MX432, XM3142 MFPs

Service Manual

July 2025

www.lexmark.com

Product information

Product name:
Lexmark MX432adwe; Lexmark XM3142 MFPs
Machine type:
7019-6wx
Model(s):
6w6, 6w9

Edition notice

October 2022

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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 I laser product conforming to the requirements of IEC 60825-1: 2014.
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): 25
Wavelength (nanometers): 775–800

Avis relatif à l'utilisation du laser

Cette imprimante est certifiée conforme aux exigences de la réglementation des Etats-Unis relative aux produits laser de classe I (1) (DHHS 21 CFR, Chapitre I, Sous-chapitre J). Pour les autres pays, elle est certifiée conforme aux exigences des normes CEI 60825-1:2014 relatives aux produits laser de classe I.

Les produits laser de classe I ne sont pas considérés comme dangereux. Le système laser ainsi que l'imprimante ont été conçus de manière à ce que personne ne soit jamais exposé à des radiations laser dépassant le niveau de classe I dans le cadre d'un fonctionnement normal, de l'entretien par l'utilisateur ou de la maintenance. L'imprimante dispose d'un ensemble de têtes d'impression non réparable contenant un laser doté des caractéristiques suivantes :

Class: IIIb (3b) AlGaInP

Nominal output power (milliwatts): 25

Wavelength (nanometers): 775–800

Aviso de láser

Esta impresora se ha certificado en EE.UU. cumpliendo con los requisitos de DHHS 21 CFR, capítulo I, subcapítulo J para los productos láser de Clase I (1) y en otros países está certificada como un producto láser de Clase I de acuerdo con los requisitos de IEC 60825-1: 2014.

Los productos láser de Clase I no se consideran peligrosos. El sistema láser y la impresora se han diseñado para que el ser humano no acceda nunca a las radiaciones láser por encima del nivel de Clase I durante su uso normal, ni en tareas de mantenimiento o intervenciones de servicio técnico prescritas. El conjunto de cabezal de impresión de la impresora no se puede reparar y contiene un láser con las siguientes especificaciones:

Class: IIIb (3b) AlGaInP

Nominal output power (milliwatts): 25

Wavelength (nanometers): 775–800

Laser-Hinweis

Der Drucker wurde in den USA zertifiziert und entspricht den Anforderungen der Vorschriften DHHS 21 CFR Kapitel I für Laserprodukte der Klasse I (1), andernorts ist er als Laserprodukt der Klasse I zertifiziert, das den Anforderungen von IEC 60825-1 entspricht: 2014.

Laserprodukte der Klasse I werden nicht als gefährlich betrachtet. Das Lasersystem und der Drucker sind so konstruiert, dass unter normalen Betriebsbedingungen, bei der Wartung durch den Benutzer oder bei den vorgeschriebenen Wartungsbedingungen Menschen keiner Laserstrahlung ausgesetzt sind, die die Werte für Klasse I überschreitet. Der Drucker verfügt über eine Druckkopfeinheit, die nicht gewartet werden kann und mit einem Laser mit den folgenden Spezifikationen ausgestattet ist.

Class: IIIb (3b) AlGaInP

Nominal output power (milliwatts): 25

Wavelength (nanometers): 775–800

Conventions

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

> **CAUTION—POTENTIAL INJURY**
> Indicates a risk of injury.

> **CAUTION—SHOCK HAZARD**
> Indicates a risk of electrical shock.

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

> **CAUTION—TIPPING HAZARD**
> Indicates a crush hazard.

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

Safety information

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

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

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

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

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

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

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

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

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

Consignes de sécurité

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

ATTENTION - RISQUE D'ELECTROCUTION
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.

ATTENTION : RISQUE DE BLESSURE
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.

ATTENTION : RISQUE DE BLESSURE
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.

ATTENTION : RISQUE DE BLESSURE
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.

ATTENTION : RISQUE DE BLESSURE
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.

ATTENTION : RISQUE DE BLESSURE
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.

ATTENTION : RISQUE DE BLESSURE
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.

ATTENTION : RISQUE DE BLESSURE
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.

PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS
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.

PRECAUCIÓN: POSIBLES DAÑOS
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.

PRECAUCIÓN: POSIBLES DAÑOS
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.

PRECAUCIÓN: POSIBLES DAÑOS
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.

PRECAUCIÓN: POSIBLES DAÑOS
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.

PRECAUCIÓN: POSIBLES DAÑOS
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.

PRECAUCIÓN: POSIBLES DAÑOS
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.

PRECAUCIÓN: POSIBLES DAÑOS
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.

VORSICHT – STROMSCHLAGGEFAHR
enn 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.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR
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.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR
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.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR
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.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR
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.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR
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.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR
Verwenden Sie dieses Produkt nicht mit einem Inline-Überspannungsschutz. Die Verwendung von Überspannungsschutzgeräten kann zu Brandgefahr, Beschädigung von Eigentum oder einer eingeschränkten Druckerleistung führen.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR
Wenn der Drucker mehr als 20 kg wiegt, sind zum sicheren Anheben mindestens zwei Personen notwendig.

Change history

Change history

July 24,2025

- Updated the Fuser service check topic in the Diagnostics and troubleshooting chapter. See Fuser service check on page 107.

July 4, 2025

- Updated the Resetting the printer without admin credentials topic to Clearing the printer security password topic in the Diagnostics and troubleshooting chapter. See Clearing the printer security password on page 30.
- Updated the Using the security reset jumper topic in the Diagnostics and troubleshooting chapter. See Using the security reset jumper on page 31.

August 9, 2024

- Added the Scanner Calibration Reset topic of the Service menus chapter. See Scanner Calibration Reset.

August 9, 2024

- Added the 42.60–42.64K error codes in the User attendance messages topic of the Diagnostics and troubleshooting chapter. See User attendance messages on page 92.
- Added the Toner cartridge service check topic in the Diagnostics and troubleshooting chapter. See Toner cartridge service check on page 99.

August 1, 2024

- Updated the Unsupported or unresponsive toner cartridge service check topic of the Diagnostics and Troubleshooting chapter. See Unsupported or unresponsive toner cartridge service check on page 96.

June 14, 2024

- Added information about the ellipses loading screen on the Entering Recovery mode topic of the Service menus chapter. See Entering Recovery mode on page 175.

August 17, 2023

- Updated the Motor (main drive) service check topic of the Diagnostics and troubleshooting chapter. See Motor (main drive) service check on page 111.

July 18, 2023

- Added 41X5008 (right paper guide) and 41X5009 (left paper guide) in the Electronics topic of the Parts catalog chapter. See Electronics on page 277.
- Added a note in 32.40D and 32.60D errors in the User attendance messages topic of the Diagnostics and troubleshooting chapter. See User attendance messages on page 92.

June 27, 2023

- Updated the description for 41X2575 in the Paper path topic of the Parts catalog chapter. See Paper path on page 280.
- Updated the description for 41X2575 in the Maintenance kits topic of the Maintenance chapter. See Maintenance kits on page 263.

May 16, 2023

- Removed 41X4480 from Miscellaneous of the Parts catalog chapter. See Miscellaneous on page 285.

February 14, 2023

- Updated the following topics in the Removals chapter:
  - ADF and scanner removal. See ADF and scanner removal on page 242.
  - Controller board removal. See Controller board removal on page 206.

January 31, 2023

- Added error code 845.02. See 840–845 error messages on page 120 in the Diagnostics and troubleshooting chapter.

October 11, 2022

- Product announce.

General information

Printer model configurations

The Lexmark™ MX432 and XM3142 MFPs are monochrome, network-capable laser printers.

Model name	Configuration/description	Machine type/model number
MX432adwe	Network, duplex, print, scan, fax, ADF, 4.3-inch touch screen, and front USB port	7019-6w6
XM3142		7019-6w9

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.

Paper characteristics

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

Weight

The standard tray can feed paper weights from 60 to 120 g/m^2 (16 to 32 lb) grain long paper. Paper lighter than 60 g/m^2 (16 lb) may not be stiff enough to feed properly, and may cause jams.

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.

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.

Grain direction

Grain refers to the alignment of the paper fibers in a sheet of paper. Grain is either *grain long*, running the length of the paper, or *grain short*, running the width of the paper.

For 60–120 g/m^2 (16–32-lb) paper, grain long paper is recommended.

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 used to make copies without carbon paper, 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 (±0.9 in.), such as optical character recognition (OCR) forms

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

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*.

Storing paper

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

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

Supported paper sizes

Paper size	Standard 250-sheet tray	Optional 550-sheet tray	Multipurpose feeder	Two-sided printing
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**

Paper size	Standard 250-sheet tray	Optional 550-sheet tray	Multipurpose feeder	Two-sided printing
A5 Landscape (LEF) [1] 210 x 148 mm (8.27 x 5.83 in.)	✓	✓	✓	X
A6 105 x 148 mm (4.13 x 5.83 in.)	✓	✓	✓	X
JIS B5 182 x 257 mm (7.17 x 10.1 in.)	✓	✓	✓	X
Oficio (Mexico) 215.9 x 340.4 mm (8.5 x 13.4 in.)	✓	✓	✓	✓
Hagaki 100 x 148 mm (3.94 x 5.83 in.)	✓	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.)	✓	✓	✓	✓

Paper size	Standard 250-sheet tray	Optional 550-sheet tray	Multipurpose feeder	Two-sided printing
Legal 215.9 x 355.6 mm (8.5 x 14 in.)	✓	✓	✓	✓
Folio 215.9 x 330.2 mm (8.5 x 13 in.)	✓	✓	✓	✓
Universal [3] 99 x 148 mm to 215.9 x 359.92 mm (3.9 x 5.83 in. to 8.5 x 14.17 in.)	✓	✓	✓	✓ [2]
7 3/4 Envelope 98.4 x 190.5 mm (3.875 x 7.5 in.)	**X**	**X**	✓	**X**
9 Envelope 98.4 x 225.4 mm (3.875 x 8.9 in.)	**X**	**X**	✓	**X**
10 Envelope 104.8 x 241.3 mm (4.12 x 9.5 in.)	**X**	**X**	✓	**X**
DL Envelope 110 x 220 mm (4.33 x 8.66 in.)	**X**	**X**	✓	**X**
C5 Envelope 162 x 229 mm (6.38 x 9.01 in.)	**X**	**X**	✓	**X**

Paper size	Standard 250-sheet tray	Optional 550-sheet tray	Multipurpose feeder	Two-sided printing
B5 Envelope 176 x 250 mm (6.93 x 9.84 in.)	X	X	✓	X
Other Envelope 98.4 x 162 mm to 176 x 250 mm (3.87 x 6.38 in. to 6.93 x 9.84 in.)	X	X	✓	X

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

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

[3] 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.

Supported paper types

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

Paper type	Standard 250-sheet tray	Optional 550-sheet tray	Multipurpose feeder	Two-sided printing	Automatic document feeder
Rough/ Cotton	✓	✓	✓	✓	**X**
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

	Standard 250-sheet tray	Optional 550-sheet tray	Multipurpose feeder	Two-sided printing	Automatic document feeder
Paper weight	60–120 g/m^2 (16–32 lb)	60–120 g/m^2 (16–32 lb)	60–217 g/m^2 (16–58 lb)	60–90 g/m^2 (16–24 lb)	60–90 g/m^2 (16–24 lb)

Supported fax

Printer model	Analog fax	etherFAX[1]	Fax server	Fax over IP (FoIP)[2]
MX432adwe	✓	✓	✓	✓
XM3142	✓	✓	✓	✓

[1] Needs a subscription. For more information, go to https://www.etherfax.net/lexmark or contact the place where you purchased the printer.

[2] Needs an installed license bundle. For more information, contact the place where you purchased the printer.

Finding the printer serial number

1. Open the front door.

2. Locate the printer serial number behind the front door.

Tools required for service

- Flat-head screwdrivers, various sizes
- #1 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic short-blade
- Torx screwdriver (T20 head)
- Needle-nose pliers
- Diagonal side cutters
- Spring hook

- Feeler gauges
- Analog or digital multimeter
- 3-mm ball hex wrench
- Toner vacuum
- Flashlight

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

- With the power cord unplugged from the electrical outlet, check if the cord is free from breakage, short circuits, disconnected wires, or incorrect connections.
- Make sure that the printer is properly grounded.
- Make sure that the power supply line voltage is within 10% of the rated line voltage.
- Make sure that the printer is securely installed on a level surface in a well-ventilated area.
- Make sure that the temperature and relative humidity are within the specifications. See Temperature information on page 289.
- Avoid locations that:
    - Generate ammonia gas
    - Are exposed to direct sunlight
    - Are near open flames
    - Are dusty
- Make sure that the recommended paper for this printer is used.
- Do a test print with paper from a newly opened package, and then check the result.

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.

Note:

- When in Safe Mode, the printer only prints in simplex mode from tray 1 at the slowest operating point.
- This setting cannot be used if the sensor (tray present) is damaged.

Warning—Potential Damage
Safe Mode is intended as a short-term workaround and must 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.

Enter Safe Mode from the Configuration menu, and then POR the printer. See Configuration Menu on page 169.
Return the printer to standard operating mode to service the printer and return to full-function printing.

Securing the printer

Clearing the printer security password

Notes

- Resetting the printer deletes all security settings and all apps and licenses.
- Before changing the security settings, ask permission from your administrator.
- Deploy the files from the Service Restore Tool after completing the printer reset. For more information, see Restoring the printer configuration on page 188.

To reset the printer, follow any of the steps below according to their availability and in the order of recommended preference:

- Enter the **Reset Device** menu.

Notes

- This menu appears only in FW 221.112 or later.
- To enable the menu, set **Reset Device Modes** to **Allow with FAC** or **Allow**. From the control panel, navigate to **Settings › Security › Miscellaneous › Reset Device Modes**.
- Some printer models may ask for admin credentials before you can access this menu. If a prompt appears, then perform **Out of Service Erase** from the **Diagnostics** menu.

  - For printers with a 4.3-inch, 7-inch, or 10-inch display, select *** * 7 3**, select **OK**, and then select **Out of Service Erase**.
  - For printers with a 2.8-inch display, select the **Back, Back, Home, Start** buttons in this sequence, and then select **Out of Service Erase**.
  - For printers with a 2.4-inch display, select *** * 7 3**, select **OK**, and then select **Out of Service Erase**.
  - For printers with a 2-line display, select the **Back, Left, Back, Right** buttons in this sequence, and then select **Out of Service Erase**.

- Perform **Out of Service Erase** from the **Settings** menu.

  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 **Start initial setup wizard** or **Leave printer offline**.

  Note: If **Out of Service Erase** is not available from the **Settings** menu, enter the **Diagnostics** menu, select **Out of Service Erase**, and then select **Start**.

- If there are installed applications that are difficult to reinstall, then use the security reset jumper to reset the printer to its factory defaults. For more information, see Using the security reset jumper on page 31.

  Note:
  It takes approximately 30 seconds from the moment you perform the reset until the screen changes to indicate the printer is processing the request.

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 from the **Settings › Device › Maintenance** menu.

Notes

- To enable the effect of the security reset jumper, from the control panel navigate to: **Security › Miscellaneous › Security Reset Jumper › Enable “Guest” Access**.
- To disable the effect of the jumper, select **No Effect** from the Security Reset Jumper section in the Security menu. If the password is forgotten or lost, then perform an **Out of Service Erase** from the Diagnostics menu. For more information, see Restoring the printer configuration on page 188.

1. Turn off the printer.
2. Open the controller board access cover on the left side of the printer.
3. Locate the security jumper (A) on the controller board.
4. Move the jumper to cover the middle and exposed prongs.

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

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

Notes

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

Data security notice

Identifying printer memory

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

The following parts can store memory:

- Printer control panel
- User interface controller card (UICC)

- Controller board
- Optional intelligent storage drive (ISD)
- Optional SATA hard disk

> **Note:** The printer control panel and controller board contain NVRAM.

Fixing print quality issues

Gray background or toner fog check

> **Note:** Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Perform the following tests:
   a. Remove any packing material left on the imaging unit.

      > **Note:** You may need a pair of pliers to remove pieces of plastic inside the imaging unit.

   b. Make sure that there are no obstructions between the charge roller and photoconductor drum.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Turn off the printer, wait for 10 seconds, and then turn on the printer.
   b. Set the toner darkness to a lighter setting.

      From the control panel, navigate to **Settings > Print > Quality > Toner Darkness**.

Does the problem remain?

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

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

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

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

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

5. Remove any packing material left on the imaging unit.

   > **Note:** You may need a pair of pliers to remove pieces of plastic inside the imaging unit.

   Does the problem remain?

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

6. Replace the toner cartridge.

   Does the problem remain?

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

7. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Make sure that the HVPS1 cable on the controller board and HVPS is properly connected.

Does the problem remain?

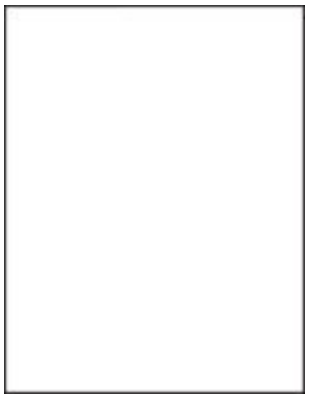
- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

8. Replace the HVPS. See HVPS removal on page 208.

   Does the problem remain?

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

Blank page check



Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Verify that the toner cartridge is not empty.

   Is the toner cartridge empty?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.

2. Replace the toner cartridge.

   Does the problem remain?

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

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

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

Is the printer using a genuine and supported Lexmark toner cartridge?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

4. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

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

5. Perform the following tests:
   a. Remove any packing material left on the imaging unit.

   > **Note:** You may need a pair of pliers to remove pieces of plastic inside the imaging unit.

   b. Firmly shake the imaging unit to redistribute the toner, and then insert it.

   Does the problem remain?

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

6. Perform the following tests:
   a. Make sure that the transfer roller is properly installed.
   b. Check the transfer roller for contamination and damage.

   Is the transfer roller free of contamination and damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

7. Remove, and then install the transfer roller. See .Transfer roller removal on page 227

   Does the problem remain?

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

8. Replace the transfer roller.

   Does the problem remain?

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

9. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Make sure that the HVPS1 cable on the controller board and HVPS is properly connected.

   Does the problem remain?

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

10. Replace the HVPS. See HVPS removal on page 208.

    Does the problem remain?

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

11. Replace the printhead. See .Printhead removal on page 233

    Does the problem remain?

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

Print is too dark check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

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

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

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Remove any packing material left on the imaging unit.

      > **Note:** You may need a pair of pliers to remove pieces of plastic inside the imaging unit.

   b. Make sure that there are no obstructions between the charge roller and photoconductor drum.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Turn off the printer, wait for 10 seconds, and then turn on the printer.
   b. Set the toner darkness to a lighter setting.

      From the control panel, navigate to **Settings > Print > Quality > Toner Darkness**.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the imaging unit.

   Does the problem remain?

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

6. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Make sure that the HVPS1 cable on the controller board and HVPS is properly connected.

   Does the problem?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Replace the HVPS. See HVPS removal on page 208.

   Does the problem remain?

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

Print is too light check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Check if the toner cartridge is empty or if it has reached its end of life.

   Is the toner cartridge empty or has reached its end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Replace the toner cartridge.

Does the problem remain?

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

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

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

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

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

5. Perform the following tests:
   a. Turn off the printer, wait for 10 seconds, and then turn on the printer.
   b. Do the following:
      1. Set the toner darkness to a darker setting.

         From the control panel, navigate to **Settings > Print > Quality > Toner Darkness**.
      2. Set the paper type, texture, and weight to match the paper loaded.

         From the control panel, navigate to **Settings > Paper > Media Configuration > Media Types**.

   Does the problem remain?

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

6. Perform the following tests:
   a. Remove the imaging unit.
   b. Push either side of the transfer roller, and then check if it depresses and bounces back into place.
   c. If the transfer roller does not depress and bounce back into place, then reinstall the transfer roller.
   d. Firmly shake the toner cartridge to redistribute the toner, and then insert it.

e. Turn off the printer, wait for 10 seconds, and then turn on the printer.

Does the problem remain?

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

7. Perform the following tests:
   a. Make sure that the transfer roller is properly installed.
   b. Check the transfer roller for contamination and damage.

   Is the transfer roller free of contamination and damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.
8. Reinstall or replace the transfer roller. See .Transfer roller removal on page 227

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Replace the imaging unit. See .Transfer roller removal on page 227

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Perform the following tests:
    a. Remove the right cover. See .Right cover removal on page 204
    b. Make sure that the HVPS1 cable on the controller board and HVPS is properly connected.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Replace the HVPS. See HVPS removal on page 208.

    Does the problem remain?

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

Paper curl check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

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

   Note: If the printer is using a third-party cartridge, then refer the users to their cartridge supplier.

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check if the printer is using a genuine and supported Lexmark fuser.

   Is the printer using a genuine and supported Lexmark fuser?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Insert a genuine and supported Lexmark fuser.

   Does the problem remain?

   - **Yes**:

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

5. Make sure that the paper guide setting matches the size of the paper loaded.

   Does the problem remain?

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

6. Set the paper type, texture, and weight to match the paper loaded.

   From the control panel, navigate to **Settings > Paper > Media Configuration > Media Types**.

   Does the problem remain?

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

7. Perform the following tests:
   a. Make sure that the paper loaded is from a fresh package.

      > **Note:** Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you use it.

   b. Make sure that the printer supports the paper loaded.

   Does the problem remain?

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

Folded or wrinkled paper check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Perform the following tests:
   a. Check if the printer is using a non-Lexmark toner cartridge.

      Note: If the printer is using a third-party cartridge, then refer the users to their cartridge supplier.

   b. Make sure that the toner cartridge is compatible with the imaging unit.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Check if the paper loaded is from a fresh package.

      Note: Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you use it.

   b. Make sure that the printer supports the paper loaded.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Check the toner cartridge for leaks.
   b. Using an approved toner vacuum, completely remove the stray toner from the printer, toner cartridge, and imaging unit.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Remove the fuser. See .Fuser removal on page 232
   b. 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.

Does the problem remain?

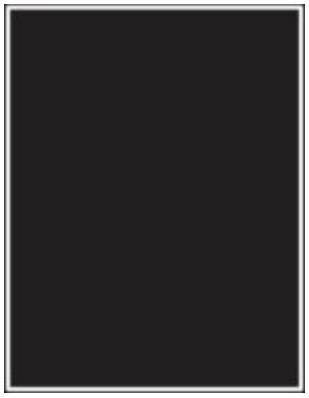
- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Replace the fuser.

   Does the problem remain?

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

Solid black pages check



> **Note:** Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

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

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

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:

Go to step 3.

- **No**:
  Go to the next step.

2. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

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

3. Perform the following tests:
   a. Remove any packing material left on the imaging unit.

   > **Note:** You may need a pair of pliers to remove pieces of plastic inside the imaging unit.

   b. Check the charge roller contact on the right side of the imaging unit for damage and contamination.

   Is the charge roller contact free of damage and contamination?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

4. Perform the following tests:
   a. Perform a POR.
   b. Perform a print test.

   Does the problem remain?

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

5. Replace the imaging unit.

Does the problem remain?

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

6. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Make sure that the HVPS1 cable on the controller board and HVPS is properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Replace the HVPS. See HVPS removal on page 208.

   Does the problem remain?

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

Skewed print check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Check the guides in the tray where the skewed prints are printed from.

   Note: If the paper source is the MPF, then proceed to See "Skewed print check" on page 47.

Does the position of the guides match the paper loaded?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Adjust the guides to match the paper loaded.

   Does the problem remain?

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

3. Check if the printer supports the paper loaded.

   Is the paper supported?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the paper, and then load a supported one.

   Does the problem remain?

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

5. Perform a print test.

   Does the problem remain?

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

6. Check the guides in the MPF tray.

   Does the position of the guides match the paper loaded?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Adjust the guides to match the paper loaded.

   Does the problem remain?

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

8. Make sure that the printer supports the paper loaded.

Does the problem remain?

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

9. Check the MPF pick roller for excess wear and contamination.

   Is the MPF pick roller free from excess wear and contamination?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Replace the front door with MPF pick roller. See Front door removal on page 226.

    Does the problem remain?

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

11. Reinstall or replace the transfer roller. See .Transfer roller removal on page 227

    Does the problem remain?

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

12. Replace the imaging unit.

    Does the problem remain?

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

Streaked vertical lines appear on prints during a print job check

> **Note:** Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Perform the following tests:
   a. Make sure that the printer is not placed in a cold and damp area.
   b. Print 15 simplex pages to dry the transfer roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check if the printer is using a genuine and supported Lexmark toner cartridge.

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

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the status of the imaging unit.

   Is the imaging unit near its end of life?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Remove, and then insert the imaging unit.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Replace the imaging unit.

Does the problem remain?

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

Streaked vertical lines appear on prints during a copy job check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Perform the following tests:
   a. Make sure that the printer is not placed in a cold and damp area.
   b. Print 15 simplex pages to dry the transfer roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Clean the scanner. See .Cleaning the scanner on page 267

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Open the scanner cover, and then check if it closes properly.

   Does the cover close properly?

   - **Yes**:
     Go to step 5.
   - **No**:

Go to the next step.

4. Make sure that the scanner glass pad is clean and properly installed.

   Does the problem remain?

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

5. With the scanner cover open, perform a copy job to check the scanner lamp.

   > **Note:** The scanner lamp must light up and move along the scan area.

   Is the scanner lamp functional?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Reseat the scanner cables.

   Does the problem remain?

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

7. Perform the following tests:

   Check the scanner and its components for damage.

   - Scanner lamp
   - Motor (scanner)
   - Scanner belt
   - Glass panes
   - Cables

   Are the scanner and its components free of damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Replace the ADF and scanner. See .ADF and scanner removal on page 242

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

9. Check the firmware version.

   Is the firmware updated to the latest version?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Update the firmware.

    Does the problem remain?

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

11. Perform the following tests:
    a. Make sure that the controller board is properly installed.
    b. Reseat all the cables on the controller board.

    Does the problem remain?

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

12. Replace the controller board. See .Controller board removal on page 206

    Does the problem remain?

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

Horizontal light bands check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Check if the banding is along the edge of the paper.

   Is the banding along the edge of the paper?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Replace the fuser. See .Fuser removal on page 232

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check if the toner cartridge is empty or if it has reached its end of life.

   Is the toner cartridge empty or has reached its end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5
4. Replace the toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check if the printer is using a genuine and supported Lexmark toner cartridge.

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

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.
6. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

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

Vertical light bands check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Check if the banding is along the edge of the paper.

   Is the banding along the edge of the paper?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Replace the fuser. See .Fuser removal on page 232

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check if the printer is using a genuine and supported Lexmark toner cartridge.

   Note: If the printer is using a third-party cartridge, then refer the users to their cartridge supplier.

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

   - **Yes**:

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

5. Perform the following tests:
   a. Remove the imaging unit.
   b. Clean the printhead laser glass window with a soft cloth.

   Does the problem remain?

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

Vertical dark bands check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Check if the banding is along the edge of the paper.

   Is the banding along the edge of the paper?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.

2. Replace the fuser. See .Fuser removal on page 232

   Does the problem remain?

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

3. Perform the following tests:
   a. Remove any packing material left on the imaging unit.

> **Note:** You may need a pair of pliers to remove pieces of plastic inside the imaging unit.

b. Make sure that there are no obstructions between the charge roller and photoconductor drum.

Does the problem remain?

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

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

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

Is the printer using a genuine and supported Lexmark toner cartridge?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

5. Insert a genuine and supported Lexmark toner cartridge.

Does the problem remain?

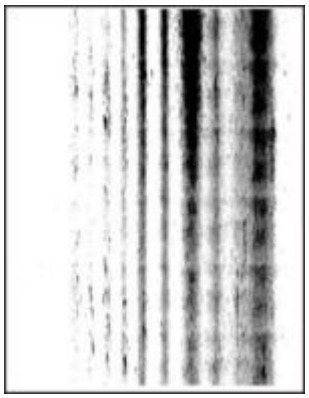
- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

6. Remove, and then insert the imaging unit.

Does the problem remain?

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

Vertical dark streaks with print missing check



Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Check if the toner cartridge is empty or if it has reached its end of life.

   Is the toner cartridge empty or has reached its end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Replace the toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check if the printer is using a genuine and supported Lexmark toner cartridge.

   Note: If the printer is using a third-party cartridge, then refer the users to their cartridge supplier.

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

5. Perform the following tests:
   a. Remove any packing material left on the imaging unit.

   > **Note:** You may need a pair of pliers to remove pieces of plastic inside the imaging unit.

   b. Check the charge roller contact on the right side of the imaging unit for damage and contamination.

Is the charge roller contact free of damage and contamination?

- **Yes**:
  Contact the next level of support.
- **No**:
  Go to the next step.

6. Replace the imaging unit.

   Does the problem remain?

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

White streaks and voided areas check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

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

   Note: If the printer is using a third-party cartridge, then refer the users to their cartridge supplier.

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Perform a POR.
   b. Perform a print test.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the status of the imaging unit.

Is the imaging unit near its end of life?

- **Yes**:
  Go to the next step.
- **No**:
  Contact the next level of support.

5. Replace the imaging unit.

   Does the problem remain?

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

Clipped pages or images check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Perform the following tests:
   a. Remove any packing material left on the imaging unit.

      Note: You may need a pair of pliers to remove pieces of plastic inside the imaging unit.

   b. Make sure that there are no obstructions between the charge roller and photoconductor drum.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Remove, and then insert the toner cartridge.

Does the problem remain?

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

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

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

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

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

5. Remove, and then insert the imaging unit.

   Does the problem remain?

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

6. Replace the imaging unit.

   Does the problem remain?

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

7. Perform the following tests:
   a. Remove the imaging unit.
   b. Clean the printhead laser glass window with a soft cloth.

   Does the problem remain?

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

Incorrect margins on prints check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Adjust the guides in the tray to match the size of the paper loaded.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:

   Do either of the following:

   - Set the paper size to match the paper loaded in the tray.

     Enter the Diagnostics menu, and then navigate to:

     Printer diagnostics & adjustments > Printer registration adjustments
   - Change the paper loaded in the tray to match the paper size set in the tray.

   Does the problem remain?

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

Toner rubs off check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

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

   Note: If the printer is using a third-party cartridge, then refer the users to their cartridge supplier.

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Set the paper type, texture, and weight to match the paper loaded.

   From the control panel, navigate to **Settings > Paper > Media Configuration > Media Types**.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Remove, and then install the fuser. See .Fuser removal on page 232

Does the problem remain?

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

5. Replace the fuser.

   Does the problem remain?

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

Toner specks appear on prints during a print job check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

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

   Note: If the printer is using a third-party cartridge, then refer the users to their cartridge supplier.

   Is the printer using a genuine and supported Lexmark toner cartridge?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Insert a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

   - **Yes**:

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

3. Perform the following tests:
   a. From the control panel, navigate to **Status/Supplies > Supplies**.
   b. Check the status of the imaging unit.

   Is the imaging unit near its end of life or showing signs of toner leakage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Replace the imaging unit.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check if toner specks appear only on the edges or back side of the paper.

   Do toner specks appear only on the edges or back side of the paper?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.
6. Replace the transfer roller. See Transfer roller removal.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Check the printer for stray toner contamination.

   Is the printer contaminated with stray toner?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.
8. Using an approved toner vacuum, completely remove the stray toner from the printer, toner cartridge, and imaging unit.

   Does the problem remain?

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

Toner specks appear on prints during a copy job check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

1. Clean the scanner. See .Cleaning the scanner on page 267

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the firmware version.

   Is the firmware updated to the latest version?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Update the firmware.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Replace the ADF and scanner. See .ADF and scanner removal on page 242

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:
   a. Make sure that the controller board is properly installed.
   b. Reseat all the cables on the controller board.

Does the problem remain?

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

6. Replace the controller board. See .Controller board removal on page 206

   Does the problem remain?

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

Repeating defects check

Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Performing the initial troubleshooting check on page 29.

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

   - 37.7 mm (1.48 in.)
   - 96 mm (3.78 in.)

   Does the distance between the repeating defects match any of the measurements?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.

2. Replace the imaging unit.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

3. Check if the distance between the repeating defects is equal to any of the following:
   - 37.5 mm (1.48 in.)
   - 43.5 mm (1.71 in.)

   Does the distance between the repeating defects match any of the measurements?
   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Replace the toner cartridge.

   Does the problem remain?
   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check if the distance between the repeating defects is equal to 52 mm (2.05 in.).

   Does the distance between the repeating defects match the measurement?
   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.
6. Replace the transfer roller. See .Transfer roller removal on page 227

   Does the problem remain?
   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Check if the distance between the repeating defects is equal to any of the following:
   - 62.5 mm (2.46 in.)
   - 79.8 mm (3.14 in.)

   Does the distance between the repeating defects match any of the measurements?
   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.
8. Replace the fuser. See .Fuser removal on page 232

   Does the problem remain?
   - **Yes**:
     Contact the next level of support.
   - **No**:

The problem is solved.

Paper jams

200 paper jams

200 paper jam messages

Error code	Description	Action
200.02	Paper fed from the MPF was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early jam service check on page 71.
200.04	Paper fed from the MPF cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early jam service check on page 72.
200.05	Paper fed from the MPF never cleared the sensor (input).	See Sensor (input): Paper failed to clear jam service check on page 75.
200.06	Paper fed from the MPF was detected later than expected or was never detected at the sensor (input).	See Sensor (input): Paper failed to arrive jam service check on page 74.
200.12	Paper fed from tray 1 was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early jam service check on page 71.
200.13	Paper fed from tray 1 was detected later than expected or was never detected at the sensor (input).	See .Sensor (input): Paper failed to arrive jam service check on page 74
200.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early jam service check on page 72.
200.15	Paper fed from tray 1 never cleared the sensor (input).	See .Sensor (input): Paper failed to clear jam service check on page 75
200.22	Paper fed from tray 2 was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early jam service check on page 71.
200.23	Paper fed from tray 2 was detected later than expected or was never detected at the sensor (input).	See Sensor (input): Paper failed to arrive jam service check on page 74.

Error code	Description	Action
200.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early jam service check on page 72.
200.25	Paper fed from tray 2 never cleared the sensor (input).	See .Sensor (input): Paper failed to clear jam service check on page 75
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See Sensor (input): Static jam service check on page 78.

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

1. Identify the source tray.

   Is MPF the source tray?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.
2. Perform the following tests:
   a. Make sure that the MPF pick roller is free of contamination.
   b. Clean the MPF pick roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Replace the front door. See Front door removal on page 226.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.
4. Make sure that the paper is properly loaded in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Make sure that each tray is free of paper fragments and partially fed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

6. Perform the following tests:
   a. Make sure that the pick roller and separator roller are free from contamination.
   b. Clean the pick roller and separator roller.

   Does the problem remain?

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

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (input).
   c. Make sure that the sensor actuator freely moves and is not stuck.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Make sure that the JMTR1 sensor cable is properly connected to the controller board.

   Does the problem remain?

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

9. Perform a print test.

   Does the problem remain?

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

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

1. Perform the following tests:
   a. Remove the tray insert.
   b. Make sure that the paper is properly loaded in the tray.
   c. From the printer control panel or Printing Preferences or Print dialog, verify the paper size setting.

   Does the paper size match the setting that you want?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

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

3. Perform the following tests:
   a. Make sure that the tray is not overfilled.
   b. Make sure that the paper guides are not set too tight against the paper.

   Does the problem remain?

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

4. Check the tray for crumpled, damaged, or deformed paper.

   Are there crumpled, damaged, or deformed paper in the tray?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 6.

