.
88.29K	The black toner cartridge is very low. The user-selected EWS set point has been reached.	Touch **Continue** to clear the message.
88.30K	The black toner cartridge is at end-of-life.	See See "Replacing the toner cartridge" on page 518.
88.37K	The black toner cartridge is at end-of-life.	See See "Replacing the toner cartridge" on page 518.
88.38K	The black toner cartridge is at end-of-life.	See See "Replacing the toner cartridge" on page 518.

Continued from page 221

Error code	Description	Action
88.40K	The black toner cartridge is beyond end-of-life.	See See "Replacing the toner cartridge" on page 518.
88.47K	The black toner cartridge is beyond end-of-life.	See See "Replacing the toner cartridge" on page 518.
88.48K	The black toner cartridge is beyond end-of-life.	See See "Replacing the toner cartridge" on page 518.

Error code	Description	Action
		See See "Replacing the

Maintenance kit service check

WARNING—POTENTIAL DAMAGE
Do not perform these steps if the printer is on.

1. Replace the required maintenance kit.
2. Reset the maintenance counter. See the "Resetting counters" section.

Printer hardware errors

111 errors

111 error messages

1yy error messages

Error code	Description	Action
111.20	Printhead error (mirror motor lock) was detected before the motor was turned on.	See See "Printhead error service check" on page 226.
111.21	No printhead power (+5 V) when the laser servo started.	See See "Printhead error service check" on page 226.
111.30	The printhead failed during power-on tests.	See See "Printhead error service check" on page 226.
111.30A	The printhead failed during power-on tests—Old engine code.	See See "Printhead error service check" on page 226.
111.30B	The printhead failed during power-on tests—Boost failure.	See See "Printhead error service check" on page 226.
111.30C	The printhead failed during power-on tests—Capture time incorrect.	See See "Printhead error service check" on page 226.
111.30D	The printhead failed during power-on tests—Unknown.	See See "Printhead error service check" on page 226.
111.30E	The printhead failed during power-on tests—Every test has produced HSYNCs.	See See "Printhead error service check" on page 226.
111.30F	The printhead failed during power-on tests—Failure to produce HSYNCs.	See See "Printhead error service check" on page 226.
111.30G	The printhead failed during power-on tests—Diode A failure.	See See "Printhead error service check" on page 226.

Error code	Description	Action
111.30H	The printhead failed during power-on tests—Diode B failure.	See See "Printhead error service check" on page 226.
111.30L	The printhead failed during power-on tests—Lpow failure.	See See "Printhead error service check" on page 226.
111.31	Printhead error (no first HSYNC) was detected.	See See "Printhead error service check" on page 226.
111.32	Printhead error (lost HSYNC) was detected.	See See "Printhead error service check" on page 226.
111.33	Printhead error (lost HSYNC) was detected during servo.	See See "Printhead error service check" on page 226.
111.35	Printhead error (mirror motor never got first lock) was detected.	See See "Printhead error service check" on page 226.
111.36	Printhead error (mirror motor never stabilized) was detected.	See See "Printhead error service check" on page 226.
111.37	Paper reached the sensor (input) but the mirror motor was not locked.	See See "Printhead error service check" on page 226.
111.38	Paper reached the sensor (input) but the printhead startup was not incomplete.	See See "Printhead error service check" on page 226.
111.40	The printhead installed is incorrect.	See See "Printhead error service check" on page 226.
111.91	Printhead error (bad facet time reading).	See See "Printhead error service check" on page 226.

Printhead error service check

Solves printhead-related hardware error codes and paper jam error codes.

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 .See "Printhead removal" on page 494

121 errors

121 error messages

121 error messages

Error code	Description	Action
121.00	Fuser did not reach the required temperature.	See See "Fuser temperature error service check" on page 229.
121.01	During an attempt to heat up, the fuser was not detected.	See See "Fuser temperature error service check" on page 229.
121.02	Fuser went over the required temperature (during EWC/line voltage detection).	See See "Fuser temperature error service check" on page 229.
121.10	Fuser did not reach the required temperature (during start of EWC/line voltage detection).	See See "Fuser temperature error service check" on page 229.
121.11	Fuser reached the required temperature (during final EWC/line voltage detection) too late.	See See "Fuser temperature error service check" on page 229.
121.12	Fuser did not reach the required temperature (during final EWC/line voltage detection).	See See "Fuser temperature error service check" on page 229.
121.13	Fuser reached the required temperature (during final EWC/line voltage detection) too fast.	See See "Fuser temperature error service check" on page 229.
121.14	Fuser is heating too fast.	See See "Fuser temperature error service check" on page 229.
121.20	Fuser did not reach the required temperature during steady state control. This can occur during printing or in standby mode.	See See "Fuser temperature error service check" on page 229.

Error code	Description	Action
121.22	Open fuser relay was detected.	See See "Fuser temperature error service check" on page 229.
121.23	Fuser relay was turned off but the feed back to the engine code indicated that it was still open.	See See "Fuser temperature error service check" on page 229.
121.24	Fuser did not reach the required temperature during the final EWC/line voltage detection.	See See "Fuser temperature error service check" on page 229.
121.28	Fuser did not reach the required temperature during EP warm-up.	See See "Fuser temperature error service check" on page 229.
121.32	Fuser did not reach the required temperature at 100% power.	See See "Fuser temperature error service check" on page 229.
121.33	Fuser did not reach the required temperature while page is in the fuser.	See See "Fuser temperature error service check" on page 229.
121.34	Fuser did not reach the required temperature during steady state control.	See See "Fuser temperature error service check" on page 229.
121.50	Fuser went over the required temperature during global over-temp check.	See See "Fuser temperature error service check" on page 229.
121.52	Main thermistor temperature is out of range.	See See "Fuser temperature error service check" on page 229.
121.53	Main thermistor temperature change rate is out of range.	See See "Fuser temperature error service check" on page 229.
121.71	Open fuser main heater thermistor was detected.	See See "Fuser temperature error service check" on page 229.

Fuser temperature 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 must be placed in a below freezing environment, then do the following:

   1. Remove the fuser, and then allow it to slowly warm above freezing temperature.
   2. Reinstall the fuser, and then turn on the printer.
   3. Increase the timeout value for sleep mode to 114. From the home screen, touch **Settings > Device > Power Management > Timeouts > Sleep Mode**.

      > **NOTES**
      > 114 minutes is the maximum acceptable timeout value.

3. Make sure the wall outlet where the printer is connected provides >95% of rated voltage when printer is in "Ready State" (>109 VAC U.S., >218 VAC for HV Geos, >95 VAC for Japan).

   > ◦ 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. This can result in a risk of fire, property damage, or poor printer performance.
   > ◦ Power strips and uninterrupted power supplies can cause a low amperage condition to occur within the printer, which in turn may trigger a false fuser error.
   > ◦ Make sure that the printer is plugged into an appropriate rate and properly grounded electrical out let or supported Inline Surge Protector.

4. Perform a POR.
5. Make sure that the correct voltage is supplied to the fuser from the power supply. For more information, see the Wiring diagram and See "Power supply removal" on page 450.
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 See "Fuser removal" on page 487.

Most likely parts to replace

- Fuser

  ◦ For the part number, go to See "Electronics" on page 593.
  ◦ For the removal procedure, go to See "Fuser removal" on page 487.
- Power supply

  ◦ For the part number, go to See "Electronics" on page 593.
  ◦ For the removal procedure, go to See "Power supply removal" on page 450.

126 errors

126 error messages

126 error messages

Error code	Description	Action
126.01	Line frequency has gone outside the operating range.	See See "LVPS error service check" on page 231.
126.05	The LVPS power dropped but the printer was not in sleep mode.	See See "LVPS error service check" on page 231.
126.06	LVPS 7 V line error was detected.	See See "LVPS error service check" on page 231.
126.07	LVPS 7 V rail was down during power-on.	See See "LVPS error service check" on page 231.
126.10	No line frequency was detected.	See See "LVPS error service check" on page 231.
126.11	Line frequency has exceeded the operating range.	See See "LVPS error service check" on page 231.
126.12	LVPS mismatch was detected.	See See "LVPS error service check" on page 231.
126.13	LVPS mismatch was detected.	See See "LVPS error service check" on page 231.
126.14	LVPS relay is stuck or closed.	See See "LVPS error service check" on page 231.

LVPS error service check

1. Make sure that the printer is plugged into a into an appropriate rate and properly grounded electrical out let or supported Inline Surge Protector.
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 a supported power strip or uninterruptable power supply (UPS).
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.

128 errors

128 error messages

128 error messages

Error code	Description	Action
128.01	TDS baseline is too low.	See See "Sensor (toner density) error service check" on page 233.
128.02	TDS baseline is too high.	See See "Sensor (toner density) error service check" on page 233.
128.03	TDS baseline range is excessive.	See See "Sensor (toner density) error service check" on page 233.
128.16	TDS calibration is at maximum.	See See "Sensor (toner density) error service check" on page 233.
128.17	TDS calibration is too low.	See See "Sensor (toner density) error service check" on page 233.
128.18	TDS calibration is too close to baseline.	See See "Sensor (toner density) error service check" on page 233.
128.32	Photoconductor drum measurement is too high.	See See "Sensor (toner density) error service check" on page 233.
128.33	Photoconductor drum measurement is too different from calibration.	See See "Sensor (toner density) error service check" on page 233.
128.34	Photoconductor drum measurement is too close to baseline.	See See "Sensor (toner density) error service check" on page 233.
128.35	Photoconductor drum measurement data is not enough.	See See "Sensor (toner density) error service check" on page 233.

Sensor (toner density) 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 user to their supplier.

2. Check the imagine unit and toner cartridge for damage and leakage.
3. Make sure that the imaging unit and the toner cartridge are free of toner buildup. using an approved toner vacuum cleaner, completely clean the supplies.
4. Perform a POR.
5. Check the cleaning mechanism actuator for improper operation and damage.
6. Clear the area under the transfer roller of dust and toner contamination. For more information, see See "Transfer roller removal" on page 435.
7. Remove tray 1, and then manually actuate the toner density sensor wiper my moving the pick roller up and down.
8. Make sure the connections between the controller board and sensor (toner density) are properly connected.
9. Check the pick roller cam for damage.

   NOTES
   The rotation of the pick roller cam triggers the movement of the wiper bracket.

10. Check the sensor (toner density) and its wiper bracket for damage, contamination, and improper installation. For more information, see .See "Sensor (toner density) and media present sensor flag removal" on page 476

133 errors

133 error messages

133 error messages

Error code	Description	Action
133.04	CTLS timeout was detected at the imaging unit.	See See "Imaging unit CTLS error service check" on page 235
133.05	CTLS reading at the imaging unit is above the maximum expected value.	See See "Imaging unit CTLS error service check" on page 235
133.06	CTLS reading at the imaging unit is below the minimum expected value.	See See "Imaging unit CTLS error service check" on page 235
133.08	Excessive CTLS noise was detected at the imaging unit.	See See "Imaging unit CTLS error service check" on page 235

Imaging unit CTLS error service check

1. Check the imaging unit for damage, contamination, and improper installation.
2. Check the imaging unit contacts for contamination.
3. Perform a POR.
4. Make sure that the connections between the controller board and the imaging unit are properly connected.

140 errors

140 error messages

140 error messages

Error code	Description	Action
140.80	Motor (main) does not turn on.	See See "Motor (main) error service check" on page 237.
140.81	Motor (main) does not turn off.	See See "Motor (main) error service check" on page 237.
140.82	Motor (main) speed did not ramp up to the required level.	See See "Motor (main) error service check" on page 237.
140.83	Motor (main) stalled.	See See "Motor (main) error service check" on page 237.
140.84	Motor (main) ran too slow.	See See "Motor (main) error service check" on page 237.
140.85	Motor (main) ran too fast.	See See "Motor (main) error service check" on page 237.
140.86	Motor (main) ran too long.	See See "Motor (main) error service check" on page 237.

Motor (main) error service check

1. Check if the error occurs only after printing. If yes, then check the imaging unit for damage, contamination, and improper installation.
2. Perform a POR.
3. Make sure that the motor (main) is functional. Do the following:

   1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
   2. Select **Transport**.
4. Make sure that the connections between the motor (main) and the controller board are properly connected.
5. Check the main drive gearbox for damage, contamination, and improper installation. For more information, see See "Main drive gearbox removal" on page 372.

155 errors

155 error messages

155 error messages

Error code	Description	Action
155.80	Motor (cartridge) does not turn on.	See See "Cartridge drive error service check " on page 239.
155.81	Motor (cartridge) does not turn off.	See See "Cartridge drive error service check " on page 239.
155.82	Motor (cartridge) speed did not ramp up to the required level.	See See "Cartridge drive error service check " on page 239.
155.83	Motor (cartridge) has stalled.	See See "Cartridge drive error service check " on page 239.
155.84	Motor (cartridge) ran too slow.	See See "Cartridge drive error service check " on page 239.
155.85	Motor (cartridge) ran too fast.	See See "Cartridge drive error service check " on page 239.
155.86	Motor (cartridge) ran too long.	See See "Cartridge drive error service check " on page 239.

Cartridge drive 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 user to their supplier.

2. Check the toner cartridge for damage and improper installation.
3. Manually turn the cartridge gear, and then make sure it is not stuck.
4. Open the front access door, and then check if the cartridge plunger is damaged.
5. Make sure that the toner cartridge is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the toner cartridge.
6. Make sure that the connections between the toner cartridge and the controller board are properly connected.
7. Perform a POR.
8. Make sure that the motor (main) is functional. Do the following:

   1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
   2. Select **Transport**.

9. Make sure that the connections between the motor (main) and the controller board are properly connected.
10. Check the main drive gearbox for damage, contamination, and improper installation. For more information, see .

16y errors

161 error messages

161 error messages

Error code	Description	Action
161.80	The motor (tray 1 pick/lift) does not turn on.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
161.81	The motor (tray 1 pick/lift) does not turn off.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
161.82	The motor (tray 1 pick/lift) speed did not ramp up to the required level.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
161.83	The motor (tray 1 pick/lift) stalled.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
161.84	The motor (tray 1 pick/lift) ran too slow.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
161.85	The motor (tray 1 pick/lift) ran too fast.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
161.86	The motor (tray 1 pick/lift) ran too long.	See See "Motor (tray 1 pick/lift) error service check" on page 245.

162-164 error messages

162-164 error messages

Error code	Description	Action
162.80	The motor (tray 2 pick) does not turn on.	See See "Optional tray pick drive error service check" on page 247.
162.81	The motor (tray 2 pick) does not turn off.	See See "Optional tray pick drive error service check" on page 247.
162.82	The motor (tray 2 pick) speed did not ramp up to the required level.	See See "Optional tray pick drive error service check" on page 247.
162.83	The motor (tray 2 pick) stalled.	See See "Optional tray pick drive error service check" on page 247.
162.84	The motor (tray 2 pick) ran too slow.	See See "Optional tray pick drive error service check" on page 247.
162.85	The motor (tray 2 pick) ran too fast.	See See "Optional tray pick drive error service check" on page 247.
162.86	The motor (tray 2 pick) ran too long.	See See "Optional tray pick drive error service check" on page 247.
163.80	The motor (tray 3 pick) does not turn on.	See See "Optional tray motor error service check" on page 246.
163.81	The motor (tray 3 pick) does not turn off.	See See "Optional tray motor error service check" on page 246.
163.82	The motor (tray 3 pick) speed did not ramp up to the required level.	See See "Optional tray motor error service check" on page 246.
163.83	The motor (tray 3 pick) stalled.	See See "Optional tray motor error service check" on page 246.
163.84	The motor (tray 3 pick) ran too slow.	See See "Optional tray motor error service check" on page 246.

Error code	Description	Action
163.85	The motor (tray 3 pick) ran too fast.	See See "Optional tray motor error service check" on page 246.
163.86	The motor (tray 3 pick) ran too long.	See See "Optional tray motor error service check" on page 246.
164.80	The motor (tray 4 pick) does not turn on.	See See "Optional tray motor error service check" on page 246.
164.81	The motor (tray 4 pick) does not turn off.	See See "Optional tray motor error service check" on page 246.
164.82	The motor (tray 4 pick) speed did not ramp up to the required level.	See See "Optional tray motor error service check" on page 246.
164.83	The motor (tray 4 pick) stalled.	See See "Optional tray motor error service check" on page 246.
164.84	The motor (tray 4 pick) ran too slow.	See See "Optional tray motor error service check" on page 246.
164.85	The motor (tray 4 pick) ran too fast.	See See "Optional tray motor error service check" on page 246.
164.86	The motor (tray 4 pick) ran too long.	See See "Optional tray motor error service check" on page 246.

166-168 error messages

166-168 error messages

Error code	Description	Action
166.80	The motor (tray 2 transport) does not turn on.	See See "Optional tray motor error service check" on page 246.
166.81	The motor (tray 2 transport) does not turn off.	See See "Optional tray motor error service check" on page 246.
166.82	The motor (tray 2 transport) speed did not ramp up to the required level.	See See "Optional tray motor error service check" on page 246.
166.83	The motor (tray 2 transport) stalled.	See See "Optional tray motor error service check" on page 246.
166.84	The motor (tray 2 transport) ran too slow.	See See "Optional tray motor error service check" on page 246.
166.85	The motor (tray 2 transport) ran too fast.	See See "Optional tray motor error service check" on page 246.
166.86	The motor (tray 2 transport) ran too long.	See See "Optional tray motor error service check" on page 246.
167.80	The motor (tray 3 transport) does not turn on.	See See "Optional tray motor error service check" on page 246.
167.81	The motor (tray 3 transport) does not turn off.	See See "Optional tray motor error service check" on page 246.
167.82	The motor (tray 3 transport) speed did not ramp up to the required level.	See See "Optional tray motor error service check" on page 246.
167.83	The motor (tray 3 transport) stalled.	See See "Optional tray motor error service check" on page 246.
167.84	The motor (tray 3 transport) ran too slow.	See See "Optional tray motor error service check" on page 246.

Error code	Description	Action
167.85	The motor (tray 3 transport) ran too fast.	See See "Optional tray motor error service check" on page 246.
167.86	The motor (tray 3 transport) ran too long.	See See "Optional tray motor error service check" on page 246.
168.80	The motor (tray 4 transport) does not turn on.	See See "Optional tray motor error service check" on page 246.
168.81	The motor (tray 4 transport) does not turn off.	See See "Optional tray motor error service check" on page 246.
168.82	The motor (tray 4 transport) speed did not ramp up to the required level.	See See "Optional tray motor error service check" on page 246.
168.83	The motor (tray 4 transport) stalled.	See See "Optional tray motor error service check" on page 246.
168.84	The motor (tray 4 transport) ran too slow.	See See "Optional tray motor error service check" on page 246.
168.85	The motor (tray 4 transport) ran too fast.	See See "Optional tray motor error service check" on page 246.
168.86	The motor (tray 4 transport) ran too long.	See See "Optional tray motor error service check" on page 246.

Motor (tray 1 pick/lift) error service check

1. Check the tray insert for damage and improper installation.
2. Check the tray guides for damage and improper operation.
3. Check the lift plate for damage and improper operation.
4. Perform a POR.
5. The following instruction applies to only the MS63x, MX53x, and MX63x printer models.

    1. Make sure that the pick/lift motor gearbox is functional. Do the following:

        1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
        2. Select **Motor (tray 1 pick/lift)**.
    2. Make sure that the connections between the motor (pick/lift) and the controller board are properly connected.
    3. Check the pick/lift motor gearbox for damage, contamination, and improper installation. For more information, see .See "Pick/lift motor gearbox removal" on page 471
6. Check the pick roller for damage and improper operation. For more information, see .See "Pick roller removal" on page 460

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 See "Selecting a location for the printer" on page 627.
2. Make sure that the cooling fan is functional. Do the following:

    1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests**.
    2. 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 .See "Fan removal" on page 399

Optional tray pick drive error service check

Resolve an optional tray pick drive error by making sure the connections between the motors and the controller board are properly connected.

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:

   1. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics > Motors tests**.
   2. 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

171 error messages

Error code	Description	Action
171.82	The main fan speed did not ramp up to the required level.	N/A
171.83	The main fan stalled.	N/A
171.84	The main fan ran too slow.	N/A
171.85	The main fan ran too fast.	N/A

6yy errors

600-680 error messages

600-680 error messages

Error code	Description	Action
600.01	Toner tally from the RIP was not received.	See See "Printhead error service check" on page 226.
600.02	Video did not start.	See See "Printhead error service check" on page 226.
600.03	Transfer Servo never started.	See See "Printhead error service check" on page 226.
600.04	Duplex page was not picked.	See See "Printhead error service check" on page 226.
600.05	Invalid PH NVRAM Type error was detected.	See See "Printhead error service check" on page 226.
600.06	Paper port driver is unresponsive.	See See "Printhead error service check" on page 226.
600.07	Page is at image point before EP is ready.	See See "Printhead error service check" on page 226.
600.07A	Page is at image point before EP is ready.	See See "Printhead error service check" on page 226.
600.07B	Page is at input sensor before EP is ready.	See See "Printhead error service check" on page 226.
600.07C	Page is at image point before EP is ready.	See See "Printhead error service check" on page 226.
600.09	EP update error was detected.	See See "Printhead error service check" on page 226.

Error code	Description	Action
600.10	EP late run-in error was detected.	See See "Printhead error service check" on page 226.
600.95	RIP intentionally declared a jam error, usually to prevent a kiosk user from printing free pages.	See See "Printhead error service check" on page 226.
602.29	Tray 2 was unable to be ready for picking.	N/A
602.39	Tray 3 was unable to be ready for picking.	N/A
602.49	Tray 4 was unable to be ready for picking.	N/A
602.59	Tray 5 was unable to be ready for picking.	N/A
611.02	An Input ISR error occurred and the printhead was not ready.	See See "Printhead error service check" on page 226.
611.32	Lost Hsync errors were detected. Laser safety interlock system may be the cause.	See See "Printhead error service check" on page 226.
611.33	Lost Hsync errors were detected during servo.	See See "Printhead error service check" on page 226.
611.34	A mirror motor lock error was detected.	See See "Printhead error service check" on page 226.
611.35	The mirror motor never got first lock.	See See "Printhead error service check" on page 226.
611.36	The mirror motor never stabilized.	See See "Printhead error service check" on page 226.
611.37	Paper reached the sensor (input) but the mirror motor was not locked.	See See "Printhead error service check" on page 226.
611.38	Paper reached the sensor (input) but the printhead startup was incomplete.	See See "Printhead error service check" on page 226.

Error code	Description	Action
621.01	Fuser heater was too cold when paper entered the fuser nip.	See See "Fuser temperature error service check" on page 229.
655.80	Motor (cartridge) does not turn on.	See See "Cartridge drive error service check " on page 239.
655.81	Motor (cartridge) does not turn off.	See See "Cartridge drive error service check " on page 239.
655.82	Motor (cartridge) speed did not ramp up to the required level.	See See "Cartridge drive error service check " on page 239.
655.83	Motor (cartridge) has stalled.	See See "Cartridge drive error service check " on page 239.
655.84	Motor (cartridge) ran too slow.	See See "Cartridge drive error service check " on page 239.
655.85	Motor (cartridge) ran too fast.	See See "Cartridge drive error service check " on page 239.
655.86	Motor (cartridge) ran too long.	See See "Cartridge drive error service check " on page 239.
661.13	The tray 1 lift plate failed to lift.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
661.80	Motor (tray 1 pick/lift) does not turn on.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
661.81	Motor (tray 1 pick/lift) does not turn off.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
661.82	Motor (tray 1 pick/lift) speed did not ramp up to the required level.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
661.83	Motor (tray 1 pick/lift) has stalled.	See See "Motor (tray 1 pick/lift) error service check" on page 245.

Error code	Description	Action
661.84	Motor (tray 1 pick/lift) ran too slow.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
661.85	Motor (tray 1 pick/lift) ran too fast.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
661.86	Motor (tray 1 pick/lift) ran too long.	See See "Motor (tray 1 pick/lift) error service check" on page 245.
662.23	The tray 2 lift plate failed to lift.	See See "Optional tray pick drive error service check" on page 247.
662.80	Motor (tray 2 pick) does not turn on.	See See "Optional tray pick drive error service check" on page 247.
662.81	Motor (tray 2 pick) does not turn off.	See See "Optional tray pick drive error service check" on page 247.
662.82	Motor (tray 2 pick) speed did not ramp up to the required level.	See See "Optional tray pick drive error service check" on page 247.
662.83	Motor (tray 2 pick) has stalled.	See See "Optional tray pick drive error service check" on page 247.
662.84	Motor (tray 2 pick) ran too slow.	See See "Optional tray pick drive error service check" on page 247.
662.85	Motor (tray 2 pick) ran too fast.	See See "Optional tray pick drive error service check" on page 247.
662.86	Motor (tray 2 pick) ran too long.	See See "Optional tray pick drive error service check" on page 247.
663.23	The tray 3 lift plate failed to lift.	See See "Optional tray motor error service check" on page 246.
663.80	Motor (tray 3 pick) does not turn on.	See See "Optional tray motor error service check" on page 246.

Error code	Description	Action
663.81	Motor (tray 3 pick) does not turn off.	See See "Optional tray motor error service check" on page 246.
663.82	Motor (tray 3 pick) speed did not ramp up to the required level.	See See "Optional tray motor error service check" on page 246.
663.83	Motor (tray 3 pick) has stalled.	See See "Optional tray motor error service check" on page 246.
663.84	Motor (tray 3 pick) ran too slow.	See See "Optional tray motor error service check" on page 246.
663.85	Motor (tray 3 pick) ran too fast.	See See "Optional tray motor error service check" on page 246.
663.86	Motor (tray 3 pick) ran too long.	See See "Optional tray motor error service check" on page 246.
664.43	The tray 4 lift plate failed to lift.	See See "Optional tray motor error service check" on page 246.
664.80	Motor (tray 4 pick) does not turn on.	See See "Optional tray motor error service check" on page 246.
664.81	Motor (tray 4 pick) does not turn off.	See See "Optional tray motor error service check" on page 246.
664.82	Motor (tray 4 pick) speed did not ramp up to the required level.	See See "Optional tray motor error service check" on page 246.
664.83	Motor (tray 4 pick) has stalled.	See See "Optional tray motor error service check" on page 246.
664.84	Motor (tray 4 pick) ran too slow.	See See "Optional tray motor error service check" on page 246.
664.85	Motor (tray 4 pick) ran too fast.	See See "Optional tray motor error service check" on page 246.

Error code	Description	Action
664.86	Motor (tray 4 pick) ran too long.	See See "Optional tray motor error service check" on page 246.
666.80	The motor (tray 2 pass-through) did not turn on.	See See "Optional tray motor error service check" on page 246.
666.81	The motor (tray 2 pass-through) did not turn off.	See See "Optional tray motor error service check" on page 246.
666.82	The motor (tray 2 pass-through) speed did not ramp up to the required level.	See See "Optional tray motor error service check" on page 246.
666.83	The motor (tray 2 pass-through) has stalled.	See See "Optional tray motor error service check" on page 246.
666.84	The motor (tray 2 pass-through) ran too slow.	See See "Optional tray motor error service check" on page 246.
666.85	The motor (tray 2 pass-through) ran too fast.	See See "Optional tray motor error service check" on page 246.
666.86	The motor (tray 2 pass-through) ran too long.	See See "Optional tray motor error service check" on page 246.
667.80	The motor (tray 3 pass-through) did not turn on.	See See "Optional tray motor error service check" on page 246.
667.81	The motor (tray 3 pass-through) did not turn off.	See See "Optional tray motor error service check" on page 246.
667.82	The motor (tray 3 pass-through) speed did not ramp up to the required level.	See See "Optional tray motor error service check" on page 246.
667.83	The motor (tray 3 pass-through) has stalled.	See See "Optional tray motor error service check" on page 246.
667.84	The motor (tray 3 pass-through) ran too slow.	See See "Optional tray motor error service check" on page 246.

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Error code	Description	Action
667.85	The motor (tray 3 pass-through) ran too fast.	See See "Optional tray motor error service check" on page 246.
667.86	The motor (tray 3 pass-through) ran too long.	See See "Optional tray motor error service check" on page 246.
668.80	The motor (tray 4 pass-through) did not turn on.	See See "Optional tray motor error service check" on page 246.
668.81	The motor (tray 4 pass-through) did not turn off.	See See "Optional tray motor error service check" on page 246.
668.82	The motor (tray 4 pass-through) speed did not ramp up to the required level.	See See "Optional tray motor error service check" on page 246.
668.83	The motor (tray 4 pass-through) has stalled.	See See "Optional tray motor error service check" on page 246.
668.84	The motor (tray 4 pass-through) ran too slow.	See See "Optional tray motor error service check" on page 246.
668.85	The motor (tray 4 pass-through) ran too fast.	See See "Optional tray motor error service check" on page 246.
668.86	The motor (tray 4 pass-through) ran too long.	See See "Optional tray motor error service check" on page 246.
680.10	ADF cover was open during an ADF job.	N/A
680.20	Paper was not detected on the ADF tray during an ADF job.	N/A
680.40	A communication error has occurred during a scan job.	N/A
680.50	An imagepip error/ prohibited image error has been detected.	N/A

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.

NOTES
Not all of the items are retrievable from the printer that you are working on.

A. Collecting the history information from the SE menu

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/se, and then press **Enter**.

   ◦ 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

• 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.

> **NOTES**
> To download the FWdebug log to a flash drive, see See "General SE Menu" on page 324.

C. Collecting the settings from the Menu Settings Page

> **NOTES**
> The Menu Settings Page is different for each printer. For more information, see the *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. Print the Menu Settings Page, and then 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 being used
- Print driver being used
- Other information on what was happening when the 9yy error occurred

900-901 errors

900-901 error messages

900 error messages

Error code	Description	Action
900.00	Unrecoverable RIP software error/illegal trap.	See See "900 error service check" on page 260.
900.70		
901.01	A RIP firmware error has occurred.	See See "900 error service check" on page 260.
901.02	A RIP firmware error has occurred.	See See "900 error service check" on page 260.

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:

   1. Enter Recovery mode. For more information, see See "Entering Recovery mode" on page 320.
   2. 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 .See "Controller board removal" on page 402

912 errors

912 error messages

912 error messages

Error code	Description	Action
912.00	An engine software error has occurred.	See See "900 error service check" on page 260.
912.01	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.02	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.04	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.05	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.06	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.07	An engine error occurred.	See See "900 error service check" on page 260.
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.
912.13	An engine error occurred.	Resend the print job. If the problem remains, then

Error code	Description	Action
		contact the next level of support.
912.14	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.
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.
612.19	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.20	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.21	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.
912.30	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.

Error code	Description	Action
912.31	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.	Resend the print job. If the problem remains, then contact the next level of support.
912.33	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.34	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.36	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.38	An engine error occurred.	See See "900 error service check" on page 260.
912.39	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.40	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.42	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.43	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.44	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.

Error code	Description	Action
912.45	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.46	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.48	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.49	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.50	An engine error occurred.	See See "900 error service check" on page 260.
912.51	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.53	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.54	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.55	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.56	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.57	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.

Error code	Description	Action
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.
912.64	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.65	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.
912.73	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

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Error code	Description	Action
		contact the next level of support.
912.75	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
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 See "900 error service check" on page 260.
912.85	An engine error occurred.	See See "900 error service check" on page 260.
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 See "900 error service check" on page 260.
912.99	RIP command interface issue to the engine.	See See "900 error service check" on page 260.

938-958 errors

938–958 error messages

938–958 error messages

Error code	Description	Action
938.01	An unknown card type was detected by the thick engine code.	See See "900 error service check" on page 260.
938.04	The supplies security is disabled.	Restart the printer. If the problem remains, then contact the next level of support.
938.05	A bad cal cap on the system cap.	N/A
940.00	Controller to engine communication error has occurred.	See See "900 error service check" on page 260.
941.03	An engine communication error has occurred.	See See "900 error service check" on page 260.
950.10	An NVRAM mismatch error occurred—Non-generic FRU installed.	See See "900 error service check" on page 260.
953.99	An NVRAM chip failure with mirror part.	See See "900 error service check" on page 260.
958.99	A controller board NAND error has occurred..	See See "900 error service check" on page 260.

980-992 errors

980-992 error messages

980-992 error messages

Error code	Description	Action
980.01	An option communication error has occurred.	See See "Dead optional tray service check" on page 274.
980.02	An option communication error has occurred.	See See "Dead optional tray service check" on page 274.
980.03	An option communication error has occurred.	See See "Dead optional tray service check" on page 274.
980.04	An option communication error has occurred.	See See "Dead optional tray service check" on page 274.
980.05	An option communication error has occurred.	See See "Dead optional tray service check" on page 274.
980.11	An option communication error has occurred.	See See "Dead optional tray service check" on page 274.
980.13	An option communication error has occurred.	See See "Dead optional tray service check" on page 274.
980.14	An option communication error has occurred.	See See "Dead optional tray service check" on page 274.
980.15	An option communication error has occurred.	See See "Dead optional tray service check" on page 274.
981.91	An invalid paper port protocol error has occurred.	See See "Dead optional tray service check" on page 274.
982.92	A paper port error occurred.	See See "Dead optional tray service check" on page 274.

Continued from page 268

Error code	Description	Action
982.94	A paper port error occurred.	See See "Dead optional tray service check" on page 274.
982.95	A paper port error occurred.	See See "Dead optional tray service check" on page 274.
982.96	A paper port error occurred.	See See "Dead optional tray service check" on page 274.
982.97	A paper port error occurred.	See See "Dead optional tray service check" on page 274.
983.98	An unsupported paper port command error has occurred.	See See "Dead optional tray service check" on page 274.
984.99	An invalid paper port parameter error has occurred.	See See "Dead optional tray service check" on page 274.
992.00	An option device software error has occurred.	See See "Dead optional tray service check" on page 274.
992.01	An option device software error has occurred.	See See "Dead optional tray service check" on page 274.

ADF/Scanner hardware errors

8yy errors

800-845 error messages

840-845 error messages

Error code	Description	Action
800.00	A scanner communication error was detected—Motor Card.	See See "Scanner communication error service check" on page 272.
840.01	The scanner was manually disabled by the user.	See See "Scanner communication error service check" on page 272.
840.02	The scanner was automatically disabled by the printer after two consecutive hardware failures.	See See "Scanner communication error service check" on page 272.
842.00	A scanner communication error was detected—No response.	See See "Scanner communication error service check" on page 272.
842.01	A scanner communication error was detected—HW protocol	See See "Scanner communication error service check" on page 272.
842.02	A scanner communication error was detected—Logical protocol.	See See "Scanner communication error service check" on page 272.
843.00	The scanner CIS failed to reach its home position.	See See "Scanner communication error service check" on page 272.
843.01	An ADF CIS failed to reach its home position.	See See "Scanner communication error service check" on page 272.

Continued from page 270

Error code	Description	Action
845.02	The scanner front side scan module was detected as unplugged.	See See "Scanner communication error service check" on page 272.
845.03	The scanner backside scan module was detected as unplugged.	See See "Scanner communication error service check" on page 272.

Error code	Description	Action

Scanner communication error service check

Resolve a scanner communication error by making sure that the connections between the flatbed scanner and the controller board are properly connected.

1. Enable the scanner via the control panel or EWS.

    1. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > Disabled Scanner**.
    2. Select **Enabled**.
2. Perform a POR.
3. If an 84y.xx error code persists, then check if the ADF or the flatbed scanner is causing the error.
4. Check the error logs in the Print Log Summary.

    1. Enter the Diagnostics menu, and then touch **Event Log > Print Log Summary**.
    2. If the printer has encountered successive scanner errors, then perform the appropriate service check.

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

5. Make sure that the ADF sensors and motors are functional, do the following:

    1. Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
    2. Perform all ADF sensor and motors tests.
6. Make sure that the connections between the ADF and the controller board are properly connected.
7. Check the ADF for wear, damage, and improper installation. For more information, see See "ADF removal" on page 503.
8. Make sure that the flatbed scanner sensors and motors are functional, do the following:

    1. Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
    2. Perform all flatbed scanner sensor and motors tests.
9. Make sure that the connections between the flatbed scanner and the controller board are properly connected.
10. Check the flatbed scanner for wear, damage, and improper installation. For more information, see See "Flatbed scanner removal" on page 506.

Other symptoms

Base printer symptoms

base printer symptoms table

Symptom	Action
The optional tray is unresponsive.	See See "Dead optional tray service check" on page 274.

Dead optional tray service check

Check if the optional tray is supported by the printer.

1. Check the compatibility of the optional tray. Do the following:

   1. Make sure that the optional tray is supported by the printer model. For more information, see .
   2. Remove the tray insert, and then check if the label is present.
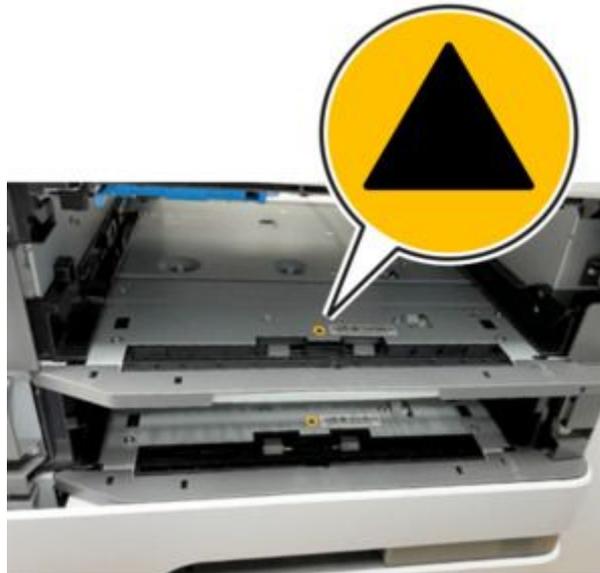
   If the part number of the optional tray does not start with 36S or the label is not present, then the optional tray is incompatible.
2. If the error persists after installing a compatible tray, then check the interconnect cable for damage and improper installation. For more information, see .

Service menus

Understanding the printer control panel

Using the control panel

Use the features of the control panel to navigate easily through the printer functions and settings.
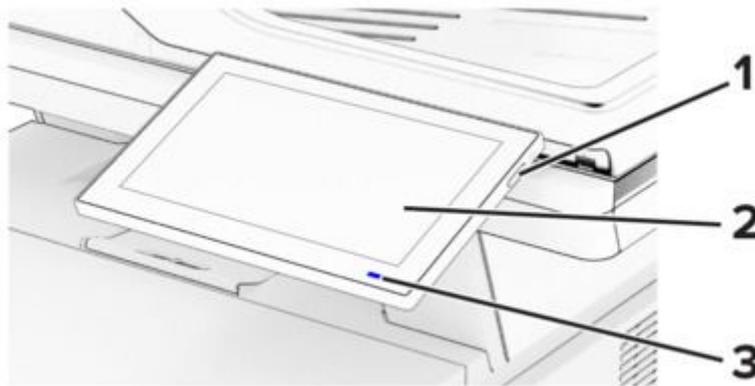
Parts of the control panel and their functions

	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.

Continued from page 275

	Control panel part	Function
		• Wake the printer from Sleep or Hibernate mode.
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

The following information helps you learn about the status of your printer.

Indicator light color and its corresponding printer status

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.

     When the display shows the following icon, close tray 1.
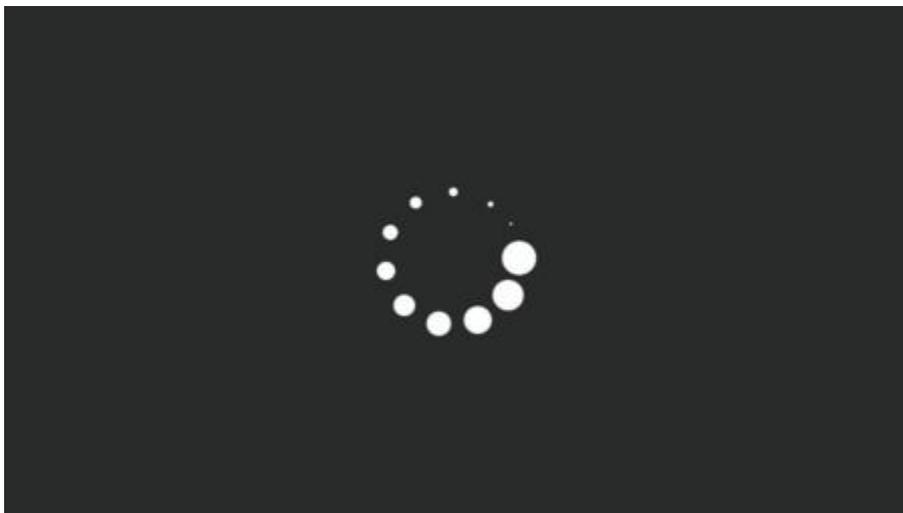
  4. From the menu that appears on the display, select **Diagnostics_Mode**.
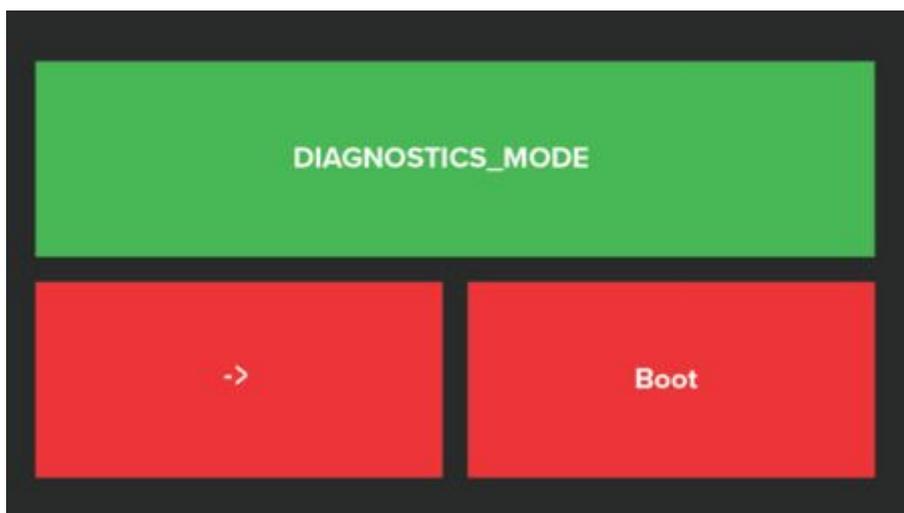
     - Make sure that the selected menu turns green.
     - If the **Diagnostics_Mode** option does not show on the display, touch **->** repeatedly until it appears.

  5. Select **Boot**.

- To access the Diagnostics Menu from the home screen, do the following:

  1. From the home screen, touch ▦.
  2. Touch ****36**, and then touch the start button.

Reports

Device Settings

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

Installed Licenses

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

Format Fax Storage

This setting deletes stored fax jobs.
Enter the Diagnostics menu, and then navigate to:
Format Fax Storage > Start

Event log

Display Log

This setting displays the message text that appears when a printer event occurs.

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

   Event Log > Display Log
2. Select a log to print.

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. Touch **Start**.

NOTES
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. Touch **Start**.

NOTES
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 touch **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**.

Output bin quick feed

This setting lets you send a single or continuous test page to a bin.

1. Enter the Diagnostics menu, and then touch **Output bin quick feed**.
2. Select the bin to send the test page to.
3. Select whether to send a single or continuous test page.

Printer Setup

Printed page count (mono)

This setting displays the amount of pages printed in mono.

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

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 touch **Printer Setup**.
2. View the permanent page count.

Enable edge-to-edge (printing)

This setting shifts all four margins to the physical edges of the page.

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

   Printer Setup > Enable edge-to-edge (printing)
2. Select a setting to adjust.

> **NOTES**
> This feature does not work in PPDS emulation.

Enable edge-to-edge (copy)

This setting determines whether the printer accepts the ADF or flatbed edge erase value when performing an ADF or flatbed copy.

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

   Printer Setup > Enable edge-to-edge (copy)
2. Select a setting to adjust.

Processor ID

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

1. Enter the Diagnostics menu, and then touch **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 touch **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 touch **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 allows you to 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 touch **OK**.

EP setup

WARNING—POTENTIAL DAMAGE
Do not change this setting without specific instructions from the next level of support.

This setting allows you to 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 test
2. Select a sensor, and then touch **Start**.
3. Find, and then manually toggle the sensor.

> ◦ 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.
> ◦ For the fuser exit sensor actuator, toggle it toward the rear door.

List of sensor tests

Test
MPF media present
Pick roller index (tray 1)
Media out (tray 1)
Input
Fuser exit
Duplex path 1
Output bin full
Door interlock
Trailing edge

Motor tests

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

   Printer diagnostics & adjustments > Motor tests
2. Select a motor.

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation 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.
- To stop a running motor in non-touch-screen printer models, touch **OK**.

List of motor tests

Test
MPF pick
Pick (tray 1)
Duplex solenoid
Redrive solenoid
K toner add
Transport
Fan (main)

Registration adjust

This setting lets you adjust the skew and margins. You can also perform a Quick test after the adjustment.

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

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

Margin Offset

This setting lets you adjust the margin offset and to print or reset the default settings.

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

   Printer diagnostics & adjustments > Margin Offset
2. Select a setting.

Universal Override

This setting allows the user to feed custom media sizes to a Custom Media Tray.

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

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

Scanner diagnostics

Motor tests

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

   Printer diagnostics & adjustments > Motor tests
2. Select a motor.

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation 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.
- To stop a running motor in non-touch-screen printer models, touch **OK**.

List of motor tests

Test
MPF pick
Pick (tray 1)
Duplex solenoid
Redrive solenoid
K toner add
Transport
Fan (main)

Sensor tests

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

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

   - 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.
   - For the fuser exit sensor actuator, toggle it toward the rear door.

List of sensor tests

Test
MPF media present
Pick roller index (tray 1)
Media out (tray 1)
Input
Fuser exit
Duplex path 1
Output bin full
Door interlock
Trailing edge

Feed Test

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

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

   Scanner diagnostics > Feed Test

2. Select a paper size.
3. From the Feed Test section, touch **Start**.

Scanner Calibration Reset

Before starting the test, make sure that the scanner glass and backing material are clean. For more information, go to See "Cleaning the scanner" on page 571.

1. Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
2. From the Sensor Calibration Test section, touch **Start**.

To verify the result, do the following:

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

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

Controller Calibration

This test must be done when the scanner controller or flatbed scanner is changed.

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

   Scanner Diagnostics > Controller Calibration

2. Touch **Start**.

Additional input tray diagnostics

Sensor tests

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

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

   ◦ 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.
   ◦ For the fuser exit sensor actuator, toggle it toward the rear door.

List of sensor tests

Test
MPF media present
Pick roller index (tray 1)
Media out (tray 1)
Input
Fuser exit
Duplex path 1
Output bin full
Door interlock
Trailing edge

Motor tests

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

   Printer diagnostics & adjustments > Motor tests
2. Select a motor.

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation 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.
- To stop a running motor in non-touch-screen printer models, touch **OK**.

List of motor tests

Test
MPF pick
Pick (tray 1)
Duplex solenoid
Redrive solenoid
K toner add
Transport
Fan (main)

Entering Configuration Menu

From the home screen, touch **Settings > Device > Maintenance > Configuration Menu**.

Configuration Menu

Configuration Menu items and their descriptions

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

Menu item	Description
Manual Paper	**NOTES** For Multipurpose Feeder to appear, in the Paper menu, set Configure MP to Cassette.
Tray Configuration Envelope Prompts Auto* Multipurpose Feeder Manual Envelope	Set the paper source that the user fills when a prompt to load envelope appears. **NOTES** For Multipurpose Feeder to appear, in the Paper menu, set Configure MP to Cassette.
Tray Configuration Action for Prompts Prompt user* Continue Use current	Set the printer to resolve paper- or envelope-related change prompts.
Tray Configuration Multiple Universal Sizes Off* On	Set the tray to support multiple universal paper sizes.
Reports Menu Settings Page Event Log Event Log Summary	Print reports about printer menu settings, status, and event logs.
Supply Usage And Counters Clear Supply Usage History	Reset the supply usage history, such as number of pages and days remaining, to the factory shipped level.
Supply Usage And Counters Reset Maintenance Counter	Reset the counter after installing a new maintenance kit.
Printer Emulations PPDS Emulation Off* On	Set the printer to recognize and use the PPDS data stream.

Menu item	Description
Printer Emulations PS Emulation Off On*	Set the printer to recognize and use the PS data stream.
Printer Emulations Use Native ISD Fonts Off* On	Let the printer use the native or free fonts in the intelligent storage drive (ISD) for printing.
Printer Emulations Enable Formsmerge Off On*	Activate Forms Merge to store the forms into the hard disk or ISD. - The Forms Merge license must be installed. - This menu item appears only when a hard disk or an ISD is installed.
Printer Emulations Enable Prescribe Off* On	Activate Prescribe. **NOTES** The Prescribe license must be installed.
Printer Emulations Emulator Security Page Timeout 0–60 (60*)	Set the page time-out during emulation.
Printer Emulations Emulator Security Reset Emulator After Job Off* On	Reset the emulator after a print job.

Menu item	Description
Printer Emulations Emulator Security Disable Printer Message Access Off On*	Disable access to printer message during emulation.
Fax Configuration Fax Low Power Support Disable Sleep Permit Sleep Auto*	Set fax to enter Sleep mode whenever the printer determines that it must.
Fax Configuration Fax Storage Location NAND Disk*	Set the storage location for all faxes. **NOTES** This menu item appears only when an ISD is installed.
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.
Print Configuration Print Density Disabled 1–5 (3*)	Adjust the toner density when printing documents.
Print Configuration Copy Density Disabled 1–5 (3*)	Adjust the toner density when copying documents.
Device Operations Quiet Mode Off* On	Set the printer to operate in Quiet Mode. **NOTES**

Menu item	Description
	Enabling this setting slows down the overall performance of the printer.
Device Operations Safe Mode Off* On	Set the printer to operate in a special mode, in which it attempts to continue offering as much functionality as possible, despite known issues. For example, when set to On, and the duplex motor is nonfunctional, the printer performs one-sided printing of the documents even if the job is two-sided printing.
Device Operations Minimum Copy Memory 20 MB* 30 MB 50 MB 80 MB 100 MB	Set the minimum memory allocation for storing copy jobs.
Device Operations Clear Custom Status	Erase user-defined strings for the Default or Alternate custom messages.
Device Operations Clear all remotely-installed messages	Erase messages that were remotely installed.
Device Operations Automatically Display Error Screens Off On*	Show existing error messages on the display after the printer remains inactive on the home screen for a length of time.
Device Operations Honor orientation on fast path copy Off* On	Enable the printer to use the orientation setting under the Copy menu when sending quick copy jobs.
App Configuration LES Applications Off On*	Enable Lexmark Embedded Solutions (LES) applications.

Menu item	Description
Scanner Configuration Scanner Manual Registration Print Quick Test	Print a Quick Test target page. **NOTES** Make sure that the margin spacing on the target page is uniform all the way around the target. If it is not, then the printer margins must be reset.
Scanner Configuration Scanner Manual Registration Front ADF Registration Rear ADF Registration Flatbed Registration	Manually register the flatbed and ADF after replacing the ADF, scanner glass, or controller board.
Scanner Configuration Reset Maintenance Counter	Reset the counter after replacing the ADF maintenance kit.
Scanner Configuration Edge Erase Flatbed Edge Erase (3*) ADF Edge Erase (3*)	Set the size, in millimeters, of the no-print area around an ADF or flatbed scan job.
Scanner Configuration Disable Scanner No* Yes ADF Only	Disable the scanner when it is not working properly.
Scanner Configuration Tiff Byte Order CPU Endianness* Little Endian Big Endian	Set the byte order of a TIFF-formatted scan output.
Scanner Configuration Exact Tiff Rows Per Strip On* Off	Set the RowsPerStrip tag value of a TIFF-formatted scan output.

NOTES

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

Entering Invalid engine mode

This mode allows the printer to load the correct firmware code. For more information, see
See "Updating the printer firmware " on page 342.

1. Unplug the power cord from the electrical outlet.
2. Open tray 1.
3. Connect the power cord to the electrical outlet.

   When the display shows the following icon, close tray 1.
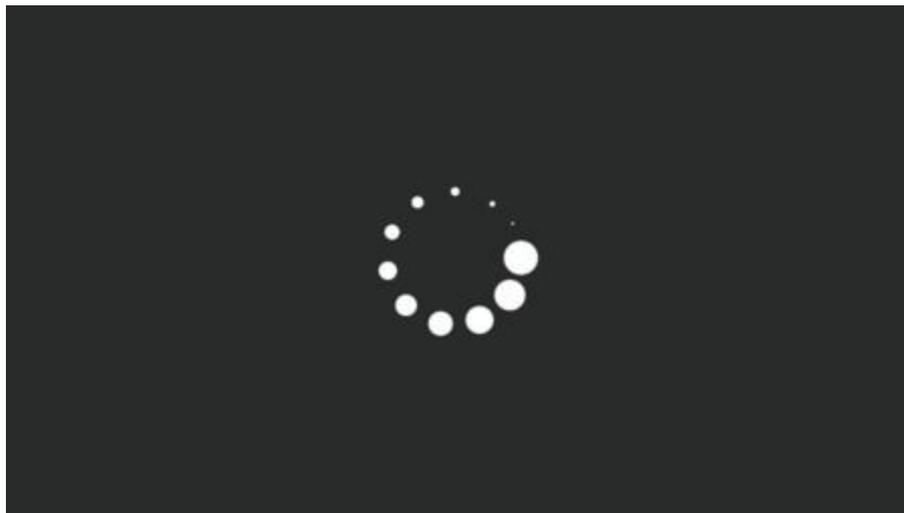
4. Touch **->** to navigate the menu that appears on the display, and then select
   ENGINE_FLASH.
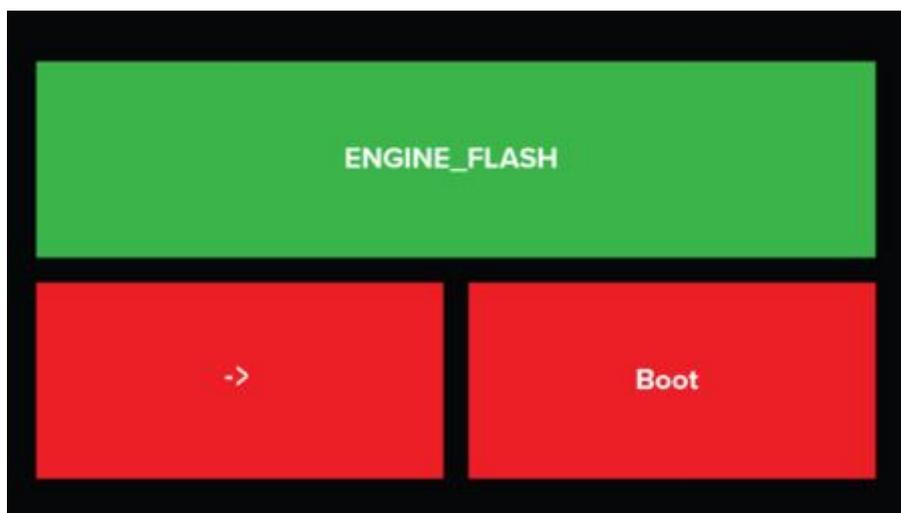
> **NOTES**
> The selected menu turns green.

5. Touch **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.
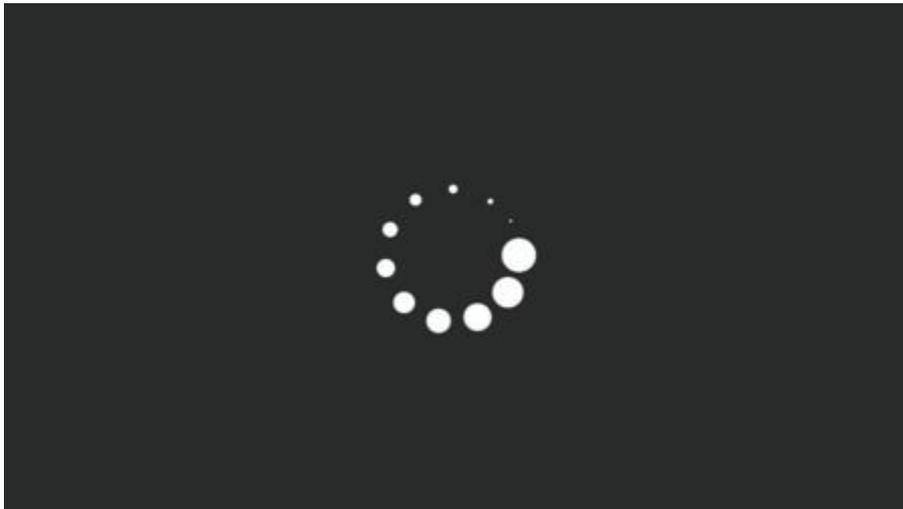
For 2.4-, 4.3-, 7-, and 10-inch displays with number pads

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 an ellipses appears on the upper-left corner of the display, close tray 1.

> **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

- Capture Logs to USB Drive

  NOTES
  This setting allows you to save a log file to a USB drive.

- Capture Logs to Internal Storage
- Code Versions
- Debug Level

Network SE Menu

Enter the SE menu, and then select **Network SE Menu**.

> **NOTES**
> Use these settings as directed by the next level of support.

Service engineer menu

Top-level menu	Intermediate menu
HISTORY	• Print History • Mark History
MAC	• Set Card Speed • LAA • Keep Alive
NPAP	Print Alerts
TCP/IP	• DHCP Request Options • netstat • arp • Allow SNMP Set • MTU • Meditech Mode • RAW LPR Mode • Garp Interval
Wireless Settings	• 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]

Continued from page 325

Top-level menu	Intermediate menu
	• IP6tables [Firewall Dump] • IPsec Dump
Enable DHCPCD Debugging	N/A
Enable wpa-supplicant Debugging	N/A
Enable Ethernet Gigabit	N/A
Enable Dual-NIC	N/A
Enable BLE	N/A
Netconfig Debug Level	N/A
IPP ICONS	• Delete intermediate icons • Delete current icons
Top-level menu	Intermediate menu

Fax SE Menu

Use this menu to help resolve fax transmission and reception issues.
Enter the SE menu, and then touch **Fax SE Menu**.

> **NOTES**
> Use these settings as directed by the next level of support.

Service engineer menu

Top-level menu	Intermediate menu
Agency Test Menu	• Go Off Hook • Ring Detect • Generate Tones • Modulations
Fax Settings	• Fax Modulations • FOIP Settings • Miscellaneous Settings • Reset Fax Settings
Modem Settings	• Adjust Power FSK • ARA EQ Bias • Busy Tone Cycles • Busy Tone Max Off Time • Busy Tone Min Off Time • Caller ID Pattern **NOTES** Changing the value of this setting also changes the value of the Caller ID setting in the Fax Settings. • Congest Tone Cycles • Congest Tone Max Off Time • Congest Tone Min Off Time • DC Characteristic • Dial Timeout • Dial Tone Tresh • DTMF High Level • DTMF Low Level • Enable CEQ

Top-level menu	Intermediate menu
	• High Ring Impedence • Impedance • Interdigit Delay • Negative Twt Ctl • Positive Twt Ctl • Progress Tresh • Pulse Break Time • Pulse Dial Type • Pulse Fall Time • Pulse Make Time • Receive Tresh • Transmit Level • V34 PreEmhFilt • V17 TxFilter • Digital Line Guard • Digital Line Threshold • Off-Hook Line Settle Time • Disable Sending CRP • Dial Wait Time • ANSam Transmit Time
Fax logs	• Print all T30 Logs • Print CallerID Log • Print Call Log • Print Fax Settings • Print Job Log • Print All T30 Log Errors • Print T30 Log • Print T38 Trace Log • Clear T38 Trace Log
Reboot System	N/A

Scanner SE Menu

Enter this setting to view the calibration data.

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

Many electronic products use parts that are known to be sensitive to electrostatic discharge (ESD). To prevent damage to ESD-sensitive parts, 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 of static electricity from clothing fibers, carpets, and furniture.
- Put the ESD wrist strap on your wrist. 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 into 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 .See "Entering the Diagnostics Menu" on page 278

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 See "Entering Invalid engine mode" on page 319 and See "Updating the printer firmware " on page 342.

> **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 allows you to temporarily use the replacement part.

   > **WARNING—POTENTIAL DAMAGE**
   > Some printers will perform a POR automatically if the Diagnostics Menu is not opened within five seconds. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

3. Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.
   - If the problem is not resolved—Turn off the printer, and then reinstall the old part.
   - If the problem is resolved—Perform a POR.

Restoring the printer configuration

Restore the printer to its correct configuration to complete the replacement service. Use the Service Restore Tool to download the software bundle, and then flash the printer settings and embedded solutions.

NOTES
If you do not have access to Service Restore Tool, then contact your next level of support.

NOTES
The software bundle contains the latest version of the firmware, applications, and software licenses from the Lexmark CFM and Package Builder. The printer firmware may be at a different level from what is used before replacement of the part.

Using the Service Restore Tool

1. Go to https://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.

NOTES
Make sure that the serial number that appears on the verification screen is correct.
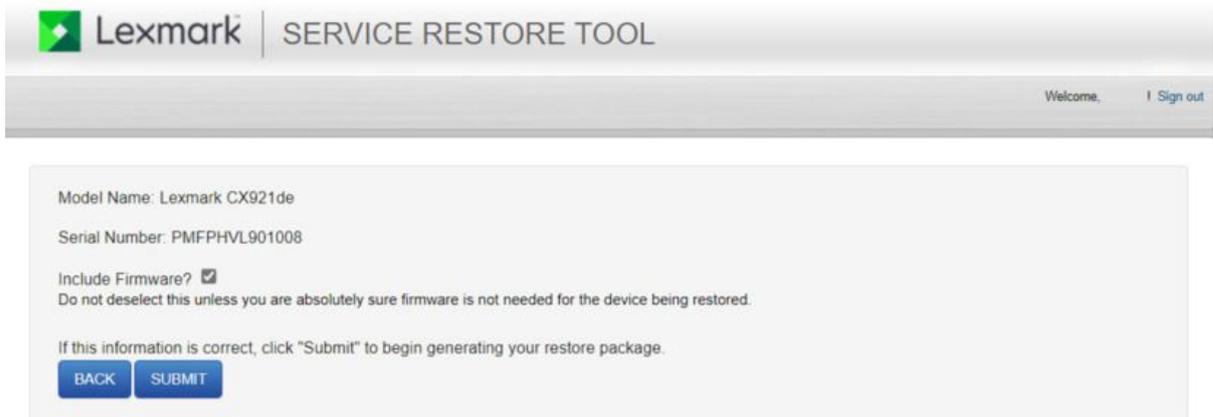
4. Save the zip file.

> **NOTES**
> Make sure that the serial number in the zip file matches the serial number of the
> printer being restored.
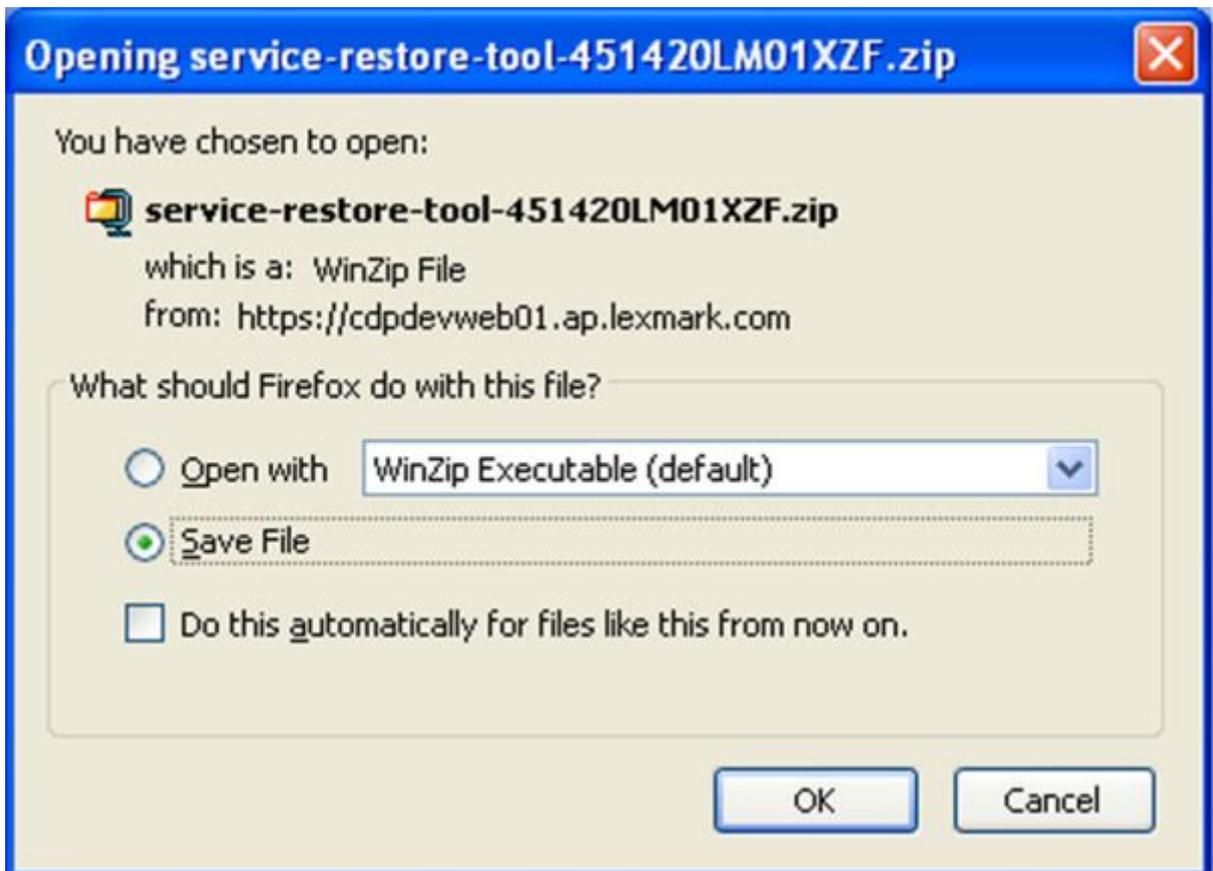
5. Extract the contents of the zip file, open the *Readme* file, and then follow the instructions in
   the file.

- ◦ 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 See "Updating the printer firmware " on page 342.
- ◦ To load the zip files that are extracted from the Service Restore Tool, see See "Restoring solutions, licenses, and configuration settings" on page 340.
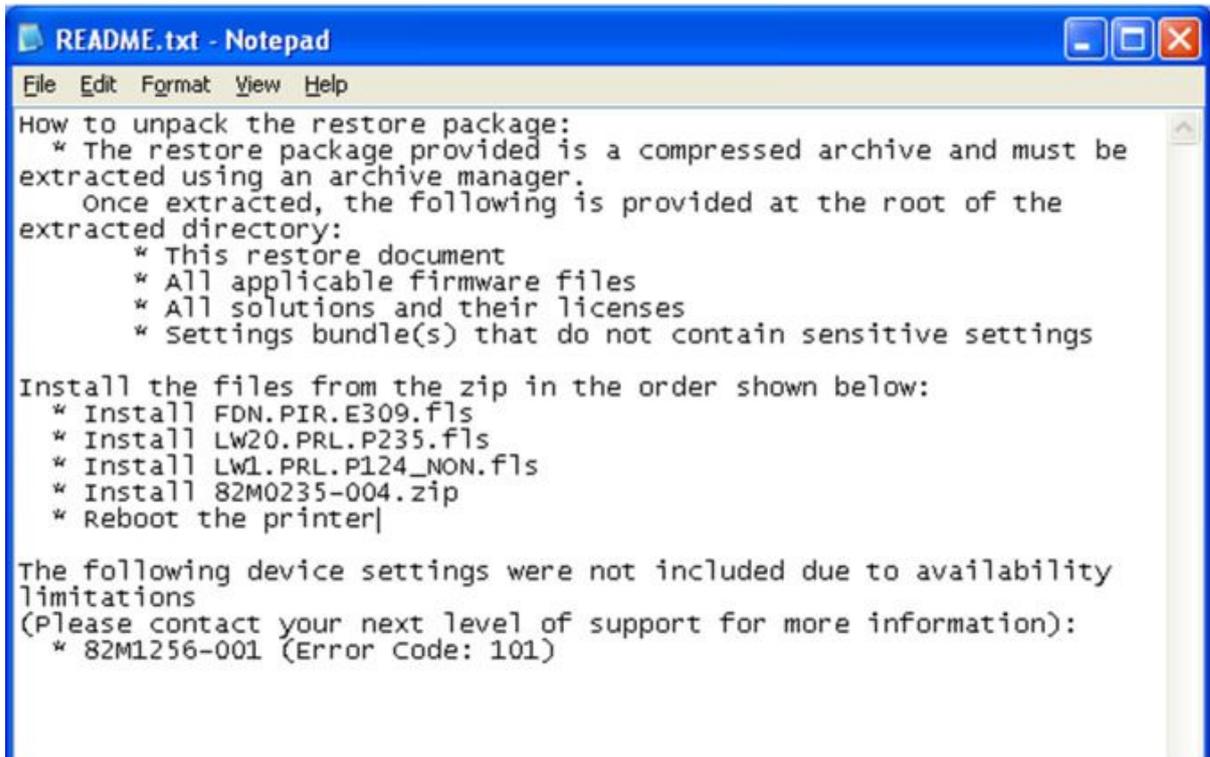
```
README.txt - Notepad

File  Edit  Format  View  Help

How to unpack the restore package:
  * The restore package provided is a compressed archive and must be
extracted using an archive manager.
    Once extracted, the following is provided at the root of the
extracted directory:
      * This restore document
      * All applicable firmware files
      * All solutions and their licenses
      * Settings bundle(s) that do not contain sensitive settings

Install the files from the zip in the order shown below:
  * Install FDN.PIR.E309.fls
  * Install LW20.PRL.P235.fls
  * Install LW1.PRL.P124_NON.fls
  * Install 82M0235-004.zip
  * Reboot the printer|

The following device settings were not included due to availability
limitations
(Please contact your next level of support for more information):
  * 82M1256-001 (Error Code: 101)
```

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.

- • If you are unable to access the administrative menus to verify that the printer is restored, then ask the customer for access rights.
- • If a 10.00 error appears after you restart the printer, then contact the next level of support.

Restoring solutions, licenses, and configuration settings

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

1. Open a web browser, and then type the printer IP address.
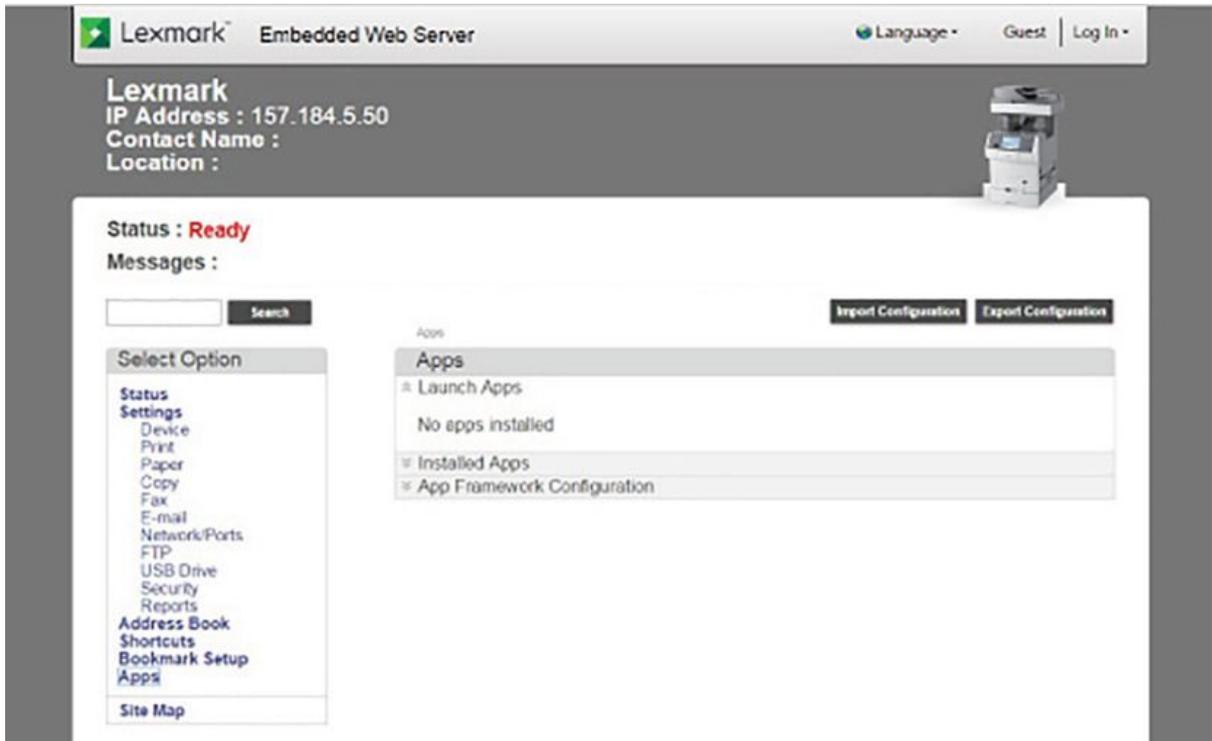
2. Click **Import Configuration**, and then click **Browse**.
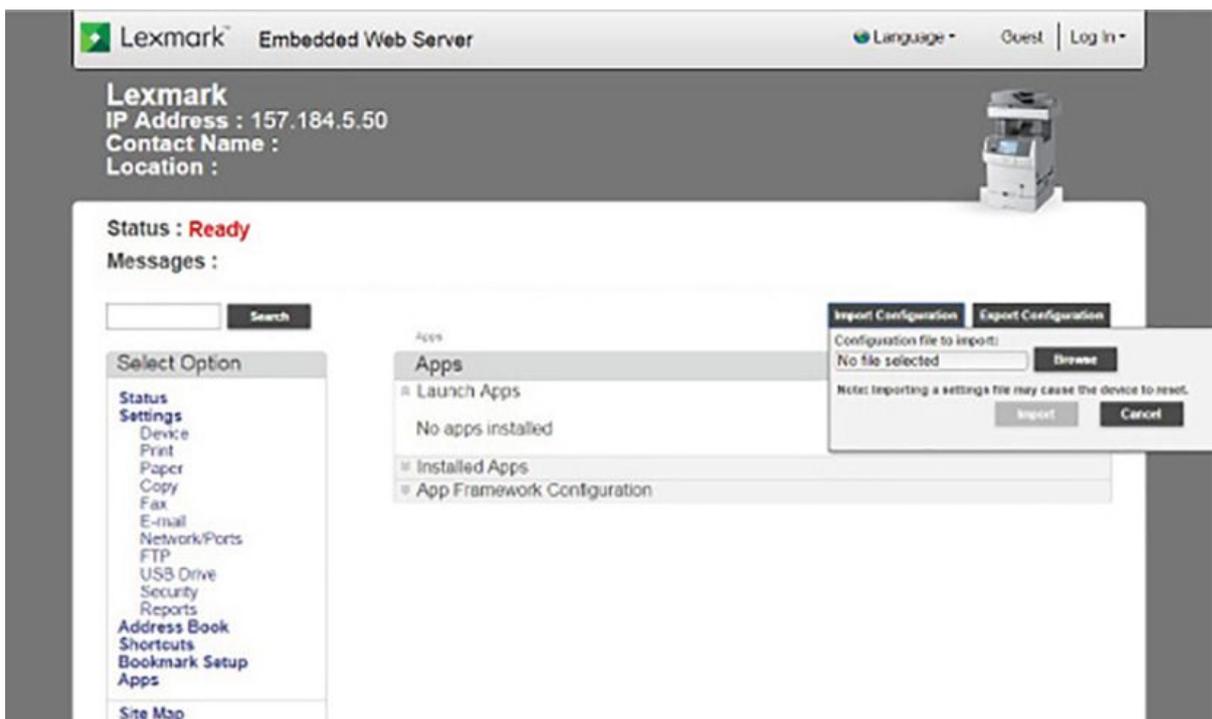
3. Navigate to the folder where the zip files are extracted from the Service Restore Tool.
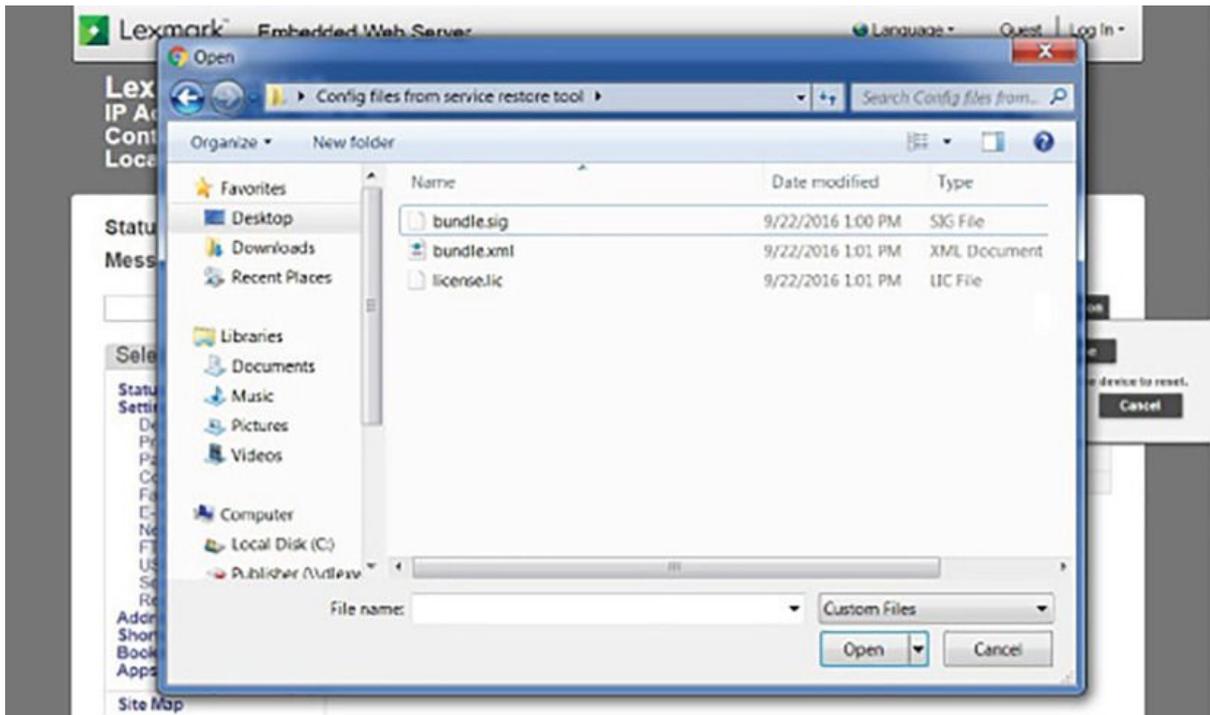
4. Select the file to import, and then click **Import**.
5. Repeat step 2 through step 4 for the other files that are included in the extracted zip file.

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.

Using a flash drive

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

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

1. Insert the flash drive into the USB port.
2. Depending on the printer model, do any of the following:

   ◦ From the control panel, navigate to **USB Menu: Print from USB > Accept** or **OK**, and then select the file that you need to flash.
   ◦ Select the firmware file.

NOTES
Do not turn off the printer while the update is going on.

Using a network computer

Using the File Transfer Protocol (FTP)

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

1. Turn on the printer.
2. Obtain the IP address from the home screen.
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.

Using the Embedded Web Server

> **NOTES**
> The printer must be in ready state to update the firmware.

1. Open a web browser, and then type the printer IP address.
2. Click **Settings > Device > Update Firmware**.
3. Select the file to use.

   The printer performs a POR sequence and terminates the EWS session.

Using a USB cable connection

> **NOTES**
> Make sure that the cable is connected to the rear USB port.

Using USB Flash Utility

1. Go to support.lexmark.com, and then download USB Flash Utility.
2. Extract, and then run the utility.
3. Click **Browse Files**, and then browse to the firmware file directory.
4. Select the firmware file.
5. Select the source printer.
6. Click **Start**.

Using USButil

1. Go to support.lexmark.com, and then download USButil.
2. Extract, and then drag and drop the firmware file onto the USButil icon.
3. A command prompt window appears briefly.

> **NOTES**
> Make sure to disconnect other USB devices when using USButil.

Backing up eSF applications and settings

> **NOTES**
> Export the eSF applications and settings from the printer before replacing the controller board.

Exporting eSF applications and settings file

1. Reset the printer into Invalid engine mode. See See "Entering Invalid engine mode" on page 319.
2. Open a web browser, and then type the printer IP address.

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

3. Navigate to **Settings > Solutions > Embedded Solutions**.
4. From the Embedded Solutions page, select the applications that you want to export.
5. Click **Export**.

> **NOTES**
> The size limit of the export file is 128 KB.

Importing eSF applications and settings file

After replacing the controller board, import back to the printer the eSF applications and settings that were exported.

1. Reset the printer into Invalid engine mode. See See "Entering Invalid engine mode" on page 319.
2. Open a web browser, and then type the printer IP address.

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

3. Navigate to **Settings > Solutions > Embedded Solutions**.
4. From the Embedded Solutions page, select the applications that you want to import.

5. Click **Import**.

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.
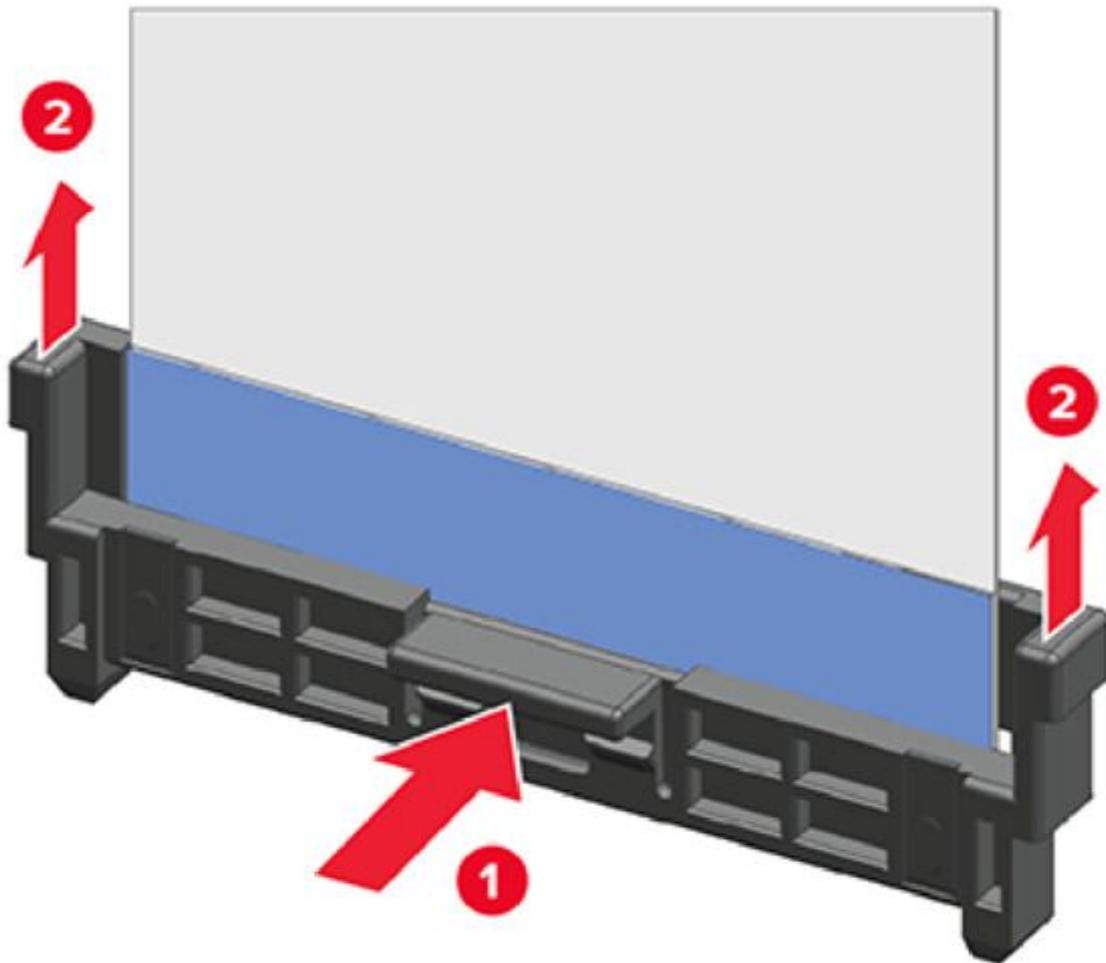
Ribbon cable connectors

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, read this entire section. Great care must be taken to avoid damaging the connector or cable when inserting or removing the cable.

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 can cause damage to the contacts on the cable.

WARNING—POTENTIAL DAMAGE
Avoid using a fingernail, or sharp object to open the locking mechanism. This could damage the cable.

WARNING—POTENTIAL DAMAGE
Avoid pressing against the cable when opening the locking mechanism. This 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

This FRU contains a horizontal top contact cable connector. Read the instructions before proceeding.

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.
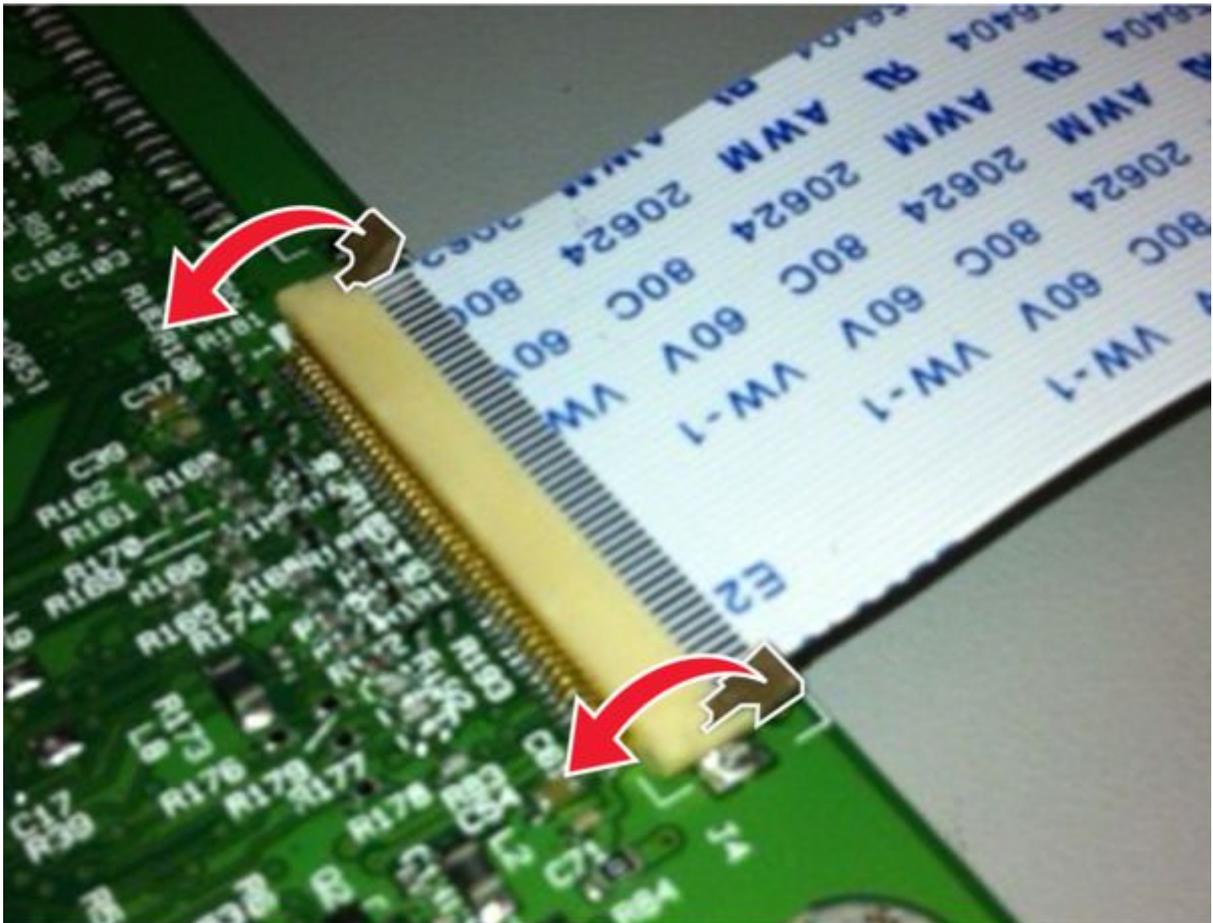
2. Slide the cable out of the connector.

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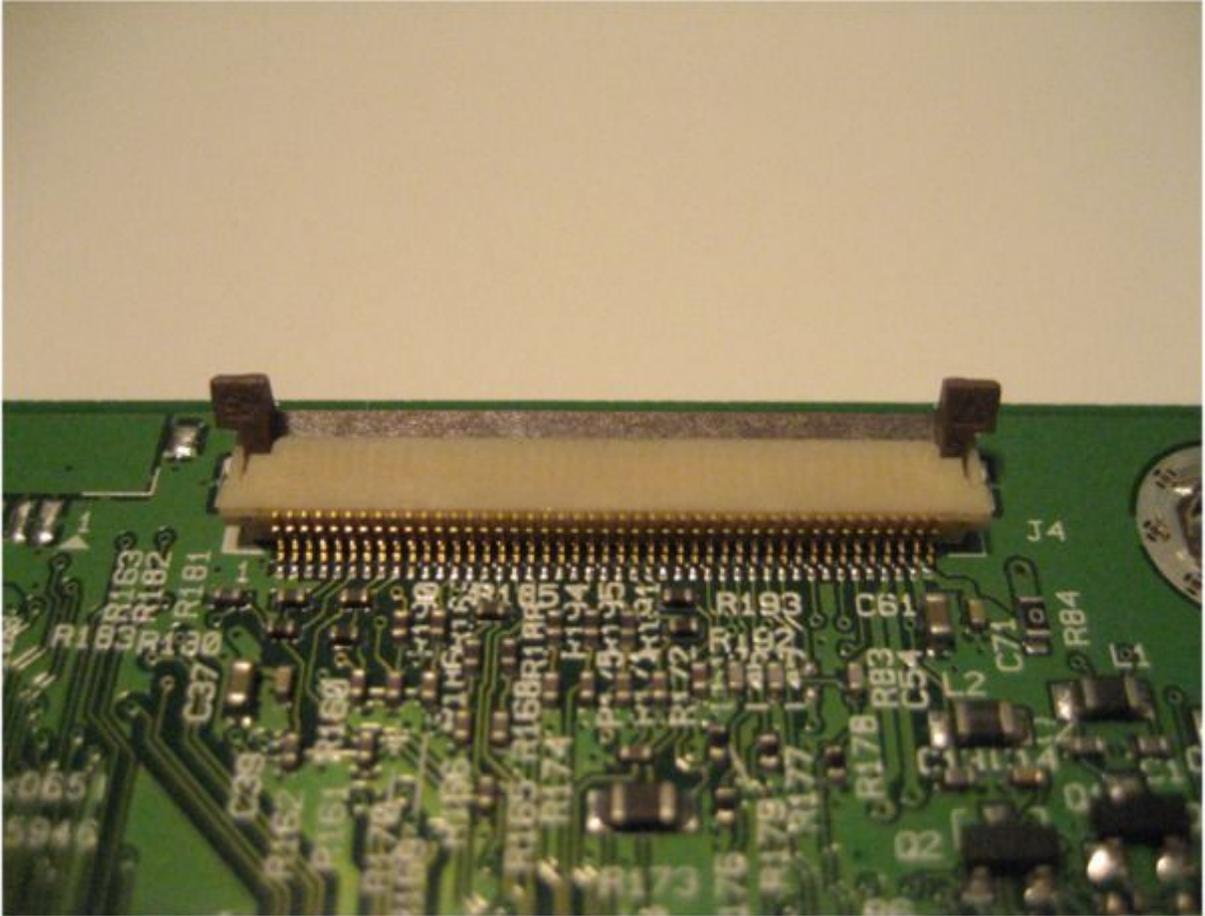
2. Insert the cable with the contacts on the cable facing up. Insert the cable on top of the actuator.

> **NOTES**
> 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. The cable should 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.
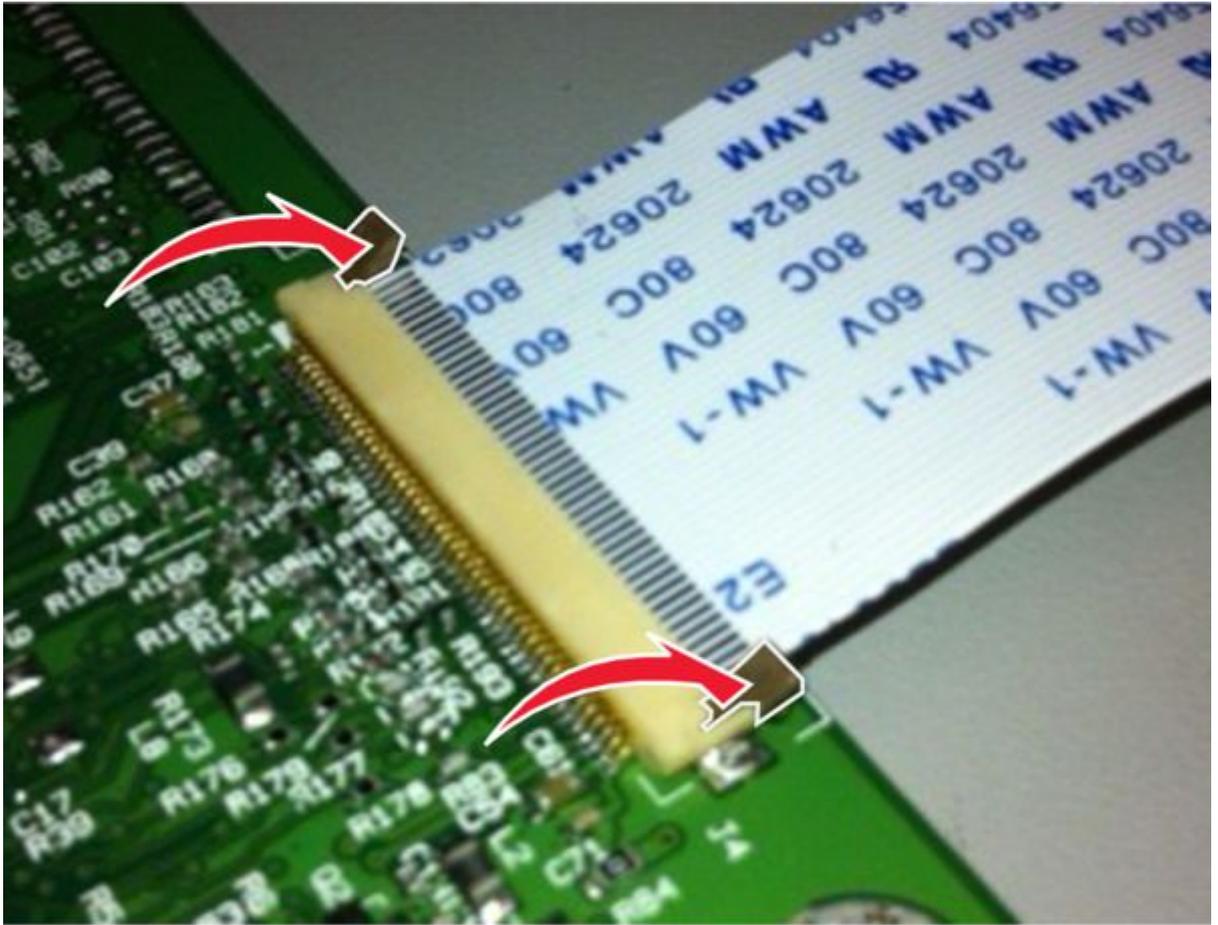
Horizontal bottom contact connector

This FRU contains a horizontal bottom contact cable connector. Read the instructions before proceeding.

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 could 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 it is in the open position.

