



Lexmark™

# C4342, C4352, CS730, CS735 Printers

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**5030-235, -239, -635, -695**

## Service Manual

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August 01, 2022

[www.lexmark.com](http://www.lexmark.com)

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## Product information

Product name:

Lexmark C4342, Lexmark C4352, Lexmark CS730de, Lexmark CS735de printers

Machine type:

5030

Model(s):

235, 239, 635, 695

## Edition notice

August 01, 2022

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P/N

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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) AlGaAs

Nominal output power (milliwatts): 12

Wavelength (nanometers): 770–800

## 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 :

Classe : IIIb (3b) AlGaAs

Puissance de sortie nominale (milliwatts) : 12

Longueur d'onde (nanomètres) : 770-800

## 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:

Clase: IIIb (3b) AlGaAs

Potencia nominal de salida (milivatios): 12

Longitud de onda (nanómetros): 770-800

## 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.

Klasse: IIIb (3b) AlGaAs

Nennausgangsleistung (Milliwatt): 12

Wellenlänge (Nanometer): 770–800






## Conventions

**Note:** A *note* identifies information that could help you.

**Warning:** A *warning* identifies something that could damage the product hardware or software.

**CAUTION:** A *caution* indicates a potentially hazardous situation that could injure you.

Different types of caution statements include:

-  **CAUTION—POTENTIAL INJURY:** Indicates a risk of injury.
-  **CAUTION—SHOCK HAZARD:** Indicates a risk of electrical shock.
-  **CAUTION—HOT SURFACE:** Indicates a risk of burn if touched.
-  **CAUTION—TIPPING HAZARD:** Indicates a crush hazard.
-  **CAUTION—PINCH HAZARD:** Indicates a risk of being caught between moving parts.





## Conventions


**Remarque :** Une *Remarque* fournit des informations pouvant vous être utiles.

**Avertissement :** Un *Avertissement* signale un danger susceptible d'endommager le logiciel ou le matériel.

**ATTENTION :** La mention *Attention* vous signale un risque de blessure corporelle.

Il existe différentes mises en garde :

-  **ATTENTION—RISQUE DE BLESSURE :** Signale un risque de blessure.
-  **ATTENTION—RISQUE D'ELECTROCUTION :** Signale un risque d'électrocution.
-  **ATTENTION—SURFACE CHAUDE :** Signale un risque de brûlure de contact.
-  **ATTENTION—RISQUE DE BASCULEMENT :** Signale un risque d'écrasement.

 **ATTENTION : RISQUE DE PINCEMENT :** Signale un risque de pincement entre des pièces mobiles.

## Convenciones

**Nota:** Las *notas* señalan información que puede serle útil.


**Aviso:** Las *advertencias* indican algo que podría dañar el software o el hardware del producto.


**PRECAUCIÓN:** Las *precauciones* indican una situación de posible peligro que puede implicar lesiones para el usuario.

Estos son los tipos de avisos de precaución que existen:

 **PRECAUCIÓN: POSIBLES DAÑOS PERSONALES:** Indica que existe riesgo de lesiones.

 **PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS:** Indica que existe riesgo de descarga eléctrica.

 **PRECAUCIÓN: SUPERFICIE CALIENTE:** Indica que existe riesgo de sufrir quemaduras por contacto.

 **PRECAUCIÓN: RIESGO DE CAÍDA:** Indica que existe peligro de aplastamiento.

 **PRECAUCIÓN: PELIGRO DE ATRAPAMIENTO:** Existe riesgo de atrapamiento entre las piezas en movimiento.

## Konventionen

**Hinweis:** Ein *Hinweis* enthält nützliche Informationen.


**Warnung:** Durch eine *Warnung* werden Sie auf einen Umstand hingewiesen, durch den die Produkthardware oder -software beschädigt werden könnte.

**VORSICHT:** *Vorsicht* weist auf eine mögliche gefährliche Situation hin, die ein Verletzungsrisiko birgt.


Verschiedene Vorsichtshinweise:

 **VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR** Weist auf ein Verletzungsrisiko hin.

 **VORSICHT – STROMSCHLAGGEFAHR:** Weist auf das Risiko eines elektrischen Schlags hin.

 **VORSICHT – HEISSE OBERFLÄCHE:** Weist auf das Risiko von Verbrennungen bei Berührung hin.


 **VORSICHT – KIPPGEFAHR:** Weist auf Quetschgefahr hin.


 **VORSICHT – QUETSCHGEFAHR:** Weist auf das Risiko hin, zwischen beweglichen Komponenten eingequetscht zu werden.


## 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:** 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** : 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 PERSONALES:** 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 PERSONALES:** 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 PERSONALES:** 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 PERSONALES:** 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 PERSONALES:** 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 PERSONALES:** 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:** 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.

 **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** Wenn der Drucker mehr als 20 kg wiegt, sind zum sicheren Anheben mindestens zwei Personen notwendig.



# Change history

## Change history

### August 2, 2022

- Updated the following topics:
  - Motor (duplex/MPF) removal topic in the Parts removals chapter. See [“Motor \(duplex/MPF\) removal” on page 343](#).
  - Isolation unit removal topic of the Parts removals chapter. See [“Isolation unit removal” on page 426](#).
  - Print crooked or skewed check topic in the Diagnostics and troubleshooting chapter. See [“Print crooked or skewed check” on page 48](#).
- Added the Transfer module retainer removal topic to the Parts removals chapter. See [“Transfer module retainer removal” on page 360](#).
- Changed the part number of Bin exit cover from 41X3895 to 41X3894 in the **Assembly 1: Covers 1** topic of the Parts Catalog chapter. See [“Covers” on page 453](#).
- Removed PN 41X0578 (TPS wipers) from the **Assembly 10: Electrical** topic of the Parts Catalog chapter. See [“Electrical” on page 469](#).

### July 7, 2022

- Added **Applicability of Regulation (EU) 2019/2015 and (EU) 2019/2020** to the Printer Specifications chapter.
- Changed Units/FRU of PN 41X0380 from 1 to 2 in the **Assembly 1: Covers** topic of the Parts Catalog chapter. See [“Covers” on page 453](#).
- Applied the following changes in the **Assembly 2: Control panel** topic of the Parts Catalog:
  - Changed the description of PN 41X2834 to Control panel base cover.
  - Updated the description for PN 41X2887 to Control panel cable bracket
    - Headphone and USB cable bracket
    - Control panel FFC
    - Front USB host cable.
 See [“Control panel” on page 455](#).
- Applied the following changes in the **Assembly 5: Paper feed** topic of the Parts Catalog chapter:
  - Changed Units/mach of PN 41X0372 from 2 to 1.
  - Changed Units/mach of PN 41X0956 from 1 to 2.
 See [“Paper feed” on page 461](#).
- Added PN 41X4463 (Left side cables) to the **Assembly 6: Paper path 1** topic of the Parts Catalog chapter. This part has the following components:
  - LVPS cable
  - AC line in cable
  - CMY motor cable
  - Fuser AC cable
  - BOR motor cable
  - Fuser DC cable

- K motor cable
- Exit/re-drive motor cable

See [“Paper path 1” on page 463](#).

- Changed Units/FRU of PN 41X4460 from 2 to 1 in the **Assembly 7: Paper path 2** topic of the Parts Catalog chapter. See [“Paper path 2” on page 465](#).
- Changed Units/FRU of PN 41X0379 from 1 to 2 in the **Assembly 8: Duplex** topic of the Parts Catalog chapter: See [“Duplex” on page 467](#).
- Added the following parts to the **Assembly 9: Electrical** topic of the Parts Catalog chapter:
  - PN 41X4465 (Right side cables)
    - Front door sensor cables
    - TMC card cable
    - Weather station sensor cable
    - Interlock switch cables
    - Optional tray cables).
  - PN 41X4464 (Middle section cables)
    - HVPS cable
    - Aligner sensor cables, waste toner sensor cable
    - Upper paper path sensor cables
    - Fuser buckle sensor cable
    - TPS cable
    - Paper path motor cables
    - Fuser motor cables).

See [“Electrical” on page 469](#).

- Added PN 41X1007 (Cleaning kit) to the **Assembly 12: Miscellaneous parts** topic of the Parts Catalog chapter. See [“Miscellaneous parts” on page 477](#).
- Indicated that all parts in the **Assembly 13: Maintenance kits** topic of the Parts Catalog chapter have CRU sheets. See [“Maintenance kits” on page 479](#).
- Applied the following image updates:
  - Updated the image in the **Assembly 1: Covers** topic in the Parts Catalog chapter.
  - Updated the image in the **Assembly 7: Paper path 1** topic of the Parts Catalog chapter.
  - Updated the image of the invalid engine code error in the **Critical information for controller board or engine board replacement** topic. See [“Critical information for controller board or engine board replacement” on page 294](#).
- Updated the wiring diagram to include the part numbers.

## April 26, 2022

- Product announce

# General information

## Printer model configurations

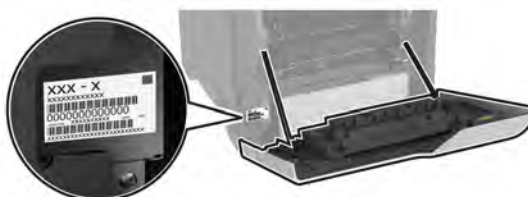
The Lexmark™ CS730, CS735 and Lexmark C4342, C4352 printers are color, network-capable laser printers. All information in this *Service Manual* pertains to all models unless explicitly noted.

The printer is available in the following models:

Model name	Configuration / description	Machine type / model number
CS730de	4.3-in. color touch screen display, duplex print, networking, ISD and hard disk support, optional tray support, wireless module support	5030-235
C4342	4.3-in. color touch screen display, duplex print, networking, ISD and hard disk support, optional tray support, wireless module support	5030-239
CS735de	4.3-in. color touch screen display, duplex print, networking, ISD and hard disk support, optional tray support, wireless module support	5030-635
C4352	4.3-in. color touch screen display, duplex print, networking, ISD and hard disk support, optional tray support, wireless module support	5030-695

## Finding the printer serial number

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



## Selecting paper

### Paper guidelines

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

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

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

## Paper characteristics

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

### Weight

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

### Curl

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

### Smoothness

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

### Moisture content

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

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

### Grain direction

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

### Fiber content

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

## Unacceptable paper

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

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

Sometimes, registration can be adjusted with a software app to print successfully on these forms.

- Coated papers (erasable bond), synthetic papers, or thermal papers.
- Rough-edged, rough or heavily textured surface papers, or curled papers.
- Recycled papers that fail EN12281:2002 (European).
- Paper weighing less than  $60 \text{ g/m}^2$  (16 lb).
- Multiple-part forms or documents.

## Storing paper

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

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

## Selecting preprinted forms and letterhead

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

## Supported paper sizes

Paper size	650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
	550-sheet tray	100-sheet multipurpose feeder		
<b>A4</b> 210 x 297 mm (8.27 x 11.7 in.)	✓	✓	✓	✓
<b>A5 landscape<sup>1</sup></b> 210 x 148 mm (8.27 x 5.83 in.)	✓	✓	✓	✓
<b>A5 portrait<sup>1</sup></b> 148 x 210 mm (5.83 x 8.27 in.)	✓	✓	✓	✓
<b>A6</b> 105 x 148 mm (4.13 x 5.83 in.)	✓	✓	✓	✓
<b>Banner</b> 215.9 x 1320.8 mm (3 x 5 in. to 8.5 x 52 in.)	X	✓	X	X
<b>Executive</b> 184.2 x 266.7 mm (7.25 x 10.5 in.)	✓	✓	✓	✓
<b>Folio</b> 215.9 x 330.2 mm (8.5 x 13 in.)	✓	✓	✓	✓
<b>Hagaki</b> 100 x 148 mm (3.94 x 5.83 in.)	X	✓	X	X
<b>JIS B5</b> 182 x 257 mm (7.17 x 10.1 in.)	✓	✓	✓	✓
<b>Legal</b> 215.9 x 355.6 mm (8.5 x 14 in.)	✓	✓	✓	✓

<sup>1</sup> Supported in both the portrait and landscape orientations. When fed in portrait orientation, A5 is treated as narrow paper. When fed in landscape orientation, it is treated as a regular width paper.

<sup>2</sup> When Universal is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the application.

<sup>3</sup> Load narrow paper in portrait orientation.

<sup>4</sup> When Other Envelope is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the application.

Paper size	650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
	550-sheet tray	100-sheet multipurpose feeder		
<b>Letter</b> 215.9 x 279.4 mm (8.5 x 11 in.)	✓	✓	✓	✓
<b>Oficio (Mexico)</b> 216 x 340 mm (8.5 x 13.4 in.)	✓	✓	✓	✓
<b>Statement</b> 139.7 x 215.9 mm (5.5 x 8.5 in.)	✓	✓	✓	✓
<b>Universal<sup>2, 3</sup></b> 76.2 x 127 mm to 215.9 x 355.6 mm (3 x 5 in. to 8.5 x 14 in.)	X	✓	X	X
<b>Universal<sup>2, 3</sup></b> 105 x 148 mm to 215.9 x 355.6 mm (4.13 x 5.83 in. to 8.5 x 14 in.)	✓	✓	✓	✓
<b>7 3/4 Envelope</b> 98.4 x 190.5 mm (3.875 x 7.5 in.)	X	✓	X	X
<b>9 Envelope</b> 98.4 x 225.4 mm (3.875 x 8.875 in.)	X	✓	X	X
<b>10 Envelope</b> 104.8 x 241.3 mm (4.125 x 9.5 in.)	✓	✓	✓	X
<b>11 Envelope</b> 114.3 x 263.525 mm (4.5 x 10.375 in.)	✓	✓	✓	X

<sup>1</sup> Supported in both the portrait and landscape orientations. When fed in portrait orientation, A5 is treated as narrow paper. When fed in landscape orientation, it is treated as a regular width paper.

<sup>2</sup> When Universal is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the application.

<sup>3</sup> Load narrow paper in portrait orientation.

<sup>4</sup> When Other Envelope is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the application.

Paper size	650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
	550-sheet tray	100-sheet multipurpose feeder		
<b>12 Envelope</b> 120.65 x 279.4 mm (4.75 x 11 in.)	✓	✓	✓	X
<b>B5 Envelope</b> 176 x 250 mm (6.93 x 9.84 in.)	✓	✓	✓	X
<b>B6 Envelope</b> 125 x 176 mm (4.92 x 6.92 in.)	✓	✓	✓	X
<b>C5 Envelope</b> 162 x 229 mm (6.38 x 9.01 in.)	✓	✓	✓	X
<b>C6 Envelope</b> 114 x 162 mm (4.48 x 6.37 in.)	✓	✓	✓	X
<b>DL Envelope</b> 110 x 220 mm (4.33 x 8.66 in.)	✓	✓	✓	X
<b>Monarch</b> 98.4 x 190.5 mm (3.9 x 7.5 in.)	X	✓	X	X
<b>Other Envelope<sup>4</sup></b> 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

<sup>1</sup> Supported in both the portrait and landscape orientations. When fed in portrait orientation, A5 is treated as narrow paper. When fed in landscape orientation, it is treated as a regular width paper.

<sup>2</sup> When Universal is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the application.

<sup>3</sup> Load narrow paper in portrait orientation.

<sup>4</sup> When Other Envelope is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the application.



## Supported paper types

Paper type	650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
	550-sheet tray	100-sheet multipurpose feeder		
Plain	✓	✓	✓	✓
Card stock	✓	✓	✓	✓
Recycled	✓	✓	✓	✓
Glossy	✓	✓	✓	✓
Labels	✓	✓	✓	✓
Vinyl Labels	✓	✓	✓	✓
Bond	✓	✓	✓	✓
Envelope	✓	✓	✓	✓
Letterhead	✓	✓	✓	✓
Preprinted	✓	✓	✓	✓
Colored Paper	✓	✓	✓	✓
Light	✓	✓	✓	✓
Heavy	✓	✓	✓	✓
Rough/Cotton	✓	✓	✓	✓
Custom Type [x]	✓	✓	✓	✓

### Notes:

- Labels, envelopes, and card stock always print at reduced speed.
- Card stock is supported in two-sided printing only up to 163 g/m<sup>2</sup> (90-lb bond). Anything heavier is supported only in one-sided printing.
- Vinyl labels are supported for occasional use only and must be tested for acceptability. Some vinyl labels may feed more reliably from the multipurpose feeder.

## Supported paper weights

650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
550-sheet tray	100-sheet multipurpose feeder		
60–218 g/m <sup>2</sup> (16–58-lb bond)	60–218 g/m <sup>2</sup> (16–58-lb bond)	60–218 g/m <sup>2</sup> (16–58-lb bond)	60–218 g/m <sup>2</sup> (16–43-lb bond)

**Notes:**







- For 60–176 g/m<sup>2</sup> (16–47-lb bond) paper, grain long fibers are recommended.
- Paper less than 75 g/m<sup>2</sup> (20-lb bond) must be printed with Paper Type set to Light Paper. Failure to do so may cause excessive curl which can lead to feeding errors, especially in more humid environments.
- Two-sided printing supports paper weight from 60–162 g/m<sup>2</sup> (16–43-lb bond) paper.
- 100% cotton content maximum weight is 90 g/m<sup>2</sup> (24-lb bond).

## Tools required for service







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

# Diagnostics and troubleshooting







## Troubleshooting precautions

-  **CAUTION—SHOCK HAZARD:** When you see this symbol on the product, there is a danger from hazardous voltage in the area of the product where you are working. Unplug the product before you begin, or use caution if the product must receive power in order to perform the task.
-  **CAUTION—SHOCK HAZARD:** This product uses an electronic power switch. It does not physically disconnect the input AC voltage. To avoid the risk of electrical shock, always remove the power cord from the printer when removal of the input AC voltage is required.
-  **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock while troubleshooting with covers removed or doors open, do not touch the exposed wires or circuits while the printer is connected to an electrical outlet.
-  **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.
-  **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.
-  **CAUTION—PINCH HAZARD:** To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.






## Précautions de dépannage

-  **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 D'ELECTROCUTION :** 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.
-  **ATTENTION—RISQUE D'ELECTROCUTION :** 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.
-  **ATTENTION—RISQUE D'ELECTROCUTION :** 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.
-  **ATTENTION—SURFACE CHAUDE :** 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.
-  **ATTENTION : RISQUE DE PINCEMENT :** 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

-  **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: PELIGRO DE DESCARGAS ELÉCTRICAS:** 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.
-  **PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS:** 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.
-  **PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS:** 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.
-  **PRECAUCIÓN: SUPERFICIE CALIENTE:** 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.
-  **PRECAUCIÓN: PELIGRO DE ATRAPAMIENTO:** 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

-  **VORSICHT – STROMSCHLAGGEFAHR:** 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.
-  **VORSICHT – STROMSCHLAGGEFAHR:** Dieses Produkt verwendet einen elektronischen Leistungsschalter. Er trennt die Eingangswchselspannung nicht physikalisch. Um das Risiko eines elektrischen Schlags zu vermeiden, ziehen Sie stets das Netzkabel vom Drucker ab, wenn eine Abtrennung der Eingangswchselspannung erforderlich ist.
-  **VORSICHT – STROMSCHLAGGEFAHR:** 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.
-  **VORSICHT – STROMSCHLAGGEFAHR:** 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.
-  **VORSICHT – HEISSE OBERFLÄCHE:** Das Innere des Druckers kann sehr heiß sein. Vermeiden Sie Verletzungen, indem Sie heiße Komponenten stets abkühlen lassen, bevor Sie ihre Oberfläche berühren.



**VORSICHT – QUETSCHGEFAHR:** 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 486](#).
- 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.

## Fixing print quality issues

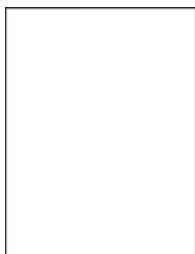
### Initial print quality check

Before troubleshooting print problems, perform the following:



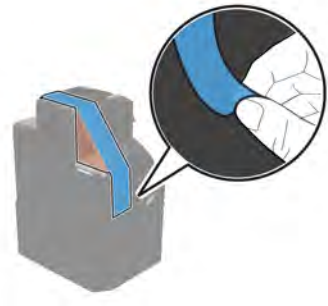

- Make sure that the printer is located in an area that follows the recommended operating environment and power requirement specifications.
- Check the status of supplies. Replace supplies that are low or empty.
- Load 20-lb (75 to 80 gsm) plain letter or A4-size paper. Make sure that the paper guides are properly set and locked. From the control panel, set the paper size and type to match the paper loaded in the tray.
- Print and keep the menu settings page. The original menu settings page will be used to restore the custom settings if necessary.

- Make sure that the Print resolution, Toner darkness, and Color saver are set to their default values.
  - Print resolution: 4800 CQ
  - Toner darkness: 4
  - Color saver: Off
- Check the toner cartridge for damage, and replace if necessary.
- Print the advanced print quality samples to see if the problem remains. Use tray 1 to test print quality problems. Look for variations in the print from what is expected. On the last page of the advanced print quality samples, check the Print quality and EP setup section for non-default settings.
- Make sure that the correct print driver is used to prevent print problems. If the wrong print driver is installed, incorrect characters could print and the copy may not fit the page correctly.

## Blank or white 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b>            Make sure that all the packing materials on the printer are removed.</p> <ul style="list-style-type: none"> <li>• Inside the printer</li> </ul>  <hr/>  <ul style="list-style-type: none"> <li>• Toner cartridges and imaging unit</li> </ul>  <hr/>  <p>Does the problem remain?</p>	<p>Go to step 2.</p>	<p>The problem is solved.</p>

Action	Yes	No
<p><b>Step 2</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Advanced Print Quality Samples &gt; Advanced Print Quality Test Pages</b></p> <p><b>b</b> Check the test page.</p> <p>Is only one color missing?</p>	Go to step 3.	Go to step 5.
<p><b>Step 3</b></p> <p>Check the toner cartridge and imaging unit contacts of the affected color.</p> <p>Are the contacts clean?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Clean the contacts.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Replace the affected imaging kit or imaging unit.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p><b>a</b> Remove the transfer module. See <a href="#">“Transfer module removal” on page 358.</a></p> <p><b>b</b> Close the front door or bypass the door interlock switch.</p> <p><b>c</b> Enter the Diagnostics menu, and then navigate to:  <b>Printer diagnostics &amp; adjustments &gt; Motor tests</b></p> <p><b>d</b> Select the motor of the affected color, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b></p> <p>Replace the affected motor (EP drive). See <a href="#">“Motor (EP drive) removal” on page 315.</a></p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b></p> <p><b>a</b> Manually turn the motor (EP drive).</p> <p><b>b</b> While turning the motor, check if the corresponding couplers that drive the affected toner cartridge or imaging unit move.</p> <p>Do the couplers move?</p>	Go to step 10.	Go to step 9.



Action	Yes	No
<p><b>Step 9</b> Replace the EP drive gearbox. See <a href="#">“EP drive gearbox removal” on page 317.</a></p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b> Check if the pins on the HVPS freely move.</p> <p>Do the pins freely move?</p>	Go to step 12.	Go to step 11.
<p><b>Step 11</b> Replace the HVPS. See <a href="#">“HVPS removal” on page 345.</a></p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p><b>Step 12</b> Check the continuity of the cable on the JWTH_SC1 connector on the engine board.</p> <p>Does the cable have continuity?</p>	Go to step 14.	Go to step 13.
<p><b>Step 13</b> Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p><b>Step 14</b> Make sure that the printhead cables on the engine board are properly connected.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p><b>Step 15</b> Make sure that the JTH1 and JPWR1 cables are properly connected to the controller board and engine board.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p><b>Step 16</b> Replace the printhead. See <a href="#">“Printhead removal” on page 403.</a></p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p><b>Step 17</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Dark 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Print &gt; Quality &gt; Toner Darkness</b>.</p> <p><b>b</b> Check the toner darkness setting value.</p> <p><b>Note:</b> The default value for toner darkness is 4.</p> <p>Is the darkness setting too high?</p>	Go to step 2.	Go to step 3.
<p><b>Step 2</b></p> <p>Adjust the darkness setting to the proper value.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer Setup &gt; EP Setup &gt; Toner Patch Sensor Adjust</b></p> <p><b>b</b> Make sure that Calibration reference values are set to default.</p> <p><b>Note:</b> Default value for Black and CMY settings is 0.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Advanced Print Quality Samples &gt; Advanced Print Quality Test Pages</b></p> <p><b>b</b> Check the test page.</p> <p>Is only color affected?</p>	Go to step 5.	Go to step 8.

Action	Yes	No
<p><b>Step 5</b></p> <p>If the affected color is black, then do the following:</p> <ul style="list-style-type: none"> <li><b>a</b> Remove the black imaging unit from the imaging kit.</li> <li><b>b</b> Reinstall the black imaging unit.</li> </ul> <p>If the affected color is C, M, or Y, then do the following:</p> <ul style="list-style-type: none"> <li><b>a</b> Remove the affected color developer unit from the imaging kit.</li> <li><b>b</b> Reinstall the affected color developer unit.</li> </ul> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p>Replace the affected black imaging unit or the whole color imaging kit.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <ul style="list-style-type: none"> <li><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Color alignment adjust</b></li> <li><b>b</b> On the AA adjustment row, touch <b>Start</b>.</li> <li><b>c</b> From the home screen, touch <b>Settings &gt; Print &gt; Quality &gt; Advanced Imaging &gt; Color Adjust</b>.</li> </ul> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b></p> <p>Perform the toner patch sensing service check. See <a href="#">“Toner patch sensing service check” on page 261</a>.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b></p> <p>Reseat the HVPS cable on the engine board.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b></p> <p>Replace the HVPS. See <a href="#">“HVPS removal” on page 345</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Ghost 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Paper &gt; Tray Configuration &gt; Default Source</b>.</p> <p><b>b</b> Select the paper source.</p> <p><b>c</b> Check if the paper type and size settings match the paper type and size set on the tray.</p> <p>Do the settings match?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size and type, or adjust the size settings in the tray to match the paper size.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p><b>Note:</b> Ghost images may occur when printing to a full-width media immediately after printing long jobs on narrow media.</p> <p>Did the issue occur right after printing a long job on narrow media?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b></p> <p>Wait longer after printing long narrow media jobs before printing on full-width media. If necessary, contact the next level of support for the engine setting to make the printer wait longer automatically.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> From the home screen, touch <b>Status/Supplies</b>.</p> <p><b>b</b> Check the status of the black and color supplies.</p> <p>Are any of the supplies low?</p>	Go to step 6.	Go to step 7.