5. Replace the crumpled, damaged, or deformed paper.

   Does the problem remain?

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

6. Perform the following tests:
   a. Enter theDiagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (input).
   c. Make sure that the sensor actuator freely moves and is not stuck.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Perform the following tests:
   a. Remove the right cover. See Right cover removal on page 204.
   b. Make sure that the JMTR1 sensor cable is properly connected to the controller board.

Does the problem remain?

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

8. Perform a print test.

   Does the problem remain?

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

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

> **Note:** This service check is not applicable to tray 2.

1. Perform the following tests:
   a. Remove the tray insert.
   b. Make sure that the paper is properly loaded in the tray.
   c. From the printer control panel or Printing Preferences or Print dialog, verify the paper size setting.

   Does the paper size match the setting that you want?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Make sure that the tray is not overfilled.
   b. Make sure that the paper guides are not set too tight against the paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the tray for crumpled, damaged, or deformed paper.

Are there crumpled, damaged, or deformed paper in the tray?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 6.

5. Replace the crumpled, damaged, or deformed paper.

   Does the problem remain?

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

6. Perform the following tests:
   a. Enter theDiagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (input).
   c. Make sure that the sensor actuator freely moves and is not stuck.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Perform the following tests:
   a. Remove the right cover. See Right cover removal on page 204.
   b. Make sure that the JMTR1 sensor cable is properly connected to the controller board.

   Does the problem remain?

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

8. Perform a print test.

   Does the problem remain?

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

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

1. Perform the following tests:
   a. Remove the tray insert.
   b. Make sure that the paper is properly loaded in the tray.
   c. From the printer control panel or Printing Preferences or Print dialog, verify the paper size setting.

Does the paper size match the setting that you want?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

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

3. Perform the following tests:
   a. Make sure that the tray is not overfilled.
   b. Make sure that the paper guides are not set too tight against the paper.

   Does the problem remain?

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

4. Check the tray for crumpled, damaged, or deformed paper.

   Are there crumpled, damaged, or deformed paper in the tray?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 6.

5. Replace the crumpled, damaged, or deformed paper.

   Does the problem remain?

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

6. Identify the source tray.

   Is MPF the source tray?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

7. Make sure that the MPF pick roller is free of contamination.

   Does the problem remain?

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

8. Replace the front door. See Front door removal on page 226.

   Does the problem remain?

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

9. Make sure that the pick roller is free of contamination.

   Does the problem remain?

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

10. Perform the following tests:
    a. Replace the pick roller.
    b. Replace the separator roller.

    Does the problem remain?

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

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (input).
    c. Make sure that the sensor actuator freely moves and is not stuck.

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Perform the following tests:
    a. Remove the right cover. See Right cover removal on page 204.
    b. Make sure that the JMTR1 sensor cable is properly connected to the controller board.

    Does the problem remain?

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

13. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:

The problem is solved.

Sensor (input): Static jam service check

1. Check the paper path for paper fragments and partially fed paper.

   Is the paper path free of paper fragments and partially fed paper?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper fragments and partially fed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (input).
   c. Make sure that the sensor actuator freely moves and is not stuck.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Make sure that the JMTR1 sensor cable is properly connected to the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform a print test.

   Does the problem remain?

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

202 paper jams

202 paper jam messages

Error code	Description	Action
202.03	Paper fed from the MPF never arrived at the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to arrive jam service check on page 79.
202.13	Paper fed from tray 1 never arrived at the sensor (fuser exit).	
202.23	Paper fed from tray 2 never arrived at the sensor (fuser exit).	
202.x4	Paper cleared the sensor (fuser exit) too soon.	See Sensor (fuser exit): Paper cleared too early jam service check on page 82.
202.05	Paper fed from the MPF never cleared the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to clear jam service check on page 82.
202.15	Paper fed from tray 1 never cleared the sensor (fuser exit).	
202.25	Paper fed from tray 2 never cleared the sensor (fuser exit).	
202.91	Paper remains detected at the sensor (fuser exit) after the printer is turned on.	See Sensor (fuser exit): Static jam service check on page 84.
202.93	The sensor (fuser exit) detected a jam during or after a flush action.	
202.95	Paper fed from an unknown tray never cleared the sensor (fuser exit).	

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

1. Check the fuser paper path for paper fragments and partially fed paper.

   Is the fuser paper path free of paper fragments and partially fed paper?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper fragments and partially fed paper.

> **Warning—Potential Damage**
> Do not remove any paper or paper fragments from the fuser using tools.

Does the problem remain?

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

3. Perform the following tests:
   a. Remove paper in the tray, flip it over, and then reload paper.
   b. Resend the print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Replace the paper in the tray, and then resend the print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (fuser exit).
   c. Make sure that the sensor actuator freely moves and is not stuck.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.
6. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Make sure that the JEXIT1 sensor cable is properly connected to the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Perform the following tests:

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

   Printer diagnostics & adjustments > Motor tests

b. Find the main motor (forward).
c. Open the front door, remove the imaging unit, and then close the front door.
d. Activate the motor test.
e. Open the rear door, and then check if the fuser belt is properly rotating.

Is the fuser belt properly rotating?

- **Yes**:
  Go to step 9.
- **No**:
  Go to the next step.

8. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Make sure that the JMTR1 sensor cable is properly connected to the controller board.

   Does the problem remain?

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

9. Replace the fuser. See .Fuser removal on page 232

   Does the problem remain?

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

10. Perform a print job.

    Does the problem remain?

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

11. Replace the main drive gears. See .Main drive gears removal on page 197

    Does the problem remain?

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

12. Perform the following tests:
    a. Make sure that the metal shutter in the printer frame is not stuck.
    b. Check the metal shutter for fuser entry.

    Does the metal shutter freely move?

    - **Yes**:
      Contact the next level of support.

- **No**:
  The problem is solved.

Sensor (fuser exit): Paper cleared too early jam service check

1. Remove all paper from the bin.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the fuser exit area, rear door, and redrive area for jammed paper or paper fragments.

   Are there jammed paper or paper fragments?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.
3. Remove the jammed paper or paper fragments.

   Does the problem remain?

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

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

1. Perform the following tests:
   a. Make sure that the fuser exit area, rear door, and redrive area are free of jammed paper or paper fragments
   b. Make sure that the rear door can properly close.
   c. Check the rear door for damage.

   Is the rear door functional and free of damage?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (fuser exit).
   c. Make sure that the sensor actuator freely moves and is not stuck.

   Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

3. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Make sure that the JEXIT1 sensor cable is properly connected to the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Replace the rear door. See Rear door removal on page 231.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the fuser. See .Fuser removal on page 232

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the redrive for damage.

   Is the redrive free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Replace the redrive. See .Redrive removal on page 234

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Perform a print test.

   Does the problem remain?

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

Sensor (fuser exit): Static jam service check

1. Remove paper fragments and partially fed paper.

   Does the problem remain?

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

2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (fuser exit).
   c. Make sure that the sensor actuator freely moves and is not stuck.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Make sure that the JEXIT1 sensor cable is properly connected to the controller board.

   Does the problem remain?

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

4. Perform a print test.

   Does the problem remain?

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

232 paper jams

232 paper jam messages

Error code	Description	Action
232.03	Paper fed from MPF was detected later than expected or was never detected at the sensor (input) during a duplex print job.	See Sensor (input): Paper (duplex job) failed to arrive jam service check on page 85.
232.13	Paper fed from tray 1 was detected later than expected or was never detected at the sensor (input) during a duplex print job.	
232.23	Paper fed from tray 2 was detected later than expected or was never detected at the sensor (input) during a duplex print job.	
232.05	Paper fed from the MPF never cleared the sensor (input) during a duplex print job.	
232.15	Paper fed from tray 1 never cleared the sensor (input) during a duplex print job.	
232.25	Paper fed from tray 2 never cleared the sensor (input) during a duplex print job.	
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.	
232.95	Paper fed from an unknown tray never cleared the sensor (input) during a duplex print job.	

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

1. Remove all paper from the bin, and then resend the print job.

   Does the problem remain?

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

2. Check the fuser access area for jammed paper and obstructions.

   Is the fuser access area free of jammed paper and obstructions?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Remove the jammed paper and obstructions.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the duplex path area for jammed paper and obstructions.

   Is the duplex path area free of jammed paper and obstructions?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Remove the jammed paper and obstructions.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the duplex guide for proper installation.

   Is the duplex guide properly installed?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Reseat the duplex guide, and then make sure that it is properly closed.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Check the duplex guide for damage.

   Is the duplex guide free of damage?

- **Yes**:
  Go to step 10.
- **No**:
  Go to the next step.

9. Replace the duplex guide. See Duplex guide removal on page 237.

   Does the problem remain?

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

10. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (input).
    c. Make sure that the sensor actuator freely moves and is not stuck.

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Perform the following tests:
    a. Remove the right cover. See .Right cover removal on page 204
    b. Make sure that the JMTR1 sensor cable is properly connected to the controller board.

    Does the problem remain?

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

12. Perform a print test.

    Does the problem remain?

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

242 paper jams

242 paper jam messages

Error code	Description	Action
242.26	Paper fed from tray 2 was picked but it never reached the sensor (input).	See Optional tray pick drive failure service check on page 113.

Error code	Description	Action
242.80	Paper jam caused by the motor (tray 2) not turning on.	
242.81	Paper jam caused by the motor (tray 2) not turning off.	
242.82	Paper jam caused by the motor (tray 2) speed not ramping up to the required level.	
242.83	Paper jam caused by the motor (tray 2) stalling.	
242.84	Paper jam caused by the motor (tray 2) running too slow.	
242.85	Paper jam caused by the motor (tray 2) running too fast.	
242.86	Paper jam caused by the motor (tray 2) running too long.	

280–295 paper jams

280–295 paper jam messages

Error code	Description	Action
280.11	Paper remains detected at the sensor (ADF scan) after the printer is turned on.	See .ADF jam service check on page 88
280.13	Paper never arrived at the sensor (ADF scan).	
280.15	Paper never cleared the sensor (ADF scan).	
295.01	An imagepipe error occurred. Gap between scanned pages is too small.	

ADF jam service check

1. Perform the following tests:

   Check the ADF paper path for paper fragments, partially fed paper, and obstructions.

- Under the ADF cover
- Under the ADF
- ADF bin

Is the paper path free of paper fragments, partially fed paper, and obstructions?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Remove the paper fragments, partially fed paper, and obstructions.

   Does the problem remain?

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

3. Perform the following tests:
   a. Open the ADF cover, and then check if it closes properly.
   b. Check the cover for improper installation.

   Is the ADF cover functional and properly installed?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Perform the following tests:
   a. Remove, and then install the ADF cover.
   b. Check the ADF cover for damage.

   Is the ADF cover free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 6.

5. Perform the following tests:
   a. Check the ADF cover pick mechanism for improper operation.
   b. Check the ADF pick roller and feed roller for wear, damage, and contamination.

   Are the pick components functional and free of wear, damage, and contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Clean the affected components or replace the ADF cover. See ADF cover removal on page 241.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

7. Perform the following tests:
   a. Check the ADF separator pad for improper installation.
   b. Check the separator pad for wear, damage, and contamination.

   Is the ADF separator pad properly installed and free of wear, damage, and contamination?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Remove and install, clean, or replace the ADF separator pad. See ADF separator pad removal on page 241.

   Does the problem remain?

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

9. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Motor tests

   b. Select **ADF transport**, and then start the test.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Perform the following tests:
    a. Make sure that the ADF is properly installed. Lift the ADF, and then check if it closes properly.
    b. Check the ADF for damage.

    Is the ADF free of damage?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 16.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Scanner diagnostics > Sensor tests

    b. Run the test on the following sensors:

       - ADF paper present
       - ADF scan

    Does the status of the sensors change while toggling the sensors?

- **Yes**:
  Go to step 13.
- **No**:
  Go to the next step.

12. Check the affected sensor and its flag for damage.

    Is the sensor free of damage?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 16.

13. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Scanner diagnostics > Motor tests

    b. Select **Scanner**, and then start the test.

    Does the motor run?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.

14. Perform the following tests:
    a. Remove the right cover. See Right cover removal on page 204.
    b. Reseat the following cables on the controller board:

       - JADFM1
       - JFBM1
       - JSCANSNS1
       - Scanner ground cable

    Does the problem remain?

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

15. Perform the following tests:

    Check the scanner and its components for damage.

    - Belt
    - Cables

    Is the scanner free of damage?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.

16. Replace the ADF and scanner. See ADF and scanner removal on page 242.

Does the problem remain?

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

17. Make sure that the controller board is properly installed. Reseat all the cables on the controller board.

    Does the problem remain?

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

18. Check the controller board and its connector pins for damage.

    Are the controller board and its connectors free of damage?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      Go to the next step.

19. Replace the controller board. See Controller board removal on page 206.

    Does the problem remain?

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

User attendance messages

User attendance messages

Error code	Description	Action
29.00	Packing material present on supplies.	Remove the packing material from the supplies.
29.08		
31.40	The toner cartridge is missing or unresponsive.	See Unsupported or unresponsive toner cartridge service check on page 96.
31.60	The imaging unit is missing or unresponsive.	See Unsupported or unresponsive imaging unit service check on page 98.
32.40A	The toner cartridge is unsupported.	See Unsupported or unresponsive toner cartridge service check on page 96.

Error code	Description	Action
32.40B	The toner cartridge is unsupported.	
32.40C	The toner cartridge is unsupported.	
32.40D	The toner cartridge is unsupported. **Note:** • A toner cartridge that ships with the printer or equipment (SWE) cannot be switched with another SWE toner cartridge. • Make sure to replace the SWE toner cartridge only when prompted to do so. • Replace the used SWE toner cartridge only with a newly ordered aftermarket toner cartridge compatible with the printer.	
32.40E	The toner cartridge is unsupported.	
32.40F	The toner cartridge is unsupported.	
32.60A	The imaging unit is unsupported.	See Unsupported or unresponsive imaging unit service check on page 98.

Error code	Description	Action
32.60B	The imaging unit is unsupported.	
32.60C	The imaging unit is unsupported.	
32.60D	The imaging unit is unsupported. **Note:** • An imaging unit that ships with the printer or equipment (SWE) cannot be switched with another SWE imaging unit. • Make sure to replace the SWE imaging unit only when prompted to do so. • Replace the used SWE imaging unit only with a newly ordered aftermarket imaging unit compatible with the printer.	
32.60E	The imaging unit is unsupported.	
32.60F	The imaging unit is unsupported.	
33.40	A non-Lexmark black toner cartridge was detected.	See Unsupported or unresponsive toner cartridge service check on page 96.

Error code	Description	Action
33.60	A non-Lexmark black imaging unit was detected.	Install a genuine and supported Lexmark black imaging unit.
41.60	The imaging unit and toner cartridge are mismatched or incompatible.	See Mismatched supplies error service check on page 99.
42.60	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 99.
42.60K		
42.61		
42.61K		
42.62		
42.62K		
42.63		
42.63K		
42.64		
42.64K		
43.40	A toner cartridge sensor error was detected.	Install the correct toner cartridge for the region.
71.01	The fax station name is not set up.	See Fax station error service check on page 101.
71.02	The fax station number is not set up.	
71.03	The analog line is not detected.	See Fax failure service check on page 102.
71.04	The analog line is connected to the wrong jack.	
71.05	Invalid FoIP license.	
71.06	The fax server is not set up.	
71.12	The printer cannot print faxes because the fax memory is full.	
71.13	The printer cannot send faxes because the fax memory is full.	
71.20	The fax partition is inoperative.	

Error code	Description	Action
80.0x	The remaining life of the fuser or pick roller is nearly low.	See Supplies low service check on page 100.
80.1x	The remaining life of the fuser or pick roller is low.	
80.2x	The remaining life of the fuser or pick roller is very low.	
80.3x	The life of the fuser or pick roller has ended.	
84.0x	The remaining life of the imaging unit is nearly low.	
84.1x	The remaining life of the imaging unit is low.	
84.2x	The remaining life of the imaging unit is very low.	
84.3x	The imaging unit life has ended.	
84.4x	The imaging unit life has ended. The printer forces a hard stop on the imaging unit.	
88.0x	The remaining life of the toner cartridge is nearly low.	
88.1x	The remaining life of the toner cartridge is low.	
88.2x	The remaining life of the toner cartridge is very low.	
88.4x	The toner cartridge life has ended. The printer forces a hard stop on the toner cartridge.	

Unsupported or unresponsive toner cartridge service check

1. Check whether the toner cartridge installed is genuine.

   Is the cartridge a genuine and supported Lexmark unit?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
2. Make sure that the printer model matches with the settings. Do the following:

a. From the home screen, navigate to **Settings › Reports › Menu Settings Page**
b. Compare the printer model with the model indicated in the Menu Settings Page.

Does the printer model match with the settings?

- **Yes**:
  Go to the next step.
- **No**:
  Contact the next level of support.

3. Install a genuine and supported Lexmark toner cartridge.

   Does the problem remain?

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

4. Perform the following tests:
   a. Check the toner cartridge contacts for contamination.
   b. Check the toner cartridge for leaks and damage.

   Are the toner cartridge and its contacts free of contamination and damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

5. Clean or replace the toner cartridge.

   Does the problem remain?

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

6. Check the toner cartridge smart chip contacts for contamination.

   Are the contacts free of contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

7. Clean the smart chip contact.

   Does the problem remain?

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

8. Reseat the smart chip contact cable on the controller board.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.

- **No**:
  The problem is solved.

Unsupported or unresponsive imaging unit service check

1. Check whether the imaging unit installed is genuine and supported by the printer model.

   Is the imaging unit a genuine and supported Lexmark unit?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Install a genuine and supported Lexmark imaging unit.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Check the imaging unit contacts for contamination.
   b. Check the imaging unit for leaks and damage.

   Are the imaging unit and its contacts free of contamination and damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Clean or replace the imaging unit.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:
   a. Check the imaging unit smart chip contacts for contamination.
   b. Check if the contacts are bent or damaged.

   Are the contacts free of contamination and damage?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.
6. Clean or repair the smart chip contact.

   Does the problem remain?

   - **Yes**:

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

7. Reseat the smart chip contact cable on the controller board.

   Does the problem remain?

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

Mismatched supplies error service check

1. Check whether the supplies installed are genuine and supported by the printer model.

   Are the supplies genuine and supported Lexmark units?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Install genuine and supported Lexmark units.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Replace the affected supply with the correct unit.

   Does the problem remain?

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

Toner cartridge service check

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

   Does the problem remain?

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

c. Clean the toner cartridge spring contacts, and then check the contacts for damage.
d. Perform a print test.

Does the problem remain?

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

3. Make sure that the toner cartridge is changed from shipped with equipment (SWE) toner to a compatible toner.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Reset the printer configuration. See Restoring the printer configuration on page 188.

   Does the problem remain?

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

Supplies low service check

1. Perform a print test on paper from a fresh package, and then check the result.

   Are there print quality defects on the test page?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Identify, and then resolve the print quality defects. See the “Fixing print quality issues” section.

   > **Note:** If a supply was replaced, then make sure that the maintenance kit counter is reset.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform a feed test to check if the printer has paper feed problems.

Does the printer have a problem feeding paper during the test?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 5.

4. Resolve the feed problem.

> **Note:** If a transfer roller was replaced, then make sure that the maintenance kit counter is reset.

Does the problem remain?

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

5. Replace the affected part with a new one.
   - Fuser
   - Pick roller
   - Transfer roller

Does the problem remain?

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

Fax station error service check

1. Turn off the printer, wait for about 10 seconds, and then turn on the printer.

   Does the problem remain?

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

2. Perform the following tests:
   a. From the control panel, navigate to:

      Settings > Fax > Analog Fax Setup > General Fax Settings

   b. Set the fax name and fax number.

Does the problem remain?

- **Yes**:
  Go to the next step.

- **No**:
  The problem is solved.

3. Check the firmware version.

   Is the firmware updated to the latest version?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Update the firmware.

   Does the problem remain?

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

5. Make sure that the controller board is properly installed. Reseat all the cables on the controller board.

   Does the problem remain?

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

6. Check the controller board and its connector pins for damage.

   Are the controller board and its connectors free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

7. Replace the controller board. See Controller board removal on page 206.

   Does the problem remain?

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

Fax failure service check

1. Turn off the printer, wait for about 10 seconds, and then turn on the printer.

   Does the problem remain?

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

2. Perform the following tests:

a. Make sure that the telephone cable is properly connected to the line port of the printer.
b. Make sure that the other end of the cable is connected to an active analog wall jack. Contact the analog phone service provider if necessary.

Does the problem remain?

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

3. Check the line port connector pins of the fax card for corrosion and damage.

> **Note:** The telephone cable must properly fit with the line port.

Is the fax card connector free of damage?

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

4. Check the firmware version.

Is the firmware updated to the latest version?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

5. Update the firmware.

Does the problem remain?

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

6. Make sure that the controller board is properly installed. Reseat all the cables on the controller board.

Does the problem remain?

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

7. Check the controller board and its connector pins for damage.

Are the controller board and its connectors free of damage?

- **Yes**:
  Contact the next level of support.
- **No**:
  Go to the next step.

8. Replace the controller board. See Controller board removal on page 206.

   Does the problem remain?

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

Printer hardware errors

111 errors

111 error messages

Error code	Description	Action
111.20	Printhead error (mirror motor lock) was detected before the motor was turned on.	See Printhead service check on page 105.
111.21	No printhead power (+5 V) when the laser servo started.	
111.30	The printhead failed during power-on tests.	
111.31	Printhead error (no first HSYNC) was detected.	
111.32	Printhead error (lost HSYNC) was detected.	
111.33	Printhead error (lost HSYNC) was detected during servo.	
111.34	Printhead error (mirror motor lost lock) was detected.	
111.35	Printhead error (mirror motor never got first lock) was detected.	
111.36	Printhead error (mirror motor lock never stabilized) was detected.	
111.37	Paper reached the sensor but the mirror motor was not locked.	
111.38	Paper reached the sensor (input) but the printhead startup was not complete.	

Error code	Description	Action
111.40	The wrong printhead is installed.	
111.91	Printhead error (bad facet time reading).	

Printhead service check

1. Perform a POR.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Make sure that the JVD01 and JMIR1 cables are properly connected on the controller board.
   b. Check the cables for damage.

   Are the cables properly connected and free of damage?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Replace the printhead. See .Printhead removal on page 233

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform a POR.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the controller board. See .Controller board removal on page 206

   Does the problem remain?

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

121 errors

121 error messages

Error code	Description	Action
121.00	Fuser did not reach the required temperature.	See Fuser service check on page 107.
121.02	Fuser went over the required temperature during EWC/line voltage detection.	
121.04	During an attempt to heat up, the fuser relay was open and the micro-controller was not reporting an error.	
121.05	During an attempt to heat up, the fuser relay was open and the micro-controller was reporting an error.	
121.10	Fuser did not reach the required temperature during the start of EWC/line voltage detection.	
121.11	Fuser reached the required temperature too late during the final EWC/line voltage detection.	
121.12	Fuser did not reach the required temperature during the final EWC/line voltage detection.	
121.13	Fuser reached the required temperature too fast during the final EWC/line voltage detection.	
121.14	Fuser is heating too fast.	
121.20	Fuser did not reach the required temperature during steady state control. This can occur during printing or in standby mode.	
121.22	Open fuser relay was detected.	
121.23	Fuser relay was turned off, but the feedback to the engine code indicated that it was still open.	

Error code	Description	Action
121.24	Fuser did not reach the required temperature during the final EWC/line voltage detection.	
121.28	Fuser did not reach the required temperature during EP warm-up.	
121.32	Fuser did not reach the required temperature at 100% power.	
121.33	Fuser did not reach the required temperature while page is in the fuser).	
121.34	Fuser did not reach the required temperature during steady state control.	
121.50	Fuser went over the required temperature during global over-temp check.	
121.52	Main thermistor temperature is out of range.	
121.53	Main thermistor temperature change rate is out of range.	
121.71	Open fuser main heater thermistor was detected.	

Fuser service check

1. Check if the error occurs right after setting up the printer or within the first 500 pages.

   Does the error occur right after setting up the printer or within the first 500 pages?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Replace the controller board. See Controller board removal on page 206.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Make sure that the fuser is properly installed.

   Does the problem remain?

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

4. Check whether the fuser installed is genuine and supported by the printer model.

   Is the fuser a genuine and supported Lexmark unit?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

5. Check if the fuser type is compatible with the printer model.

   Are the fuser and printer compatible?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Check the fuser life.

   Has the fuser reached its end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.

7. Replace the fuser. See Fuser removal on page 232.

   > **Note:** Make sure that the new fuser is supported by the printer model.

   Does the problem remain?

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

8. Make sure that the voltage output of the electrical outlet matches the voltage rating of the printer.

   Does the problem remain?

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

9. Make sure that the JFUSER1 and JEXIT1 cables are properly connected on the controller board.

   Does the problem remain?

   - **Yes**:

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

10. Make sure that the high voltage cable is properly connected to the LVPS.

    Does the problem remain?

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

11. Perform a POR.

    Does the problem remain?

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

12. Replace the LVPS. See .LVPS removal on page 207

    Does the problem remain?

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

13. Replace the fuser. See .Fuser removal on page 232

    Does the problem remain?

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

126 errors

126 error messages

Error code	Description	Action
126.01	Line frequency has gone outside the operating range.	See LVPS service check on page 110.
126.02	No line frequency was detected.	
126.05	The LVPS power dropped but the printer was not in sleep mode.	
126.06	LVPS 25 V line error was detected.	

Error code	Description	Action
126.07	LVPS 5 V rail was down during power-on.	
126.10	No line frequency was detected.	
126.11	Line frequency exceeded the operating range.	
126.14	LVPS relay is stuck or closed.	

LVPS service check

1. Make sure that the printer is directly plugged into the electrical outlet.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Make sure that the voltage output of the electrical outlet matches the voltage rating of the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Make sure that the PCN1 cable on the LVPS is properly connected.
   b. Make sure that the JLVPS1 cable on the controller board is properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Make sure that the voltage output of the electrical outlet matches the voltage rating of the LVPS.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform a POR.

   Does the problem remain?

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

6. Replace the LVPS. See .LVPS removal on page 207

   Does the problem remain?

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

7. Perform a POR.

   Does the problem remain?

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

140 errors

140 error messages

Error code	Description	Action
140.80	Motor (main drive) does not turn on.	See Motor (main drive) service check on page 111.
140.81	Motor (main drive) does not turn off.	
140.82	Motor (main drive) speed did not ramp up to the required level.	
140.83	Motor (main drive) stalled.	
140.85	Motor (main drive) ran too fast.	
140.86	Motor (main drive) ran too long.	

Motor (main drive) service check

1. Perform the following tests:
   a. Remove the imaging unit.
   b. Manually turn the photoconductor gear, and then check the cleaning blade for damage or failure.

   Does the photoconductor drum rotate?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Replace the imaging unit.

   Does the problem remain?

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

3. Make sure that the JMTR1 cable is properly connected to the controller board.

   Is the cable properly connected to the controller board?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Reseat the JMTR1 cable on the controller board.

   Does the problem remain?

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

5. Perform a POR.

   Does the problem remain?

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

162 errors

162 error messages

Error code	Description	Action
162.80	The motor (tray 2 pick) does not turn on.	See Optional tray pick drive failure service check on page 113.
162.81	The motor (tray 2 pick) does not turn off.	
162.82	The motor (tray 2 pick) speed did not ramp up to the required level.	
162.83	The motor (tray 2 pick) stalled.	

Error code	Description	Action
162.84	The motor (tray 2 pick) ran too slow.	
162.85	The motor (tray 2 pick) ran too fast.	
162.86	The motor (tray 2 pick) ran too long.	

Optional tray pick drive failure service check

1. Check if the optional tray motor (pick) runs.

   Does the motor run?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Reseat the motor cable, and then reseat the cable on the optional tray controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Remove the optional tray.
   b. Under the printer, check the interconnect cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Insert the optional tray.

   > **Note:** Make sure that the interconnect cable properly fits with the socket on the optional tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:

a. Remove the tray insert from the optional tray.
b. Check if the lift plate moves properly.
c. Check the lift plate gears for damage.

Is the tray insert functional and free of damage?

- **Yes**:
  Contact the next level of support.
- **No**:
  Go to the next step.

6. Replace the tray insert.

   Does the problem remain?

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

6yy errors

600-680 error messages

Error code	Description	Action
600.01	Toner tally from the RIP was not received.	Resend the print job. If the problem remains, then contact the next level of support.
600.02	Video did not start.	
600.04	Duplex page was not picked.	
600.05	Invalid PH NVRAM Type error was detected.	
600.06	Paper port driver is unresponsive.	
600.07	Page is at image point before EP is ready.	
600.09	EP update error was detected.	
600.10	EP late run-in error was detected.	
600.11	Packing material was detected by the sensor (toner density).	Remove the imaging unit and toner cartridge, and then make sure that all packing material are properly removed.

Error code	Description	Action
600.95	RIP intentionally declared a jam error, usually to prevent a kiosk user from printing free pages.	Resend the print job. If the problem remains, then contact the next level of support.
602.29	Tray 2 was not ready for picking.	See Optional tray pick drive failure service check on page 113.
611.02	An Input ISR error occurred and the printhead was not ready.	See Printhead service check on page 105.
611.32	Lost Hsync errors were detected. Laser safety interlock system may be the cause.	
611.33	Lost Hsync errors were detected during servo.	
611.34	A mirror motor lock error was detected.	
611.35	Mirror motor never got first lock.	
611.36	Mirror motor lock never stabilized.	
611.37	Paper reached the sensor (input) but the mirror motor was not locked.	
611.38	Paper reached the sensor (input) but the printhead startup was not complete.	
621.01	Fuser heater was too cold when paper entered the fuser nip.	Resend the print job. If the problem remains, then contact the next level of support.
640.84	The motor (main drive) stalled or ran too slow.	See Motor (main drive) service check.
662.23	The tray 2 lift plate failed to lift.	See Optional tray pick drive failure service check on page 113.
662.80	Jam detection caused by motor (tray 2) not turning on.	
662.81	Jam detection caused by motor (tray 2) not turning off.	
662.82	Jam detection caused by motor (tray 2) speed not ramping up to the required level.	

Error code	Description	Action
662.83	Jam detection caused by motor (tray 2) stalling.	
662.84	Jam detection caused by motor (tray 2) running too slow.	
662.85	Jam detection caused by motor (tray 2) running too fast.	
662.86	Jam detection caused by motor (tray 2) running too long.	
680.20	During an ADF job, there was no paper detected on the ADF tray.	See ADF failure service check on page 116.
680.40	During a scan job, a communication error occurred.	See Scanner communication error service check on page 119.

Fuser overheated service check

1. Perform the following tests:
   a. Allow fuser to cool for three minutes.
   b. Resend the print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Replace the fuser. See .Fuser removal on page 232

   Does the problem remain?

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

ADF failure service check

1. Perform the following tests:

   Check the ADF paper path for paper fragments, partially fed paper, and obstructions.

   - Under the ADF cover
   - Under the ADF
   - ADF bin

Is the paper path free of paper fragments, partially fed paper, and obstructions?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Remove the paper fragments, partially fed paper, and obstructions.

   Does the problem remain?

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

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Motor tests

   b. Select **ADF transport**, and then start the test.

   Does the motor run?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Perform the following tests:
   a. Make sure that the ADF is properly installed. Lift the ADF, and then check if it closes properly.
   b. Check the ADF for damage.

   Is the ADF free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Sensor tests

   b. Run the test on the following sensors:

      - ADF paper present
      - ADF scan

   Does the sensor status change while toggling the sensors?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

6. Check the affected sensor and its flag for damage.

Is the sensor free of damage?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 9.

7. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Reseat the scanner cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Check the cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.
9. Replace the ADF and scanner. See .ADF and scanner removal on page 242

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Make sure that the controller board is properly installed. Reseat all the cables on the controller board.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Check the controller board and its connector pins for damage.

    Are the controller board and its connectors free of damage?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      Go to the next step.
12. Replace the controller board. See .Controller board removal on page 206

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.

- **No**:
  The problem is solved.

Scanner communication error service check

1. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Reseat the following cables on the controller board:
      - JADFM1
      - JFBM1
      - JSCANSNS1
      - scanner ground cable

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Make sure that the scanner ground cable is properly connected to the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Replace the ADF and scanner. See .ADF and scanner removal on page 242

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Replace the controller board. See .Controller board removal on page 206

   Does the problem remain?

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

84y errors

840–845 error messages

Error code	Description	Action
840.01	The scanner was manually disabled by the user.	See Scanner communication failure service check on page 120.
840.02	The scanner was automatically disabled by the printer after two consecutive hardware failures.	
842.00	A scanner communication error (no response) was detected.	
842.01	A scanner communication error (HW protocol) was detected.	
842.02	A scanner communication error (logical protocol) was detected.	
843.00	The scanner CIS failed to reach its home position.	See Scanner noise service check on page 123.
845.02	A front side scan error occurred.	See Scanner communication failure service check on page 120.
845.03	A back side scan error occurred.	See Duplex scan error service check on page 125.

Scanner communication failure service check

1. Perform the following tests:

   Check the ADF paper path for paper fragments, partially fed paper, and obstructions.

   - Under the ADF cover
   - Under the ADF
   - ADF bin

   Is the paper path free of paper fragments, partially fed paper, and obstructions?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper fragments, partially fed paper, and obstructions.

Does the problem remain?

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

3. Perform the following tests:
   a. Remove the right cover. See Right cover removal on page 204.
   b. Reseat the scanner cables on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the cables for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 12.
5. Perform the following tests:
   a. From the control panel, navigate to:

      Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > Disable Scanner

   b. Select **Enable**.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Motor tests

   b. Select **ADF transport**, and then start the test.

   Does the motor run?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Perform the following tests:
   a. Make sure that the ADF is properly installed. Lift the ADF, and then check if it closes properly.
   b. Check the ADF for damage.

Is the ADF free of damage?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 13.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Sensor tests

   b. Run the test on the following sensors:
      - ADF paper present
      - ADF scan

   Does the sensor status change while toggling the sensors?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.
9. Check the affected sensor and its flag for damage.

   Is the sensor free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 13.
10. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Scanner diagnostics > Motor tests

    b. Select **Scanner**, and then start the test.

    Does the motor run?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.
11. Perform the following tests:
    a. Remove the right cover. See Right cover removal on page 204.
    b. Reseat the scanner cables.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
12. Perform the following tests:

Check the scanner and its components for damage.

- CIS
- Belt
- Cables

Is the scanner free of damage?

- **Yes**:
  Go to step 14.
- **No**:
  Go to the next step.

13. Replace the ADF and scanner. See ADF and scanner removal on page 242.

    Does the problem remain?

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

14. Make sure that the controller board is properly installed. Reseat all the cables on the controller board.

    Does the problem remain?

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

15. Check the controller board and its connector pins for damage.

    Are the controller board and its connectors free of damage?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      Go to the next step.

16. Replace the controller board. See Controller board removal on page 206.

    Does the problem remain?

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

Scanner noise service check

1. With the scanner cover open, do a copy job to check the scanner lamp.

> **Note:** The scanner lamp must light up and move along the scan area.

Is the scanner lamp functional?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Reseat the scanner cables on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:

   Check the scanner and its components for damage.

   - Scanner lamp
   - Motor (scanner)
   - Scanner belt
   - Glass panes
   - Cables

   Are the scanner and its components free of damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to step 4.
4. Replace the ADF and scanner. See .ADF and scanner removal on page 242

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the firmware version.