2. Insert the cable into the ZIF connector with the contacts facing downward and away from the locking actuator. The cable needs to be inserted below the actuator.
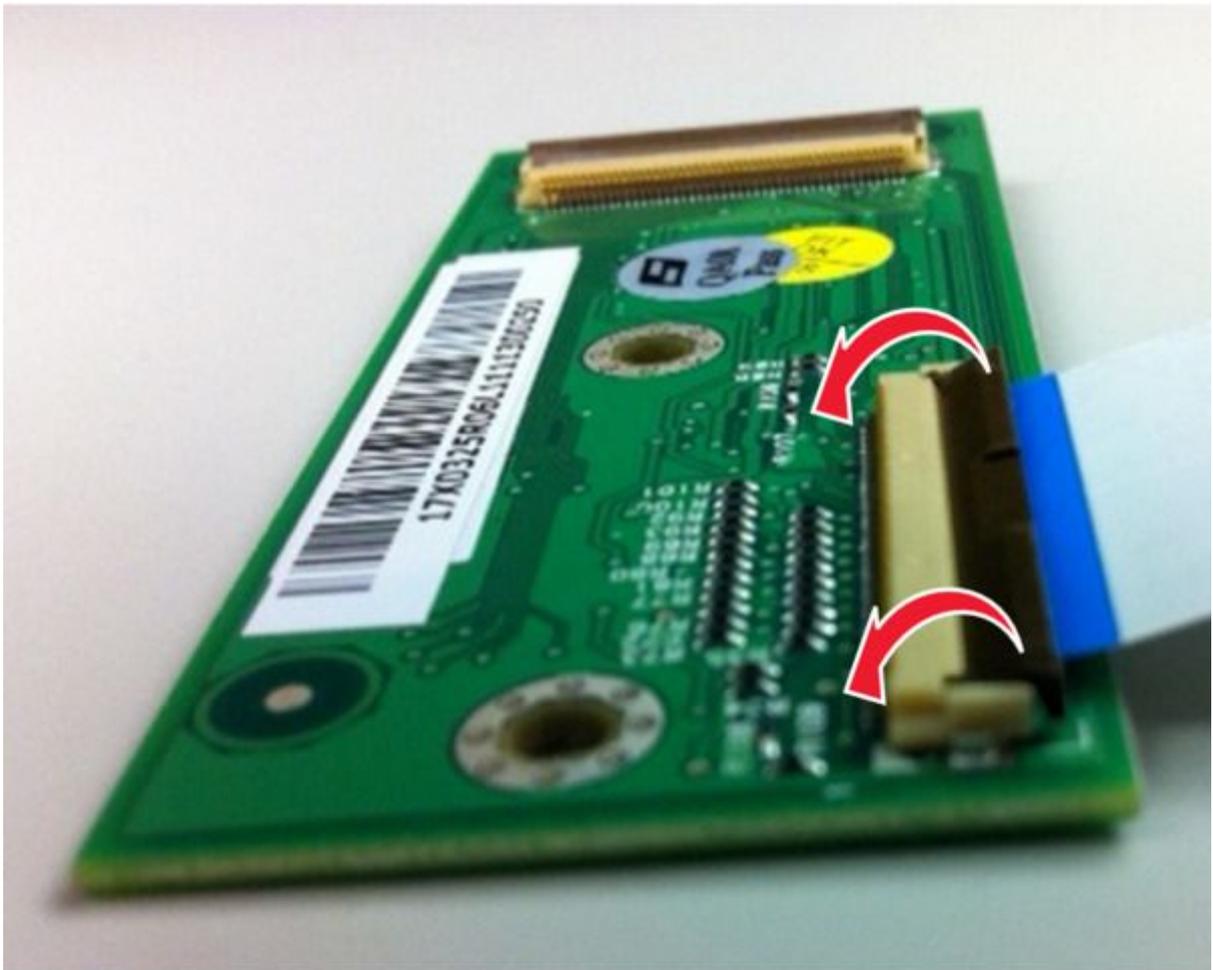
   NOTES
   Verify that the cable is installed squarely into the connector. If the cable is not squarely installed, then intermittent failures could occur.
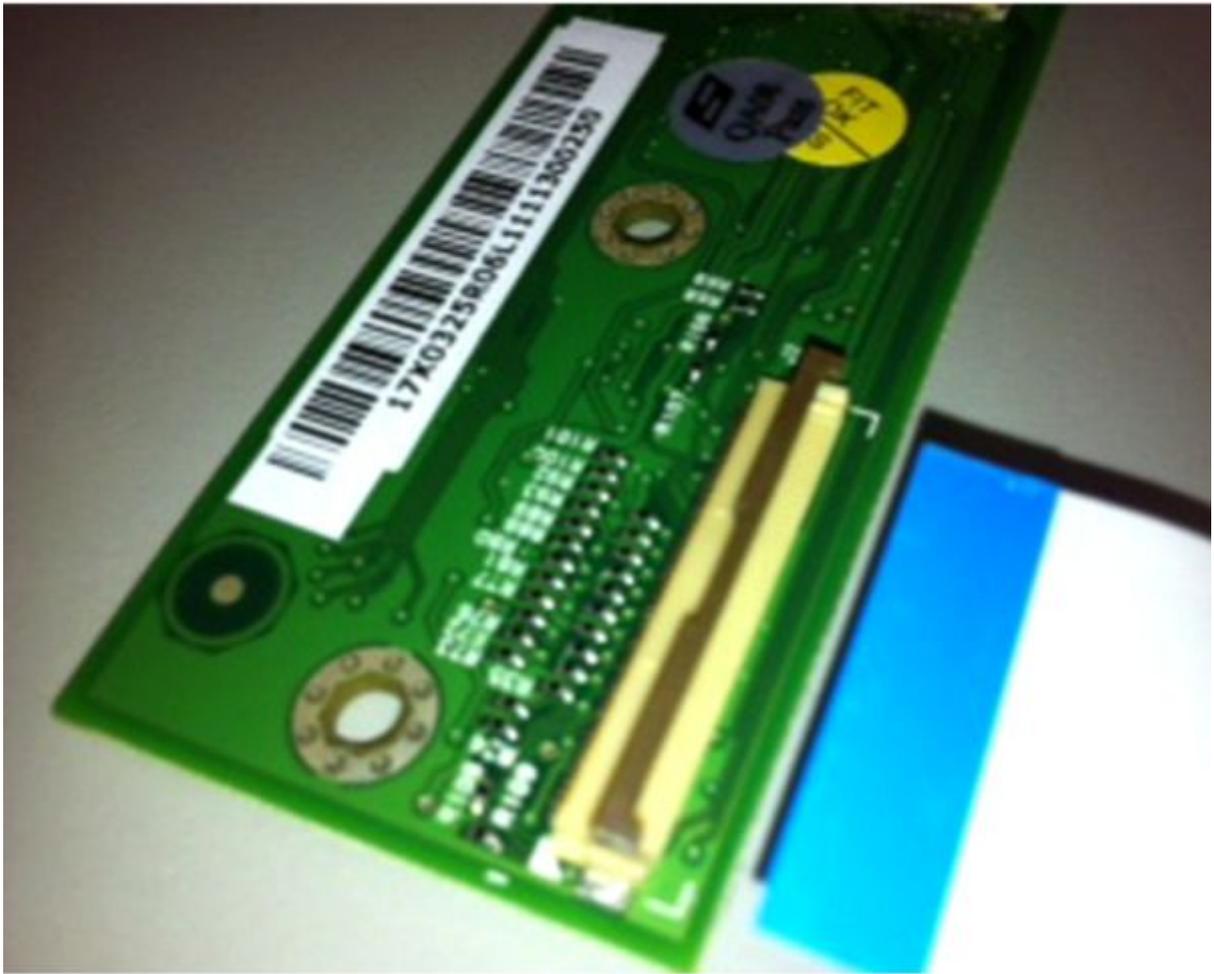
3. Place your finger in the middle of the actuator, and then rotate the locking actuator to the locked position.
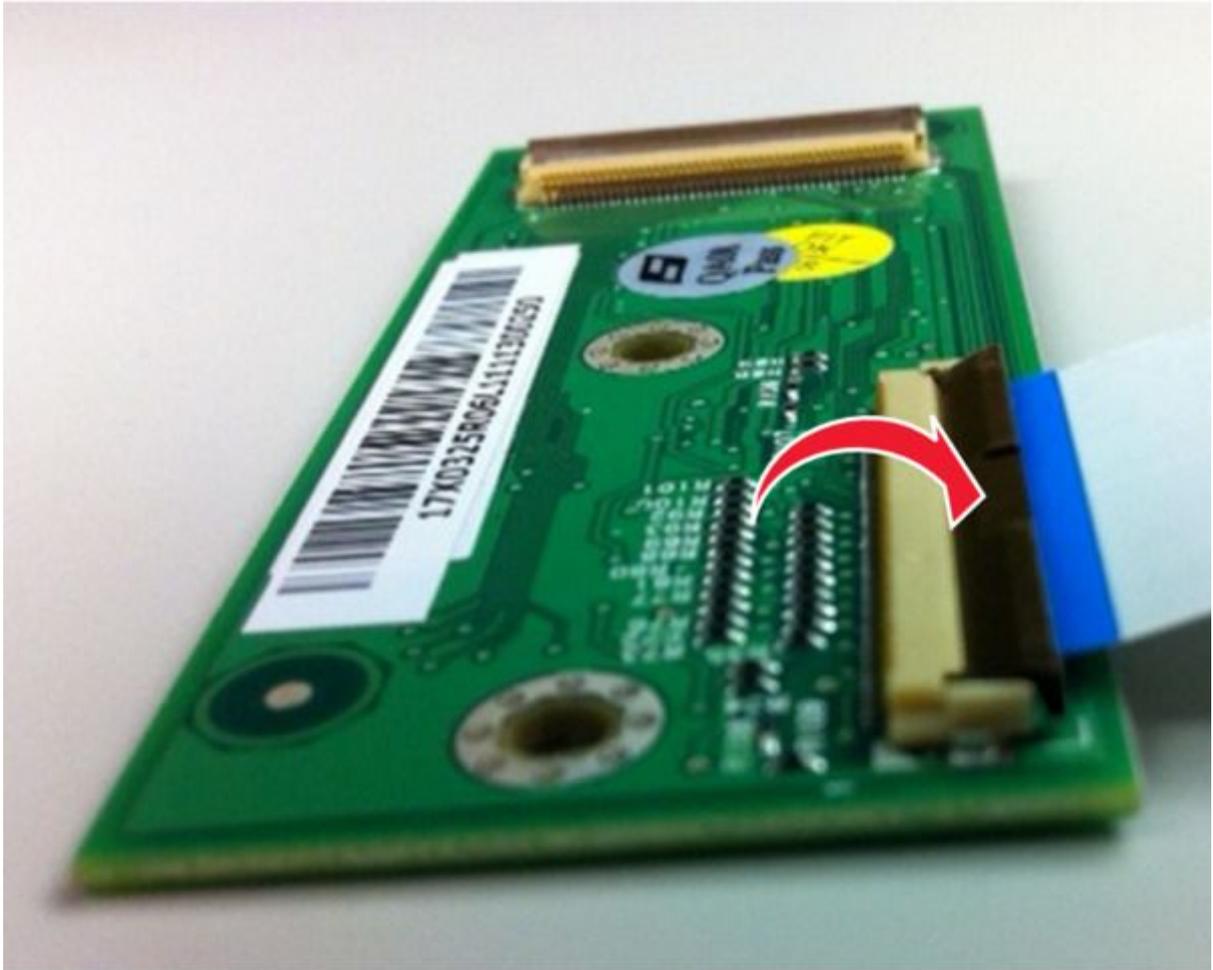
Vertical mount contact connector

This FRU contains a vertical mount contact connector. Read the instructions before proceeding.

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.
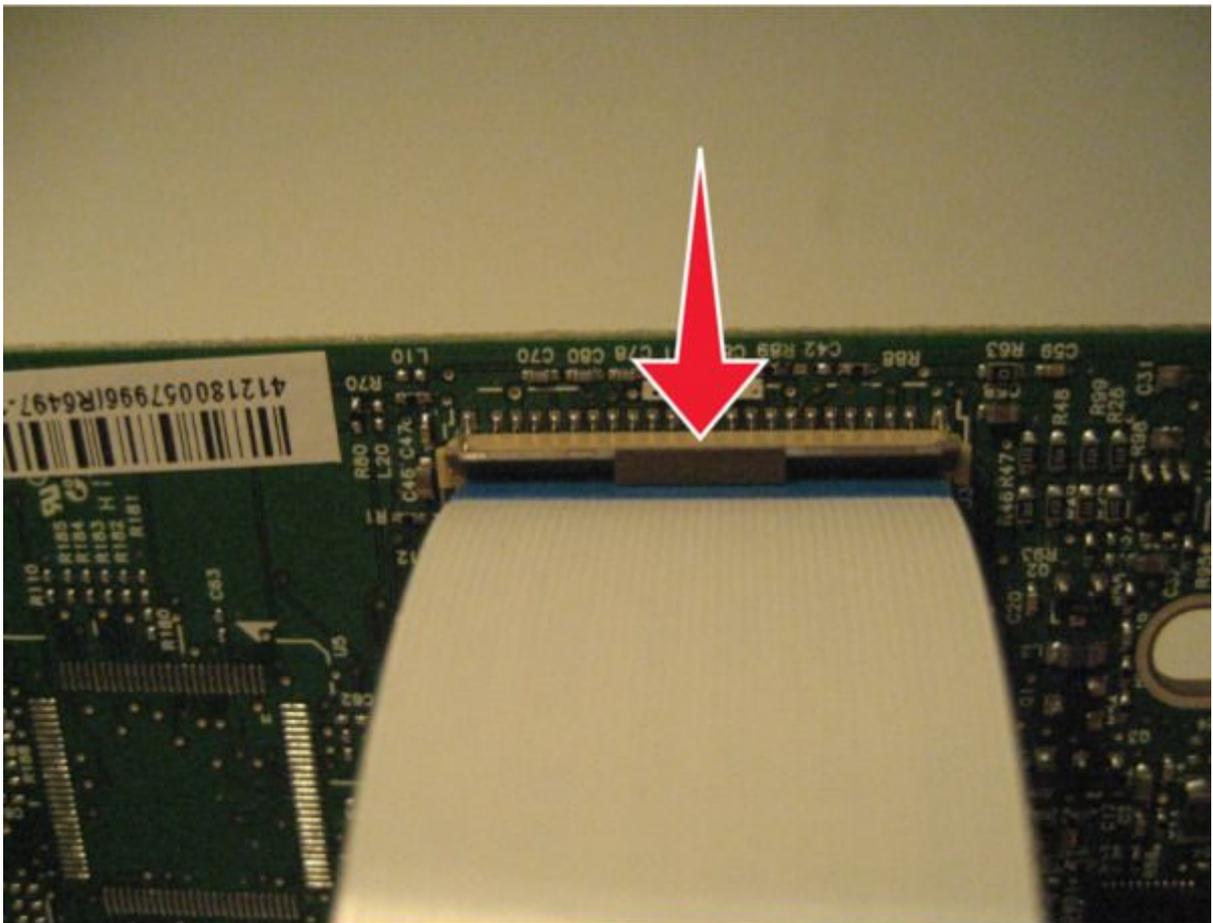
2. Slide the cable out of the connector.

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.

   NOTES
   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 should not move when this step is performed. If the cable moves, open the actuator, reposition the cable, and then close the actuator to the down position.
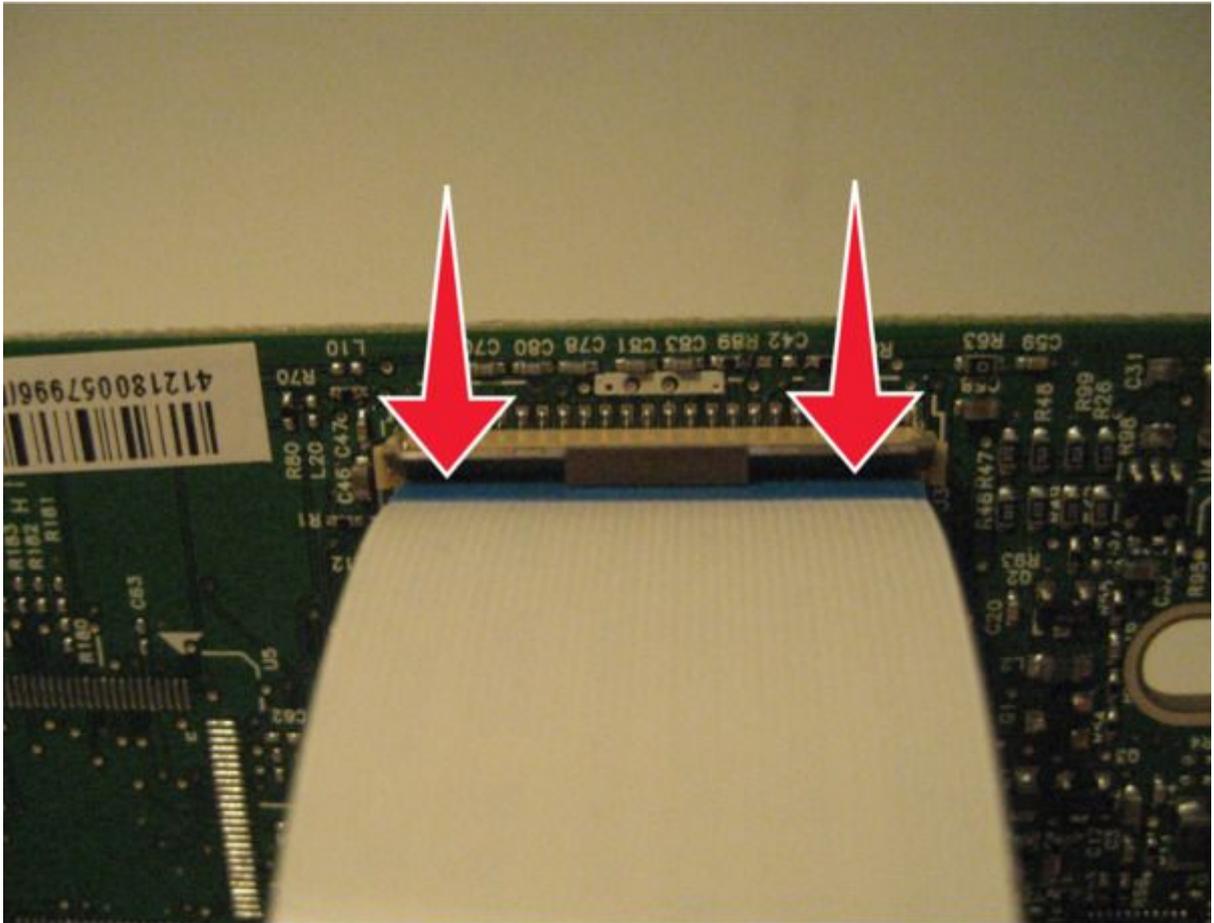
Horizontal sliding contact connector

This FRU contains a horizontal sliding contact connector. Read the instructions before proceeding.

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 located on the ends of the locking actuator away from the connector.
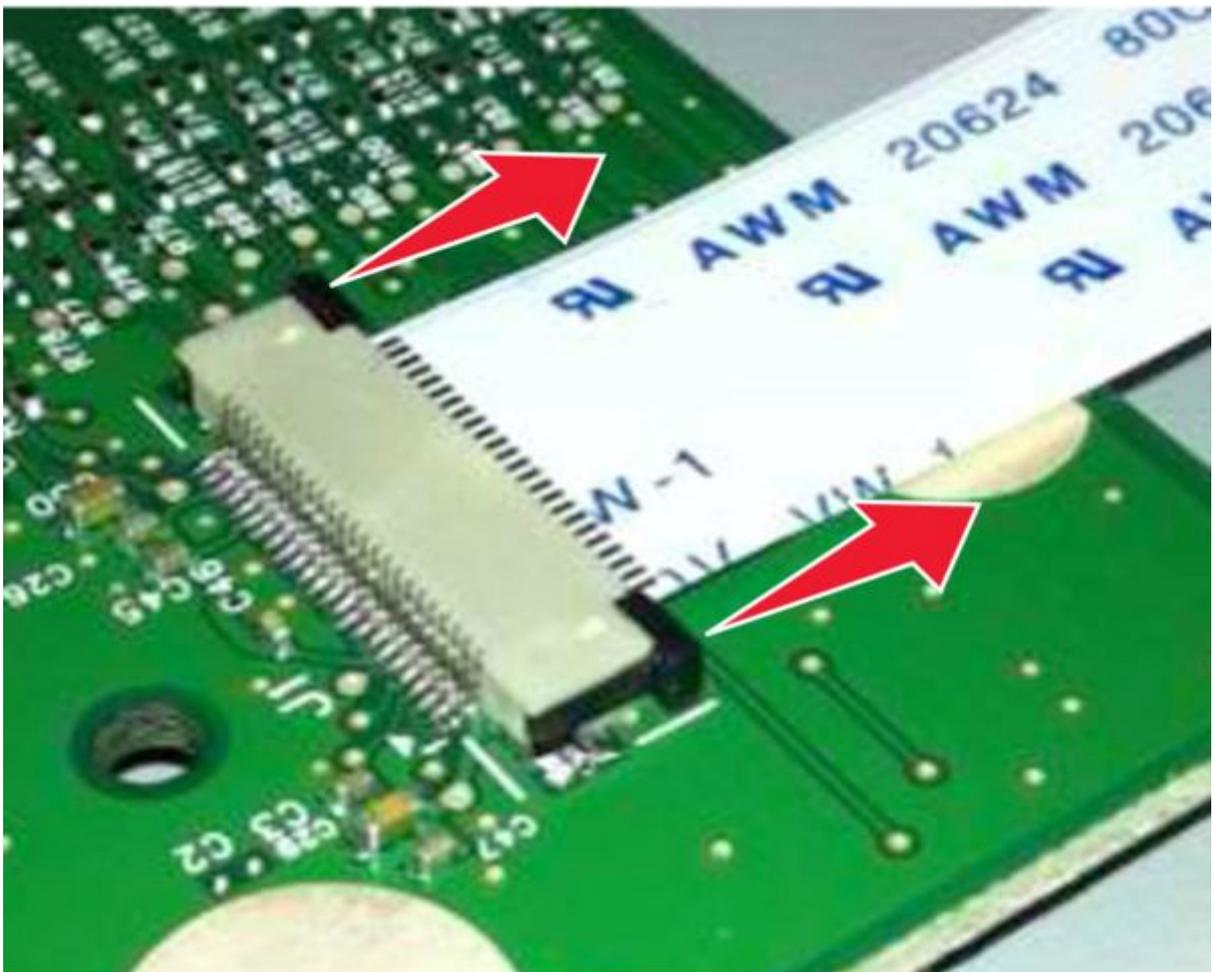
2. Slide the cable out of the connector.

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, pull back on both end tabs using equal force to avoid breaking the connector.
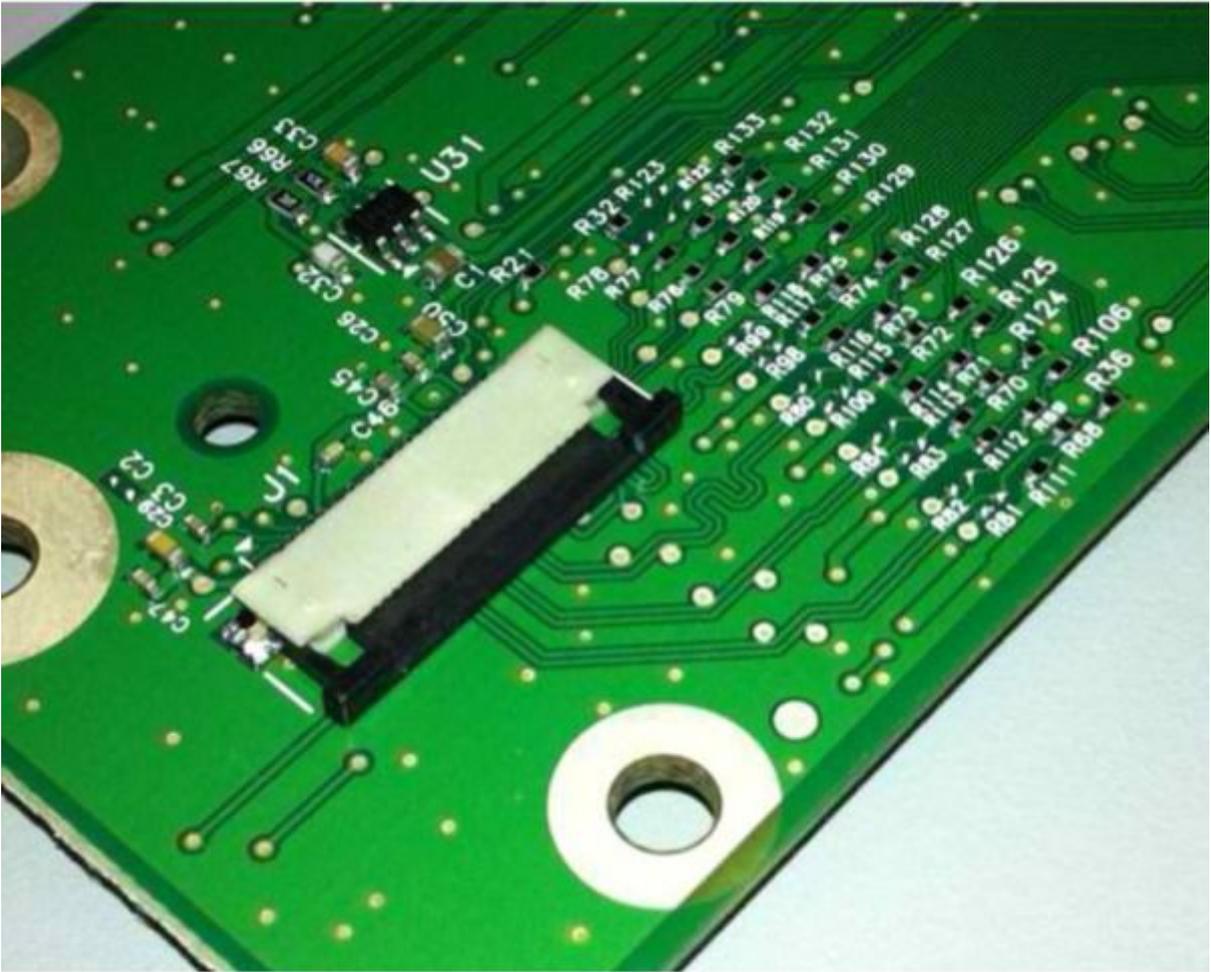
2. Insert the cable with the contacts on the cable facing away from the locking actuator. Insert the cable on top of the actuator.

3. Slide the locking actuator towards the connector, locking the cable into place. The cable should not move when this step is performed. If the cable moves, open the actuator, reposition the cable, and then close the actuator to the down position.
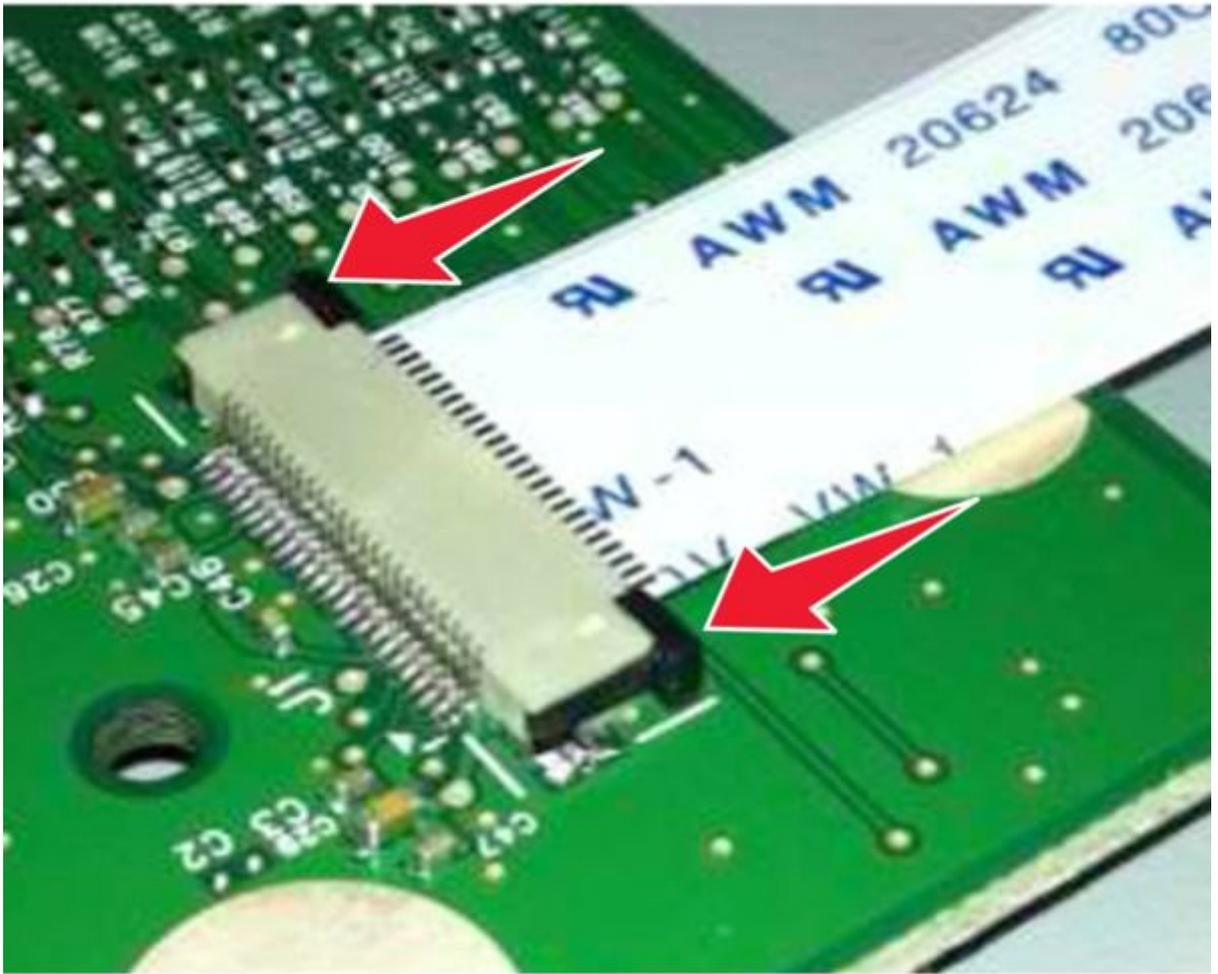
Low Insertion Force (LIF) connector

This FRU contains a Low Insertion Force (LIF) connector. Read the instructions before proceeding.

WARNING—POTENTIAL DAMAGE
When installing a cable into an LIF connector, care must be taken 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 will 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 located on the side of the connector with the contacts.
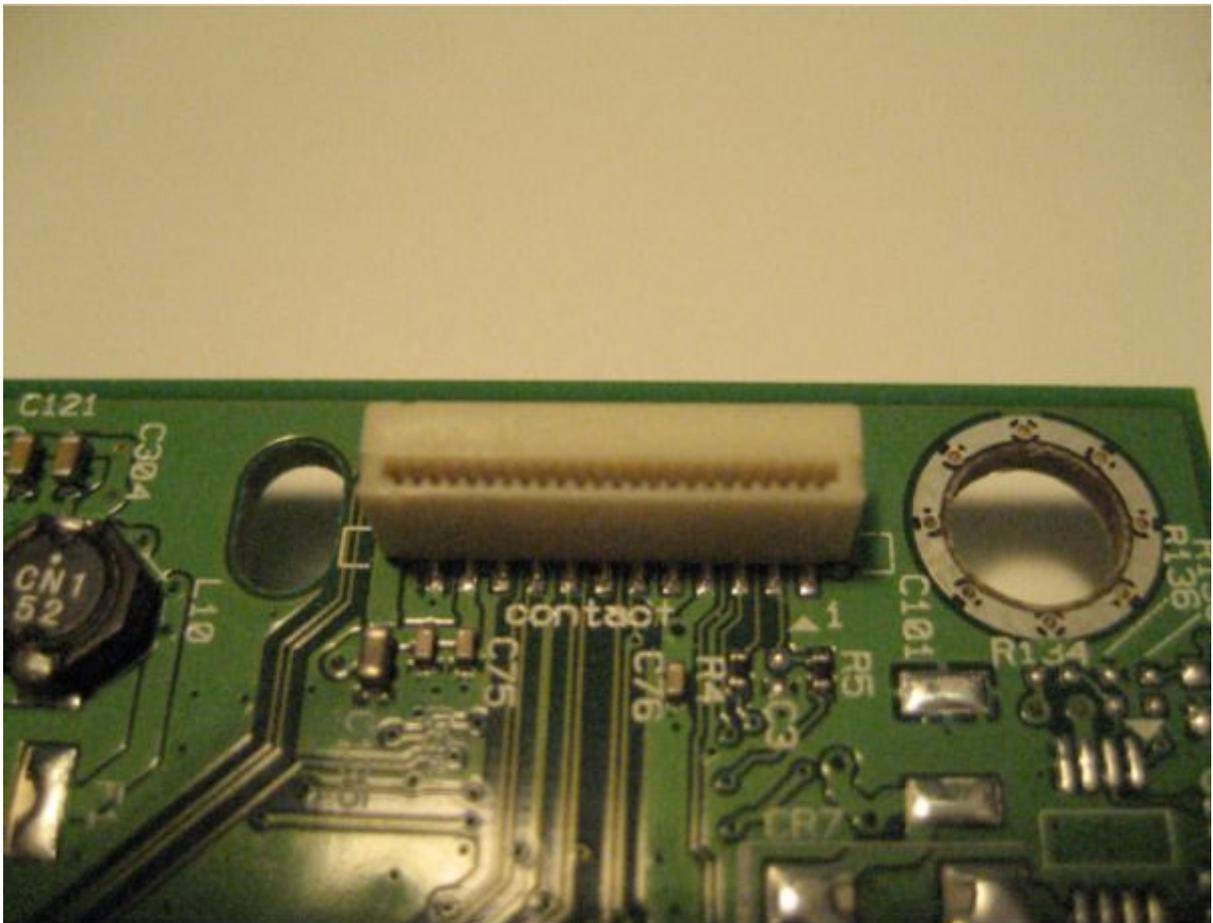
2. Insert the cable squarely into the connector.

NOTES

Verify that the cable is installed straight into the connector. If the cable is not installed properly, then intermittent failures could occur.
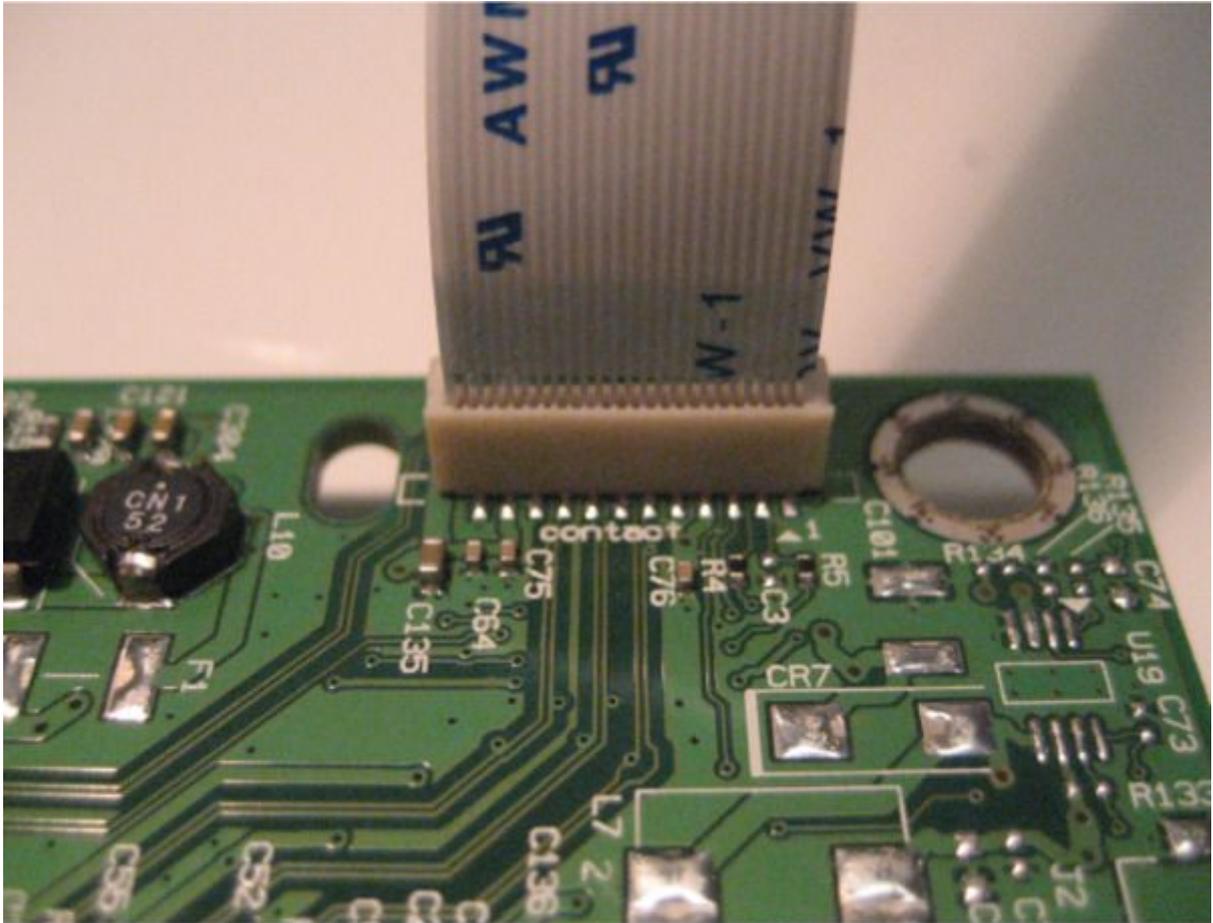
Printhead adjustment

A printhead must be correctly positioned after it has been removed. Use a sharp pencil or a small, flat-blade screwdriver to mark the location of the old printhead on the printer frame. Align the new printhead relative to the location of the old printhead.

NOTES
Skew is caused by a sheet being fed through the printer while misaligned. The entire image is rotated relative to the sheet edges. However, a mechanically misaligned printhead causes the horizontal lines to appear skewed, while the vertical lines remain parallel to the vertical edges. The skew cannot be adjusted. Check the pick tires for wear, the paper path for obstructions, the fuser for proper setting, and the tray paper guides for proper setting.
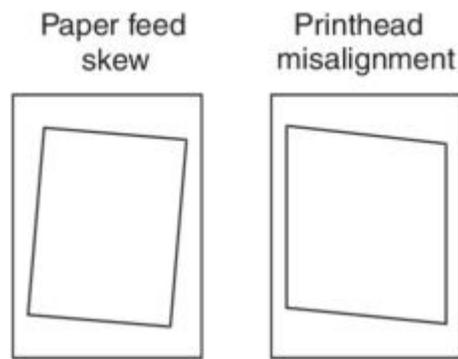
To adjust the printhead:

1. Perform a POR.
2. Enter the Diagnostics menu, and then print a Quick test page:

   Diagnostics Menu > Print Tests > Tray 1 > Single
3. Fold the printed test page on the left side so that a few millimeters of grid lines wrap around the outside of the fold.
4. Make a second vertical fold near the center so that the left side top edge aligns with the right side top edge.
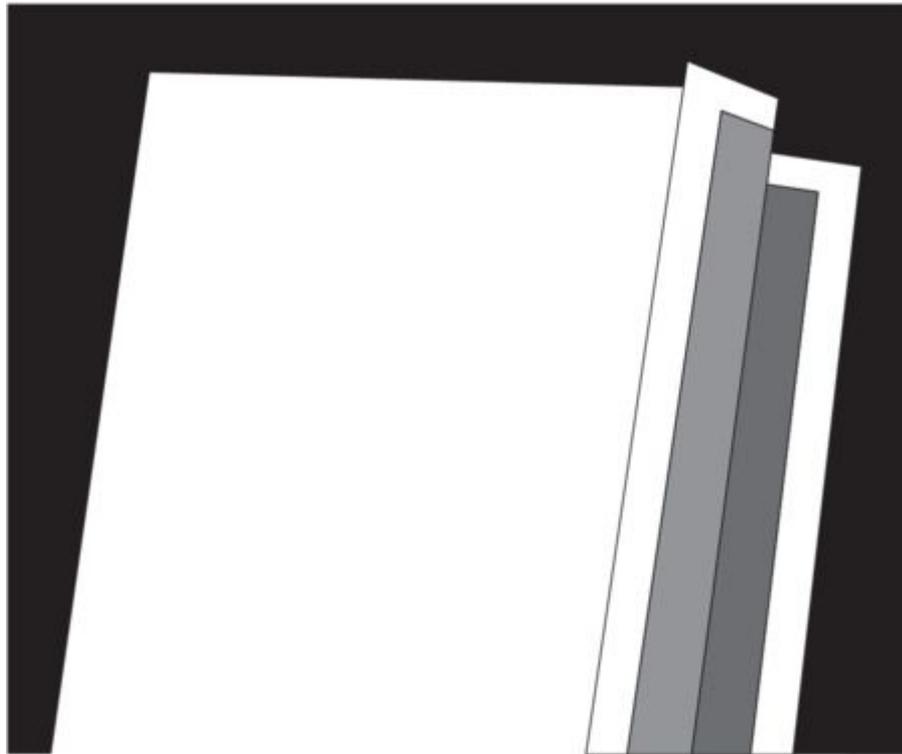
5. If the grid lines of the right flap align below the corresponding lines on the left side, then adjust the printhead clockwise relative to the printer, and recheck. If the grid lines of the left flap align below the corresponding lines of the right side, then adjust the printhead counterclockwise.
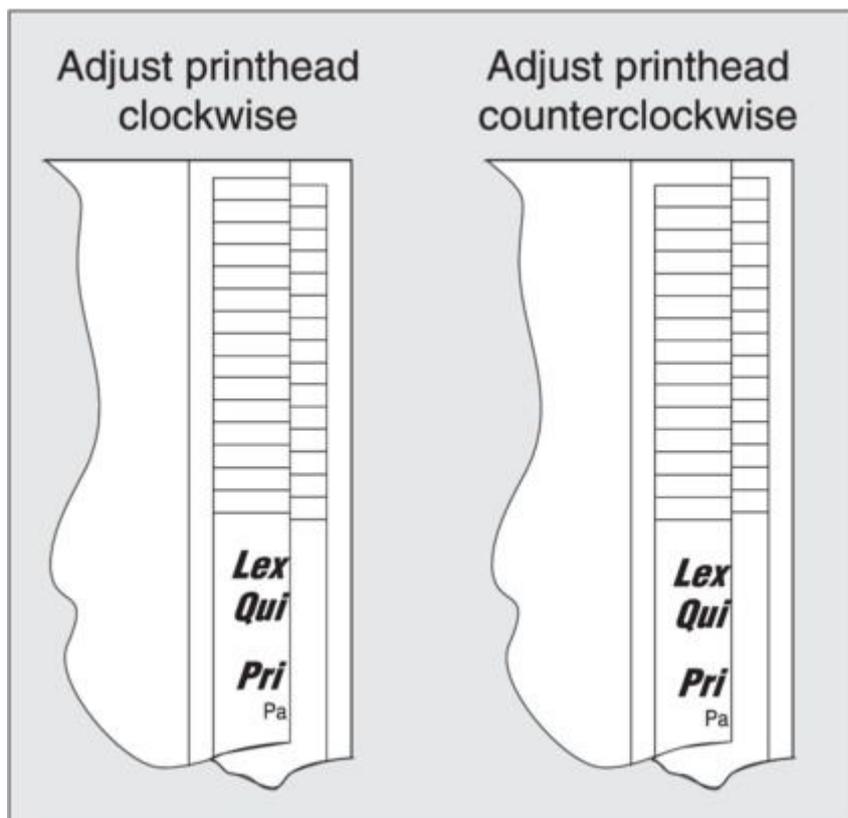
6. Print another Quick test page, and check if adjustments are still needed.
7. After obtaining a properly adjusted image on the paper, tighten all the screws.

NOTES

If necessary, print a Quick test page again and perform the Registration adjust procedure to correct the skew and misalignments. See See "Registration adjust" on page 301.

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 a electronic power switch, make sure to unplug the power cord after powering off.

Left side removals

Left cover removal

1. Remove the screw (A).

2. Open the front door.
3. Release the two latches (B), and then disengage the middle front part (C) of the cover from the front door.

   WARNING—POTENTIAL DAMAGE
   The ADF might swing open while you position the printer on its side.
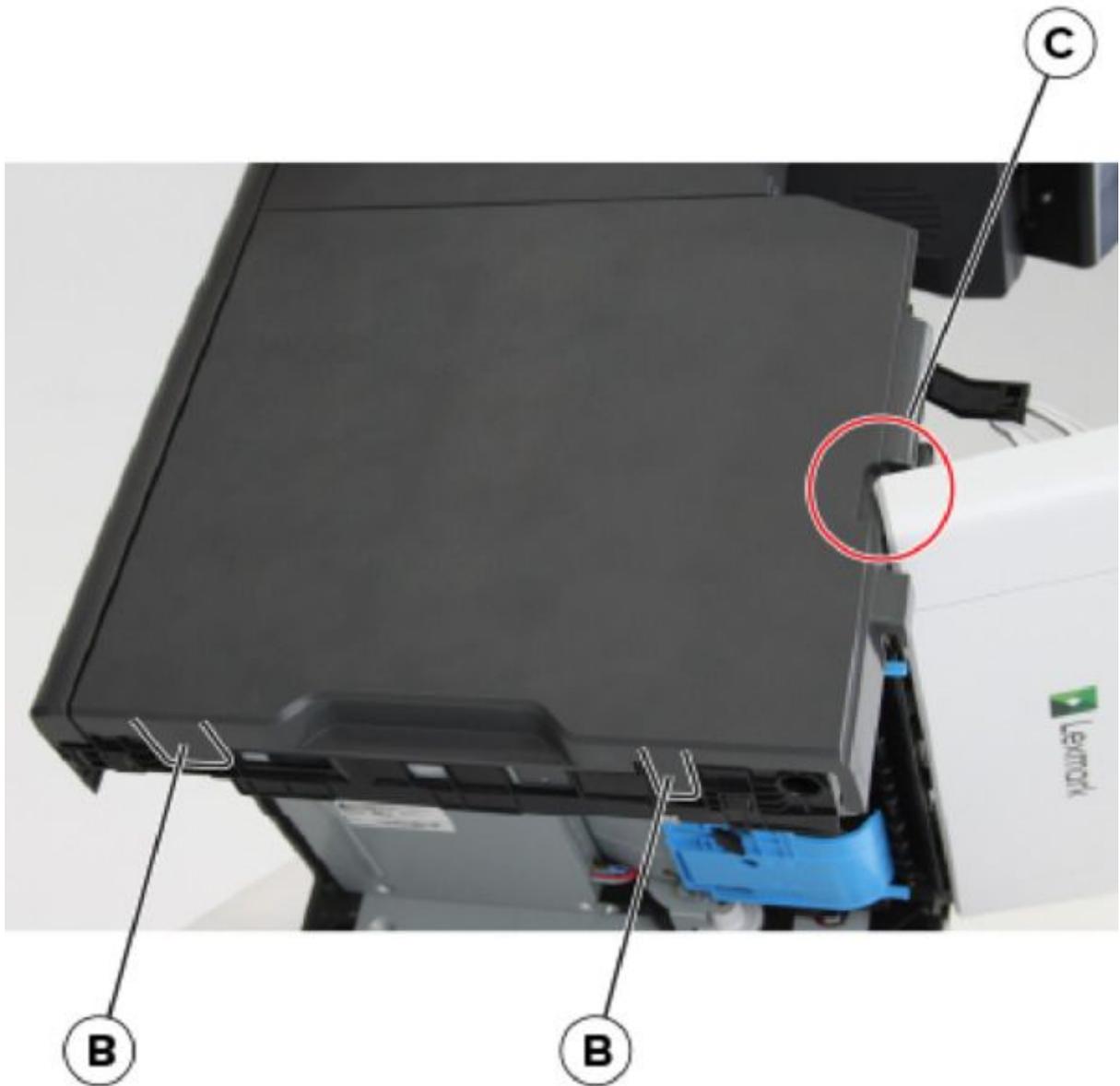
4. Remove the cover.

Main drive gearbox removal

1. Remove the left cover. See .
2. Release the latch (A), and then detach the link.
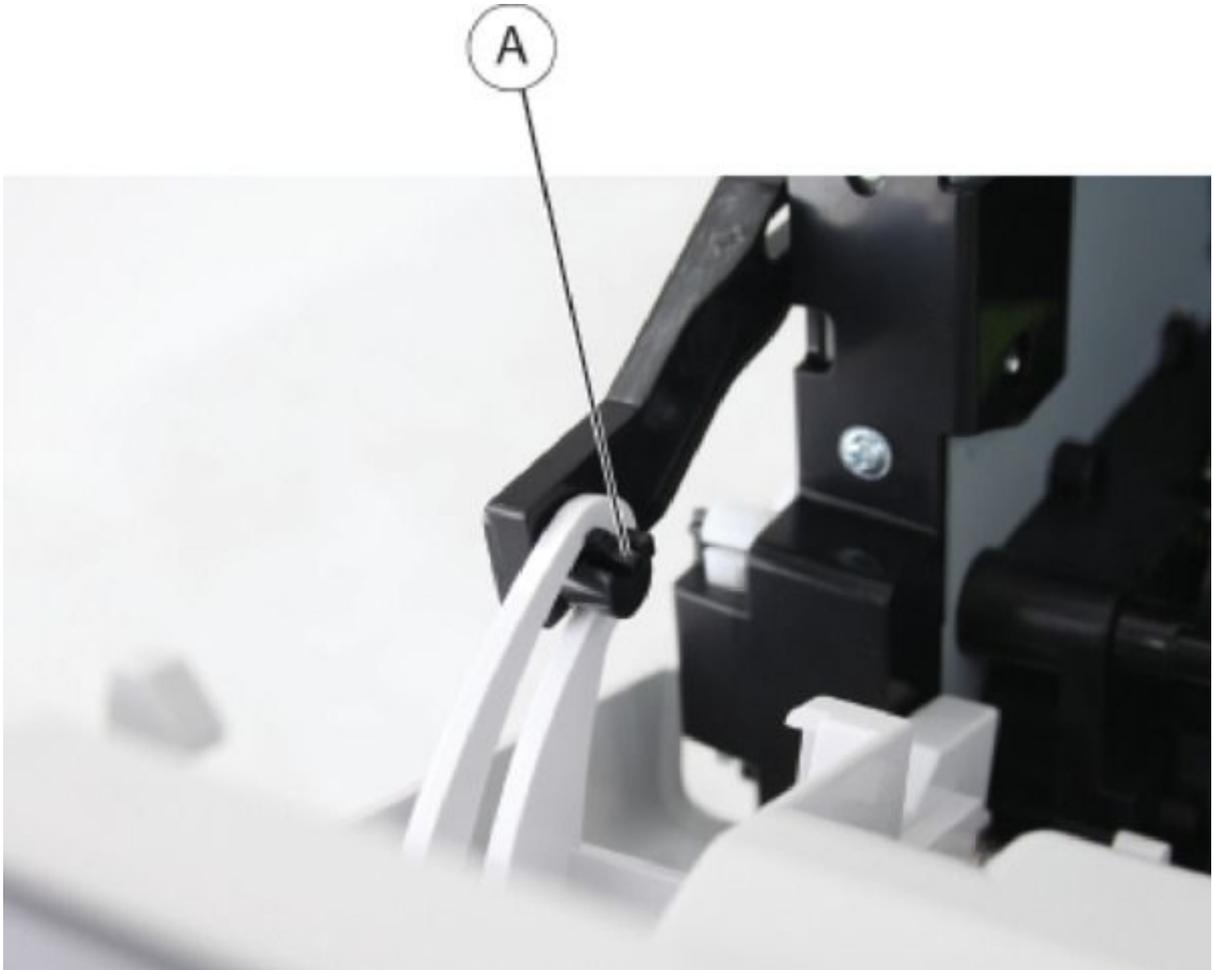
3. Remove the four screws (B).
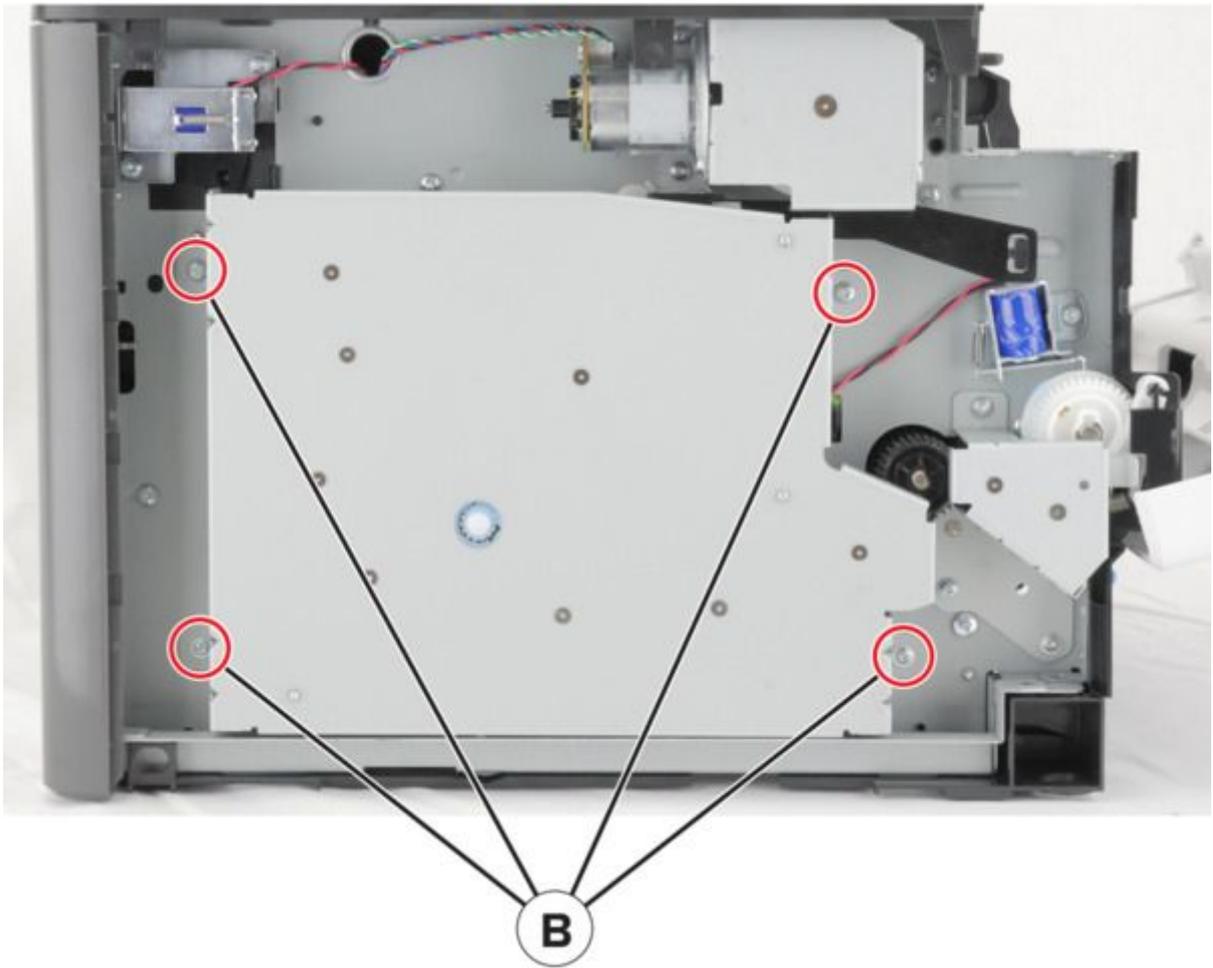
4. Disconnect the cable from the main drive gearbox.
5. Remove the gearbox.

> **WARNING—POTENTIAL DAMAGE**
> Do not lose the fuser gear (C) and spring (D).

MPF gearbox removal

1. Remove the front door. See See "MPF with front access cover removal" on page 422.
2. Remove the left cover. See See "Left cover removal" on page 370.
3. Remove the main drive gearbox. See See "Main drive gearbox removal" on page 372.
4. Disconnect the spring (A).
5. Remove the three screws (B) to loosen the mount.
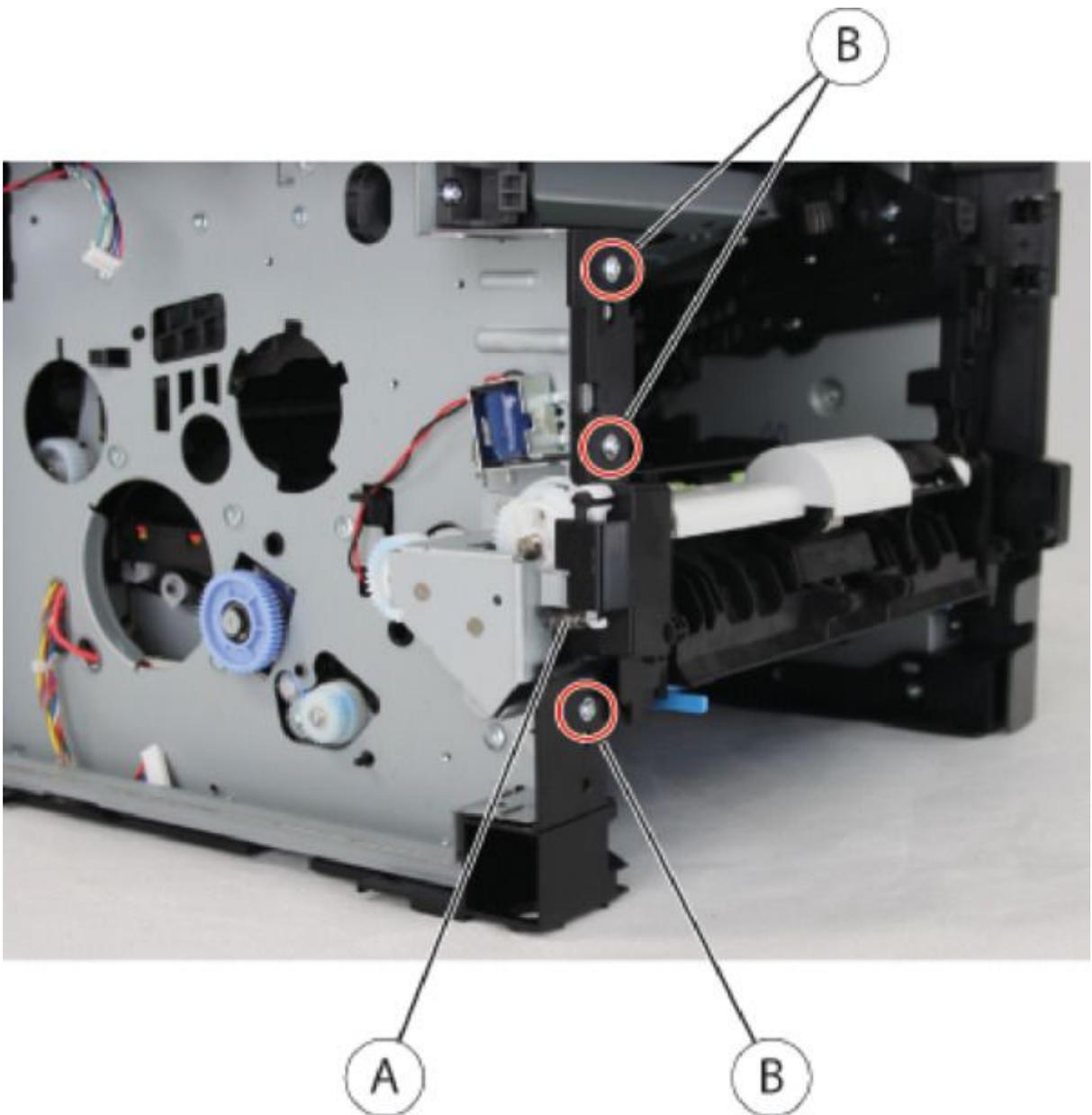
6. Remove the three screws (C) and the bracket.
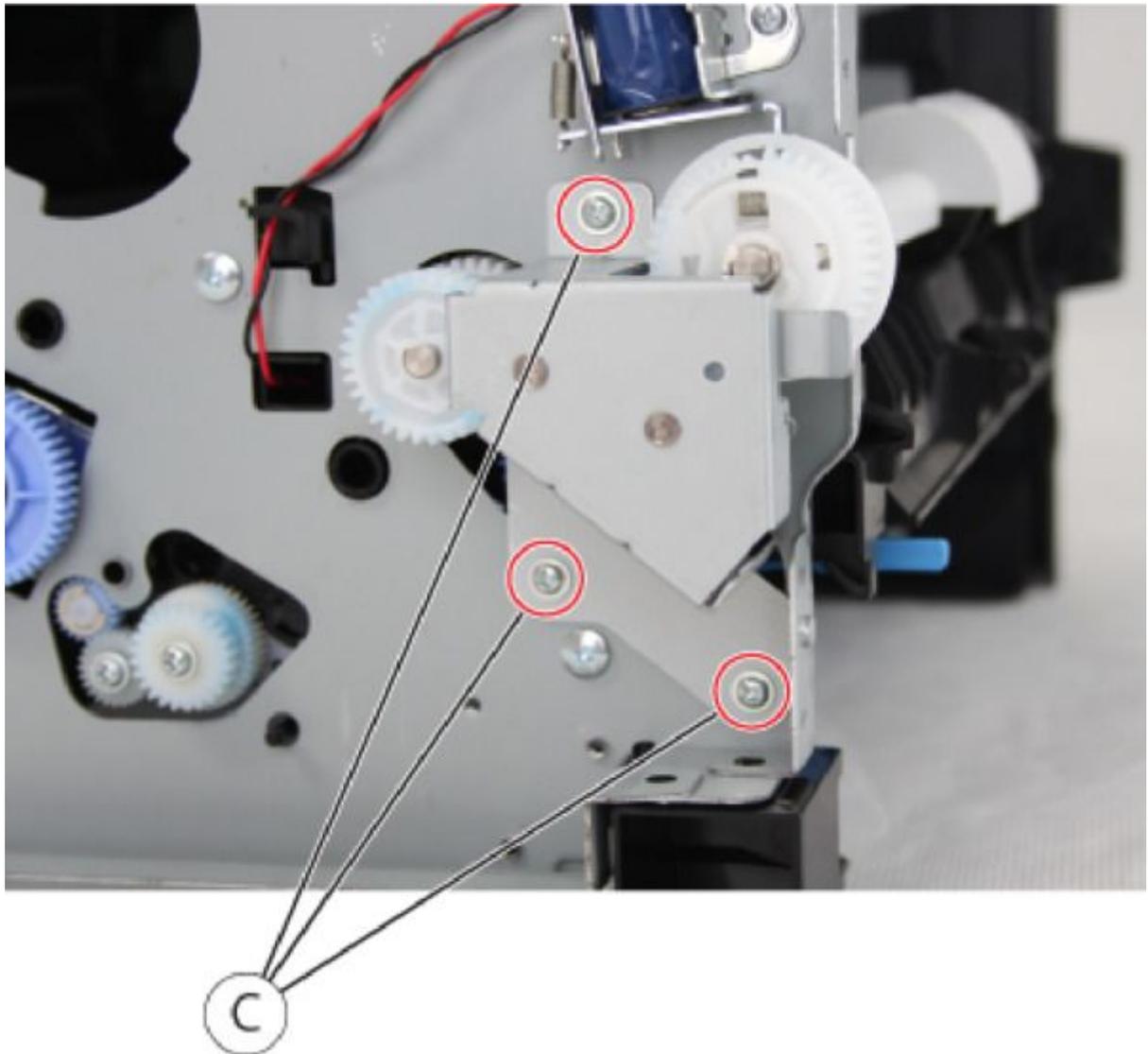
7. Remove the E-clip (D), and then remove the gear.

> **NOTES**
>
> The solenoid may hinder removing the gear.
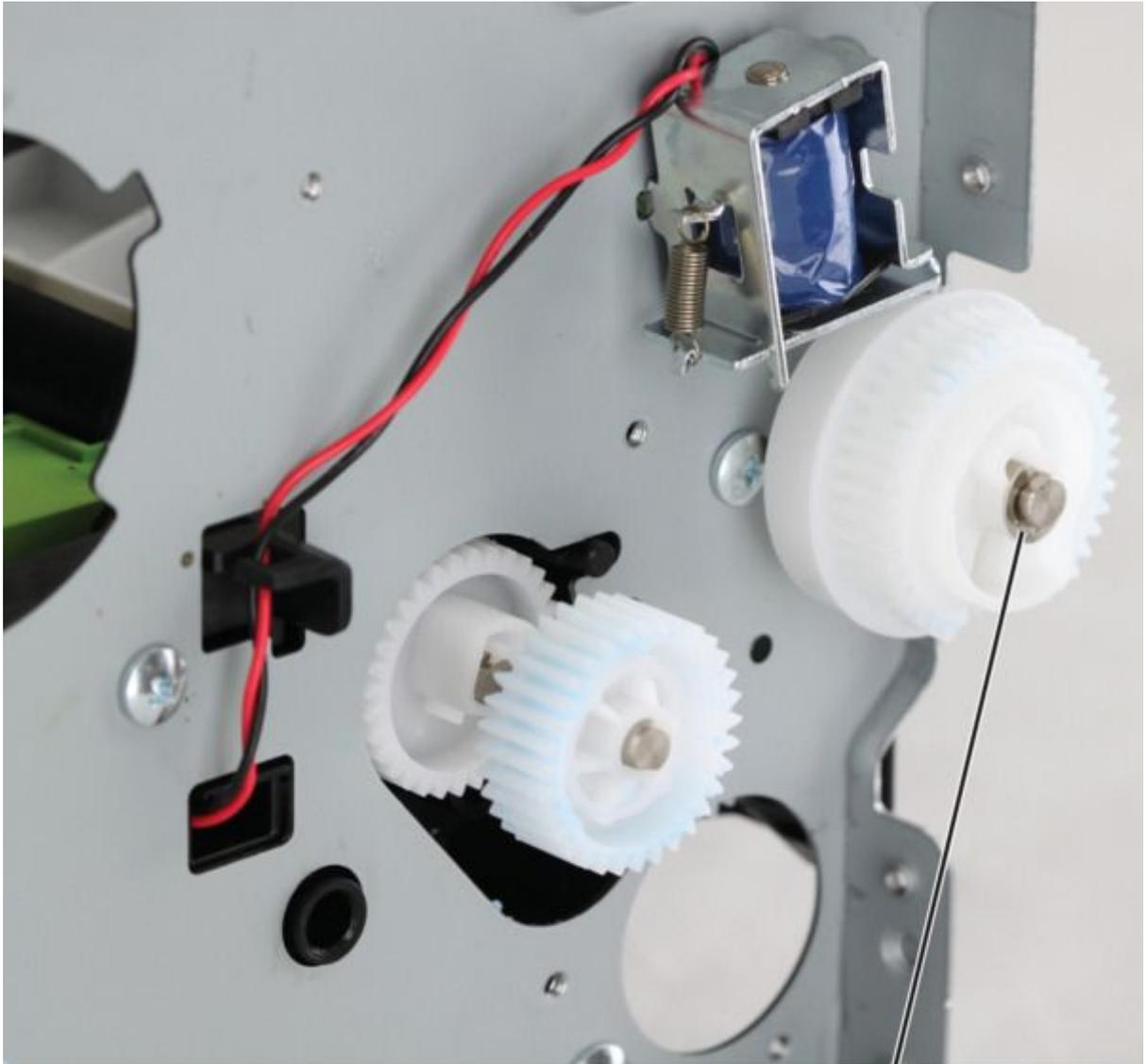
8. Release the two latches (E), and then remove the gears (F).
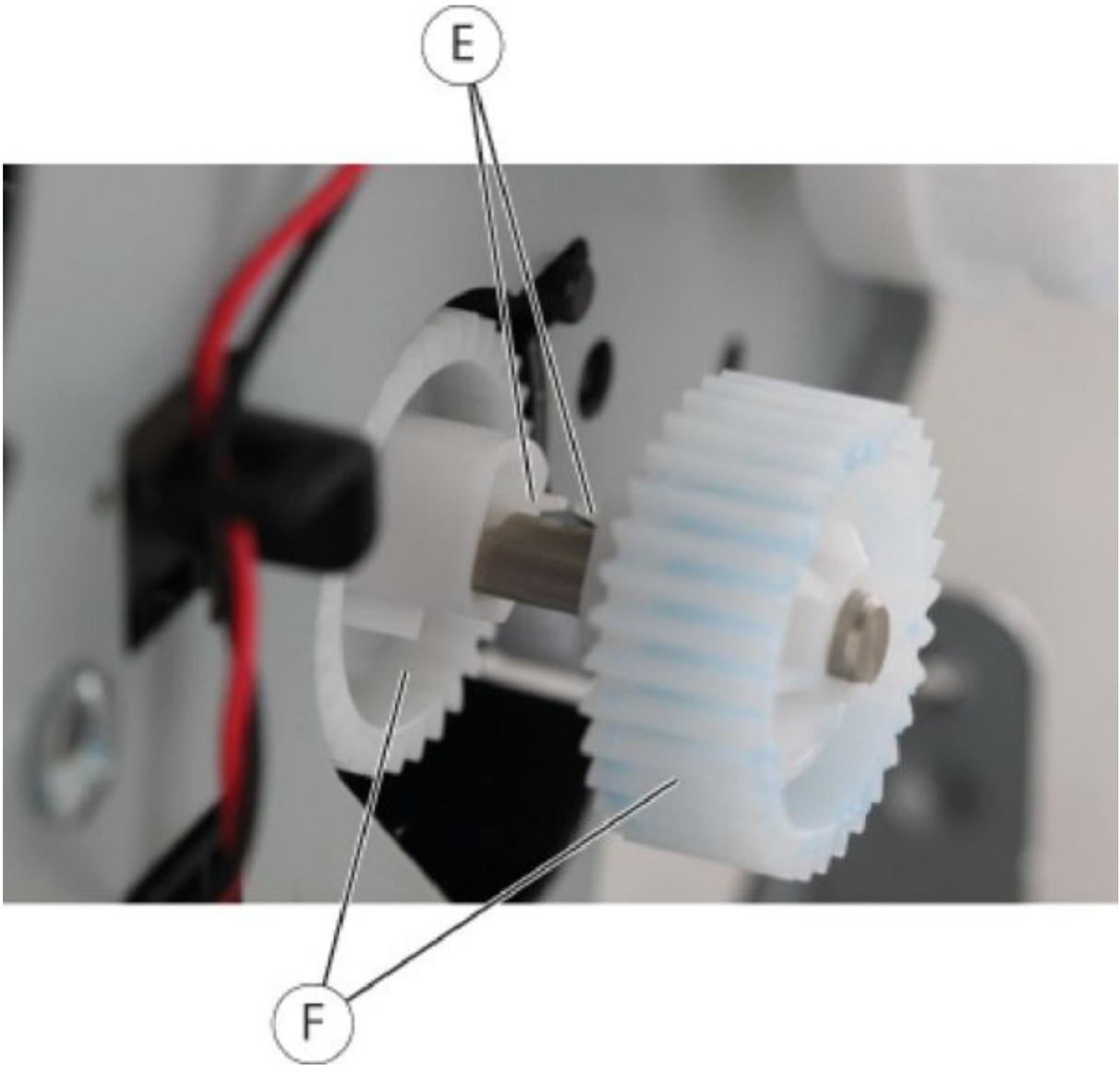
Fuser actuator removal

1. Remove the left cover. See .
2. Release the latch (A), and then detach the link.
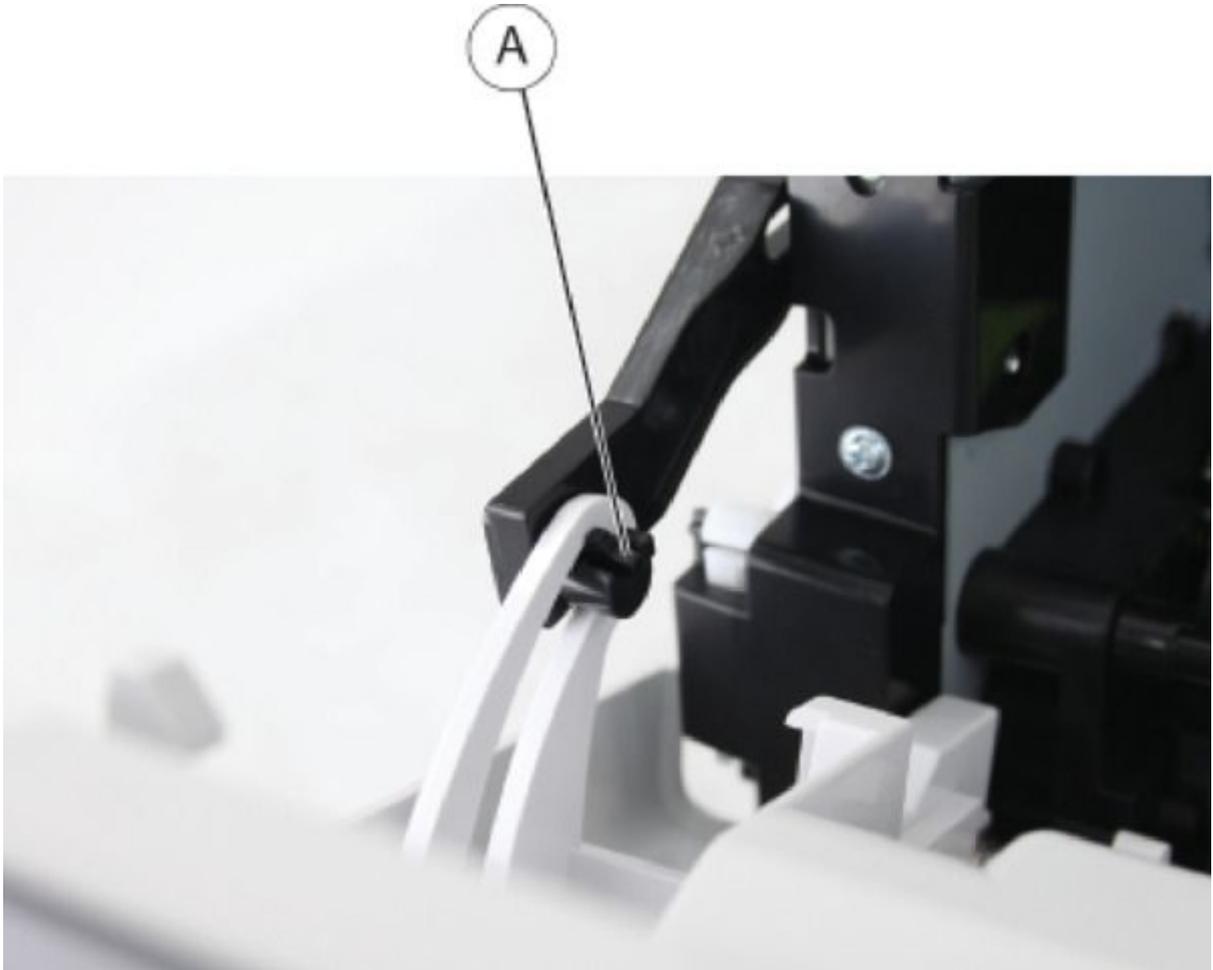
3. Remove the four screws (B).
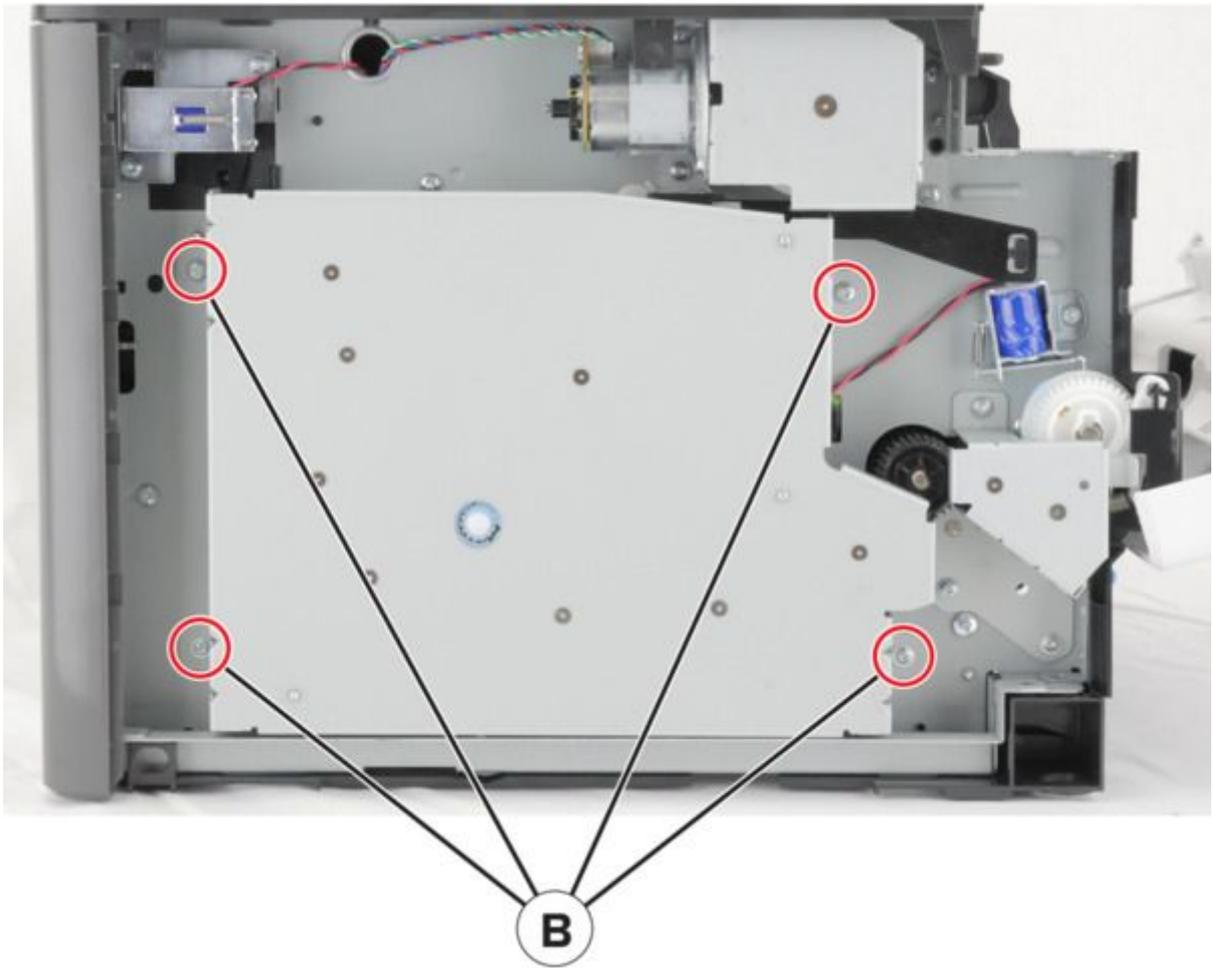
4. Remove the screw (C).
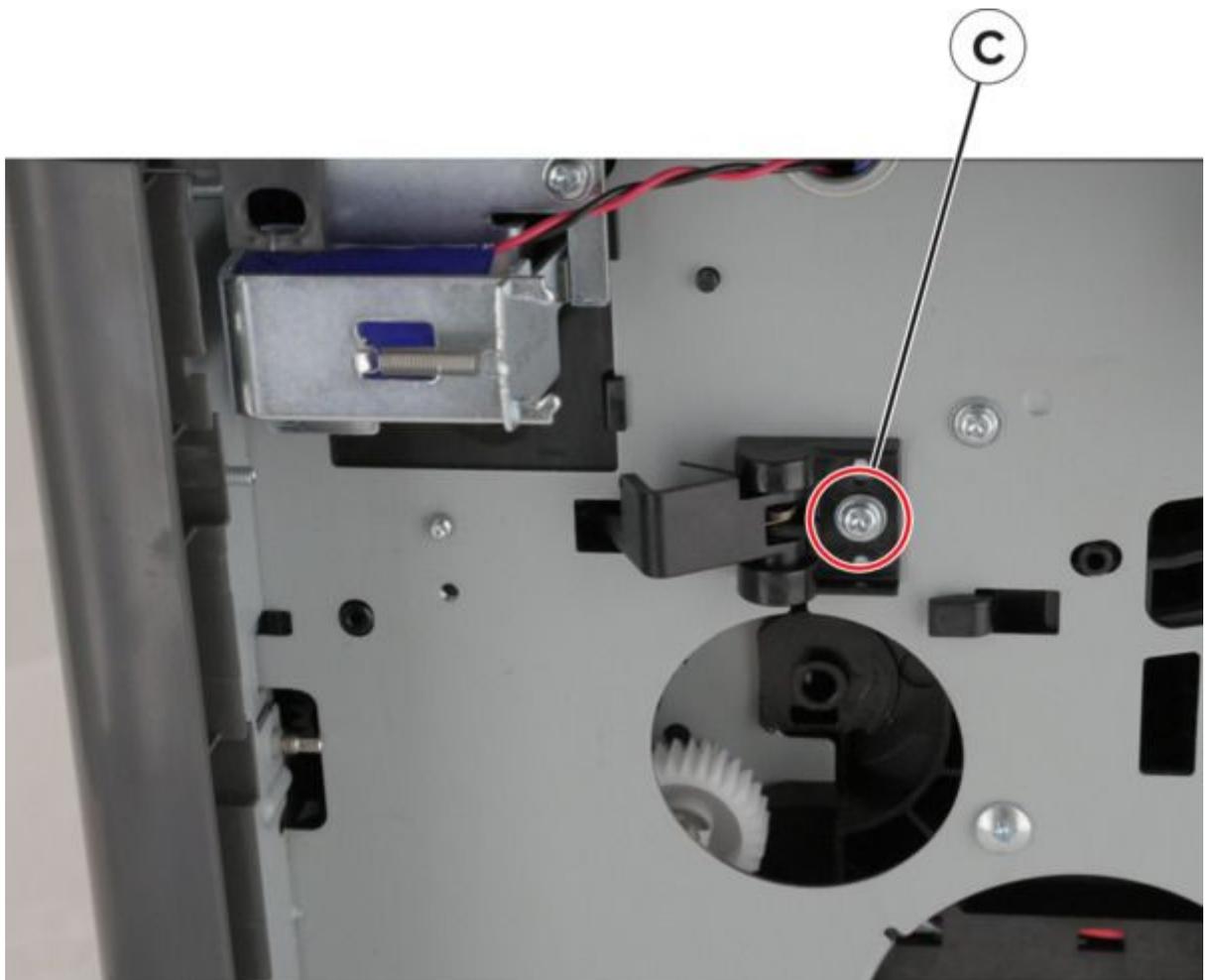
5. Remove the fuser actuator.

INSTALLATION NOTE
To test if the actuator is properly installed, push, and then release the actuator (A).
The actuator should bounce back.
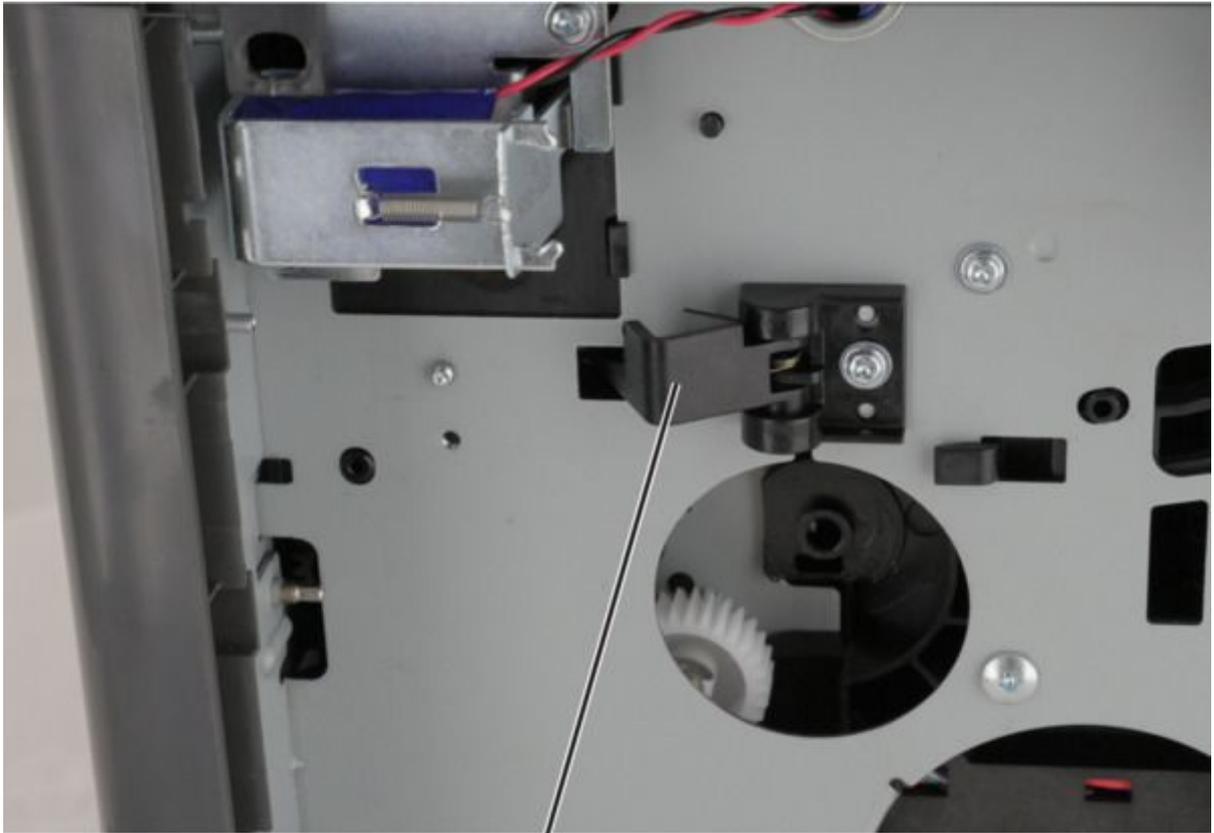
A

Reverse solenoid removal

1. Remove the left cover. See See "Left cover removal" on page 370.
2. Remove the right cover. See See "Right cover removal" on page 394.
3. Remove the scanner access covers. See See "Scanner access covers removal" on page 514.
4. Remove the rear cover. See See "Rear door and cover removal" on page 485.
5. Remove the redrive. See See "Redrive removal" on page 486.
6. Remove the two screws (A), and then cut the cable.
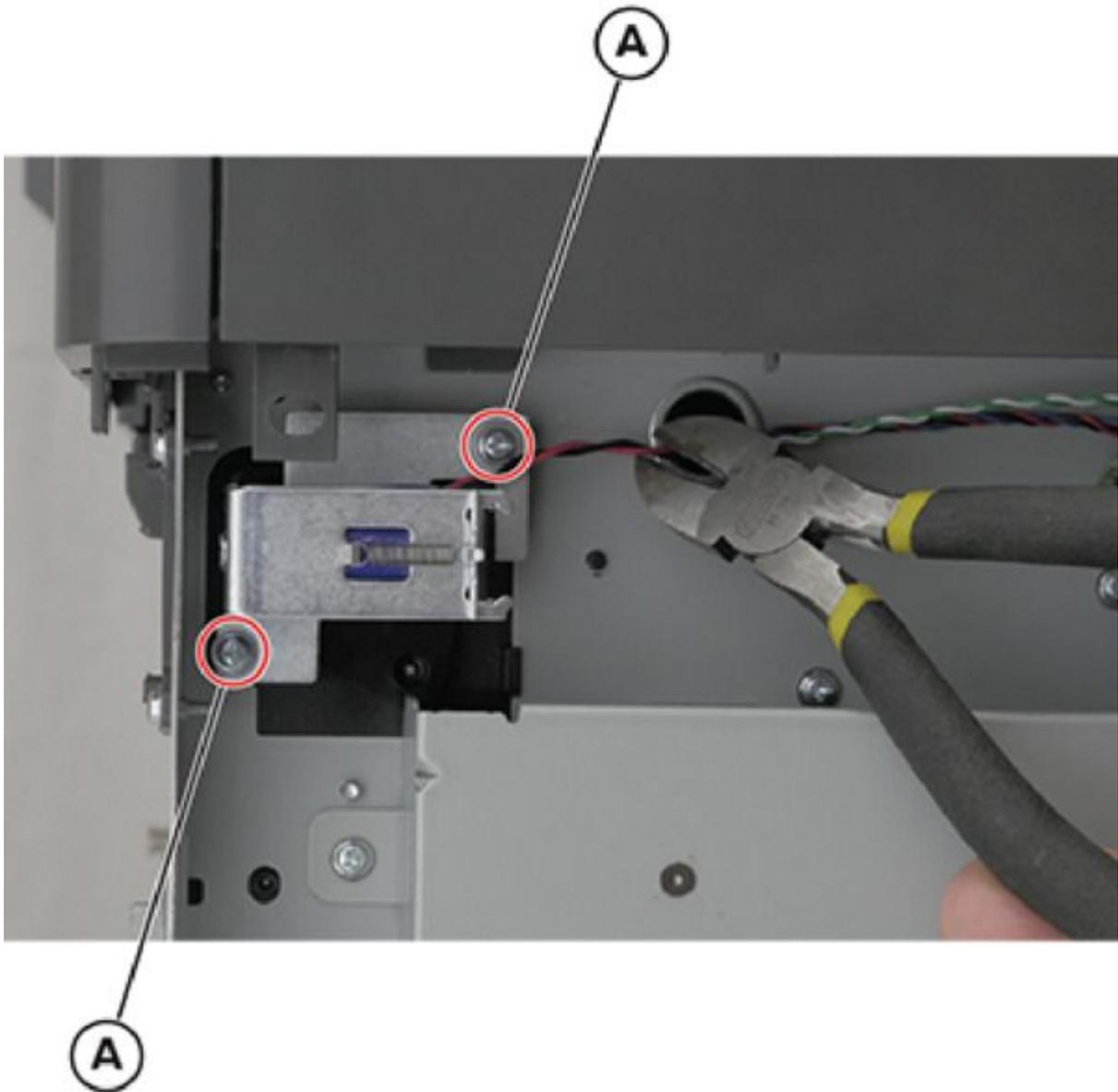
7. Disconnect connector JDUPSOL1 from the controller board, and then pull the cable out of the printer.

INSTALLATION NOTE

1. Screw in place the replacement solenoid.
2. Route the solenoid cable to the hole (A) exiting the rear side of the printer.

> **NOTES**
> Fully stretch the cable, but do it carefully to avoid cuts as it rubs into the edges of the hole.
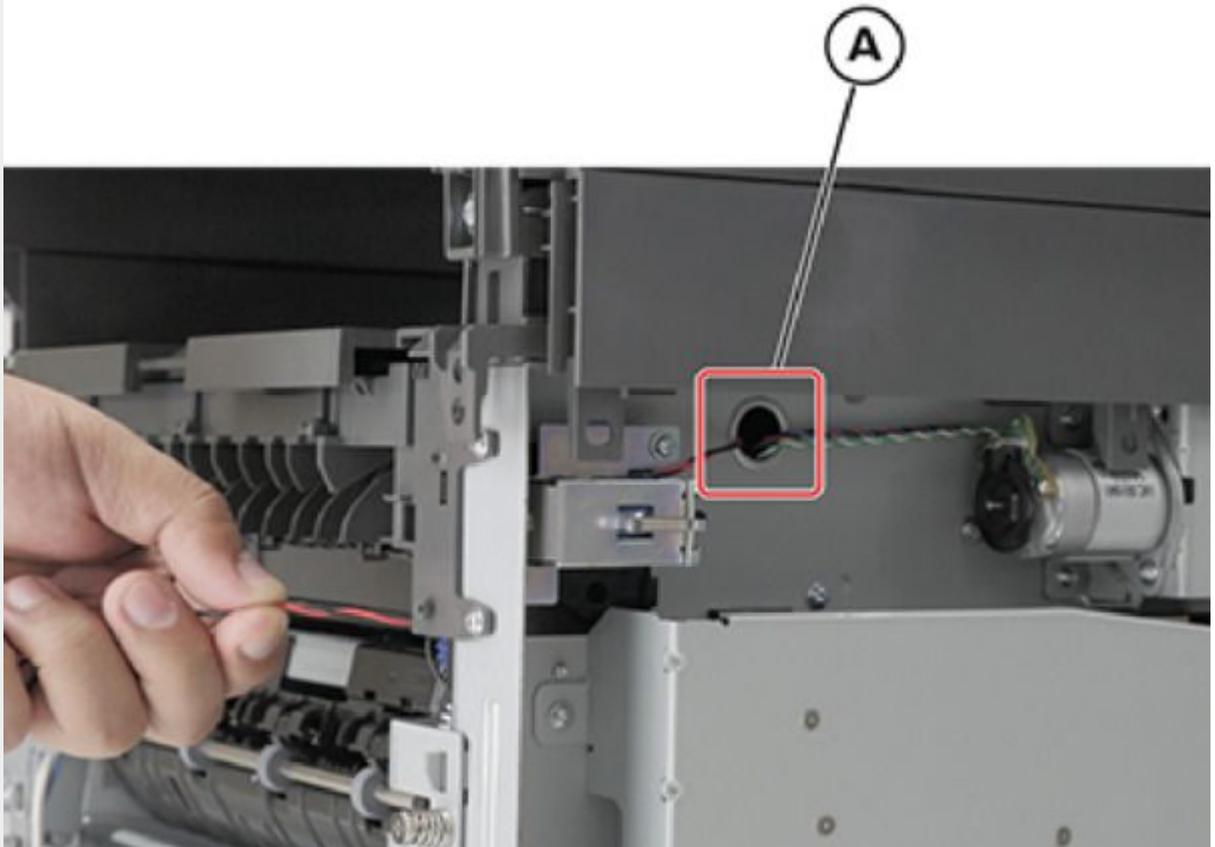
3. Install the redrive.
4. Route the cable onto the redrive. Make sure that the cable properly sits on the clamps.
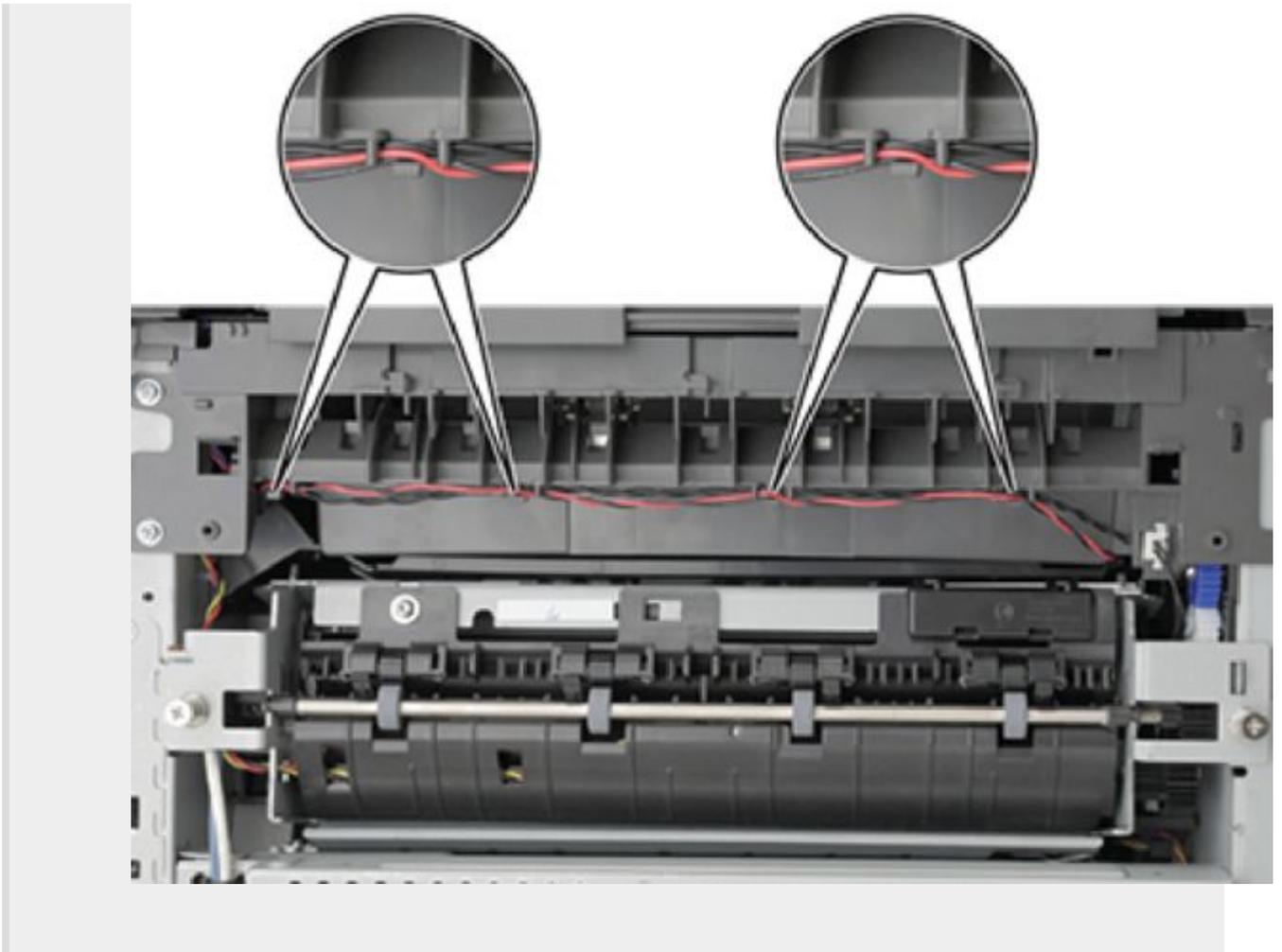
MPF solenoid removal

1. Remove the left cover. See .See "Left cover removal" on page 370
2. Remove the screw (A).
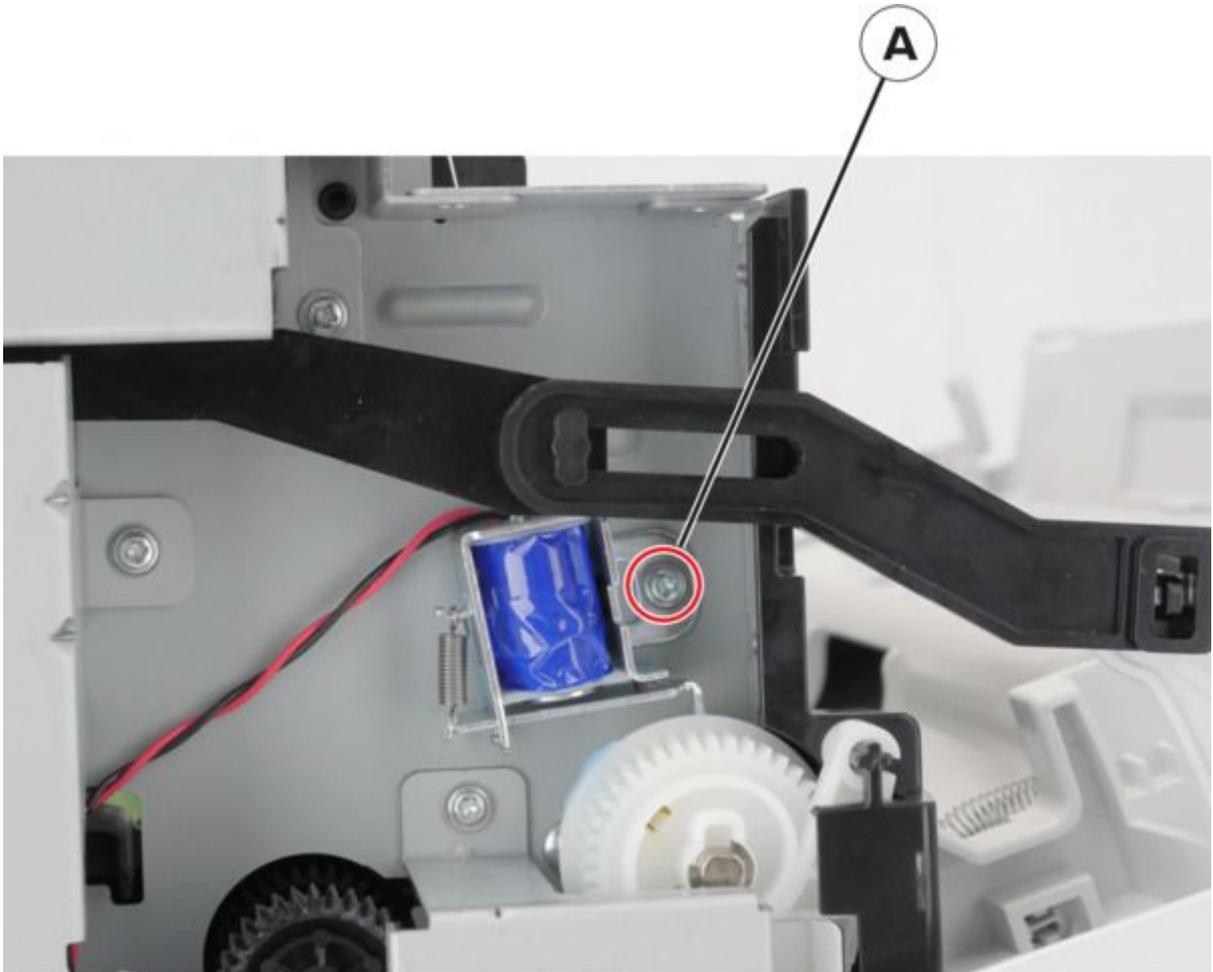
3. Cut the cable, and then remove the solenoid.
4. Remove the rear cover. See .See "Rear door and cover removal" on page 485
5. Remove the power supply. See .See "Power supply removal" on page 450
6. Remove the duplex. See .See "Duplex removal" on page 453
7. Release the cut cable.

> **NOTES**
> Pay attention to the cable route.