Action	Yes	No
<p><b>Step 6</b> Replace the affected supply.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Measure the distance from one point of the original image to the same point on the ghost image.</p> <p><b>Note:</b> Defects that repeat after 43.6 mm are most likely caused by the developer roller.</p> <p>Is the distance 43.6 mm?</p>	Go to step 8.	Go to step 9.
<p><b>Step 8</b> Replace the affected imaging kit or imaging unit.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> Measure the distance from one point of the original image to the same point on the ghost image.</p> <p><b>Note:</b> Defects that repeat after 94.5 mm are most likely caused by the photoconductor drum.</p> <p>Is the distance 94.5 mm?</p>	Go to step 10.	Go to step 11.
<p><b>Step 10</b> Replace the affected imaging kit or imaging unit.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Reports &gt; Menu Settings Page</b>.</p> <p><b>Note:</b> Perform this step twice to clear any debris.</p> <p><b>b</b> Check the fuser area for toner contamination.</p> <p>Is there toner contamination?</p>	Go to step 12.	Contact the next level of support.
<p><b>Step 12</b> Replace the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Gray or colored background 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Status/Supplies</b>.</p> <p><b>b</b> Check the status of the toner cartridges or imaging unit if any were recently replaced.</p> <p>Were any of the toner cartridges or imaging unit recently replaced?</p>	Go to step 2.	Go to step 3.
<p><b>Step 2</b></p> <p>Reinstall the toner cartridges or imaging unit.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check if black is the only color producing the background of the print job.</p> <p>Is black the only color producing the background?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b></p> <p>Replace the black imaging unit.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Replace the imaging kit. See <a href="#">“Imaging kit removal” on page 332</a>.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p>Reseat the HVPS cable on the HVPS and on the JHVPS1 connector on the engine board.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<b>Step 7</b> Check the contact pins connecting the HVPS to the transfer module for damage.  Are the contact pins damaged?	Go to step 8.	Go to step 9.
<b>Step 8</b> Replace the HVPS. See <a href="#">“HVPS removal” on page 345.</a>  Does the problem remain?	Go to step 9.	The problem is solved.
<b>Step 9</b> Make sure that the printhead cables on the engine board are properly connected.  Does the problem remain?	Go to step 10.	The problem is solved.
<b>Step 10</b> Replace the printhead. See <a href="#">“Printhead removal” on page 403.</a>  Does the problem remain?	Contact the next level of support.	The problem is solved.

## Horizontal colored lines or banding 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 [“Initial print quality check” on page 29.](#)

Actions	Yes	No
<b>Step 1</b> Check if the lines on the print quality test page are white.  Are the lines white?	Go to step 2.	Go to step 3.
<b>Step 2</b> Perform the repeating defects check. See <a href="#">“Repeating defects check” on page 51.</a>  Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
<p><b>Step 3</b> Check if the lines appear only on the leading or trailing edge.</p> <p>Does the issue only occur on the leading or trailing edge?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b> Perform the Marks on leading or trailing edges check. See <a href="#">“Marks on leading or trailing edges check” on page 45.</a></p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Advanced Print Quality Samples &gt; Advanced Print Quality Test Pages</b> <b>b</b> Check if the lines appear on the same area of the page.</p> <p>Do the lines appear on the same area?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b> Perform the repeating defects check. See <a href="#">“Repeating defects check” on page 51.</a></p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Check the pages right after the defective page.</p> <p>Do the lines appear after two consecutive normal pages were printed?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Check the transfer module for contamination.</p> <p>Is the transfer module free of contamination?</p>	Contact the next level of support.	Go to step 9.
<p><b>Step 9</b> Clean or replace the transfer module. See <a href="#">“Transfer module removal” on page 358.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

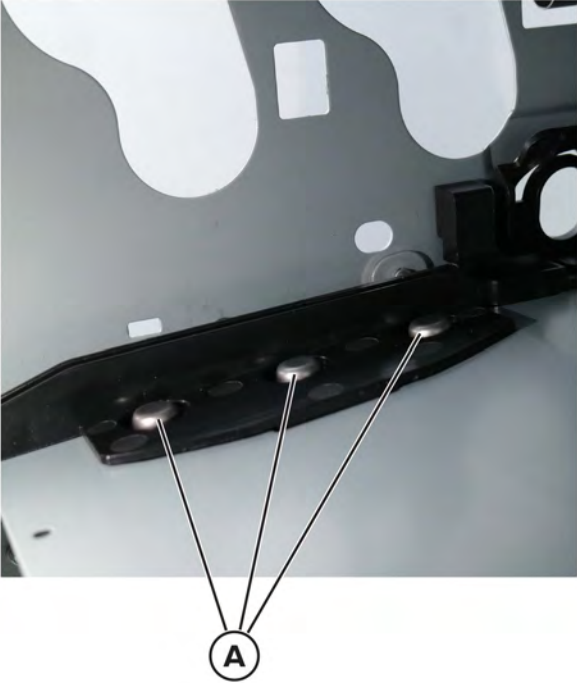



## Light print check



**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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Print &gt; Quality</b>.</p> <p><b>b</b> Check the toner darkness setting value.</p> <p><b>Note:</b> The default toner darkness value is 4.</p> <p>Is the darkness setting too low?</p>	Go to step 2.	Go to step 3.
<p><b>Step 2</b></p> <p>Adjust the darkness setting to the proper value.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p><b>a</b> From the home screen, touch <b>Device &gt; Eco-mode &gt; Print</b>.</p> <p><b>b</b> Make sure that the Color saver setting is set to Off.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Make sure that there is no paper wrapping around the second transfer roller</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

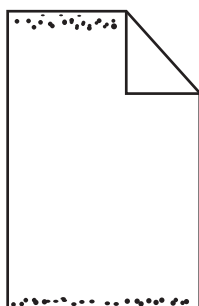
Action	Yes	No
<p><b>Step 5</b></p> <p><b>a</b> Remove the transfer module. See <a href="#">“Transfer module removal” on page 358.</a></p> <p><b>b</b> Check if the three contacts (A) are visible and if they freely move.</p>  <p>Are the contacts visible and do they freely move?</p>	Go to step 7.	Go to step 6.

Action	Yes	No
<p><b>Step 6</b> Check if the index pin behind the transfer contact plate is visible and properly aligned.</p>  <p>Is the index pin visible and properly aligned?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b>  <b>a</b> Reseat the HVPS.  <b>b</b> Make sure that the contacts are visible and can freely move.  <b>c</b> Make sure that the index pin is properly aligned.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b>  <b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Advanced Print Quality Samples &gt; Advanced Print Quality Test Pages</b>  <b>b</b> Check the test page.</p> <p>Is only one color affected?</p>	Go to step 9.	Go to step 17.
<p><b>Step 9</b> Check the toner cartridge of the affected color for proper installation.</p> <ul style="list-style-type: none"> <li>• Make sure that there are no packing materials still on it.</li> <li>• Check for misalignment.</li> </ul> <p>Is the toner cartridge properly installed?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b> Reinstall the toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

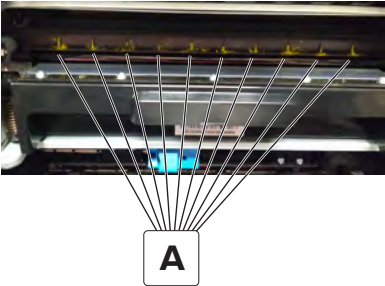
Action	Yes	No
<p><b>Step 11</b> Check the cartridge toner level.</p> <p>Is the cartridge empty?</p>	Go to step 12.	Go to step 13.
<p><b>Step 12</b> Replace the toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p><b>Step 13</b> Remove, and then reinstall the imaging kit or imaging unit of the affected color.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p><b>Step 14</b></p> <p><b>a</b> Remove the transfer module. See <a href="#">“Transfer module removal” on page 358.</a></p> <p><b>b</b> Close the front door or bypass the door interlock switch.</p> <p><b>c</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests</b></p> <p><b>d</b> Select the motor of the affected color, and then touch <b>Start.</b></p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p><b>Step 15</b> Reseat the motor cable.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p><b>Step 16</b> Replace the affected motor (EP drive). See <a href="#">“Motor (EP drive) removal” on page 315.</a></p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p><b>Step 17</b> Remove the imaging kit, and then check the printhead lenses for dust or debris. See <a href="#">“Imaging kit removal” on page 332.</a></p> <p>Are the lenses free of dust or debris?</p>	Go to step 19.	Go to step 18.
<p><b>Step 18</b> Clean the printhead lenses.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.

Action	Yes	No
<p><b>Step 19</b></p> <p>Check the HVPS cable on the HVPS and on the JHVPS1 connector on the engine board for proper connection.</p> <p>Is the cable properly connected at both ends?</p>	Go to step 21.	Go to step 20.
<p><b>Step 20</b></p> <p>Reconnect the cable.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p><b>Step 21</b></p> <p>Replace the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p><b>Step 22</b></p> <p>Replace the HVPS. See <a href="#">“HVPS removal” on page 345</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Marks on leading or trailing edges 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>a</b> Use a dry and lint-free cloth to clean the ribs (A) on the transfer module cleaning assembly housing.</p> <p><b>Note:</b> Do not remove the transfer belt to clean the housing.</p>  <p><b>b</b> Use a toner vacuum to remove the remaining toner.</p> <p><b>c</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Mottled print and dots 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper type and size settings match the paper type and size set on the tray.</p> <p>Do the settings match?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size and type, or adjust the size settings in the tray to match the paper size.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p><b>Step 3</b> Check the paper for texture or rough finish.</p> <p>Is the paper textured or rough?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b> Replace the textured or rough paper with plain paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the printer for toner leaks.</p> <p>Are there toner leaks?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b></p> <ul style="list-style-type: none"> <li>a Clean the printer thoroughly using a toner vacuum.</li> <li>b Perform a print job to clear the remaining toner from the imaging components.</li> </ul> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Replace the affected imaging kit or imaging unit.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Check the transfer module for improper installation and damage.</p> <p>Is the transfer module properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p><b>Step 9</b> Reinstall or replace the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b></p> <ul style="list-style-type: none"> <li>a Remove the fuser. See <a href="#">“Fuser removal” on page 363</a>.</li> <li>b Check the fuser for debris and damage.</li> </ul> <p>Is the fuser free of debris and damage?</p>	Contact the next level of support.	Go to step 11.
<p><b>Step 11</b> Clean or replace the fuser.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

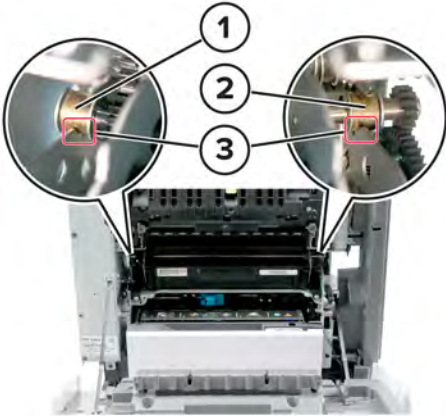
## Print crooked or skewed check

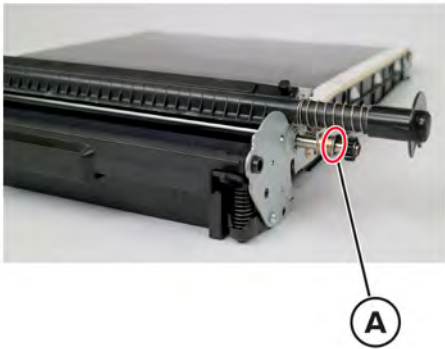
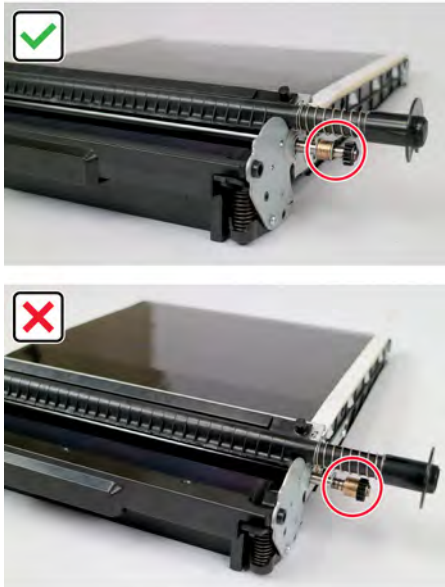


**Note:** Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b> Make sure that the paper is properly loaded and free of damage.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>. <b>b</b> Check if the paper type and size settings match the paper type and size set on the tray.</p> <p>Do the settings match?</p>	Go to step 4.	Go to step 3.
<p><b>Step 3</b> Change the paper size and type, or adjust the size settings in the tray to match the paper size.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.



Action	Yes	No								
<p><b>Step 4</b></p> <p><b>a</b> Check if the transfer module bearings are properly seated on the frame. Make sure that the bearings sit on top of their slots.</p>  <table border="1" data-bbox="233 789 480 978"> <thead> <tr> <th>#</th> <th>Part</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Left bearing</td> </tr> <tr> <td>2</td> <td>Right bearing</td> </tr> <tr> <td>3</td> <td>Frame</td> </tr> </tbody> </table> <p><b>b</b> If necessary, reinstall the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p>Does the problem remain?</p>	#	Part	1	Left bearing	2	Right bearing	3	Frame	<p>Go to step 5.</p>	<p>The problem is solved.</p>
#	Part									
1	Left bearing									
2	Right bearing									
3	Frame									

Action	Yes	No
<p><b>Step 5</b></p> <p><b>a</b> Make sure that the transfer module E-clip (A) is not missing.</p>  <p><b>b</b> Make sure that the transfer module bearing (B) is properly seated.</p>  <p>Does the problem remain?</p>	<p>Go to step 6.</p>	<p>The problem is solved.</p>
<p><b>Step 6</b></p> <p>Check the isolation unit for dust or debris.</p> <p>Is the isolation unit free of dust or debris?</p>	<p>Go to step 8.</p>	<p>Go to step 7.</p>
<p><b>Step 7</b></p> <p>Remove the dust or debris.</p> <p>Does the problem remain?</p>	<p>Go to step 8.</p>	<p>The problem is solved.</p>

Action	Yes	No
<p><b>Step 8</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Deskew</b></p> <p><b>b</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p><b>Step 9</b></p> <p>Check the cable on the JMTR1 connector on the controller board for proper connection and damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b></p> <p>Replace the motor (deskew). See <a href="#">“Motor (deskew) removal” on page 320</a>.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p>Check the condition of the aligner rollers.</p> <p>Are the rollers free from excess wear, contamination, and damage?</p>	Contact the next level of support.	Go to step 12.
<p><b>Step 12</b></p> <p>Clean or replace the rollers. See <a href="#">“Aligner rollers removal” on page 377</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Repeating defects check

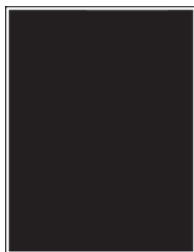


**Note:** Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b></p> <p>Make sure that all the packing materials on the printer are removed.</p> <p>Check the printer rollers for dust or debris.</p> <p>Have all the packing materials on the printer been removed, and are the rollers free of dust or debris?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Remove the packing materials, dust, or debris.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Measure the distance between the repeating marks.</p> <p><b>Note:</b> A distance of 43.6 mm is likely caused by the developer roller. A distance of 45 mm is likely caused by the toner add roller.</p> <p>Is the distance between the marks either 43.6 mm or 45 mm?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b></p> <p>Replace the affected imaging kit or imaging unit.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p><b>Step 5</b></p> <p>Measure the distance between the repeating marks.</p> <p><b>Note:</b> A distance of 29.9 mm is likely caused by the charge roller. A distance of 23.2 mm is likely caused by the charge roller cleaner. A distance of 94.5 mm is likely caused by the photoconductor drum.</p> <p>Is the distance between the marks either 29.9 mm, 23.2 mm, or 94.5 mm?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b></p> <p>Replace the affected imaging kit or imaging unit.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p><b>Step 7</b></p> <p>Measure the distance between the repeating marks.</p> <p><b>Note:</b> A distance of 95 mm is likely caused by the fuser belt.</p> <p>Is the distance between the marks 95 mm or 110 mm?</p>	Go to step 8.	Go to step 9.

Action	Yes	No
<p><b>Step 8</b> Replace the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p><b>Step 9</b> Measure the distance between the repeating marks.</p> <p><b>Note:</b> Distances of 37.7 mm, 54.6 mm, and 78.5 mm points to the transfer module as the likely cause.</p> <p>Is the distance between the marks either 37.7 mm, 54.6 mm, or 78.5 mm?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b> Check the marks that appear on a multi-page print job.</p> <p>Do the marks appear on every other page?</p>	Go to step 11.	Contact the next level of support.
<p><b>Step 11</b> Replace the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Solid color or black image 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Place a narrow strip of paper over the gap between the developer rollers.</p> <p><b>Note:</b> Make sure that the paper stays in place when reinstalling the imaging unit to prevent the laser from discharging the photoconductor.</p> <p><b>b</b> From the home screen, touch <b>Settings &gt; Troubleshooting &gt; Print Quality Pages</b>.</p> <p><b>c</b> Check the test page.</p> <p>Is there vertical banding?</p>	Go to step 2.	Go to step 6.
<p><b>Step 2</b></p> <p><b>a</b> Make sure that the cables are properly connected on the printhead and engine board.</p> <p><b>b</b> Make sure that the cables from the engine board are properly connected to the controller board.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Replace the printhead. See <a href="#">“Printhead removal” on page 403</a>.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Replace the controller board. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p><b>Step 6</b></p> <p>Replace the affected imaging unit or imaging kit.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Turn off the printer.</p> <p>Check the cable connection at both ends.</p> <p>Check the continuity of the HVPS cable.</p> <p>Is the cable connected at both ends, and has continuity?</p>	Go to step 9.	Go to step 8.



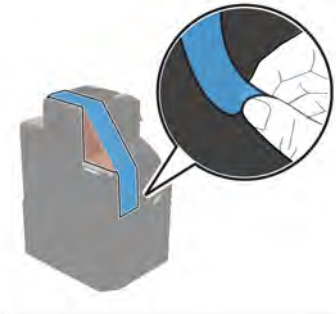

Action	Yes	No
<b>Step 8</b> Replace the HVPS cable.  Does the problem remain?	Go to step 9.	The problem is solved.
<b>Step 9</b> Replace the HVPS. See <a href="#">“HVPS removal” on page 345</a> .  Does the problem remain?	Contact the next level of support.	The problem is solved.

## Text or images cut 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 [“Initial print quality check” on page 29](#).

Actions	Yes	No
<b>Step 1</b> <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b> . <b>b</b> Check if the paper type and size settings match the paper type and size set on the tray.  Do the settings match?	Go to step 3.	Go to step 2.
<b>Step 2</b> Change the paper size and type, or adjust the size settings in the tray to match the paper size.  Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
<p><b>Step 3</b> Make sure that all the packing materials on the printer are removed.</p> <ul style="list-style-type: none"> <li>• Inside the printer</li> </ul>   <ul style="list-style-type: none"> <li>• Toner cartridges and imaging unit</li> </ul>   <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.



Actions	Yes	No
<p><b>Step 4</b> Make sure that the black imaging unit and CMY imaging kit have not reached end-of-life.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Toner easily 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 [“Initial print quality check” on page 29](#).

Actions	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper type and size settings match the paper type and size set on the tray.</p> <p>Do the settings match?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size and type, or adjust the size settings in the tray to match the paper size.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper for texture or rough finish.</p> <p>Is the paper textured or rough?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b></p> <p>Replace the textured or rough paper with plain paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Actions	Yes	No
<p><b>Step 5</b> Remove, and then reinstall the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b> Replace the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Maintenance &gt; Configuration Menu &gt; Reports &gt; Event Log</b>.</p> <p><b>b</b> Check the log history for fuser error codes.</p> <p>Are there fuser error codes on the event log?</p>	Go to step 8.	Go to step 9.
<p><b>Step 8</b> Perform the service check for the error code found.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> Replace the LVPS. See <a href="#">“LVPS removal” on page 310</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Uneven print density 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper type and size settings match the paper type and size set on the tray.</p> <p>Do the settings match?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size and type, or adjust the size settings in the tray to match the paper size.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper for texture or rough finish.</p> <p>Is the paper textured or rough?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b></p> <p>Replace the textured or rough paper with plain paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Remove the imaging kit. See <a href="#">“Imaging kit removal” on page 332</a>.</p> <p><b>b</b> Inspect and clean the printhead lenses.</p> <p><b>c</b> Print a test page.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p><b>a</b> Remove the CMY developer units from the imaging kit, and then install them back to the imaging kit.</p> <p><b>b</b> Remove the black imaging unit from the imaging kit, and then install it back to the imaging kit.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Replace the affected imaging unit or imaging kit.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Vertical colored lines or banding 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Advanced Print Quality Samples &gt; Advanced Print Quality Test Pages</b></p> <p><b>b</b> Check the test page.</p> <p>Is only one color producing the defect?</p>	Go to step 2.	Go to step 3.
<p><b>Step 2</b></p> <p>Replace the affected imaging kit or imaging unit.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Replace the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Replace the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Vertical white lines 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Remove the imaging kit. See <a href="#">“Imaging kit removal” on page 332</a>.</p> <p><b>b</b> Inspect and clean the printhead lenses.</p> <p><b>c</b> Print a test page.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Advanced Print Quality Samples &gt; Advanced Print Quality Test Pages</b></p> <p><b>b</b> Check the test page.</p> <p>Did the print defect appear on all the pages?</p>	Go to step 3.	Go to step 3.
<p><b>Step 3</b></p> <p>Replace the affected imaging kit or imaging unit.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Check the transfer module for improper installation and damage.</p> <p>Is the transfer module properly installed and free of damage?</p>	Go to step 5.	Go to step 5.
<p><b>Step 5</b></p> <p>Reinstall or replace the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p>Replace the printhead. See <a href="#">“Printhead removal” on page 403</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Blurred print or misaligned color check



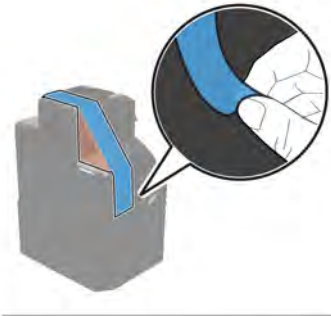

**Note:** Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See [“Initial print quality check” on page 29](#).

Actions	Yes	No
<p><b>Step 1</b> Check the print quality test page if it has one color that is blurred or misaligned.</p> <p>Is only one color blurred or misaligned?</p>	Go to step 2.	Go to step 3.
<p><b>Step 2</b> Perform the color alignment adjustment on the misaligned color. See <a href="#">“Color alignment adjust” on page 279</a>.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Perform color alignment adjustment on all colors. See <a href="#">“Color alignment adjust” on page 279</a>.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Perform the Auto alignment service check. See <a href="#">“Auto alignment service check” on page 263</a>.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Enter the Diagnostics menu, and then navigate to: <b>Advanced Print Quality Samples &gt; Advanced Print Quality Test Pages</b></p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b> Remove the imaging kit, and then clean the printhead lenses. See <a href="#">“Cleaning the printhead lenses” on page 449</a>.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Replace the motor (K/transfer belt). See <a href="#">“Motor (EP drive) removal” on page 315</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Actions	Yes	No
<p><b>Step 8</b>            Replace the printhead. See <a href="#">“Printhead removal” on page 403.</a>             Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b>            Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a>             Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Gapping or half color 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b> Make sure that all the packing materials on the printer are removed.</p> <ul style="list-style-type: none"> <li>• Inside the printer</li> </ul>   <ul style="list-style-type: none"> <li>• Toner cartridges and imaging unit</li> </ul>   <p>Does the problem remain?</p>	<p>Go to step 2.</p>	<p>The problem is solved.</p>