   Is the firmware updated to the latest version?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.
6. Update the firmware.

Does the problem remain?

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

7. Make sure that the controller board is properly installed. Reseat all the cables on the controller board.

   Does the problem remain?

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

8. Replace the controller board. See .Controller board removal on page 206

   Does the problem remain?

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

Duplex scan error service check

1. Perform the following tests:

   Check the ADF paper path for paper fragments, partially fed paper, and obstructions.

   - Under the ADF cover
   - Under the ADF
   - ADF bin

   Is the paper path free of paper fragments, partially fed paper, and obstructions?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper fragments, partially fed paper, and obstructions.

   Does the problem remain?

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

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Motor tests

   b. Select **ADF transport**, and then start the test.

Does the motor run?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

4. Perform the following tests:
   a. Make sure that the ADF is properly installed. Lift the ADF, and then check if it closes properly.
   b. Check the ADF for damage.

   Is the ADF free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.
5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Sensor tests

   b. Run the test on the following sensors:

      - ADF paper present
      - ADF scan

   Does the sensor status change while toggling the sensors?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
6. Check the affected sensor and its flag for damage.

   Is the sensor free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 204
   b. Reseat the scanner cables on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Check the cable for damage.

   Is the cable free of damage?

   - **Yes**:

Go to the next step.
- **No**:
  Go to step 10.

9. With the scanner cover open, do a duplex copy job to check the ADF scanner lamp.

   > **Note:** The scanner lamp must light up.

   Is the scanner lamp functional?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.
10. Replace the ADF and scanner. See .ADF and scanner removal on page 242

    Does the problem remain?

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

Procedure before starting the 9yy service checks

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

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

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

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

A. Collecting the history information from the SE menu

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

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

   Note:
   - 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

Note:

- 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**.

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

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

   Note: To download the FWdebug log to a flash drive, see .General SE Menu on page 179

C. Collecting the settings from the Menu Settings Page

Note: 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)

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

1. Open a web browser, type http://printer_IP_address, 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 errors

900 error messages

Error code	Description	Action
900.00	Unrecoverable RIP software error/illegal trap.	See 900 error service check on page 129.
900.70		

900 error service check

1. Perform the following tests:
   a. Perform a POR.
   b. Check if a 900.xx error code appears on the display.

   Does a 900.xx error code appear?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

2. Check if another type of error code appears instead of the 900.xx error code.

   Does a different error code appear?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.
3. See the error code and its service instructions in the printer *Service Manual*.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Turn off the printer.
   b. At the rear of the printer, disconnect the network cable, USB cable, and fax line.
   c. Turn on the printer.

   Does the problem remain?

   - **Yes**:
     Go to step 12.
   - **No**:
     Go to the next step.
5. Perform the following tests:
   a. From the control panel, navigate to the **Reports** menu.
   b. Select **Device Statistics** and **Device Settings**.

   Does the problem remain?

   - **Yes**:
     Go to step 12.
   - **No**:
     Go to the next step.
6. Check if the printer has a scanner.

   Does the printer have a scanner?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.
7. Using the scanner, perform a one-page copy job in color.

   Does the problem remain?

   - **Yes**:
     Go to step 12.
   - **No**:
     Go to the next step.
8. Perform the following tests:
   a. Turn off the printer.
   b. At the rear of the printer, connect the network cable, USB cable, and fax line.

c. Turn on the printer.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 10.

9. Perform the following tests:
   a. Start the printer in **Invalid engine mode**. See .Entering Invalid engine mode on page 174
   b. Check if an Invalid Engine Code message appears.

   Does an Invalid Engine Code message appear?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.
10. Using the Device Settings report that is printed in step 5, check if the firmware level is older than the latest available version.

    Is the firmware version older, and does the customer agree to update the firmware?

    - **Yes**:
      Go to the next step.
    - **No**:
      Contact the next level of support.
11. Update the firmware to the latest version.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
12. Perform the following tests:
    a. Turn off the printer.
    b. Reseat all FFC type cables on the controller board, and then make sure that the cables are properly connected.
    c. Make sure that all the cables on the controller board and scanner are properly connected.
    d. Turn on the printer.
    e. From the control panel, navigate to the **Reports** menu, and then select **Device Statistics** and **Device Settings**.
    f. For MFPs, perform a one-page copy and scan job in color.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
13. Check if a hard disk is installed.

Is a hard disk installed?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 17.

14. Perform the following tests:
    a. Check for buffered print jobs, and then delete them.
    b. Perform a POR.

    Does the problem remain?

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

15. Perform the following tests:
    a. Turn off the printer.
    b. Uninstall the hard disk.
    c. Perform a POR.

    Does the problem remain?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.

16. Replace the hard disk.

    Does the problem remain?

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

17. Check if the printer has any of the following components installed:

    - Memory options
    - Fax card
    - Modem
    - Wireless and network option cards

    Is any of the components installed?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 21.

18. Perform the following tests:
    a. Turn off the printer.
    b. Remove all the installed components.
    c. Turn on the printer.

    Does the problem remain?

- **Yes**:
  Go to step 21.
- **No**:
  Go to the next step.

19. Perform the following tests:
    a. Turn off the printer.
    b. Install the following components one at a time:
       - Memory options
       - Fax card
       - Modem
       - Wireless and network option cards

> **Note:** Make sure to perform a POR after installing each component.

Does the problem remain?

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

20. Perform the following tests:
    a. Turn off the printer.
    b. Replace the components that caused the error.
    c. Turn on the printer.

Does the problem remain?

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

21. Replace the controller board. See .Controller board removal on page 206

Does the problem remain?

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

912 errors

912 error messages

Error code	Description	Action
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.	
912.04	An engine error occurred.	
912.05	An engine error occurred.	
912.06	An engine error occurred.	
912.07	An engine error occurred.	See Optional tray communication error service check on page 136.
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.	
912.10	An engine error occurred.	
912.13	An engine error occurred.	
912.14	An engine error occurred.	
912.15	An engine error occurred.	
912.16	An engine error occurred.	
912.17	An engine error occurred.	
912.18	An engine error occurred.	
912.19	An engine error occurred.	
912.20	An engine error occurred.	
912.21	An engine error occurred.	
912.28	An engine error occurred.	
912.30	An engine error occurred.	
912.31	An engine error occurred.	
912.32	An engine error occurred.	
912.33	An engine error occurred.	
912.34	An engine error occurred.	
912.35	An engine error occurred.	
912.36	An engine error occurred.	

Error code	Description	Action
912.38	An engine error occurred.	See Optional tray communication error service check on page 136.
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.	
912.42	An engine error occurred.	
912.43	An engine error occurred.	
912.44	An engine error occurred.	
912.45	An engine error occurred.	
912.46	An engine error occurred.	
912.48	An engine error occurred.	
912.49	An engine error occurred.	
912.51	An engine error occurred.	
912.52	An engine error occurred.	
912.53	An engine error occurred.	
912.54	An engine error occurred.	
912.55	An engine error occurred.	
912.56	An engine error occurred.	
912.57	An engine error occurred.	
912.58	An engine error occurred.	
912.60	An engine error occurred.	
912.61	An engine error occurred.	
912.64	An engine error occurred.	
912.65	An engine error occurred.	
912.66	An engine error occurred.	
912.69	An engine error occurred.	
912.70	An engine error occurred.	
912.72	An engine error occurred.	
912.73	An engine error occurred.	
912.74	An engine error occurred.	
912.75	An engine error occurred.	
912.77	An engine error occurred.	

Error code	Description	Action
912.86	An engine error occurred.	

Optional tray communication error service check

1. Check the paper path and trays for paper fragments and partially fed paper.

   Is the paper path free of paper fragments and partially fed paper?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper fragments and partially fed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Make sure that all the trays and tray inserts are properly inserted.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Enter the Diagnostics menu, and then select **Input tray quick print**.

   Perform a print test on the optional tray.

   Does the error occur in the optional tray?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.
5. Perform the following tests:
   a. Remove the optional tray.
   b. Make sure that the interconnect cable of the tray is properly installed.
   c. Check the interconnect cable and its connector pins for damage.
   d. Make sure that the tray controller board is properly installed.
   e. Reseat all the cables on the tray controller board.
   f. Check the optional tray controller board and its connector pins for damage.

   Are the tray interconnect cable and controller board free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:

Go to the next step.

6. Replace the optional tray.

   Does the problem remain?

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

938–992 errors

938–992 error messages

Error code	Description	Action
938.04	Supplies security is not enabled.	Restart the printer. If the problem remains, then contact the next level of support.
950.10	Non-Generic FRU installed. Mismatch between system NVRAM part and mirror NVRAM part. **Note:** .xx points to the setting that does not match.	See .NVRAM mismatch failure service check on page 138
953.99	NVRAM chip failure with mirror part.	
980.01	An option communication error occurred.	See Optional tray communication error service check on page 136.
980.02		
980.03		
980.04		
980.05		
980.11		
980.13		
980.14		
980.15		
981.91	An invalid paper port protocol error occurred.	

Error code	Description	Action
982.92	A paper port error occurred.	
982.93		
982.94		
982.95		
982.96		
982.97		
983.98	An unsupported paper port command error occurred.	
984.99	An invalid paper port parameter error occurred.	
992.00	An option device software error occurred.	
992.01		

NVRAM mismatch failure service check

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

- Control panel
- Controller board

To replace a component and to test whether the problem is resolved:

1. Replace the affected component.

   > **Warning—Potential Damage**
   > Do not perform a Power-On Reset (POR) until the problem is resolved. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

2. Enter the Diagnostics menu. The Diagnostics menu allows you to use temporarily the replacement part.

   > **Warning—Potential Damage**
   > Some printers perform automatically a POR 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. Perform a feed test to check if the problem is resolved.
    - If the problem is not resolved—Turn off the printer, and then install the old part.
    - If the problem is resolved—Perform a POR.

1. Check if the control panel was recently replaced.

   Was the control panel recently replaced?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 4.
2. Replace the current control panel with the original control panel. See .Control panel removal on page 217

   Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
3. Replace the original control panel with a new control panel.

   > **Note:** Make sure that the new control panel is not previously installed from another printer.

   Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.
4. Check if the controller board was recently replaced.

   Was the controller board recently replaced?

    - **Yes**:
      Go to the next step.
    - **No**:
      Contact the next level of support.
5. Replace the current controller board with the original controller board. See .Controller board removal on page 206

   Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
6. Replace the original controller board with a new controller board.

> **Note:** Make sure that the new controller board is not previously installed from another printer.

Does the problem remain?

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

Other symptoms

Base printer symptoms

Base printer symptoms

Symptom	Action
A false tray paper low message appears.	See Tray near empty service check on page 140.
A false bin full message appears	See False bin full error service check on page 141.

Tray near empty service check

1. Check the actuator in the tray insert for damage.

   Is the actuator free of damage?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to step 2.
2. Replace the tray insert.

   Does the problem remain?

   - **Yes**:
     Go to step 3.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Make sure that the sensor (tray near empty) is properly installed.
   b. Check the sensor for damage.

   Is the sensor free of damage?

- **Yes**:
  Go to step 5.
- **No**:
  Go to step 4.

4. Replace the sensor (tray near empty) assembly.

   Does the problem remain?

   - **Yes**:
     Go to step 5.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Make sure that the sensor cable is properly connected to the controller board.
   b. Check the sensor cable for damage.

   Is the sensor cable free of damage?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to step 6.

6. Replace the sensor cable.

   Does the problem remain?

   - **Yes**:
     Go to step 7.
   - **No**:
     The problem is solved.

7. Perform a POR.

   Does the problem remain?

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

False bin full error service check

1. Remove, and then install the bin full sensor actuator. See .Bin full sensor actuator removal on page 235

   Does the problem remain?

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

2. Check the bin full sensor actuator for damage, and replace if necessary

   Does the problem remain?

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

3. Check the sensor (bin full) for damage, and replace if necessary.

   Does the problem remain?

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

Fax symptoms

Fax symptoms

Symptom	Action
No dial tone.	See Modem/fax card service check on page 148.
The printer does not transmit faxes.	See Fax transmission service check on page 151.
The printer does not receive faxes.	See Fax reception service check on page 154.
Cannot set up etherFAX.	See Cannot set up etherFAX on page 150.
Cannot send or receive faxes using Etherfax.	See Cannot send or receive faxes using etherFAX on page 150.
A Lost connection to HTTPS Fax Server error message appears.	See Lost connection to HTTPS fax server when using etherFAX service check on page 157.

Fax error log codes

Error code	Description	Action
000	No error occurred during fax transmission.	No action is needed.
200	Error occurred when transmitting training.	• Check line quality. • Select a lower Max Speed value under Fax Send settings. • Adjust the transmit level.

Error code	Description	Action
3XX	Error occurred when receiving image data.	• Check line quality. • Adjust Receive Threshold. • Select a lower Max Speed value under Fax Receive settings.
4XX	Error occurred when sending image data.	• Check line quality. • Adjust ‘Transmit Level’. • Select a lower ‘Max Speed’ value under Fax Receive settings.
5XX	Received unknown response from remote fax device.	No action needed. Issue is with the other device.
6XX	Error occurred when receiving a frame.	• Check line quality. • Adjust ‘Receive Threshold’.
7XX	Error occurred when sending a frame.	• Check line quality. • Adjust ‘Transmit Level’. • Select a lower ‘Max Speed’ value under Fax Send settings.
800	Received EOT unexpectedly from the modem in V34 mode.	If error persists, then disable V34 modulation scheme.
802	Too many timeouts occurred during ECM reception.	If error persists, then disable ECM mode.
803	Fax cancelled by user	No action needed.

Error code	Description	Action
804	Unexpectedly received a disconnect command from the remote end.	• Check line quality. • Adjust Transmit Level/Receive Threshold values. • Remote device could be requesting an unsupported feature.
805	Remote fax device failed to respond to the DCS command.	• Adjust Transmit Level/Receive Threshold values. • Remote device could be malfunctioning.
808	T1 timeout occurred when trying to establish a connection with a remote fax device.	Adjust Transmit Level/ Receive Threshold values.
809	T2 Timeout occurred due to loss of command/response synchronization.	Adjust Transmit Level/ Receive Threshold values.
80A	T5 Timeout occurred when transmitting image data to remote fax device.	• Check line quality. • Adjust ‘Transmit Level’. • Select a lower ‘Max Speed’ value under Fax Send settings.
80B	Too many errors when transmitting in ECM mode.	• Check line quality. • Adjust ‘Transmit Level’. • Select a lower ‘Max Speed’ value under Fax Send settings.
80C	Remote device failed to respond to the CTC command.	• Select a lower ‘Max Speed’ value under Fax Send settings. • Adjust ‘Transmit Level’.

Error code	Description	Action
80D	Received too many requests from remote end to repeat the previous command sent.	• Check line quality. • Adjust ‘Transmit Level’. • Check if line conditions on remote end will facilitate a good connection.
80E	Functional limitation- Remote fax device does not support G3 receive capability.	No action needed. Issue with the remote device.
811	Failed to detect a fax device at the remote end.	• Verify MFD is answering to fax call and not a voice call. • Decrease value of ‘Rings To Answer’ setting.
812	No more data rates available in V34 modulation scheme.	Adjust to a lower modulation scheme.
813	Timeout occurred after waiting too long to receive a good frame.	Adjust “Receive Threshold”.
814	Tried too many times at selected speed using V34 modulation scheme.	• Adjust ‘Transmit Level’. • Adjust to a lower modulation scheme.
815	Fax transmission was interrupted due to power failure.	Troubleshoot MFP if error persists. See Modem/fax card service check on page 148.
818	Fax transmission failed due to insufficient memory to store scanned image.	Adjust ‘Memory Use’ setting to allocate more memory for send jobs.
819	Fax transmission failed due to insufficient memory to store received image.	Adjust ‘Memory Use’ setting to allocate more memory for receive jobs.
81A	A timeout occurred during transmission of a page in ECM mode.	Select a lower ‘Max Speed’ value under Fax Send settings.

Error code	Description	Action
880	Failure to transmit training successfully in V17, V29, V27 terminal modulation schemes.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
881	Failure to transmit training successfully in V33, V29, V27 terminal modulation schemes.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
882	Failure to transmit training successfully in V17, V29 terminal modulation schemes.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
883	Failure to transmit training successfully in V17, V27 terminal modulation schemes.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
884	Failure to transmit training successfully in V29, V27 terminal modulation schemes.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
885	Failure to transmit training successfully in V17 terminal modulation scheme.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.

Error code	Description	Action
886	Failure to transmit training successfully in V29 terminal modulation scheme.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
887	Failure to transmit training successfully in V27 terminal modulation scheme.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
888	Failure to transmit training successfully at 2400 bps in V27 terminal modulation scheme.	• Adjust “Transmit Level”. • Check line quality.
889	Failed to connect at the minimum speed supported by the MFP.	• Adjust “Transmit Level”. • Incompatible connection.
88A	Failed to connect using V.34 modulation scheme.	• Check line quality. • Adjust to a lower modulation scheme. • Adjust Transmit Level Receive Threshold values.
901	No fax tones detected from remote end.	• Verify destination phone number. • Verify that the remote fax is authorized to receive faxes.

Error code	Description	Action
902	No dial tone detected.	• Check by enabling 'Behind a PABX' setting. • Check phone line. • Check MFD modem hardware.
903	Busy tone detected.	Check with remote end if successive attempts fail.
904	Hardware error detected.	See Modem/fax card service check on page 148.
905	A timeout occurred after dialing the number and waiting for a response.	Check with remote end if successive attempts fail.
906	Fax cancelled by user.	No action needed.
907	Modem detected a digital line connection.	Verify the MFP is connected to an analog line. See Fax transmission service check on page 151.
908	Phone line was disconnected	Restore phone line connection.
A00	Received request for unsupported function from remote fax device.	No action needed.
A01	Received request for unsupported image width from remote fax device.	No action needed.
A02	Received request for unsupported image resolution from remote fax device.	No action needed.
A03	Received request for unsupported compression type from remote fax device.	No action needed.
A04	Received request for unsupported image length from remote fax device.	No action needed.
F00	Unknown error occurred.	No action needed.

Modem/fax card service check

1. Check if the telephone cable is properly connected to the modem card and electrical outlet.

Is the cable properly connected to the modem card and electrical outlet?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 3.

2. Connect the telephone cable to the modem card and electrical outlet.

   Does the problem remain?

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

3. Check if the telephone cable can make and receive calls.

   Is the phone line properly working?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Connect the printer to a properly functioning telephone jack.

   Does the problem remain?

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

5. Make sure that the modem cable is properly connected to the modem card and to the JFAX2 connector on the controller board.

   Does the problem remain?

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

6. Replace the fax card.

   Does the problem remain?

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

7. Check the voltages values of the following pins on the JFAX1 connector on the controller board:

   - Pin 5: +5 V dc
   - Pin 7: Ground
   - Pin 9: Ground
   - Pin 11: Ground
   - Pin 13: Ground

Are the voltage values approximately the same?

- **Yes**:
  Contact the next level of support.
- **No**:
  Go to the next step.

8. Replace the controller board. See .Controller board removal on page 206

   Does the problem remain?

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

Cannot set up etherFAX

1. Perform the following tests:
   a. Print the Network Setup Page. From the home screen, touch **Settings > Reports > Network > Network Setup Page**.
   b. Check the network status.

   Is the printer connected to the network?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Make sure that the printer is connected to a network and that the network is connected to the Internet.

   Can you set up etherFAX?

   - **Yes**:
     The problem is solved.
   - **No**:
     Go to the next step.
3. Make sure that etherFAX is set up correctly. For more information, see the printer *User's Guide*.

   Can you set up etherFAX?

   - **Yes**:
     The problem is solved.
   - **No**:
     Go to https://www.etherfax.net/lexmark.

Cannot send or receive faxes using etherFAX

1. Make sure that the printer is connected to a network and that the network is connected to the Internet.

Can you send or receive faxes using etherFAX?

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

2. Perform the following tests:
   a. From the home screen, touch **Settings > Fax > Fax Setup > General Fax Settings**.
   b. Make sure that you have the correct fax number.
   c. Make sure that Fax Transport is set to etherFAX.

   Can you send or receive faxes using etherFAX?

   - **Yes**:
     The problem is solved.
   - **No**:
     Go to the next step.
3. Split large documents into smaller file sizes.

   Can you send or receive faxes using etherFAX?

   - **Yes**:
     The problem is solved.
   - **No**:
     Go to https://www.etherfax.net/lexmark.

Fax transmission service check

> **Note:** These instructions apply only to printers that support analog fax. For more information, see .

1. Reseat the telephone cable on the LINE port of the printer and on the wall jack.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check for a dial tone.

   Is there a dial tone?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
3. Check if the telephone line can send and receives calls.

   Is the phone line properly working?

   - **Yes**:

Go to step 6.
- **No**:
  Go to the next step.

4. Check if the telephone line is free of static or external noise.

   Is the line free of static or external noise?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Connect the telephone cable to a working wall jack.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Perform the following tests:
   a. From the home screen, navigate to **Settings > Fax > Analog Fax Setup > Fax Receive Settings > Admin Controls > Enable Fax Receive**.
   b. Select **On**.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Perform the following tests:
   a. From the home screen, navigate to **Settings > Fax > Analog Fax Setup > Fax Receive Settings > Admin Controls > Answer on**.
   b. Select a ring pattern.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Check if the telephone line is analog.

   Is the line analog?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.
9. Check if the telephone line is a VOIP line.

   Is the line VOIP?

   - **Yes**:
     Go to step 11.
   - **No**:

Go to the next step.

10. Ask the system administrator to check if the VOIP server is configured to receive faxes.

    Is the server configured to receive faxes?

    - **Yes**:
      Go to the next step.
    - **No**:
      Contact the next level of support.

11. Check if the printer receives a fax from one specific remote device.

    Does the printer receive a fax from one specific remote device?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Check if a different device can send a fax.

    Can the device send a fax?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      Go to the next step.

13. Perform the following tests:
    a. From the home screen, navigate to **Settings > Fax > Analog Fax Setup > Fax Receive Settings > Admin Controls > Block No Name Fax**.
    b. Select **Off**.

    Does the problem remain?

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

14. Perform the following tests:
    a. From the home screen, navigate to **Settings > Fax > Analog Fax Setup > Fax Receive Settings > Admin Controls > Banned Fax List**.
    b. Check if the remote device number is on the list.

    Is the number on the list?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 16.

15. Remove the remote device number from the list.

    Does the problem remain?

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

16. Perform the following tests:

a. Enter the Service Engineer menu, and then navigate to:

Fax SE > Modem Settings > Receive Thresh

b. Adjust the setting in steps of 2 dB.

> **Note:** The recommended adjustment range is between -33 dB and -48 dB.

Does the problem remain?

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

17. Perform the following tests:
    a. Enter the Service Engineer menu, and then navigate to:

    Fax SE > Fax Settings > AutoPrint T30 Logs

    b. Check the reported error code. See Fax error log codes on page 142.
    c. Perform the action suggested for the error.

    Does the problem remain?

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

Fax reception service check

> **Note:** These instructions apply only to printers that support analog fax. For more information, see .

> **Note:** Before performing this service check, make sure that the correct country code is selected.

1. Reseat the telephone cable on the LINE port of the printer and on the wall jack.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check if the telephone line can send and receive calls.

   Is the phone line properly working?

- **Yes**:
  Go to step 4.
- **No**:
  Go to the next step.

3. Connect the telephone cable to a working wall jack.

   Does the problem remain?

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

4. Check if the telephone line is analog.

   Is the telephone line analog?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

5. Check if the telephone line is a VOIP line.

   Is the line VOIP?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Ask the system administrator to verify if the VOIP server is configured to receive faxes.

   Is the server configured to receive faxes?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.

7. Check if the printer is on a PABX.

   Is the printer on a PABX?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Perform the following tests:
   a. From the home screen, navigate to **Settings > Fax > Analog Fax Setup > Fax Send Settings > Behind a PABX**.
   b. Select **Yes**.

   Does the problem remain?

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

9. Perform the following tests:

a. From the home screen, navigate to **Settings > Fax > Analog Fax Setup > Fax Send Settings > Behind a PABX**.
b. Select **No**.
c. Check if access to an outside line needs a dial prefix.

Does access to an outside line need a dial prefix?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 11.

10. Send a fax using a dial prefix.

    Does the problem remain?

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

11. Check if the printer sends a fax to one specific destination.

    Does the printer send a fax to one specific destination?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Check if the device that does not receive a fax can send a fax.

    Can the device send a fax?

    - **Yes**:
      Go to the next step.
    - **No**:
      Contact the next level of support.

13. Perform the following tests:
    a. Enter the Service Engineer menu, and then navigate to:

       Fax SE > Fax Settings > AutoPrint T30 Logs

    b. Check the reported error code. See Fax error log codes on page 142.
    c. Perform the action suggested for the error.

    Does the problem remain?

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

14. Check the TIA/EIA-IS-968 Standard "Technical Requirements for Connection of Terminal Equipment to the Telephone Network" for your geography.

    Is it permitted for analog modulated transmitted data to transmit above -9 dBm?

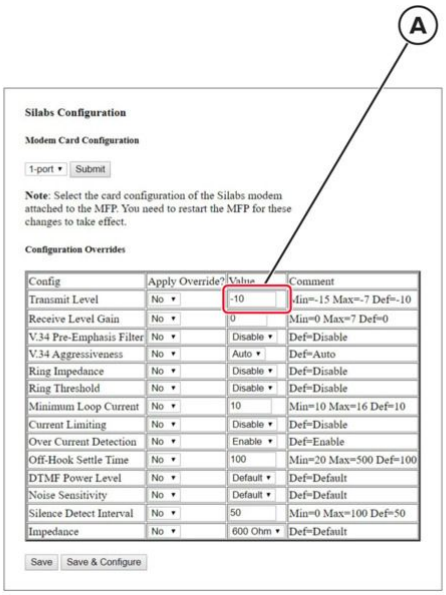
    - **Yes**:
      Go to the next step.
    - **No**:

Contact the next level of support.

15. Perform the following tests:
    a. Open a web browser and then type https://<IP address>/se.
    b. Navigate to:

       Fax > Settings > Silabs Configuration

    c. Adjust the Transmit Level setting (A) in steps of ±1 dB.



Does the problem remain?

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

Lost connection to HTTPS fax server when using etherFAX service check

1. Perform the following tests:
   a. Enter the Service Engineer (SE) menu, and then navigate to:

      Fax SE Menu > Fax Settings

   b. Make sure that the Fax Transport option is set to **etherFAX**.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Make sure that the printer is connected to a stable network.
   b. Perform a POR.

Does the problem remain?

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

3. Check if the printer controller board was previously replaced.

   Was the printer controller board previously replaced?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Perform the following tests:
   a. Go to your etherFAX portal account, and then remove the printer from the etherFAX registry.
   b. Perform a POR.

   Does the problem remain?

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

5. Make sure that the printer serial number is properly added in your etherFAX portal account.

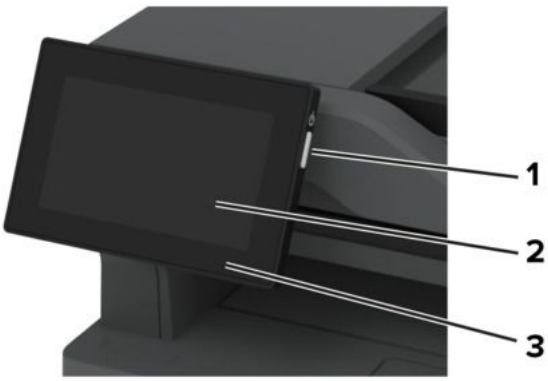
   Does the problem remain?

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

Service menus

Understanding the printer control panel

Using the control panel



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

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

Understanding the status of the indicator light

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

Diagnostics Menu

Entering the Diagnostics Menu

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

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

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 the Print Quality Test Pages.
Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples > Advanced Print Quality Test Pages**.

Format Fax Storage

This setting allows formatting of non-volatile fax storage.
Enter the Diagnostics menu, and then navigate to:
Format Fax Storage > Start

Out of Service Erase

This setting allows clearing all information on nonvolatile memory and on the storage drive.
Enter the Diagnostics menu, and then navigate to:
Out of Service Erase > Start

Event Log

Display Log

This setting shows a history of printer events.

1. Enter the Diagnostics menu, and then navigate to: **Event Log > Display Log**
2. Select a log to print.

Print Log

This setting shows additional information about the printer events.
Enter the Diagnostics menu, and then navigate to:
Event Log > Print Log > Start

> **Note:** Depending on the operational history of the printer, the events that appear in the report vary.

Print Log Summary

This setting lists a brief summary of the various printer events.
Enter the Diagnostics menu, and then navigate to:

Event Log > Print Log Summary > Start.

> **Note:** Depending on the operational history of the printer, the events that appear in the report vary.

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**.

Output bin quick feed

This setting lets you send a single or continuous Quick Test page from the standard bin.

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

   Output bin quick feed > Standard bin
2. Select whether to print a single or continuous test page.

Printer diagnostics & adjustments

Sensor tests

1. Enter the Diagnostics menu, and then select **Printer diagnostics & adjustments**.

   A list of sensor tests appears.
2. Find, and then manually toggle the sensor.

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

List of sensor tests

MPF media present
Tray1 present

Input
Output bin/Narrow media
Fuser exit
Front door interlock

Motor tests

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

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

Note:

- 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 , press OK.

List of motor tests

Main Motor
MPF Pick Solenoid
Media Pick Clutch
Fan (main)

Registration adjust

This setting lets you adjust the skew and margins or print a Quick Test page.

For non-touch-screen printer models, press OK to navigate through the settings.

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

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

Margin Offset

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

For non-touch-screen printer models, press OK to navigate through the 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 load custom paper sizes into a paper source.

For non-touch-screen printer models, press OK to navigate through the settings.

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

   Printer diagnostics and adjustments > Universal Override
2. Select a setting.

Printer setup

Printed page count (mono)

This setting displays the amount of pages printed in mono.

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

   Printer Setup > Printed page count (mono)
2. View the printed page count for mono.

Permanent page count

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

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

   Printer Setup > Permanent page count
2. View the permanent page count.

Enable edge-to-edge (printing)

This setting allows print jobs to include the edges of the page.

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

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

Enable edge-to-edge (copy)

This setting allows copy jobs to include the edges of the page.

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

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

Processor ID

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

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

   Printer Setup > Processor ID
2. View the processor ID.

Serial number

This setting shows the printer serial number.

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

   Printer Setup > Serial number

   For non-touch-screen printer models, press OK to navigate through the settings.
2. View the serial number.

Model name

This setting shows the model name of the printer.

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

   Printer Setup > Model name

   For non-touch-screen printer models, press OK to navigate through the settings.
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.

For non-touch-screen printer models, press OK to navigate through the settings.

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

   Printer Setup > Engine setting [x]
2. Select a setting, and then enter a value.

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.

For non-touch-screen printer models, press OK to navigate through the settings.

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

   Printer Setup > EP setup
2. Select a setting.

Input tray quick print

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

1. Enter the Diagnostics menu, and then select **Input tray quick print**.
2. Select a paper source.
3. Select whether to print a single or continuous test page.

Scanner Diagnostics

Motor Tests

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

   Scanner Diagnostics > Motor Tests

2. Select a motor.

> **Note:**
>
> - 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.

List of motor tests

Flatbed Scanner
ADF Transport

Sensor Test

This test verifies the status of the scanner sensors.

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

   Scanner Diagnostics > Sensor Test

   A list of sensor tests appears.
2. Find, and then manually toggle the sensor.

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

List of sensor tests

ADF media present
ADF 1st scan

Feed Test

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

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

   Scanner Diagnostics > Feed Test

   > **Note:** Set the paper size to match the paper loaded in the ADF tray if necessary.

2. Touch **Feed Test**.

Scanner Calibration Reset

Before starting the test, clean the scanner. For more information, see Cleaning the scanner on page 267.

1. Load the calibration sheet into the ADF tray.

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

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

   > **Note:**
   > - A Test Completed message appears on the display when the calibration is finished.
   > - If the host printer firmware is FW.081.016 or older, make sure the fax volume levels are manually adjusted. See Adjusting the fax volume on page 194.

To verify the result, do the following:

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

Note:

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

Controller Calibration

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

1. Enter the Diagnostics menu, and then select **Scanner Diagnostics**.
2. Touch **Controller Calibration**.

Configuration Menu

Entering the Configuration Menu

From the control panel, navigate to:
Settings > Device > Maintenance > Configuration Menu

Configuration Menu

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

Menu item	Description
Tray Configuration Tray Linking Automatic* Off	Set the printer to link the trays that have the same paper type and paper size settings.
Tray Configuration Show Tray Insert Message Off Only for unknown sizes* Always	Display a message that lets the user change the paper size and paper type settings after inserting the tray.
Tray Configuration A5 Loading Short Edge Long Edge*	Determine the default loading orientation for the A5 size paper in all paper sources.
Tray Configuration Paper Prompts Auto* Multipurpose Feeder Manual Paper	Set the paper source that the user fills when a prompt to load paper appears. **Note:** For Multipurpose Feeder to appear, in the Paper menu, set Configure MP to Cassette.
Tray Configuration Envelope Prompts Auto* Multipurpose Feeder Manual Envelope	Set the paper source that the user fills when a prompt to load envelope appears. **Note:** For Multipurpose Feeder to appear, in the Paper menu, set Configure MP to Cassette.
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.

Menu item	Description
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.
Printer Emulations PS Emulation Off On*	Set the printer to recognize and use the PS data stream.
Printer Emulations Enable Formsmerge Off* On	Activate Formsmerge to store the forms into the intelligent storage drive (ISD). **Note:** The printer must have an ISD installed.
Printer Emulations Enable Prescribe Off* On	Activate Prescribe. **Note:** 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. **Note:** 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. **Note:** Enabling this setting slows down the overall performance of the printer.

Menu item	Description
Device Operations Panel Menus Off On*	Enable access to the printer menus from the control panel.
Device Operations Safe Mode Off* On	Set the printer to operate in a special mode, in which it attempts to continue offering as much functionality as possible, despite known issues. For example, when set to On, and the duplex motor is nonfunctional, the printer performs one-sided printing of the documents even if the job is two-sided printing.
Device Operations Minimum Copy Memory 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. **Note:** 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 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.

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

Entering Invalid engine mode

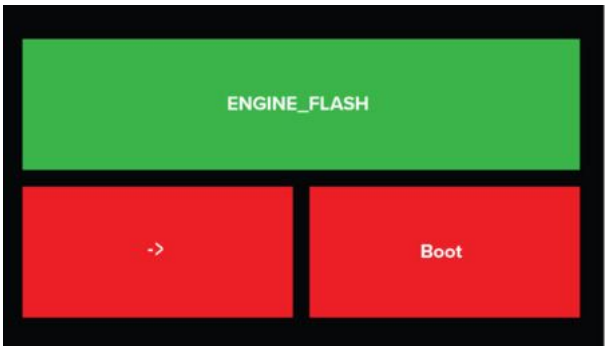
This mode allows the printer to load the correct firmware code. For more information, see Updating the printer firmware.

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**.



> **Note:** 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.

> **Note:** Make sure that paper is loaded in the tray.

3. Turn on the printer.
4. When the display shows either of the following icons, close tray 1.

    a. For 2.8-inch display:

b. For 4.3-, 7-, and 10-inch displays:

> **Note:** If tray 1 is not closed, then the printer boots normally.