8. Open the controller board access cover, and then disconnect the cable.

Cartridge gearbox removal

1. Remove the left cover. See .See "Left cover removal" on page 370
2. Remove the four screws (A).
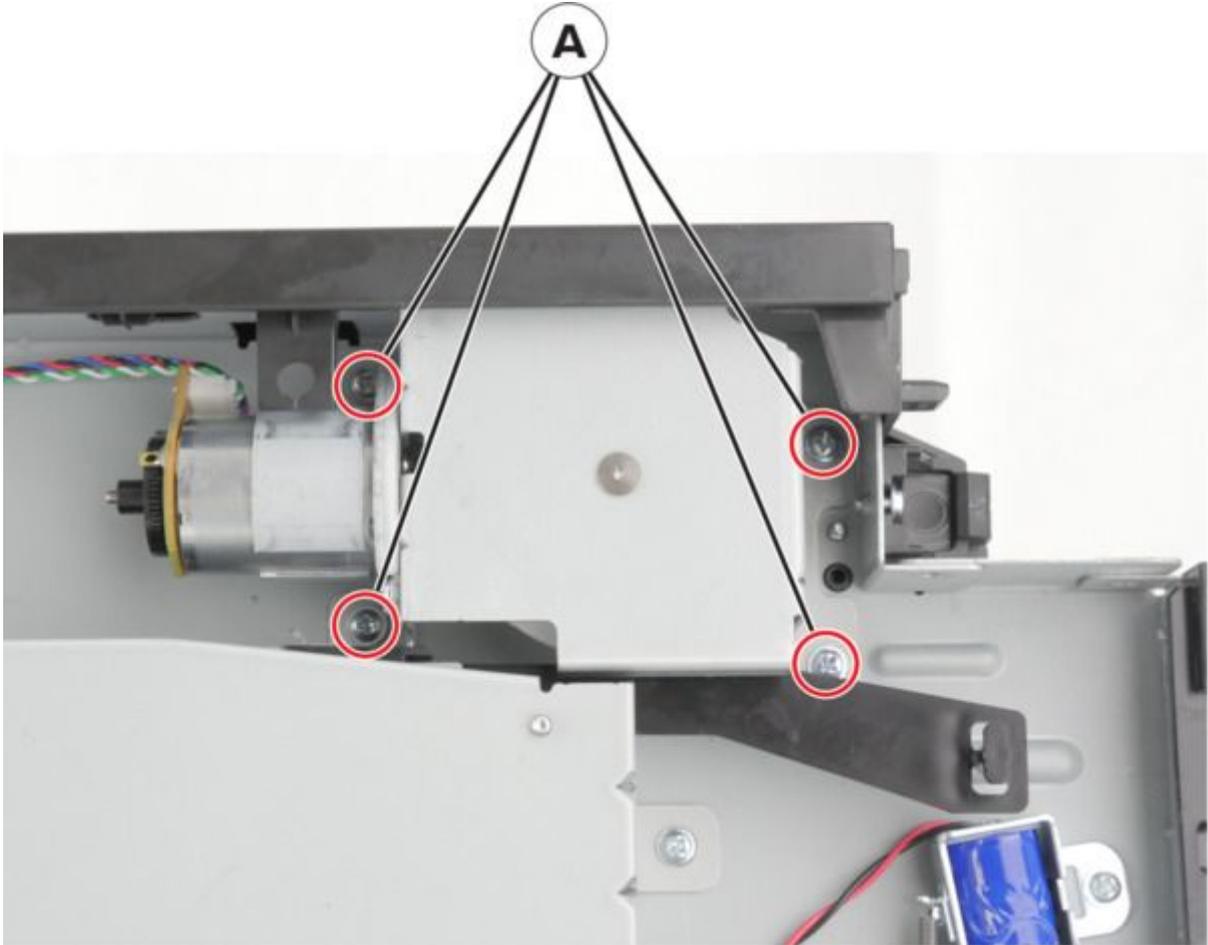
3. Remove the screw (B).
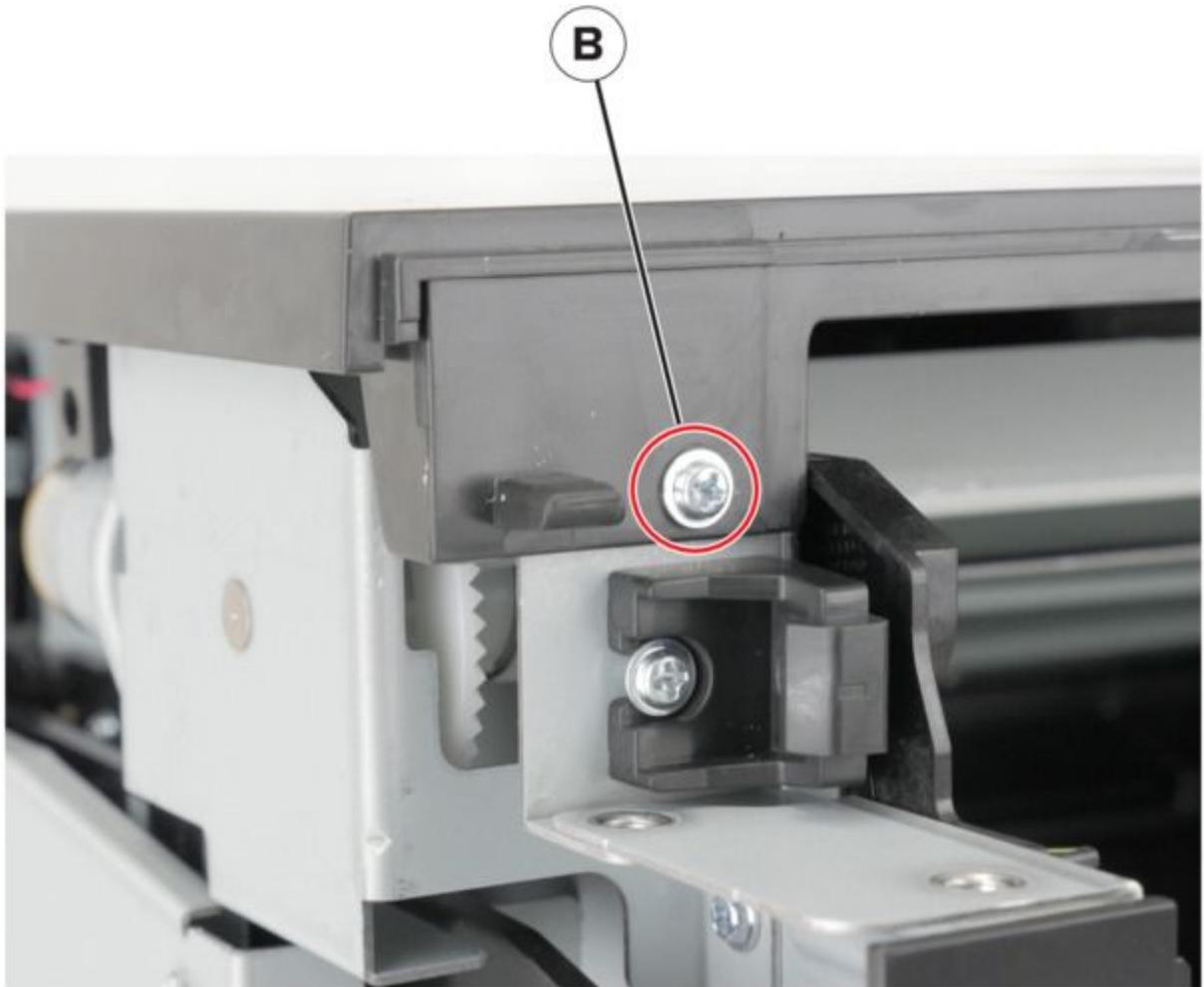
4. Lift the top cover enough to remove the cartridge gearbox.
5. While lifting the cover, disconnect the cable from the gearbox, and then remove the gearbox.

Pick roller clutch removal

NOTES

The following procedure applies only to MS531 printer model.

1. Remove the left cover. See .See "Left cover removal" on page 370
2. Remove the main drive gearbox. See See "Main drive gearbox removal" on page 372.
3. Remove the rear cover. See .See "Rear door and cover removal" on page 485
4. Remove the power supply. See .See "Power supply removal" on page 450
5. Remove the duplex. See .See "Duplex removal" on page 453
6. Using needle-nose pliers, block the roller (A) to prevent the shaft from rotating.
7. While blocking the roller, remove the screw (B).

8. Pull out the pick roller clutch, and then cut the cable to remove it.

INSTALLATION NOTE

Route the cables as shown.
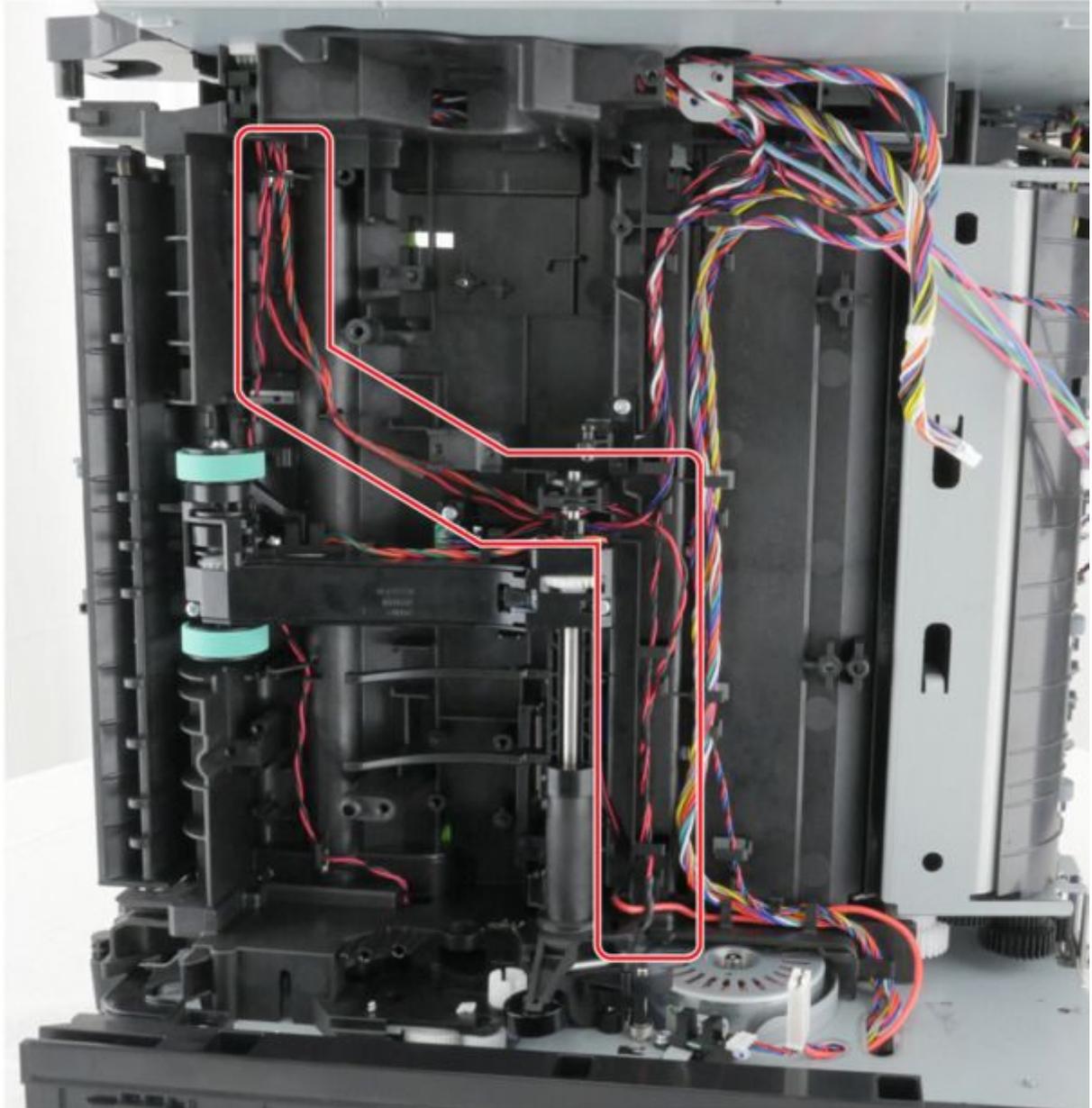
Duplex gear kit removal

1. Remove the left cover. See .
2. Remove the main drive gearbox. See .
3. Remove the duplex. See .
4. Remove the five screws (A).
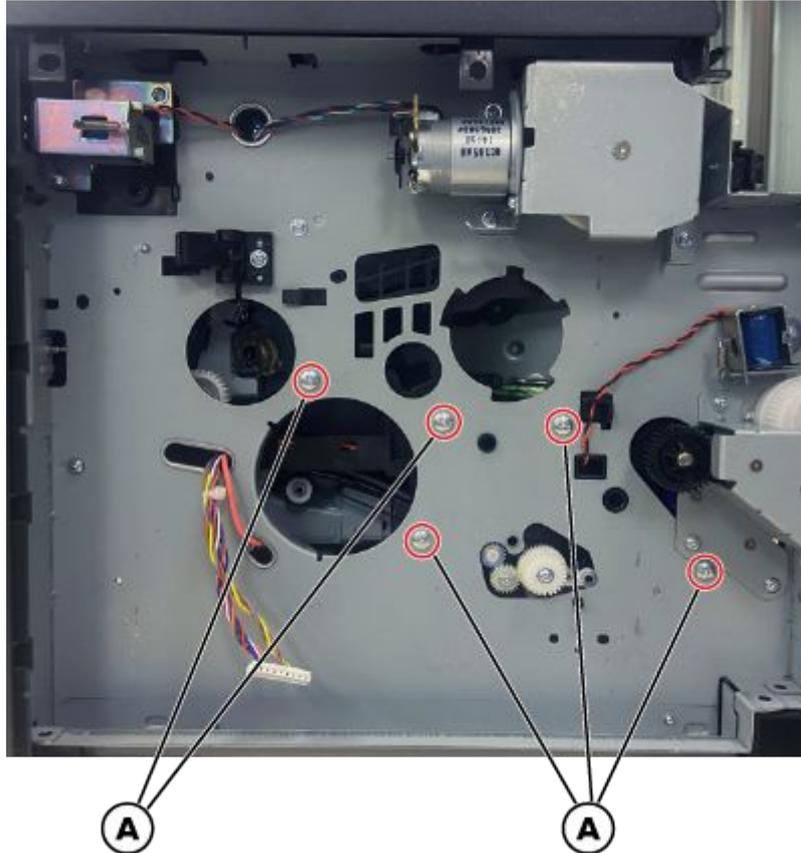
5. Pull the left frame to release it from the main frame.
6. Remove the duplex drive bushing (B).
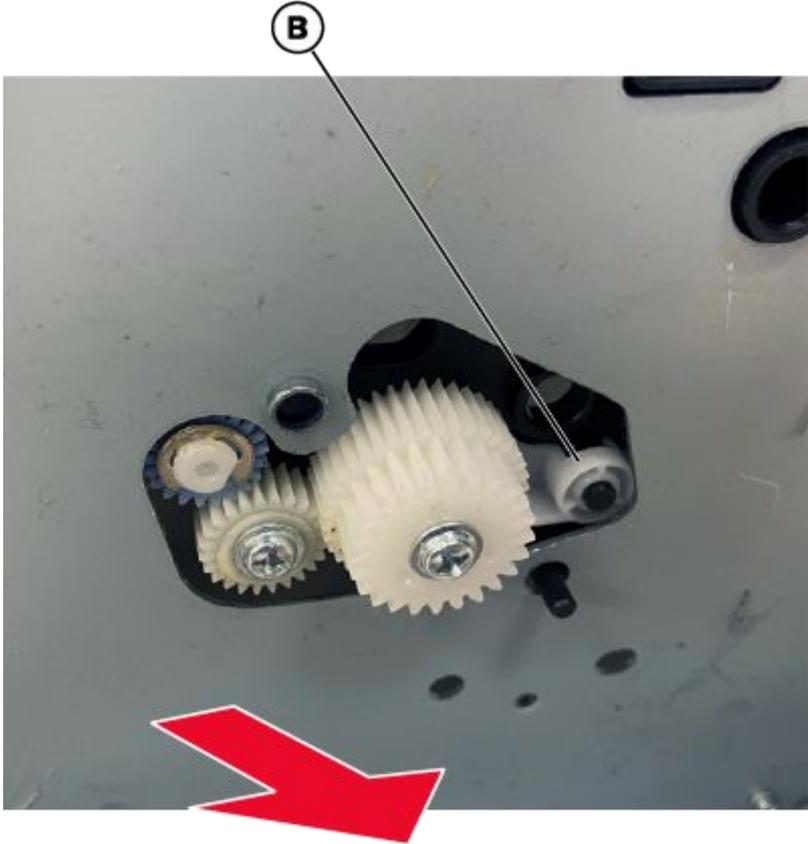
Right side removals

Right cover removal

> **NOTES**
> For a video demonstration, see Right cover removal.

1. Remove the screw (A).
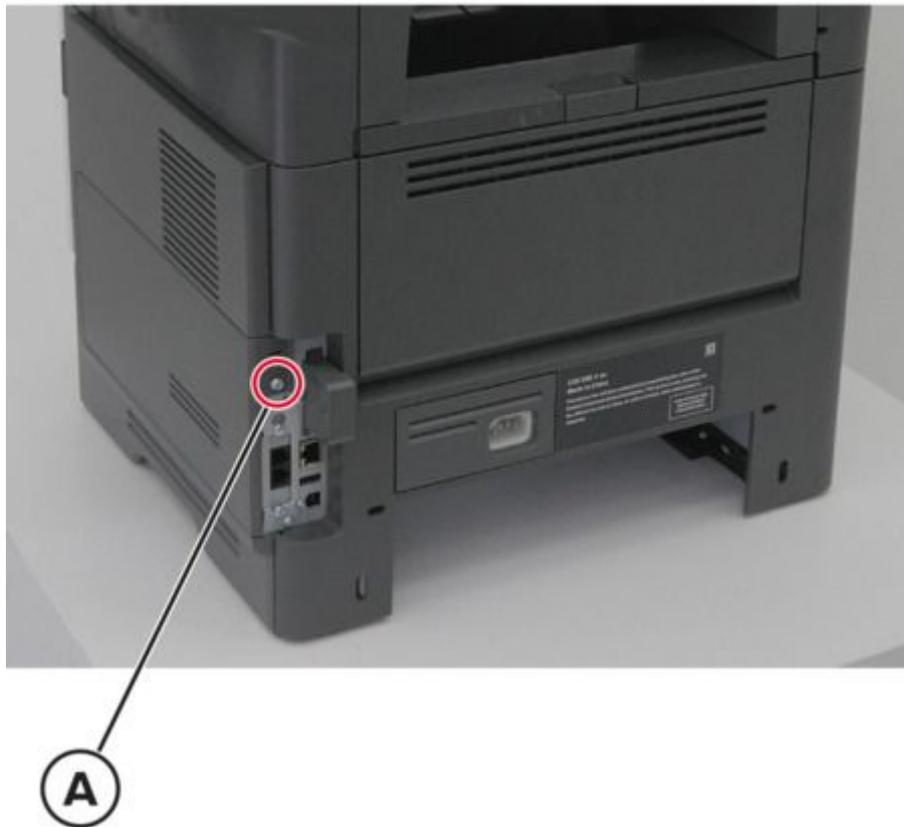
2. Open the controller board cover, and then remove the screw (B).

3. Remove the screw (C).

4. Place the printer on its left side, and then open the front door.
5. Lift the right cover, and then remove it.

Interconnect cable removal

1. Remove the right cover. See .
2. Position the printer on its rear side.
3. Disconnect the cable JOPT1 from the controller board.
4. Remove the two screws (A).
5. Detach the right foot (B).
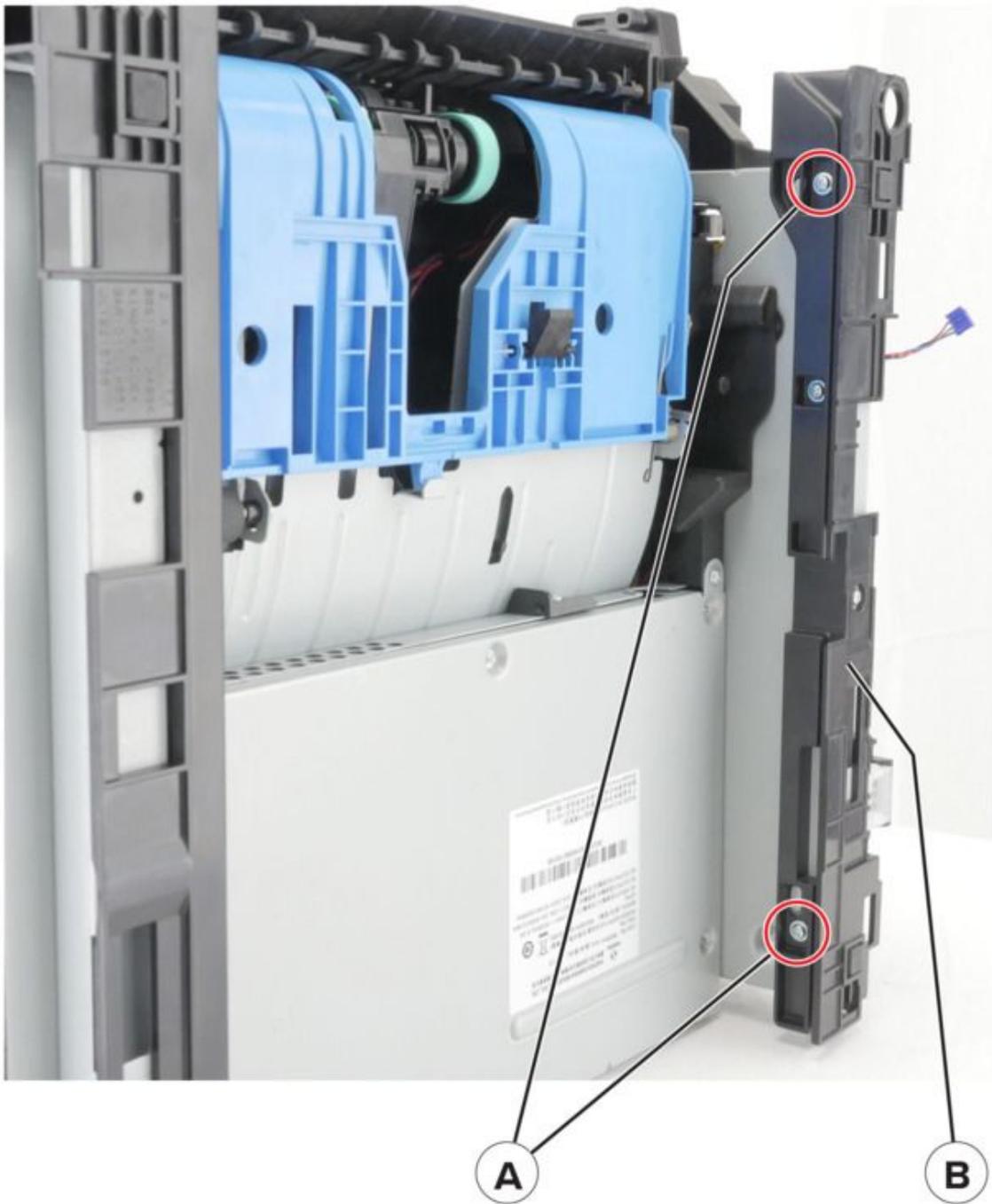
6. Release the two latches (C).
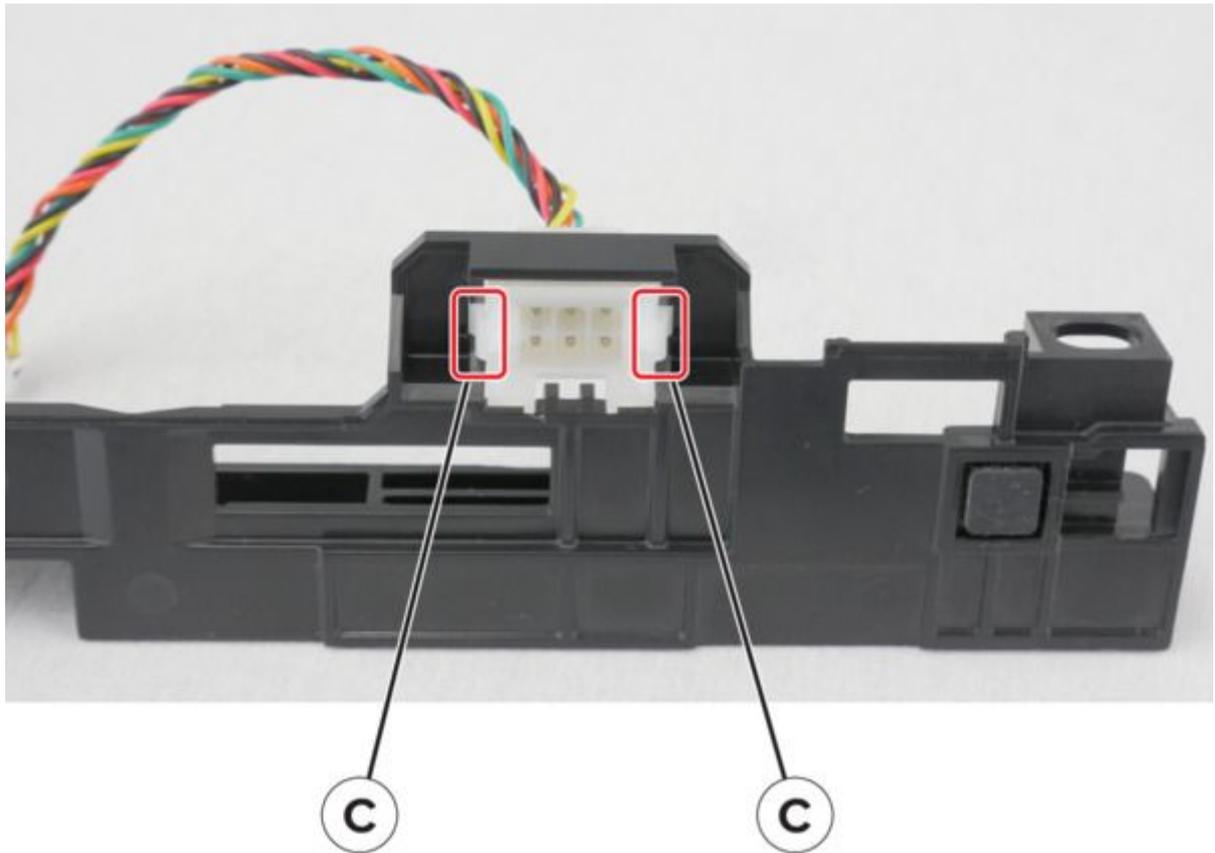
7. Remove the cable.

Fan removal

NOTES
For a video demonstration, see Fan removal.

1. Remove the right cover. See See "Right cover removal" on page 394
2. Remove the tray insert.
3. Disconnect the connectors (A).
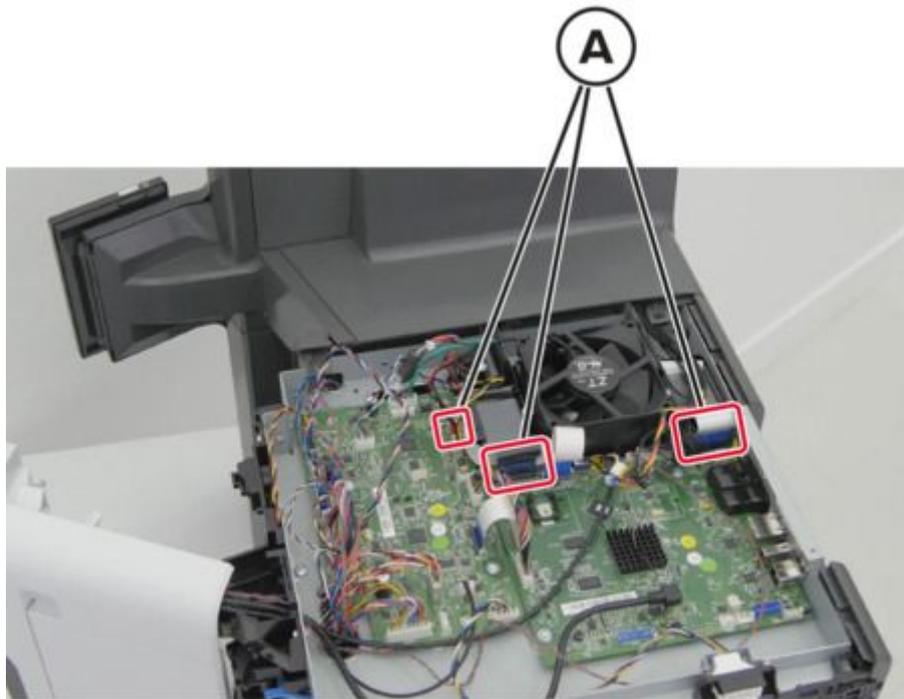
4. Remove the screws (B).
5. Unroute the cables (C).
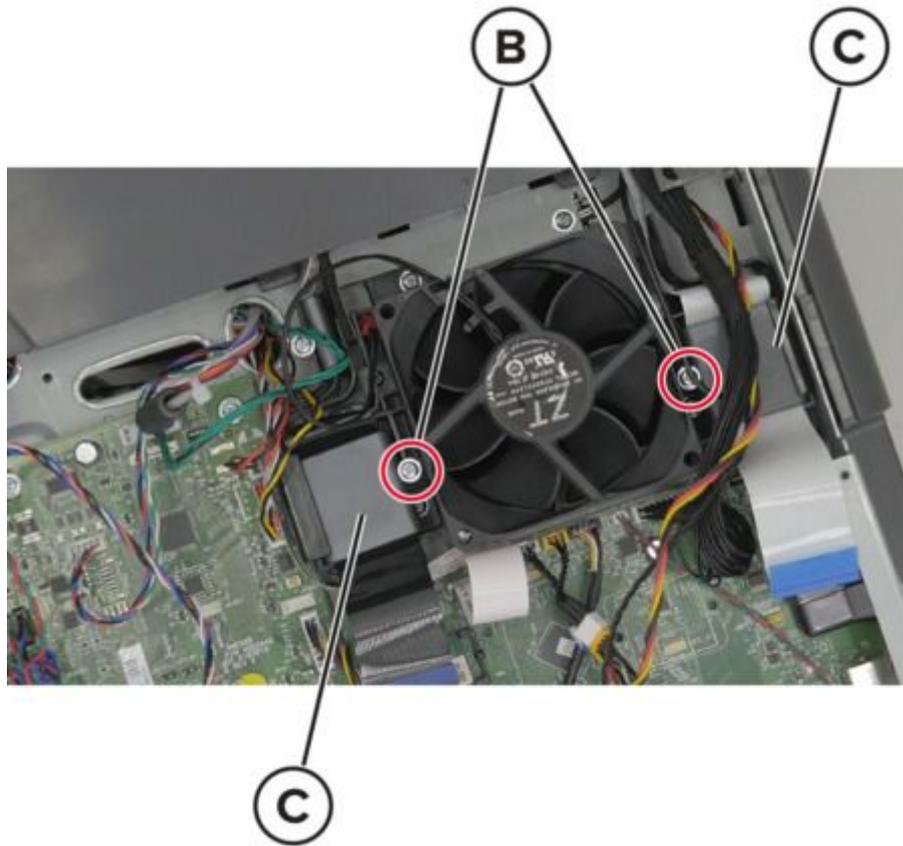
6. Remove the screws (D).
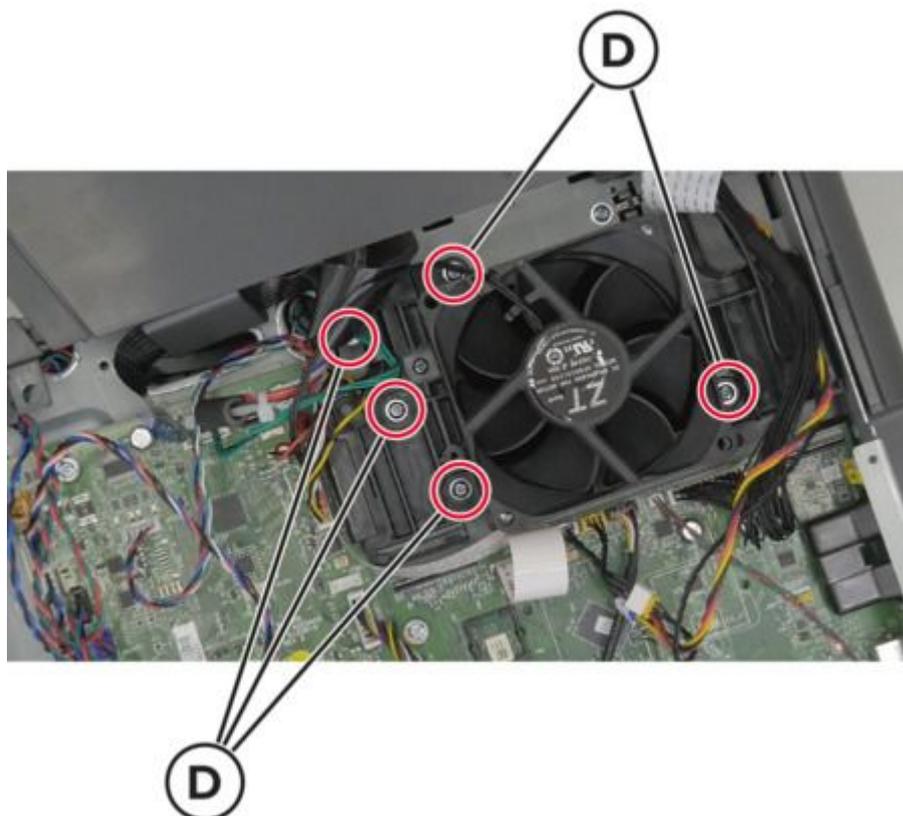
7. Remove the screws (E).
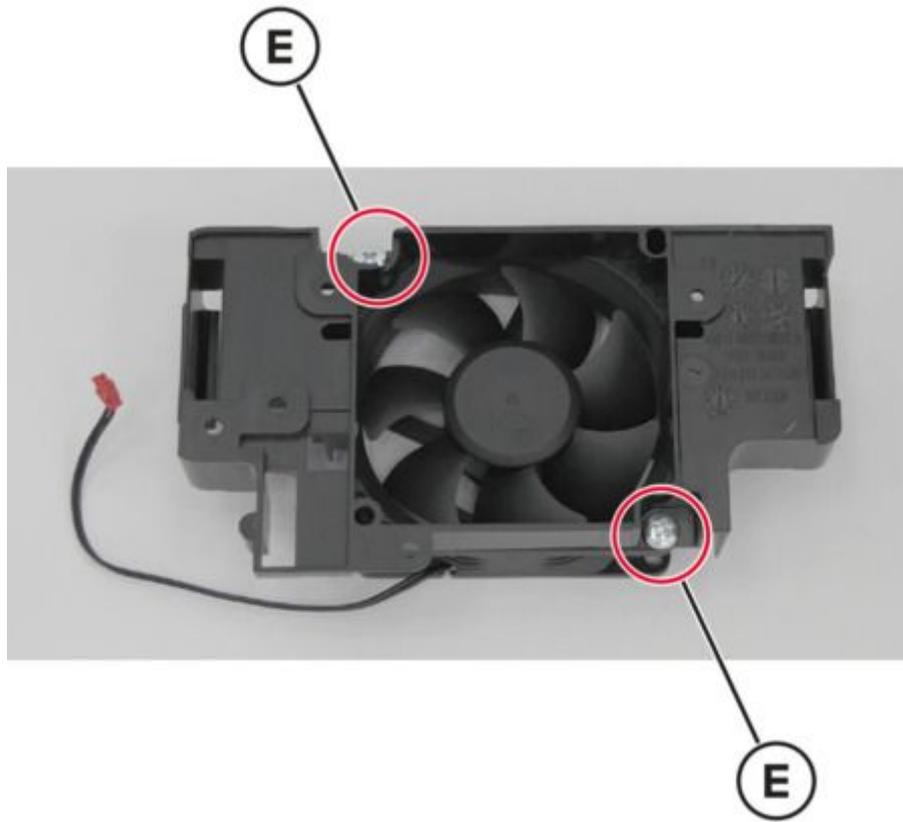
8. Remove the fan from its housing.

Controller board removal

> **NOTES**
> For a video demonstration, see Controller board removal.

1. Remove the right cover. See See "Right cover removal" on page 394.
2. Remove the fax card. See See "Fax card removal" on page 406.
3. Remove the wireless module. See See "Wireless module removal" on page 409.
4. Disconnect all the connectors on the board.
5. Remove the ISD (A).
6. Remove the screws (B).
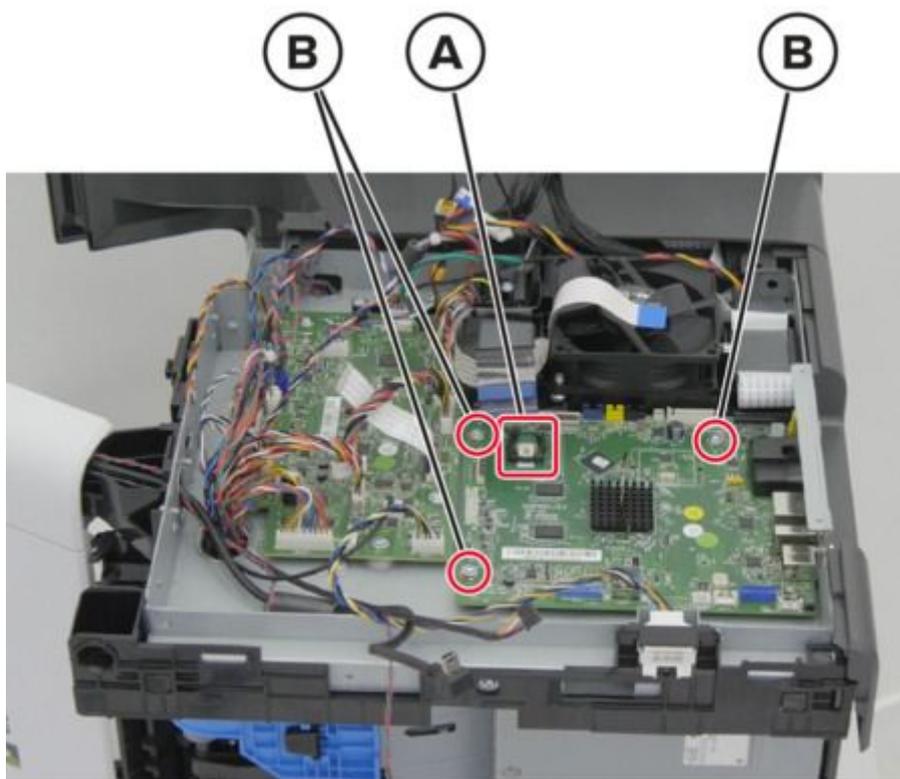
7. Remove the screw (C).
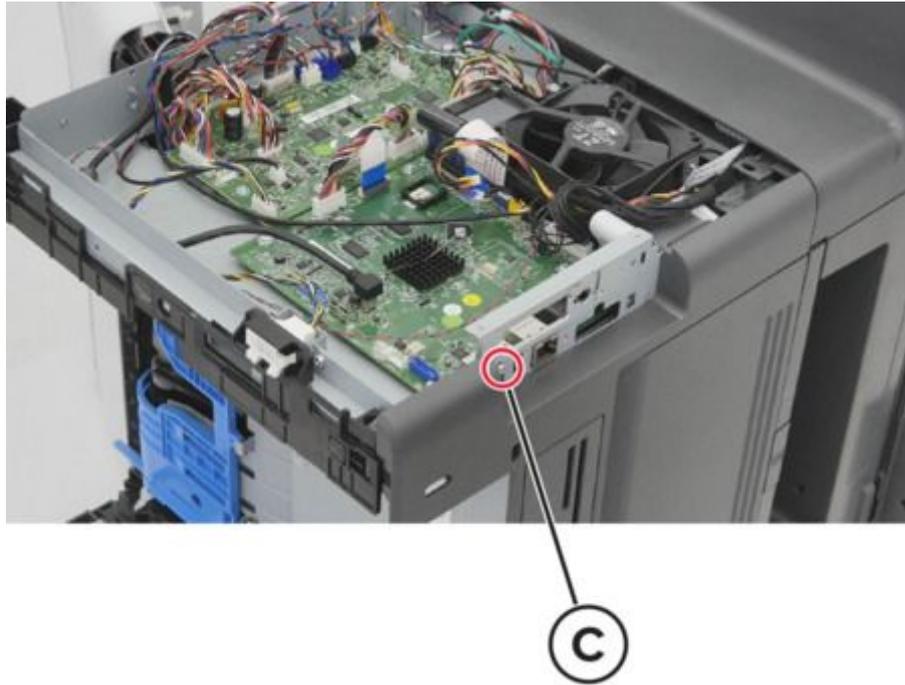
8. Remove the controller board.

INSTALLATION NOTE
Reinstall the electronic attachments to the new controller board.

Engine board removal

> **NOTES**
> For a video demonstration, see Engine board removal.

1. Remove the right cover. See See "Right cover removal" on page 394.
2. Remove the screws (A).
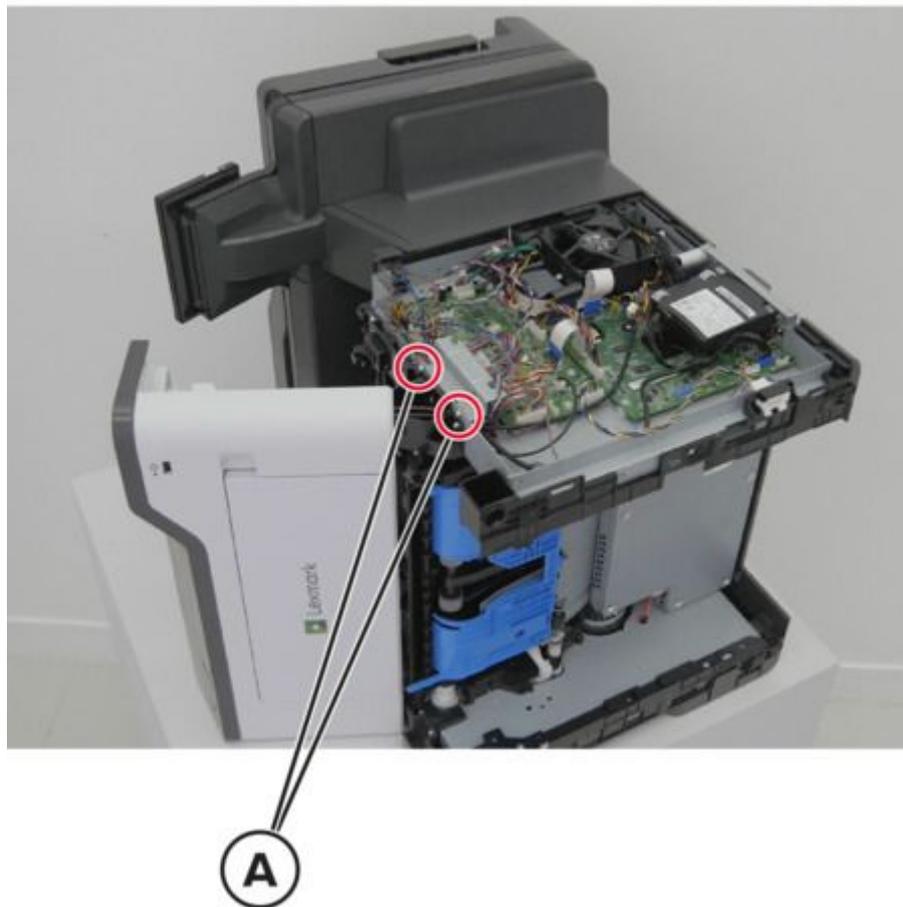
3. Disconnect all the connectors on the board.
4. Remove the screws (B).
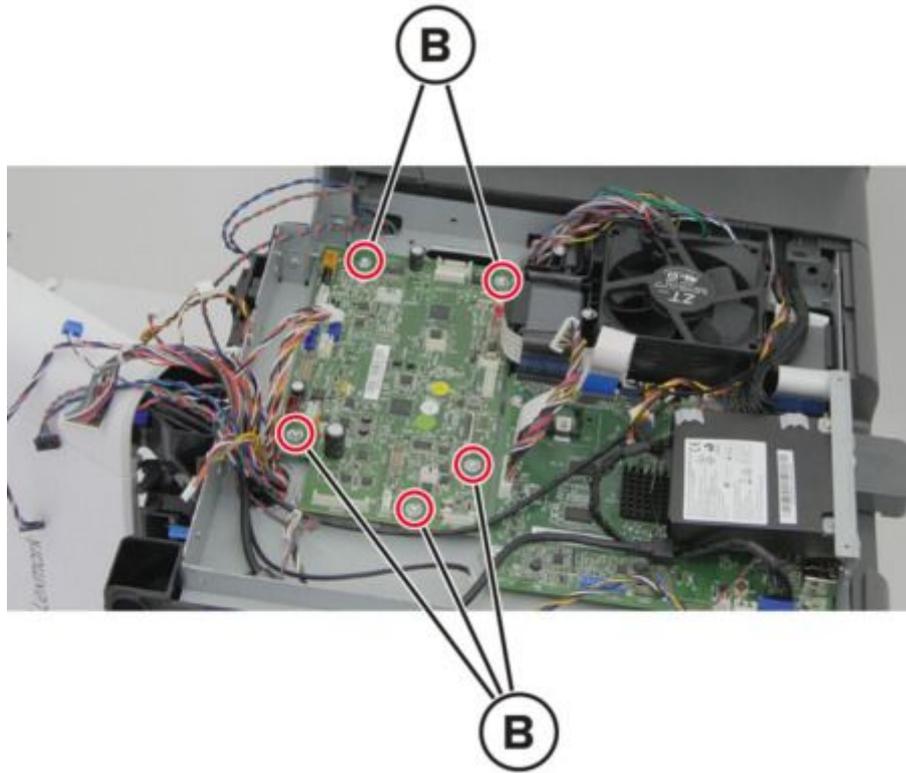
5. Remove the engine board.

Fax card removal

1. Remove the right cover. See See "Right cover removal" on page 394.
2. Disconnect the fax card cable from the controller board, and then remove the two screws (A).
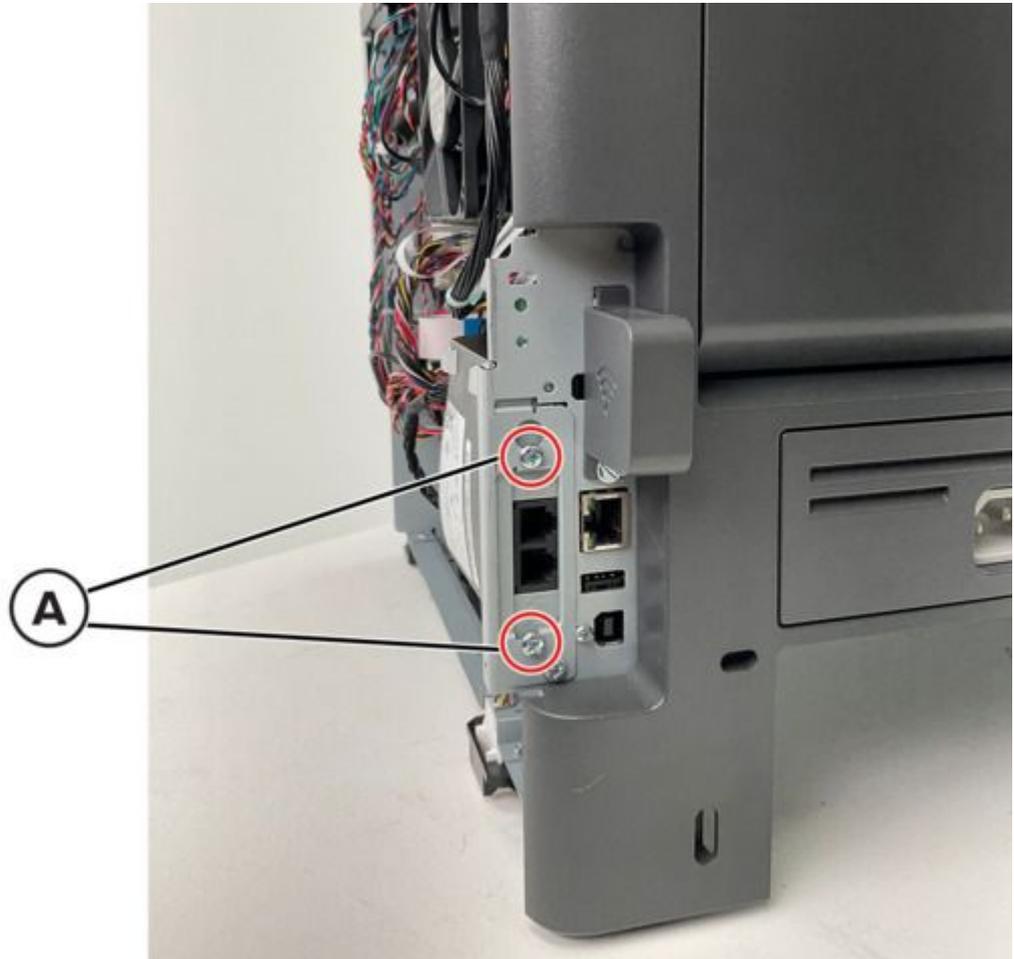
3. Remove the fax card.

INSTALLATION NOTE
To select the correct part for your printer, see the following:

Part	Applicable models
Fax card (41X1374)	• MX622, MB2650, XM3250 (8th digit printer serial number is less than or equal to 3)

Part	Applicable models
Fax card kit (41X2936)	• MX622, MB2650, XM3250(8th digit of printer serial number is greater than or equal to 4) ◦ The printer already has an adapter installed. ◦ Do not cover up the telecom label. • MX622, MB2650, XM3250(8th digit of printer serial number is less than or equal to 3) **NOTES** Install the adapter plate and telecom label.

INSTALLATION NOTE
To install the fax card kit (41X2936), see the following instructions:

1. Secure the two screws to the adapter plate.

   To select the correct adapter plate and screws for your printer, refer to the following:

Printer models	Part	Part number	Graphic
MB2650, MX622, XM3250	Fax card	37X6145	
	Adapter plate	36S6355	
	Plate affixed with one screw	88B1020	

2. Insert the new fax card with the adapter plate into the fax card slot.
3. Connect the cable to the fax connector (JFAX2) on the controller board.
4. Attach the screw(s) to secure the fax card in the fax card slot.
5. Close the controller board access cover.

Wireless module removal

1. Remove the right cover. See See "Right cover removal" on page 394.
2. Remove the fax card. See See "Fax card removal" on page 406.
3. Remove the screw (A).
4. Remove the cover (B).

5. Release the latch (C), and then remove the wireless module.
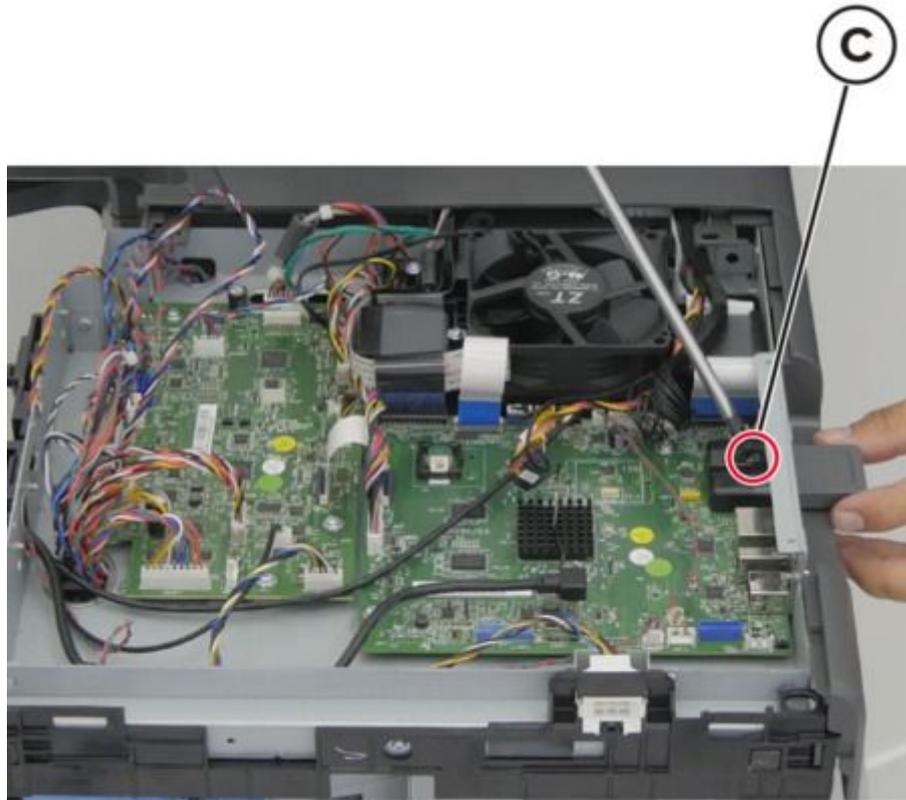
Toner cartridge smart chip contact removal

1. Remove the right cover. See See "Right cover removal" on page 394.
2. Remove the engine board. See See "Engine board removal" on page 404.
3. Remove the screw (A).
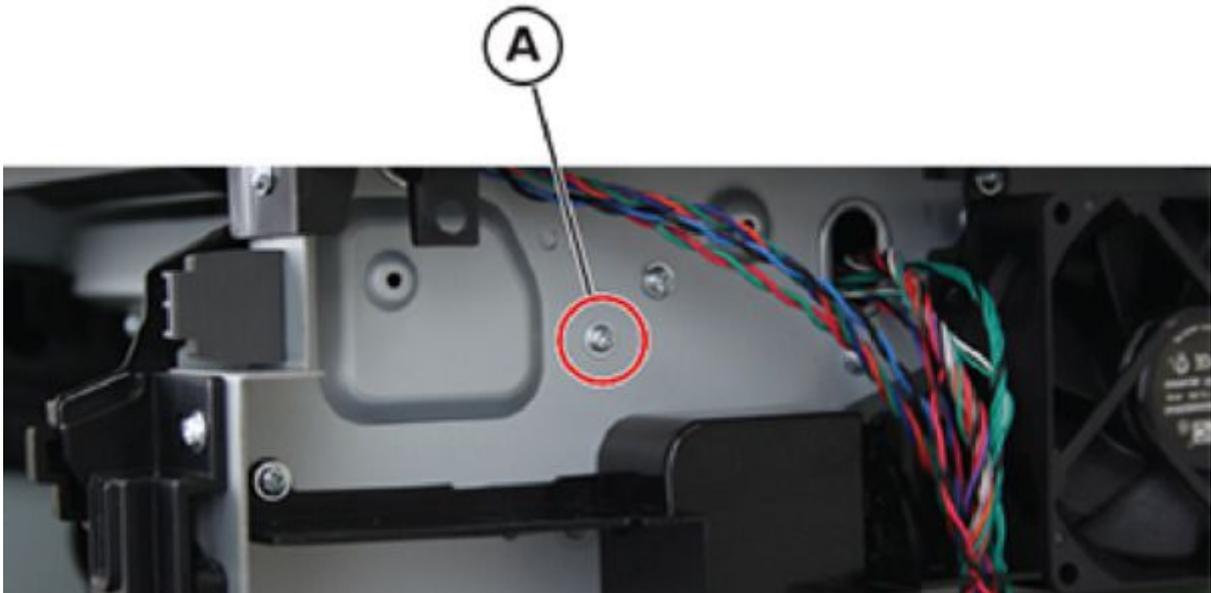
4. Remove the two screws (B), and then lower the right cartridge guide.
5. Slightly pull the right cartridge guide to detach it.

> **WARNING—POTENTIAL DAMAGE**
> To avoid damaging the right cartridge guide, do not cut or disconnect the cable at the rear of the cartridge guide. Leave the cartridge guide dangling.
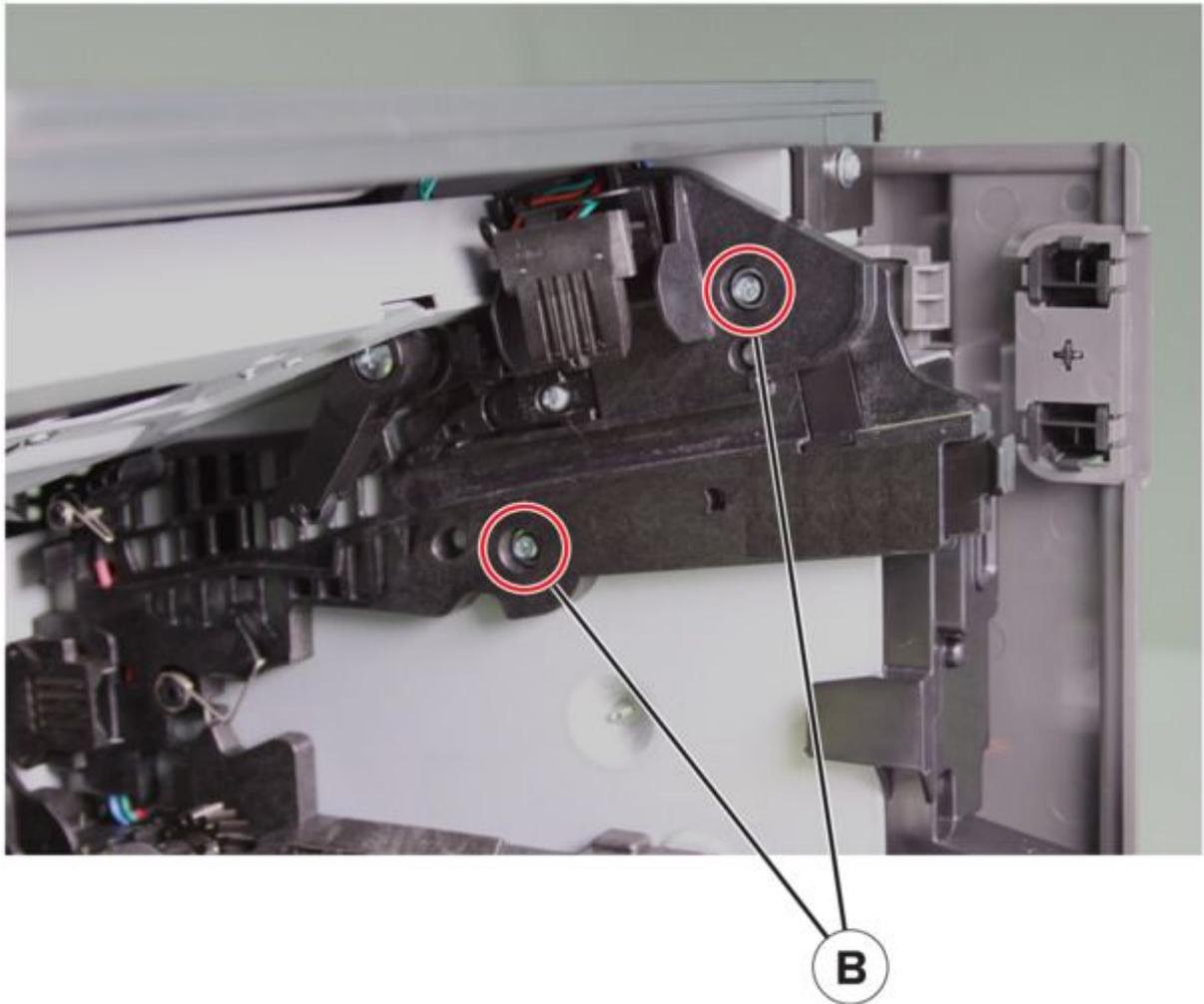
6. Release the four latches (C).
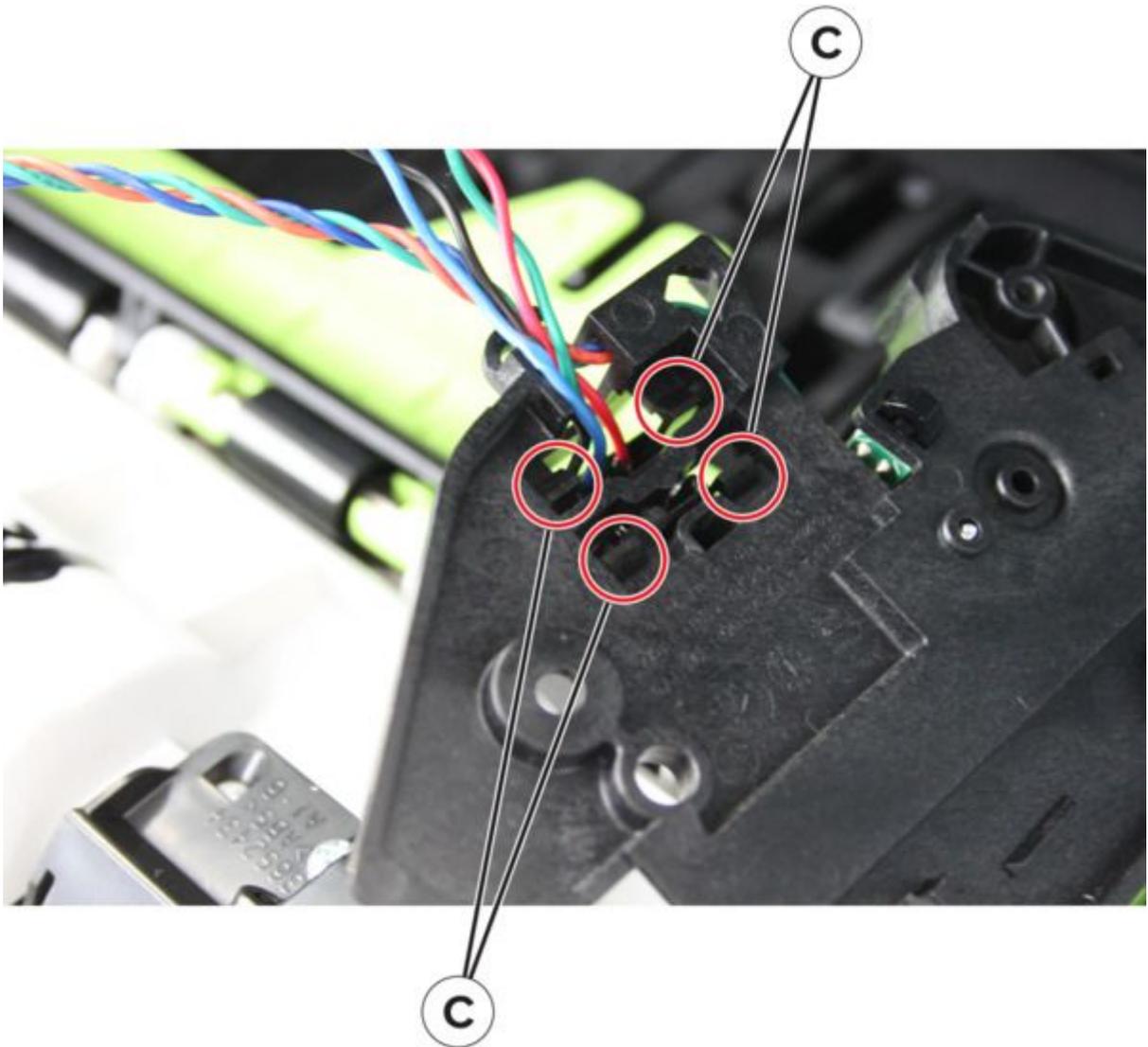
7. Remove the toner cartridge smart chip contact.

   NOTES

   Note the original position of the spring (D), actuator (E), and lock (F).
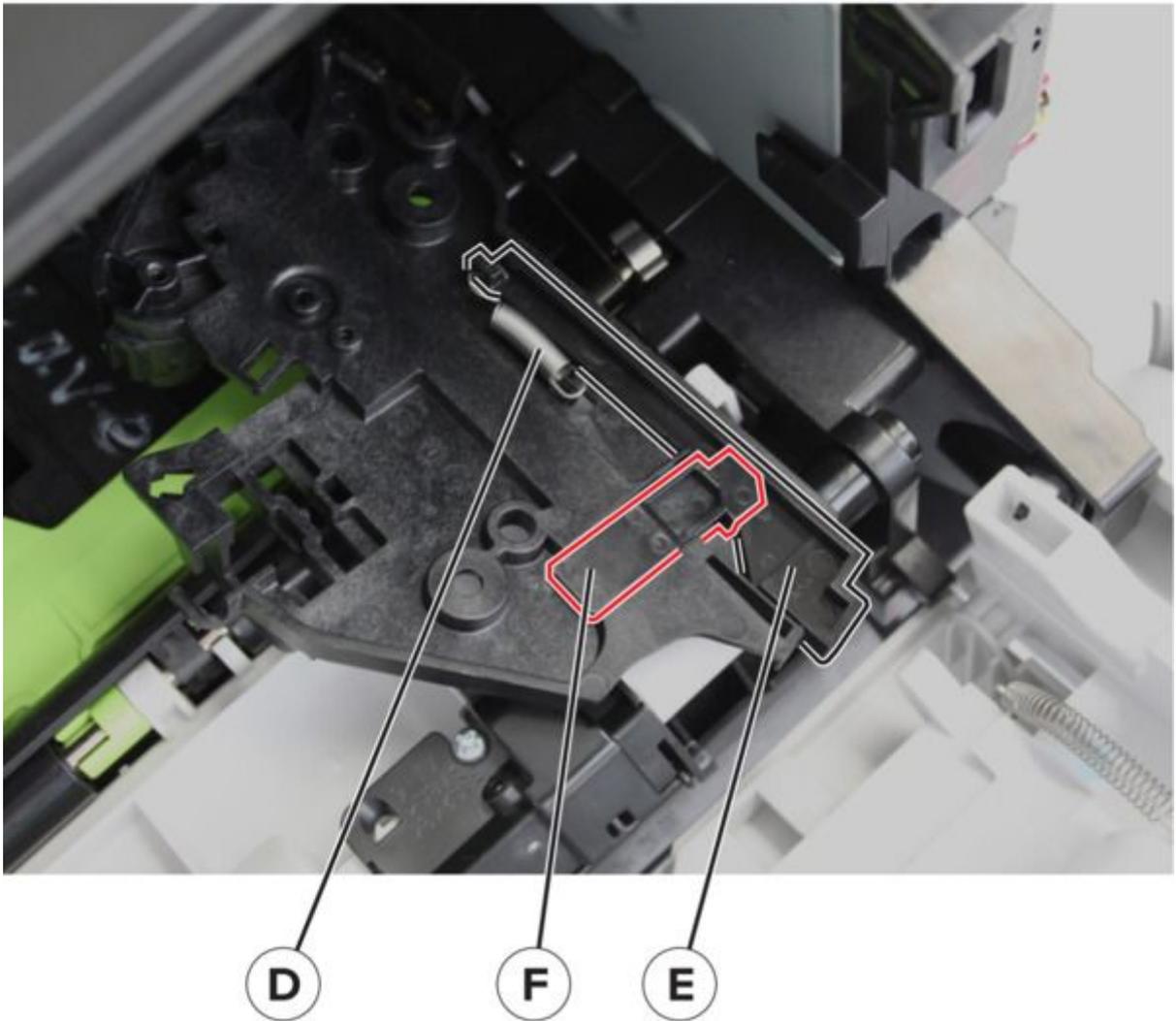
INSTALLATION NOTE
To test if the spring and actuator are properly installed, press the actuator (A). The lock (B) should move up.
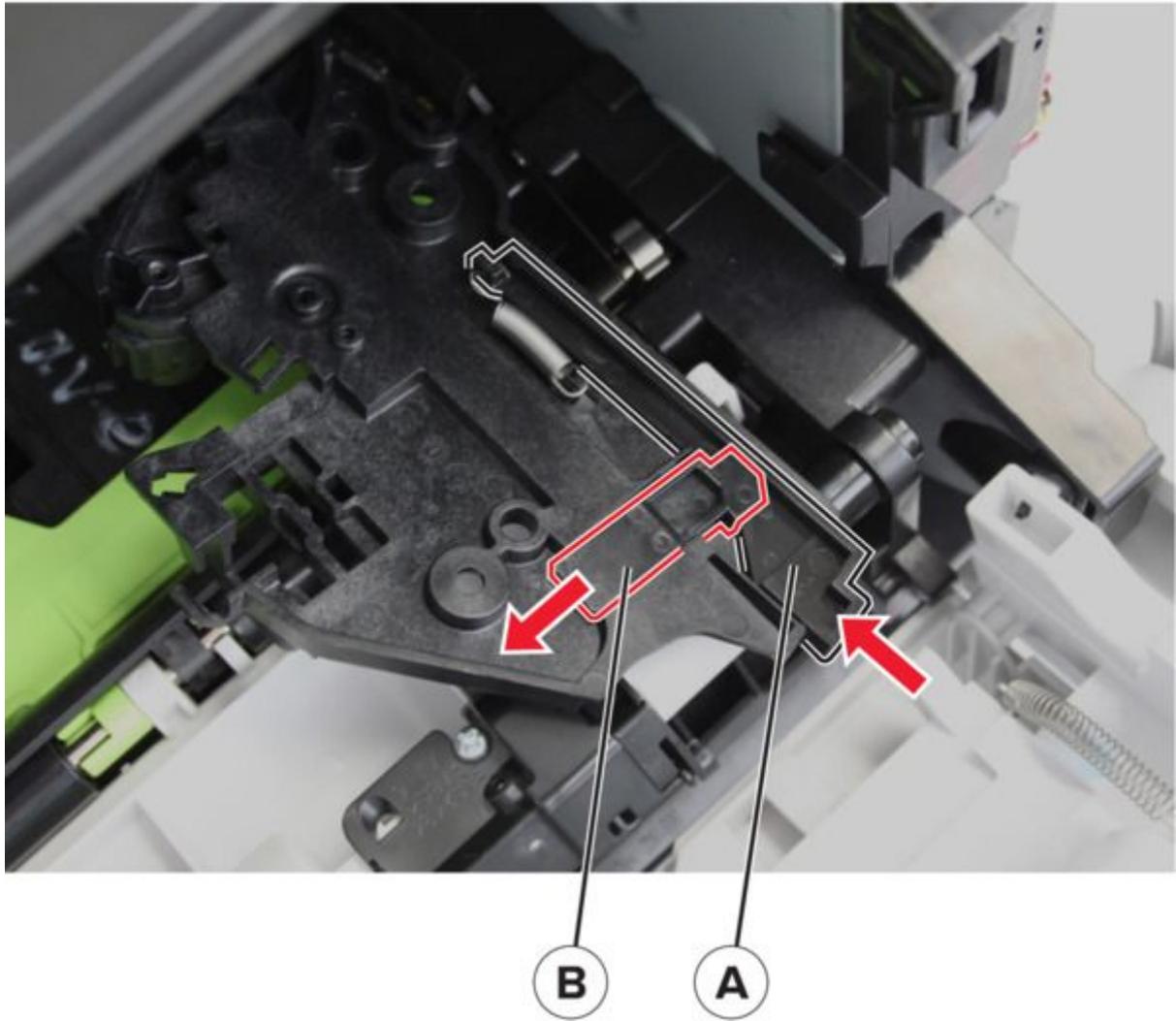
Cartridge barrel shutter sensor kit removal

1. Remove the top cover. See .See "Top cover removal" on page 491
2. Remove the right cover. See .See "Right cover removal" on page 394
3. Disconnect the cable JCVR1 from the controller board.
4. Remove the screw (A), and then remove the bracket, actuator, spring, and sensor.
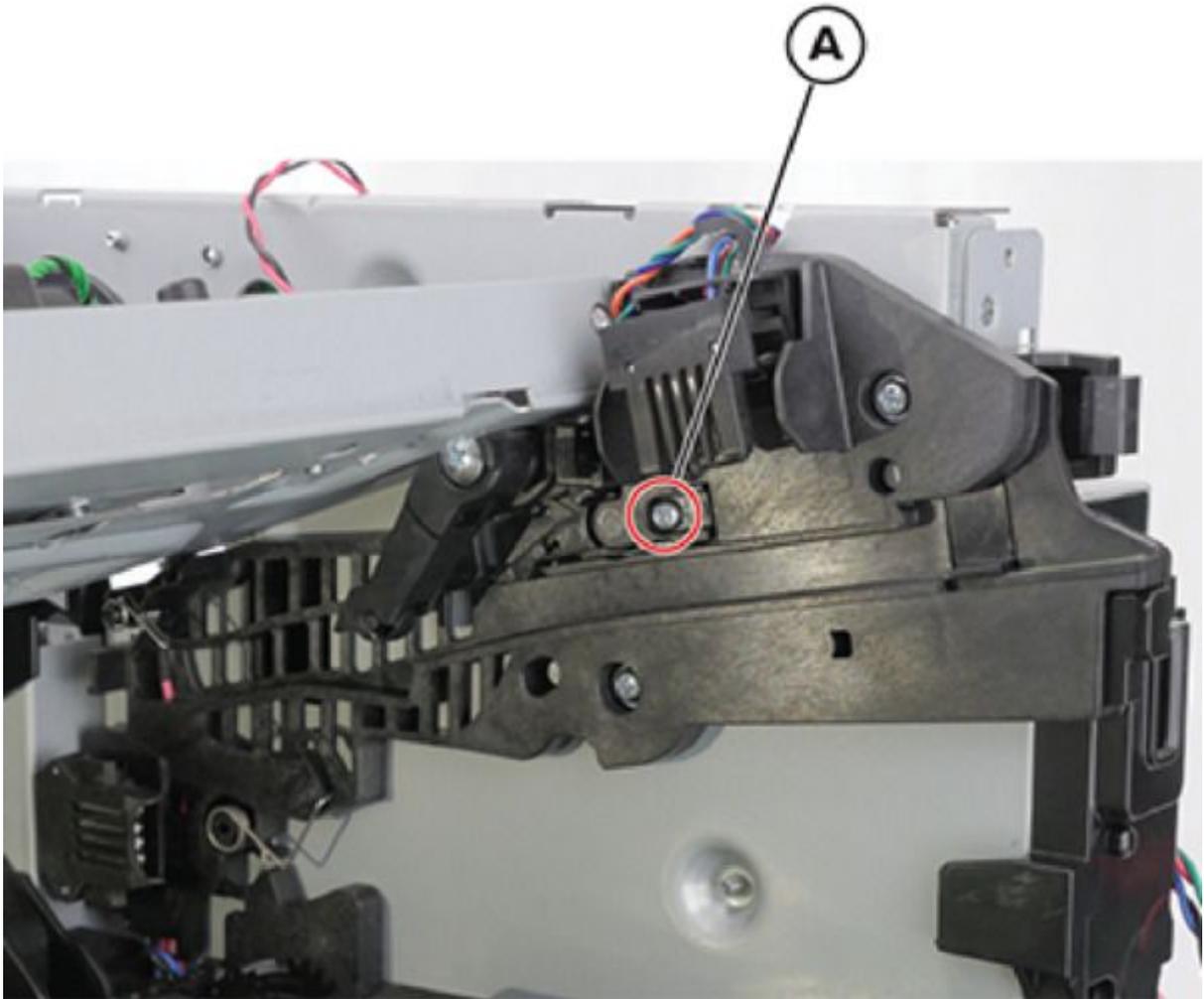
INSTALLATION NOTE
  1. Install the sensor (cartridge barrel shutter) actuator (A) as shown.

  NOTES
  Make sure that the spring (B) is behind the boss (C).
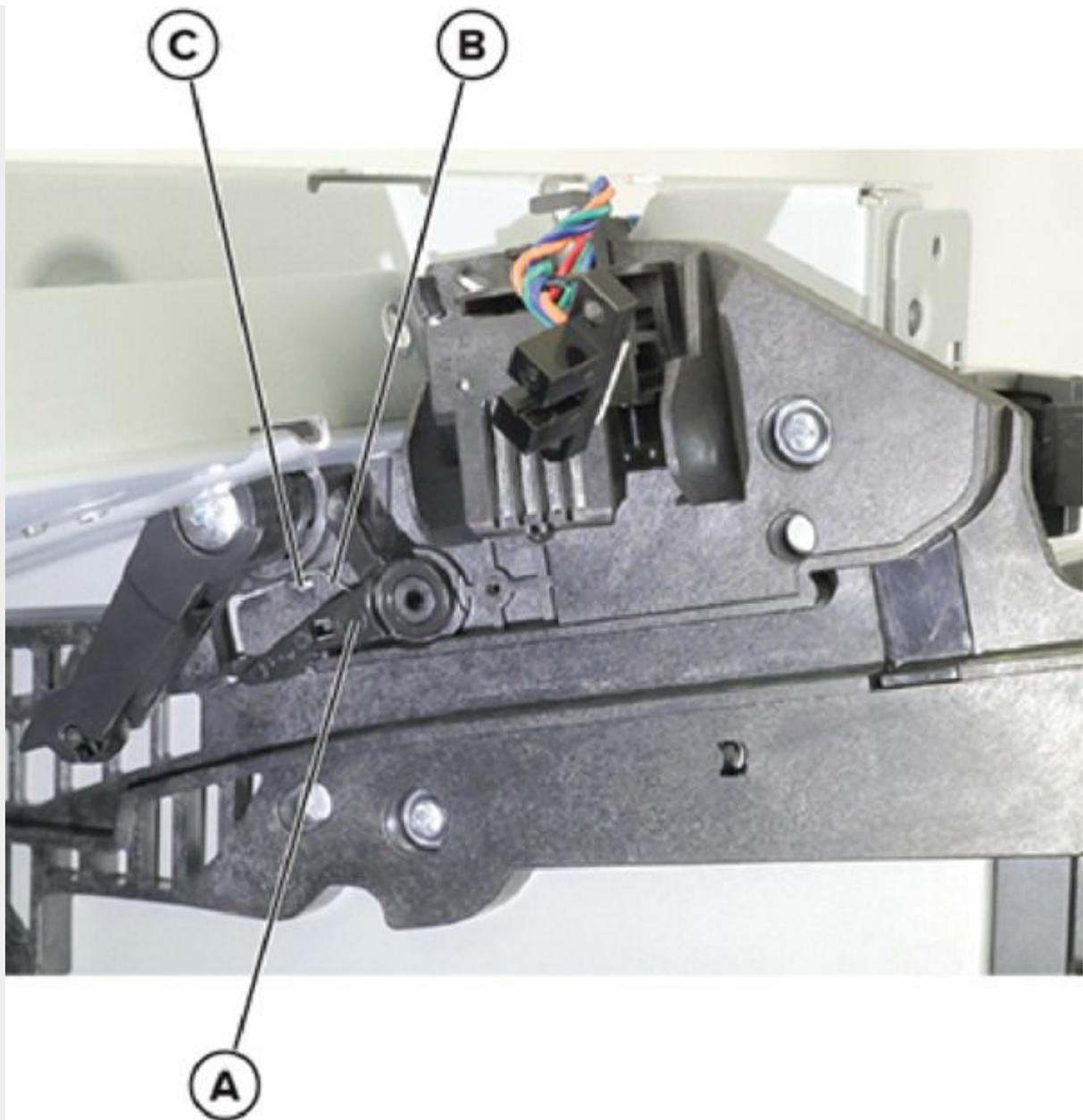
2. Install the bracket (D) to the sensor (E) as shown.
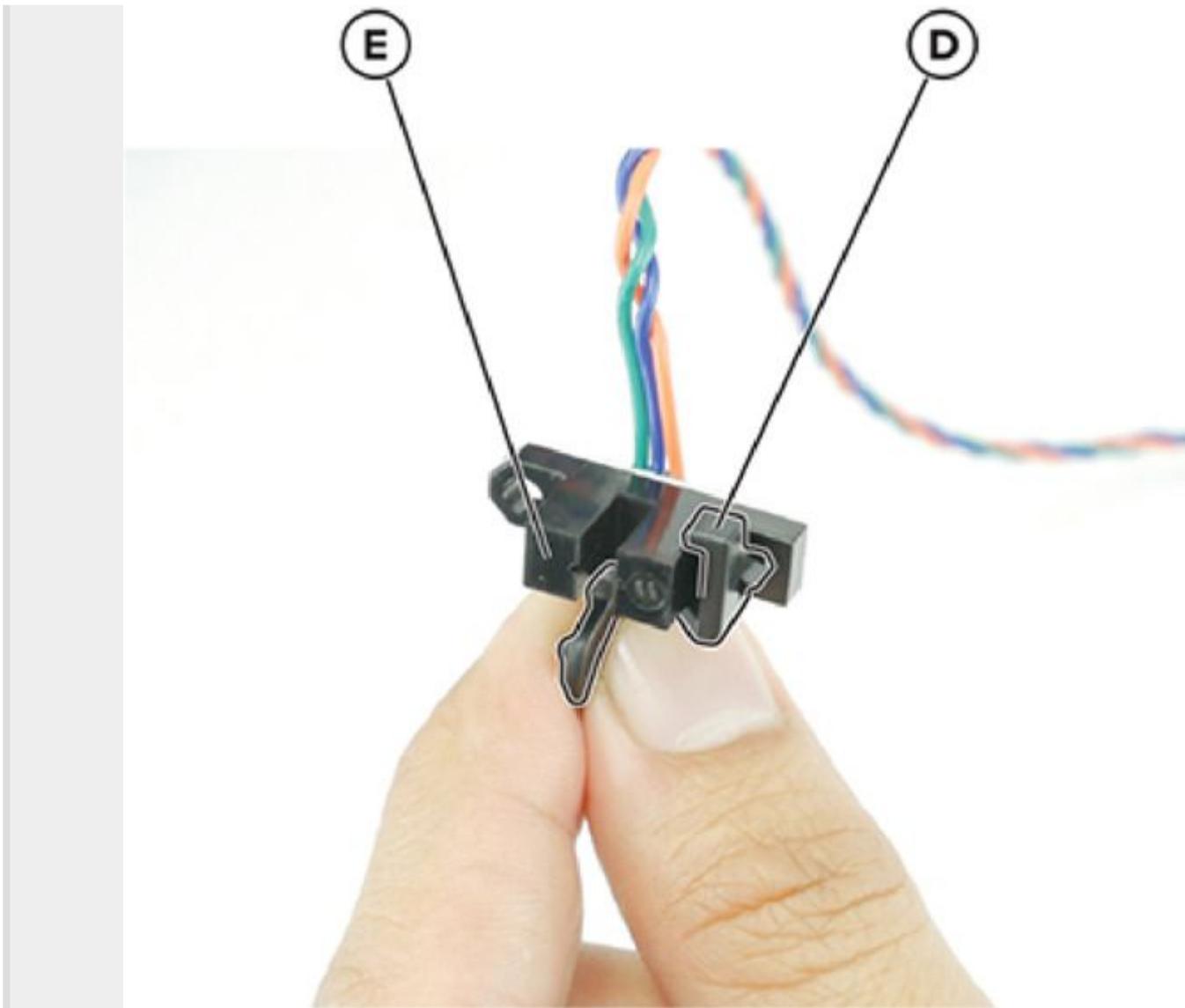
3. Install the sensor and bracket as shown.

   NOTES
   Make sure that sensor is aligned with the actuator.
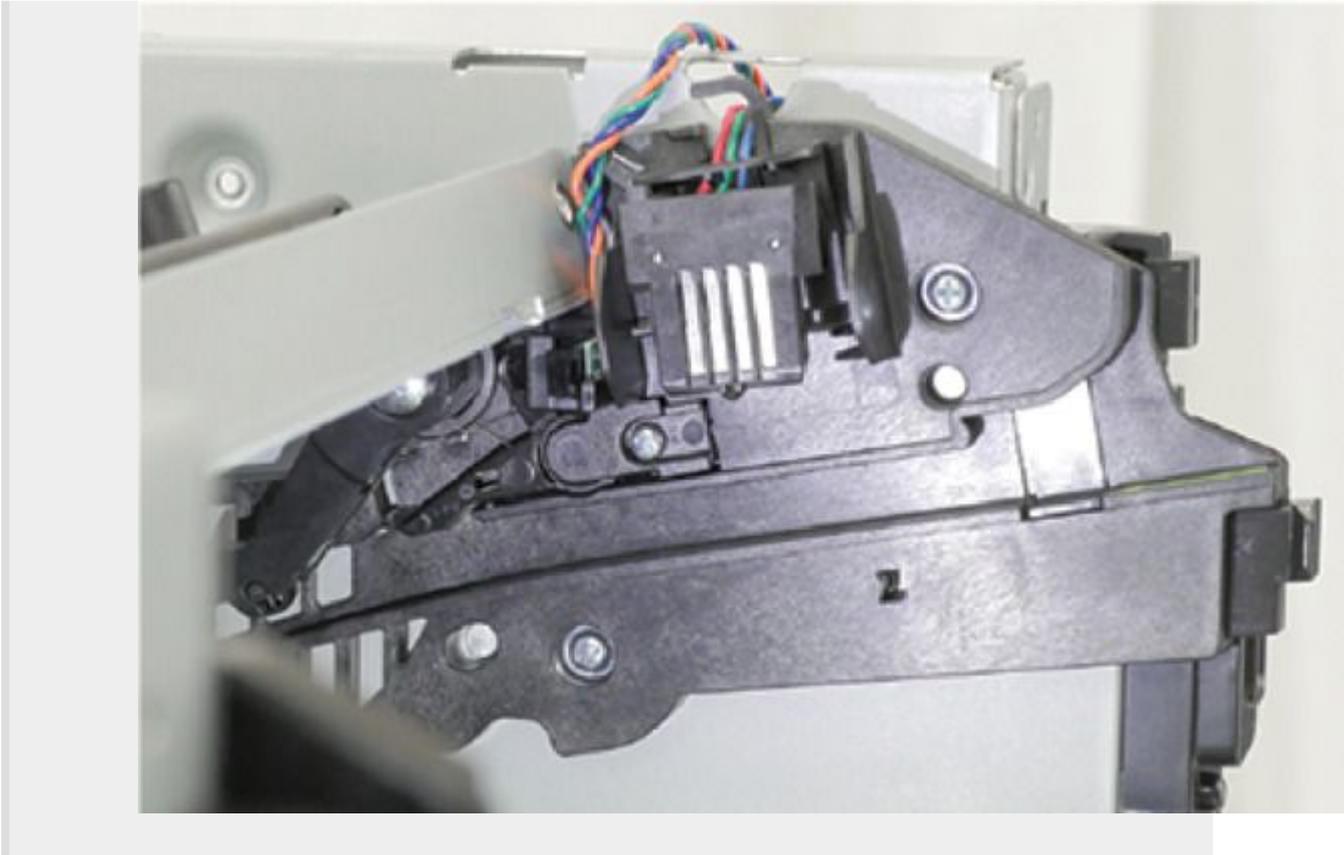
Front removals

Nameplate removal

1. Open the front door.
2. Push the latch to the left, and then remove the screw (A).
3. Remove the four screws (B).
4. Remove the nameplate.

   NOTES
   The MPF hinders the removal.

   WARNING—POTENTIAL DAMAGE
   Avoid damaging the cable (C) when removing the nameplate.

MPF with front access cover removal

1. Remove the nameplate. See .
2. Remove the right cover. See .
3. Remove the screw (A).

4. Release the latch (B), and then detach the link.
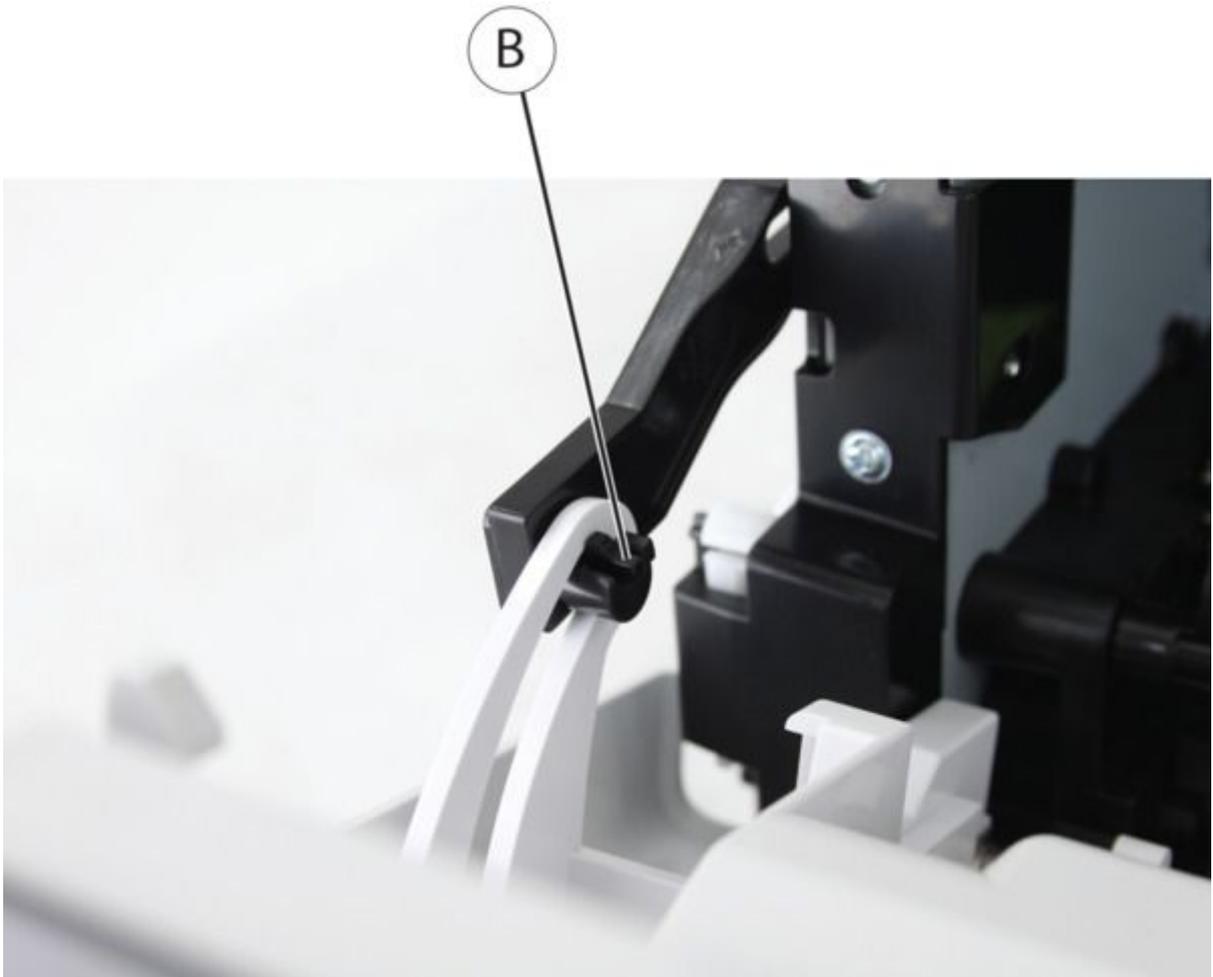
5. Disconnect JFUSB1 cable on the controller board.
6. Push the MPF with front access cover to the right, and then remove it.
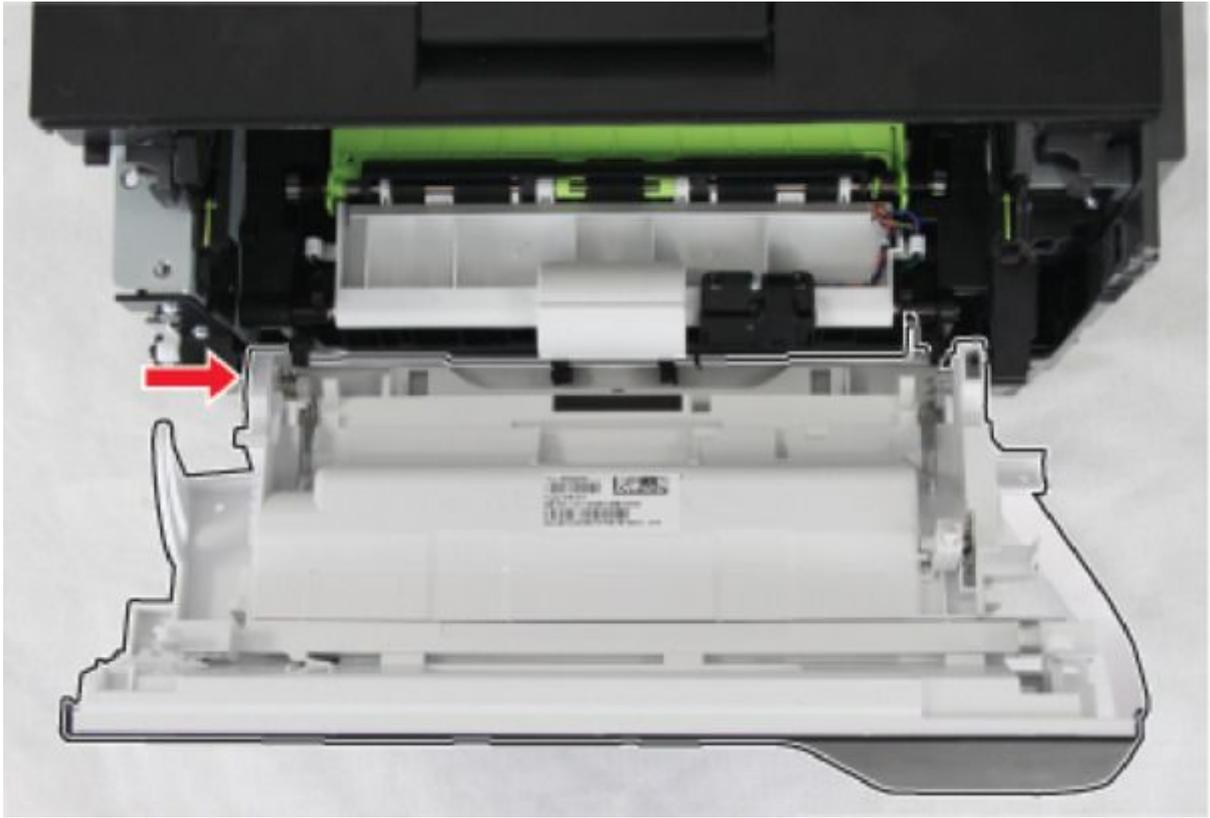
Top access cover removal

1. Remove the nameplate. See See "Nameplate removal" on page 420.
2. Remove the three screws (A), and then remove the cover (B).
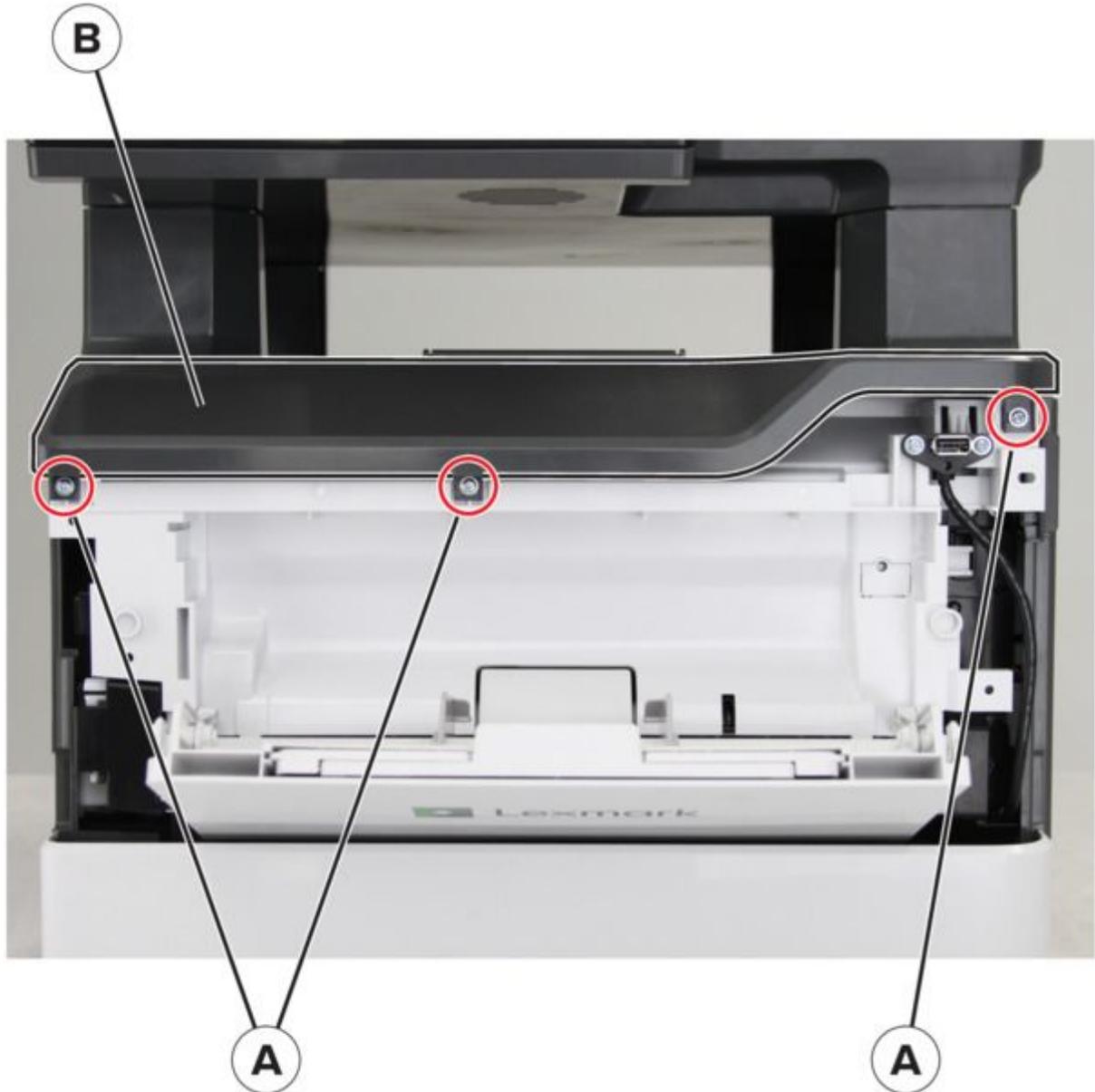
Control panel removal

NOTES
For a video demonstration, see Control panel removal.

1. Release the hinge (A).

2. Remove the three screws (B).
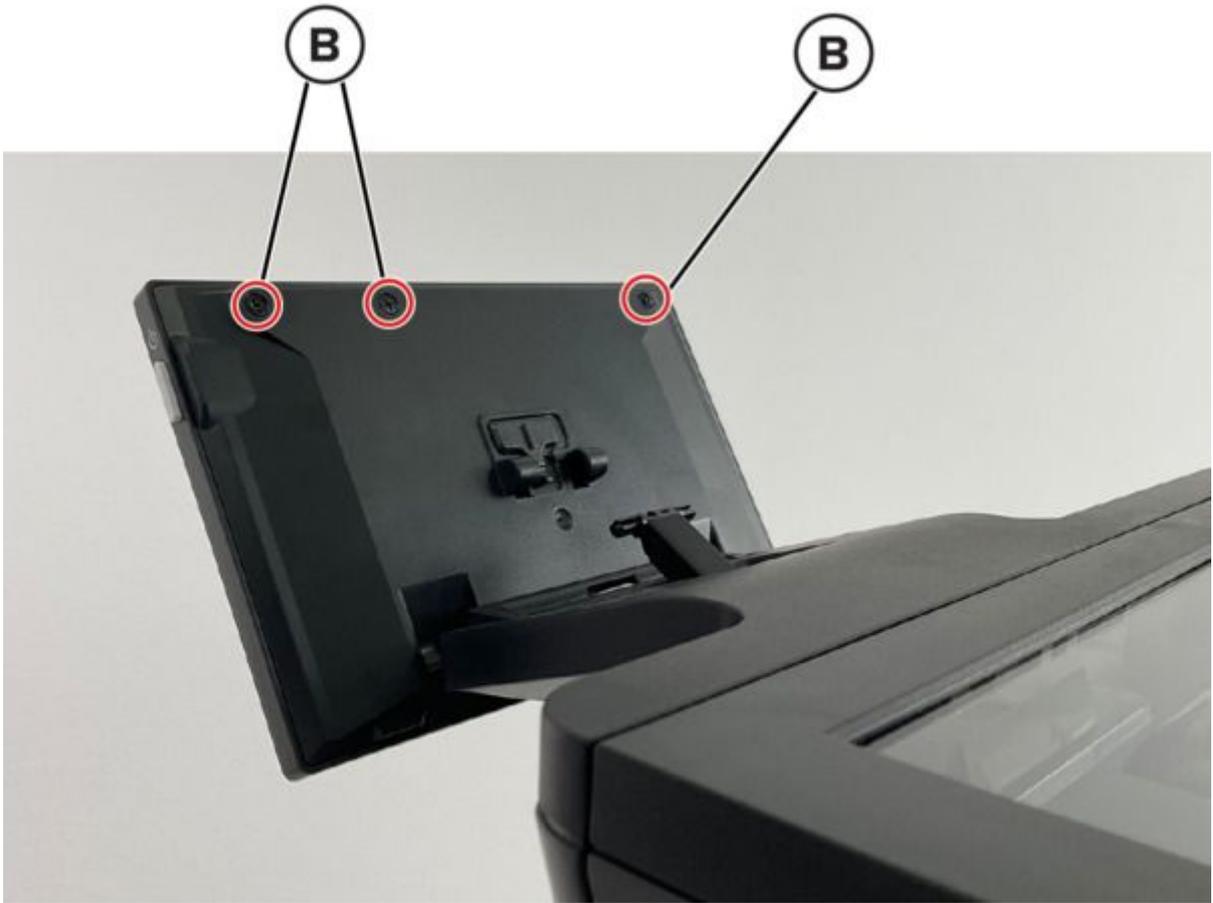
3. Disconnect the connector and ground cable (C).
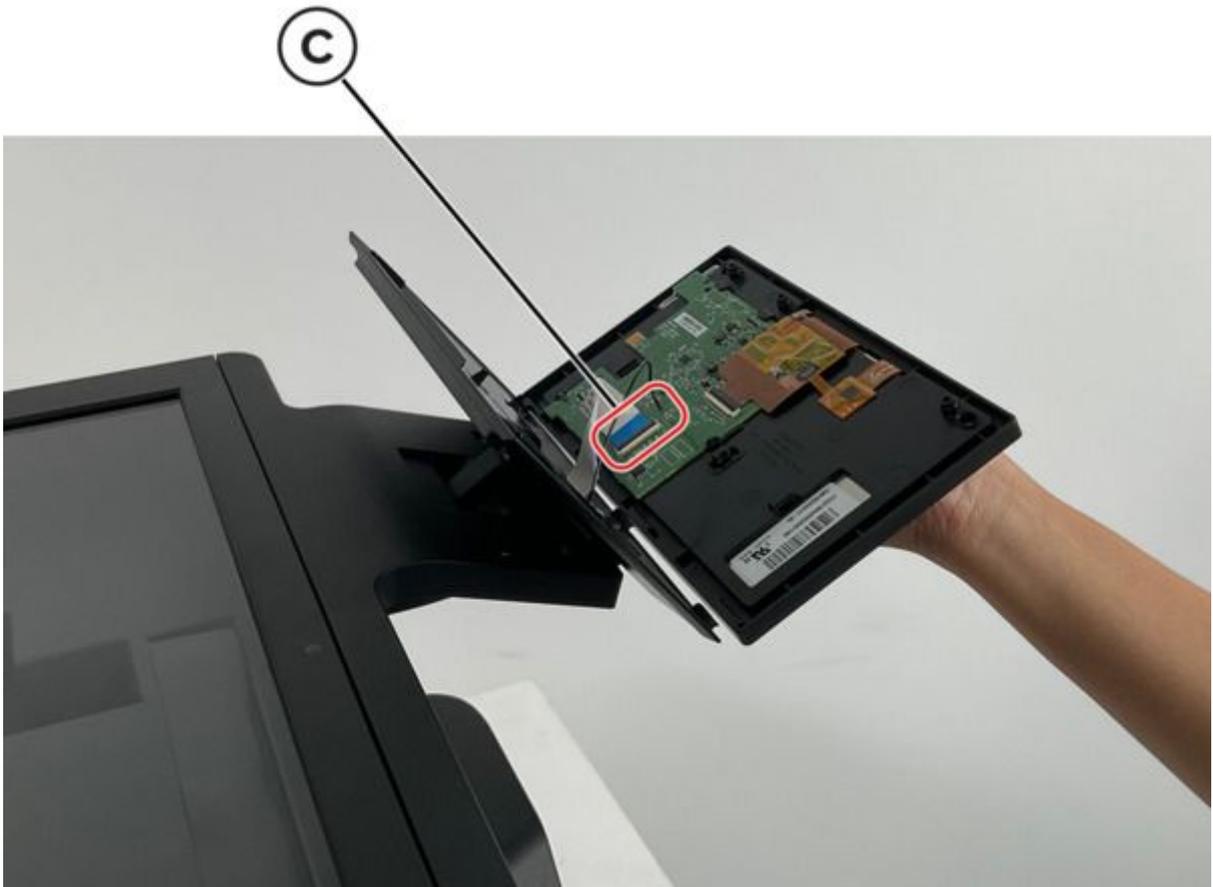
4. Remove the control panel.