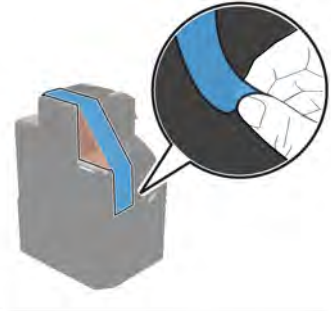



Action	Yes	No
<p><b>Step 2</b></p> <p><b>a</b> Reinstall the toner cartridges and imaging unit.</p> <p><b>b</b> Reinstall the imaging kit.</p> <p><b>c</b> Enter the Diagnostics menu, and then navigate to:  <b>Advanced Print Quality Samples &gt; Advanced Print Quality Test Pages</b></p> <p><b>d</b> Check the test page.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the developer hold down arms and their springs for damage.</p> <p>Are the developer hold down arms damaged?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b></p> <p>Replace the affected developer hold down arm. See <a href="#">“Developer hold down arm removal” on page 415</a>.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Replace the affected imaging kit or imaging unit.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Image void process direction 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b> Load paper from a fresh package.</p> <p><b>Note:</b> Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Make sure that all the packing materials on the printer are removed.</p> <ul style="list-style-type: none"> <li>• Inside the printer</li> </ul>   <ul style="list-style-type: none"> <li>• Toner cartridges and imaging unit</li> </ul>   <p>Diagnostics and troubleshooting</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p><b>Step 3</b></p> <p><b>a</b> Reseat the imaging kit.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Check if the problem appears only on one side of the page.</p> <p>Does the problem appear only on one side?</p>	Go to step 5.	Go to step 8.
<p><b>Step 5</b></p> <p>Check the developer hold down arms for damage or loose springs.</p> <p>Are the developer hold down arms free of damage and loose springs?</p>	Go to step 7.	The problem is solved.
<p><b>Step 6</b></p> <p>Replace the developer hold down arms. See <a href="#">“Developer hold down arm removal” on page 415.</a></p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Check for missing colors.</p> <p>Is only one color missing?</p>	Go to step 9.	Go to step 8.
<p><b>Step 8</b></p> <p>Remove the imaging kit, and then clean the printhead lenses. See <a href="#">“Cleaning the printhead lenses” on page 449.</a></p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b></p> <ul style="list-style-type: none"> <li>• If the affected color is cyan, magenta, or yellow, then replace the developer unit of the affected color.</li> <li>• If the affected color is black, then replace the imaging unit.</li> </ul> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b></p> <p>Replace the printhead. See <a href="#">“Printhead removal” on page 403.</a></p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p>Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Image void scan direction check



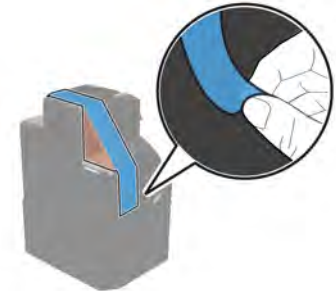



**Note:** Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See [“Initial print quality check” on page 29](#).

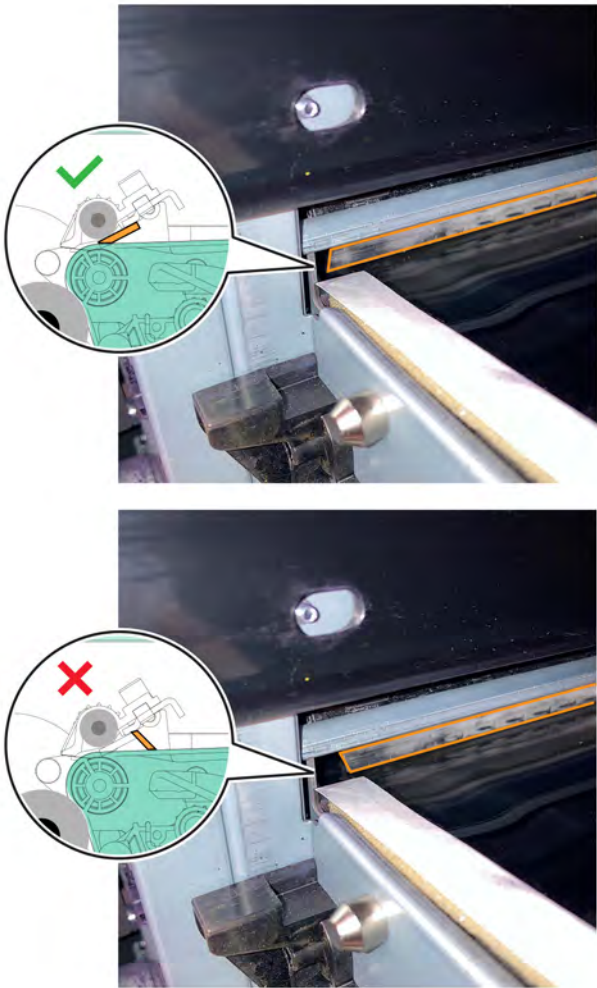
Action	Yes	No
<p><b>Step 1</b> Load paper from a fresh package.</p> <p><b>Note:</b> Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Reseat the imaging kit, and then perform a print job.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check if the problem affects only one color.</p> <p>Does the problem affect only one color?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b> Replace the affected imaging kit or imaging unit.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Measure the interval between every defect.</p> <p>Does the defect occur in 55-mm intervals?</p>	Contact the next level of support.	Go to step 6.
<p><b>Step 6</b> Replace the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p>Does the problem remain?</p>	Go to step 7.	Go to step 5.

Action	Yes	No
<p><b>Step 7</b> Reseat the HVPS cable on the controller board.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Replace the HVPS. See <a href="#">“HVPS removal” on page 345.</a></p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a></p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b> Replace the printhead. See <a href="#">“Printhead removal” on page 403.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Missing color check

Action	Yes	No
<p><b>Step 1</b> Make sure that all the packing materials on the printer are removed.</p> <ul style="list-style-type: none"> <li>• Inside the printer</li> </ul>  <hr/>  <ul style="list-style-type: none"> <li>• Toner cartridges and imaging unit</li> </ul>  <hr/>  <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p><b>Step 2</b> Make sure that all supplies are properly installed.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Reinstall the imaging unit and imaging kit.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Reseat the printhead cable on the engine board.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the contacts on the imaging unit or imaging kit of the missing color for dust or debris.</p> <p>Are the contacts free of dust or debris?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b> Clean the contacts.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Check if the missing color is yellow.</p> <p>Is the affected color yellow?</p>	Go to step 8.	Go to step 9.

Action	Yes	No
<p><b>Step 8</b> Make sure that the cleaning blade on the transfer belt is facing the proper direction.</p> <p>If the blade has flipped (and is now facing the wrong direction), replace the transfer module.</p> <p><b>Note:</b> Look at the corner edge of the blade to determine the direction.</p>  <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> Replace the affected imaging kit or imaging unit.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.



Action	Yes	No
<p><b>Step 10</b></p> <p>Check if the spring-loaded pins in the HVPS freely move in and out with an equal amount of spring force.</p> <p>Do the pins freely move?</p>	Go to step 12.	Go to step 11.
<p><b>Step 11</b></p> <p>Replace the HVPS. See <a href="#">“HVPS removal” on page 345.</a></p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p><b>Step 12</b></p> <p><b>a</b> Remove the transfer module. See <a href="#">“Transfer module removal” on page 358.</a></p> <p><b>b</b> Close the front door or bypass the door interlock switch.</p> <p><b>c</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests</b></p> <p><b>d</b> Select the motor of the affected color, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 14.	Go to step 13.
<p><b>Step 13</b></p> <p>Replace the affected motor (EP drive). See <a href="#">“Motor (EP drive) removal” on page 315.</a></p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p><b>Step 14</b></p> <p>While manually turning the motors, check if the corresponding couplers move.</p> <p>Do the couplers move?</p>	Go to step 16.	Go to step 15.
<p><b>Step 15</b></p> <p>Replace the EP drive gearbox. See <a href="#">“EP drive gearbox removal” on page 317.</a></p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p><b>Step 16</b></p> <p><b>a</b> Make sure that the printhead cables are properly connected to the engine board.</p> <p><b>b</b> Make sure that the JTH1 and JPWR1 cables are properly connected to the controller board and engine board.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p><b>Step 17</b></p> <p>Replace the printhead. See <a href="#">“Printhead removal” on page 403.</a></p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.

Action	Yes	No
<p><b>Step 18</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Random marks 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 [“Initial print quality check” on page 29](#).

Action	Yes	No
<p><b>Step 1</b> Check the printer for toner leaks.</p> <p>Are there toner leaks?</p>	Go to step 2.	Go to step 3.
<p><b>Step 2</b>  <ul style="list-style-type: none"> <li>a Clean the printer thoroughly using a toner vacuum.</li> <li>b Perform a print job to clear the remaining toner from the imaging components.</li> </ul> </p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Remove the imaging kit, and then check it for debris and fragments. See <a href="#">“Imaging kit removal” on page 332</a>.</p> <p>Is the imaging kit free of debris and fragments?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Remove the debris and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b>  <ul style="list-style-type: none"> <li>a Remove the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</li> <li>b Check the transfer module for debris and fragments.</li> </ul> </p> <p>Is the transfer module free of debris and fragments?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b> Remove the debris and fragments.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

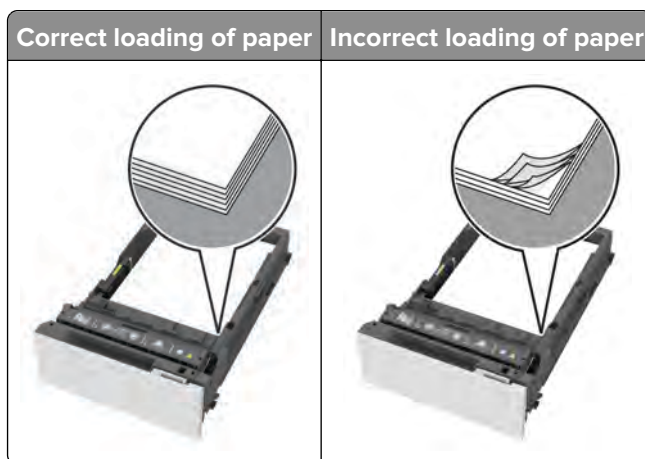
Action	Yes	No
<p><b>Step 7</b></p> <p><b>a</b> Remove the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p><b>b</b> Check the fuser for debris and damage.</p> <p>Is the fuser free of debris and damage?</p>	Contact the next level of support.	Go to step 8.
<p><b>Step 8</b></p> <p>Replace the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Paper jams

### Avoiding jams

#### Load paper properly

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



- Do not load or remove a tray while the printer is printing.
- Do not load too much paper. Make sure that the stack height is below the maximum paper fill indicator.

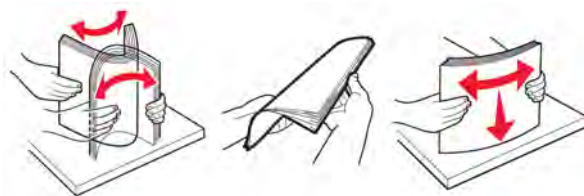
- Do not slide paper into the tray. Load paper as shown in the illustration.



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

### Use recommended paper

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

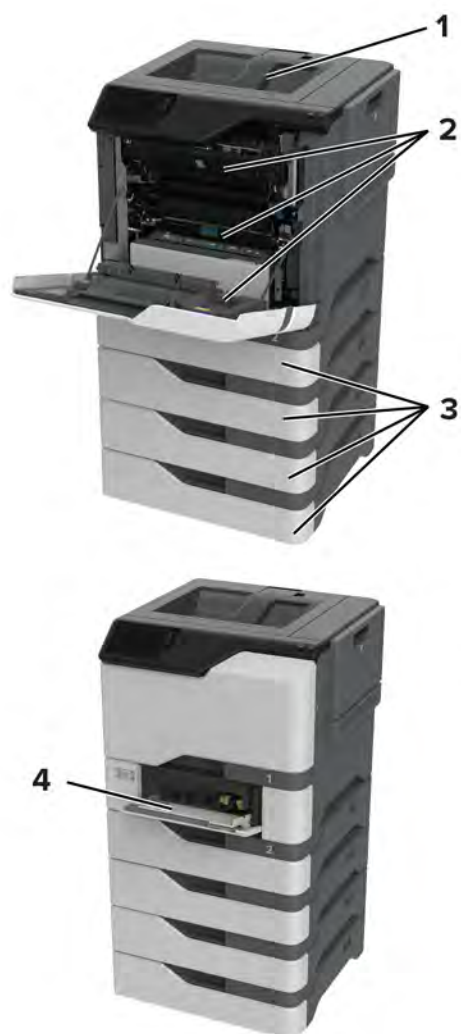


- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure that the paper size and type are set correctly on the computer or printer control panel.
- Store paper according to manufacturer recommendations.

## Identifying jam locations

### Notes:

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



Jam locations	
1	Standard bin
2	Door A
3	Trays
4	Multipurpose feeder

## 200 paper jams

### 200 paper jam messages

Error code	Description	Action
200.03	Paper fed from the MPF never arrived at the sensor (input).	See <a href="#">“Sensor (input): Paper failed to arrive service check” on page 80.</a>
200.05	Paper fed from the MPF never cleared the sensor (input).	See <a href="#">“Sensor (input): Paper failed to clear service check” on page 82.</a>

Error code	Description	Action
200.12	Paper fed from tray 1 was detected earlier than expected at the sensor (input).	See <a href="#">“Sensor (input): Paper arrived too early service check” on page 79.</a>
200.13	Paper fed from tray 1 never arrived at the sensor (input).	See <a href="#">“Sensor (input): Paper failed to arrive service check” on page 80.</a>
200.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected.	See <a href="#">“Sensor (input): Paper cleared too early service check” on page 84.</a>
200.15	Paper fed from tray 1 never cleared the sensor (input).	See <a href="#">“Sensor (input): Paper failed to clear service check” on page 82.</a>
200.22	Paper fed from tray 2 was detected earlier than expected at the sensor (input).	See <a href="#">“Sensor (input): Paper arrived too early service check” on page 79.</a>
200.23	Paper fed from tray 2 did not reach the sensor (input).	See <a href="#">“Sensor (input): Paper failed to arrive service check” on page 80.</a>
200.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected.	See <a href="#">“Sensor (input): Paper cleared too early service check” on page 84.</a>
200.25	Paper fed from tray 2 never cleared the sensor (input).	See <a href="#">“Sensor (input): Paper failed to clear service check” on page 82.</a>
200.26	Paper fed from tray 2 was picked but it never reached the sensor (input).	See <a href="#">“Sensor (input): Paper failed to arrive service check” on page 80.</a>
200.32	Paper fed from tray 3 was detected earlier than expected at the sensor (input).	See <a href="#">“Sensor (input): Paper arrived too early service check” on page 79.</a>
200.33	Paper fed from tray 3 did not reach the sensor (input).	See <a href="#">“Sensor (input): Paper failed to arrive service check” on page 80.</a>
200.34	Paper fed from tray 3 cleared the sensor (input) earlier than expected.	See <a href="#">“Sensor (input): Paper cleared too early service check” on page 84.</a>
200.35	Paper fed from tray 3 never cleared the sensor (input).	See <a href="#">“Sensor (input): Paper failed to clear service check” on page 82.</a>
200.36	Paper fed from tray 3 was picked but it never reached the sensor (input).	See <a href="#">“Sensor (input): Paper failed to arrive service check” on page 80.</a>
200.42	Paper fed from tray 4 was detected earlier than expected at the sensor (input).	See <a href="#">“Sensor (input): Paper arrived too early service check” on page 79.</a>
200.43	Paper fed from tray 4 did not reach the sensor (input).	See <a href="#">“Sensor (input): Paper failed to arrive service check” on page 80.</a>
200.44	Paper fed from tray 4 cleared the sensor (input) earlier than expected.	See <a href="#">“Sensor (input): Paper cleared too early service check” on page 84.</a>
200.45	Paper fed from tray 4 never cleared the sensor (input).	See <a href="#">“Sensor (input): Paper failed to clear service check” on page 82.</a>
200.46	Paper fed from tray 4 was picked but it never reached the sensor (input).	See <a href="#">“Sensor (input): Paper failed to arrive service check” on page 80.</a>
200.52	Paper fed from tray 5 was detected earlier than expected at the sensor (input).	See <a href="#">“Sensor (input): Paper arrived too early service check” on page 79.</a>
200.53	Paper fed from tray 5 did not reach the sensor (input).	See <a href="#">“Sensor (input): Paper failed to arrive service check” on page 80.</a>

Error code	Description	Action
200.54	Paper fed from tray 5 cleared the sensor (input) earlier than expected.	See <a href="#">“Sensor (input): Paper cleared too early service check” on page 84.</a>
200.55	Paper fed from tray 5 never cleared the sensor (input).	See <a href="#">“Sensor (input): Paper failed to clear service check” on page 82.</a>
200.56	Paper fed from tray 5 was picked but it never reached the sensor (input).	See <a href="#">“Sensor (input): Paper failed to arrive service check” on page 80.</a>
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See <a href="#">“Sensor (input) static jam service check” on page 85.</a>

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

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences.</b></p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b></p> <p>Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the paper path along the tray exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper type and size settings match the paper type and size set on the tray.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper path for paper jams and fragments.</p> <p><b>Note:</b> If necessary, remove the transfer module to properly see the paper path. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the tray insert and its paper path guides and drive gears for damage.</p> <p>Is the tray insert free of damage?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p>Replace the tray insert. See <a href="#">“550-sheet tray insert removal” on page 416</a>.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p><b>a</b> Make sure that the pick roller is properly installed.</p> <p><b>Note:</b> Firmly press the pick roller to its shaft to make sure that it is properly engaged.</p> <p><b>b</b> Check the pick roller for excess wear, contamination, and damage.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 9.	Go to step 8.



Action	Yes	No
<p><b>Step 8</b> Replace the pick roller. See <a href="#">“Pick roller removals” on page 418.</a></p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics and adjustments &gt; Motor tests &gt; Pick (tray 1)</b> <b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 12.	Go to step 10.
<p><b>Step 10</b> <b>a</b> Make sure that the motor cable is properly connected. <b>b</b> Check the motor and the other paper feeder components for damage.</p> <p>Are the motor and paper feeder free of damage?</p>	Go to step 12.	Go to step 11.
<p><b>Step 11</b> <b>a</b> Replace the paper feeder. See <a href="#">“Paper feeder removal” on page 423.</a> <b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p><b>Step 12</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b> <b>b</b> Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 15.	Go to step 13.
<p><b>Step 13</b> <b>a</b> Make sure that the sensor cable is properly connected. <b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 15.	Go to step 14.
<p><b>Step 14</b> Replace the sensor. See <a href="#">“Sensor (input) removal” on page 361.</a></p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.

Action	Yes	No
<p><b>Step 15</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Isolation</b></p> <p><b>b</b> Touch <b>Start</b>, and then listen to the sound of the motor.</p> <p><b>c</b> Check if the sound of the motor (isolation) is similar to this:  <a href="https://contentdelivery.lexmark.com/webcontent/kbase/articles/SO8339/Bad_Isolation_Motor.mp3">https://contentdelivery.lexmark.com/webcontent/kbase/articles/SO8339/Bad_Isolation_Motor.mp3</a>.</p> <p>Does the motor create a similar grinding sound?</p>	Go to step 17.	Go to step 16.
<p><b>Step 16</b></p> <p>Check the motor and its cable for damage.</p> <p>Are the motor and its cable free of damage?</p>	Go to step 18.	Go to step 17.
<p><b>Step 17</b></p> <p>Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p><b>Step 18</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Deskew</b></p> <p><b>b</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 19.
<p><b>Step 19</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor (deskew) for damage.</p> <p>Is the motor free of damage?</p>	Contact the next level of support.	Go to step 20.
<p><b>Step 20</b></p> <p>Replace the motor (deskew). See <a href="#">“Motor (deskew) removal” on page 320</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.

Action	Yes	No
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the paper path for paper jams and obstructions.</p> <p><b>Note:</b> If necessary, remove the transfer module to properly see the paper path. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b> <b>b</b> Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p><b>Step 6</b> <b>a</b> Make sure that the sensor cable is properly connected. <b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b> Replace the sensor. See <a href="#">“Sensor (input) removal” on page 361</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Deskew</b> <b>b</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 9.
<p><b>Step 9</b> <b>a</b> Make sure that the motor cable is properly connected. <b>b</b> Check the motor (deskew) for damage.</p> <p>Is the motor free of damage?</p>	Contact the next level of support.	Go to step 10.

Action	Yes	No
<p><b>Step 10</b> Replace the motor (deskew). See <a href="#">“Motor (deskew) removal” on page 320</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
<p><b>Step 1</b>  <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.  <b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b> Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b> Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b>  <b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b>  <b>b</b> Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p><b>Step 8</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 9.	Go to step 9.
<p><b>Step 9</b></p> <p>Replace the sensor. See <a href="#">“Sensor (input) removal” on page 361.</a></p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b></p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (input) static jam service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences.</b></p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper path for partially fed or jammed paper.</p> <p><b>Note:</b> If necessary, remove the transfer module to properly see the paper path. See <a href="#">“Transfer module removal” on page 358.</a></p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.

Action	Yes	No
<b>Step 6</b> <b>a</b> Make sure that the sensor cable is properly connected. <b>b</b> Check the sensor for damage.  Is the sensor free of damage?	Go to step 8.	Go to step 7.
<b>Step 7</b> Replace the sensor. See <a href="#">“Sensor (input) removal” on page 361</a> .  Does the problem remain?	Go to step 8.	The problem is solved.
<b>Step 8</b> Perform a print job.  Does the problem remain?	Contact the next level of support.	The problem is solved.

## 201 paper jams

### 201 paper jam messages

Error code	Description	Action
201.91	Paper remains detected at the sensor (fuser buckle) after the printer is turned on.	See <a href="#">“Sensor (fuser buckle) jam service check” on page 86</a> .

### Sensor (fuser buckle) jam service check

Action	Yes	No
<b>Step 1</b> <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b> . <b>b</b> Check if the paper size matches the size set on the tray guides.  Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
<b>Step 2</b> Change the paper size or adjust the size setting in the tray.  Does the problem remain?	Go to step 3.	The problem is solved.
<b>Step 3</b> Check the paper path for partially fed or jammed paper.  Is the paper path free of partially fed or jammed paper?	Go to step 5.	Go to step 4.

Action	Yes	No
<p><b>Step 4</b> Remove the partially fed or jammed paper.</p> <p><b>Note:</b> The fuser nip may not release if the printer is still powered on. Make sure to close all doors, install the waste toner bottle, and then turn off the printer to release the fuser nip.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b> <b>b</b> Find the sensor (Fuser buckle).</p> <p>Does the sensor status change while toggling the sensor?</p>	Contact the next level of support.	Go to step 6.
<p><b>Step 6</b> <b>a</b> Make sure that the sensor cable is properly connected. <b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b> Replace the sensor. See <a href="#">“Sensors (fuser buckle and narrow media) removal” on page 387</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 202 paper jams

### 202 paper jam messages

Error code	Description	Action
202.02	Paper fed from the MPF was detected earlier than expected at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper arrived too early service check” on page 89</a> .
202.03	Paper fed from the MPF never arrived at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to arrive service check” on page 90</a> .
202.04	Paper fed from the MPF cleared the sensor (fuser exit) earlier than expected.	See <a href="#">“Sensor (fuser exit): Paper cleared too early service check” on page 94</a> .
202.05	Paper fed from the MPF never cleared the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to clear service check” on page 92</a> .

Error code	Description	Action
202.12	Paper fed from tray 1 was detected earlier than expected at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper arrived too early service check” on page 89.</a>
202.13	Paper fed from tray 1 never arrived at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to arrive service check” on page 90.</a>
202.14	Paper fed from tray 1 cleared the sensor (fuser exit) earlier than expected.	See <a href="#">“Sensor (fuser exit): Paper cleared too early service check” on page 94.</a>
202.15	Paper fed from tray 1 never cleared the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to clear service check” on page 92.</a>
202.22	Paper fed from tray 2 was detected earlier than expected at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper arrived too early service check” on page 89.</a>
202.23	Paper fed from tray 2 never arrived at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to arrive service check” on page 90.</a>
202.24	Paper fed from tray 2 cleared the sensor (fuser exit) earlier than expected.	See <a href="#">“Sensor (fuser exit): Paper cleared too early service check” on page 94.</a>
202.25	Paper fed from tray 2 never cleared the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to clear service check” on page 92.</a>
202.32	Paper fed from tray 3 was detected earlier than expected at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper arrived too early service check” on page 89.</a>
202.33	Paper fed from tray 3 never arrived at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to arrive service check” on page 90.</a>
202.34	Paper fed from tray 3 cleared the sensor (fuser exit) earlier than expected.	See <a href="#">“Sensor (fuser exit): Paper cleared too early service check” on page 94.</a>
202.35	Paper fed from tray 3 never cleared the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to clear service check” on page 92.</a>
202.42	Paper fed from tray 4 was detected earlier than expected at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper arrived too early service check” on page 89.</a>
202.43	Paper fed from tray 4 never arrived at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to arrive service check” on page 90.</a>
202.44	Paper fed from tray 4 cleared the sensor (fuser exit) earlier than expected.	See <a href="#">“Sensor (fuser exit): Paper cleared too early service check” on page 94.</a>
202.45	Paper fed from tray 4 never cleared the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to clear service check” on page 92.</a>
202.52	Paper fed from tray 5 was detected earlier than expected at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper arrived too early service check” on page 89.</a>
202.53	Paper fed from tray 5 never arrived at the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to arrive service check” on page 90.</a>
202.54	Paper fed from tray 5 cleared the sensor (fuser exit) earlier than expected.	See <a href="#">“Sensor (fuser exit): Paper cleared too early service check” on page 94.</a>
202.55	Paper fed from tray 5 never cleared the sensor (fuser exit).	See <a href="#">“Sensor (fuser exit): Paper failed to clear service check” on page 92.</a>
202.91	Paper remains detected at the sensor (fuser exit) after the printer is turned on.	See <a href="#">“Sensor (fuser exit) static jam service check” on page 95.</a>



## Sensor (fuser exit): Paper arrived too early service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper path just before the fuser for paper jams and fragments.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the paper jams and fragments.</p> <p><b>Note:</b> The fuser nip may not release if the printer is still powered on. Make sure to close all doors, install the waste toner bottle, and then turn off the printer to release the fuser nip.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the fuser rollers for damage.</p> <p>Are the rollers free of damage?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p>Replace the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the jams and fragments.</p> <p><b>Note:</b> The fuser nip may not release if the printer is still powered on. Make sure to close all doors, install the waste toner bottle, and then turn off the printer to release the fuser nip.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the fuser for obstructions.</p> <p>Is the fuser free from obstructions?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p>Remove the obstructions in the fuser area.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p><b>a</b> Make sure that the fuser life has not ended.</p> <p><b>b</b> Check the fuser for damage.</p> <p>Is the fuser free of damage?</p>	Go to step 9.	Go to step 8.
<p><b>Step 8</b></p> <p>Replace the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p><b>Step 9</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Fuser exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 12.	Go to step 10.
<p><b>Step 10</b></p> <p><b>a</b> Make sure that the fuser is properly seated.</p> <p><b>b</b> Make sure that the JFSNS1 connector on the engine board is properly connected.</p> <p><b>c</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 12.	Go to step 11.
<p><b>Step 11</b></p> <p>Replace the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p><b>Step 12</b></p> <p>Check the transfer module for damage.</p> <p>Is the transfer module free of damage?</p>	Go to step 14.	Go to step 13.
<p><b>Step 13</b></p> <p>Replace the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p><b>Step 14</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Fuser</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p><b>Step 15</b></p> <p>Make sure that the JFDRV1 connector on the engine board is properly connected.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p><b>Step 16</b></p> <p><b>a</b> Replace the motor. See <a href="#">“Motor (fuser) removal” on page 341</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.