SE menu

Entering the SE menu

1. From the home screen, touch .
2. Touch ****411**, and then touch **OK**.

Network SE Menu

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

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

Top-level menu	Intermediate menu
HISTORY	• Print History • Mark History

Top-level menu	Intermediate menu
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] • 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 Cons	• Delete intermediate icons • Delete current icons

Scanner SE Menu

Enter this setting to view the calibration data.

General SE Menu

- Capture Logs to USB Drive

  > **Note:** This setting allows you to save a log file to a USB drive.

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

Fax SE Menu

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

> **Note:**
>
> - Use these settings as directed by the next level of support.
> - For printers with firmware version FW7.1 and up, adjust the Transmit Level setting via EWS SE. See EWS SE Menu on page 181.

Top-level menu	Intermediate menu
Agency Test Menu	• Go Off Hook • Ring Detect • Generate Tones • Modulations
Fax Settings	• Fax Modulations • FOIP Settings • Miscellaneous Settings • Reset Fax Settings

Top-level menu	Intermediate menu
Modem Settings	• Adjust Power FSK • ARA EQM Bias • Busy Tone Cycles • Busy Tone Max Off Time • Busy Tone Max On Time • Busy Tone Min Off Time • Busy Tone Min On Time • Caller ID Pattern **Note:** Changing the value of this setting also changes the value of the Caller ID setting in the Fax Settings. • Congest Tone Cycles • Congest Tone Max Off Time • Congest Tone Max On Time • Congest Tone Min Off Time • Congest Tone Min On Time • DC Characteristic • Dial Timeout • Dial Tone Tresh • DTMF High Level • DTMF Low Level • Enable CEQ • High Ring Impedance • Impedance • Interdigital 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 PreEmphFilt • V17 TxFilter • Digital Line Guard • Digital Line Threshold • Off-Hook Line Settle Time • Disable Sending CRP • Dial Wait Time • ANSam Transmit Time

Top-level menu	Intermediate menu
Fax logs	• Print all T30 Logs • Print CallerID Log • Print Call Log • Print Fax Settings • Print Job Log • Print All T30 Error Logs • Print T30 Log • Print T38 Trace Log • Clear T38 Trace Log
Reboot System	N/A

EWS SE Menu

Enter this setting to help resolve communication-related printing issues.
To access the Silabs configuration:

1. Open a web browser and then type https://<printer's IP address>/se .

   > **Note:** The printer needs to be connected to the server via an ethernet cable.

2. Navigate to:

   Fax > Settings > Silabs Configuration

Parts removal

Erasing printer memory

To erase volatile memory or buffered data in your printer, turn off the printer.
To erase nonvolatile memory, device and network settings, security settings, and embedded solutions, perform an Out of Service Erase (OOSE).

> **Note:** This process also destroys the encryption key that is used to protect user data. Destroying the encryption key makes the data irrecoverable.

OOSE may be performed from:

- Maintenance Menu - Using the control panel or Embedded Web Server (EWS)

  > **Note:** Starting with FW8.0 firmware, OOSE in the Maintenance Menu is 'secure by default.' This means that if the printer is set up with an admin account, OOSE is restricted to admins by default.

- Diagnostics Menu - Using the control panel only. There is no password protection.

Performing OOSE from the Maintenance Menu

1. From the home screen, touch **Settings > Device > Maintenance > Out of Service Erase**.
2. Touch the **Sanitize all information on nonvolatile memory** check box, and then touch **ERASE**.
3. Touch **Start initial setup wizard** or **Leave printer offline**, and then touch **Next**.
4. Start the operation.

Performing OOSE from the Diagnostics Menu

1. Enter the Diagnostics Menu. See Entering the Diagnostics Menu on page 160.
2. Touch **Out of Service Erase**.
3. Start the operation.

Erasing the intelligent storage drive

1. From the home screen, touch **Settings > Device > Maintenance > Out of Service Erase**.
2. Touch **Erase Intelligent Storage Drive**, and then touch **ERASE**.
3. Start the operation.

Note:

- The intelligent storage drive (ISD) is cryptographically erased.
- The process to sanitize the ISD can take from several minutes to more than an hour, making the printer unavailable for other tasks.

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 control panel replacement

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

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

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

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

Warning—Potential Damage
Observe all precautions when handling ESD sensitive parts. See Handling ESD-sensitive parts.

Warning—Potential Damage
Carefully remove cables and connectors. Make sure they are not damaged.

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

- Control panel
- Controller board

To replace a component and to test whether the problem is resolved:

1. Replace the affected component.

   Warning—Potential Damage
   Do not perform a Power-On Reset (POR) until the problem is resolved. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

2. Enter the Diagnostics menu. The menu allows you to temporarily use the replacement part. See .Entering the Diagnostics Menu on page 160

   Warning—Potential Damage
   Some printers perform a POR automatically if the Diagnostics menu is not opened within five seconds. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

3. Use the Diagnostics menu to test the replacement part. Do a feed test to check if the problem is resolved.
   - If the problem is not resolved—Turn off the printer, and then install the old part.
   - If the problem is resolved—Perform a POR.
   - If NVRAM error occurs during the replacement, then see .NVRAM mismatch failure service check on page 138

Restoring the printer configuration

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

Notes:

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

Using the Service Restore Tool

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

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

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

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

4. Save the zip file.

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

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

   Note:
   - Perform the install instructions on the *Readme* file in the exact order shown. Restart the printer only if the file says so.
   - For more information on how to flash the downloaded files, see Updating the firmware using a flash drive on page 193.
   - To load the zip files that are extracted from the Service Restore Tool, see Restoring solutions, licenses, and configuration settings on page 189.

6. If the printer had eSF apps previously installed, then confirm from the customer if all the eSF apps have been installed after performing the installation instructions in the *Readme* file.

Note:

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

Restoring solutions, licenses, and configuration settings

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

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

Printer firmware instructions

Checking the printer firmware version

Using the Embedded Web Server

> **Note:** Make sure that the printer is connected to the network.

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

   > **Notes**
   > - The IP address appears as four sets of numbers separated by periods. For example, 123.123.123.123.
   > - If you are using a proxy server, then temporarily disable it to load the web page correctly.

2. Click **Reports › Device › Device Information**.
3. Look for **Base**.

   > **Note:** The firmware version appears as sets of letters and numbers separated by periods. For example, ABCDE.123.123.

Using the control panel

1. Navigate to **Settings › Device › About this printer**.
2. Look for **Firmware Version**.

   > **Note:** The firmware version appears as sets of letters and numbers separated by periods. For example, ABCDE.123.123.

Downloading the printer firmware

1. Go to the www.lexmark.com/downloads.
2. Type the printer model, and then click **Find Drivers & Downloads**.
3. In the **Recommended Firmware** section, click the ZIP file.
4. Accept the End-User License Agreement, and then start the download.

   > **Note:** You can save the file either to your computer or flash drive.

5. After downloading the firmware, extract the ZIP file, and then locate the firmware flash file **(.fls)**.

Updating firmware

Updating the firmware using the control panel

Using the Notifications center

> **Note:** This method is applicable only in some printer models.

1. From the home screen, tap the notification icon to go to the Notifications center.
2. Select **Firmware update available**.
3. Select **Install now**.

The printer restarts automatically after the update.

Using the Settings menu

1. From the control panel, navigate to **Settings › Device**.
2. Depending on your printer model, do either of the following:
   - Select **Firmware Update › Check for updates**.
   - Select **Update firmware › Check for updates now**.
3. If an update is available, then select **Install now**.

The printer restarts automatically after the update.

Updating the firmware using the Embedded Web Server

> **Notes**
>
> - Before you begin, make sure that you have downloaded the firmware and saved it on your computer or flash drive. For more information, see Downloading the printer firmware on page 190.
> - Before you begin, make sure that you have downloaded the firmware and saved it on your computer or flash drive. For more information, contact the place where you purchased the printer.
> - Make sure that the printer is connected to the network.

Using the update button

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

   Notes
   - The IP address appears as four sets of numbers separated by periods. For example, 123.123.123.123.
   - If you are using a proxy server, then temporarily disable it to load the web page correctly.

2. Click **Device**.
3. Scroll down, and then click **Firmware Update**.
4. Depending on your printer model, click **Check for updates** or **Check for updates now**.

   If an update is available, then click **Install now**.

   The printer restarts automatically after the update.

Using the firmware flash file (.fls)

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

   Notes
   - The IP address appears as four sets of numbers separated by periods. For example, 123.123.123.123.
   - If you are using a proxy server, then temporarily disable it to load the web page correctly.

2. Click **Device**.
3. Scroll down, and then click **Firmware Update**.
4. In the **Update Firmware from File** section, click **Browse**.
5. Search, and then select the **.fls** file.
6. Click **Upload**.

   The printer restarts automatically after the update.

Updating the firmware using a flash drive

Notes

- Before you begin, make sure that you have downloaded the firmware and saved it on your computer or flash drive. For more information, see Downloading the printer firmware on page 190.
- Before you begin, make sure that you have downloaded the firmware and saved it on your computer or flash drive. For more information, contact the place where you purchased the printer.
- The flash drive is formatted to FAT32.

1. Insert the flash drive into the front USB port of the printer.

   The flash drive contents appear automatically on the printer display. If the files do not appear, then select **USB Drive** on the home screen.
2. Search, and then select the **.fls** file.
3. Select **Update Code**.

   The printer restarts automatically after the update.

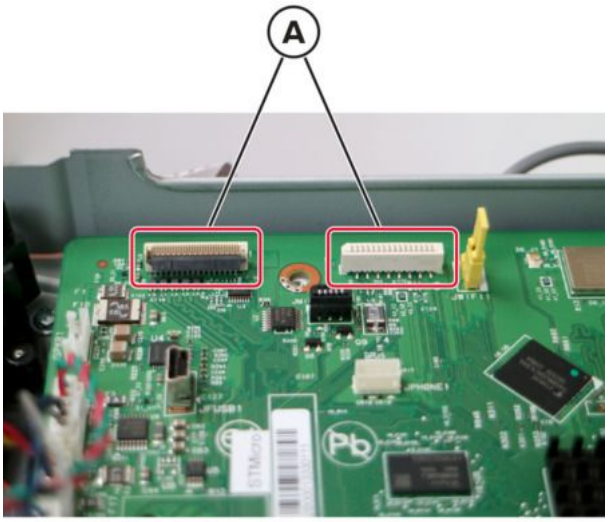
Ribbon cable connectors

Low insertion force (LIF) connector

Warning—Potential Damage
When installing a cable into an LIF connector, avoid bending the edges of the cables and damaging the contacts on the cables.

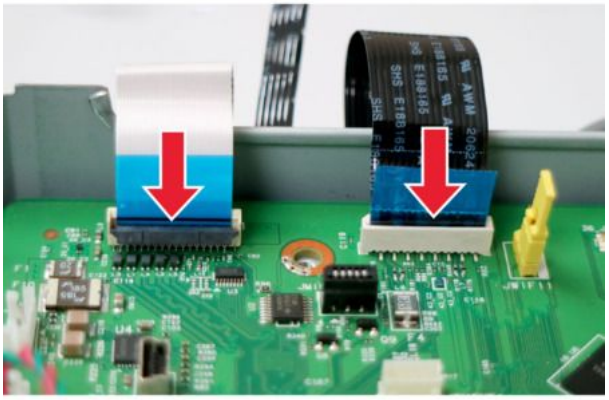
Inserting the cable

1. Make sure that the contacts of the controller board and connectors are on the same side.



2. Insert the cable.

> **Note:** Make sure that the cable is installed straight into the connector to avoid intermittent failures.



Adjustments

Adjusting the fax volume

1. Enter the SE menu on the EWS page by navigating to the following address: *http://<printer's IP address>/se*.
2. From the menu options, click **Fax**.
3. Under Settings, click **Conexant Configuration**.
4. Change the volume level based on the following values:
   - Low = 0
   - Medium = 1

- High = 1

5. Click **Save**.

Removal procedures

Keep the following tips in mind as you replace parts:

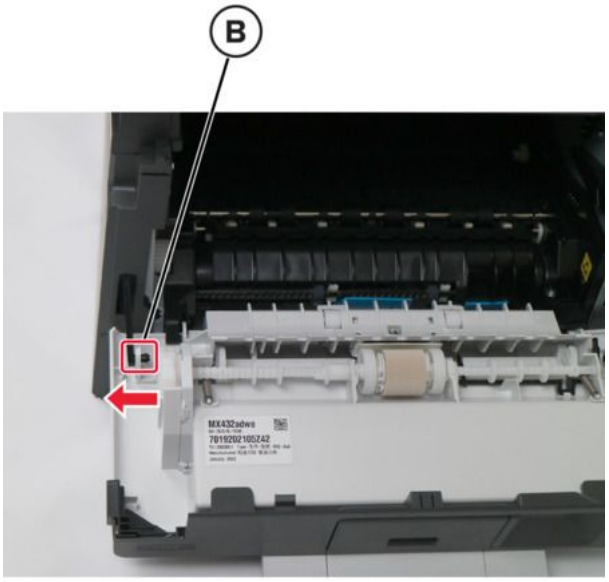
- Some removal procedures require removing cable ties. You must replace cable ties during reassembly to avoid pinching wires, obstructing the paper path, or restricting mechanical movement.
- Remove the toner cartridges, imaging unit, and trays before removing other printer parts. The imaging kit must 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, install the parts in reverse order of removal.
- When installing a part held with several screws, start all screws before the final tightening.
- For printers that have an electronic power switch, make sure to unplug the power cord after powering off.

Left side removals

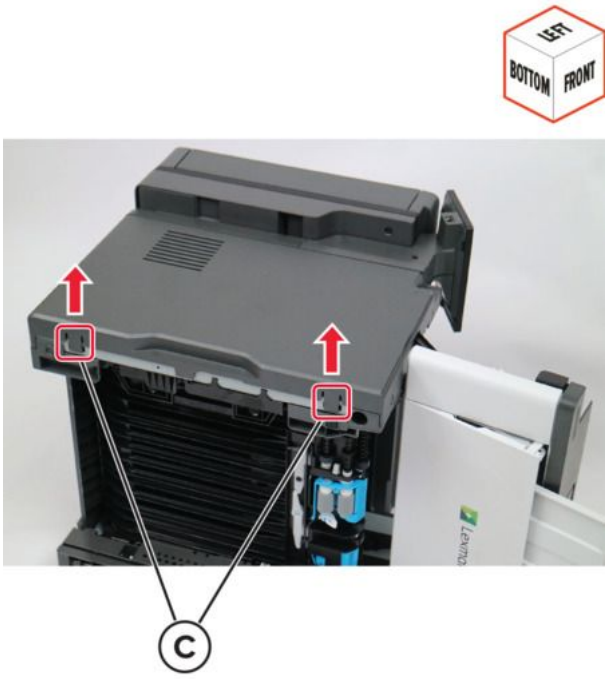
Left cover removal

1. Remove the two screws (A) at the front and rear of the left cover.

2. Open the front door, and then release the left front door link (B).



3. Place the printer on its right side.
4. Release the two latches (C) at the bottom of the left cover, and then remove the cover.

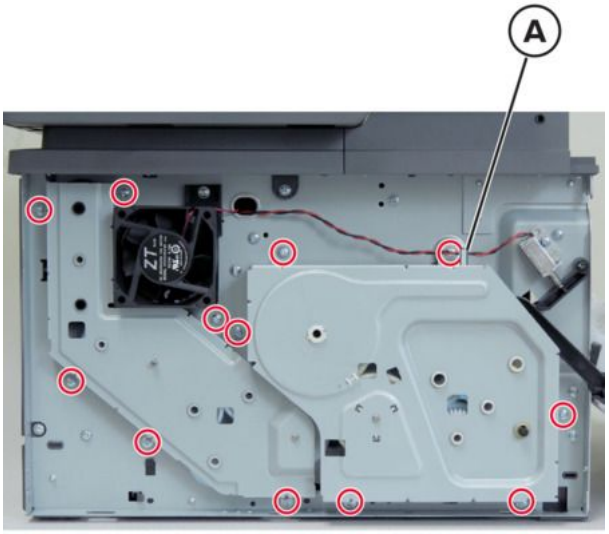


Main drive gears removal

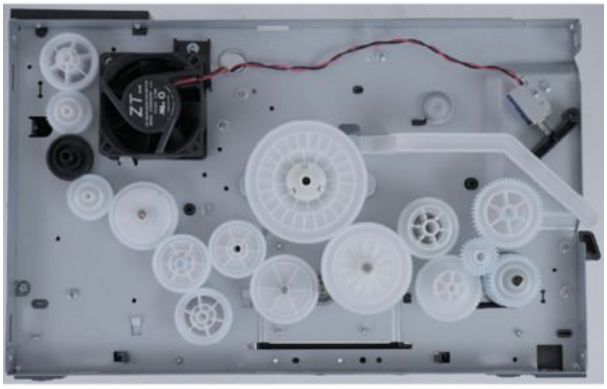
1. Remove the left cover. See Left cover removal on page 195.
2. Place the printer on its right side.

> **Warning—Potential Damage**
> If the printer is not placed on its right side, then the gears fall out of place when the gear plates are removed.

3. Remove the wire from the cable guide (A), remove the 12 screws, and then remove the gear covers.



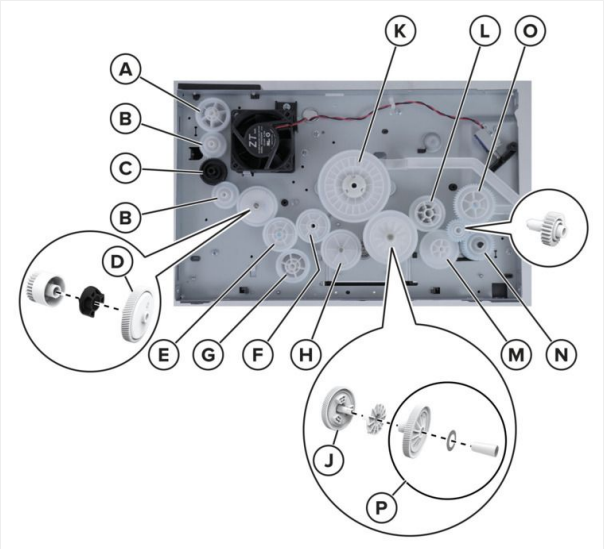
4. Remove the gears.



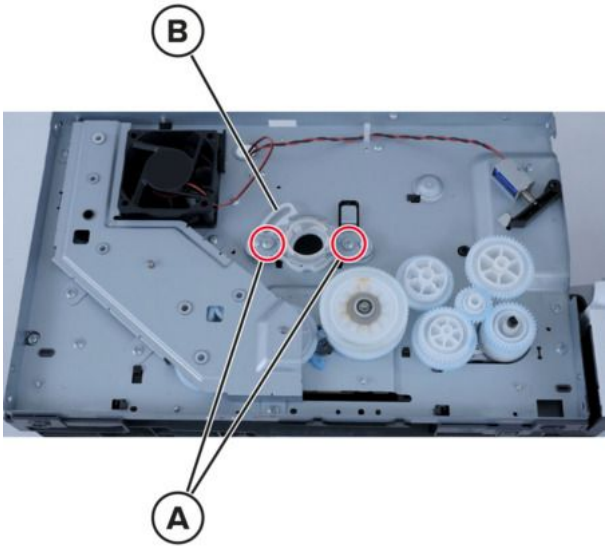
Installation Note

- Pay attention to the position of the gears.
- Most gears have a molded letter for identification.

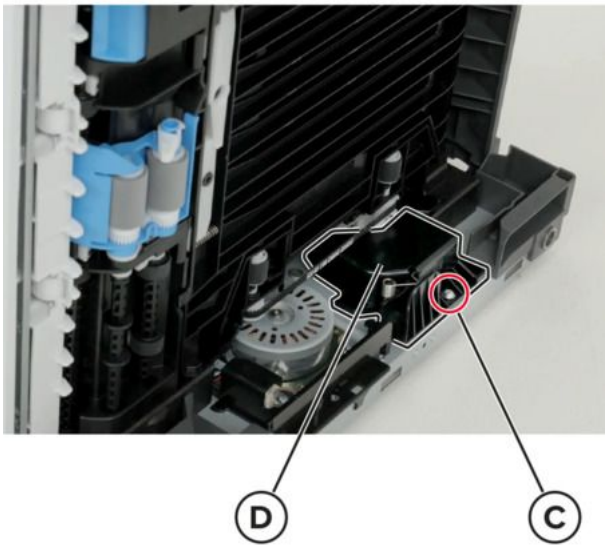
- Note the letter or number on the gears, and then use the following illustration to match their proper location and position in the printer.
- Some locations have multiple gears stacked on top of each other.



5. Remove the left front door link. See Left front door link removal on page 203.
6. Remove the two screws (A), and then remove the coupling (B).

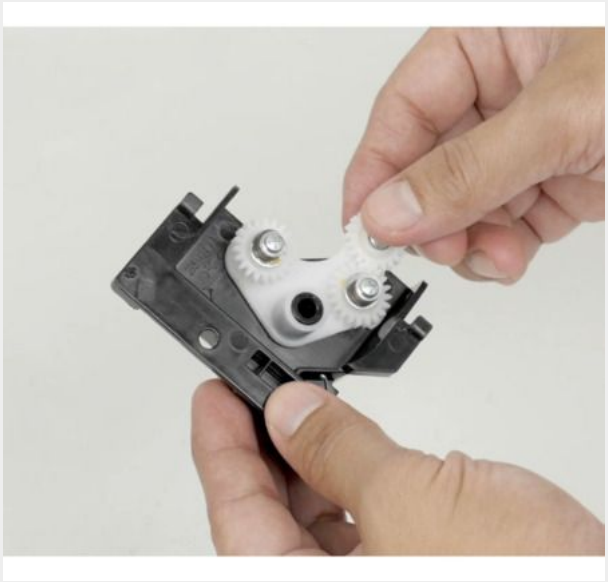


7. Place the printer on its left side, remove the screw (C), and then remove the duplex swing arm assembly (D).



Installation Note

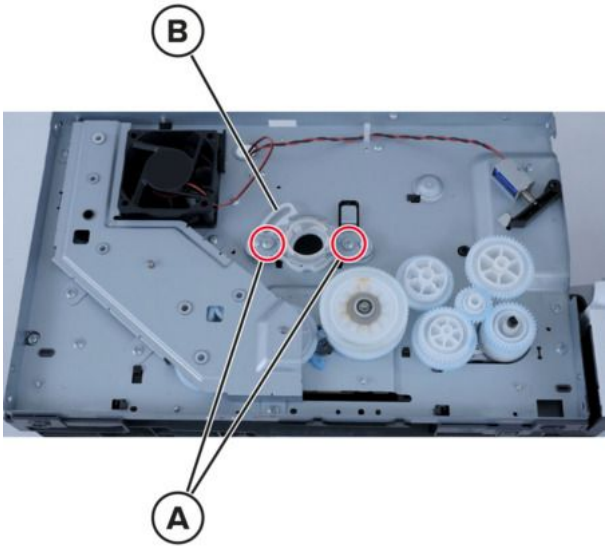
1. Make sure that the gears assembly is properly installed in the housing.



2. Align the tab on the housing to the notch in the frame, and then install the duplex swing arm assembly.

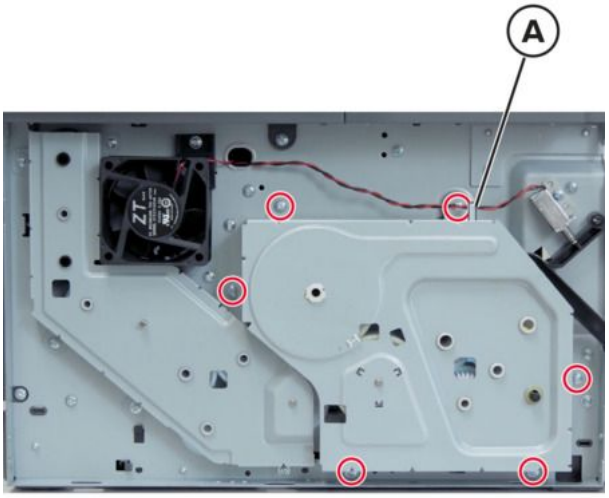
Imaging unit coupling removal

1. Remove the left cover. See Left cover removal.
2. Remove the left front door link. See Left front door link removal.
3. Remove the two screws (A), and then remove the imaging unit coupling (B).

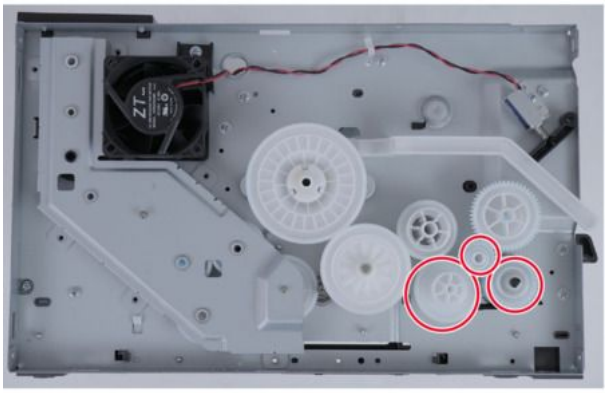


Pick roller clutch removal

1. Remove the left cover. See Left cover removal on page 195.
2. Remove the wire from the cable guide (A), remove the six screws, and then remove the gear cover.

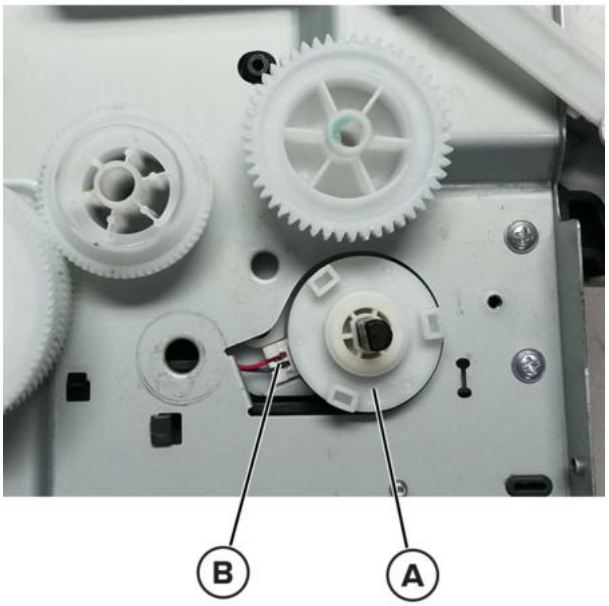


3. Remove the three gears.



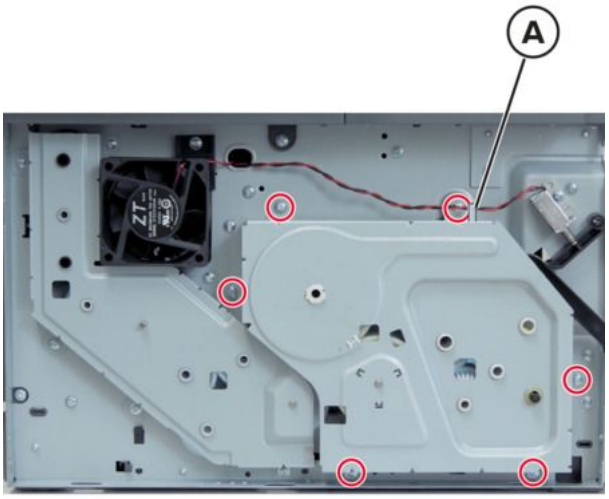
Installation Note
Pay attention to the position of the gears.

4. Remove the clutch (A), and then disconnect the cable (B).



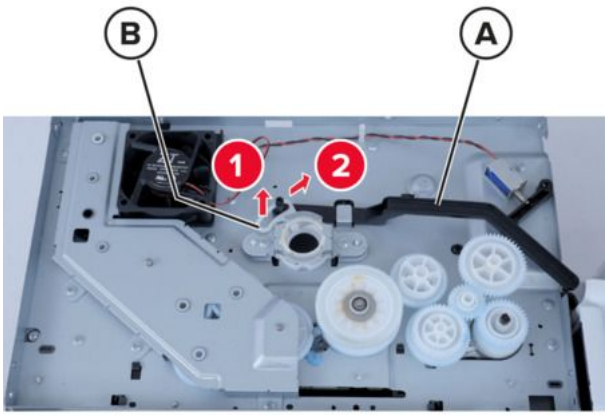
Left front door link removal

1. Remove the left cover. See Left cover removal on page 195.
2. Remove the wire from the cable guide (A), remove the six screws, and then remove the gear cover.



3. Remove the gear.

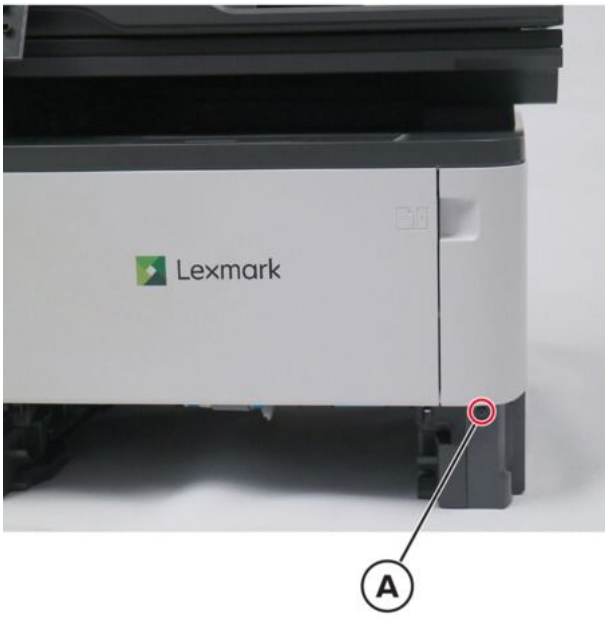
4. Release the left front door link (A) from the retainer (B), and then remove the left front door link.



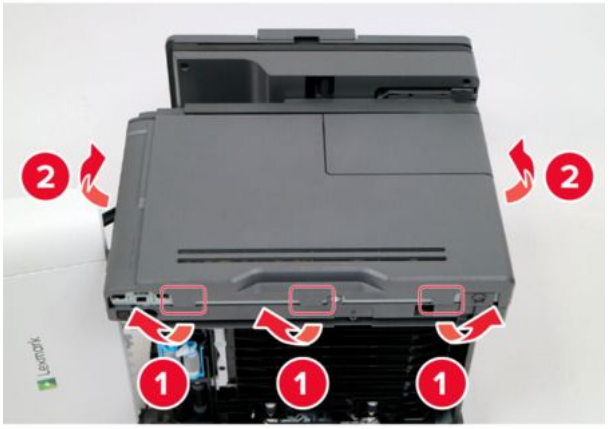
Right side removals

Right cover removal

1. Remove the two screws (A) at the front and the rear of the right cover.



2. Open the front door, and then place the printer on its left side.
3. Release the three latches at the bottom, and then pry the sides of the cover.

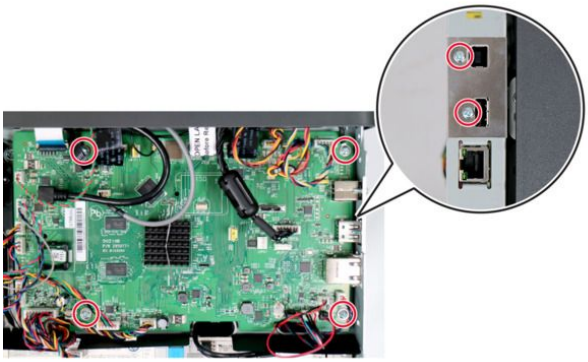


4. Remove the right cover.

Controller board removal

For a video demonstration, see Controller board removal.

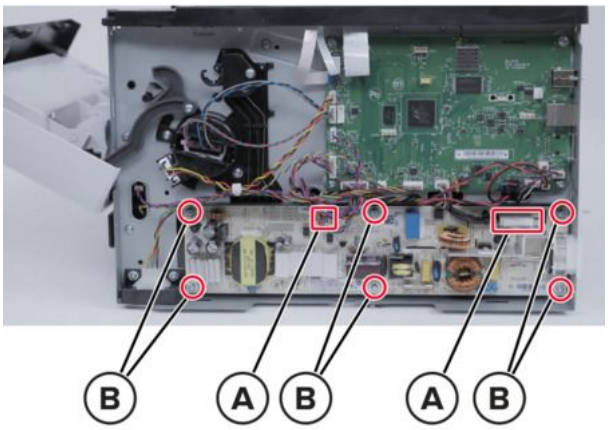
1. Remove the right cover. See Right cover removal on page 204.
2. Remove the wireless network card. See Wireless network card removal on page 214.
3. Disconnect all the cables from the controller board, and then remove the six screws.



4. Remove the ground clip, and then remove the controller board.

LVPS removal

1. Remove the right cover. See Right cover removal on page 204.
2. Disconnect the two cables (A), remove the six screws (B), and then remove the LVPS.



CAUTION—SHOCK HAZARD
To avoid the risk of electrical shock, do not remove the shield from the back of the LVPS.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution, ne retirez pas la protection de l'arrière du bloc d'alimentation basse tension (LVPS).

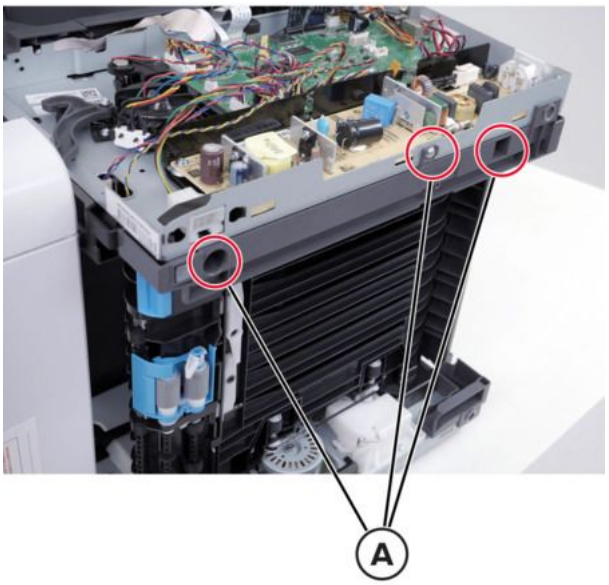
CAUTION—SHOCK HAZARD
Para evitar el riesgo de descarga eléctrica, no retire la protección de la parte trasera de la fuente de alimentación de bajo voltaje (LVPS).

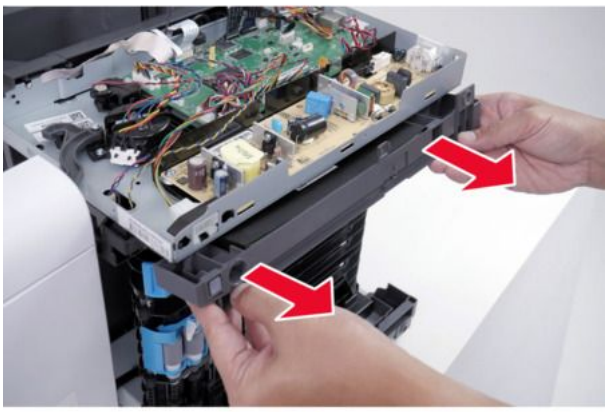
CAUTION—SHOCK HAZARD
Um die Gefahr eines elektrischen Schlags zu vermeiden, entfernen Sie die Abdeckung nicht von der Rückseite des Niederspannungsnetzteils.