Control panel hinge removal

1. Remove the right cover. See See "Right cover removal" on page 394.
2. Remove the ADF. See See "ADF removal" on page 503.
3. Remove the control panel. See See "Control panel removal" on page 426.
4. Remove the cover (A).
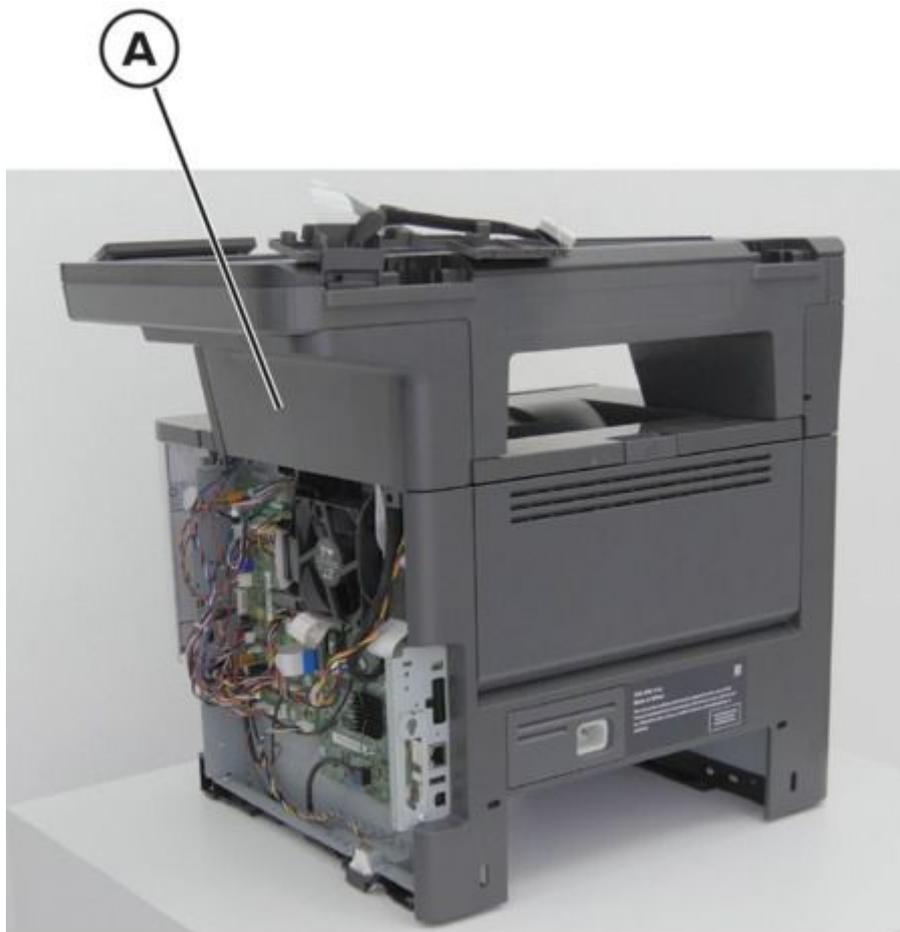
5. Remove the cover (B).
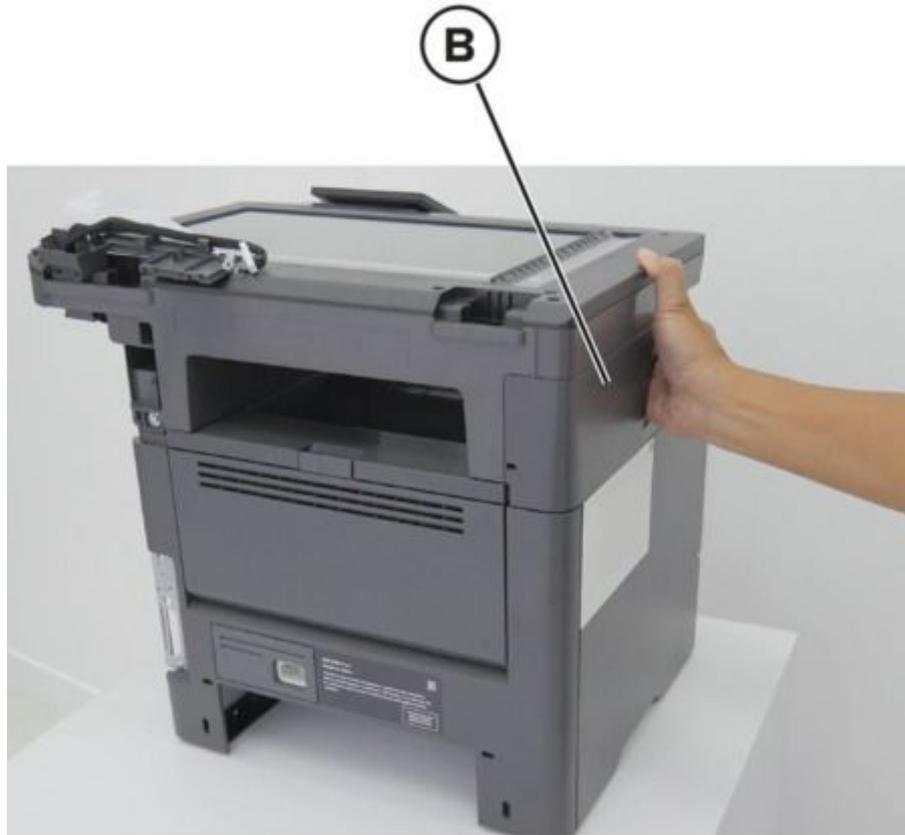
6. Remove the screws (C).
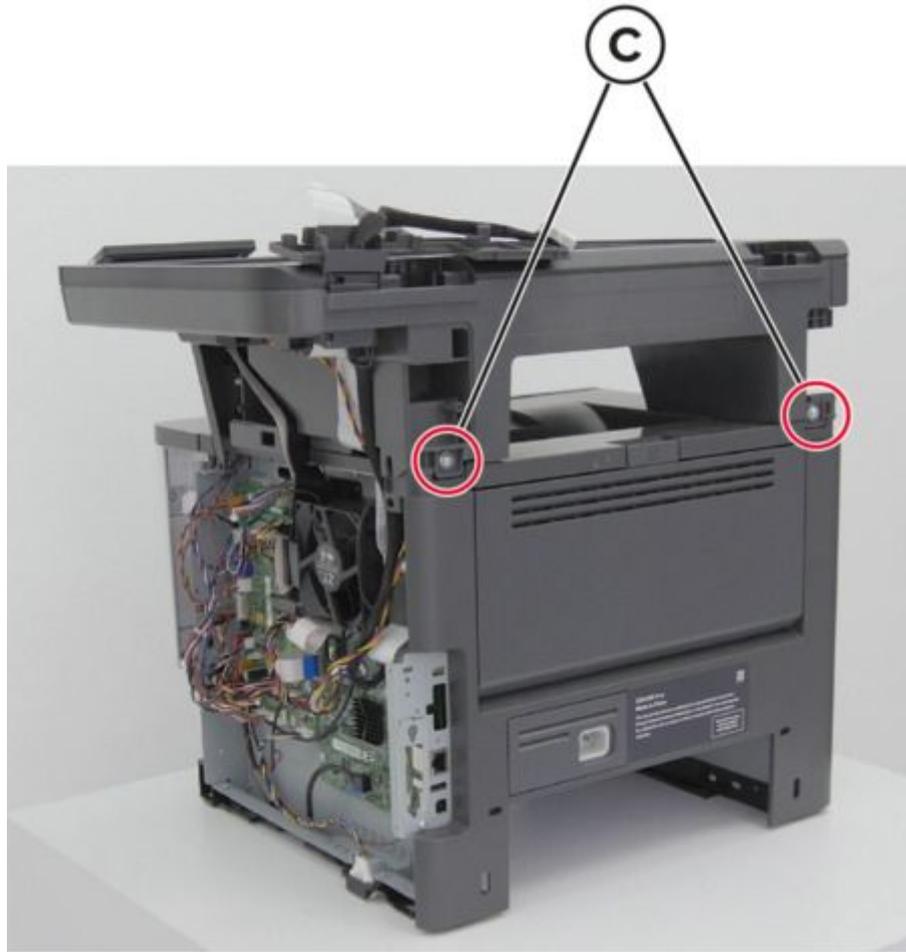
7. Remove the top front cover (D).

8. Remove the screws (E).
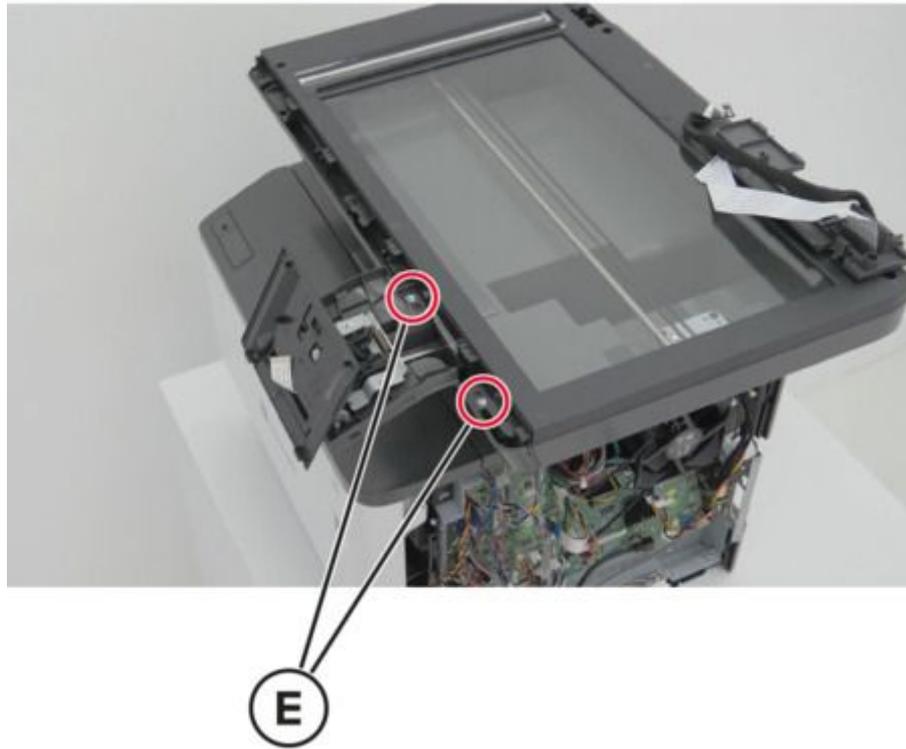
9. Remove the screws (F).
10. Disconnect the connector (G), and then unroute the cable.
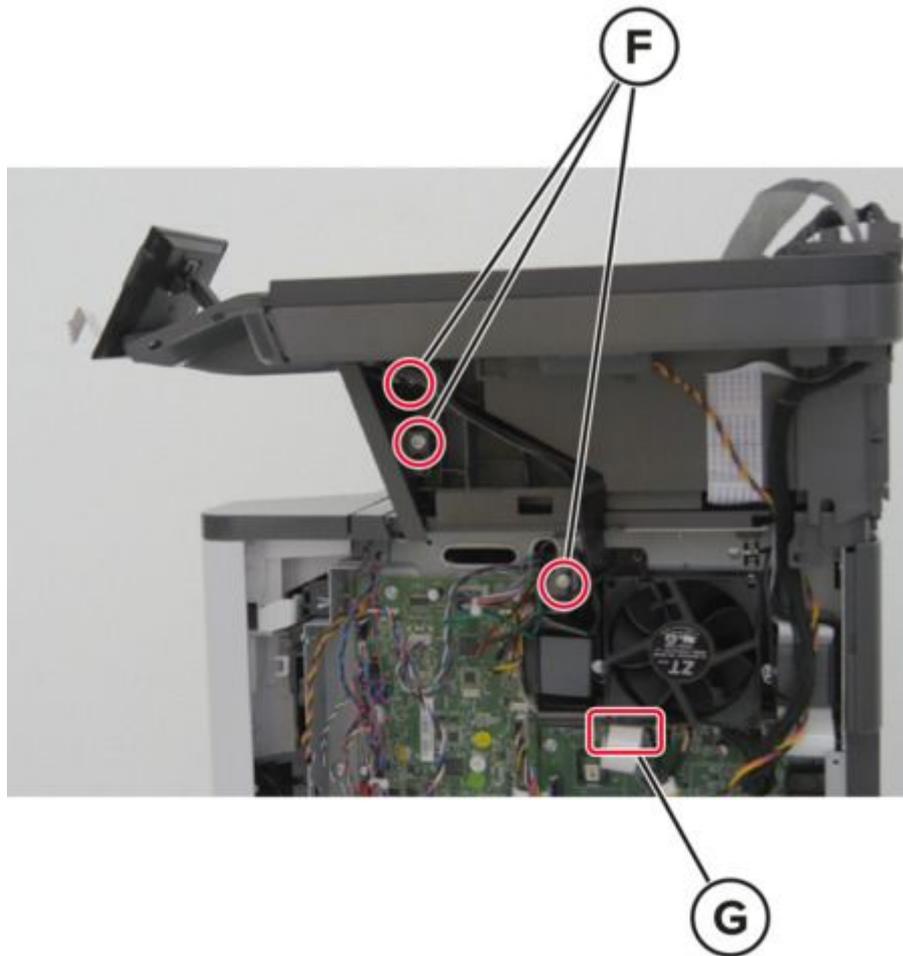
11. Remove the control panel hinge.

Transfer roller removal

For a video demonstration, see Transfer roller removal.

1. Open the front door.
2. Release the two latches (A) on each end of the transfer roller.
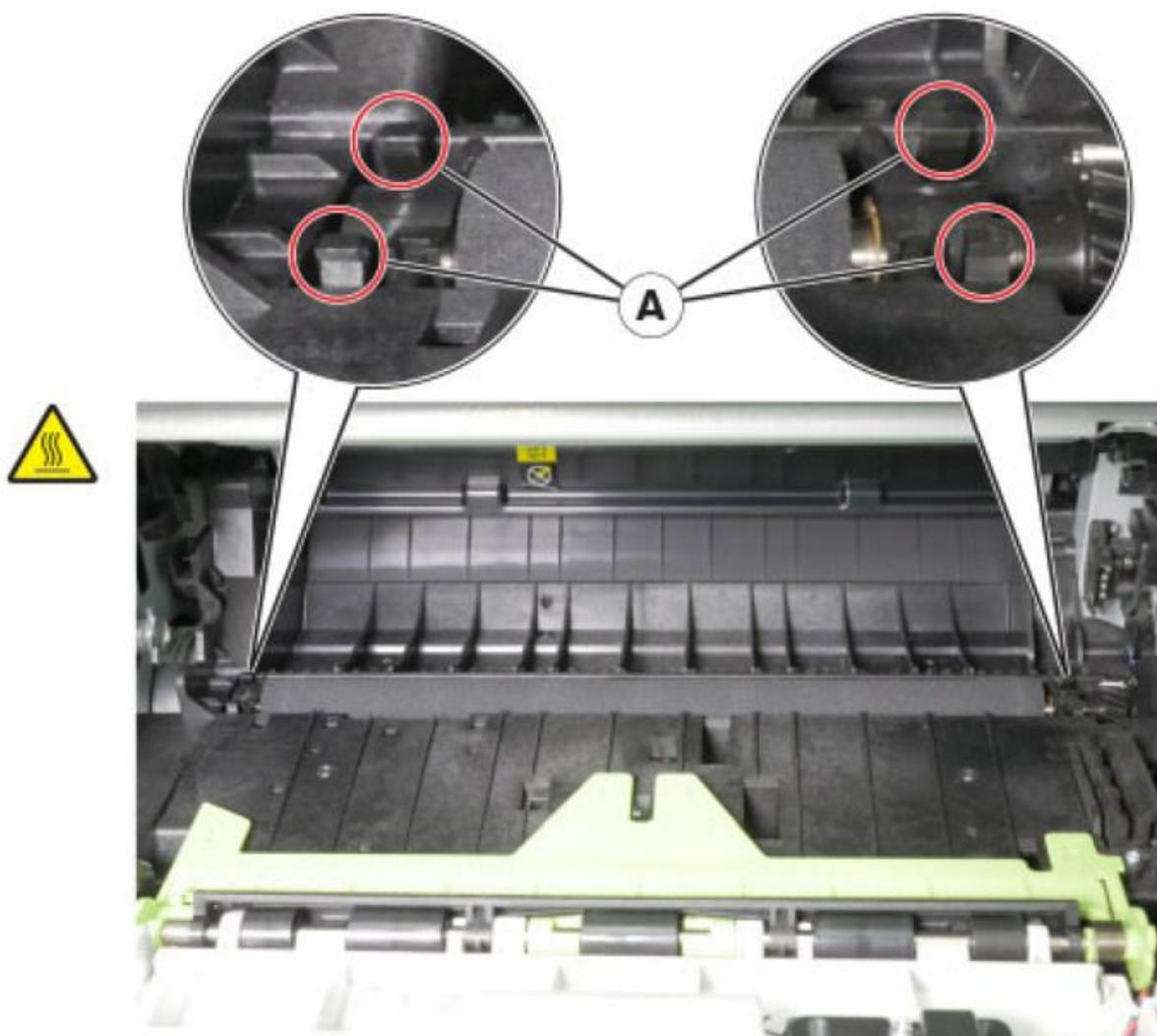
3. Remove the roller.

NOTES
For a video demonstration, see Transfer roller removal at infoserve.lexmark.com/ids/sma.

Jam access cover removal

1. Open the front door.
2. Remove the screw (A), and then release the cable from the jam access cover.
3. Push down, and then pull the two ends (B) of the springs to remove them.
4. Repeat step 3 for the other side.
5. Release the two latches (C).
6. Remove the clip (D).

> **NOTES**
>
> Some models do not have the clip (D) installed.
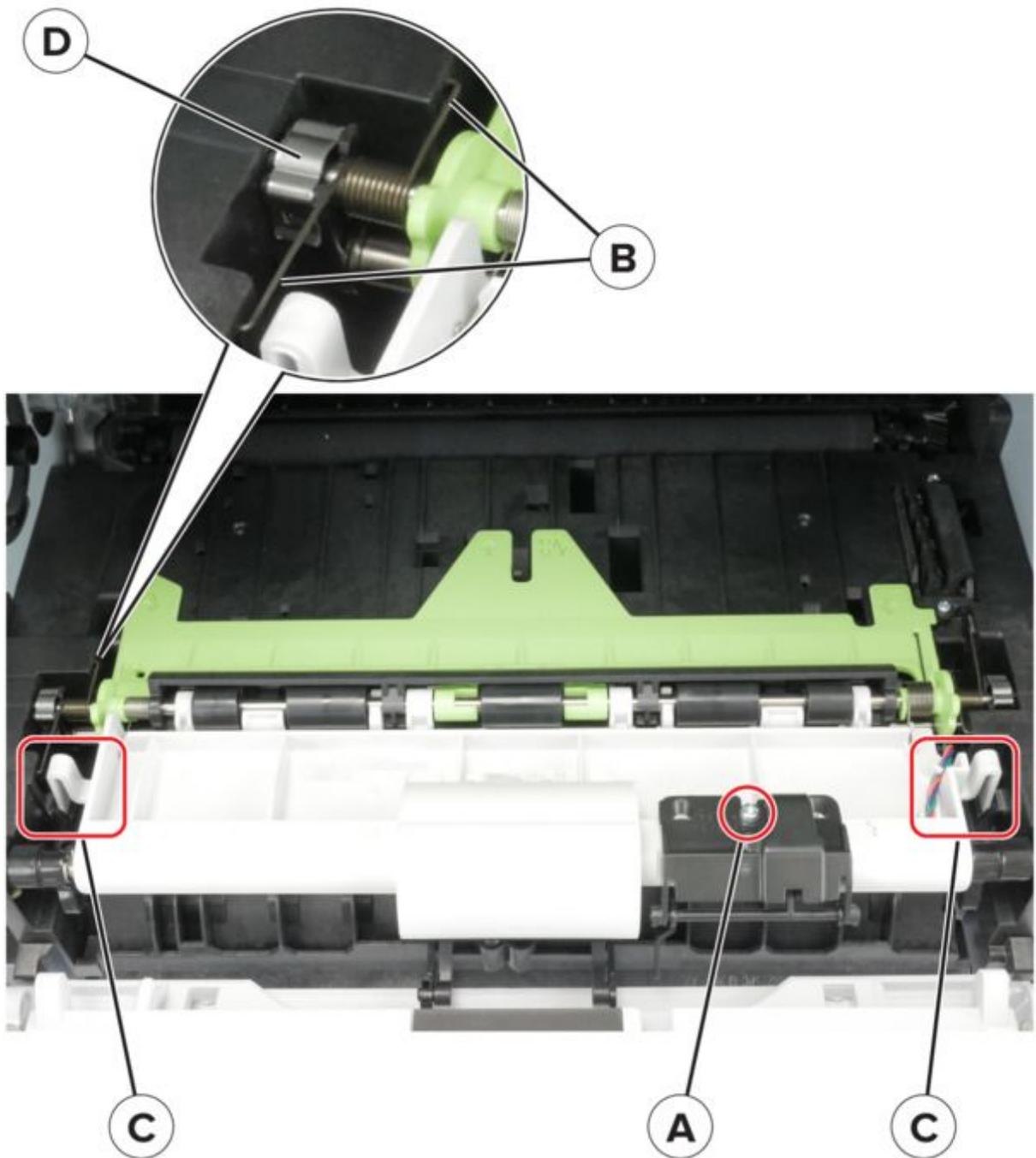
7. Remove the cover.

Sensor (front door) removal

1. Remove the nameplate. See .
2. Remove the right cover. See .
3. Disconnect the JCVR1 and control panel cables from the controller board.
4. Remove the four screws (A).
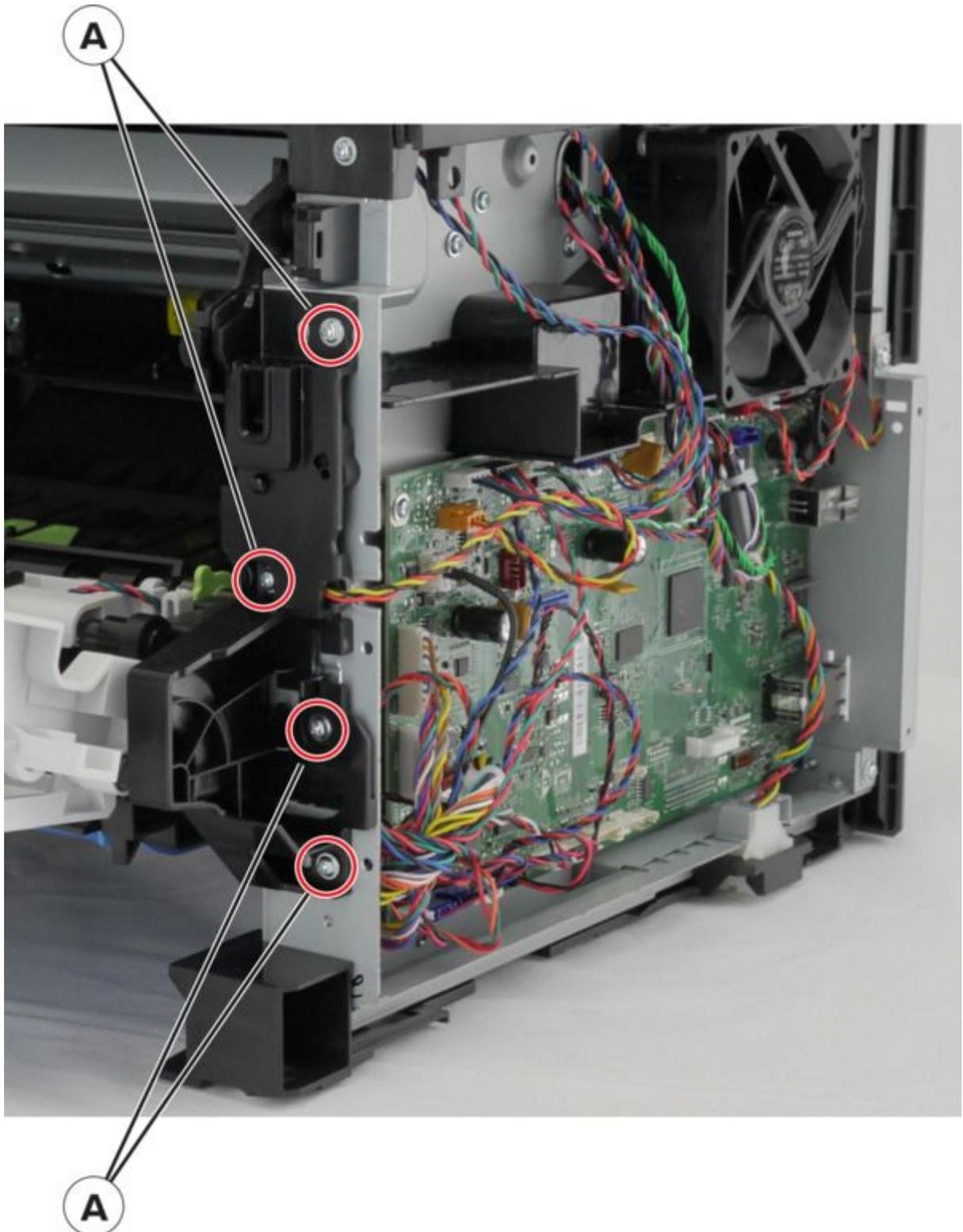
5. Using a #1 Phillips screwdriver, remove the screw (B).
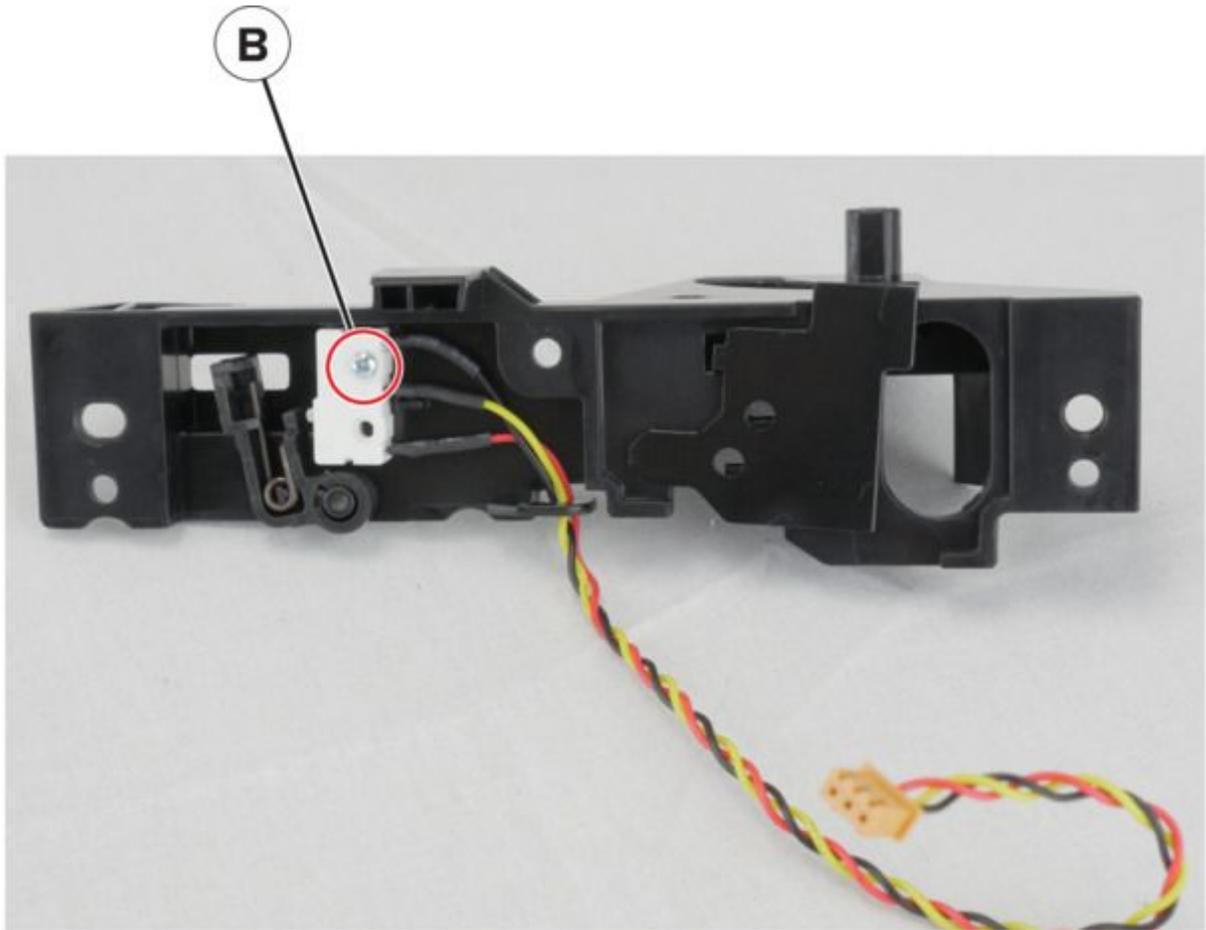
6. Remove the sensor.

MPF pick roller and separator pad removal

For a video demonstration, see MPF pick roller and separator pad removal.

1. Open the front door.
2. Press the latches (A), and then open the cover.

> **WARNING—POTENTIAL DAMAGE**
> Avoid damaging the MPF sensor flag (B) when removing the cover.
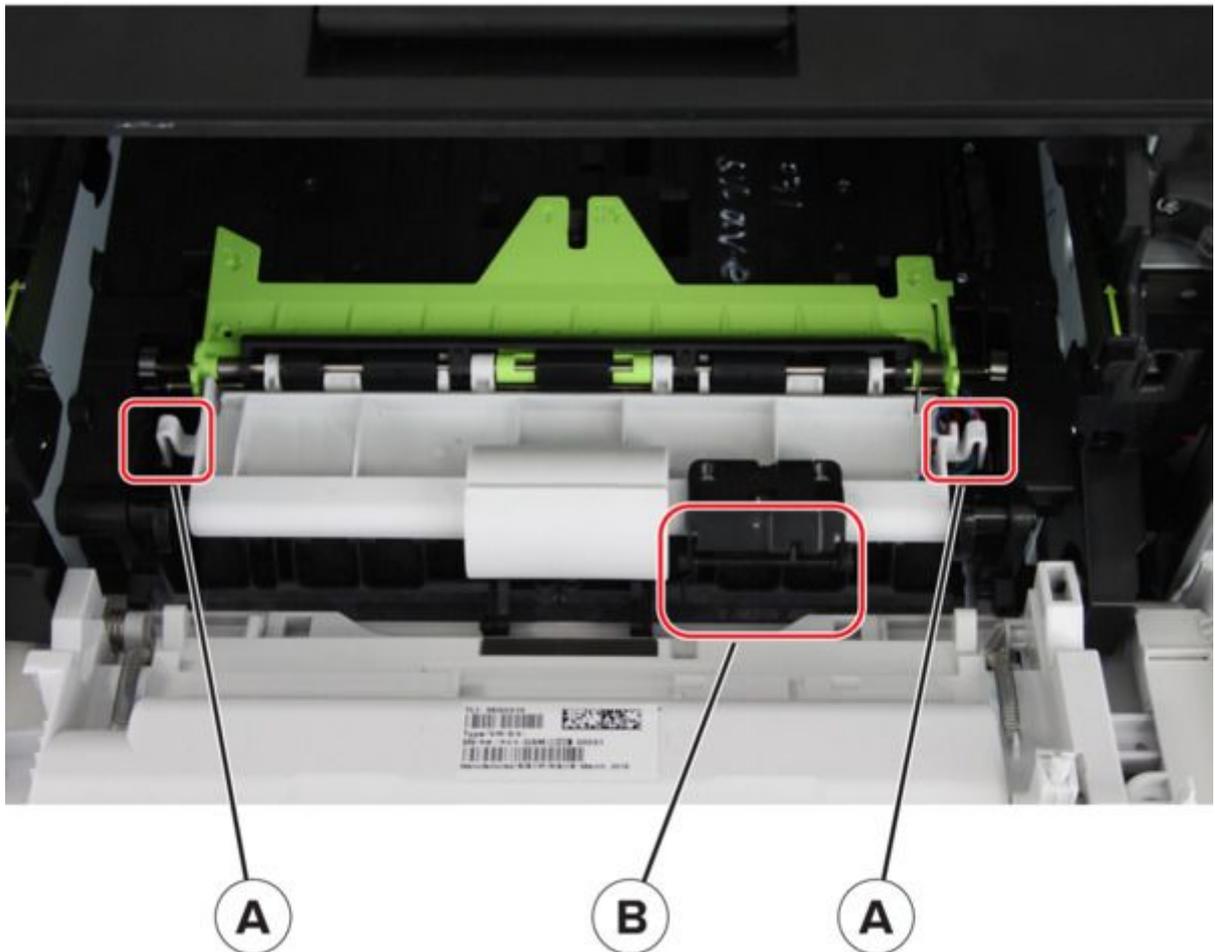
3. Using a #1 Phillips screwdriver, remove the two screws (C).
4. Hold the end of the shaft (D), and then pull out the roller to remove it.
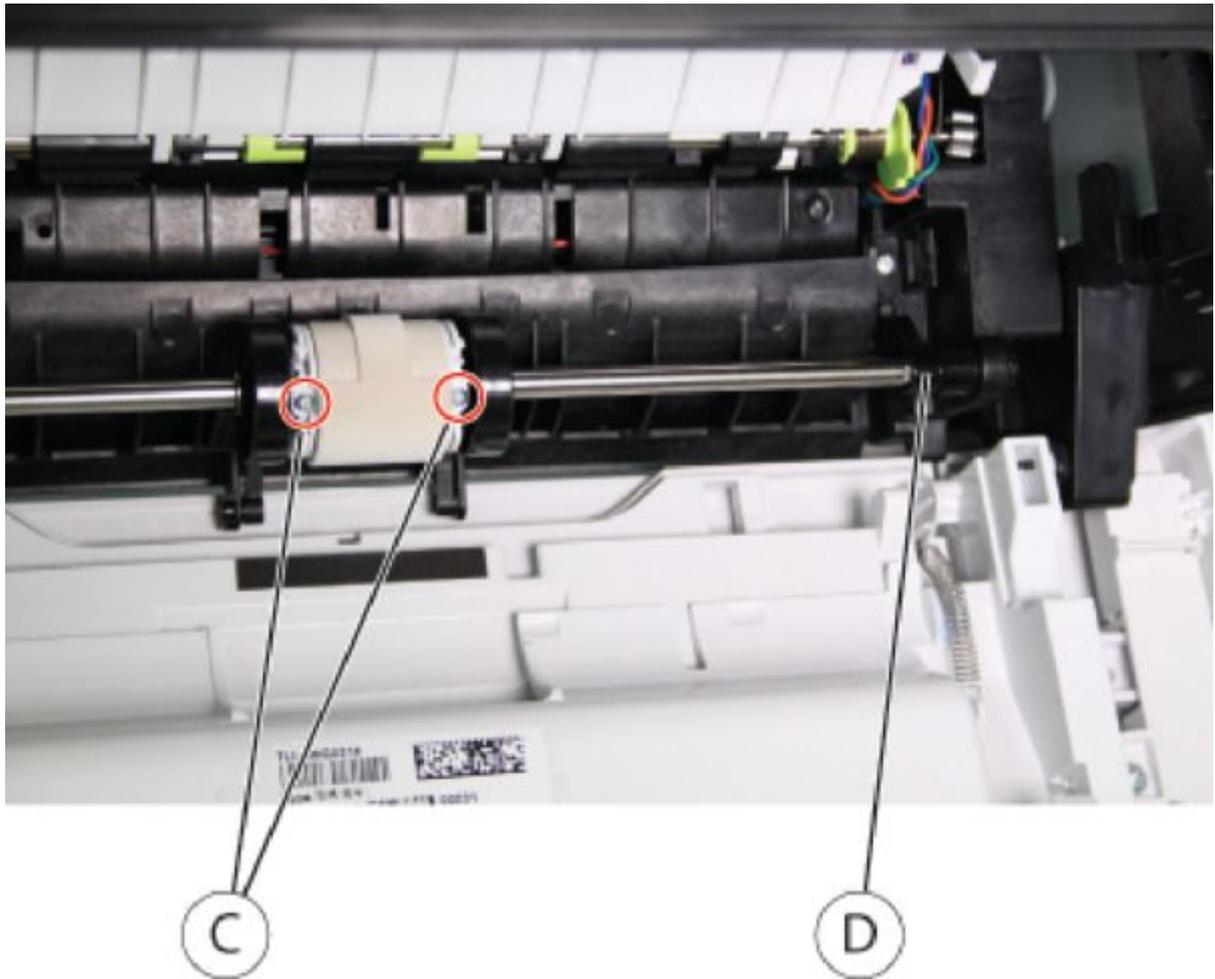
5. Remove the two E-clips (A).
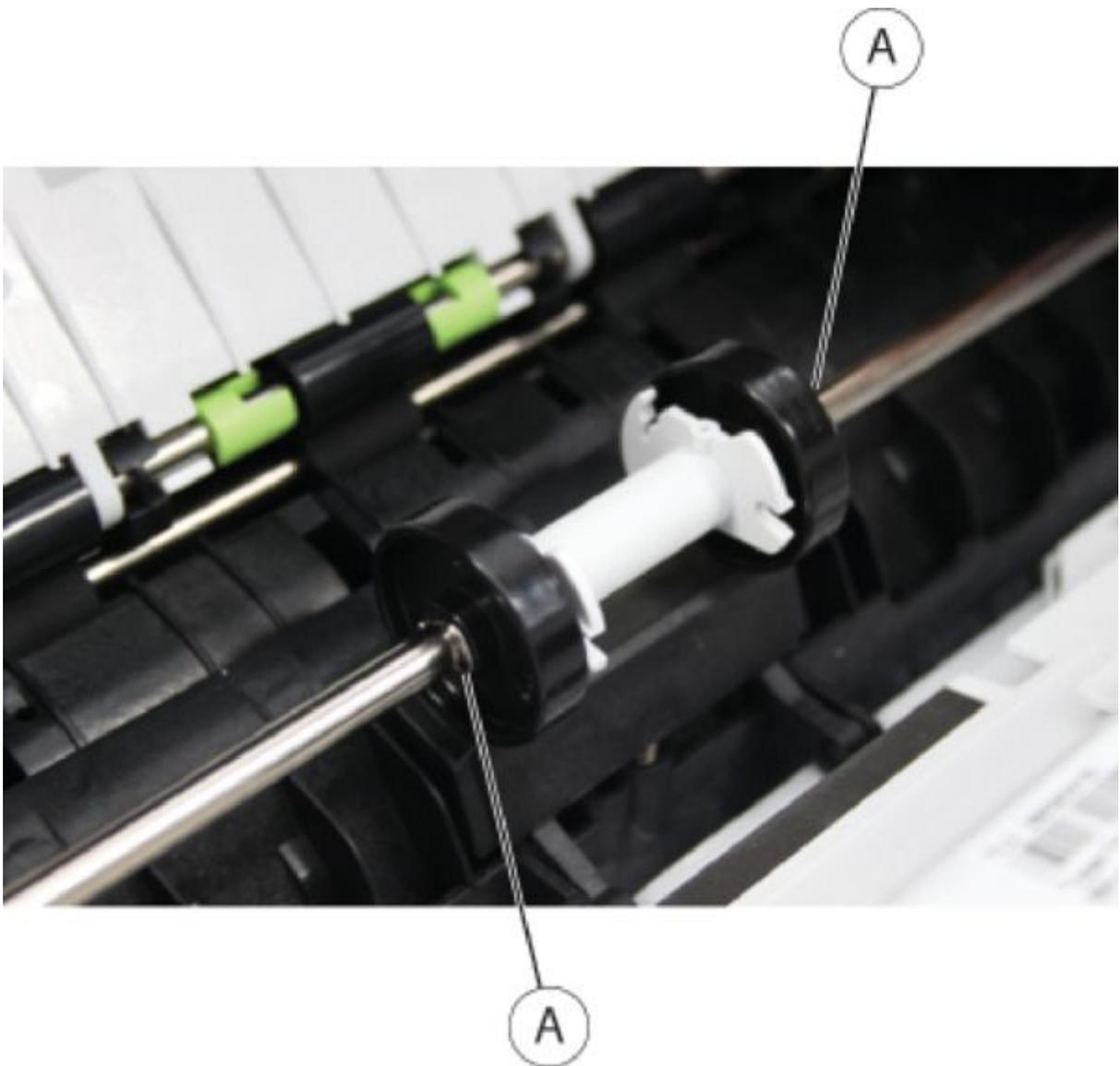
6. Move the roller (B) to the left, and then remove the pin (C).
7. Move the hub (D) and roller (E) to the right.
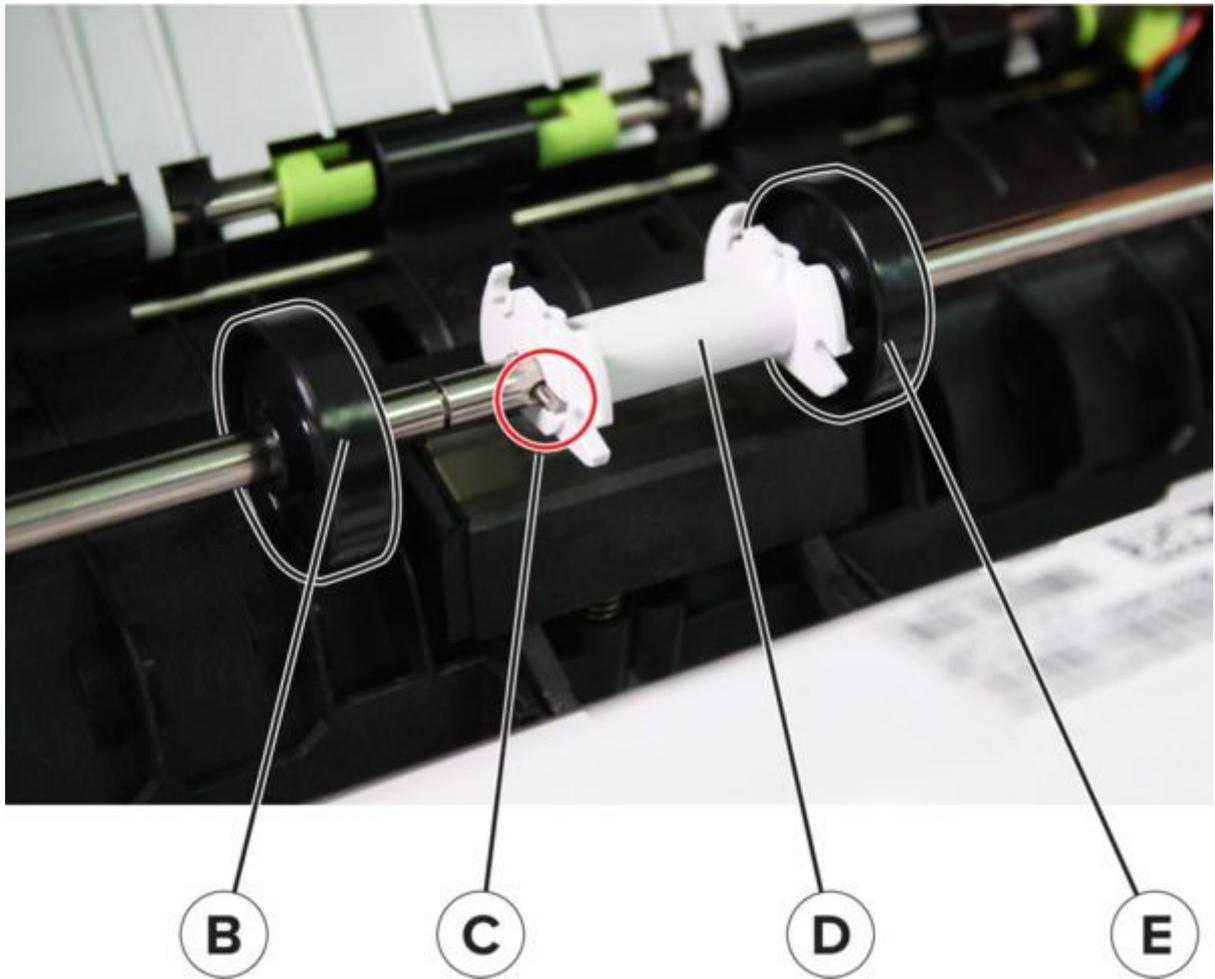
8. Push the separator pad (F) to the right.
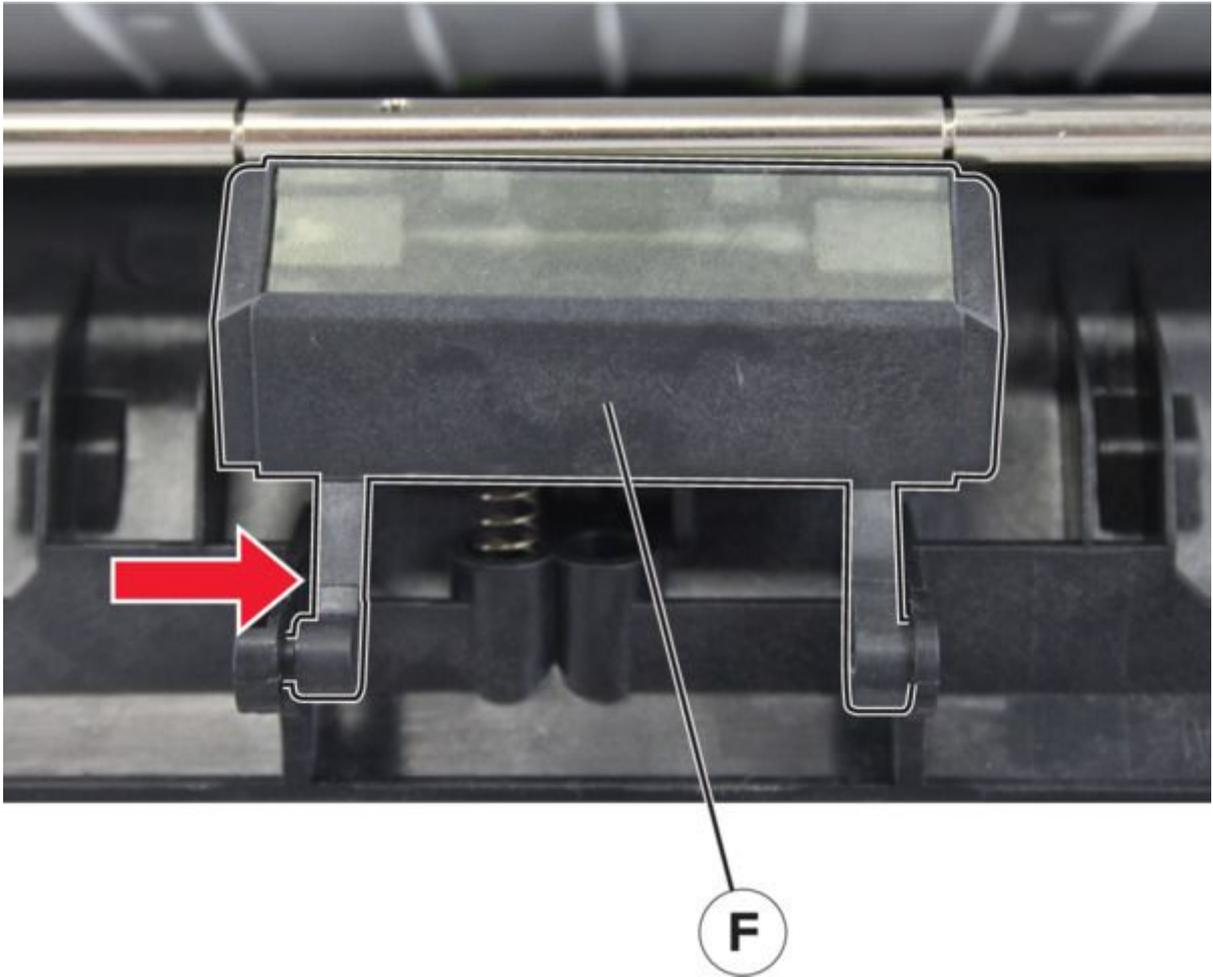
9. Push down the pad to remove it.

WARNING—POTENTIAL DAMAGE
Do not lose the spring (G).
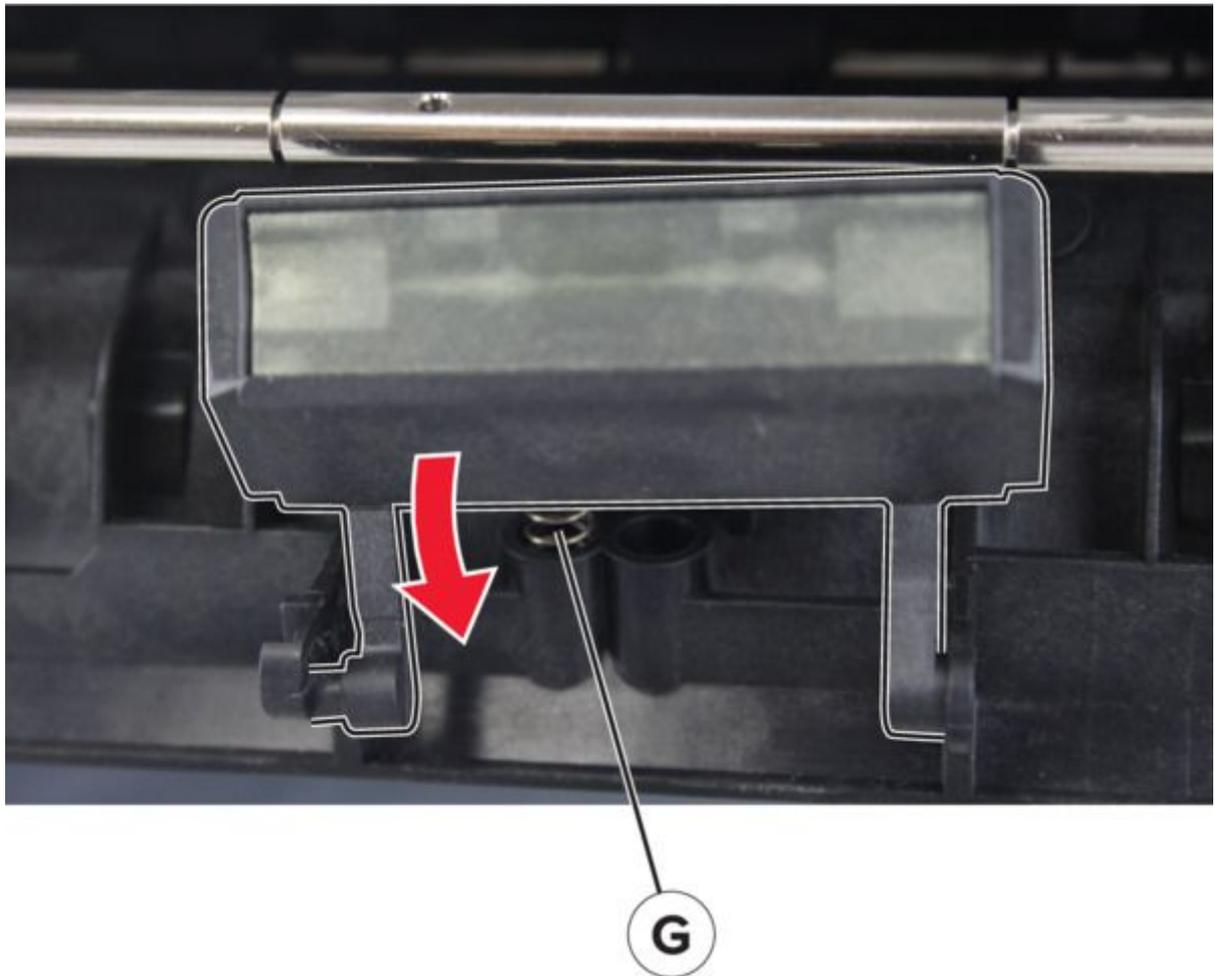
INSTALLATION NOTE

1. Insert the spring (A) as shown.
2. Insert the right arm (B), and then the other arm from under the left finger (C) to avoid damaging the pad and fingers.
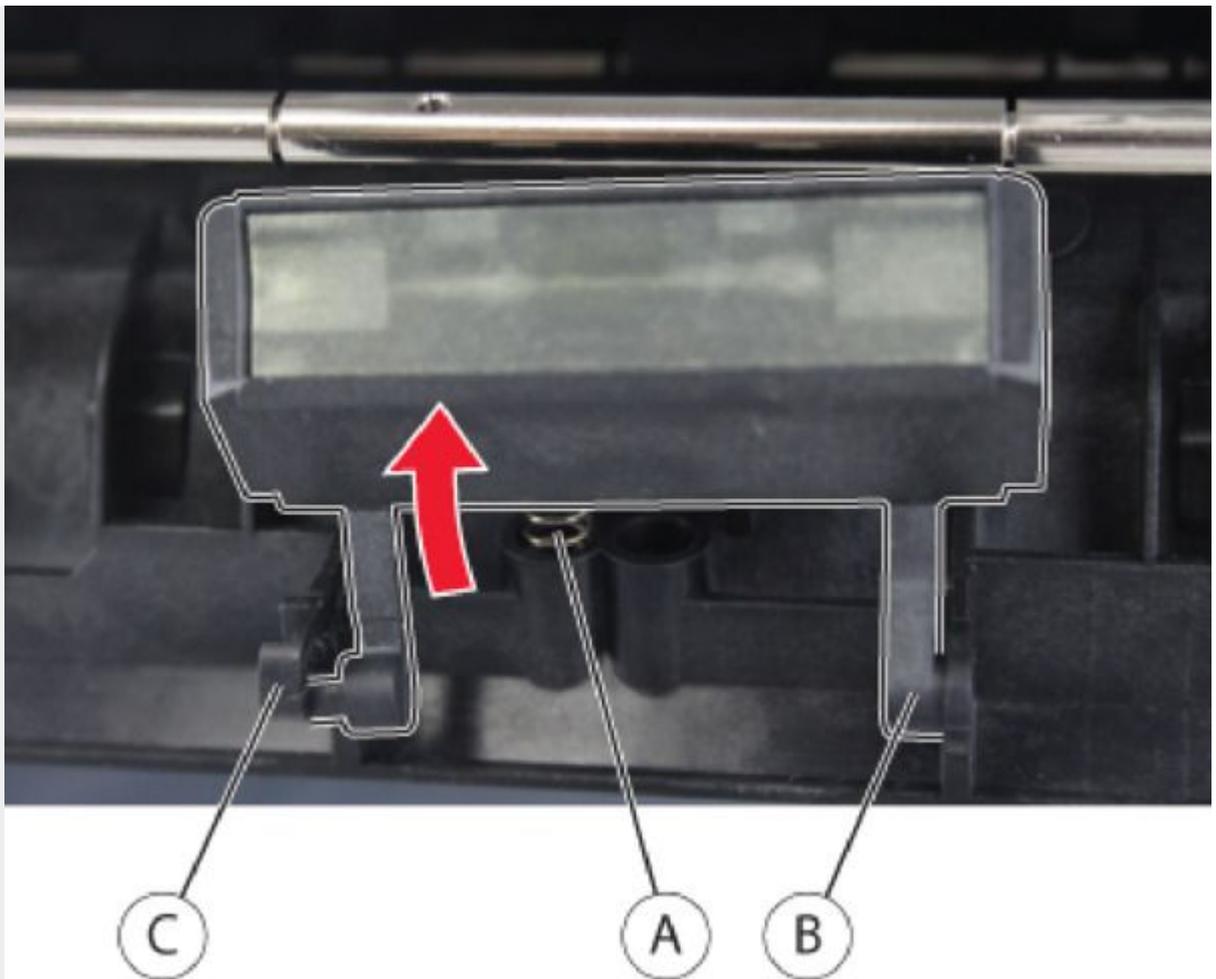
NOTES

For a video demonstration, see MPF pick roller and separator pad removal at infoserve.lexmark.com/ids/sma.

Sensor (MPF paper present) removal

1. Open the front door.
2. Remove the screw (A).
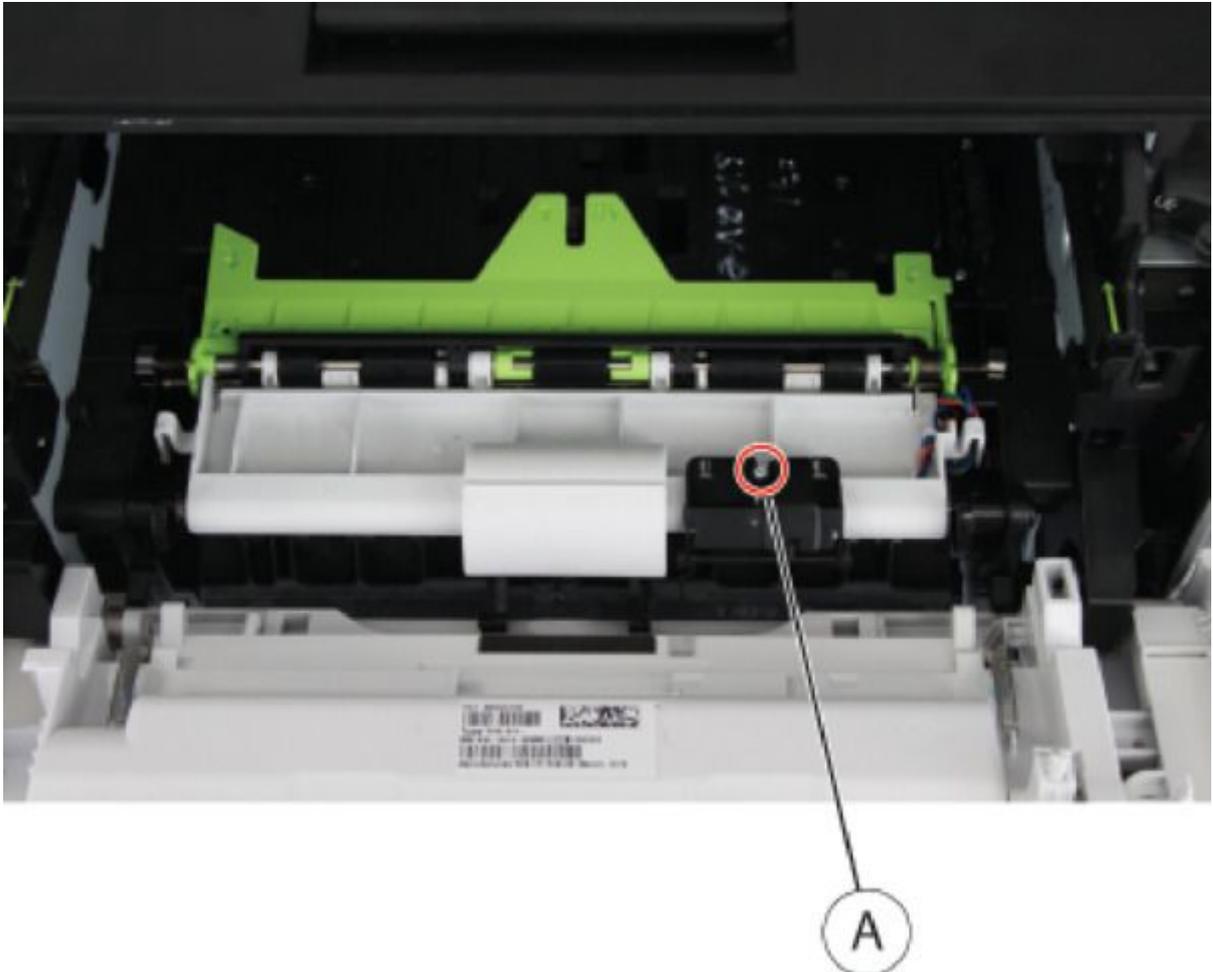
3. Open the controller board access cover, disconnect the cable JMPFPP1, and then release the cable.
4. Remove the sensor.

> **INSTALLATION NOTE**
> Pay attention to the position of the MPF sensor flag when installing the sensor.

Front input guide removal

1. Remove the MPF with front access cover. See .
2. Remove the MPF pick roller and separator pad. See .
3. Remove the two screws (A).
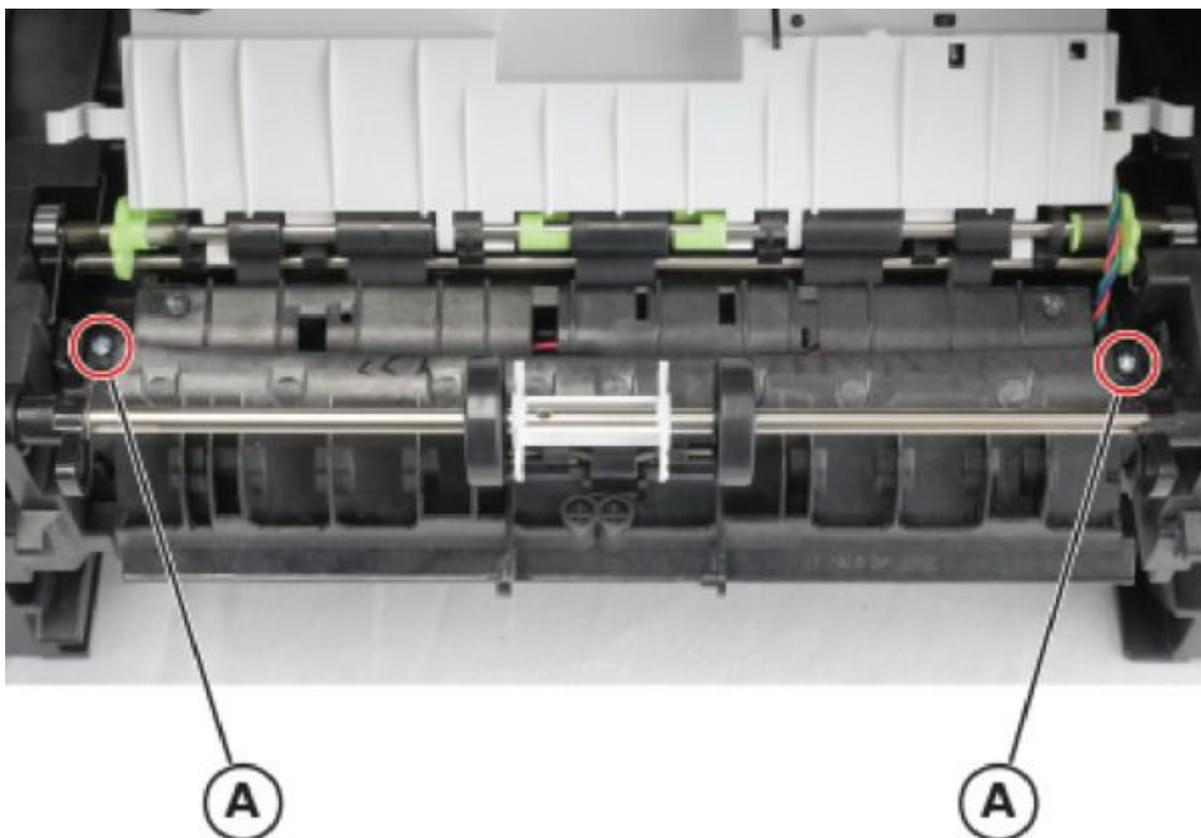
4. Remove the input guide.

Sensor (tray present) removal

1. Remove the nameplate. See .
2. Remove the MPF with front access cover. See .
3. Release the two latches (A), and then pry to remove the sensor.
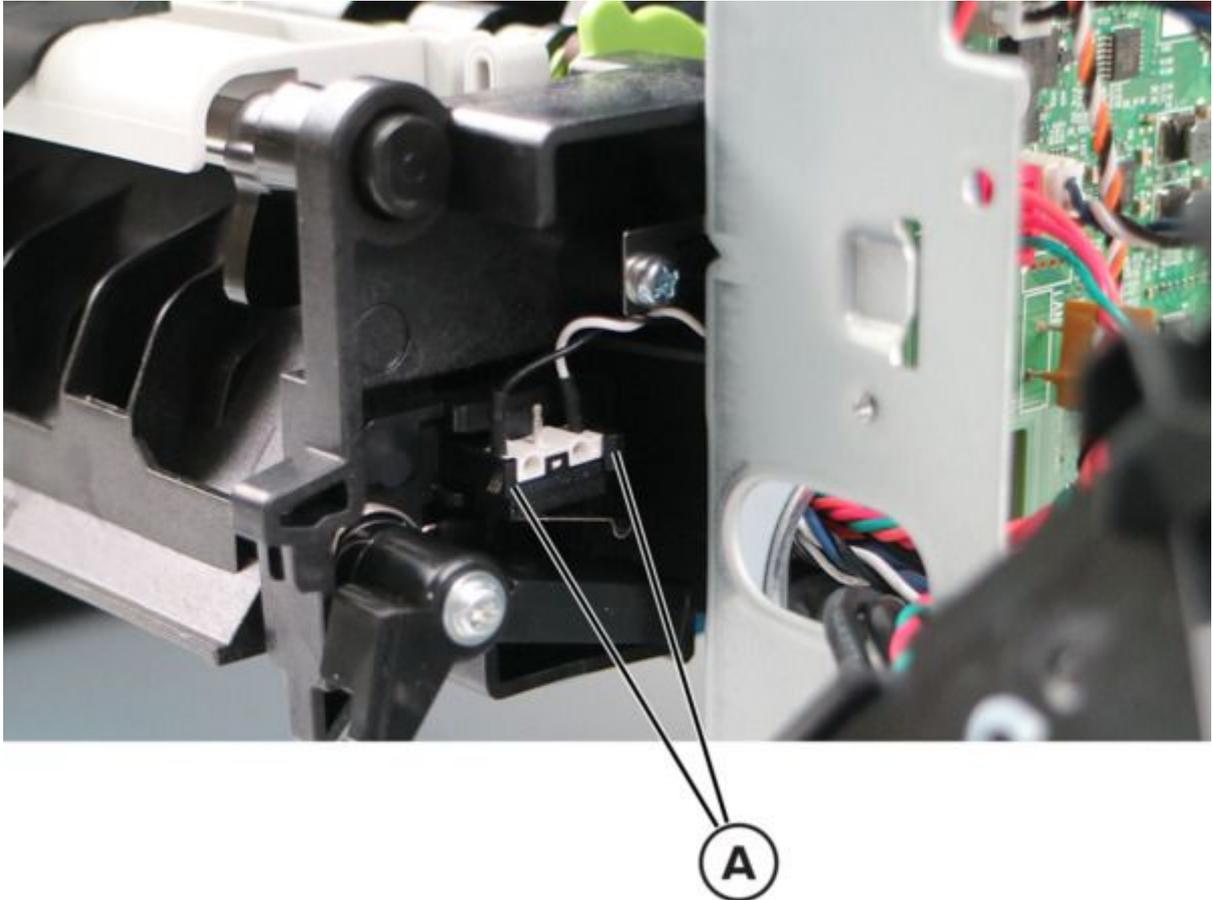
4. Unroute and disconnect the cables.

Bottom removals

Power supply removal

1. Remove the rear cover. See .
2. Disconnect the cable (A), and then remove the screws (B).
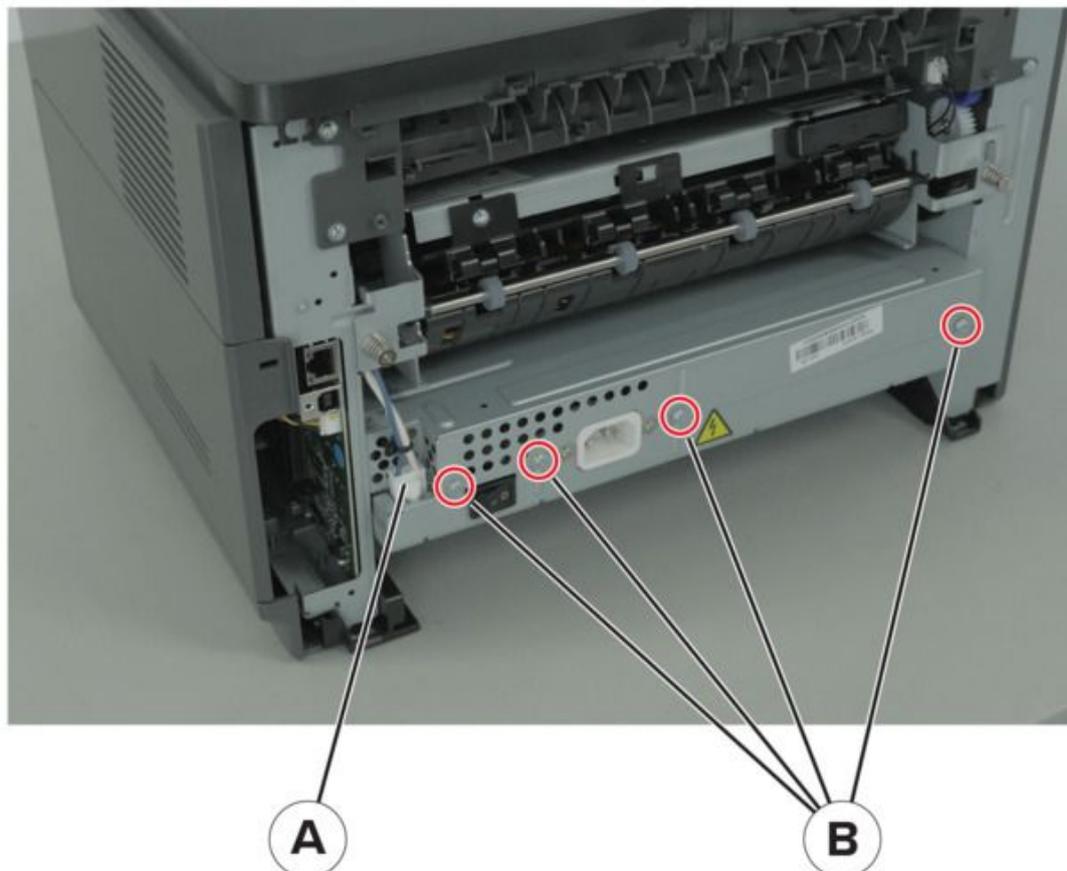
3. Position the printer on its right side.

> **WARNING—POTENTIAL DAMAGE**
> The ADF might swing open while you position the printer on its side.

4. Disconnect the cable (C), and then remove the two screws (D).
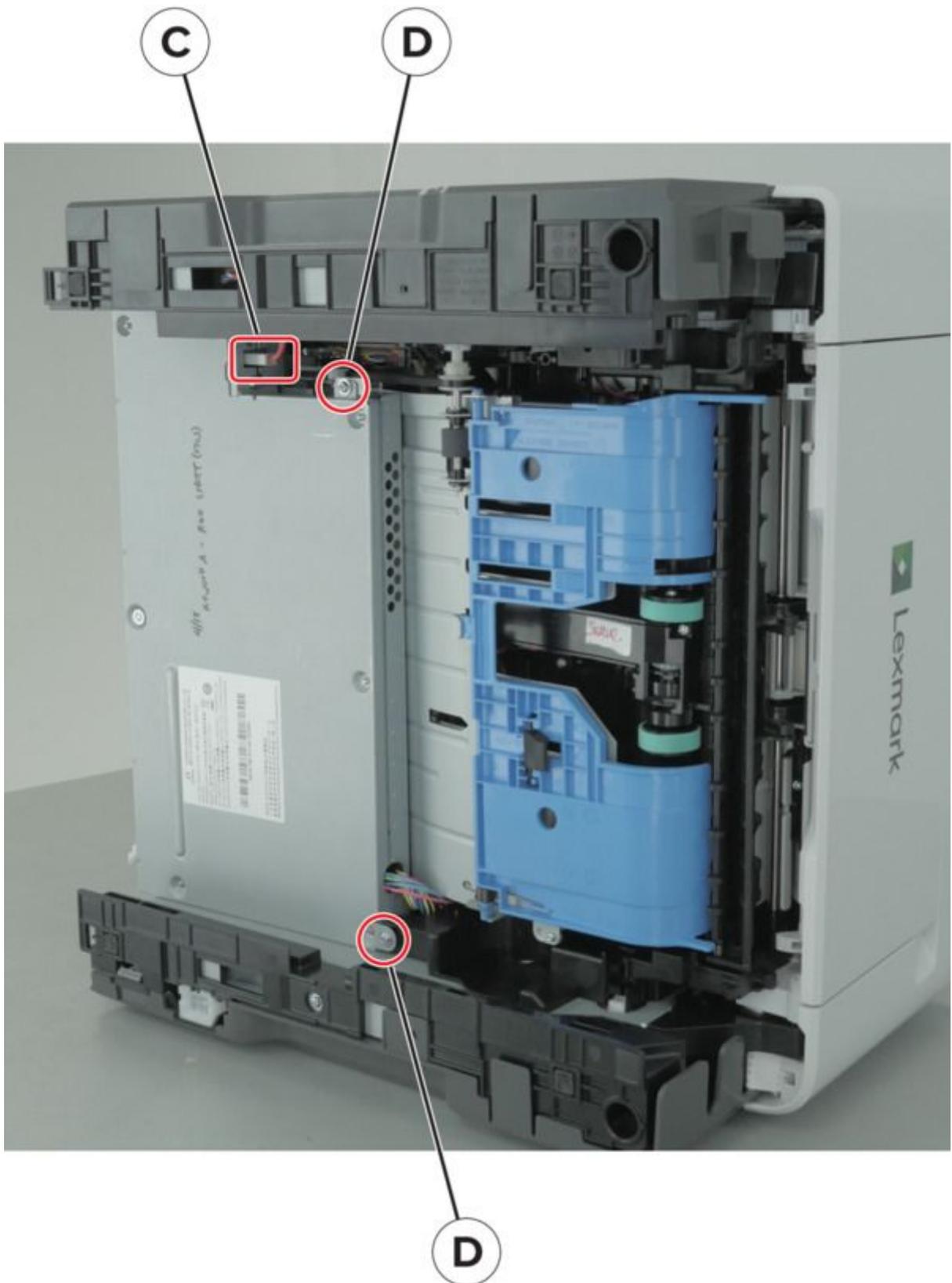
5. Disconnect the three cables (E).
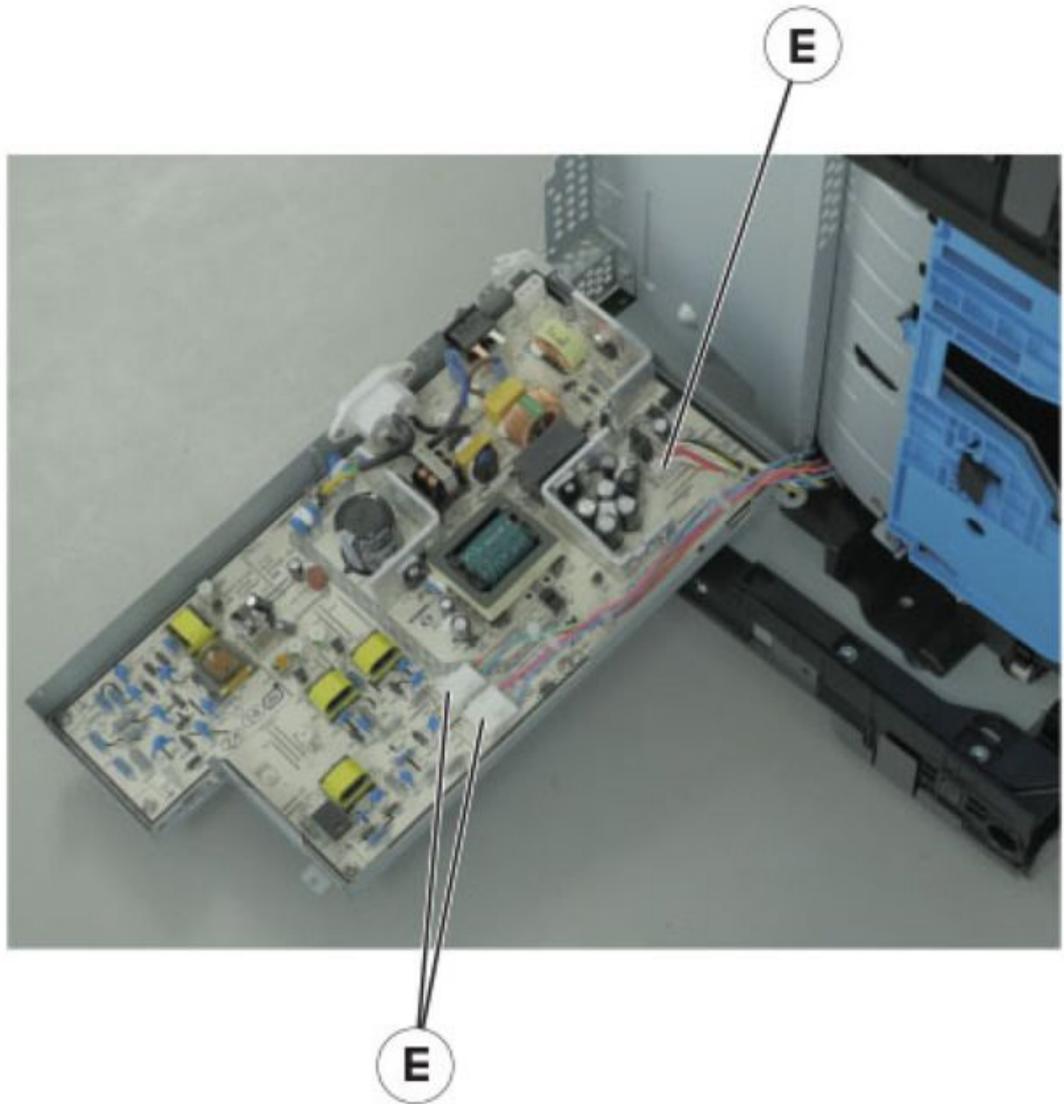
6. Remove the power supply.

Duplex removal

1. Remove the rear cover. See See "Rear door and cover removal" on page 485.
2. Remove the power supply. See See "Power supply removal" on page 450.
3. Position the printer on its side.

> **WARNING—POTENTIAL DAMAGE**
>
> The ADF might swing open while you position the printer on its side.

> **WARNING—POTENTIAL DAMAGE**
>
> To avoid damaging the paper stop, close it after positioning the printer.

4. Remove the three screws (A).
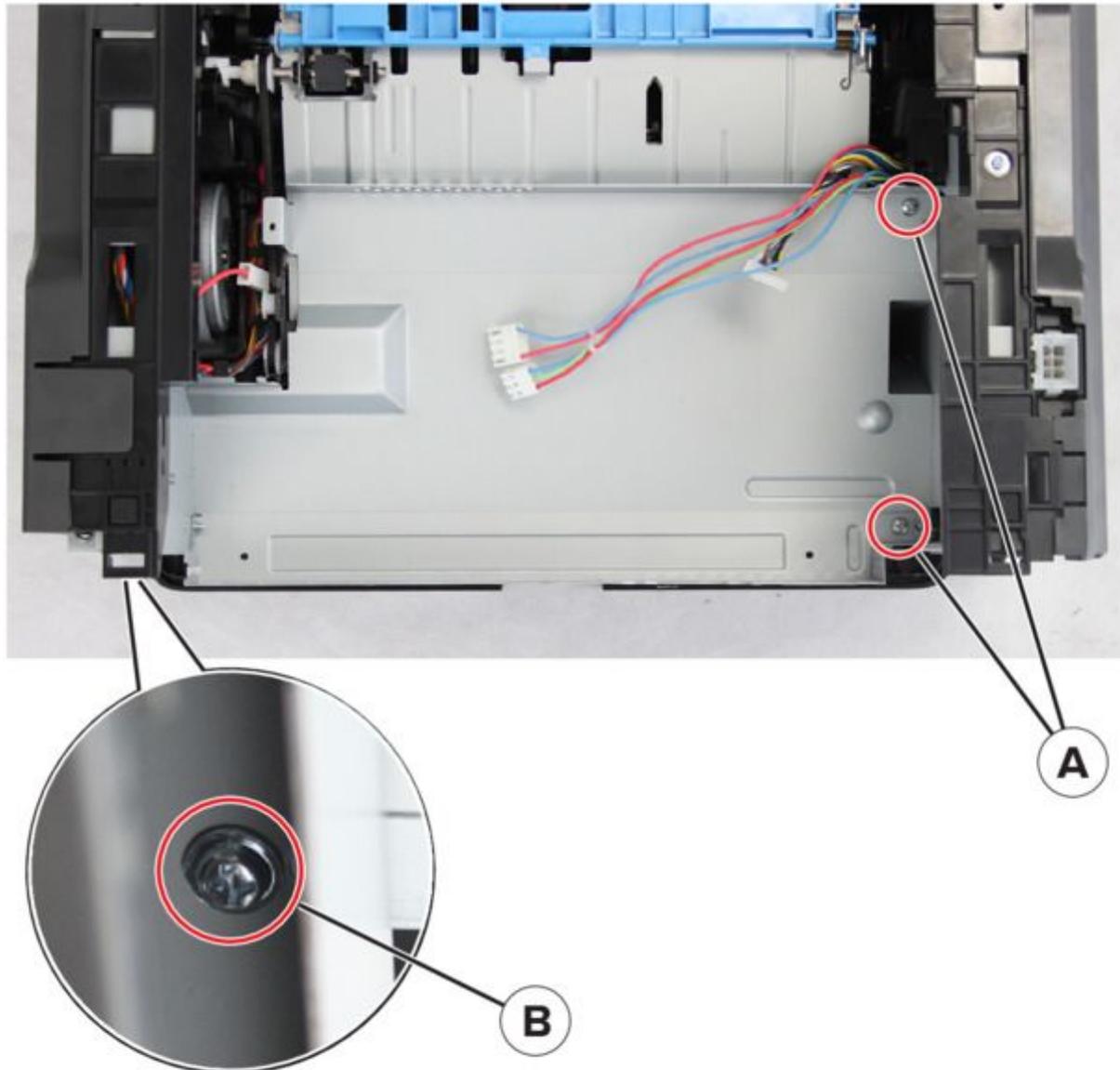
5. Remove the power supply shield.
6. Remove the four screws (B).
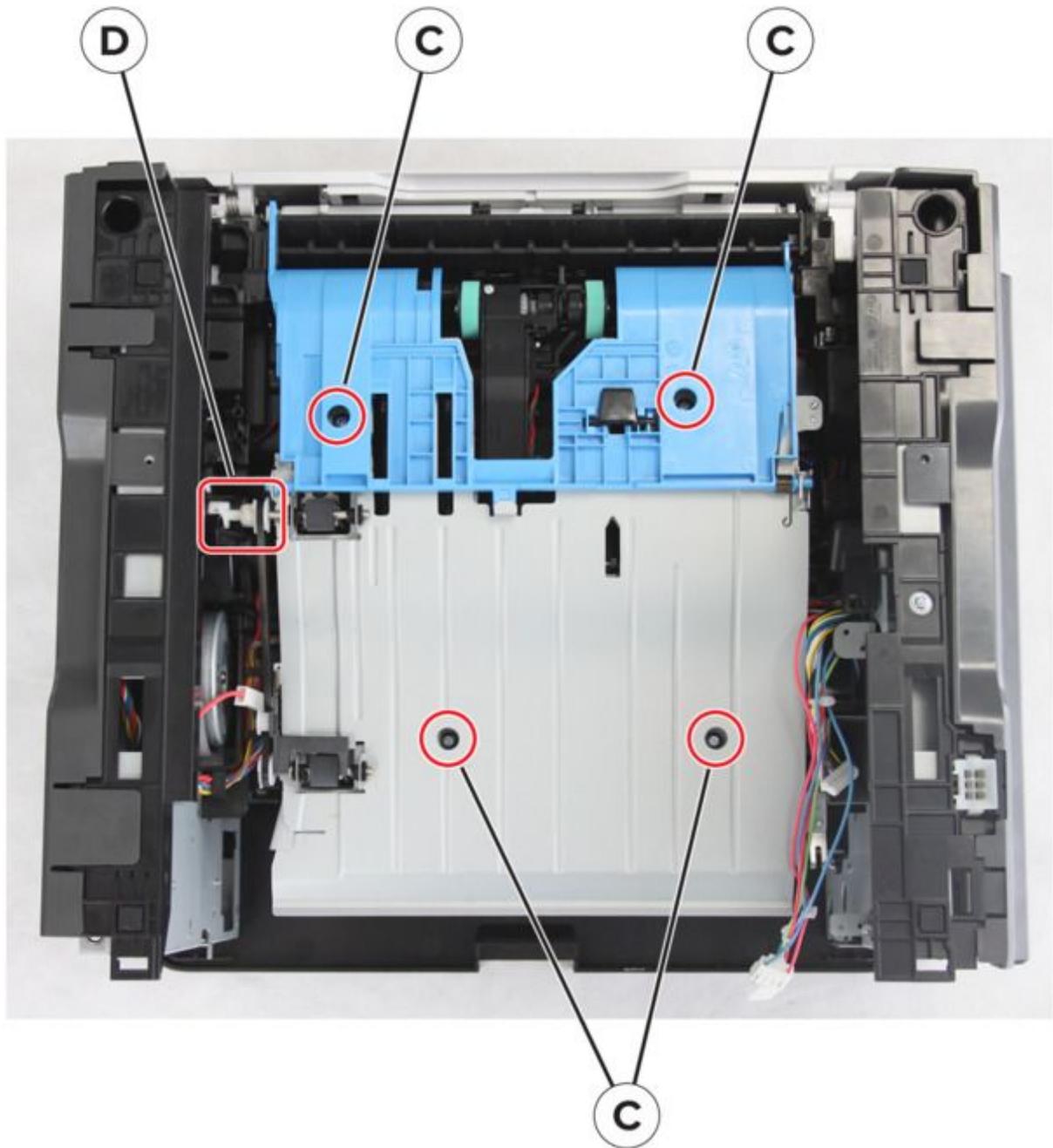
7. Remove the duplex.

> **NOTES**
> Make sure that the duplex link (C) stays attached.
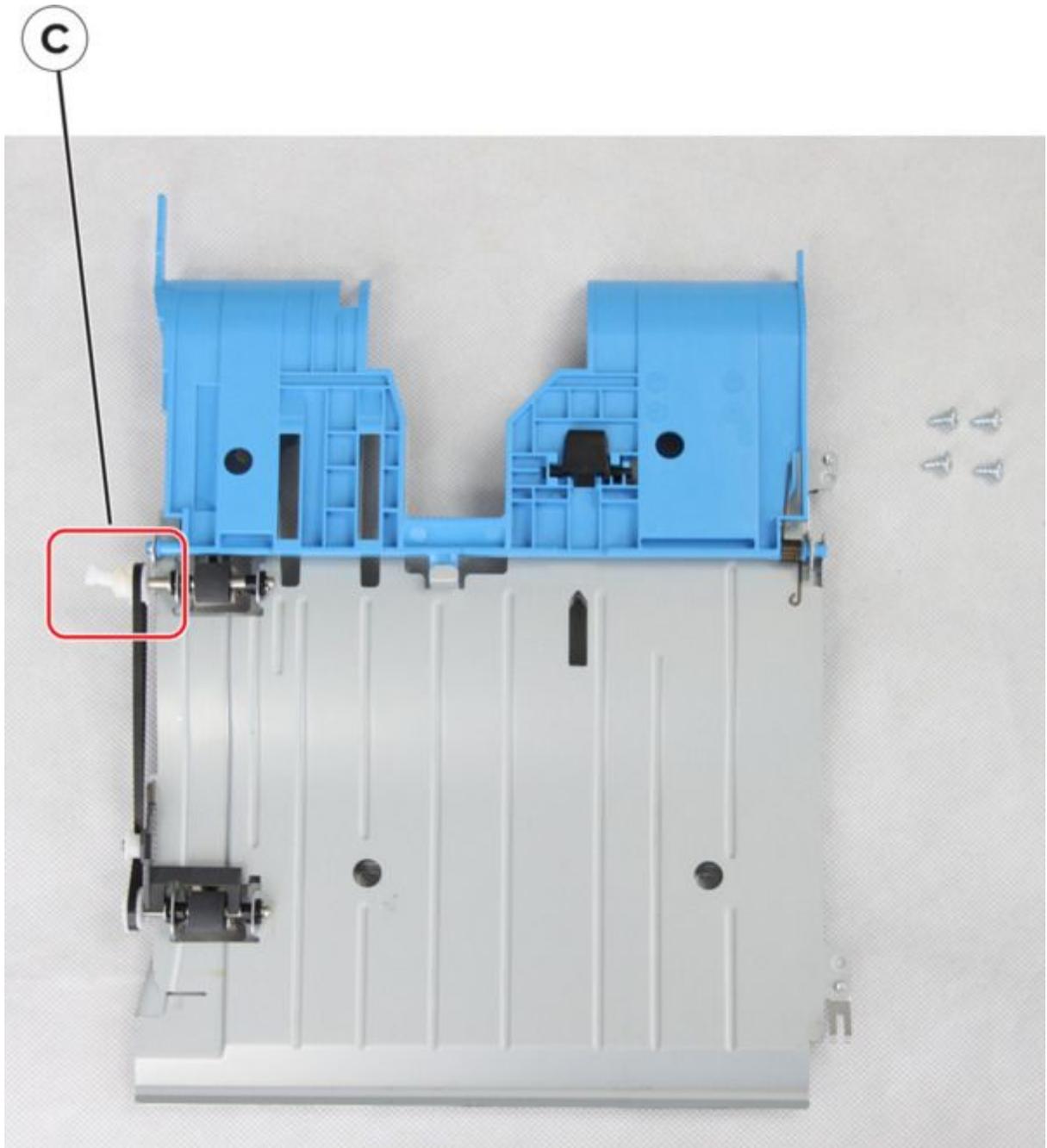
Sensors (duplex and input) removal

1. Remove the rear cover. See .
2. Remove the power supply. See .
3. Remove the duplex. See .
4. Remove the two screws (A)
5. Disconnect the connector (B).
6. Cut the cable near the frame, and then remove the sensors.
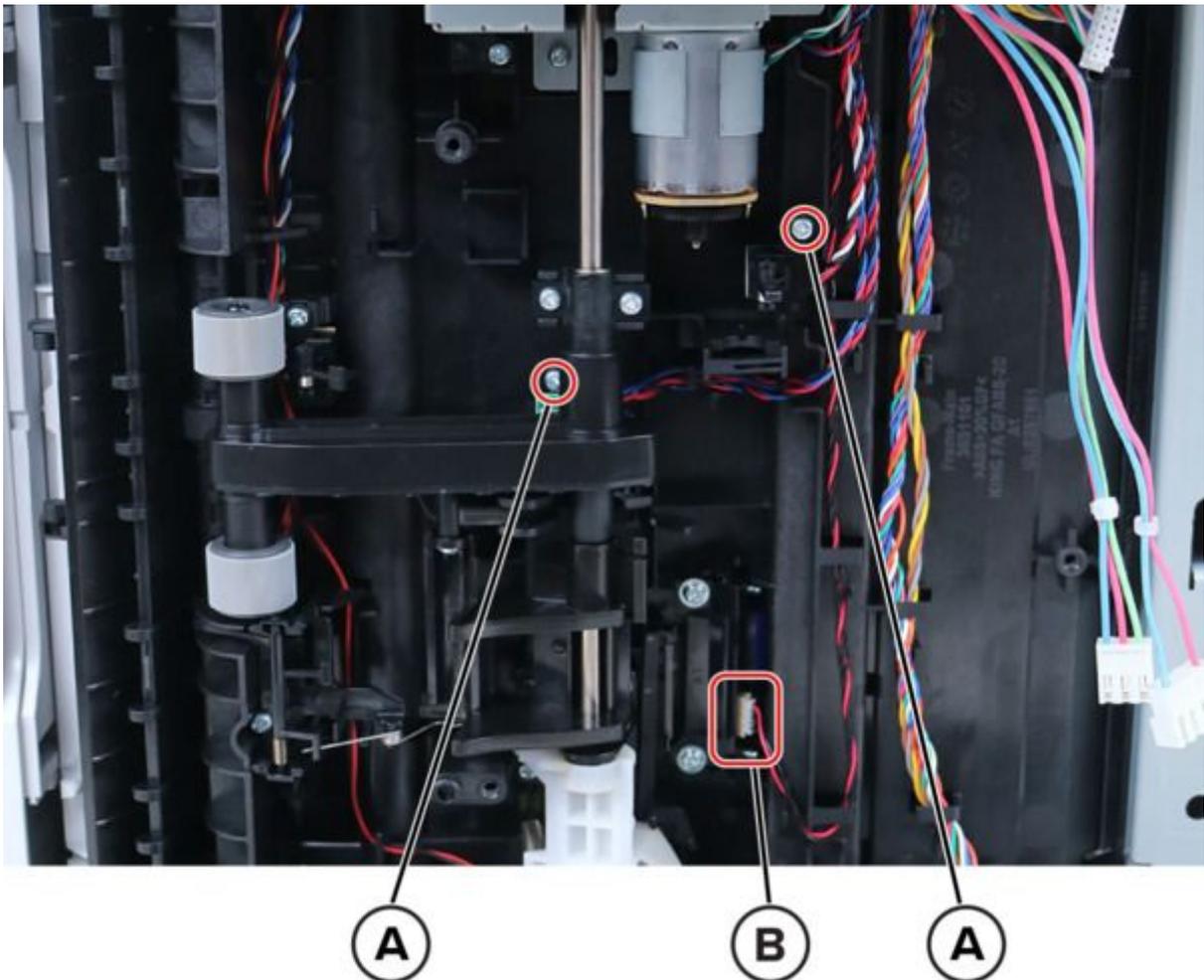
7. Open the controller board access cover, and then disconnect the cable JDUPPI1.
8. Remove the cables.

INSTALLATION NOTE
Route the sensor (input) cable (A) and sensor (duplex) cable (B) as shown.
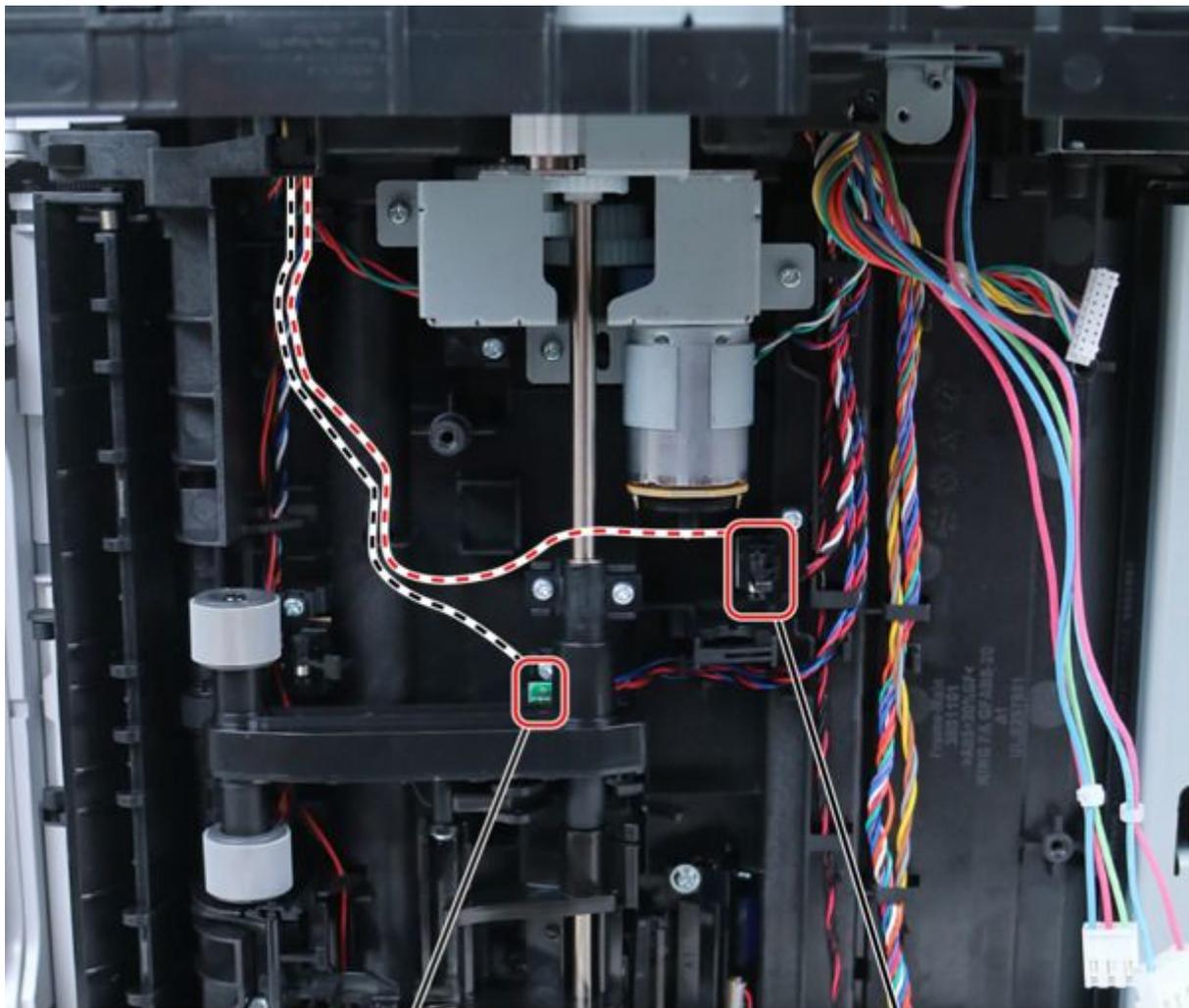
Sensor (index) removal

1. Remove the rear cover. See .
2. Remove the power supply. See .
3. Remove the duplex. See .
4. Remove the right cover. See .
5. Disconnect the cable JINDEX1.
6. Remove the screw (A).
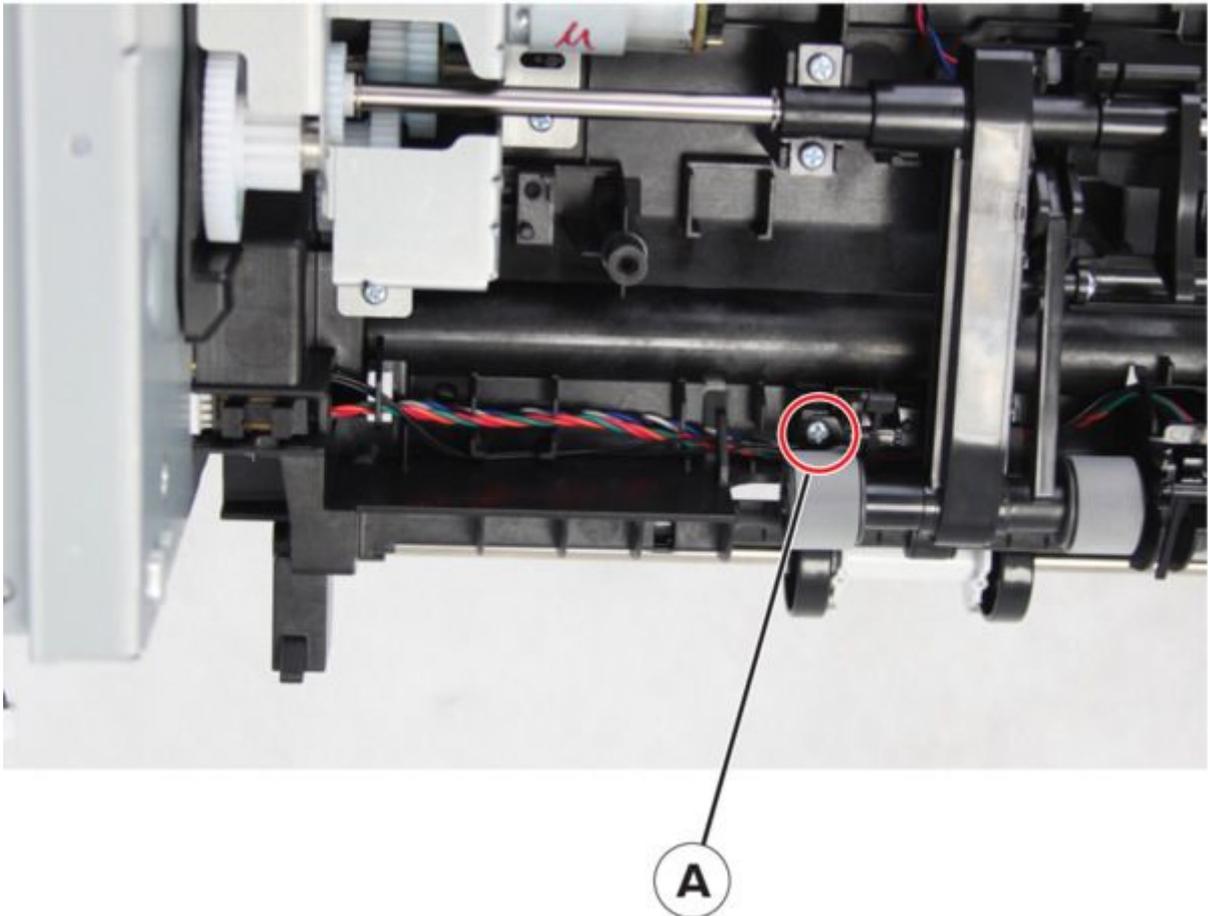
7. Remove the sensor.