Action	Yes	No
<p><b>Step 17</b></p> <p><b>a</b> Remove the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p><b>b</b> Close the front door or bypass the door interlock switch.</p> <p><b>c</b> Enter the Diagnostics menu, and then navigate to:  <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; K developer/transfer</b></p> <p><b>d</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 18.
<p><b>Step 18</b></p> <p>Make sure that the JKDRV1 connector on the engine board is properly connected.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p><b>Step 19</b></p> <p><b>a</b> Replace the motor (K/transfer belt). See <a href="#">“Motor (EP drive) removal” on page 315</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.

Action	Yes	No
<p><b>Step 4</b> Remove the jams and fragments.</p> <p><b>Note:</b> The fuser nip may not release if the printer is still powered on. Make sure to close all doors, install the waste toner bottle, and then turn off the printer to release the fuser nip.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the fuser for obstructions.</p> <p>Is the fuser free from obstructions?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b> Remove the obstructions in the fuser area.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Check the fuser for damage or life expiration, and replace if necessary. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Fuser exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 9.
<p><b>Step 9</b></p> <p><b>a</b> Make sure that the fuser is properly seated.</p> <p><b>b</b> Make sure that the JFSNS1 connector on the engine board is properly connected.</p> <p><b>c</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b> Replace the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Fuser</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 12.

Action	Yes	No
<p><b>Step 12</b> Make sure that the motor cable is properly connected.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p><b>Step 13</b> <b>a</b> Replace the motor. See <a href="#">“Motor (fuser) removal” on page 341.</a> <b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
<p><b>Step 1</b> <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences.</b> <b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the fuser rollers for damage.</p> <p>Are the rollers free of damage?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Replace the fuser. See <a href="#">“Fuser removal” on page 363.</a></p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b> <b>b</b> Find the sensor (Fuser exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p><b>Step 6</b> Make sure that the sensor cable is properly connected.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p><b>Step 7</b> Replace the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (fuser exit) static jam service check

Action	Yes	No
<p><b>Step 1</b> <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>. <b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Remove the partially fed or jammed paper.</p> <p><b>Note:</b> The fuser nip may not release if the printer is still powered on. Make sure to close all doors, install the waste toner bottle, and then turn off the printer to release the fuser nip.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b> <b>b</b> Find the sensor (Fuser exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Contact the next level of support.	Go to step 6.

Action	Yes	No
<p><b>Step 6</b></p> <p><b>a</b> Make sure that the fuser is properly seated.</p> <p><b>b</b> Make sure that the JFSNS1 connector on the engine board is properly connected.</p> <p><b>c</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Replace the fuser. See <a href="#">“Fuser removal” on page 363</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 221 paper jams

### 221 paper jam messages

Error code	Description	Action
221.03	Paper fed from the MPF never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to arrive service check” on page 97</a> .
221.04	Paper fed from the MPF cleared the sensor (redrive) earlier than expected.	See <a href="#">“Sensor (redrive): Paper cleared too early service check” on page 100</a> .
221.05	Paper fed from the MPF never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to clear service check” on page 99</a> .
221.13	Paper fed from tray 1 never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to arrive service check” on page 97</a> .
221.14	Paper fed from tray 1 cleared the sensor (redrive) earlier than expected.	See <a href="#">“Sensor (redrive): Paper cleared too early service check” on page 100</a> .
221.15	Paper fed from tray 1 never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to clear service check” on page 99</a> .
221.23	Paper fed from tray 2 never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to arrive service check” on page 97</a> .
221.24	Paper fed from tray 2 cleared the sensor (redrive) earlier than expected.	See <a href="#">“Sensor (redrive): Paper cleared too early service check” on page 100</a> .
221.25	Paper fed from tray 2 never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to clear service check” on page 99</a> .
221.33	Paper fed from tray 3 never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to arrive service check” on page 97</a> .
221.34	Paper fed from tray 3 cleared the sensor (redrive) earlier than expected.	See <a href="#">“Sensor (redrive): Paper cleared too early service check” on page 100</a> .
221.35	Paper fed from tray 3 never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to clear service check” on page 99</a> .



Error code	Description	Action
221.43	Paper fed from tray 4 never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to arrive service check” on page 97.</a>
221.44	Paper fed from tray 4 cleared the sensor (redrive) earlier than expected.	See <a href="#">“Sensor (redrive): Paper cleared too early service check” on page 100.</a>
221.45	Paper fed from tray 4 never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to clear service check” on page 99.</a>
221.53	Paper fed from tray 5 never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to arrive service check” on page 97.</a>
221.54	Paper fed from tray 5 cleared the sensor (redrive) earlier than expected.	See <a href="#">“Sensor (redrive): Paper cleared too early service check” on page 100.</a>
221.55	Paper fed from tray 5 never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper failed to clear service check” on page 99.</a>
221.94	Paper cleared the sensor (redrive) earlier than expected. Paper source is undetermined.	See <a href="#">“Sensor (redrive): Paper cleared too early service check” on page 100.</a>

### Sensor (redrive): Paper failed to arrive service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Check the fuser and exit paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the duplex paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Inspect the ribs on the control panel base for wear, nicks, or other damage that could obstruct the paper path.</p> <p>Is there any damage?</p>	Go to step 6.	Go to step 9.

Action	Yes	No
<p><b>Step 6</b> Replace the control panel base.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b> <b>b</b> Find the sensor (Redrive/Duplex Path 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	Go to step 8.
<p><b>Step 8</b> Replace the sensor. See <a href="#">“Sensor (redrive) removal” on page 366.</a></p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Fuser</b> <b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 10.
<p><b>Step 10</b> Make sure that the JFDRV1 connector on the engine board is properly connected.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b> <b>a</b> Replace the motor. See <a href="#">“Motor (fuser) removal” on page 341.</a> <b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Sensor (redrive): Paper failed to clear service check

Action	Yes	No
<p><b>Step 1</b> Check the fuser and exit paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b>  <b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b>  <b>b</b> Find the sensor (Redrive/Duplex path 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p><b>Step 4</b>  <b>a</b> Make sure that the sensor cable is properly connected.  <b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 6.	Go to step 5.
<p><b>Step 5</b> Replace the sensor. See <a href="#">“Sensor (redrive) removal” on page 366</a>.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b>  <b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Redrive</b>  <b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 7.
<p><b>Step 7</b>  <b>a</b> Make sure that the motor cable is properly connected.  <b>b</b> Check the motor for damage.</p> <p>Is the motor free of damage?</p>	Contact the next level of support.	Go to step 8.

Action	Yes	No
<p><b>Step 8</b></p> <p><b>a</b> Replace the motor. See <a href="#">“Motor (exit/redrive) removal” on page 323</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (redrive): Paper cleared too early service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Check the fuser and exit paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the duplex paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Redrive/Duplex Path 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p>Replace the sensor. See <a href="#">“Sensor (redrive) removal” on page 366</a>.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p><b>Step 7</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Redrive</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 8.
<p><b>Step 8</b></p> <p>Make sure that the JOUTDC1 connector on the engine board is properly connected.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b></p> <p>Replace the motor (exit/redrive). See <a href="#">“Motor (exit/redrive) removal” on page 323</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 230 paper jams

### 230 paper jam messages

Error code	Description	Action
230.03	Paper fed from the MPF never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to arrive service check” on page 102</a> .
230.05	Paper fed from the MPF never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to clear service check” on page 104</a> .
230.13	Paper fed from tray 1 never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to arrive service check” on page 102</a> .
230.15	Paper fed from tray 1 never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to clear service check” on page 104</a> .
230.23	Paper fed from tray 2 never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to arrive service check” on page 102</a> .
230.25	Paper fed from tray 2 never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to clear service check” on page 104</a> .
230.33	Paper fed from tray 3 never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to arrive service check” on page 102</a> .
230.35	Paper fed from tray 3 never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to clear service check” on page 104</a> .
230.43	Paper fed from tray 4 never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to arrive service check” on page 102</a> .
230.45	Paper fed from tray 4 never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to clear service check” on page 104</a> .

Error code	Description	Action
230.53	Paper fed from tray 5 never arrived at the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to arrive service check” on page 102.</a>
230.55	Paper fed from tray 5 never cleared the sensor (redrive).	See <a href="#">“Sensor (redrive): Paper (duplex job) failed to clear service check” on page 104.</a>
230.91	Paper remains detected at the sensor (duplex path 1) after the printer is turned on.	See <a href="#">“Sensor (redrive) static jam service check” on page 105.</a>

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

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences.</b></p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the redrive paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the duplex paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Inspect the ribs on the control panel base for wear, nicks, or other damage that could obstruct the paper path.</p> <p>Is there any damage?</p>	Go to step 8.	Go to step 9.

Action	Yes	No
<p><b>Step 8</b> Replace the control panel base.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> Check the diverter for smooth movement.</p> <p>Does the diverter freely move without interference?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b> Replace the diverter. See <a href="#">“Diverter removal” on page 366.</a></p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Redrive/Duplex Path 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 12.
<p><b>Step 12</b> Replace the sensor. See <a href="#">“Sensor (redrive) removal” on page 366.</a></p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p><b>Step 13</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Redrive</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 15.	Go to step 14.
<p><b>Step 14</b> Make sure that the JOUTDC1 connector on the engine board is properly connected.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p><b>Step 15</b> Replace the motor (exit/redrive). See <a href="#">“Motor (exit/redrive) removal” on page 323.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Redrive/Duplex path 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p><b>Step 8</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 10.	Go to step 9.
<p><b>Step 9</b></p> <p>Replace the sensor. See <a href="#">“Sensor (redrive) removal” on page 366</a>.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.



Action	Yes	No
<p><b>Step 10</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Duplex/MPF</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 11.
<p><b>Step 11</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor for damage.</p> <p>Is the motor free of damage?</p>	Contact the next level of support.	Go to step 12.
<p><b>Step 12</b></p> <p><b>a</b> Replace the motor. See <a href="#">“Motor (duplex/MPF) removal” on page 343</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (redrive) static jam service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p><b>Step 5</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Redrive/Duplex path 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Contact the next level of support.	Go to step 6.
<p><b>Step 6</b></p> <p><b>a</b> Make sure that the JDSNS1 connector on the engine board is properly connected.</p> <p><b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Replace the sensor. See <a href="#">“Sensor (redrive) removal” on page 366</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 231 paper jams

### 231 paper jam messages

Error code	Description	Action
231.03	Paper fed from the MPF never arrived at the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to arrive service check” on page 108</a> .
231.05	Paper fed from tray 1 never cleared the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to clear service check” on page 110</a> .
231.13	Paper fed from tray 1 never arrived at the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to arrive service check” on page 108</a> .
231.14	Paper fed from tray 1 cleared the sensor (duplex staging) earlier than expected.	See <a href="#">“Sensor (duplex staging): Paper (duplex job) cleared too early service check” on page 111</a> .
231.15	Paper fed from tray 1 never cleared the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to clear service check” on page 110</a> .
231.23	Paper fed from tray 2 never arrived at the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to arrive service check” on page 108</a> .
231.24	Paper fed from tray 2 cleared the sensor (duplex staging) earlier than expected.	See <a href="#">“Sensor (duplex staging): Paper (duplex job) cleared too early service check” on page 111</a> .
231.25	Paper fed from tray 2 never cleared the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to clear service check” on page 110</a> .
231.32	Paper fed from tray 3 was detected earlier than expected at the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper arrived too early service check” on page 107</a> .

Error code	Description	Action
231.33	Paper fed from tray 3 never arrived at the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to arrive service check” on page 108.</a>
231.34	Paper fed from tray 3 cleared the sensor (duplex staging) earlier than expected.	See <a href="#">“Sensor (duplex staging): Paper (duplex job) cleared too early service check” on page 111.</a>
231.35	Paper fed from tray 3 never cleared the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to clear service check” on page 110.</a>
231.42	Paper fed from tray 4 was detected earlier than expected at the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper arrived too early service check” on page 107.</a>
231.43	Paper fed from tray 4 never arrived at the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to arrive service check” on page 108.</a>
231.44	Paper fed from tray 4 cleared the sensor (duplex staging) earlier than expected.	See <a href="#">“Sensor (duplex staging): Paper (duplex job) cleared too early service check” on page 111.</a>
231.45	Paper fed from tray 4 never cleared the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to clear service check” on page 110.</a>
231.52	Paper fed from tray 5 was detected earlier than expected at the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper arrived too early service check” on page 107.</a>
231.53	Paper fed from tray 5 never arrived at the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to arrive service check” on page 108.</a>
231.54	Paper fed from tray 5 cleared the sensor (duplex staging) earlier than expected.	See <a href="#">“Sensor (duplex staging): Paper (duplex job) cleared too early service check” on page 111.</a>
231.55	Paper fed from tray 5 never cleared the sensor (duplex staging).	See <a href="#">“Sensor (duplex staging): Paper failed to clear service check” on page 110.</a>
231.91	Paper remains detected at the sensor (duplex staging) after the printer is turned on.	See <a href="#">“Sensor (duplex staging) static jam service check” on page 112.</a>

### Sensor (duplex staging): Paper arrived too early service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences.</b></p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size settings in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p><b>Step 3</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper settings matches the paper in the tray guides.</p> <p>Do the paper settings match the paper in the tray?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Change the paper size and type, or adjust the size settings in the tray to match the paper size.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the duplex paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 6.	Go to step 6.
<p><b>Step 6</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (duplex staging): Paper failed to arrive service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the duplex paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p><b>Step 5</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Duplex path 2).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p><b>Step 6</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b></p> <p>Replace the sensor (duplex staging).</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Duplex/MPF</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p><b>Step 9</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor for damage.</p> <p>Is the motor free of damage?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b></p> <p><b>a</b> Replace the motor. See <a href="#">“Motor (duplex/MPF) removal” on page 343</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p>Check the duplex inner guide and its gears, belts, and rollers for damage.</p> <p>Are the duplex inner guide and its components free of damage?</p>	Contact the next level of support.	The problem is solved.

Action	Yes	No
<p><b>Step 12</b></p> <p><b>a</b> Replace the duplex inner guide. See <a href="#">“Duplex inner guide removal” on page 385</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Duplex path 2).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.

Action	Yes	No
<p><b>Step 8</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 10.	Go to step 9.
<p><b>Step 9</b></p> <p>Replace the sensor (duplex staging).</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Isolation</b></p> <p><b>b</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 11.
<p><b>Step 11</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor and isolation unit for damage.</p> <p>Are the motor and isolation unit free of damage?</p>	Contact the next level of support.	Go to step 12.
<p><b>Step 12</b></p> <p><b>a</b> Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (duplex staging): Paper (duplex job) cleared too early service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p><b>Step 3</b> Check the duplex inner guide and its gears, belts, and rollers for damage.</p> <p>Are the duplex inner guide and its components free of damage?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> <b>a</b> Replace the duplex inner guide. See <a href="#">“Duplex inner guide removal” on page 385</a>. <b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b> <b>b</b> Find the sensor (Duplex path 2).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p><b>Step 6</b> <b>a</b> Make sure that the sensor cable is properly connected. <b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b> Replace the sensor (duplex staging).</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (duplex staging) static jam service check

Action	Yes	No
<p><b>Step 1</b> <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>. <b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.



Action	Yes	No
<p><b>Step 3</b></p> <p>Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Duplex path 2).</p> <p>Does the sensor status change while toggling the sensor?</p>	Contact the next level of support.	Go to step 6.
<p><b>Step 6</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Contact the next level of support.	Go to step 7.
<p><b>Step 7</b></p> <p><b>a</b> Replace the sensor (duplex staging).</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 232 paper jams

### 232 paper jam messages

Error code	Description	Action
232.03	During a duplex print job, paper fed from the MPF never arrived at the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check” on page 115.</a>
232.04	During a duplex print job, paper fed from the MPF cleared the sensor (MPF/pass-through) earlier than expected.	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check” on page 118.</a>
232.05	During a duplex print job, paper fed from the MPF never cleared the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check” on page 117.</a>
232.13	During a duplex print job, paper fed from tray 1 never arrived at the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check” on page 115.</a>

Error code	Description	Action
232.14	During a duplex print job, paper fed from tray 1 cleared the sensor (MPF/pass-through) earlier than expected.	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check” on page 118.</a>
232.15	During a duplex print job, paper fed from tray 1 never cleared the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check” on page 117.</a>
232.23	During a duplex print job, paper fed from tray 2 never arrived at the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check” on page 115.</a>
232.24	During a duplex print job, paper fed from tray 2 cleared the sensor (MPF/pass-through) earlier than expected.	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check” on page 118.</a>
232.25	During a duplex print job, paper fed from tray 2 never cleared the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check” on page 117.</a>
232.33	During a duplex print job, paper fed from tray 3 never arrived at the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check” on page 115.</a>
232.34	During a duplex print job, paper fed from tray 3 cleared the sensor (MPF/pass-through) earlier than expected.	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check” on page 118.</a>
232.35	During a duplex print job, paper fed from tray 3 never cleared the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check” on page 117.</a>
232.43	During a duplex print job, paper fed from tray 4 never arrived at the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check” on page 115.</a>
232.44	During a duplex print job, paper fed from tray 4 cleared the sensor (MPF/pass-through) earlier than expected.	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check” on page 118.</a>
232.45	During a duplex print job, paper fed from tray 4 never cleared the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check” on page 117.</a>
232.53	During a duplex print job, paper fed from tray 5 never arrived at the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check” on page 115.</a>
232.54	During a duplex print job, paper fed from tray 5 cleared the sensor (MPF/pass-through) earlier than expected.	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check” on page 118.</a>
232.55	During a duplex print job, paper fed from tray 5 never cleared the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check” on page 117.</a>
232.93	During a duplex print job, paper never arrived at the sensor (MPF/pass-through). Paper source is undetermined.	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check” on page 115.</a>

Error code	Description	Action
232.94	During a duplex print job, paper cleared the sensor (MPF/pass-through) earlier than expected. Paper source is undetermined.	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check” on page 118.</a>
232.95	During a duplex print job, paper never cleared the sensor (MPF/pass-through). Paper source is undetermined.	See <a href="#">“Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check” on page 117.</a>

### Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Check the duplex paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the sensor (MPF/pass-through) area for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p><b>Step 6</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and its flag for damage.</p> <p><b>c</b> Check the isolation unit components for damage.</p> <p>Are the sensor and isolation unit components free of damage?</p>	Go to step 8.	Go to step 7.

Action	Yes	No
<p><b>Step 7</b> Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426.</a></p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Duplex/MPF</b> <b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p><b>Step 9</b> <b>a</b> Make sure that the motor cable is properly connected. <b>b</b> Check the motor for damage.</p> <p>Is the motor free of damage?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b> <b>a</b> Replace the motor. See <a href="#">“Motor (duplex/MPF) removal” on page 343.</a> <b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b> Check the duplex inner guide and its gears, belts, and rollers for damage.</p> <p>Are the duplex inner guide and its components free of damage?</p>	Contact the next level of support.	Go to step 12.
<p><b>Step 12</b> <b>a</b> Replace the duplex inner guide. See <a href="#">“Duplex inner guide removal” on page 385.</a> <b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check

Action	Yes	No
<p><b>Step 1</b> Check the duplex paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Remove the jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b> <b>b</b> Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p><b>Step 4</b> <b>a</b> Make sure that the sensor cable is properly connected. <b>b</b> Check the sensor and its flag for damage. <b>c</b> Check the isolation unit components for damage.</p> <p>Are the sensor and isolation unit components free of damage?</p>	Go to step 6.	Go to step 5.
<p><b>Step 5</b> Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426</a>.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Deskew</b> <b>b</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 7.
<p><b>Step 7</b> <b>a</b> Make sure that the motor cable is properly connected. <b>b</b> Check the motor for damage.</p> <p>Does the problem remain?</p>	Contact the next level of support.	Go to step 8.

Action	Yes	No
<p><b>Step 8</b></p> <p><b>a</b> Replace the motor (deskew). See <a href="#">“Motor (deskew) removal” on page 320.</a></p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Check the duplex inner guide and its gears, belts, and rollers for damage.</p> <p>Are the duplex inner guide and its components free of damage?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p><b>a</b> Replace the duplex inner guide. See <a href="#">“Duplex inner guide removal” on page 385.</a></p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p><b>Step 4</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 6.	Go to step 5.
<p><b>Step 5</b></p> <p>Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426.</a></p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 240 paper jams

### 240 paper jam messages

Error code	Description	Action
240.05	Paper fed from the MPF was picked but it never cleared the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper failed to clear service check” on page 119.</a>
240.06	Paper fed from the MPF was picked but it never arrived at the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (MPF) failed to arrive service check” on page 121.</a>
240.23	Paper fed from tray 2 was picked but it never arrived at the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (tray 2) failed to arrive service check” on page 123.</a>
240.25	Paper fed from tray 2 was picked but it never cleared the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper failed to clear service check” on page 119.</a>
240.33	Paper fed from tray 3 was picked but it never arrived at the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (tray 3) failed to arrive service check” on page 125.</a>
240.35	Paper fed from tray 3 was picked but it never cleared the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper failed to clear service check” on page 119.</a>
240.43	Paper fed from tray 4 was picked but it never arrived at the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (tray 4) failed to arrive service check” on page 127.</a>
240.45	Paper fed from tray 4 was picked but it never cleared the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper failed to clear service check” on page 119.</a>
240.53	Paper fed from tray 5 was picked but it never arrived at the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper (tray 5) failed to arrive service check” on page 129.</a>
240.55	Paper fed from tray 5 was picked but it never cleared the sensor (MPF/pass-through).	See <a href="#">“Sensor (MPF/pass-through): Paper failed to clear service check” on page 119.</a>
240.82	The motor (duplex/MPF) has stalled.	See <a href="#">“Motor (duplex/MPF) jam service check” on page 132.</a>
240.84	The motor (duplex/MPF) failed to achieve expected speed or has stalled.	
240.91	Paper remains detected at the sensor (MPF/pass-through) after the printer is turned on.	See <a href="#">“Sensor (MPF/pass-through) static jam service check” on page 131.</a>

### Sensor (MPF/pass-through): Paper failed to clear service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences.</b></p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.

Action	Yes	No
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the duplex and MPF paper paths for paper jams and obstructions.</p> <p>Are the paper paths free of jams and obstructions?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Remove the paper jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the tray insert and its paper path guides and drive gears for damage.</p> <p>Is the tray insert free of damage?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b> Replace the tray insert. See <a href="#">“550-sheet tray insert removal” on page 416</a>.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Contact the next level of support.	Go to step 8.
<p><b>Step 8</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and its flag for damage.</p> <p><b>c</b> Check the isolation unit components for damage.</p> <p>Are the sensor and isolation unit components free of damage?</p>	Contact the next level of support.	Go to step 9.
<p><b>Step 9</b> Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.



## Sensor (MPF/pass-through): Paper (MPF) failed to arrive service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the MPF guides.</p> <p>Does the paper size match the size set on the MPF?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the MPF.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the MPF for overfilling.</p> <p>Is the MPF overfilled?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b></p> <p>Remove the excess paper from the MPF.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the paper condition in the MPF.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b></p> <p>Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p><b>a</b> Make sure that the MPF pick roller is properly installed.</p> <p><b>Note:</b> Firmly press the pick roller to its shaft to make sure that is properly engaged.</p> <p><b>b</b> Check the MPF pick roller for excess wear, contamination, and damage.</p> <p>Is the MPF pick roller free from excess wear, contamination, and damage?</p>	Go to step 9.	Go to step 8.
<p><b>Step 8</b></p> <p>Replace the MPF pick roller. See <a href="#">“MPF pick roller removal” on page 419</a>.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p><b>Step 9</b> Check the tray exit paper path for paper fragments and contamination.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b> Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b> Check the tray insert and its paper path guides and drive gears for damage.</p> <p>Is the tray insert free of damage?</p>	Go to step 13.	Go to step 12.
<p><b>Step 12</b> Replace the tray insert. See <a href="#">“550-sheet tray insert removal” on page 416.</a></p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p><b>Step 13</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 16.	Go to step 14.
<p><b>Step 14</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and its flag for damage.</p> <p><b>c</b> Check the isolation unit components for damage.</p> <p>Are the sensor and isolation unit components free of damage?</p>	Go to step 16.	Go to step 15.
<p><b>Step 15</b> Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426.</a></p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p><b>Step 16</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Duplex/MPF</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 17.