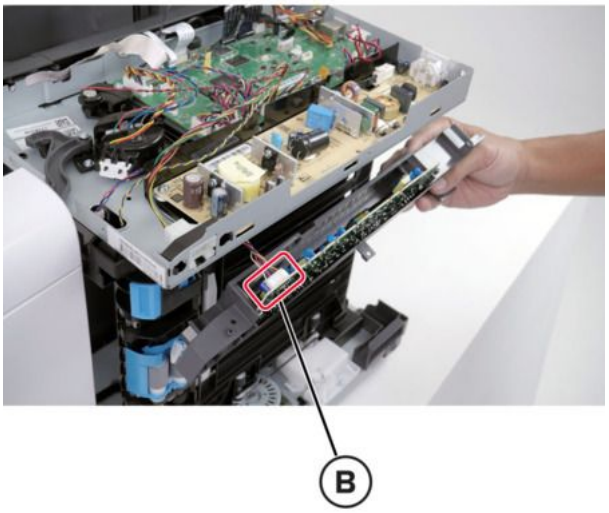
HVPS removal

> **Note:** For a video demonstration, see HVPS removal.

1. Remove the right cover. SeeRight cover removal on page 204.
2. Remove the rear door. See Rear door removal on page 231.
3. Place the printer on its left side.
4. Remove the three screws (A), remove the right paper tray guide assembly, and then disconnect the connector (B).







5. Remove the plastic shield (C).

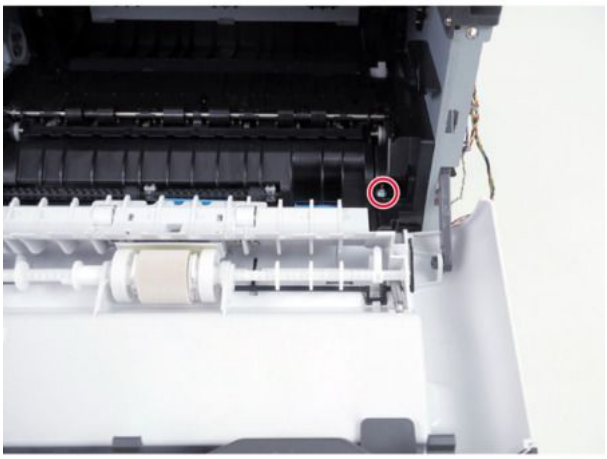
> **Installation Note**
> Make sure to properly attach the plastic shield.

6. Remove the two screws (D).
7. Separate the HVPS (E) from the right paper tray guide (F).

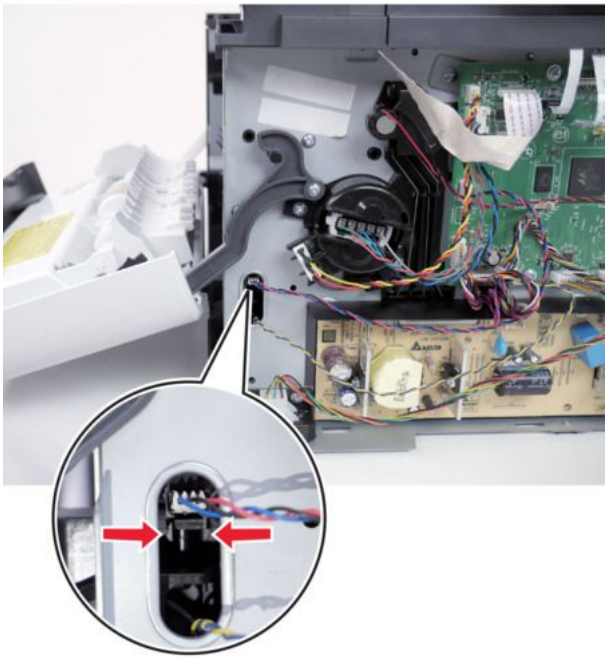
Sensor (MPF paper present) removal

Note: For a video demonstration, see Sensor (MPF paper present) removal.

1. Remove the right cover. See .Right cover removal on page 204
2. Open the front door, and then remove the screw.

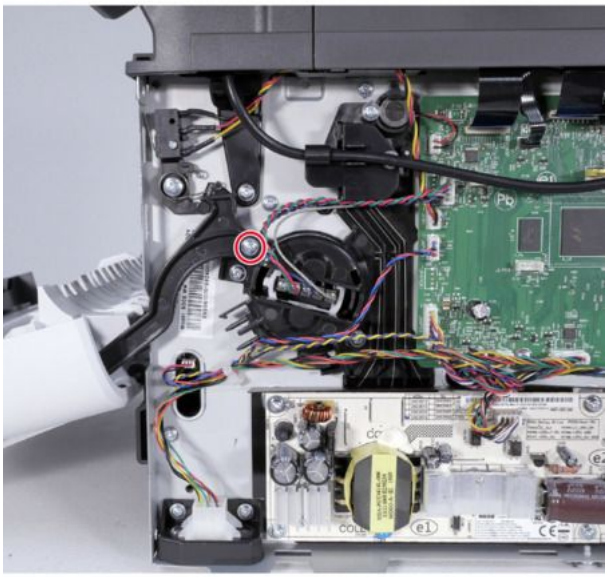


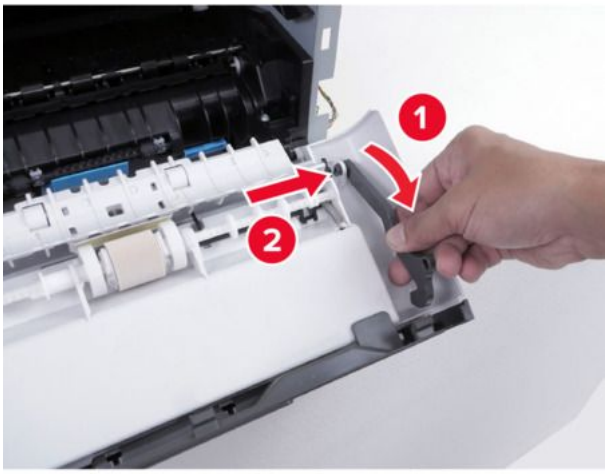
3. Release the latches securing the sensor, and then disconnect the sensor cable.



Right front door link removal

1. Remove the right cover. See Right cover removal on page 204.
2. Remove the screw, and then remove the link from the front door.



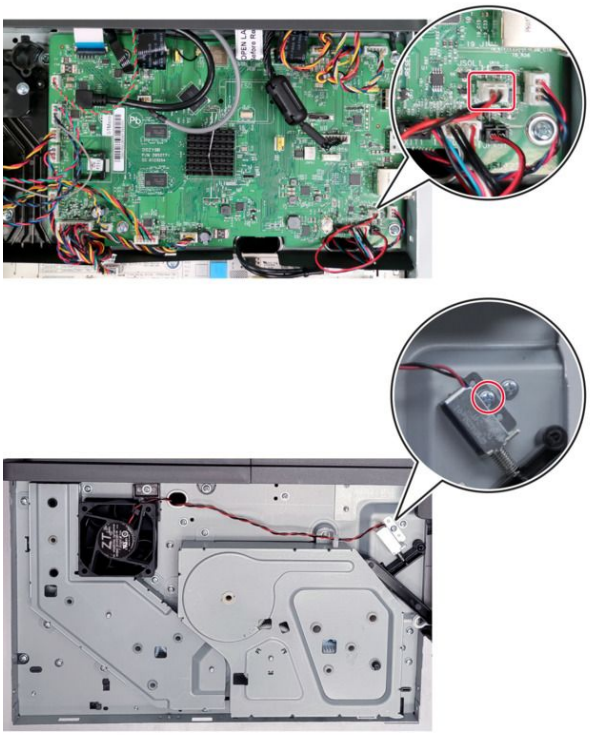


Installation Note
Use a manual screwdriver when attaching the right door link. It is easy to over-torque the screw with an electric screwdriver, breaking the retraction mechanism of the smart chip contacts.

MPF solenoid cable removal

Note: For a video demonstration, see MPF solenoid cable removal.

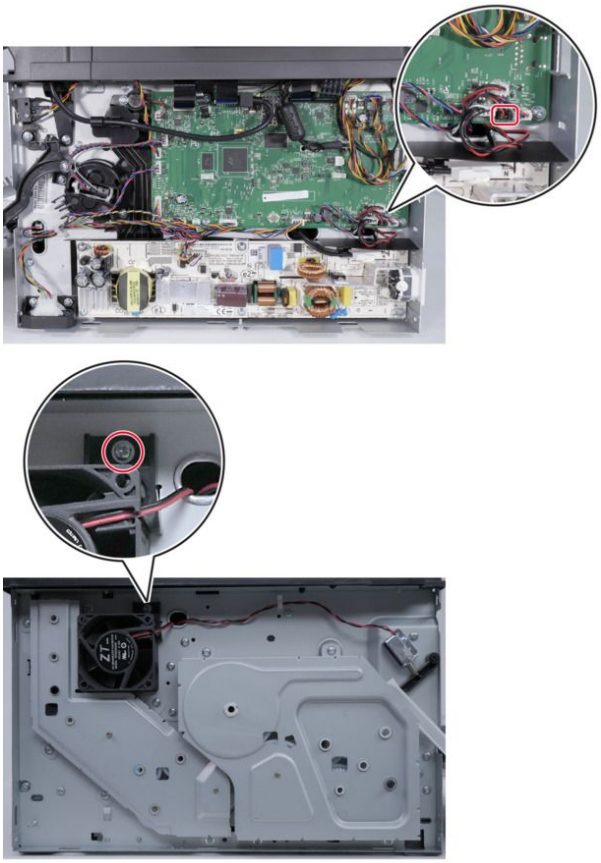
1. Remove the left cover. See Left cover removal.
2. Remove the right cover. See .Right cover removal on page 204
3. Remove the ADF and scanner. See .ADF and scanner removal on page 242
4. Disconnect the cable, and then remove the screw to remove the solenoid cable.



Main fan removal

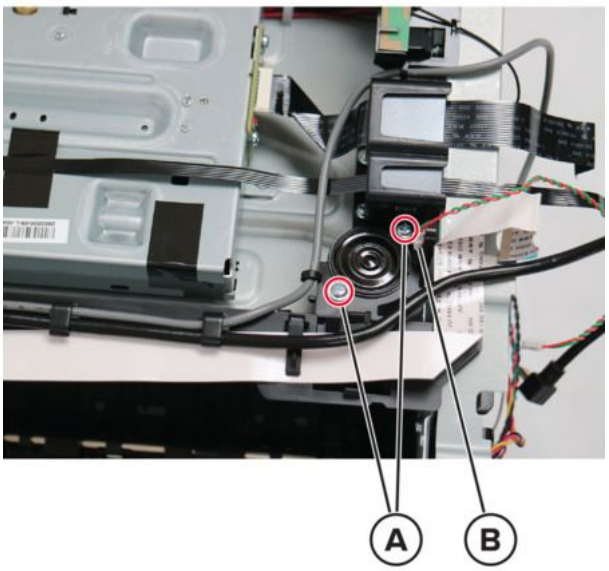
> **Note:** For a video demonstration, see Main fan removal.

1. Remove the left cover. See Left cover removal.
2. Remove the right cover. See .Right cover removal on page 204
3. Remove the ADF and scanner. See .ADF and scanner removal on page 242
4. Disconnect the cable, and then remove the screw to remove the fan.



Speaker removal

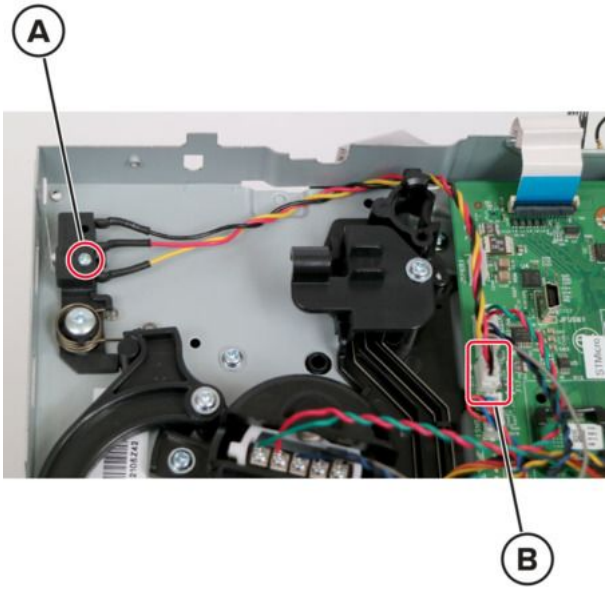
1. Remove the ADF and scanner. See ADF and scanner removal on page 242.
2. Remove the two screws (A), and then remove the cable (B).



3. Remove the speaker.

Interlock switch removal

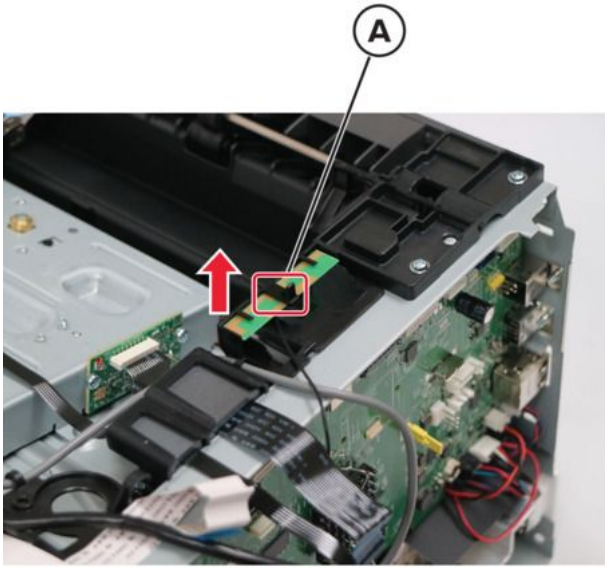
1. Remove the right cover. See .Right cover removal on page 204
2. Remove the screw (A), and then disconnect the connector (B).



3. Remove the switch.

Wireless network card removal

1. Remove the ADF and scanner. See ADF and scanner removal on page 242.
2. Lift the tab (A) to release the wireless network card.

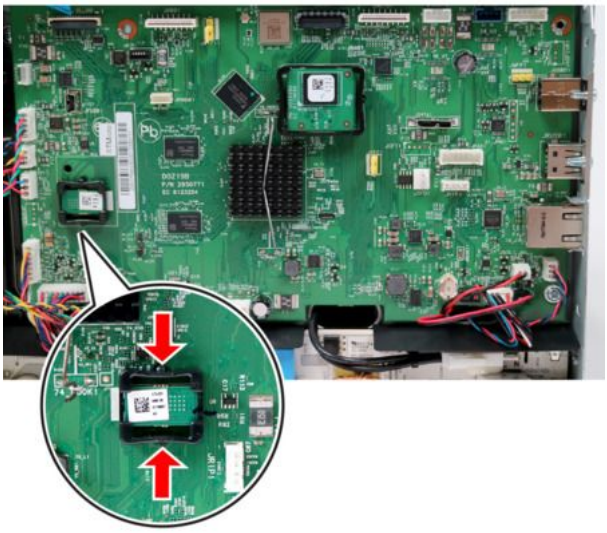


TPM card removal

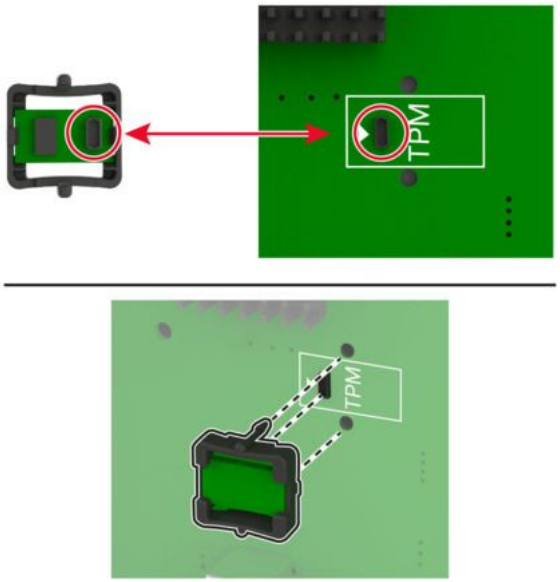
1. Remove the right cover. See Right cover removal on page 204.

2. Release the latches, and then remove the card.

Warning—Potential Damage
To avoid electrical damage, make sure that the printer is unplugged.



Installation Note
Make sure that the connector is plugged.

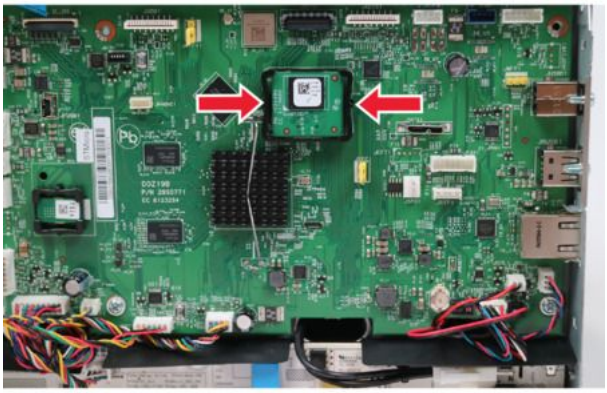


ISD card removal

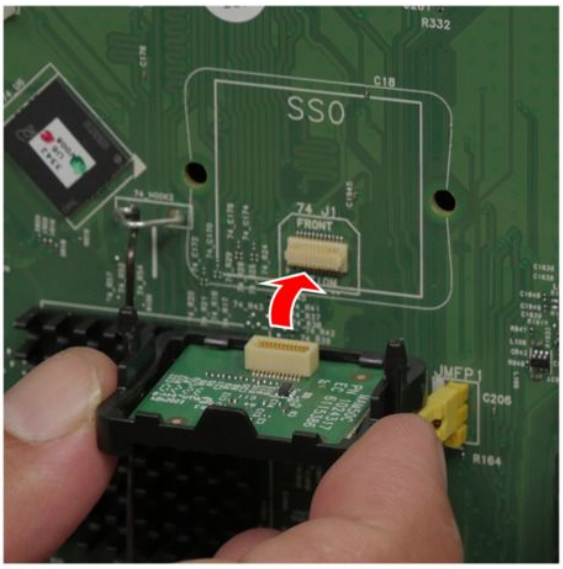
1. Open the controller board access door.

2. Release the latches, and then remove the card.

> **Warning—Potential Damage**
> To avoid electrical damage, make sure that the printer is unplugged.



> **Installation Note**
> Make sure that the connector is plugged.



Front side removals

Control panel removal

> **Note:** For a video demonstration, see Control panel removal.

1. Open the ADF, and then remove the two screws (A).

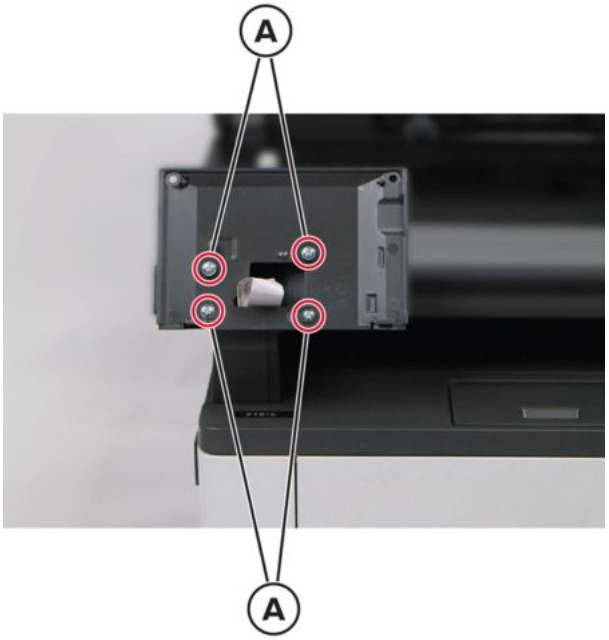
2. Pry the control panel, and then remove the cable.

3. Remove the control panel.

Control panel back plate removal

> **Note:** For a video demonstration, see Front-side removals.

1. Remove the control panel. See Control panel removal on page 217.
2. Remove the four screws (A).

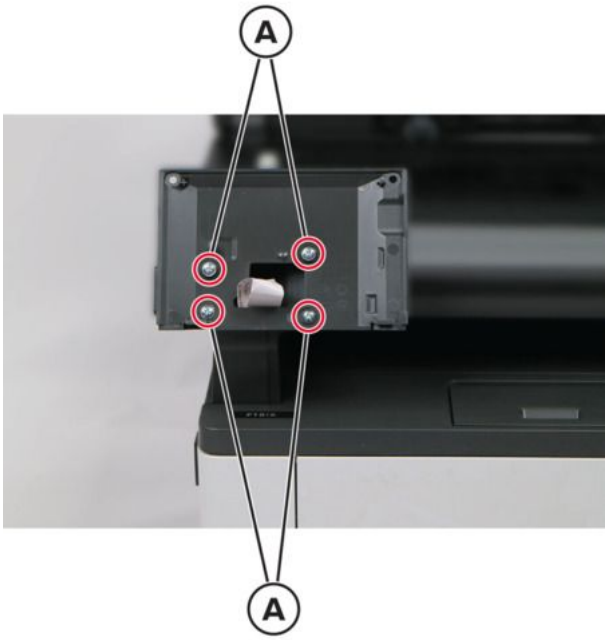


3. Remove the control panel back plate.

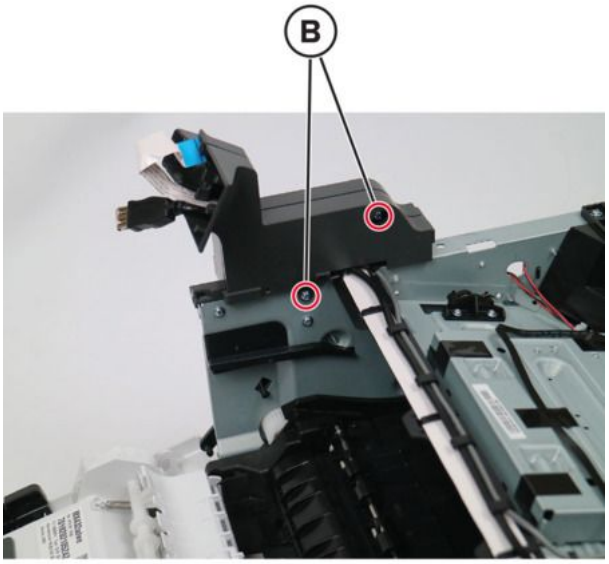
Control panel right support removal

> **Note:** For a video demonstration, see Front-side removals.

1. Remove the ADF and scanner. See ADF and scanner removal on page 242.
2. Remove the control panel. See Control panel removal on page 217.
3. Remove the four screws (A), and then remove the control panel back plate.



4. Remove the two screws (B).

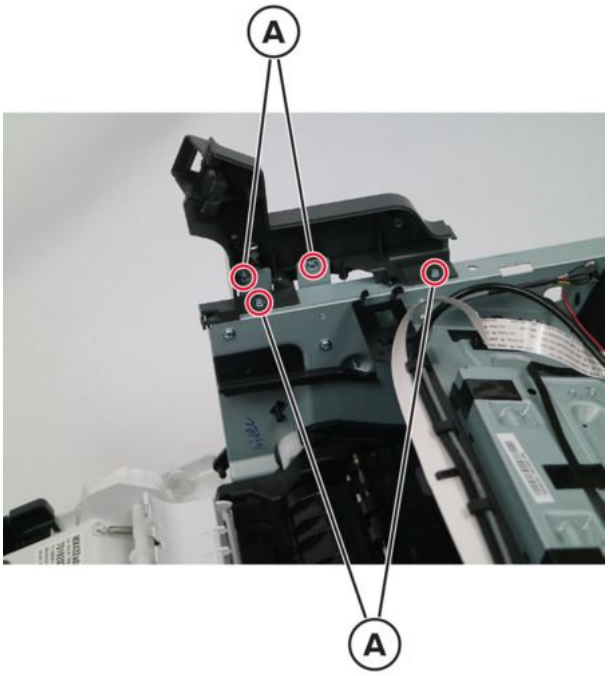


5. Remove the control panel right support.

Control panel left support removal

> **Note:** For a video demonstration, see Front-side removals.

1. Remove the control panel right support. See Control panel right support removal on page 219.
2. Remove the front USB. See Front USB removal on page 222.
3. Remove the control panel cable. See Control panel cable removal on page 220.
4. Remove the headphone jack. See Headphone jack removal on page 223.
5. Remove the four screws (A).

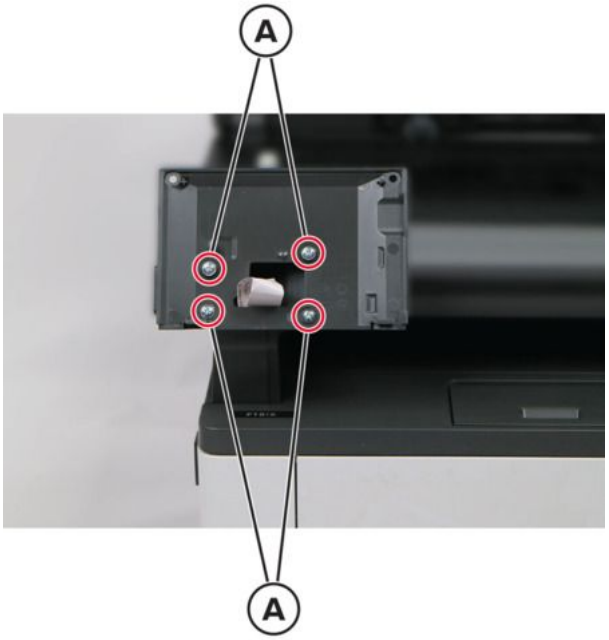


6. Remove the control panel left support.

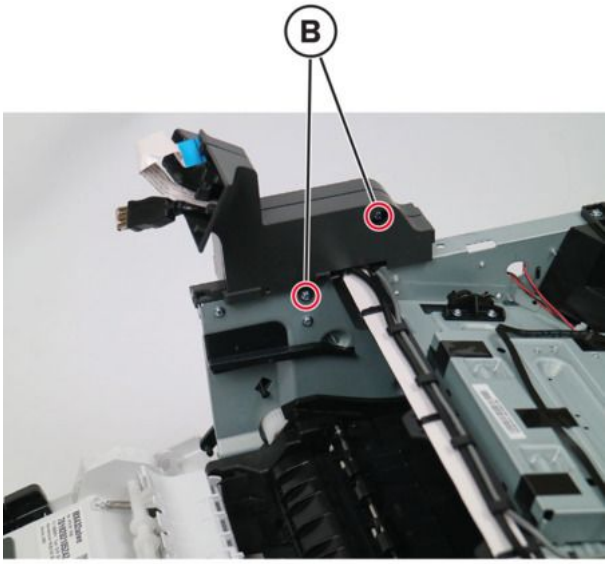
Control panel cable removal

> **Note:** For a video demonstration, see Front-side removals.

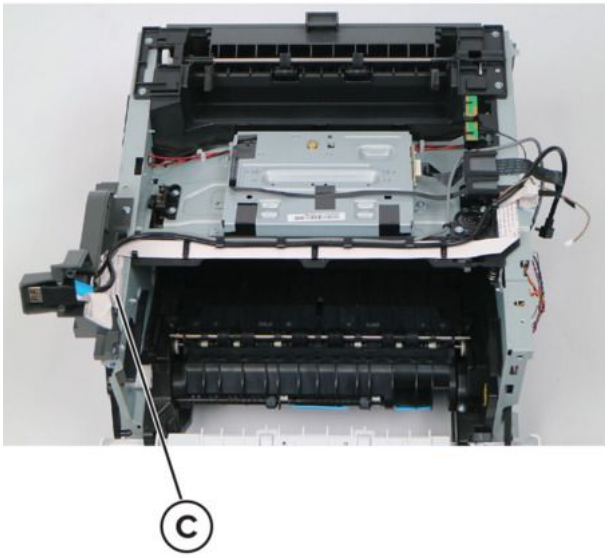
1. Remove the ADF and scanner. See ADF and scanner removal on page 242.
2. Remove the control panel. See Control panel removal on page 217.
3. Remove the four screws (A), and then remove the control panel back plate.



4. Remove the two screws (B), and then remove the control panel right support.



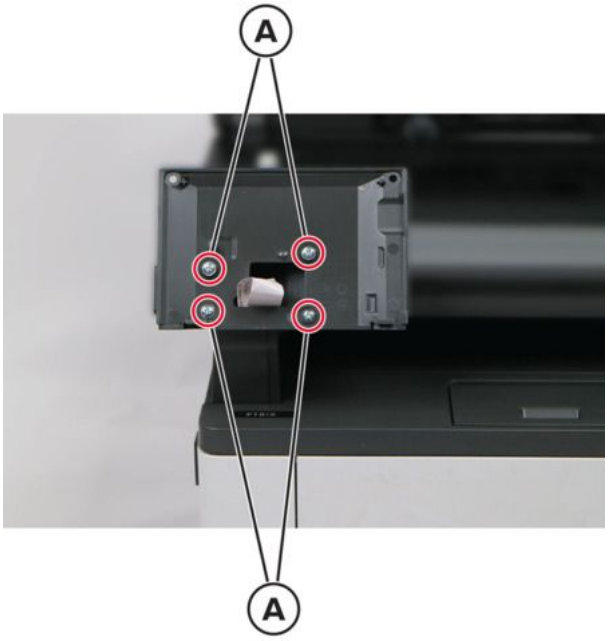
5. Release the control panel cable (C).



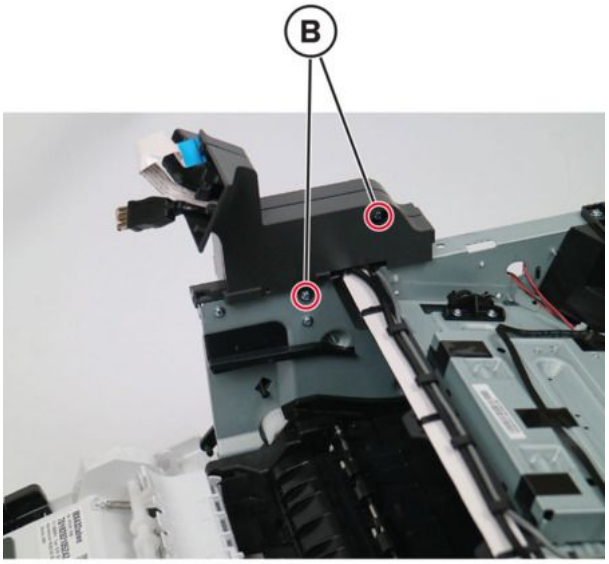
Front USB removal

> **Note:** For a video demonstration, see Front-side removals.

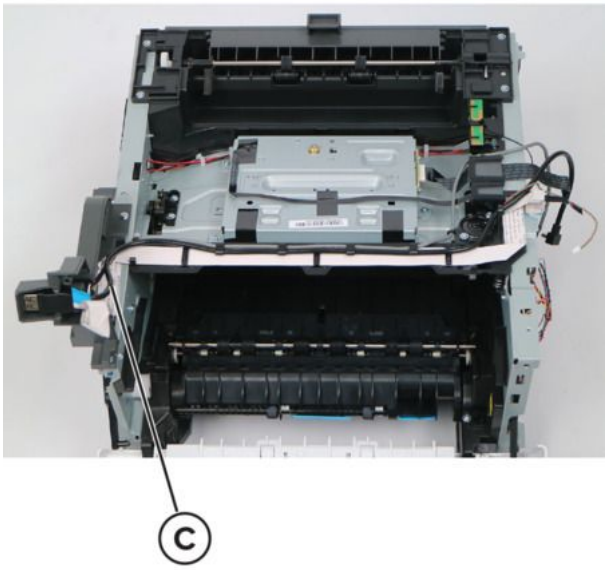
1. Remove the ADF and scanner. See ADF and scanner removal on page 242.
2. Remove the control panel. See Control panel removal on page 217.
3. Remove the four screws (A), and then remove the control panel back plate.



4. Remove the two screws (B).



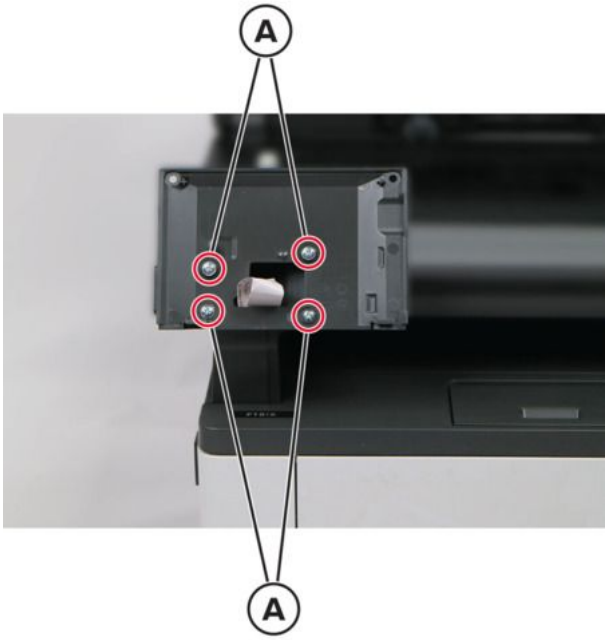
5. Release the front USB cable (C) to remove the front USB.



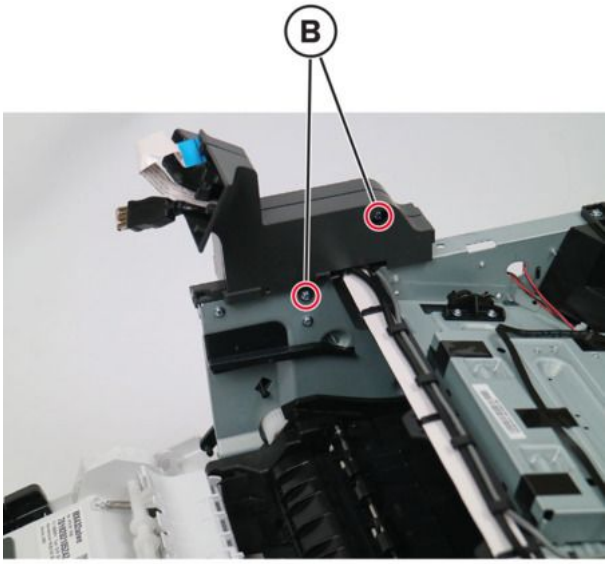
Headphone jack removal

> **Note:** For a video demonstration, see Front-side removals.

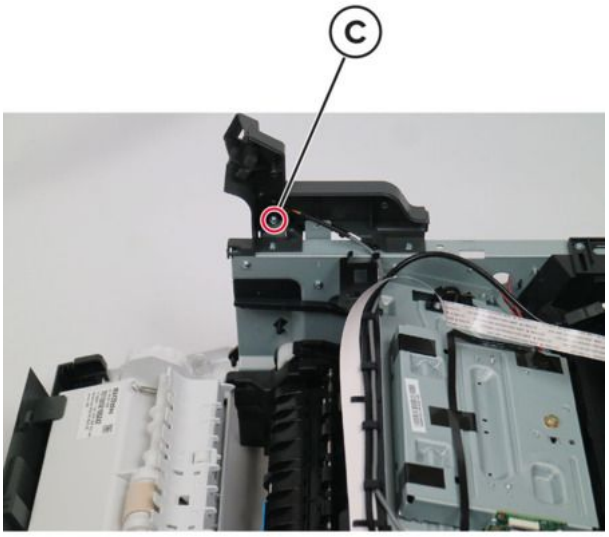
1. Remove the ADF and scanner. See ADF and scanner removal on page 242.
2. Remove the control panel. See Control panel removal on page 217.
3. Remove the four screws (A), and then remove the control panel back plate.