Pick roller removal

1. Remove the left cover. See See "Left cover removal" on page 370.
2. Remove the right cover. See See "Right cover removal" on page 394.
3. Remove the scanner access covers. See See "Scanner access covers removal" on page 514.
4. Remove the rear cover. See See "Rear door and cover removal" on page 485.
5. Position the printer on its left side.

> **WARNING—POTENTIAL DAMAGE**
> The ADF might swing open while you position the printer on its side.

6. Remove the power supply. See See "Power supply removal" on page 450.
7. Remove the duplex. See See "Duplex removal" on page 453.
8. Remove the two screws (A).
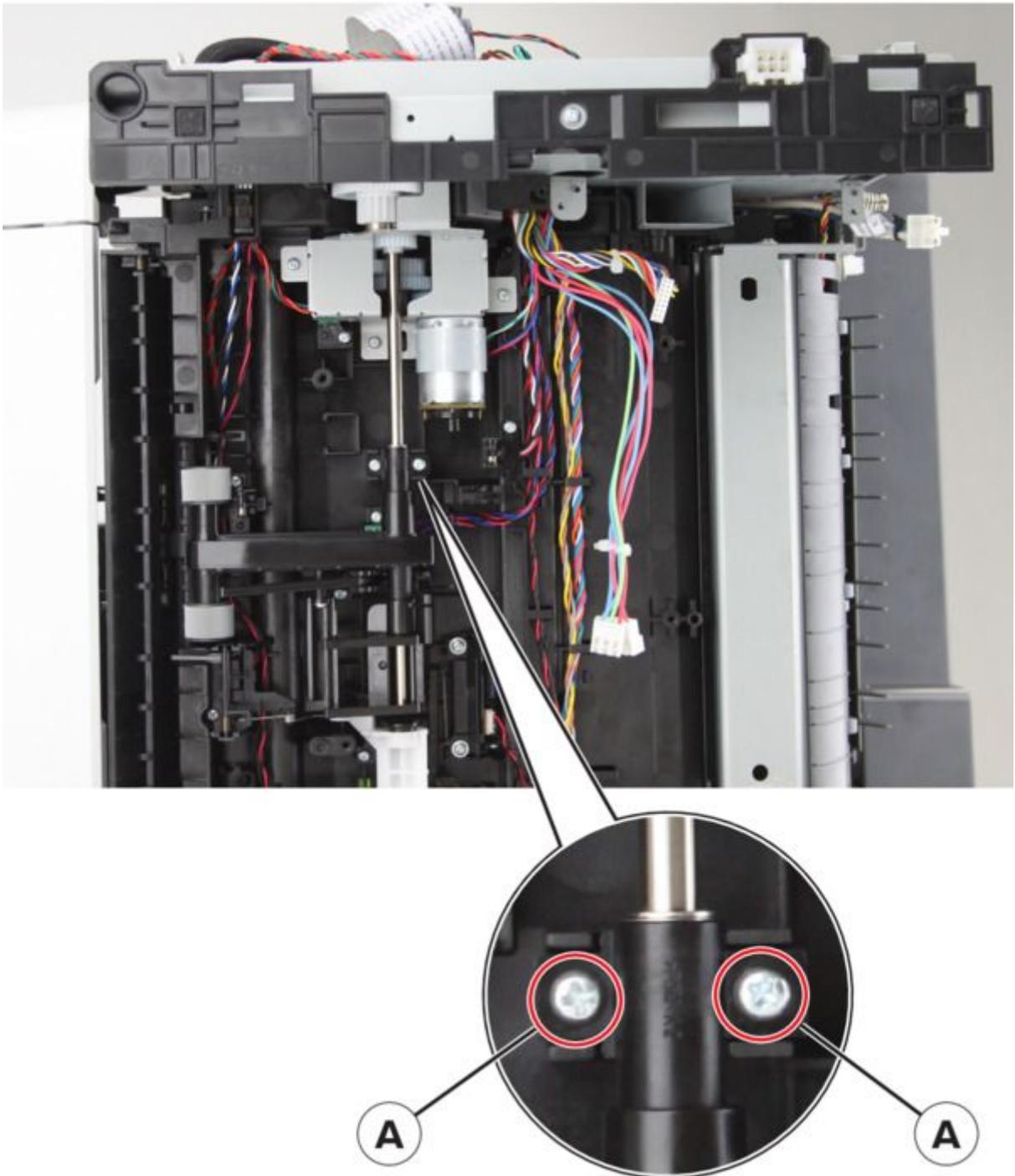
9. Remove the pick roller.

> **INSTALLATION NOTE**
> Pay attention to the correct position of the arm (A) when installing the pick roller.
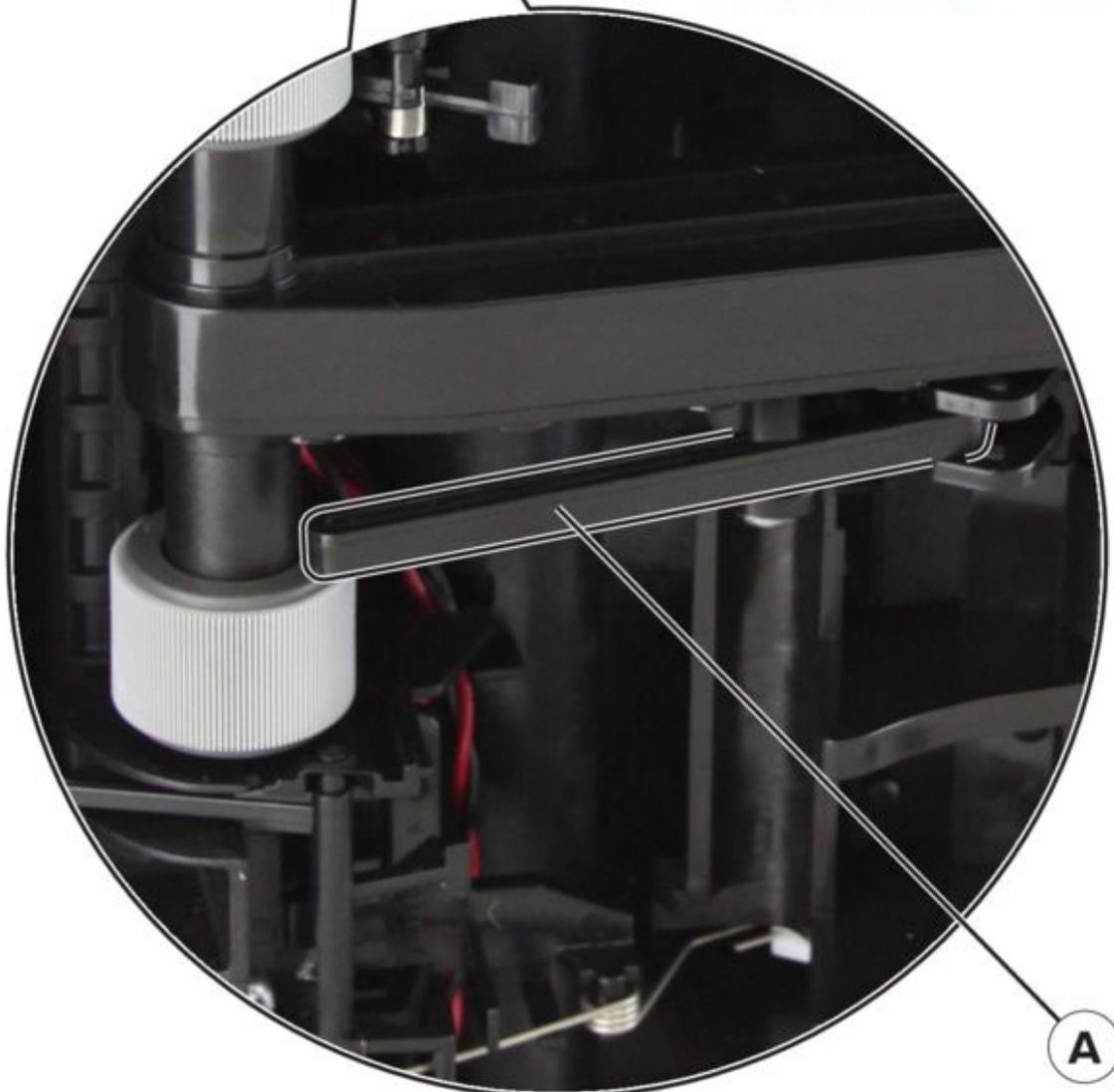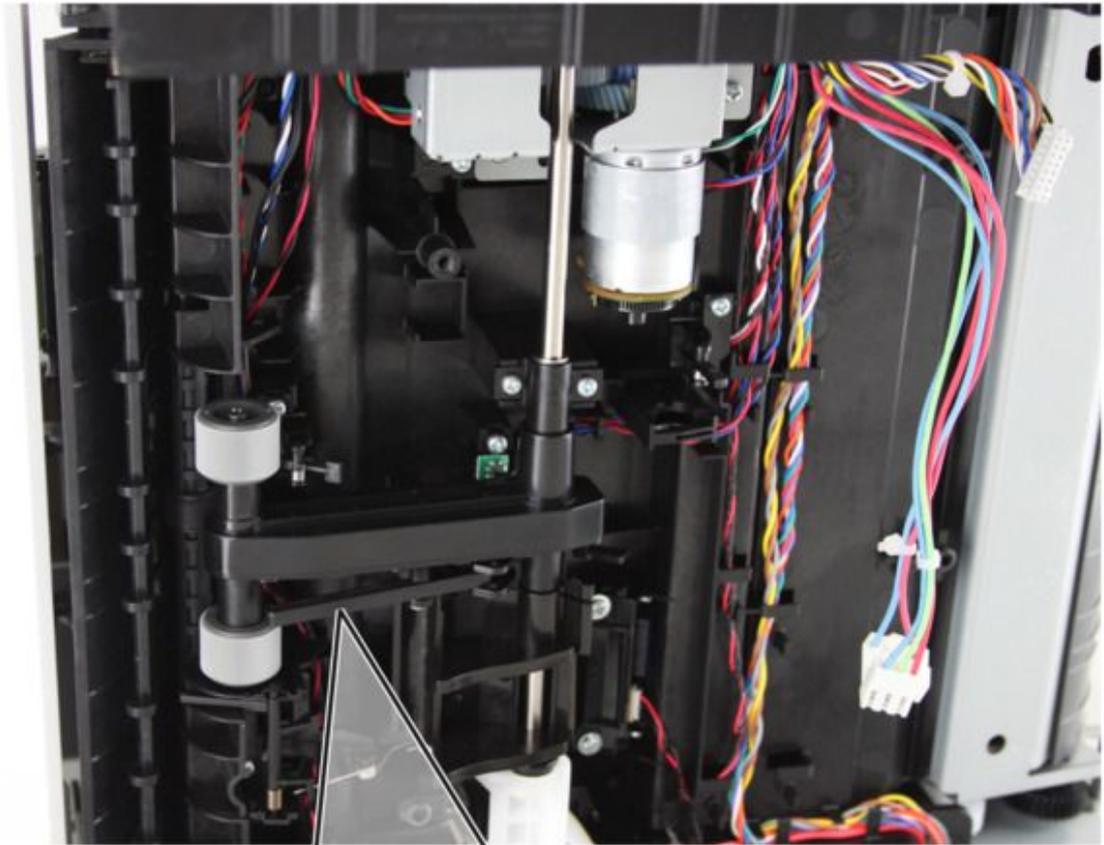
Pick tire removal

1. Remove the tray insert.
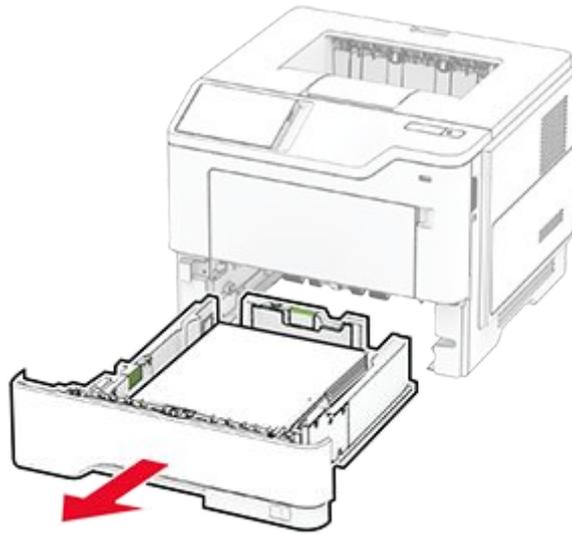
2. Remove the pick tires.
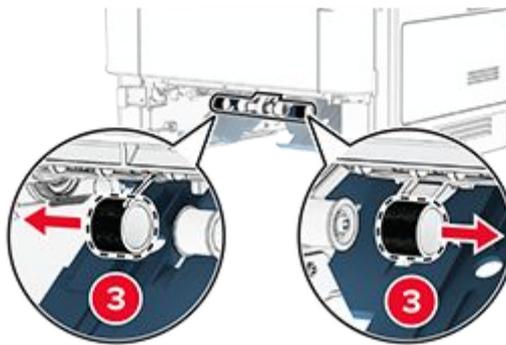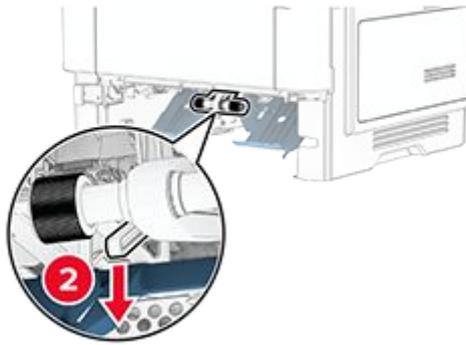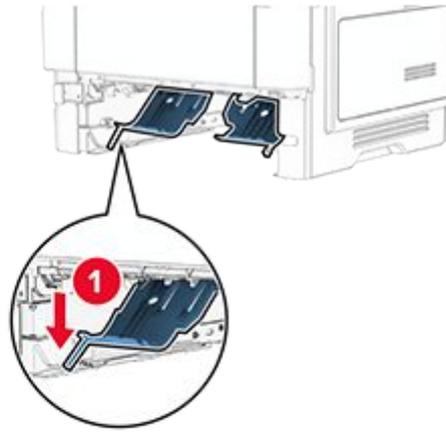
Motor (pick) removal

1. Remove the left cover. See .
2. Remove the right cover. See .
3. Remove the scanner access covers. See .
4. Remove the rear cover. See .
5. Disconnect the cable (pick motor) from the controller board.
6. Position the printer on its left side.

> **WARNING—POTENTIAL DAMAGE**
> The ADF might swing open while you position the printer on its side.

7. Remove the power supply. See .
8. Remove the duplex. See .
9. Remove the pick roller. See .
10. Remove the three screws (A).
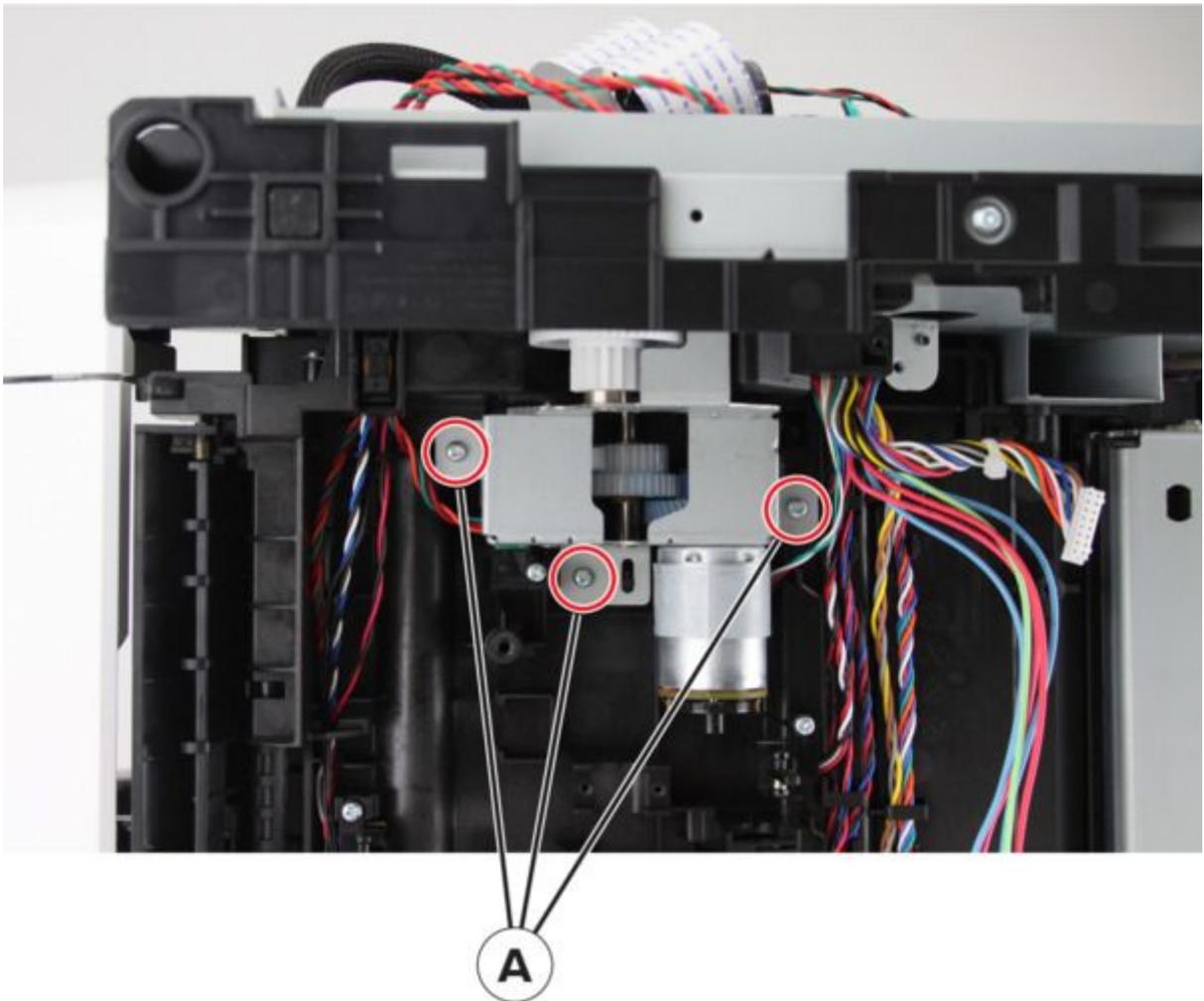
11. Disconnect the cable (pick motor) from the motor.

12. Remove the motor.

Sensor (paper present) removal

1. Remove the rear cover. See .
2. Remove the power supply. See .
3. Remove the duplex. See .
4. Disconnect the cable from the sensor (A).
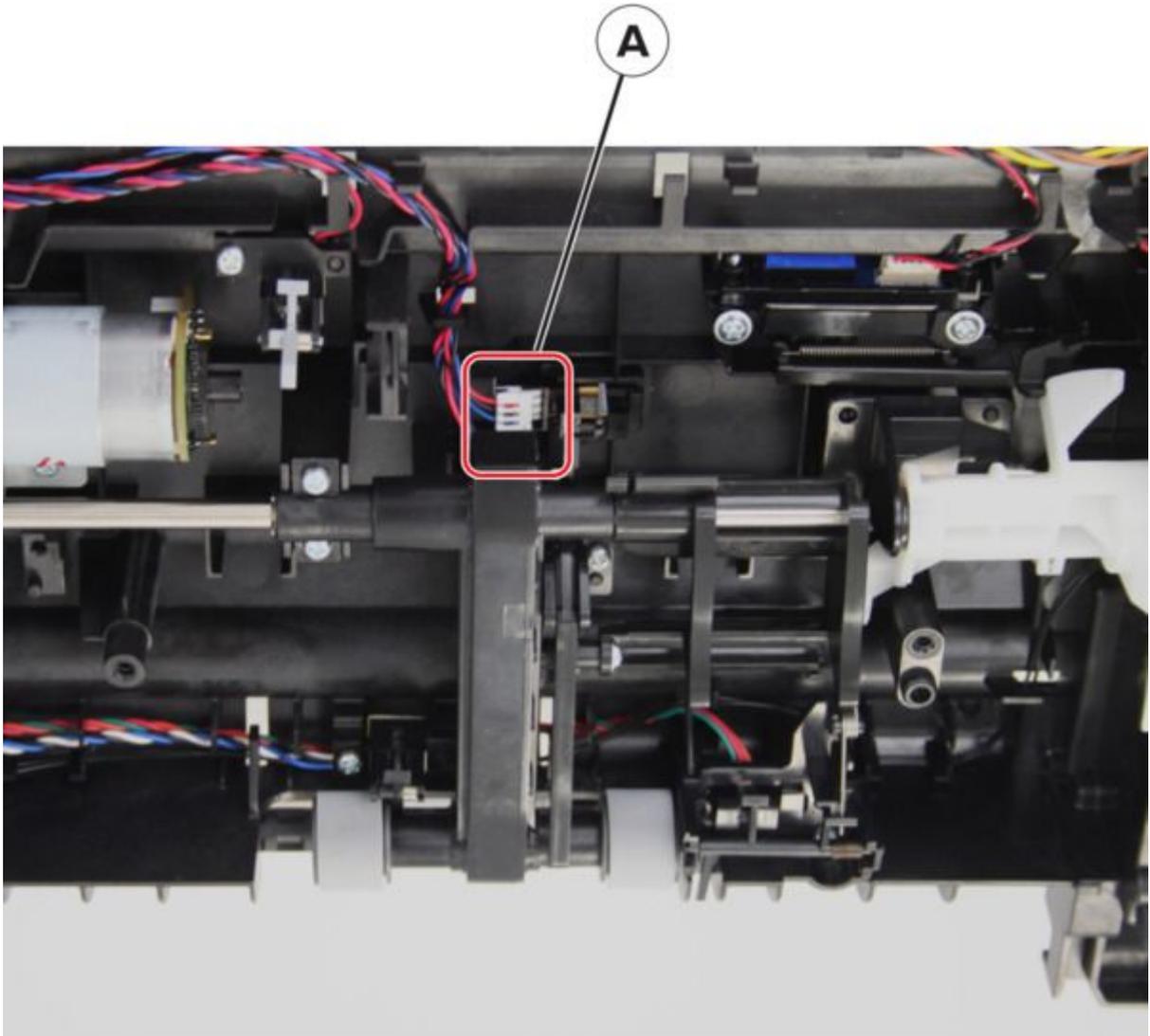
5. Release the three latches (B).
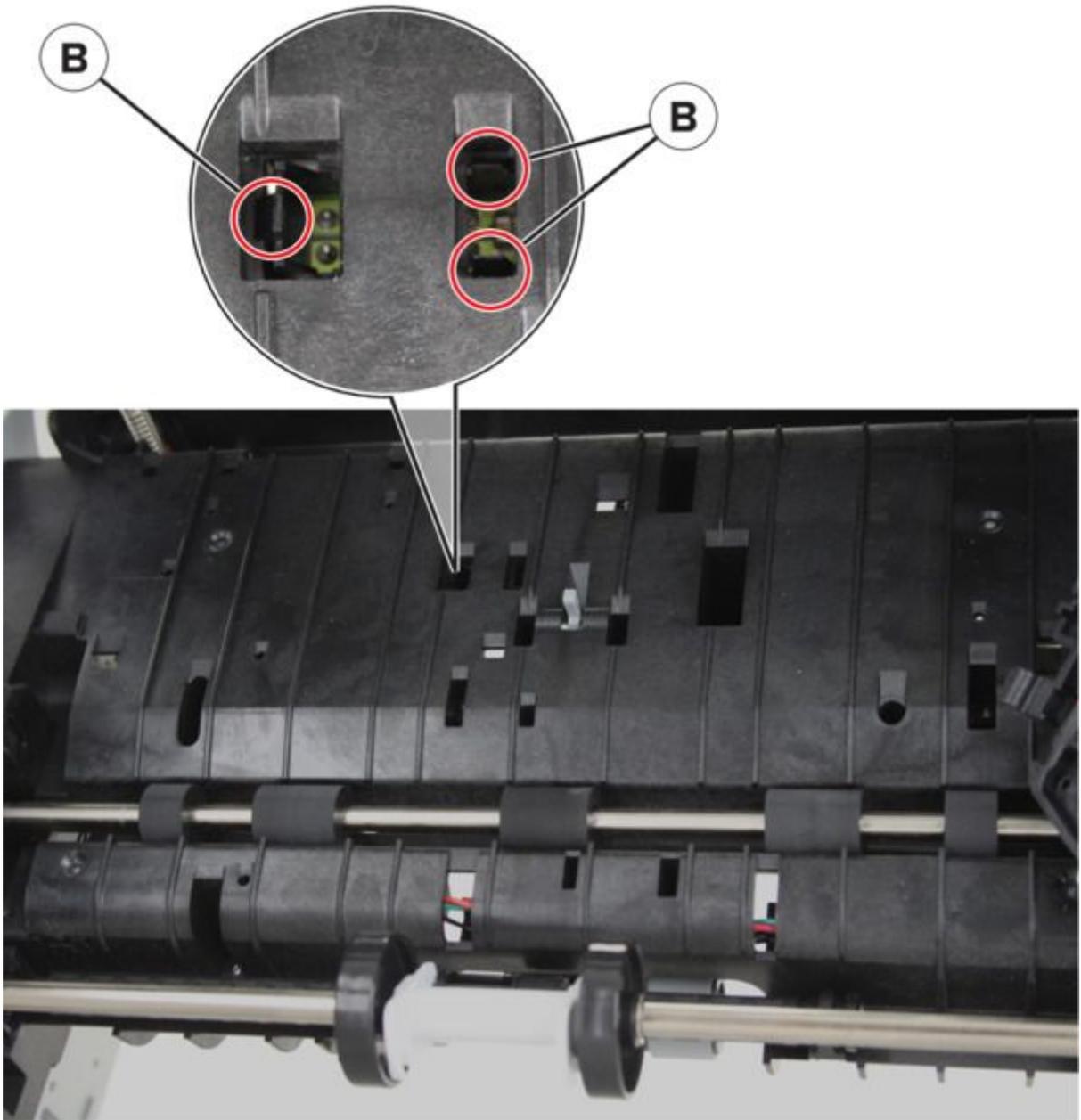
Sensor (trailing edge) removal

1. Remove the rear cover. See .See "Rear door and cover removal" on page 485
2. Remove the power supply. See .See "Power supply removal" on page 450
3. Remove the duplex. See .See "Duplex removal" on page 453
4. Open the controller board access cover, and then disconnect the cable JACM1.
5. Detach the spring (A), and then remove the screw (B) and sensor flag.
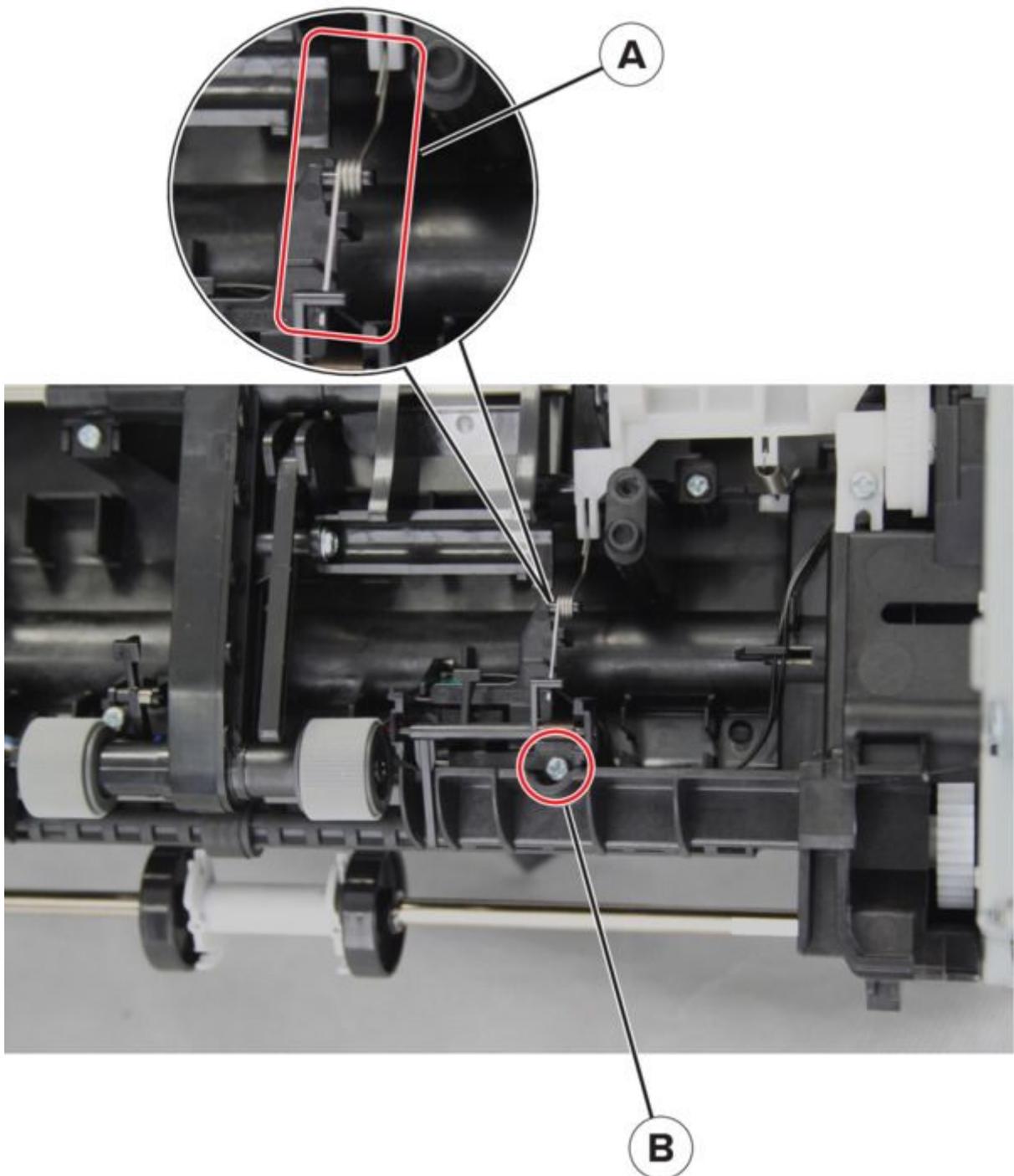
6. Remove the screw (C) and sensor.
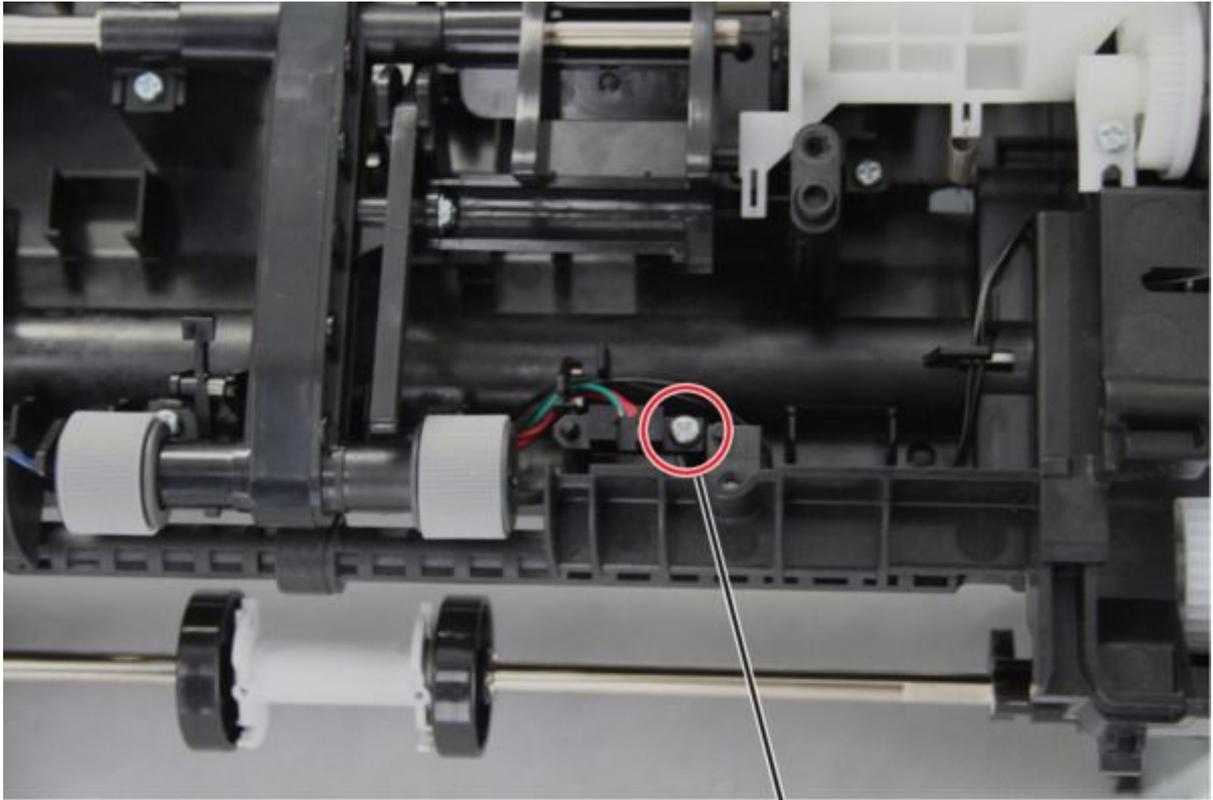
C

Pick/lift motor gearbox removal

1. Remove the rear cover. See See "Rear door and cover removal" on page 485.
2. Remove the power supply. See See "Power supply removal" on page 450.
3. Remove the duplex. See See "Duplex removal" on page 453.
4. Remove the six screws (A).
5. Detach the spring (B).
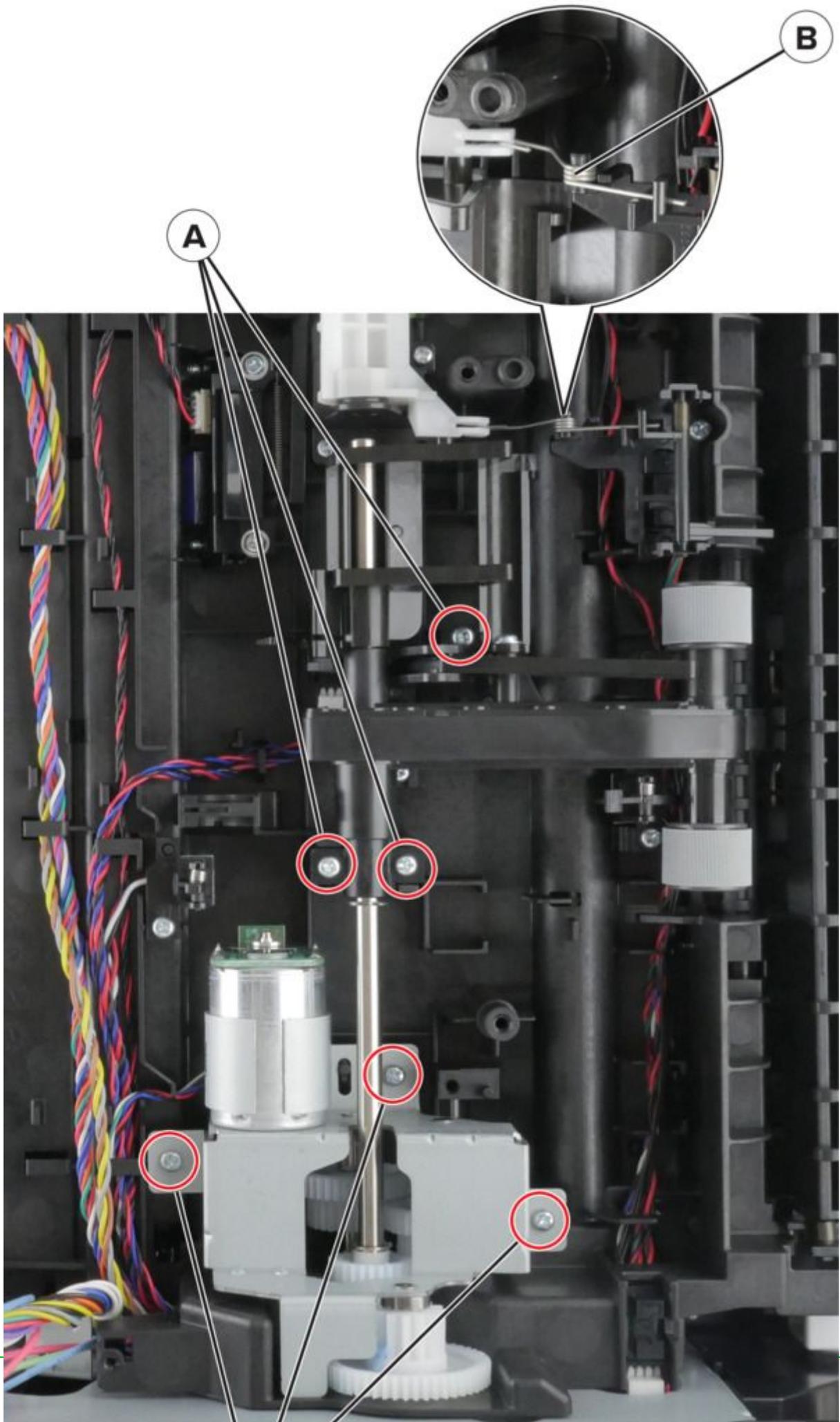
6. Lift the pick roller.
7. Disconnect the cable from the gearbox.
8. Remove the gearbox.

Lift cam removal

1. Remove the left cover. See See "Left cover removal" on page 370.
2. Remove the main drive gearbox. See See "Main drive gearbox removal" on page 372.
3. Remove the rear cover. See See "Rear door and cover removal" on page 485.
4. Remove the power supply. See See "Power supply removal" on page 450.
5. Remove the duplex. See See "Duplex removal" on page 453.
6. Remove the two screws (A).
7. Release the two springs (B).
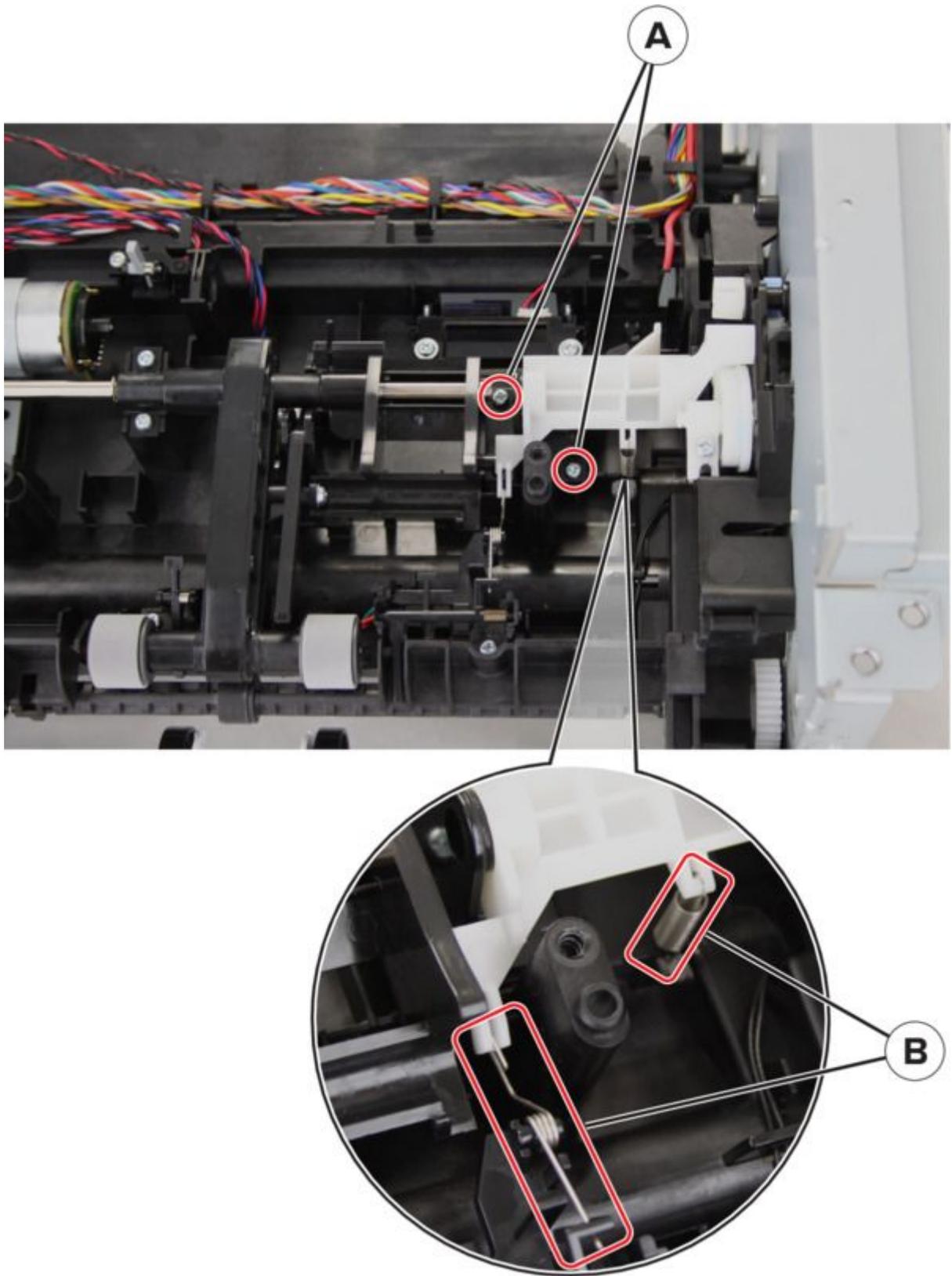
8. Remove the cam.

Sensor (toner density) and media present sensor flag removal

> **NOTES**
> For a video demonstration, see Sensor (toner density) and media present sensor flag removal.

1. Remove the toner cartridge, and then remove the imaging unit.
2. Remove the tray insert.
3. Remove the rear door and cover. See See "Rear door and cover removal" on page 485.
4. Remove the power supply. See See "Power supply removal" on page 450.
5. Remove the duplex. See See "Duplex removal" on page 453.
6. Remove the screws (A).
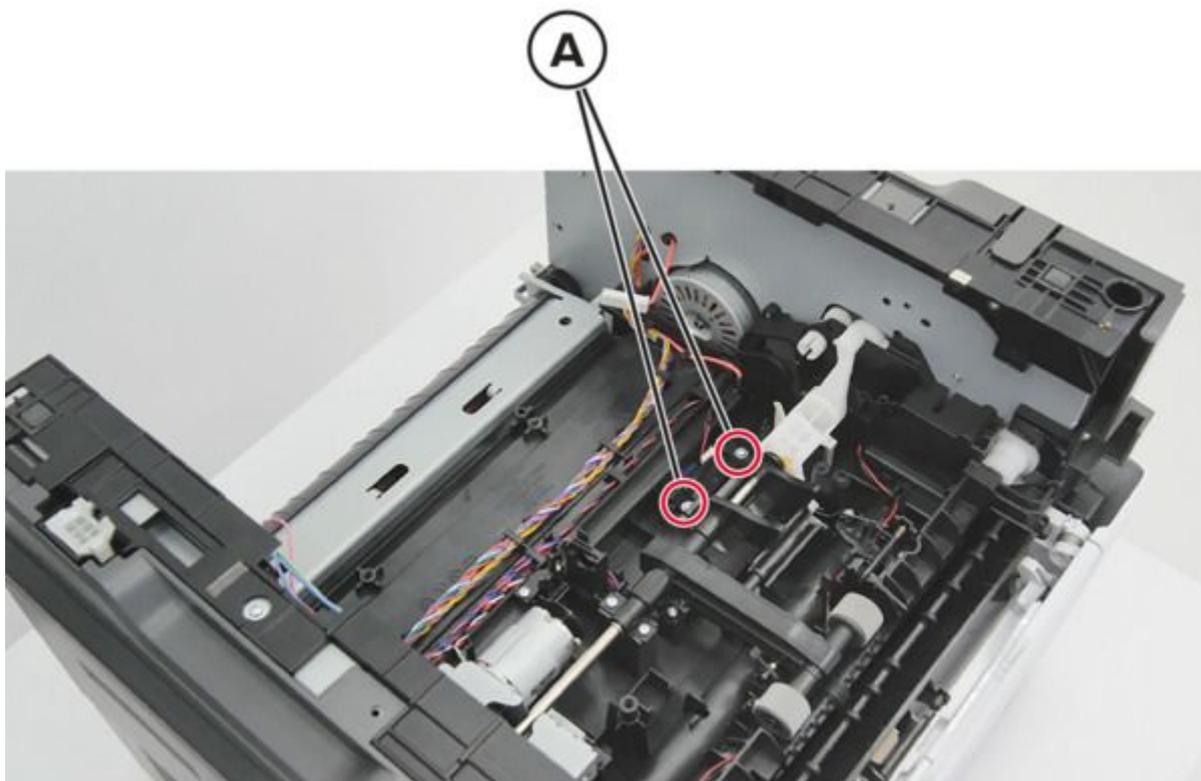
7. Remove the sensor (B), and then remove the wiper (C).
8. Disconnect the connector (D).
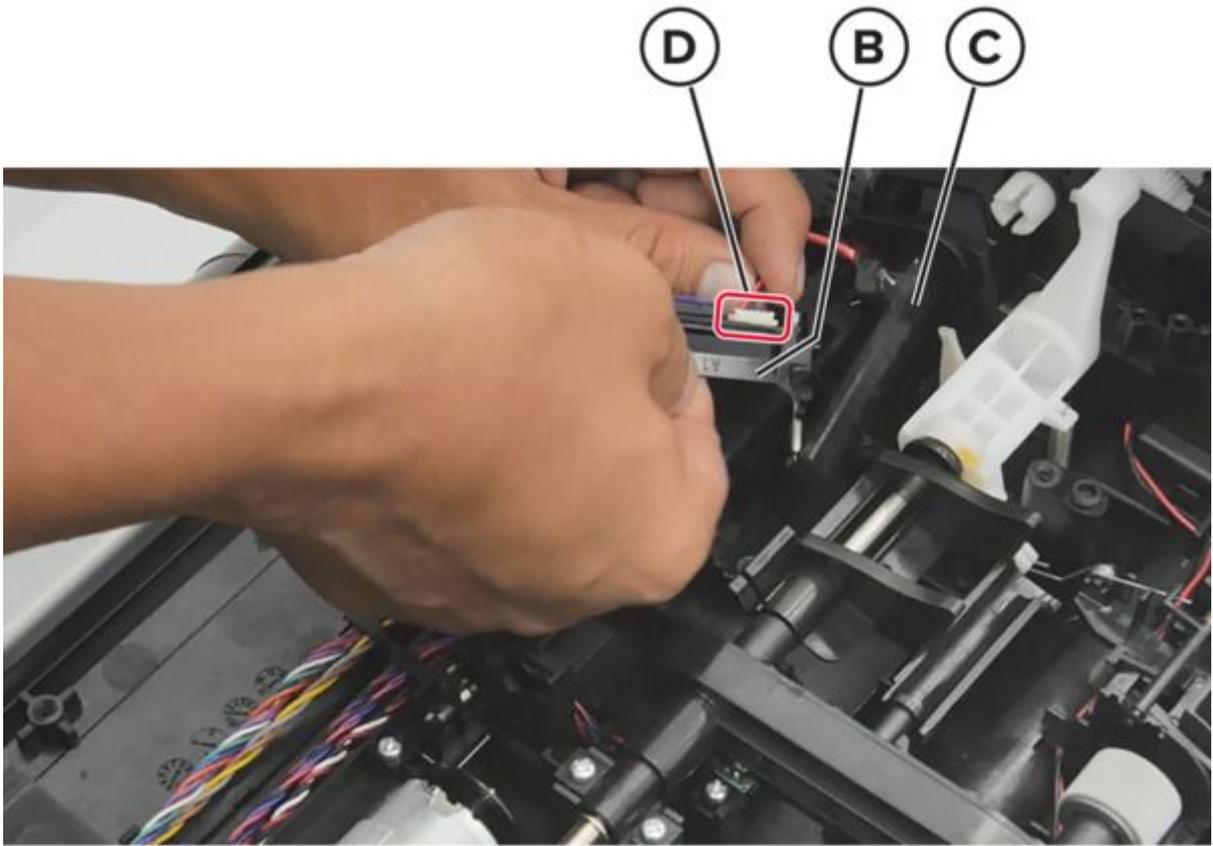
9. Remove the screw (E).
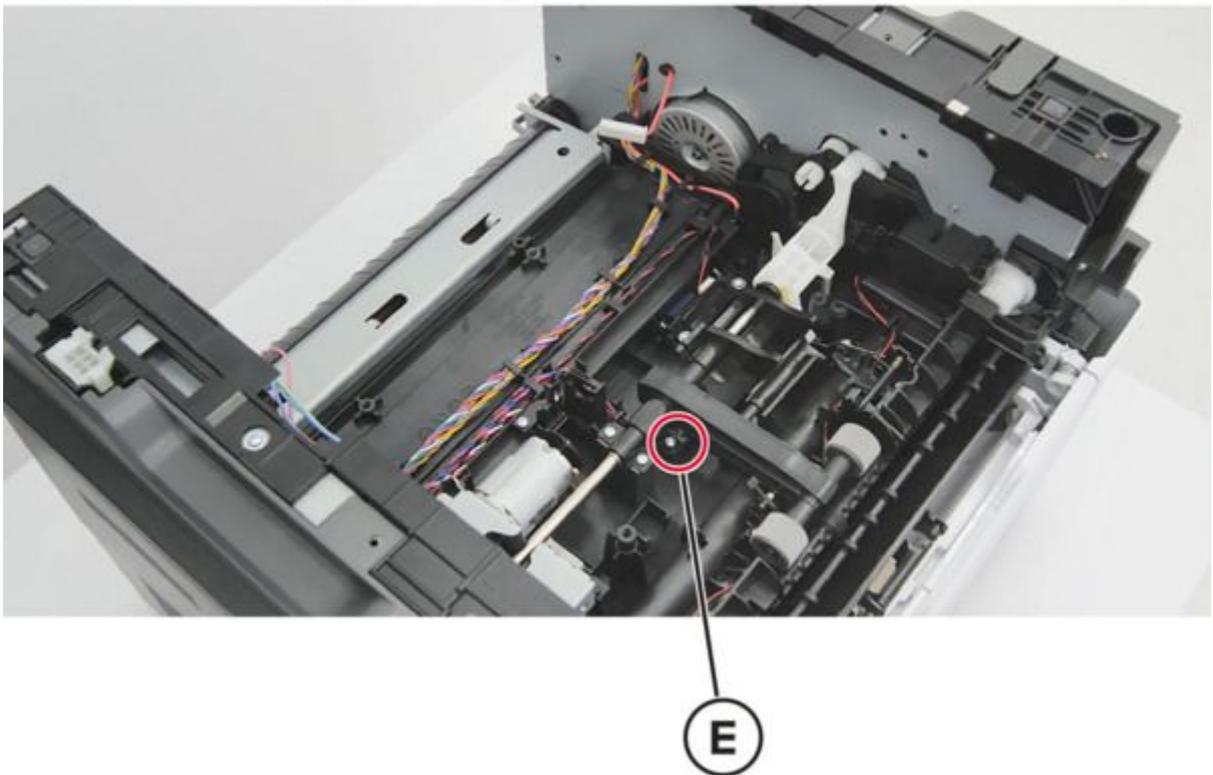
10. Lift the pick roller and then remove the sensor flag and bracket (F).
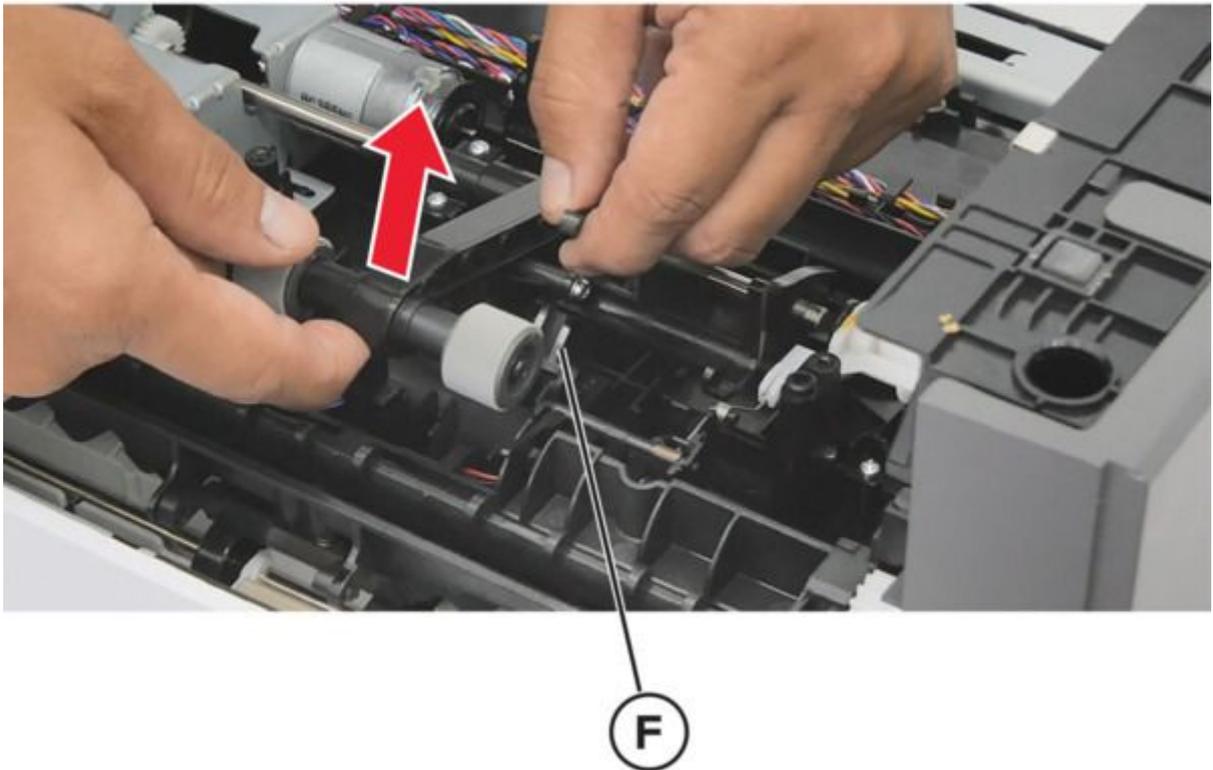
INSTALLATION NOTE
Refer to the following procedures when installing the toner density sensor and media present sensor flag:

1. Pull down the actuator, and then place the wiper (G) in position.
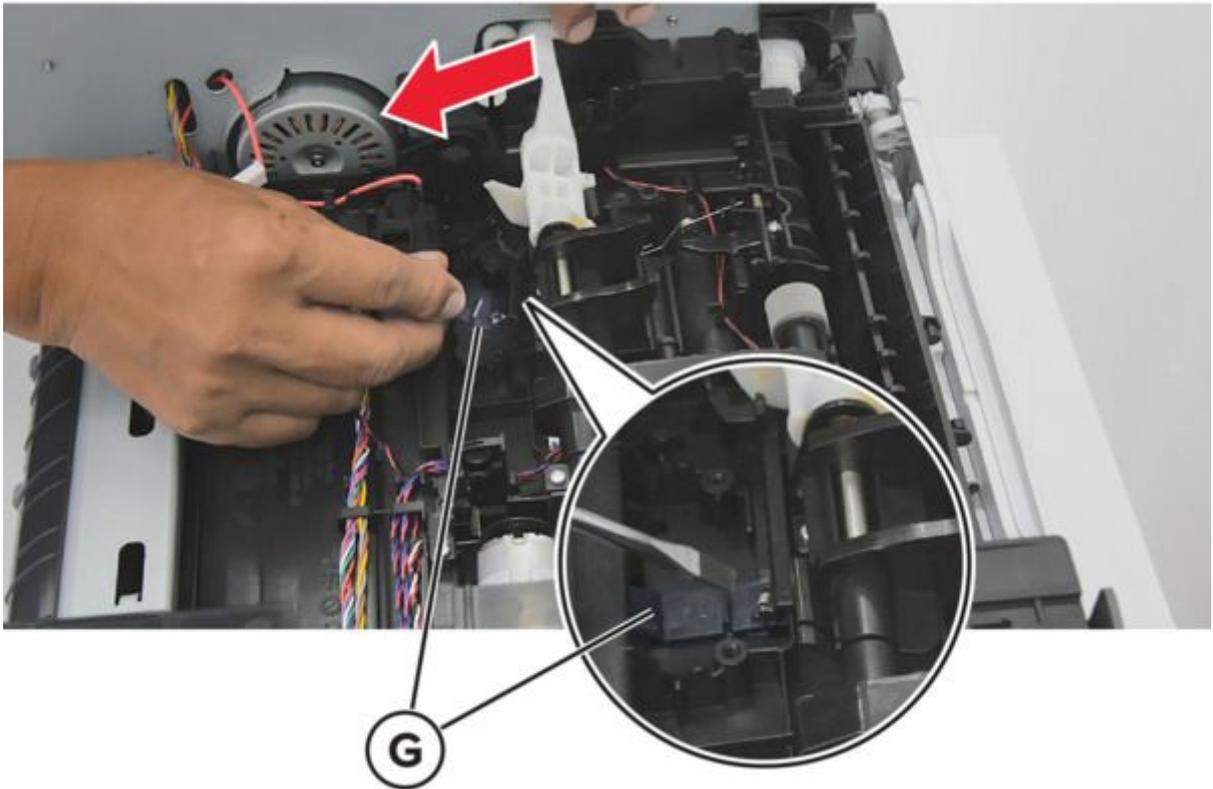
2. Attach the sensor bracket (H) and the spring (I).
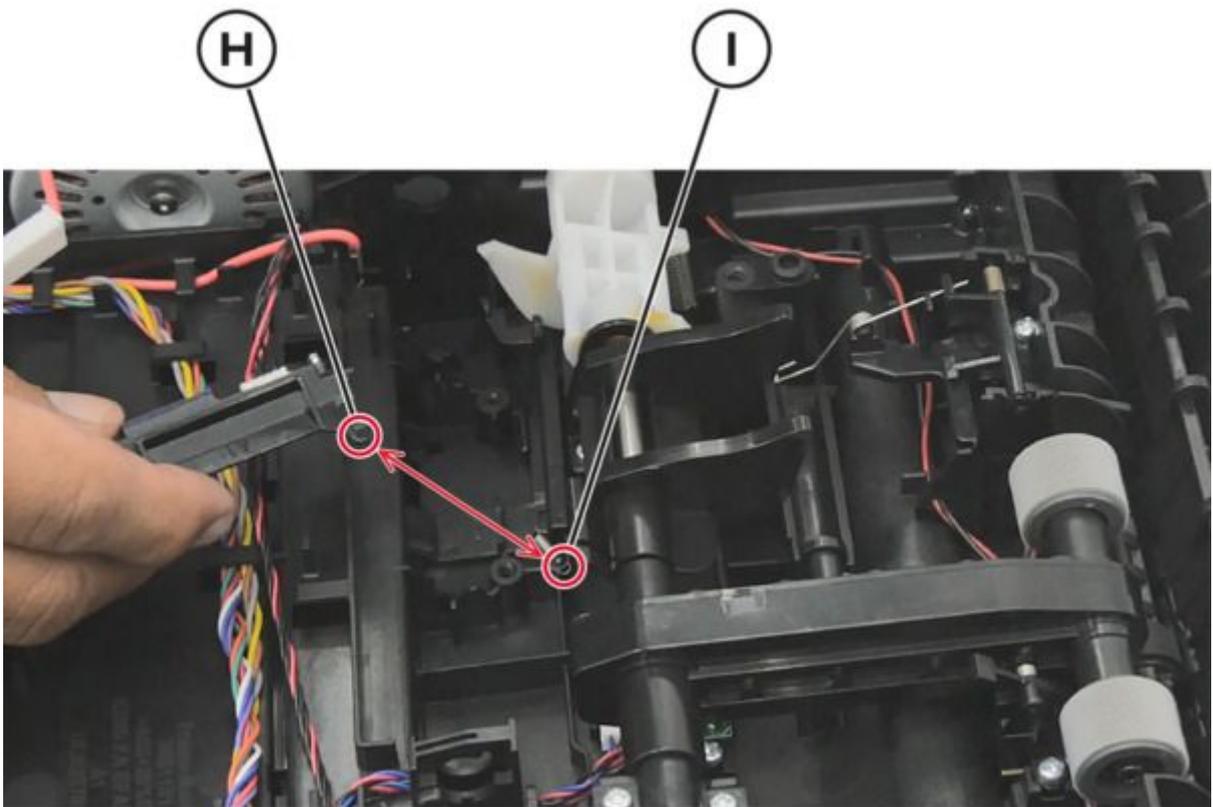
3. Connect the connector (J) to the sensor, and then route the cable on the harness (K).

> **NOTES**
>
> Before securing the sensor bracket using screws, do the following:

1. Lift the actuator.
2. If the wiper goes along with the actuator, then the sensor bracket is properly engaged with the wiper.

4. Secure the sensor bracket using screws (L).
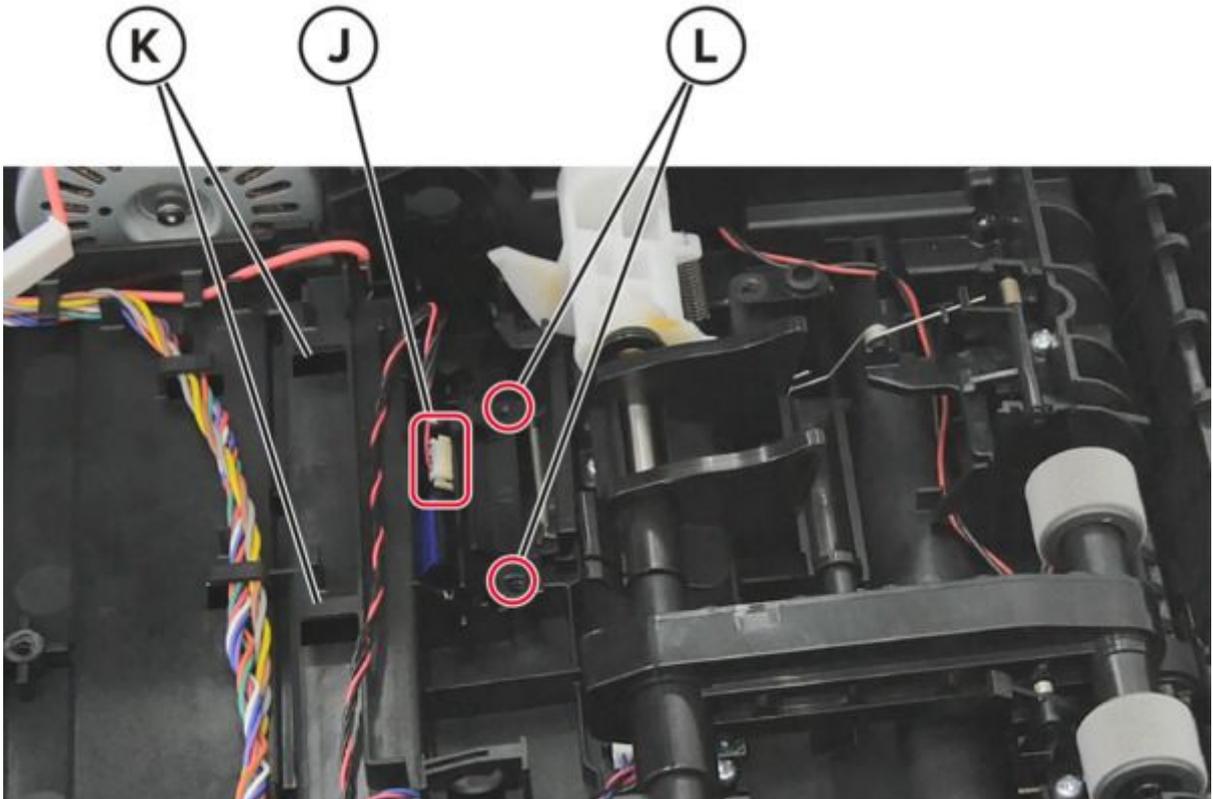
> **NOTES**
>
> After securing the sensor bracket using screws, do the following:

1. Apply RheoGel 793 to the top and bottom of the shutter blade extension.

2. Apply RheoGel 793 to the point of contact between the bracket (A) and cam.
3. Apply RheoGel 793 to the point of contact to the lower edge (B) where the wiper bracket glides.
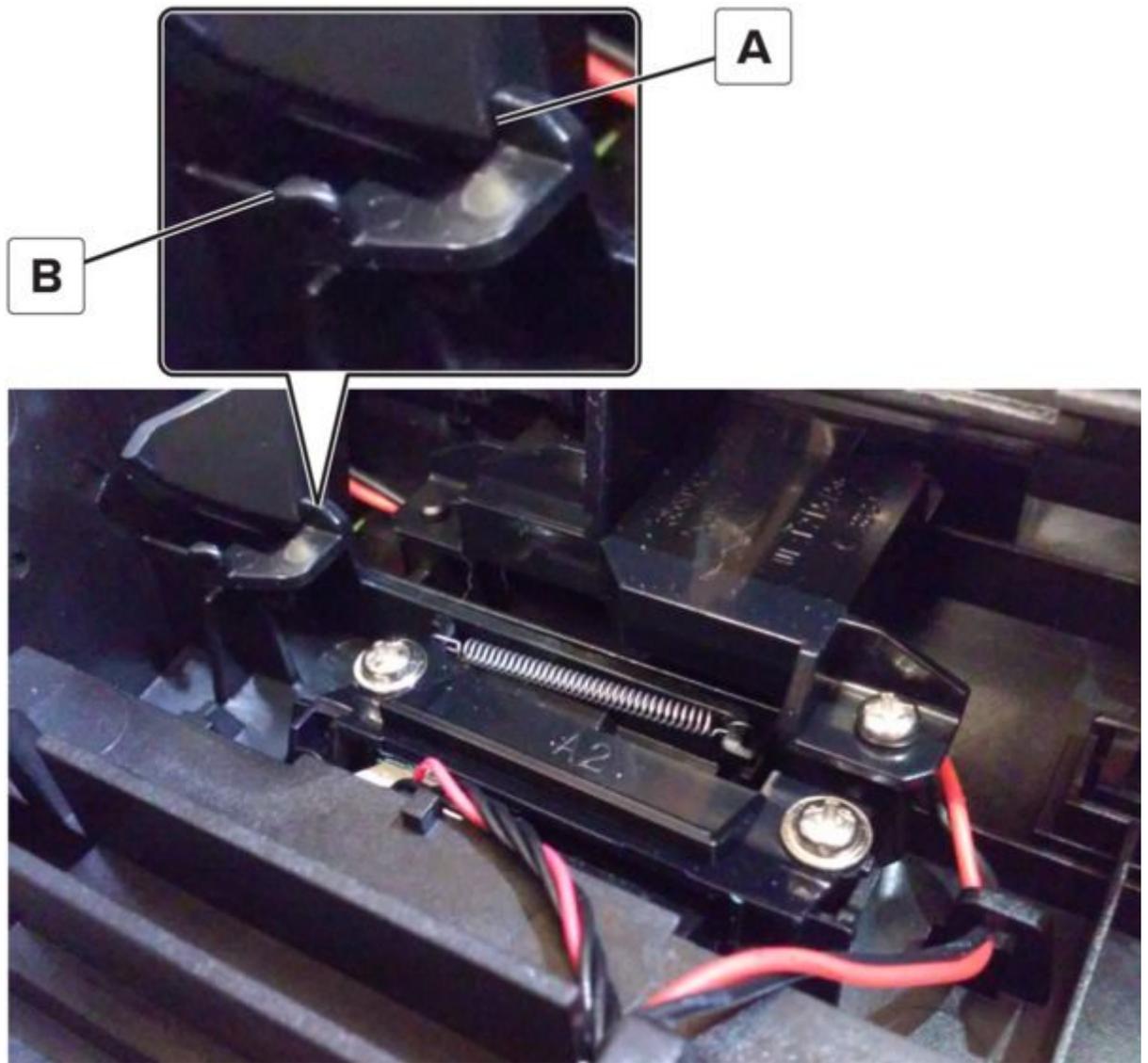
5. Lift the pick roller, and then place the bracket (M) in position.
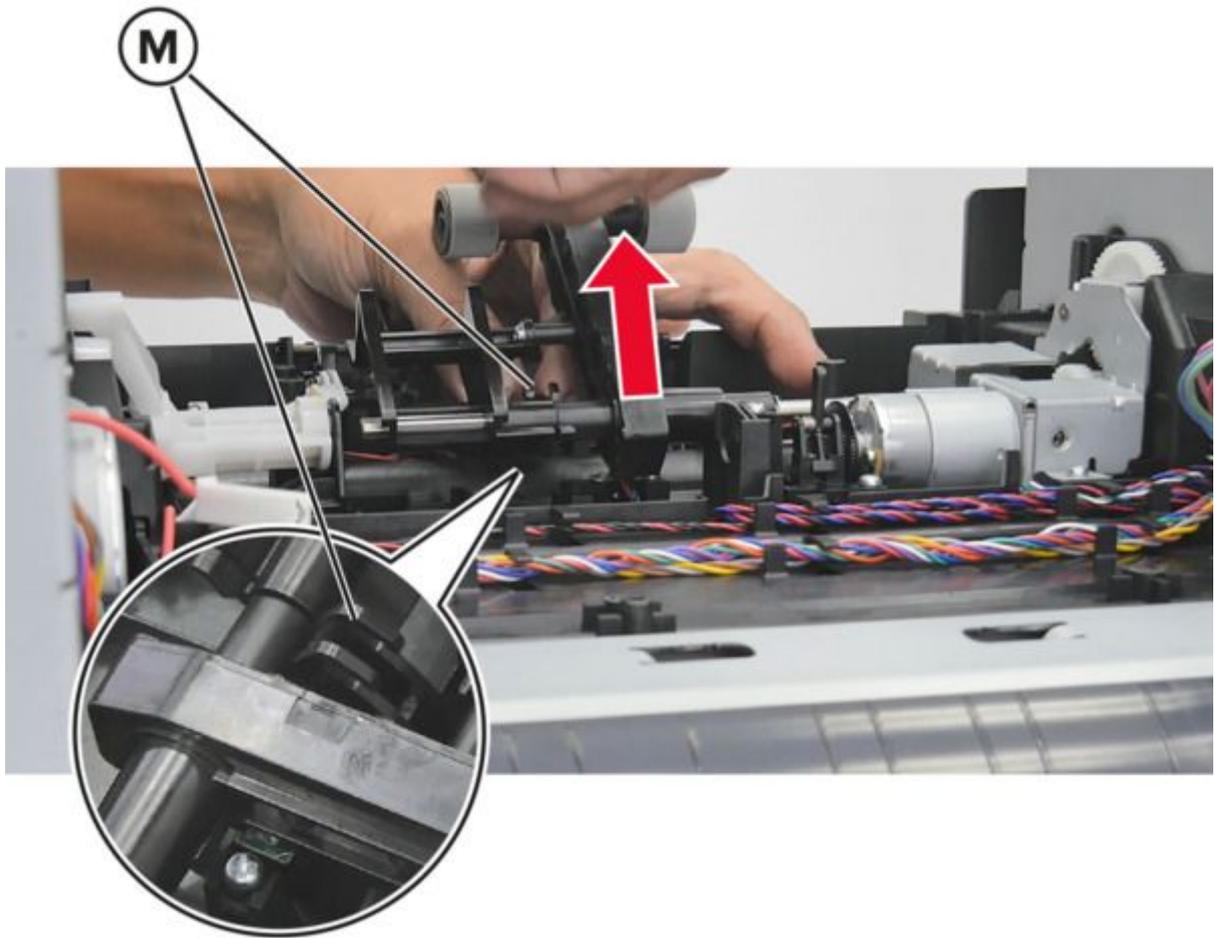
6. Secure the bracket in place using screws (N).
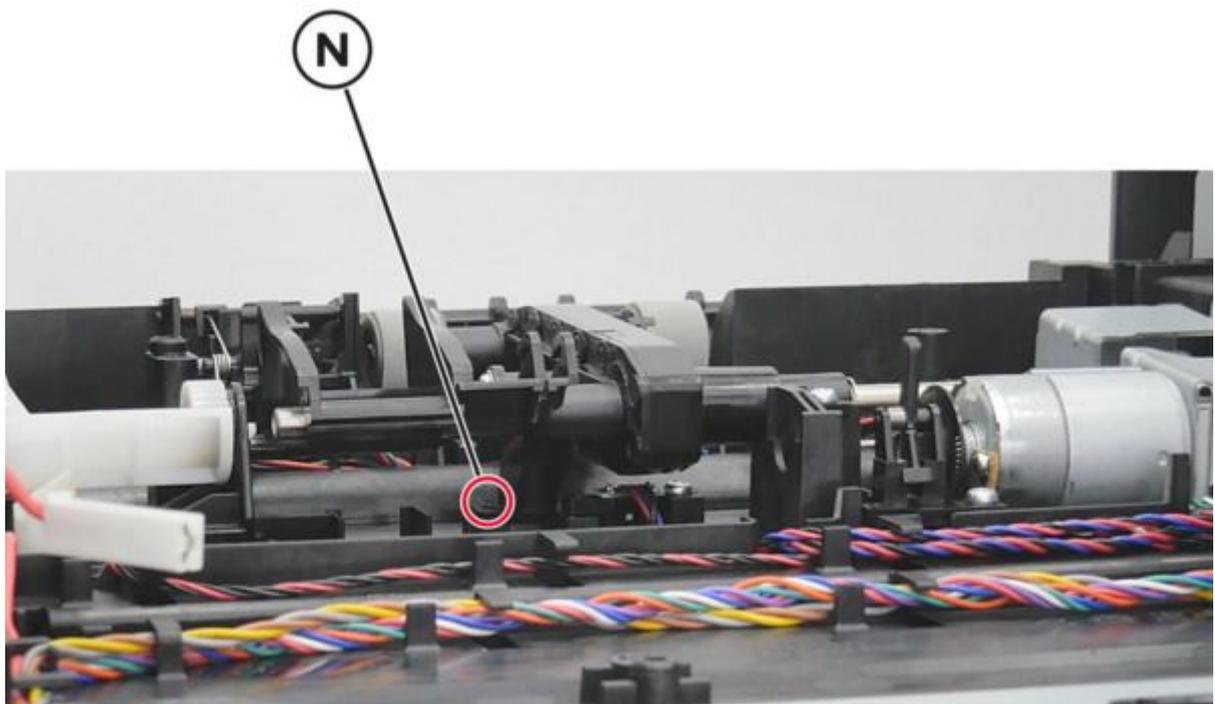
7. Install the sensor flag (O) into the bracket.
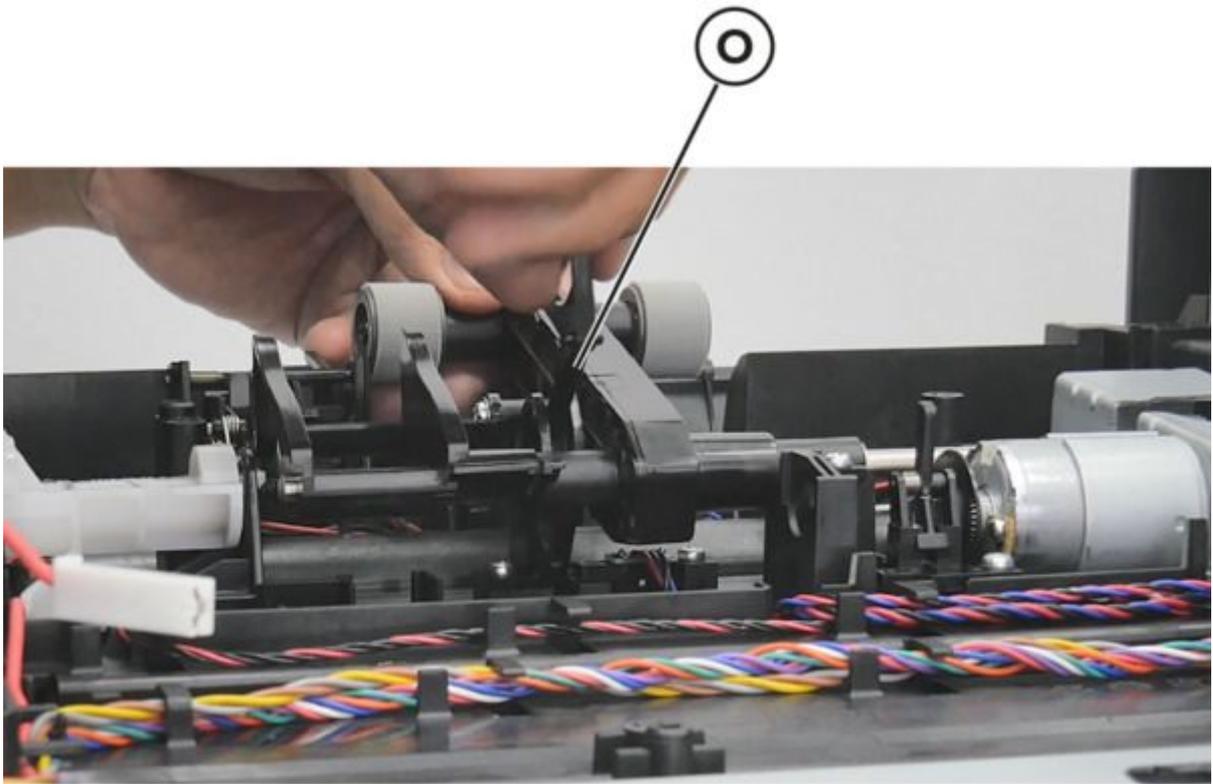
NOTES

To check if the sensor flag is properly installed, do the following:

1. Lift the pick roller.
2. If the sensor flag goes along with the pick roller when lifted, then the sensor flag is properly installed.

Rear side removals

Rear door and cover removal

1. Remove the scanner access covers. See See "Scanner access covers removal" on page 514.
2. Remove the two screws (A), and then remove the door and cover.
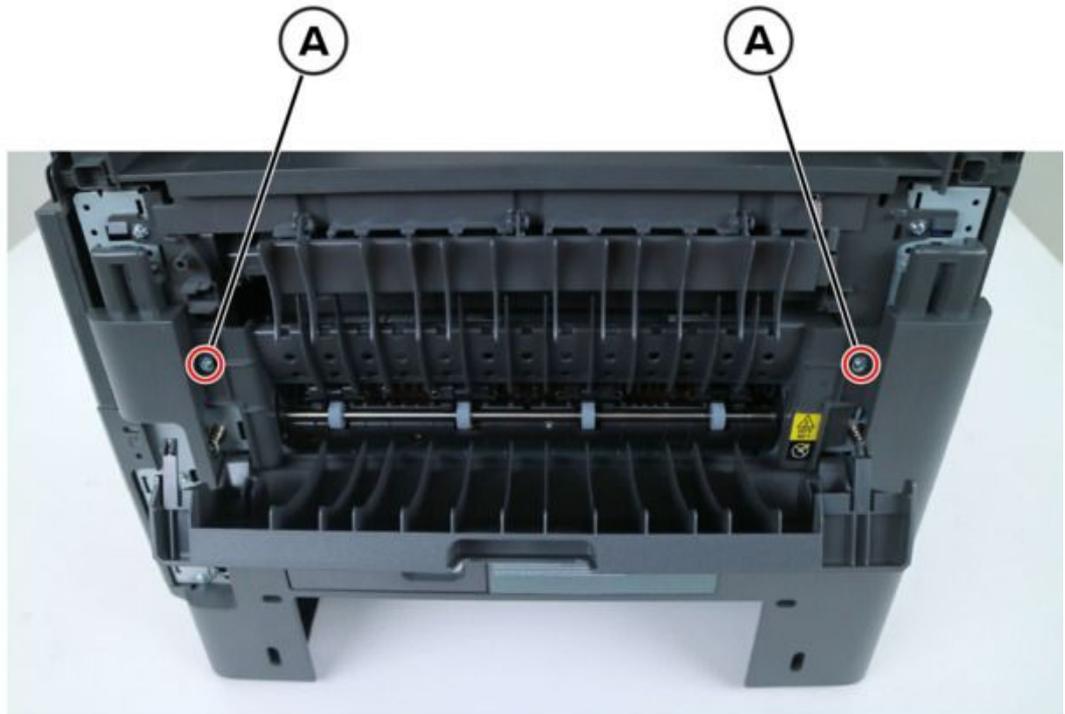
Redrive removal

1. Remove the right cover. See See "Right cover removal" on page 394.
2. Remove the left cover. See See "Left cover removal" on page 370.
3. Remove the rear cover. See See "Rear door and cover removal" on page 485.
4. Remove the top cover. See See "Top cover removal" on page 491.
5. Remove the flatbed scanner. See See "Flatbed scanner removal" on page 506.
6. Disconnect the cables JNRW1 and JFUTHM1 from the controller board.
7. Remove the four screws (A) and cable (B).
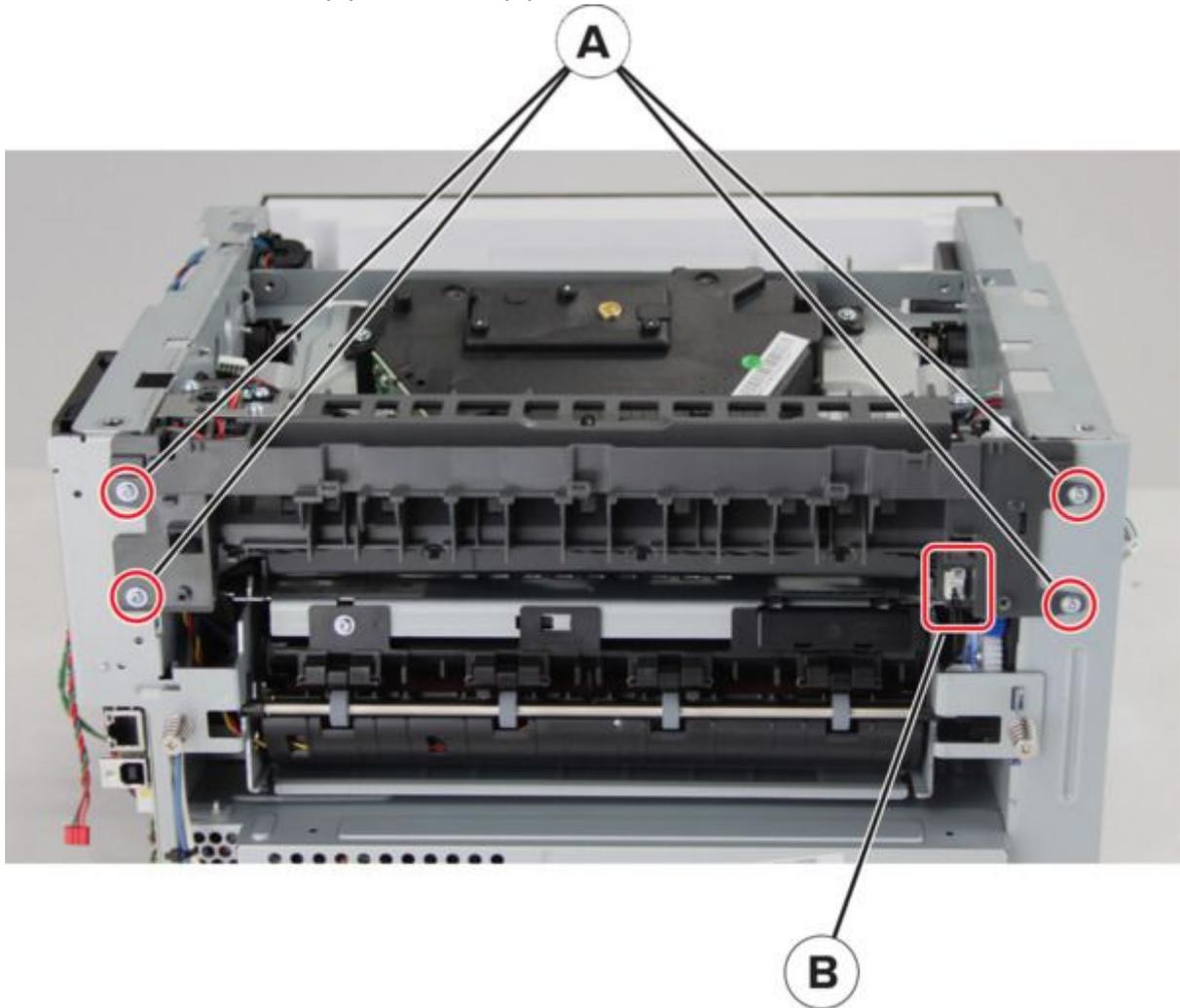
8. Remove the redrive.

Fuser removal

NOTES
For a video demonstration, see Fuser removal.

1. Remove the scanner access covers. See See "Scanner access covers removal" on page 514.
2. Remove the rear cover. See See "Rear door and cover removal" on page 485.
3. Disconnect the two cables (A), and then remove the two screws (B).
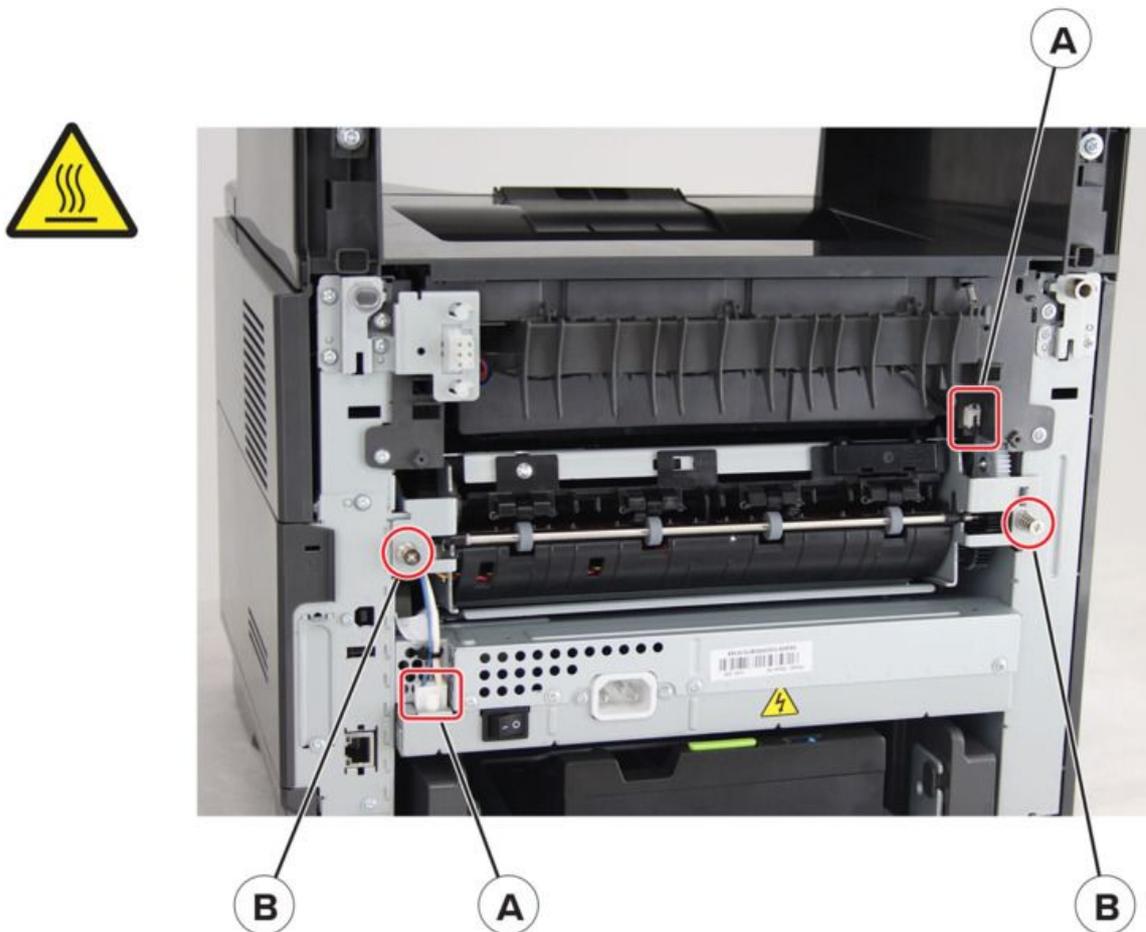
4. Remove the right cover. See See "Right cover removal" on page 394.
5. Disconnect the fuser cable from the controller board.
6. Remove the fuser.

NOTES
For a video demonstration, see Fuser removal at infoserve.lexmark.com/ids/sma.

Redrive gear removal

1. Remove the top cover. See See "Top cover removal" on page 491.
2. Remove the left cover. See See "Left cover removal" on page 370.
3. Remove the redrive. See See "Redrive removal" on page 486.
4. Remove the two screws (A), and then detach the reverse solenoid.

> **NOTES**
> Do not disconnect the reverse solenoid cable from the controller board.
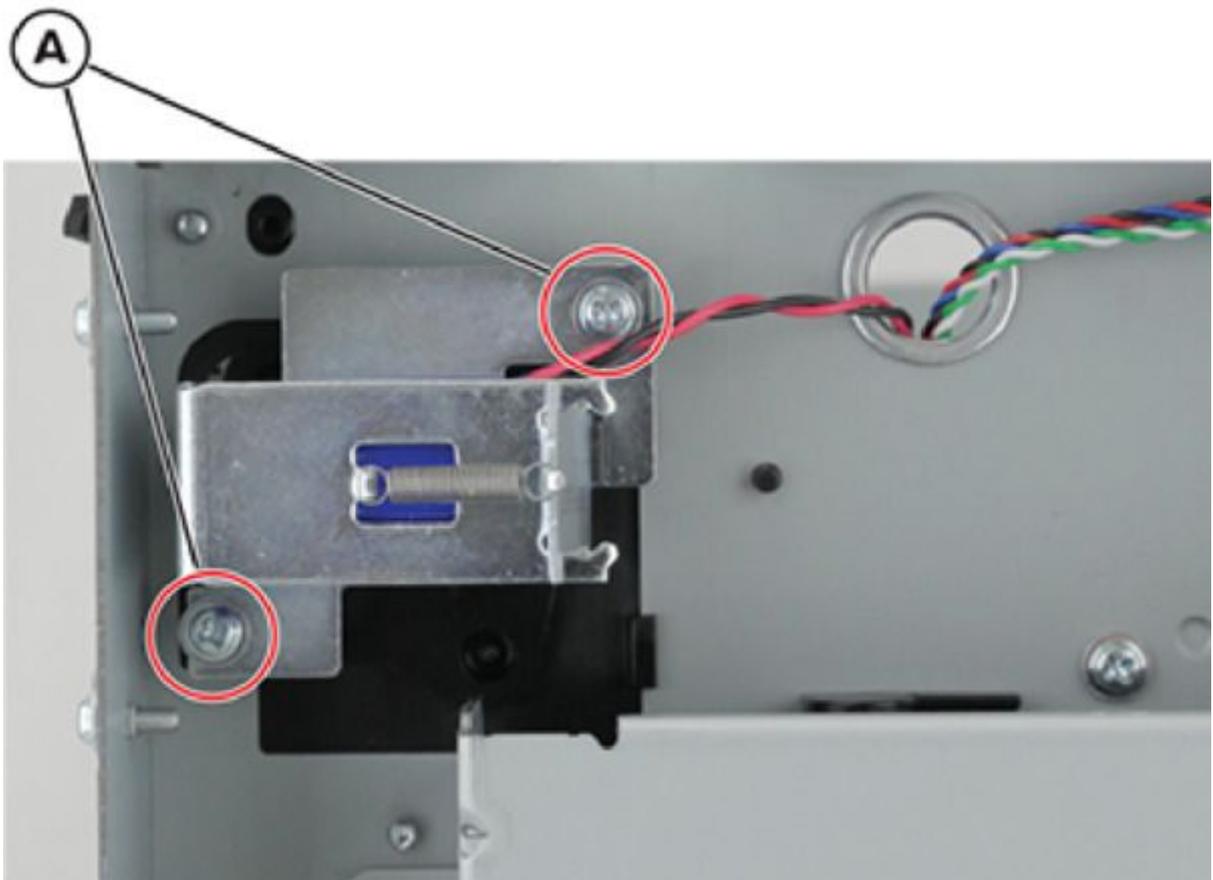
5. Remove the fuser. See See "Fuser removal" on page 487.
6. Remove the two screws (B).
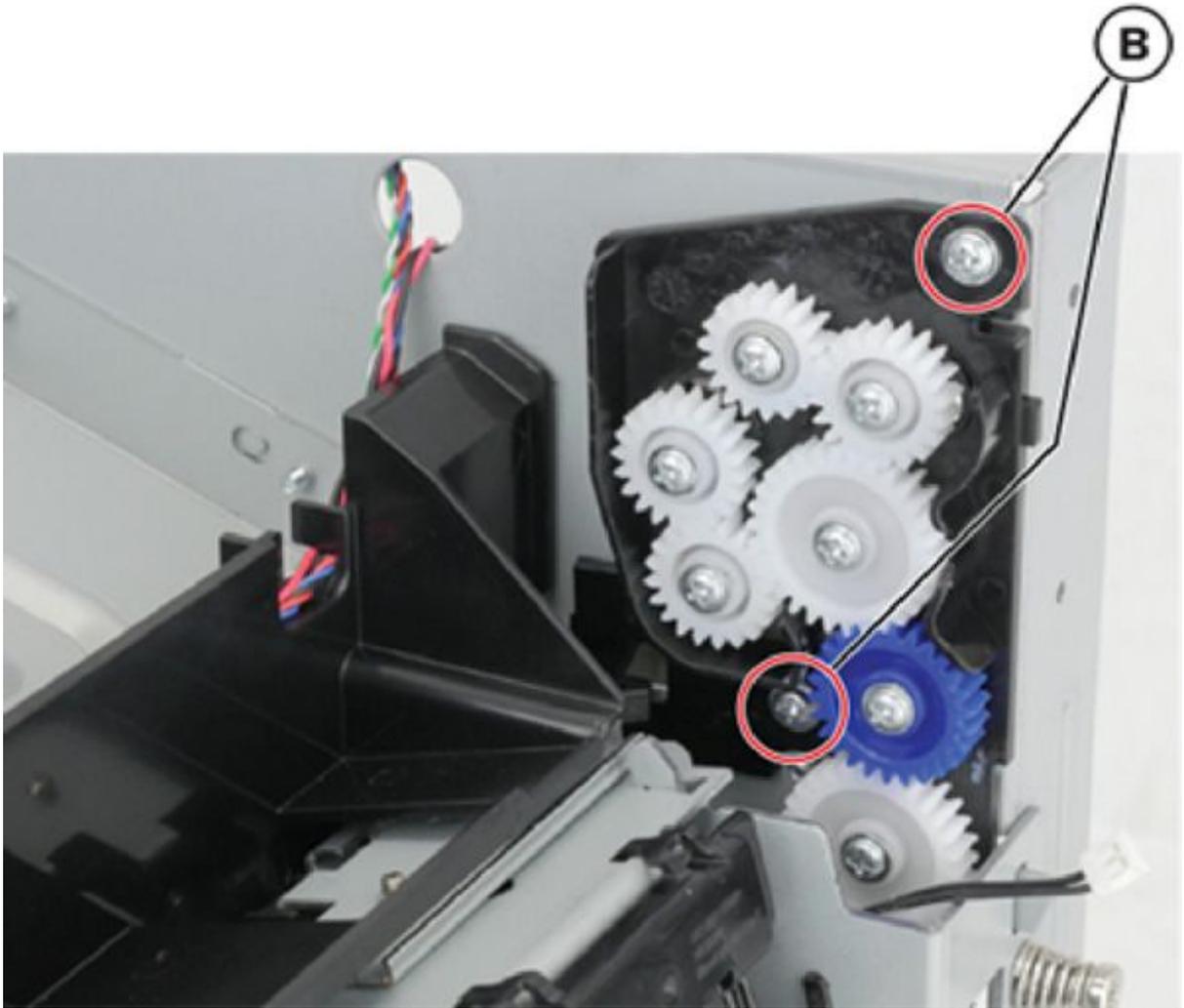
7. Remove the redrive gear.

Sensor (bin full) removal

1. Remove the right cover. See .
2. Remove the left cover. See .
3. Remove the rear cover. See .
4. Remove the top cover. See .
5. Remove the redrive. See .
6. Remove the two screws (A), and then remove the plate.