Action	Yes	No
<p><b>Step 17</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor for damage.</p> <p>Is the motor free of damage?</p>	Contact the next level of support.	The problem is solved.
<p><b>Step 18</b></p> <p><b>a</b> Replace the motor. See <a href="#">“Motor (duplex/MPF) removal” on page 343.</a></p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (MPF/pass-through): Paper (tray 2) failed to arrive service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences.</b></p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b></p> <p>Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b></p> <p>Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p><b>Step 7</b></p> <p><b>a</b> Make sure that the tray 2 pick roller is properly installed.</p> <p><b>Note:</b> Firmly press the pick roller to its shaft to make sure that it is properly engaged.</p> <p><b>b</b> Check the tray 2 pick roller for excess wear, contamination, and damage.</p> <p>Is the tray 2 pick roller free from excess wear, contamination, and damage?</p>	Go to step 9.	Go to step 8.
<p><b>Step 8</b></p> <p>Replace the tray 2 pick roller. See <a href="#">“Pick roller removals” on page 418.</a></p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b></p> <p>Check the tray exit paper path for fragments and contamination.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b></p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p><b>Step 12</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and its flag for damage.</p> <p><b>c</b> Check the isolation unit components for damage.</p> <p>Are the sensor and isolation unit components free of damage?</p>	Go to step 14.	Go to step 13.
<p><b>Step 13</b></p> <p>Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426.</a></p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Action	Yes	No
<p><b>Step 14</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors &gt; Pick (tray 2)</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 16.	Go to step 15.
<p><b>Step 15</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and the optional tray free of damage?</p>	Go to step 16.	Go to step 17.
<p><b>Step 16</b></p> <p>Replace the tray insert. See <a href="#">“550-sheet tray insert removal” on page 416</a>.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p><b>Step 17</b></p> <p><b>a</b> Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (MPF/pass-through): Paper (tray 3) failed to arrive service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.

Action	Yes	No
<p><b>Step 4</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and its flag for damage.</p> <p><b>c</b> Check the isolation unit components for damage.</p> <p>Are the sensor and isolation unit free of damage?</p>	Go to step 6.	Go to step 5.
<p><b>Step 5</b></p> <p>Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426</a>.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and the other optional tray components for damage.</p> <p>Are the sensor and the optional tray free of damage?</p>	Go to step 8.	Go to step 10.
<p><b>Step 8</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors &gt; Pass-through (tray 2)</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 9.
<p><b>Step 9</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and the optional tray free of damage?</p>	Contact the next level of support.	Go to step 10.
<p><b>Step 10</b></p> <p><b>a</b> Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Sensor (MPF/pass-through): Paper (tray 4) failed to arrive service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper path in tray 3 for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p><b>Step 6</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and its flag for damage.</p> <p><b>c</b> Check the isolation unit components for damage.</p> <p>Are the sensor and isolation unit free of damage?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b></p> <p>Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 9.

Action	Yes	No
<p><b>Step 9</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and the other optional tray components for damage.</p> <p>Are the sensor and the optional tray free of damage?</p>	Go to step 10.	Go to step 12.
<p><b>Step 10</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors &gt; Pass-through (tray 2)</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 13.	Go to step 11.
<p><b>Step 11</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and the optional tray free of damage?</p>	Go to step 13.	Go to step 12.
<p><b>Step 12</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p><b>Step 13</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 15.	Go to step 14.
<p><b>Step 14</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and the other optional tray components for damage.</p> <p>Are the sensor and the optional tray free of damage?</p>	Go to step 15.	Go to step 17.
<p><b>Step 15</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors &gt; Pass-through (tray 3)</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 16.



Action	Yes	No
<p><b>Step 16</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and the optional tray free of damage?</p>	Contact the next level of support.	Go to step 17.
<p><b>Step 17</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (MPF/pass-through): Paper (tray 5) failed to arrive service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper path in tray 4 for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.

Action	Yes	No
<p><b>Step 6</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and its flag for damage.</p> <p><b>c</b> Check the isolation unit components for damage.</p> <p>Are the sensor and isolation unit free of damage?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b></p> <p>Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 9.
<p><b>Step 9</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and the other optional tray components for damage.</p> <p>Are the sensor and the optional tray free of damage?</p>	Go to step 10.	Go to step 12.
<p><b>Step 10</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors &gt; Pass-through (tray 3)</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 13.	Go to step 11.
<p><b>Step 11</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and the optional tray free of damage?</p>	Go to step 13.	Go to step 12.
<p><b>Step 12</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p><b>Step 13</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray 4)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 15.	Go to step 14.
<p><b>Step 14</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and the other optional tray components for damage.</p> <p>Are the sensor and the optional tray free of damage?</p>	Go to step 15.	Go to step 17.
<p><b>Step 15</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors &gt; Pass-through (tray 4)</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 16.
<p><b>Step 16</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and the optional tray free of damage?</p>	Contact the next level of support.	Go to step 17.
<p><b>Step 17</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (MPF/pass-through) static jam service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.

Action	Yes	No
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b> <b>b</b> Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Contact the next level of support.	Go to step 4.
<p><b>Step 4</b> <b>a</b> Make sure that the sensor cable is properly connected. <b>b</b> Check the sensor and its flag for damage. <b>c</b> Check the isolation unit components for damage.</p> <p>Are the sensor and isolation unit free of damage?</p>	Contact the next level of support.	Go to step 5.
<p><b>Step 5</b> <b>a</b> Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426</a>. <b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Motor (duplex/MPF) jam service check

Action	Yes	No
<p><b>Step 1</b> Check if the MPF is the source tray used during the error.</p> <p>Is the MPF the source tray?</p>	Go to step 2.	Go to step 6.
<p><b>Step 2</b> Check the MPF for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 3.	Go to step 4.
<p><b>Step 3</b> Remove the excess paper from the MPF.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Check the paper condition in the MPF.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 5.	Go to step 6.

Action	Yes	No
<p><b>Step 5</b> Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b> Check the duplex and MPF paper path guides along the tray 1 exit area.</p> <p>Is the paper path free of paper fragments and contamination?</p>	Go to step 7.	Go to step 8.
<p><b>Step 7</b> Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Duplex/MPF</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 9.
<p><b>Step 9</b></p> <p><b>a</b> Make sure that the motor cable JMTR1 on the engine board is properly connected.</p> <p><b>b</b> Check the motor for damage.</p> <p>Is the motor free of damage?</p>	Contact the next level of support.	Go to step 10.
<p><b>Step 10</b></p> <p><b>a</b> Replace the motor. See <a href="#">“Motor (duplex/MPF) removal” on page 343</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 241 paper jams

### 241 paper jam messages

Error code	Description	Action
241.12	Paper fed from tray 1 arrived at the sensor (tray 1 pick) earlier than expected.	See <a href="#">“Sensor (tray 1 pick): Paper arrived too early service check” on page 136</a> .
241.14	Paper fed from tray 1 cleared the sensor (tray 1 pick) earlier than expected.	See <a href="#">“Sensor (tray 1 pick): Paper cleared too early service check” on page 136</a> .

Error code	Description	Action
241.15	Paper fed from tray 1 never cleared the sensor (tray 1 pick).	See <a href="#">“Sensor (tray 1 pick): Paper failed to clear service check” on page 134.</a>
241.16	Paper fed from tray 1 was picked but it never arrived at the sensor (tray 1 pick).	See <a href="#">“Sensor (input): tray 1 failed to pick service check” on page 138.</a>
241.82	The motor (tray 1 pick) stalled or did not reach the expected speed.	See <a href="#">“Motor (tray 1 pick) jam service check” on page 141.</a>
241.83	The motor (tray 1 pick) stalled or did not reach the expected speed.	
241.84	The motor (tray 1 pick) stalled or did not reach the expected speed.	
241.91	Paper remains detected at the sensor (tray 1 pick) after the printer is turned on.	See <a href="#">“Sensor (tray 1 pick) static jam service check” on page 140.</a>

### Sensor (tray 1 pick): Paper failed to clear service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences.</b></p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the tray insert and its paper path guides and drive gears for damage.</p> <p>Is the tray insert free of damage?</p>	Go to step 7.	Go to step 6.

Action	Yes	No
<p><b>Step 6</b> Replace the tray insert. See <a href="#">“550-sheet tray insert removal” on page 416.</a></p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b> <b>b</b> Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p><b>Step 8</b> <b>a</b> Make sure that the sensor cable is properly connected. <b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 10.	Go to step 9.
<p><b>Step 9</b> Replace the sensor. See <a href="#">“Sensor (input) removal” on page 361.</a></p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Isolation</b> <b>b</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 11.
<p><b>Step 11</b> <b>a</b> Make sure that the motor cable is properly connected. <b>b</b> Check the motor and isolation unit for damage.</p> <p>Are the motor and isolation unit free of damage?</p>	Contact the next level of support.	Go to step 12.
<p><b>Step 12</b> <b>a</b> Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426.</a> <b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (tray 1 pick): Paper arrived too early service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b></p> <p>Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the tray exit paper path for fragments and contamination.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (tray 1 pick): Paper cleared too early service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.



Action	Yes	No
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b> Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b> Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	The problem is solved.
<p><b>Step 8</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 9.	Go to step 9.
<p><b>Step 9</b> Replace the sensor. See <a href="#">“Sensor (input) removal” on page 361</a>.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Sensor (input): tray 1 failed to pick service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Replace the paper or change the paper size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the paper tray for overfilling.</p> <p>Is the paper tray overfilled?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b></p> <p>Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 8.	Go to step 9.
<p><b>Step 8</b></p> <p>Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p><b>Step 9</b></p> <p><b>a</b> Make sure that the tray pick roller is properly installed.</p> <p><b>Note:</b> Firmly press the pick roller to its shaft to make sure that it is properly engaged.</p> <p><b>b</b> Check the tray pick roller for excess wear, contamination, and damage.</p> <p>Is the tray pick roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b></p> <p>Replace the pick roller. See <a href="#">“Pick roller removals” on page 418</a>.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p>Check the tray exit paper path for paper fragments and contamination.</p> <p>Is the paper path free of paper fragments and contamination?</p>	Go to step 15.	Go to step 12.
<p><b>Step 12</b></p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p><b>Step 13</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Tray 1 pick).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 15.	Go to step 14.
<p><b>Step 14</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor and the other optional tray components for damage.</p> <p>Are the sensor and optional tray free of damage?</p>	Go to step 15.	Go to step 17.
<p><b>Step 15</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics and adjustments &gt; Motor tests &gt; Pick (tray 1)</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 18.	Go to step 16.

Action	Yes	No
<p><b>Step 16</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor and the other paper feeder components for damage.</p> <p>Are the motor and paper feeder free of damage?</p>	Go to step 18.	Go to step 17.
<p><b>Step 17</b></p> <p><b>a</b> Replace the paper feeder. See <a href="#">“Paper feeder removal” on page 423</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p><b>Step 18</b></p> <p>Perform a print test.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (tray 1 pick) static jam service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Tray 1 pick).</p> <p>Does the sensor status change while toggling the sensor?</p>	Contact the next level of support.	Go to step 4.
<p><b>Step 4</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Check the sensor and the other isolation units for damage.</p> <p>Are the sensor and isolation unit free of damage?</p>	Contact the next level of support.	Go to step 5.

Action	Yes	No
<p><b>Step 5</b></p> <p><b>a</b> Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Motor (tray 1 pick) jam service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Check the tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 2.	Go to step 3.
<p><b>Step 2</b></p> <p>Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 4.	Go to step 5.
<p><b>Step 4</b></p> <p>Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the tray exit paper path for fragments and contamination.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics and adjustments &gt; Motor tests &gt; Pick (tray 1)</b></p> <p><b>b</b> Select a setting, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 8.

Action	Yes	No
<p><b>Step 8</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Check the motor and the other paper feeder components for damage.</p> <p>Are the motor and paper feeder free of damage?</p>	Contact the next level of support.	Go to step 9.
<p><b>Step 9</b></p> <p><b>a</b> Replace the paper feeder. See <a href="#">“Paper feeder removal” on page 423</a>.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 242–245 paper jams

### 242 paper jam messages

Error code	Description	Action
242.21	Paper fed from tray 2 remains detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) after the printer is turned on.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150</a> .
242.22	Paper fed from tray 2 was detected earlier than expected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge).	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152</a> .
242.23	Paper fed from tray 2 never arrived at the sensor (tray 2 pass-through).	See <a href="#">“Sensor (tray 2 pass-through): Paper failed to arrive service check” on page 153</a> .
242.24	Paper fed from tray 2 cleared the sensor (tray 2 pass-through) or the sensor (tray 2 trailing edge) earlier than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161</a> .
242.25	Paper fed from tray 2 cleared the sensor (tray 2 pass-through) or the sensor (tray 2 trailing edge) later than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163</a> .
242.26	Paper fed from tray 2 was picked but it never arrived at the sensor (tray 2 pass-through).	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165</a> .
242.31	Paper fed from tray 3 remains detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) after the printer is turned on.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150</a> .
242.32	Paper fed from tray 3 was detected earlier than expected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge).	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152</a> .
242.33	Paper fed from tray 3 never arrived at the sensor (tray 2 pass-through).	See <a href="#">“Sensor (tray 2 pass-through): Paper failed to arrive service check” on page 153</a> .

Error code	Description	Action
242.34	Paper fed from tray 3 cleared the sensor (tray 2 pass-through) or the sensor (tray 2 trailing edge) earlier than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
242.35	Paper fed from tray 3 cleared the sensor (tray 2 pass-through) or the sensor (tray 2 trailing edge) later than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
242.36	Paper fed from tray 3 was picked but it never arrived at the sensor (tray 2 pass-through).	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>
242.41	Paper fed from tray 4 remains detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) after the printer is turned on.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
242.42	Paper fed from tray 4 was detected earlier than expected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge).	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>
242.43	Paper fed from tray 4 never arrived at the sensor (tray 2 pass-through).	See <a href="#">“Sensor (tray 2 pass-through): Paper failed to arrive service check” on page 153.</a>
242.44	Paper fed from tray 4 cleared the sensor (tray 2 pass-through) or the sensor (tray 2 trailing edge) earlier than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
242.45	Paper fed from tray 4 cleared the sensor (tray 2 pass-through) or the sensor (tray 2 trailing edge) later than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
242.46	Paper fed from tray 4 was picked but it never arrived at the sensor (tray 2 pass-through).	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>
242.51	Paper fed from tray 5 remains detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) after the printer is turned on.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
242.52	Paper fed from tray 5 was detected earlier than expected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge).	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>
242.53	Paper fed from tray 5 never arrived at the sensor (tray 2 pass-through).	See <a href="#">“Sensor (tray 2 pass-through): Paper failed to arrive service check” on page 153.</a>
242.54	Paper fed from tray 5 cleared the sensor (tray 2 pass-through) or the sensor (tray 2 trailing edge) earlier than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
242.55	Paper fed from tray 5 cleared the sensor (tray 2 pass-through) or the sensor (tray 2 trailing edge) later than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
242.56	Paper fed from tray 5 was picked but it never arrived at the sensor (tray 2 pass-through).	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>

Error code	Description	Action
242.70	Motor (550-sheet tray 2 transport) does not turn on.	See <a href="#">“Optional tray transport drive jam service check” on page 173.</a>
242.71	Motor (550-sheet tray 2 transport) does not turn off.	
242.72	Motor (550-sheet tray 2 transport) speed did not ramp up to expected level.	
242.73	Motor (550-sheet tray 2 transport) stalled.	
242.74	Motor (550-sheet tray 2 transport) ran too slow.	
242.75	Motor (550-sheet tray 2 transport) ran too fast.	
242.76	Motor (550-sheet tray 2 transport) ran too long.	
242.80	Motor (550-sheet tray 2 pick/lift) does not turn on.	See <a href="#">“Optional tray pick drive failure service check” on page 175.</a>
242.81	Motor (550-sheet tray 2 pick/lift) does not turn off.	
242.82	Motor (550-sheet tray 2 pick/lift) speed did not ramp up to expected level.	
242.83	Motor (550-sheet tray 2 pick/lift) stalled.	
242.84	Motor (550-sheet tray 2 pick/lift) ran too slow.	
242.85	Motor (550-sheet tray 2 pick/lift) ran too fast.	
242.86	Motor (550-sheet tray 2 pick/lift) ran too long.	
242.91	Paper remains detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) after the printer is turned on. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
242.92	Paper was detected earlier than expected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge). Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>
242.93	Paper never arrived at the sensor (tray 2 pass-through). Paper source is undetermined.	See <a href="#">“Sensor (tray 2 pass-through): Paper failed to arrive service check” on page 153.</a>
242.94	Paper cleared the sensor (tray 2 pass-through) or the sensor (tray 2 trailing edge) earlier than expected. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
242.95	Paper cleared the sensor (tray 2 pass-through) or the sensor (tray 2 trailing edge) later than expected. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
242.96	Paper was picked but it never arrived at the sensor (tray 2 pass-through). Paper source is undetermined.	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>



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Error code	Description	Action
243.31	Paper fed from tray 3 remains detected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge) after the printer is turned on.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
243.32	Paper fed from tray 3 was detected earlier than expected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge).	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>
243.33	Paper fed from tray 3 never arrived at the sensor (tray 3 pass-through).	See <a href="#">“Sensor (tray 3 pass-through): Paper failed to arrive service check” on page 156.</a>
243.34	Paper fed from tray 3 cleared the sensor (tray 3 pass-through) or the sensor (tray 3 trailing edge) earlier than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
243.35	Paper fed from tray 3 cleared the sensor (tray 3 pass-through) or the sensor (tray 3 trailing edge) later than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
243.36	Paper fed from tray 3 was picked but it never arrived at the sensor (tray 3 pass-through).	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>
243.41	Paper fed from tray 4 remains detected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge) after the printer is turned on.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
243.42	Paper fed from tray 4 was detected earlier than expected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge).	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>
243.43	Paper fed from tray 4 never arrived at the sensor (tray 3 pass-through).	See <a href="#">“Sensor (tray 3 pass-through): Paper failed to arrive service check” on page 156.</a>
243.44	Paper fed from tray 4 cleared the sensor (tray 3 pass-through) or the sensor (tray 3 trailing edge) earlier than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
243.45	Paper fed from tray 4 cleared the sensor (tray 3 pass-through) or the sensor (tray 3 trailing edge) later than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
243.46	Paper fed from tray 4 was picked but it never arrived at the sensor (tray 3 pass-through).	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>
243.51	Paper fed from tray 5 remains detected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge) after the printer is turned on.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
243.52	Paper fed from tray 5 was detected earlier than expected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge).	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>

Error code	Description	Action
243.53	Paper fed from tray 5 never arrived at the sensor (tray 3 pass-through).	See <a href="#">“Sensor (tray 3 pass-through): Paper failed to arrive service check” on page 156.</a>
243.54	Paper fed from tray 5 cleared the sensor (tray 3 pass-through) or the sensor (tray 3 trailing edge) earlier than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
243.55	Paper fed from tray 5 cleared the sensor (tray 3 pass-through) or the sensor (tray 3 trailing edge) later than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
243.56	Paper fed from tray 5 was picked but it never arrived at the sensor (tray 3 pass-through).	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>
243.70	Motor (550-sheet tray 3 transport) does not turn on.	See <a href="#">“Optional tray transport drive jam service check” on page 173.</a>
243.71	Motor (550-sheet tray 3 transport) does not turn off.	
243.72	Motor (550-sheet tray 3 transport) speed did not ramp up to expected level.	
243.73	Motor (550-sheet tray 3 transport) stalled.	
243.74	Motor (550-sheet tray 3 transport) ran too slow.	
243.75	Motor (550-sheet tray 3 transport) ran too fast.	
243.76	Motor (550-sheet tray 3 transport) ran too long.	
243.80	Motor (550-sheet tray 3 pick/lift) does not turn on.	See <a href="#">“Optional tray pick drive failure service check” on page 175.</a>
243.81	Motor (550-sheet tray 3 pick/lift) does not turn off.	
243.82	Motor (550-sheet tray 3 pick/lift) speed did not ramp up to expected level.	
243.83	Motor (550-sheet tray 3 pick/lift) stalled.	
243.84	Motor (550-sheet tray 3 pick/lift) ran too slow.	
243.85	Motor (550-sheet tray 3 pick/lift) ran too fast.	
243.86	Motor (550-sheet tray 3 pick/lift) ran too long.	
243.91	Paper remains detected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge) after the printer is turned on. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
243.92	Paper was detected earlier than expected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge). Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>
243.93	Paper never arrived at the sensor (tray 3 pass-through). Paper source is undetermined.	See <a href="#">“Sensor (tray 3 pass-through): Paper failed to arrive service check” on page 156.</a>

Error code	Description	Action
243.94	Paper cleared the sensor (tray 3 pass-through) or the sensor (tray 3 trailing edge) earlier than expected. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
243.95	Paper cleared the sensor (tray 3 pass-through) or the sensor (tray 3 trailing edge) later than expected. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
243.96	Paper was picked but it never arrived at the sensor (tray 3 pass-through). Paper source is undetermined.	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>

## 244 paper jam messages

Error code	Description	Action
244.41	Paper fed from tray 4 remains detected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge) after the printer is turned on.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
244.42	Paper fed from tray 4 was detected earlier than expected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge).	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>
244.43	Paper fed from tray 4 never arrived at the sensor (tray 4 pass-through).	See <a href="#">“Sensor (tray 4 pass-through): Paper failed to arrive service check” on page 158.</a>
244.44	Paper fed from tray 4 cleared the sensor (tray 4 pass-through) or the sensor (tray 4 trailing edge) earlier than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
244.45	Paper fed from tray 4 cleared the sensor (tray 4 pass-through) or the sensor (tray 4 trailing edge) later than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
244.46	Paper fed from tray 4 was picked but it never arrived at the sensor (tray 4 trailing edge).	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>
244.51	Paper fed from tray 5 remains detected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge) after the printer is turned on.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
244.52	Paper fed from tray 5 was detected earlier than expected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge).	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>
244.53	Paper fed from tray 5 never arrived at the sensor (tray 4 pass-through).	See <a href="#">“Sensor (tray 4 pass-through): Paper failed to arrive service check” on page 158.</a>
244.54	Paper fed from tray 5 cleared the sensor (tray 4 pass-through) or the sensor (tray 4 trailing edge) earlier than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
244.55	Paper fed from tray 5 cleared the sensor (tray 4 pass-through) or the sensor (tray 4 trailing edge) later than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>

Error code	Description	Action
244.56	Paper fed from tray 5 was picked but it never arrived at the sensor (tray 4 trailing edge).	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>
244.70	Motor (550-sheet tray 4 transport) does not turn on.	See <a href="#">“Optional tray transport drive jam service check” on page 173.</a>
244.71	Motor (550-sheet tray 4 transport) does not turn off.	
244.72	Motor (550-sheet tray 4 transport) speed did not ramp up to expected level.	
244.73	Motor (550-sheet tray 4 transport) stalled.	
244.74	Motor (550-sheet tray 4 transport) ran too slow.	
244.75	Motor (550-sheet tray 4 transport) ran too fast.	
244.76	Motor (550-sheet tray 4 transport) ran too long.	
244.80	Motor (550-sheet tray 4 pick/lift) does not turn on.	See <a href="#">“Optional tray pick drive failure service check” on page 175.</a>
244.81	Motor (550-sheet tray 4 pick/lift) does not turn off.	
244.82	Motor (550-sheet tray 4 pick/lift) speed did not ramp up to expected level.	
244.83	Motor (550-sheet tray 4 pick/lift) stalled.	
244.84	Motor (550-sheet tray 4 pick/lift) ran too slow.	
244.85	Motor (550-sheet tray 4 pick/lift) ran too fast.	
244.86	Motor (550-sheet tray 4 pick/lift) ran too long.	
244.91	Paper remains detected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge) after the printer is turned on. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
244.92	Paper was detected earlier than expected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge). Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>
244.93	Paper fed from tray 4 never arrived at the sensor (tray 4 pass-through). Paper source is undetermined.	See <a href="#">“Sensor (tray 4 pass-through): Paper failed to arrive service check” on page 158.</a>
244.94	Paper cleared the sensor (tray 4 pass-through) or the sensor (tray 4 trailing edge) earlier than expected. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
244.95	Paper cleared the sensor (tray 4 pass-through) or the sensor (tray 4 trailing edge) later than expected. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
244.96	Paper was picked but it never arrived at the sensor (tray 4 pass-through). Paper source is undetermined.	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>

Error code	Description	Action
244.97	Paper never cleared the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge). Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper failed to clear service check” on page 168.</a>
244.98	Paper was detected later than expected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge). Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too late service check” on page 170.</a>

## 245 paper jam messages

Error code	Description	Action
245.51	Paper fed from tray 5 remains detected at the sensor (tray 5 pass-through) or at the sensor (tray 5 trailing edge) after the printer is turned on.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
245.52	Paper fed from tray 5 was detected earlier than expected at the sensor (tray 5 pass-through) or at the sensor (tray 5 trailing edge).	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>
245.53	Paper fed from tray 5 never arrived at the sensor (tray 5 pass-through).	See <a href="#">“Sensor (tray 4 pass-through): Paper failed to arrive service check” on page 158.</a>
245.54	Paper fed from tray 5 cleared the sensor (tray 5 pass-through) or the sensor (tray 5 trailing edge) earlier than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
245.55	Paper fed from tray 5 cleared the sensor (tray 5 pass-through) or the sensor (tray 5 trailing edge) later than expected.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
245.56	Paper fed from tray 5 was picked but it never arrived at the sensor (tray 5 trailing edge).	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>
245.70	Motor (550-sheet tray 5 transport) does not turn on.	See <a href="#">“Optional tray transport drive jam service check” on page 173.</a>
245.71	Motor (550-sheet tray 5 transport) does not turn off.	
245.72	Motor (550-sheet tray 5 transport) speed did not ramp up to expected level.	
245.73	Motor (550-sheet tray 5 transport) stalled.	
245.74	Motor (550-sheet tray 5 transport) ran too slow.	
245.75	Motor (550-sheet tray 5 transport) ran too fast.	
245.76	Motor (550-sheet tray 5 transport) ran too long.	