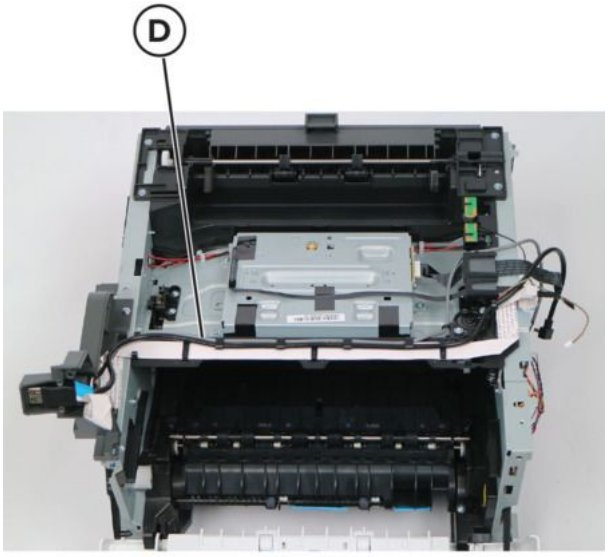
4. Remove the two screws (B), and then remove the control panel right support.



5. Remove the screw (C).



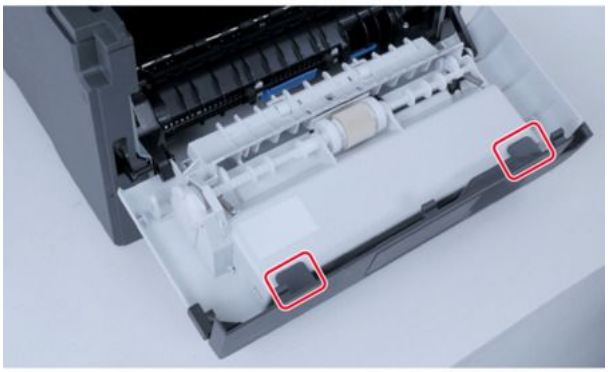
6. Release the headphone jack cable (D) to remove the headphone jack.



Upper front cover removal

> **Note:** For a video demonstration, see Upper front cover removal.

1. Open the front door.
2. Release the two latches.

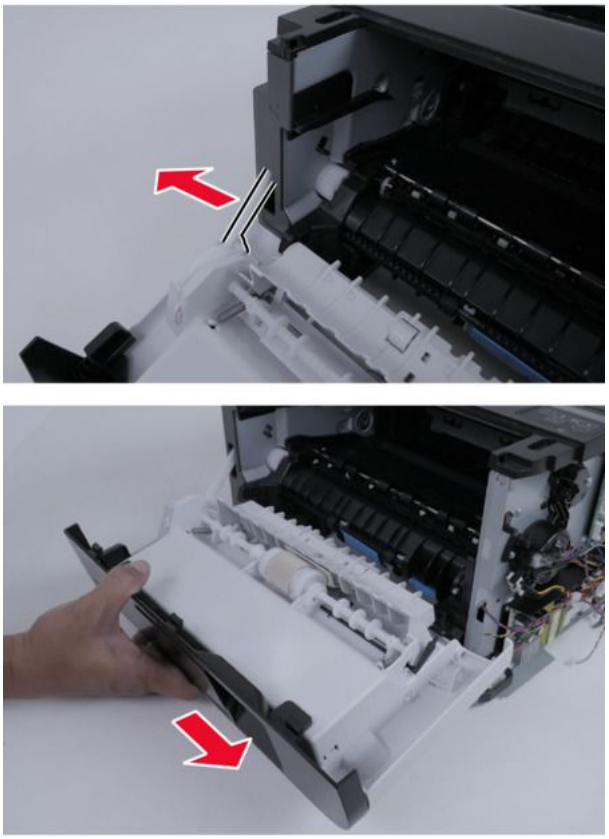


3. Remove the cover.

Front door removal

> **Note:** For a video demonstration, see Front door removal.

1. Remove the right cover. See .Right cover removal on page 204
2. Remove the right front door link. See .Right front door link removal on page 210
3. Release the left front door link, and then remove the front door.

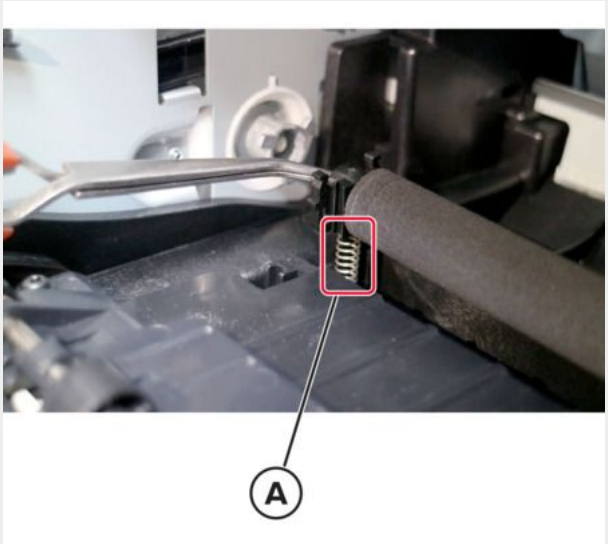


Transfer roller removal

1. Open the front door.
2. Release the two latches, and then remove the transfer roller.

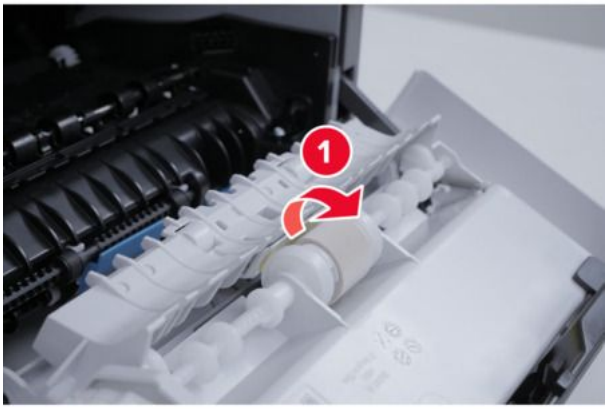
Installation Note

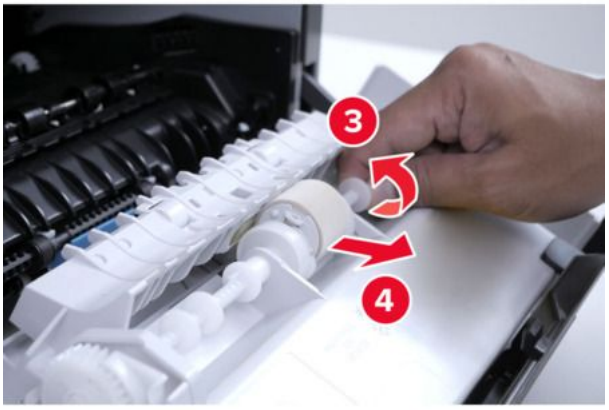
- Do not touch the foam on the roller.
- The shaft has grease. To avoid contaminating the roller, do not touch the shaft.
- Make sure that the spring (A) is properly installed on the left side of the roller.



MPF pick roller removal

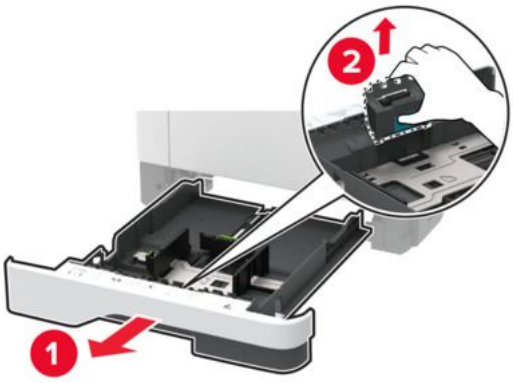
1. Open the front door.
2. Remove the MPF pick roller.





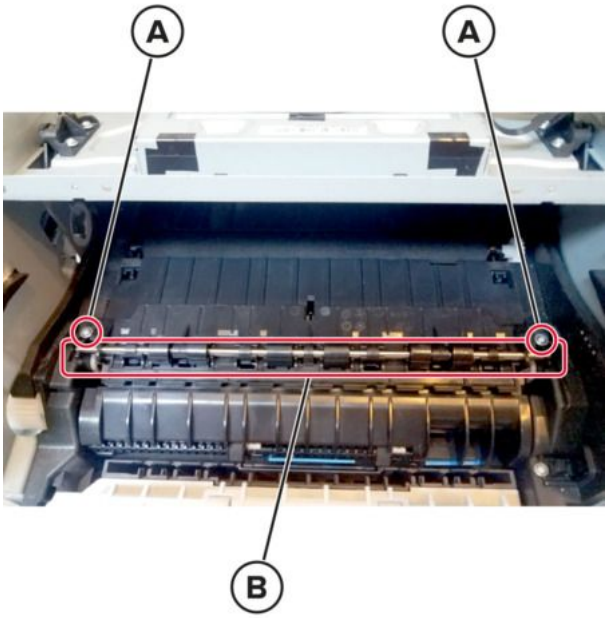
Pick separator roller removal

1. Remove the tray insert.
2. Remove the pick separator roller.

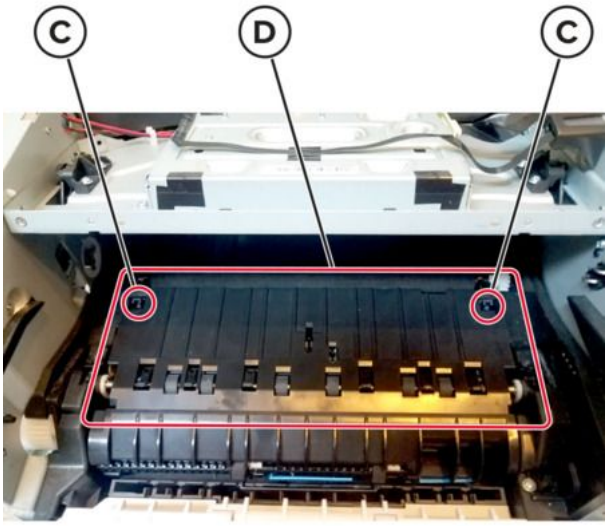


Sensor (input) removal

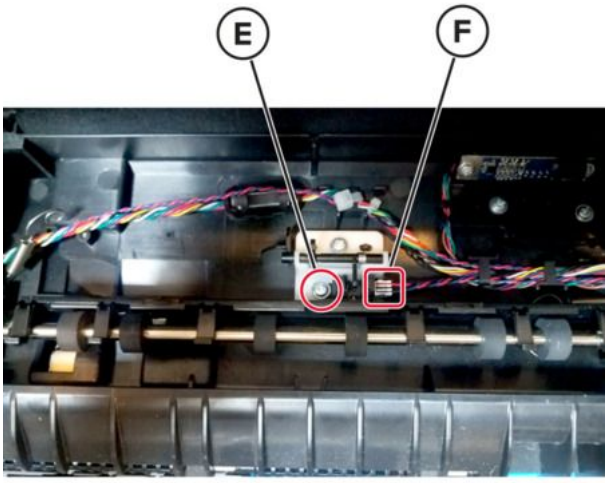
1. Open the front door.
2. Remove the imaging unit.
3. Remove the two screws (A), and then remove the roller assembly (B).



4. Release the two latches (C), and then remove the paper guide (D).



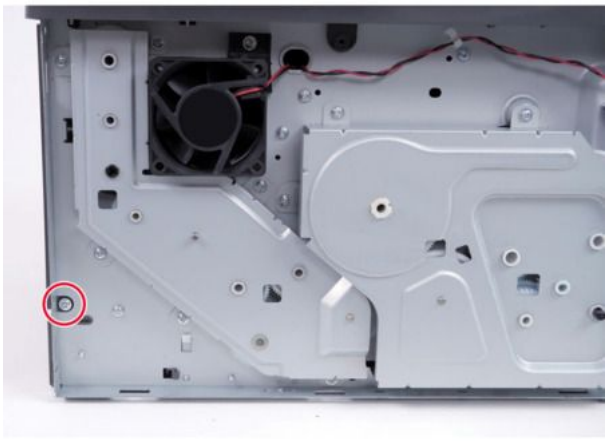
5. Remove the screw (E), and then disconnect the cable (F) from the sensor.



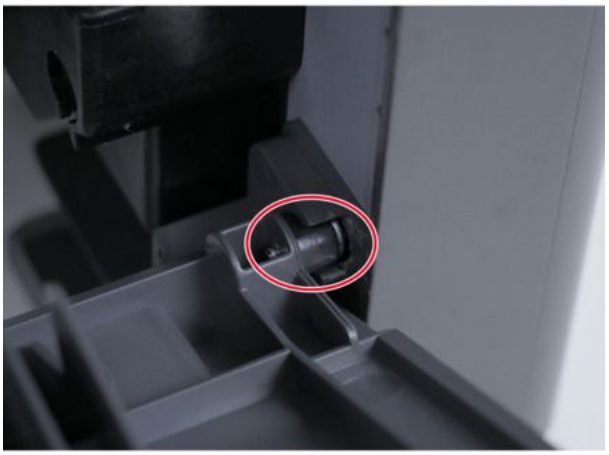
Rear side removals

Rear door removal

1. Remove the left cover. See .Left cover removal on page 195
2. Remove the screw, and then remove the rear door.



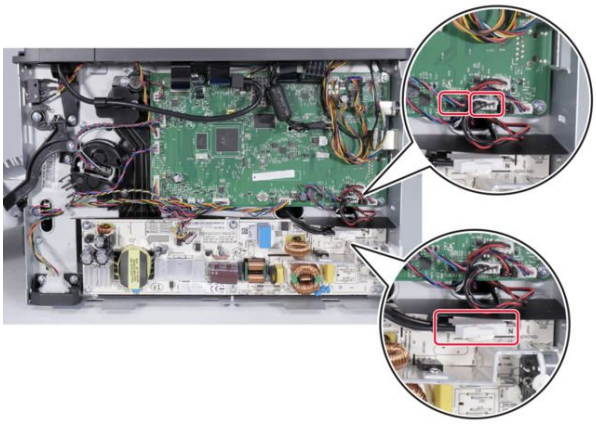
Note: Pay attention to the position of the locating feature on the right side before removing the door.



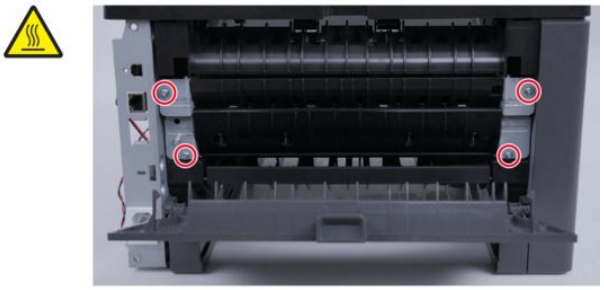
Fuser removal

Note: For a video demonstration, see Fuser removal.

1. Remove the right cover. See .Right cover removal on page 204
2. Disconnect the three cables.



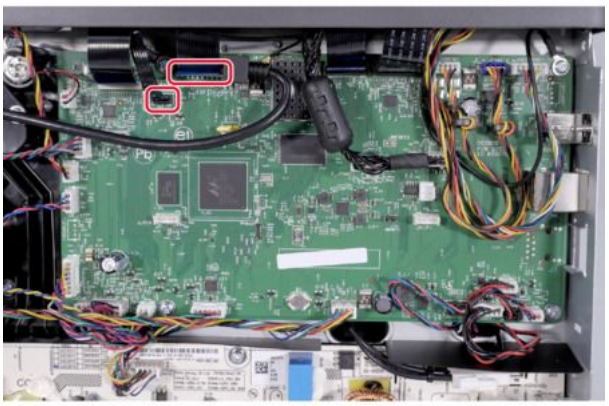
3. Open the rear door, remove the four screws, and then remove the fuser.



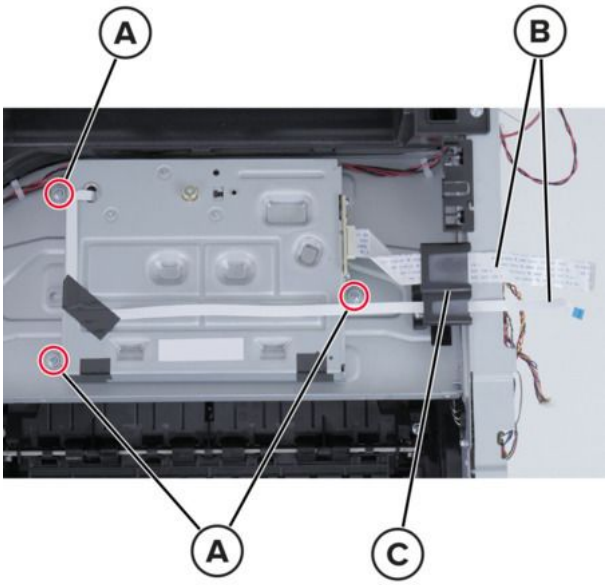
Top side removals

Printhead removal

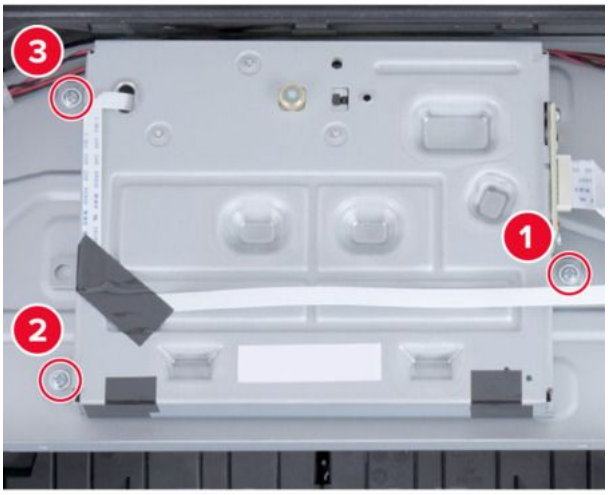
1. Remove the right cover. See Right cover removal on page 204.
2. Remove the left cover. See Left cover removal on page 195.
3. Remove the ADF and scanner. See ADF and scanner removal on page 242.
4. Disconnect the two cables.



5. Remove the three screws (A), remove the two cables (B) from the toroid (C), and then remove the printhead.



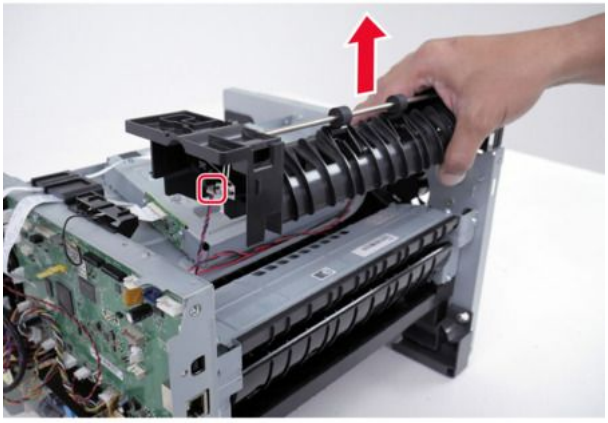
Installation Note
When installing the printhead, tighten the screws in the following the order:



Redrive removal

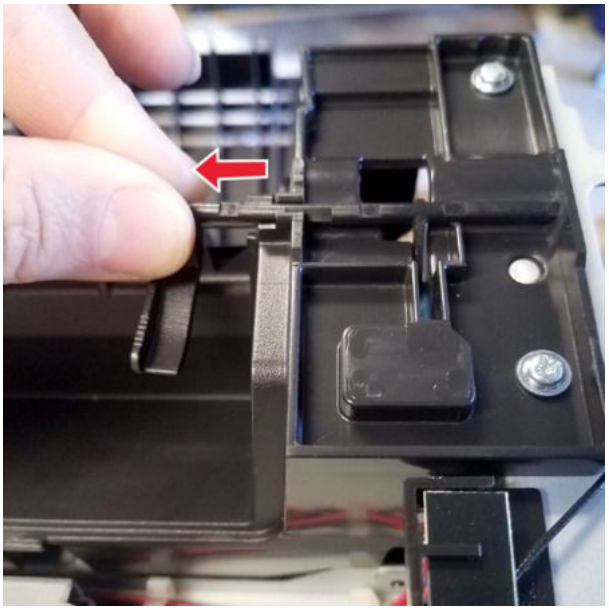
1. Remove the right cover. See Right cover removal on page 204.
2. Remove the left cover. See Left cover removal on page 195.
3. Remove the ADF and scanner. See ADF and scanner removal on page 242.
4. Remove the four screws.

5. Lift the redrive, and then disconnect the cable from the redrive.



Bin full sensor actuator removal

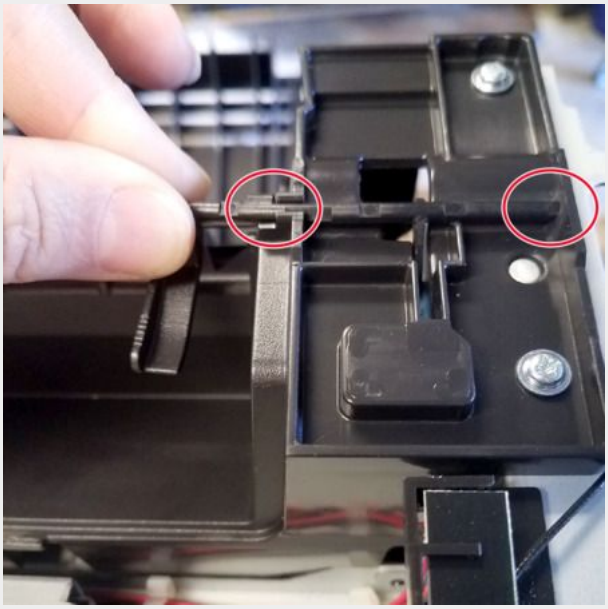
1. Remove the ADF and scanner. See .ADF and scanner removal on page 242
2. Firmly pull the bin full actuator to the left until it is disengaged from the printer frame.



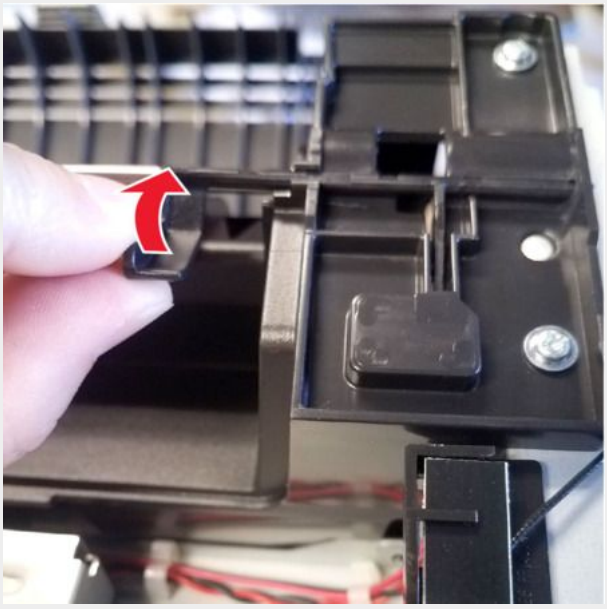
3. Remove the actuator.

Installation Note

1. Make sure that the actuator is properly positioned as shown.



2. Carefully rotate the actuator upward until it is engaged to the printer frame.

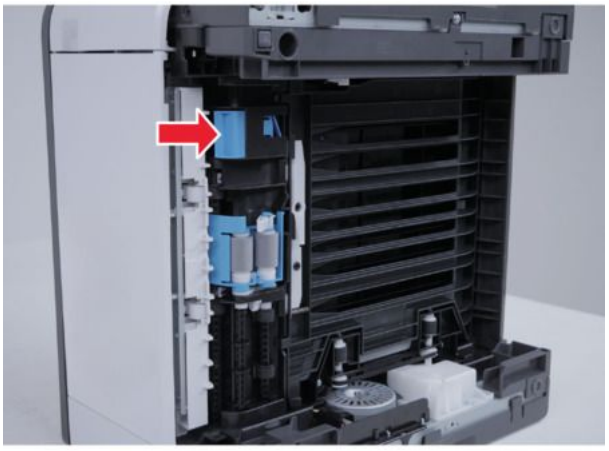


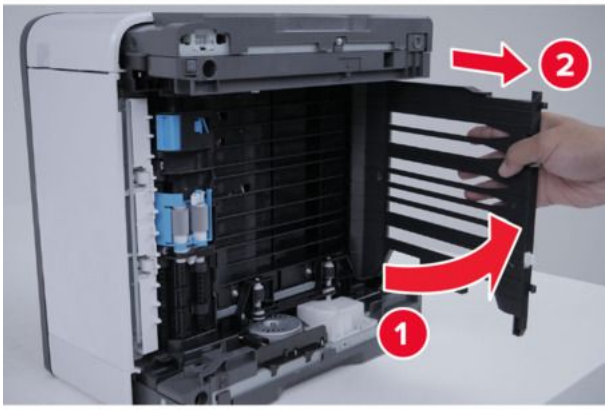
3. Make sure that the actuator is properly installed and freely rotates without binding.

Bottom side removals

Duplex guide removal

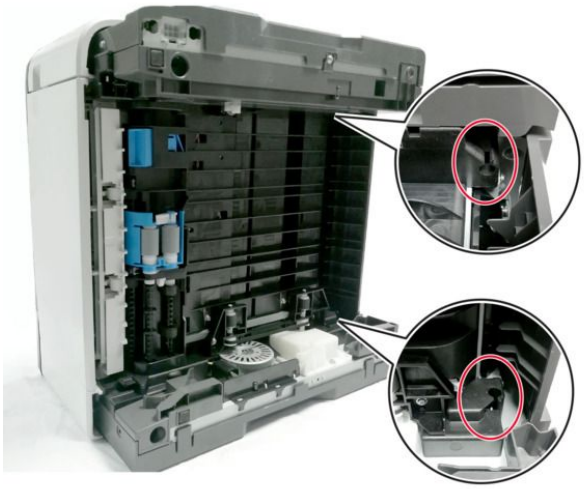
1. Place the printer on its left side.
2. Remove the duplex guide.





Installation Note

Make sure that the duplex guide is properly inserted into the locating features inside the printer.



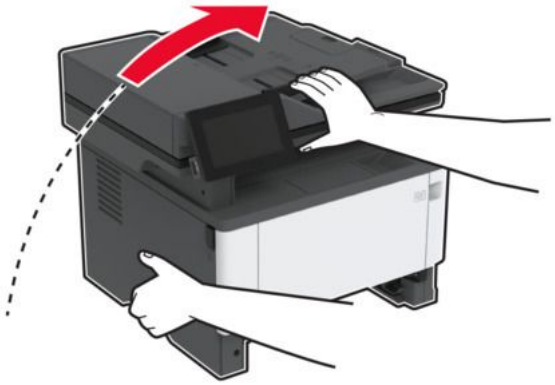
Duplex shaft bushing removal

1. Open the front door.

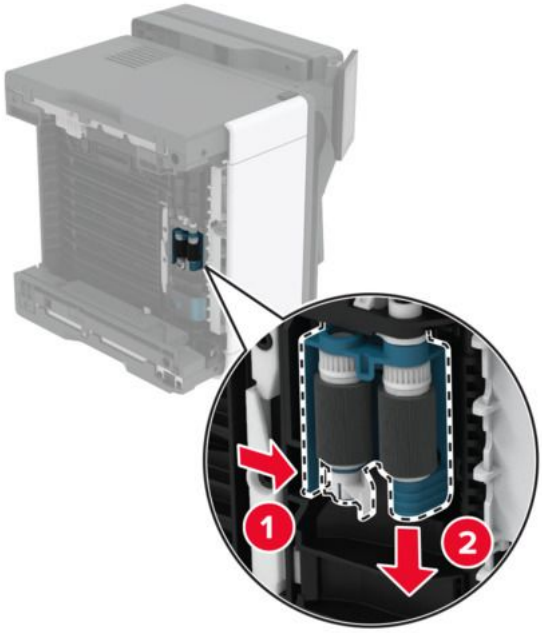
2. Remove the imaging unit.

3. Close the front door.
4. Remove the tray.

5. Position the printer on its side.



6. Remove the pick roller assembly.



7. Press the tab to remove the duplex shaft bushing.

ADF and scanner removals

ADF cover removal

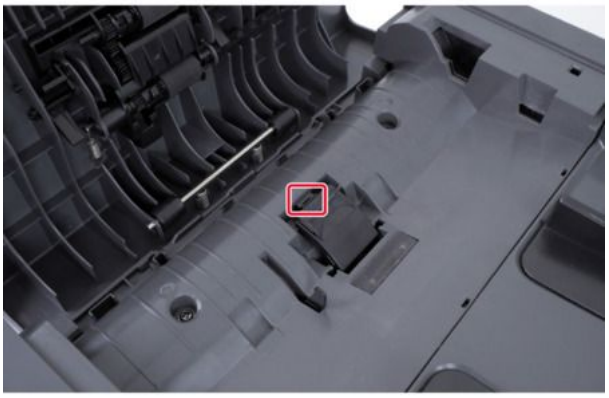
1. Open the ADF cover.
2. Remove the ADF cover.

ADF tray removal

1. Open the ADF cover.
2. Remove the ADF tray.

ADF separator pad removal

1. Open the ADF cover.
2. Release the latch to remove the ADF separator pad.

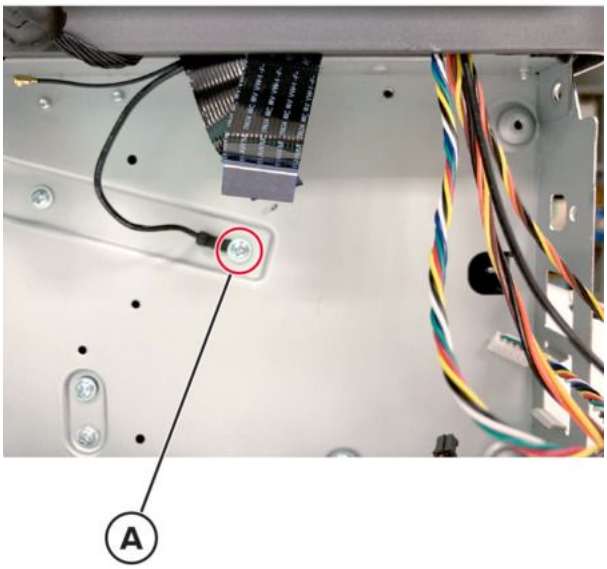


Installation Note
Do not lose the spring under the ADF separator pad.

ADF and scanner removal

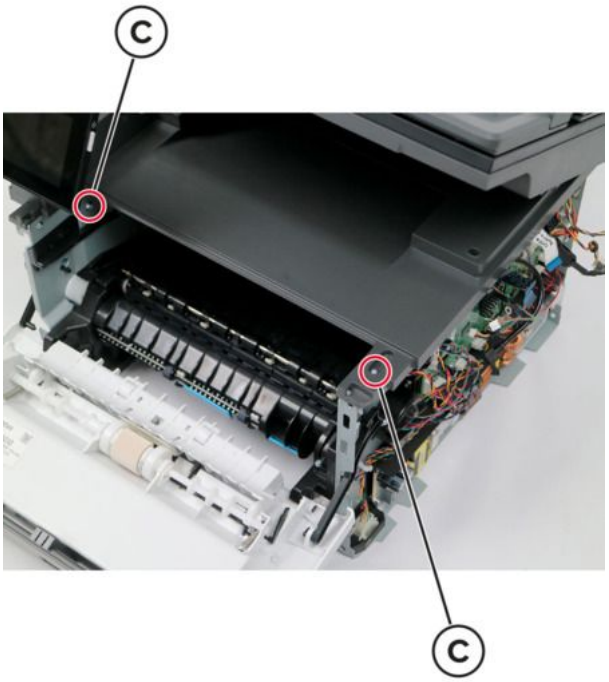
Note: For a video demonstration, see ADF and scanner removal.

1. Remove the left cover. See Left cover removal on page 195.
2. Remove the right cover. See Right cover removal on page 204.
3. Remove the controller board. See Controller board removal on page 206.
4. Remove the screw (A) securing the fax card ground wire to the frame, if present.

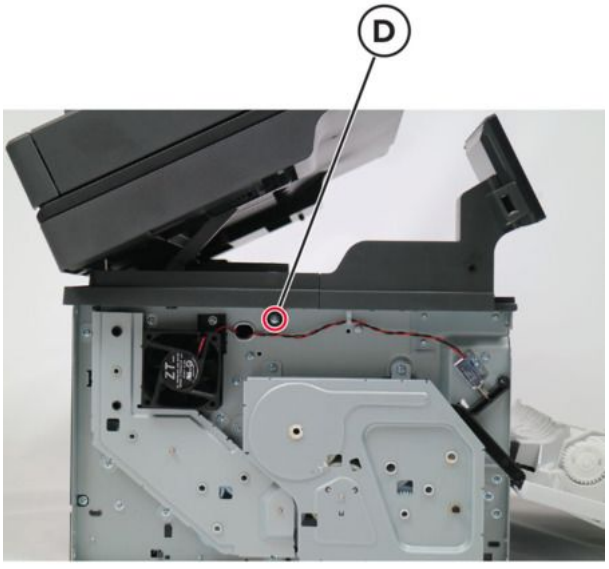


Installation Note
Secure the fax card ground wire to location A on the frame (see preceding photo).

5. Remove the two screws (C).



6. On the left side of the printer, remove the screw (D).



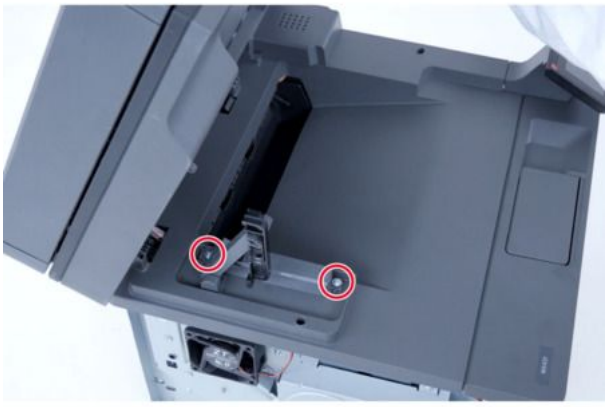
7. Remove the top cover, ADF, and scanner.

Installation Note
Make sure to perform the scanner calibration reset after replacing the ADF and scanner. For more information, see Scanner Calibration Reset on page 168.

Scanner pivot arm removal

1. Slightly raise the ADF and scanner assembly.
2. While pulling on the scanner pivot arm latch, completely raise the ADF and scanner assembly to release the latch.