7. Remove the sensor.

Top removals

Top cover removal

1. Remove the right cover. See See "Right cover removal" on page 394.
2. Remove the control panel. See See "Control panel removal" on page 426.
3. Remove the control panel hinge. See See "Control panel hinge removal" on page 429.
4. Remove the fan. See See "Fan removal" on page 399.
5. Remove the flatbed scanner. See See "Flatbed scanner removal" on page 506.
6. Open the rear door, and then remove the screws (A).
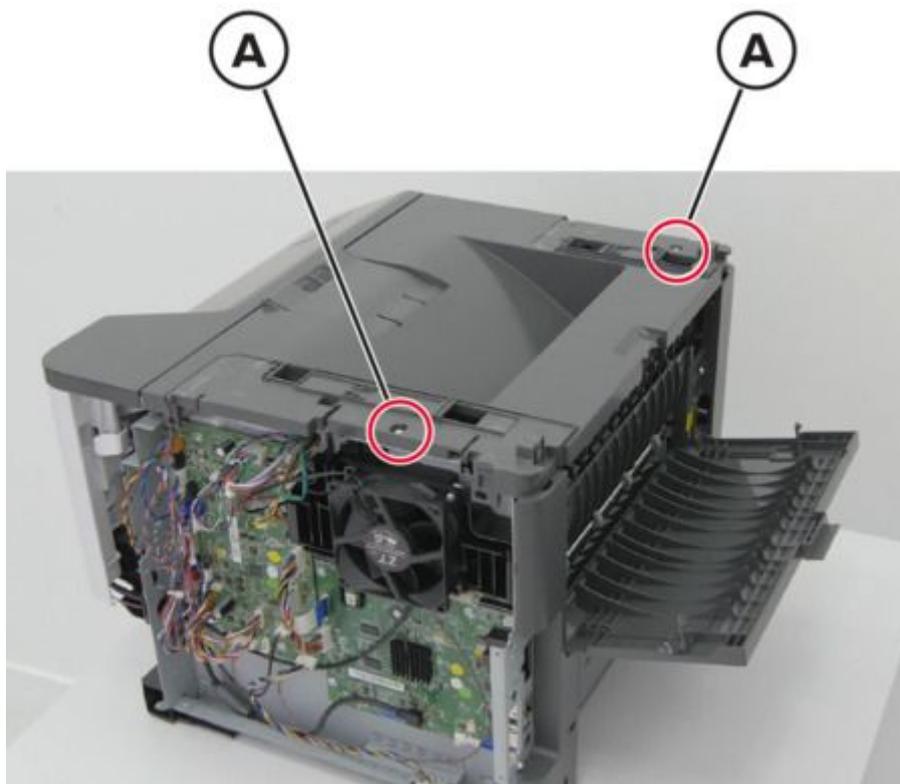
7. Open the front door, and then remove the screws (B).
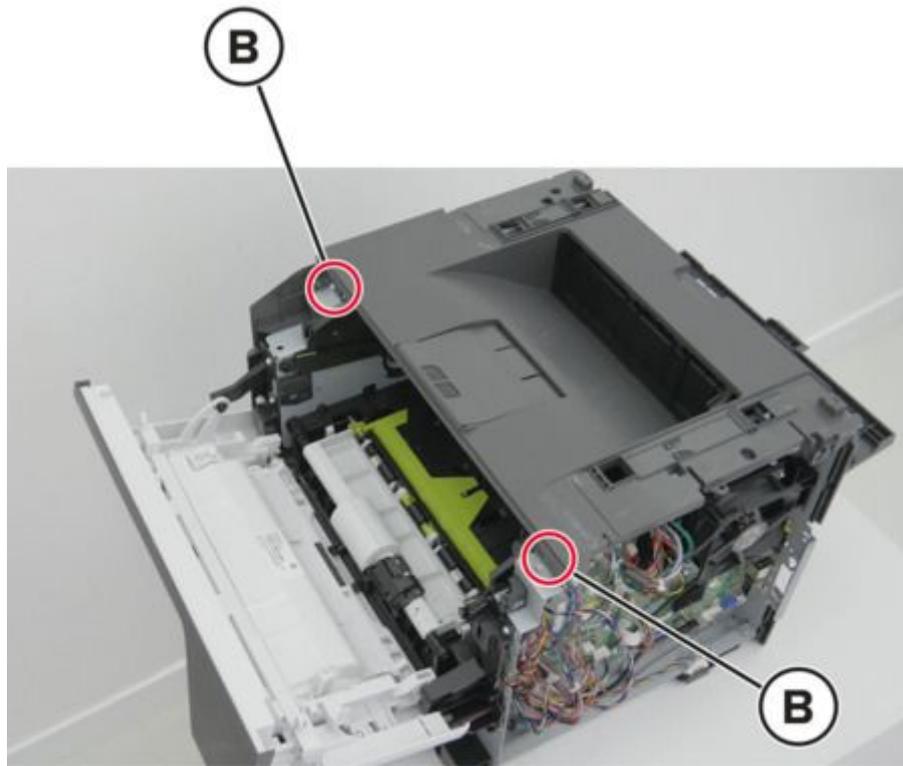
8. Release the latch (C).
9. Release the latch that is located underneath the cover (D).
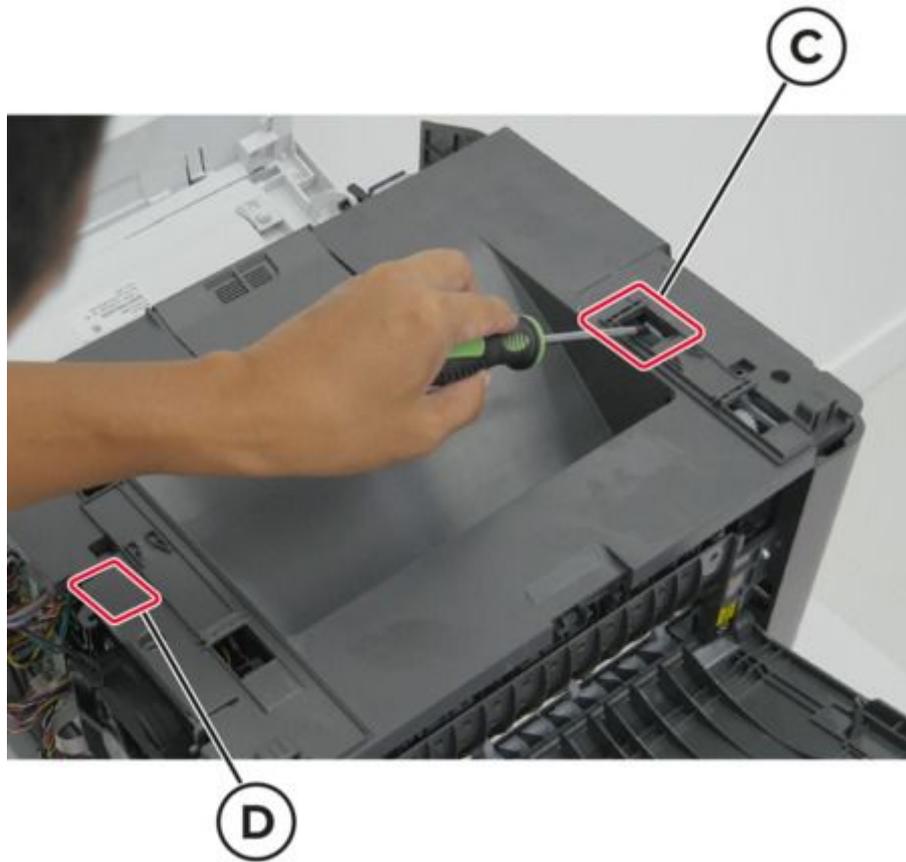
10. Remove the top cover.

Printhead removal

1. Remove the right cover. See See "Right cover removal" on page 394.
2. Remove the ADF. See See "ADF removal" on page 503.
3. Remove the control panel. See See "Control panel removal" on page 426.
4. Remove the control panel hinge. See See "Control panel hinge removal" on page 429.
5. Remove the fan. See See "Fan removal" on page 399.
6. Remove the flatbed scanner. See See "Flatbed scanner removal" on page 506.
7. Remove the top cover. See See "Top cover removal" on page 491.
8. Disconnect the printhead cable in the engine board.
9. Disconnect the connectors (A).
10. Remove the screws (B).
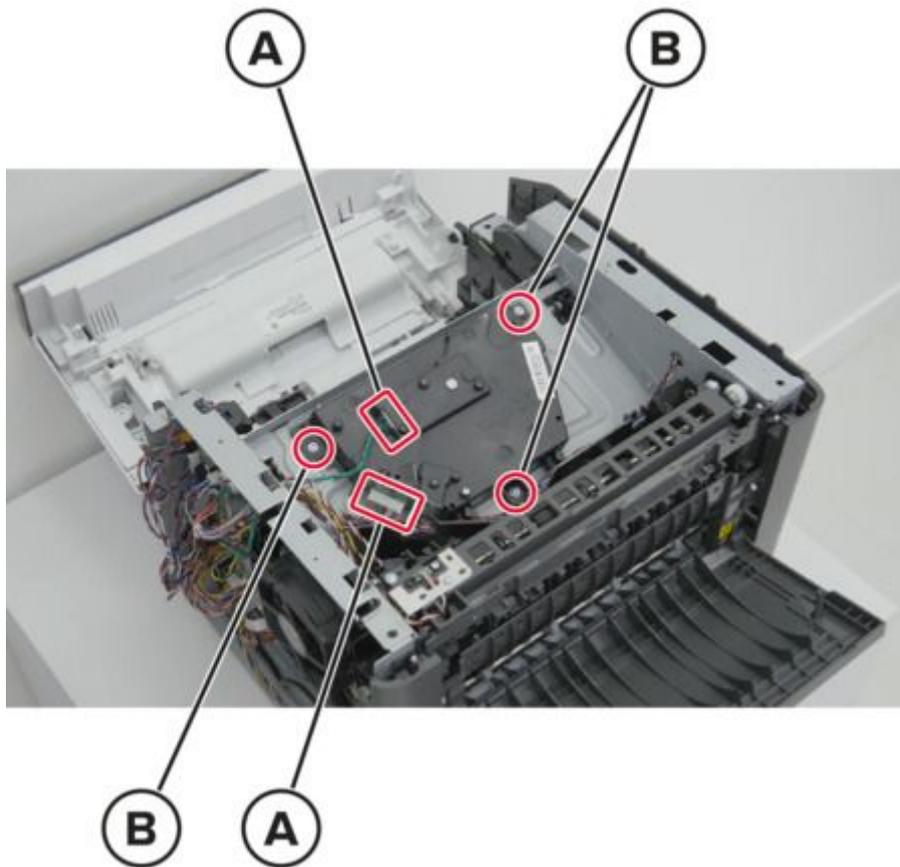
11. Remove the printhead.

ADF and flatbed scanner removals

ADF input tray removal

1. Release the two latches (A).
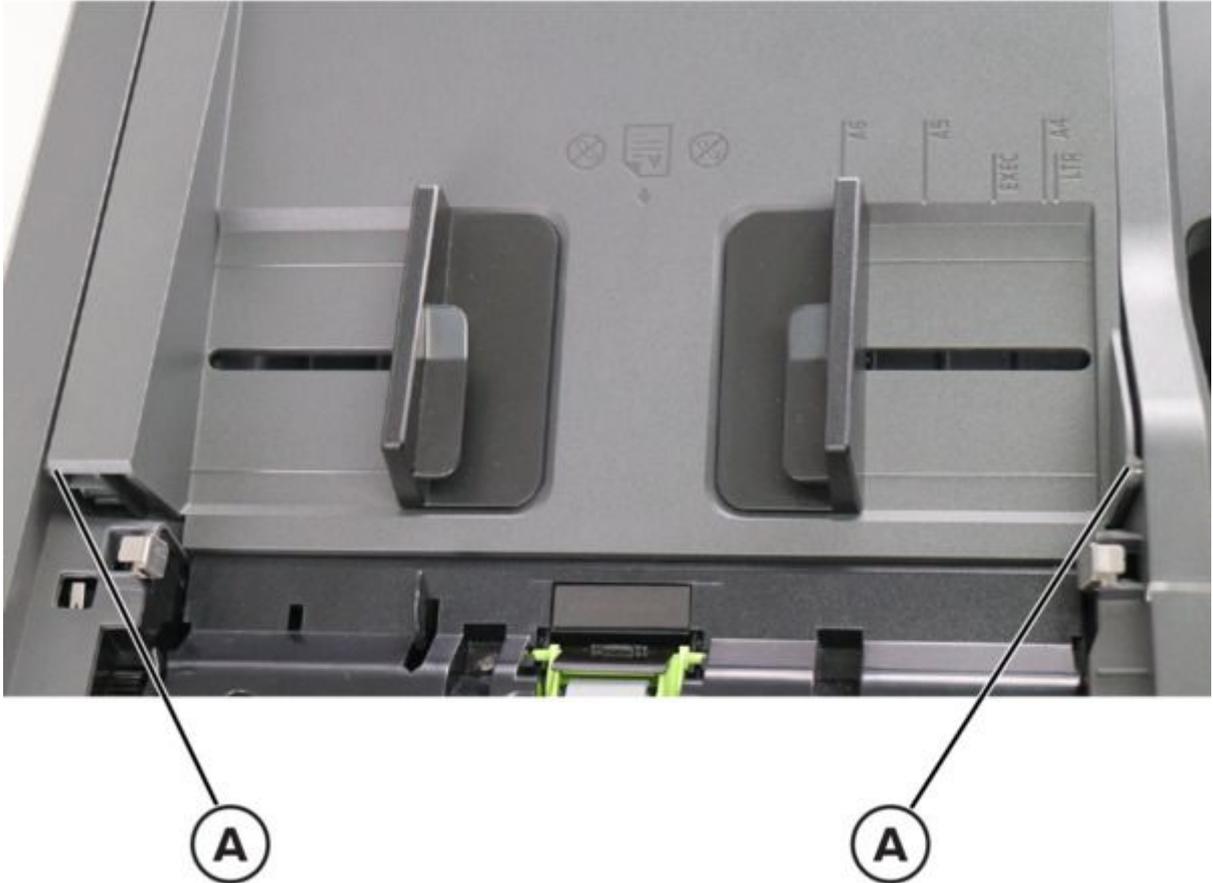
2. Remove the tray.

Scanner glass pad removal

1. Open the scanner cover.

2. Slowly remove the scanner glass pad.

   NOTES
   Make sure to avoid tearing the adhesive from the foam pad, or tear the foam itself.
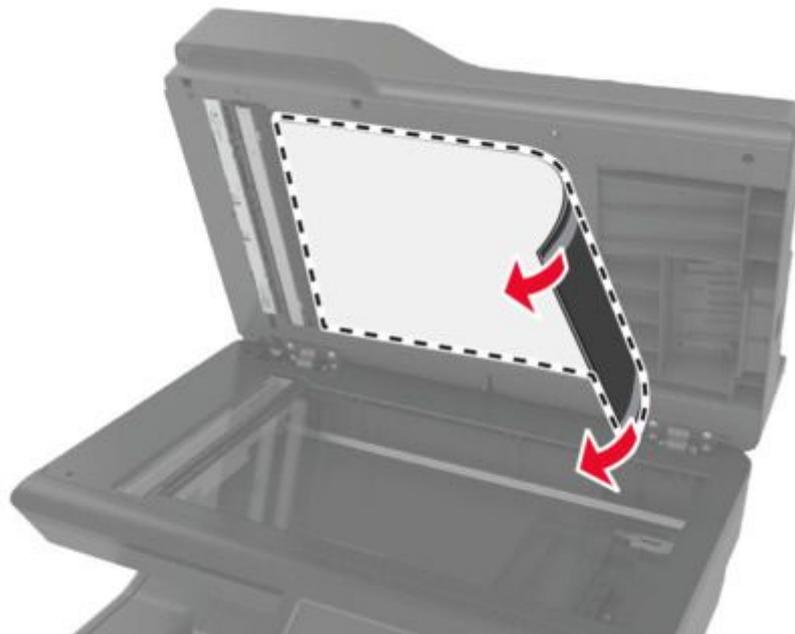
INSTALLATION NOTE

1. Place the white area of the new scanner glass pad facedown on the scanner glass, and then remove the backing on the tape.

NOTES

> Make sure that the scanner glass pad is aligned correctly on the edges of the scanner glass.

2. Close the scanner cover to stick the new scanner glass pad to the cover.

3. Open the scanner cover to check if the new scanner glass pad is properly attached to the cover.

ADF rollers removal

1. Open door C.

> **WARNING—POTENTIAL DAMAGE**
> To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.
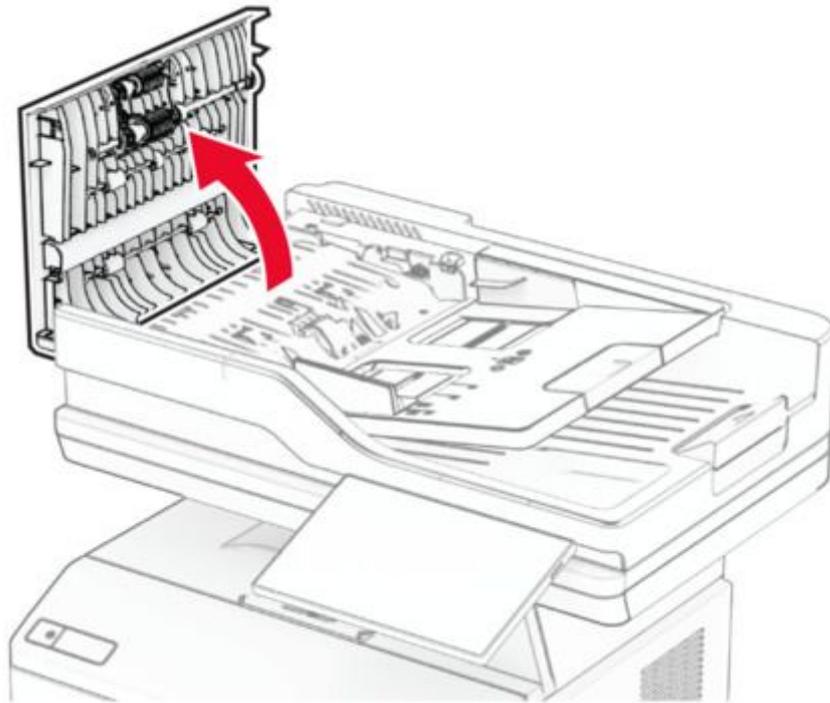
2. Remove the ADF pick roller.
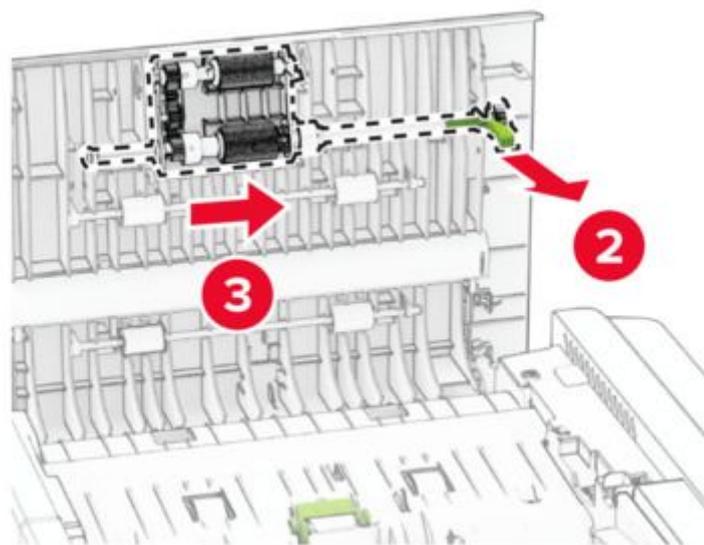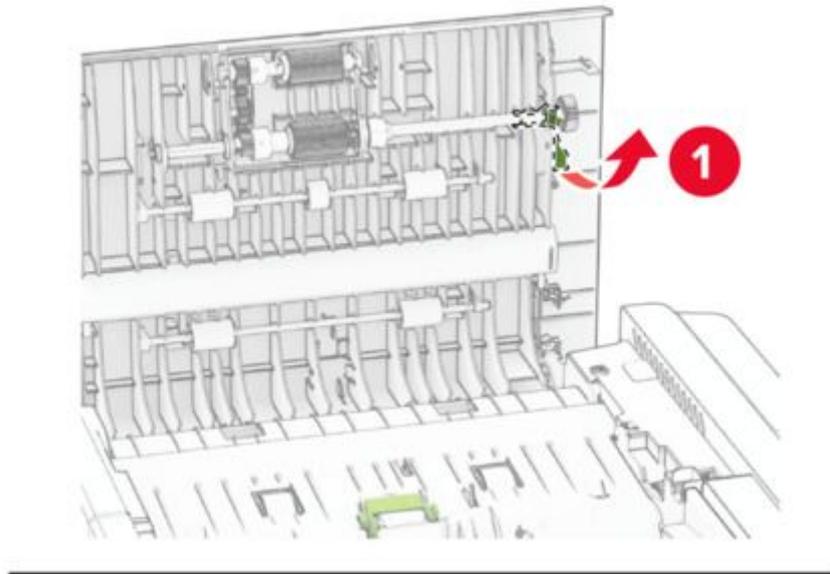
3. Remove the ADF separator roller.
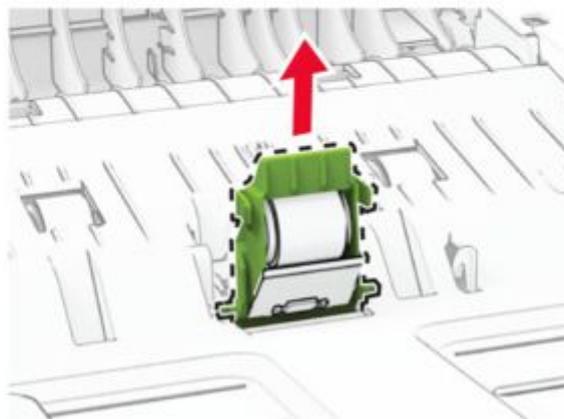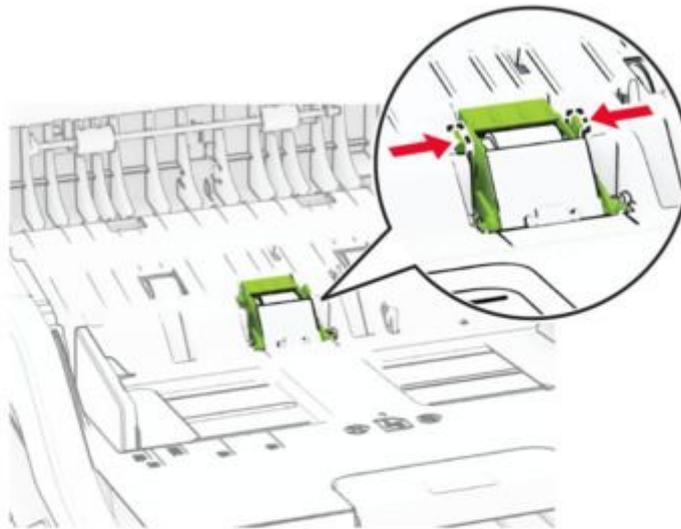
INSTALLATION WARNING
To avoid damage and poor printer performance, make sure that your hands are clean when handling the parts.

ADF removal

NOTES
For a video demonstration, see ADF removal.

1. Release the latches, and then remove the cover.

2. Disconnect the FFC (A).

3. Slightly lift the ADF, and then disconnect the cables (B).
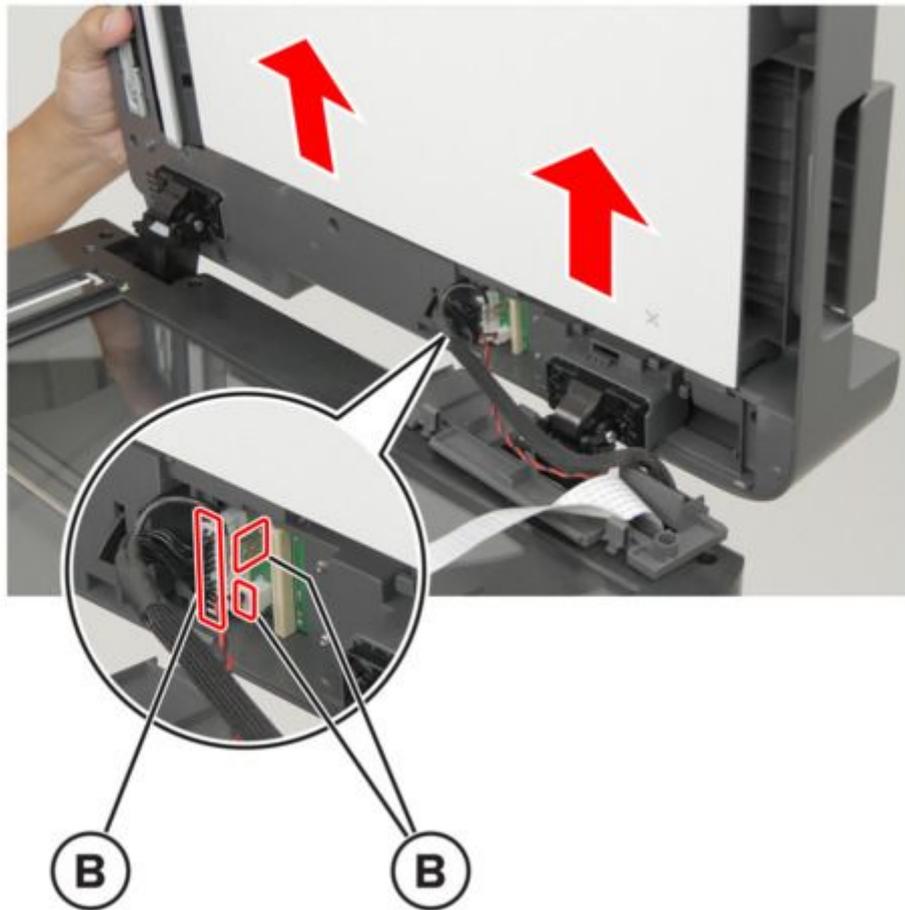
> **NOTE**
> Depending on the printer model, the cables may vary.

4. Remove the ADF.

Flatbed scanner removal

NOTES
For a video demonstration, see Flatbed scanner removal.

1. Remove the right cover. See See "Right cover removal" on page 394.
2. Remove the ADF. See See "ADF removal" on page 503.
3. Remove the control panel hinge. See See "Control panel hinge removal" on page 429.
4. Release the control panel hinge (A).

5. Remove the top front cover (B).
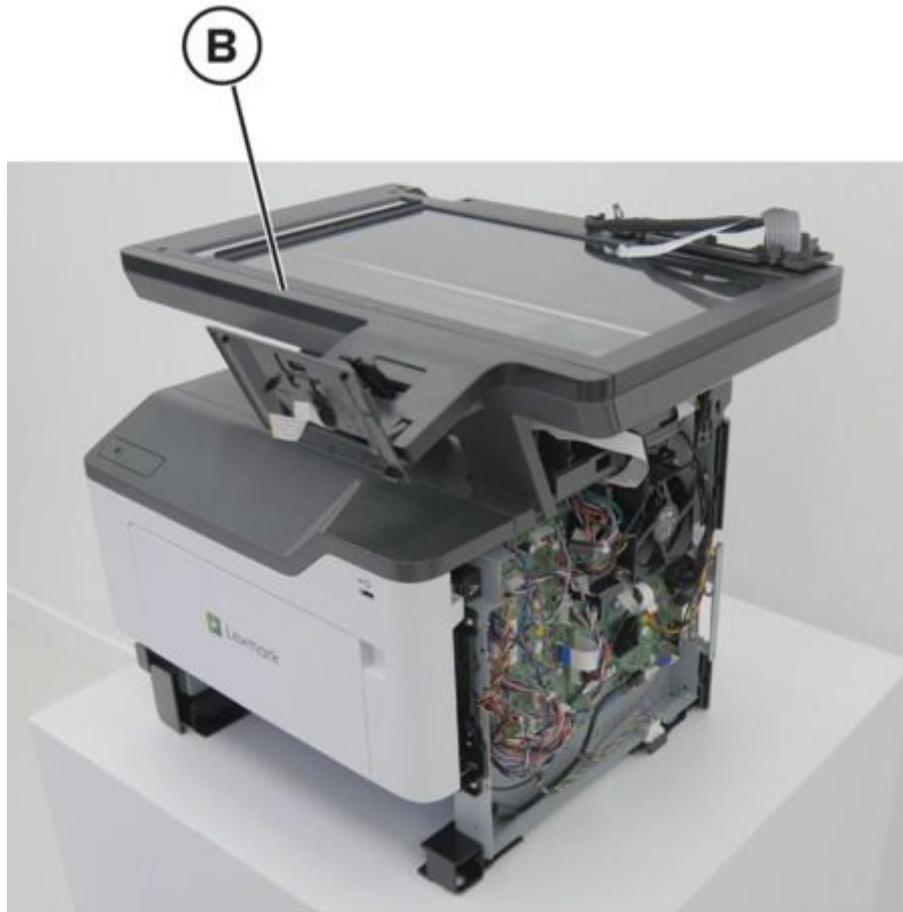
6. Remove the screws (C).
7. Unroute the cables (D).
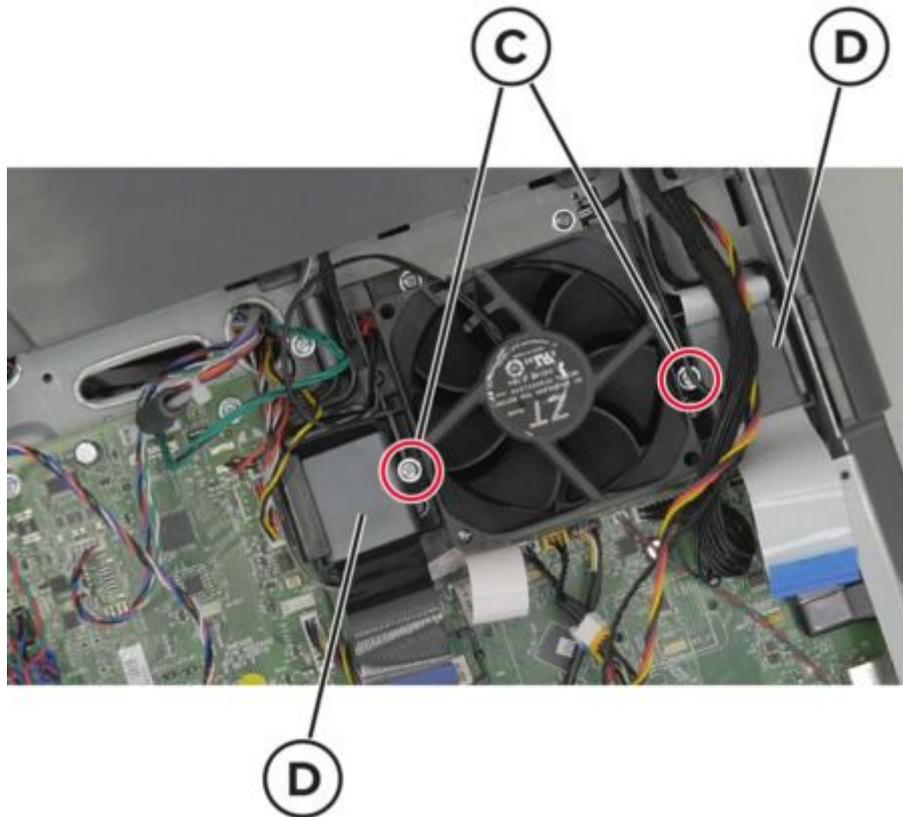
8. Remove the screw (E).
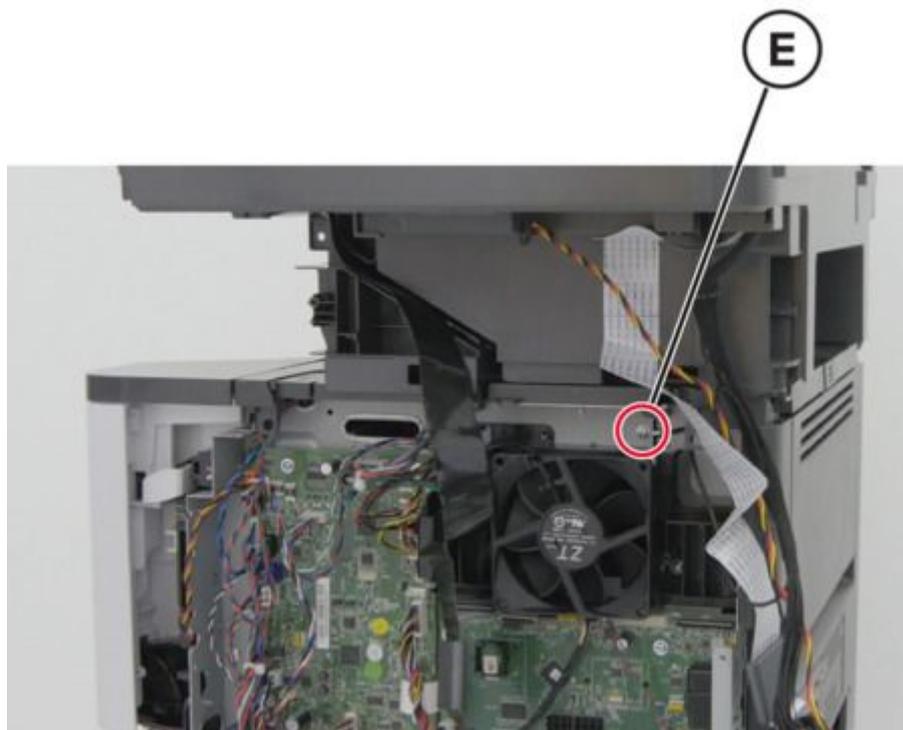
9. Remove the flatbed scanner.

ADF top cover removal

1. Open door C.

   WARNING—POTENTIAL DAMAGE

   To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.
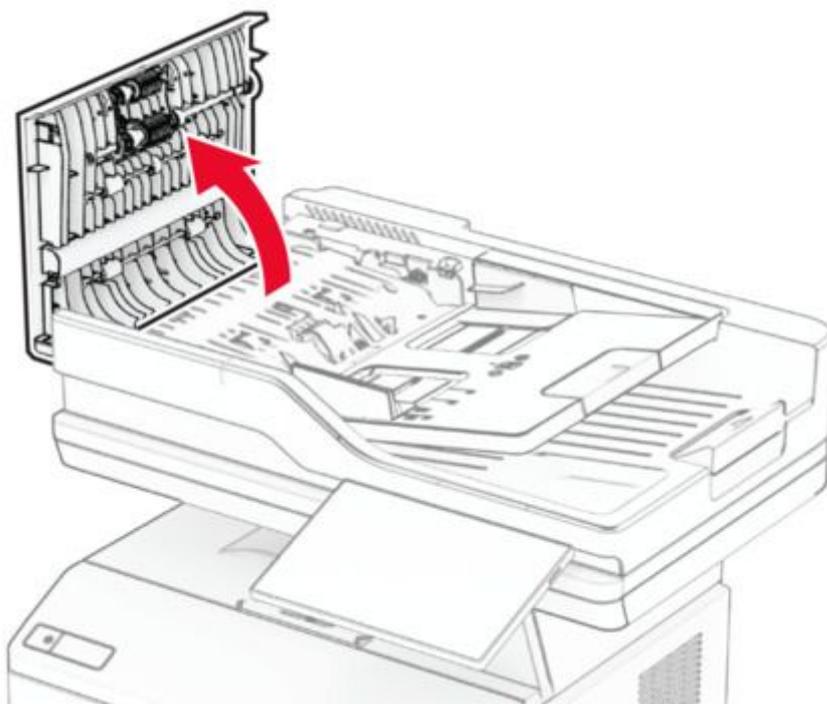
2. Disconnect the cable (A).

3. Using a flat-blade screwdriver, release the hinges (B).
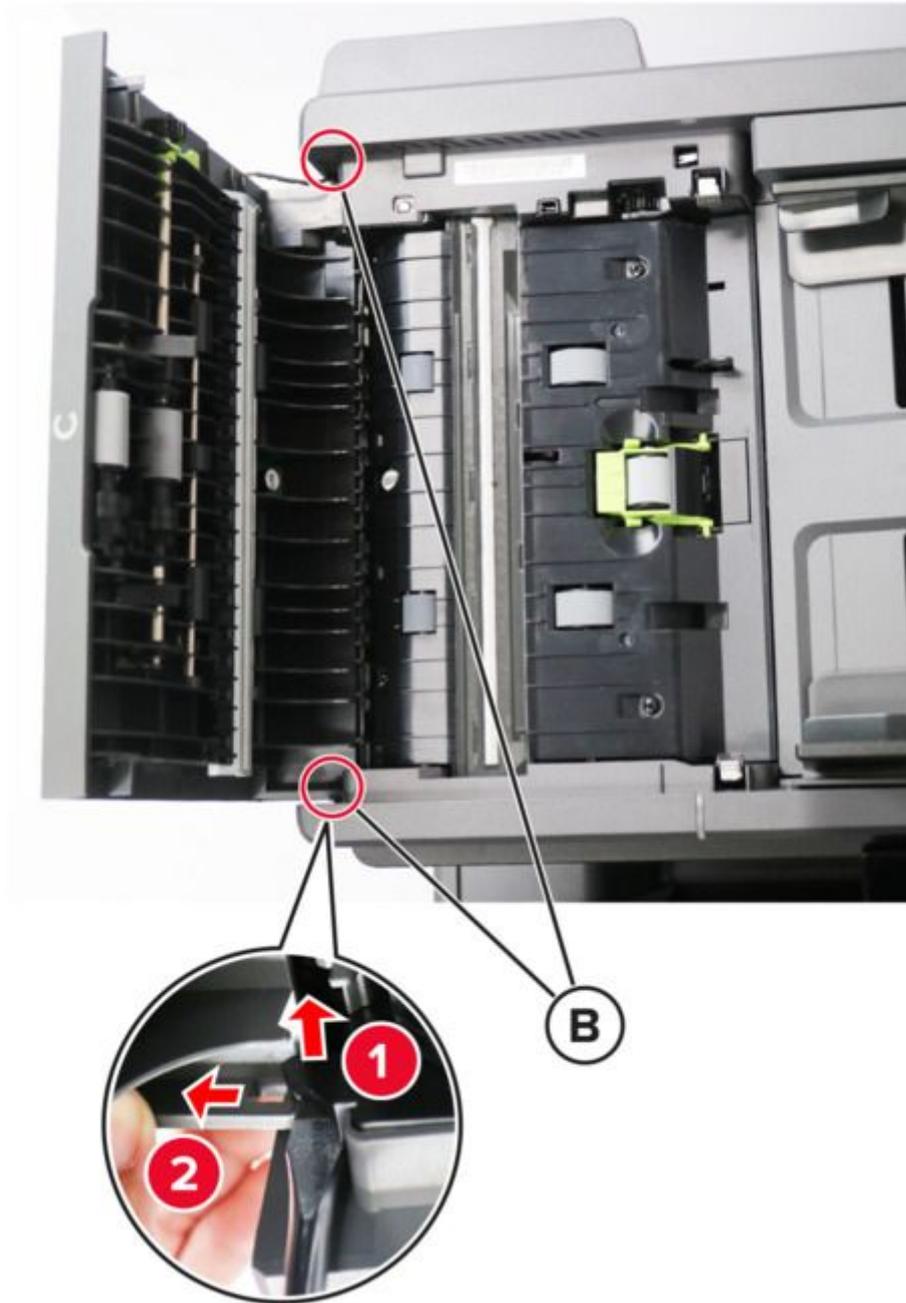
4. Remove the cover.

ADF right hinge removal

1. Remove the ADF. See .
2. Remove the four screws (A), and then remove the hinge.

ADF left hinge removal

1. Remove the ADF. See See "ADF removal" on page 503.
2. Remove the four screws (A), and then remove the hinge.
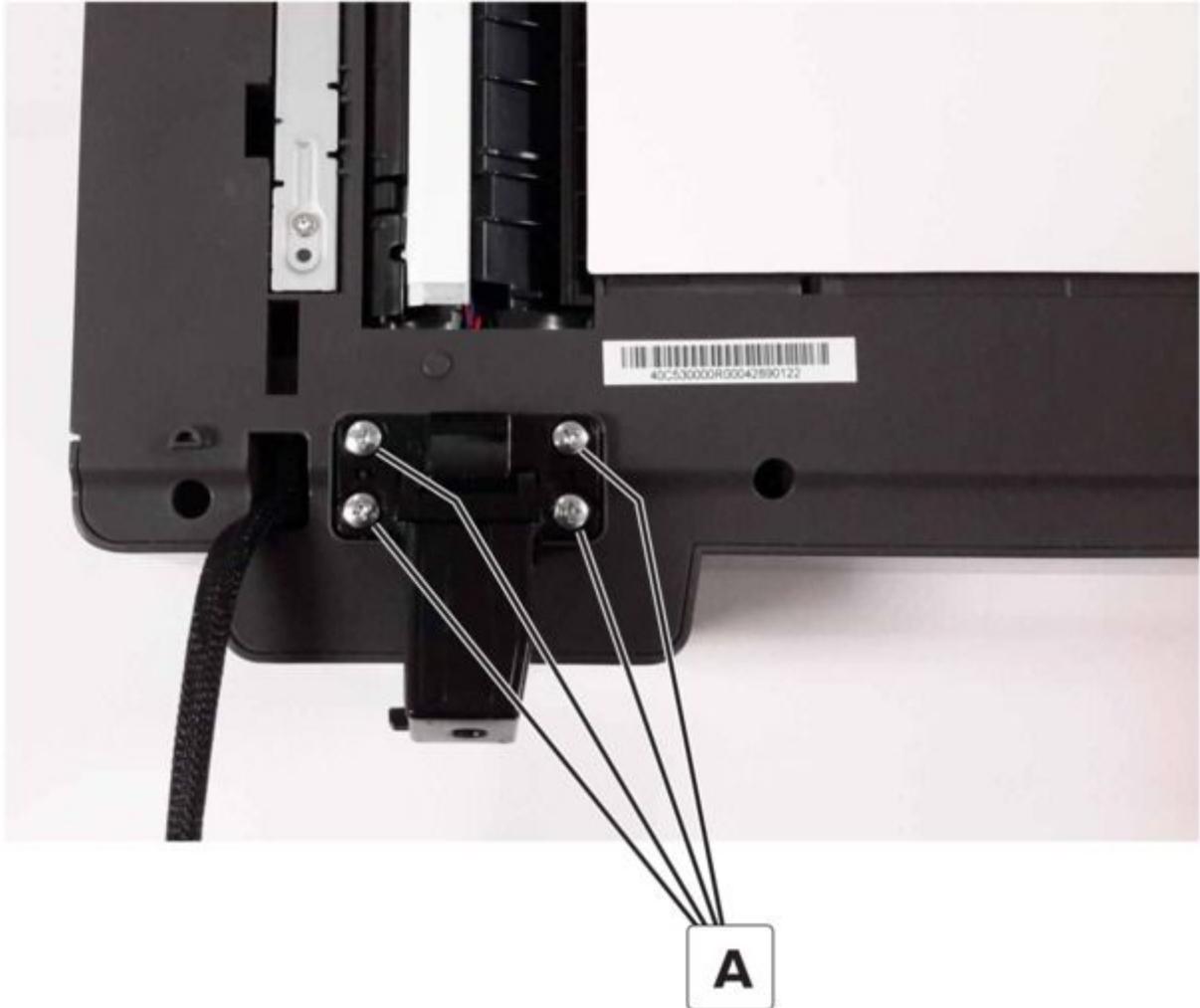
Scanner access covers removal

1. Remove the cover (A).

2. Remove the cover (B).
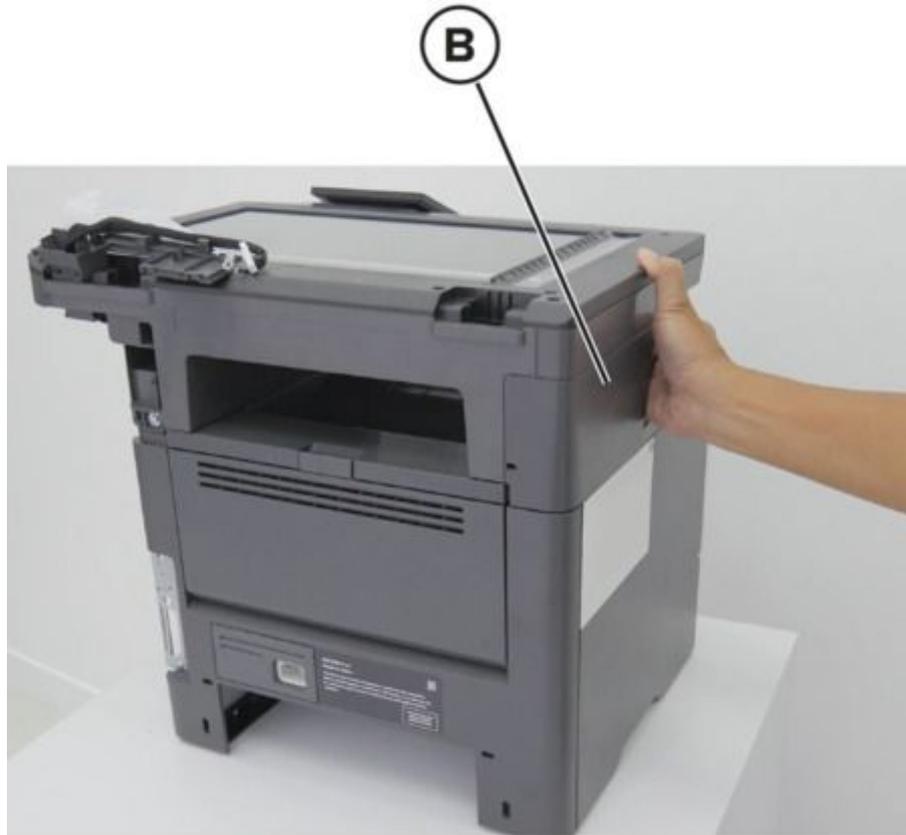
Optional 550-sheet tray removals

Separator roller removal

1. Remove the tray insert.
2. Under the tray, remove the screw (A).
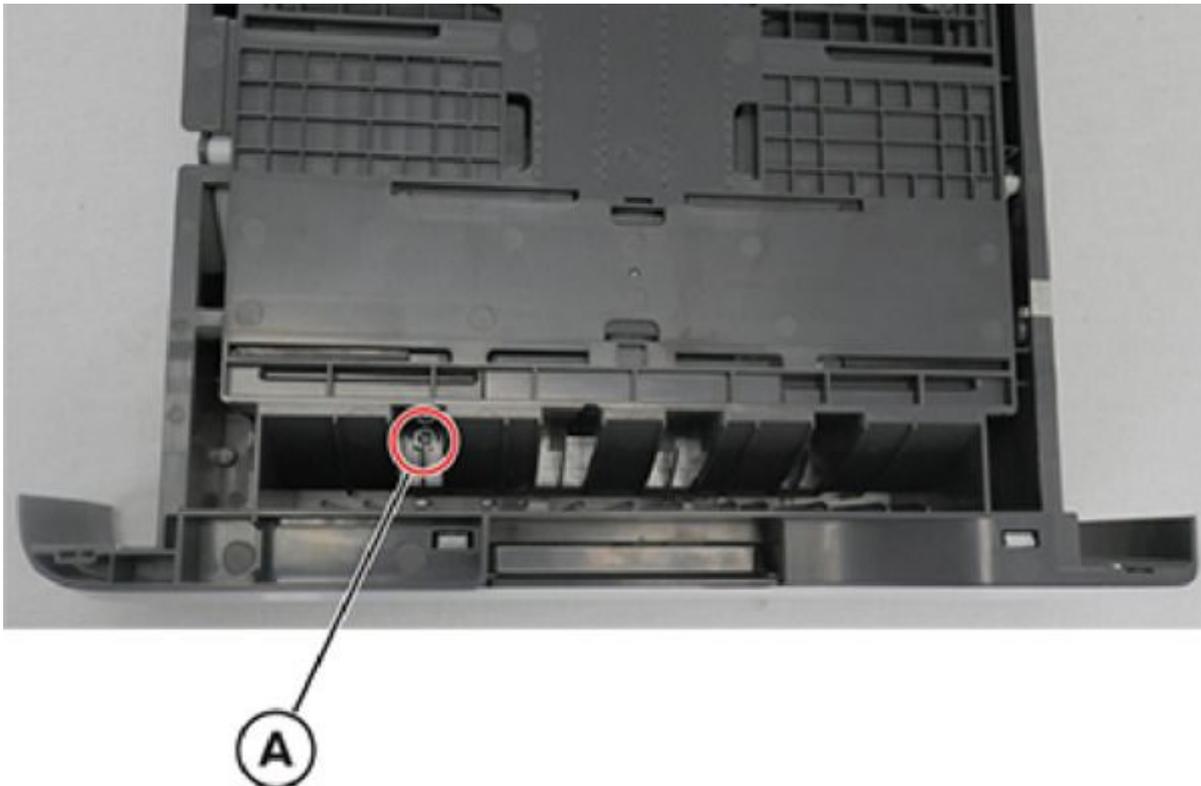
3. Remove the screw (B) on the left side. Do the same for the screw (C) on the opposite side.
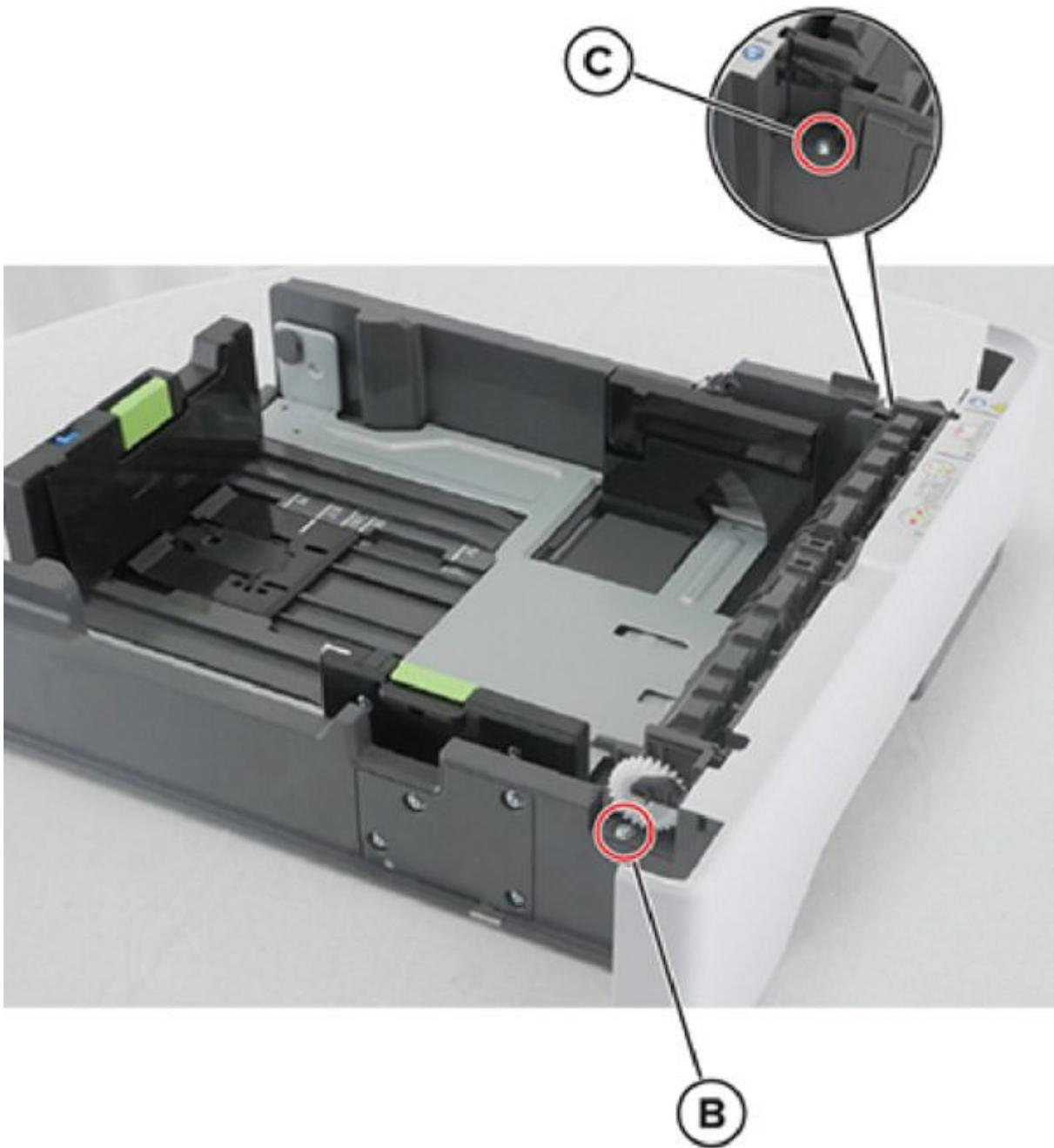
4. Remove the roller.

Replacing parts and supplies

Replacing the toner cartridge

Install a new toner cartridge when you continue to see faded prints.

1. Open door A.
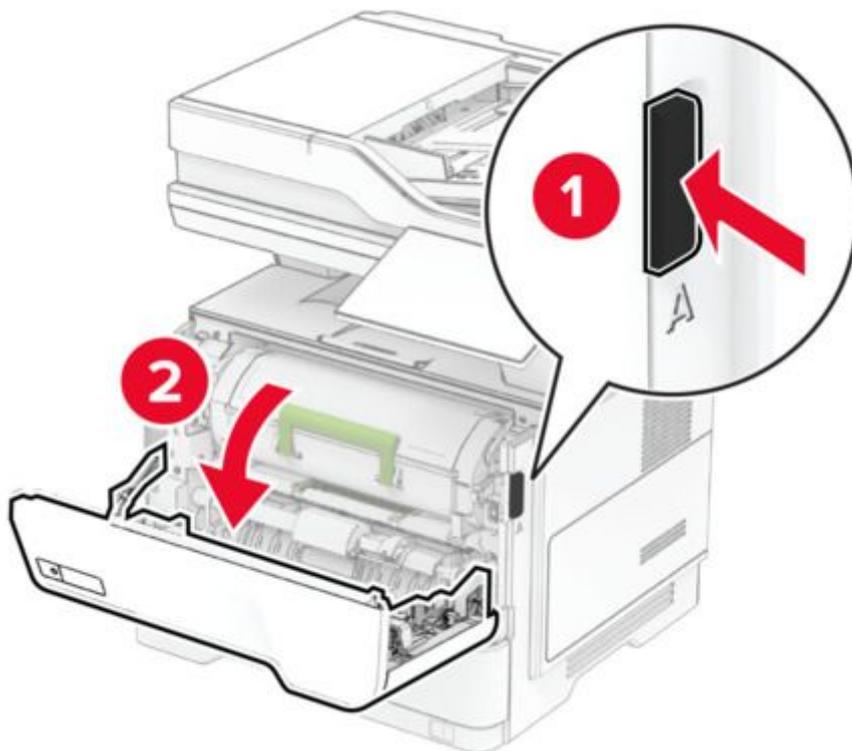
2. Remove the used toner cartridge.
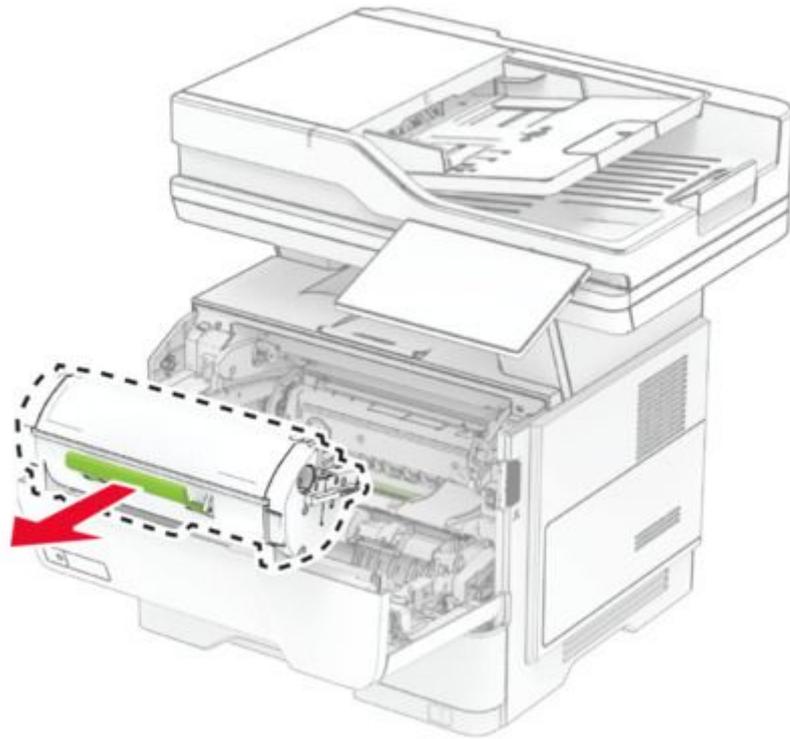
3. Unpack the new toner cartridge.
4. Shake the toner cartridge to redistribute the toner.
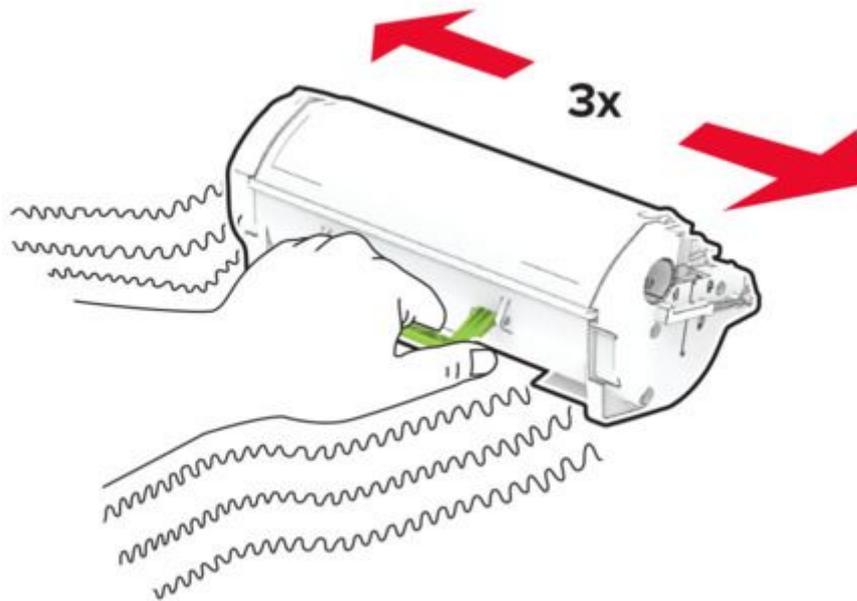
5. Insert the new toner cartridge.
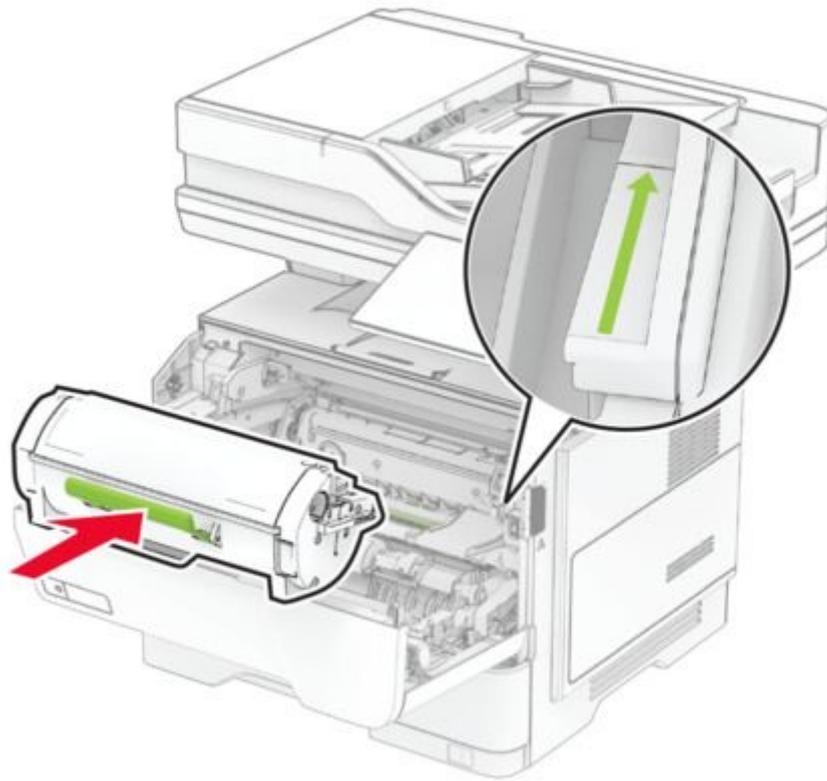
6. Close door A.

Replacing the imaging unit

Avoid printing delays. Install a new imaging unit when the printer prompts you to replace it.

1. Open door A.
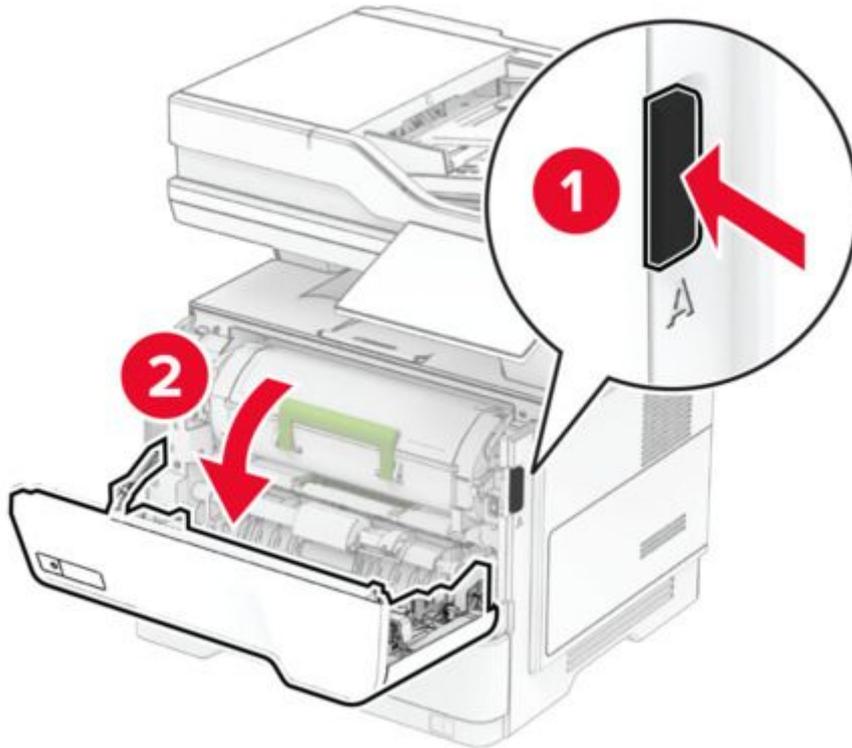
2. Remove the toner cartridge.
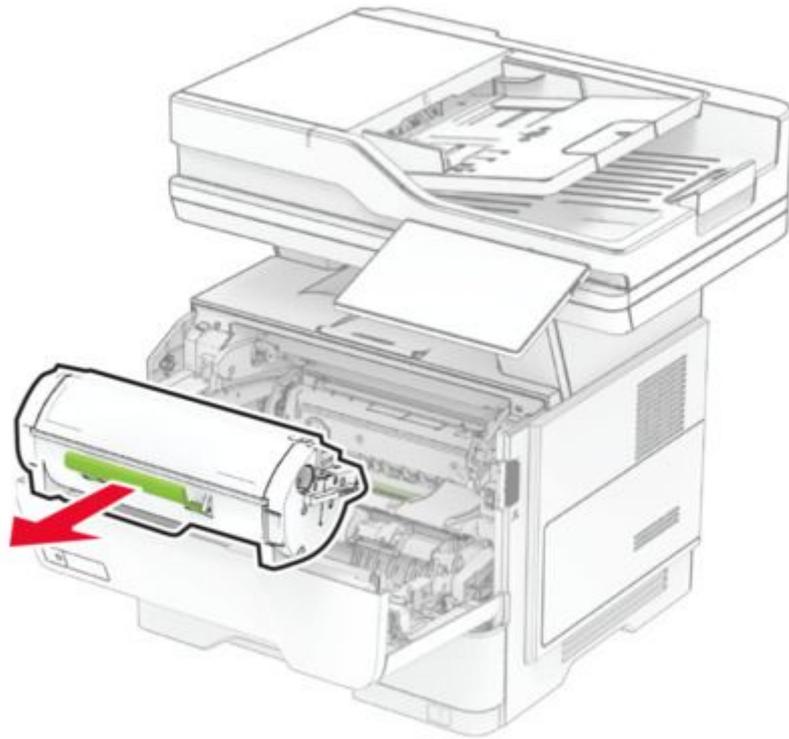
3. Remove the used imaging unit.
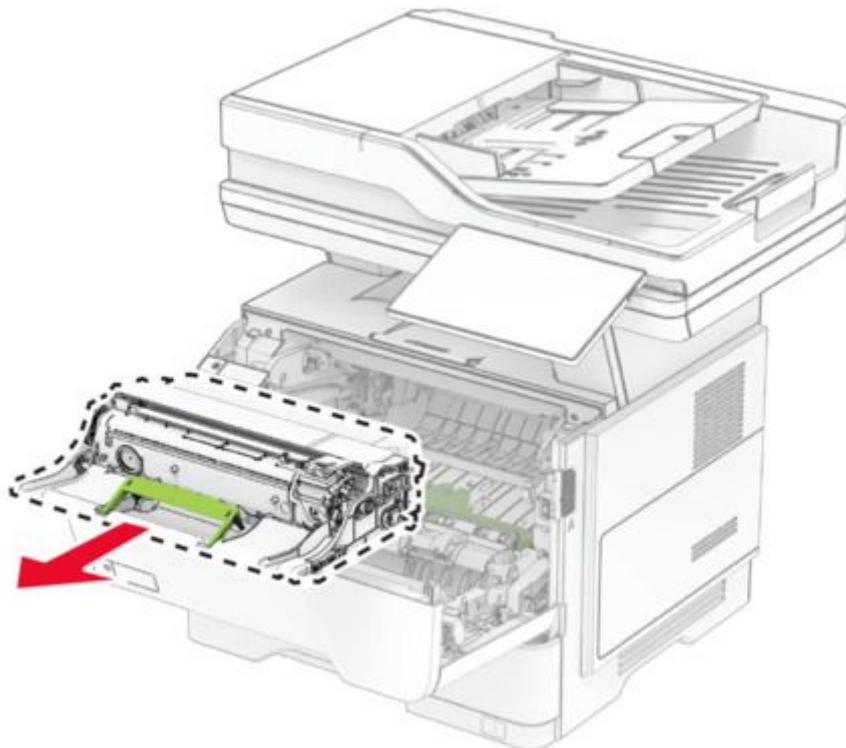
4. Unpack the new imaging unit.
5. Shake the imaging unit to redistribute the toner.
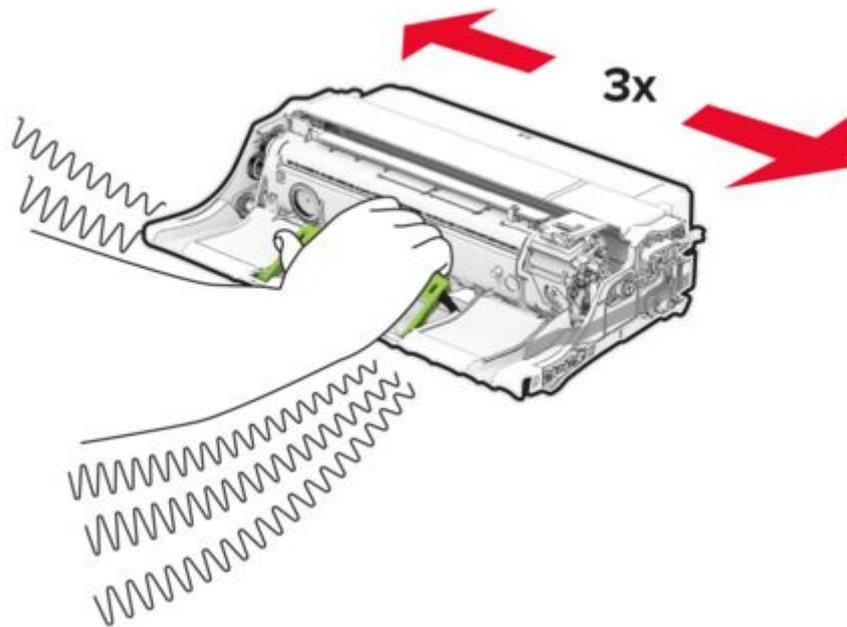
> **WARNING—POTENTIAL DAMAGE**
> Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.

> **WARNING—POTENTIAL DAMAGE**
> Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.

6. Insert the new imaging unit.
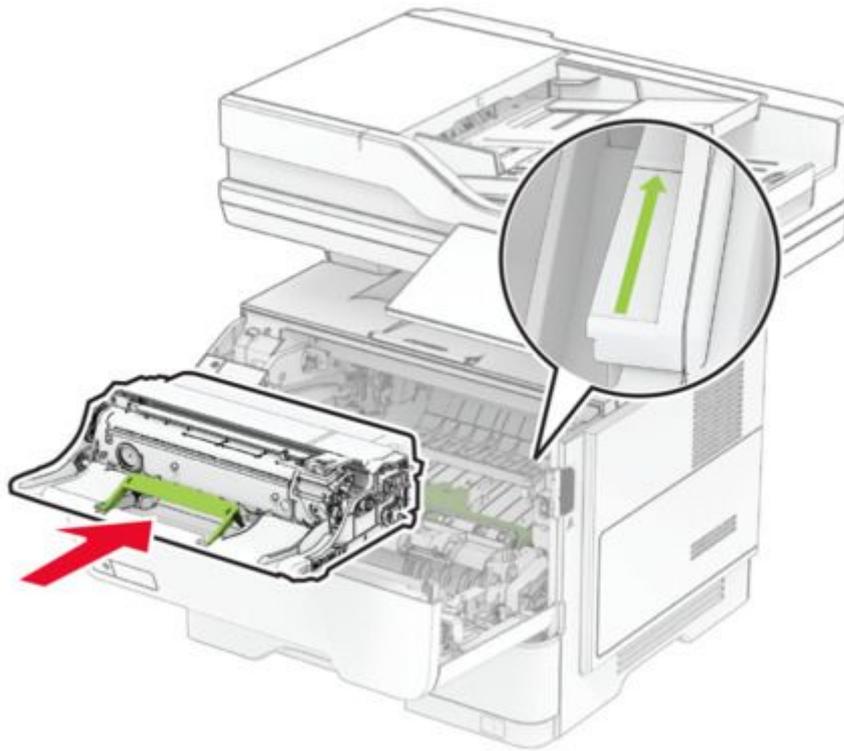
7. Insert the toner cartridge.
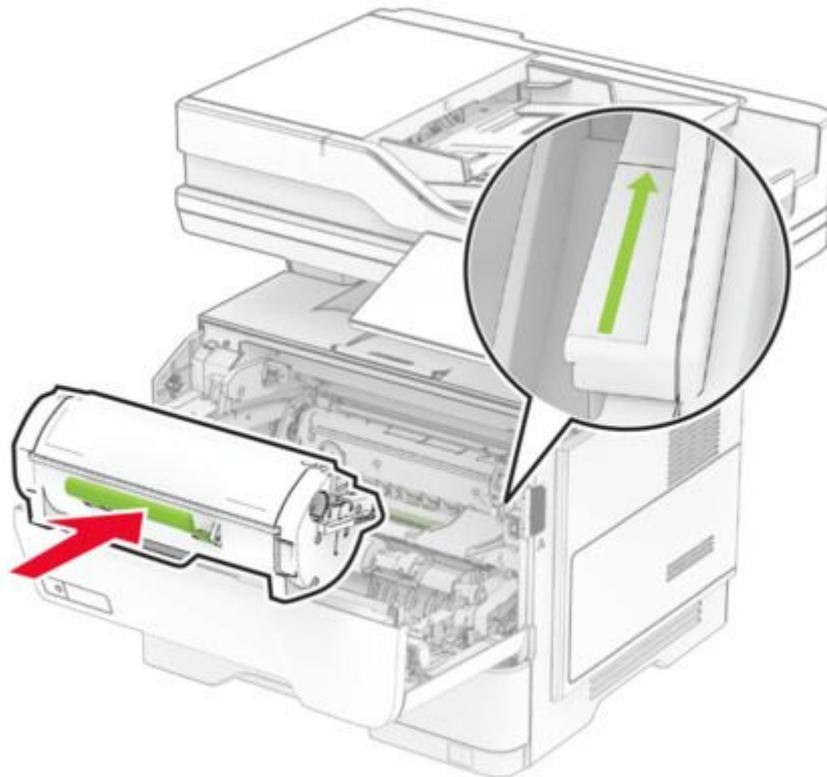
8. Close door A.

Replacing the staple refill

Learn how to replace the staple refill of the convenience stapler.

1. Open the convenience stapler access door.
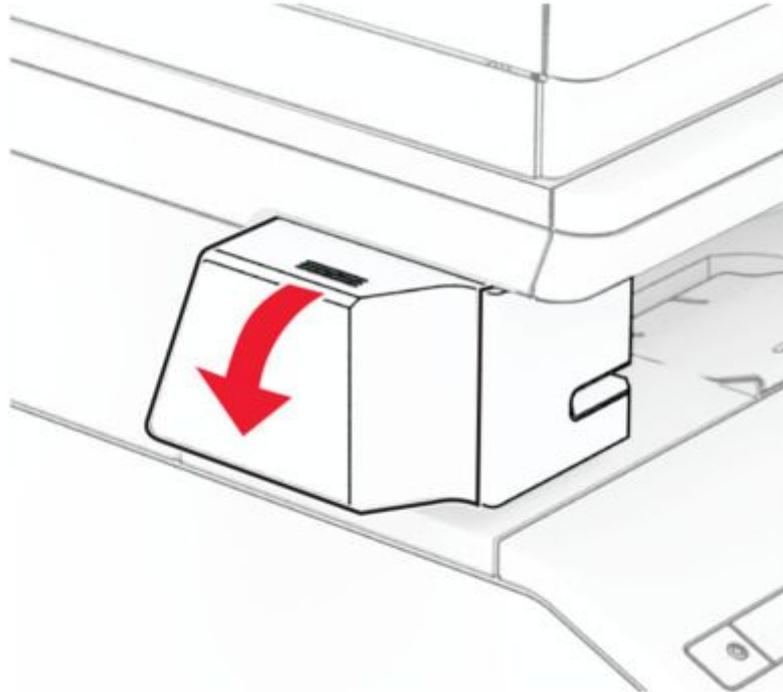
2. Remove the staple cartridge.
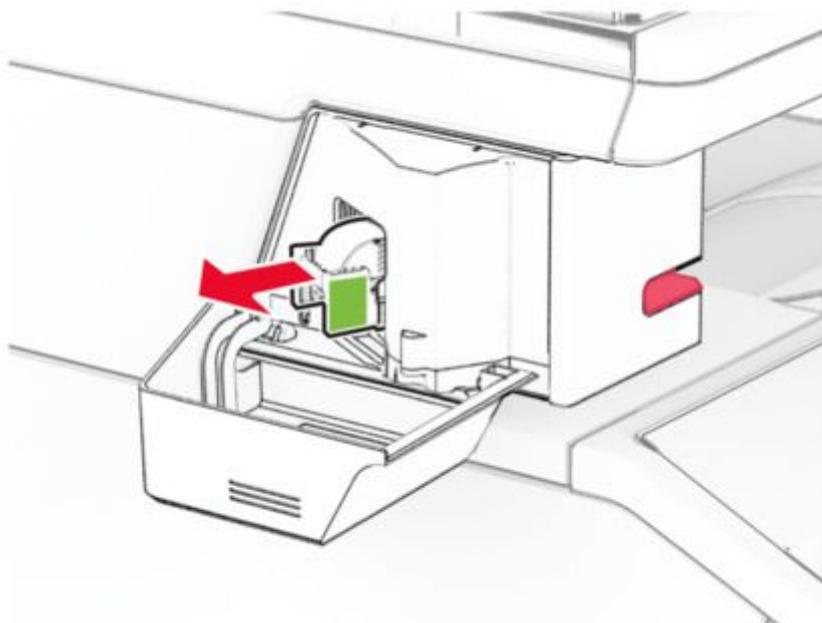
3. Remove the empty staple refill.
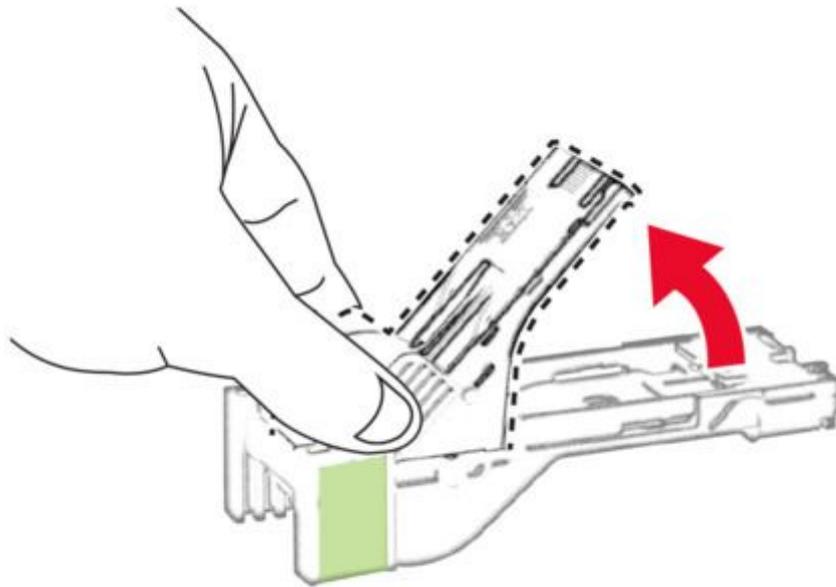
4. Insert the new staple refill until it clicks into place.
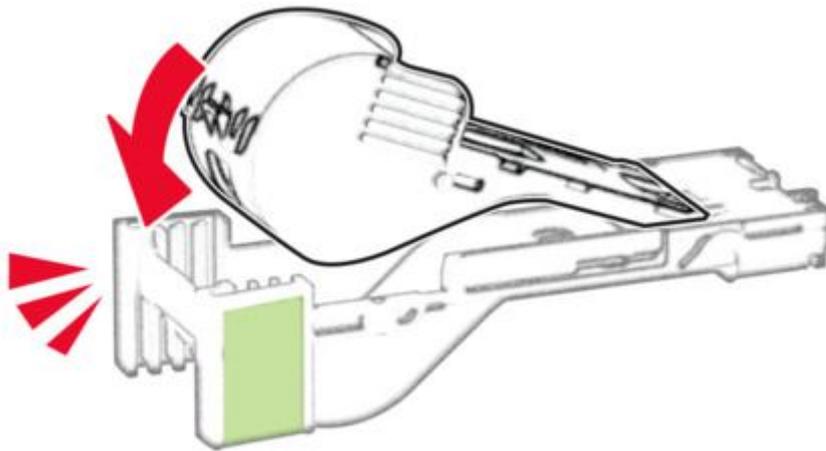
5. Insert the staple cartridge, and then close the convenience stapler access door.
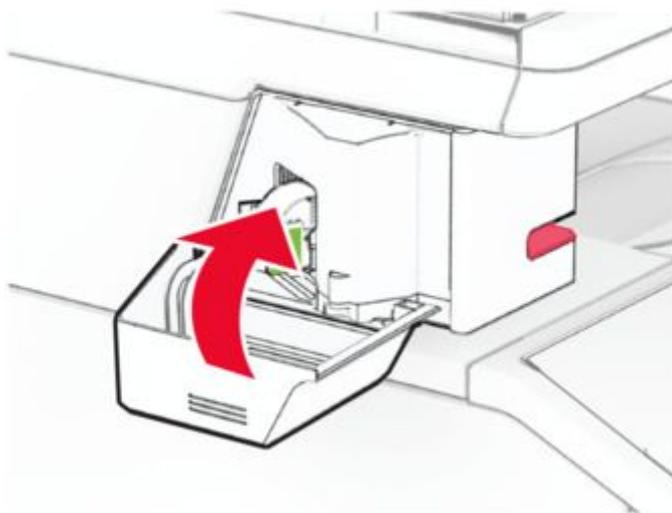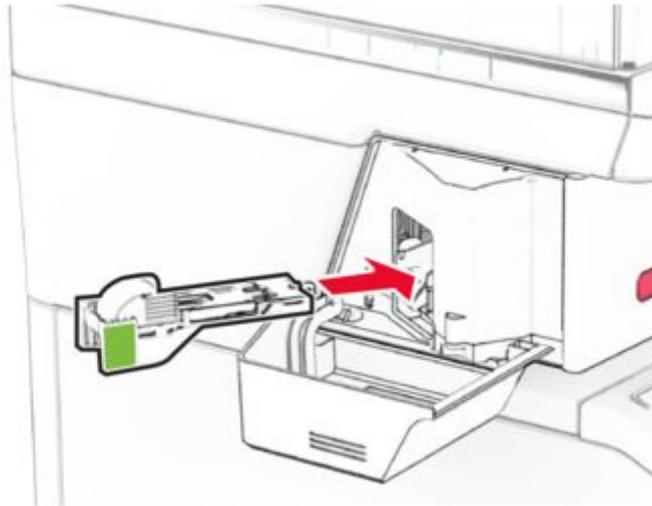
NOTES
Check the LED indicator status. The convenience stapler is ready to use when the blue light comes on.

Replacing the convenience stapler power supply

Learn how to change the power supply of the convenience stapler.

1. Turn off the printer.
2. Unplug the power cord from the electrical outlet, and then from the printer.
3. Unplug the power supply from the electrical outlet.
4. Remove the column cover and power supply cable.
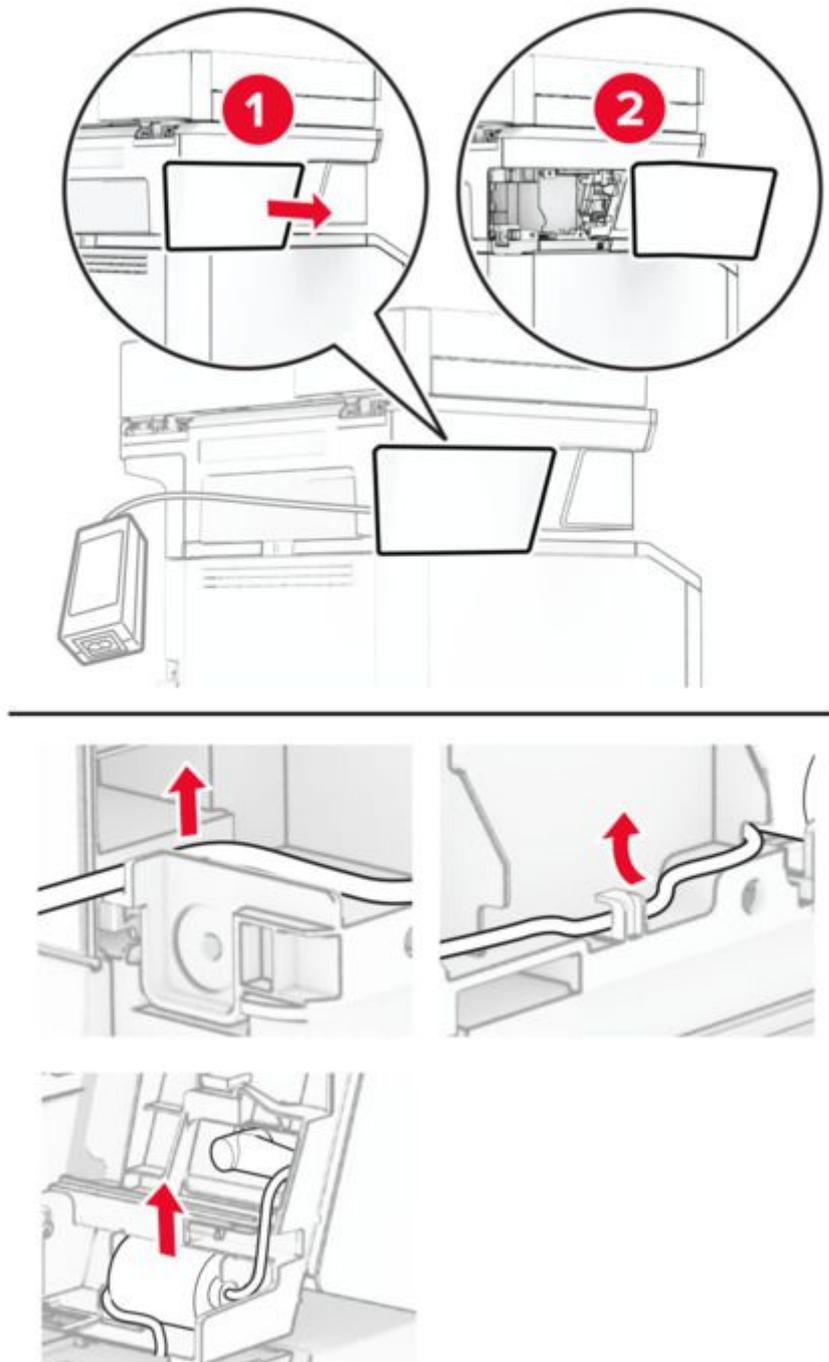
5. Remove the convenience stapler.
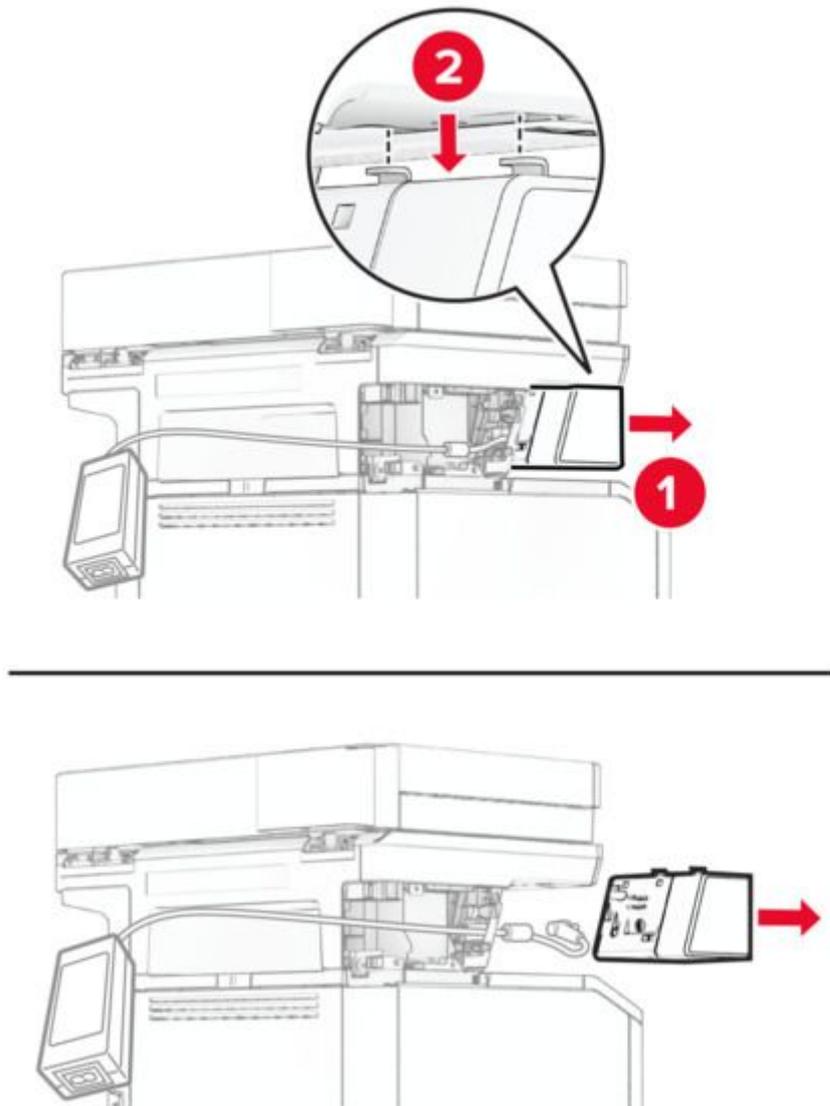
6. Remove the used power supply.
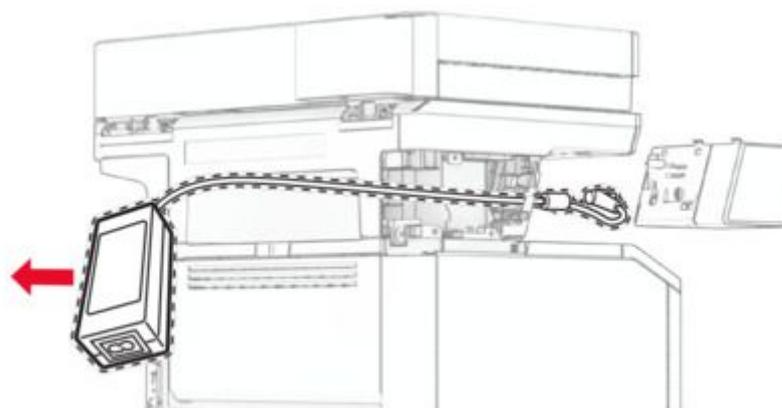
7. Unpack the new power supply.
8. Insert the new power supply through the printer, and then connect it to the convenience stapler.
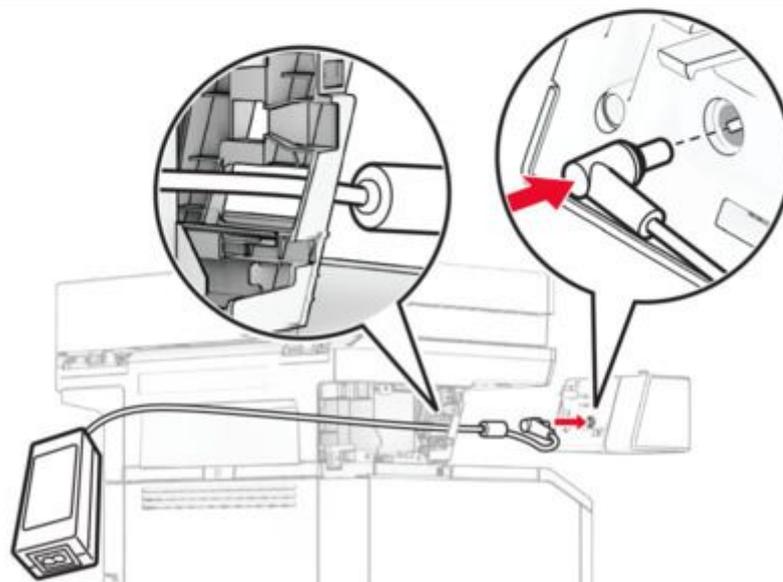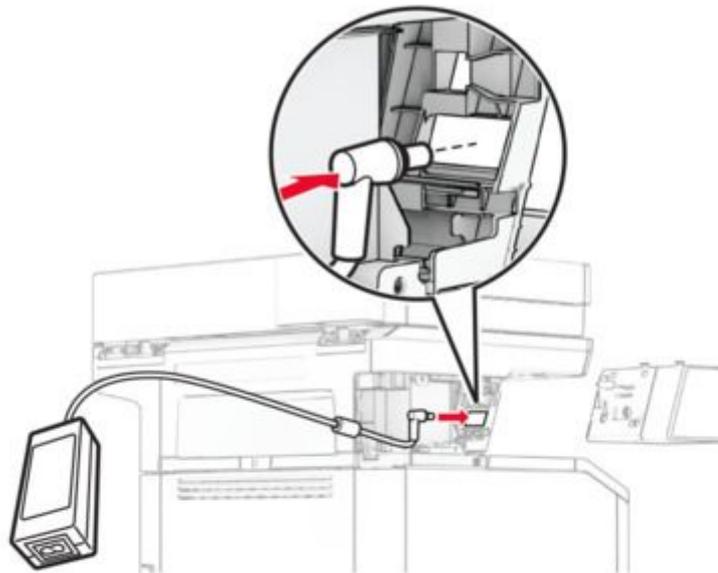
9. Install the convenience stapler.
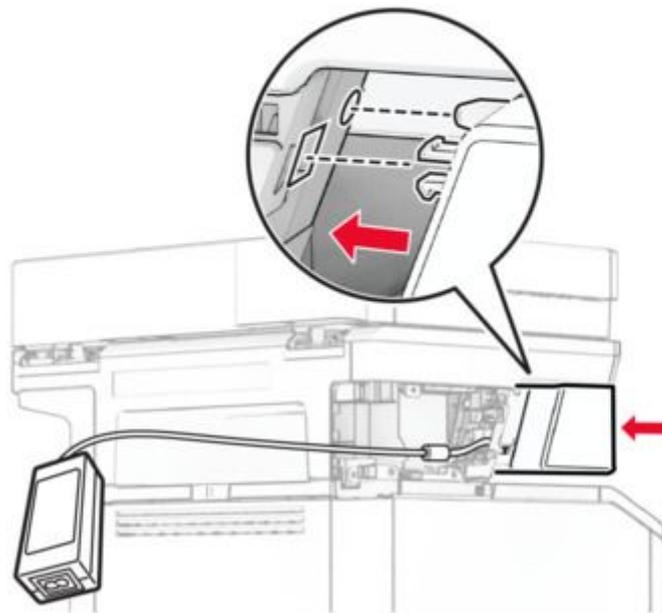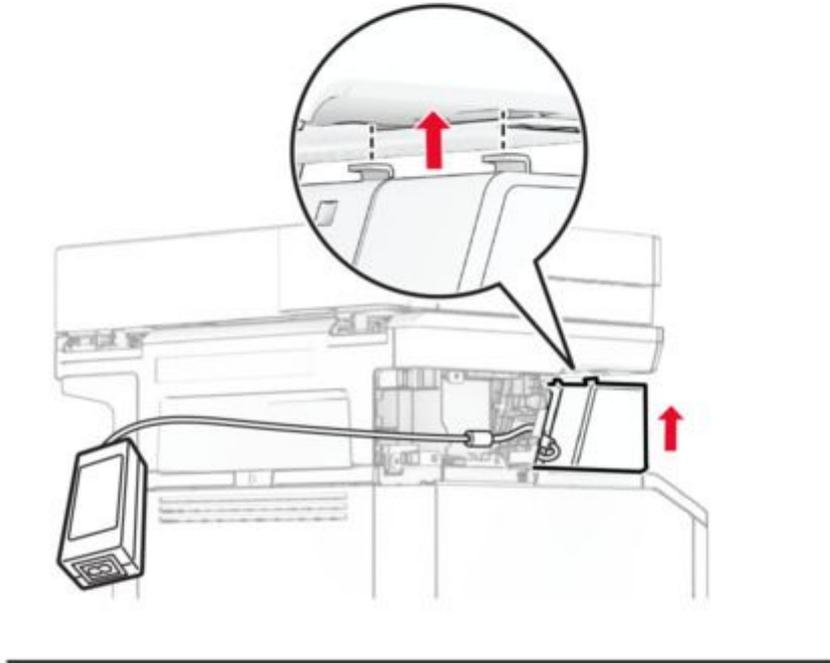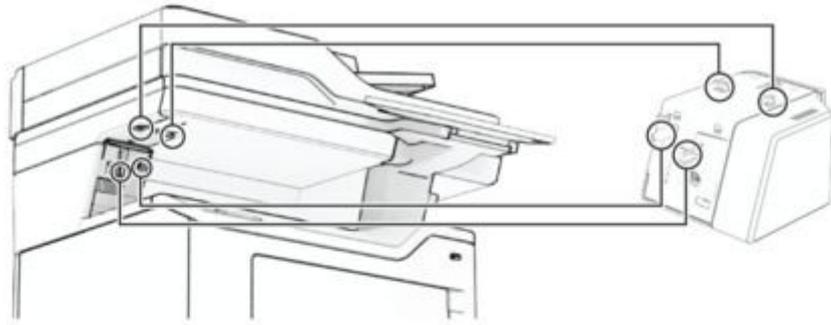
10. Position the power supply properly.
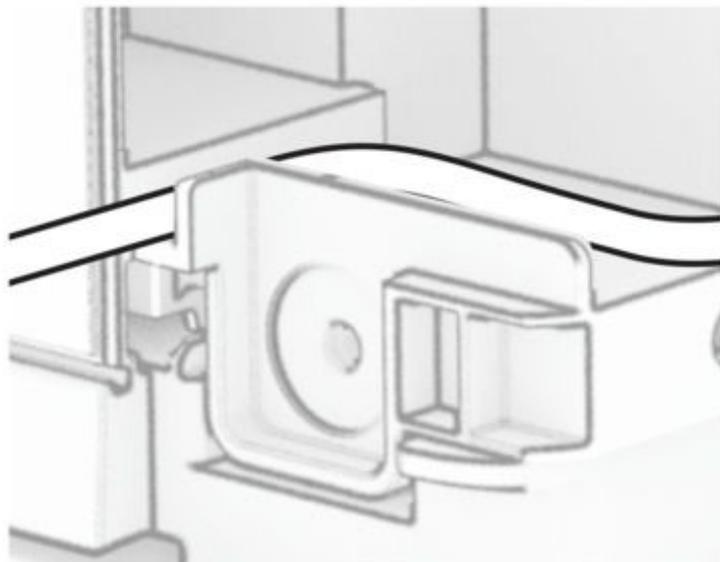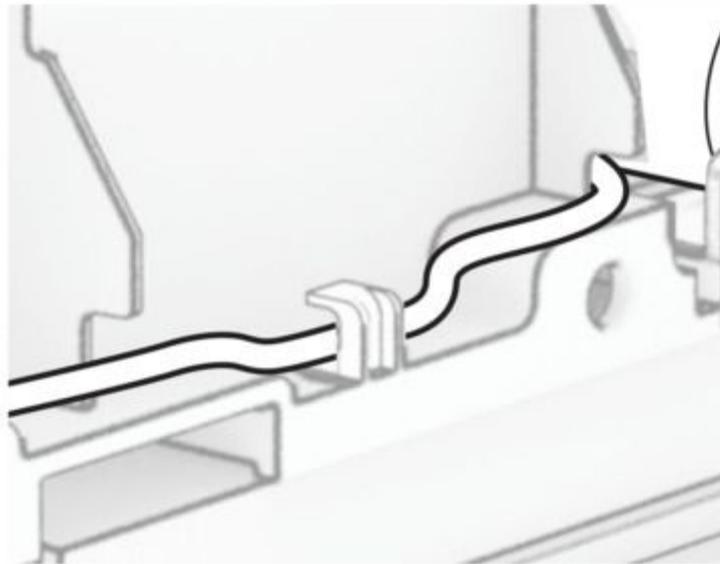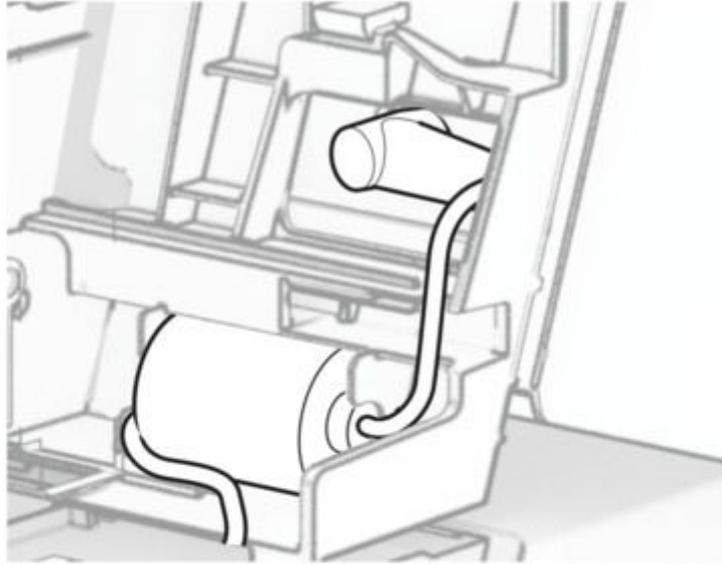
11. Attach the column cover.
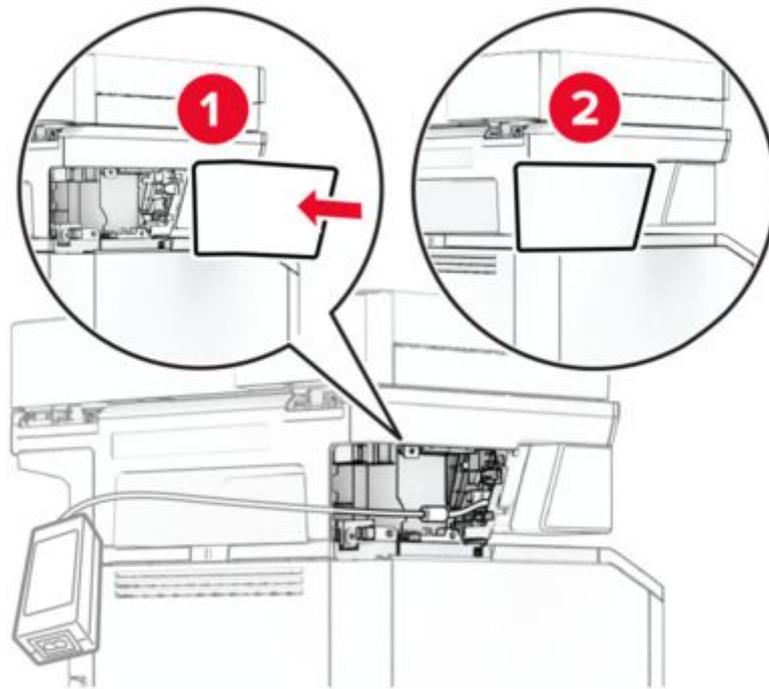
NOTES

Secure the power supply properly.

12. Connect one end of the stapler power cord to the power supply, and then the other end to the electrical outlet.

13. Connect one end of the printer power cord to the printer, and then the other end to the electrical outlet.

> ⚠️ **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.

14. Turn on the printer.

Replacing MarkNet™ N8450 Wireless Print Server

Learn how to replace the MarkNet N8450 Wireless Print Server on your printer.

CAUTION—SHOCK HAZARD
To avoid the risk of electrical shock, if you are accessing the controller board or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off, and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to the printer, then turn them off as well, and unplug any cables going into the printer.

NOTES
This task requires a flat-head screwdriver.

1. Turn off the printer.
2. Unplug the power cord from the electrical outlet, and then from the printer.
3. Open the controller board access cover.