Error code	Description	Action
245.80	Motor (550-sheet tray 5 pick/lift) does not turn on.	See <a href="#">“Optional tray pick drive failure service check” on page 175.</a>
245.81	Motor (550-sheet tray 5 pick/lift) does not turn off.	
245.82	Motor (550-sheet tray 5 pick/lift) speed did not ramp up to expected level.	
245.83	Motor (550-sheet tray 5 pick/lift) stalled.	
245.84	Motor (550-sheet tray 5 pick/lift) ran too slow.	
245.85	Motor (550-sheet tray 5 pick/lift) ran too fast.	
245.86	Motor (550-sheet tray 5 pick/lift) ran too long.	
245.91	Paper remains detected at the sensor (tray 5 pass-through) or at the sensor (tray 5 trailing edge) after the printer is turned on. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through) static jam service check” on page 150.</a>
245.92	Paper was detected earlier than expected at the sensor (tray 5 pass-through) or at the sensor (tray 5 trailing edge). Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check” on page 152.</a>
245.93	Paper fed from tray 5 never arrived at the sensor (tray 5 pass-through). Paper source is undetermined.	See <a href="#">“Sensor (tray 4 pass-through): Paper failed to arrive service check” on page 158.</a>
245.94	Paper cleared the sensor (tray 5 pass-through) or the sensor (tray 5 trailing edge) earlier than expected. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check” on page 161.</a>
245.95	Paper cleared the sensor (tray 5 pass-through) or the sensor (tray 5 trailing edge) later than expected. Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check” on page 163.</a>
245.96	Paper was picked but it never arrived at the sensor (tray 5 pass-through). Paper source is undetermined.	See <a href="#">“Sensor (optional tray pass-through): optional tray failed to pick service check” on page 165.</a>
245.97	Paper never cleared the sensor (tray 5 pass-through) or at the sensor (tray 5 trailing edge). Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper failed to clear service check” on page 168.</a>
245.98	Paper was detected later than expected at the sensor (tray 5 pass-through) or at the sensor (tray 5 trailing edge). Paper source is undetermined.	See <a href="#">“Sensors (optional tray trailing edge and pass-through): Paper arrived too late service check” on page 170.</a>

### Sensors (optional tray trailing edge and pass-through) static jam service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences.</b></p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.

Action	Yes	No
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Trailing edge (tray [x])). <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 7.	Go to step 9.
<p><b>Step 7</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray [x])). <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p><b>Step 8</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor and the other optional tray components for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 10.	Go to step 9.

Action	Yes	No
<p><b>Step 9</b> Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b> Perform a print test.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check

Action	Yes	No
<p><b>Step 1</b> <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>. <b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b> <b>b</b> Find the sensor (Trailing edge (tray [x])). <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 6.



Action	Yes	No
<p><b>Step 6</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 7.	Go to step 9.
<p><b>Step 7</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray [x])). <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p><b>Step 8</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor and the other optional tray components for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 10.	Go to step 9.
<p><b>Step 9</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b></p> <p>Perform a print test.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (tray 2 pass-through): Paper failed to arrive service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p><b>Step 3</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Replace the paper or change the paper size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the paper tray for overfilling.</p> <p>Is the paper tray overfilled?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b> Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 8.	Go to step 9.
<p><b>Step 8</b> Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b> Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 12.

Action	Yes	No
<p><b>Step 12</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor and the other optional tray components for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 13.	Go to step 15.
<p><b>Step 13</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></p> <p><b>b</b> Select <b>Pass-through (tray 2)</b>, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 16.	Go to step 14.
<p><b>Step 14</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Make sure that the motor is properly installed.</p> <p><b>c</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and the optional tray free of damage?</p>	Go to step 16.	Go to step 15.
<p><b>Step 15</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p><b>Step 16</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></p> <p><b>b</b> Select <b>Pass-through (tray 3)</b>, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 19.	Go to step 17.
<p><b>Step 17</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Make sure that the motor is properly installed.</p> <p><b>c</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and optional tray free of damage?</p>	Go to step 19.	Go to step 18.

Action	Yes	No
<p><b>Step 18</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p><b>Step 19</b></p> <p>Perform a print test.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (tray 3 pass-through): Paper failed to arrive service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Replace the paper or change the paper size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the paper tray for overfilling.</p> <p>Is the paper tray overfilled?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b></p> <p>Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 8.	Go to step 9.

Action	Yes	No
<p><b>Step 8</b> Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b> Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 12.
<p><b>Step 12</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor and the other optional tray components for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 13.	Go to step 15.
<p><b>Step 13</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></p> <p><b>b</b> Select <b>Pass-through (tray 3)</b>, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 16.	Go to step 14.
<p><b>Step 14</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Make sure that the motor is properly installed.</p> <p><b>c</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and the optional tray free of damage?</p>	Go to step 16.	Go to step 15.

Action	Yes	No
<p><b>Step 15</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p><b>Step 16</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></p> <p><b>b</b> Select <b>Pass-through (tray 4)</b>, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 19.	Go to step 17.
<p><b>Step 17</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Make sure that the motor is properly installed.</p> <p><b>c</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and optional tray free of damage?</p>	Go to step 19.	Go to step 18.
<p><b>Step 18</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p><b>Step 19</b></p> <p>Perform a print test.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (tray 4 pass-through): Paper failed to arrive service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p><b>Step 3</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Replace the paper or change the paper size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the paper tray for overfilling.</p> <p>Is the paper tray overfilled?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b> Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 8.	Go to step 9.
<p><b>Step 8</b> Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b> Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray 4)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 12.

Action	Yes	No
<p><b>Step 12</b></p> <ul style="list-style-type: none"> <li><b>a</b> Make sure that the sensor cable is properly connected.</li> <li><b>b</b> Make sure that the sensor is properly installed.</li> <li><b>c</b> Check the sensor and the other optional tray components for damage.</li> </ul> <p>Is the sensor free of damage?</p>	Go to step 13.	Go to step 15.
<p><b>Step 13</b></p> <ul style="list-style-type: none"> <li><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></li> <li><b>b</b> Select <b>Pass-through (tray 4)</b>, and then touch <b>Start</b>.</li> </ul> <p>Does the motor run?</p>	Go to step 16.	Go to step 14.
<p><b>Step 14</b></p> <ul style="list-style-type: none"> <li><b>a</b> Make sure that the motor cable is properly connected.</li> <li><b>b</b> Make sure that the motor is properly installed.</li> <li><b>c</b> Check the motor and the other optional tray components for damage.</li> </ul> <p>Are the motor and the optional tray free of damage?</p>	Go to step 16.	Go to step 15.
<p><b>Step 15</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p><b>Step 16</b></p> <ul style="list-style-type: none"> <li><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></li> <li><b>b</b> Select <b>Pass-through (tray 5)</b>, and then touch <b>Start</b>.</li> </ul> <p>Does the motor run?</p>	Go to step 19.	Go to step 17.
<p><b>Step 17</b></p> <ul style="list-style-type: none"> <li><b>a</b> Make sure that the motor cable is properly connected.</li> <li><b>b</b> Make sure that the motor is properly installed.</li> <li><b>c</b> Check the motor and the other optional tray components for damage.</li> </ul> <p>Are the motor and optional tray free of damage?</p>	Go to step 19.	Go to step 18.



Action	Yes	No
<p><b>Step 18</b> Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p><b>Step 19</b> Perform a print test.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check

Action	Yes	No
<p><b>Step 1</b>  <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.  <b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Replace the paper or change the paper size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the paper tray for overfilling.</p> <p>Is the paper tray overfilled?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b> Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p><b>Step 7</b></p> <p>Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 8.	Go to step 9.
<p><b>Step 8</b></p> <p>Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Trailing edge (tray [x])).  <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 11.	Go to step 13.
<p><b>Step 11</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray [x])).  <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p><b>Step 12</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor and the other optional tray components for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 14.	Go to step 13.
<p><b>Step 13</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Action	Yes	No
<p><b>Step 14</b> Perform a print test.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensors (optional tray trailing edge and pass-through): Paper cleared too late service check

Action	Yes	No
<p><b>Step 1</b>  <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.  <b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Replace the paper or change the paper size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the primary paper path for paper jams and obstructions.</p> <p>Is the paper path free of jams and obstructions?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b> Remove the paper jams and obstructions.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b>  <b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b>  <b>b</b> Find the sensor (Trailing edge (tray [x])).  <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	Go to step 8.

Action	Yes	No
<p><b>Step 8</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor and the other optional tray components for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 9.	Go to step 13.
<p><b>Step 9</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray [x])). <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor and the other optional tray components for damage.</p> <p>Are the sensor and the optional tray free of damage?</p>	Go to step 11.	Go to step 11.
<p><b>Step 11</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></p> <p><b>b</b> Select <b>Pass-through (tray [x])</b>, and then touch <b>Start</b>. <b>Note:</b> [x] is the tray number.</p> <p>Does the motor run?</p>	Go to step 14.	Go to step 12.
<p><b>Step 12</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Make sure that the motor is properly installed.</p> <p><b>c</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and the optional tray free of damage?</p>	Go to step 14.	Go to step 13.
<p><b>Step 13</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Action	Yes	No
<p><b>Step 14</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests</b></p> <p><b>b</b> Select <b>Duplex/MPF</b>, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p><b>Step 15</b></p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 17.	Go to step 16.
<p><b>Step 16</b></p> <p>Reinstall or replace the motor. See <a href="#">“Motor (duplex/MPF) removal” on page 343</a>.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p><b>Step 17</b></p> <p>Perform a print test.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (optional tray pass-through): optional tray failed to pick service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Replace the paper or change the paper size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p><b>Step 5</b> Check the paper tray for overfilling.</p> <p>Is the paper tray overfilled?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b> Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 8.	Go to step 9.
<p><b>Step 8</b> Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b></p> <p><b>a</b> Make sure that the optional tray pick roller is properly installed. <b>Note:</b> Firmly press the pick roller to its shaft to make sure that it is properly engaged.</p> <p><b>b</b> Check the optional tray pick roller for excess wear, contamination, and damage.</p> <p>Is the optional tray pick roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b> Replace the pick roller. See <a href="#">“Pick roller removals” on page 418</a>.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b> Check the tray exit paper path for paper fragments and contamination.</p> <p>Is the paper path free of paper fragments and contamination?</p>	Go to step 15.	Go to step 12.
<p><b>Step 12</b> Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p><b>Step 13</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Trailing edge (tray [x])).  <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 15.	Go to step 14.
<p><b>Step 14</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor and the other optional tray components for damage.</p> <p>Are the sensor and optional tray free of damage?</p>	Go to step 15.	Go to step 17.
<p><b>Step 15</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Additional input tray diagnostics &gt; Motor tests</b></p> <p><b>b</b> Select <b>Pick (tray [x])</b>, and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 18.	Go to step 16.
<p><b>Step 16</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Make sure that the motor is properly installed.</p> <p><b>c</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and the optional tray free of damage?</p>	Go to step 18.	Go to step 17.
<p><b>Step 17</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p><b>Step 18</b></p> <p>Perform a print test.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Sensors (optional tray trailing edge and pass-through): Paper failed to clear service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Trailing edge (tray [x])). <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 7.	Go to step 11.
<p><b>Step 7</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Pass-through (tray [x])). <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	Go to step 8.



Action	Yes	No
<p><b>Step 8</b></p> <p><b>a</b> Make sure that the sensor cable is properly connected.</p> <p><b>b</b> Make sure that the sensor is properly installed.</p> <p><b>c</b> Check the sensor and the other optional tray components for damage.</p> <p>Is the sensor free of damage?</p>	Go to step 9.	Go to step 11.
<p><b>Step 9</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></p> <p><b>b</b> Select <b>Pass-through (tray [x])</b>, and then touch <b>Start</b>.</p> <p><b>Note:</b> [x] is the tray number.</p> <p>Does the motor run?</p>	Go to step 12.	Go to step 10.
<p><b>Step 10</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Make sure that the motor is properly installed.</p> <p><b>c</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and optional tray free of damage?</p>	Go to step 12.	Go to step 11.
<p><b>Step 11</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p><b>Step 12</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests</b></p> <p><b>b</b> Find the motor (Duplex/MPF), and then touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 15.	Go to step 13.
<p><b>Step 13</b></p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 15.	Go to step 14.
<p><b>Step 14</b></p> <p>Reinstall or replace the motor. See <a href="#">“Motor (duplex/MPF) removal” on page 343</a>.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.

Action	Yes	No
<p><b>Step 15</b> Perform a print test.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensors (optional tray trailing edge and pass-through): Paper arrived too late service check

Action	Yes	No
<p><b>Step 1</b>  <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.  <b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Replace the paper or change the paper size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the paper tray for overfilling.</p> <p>Is the paper tray overfilled?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b> Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 8.	Go to step 9.
<p><b>Step 8</b> Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p><b>Step 9</b></p> <p><b>a</b> Make sure that the separator bracket is properly installed.</p> <p><b>b</b> Check the separator bracket for damage.</p> <p>Is the separator bracket free of damage?</p>	Go to step 11.	Go to step 10.
<p><b>Step 10</b></p> <p>Replace the separator bracket. See <a href="#">“Separator bracket removal” on page 417.</a></p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p><b>a</b> Make sure that the optional tray pick roller is properly installed.</p> <p><b>Note:</b> Firmly press the pick roller to its shaft to make sure that it is properly engaged.</p> <p><b>b</b> Check the optional tray pick roller for excess wear, contamination, and damage.</p> <p>Is the optional tray pick roller free from excess wear, contamination, and damage?</p>	Go to step 13.	Go to step 12.
<p><b>Step 12</b></p> <p>Replace the pick roller. See <a href="#">“Pick roller removals” on page 418.</a></p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p><b>Step 13</b></p> <p>Check the tray exit paper path for paper fragments and contamination.</p> <p>Is the paper path free of paper fragments and contamination?</p>	Go to step 15.	Go to step 14.
<p><b>Step 14</b></p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p><b>Step 15</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></p> <p><b>b</b> Find the sensor (Trailing edge (tray [x])).</p> <p><b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 17.	Go to step 16.

Action	Yes	No
<p><b>Step 16</b></p> <ul style="list-style-type: none"> <li><b>a</b> Make sure that the sensor cable is properly connected.</li> <li><b>b</b> Make sure that the sensor is properly installed.</li> <li><b>c</b> Check the sensor for damage.</li> </ul> <p>Is the sensor free of damage?</p>	Go to step 17.	Go to step 23.
<p><b>Step 17</b></p> <ul style="list-style-type: none"> <li><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></li> <li><b>b</b> Select <b>Pick (tray [x])</b>, and then touch <b>Start</b>. <b>Note:</b> [x] is the tray number.</li> </ul> <p>Does the motor run?</p>	Go to step 19.	Go to step 18.
<p><b>Step 18</b></p> <ul style="list-style-type: none"> <li><b>a</b> Make sure that the motor cable is properly connected.</li> <li><b>b</b> Make sure that the motor is properly installed.</li> <li><b>c</b> Check the motor and the other optional tray components for damage.</li> </ul> <p>Are the motor and the optional tray free of damage?</p>	Go to step 19.	Go to step 23.
<p><b>Step 19</b></p> <ul style="list-style-type: none"> <li><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b></li> <li><b>b</b> Find the sensor (Pass-through (tray [x])). <b>Note:</b> [x] is the tray number.</li> </ul> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 21.	Go to step 20.
<p><b>Step 20</b></p> <ul style="list-style-type: none"> <li><b>a</b> Make sure that the sensor cable is properly connected.</li> <li><b>b</b> Make sure that the sensor is properly installed.</li> <li><b>c</b> Check the sensor and the other optional tray components for damage.</li> </ul> <p>Are the sensor and optional tray free of damage?</p>	Go to step 21.	Go to step 23.

Action	Yes	No
<p><b>Step 21</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></p> <p><b>b</b> Select <b>Pass-through (tray [x])</b>, and then touch <b>Start</b>. <b>Note:</b> [x] is the tray number.</p> <p>Does the motor run?</p>	Go to step 24.	Go to step 22.
<p><b>Step 22</b></p> <p><b>a</b> Make sure that the motor cable is properly connected.</p> <p><b>b</b> Make sure that the motor is properly installed.</p> <p><b>c</b> Check the motor and the other optional tray components for damage.</p> <p>Are the motor and optional tray free of damage?</p>	Go to step 24.	Go to step 23.
<p><b>Step 23</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p><b>Step 24</b></p> <p>Perform a print test.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Optional tray transport drive jam service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Check the paper path and trays for paper fragments and partially fed paper.</p> <p>Is the paper path free of paper fragments and partially fed paper?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Remove the paper fragments and partially fed paper.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Make sure that all the trays and tray inserts are properly installed.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p><b>Step 4</b> Enter the Diagnostics menu, and then navigate to: <b>Input tray quick print</b> &gt;select source tray &gt; <b>Single</b></p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input tray adjustments/tests</b> &gt; <b>Additional input tray motors</b> <b>b</b> Select <b>Pass-through (tray [x])</b>, and then touch <b>Start</b>. <b>Note:</b> [x] is the tray number.</p> <p>Does the motor run?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b> Reseat the cable on the motor and on the optional tray controller board.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Remove the source tray insert, and then check if the following components are functional and free of damage:</p> <ul style="list-style-type: none"> <li>• Paper guides</li> <li>• Lift plate</li> </ul> <p><b>Note:</b> Move the components or turn gears to check for proper mechanisms.</p> <p>Are the tray insert and its components functional and free of damage?</p>	Go to step 9.	Go to step 8.
<p><b>Step 8</b> Replace the tray insert.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> Make sure that the controller board of the affected tray is properly installed. Reseat all the cables on the controller board.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b> Check the affected tray controller board and its connector pins for damage.</p> <p>Are the tray controller board and its connectors free of damage?</p>	Contact the next level of support.	The problem is solved.

Action	Yes	No
<p><b>Step 11</b> Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Optional tray pick drive failure service check

Action	Yes	No
<p><b>Step 1</b> Check the paper path and trays for paper fragments and partially fed paper.</p> <p>Is the paper path free of paper fragments and partially fed paper?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Remove the paper fragments and partially fed paper.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Make sure that all the trays and tray inserts are properly installed.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Enter the Diagnostics menu, and then navigate to: <b>Input tray quick print</b> &gt;select source tray &gt; <b>Single</b></p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input tray diagnostics</b> &gt; <b>Motor tests</b> <b>b</b> Select <b>Pick (tray [x])</b>, and then touch <b>Start</b>. <b>Note:</b> [x] is the tray number.</p> <p>Does the motor run?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b> Reseat the cable on the motor and on the optional tray controller board.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p><b>Step 7</b></p> <p>Check the source tray controller board and its connector pins for damage.</p> <p>Are the tray controller board and its connectors free of damage?</p>	Contact the next level of support.	The problem is solved.
<p><b>Step 8</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## User attendance messages

### 0y user attendance errors

#### 8 user attendance messages

Error code	Description	Action
8.01	A door is detected as open.	See <a href="#">“Door interlock switch service check” on page 176</a> .

### Supply error service check

Action	Yes	No
<p>Make sure that the supplies are properly and completely installed.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Door interlock switch service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Door interlock).</p> <p>Does the sensor status change while toggling the sensor?</p>	The problem is solved.	Go to step 2.
<p><b>Step 2</b></p> <p>Make sure that the sensor cable is properly connected.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.



Action	Yes	No
<p><b>Step 3</b></p> <p><b>a</b> Remove the motor cover. See <a href="#">“Motor cover removal” on page 356</a>.</p> <p><b>b</b> Make sure that the interlock sensor cable relay is properly connected.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Check the front door interlock switch actuator for damage.</p> <p>Is the actuator free of damage?</p>	Go to step 6.	Go to step 5.
<p><b>Step 5</b></p> <p>Replace the duplex outer guide. See <a href="#">“Duplex outer guide removal” on page 389</a>.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p>Check the toner door interlock switch actuator for damage.</p> <p>Is the actuator free of damage?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b></p> <p>Replace the toner door. See <a href="#">“Toner door removal” on page 335</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b></p> <p>Replace the motor cover. See <a href="#">“Motor cover removal” on page 356</a>.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b></p> <p>Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Auto reboot error service check

Action	Yes	No
<p><b>Step 1</b> Turn off the printer, wait for about 10 seconds, and then turn on the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b>  <b>a</b> Turn off the printer.  <b>b</b> Turn on the printer and enter the Diagnostics menu.  <b>c</b> Do a print test.  <b>d</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Make sure that the controller board is properly installed. Reseat all the cables on the controller board.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Check the firmware version.</p> <p>Is the firmware updated to the latest version?</p>	Go to step 6.	Go to step 5.
<p><b>Step 5</b> Update the firmware.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b> Check the controller board and its connector pins for damage.</p> <p>Are the controller board and its connectors free of damage?</p>	Contact the next level of support.	Go to step 7.
<p><b>Step 7</b> Replace the controller board. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 1y user attendance errors

### 11–12 user attendance messages

Error code	Description	Action
11.11	A wrong paper type or size was detected on tray 1.	See <a href="#">“Mismatched paper size service check” on page 180.</a>
11.12	A wrong paper type, size, or orientation was detected on tray 1.	
11.21	A wrong paper type or size was detected on tray 2.	
11.22	A wrong paper type, size, or orientation was detected on tray 2.	
11.31	A wrong paper type or size was detected on tray 3.	
11.32	A wrong paper type, size, or orientation was detected on tray 3.	
11.41	A wrong paper type or size was detected on tray 4.	
11.42	A wrong paper type, size, or orientation was detected on tray 4.	
11.51	A wrong paper type or size was detected on tray 5.	
11.52	A wrong paper type, size, or orientation was detected on tray 5.	
11.81	A wrong paper type or size was detected on the MPF.	
11.82	A wrong paper type, size, or orientation was detected on the MPF.	
11.91	A wrong paper type or size was detected on the MPF.	
11.92	A wrong paper type, size, or orientation was detected on the MPF.	

Error code	Description	Action
12.11	A wrong setting for paper type or size was detected on tray 1.	See <a href="#">“Mismatched paper size service check” on page 180.</a>
12.12	A wrong setting for paper type, size, or orientation was detected on tray 1.	
12.21	A wrong setting for paper type or size was detected on tray 2.	
12.22	A wrong setting for paper type, size, or orientation was detected on tray 2.	
12.31	A wrong setting for paper type or size was detected on tray 3.	
12.32	A wrong setting for paper type, size, or orientation was detected on tray 3.	
12.41	A wrong setting for paper type or size was detected on tray 4.	
12.42	A wrong setting for paper type, size, or orientation was detected on tray 4.	
12.51	A wrong setting for paper type or size was detected on tray 5.	
12.52	A wrong setting for paper type, size, or orientation was detected on tray 5.	
12.81	A wrong setting for paper type or size was detected on the MPF.	
12.82	A wrong setting for paper type, size, or orientation was detected on the MPF.	
12.91	A wrong setting for paper type or size was detected on the MPF.	
12.92	A wrong setting for paper type, size, or orientation was detected on the MPF.	

### Mismatched paper size service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>.</p> <p><b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<b>Step 3</b> Check the engine board and its pins for damage.  Is the engine board free of damage?	Contact the next level of support.	Go to step 4.
<b>Step 4</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a>  Does the problem remain?	Contact the next level of support.	The problem is solved.

## 3y user attendance errors

### 31 user attendance error messages

Error code	Description	Action
31.35A	A waste toner bottle smart chip or sensor communication error was detected.	See <a href="#">“Waste toner bottle service check” on page 204.</a>
31.35B	A waste toner bottle smart chip or sensor communication error was detected.	
31.35C	A waste toner bottle smart chip or sensor communication error was detected.	
31.35D	A waste toner bottle smart chip or sensor communication error was detected.	
31.35E	A waste toner bottle smart chip or sensor communication error was detected.	
31.35F	A waste toner bottle smart chip or sensor communication error was detected.	
31.35G	A waste toner bottle smart chip or sensor communication error was detected.	
31.35H	A waste toner bottle smart chip or sensor communication error was detected.	