3. Remove the two screws, and then remove the scanner pivot arm.



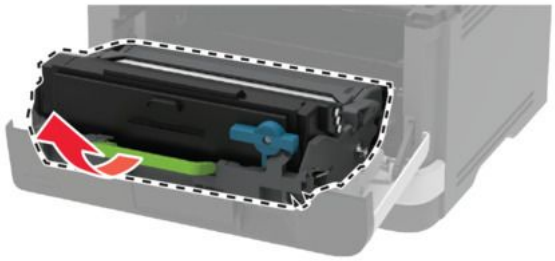
Replacing parts

Replacing the imaging unit

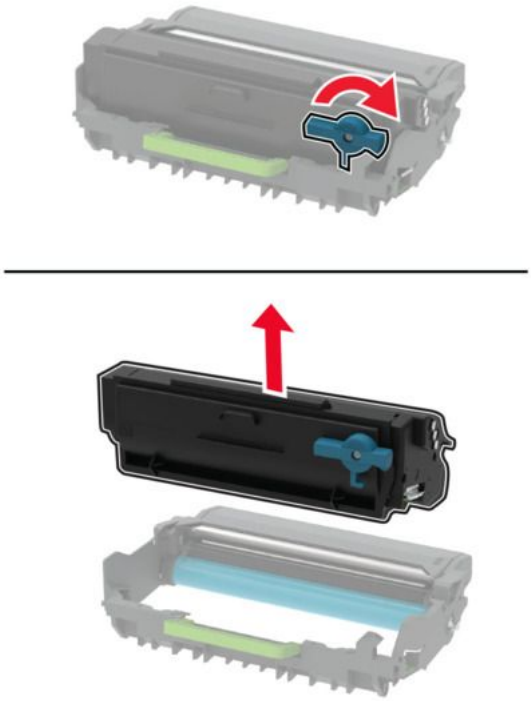
1. Open the front door.

> **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 used imaging unit.



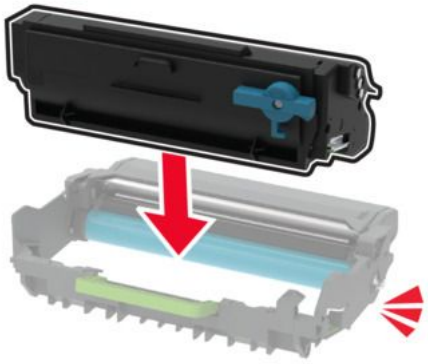
3. Twist the blue latch, and then remove the toner cartridge from the used imaging unit.



4. Unpack the new imaging unit, and then insert the toner cartridge until it clicks into place.

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.



5. Insert the new imaging unit.

6. Close the door.

Replacing the tray

1. Remove the used tray.

2. Unpack the new tray.
3. Insert the new tray.

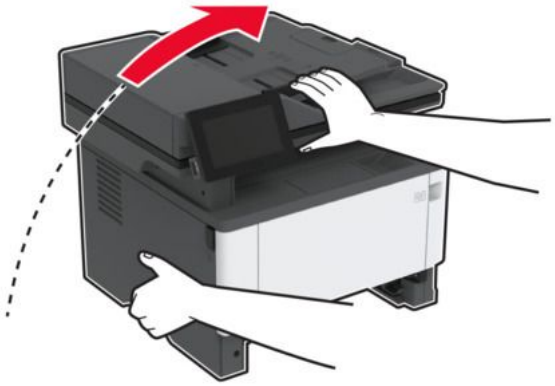
Replacing the pick roller assembly

1. Turn off the printer.
2. Unplug the power cord from the electrical outlet, and then from the printer.
3. Open the front door.

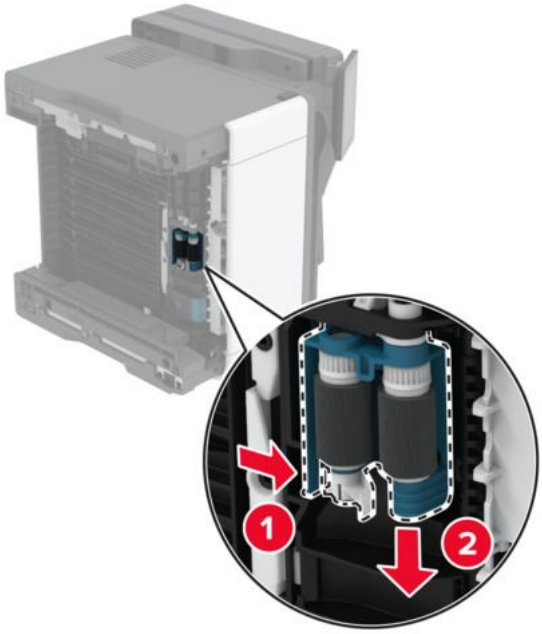
4. Remove the imaging unit.

5. Close the front door.
6. Remove the tray.

7. Position the printer on its side.



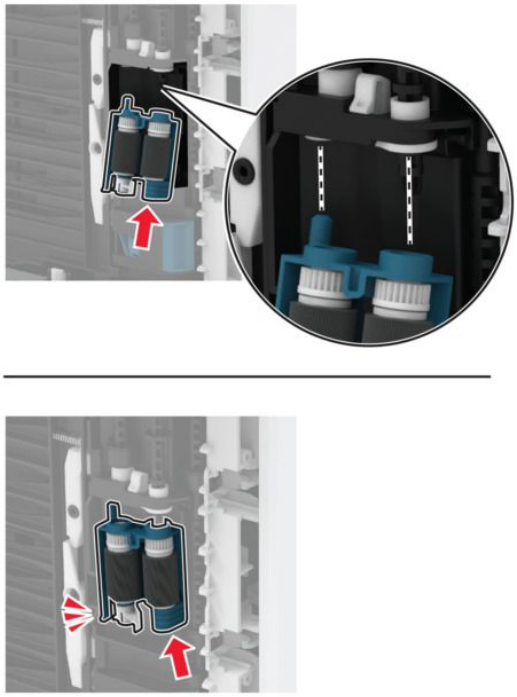
8. Remove the used pick roller assembly.



9. Unpack the new pick roller assembly.

> **Note:** To avoid contamination, make sure that your hands are clean.

10. Insert the new pick roller assembly.



11. Place the printer in its original position, and then insert the tray.
12. Open the front door.
13. Insert the imaging unit.
14. Close the front door.
15. Connect the power cord to the printer, and then to the electrical outlet.
16. Turn on the printer.

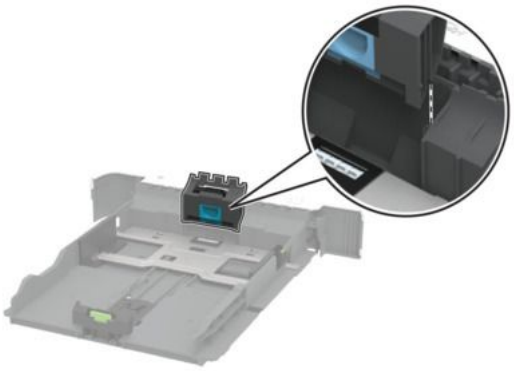
Replacing the tray separator roller

1. Remove the tray, and then remove the used separator roller.

2. Unpack the new separator roller.

> **Note:** To avoid contamination, make sure that your hands are clean.

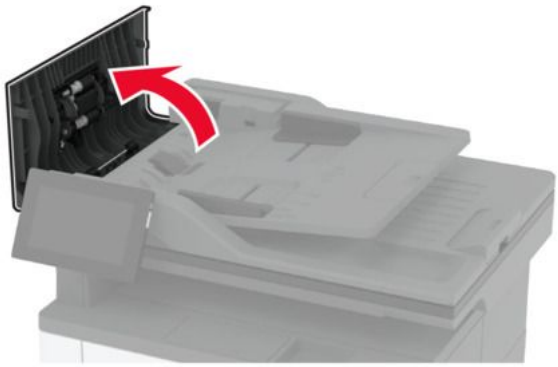
3. Insert the new separator roller.



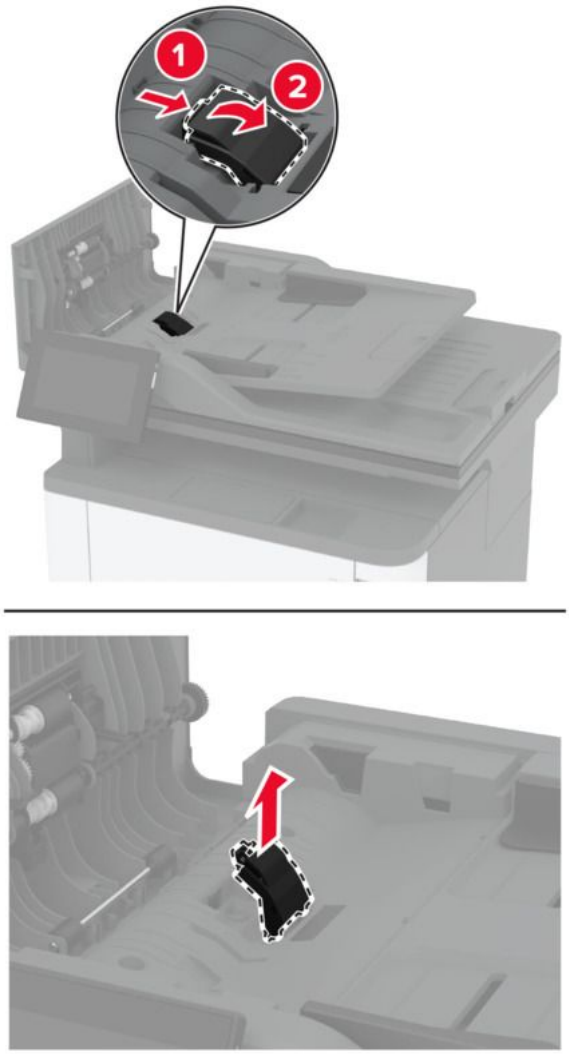
4. Insert the tray.

Replacing the ADF separator pad

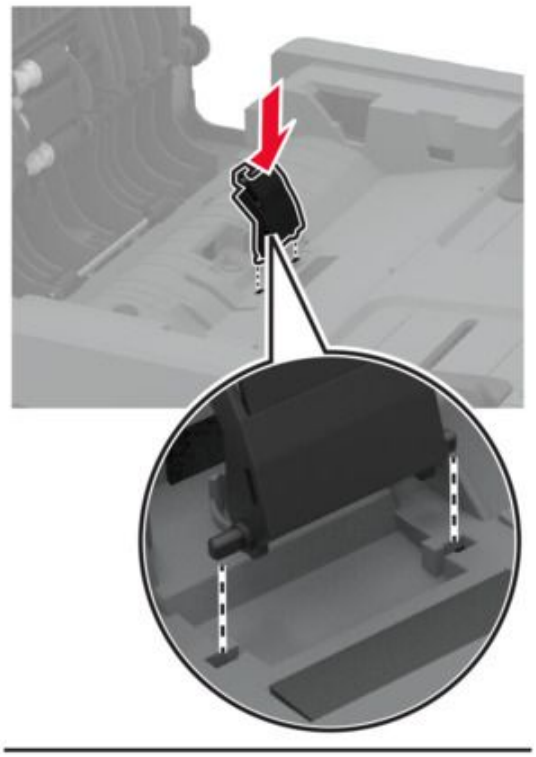
1. Open the ADF cover.

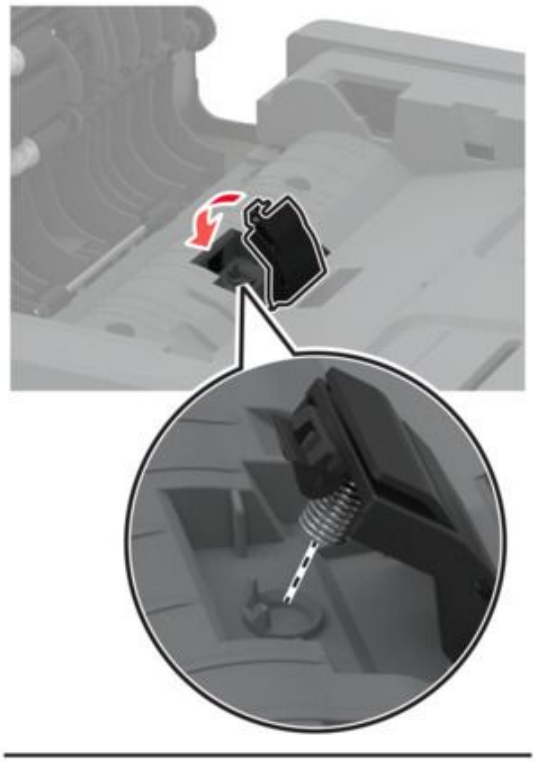


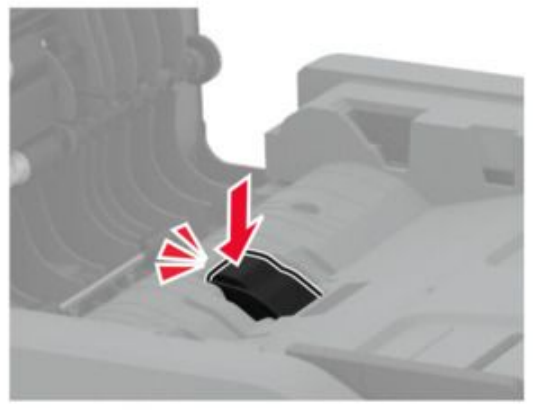
2. Remove the used ADF separator pad.



3. Unpack the new ADF separator pad.
4. Insert the new separator pad until it clicks into place.



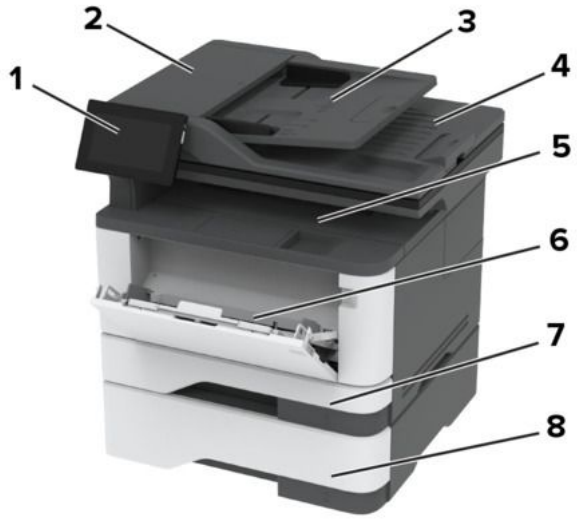




5. Close the ADF cover.

Component locations

Printer configuration



1	Control panel
2	Automatic document feeder (ADF)
3	ADF tray
4	ADF bin
5	Standard bin
6	Multipurpose feeder (MPF)
7	Standard 250-sheet tray
8	Optional 550-sheet tray

Controller board connectors

Connector	Connects to	Pin number	Signal
JSCANSNS1	Sensor (ADF paper present)	1	SNS_ADF_DOC
		2	SNS_ADF_DOC_LED
		3	GND
		4	SNS_ADF_SCAN
		5	PWR_ADF_SCAN_LED

Connector	Connects to	Pin number	Signal
		6	GND
JFBM1	Motor (scanner fatbed)	1	FBM_BOUT1
		2	FBM_BOUT2
		3	FBM_AOUT2
		4	FBM_AOUT1
JADFM1	Motor (ADF scanner)	1	ADFM_BOUT1
		2	ADFM_BOUT2
		3	ADFM_AOUT2
		4	ADFM_AOUT1
JACIS1	Scanner flatbed analog CIS bar	1	OS1_AFE
		2	GND
		3	OS2_AFE
		4	GND
		5	OS3_AFE
		6	GND
		7	+3.3 V_FB_C
		8	AFE_REV_ID1
		9	AFE_REV_ID2
		10	A_SOL
		11	GND
		12	A_CIS_PCLK
		13	+5 V_AWAKE
		14	SCAN_LEDB
		15	SCAN_LEDG
		16	SCAN_LEDR
JDCIS1	Scanner ADF digital CIS bar	1	GND
		2	SCAN_RXIN_P(0)
		3	SCAN_RXIN_N(0)
		4	GND
		5	SCAN_RXCLK_P
		6	SCAN_RXCLK_N

Connector	Connects to	Pin number	Signal
		7	GND
		8	D_SOL
		9	D_AFE_SEN
		10	D_AFE_SDIO
		11	D_AFE_SCK
		12	GND
		13	D_CIS_PCLK
		14	+3.3 V_ADF
JWIFI1	Wi-Fi antenna	1	WIFI_ANT
		2	GND
J3	USB front port cable	1	+5 V_FUSB
		2	USB_N
		3	USB_P
		4	NC
		5	GND
JVDO1	Printhead video	1	VDO_HSYNC-
		2	GND
		3	VDO_K1+
		4	VDO_K1-
		5	GND
		6	VDO_LPOW_K
		7	VDO_LADJ_K1
		8	VDO_BOOST_K
		9	+3.3 V_PHRAIL_SW
		10	GND
		11	VDO_LEN_K-
		12	+3.3 V_PHRAIL_SW
		13	VDO_K0+
		14	VDO_K0-
		15	GND

Connector	Connects to	Pin number	Signal
		16	VDO_LADJ_K0
JMIR1	Motor (printhead mirror)	1	+25 V_SW
		2	GND
		3	MM_START
		4	MM_LOCK
		5	MM_REFCLK
JUICC28	2.8-in. control panel LCD	1	LED_DRIVE
		2	+5 V_CONT
		3	MIR_TXD
		4	MIR_CS-
		5	POWER_BUTTON
		6	LCD_RS
		7	LCD_TE
		8	MIR_RXD
		9	GND
		10	MIR_CLK
		11	GND
		12	I2C_DAT
		13	I2C_CLK
		14	+5 V_UI
		15	RESET-
		16	IRQ-
		17	GND
		18	LCD_WR
		19	LCD_RD
		20	+5 V_UI
		21	D0
		22	D1
		23	GND
		24	D2
		25	D3

Connector	Connects to	Pin number	Signal
		26	+5 V_UI
		27	D4
		28	D5
		29	GND
		30	D6
		31	D7
		32	+5 V_UI
JSPKR1	Speaker	1	Speaker+
		2	Speaker -
JSCHIP1	Toner cartridge and imaging unit smart chip	1	I2C_DAT
		2	+3.3 V_SCHIP
		3	I2C_CLK
		4	GND
		5	TONER_EMPTY
JCVR1	Front door laser safety switch	1	+3.3 V_PHRAIL
		2	+3.3 V
		3	GND
JMPSNS1	Sensor (MPF paper present)	1	SNS_MPS
		2	GND
		3	PWR_MPF
JHVPS1	HVPS	1	+25 V_SW
		2	DEV_PWM
		3	ADC_HV_SERVO
		4	XFER_EN
		5	TX_PWM
		6	GND
		7	CHG_PWM
JMTR1	Motor (main drive)	1	+25 V_SW
		2	GND
		3	BRAKE
		4	PWM

Connector	Connects to	Pin number	Signal
		5	DIR
		6	FG
		7	+25 V_SW
		8	GND
	Sensor (toner density)	9	LED_PWM_TDS
		10	THERM_TDS
		11	SNS_TDS
		12	GND
		13	PWR_TDS
	Pick clutch	14	+25 V_SW
		15	CLUTCH_SINK
	Sensor (input)	16	SNS_INPUT
		17	GND
		18	PWR_INPUT
JTRAY1	Tray present switch	1	PWR_TRAY
		2	TRAY_DETECT
JOPT1	Paper handling option	1	+25 V_SW
		2	TXD_OPT
		3	TRAY_PULLED_N
		4	RXD_OPT
		5	GND
		6	5 V_OPT
JLVPS1	LVPS	1	RELAY_ON
		2	HEAT_ON
		3	ZERO_CROSS
		4	+25 V_SW_ON
		5	+25 V_CONT_RAIL
		6	GND
		7	+25 V_SW_RAIL
		8	GND
JEXIT1	Sensor (fuser exit)	1	SNS_EXIT

Connector	Connects to	Pin number	Signal
		2	GND
		3	PWR_EXIT
JFUSER1	Fuser thermistor	1	THERM_FUSER
		2	GND
		3	AC_RELAY_ON_TCO
		4	AC_RELAY_ON
JFAN1	Fan	1	+25 V_SW
		2	FAN_SINK
JBIN1	Sensor (bin full)	1	SNS_BF
		2	GND
		3	PWR_BF
JSOL1	MPF pick solenoid	1	+25 V_SW
		2	SOL_SINK
JFAX1	Fax	1	TONE
		2	FAX_PWR
		3	FAX_PWR
		4	RES
		5	+5V
		6	IRQ
		7	GND
		8	SCK
		9	GND
		10	MOSI
		11	GND
		12	MISO
		13	GND
		14	CS

Maintenance

Inspection guide

Use this guide in identifying the parts that must be inspected, cleaned, or replaced based on the page count.
If any unsafe condition exists, find out how serious the hazard is 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 power switch and the power supply
- Damaged, missing, or altered covers, especially in the area of the top cover and power supply cover
- Possible safety exposure from any non-Lexmark attachments

Use the following table to determine when specified parts must be inspected:

Printer parts	Every service call	Every 150K	Every 360K	Notes
Tray insert • Width guides • Length guides	Inspect	Inspect	Inspect	Check for correct positioning.
Transfer module	Inspect	Inspect	Inspect	Ensure correct installation.
Fuser	Inspect	Replace	Inspect	Ensure correct installation.
Pick rollers • Tray pick roller • MPF pick roller • Separator bracket	Inspect and clean if needed.	Inspect and clean if needed.	Replace	Clean with a damp cloth.

Printer parts	Every service call	Every 150K	Every 360K	Notes
Paper path rollers	Inspect	Inspect	Inspect	• Check for paper fragments. • Check for excessive toner build-up on rollers. • Clean with damp cloth if needed.
Others • Toner spillage	Clean	Clean	Clean	Use a toner vacuum and cloth to remove all toner spillage from the printer.

Maintenance kits

Note:

- Replace the maintenance kit when the page count reaches 100K or 1.1M fuser revolutions, or whichever occurs first. The printer may stop printing when the fuser rated life is reached.
- Always reset the maintenance counters after installing the maintenance kit. See Maintenance kits on page 263.

The parts are available as a maintenance kit with the following part numbers:

Kit	Contents	Page count
41X4467—Maintenance kit, 100 V	• 41X2599—Fuser, 100 V • 41X2575—Separator roller and pick roller • 41x4471—Duplex shaft bushing • 41x2510—ADF cover (includes ADF pick roller) • 41X2511—ADF separator pad	100K
41X4472—Maintenance kit, 110 V	• 41X2586—Fuser, 115 V • 41X2575—Pick separator roller • 41x4471—Duplex shaft bushing • 41x2510—ADF cover (includes ADF pick roller) • 41X2511—ADF separator pad	100K
41X4473—Maintenance kit, 220 V	• 41X2600—Fuser, 230 V • 41X2575—Pick separator roller • 41x4471—Duplex shaft bushing • 41x2510—ADF cover (includes ADF pick roller) • 41X2511—ADF separator pad	100K

When performing the scheduled maintenance procedure, clean the following areas:

- Trays
- Imaging kit and imaging unit areas
- Transfer roller area
- Duplex area
- Standard bin
- ADF glass, ADF glass pad, scanner glass, and scanner glass pad. See Cleaning the scanner on page 267.
- Control panel touch screen. See Cleaning the touch screen on page 266.

Resetting maintenance counters

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

Cleaning printer parts

Cleaning the printer

CAUTION—SHOCK HAZARD
To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

CAUTION—SHOCK HAZARD
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
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
Um das Risiko eines elektrischen Schlags beim Reinigen des Druckergehäuses zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose, und ziehen Sie alle Kabel vom Drucker ab, bevor Sie fortfahren.

Note:

- Perform this task after every few months.
- Damage to the printer caused by improper handling is not covered by the printer warranty.

1. Turn off the printer, and then unplug the power cord from the electrical outlet.
2. Remove paper from the standard bin and multipurpose feeder.
3. Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.
4. Wipe the outside of the printer with a damp, soft, lint-free cloth.

Note:
- Do not use household cleaners or detergents, as they may damage the finish of the printer.
- Make sure that all areas of the printer are dry after cleaning.

5. Connect the power cord to the electrical outlet, and then turn on the printer.

Cleaning the touch screen

CAUTION—SHOCK HAZARD
To avoid the risk of 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
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
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
Um das Risiko eines elektrischen Schlags beim Reinigen des Druckergehäuses zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose, und ziehen Sie alle Kabel vom Drucker ab, bevor Sie fortfahren.

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

Note:
- Do not use household cleaners or detergents, as they may damage the touch screen.
- Make sure that the touch screen is dry after cleaning.

3. Connect the power cord to the electrical outlet, and then turn on the printer.

Cleaning the scanner

1. Open the scanner cover.

2. Using a damp, soft, lint-free cloth, wipe the following areas:
   - ADF glass pad

   - Scanner glass pad

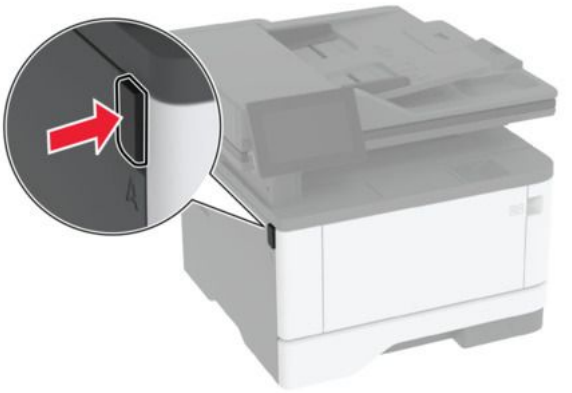
   - ADF glass

- Scanner glass

3. Close the scanner cover.

Cleaning the pick roller assembly

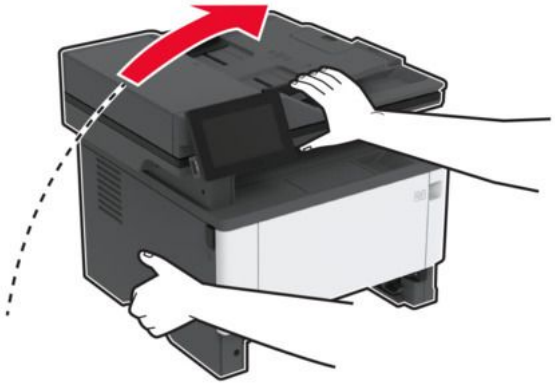
1. Turn off the printer.
2. Unplug the power cord from the electrical outlet, and then from the printer.
3. Open the front door.



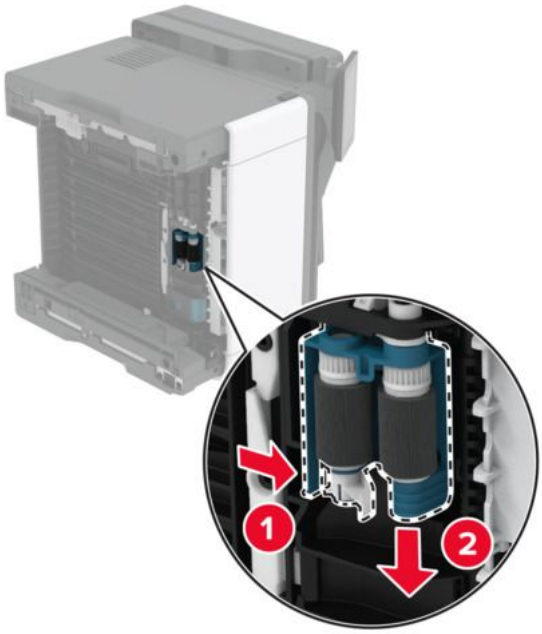
4. Remove the imaging unit.

5. Close the front door.
6. Remove the tray.

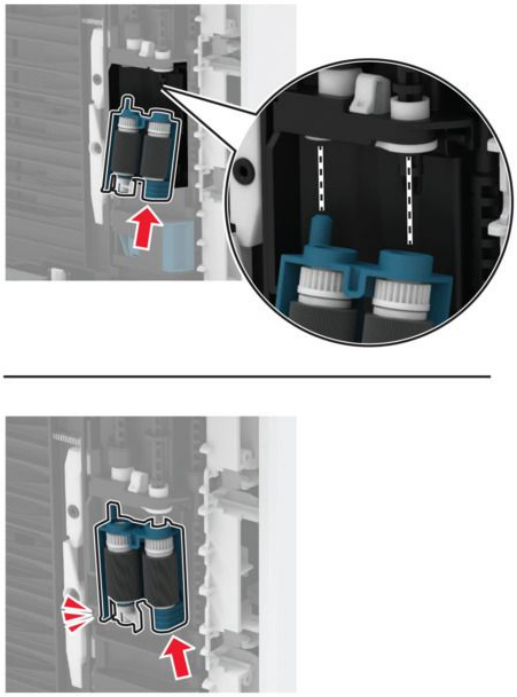
7. Position the printer on its side.



8. Remove the pick roller assembly.



9. Apply isopropyl alcohol to a soft, lint-free cloth, and then wipe the pick roller assembly.
10. Insert the pick roller until it clicks into place.



11. Place the printer in its original position, and then insert the tray.
12. Open the front door.
13. Insert the imaging unit.
14. Close the front door.
15. Connect the power cord to the printer, and then to the electrical outlet.
16. Turn on the printer.

Parts catalog

Legend

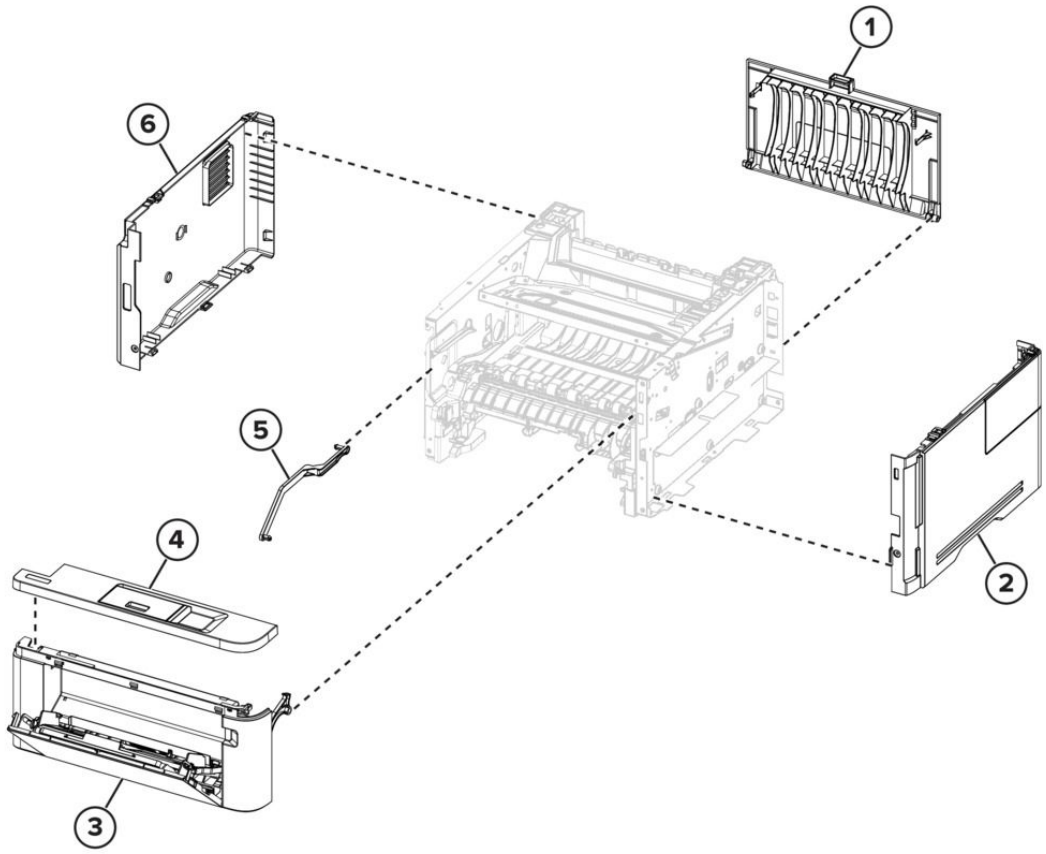
The following column headings are used in the parts catalog:

- **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**—Describes 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.