    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.
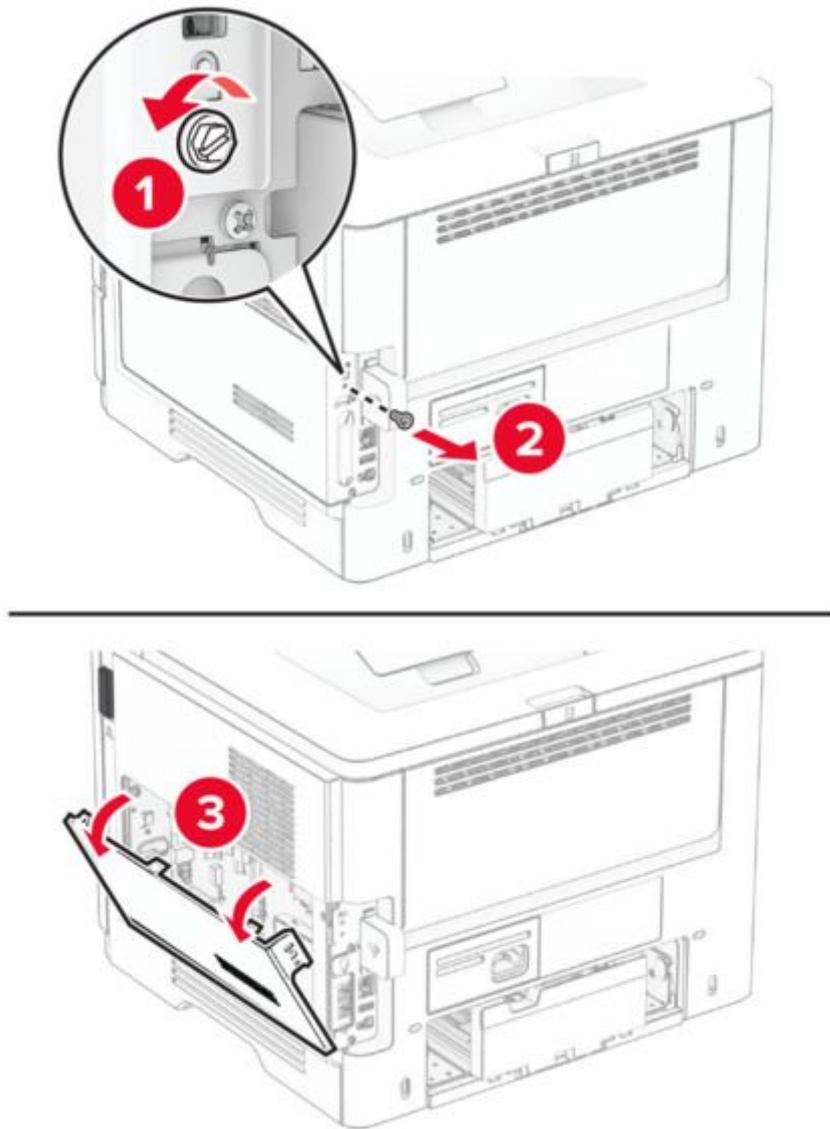
4. Remove the wireless print server cover.
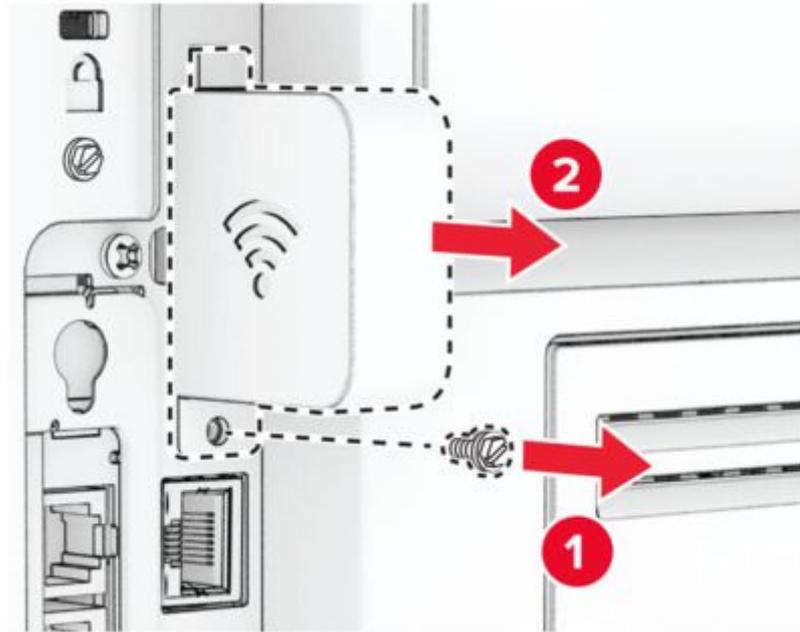
5. Remove the fax card.
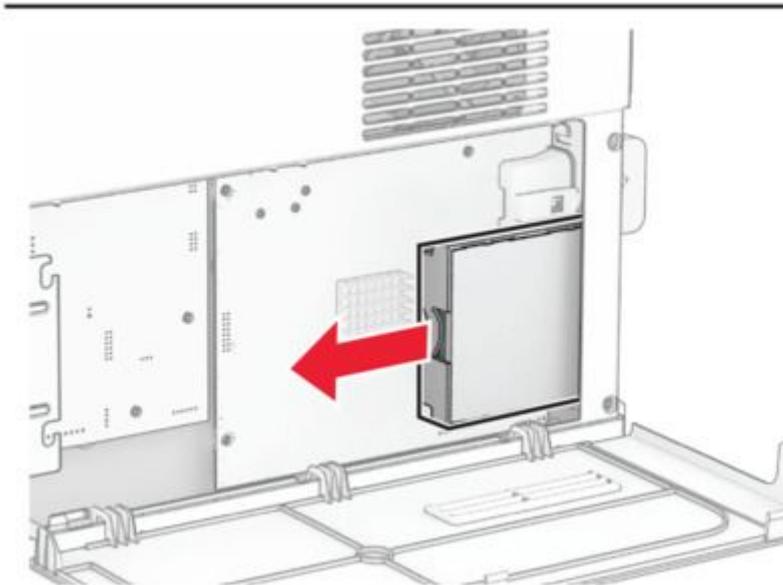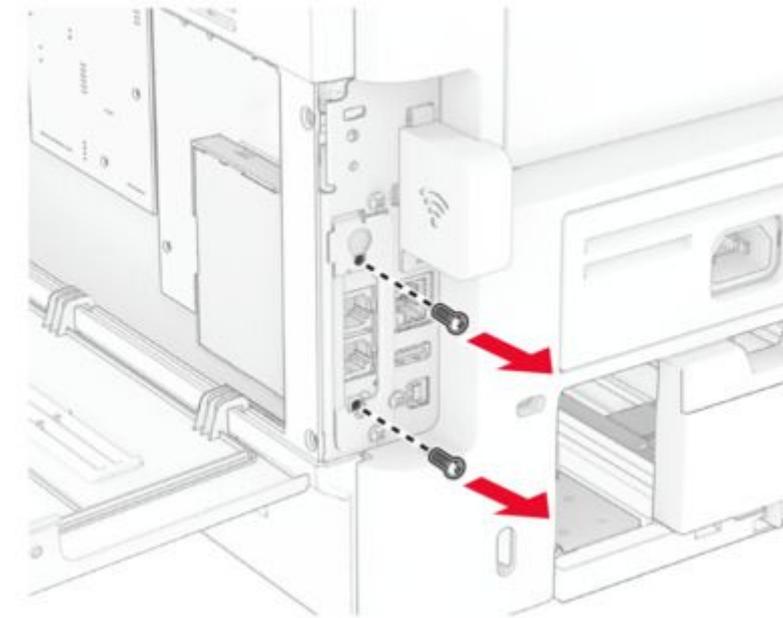
6. Remove the used wireless print server.
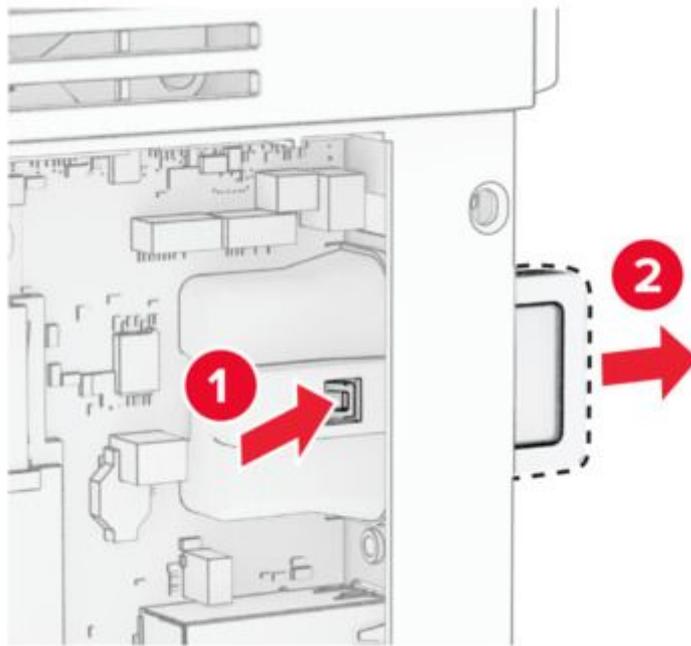
7. Unpack the new wireless print server.
8. Insert the new wireless print server until it clicks into place.
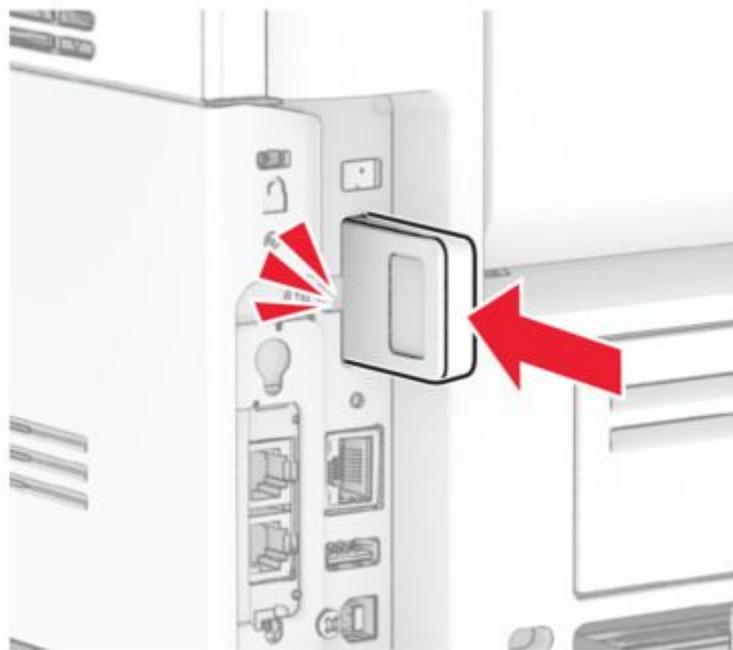
9. Insert the fax card, and then install the screws.
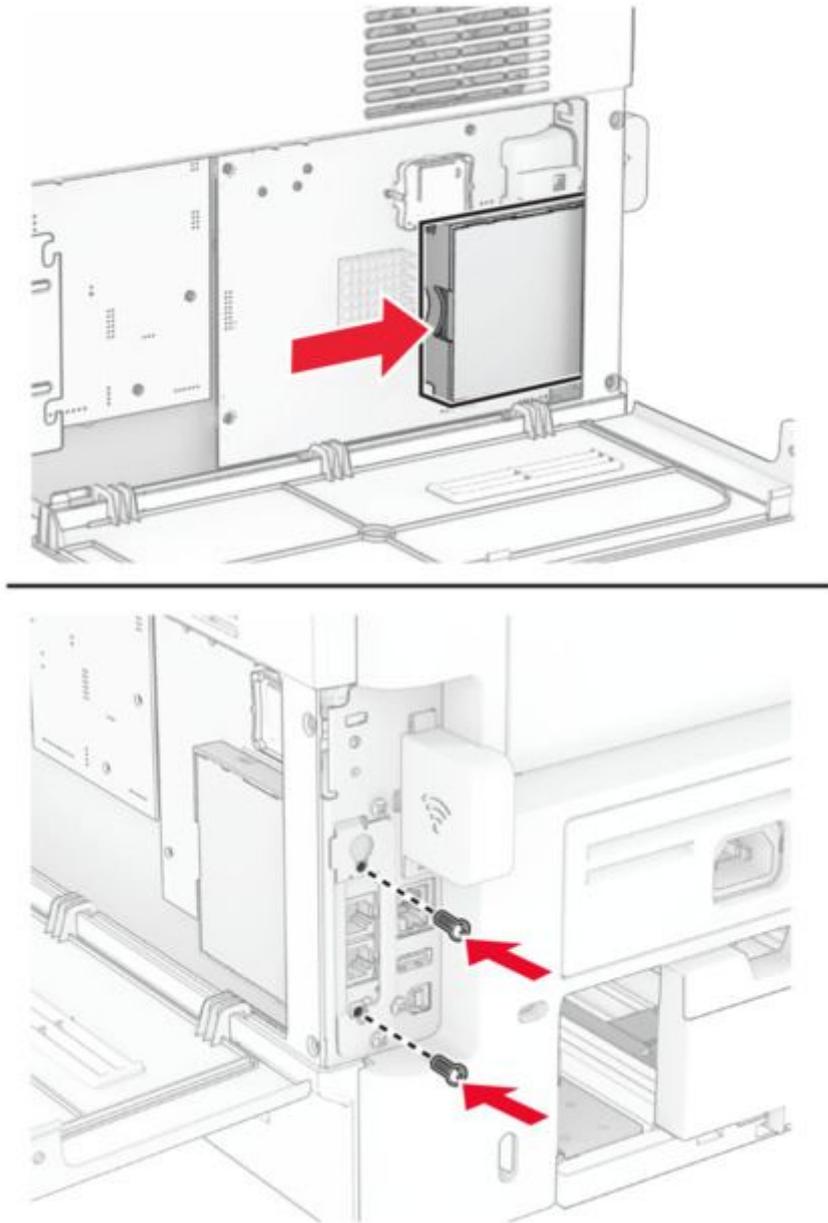
10. Attach the wireless print server cover, and then install the screw.
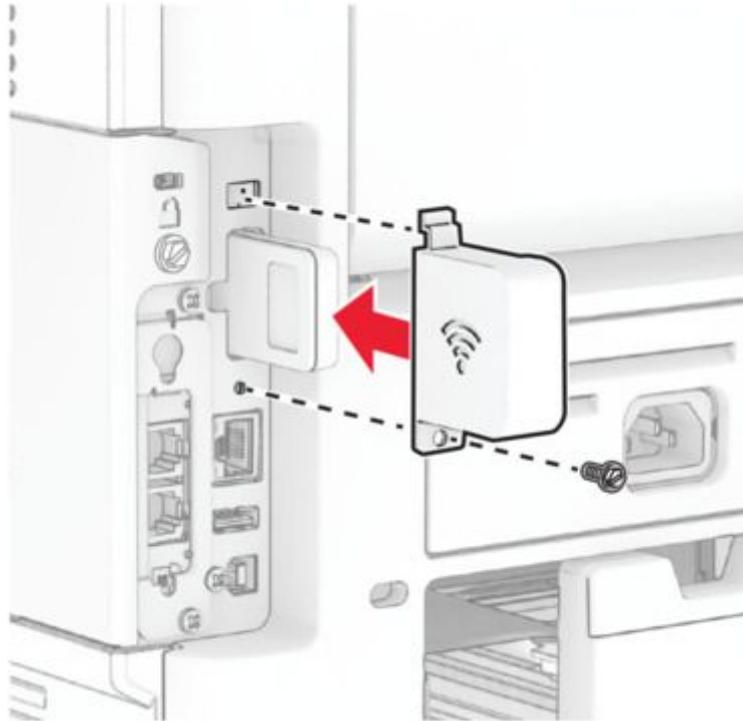
11. Close the controller board access cover, and then install the screw.
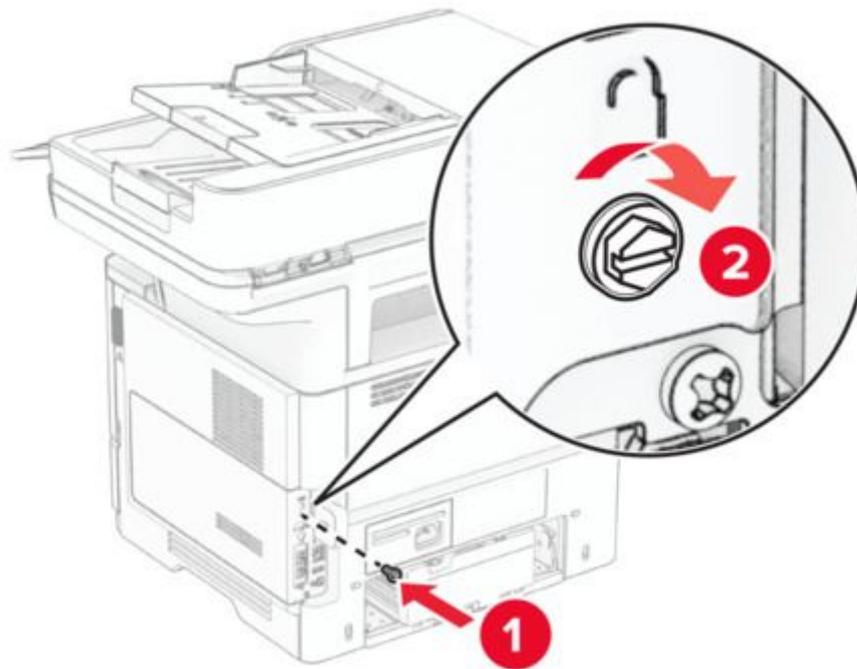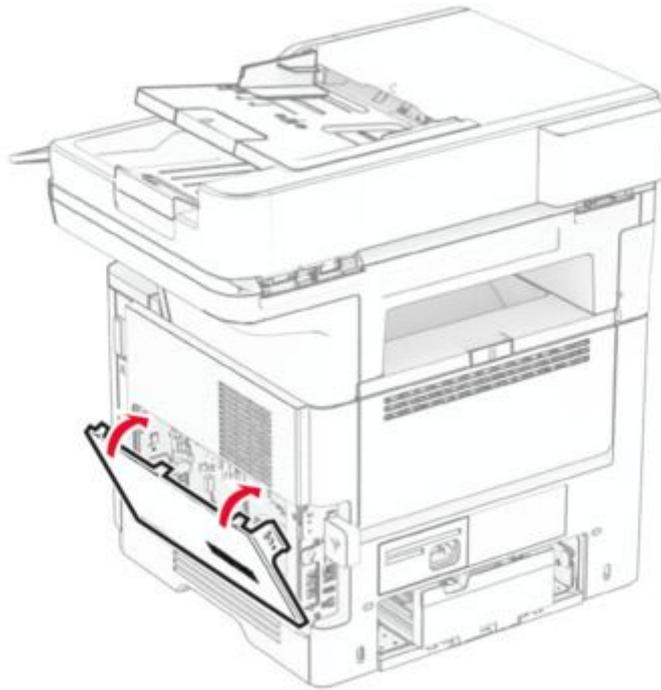
12. Connect the power cord to the printer, and then to the electrical outlet.

> ⚠️ **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.

13. Turn on the printer.

Replacing the pick tires

Changing the pick tires can prevent paper feed problems from happening again.

1. Turn off the printer.
2. Unplug the power cord from the electrical outlet, and then from the printer.
3. Remove the tray.
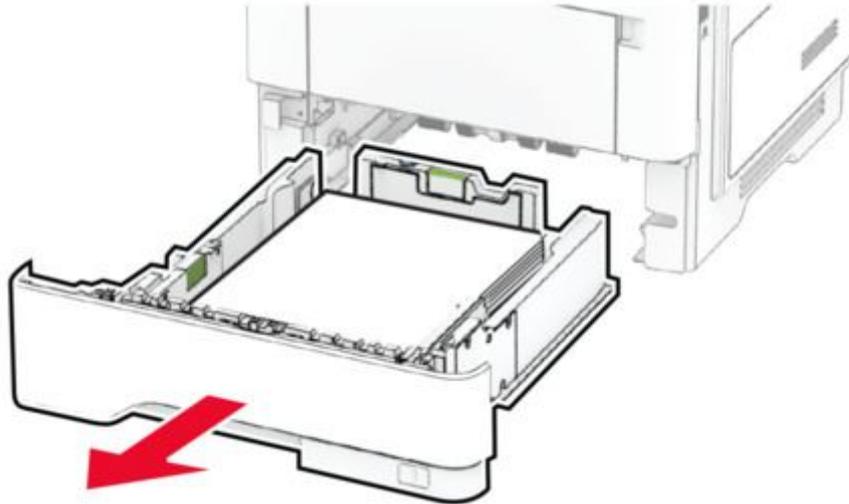
4. Remove the used pick tires.
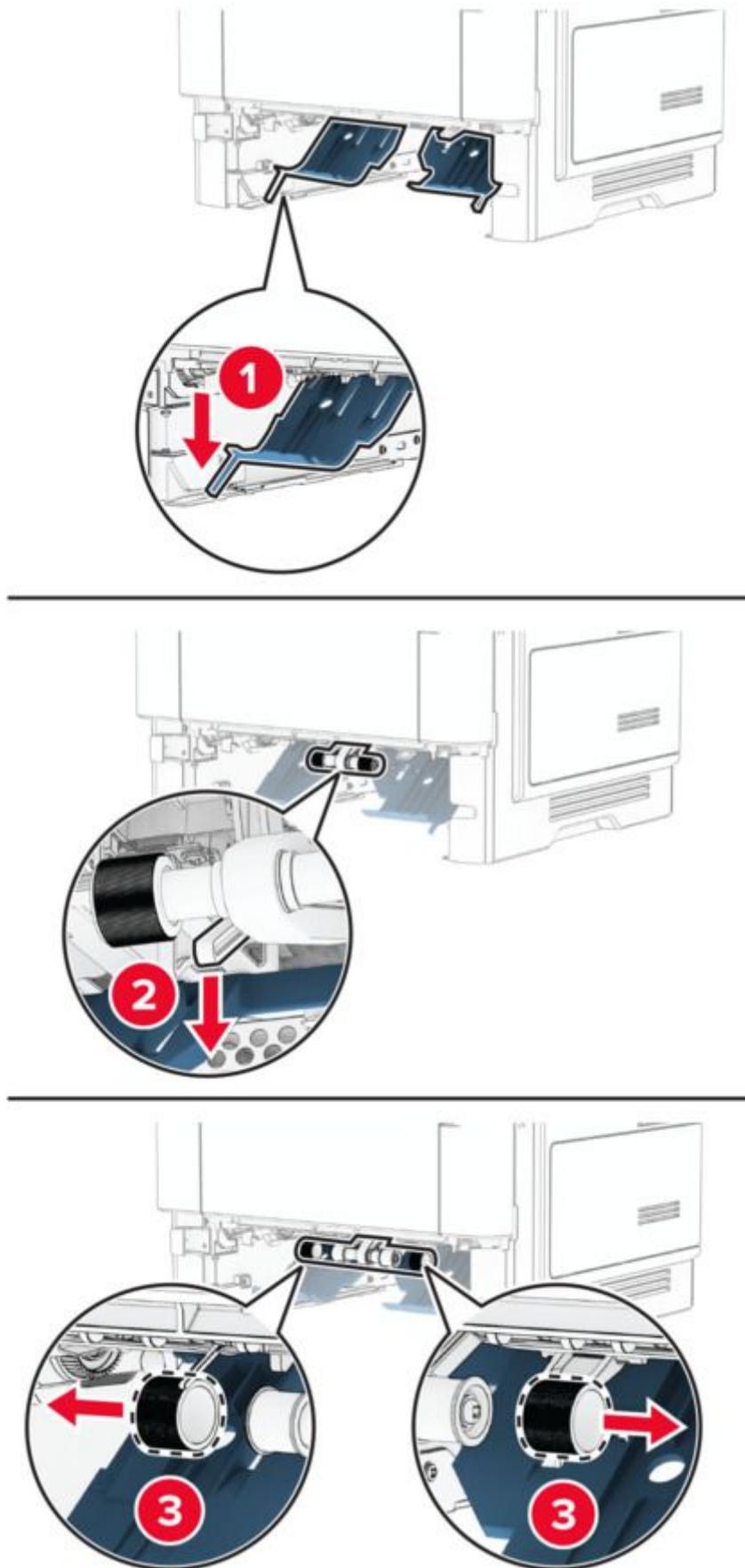
5. Unpack the new pick tires.

6. Insert the new pick tires.
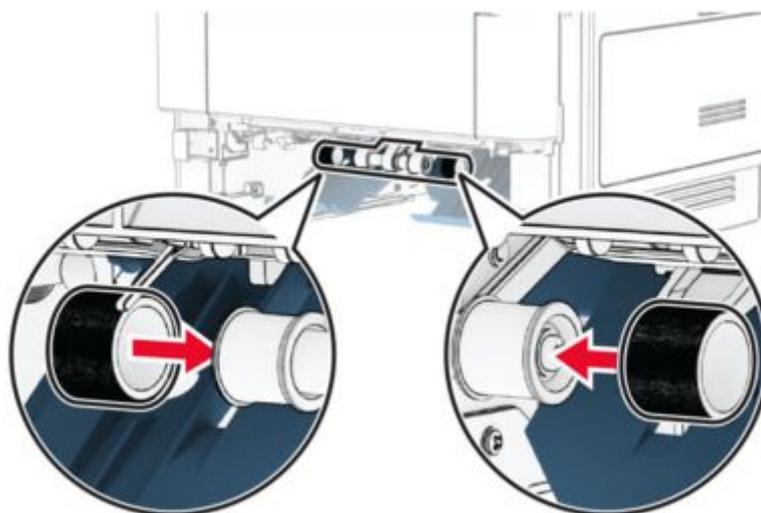
7. Insert the tray.
8. Connect the power cord to the printer, and then to the electrical outlet.

> ⚠️ **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.

9. Turn on the printer.

Replacing the scanner glass pad

Install a new scanner glass pad when you continue to see faded scan jobs.

1. Open the scanner cover.
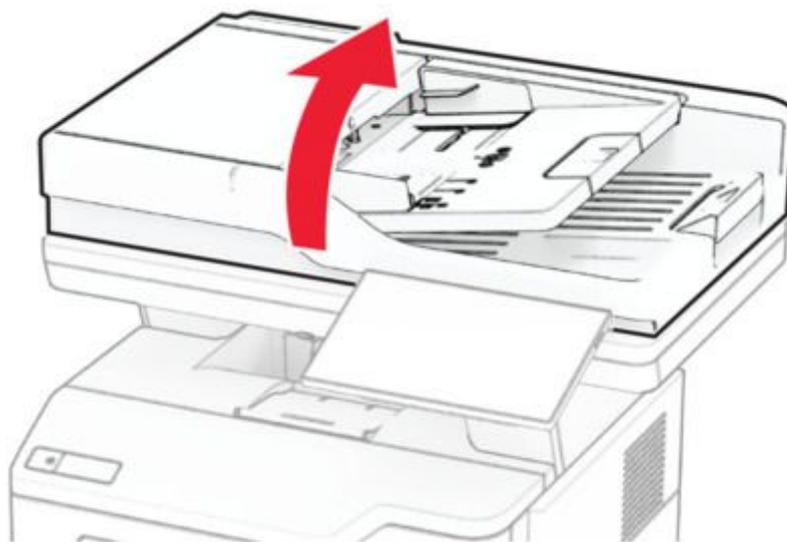
2. Remove the used scanner glass pad.
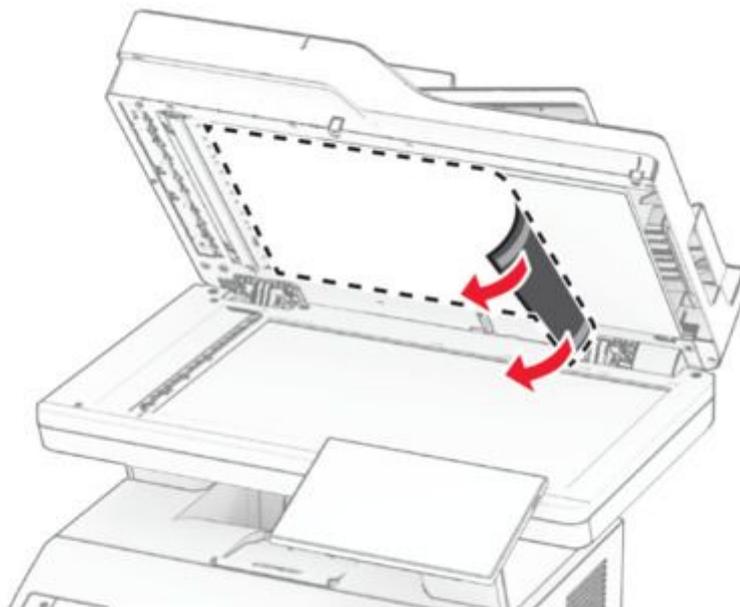
3. Unpack the new scanner glass pad.
4. Align the new scanner glass pad to the scanner glass.
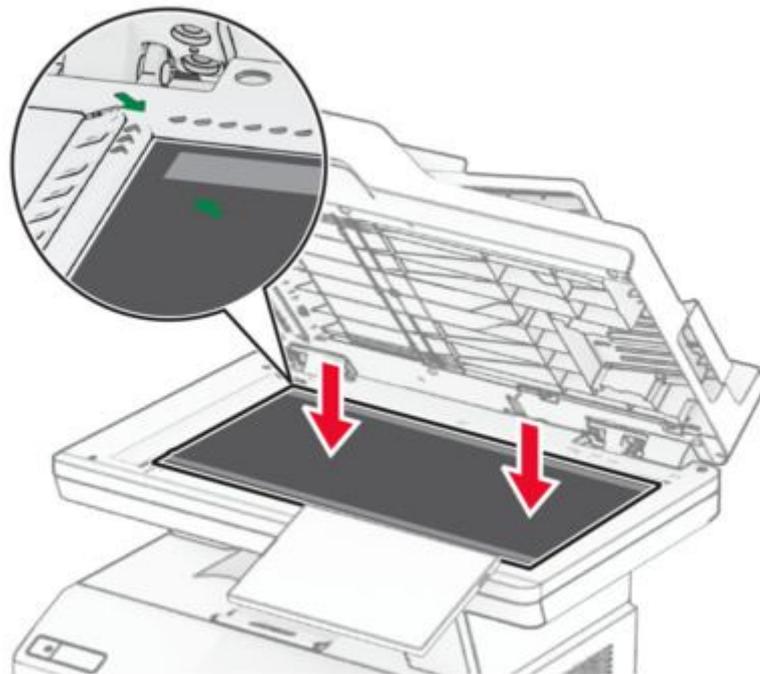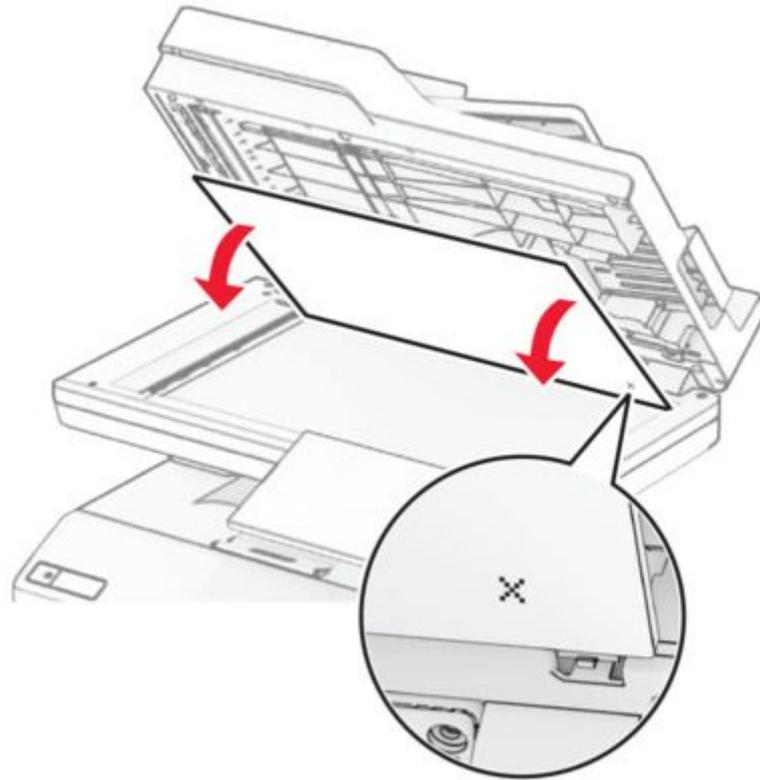
5. Close the scanner cover to attach the new scanner glass pad.
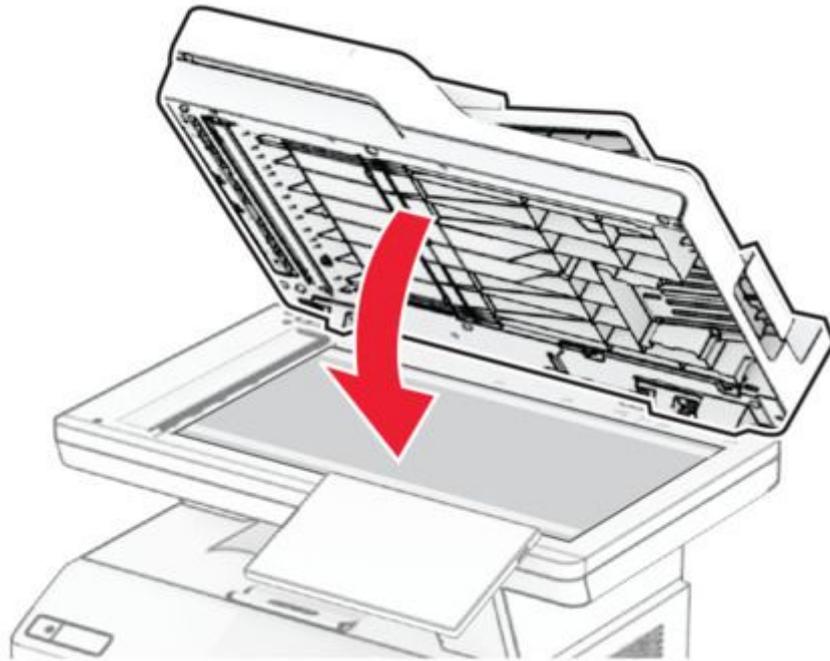
6. Open the scanner cover.
7. Apply pressure to the scanner glass pad to secure it.
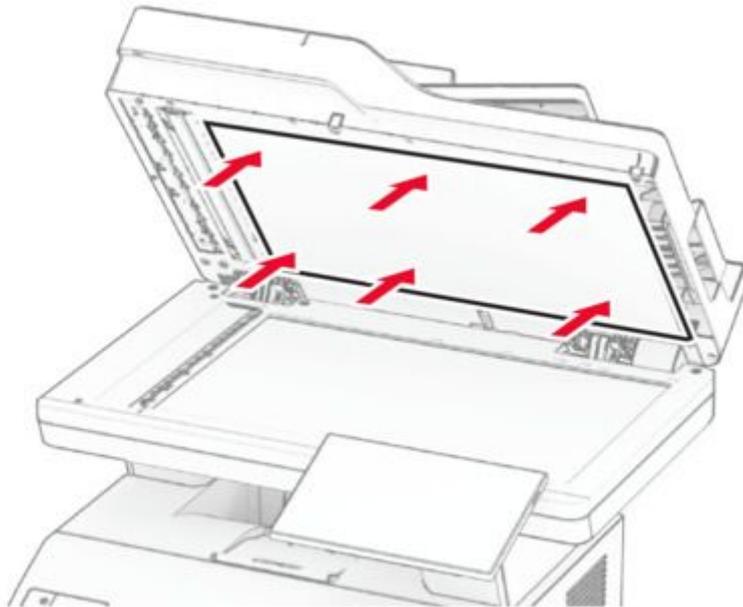
8. Close the scanner cover.

Replacing the ADF rollers

Prevent misfeeds and paper jams by checking the ADF rollers. Replace the rollers if they are damaged or when a maintenance warning appears.

1. Open door C.
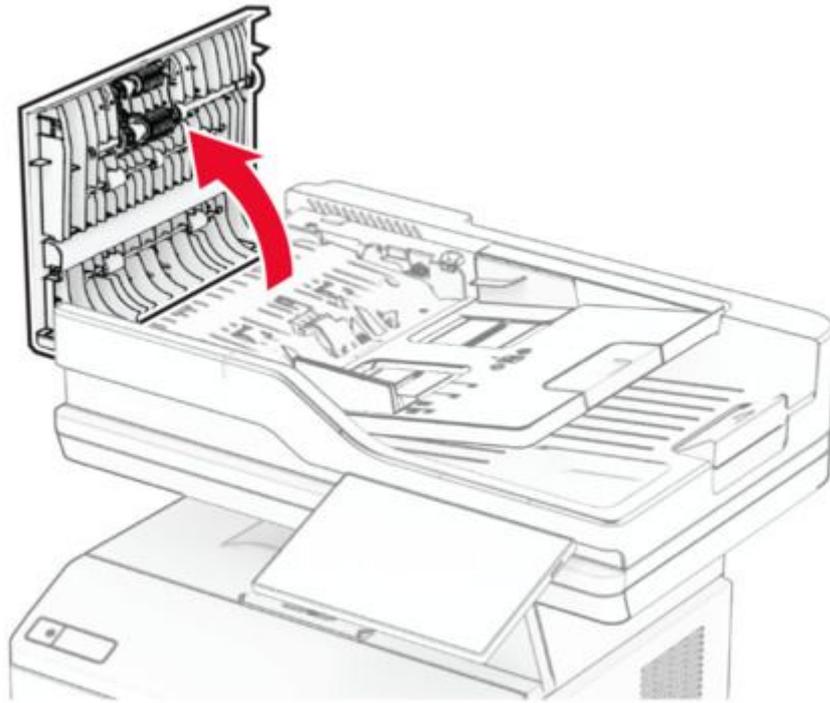
2. Remove the used ADF pick roller.
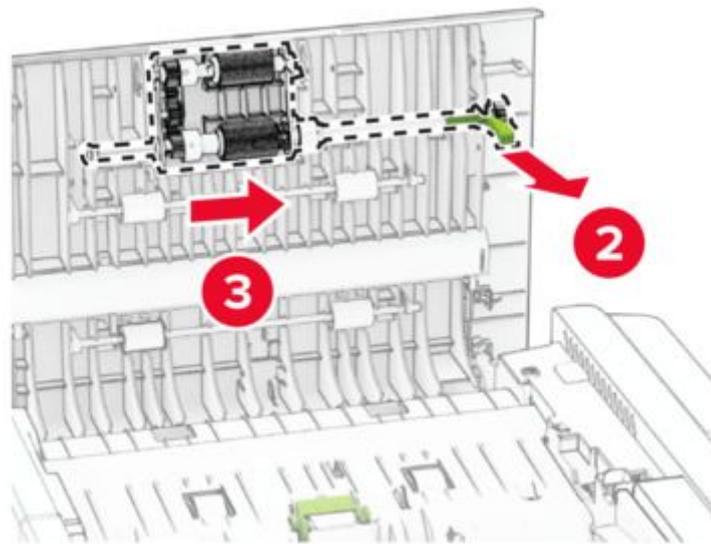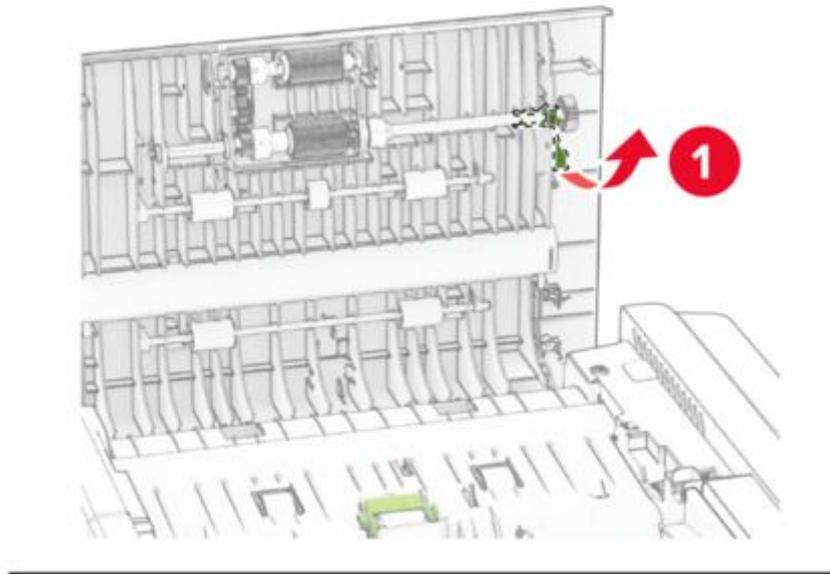
3. Remove the used ADF separator roller.
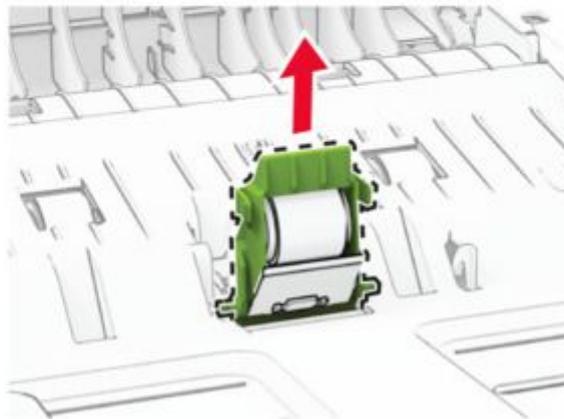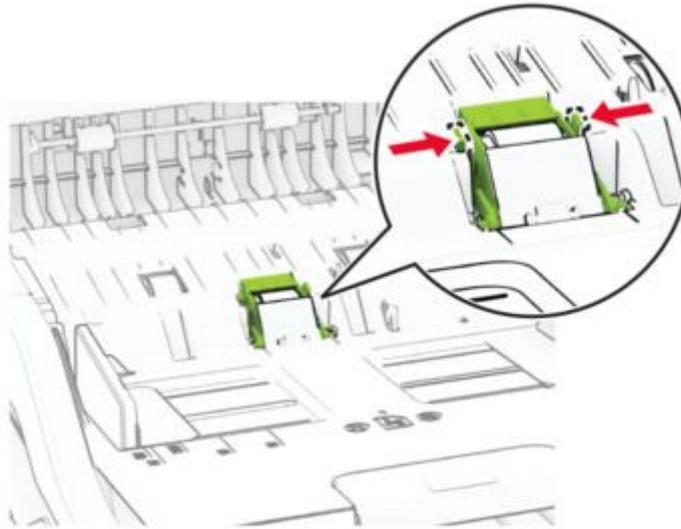
4. Unpack the new ADF pick roller and ADF separator roller.
5. Insert the new ADF separator roller until it clicks into place.
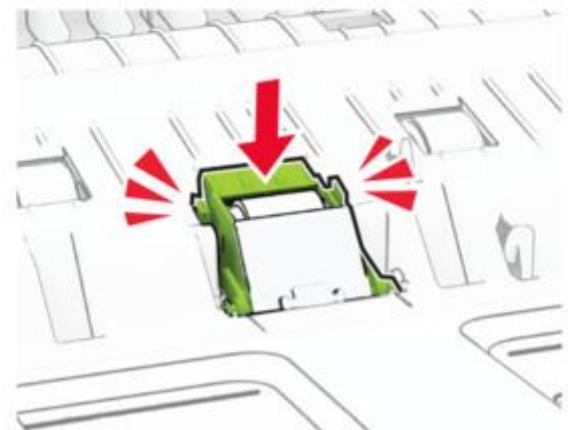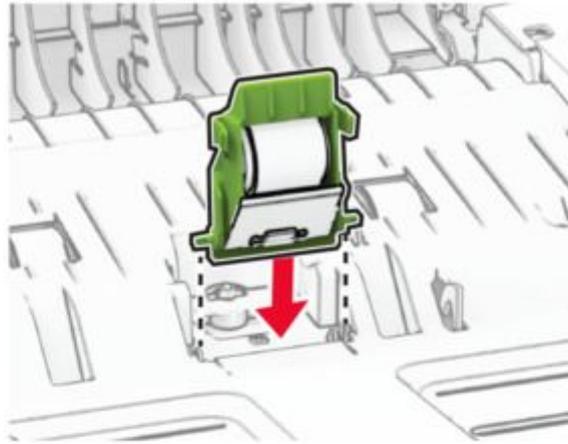
6. Insert the new ADF pick roller until it clicks into place.
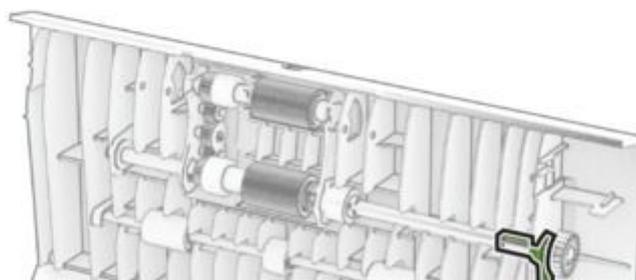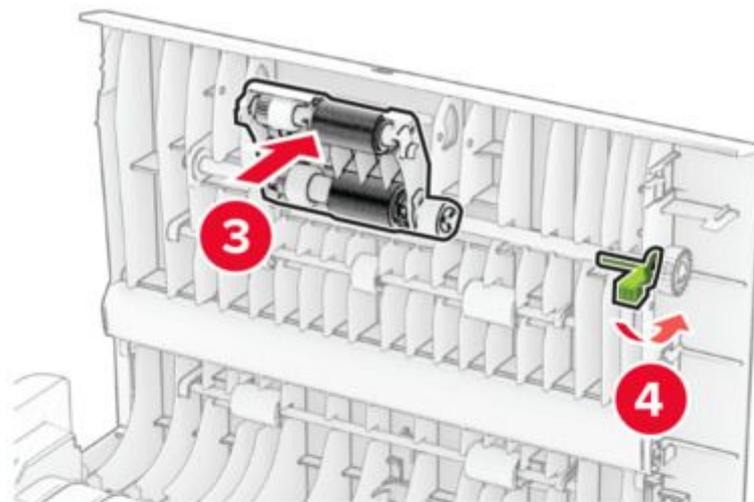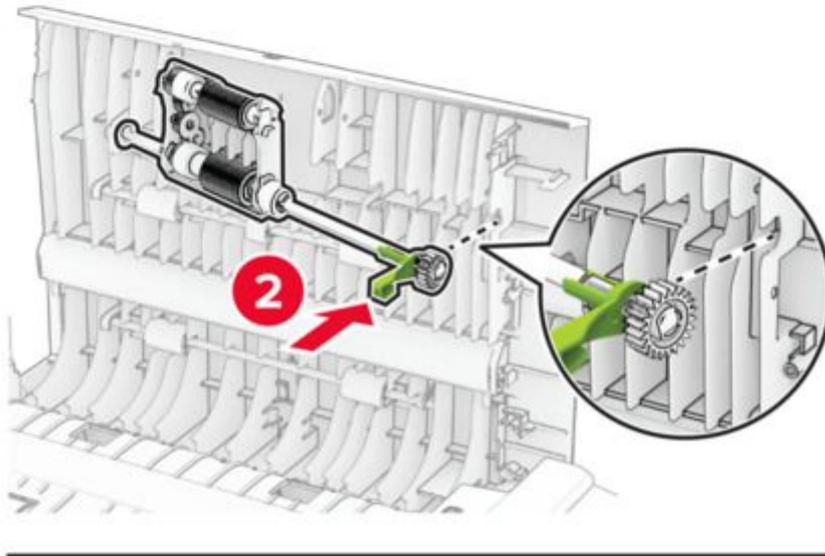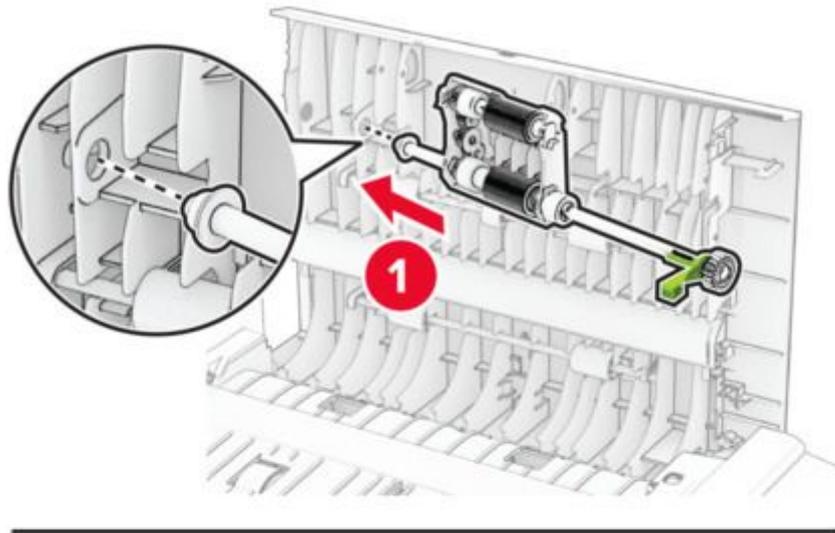
7. Close door C.

Resetting the supply usage counters

After replacing supplies, reset the maintenance page counter to resume printing.

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

Learn about the parts of the printer.

You can configure your printer by adding up to three optional 250- or 550-sheet trays. For more information, see See "Installing optional trays" on page 634.
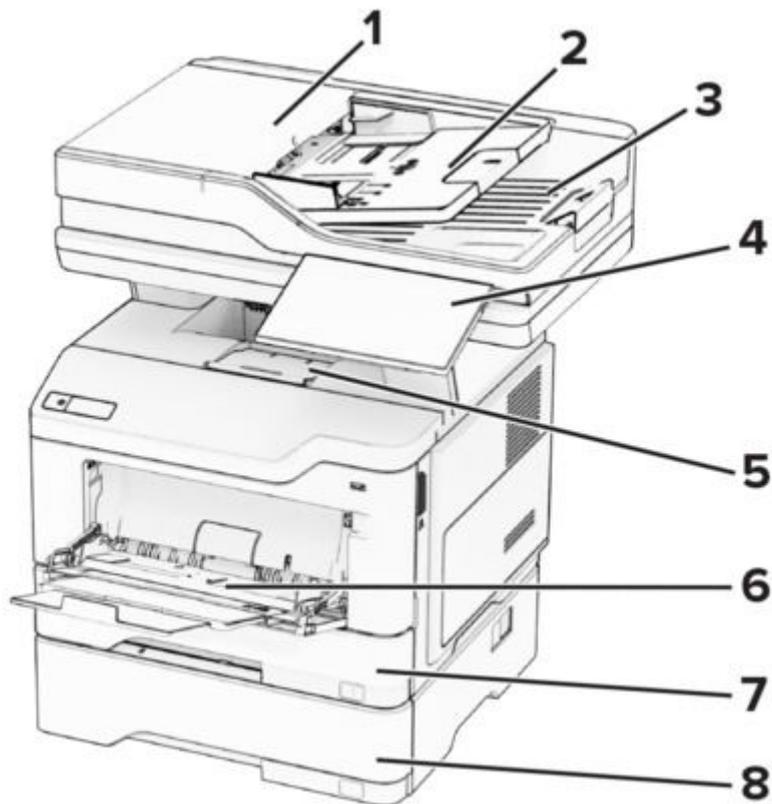
Parts of the printer

1	Automatic document feeder (ADF)
2	ADF tray
3	ADF bin
4	Control panel
5	Standard bin
6	Multipurpose feeder

7	Standard 550-sheet tray
8	Optional 250- or 550-sheet tray

Printer roller locations

One-sided print job

1	Photoconductor drum
2	Developer roller
3	First input roller
4	MPF pick roller
5	Second input roller
6	Pick roller
7	Separator roller
8	Transfer roller
9	Fuser roller
10	Fuser exit roller

11	Paper exit roller
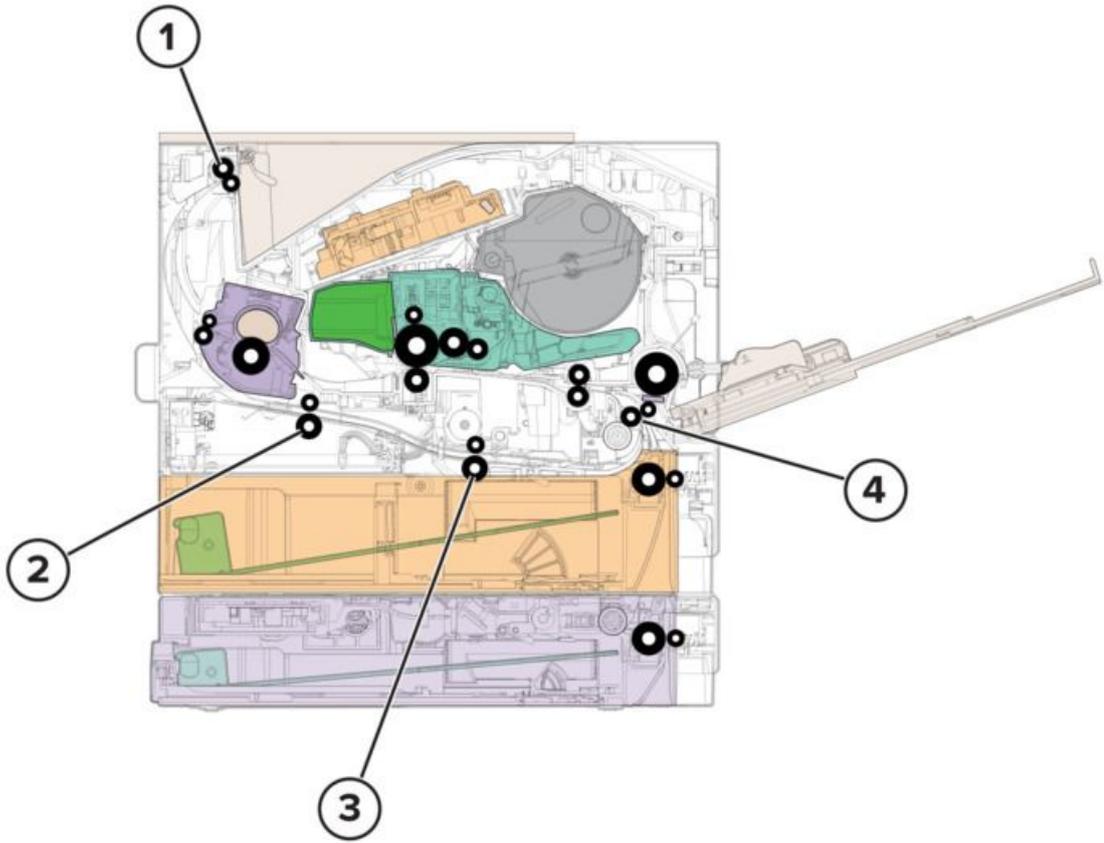
Two-sided print job

1	Paper exit roller
2	Duplex rear roller
3	Duplex front roller
4	Second input roller

Printer sensor locations
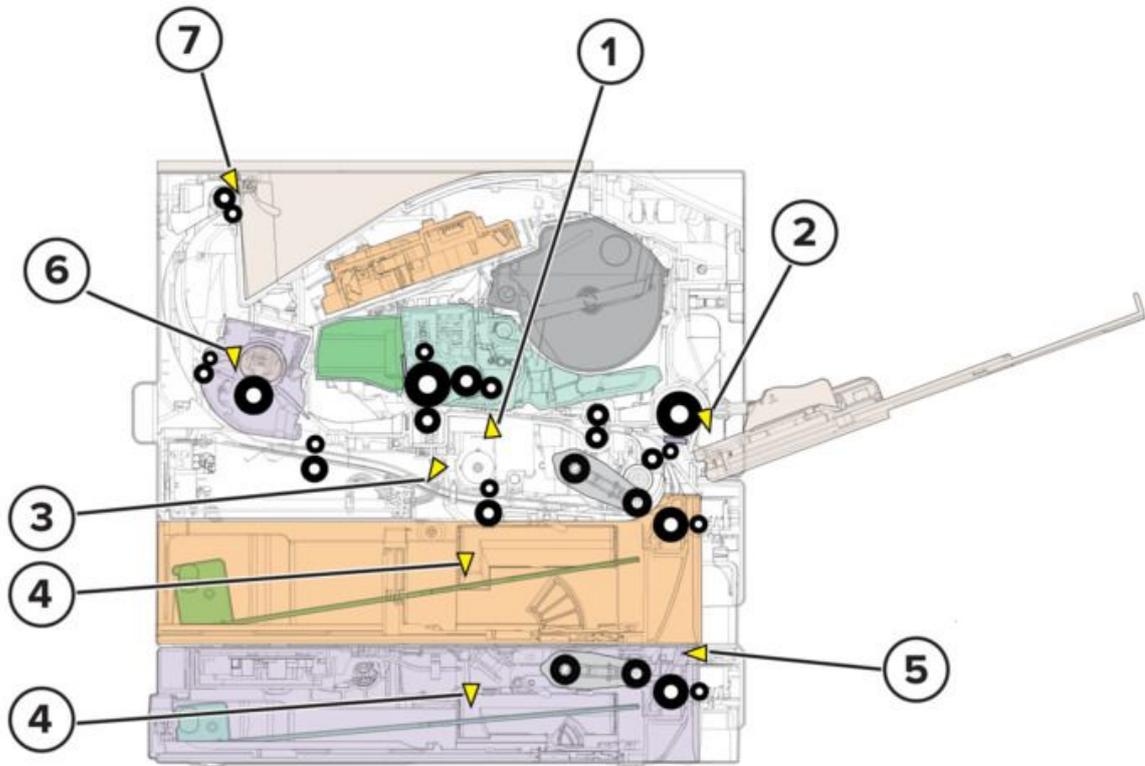
Paper path sensors

#	Sensor	Parts removal
1	Sensor (input)	See "Sensors (duplex and input) removal" on page 457
2	Sensor (MPF paper present)	See "Sensor (MPF paper present) removal" on page 447
3	Sensor (duplex)	See "Sensors (duplex and input) removal" on page 457
4	Sensor (media present)	--
5	Sensor (pass-through)	--
6	Sensor (fuser exit)	--
7	Sensor (narrow media/ bin full)	and See "Sensor (bin full) removal" on page 490 See "" on page 0

Maintenance

Inspection guide

The purpose of this inspection guide is to aid you in identifying the intervals, based on page count, at which parts must be inspected (for visible physical damage), cleaned, or replaced.

If any unsafe conditions exist, find out how serious the hazard could be and if you can continue before you correct the hazard.

As you service the machine, check for the following:

- Damaged, missing, or altered parts, especially in the area of the On/Off switch and the power supply
- Damaged, missing, or altered covers, especially in the area of the top cover and the power supply cover
- Possible safety exposure from any non-Lexmark attachments

Use the following table to determine when specified parts should be inspected:

Inspection guide table

PART	EVERY SERVICE CALL	EVERY 200K
Fuser	Inspect	Replace
MPF pick roller and separator pad	Inspect	Replace
Pick tires	Inspect	Replace
Separator roller	Inspect	Replace
Transfer roller	Inspect	Replace

Scheduled maintenance

Maintenance kits

Maintenance kits

Part number and kit	Contents	Maintenance interval
41X1227—Maintenance Kit (100 V)	• 41X1180—Fuser (100 V) • 41X1197—MPF pick roller and separator pad • 41X1198—Pick tires • 41X1212—Separator roller • 40X8393—Transfer roller	200K
41X1225—Maintenance Kit (110 V)	• 41X1178—Fuser (110 V) • 41X1197—MPF pick roller and separator pad • 41X1198—Pick tires • 41X1212—Separator roller • 40X8393—Transfer roller	200K
41X1226—Maintenance Kit (220 V)	• 41X1179—Fuser (220 V) • 41X1197—MPF pick roller and separator pad • 41X1198—Pick tires • 41X1212—Separator roller • 40X8393—Transfer roller	200K
41X2848—Maintenance kit ADF	ADF rollers • ADF pick roller • ADF separator roller	110K (scanned pages)

When performing the 200K scheduled maintenance procedure, the following areas should be cleaned of media dust and toner contamination:

- Media trays
- Imaging unit area
- Transfer roller area
- Duplex area
- Standard bin

Resetting the maintenance counter

Always reset the maintenance counter after installing the maintenance kit.

To reset the maintenance counter:

1. POR into the Configuration menu, and navigate to **Reset Maintenance Counter**.

2. Depending on the printer model, press **OK** or touch to reset the counter, or press **X** to exit without resetting the counter.

Once initiated, the operation cannot be canceled.

Cleaning printer parts

Cleaning the printer

Regular printer maintenance extends the life of the printer and ensures quality prints. The process is simple and only takes a few minutes.

> ⚠ **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.

> - 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.

◦ 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.

    - Do not use household cleaners or detergents, as they may damage the touch screen.
    - Make sure that the touch screen is dry after cleaning.

3. Connect the power cord to the electrical outlet, and then turn on the printer.

Cleaning the scanner

Clean your scanner periodically to avoid getting blurry and faded scanned images or text.

1. Open the scanner cover.

2. Using a damp, soft, lint-free cloth, wipe the following areas:
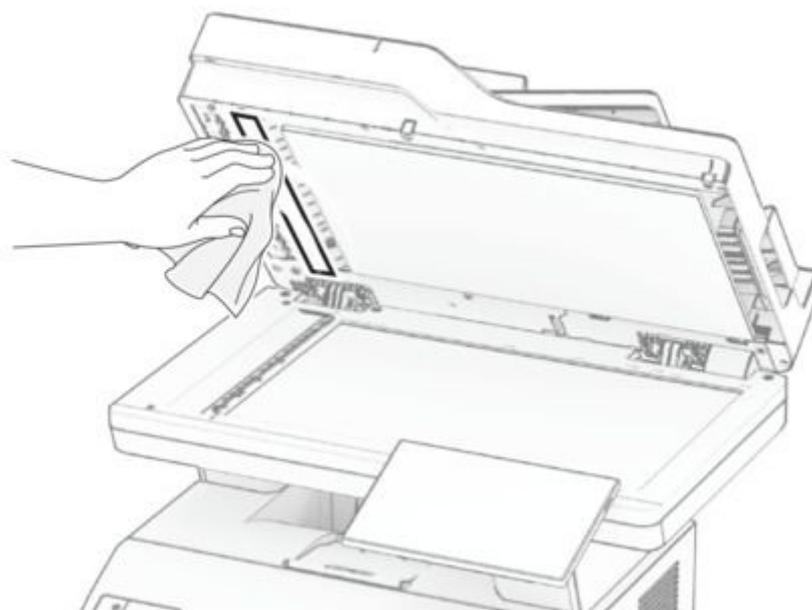
   ◦ ADF glass pad

   ◦ Scanner glass pad

◦ ADF glass

◦ Scanner glass

3. Close the scanner cover.
4. Open door C.
5. Using a damp, soft, lint-free cloth, wipe the following areas:

   ◦ ADF glass pad in door C
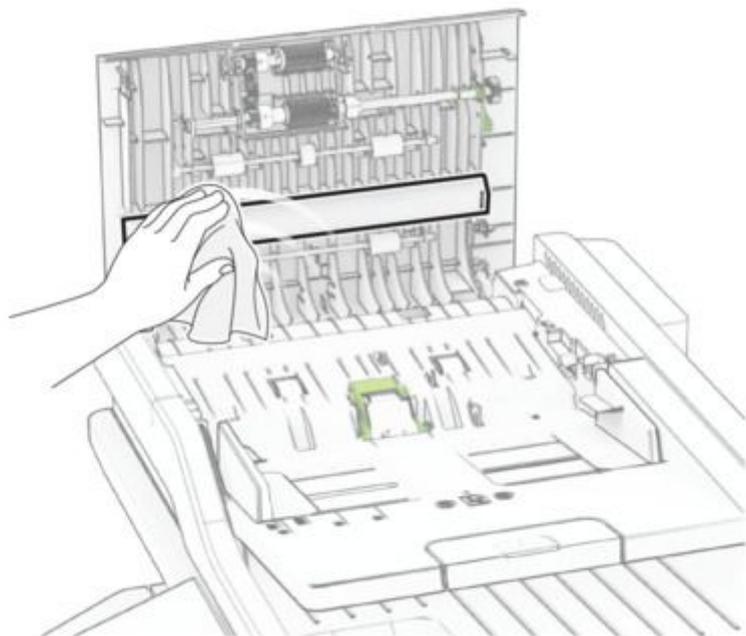
   ◦ ADF glass in door C
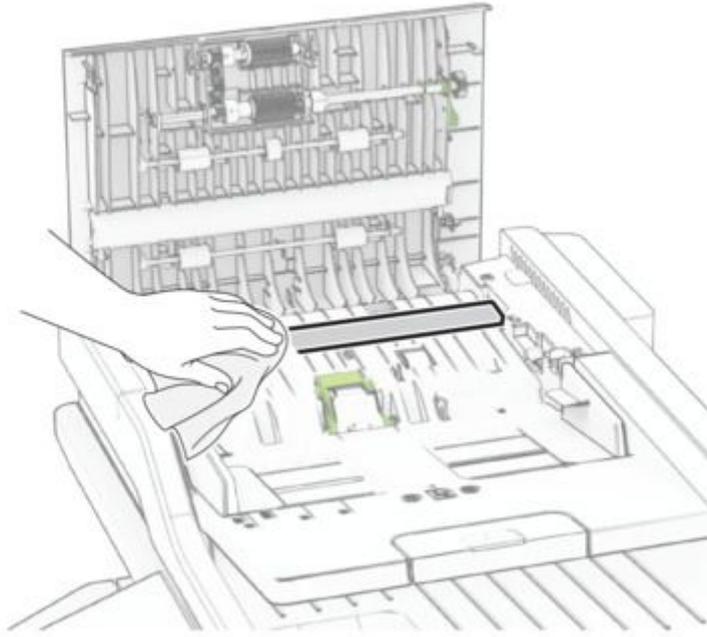
6. Close door C.

Cleaning the ADF rollers

You can prevent misfeeds and paper jams when you clean the ADF rollers.

1. Open door C.
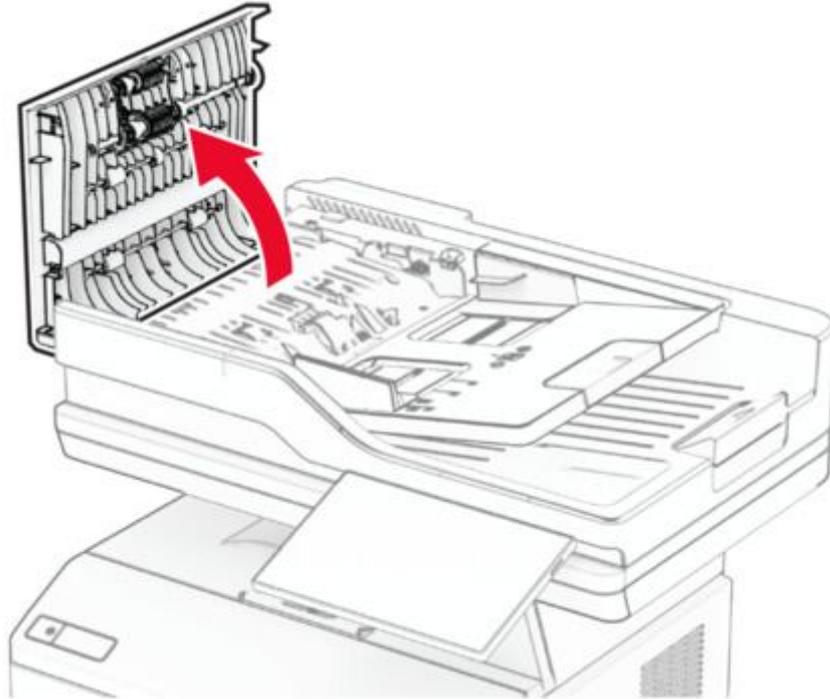
2. Remove the ADF pick roller.
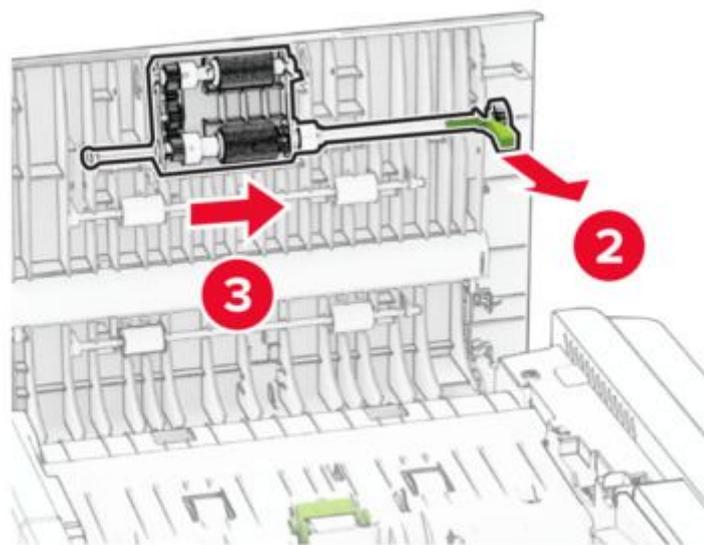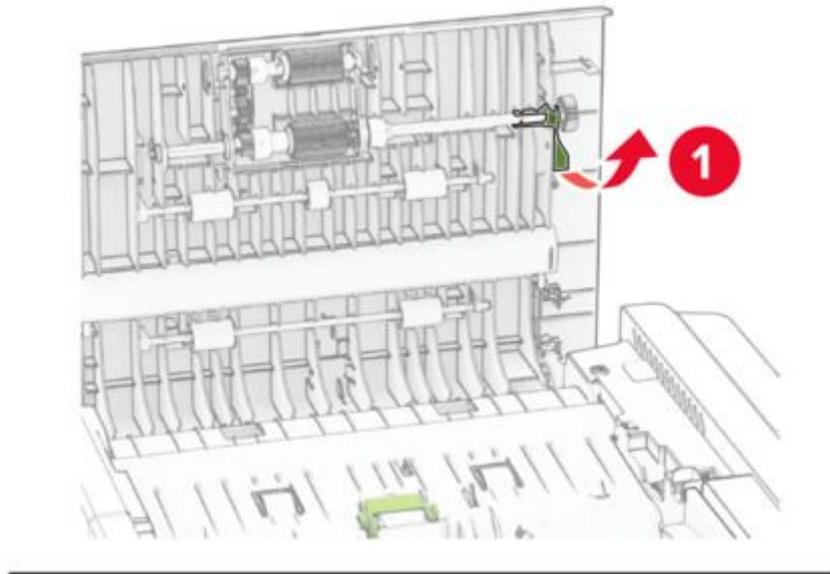
3. Remove the ADF separator roller.
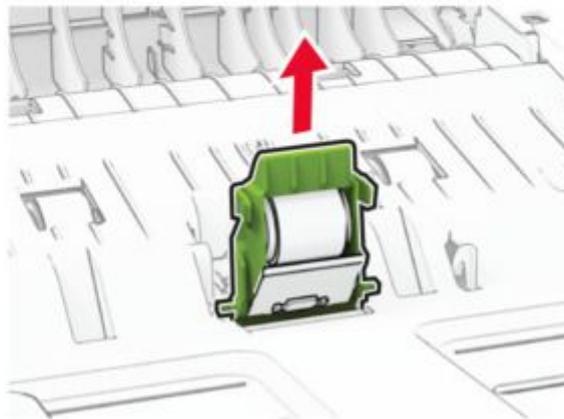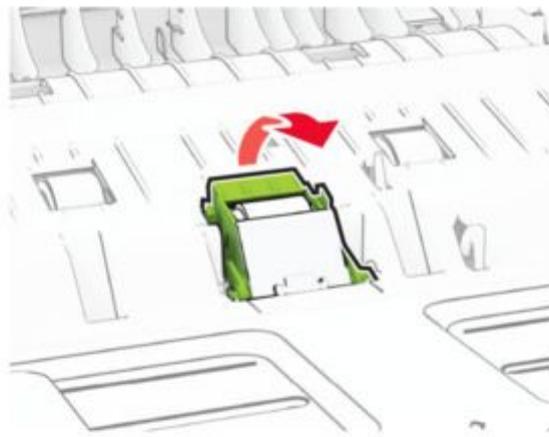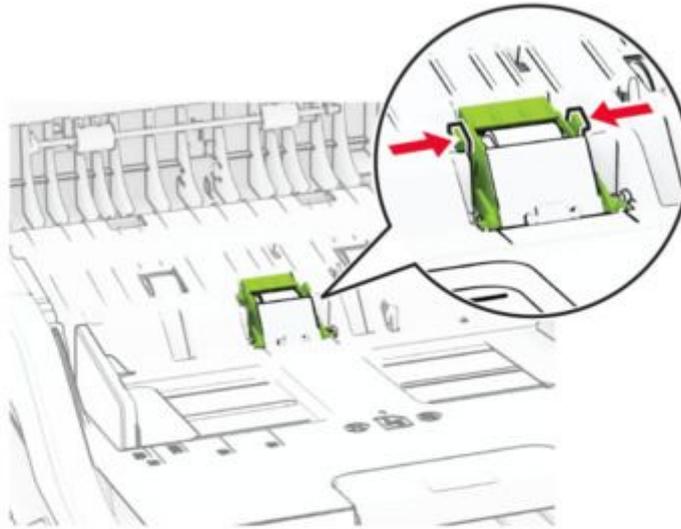
4. Apply isopropyl alcohol to a soft, lint-free cloth, and then wipe the ADF pick roller and ADF separator roller.
5. Insert the ADF separator roller until it clicks into place.
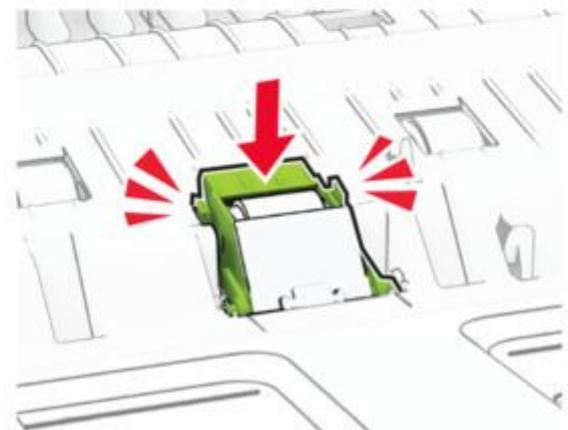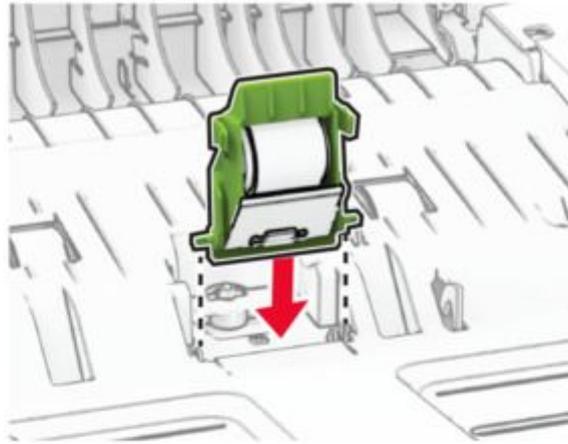
6. Insert the ADF pick roller until it clicks into place.
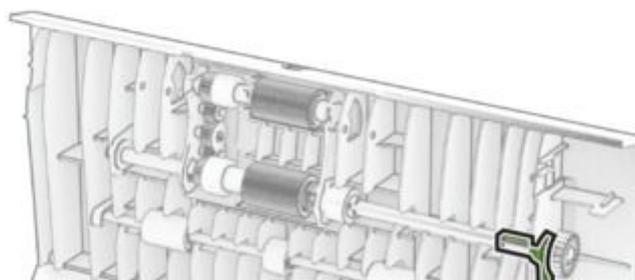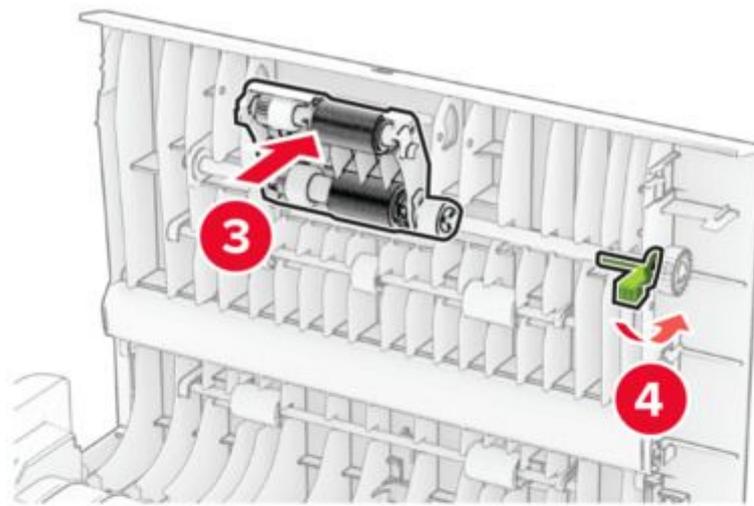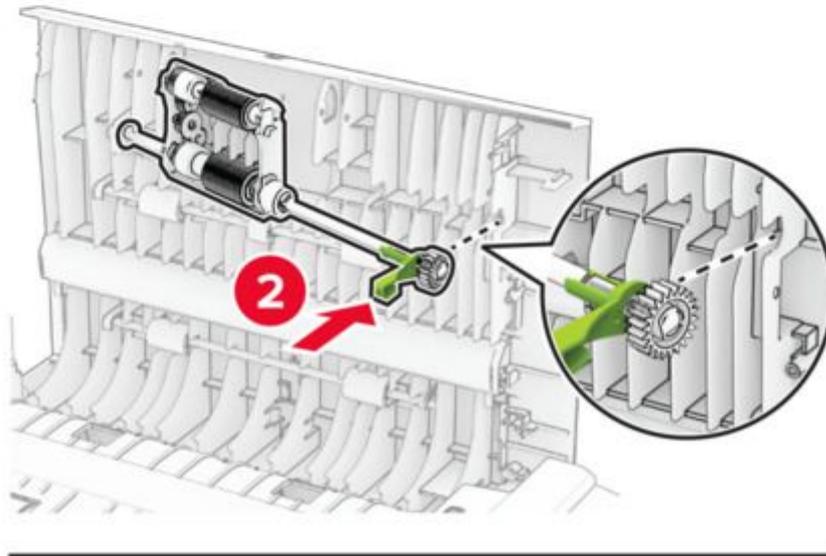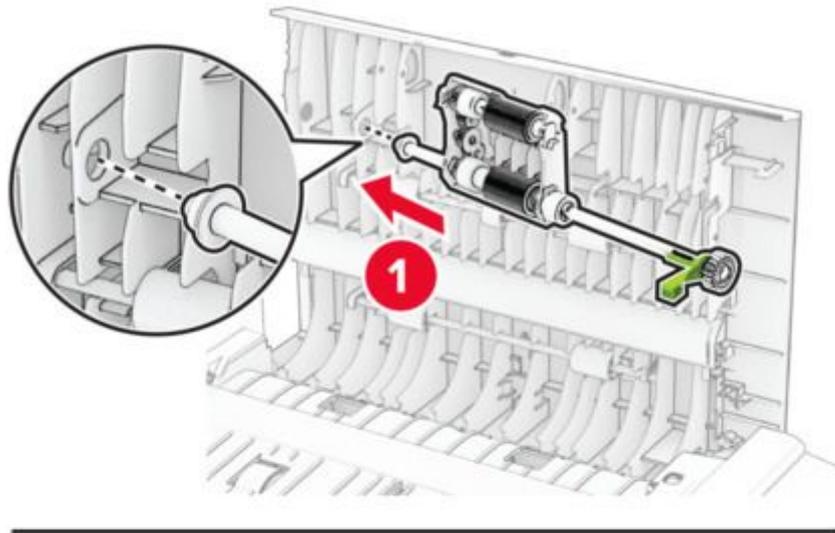
7. Close door C.

Cleaning the printhead mirror

1. Open the front door.
2. Remove the toner cartridge and imaging unit.
3. From the printhead access opening (A) in the top of the frame at the front of the printer, find the printhead mirror.
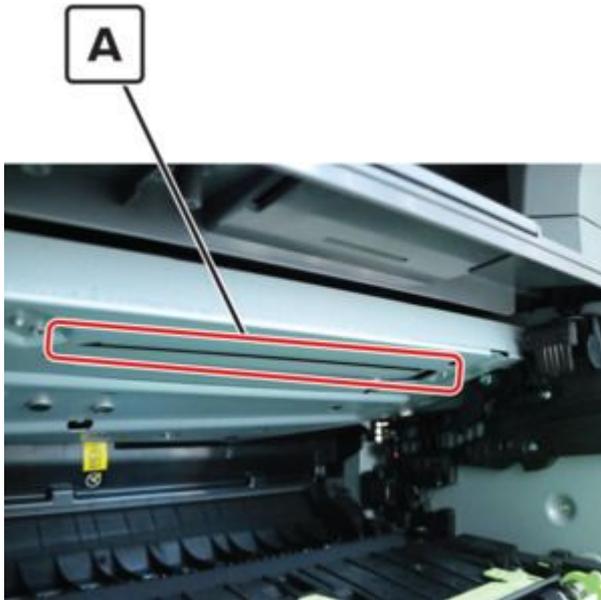
4. Insert a soft, lint-free cloth in the opening, and gently move the cloth back and forth along the surface of the mirror to clean it.
5. Repeat step 4.
6. Reinstall the imaging unit and toner cartridge.
7. Close the front door.

Loading trays

For reliable printing results, use these instructions to load paper properly.

1. Remove the tray.

   NOTES

   To avoid paper jams, do not remove the tray while the printer is busy.
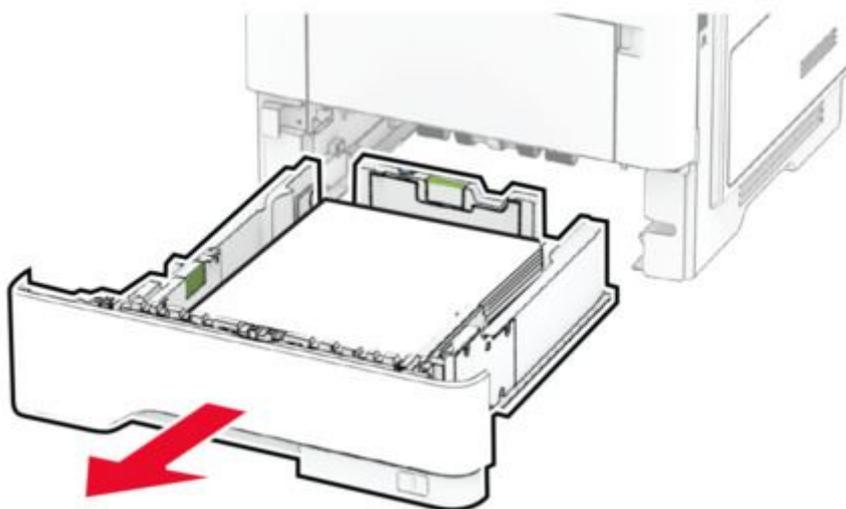
2. Adjust the guides to match the size of the paper that you are loading.
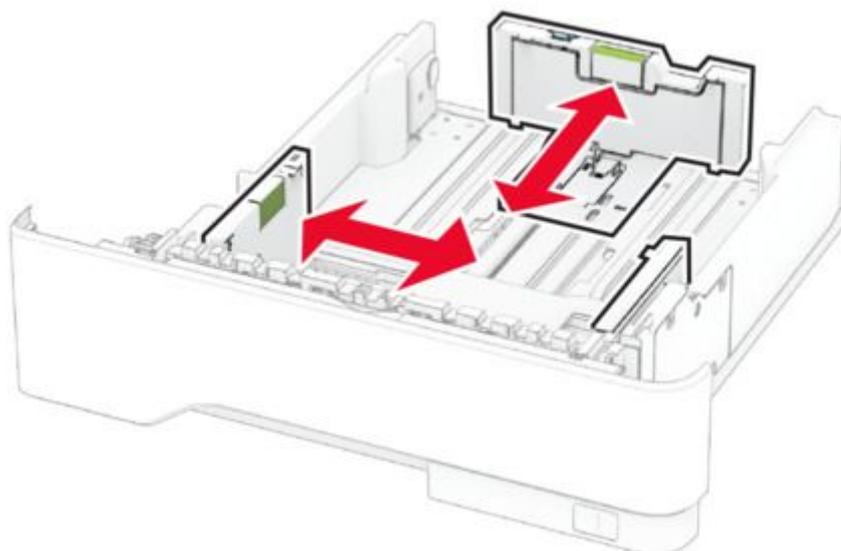
3. Flex, fan, and align the paper edges before loading.

4. Load the paper stack with the printable side facedown, and then make sure that the guides fit snugly against the paper.

- Load letterhead facedown with the header toward the front of the tray for one-sided printing.
- Load letterhead faceup with the header toward the back of the tray for two-sided printing.
- Do not slide paper into the tray.
- To avoid paper jams, make sure that the stack height is below the maximum paper fill indicator.
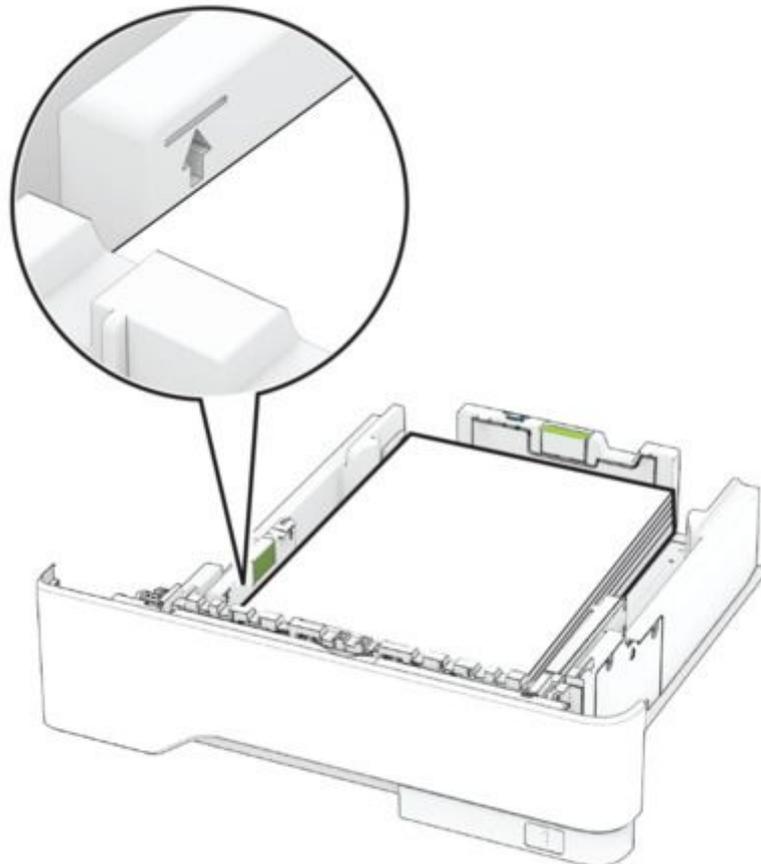
5. Insert the tray.

If necessary, set the paper size and paper type from the control panel to match the paper loaded.

Loading the multipurpose feeder

Adjusting the guides when loading paper and specialty media on the multipurpose feeder can result in trouble-free printing.

1. Open the multipurpose feeder.
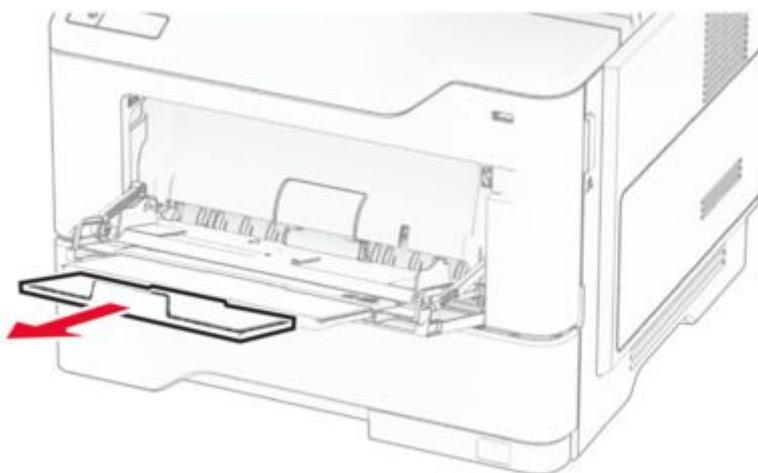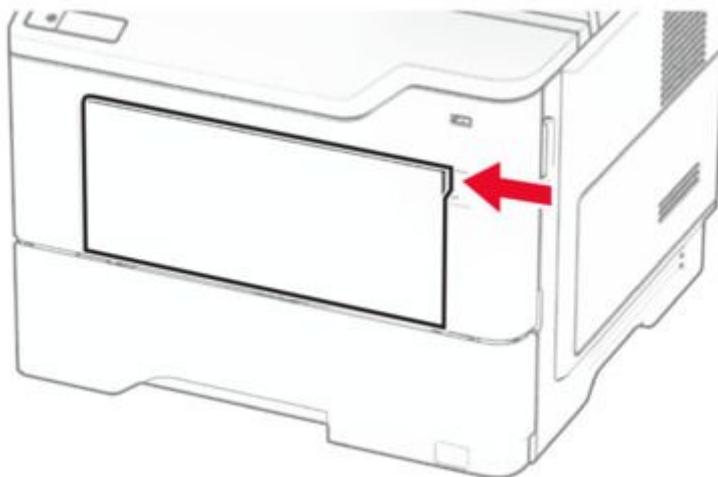
2. Flex, fan, and align the paper edges before loading.

3. Load paper with the printable side faceup.

> ◦ Load letterhead faceup with the header toward the rear of the printer for
>   one-sided printing.
> ◦ Load letterhead facedown with the header toward the front of the printer for
>   two-sided printing.
> ◦ Load envelopes with the flap facedown on the left side.

> **WARNING—POTENTIAL DAMAGE**
> Do not use envelopes with stamps, clasps, snaps, windows, coated linings, or
> self-stick adhesives.

4. Adjust the guide to match the size of the paper that you are loading.
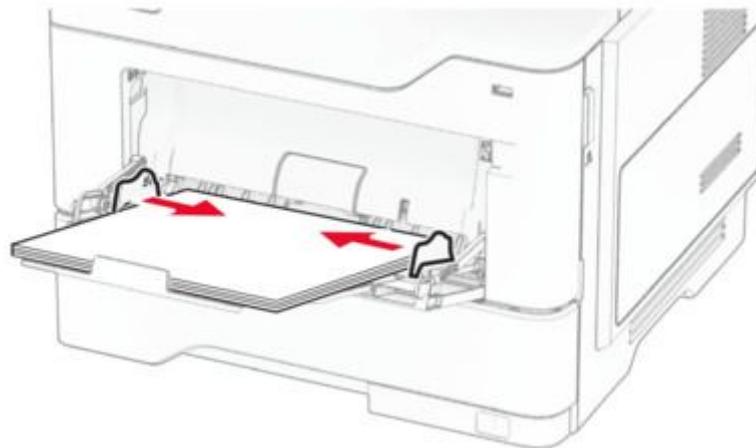
5. From the control panel, set the paper size and paper type to match the paper loaded.