Error code	Description	Action
31.40A	A black toner cartridge smart chip or sensor communication error was detected.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
31.40B	A black toner cartridge smart chip or sensor communication error was detected.	
31.40C	A black toner cartridge smart chip or sensor communication error was detected.	
31.40D	A black toner cartridge smart chip or sensor communication error was detected.	
31.40E	A black toner cartridge smart chip or sensor communication error was detected.	
31.40F	A black toner cartridge smart chip or sensor communication error was detected.	
31.40G	A black toner cartridge smart chip or sensor communication error was detected.	
31.40H	A black toner cartridge smart chip or sensor communication error was detected.	
31.41A	A cyan toner cartridge smart chip or sensor communication error was detected.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
31.41B	A cyan toner cartridge smart chip or sensor communication error was detected.	
31.41C	A cyan toner cartridge smart chip or sensor communication error was detected.	
31.41D	A cyan toner cartridge smart chip or sensor communication error was detected.	
31.41E	A cyan toner cartridge smart chip or sensor communication error was detected.	
31.41F	A cyan toner cartridge smart chip or sensor communication error was detected.	
31.41G	A cyan toner cartridge smart chip or sensor communication error was detected.	
31.41H	A cyan toner cartridge smart chip or sensor communication error was detected.	

Error code	Description	Action
31.42A	A magenta toner cartridge smart chip or sensor communication error was detected.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
31.42B	A magenta toner cartridge smart chip or sensor communication error was detected.	
31.42C	A magenta toner cartridge smart chip or sensor communication error was detected.	
31.42D	A magenta toner cartridge smart chip or sensor communication error was detected.	
31.42E	A magenta toner cartridge smart chip or sensor communication error was detected.	
31.42G	A magenta toner cartridge smart chip or sensor communication error was detected.	
31.43A	A yellow toner cartridge smart chip or sensor communication error was detected.	
31.43B	A yellow toner cartridge smart chip or sensor communication error was detected.	
31.43C	A yellow toner cartridge smart chip or sensor communication error was detected.	
31.43D	A yellow toner cartridge smart chip or sensor communication error was detected.	
31.43E	A yellow toner cartridge smart chip or sensor communication error was detected.	
31.43F	A yellow toner cartridge smart chip or sensor communication error was detected.	
31.43G	A yellow toner cartridge smart chip or sensor communication error was detected.	
31.43H	A yellow toner cartridge smart chip or sensor communication error was detected.	

Error code	Description	Action
31.60A	A black imaging unit smart chip or sensor communication error was detected.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
31.60B	A black imaging unit smart chip or sensor communication error was detected.	
31.60C	A black imaging unit smart chip or sensor communication error was detected.	
31.60D	A black imaging unit smart chip or sensor communication error was detected.	
31.60E	A black imaging unit smart chip or sensor communication error was detected.	
31.60F	A black imaging unit smart chip or sensor communication error was detected.	
31.60G	A black imaging unit smart chip or sensor communication error was detected.	
31.60H	A black imaging unit smart chip or sensor communication error was detected.	
31.64A	A CMY imaging kit smart chip or sensor communication error was detected.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
31.64B	A CMY imaging kit smart chip or sensor communication error was detected.	
31.64C	A CMY imaging kit smart chip or sensor communication error was detected.	
31.64D	A CMY imaging kit smart chip or sensor communication error was detected.	
31.64E	A CMY imaging kit smart chip or sensor communication error was detected.	
31.64F	A CMY imaging kit smart chip or sensor communication error was detected.	
31.64G	A CMY imaging kit smart chip or sensor communication error was detected.	
31.64H	A CMY imaging kit smart chip or sensor communication error was detected.	



Error code	Description	Action
31.80A	A fuser smart chip or sensor communication error was detected.	See <a href="#">“Fuser service check” on page 214.</a>
31.80B	A fuser smart chip or sensor communication error was detected.	
31.80C	A fuser smart chip or sensor communication error was detected.	
31.80D	A fuser smart chip or sensor communication error was detected.	
31.80E	A fuser smart chip or sensor communication error was detected.	
31.80F	A fuser smart chip or sensor communication error was detected.	
31.80G	A fuser smart chip or sensor communication error was detected.	
31.80H	A fuser smart chip or sensor communication error was detected.	
31.80Y	A fuser smart chip or sensor communication error was detected.	
31.80Z	A fuser smart chip or sensor communication error was detected.	

### 32 user attendance error messages

Error code	Description	Action
32.40A	The black toner cartridge is unsupported.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
32.40B	The black toner cartridge is unsupported.	
32.40C	The black toner cartridge is unsupported.	
32.40D	The black toner cartridge is unsupported.	
32.40E	The black toner cartridge is unsupported.	
32.40F	The black toner cartridge is unsupported.	
32.41A	The cyan toner cartridge is unsupported.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
32.41B	The cyan toner cartridge is unsupported.	
32.41C	The cyan toner cartridge is unsupported.	
32.41D	The cyan toner cartridge is unsupported.	
32.41E	The cyan toner cartridge is unsupported.	
32.41F	The cyan toner cartridge is unsupported.	

Error code	Description	Action
32.42A	The magenta toner cartridge is unsupported.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
32.42B	The magenta toner cartridge is unsupported.	
32.42C	The magenta toner cartridge is unsupported.	
32.42D	The magenta toner cartridge is unsupported.	
32.42E	The magenta toner cartridge is unsupported.	
32.42F	The magenta toner cartridge is unsupported.	
32.43A	The yellow toner cartridge is unsupported.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
32.43B	The yellow toner cartridge is unsupported.	
32.43C	The yellow toner cartridge is unsupported.	
32.43D	The yellow toner cartridge is unsupported.	
32.43E	The yellow toner cartridge is unsupported.	
32.43F	The yellow toner cartridge is unsupported.	
32.60A	The black imaging unit is unsupported.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
32.60B	The black imaging unit is unsupported.	
32.60C	The black imaging unit is unsupported.	
32.60D	The black imaging unit is unsupported.	
32.60E	The black imaging unit is unsupported.	
32.60F	The black imaging unit is unsupported.	
32.64A	The CMY imaging kit is unsupported.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
32.64B	The CMY imaging kit is unsupported.	
32.64C	The CMY imaging kit is unsupported.	
32.64D	The CMY imaging kit is unsupported.	
32.64E	The CMY imaging kit is unsupported.	
32.64F	The CMY imaging kit is unsupported.	

### 33 user attendance error messages

**Note:** For more information, see [“Non-Lexmark supply” on page 187.](#)

Error code	Description	Action
33.40	An inauthentic black toner cartridge was detected.	See <a href="#">“Missing toner cartridge, imaging unit, or imaging kit service check” on page 188.</a>
33.41	An inauthentic cyan toner cartridge was detected.	
33.42	An inauthentic magenta toner cartridge was detected.	
33.43	An inauthentic yellow toner cartridge was detected.	
33.60	An inauthentic black imaging unit was detected.	
33.64	An inauthentic CMY imaging kit was detected.	

### 37–39 user attendance messages

Error code	Description	Action
37.03	The memory is insufficient to collate the job.	See <a href="#">“Insufficient memory service check” on page 190.</a>
38.00	The memory is full.	
38.01	The memory is full.	
39.01	The page is too complex to print.	See <a href="#">“Complex page service check” on page 190.</a>
39.02	The page is too complex to print.	

### Non-Lexmark supply

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

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

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

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

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

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

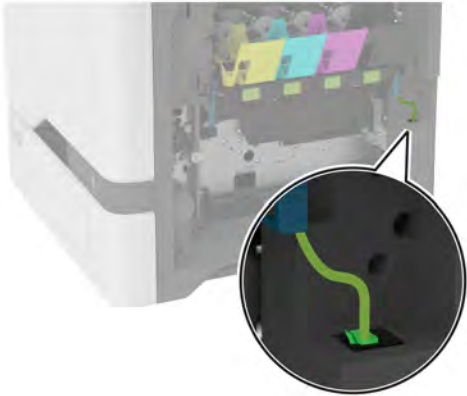
If the printer does not print after clearing the error message, then instruct the customer to reset the supply usage counter.

### Resetting the supply usage counter

- 1 From the home screen, touch **Settings** > **Device** > **Maintenance** > **Configuration Menu** > **Supply Usage And Counters**.
- 2 Select the part or supply to reset, and then touch **Start**.
- 3 Read the warning message, and then touch **Continue**.
- 4 Using two fingers, touch the display for 15 seconds to clear the message.

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

### Missing toner cartridge, imaging unit, or imaging kit service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Make sure that the toner cartridge or imaging unit is properly installed.</p> <p><b>b</b> Make sure that the supply is genuine and supported.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p>Make sure that the imaging kit cable is properly connected.</p>  <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p><b>a</b> Remove the imaging kit. See <a href="#">“Imaging kit removal” on page 332</a>. Make sure that the springs allow for proper contact. If the imaging kit is damaged, then go to step 4.</p> <p><b>b</b> Make sure that the imaging kit cable is properly connected.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p><b>Step 4</b> Replace the imaging kit. See <a href="#">“Imaging kit removal” on page 332</a>. Reuse the current supplies.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Make sure that the HVPS pogo pin cables are properly connected.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b> Check the pogo pin contacts for dust or debris.</p> <p>Are the contacts free of dust or debris?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b> Remove the dust or debris.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Check the HVPS and its pogo pin contacts for damage.</p> <p>Is the HVPS free of damage?</p>	Go to step 10.	Go to step 9.
<p><b>Step 9</b> Replace the HVPS. See <a href="#">“HVPS removal” on page 345</a>.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find, and then test the sensor of the affected supply.</p> <ul style="list-style-type: none"> <li>• K Toner Meter</li> <li>• C Toner Meter</li> <li>• M Toner Meter</li> <li>• Y Toner Meter</li> </ul> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 12.	Go to step 11.
<p><b>Step 11</b> Replace the TMC card. See <a href="#">“TMC card removal” on page 337</a>.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.

Action	Yes	No
<p><b>Step 12</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Insufficient memory service check

Action	Yes	No
<p><b>a</b> Perform a POR.</p> <p><b>b</b> From the home screen, navigate to <b>Settings &gt; Print &gt; Setup &gt; Download Target &gt; Disk</b>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Complex page service check

Action	Yes	No
<p><b>Step 1</b> Reset the printer, and then navigate to: <b>Settings &gt; Print &gt; Setup &gt; Download Target &gt; Disk</b></p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Enter the Diagnostics menu, and then navigate to: <b>Input tray quick print &gt; Tray 1 &gt; Single</b></p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the controller board pins for damage, and replace if necessary. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 4y user attendance errors

### 42 user attendance messages

Error code	Description	Action
42.01	The toner cartridge and printer regions are mismatched.	See <a href="#">“Region mismatch service check” on page 193.</a>
42.02	The toner cartridge and printer regions are mismatched.	
42.03	The toner cartridge and printer regions are mismatched.	
42.04	The toner cartridge and printer regions are mismatched.	
42.05	The toner cartridge and printer regions are mismatched.	
42.09	The toner cartridge and printer regions are mismatched.	
42.10	The toner cartridge and printer regions are mismatched.	See <a href="#">“Region mismatch service check” on page 193.</a>
42.12	The toner cartridge and printer regions are mismatched.	
42.13	The toner cartridge and printer regions are mismatched.	
42.14	The toner cartridge and printer regions are mismatched.	
42.15	The toner cartridge and printer regions are mismatched.	
42.19	The toner cartridge and printer regions are mismatched.	
42.20	The toner cartridge and printer regions are mismatched.	See <a href="#">“Region mismatch service check” on page 193.</a>
42.21	The toner cartridge and printer regions are mismatched.	
42.23	The toner cartridge and printer regions are mismatched.	
42.24	The toner cartridge and printer regions are mismatched.	
42.25	The toner cartridge and printer regions are mismatched.	
42.29	The toner cartridge and printer regions are mismatched.	

Error code	Description	Action
42.30	The toner cartridge and printer regions are mismatched.	See <a href="#">“Region mismatch service check” on page 193.</a>
42.31	The toner cartridge and printer regions are mismatched.	
42.32	The toner cartridge and printer regions are mismatched.	
42.34	The toner cartridge and printer regions are mismatched.	
42.35	The toner cartridge and printer regions are mismatched.	
42.39	The toner cartridge and printer regions are mismatched.	
42.40	The toner cartridge and printer regions are mismatched.	See <a href="#">“Region mismatch service check” on page 193.</a>
42.41	The toner cartridge and printer regions are mismatched.	
42.42	The toner cartridge and printer regions are mismatched.	
42.43	The toner cartridge and printer regions are mismatched.	
42.45	The toner cartridge and printer regions are mismatched.	
42.49	The toner cartridge and printer regions are mismatched.	
42.50	The toner cartridge and printer regions are mismatched.	See <a href="#">“Region mismatch service check” on page 193.</a>
42.51	The toner cartridge and printer regions are mismatched.	
42.52	The toner cartridge and printer regions are mismatched.	
42.53	The toner cartridge and printer regions are mismatched.	
42.54	The toner cartridge and printer regions are mismatched.	
42.59	The toner cartridge and printer regions are mismatched.	



Error code	Description	Action
42.90	The toner cartridge and printer regions are mismatched.	See <a href="#">“Region mismatch service check” on page 193.</a>
42.91	The toner cartridge and printer regions are mismatched.	
42.92	The toner cartridge and printer regions are mismatched.	
42.93	The toner cartridge and printer regions are mismatched.	
42.94	The toner cartridge and printer regions are mismatched.	
42.95	The toner cartridge and printer regions are mismatched.	

### 43 user attendance error messages

Error code	Description	Action
43.40Y	A black TMC error was detected.	See <a href="#">“Toner meter cycle (TMC) card service check” on page 194.</a>
43.40Z	A black TMC error was detected.	
43.41Y	A cyan TMC error was detected.	
43.41Z	A cyan TMC error was detected.	
43.42Y	A magenta TMC error was detected.	
43.42Z	A magenta TMC error was detected.	
43.43Y	A yellow TMC error was detected.	
43.43Z	A yellow TMC error was detected.	

### Region mismatch service check

#### Notes:

- The 42 errors occur due to a region mismatch.
- The first digit after 42 indicates the region code of the printer.
- The second digit after 42 indicates the region code of the cartridge.
- A worldwide cartridge is compatible with all printer regions.

Numeric code	Region
0	Worldwide or Undefined region
1	North America (United States, Canada)
2	European Economic Area, Western Europe, Nordic countries, Switzerland
3	Asia Pacific

Numeric code	Region
4	Latin America
5	Rest of Europe, Middle East, Africa
6	Australia, New Zealand
9	Invalid region

Action	Yes	No
<b>Step 1</b> Check the region number of the cartridge and the printer.  Do the numbers match?	Contact the next level of support.	Go to step 2.
<b>Step 2</b> Install the appropriate cartridge.  Does the problem remain?	Contact the next level of support.	The problem is solved.

### Toner meter cycle (TMC) card service check

Actions	Yes	No
<b>Step 1</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b> <b>b</b> Find the sensor (toner meter) of the affected color.  Does the sensor status change while toggling the sensor?	Go to step 2.	Go to step 3.
<b>Step 2</b> Replace the toner cartridge.  Does the problem remain?	Go to step 3.	The problem is solved.
<b>Step 3</b> Replace the TMC card. See <a href="#">“TMC card removal” on page 337</a> .  Does the problem remain?	Contact the next level of support.	The problem is solved.

## 5y user attendance errors

### 55–59 user attendance error messages

Error code	Description	Action
55.1	An unsupported USB device was detected.	See <a href="#">“Unsupported USB device or hub service check” on page 195</a> .
55.2	An unsupported USB hub was detected.	

Error code	Description	Action
58A	Too many optional trays were detected.	See <a href="#">“Excess options service check” on page 196.</a>
58B	Too many optional trays were detected.	
58C	Too many optional trays were detected.	
58D	Too many optional trays were detected.	
59C	An unsupported option was detected.	See <a href="#">“Incompatible option service check” on page 196.</a>
59D	An unsupported option was detected.	

## Unsupported USB device or hub service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Make sure that the flash drive supports the File Allocation Table (FAT) system.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p>Try another flash drive.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is not with the printer. Replace the unsupported or defective flash drive.
<p><b>Step 3</b></p> <p>Check the firmware version.</p> <p>Is the firmware updated to the latest version?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b></p> <p>Update the firmware.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Make sure that the controller board is properly installed. Reseat all the cables on the controller board.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p>Check the controller board and its connector pins for damage.</p> <p>Are the controller board and its connectors free of damage?</p>	Contact the next level of support.	Go to step 7.
<p><b>Step 7</b></p> <p>Replace the controller board. See <a href="#">“Controller board removal” on page 395.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Excess options service check

Action	Yes	No
<p><b>Step 1</b> Perform a POR, and then resend the print job.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Check the number of optional trays allowed, and then remove the excess optional trays.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the engine board pins for damage.</p> <p>Are the pins free of damage?</p>	Contact the next level of support.	Go to step 4.
<p><b>Step 4</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Incompatible option service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Unplug the printer, and then reseal the optional tray interface cable.</p> <p><b>b</b> Plug the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Check if the engine firmware supports the optional tray, and update the firmware if necessary.</p> <p><b>Note:</b> Contact the next level of support for the correct firmware version.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the optional tray and its controller board for damage.</p> <p>Are the optional tray and its controller board free of damage?</p>	Contact the next level of support.	The problem is solved.

Action	Yes	No
<p><b>Step 4</b> Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 6y user attendance errors

### 61–66 user attendance error messages

Error code	Description	Action
61	The hard disk is defective.	See <a href="#">“Hard disk failure service check” on page 197</a> .
62	The hard disk is full.	
63	The hard disk is not formatted.	
64	The hard disk format is unsupported.	
66	The hard disk needs to be formatted.	

### Hard disk failure service check

Action	Yes	No
<p><b>Step 1</b> Delete unnecessary files.</p> <ul style="list-style-type: none"> <li>From the home screen, navigate to <b>Settings &gt; Device &gt; Maintenance &gt; Out-of-Service Erase &gt; Erase Hard Disk &gt; Sanitize all information on hard disk &gt; Erase downloads</b>.</li> <li>From the home screen, navigate to <b>Settings &gt; Maintenance &gt; Configuration Menu &gt; Out-of-Service Erase &gt; Erase Hard Disk &gt; Sanitize all information on hard disk</b>, and erase the jobs.</li> </ul> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Make sure that the printer is using the latest firmware version.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <ol style="list-style-type: none"> <li>Make sure that the hard disk cable is properly connected.</li> <li>Make sure that the hard disk is properly installed.</li> <li>Check the hard disk for damage.</li> </ol> <p>Is the hard disk free of damage?</p>	Go to step 5.	Go to step 4.

Action	Yes	No
<p><b>Step 4</b> Replace the hard disk.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the controller board pins for damage.</p> <p>Are the pins free of damage?</p>	Contact the next level of support.	Go to step 6.
<p><b>Step 6</b> Replace the controller board. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 8y user attendance errors

### 80 user attendance error messages

Error code	Description	Action
80.01	The maintenance kit is nearly low. The backup roll or fuser page count threshold has been reached.	See <a href="#">“Maintenance kit service check” on page 203</a> .
80.09	The maintenance kit is nearly low. The user-selected EWS set point has been reached.	
80.11	The maintenance kit is low. The backup roll or fuser page count threshold has been reached.	
80.19	The maintenance kit is low. The user-selected EWS set point has been reached.	
80.21	The maintenance kit is very low. The backup roll or fuser page count threshold has been reached.	
80.29	The maintenance kit is very low. The user-selected EWS set point has been reached.	
80.31	Replace the maintenance kit. The backup roll or fuser page count threshold has been reached. The fuser may continue to function beyond end of life.	
80.39	Replace the maintenance kit. The user-selected EWS set point has been reached. The fuser may continue to function beyond end of life.	

## 82 user attendance error messages

Error code	Description	Action
82.00	The waste toner bottle has a nearly low remaining life.	See <a href="#">“Waste toner bottle service check” on page 204.</a>
82.02	The waste toner bottle has a nearly low remaining life. The waste toner counter set point has been reached.	
82.09	The waste toner bottle has a nearly low remaining life. The user-selected EWS set point has been reached.	
82.12	The waste toner bottle has a low remaining life. The waste toner counter set point has been reached..	
82.13	The waste toner bottle has a low remaining life.	
82.19	The waste toner bottle has a low remaining life. The user-selected EWS set point has been reached.	
82.20	The waste toner bottle has a very low remaining life.	
82.22	The waste toner bottle has a very low remaining life. The waste toner counter set point has been reached.	
82.23	The waste toner bottle has a very low remaining life.	
82.29	The waste toner bottle has a very low remaining life. The user-selected EWS set point has been reached.	
82.30	The waste toner bottle has no remaining life.	
82.32	The waste toner bottle has no remaining life. The waste toner counter set point has been reached.	
82.33	The waste toner bottle has no remaining life.	
82.39	The waste toner bottle has no remaining life. The user-selected EWS set point has been reached.	
82.40	The waste toner bottle is already beyond end-of-life.	
82.42	The waste toner bottle is already beyond end-of-life. The waste toner counter set point has been reached.	
82.49	The waste toner bottle is already beyond end-of-life. The user-selected EWS set point has been reached.	

## 84 user attendance error messages

Error code	Description	Action
84.00	The black imaging unit or CMY imaging kit is nearly low.	See <a href="#">“Toner cartridge, imaging unit, or imaging kit error service check”</a> on page 205.
84.01	The black imaging unit or CMY imaging kit is nearly low.	
84.03	The black imaging unit or CMY imaging kit is nearly low. The side count set point has been reached.	
84.09	The black imaging unit or CMY imaging kit is nearly low. The user-selected EWS set point has been reached.	
84.11	The black imaging unit or CMY imaging kit is low.	
84.13	The black imaging unit or CMY imaging kit is low. The side count set point has been reached.	
84.19	The black imaging unit or CMY imaging kit is low. The user-selected EWS set point has been reached.	
84.21	The black imaging unit or CMY imaging kit is very low.	
84.23	The black imaging unit or CMY imaging kit is very low. The side count set point has been reached.	
84.29	The black imaging unit or CMY imaging kit is very low. The user-selected EWS set point has been reached.	
84.31	The black imaging unit or CMY imaging kit has reached end-of-life.	
84.33	The black imaging unit or CMY imaging kit has reached end-of-life.	
84.41	The black imaging unit or CMY imaging kit has reached beyond end-of-life.	
84.43	The black imaging unit or CMY imaging kit has reached beyond end-of-life.	
84.48	The black imaging unit or CMY imaging kit has reached beyond end-of-life.	



**88 user attendance error messages**

Error code	Description	Action
88.00K	The black toner cartridge is nearly low.	See <a href="#">“Toner cartridge, imaging unit, or imaging kit error service check” on page 205.</a>
88.00C	The cyan toner cartridge is nearly low.	
88.00M	The magenta toner cartridge is nearly low.	
88.00Y	The yellow toner cartridge is nearly low.	
88.01K	The black toner cartridge is nearly low.	
88.01C	The cyan toner cartridge is nearly low.	
88.01M	The magenta toner cartridge is nearly low.	
88.01Y	The yellow toner cartridge is nearly low.	
88.08K	The black toner cartridge is nearly low.	
88.08C	The cyan toner cartridge is nearly low.	
88.08M	The magenta toner cartridge is nearly low.	
88.08Y	The yellow toner cartridge is nearly low.	
88.09K	The black toner cartridge is nearly low. The user-selected EWS set point has been reached.	
88.09C	The cyan toner cartridge is nearly low. The user-selected EWS set point has been reached.	
88.09M	The magenta toner cartridge is nearly low. The user-selected EWS set point has been reached.	
88.09Y	The yellow toner cartridge is nearly low. The user-selected EWS set point has been reached.	
88.10K	The black toner cartridge is low.	See <a href="#">“Toner cartridge, imaging unit, or imaging kit error service check” on page 205.</a>
88.10C	The cyan toner cartridge is low.	
88.10M	The magenta toner cartridge is low.	
88.10Y	The yellow toner cartridge is low.	
88.18K	The black toner cartridge is low.	
88.18C	The cyan toner cartridge is low.	
88.18M	The magenta toner cartridge is low.	
88.18Y	The yellow toner cartridge is low.	
88.19K	The black toner cartridge is low. The user-selected EWS set point has been reached.	
88.19C	The cyan toner cartridge is low. The user-selected EWS set point has been reached.	
88.19M	The magenta toner cartridge is low. The user-selected EWS set point has been reached.	
88.19Y	The yellow toner cartridge is low. The user-selected EWS set point has been reached.	

Error code	Description	Action
88.20K	The black toner cartridge is very low.	See <a href="#">“Toner cartridge, imaging unit, or imaging kit error service check” on page 205.</a>
88.20C	The cyan toner cartridge is very low.	
88.20M	The magenta toner cartridge is very low.	
88.20Y	The yellow toner cartridge is very low.	
88.28K	The black toner cartridge is very low.	
88.28C	The cyan toner cartridge is very low.	
88.28M	The magenta toner cartridge is very low.	
88.28Y	The yellow toner cartridge is very low.	
88.29K	The black toner cartridge is very low. The user-selected EWS set point has been reached.	
88.29C	The cyan toner cartridge is very low. The user-selected EWS set point has been reached.	
88.29M	The magenta toner cartridge is very low. The user-selected EWS set point has been reached.	
88.29Y	The yellow toner cartridge is very low. The user-selected EWS set point has been reached.	
88.30K	The black toner cartridge is at end-of-life.	
88.30C	The cyan toner cartridge is at end-of-life.	
88.30M	The magenta toner cartridge is at end-of-life.	
88.30Y	The yellow toner cartridge is at end-of-life.	
88.37K	The black toner cartridge is at end-of-life.	
88.37C	The cyan toner cartridge is at end-of-life.	
88.37M	The magenta toner cartridge is at end-of-life.	
88.37Y	The yellow toner cartridge is at end-of-life.	
88.38K	The black toner cartridge is at end-of-life.	
88.38C	The cyan toner cartridge is at end-of-life.	
88.38M	The magenta toner cartridge is at end-of-life.	
88.38Y	The yellow toner cartridge is at end-of-life.	