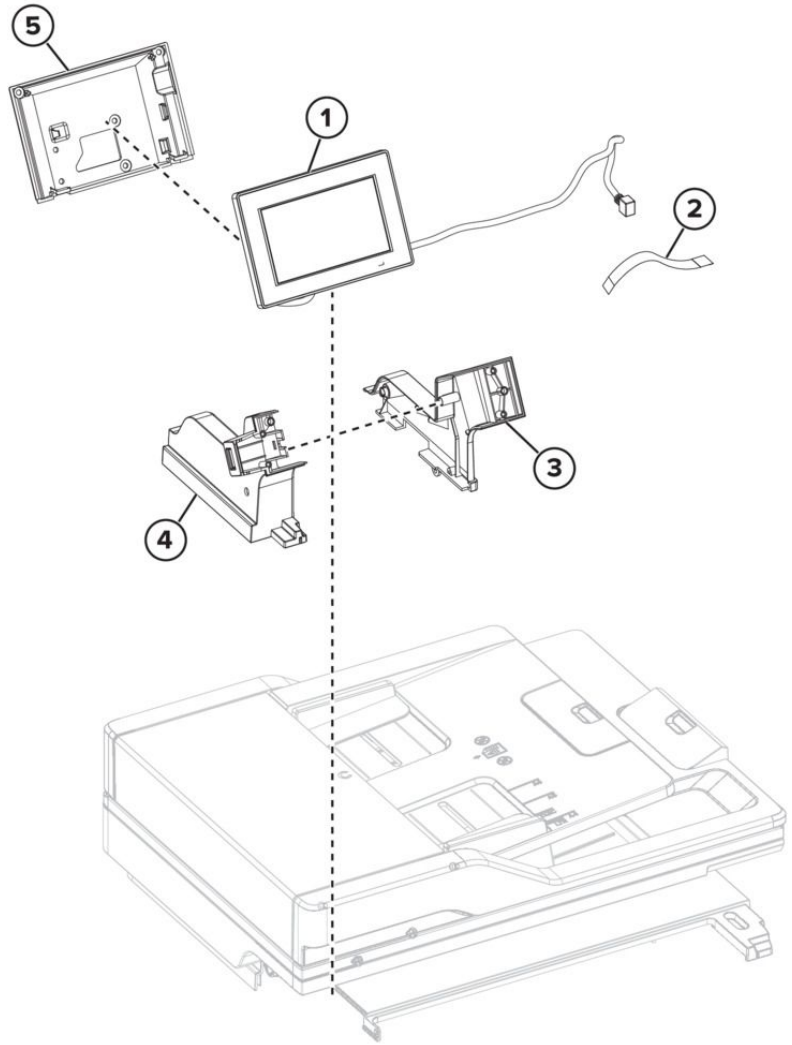
Covers



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2582	1	1	Rear door	Rear door removal on page 231
2	41X4216	1	1	Right cover **Note:** This part has a FRU sheet.	Right cover removal on page 204
3	41X2584	1	1	Front door with MPF pick roller	Front door removal on page 226
4	41X4218	1	12	Upper front cover **Note:** This part has a FRU sheet.	Upper front cover removal on page 225

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
5	41X2578	1	1	Left front door link	Left front door link removal on page 203
6	41X2579	1	1	Left cover	Left cover removal on page 195

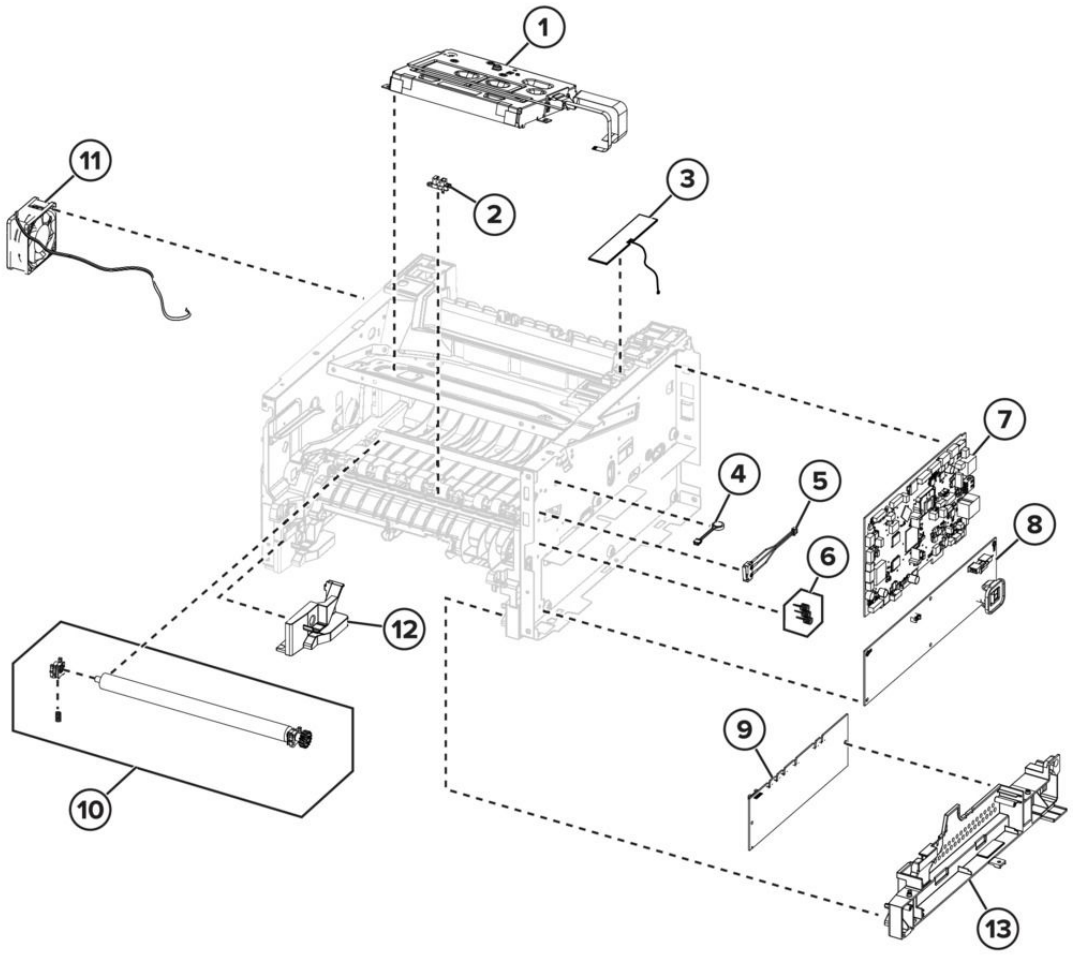
Control panel



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4351	1	1	Control panel	Control panel removal on page 217
2	41X4222	1	1	Control panel cable **Note:** This part has a FRU sheet.	Control panel cable removal on page 220
3	41X4220	1	1	Control panel right support **Note:** This part has a FRU sheet.	Control panel right support removal on page 219

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
4	41X4219	1	1	Control panel left support **Note:** This part has a FRU sheet.	Control panel left support removal on page 220
5	41X4221	1	1	Control panel back plate **Note:** This part has a FRU sheet.	Control panel back plate removal on page 218

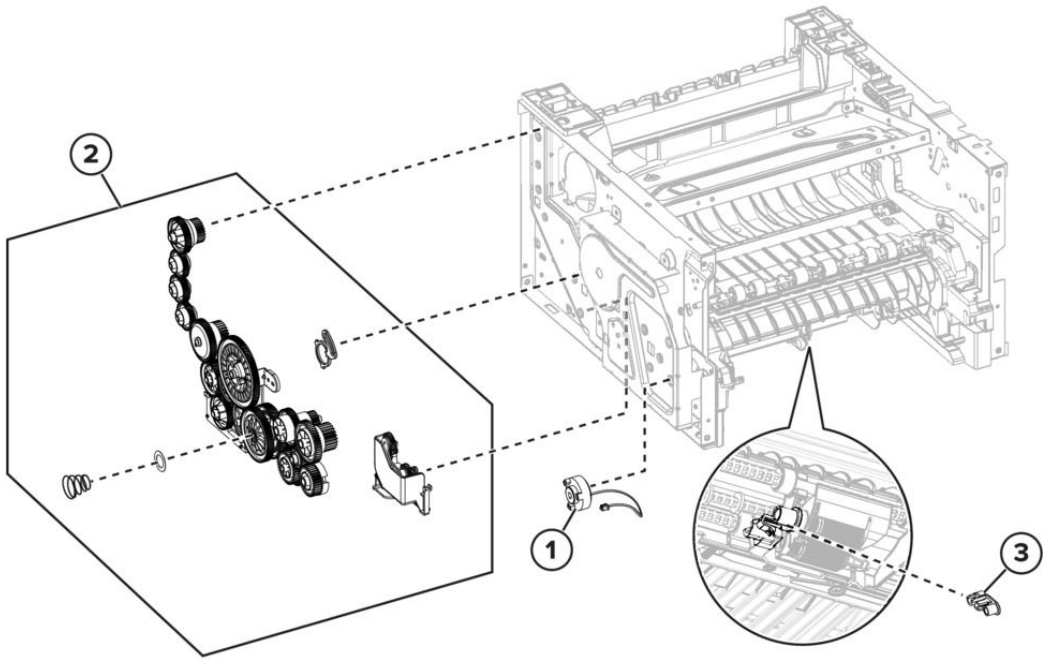
Electronics



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2573	1	1	Printhead	Printhead removal on page 233
2	41X1083	1	1	Sensor (input)	Sensor (input) removal on page 230
3	41X4517	1	1	Wireless network card	Wireless network card removal on page 214
4	41X4224	1	1	Speaker **Note:** This part has a FRU sheet.	

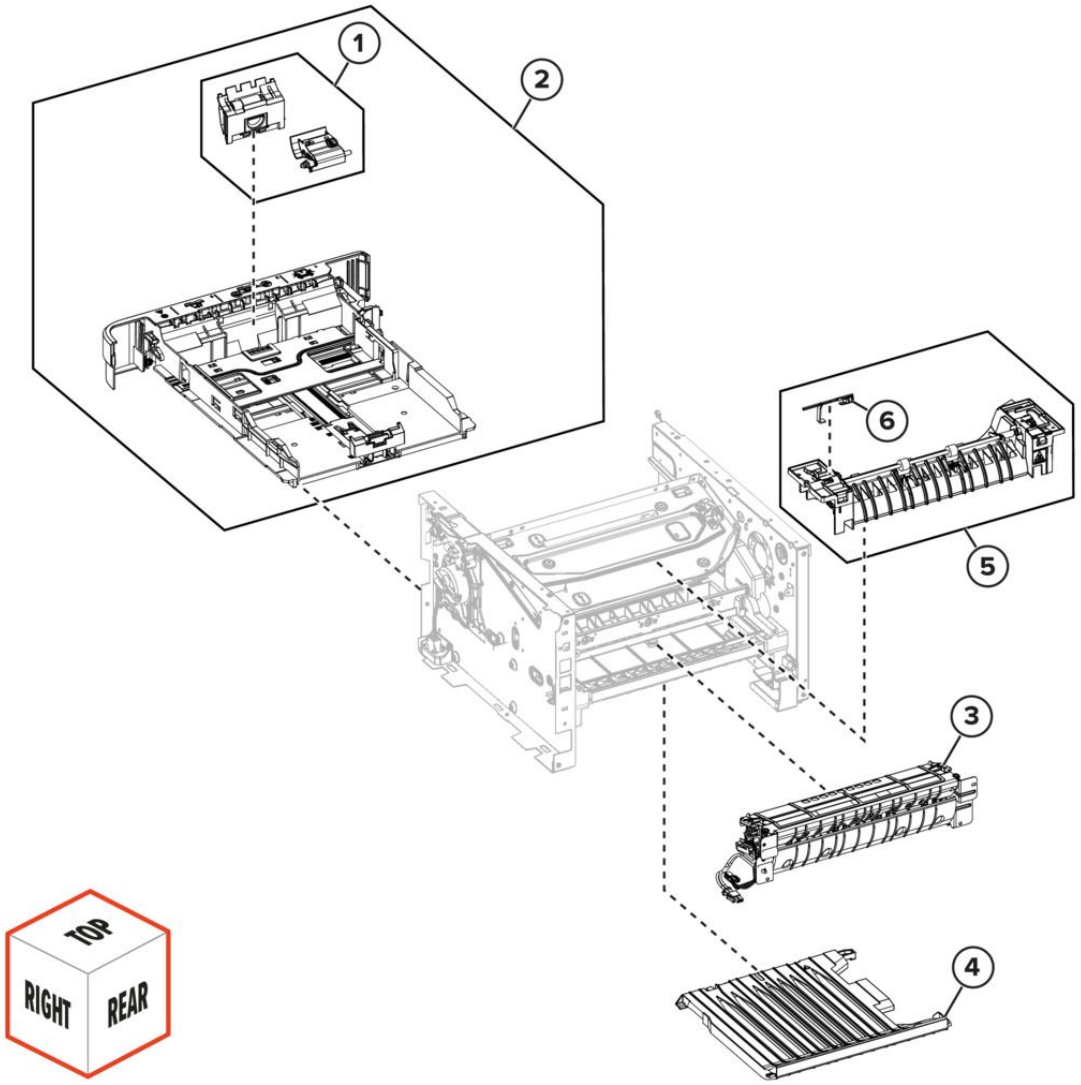
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
5	41X4485	1	1	Interlock switch **Note:** This part has a FRU sheet.	Interlock switch removal on page 214
6	41X4273	1	3	Toner cartridge contact	N/A
7	41X4217	1	1	Controller board **Note:** This part has a FRU sheet.	Controller board removal on page 206
8	41X2590	1	1	LVPS, 75 W and 120 V	LVPS removal
8	41X2591	1	1	LVPS, 75 W and 230 V	LVPS removal
9	41X2592	1	1	HVPS	HVPS removal on page 208
10	41X2587	1	3	Transfer roller, bearing, and spring **Note:** This part has a CRU sheet.	Transfer roller removal
11	41X2636	1	1	Main fan	Main fan removal on page 212
12	41X5009	1	1	Left paper guide	N/A
13	41X5008	1	1	Right paper guide	N/A

Gears



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2425	1	1	Pick roller clutch	Pick roller clutch removal on page 202
2	41X2576	1	31	Main drive gears kit	Main drive gears removal on page 197
3	41X4471	1	1	Duplex shaft bushing **Note:** This part has a FRU sheet.	Duplex shaft bushing removal on page 239

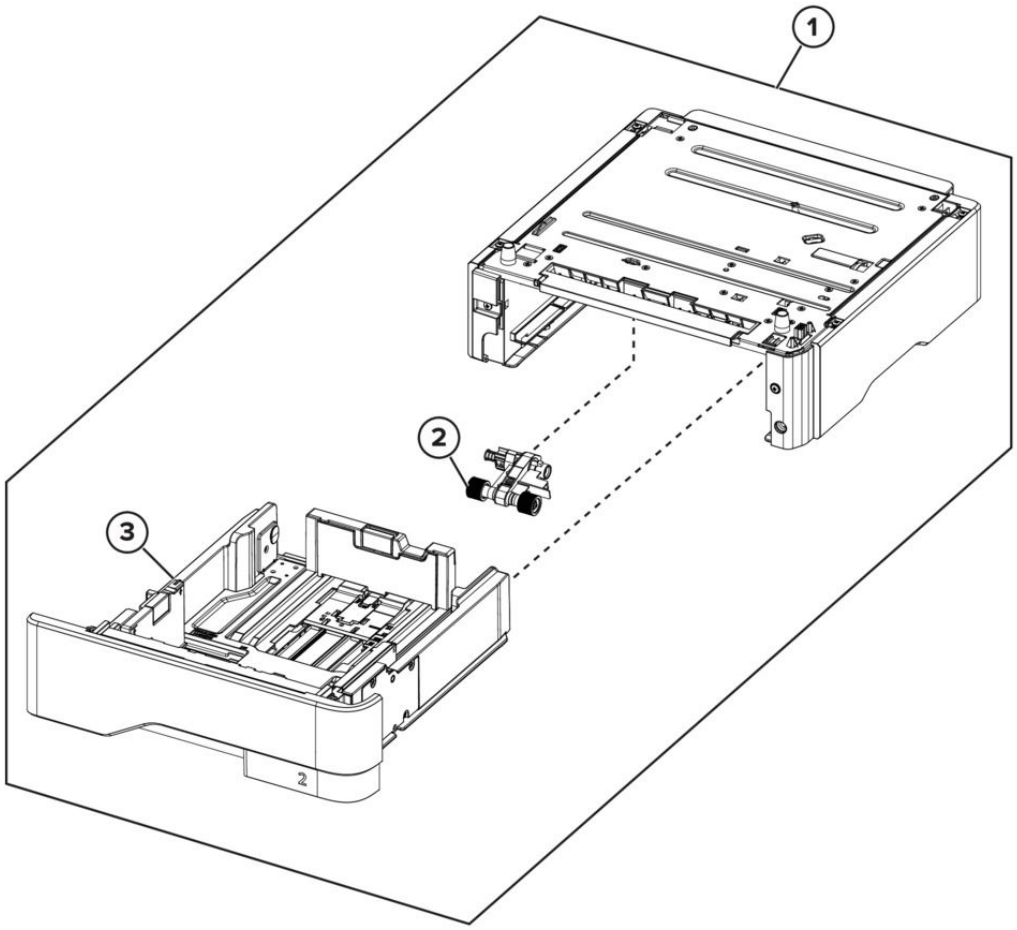
Paper path



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2575	1	1	Separator roller and pick roller **Note:** This part has a CRU sheet.	Pick separator roller removal on page 229
2	41X2585	1	1	250-sheet tray	--
3	41X2599	1	1	Fuser, 100 V	Fuser removal on page 232
3	41X2586	1	1	Fuser, 115 V	Fuser removal on page 232
3	41X2600	1	1	Fuser, 230 V	Fuser removal on page 232
4	41X2712	1	1	Duplex guide	Duplex guide removal on page 237
5	41X4195	1	1	Redrive	Redrive removal on page 234

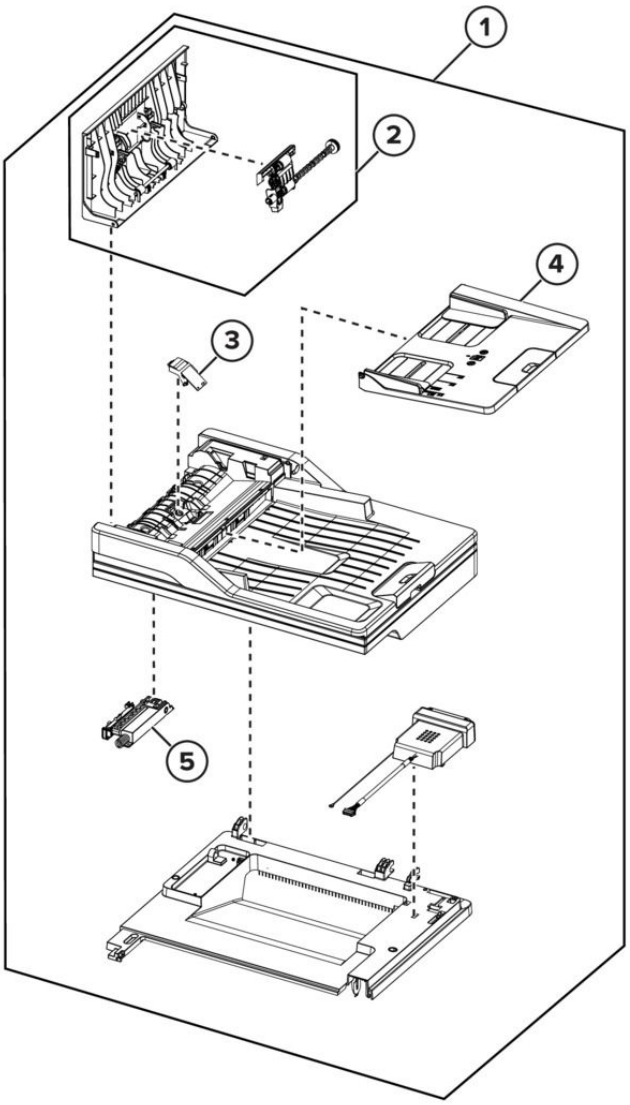
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
6	41X4196	1	1	Bin full sensor actuator	Bin full sensor actuator removal on page 235

550-sheet optional tray



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2612	1	1	550-sheet tray	--
2	41X2614	1	1	550-sheet tray pick roller	--
3	41X2613	1	1	550-sheet tray insert	--

ADF and scanner



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4215	1	1	Scanner with fax card **Note:** This part has a FRU sheet.	ADF and scanner removal on page 242
2	41X2510	1	1	ADF cover	ADF cover removal on page 241
3	41X2511	1	1	ADF separator pad **Note:** This part has a CRU sheet.	ADF separator pad removal on page 241

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
4	41X2428	1	1	ADF tray **Note:** This part has a CRU sheet.	ADF tray removal on page 241
5	41X2596	1	1	Scanner pivot arm	Scanner pivot arm removal on page 244

Miscellaneous

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X1872	1	1	MarkNet™ N8372 802.11 a/b/g/n/ac wireless print server **Note:** This part has a CRU sheet.	--
NS	40X0288	1	1	Power cord, Argentina	--
NS	40X1767	1	1	Power cord, Europe	--
NS	40X1766	1	1	Power cord, Bolivia and Peru	--
NS	40X0259	1	1	Power cord, Brazil	--
NS	40X0273	1	1	Power cord, Chile and Uruguay	--
NS	40X1792	1	1	Power cord, Korea	--
NS	40X0303	1	1	Power cord, PRC	--
NS	40X1791	1	1	Power cord, Taiwan	--
NS	40X0301	1	1	Power cord, Australia and New Zealand	--
NS	40X0271	1	1	Power cord, United Kingdom, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam, Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka, Tibet, and Hong Kong	--
NS	40X7229	1	1	Power cord, India	--
NS	41X4467	1	1	Maintenance kit, 100 V **Note:** This part has a FRU sheet.	--
NS	41X4472	1	1	Maintenance kit, 110 V **Note:** This part has a FRU sheet.	--
NS	41X4473	1	1	Maintenance kit, 220 V **Note:** This part has a FRU sheet.	--
NS	41X1007	1	1	Cleaning kit	--

Printer specifications

Selecting a location for the printer

- Leave enough room to open trays, covers, and doors and to install hardware options.
- Set up the printer near an electrical outlet.
- Make sure that airflow in the room meets the latest revision of the ASHRAE 62 standard or the CEN Technical Committee 156 standard.
- Provide a flat, sturdy, and stable surface.
- Keep the printer:
    - Clean, dry, and free of dust.
    - Away from stray staples and paper clips.
    - Away from the direct airflow of air conditioners, heaters, or ventilators.
    - Free from direct sunlight and humidity extremes.
- Observe the recommended temperatures and avoid fluctuations:

Ambient temperature	10 to 32.2°C (50 to 90°F)
Storage temperature	15.6 to 32.2°C (60 to 90°F)

- Allow the following recommended amount of space around the printer for proper ventilation:

1	Top	305 mm (12 in.)
2	Rear	100 mm (3.94 in.)
3	Right side	76.2 mm (3 in.)

4	Front	305 mm (12 in.) **Note:** The minimum space needed in front of the printer is 76 mm (3 in.).
5	Left side	110 mm (4.33 in.)

Power consumption

Product power consumption

The following table documents the power consumption characteristics of the product.

Note: 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: 580Two-sided: 330
Copy	The product is generating hard-copy output from hard-copy original documents.	590
Scan	The product is scanning hard-copy documents.	15.5
Ready	The product is waiting for a print job.	8.9
Sleep Mode	The product is in a high-level energy-saving mode.	1.2
Hibernate	The product is in a low-level energy-saving mode.	0.2
Off	The product is plugged into an electrical outlet, but the power switch is turned off.	0.2

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average. Values are subject to change. See www.lexmark.com for current values.

Sleep Mode

This product is designed with an energy-saving mode called **Sleep Mode**. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the **Sleep Mode Timeout**.

Factory default Sleep Mode Timeout for this product (in minutes):	15

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes. If the print speed is less than or equal to 30 pages per minute, then you can set the timeout only up to 60 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

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 estimate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum of each mode's energy usage.

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.

Noise emission levels

The following measurements were made in accordance with ISO 7779 and reported in conformance with ISO 9296.

> **Note:** Some modes may not apply to your product.

1-meter average sound pressure, dBA	
Printing	One-sided: 53Two-sided: 50
Scanning	58
Copying	59
Ready	14

Values are subject to change. See www.lexmark.com for current values.

Temperature information

Operating temperature and relative humidity	10 to 32.2°C (50 to 90°F) and 15 to 80% RH 15.6 to 32.2°C (60 to 90°F) and 8 to 80% RH Maximum wet-bulb temperature[2]: 22.8°C (73°F) Non-condensing environment
Printer / cartridge / imaging unit long-term storage[1]	15.6 to 32.2°C (60 to 90°F) and 8 to 80% RH Maximum wet-bulb temperature[2]: 22.8°C (73°F)
Printer / cartridge / imaging unit short-term shipping	-40 to 40°C (-40 to 104°F)

[1] Supplies shelf life is approximately 2 years. This is based on storage in a standard office environment at 22°C (72°F) and 45% humidity.

[2] Wet-bulb temperature is determined by the air temperature and the relative humidity.

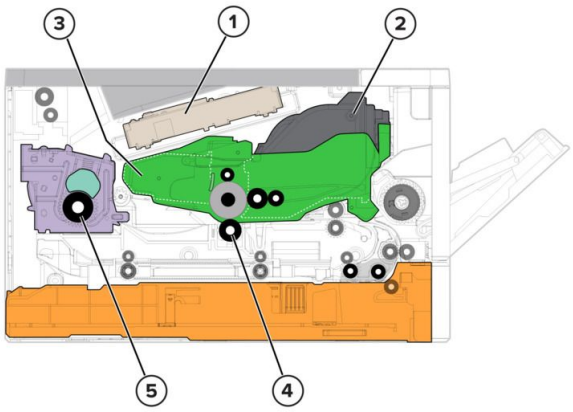
Theory of operation

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.

Print cycle operation

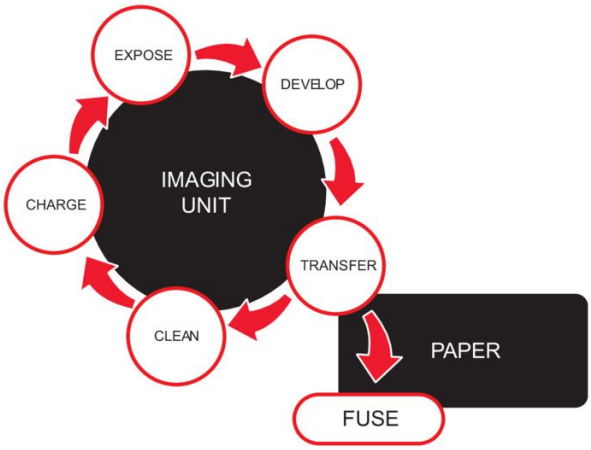
Print engine layout



1	Printhead
2	Toner cartridge
3	Imaging unit
4	Transfer roller
5	Fuser

Print cycle

Flowchart



Charge

1	Charge roller
2	Photoconductor

The charge roller applies a uniform negative electrical charge to the surface of the photoconductor. The insulative properties of the photoconductor allow it to hold a charge and its photoconductive properties allow it to discharge when exposed to light.

Expose

1	Photoconductor
2	Printhead

The printhead emits a laser that exposes the surface of the photoconductor. The laser pulses coincide with the digital latent image. The exposed areas of the photoconductor surface are discharged, resulting in a photoconductor surface potential that is less negative than the non-exposed areas.

Develop

1	Developer roller
2	Toner cartridge
3	Photoconductor

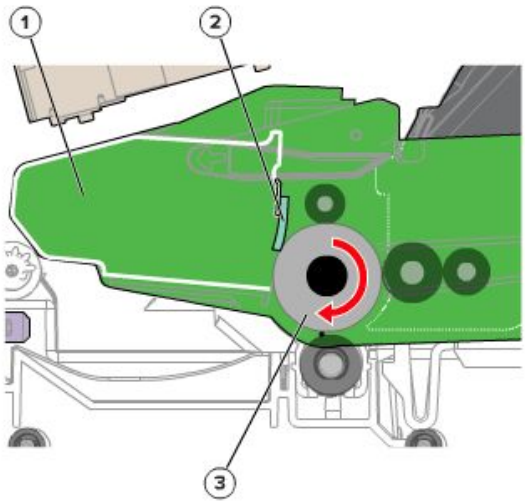
The developer roller applies the toner from the toner cartridge to the photoconductor during the development process. The difference in surface potential creates an electric field that causes the toner particles to move to the photoconductor according to the pattern of the latent image.

Transfer

1	Charge roller
2	Transfer roller
3	Paper

A positive potential relative to the toned image formed on the photoconductor is applied to the transfer roller. This allows the transfer roller to move the developed toner from the surface of the photoconductor to the paper as the paper is passed between the transfer roller and photoconductor.

Clean



1	Waste toner compartment
2	Cleaning blade
3	Photoconductor

The cleaning blade removes the residual toner from the photoconductor after the transfer. Waste toner is then stored in the waste toner compartment.
After cleaning, the process moves again to the charge process and repeats each cycle until the entire image is transferred to a side of the paper.

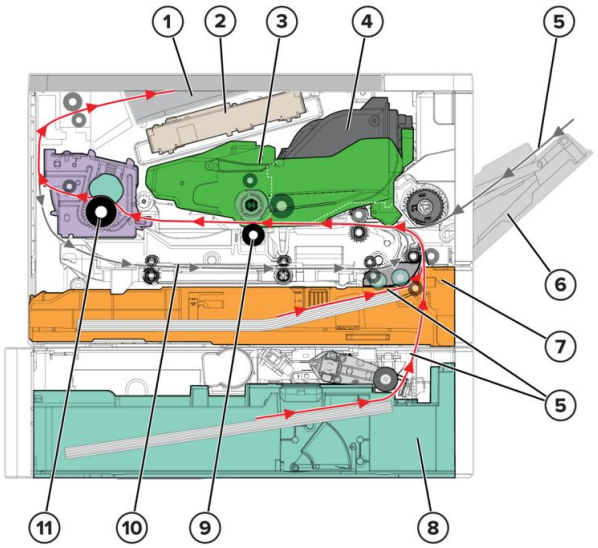
Fuse

1	Fuser
2	Paper

After the toner image is transferred to the paper, the toner particles are not yet permanently bonded to the paper. For the final step in the print process, paper is transported to the fuser where heat and pressure are applied to it. As a result, the toner particles melt and are permanently fused to the paper, completing the print process. The print cycle repeats for the succeeding pages.

Printer operation

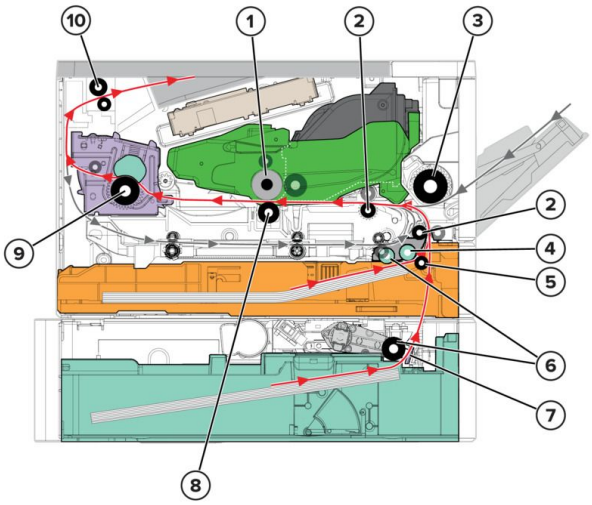
Printer sections



1	Output bin
2	Printhead
3	Imaging unit
4	Toner cartridge
5	Simplex paper path
6	MPF
7	Standard tray
8	Optional tray
9	Transfer roller
10	Duplex paper path
11	Fuser

Printer paper path

Simplex print job



1	Photoconductor
2	Transport roller
3	MPF pick roller
4	Feed roller
5	Separator roller
6	Pick roller
7	Separator pad
8	Transfer roller
9	Fuser
10	Paper exit roller

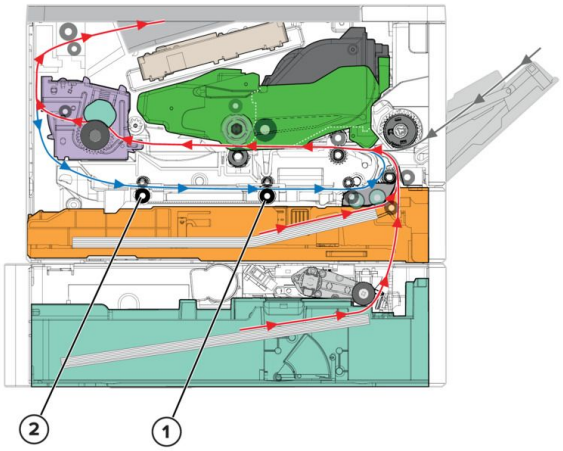
The pick roller picks and the feed roller feeds the paper to the separator roller or separator pad. The feed roller feeds the paper to the transport roller. For MPF print jobs, the MPF pick roller picks and feeds the paper to the transport roller.

The transport rollers feed the paper to the transfer roller. At the transfer roller, the photoconductor 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 paper exit roller ejects the paper to the output bin.

Duplex print job

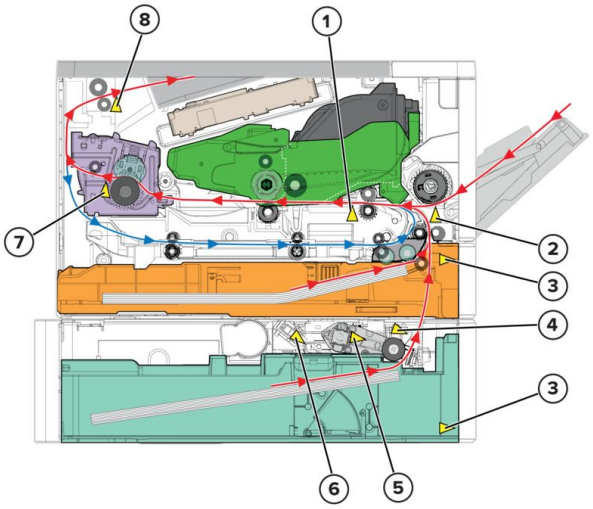


1	Duplex rear roller
2	Duplex front roller

After the first side is printed, the paper stops at the output bin while still in the paper exit roller. The paper is fed again into the duplex paper path to have the opposite side printed.

The paper travels along the duplex path until it enters again the transport roller. From there, the paper continues its path until the print job is done.

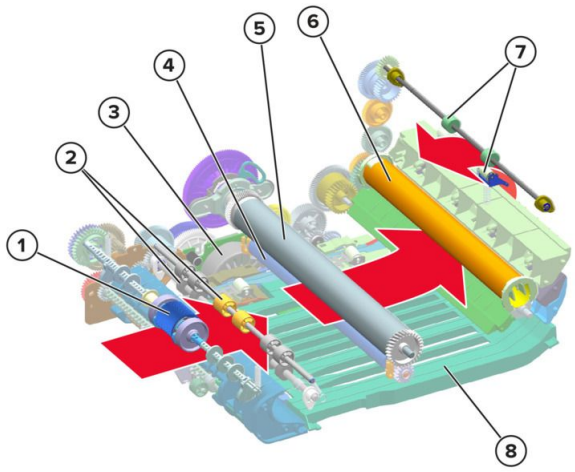
Printer paper path sensors



#	Sensor	Function
1	Sensor (input)	Detects paper that is traveling from the transport roller
2	Sensor (MPF paper present)	Detects paper presence in the MPF

#	Sensor	Function
3	Sensor (tray present)	Detects presence of standard tray or optional tray
4	Sensor (trailing edge)	Detects the trailing edge of the paper that is fed from the optional tray
5	Sensor (index)	Detects if the pick roller is at the correct height to pick paper from the optional tray
6	Sensor (paper present)	Detects paper presence in the optional tray
7	Sensor (fuser exit)	Detects paper that is exiting the fuser
8	Sensor (narrow media/ bin full)	• Detects if paper is narrow • Detects if the bin is full

Main drive



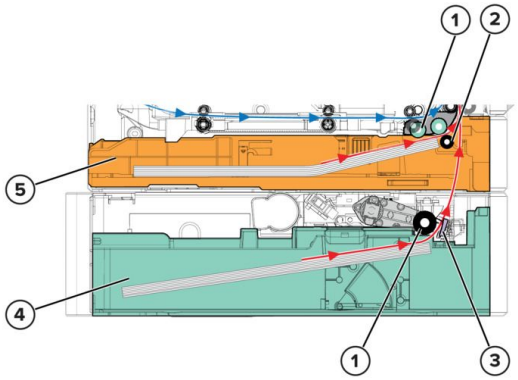
1	MPF pick roller
2	Transport roller
3	Motor (main drive)
4	Transfer roller

5	Photoconductor
6	Fuser
7	Paper exit roller
8	Duplex

The motor (main drive) provides mechanical power to the printer.
The motor transfers power through several gears to the following parts:

- MPF pick roller
- Transport roller
- Transfer roller
- Photoconductor
- Fuser
- Paper exit roller
- Duplex

Tray drive

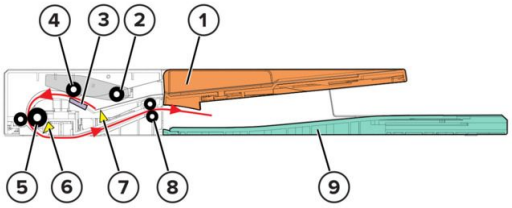


1	Pick roller
2	Separator roller
3	Separator pad
4	Optional tray
5	Standard tray

The motor (main drive) in the printer drives the standard tray. The lift plate in the tray is spring loaded and is not driven by a motor. The spring raises the lift plate until the paper is in contact with the pick roller.
The motor inside the optional tray drives the optional tray. The motor drives the lift plate to a specified height in the tray.
To prepare for feeding, the lift plate raises to push the paper against the pick roller. The lift plate stops pushing at the point where the pick roller is at the proper height for picking. After the pick roller is in position, it feeds the topmost paper. The separator roller and separator pad ensures that only one sheet is fed at a time.

ADF theory

ADF paper path



1	ADF tray
2	ADF pick roller
3	ADF separator pad
4	ADF feed roller
5	ADF scan roller
6	Sensor (ADF scan)
7	Sensor (ADF paper present)
8	ADF exit roller
9	ADF bin

Paper from the ADF tray enters the ADF through the ADF pick roller, ADF feed roller, and ADF separator pad. On the ADF tray, the sensor (ADF paper present) detects if paper is loaded.
After the paper is fed, it travels to the ADF scan roller for scanning. As the paper passes the sensor (ADF scan), the scanner under the ADF obtains the image from the sheet. If equipped, a CIS unit obtains the image from the other side of the sheet in a duplex scan job.
After the paper is scanned, the ADF exit roller ejects the paper to the ADF bin.

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