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 actually used in the base machine or product.
- **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
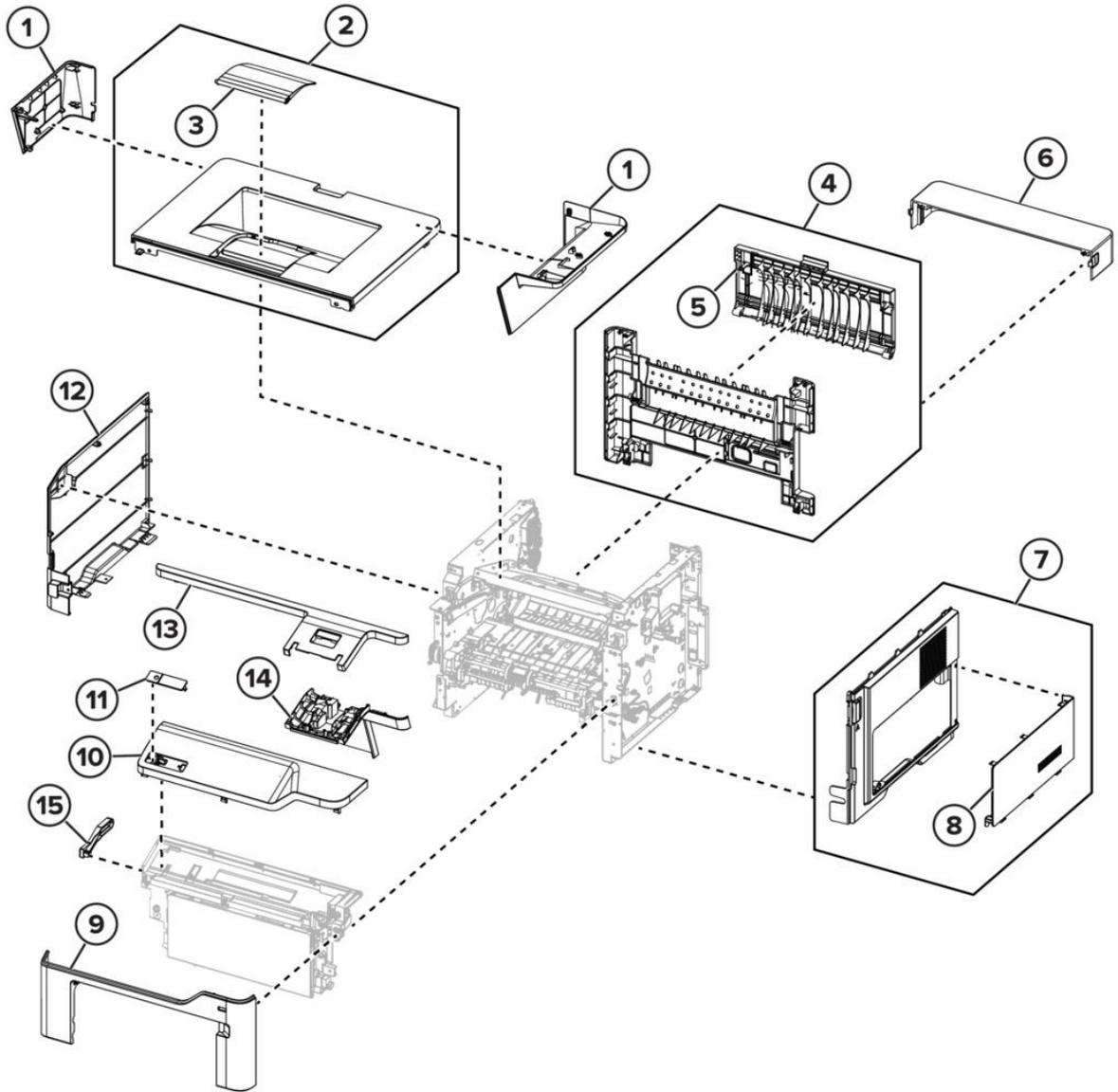
Asm-index	P/N	Units/ mach	Units/ FRU	Description	Removal procedure
1	41X4543	1	1	Scanner rear cover	See "Scanner access covers removal" on page 514
2	41X4544	1	1	Top cover	See "Top cover removal" on page 491
3	40X9102	1	1	Output extender	--
4	41X1170	1	1	Rear door and cover	See "Rear door and cover removal" on page 485
5	41X1232	1	1	Rear door	See "Rear door and cover removal" on page 485
6	40X8521	1	1	Dust cover	--
7	41X1166	1	1	Right cover	See "Right cover removal" on page 394
8	41X1233	1	1	Controller board cover	See "Right cover removal" on page 394
9	41X1164	1	1	Front cover	See "Nameplate removal" on page 420
10	41X4538	1	1	Top front cover	--
11	41X4533	1	1	Bezel for MX532	--
11	41X4534	1	1	Bezel for MX632	--
11	41X4535	1	1	Bezel (blank)	--
11	41X4536	1	1	Bezel for XM3350	--
12	41X1168	1	1	Left cover	See "Left cover removal" on page 370
13	41X4541	1	1	Scanner front cover	See "Control panel hinge removal" on page 429
14	41X4540	1	1	Control panel support cover	See "Control panel removal" on page 426
15	41X2300	1	1	Access cover link	--

Control panel
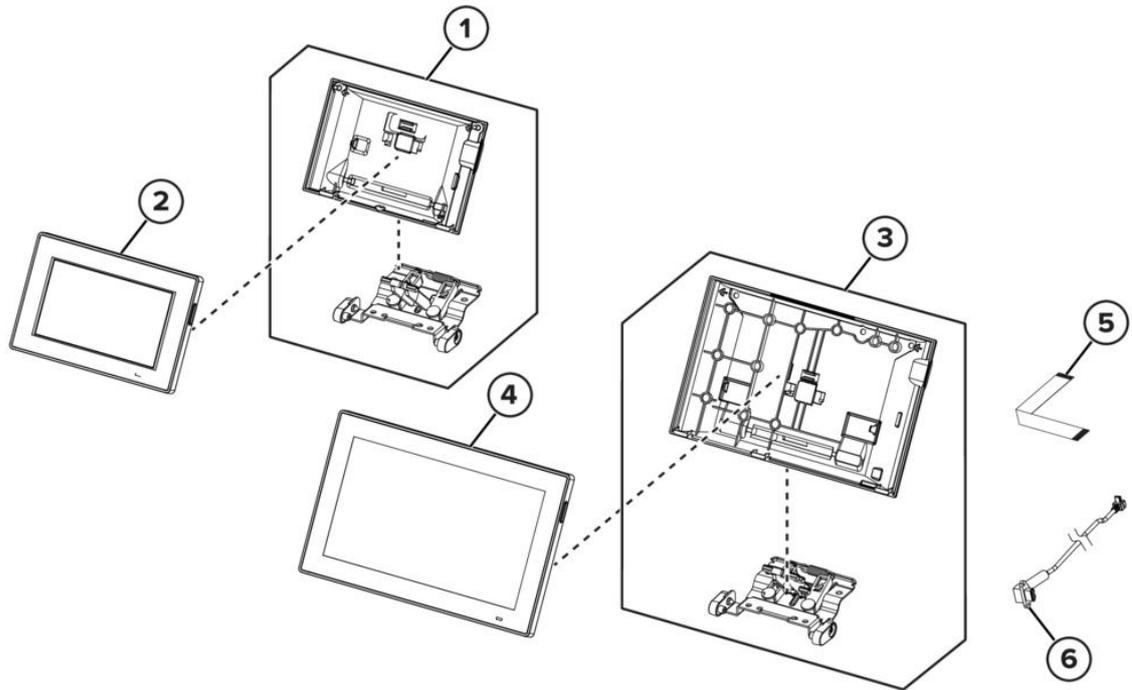
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X3707	1	1	Control panel hinge for MX532	See "Control panel hinge removal" on page 429
2	41X4351	1	1	Control panel for MX532	See "Control panel removal" on page 426
3	41X3708	1	1	Control panel hinge for MX632 and XM3350	See "Control panel hinge removal" on page 429
4	41X2880	1	1	Control panel for MX632 and XM3350	See "Control panel removal" on page 426
5	41X4550	1	1	Control panel FFC	--
6	41X4537	1	1	Front USB cable	--

Electronics
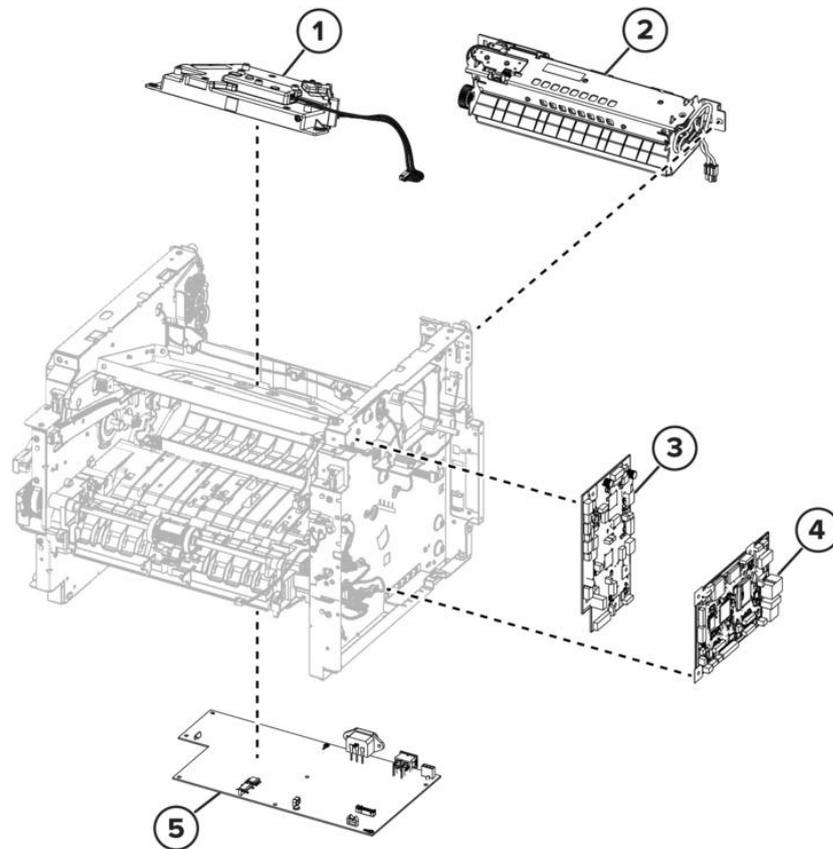
Asm-index	P/N	Units/ mach	Units/ FRU	Description	Removal procedure
1	41X1185	1	1	Printhead	See "Printhead removal" on page 494
2	41X1178	1	1	Fuser, 110 V	See "Fuser removal" on page 487
2	41X1179	1	1	Fuser, 220 V	See "Fuser removal" on page 487
2	41X1180	1	1	Fuser, 100 V	See "Fuser removal" on page 487
3	41X4154	1	1	Engine board	See "Engine board removal" on page 404
4	41X4152	1	1	Controller board	See "Controller board removal" on page 402
5	41X4411	1	1	Power supply, 100 / 110 V	See "Power supply removal" on page 450
5	41X4410	1	1	Power supply, 230 V	See "Power supply removal" on page 450

Motors
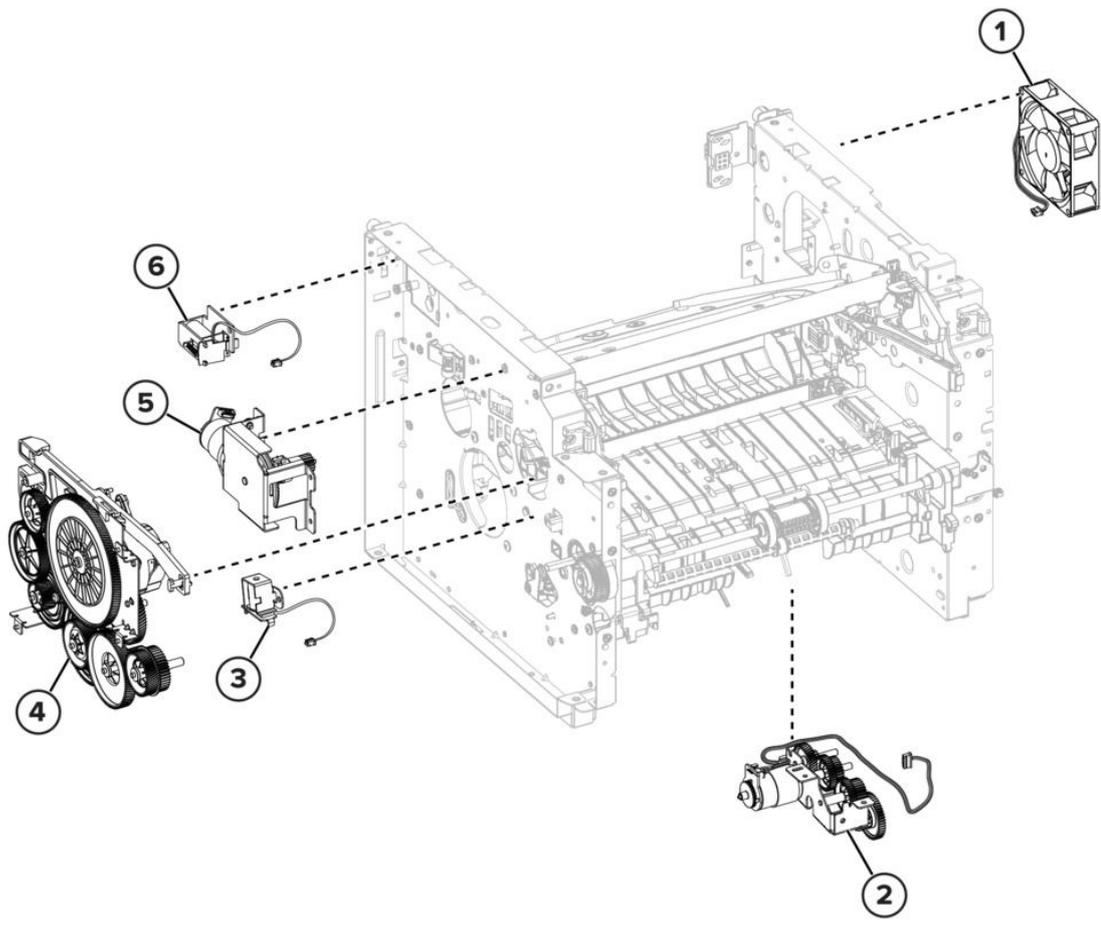
Parts catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2259	1	1	Cooling fan	See "Fan removal" on page 399
2	41X1989	1	1	Pick/lift motor gearbox	See "Pick/lift motor gearbox removal" on page 471
3	41X1213	1	1	MPF solenoid	See "MPF solenoid removal" on page 386
4	41X1224	1	1	Main drive gearbox	See "Main drive gearbox removal" on page 372
5	41X1237	1	1	Cartridge gearbox	See "Cartridge gearbox removal" on page 387
6	41X1214	1	1	Reverse solenoid	See "Reverse solenoid removal" on page 383

Sensors 1
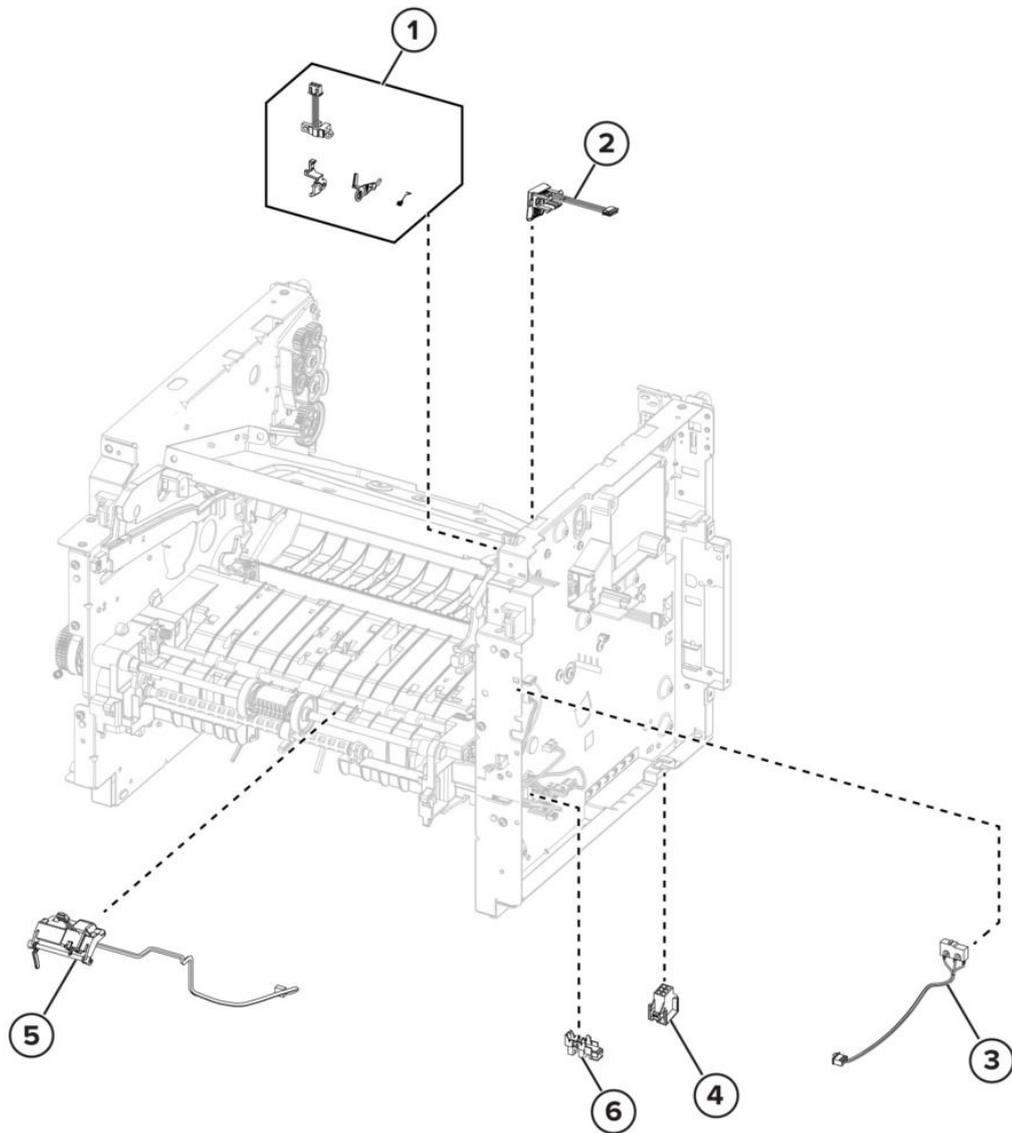
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1988	1	1	Sensor (cartridge barrel)	See "Cartridge barrel shutter sensor kit removal" on page 416
2	41X1162	1	1	Toner cartridge smart chip contact	See "Toner cartridge smart chip contact removal" on page 411
3	41X1209	1	1	Sensor (front door)	See "Sensor (front door) removal" on page 438
4	41X4549	1	1	Interconnect cable	See "Interconnect cable removal" on page 397
5	41X1210	1	1	Sensor (MPF paper present)	See "Sensor (MPF paper present) removal" on page 447
6	41X4991	1	1	Sensor (tray present)	See "Sensor (tray present) removal" on page 449

Sensors 2

Parts catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1208	1	1	Sensor (trailing edge)	See "Sensor (trailing edge) removal" on page 469
2	41X4548	1	1	Sensor (duplex and input)	See "Sensors (duplex and input) removal" on page 457
3	41X1238	1	1	Sensor (paper present)	See "Sensor (paper present) removal" on page 467
4	41X4453	1	1	Paper present sensor flag parts kit • Paper present flag and bracket • Toner density sensor and bracket • Spring • Screw • Grease	See "Sensor (toner density) and media present sensor flag removal" on page 476
5	41X4456	1	1	Toner density sensor parts kit • Toner density sensor and bracket • Spring • Screw • Grease	See "Sensor (toner density) and media present sensor flag removal" on page 476
6	40X8044	1	1	Sensor (index)	See "Sensor (index) removal" on page 459

Paper feed
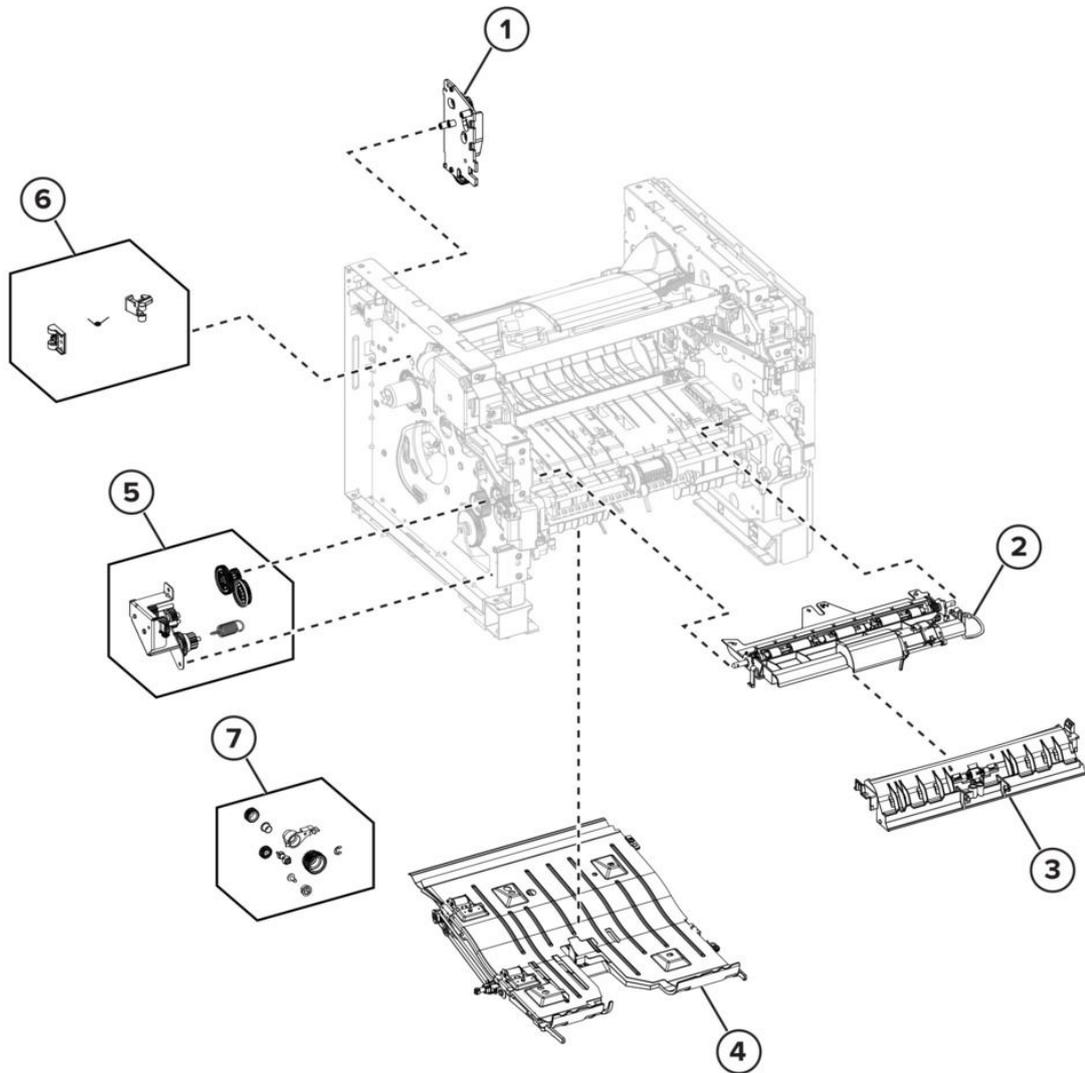
Parts catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2256	1	1	Redrive gear plate	See "Redrive gear removal" on page 488
2	41X1183	1	1	Jam access cover	See "Jam access cover removal" on page 436
3	41X1184	1	1	Front input guide	See "Front input guide removal" on page 448
4	41X1176	1	1	Duplex unit	See "Duplex removal" on page 453
5	41X1182	1	1	MPF gearbox	See "MPF gearbox removal" on page 375
6	41X2255	1	1	Fuser actuator	See "Fuser actuator removal" on page 379
7	41X4214	1	1	Duplex gear kit	See "Duplex gear kit removal" on page 392

Rollers
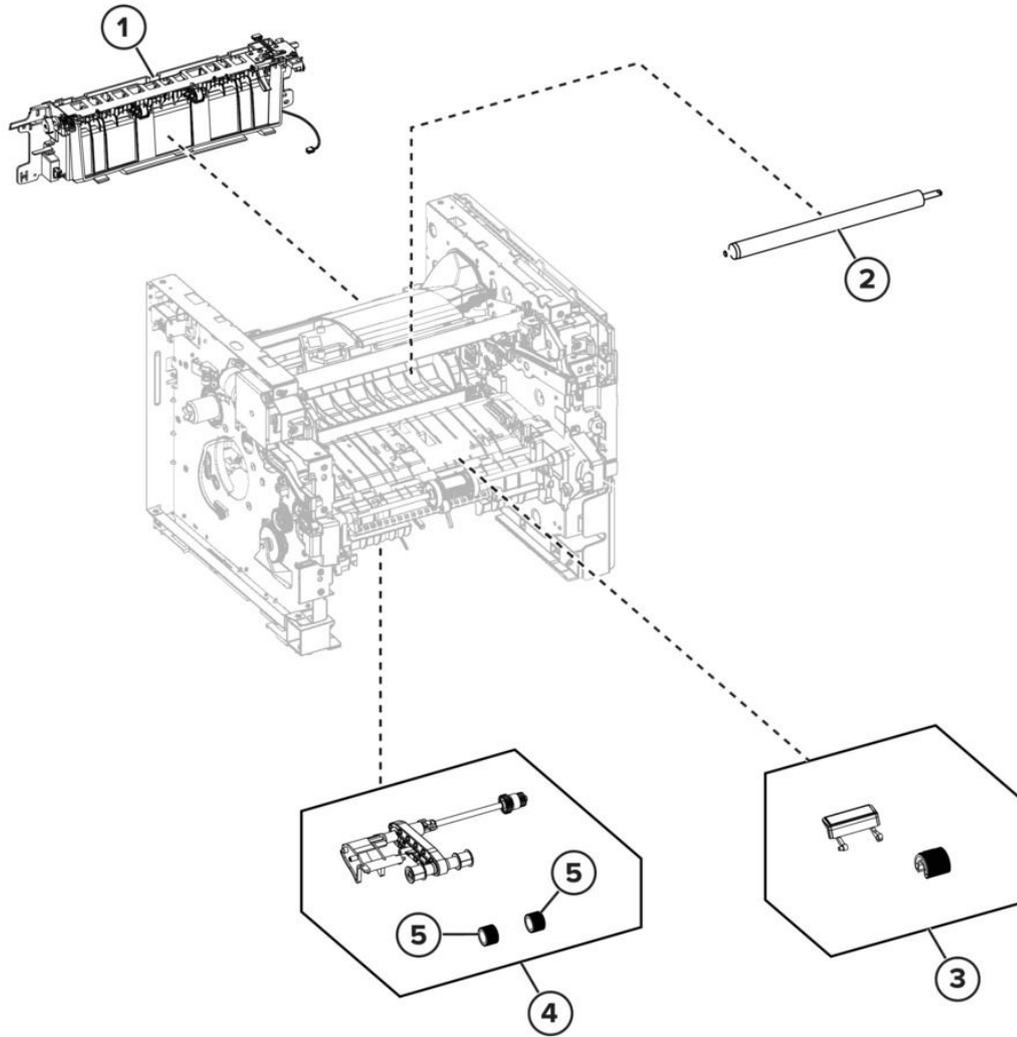
Parts catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4409	1	1	Redrive	See "Redrive removal" on page 486
2	40X8393	1	1	Transfer roller	See "Transfer roller removal" on page 435
3	41X1197	1	1	MPF pick roller and separator pad	See "MPF pick roller and separator pad removal" on page 440
4	41X1196	1	1	Pick roller • Pick arm • Pick tire	See "Pick roller removal" on page 460
5	41X1198	2	2	Pick tire	See "Pick tire removal" on page 463

MPF and standard tray
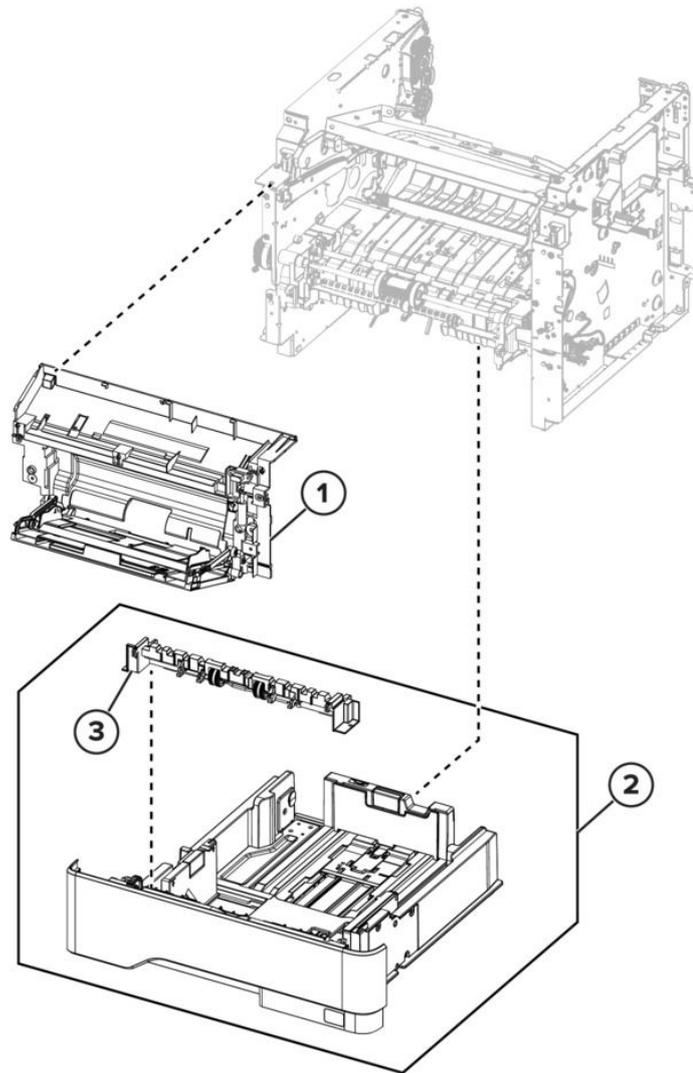
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4144	1	1	MPF with front cover	See "MPF with front access cover removal" on page 422
2	41X1987	1	1	Standard 550-sheet tray insert	--
3	41X1212	1	1	Separator roller	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1					See "MPF with front access cover removal" on page 422
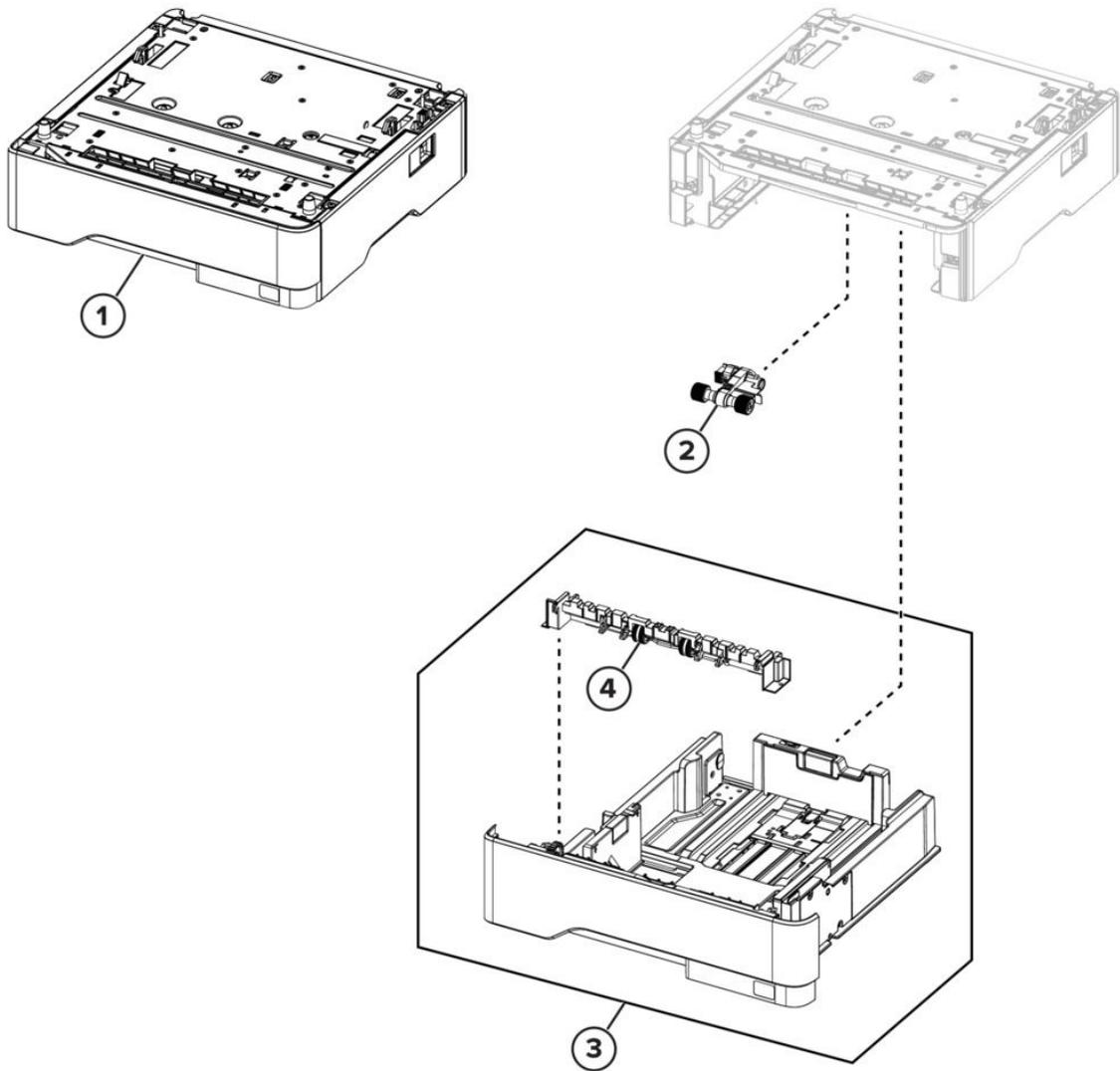
Optional trays

Parts catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4149	1	1	Optional 550-sheet tray	--
1	41X4148	1	1	Optional 250-sheet tray	--
2	41X1239	1	1	Pick roller	--
3	41X1222	1	1	550-sheet tray insert (optional tray)	--
3	41X1221	1	1	250-sheet tray insert (optional tray)	--
4	41X1212	1	1	Separator roller and bracket	See "Separator roller removal" on page 516

Imaging
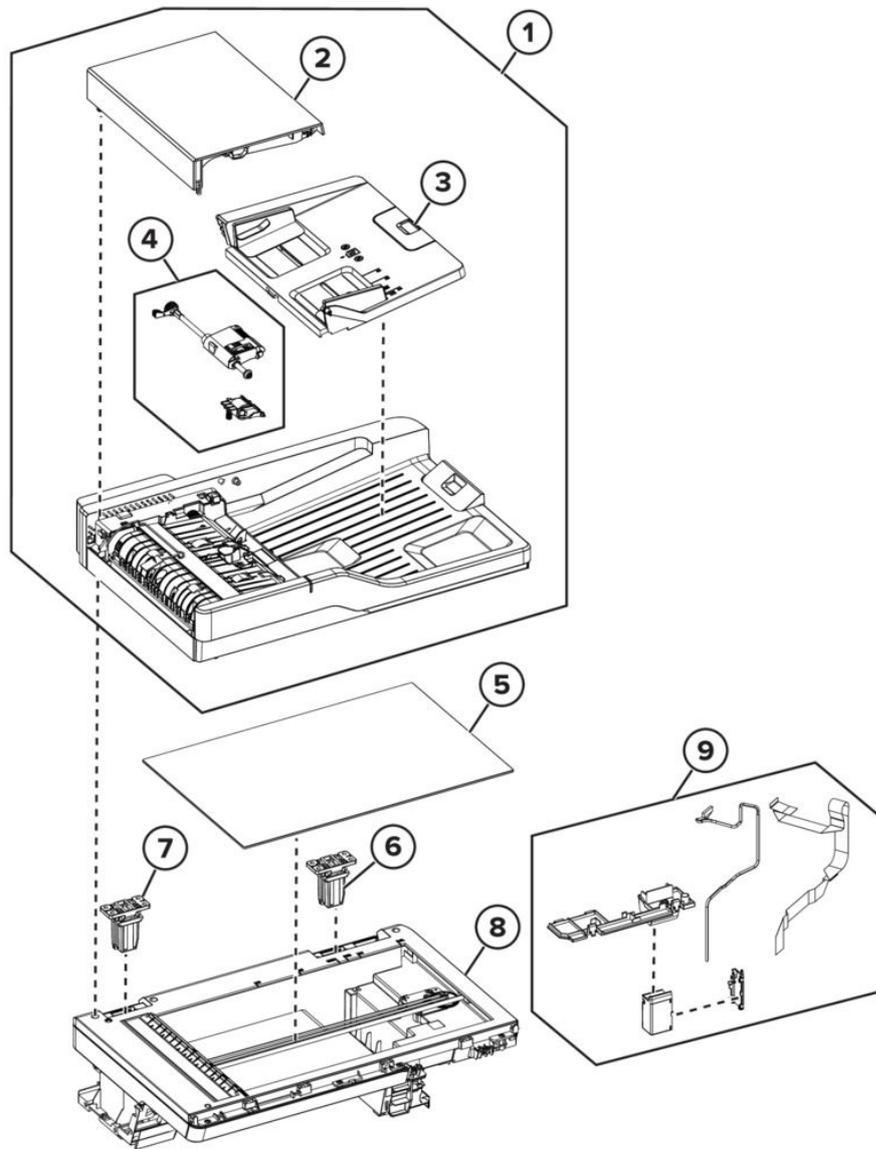
Parts catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4369	1	1	ADF	See "ADF removal" on page 503
2	41X4429	1	1	ADF access door	See "ADF top cover removal" on page 509
3	41X2847	1	1	ADF tray	See "ADF input tray removal" on page 495
4	41X2848	1	1	ADF roller	See "ADF rollers removal" on page 500
5	41X2853	1	1	Scanner glass pad	See "Scanner glass pad removal" on page 496
6	40X7546	1	1	ADF right hinge	See "ADF right hinge removal" on page 512
7	41X2845	1	1	ADF left hinge	See "ADF left hinge removal" on page 513
8	41X4427	1	1	Flatbed scanner	See "Flatbed scanner removal" on page 506
9	41X4431	1	1	ADF cable kit	--

Electronic attachments
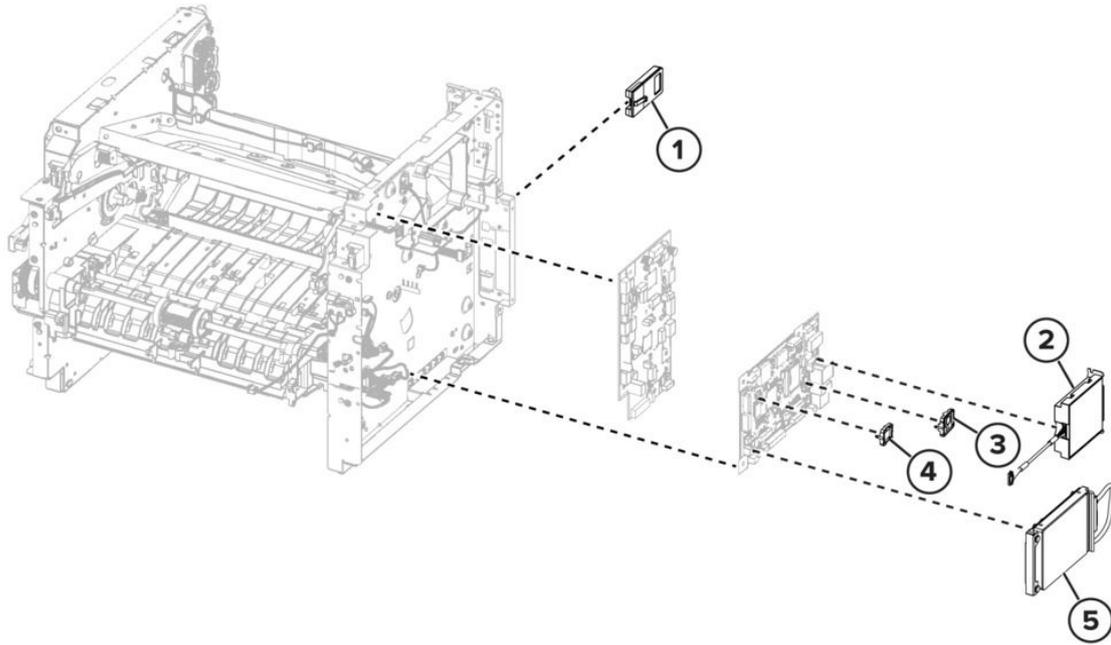
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4177	1	1	Wireless card (Marknet N8450)	See "Wireless module removal" on page 409
2	41X2936	1	1	Fax card	See "Fax card removal" on page 406
3	41X2854	1	1	Intelligent Storage Device (ISD), 128GB	--
4	41X2873	1	1	Trusted platform module	--
5	40X9934	1	1	Printer hard disk (SATA) for MX532, MX632, XM3350, 500GB	--

Convenience stapler
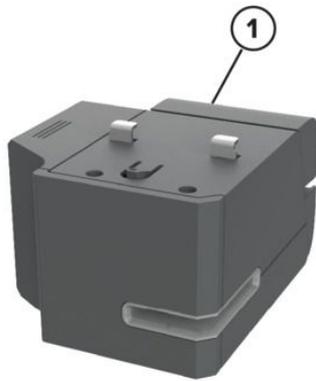
Parts catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4236	1	1	Convenience stapler	--
2	40X8149	1	1	Staple cartridge holder	--
3	41X4237	1	1	Universal AC power adapter	--

Printer stand
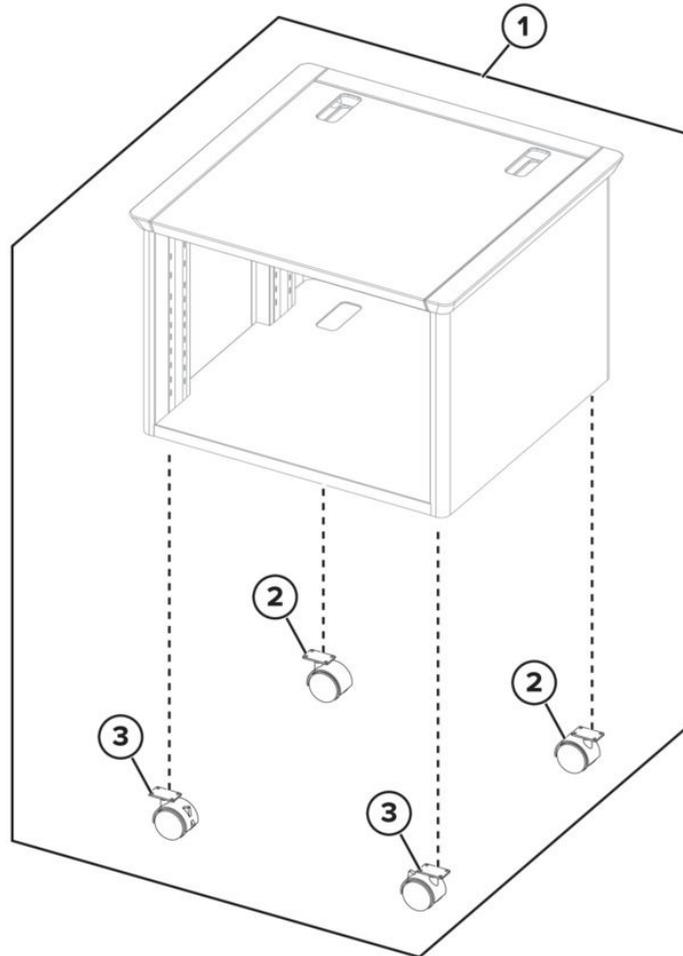
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0764	1	1	Printer stand	--
2	41X0775	2	1	Nonlocking caster	--
3	41X0774	2	1	Locking caster	--

Maintenance kits

Maintenance kits

Part number and kit	Contents	Maintenance interval
41X1227—Maintenance Kit (100 V)	• 41X1180—Fuser (100 V) • 41X1197—MPF pick roller and separator pad • 41X1198—Pick tires • 41X1212—Separator roller • 40X8393—Transfer roller	200K
41X1225—Maintenance Kit (110 V)	• 41X1178—Fuser (110 V) • 41X1197—MPF pick roller and separator pad • 41X1198—Pick tires • 41X1212—Separator roller • 40X8393—Transfer roller	200K
41X1226—Maintenance Kit (220 V)	• 41X1179—Fuser (220 V) • 41X1197—MPF pick roller and separator pad • 41X1198—Pick tires • 41X1212—Separator roller • 40X8393—Transfer roller	200K
41X2848—Maintenance kit ADF	ADF rollers • ADF pick roller • ADF separator roller	110K (scanned pages)

When performing the 200K scheduled maintenance procedure, the following areas should be cleaned of media dust and toner contamination:

- Media trays
- Imaging unit area

- Transfer roller area
- Duplex area
- Standard bin

Power cords

619

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: 649 (MX532adwe); 662 (MX632adwe, XM3350) Two-sided: 396 (MX532adwe); 406 (MX632adwe, XM3350)
Copy	The product is generating hard-copy output from hard-copy original documents.	684
Scan	The product is scanning hard-copy documents.	23.5 (MX532adwe); 24.8 (MX632adwe, XM3350)
Ready	The product is waiting for a print job.	13.4 (MX532adwe); 15.3 (MX632adwe, XM3350)
Sleep Mode	The product is in a high-level energy-saving mode.	1.0 (MX532adwe); 1.1 (MX632adwe, XM3350)
Hibernate	The product is in a low-level energy-saving mode.	0.1
Off	The product is plugged into an electrical outlet, but the power switch is turned off.	0.1

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average. Values are subject to change. See www.lexmark.com for current values.

Sleep Mode

This product is designed with an energy-saving mode called **Sleep Mode**. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the **Sleep Mode Timeout**.

Factory default Sleep Mode Timeout for this product (in minutes):	15

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes. 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.

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

Default Hibernate timeout

Factory default Hibernate Timeout for this product in all countries or regions	3 days

The amount of time the printer waits after a job is printed before it enters Hibernate mode can be modified between one hour and one month.

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 calculate 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.

Applicability of Regulation (EU) 2019/2015 and (EU) 2019/2020

Per Commission Regulation (EU) 2019/2015 and (EU) 2019/2020, the light source contained within this product or its component is intended to be used for Image Capture or Image Projection only, and is not intended for use in other applications.

Selecting a location for the printer

Choose the right location for your printer to keep it safe and well-ventilated.

- 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:

Recommended temperatures

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:
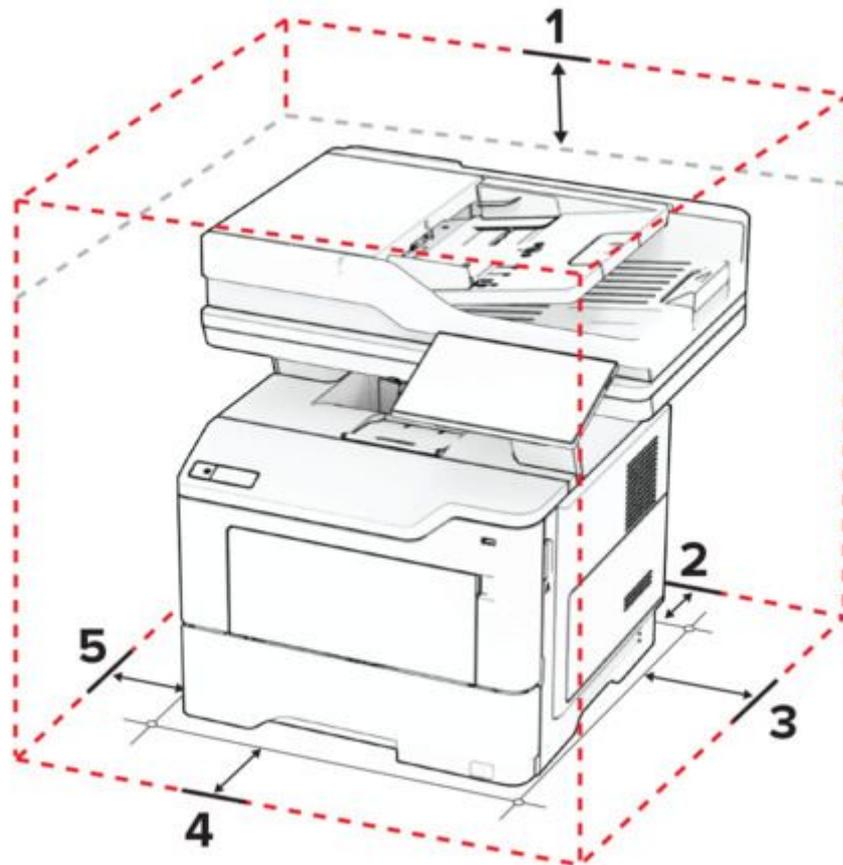
Recommended spaces around the printer

1	Top	305 mm (12 in.)
2	Rear	100 mm (3.94 in.)
3	Right side	76.2 mm (3 in.)
4	Front	305 mm (12 in.) **NOTES** The minimum space needed in front of the printer is 76 mm (3 in.).
5	Left side	110 mm (4.33 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: 55Two-sided: 55 (MX532adwe); 54 (MX632adwe, XM3350)
Scanning	52
Copying	57
Ready	15

Values are subject to change. See www.lexmark.com for current values.

Temperature information

Ambient operating temperature	10 to 32.2°C (50 to 90°F)
Shipping temperature	-40 to 40°C (-40 to 104°F)
Storage temperature and relative humidity	-40 to 40°C (-40 to 104°F) 8 to 80% RH

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

- 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 .

- 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.

- 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 .

Contacting your dealer

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

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

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 the international support contact directory.
Visit the place where you purchased your printer.

Installing optional trays

Know which precautions to take and how to position the printer when you are adding 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.
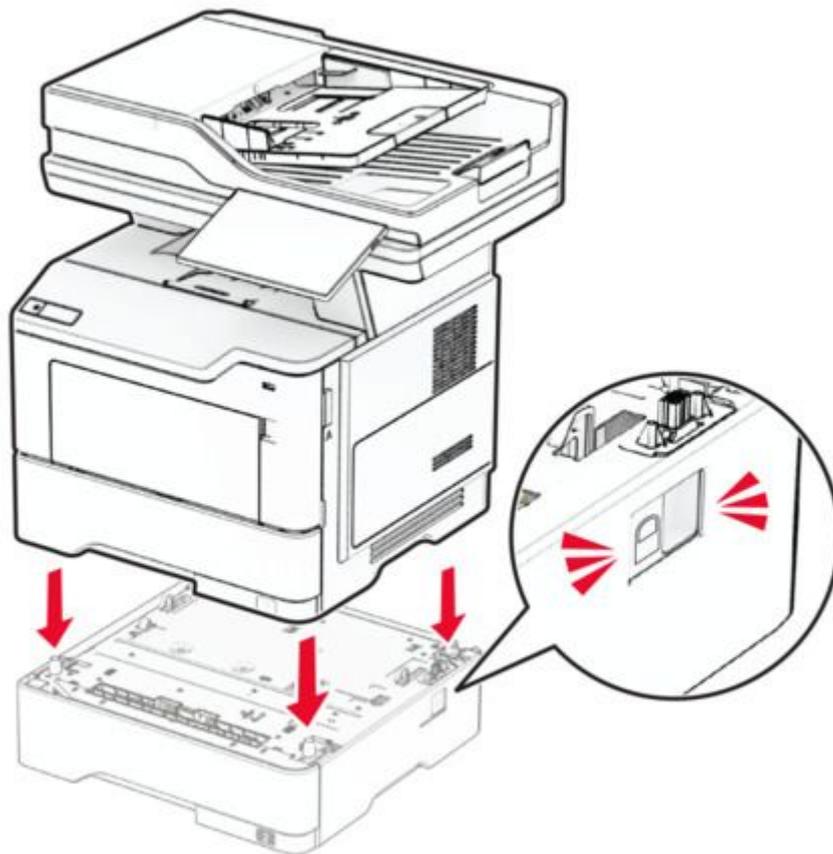
5. Connect the power cord to the printer, and then to the electrical outlet.
6. Turn on the printer.

Add the tray in the print driver to make it available for print jobs. For more information, see
See "Adding available options in the print driver" on page 637.

Adding available options in the print driver

The following instructions will guide you on how to add the options that you installed on your printer.

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.

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 a single processor for both RIP and engine functions. The raster image processor (RIP) code performs system responsibilities such as PC connection, LAN, ISP attachments, and bitmap generation. The engine code performs tasks related to the operation of the electrical and mechanical device systems such as motors, lasers, power supplies, and fusers. The NVRAMs are located on the controller board and control panel, replacement of either the controller board or control panel will pull or mirror NVRAM data from each other.

Print cycle operation

Print engine layout
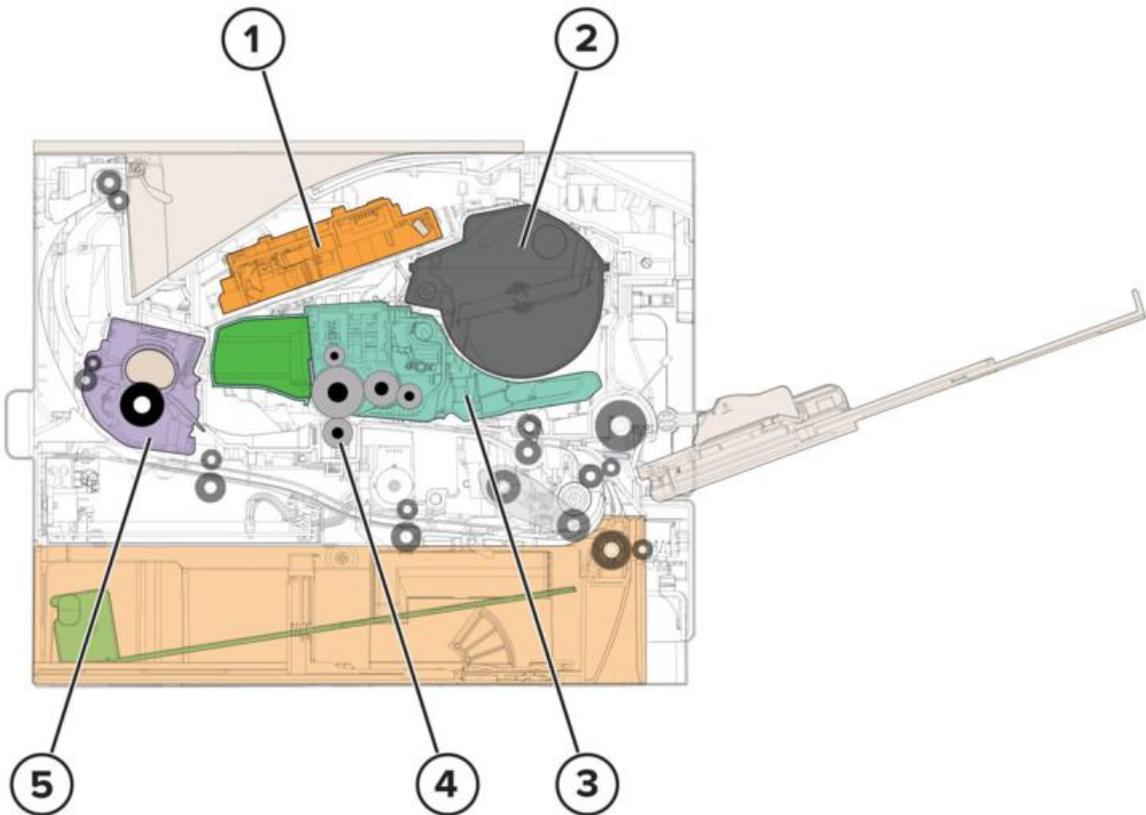
Print engine layout

1	Printhead
2	Toner cartridge
3	Imaging unit
4	Transfer roller
5	Fuser

Flowchart
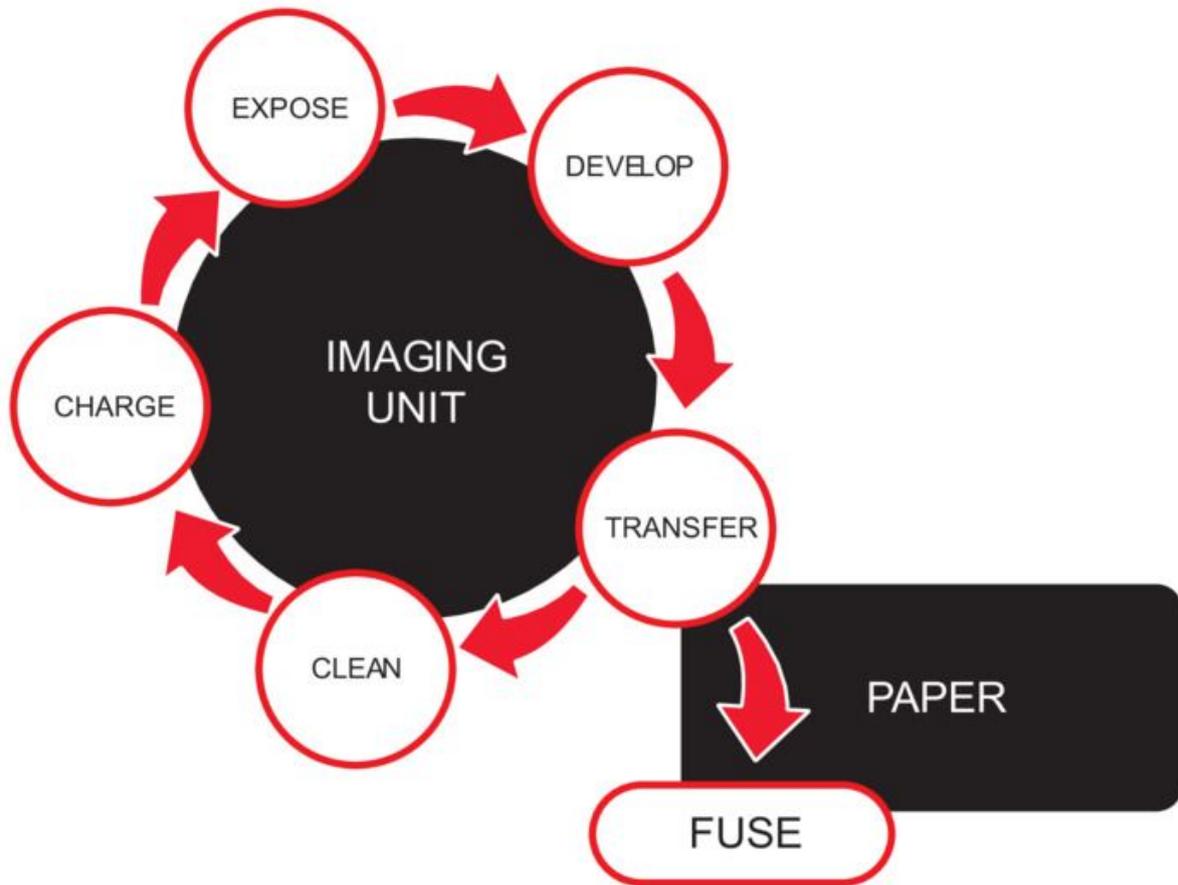
EP process

Charge

Charge theory

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 See "Repeating defects " on page 88.
- 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
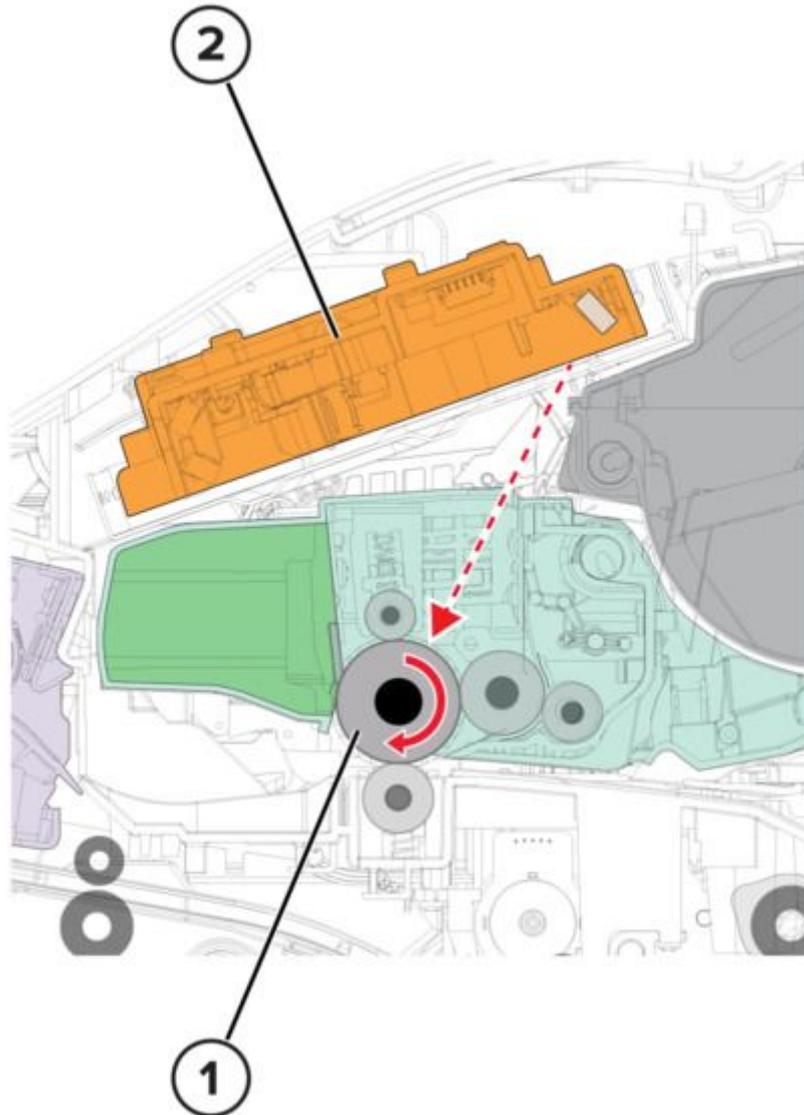
Expose theory

1	Photoconductor drum
2	Printhead

The printhead laser emits 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
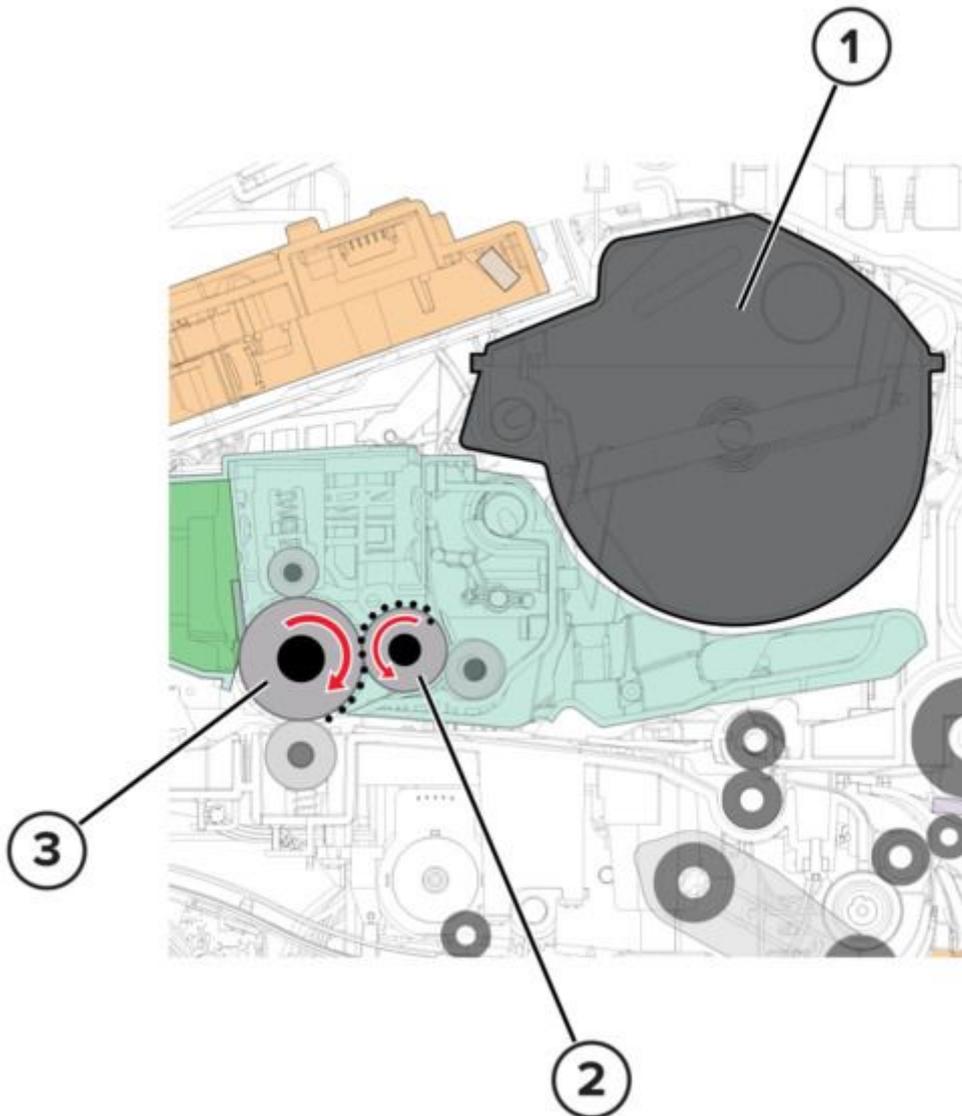
Develop theory

1	Toner cartridge
2	Developer roller
3	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 similar 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 cartridge 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 See "Repeating defects " on page 88.

Transfer
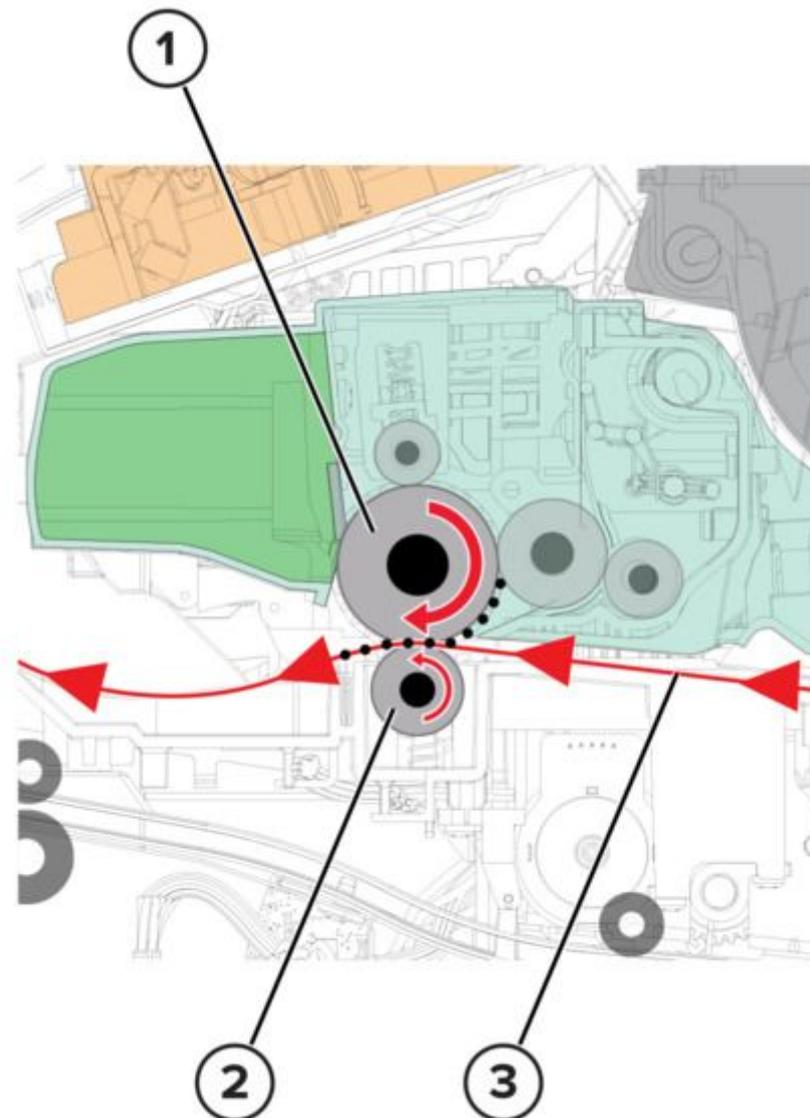
Transfer theory

1	Photoconductor drum

2	Transfer roller
3	Paper

The transfer roller applies a positive charge to the paper, which is pressed between the transfer roller and the photoconductor drum. The charge on the paper received from the transfer roller is positive. The charge on the photoconductor drum received from the charge roller is negative. The relative opposite polarities between the two charges result in the charge attracting the toner onto the paper.

Service tips

- Do not touch the surface of the transfer 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 transfer roller may need to be replaced. For more information, see See "Repeating defects " on page 88.
- Do not use solvents or other cleaners to clean the transfer roller surface. Their chemicals may result to scratches or charge disparities. Voids on the printed page or blotches of light print may occur. The transfer roller may need to be replaced.
- Sharp and hard objects can damage the transfer roller surface. Be careful when using a screwdriver or prying tool near the transfer roller. If the transfer roller has tears or cracks, then the transfer roller may need to be replaced.

Clean
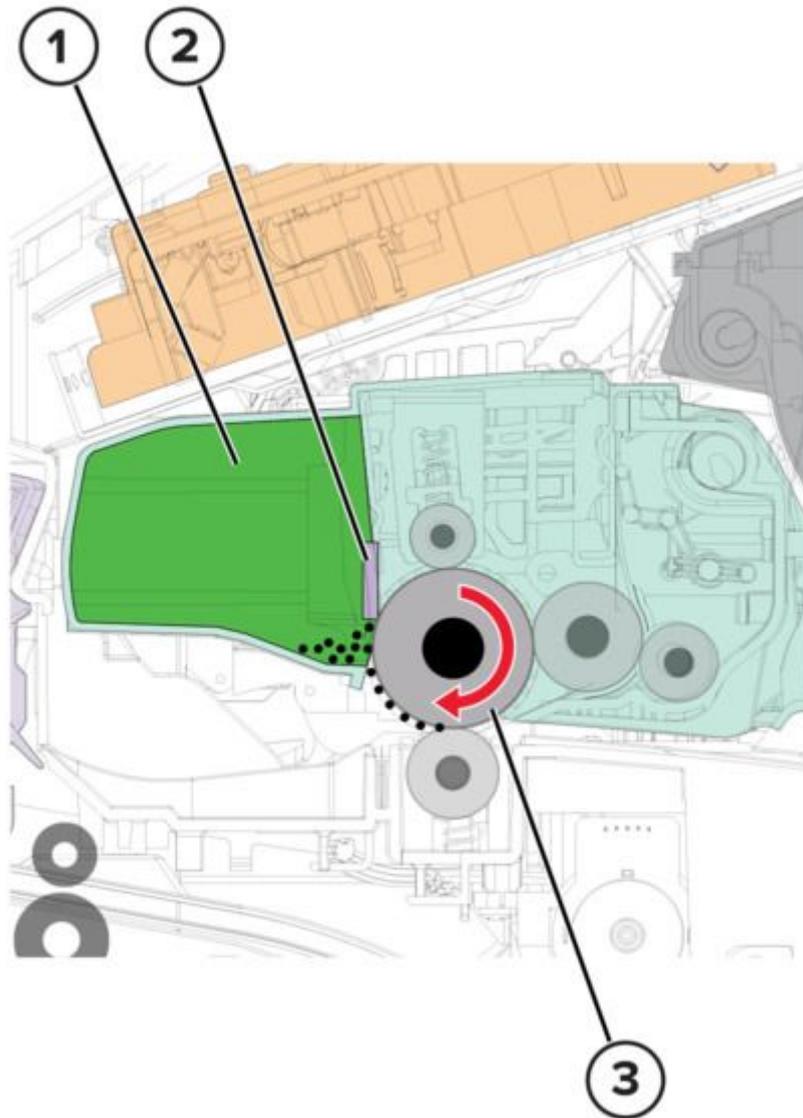
Transfer belt clean

1	Waste toner bottle
2	Cleaning blade
3	Photoconductor drum

The cleaning blade removes the toner residue from the photoconductor drum. The cycle (charge, expose, develop, transfer, and clean) repeats until the whole image is transferred to the paper.

Fuse
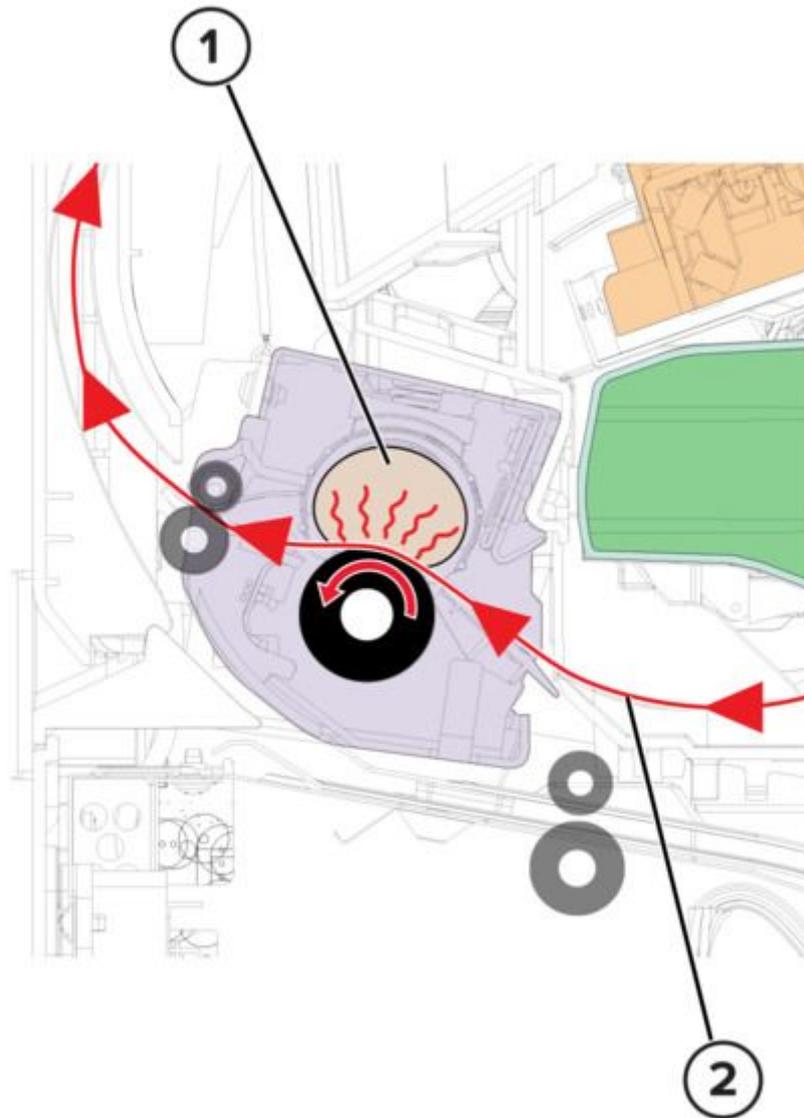
Fuse theory

1	Fuser
2	Paper

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 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 fuser is damaged, then the toner may rub 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.
- If possible, never pull paper with unfused toner through the fuser. Try to pull out the jammed paper from the fuser in the opposite direction it was traveling.

Printer operation

Printer sections
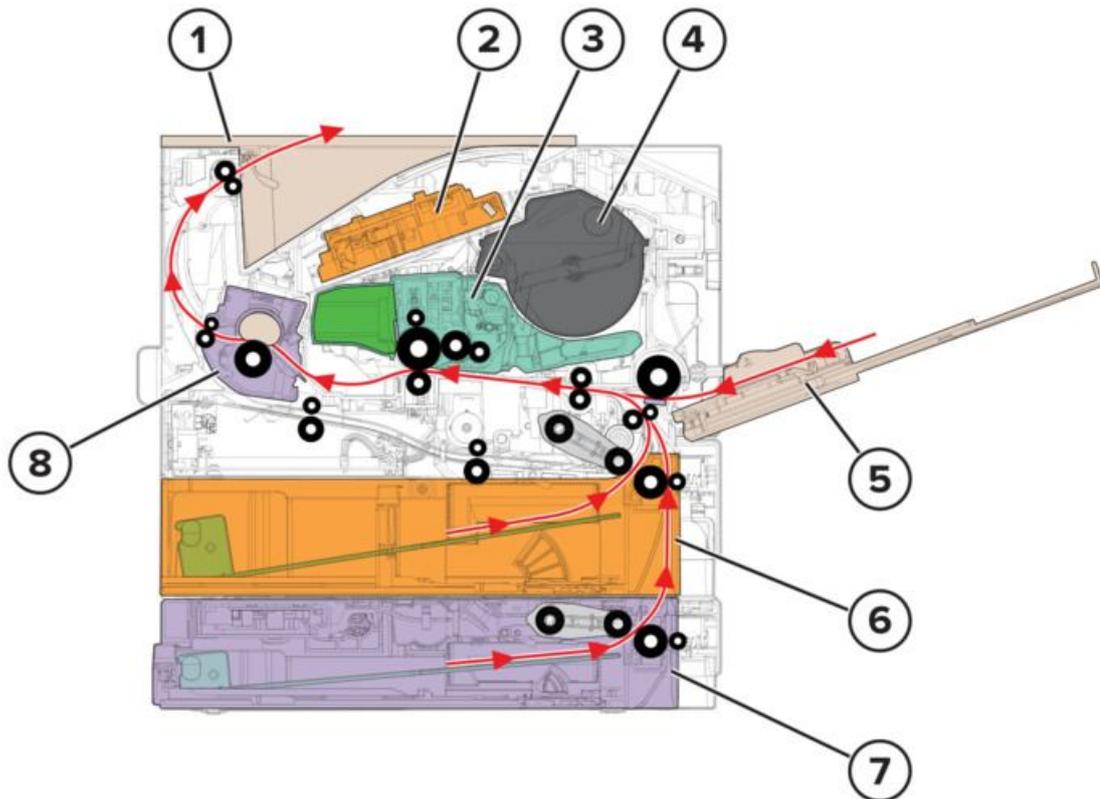
Printer sections

1	Bin
2	Printhead
3	Imaging unit
4	Toner cartridge
5	MPF
6	Standard tray
7	Optional tray
8	Fuser

Printer paper path

One-sided print job
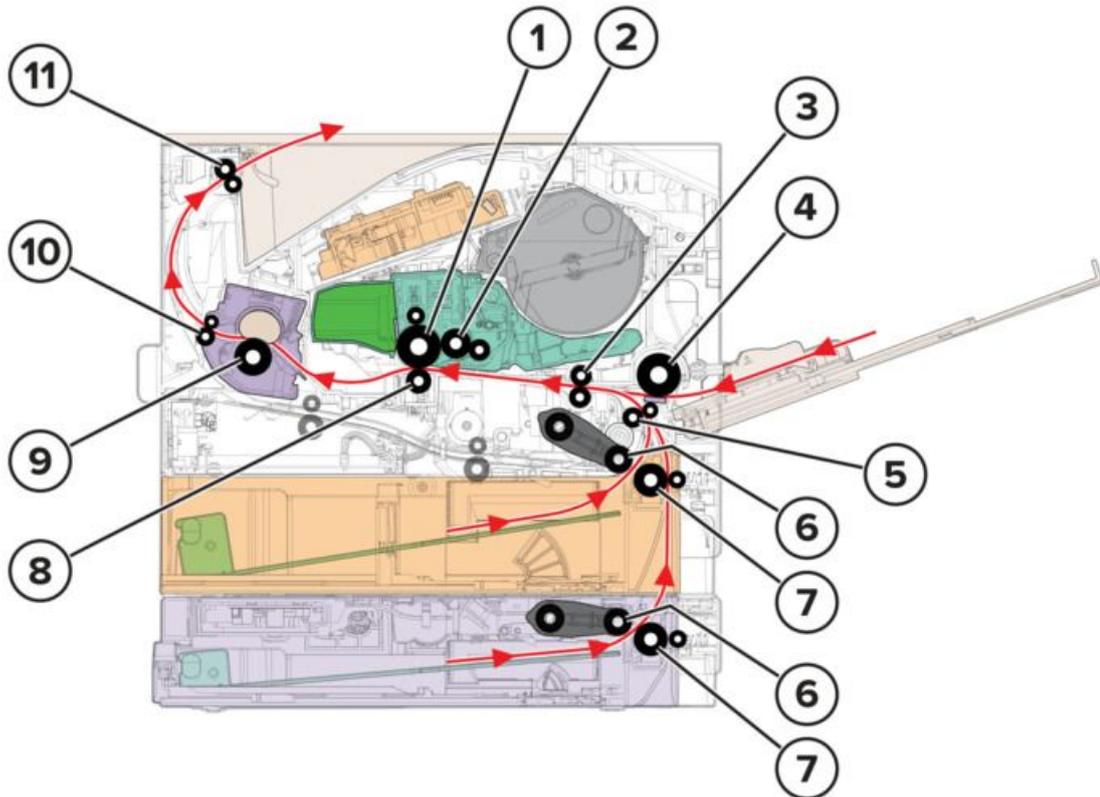
One-sided print job

1	Photoconductor drum
2	Developer roller
3	First input roller
4	MPF pick roller
5	Second input roller
6	Pick roller
7	Separator roller
8	Transfer roller

9	Fuser roller
10	Fuser exit roller
11	Paper exit roller

The pick roller picks and feeds the paper to the separator roller. The separator roller feeds the paper to the second input roller, which feeds it to the first input roller. For MPF print jobs, the MPF pick roller picks and feeds the paper to the first input roller.

The first input roller feeds the paper to the transfer roller. At the transfer roller, the photoconductor drum transfers the developed image to the paper to create the printed image.

As the paper passes the fuser, heat and pressure are applied to permanently bond the toner to the paper.

After printing, the printer ejects the paper by the paper exit roller.
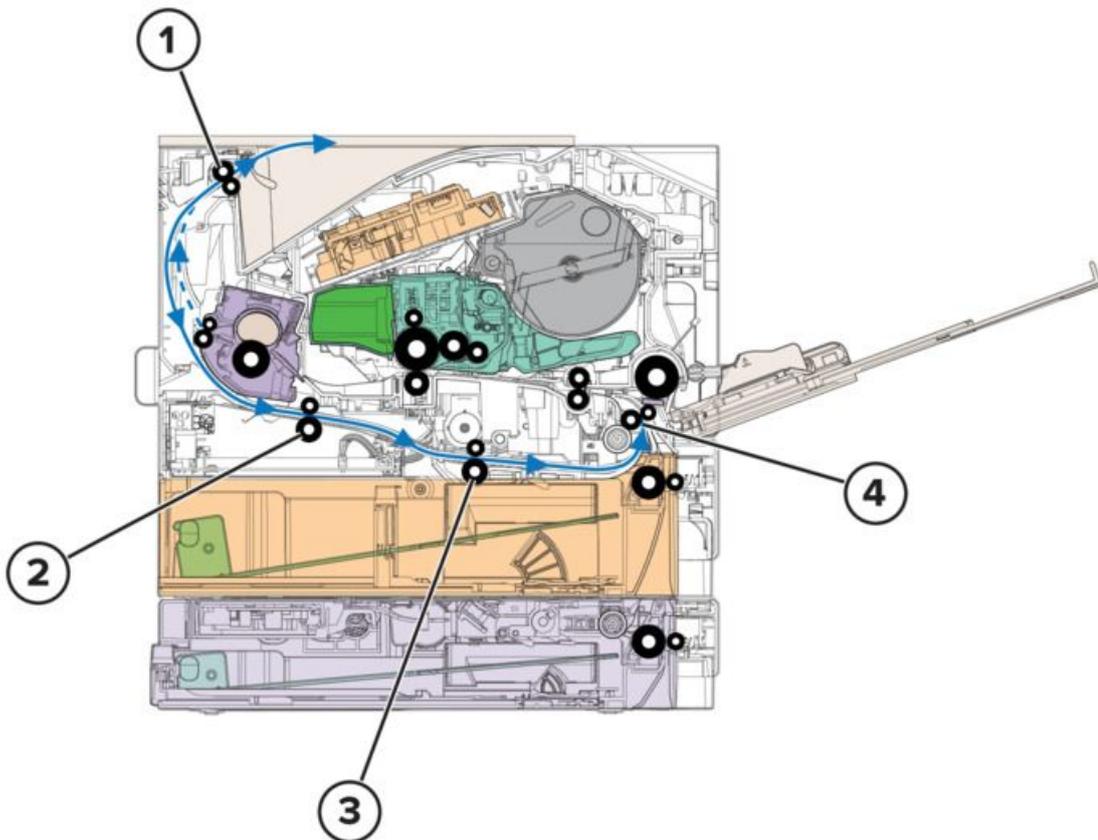
Two-sided print job

Two-sided print job

1	Paper exit roller
2	Duplex rear roller
3	Duplex front roller
4	Second input roller

After the first side is printed, the paper reverses direction to get its opposite page printed.

The paper travels along the duplex path until it reenters the second input roller. From there, the paper continues its path until the print job is done.

Printer paper path sensors
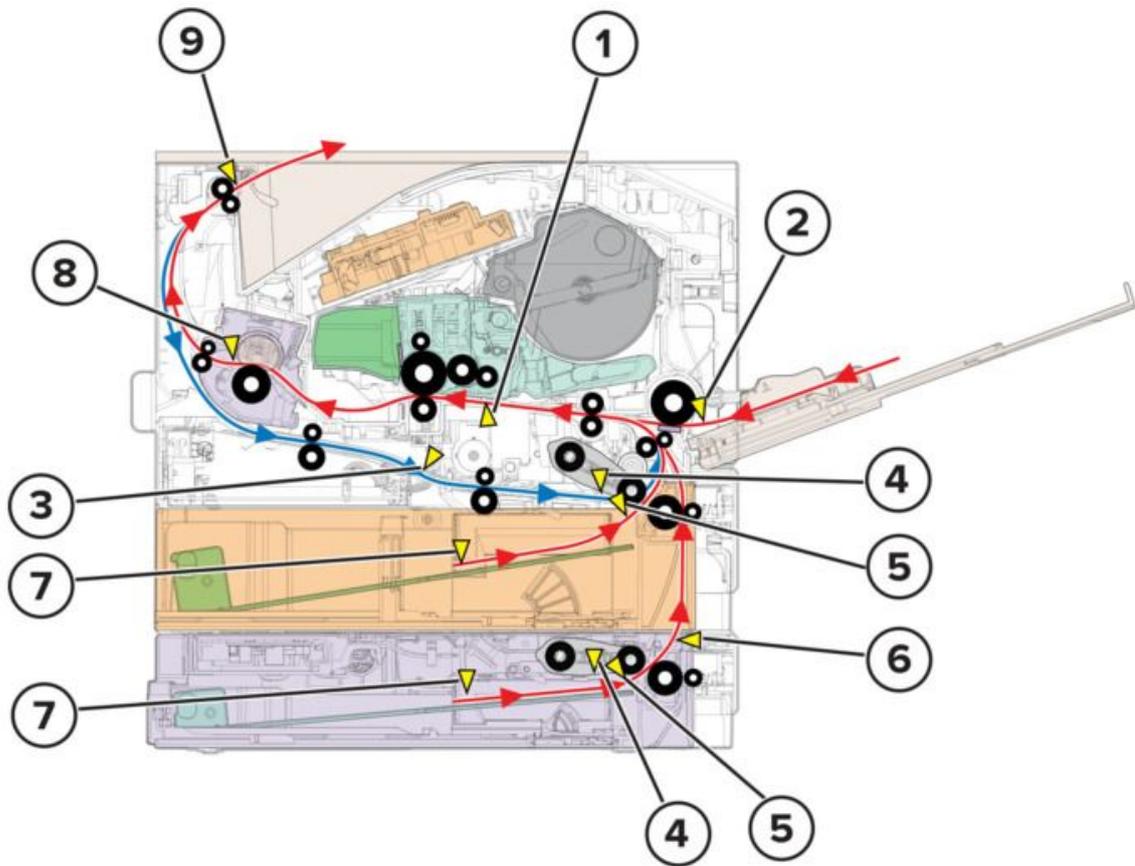
Paper path sensors

#	Sensor	Function
1	Sensor (input)	Detects the paper traveling between the first input roller and the transfer roller
2	Sensor (MPF paper present)	Detects paper presence in the MPF tray
3	Sensor (duplex)	Detects the paper traveling along the duplex path
4	Sensor (index)	Detects if the pick roller is at the correct height to pick paper from the tray

#	Sensor	Function
		NOTES The sensor in the standard tray is supported only in some printer models.
5	Sensor (trailing edge)	Detects the trailing edge of the paper fed from the tray
6	Sensor (pass-through)	Detects paper that is fed from tray 2
7	Sensor (media present)	Detects if paper is in the tray **NOTES** The sensor in the standard tray is supported only in some printer models.
8	Sensor (fuser exit)	Detects the paper that is exiting the fuser
9	Sensor (narrow media/ bin full)	Detects if the paper is narrow and if the the bin is full

ADF and scanner operation

Flatbed scanner drive
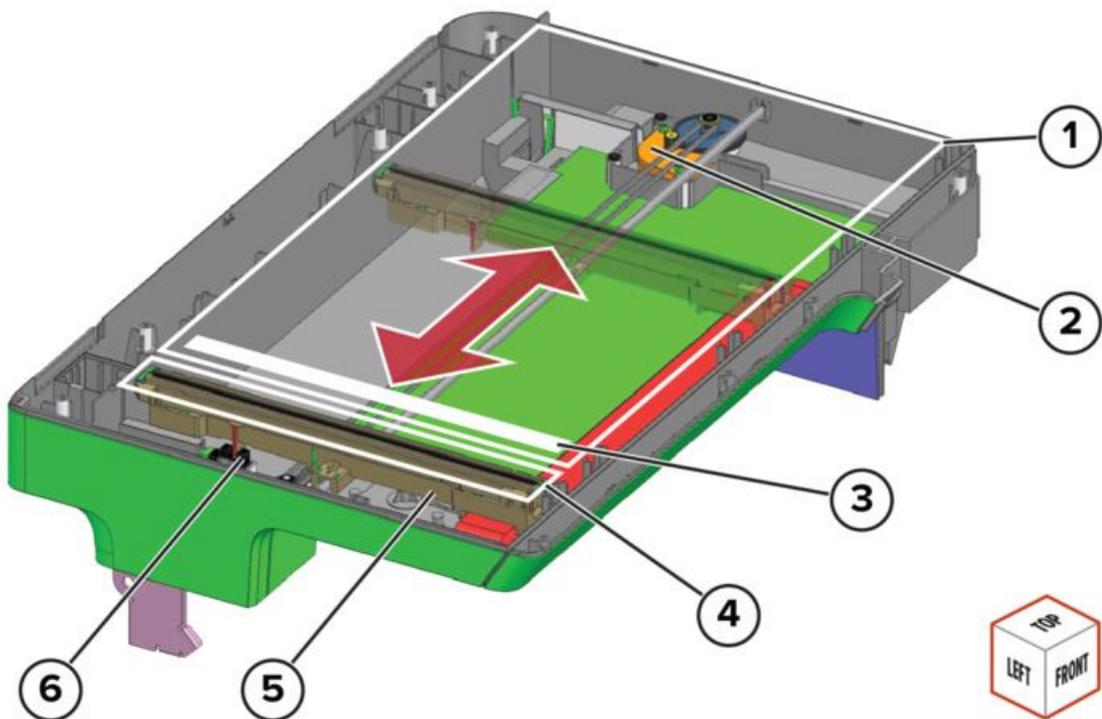
Flatbed scanner drive

1	Scanner glass area
2	Motor (flatbed CIS scanner)
3	Calibration reference strip
4	ADF glass area
5	Flatbed CIS scanner
6	Sensor (flatbed CIS scanner)

The flatbed scanner has a contact image sensor (CIS) scan module that illuminates the surface of the document. The reflections produced are detected by the CIS scanner to create the scan image.

For flatbed scan jobs, the CIS scanner moves across the scanner glass area to scan the front side of the document (facedown). The motor (flatbed CIS scanner) controls the CIS scanner position. The CIS scanner is detected at its home position by the sensor (flatbed CIS scanner). The position of the CIS scanner is also detected based on the computed

distance relative to the calibration reference strip. To maintain the correct shading levels if needed, the CIS scanner scans the white surface of the calibration reference strip.
During ADF scan jobs, the CIS scanner stays at the ADF glass area to scan the front side of the document.

ADF paper path rollers
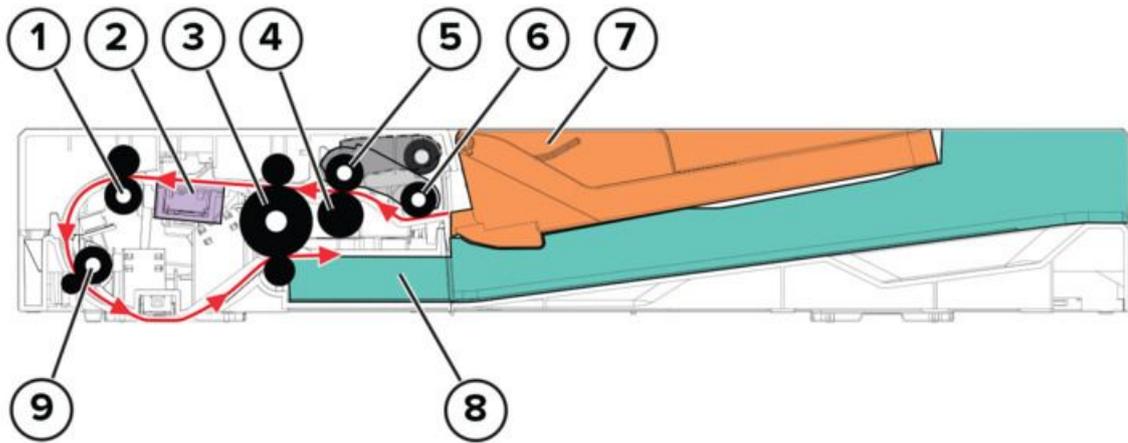
ADF paper path

1	ADF transport roller
2	ADF CIS scanner
3	ADF feed/exit roller
4	ADF separator roller
5	ADF feed roller
6	ADF pick roller
7	ADF tray
8	ADF bin
9	ADF scan roller

Paper from the ADF tray enters the ADF through the pick roller, feed roller, and separator roller.

The back side of the paper is scanned after the paper passes the ADF feed/exit roller. The front side of the paper is scanned after the paper passes the ADF scan roller.

After the paper is scanned, it is ejected by the feed/exit roller to the ADF bin.

ADF paper path sensors
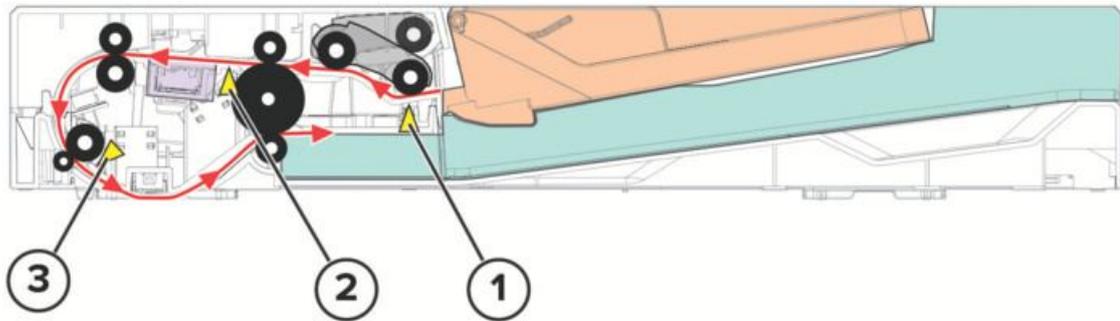
ADF paper path sensors

#	Sensor	Function
1	Sensor (ADF paper present)	Detects paper presence in the ADF tray
2	Sensor (ADF scan 2)	Detects the paper that is about to be scanned at its back side
3	Sensor (ADF scan 1)	Detects the paper that is about to be scanned at its front side

ADF pick and feed drive
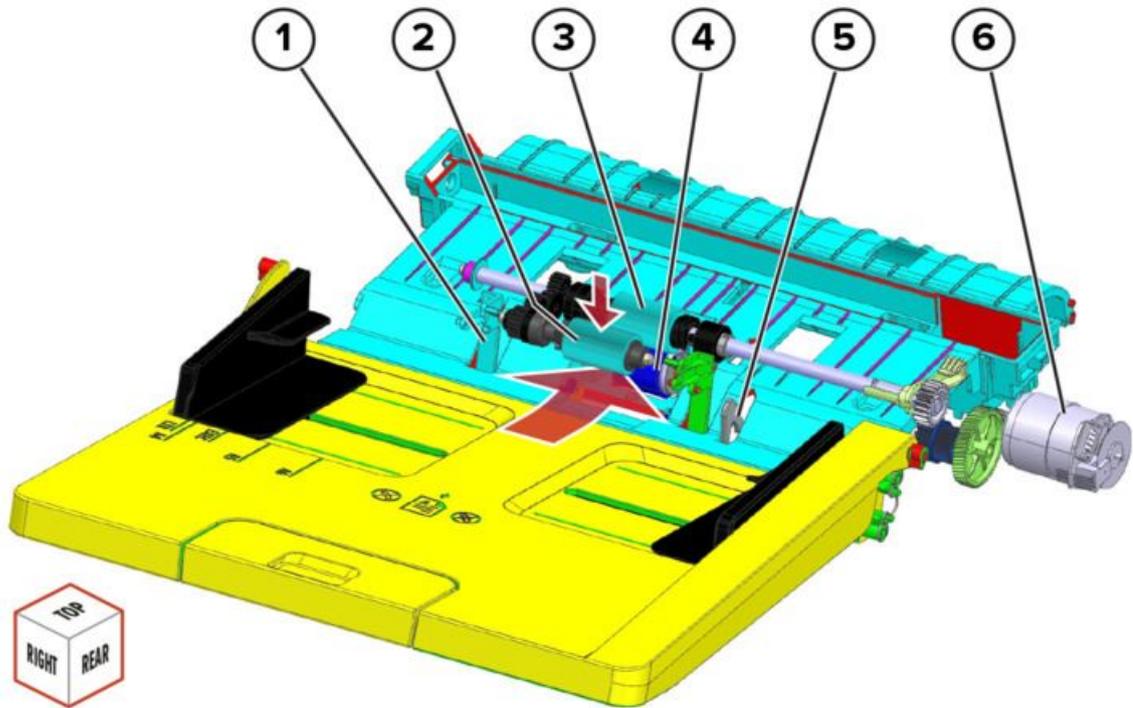
ADF tray pick and feed drive

1	Paper stop
2	ADF pick roller
3	ADF feed roller
4	ADF separator roller
5	Sensor (ADF paper present)
6	Motor (ADF pick)

The sensor (ADF paper present) detects if paper is loaded in the ADF tray. When the scan job command is signaled, the pick roller lowers to pick the paper from the ADF tray.

NOTES
When the pick roller is raised, the leading edges of the paper in the tray are aligned by the paper stops.

When paper reaches the feed roller, the resistance of the separator roller allows only the topmost sheet to feed.
The motor (ADF pick) drives the ADF pick and feed rollers.

ADF transport and scan drive
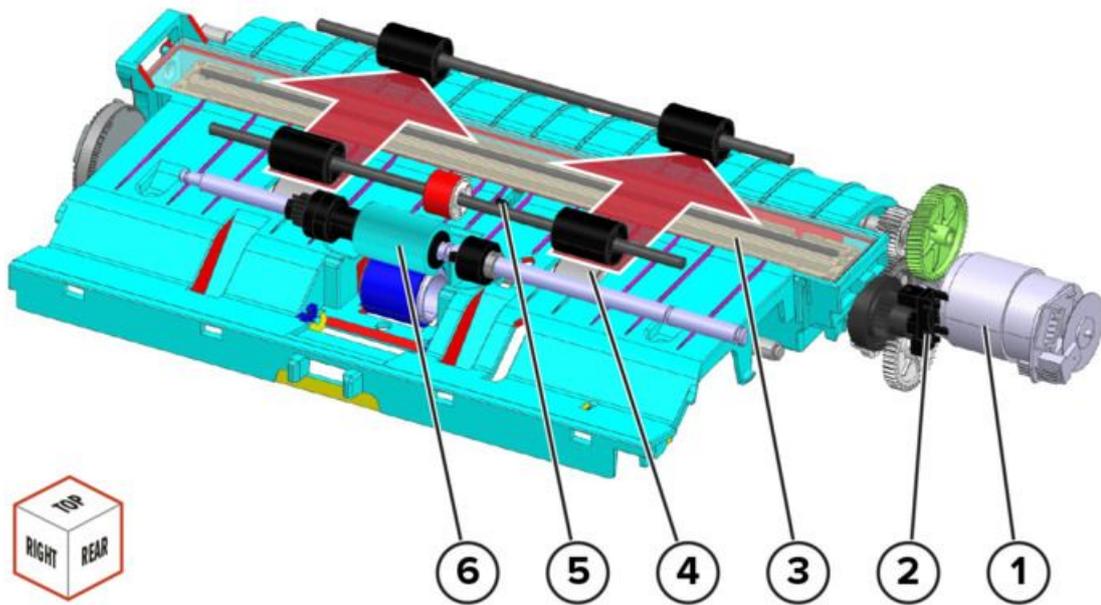
ADF transport and scan drive

1	Motor (ADF transport)
2	Sensor (ADF calibration)
3	ADF CIS scanner
4	ADF feed/exit roller
5	Sensor (ADF scan 1)
6	ADF feed roller

As paper enters the ADF, the ADF feed/exit roller receives it. The sensor (ADF scan 1) detects the paper to start the scan. The ADF CIS scanner scans the back side of the document.
The motor (ADF transport) drives the ADF feed/exit roller.

> **NOTES**
> If needed, calibration for the ADF CIS scanner occurs automatically before a job to adjust shading levels. During calibration, the ADF CIS scanner moves laterally to scan a reference white surface on the opposite side. The ADF CIS scanner is detected at its home position by the sensor (ADF calibration).
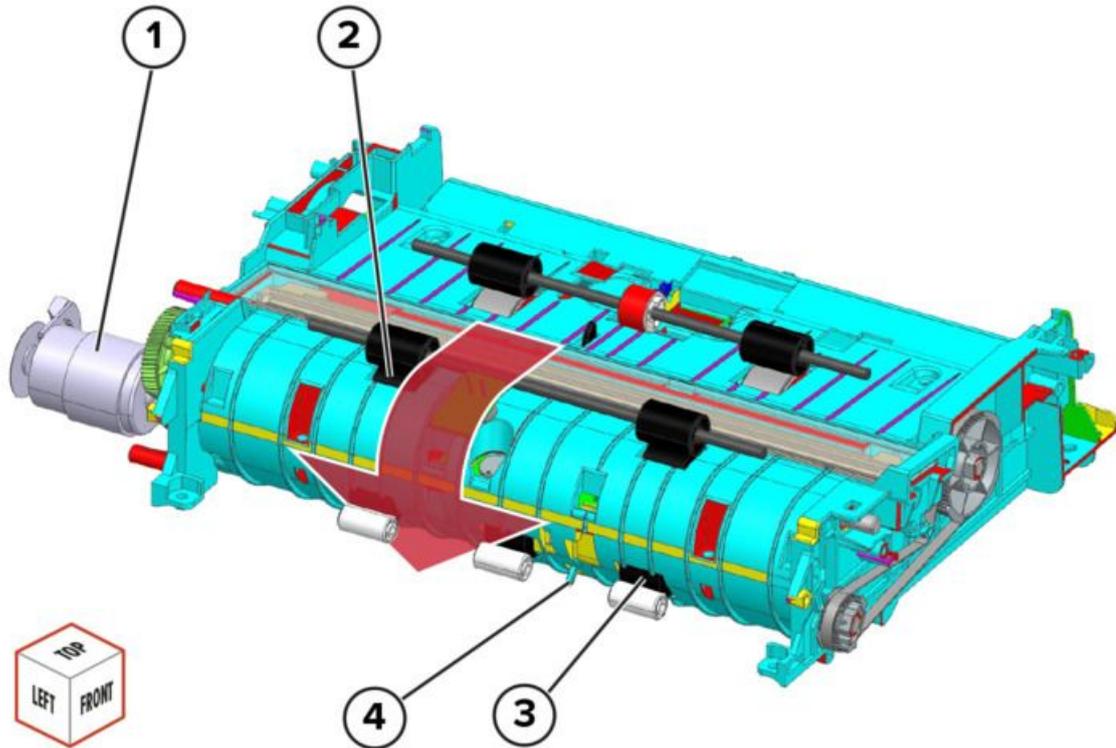
ADF transport and scan drive

1	Motor (ADF transport)
2	ADF transport roller
3	ADF scan roller
4	Sensor (ADF scan 2)

After the back side is scanned, the ADF transport roller transports paper to the ADF scan roller.
The motor (ADF transport) drives the ADF transport and scan rollers.

ADF exit drive
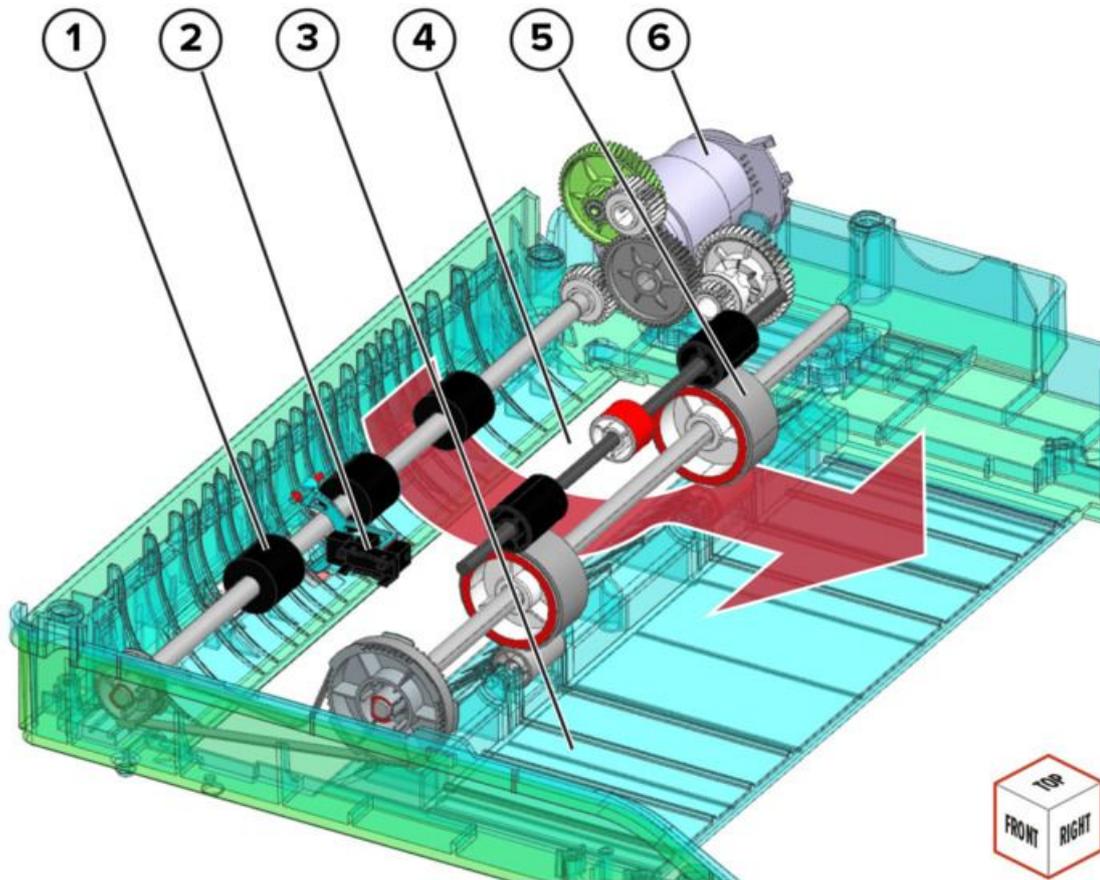
ADF scan and exit drive

1	ADF scan roller
2	Sensor (ADF scan 2)
3	ADF bin
4	ADF glass
5	ADF feed/exit roller
6	Motor (ADF transport)

Paper is fed to the ADF scan roller for front-side scanning. At the ADF glass area, the flatbed scanner does the scan. The ADF feed/exit roller ejects the scanned document to the ADF bin.

The motor (ADF transport) drives the scan and exit rollers. The sensor (ADF scan 2) detects the paper entering the ADF glass area.

Acronyms

Acronyms

Common acronyms

ASIC	Application-Specific Integrated Circuit
BLDC	Brushless DC Motor
BOR	Black Only Retract
C	Cyan
CCD	Charge Coupled Device
CCP	Carbonless Copy Paper
CIS	Contact Image Sensors
CRC	Cyclic Redundancy Check
CSU	Customer Setup
CTLS	Capacitance Toner Level Sensing
DIMM	Dual Inline Memory Module
DRAM	Dynamic Random Access Memory
EDO	Enhanced Data Out
EP	Electrophotographic Process
EPROM	Erasable Programmable Read-Only Memory
ESD	Electrostatic Discharge
FRU	Field Replaceable Unit
GB	Gigabyte
HCF	High-Capacity Feeder
HCIT	High-Capacity Input Tray
HCOF	High-Capacity Output Finisher
HVPS	High Voltage Power Supply
K	Black

LCD	Liquid Crystal Display
LDAP	Lightweight Directory Access Protocol
LED	Light-Emitting Diode
LVPS	Low Voltage Power Supply
M	Magenta
MB	Megabyte
MFP	Multifunction Printer
MPF	Multipurpose Feeder
MROM	Masked Read Only Memory
MS	Microswitch
NVM	Non-volatile Memory
NVRAM	Non-volatile Random Access Memory
OEM	Original Equipment Manufacturer
OPT	Optical Sensor
PC	Photoconductor
pel, pixel	Picture element
POR	Power-On Reset
POST	Power-On Self Test
PSD	Position Sensing Device
PWM	Pulse Width Modulation
RIP	Raster Imaging Processor
ROM	Read Only Memory
SDRAM	Synchronous Dual Random Access Memory
SIMM	Single Inline Memory Module
SRAM	Static Random Access Memory
TPS	Toner Patch Sensing
UICC	User Interface Controller Card
UPR	Used Parts Return

V ac	Volts alternating current
V dc	Volts direct current
VTB	Vacuum Transport Belt
Y	Yellow

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Service Manual