Error code	Description	Action
88.40K	The black toner cartridge is beyond end-of-life.	See <a href="#">“Toner cartridge, imaging unit, or imaging kit error service check” on page 205.</a>
88.40C	The cyan toner cartridge is beyond end-of-life.	
88.40M	The magenta toner cartridge is beyond end-of-life.	
88.40Y	The yellow toner cartridge is beyond end-of-life.	
88.47K	The black toner cartridge is beyond end-of-life.	
88.47C	The cyan toner cartridge is beyond end-of-life.	
88.47M	The magenta toner cartridge is beyond end-of-life.	
88.47Y	The yellow toner cartridge is beyond end-of-life.	
88.48K	The black toner cartridge is beyond end-of-life.	
88.48C	The cyan toner cartridge is beyond end-of-life.	
88.48M	The magenta toner cartridge is beyond end-of-life.	
88.48Y	The yellow toner cartridge is beyond end-of-life.	

### Maintenance kit service check

Action	Yes	No
<p><b>Warning—Potential Damage:</b> Do not perform this step if the printer is on.</p> <p><b>a</b> Replace the required maintenance kit.</p> <p><b>b</b> Reset the maintenance counter. See <a href="#">“Resetting the maintenance counter” on page 445.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Waste toner bottle service check

Action	Yes	No
<p><b>Step 1</b> Reinstall the waste toner bottle.</p> <p><b>Note:</b> Make sure that the waste toner bottle is upright. If it is tilted, then the sensor may get a false reading on the amount of toner.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p><b>a</b> Tap the waste toner bottle to dislodge the toner particles from its walls.</p> <p><b>b</b> Check if the waste toner bottle is full.</p> <p><b>Note:</b> If the level of the waste toner reaches the sensor detection area, then the waste toner bottle is already full.</p> <p><b>c</b> Check the waste toner bottle for damage.</p> <p>Is the waste toner bottle full or damaged?</p>	Go to step 3.	Go to step 4.
<p><b>Step 3</b> Replace the waste toner bottle.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics and adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Waste toner bottle).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 5.
<p><b>Step 5</b> Make sure that the sensor cable is properly connected.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b> Check the sensor and its flag for improper installation, contamination, and damage.</p> <p>Is the sensor properly installed and free of contamination and damage?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b> Reinstall, clean, or replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p><b>Step 8</b> Perform the sensor (waste toner bottle) calibration. See <a href="#">“Waste toner sensor calibration” on page 269</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Toner cartridge, imaging unit, or imaging kit error service check

Action	Yes	No
<p><b>Step 1</b>  <b>a</b> Make sure that the toner cartridges, black imaging unit, and CMY imaging kit are all completely installed.  <b>b</b> Make sure that the toner cartridges, black imaging unit, and CMY imaging kit are genuine and supported.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b>  <b>a</b> Make sure that the toner cartridges, black imaging unit, and CMY imaging kit are properly installed.  <b>b</b> Make sure that the imaging kit cable is properly connected.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the TMC card contacts for damage.</p> <p>Are the TMC card contacts free of damage?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Replace the TMC card. See <a href="#">“TMC card removal” on page 337</a>.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the engine board and its pins for damage.</p> <p>Is the engine board free of damage?</p>	Contact the next level of support.	Go to step 6.
<p><b>Step 6</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

# Printer hardware errors

## 100 errors

### 100 error messages

Error code	Description	Action
100.01	The weather station data is not valid.	See <a href="#">“Sensor (weather station) service check” on page 206.</a>
100.04D	The printhead thermistor reading is out of range.	See <a href="#">“Printhead service check” on page 209.</a>
100.25	The TPS thermistor reading is out of range.	See <a href="#">“TPS thermistor service check” on page 206.</a>

### Sensor (weather station) service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Check the sensor cable for proper connection and damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p>Replace the sensor. See <a href="#">“Sensor (weather station) removal ” on page 344.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### TPS thermistor service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Make sure that the sensor (TPS) is properly connected.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p>Replace the sensor (TPS). See <a href="#">“Sensor (TPS) removal” on page 349.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 101 errors

### 101 error messages

Error code	Description	Action
101.20	Tray 2 product ID is invalid.	See <a href="#">“Invalid input option type or ID is detected service check” on page 207.</a>
101.21	Tray 2 board ID is invalid.	
101.22	Tray 2 type is invalid.	
101.30	Tray 3 product ID is invalid.	
101.31	Tray 3 board ID is invalid.	
101.32	Tray 3 type is invalid.	
101.40	Tray 4 product ID is invalid.	
101.41	Tray 4 board ID is invalid.	
101.42	Tray 4 type is invalid.	
101.50	Tray 5 product ID is invalid.	
101.51	Tray 5 board ID is invalid.	
101.52	Tray 5 type is invalid.	

### Invalid input option type or ID is detected service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Make sure that the latest firmware is installed.</p> <p><b>b</b> Make sure that the options configuration is supported. See the <i>Printer, Option, and Stand Compatibility Guide</i>.</p> <p><b>c</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p>Reinstall the optional tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429.</a></p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Restart the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 110 errors

### 110 error messages

Error code	Description	Action
110.20	A printhead error was detected before the motor was turned on.	See <a href="#">“Printhead service check” on page 209.</a>
110.21	The printhead power was off when the laser servo started.	
110.31	A printhead error (no first Hysnc) was detected.	
110.32	A printhead error (lost first Hysnc) was detected.	
110.33	A printhead error (lost first Hysnc) was detected during servo.	
110.34	A printhead error (mirror motor lost lock) was detected.	
110.35	A printhead error (mirror motor no first lock) was detected.	
110.36	A printhead error (mirror motor never stabilized) was detected.	
110.37	The pinthead type was undetermined.	
110.41	A printhead NVRAM read failure occurred.	
110.70	The printhead NVRAM values were incorrect.	
110.71	A printhead timing measurement error was detected.	
110.91	A printhead timing reading error was detected.	
110.92	A printhead NVRAM checksum mismatch occurred.	



## Printhead service check

Action	Yes	No
<p><b>Step 1</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p><b>a</b> Make sure that the printhead cable is properly connected.</p> <p><b>b</b> Make sure that the following connectors on the engine board are properly connected.</p> <ul style="list-style-type: none"> <li>• JMIRR1 or JMIRR2</li> <li>• JPH1</li> </ul> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Replace the printhead. See <a href="#">“Printhead removal” on page 403</a>.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 120 errors

### 120 error messages

Error code	Description	Action
120.80	<p>The motor (fuser) did not turn on.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• A 120.80 error may unexpectedly occur while performing motor tests in the Diagnostics mode, most likely if a door is open or has been opened. This might not indicate a problem with the fuser or fuser motor.</li> <li>• To check if the fuser and fuser motor are working properly, perform a POR and then a basic print test. If the error still occurs afterwards, then additional troubleshooting of the fuser or fuser motor should be done.</li> </ul>	See <a href="#">“Motor (fuser) service check” on page 210.</a>
120.81	The motor (fuser) did not turn off.	
120.82	The motor (fuser) speed did not ramp up to the required level.	
120.83	The motor (fuser) stalled.	
120.84	The motor (fuser) ran too slow.	
120.85	The motor (fuser) ran too fast.	
120.86	The motor (fuser) did not run at the correct timing.	

### Motor (fuser) service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p><b>a</b> Check if the fuser has reached end-of-life.</p> <p><b>b</b> Check the fuser for damage.</p> <p>Is the fuser still functional and free of damage?</p>	Go to step 4.	Go to step 3.
<p><b>Step 3</b></p> <p>Replace the fuser. See <a href="#">“Fuser removal” on page 363.</a></p> <p>Does the problem remain?</p>	Go to step 4.	Go to step 4.

Action	Yes	No
<p><b>Step 4</b> Make sure that the JFDRV1 connector is properly connected to the engine board and motor (fuser).</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Remove the fuser, and then manually turn the fuser drive gear.</p> <p>Does the gear freely turn?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b> Replace the fuser drive gear.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Replace the motor (fuser). See <a href="#">“Motor (fuser) removal” on page 341.</a></p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 121 errors

### 121 error messages

Error code	Description	Action
121.00	Fuser failed to reach the temperature during warm-up.	See <a href="#">“Fuser service check” on page 214.</a>
121.01	There was an attempt to heat fuser, but it was not installed.	
121.02	Fuser went over the required temperature during EWC/line voltage detection.	
121.03	Fuser hardware and driver mismatch.	
121.04	There was an attempt to heat fuser, but fuser relay was open and fuser PIC microcontroller did not report an error or did not respond.  <b>Notes:</b> <ul style="list-style-type: none"> <li>• A 121.04 error may unexpectedly occur while performing motor tests in the Diagnostics mode, most likely if a door is open or has been opened. This might not indicate a problem with the fuser or fuser motor.</li> <li>• To check if the fuser and fuser motor are working properly, perform a POR and then a basic print test. If the error still occurs afterwards, then additional troubleshooting of the fuser or fuser motor should be done.</li> </ul>	
121.05	There was an attempt to heat fuser, but fuser relay was open and fuser PIC microcontroller reported an error.	
121.08	Fuser did not reach the required temperature while the page is in the fuser.	
121.09	Fuser did not reach the required temperature for motors.  <b>Note:</b> Not applicable to standby mode.	
121.10	Fuser did not reach the required temperature during start of EWC/line voltage detection.	
121.11	Fuser reached the required temperature during final EWC/line voltage detection too late.	
121.12	Fuser did not reach the required temperature during final EWC/line voltage detection.	
121.13	Fuser reached the required temperature during final EWC/line voltage detection too fast.	

Error code	Description	Action
121.22	Open fuser relay was detected.	See <a href="#">“Fuser service check” on page 214.</a>
121.32	Fuser did not reach the required temperature at 100% power.  <b>Notes:</b> <ul style="list-style-type: none"> <li>• A 121.32 error may unexpectedly occur while performing motor tests in the Diagnostics mode, most likely if a door is open or has been opened. This might not indicate a problem with the fuser or fuser motor.</li> <li>• To check if the fuser and fuser motor are working properly, perform a POR and then a basic print test. If the error still occurs afterwards, then additional troubleshooting of the fuser or fuser motor should be done.</li> </ul>	
121.33	Fuser did not reach the required temperature while the page is in the fuser.	
121.34	Fuser did not reach the required temperature during steady state control.	
121.35	Fuser too warm to power up and execute EWC/line voltage detection after a wrong fuser was installed.	
121.36	Open fuser relay was detected in very cold or unknown ambient temperature.	
121.41	Fuser mechanism did not detect the expected cam sensor signal.	
121.43	The motor (fuser) current exceeded the limit.	

Error code	Description	Action
121.50	Fuser went over the required temperature during global over temperature check.	See <a href="#">“Fuser service check” on page 214.</a>
121.52	Fuser main heater thermistor temperature is out of range.	
121.53	Fuser main heater thermistor temperature change rate is out of range.	
121.56	Fuser middle heater thermistor temperature is out of range.	
121.57	Fuser middle heater thermistor temperature change rate is out of range.	
121.58	Fuser edge thermistor temperature is out of range.	
121.59	Fuser edge thermistor temperature change rate is out of range.	
121.66	Fuser narrow media thermistor temperature is out of range.	
121.67	Fuser narrow media backup roll thermistor temperature change rate is out of range.	
121.71	Open fuser main heater thermistor was detected.	
121.73	Open fuser middle heater thermistor was detected.	
121.74	Open fuser edge thermistor was detected.	

## Fuser service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Make sure that the fuser has the correct fuser type. A 121.05 or 126.11 error may occur if the wrong fuser type is installed.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>The fuser type number can be found on the fuser sticker in the middle of the bottom front of the fuser.</li> <li>The fuser types supported are 00, 01, and 02.</li> </ul> <p><b>b</b> Make sure that the fuser is properly installed.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p>Make sure that the JLVP51 connector is properly connected to the engine board and LVPS.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p><b>Step 3</b></p> <p>Make sure that the JFSNS1 connector is properly connected to the engine board and fuser.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Replace the fuser. See <a href="#">“Fuser removal” on page 363.</a></p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Replace the LVPS. See <a href="#">“LVPS removal” on page 310.</a></p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p>Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 126–127 errors

### 126–127 error messages

Error code	Description	Action
126.05	The LVPS power rail dropped, but printer is not in sleep mode.	See <a href="#">“LVPS service check” on page 216.</a>
126.06	The LVPS power rail was down after POR.	
126.07	The LVPS sensor rail was down during POR.	
126.11	The LVPS line frequency has gone outside the operating range.	<ol style="list-style-type: none"> <li>1 See step 1 (only) of <a href="#">“Fuser service check” on page 214.</a></li> <li>2 See <a href="#">“LVPS service check” on page 216.</a></li> </ol>
126.14	The LVPS relay is stuck in close position.	See <a href="#">“LVPS service check” on page 216.</a>
127.01	HVPS was not detected.	See <a href="#">“HVPS service check” on page 216.</a>

## LVPS service check

Action	Yes	No
<p><b>Step 1</b> Make sure that the fuser has the correct fuser type. A 126.11 error may occur if the wrong fuser type is installed.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• The fuser type number can be found on the fuser sticker.</li> <li>• The fuser types supported are 00, 01, and 02.</li> </ul> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p><b>a</b> Turn off the printer, and then disconnect it from the electrical outlet for more than five seconds.</p> <p><b>b</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Make sure that the JLVP1 connector on the engine board and LVPS is properly connected.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Replace the LVPS. See <a href="#">“LVPS removal” on page 310</a>.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## HVPS service check

Action	Yes	No
<p><b>Step 1</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Make sure that the JHVPS1 connector on the engine board is properly connected to the HVPS.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.



Action	Yes	No
<b>Step 3</b> Replace the HVPS. See <a href="#">“HVPS removal” on page 345.</a>  Does the problem remain?	Go to step 4.	The problem is solved.
<b>Step 4</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a>  Does the problem remain?	Contact the next level of support.	The problem is solved.

## 142 errors

### 142 error messages

Error code	Description	Action
142.80	The motor (CMY) did not turn on.	See <a href="#">“Motor (CMY) service check” on page 217.</a>
142.81	The motor (CMY) did not turn off.	
142.82	The motor (CMY) speed did not ramp up to the required level.	
142.83	The motor (CMY) stalled.	
142.84	The motor (CMY) ran too slow.	
142.85	The motor (CMY) ran too fast.	
142.86	The motor (CMY) did not run at the correct timing.	

### Motor (CMY) service check

Action	Yes	No
<b>Step 1</b> Restart the printer.  Does the problem remain?	Go to step 2.	The problem is solved.
<b>Step 2</b> <b>a</b> Remove the imaging kit. See <a href="#">“Imaging kit removal” on page 332.</a> <b>b</b> Remove the transfer module. See <a href="#">“Transfer module removal” on page 358.</a> <b>c</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; CMY developer</b> <b>d</b> Touch <b>Start</b> .  Does the motor run?	Go to step 5.	Go to step 3.

Action	Yes	No
<p><b>Step 3</b></p> <p>Make sure that the JCDRV1 connector on the engine board is properly connected to the motor (CMY).</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Replace the motor (CMY). See <a href="#">“Motor (EP drive) removal” on page 315.</a></p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Check if the CMY imaging kit has reached end-of-life.</p> <p><b>b</b> Check the CMY imaging kit for damage.</p> <p>Is the CMY imaging kit functional and free of damage?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b></p> <p>Replace the affected CMY imaging kit. See <a href="#">“Imaging kit removal” on page 332.</a></p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Manually turn the drive gears.</p> <p>Do the CMY drive gears freely turn?</p>	Go to step 9.	Go to step 8.
<p><b>Step 8</b></p> <p>Replace the EP drive gearbox. See <a href="#">“EP drive gearbox removal” on page 317.</a></p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b></p> <p>Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 145 errors

### 145 error messages

Error code	Description	Action
145.80	The motor (BOR) did not turn on.	See <a href="#">“Motor (BOR) service check” on page 219.</a>
145.81	The motor (BOR) did not turn off.	
145.82	The motor (BOR) speed did not ramp up to the required level.	
145.83	The motor (BOR) stalled.	
145.84	The motor (BOR) ran too slow.	
145.85	The motor (BOR) ran too fast.	
145.86	The motor (BOR) did not run at the correct timing.	

### Motor (BOR) service check

Action	Yes	No
<p><b>Step 1</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p><b>a</b> Remove the transfer module. See <a href="#">“Transfer module removal” on page 358.</a></p> <p><b>b</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Black only retract</b></p> <p><b>c</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p><b>Step 3</b> Make sure that the JBOR1 connector on the engine board is properly connected to the motor.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Replace the motor. See <a href="#">“Motor (BOR) removal” on page 319.</a></p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Manually turn the BOR gear on the transfer module.</p> <p>Does the gear freely turn?</p>	Contact the next level of support.	Go to step 6.

Action	Yes	No
<p><b>Step 6</b> Replace the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 147 errors

### 147 error messages

Error code	Description	Action
147.80	The motor (deskew) did not turn on.	See <a href="#">“Motor (deskew) service check” on page 220</a> .
147.81	The motor (deskew) did not turn off.	
147.82	The motor (deskew) speed did not ramp up to the required level.	
147.83	The motor (deskew) stalled.	
147.84	The motor (deskew) ran too slow.	
147.85	The motor (deskew) ran too fast.	
147.86	The motor (deskew) did not run at the correct timing.	

### Motor (deskew) service check

Action	Yes	No
<p><b>Step 1</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Deskew</b> <b>b</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.

Action	Yes	No
<p><b>Step 3</b> Make sure that the JMTR1 connector on the engine board is properly connected to the motor.</p> <p>Does the problem remain?</p>	Go to step 4.	Contact the next level of support.
<p><b>Step 4</b> Replace the motor. See <a href="#">“Motor (deskew) removal” on page 320.</a></p> <p>Does the problem remain?</p>	Go to step 5.	Contact the next level of support.
<p><b>Step 5</b> Manually turn the aligner rollers.</p> <p>Is there binding or uneven movement when turning the rollers?</p>	Go to step 6.	Go to step 7.
<p><b>Step 6</b> Check the aligner rollers and drivetrain for damage.</p> <p>Are the aligner roller and drivetrain free of damage?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b> Replace the affected aligner roller or drivetrain. See <a href="#">“Aligner rollers removal” on page 377.</a></p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 149 errors

### 149 error messages

Error code	Description	Action
149.80	The motor (exit/redrive) did not turn on.	See <a href="#">“Motor (exit/redrive) service check” on page 222.</a>
149.81	The motor (exit/redrive) did not turn off.	
149.82	The motor (exit/redrive) speed did not ramp up to the required level.	
149.83	The motor (exit/redrive) stalled.	
149.84	The motor (exit/redrive) ran too slow.	
149.85	The motor (exit/redrive) ran too fast.	
149.86	The motor (exit/redrive) did not run at the correct timing.	

### Motor (exit/redrive) service check

Action	Yes	No
<p><b>Step 1</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Make sure that the JOUTDC1 connector on the engine board is properly connected to the motor.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Replace the motor. See <a href="#">“Motor (exit/redrive) removal” on page 323.</a></p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p><b>Step 6</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 150 errors

### 150 error messages

Error code	Description	Action
150.80	The motor (duplex/MPF) did not turn on.	See <a href="#">“Motor (duplex/MPF) service check” on page 223</a> .
150.81	The motor (duplex/MPF) did not turn off.	
150.82	The motor (duplex/MPF) speed did not ramp up to the required level.	
150.83	The motor (duplex/MPF) stalled.	
150.84	The motor (duplex/MPF) ran too slow.	
150.85	The motor (duplex/MPF) ran too fast.	
150.86	The motor (duplex/MPF) did not run at the correct timing.	

### Motor (duplex/MPF) service check

Action	Yes	No
<p><b>Step 1</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Duplex/MPF</b> <b>b</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 3.
<p><b>Step 3</b> Make sure that the JMTR1 connector is properly connected to the engine board.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p><b>Step 4</b></p> <p>Open the front door, and then manually turn the duplex/MPF drive gears.</p> <p>Do the gears move freely?</p>	Go to step 6.	Go to step 5.
<p><b>Step 5</b></p> <p>Replace the motor. See <a href="#">“Motor (duplex/MPF) removal” on page 343.</a></p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p>Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 151 errors

### 151 error messages

Error code	Description	Action
151.80	The motor (K/transfer belt) did not turn on.	See <a href="#">“Motor (K/transfer belt) service check” on page 225.</a>
151.81	The motor (K/transfer belt) did not turn off.	
151.82	The motor (K/transfer belt) speed did not ramp up to the required level.	
151.83	The motor (K/transfer belt) stalled.	
151.84	The motor (K/transfer belt) ran too slow.	
151.85	The motor (K/transfer belt) ran too fast.	
151.86	The motor (K/transfer belt) did not run at the correct timing.	



## Motor (K/transfer belt) service check

Action	Yes	No
<p><b>Step 1</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p><b>a</b> Remove the imaging kit. See <a href="#">“Imaging kit removal” on page 332.</a></p> <p><b>b</b> Remove the transfer module. See <a href="#">“Transfer module removal” on page 358.</a></p> <p><b>c</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; K developer/Transfer</b></p> <p><b>d</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p><b>Step 3</b> Make sure that the JKDRV1 connector on the engine board is properly connected to the motor (K/transfer belt).</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Replace the motor (K/transfer belt). See <a href="#">“Motor (EP drive) removal” on page 315.</a></p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Check if the black imaging unit and transfer module have reached end-of-life.</p> <p><b>b</b> Check the black imaging unit and transfer module for damage.</p> <p>Are the black imaging unit and transfer module functional and free of damage?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b> Replace the affected black imaging unit or transfer module. See <a href="#">“Transfer module removal” on page 358.</a></p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Manually turn the drive gears.</p> <p>Do the black imaging unit and transfer module drive gears freely turn?</p>	Go to step 9.	Go to step 8.

Action	Yes	No
<p><b>Step 8</b> Replace the EP drive gearbox. See <a href="#">“EP drive gearbox removal” on page 317.</a></p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 153 errors

### 153 error messages

Error code	Description	Action
153.80	The motor (isolation) unit did not turn on.	See <a href="#">“Isolation unit service check” on page 226.</a>
153.81	The motor (isolation) unit did not turn off.	
153.82	The motor (isolation) unit speed did not ramp up to the required level.	
153.83	The motor (isolation) stalled.	
153.84	The motor (isolation) ran too slow.	
153.85	The motor (isolation) ran too fast.	
153.86	The motor (isolation) did not run at the correct timing.	

### Isolation unit service check

Action	Yes	No
<p><b>Step 1</b> Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> <b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Isolation</b> <b>b</b> Touch <b>Start</b>.</p> <p>Does the motor run?</p>	Go to step 3.	Go to step 4.

Action	Yes	No
<p><b>Step 3</b></p> <p>Make sure that the JMTR1 connector on the engine board is properly connected to the motor.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Manually turn the isolation rollers and the alternate isolation rollers.</p> <p>Do the rollers move freely?</p>	Go to step 6.	Go to step 5.
<p><b>Step 5</b></p> <p>Replace the isolation unit. See <a href="#">“Isolation unit removal” on page 426</a>.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p>Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 160 errors

### 160 error messages

Error code	Description	Action
160.80	The motor (duplex/MPF) did not turn on.	See <a href="#">“Motor (duplex/MPF) service check” on page 223</a> .
160.81	The motor (duplex/MPF) did not turn off.	
160.82	The motor (duplex/MPF) speed did not ramp up to the required level.	
160.83	The motor (duplex/MPF) stalled.	
160.84	The motor (duplex/MPF) ran too slow.	
160.85	The motor (duplex/MPF) ran too fast.	
160.86	The motor (duplex/MPF) did not run at the correct timing.	

## 161–164 errors

### 161 error messages

Error code	Description	Action
161.80	The motor (tray 1 pick/lift) did not turn on.	See <a href="#">“Motor (tray 1 pick/lift) lifting error service check” on page 228.</a>
161.81	The motor (tray 1 pick/lift) did not turn off.	
161.82	The motor (tray 1 pick/lift) speed did not ramp up to the required level.	
161.83	The motor (tray 1 pick/lift) stalled.	
161.84	The motor (tray 1 pick/lift) ran too slow.	
161.85	The motor (tray 1 pick/lift) ran too fast.	
161.86	The motor (tray 1 pick/lift) did not run at the correct timing.	

### Motor (tray 1 pick/lift) lifting error service check

Action	Yes	No
<p><b>Step 1</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Make sure that the tray insert is properly seated or fully inserted.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b>  <b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b>  <b>b</b> Find the sensor (Pick roller index (tray 1)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Make sure that the JMTR1 connector on the engine board is properly connected to the sensor.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p><b>Step 5</b> Check the motor (tray 1 pick) for proper operation and noise.</p> <p><b>a</b> Remove the tray insert.</p> <p><b>b</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Motor tests &gt; Pick (tray 1)</b></p> <p><b>c</b> Select <b>Pick (tray 1) lifting</b>, and then touch <b>Start</b>.</p> <p>Does the motor run or does it sound normal?</p>	Go to step 8.	Go to step 6.
<p><b>Step 6</b> Make sure that the JMTR1 connector on the engine board is properly connected to the motor.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Replace the paper feeder. See <a href="#">“Paper feeder removal” on page 423</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Restart the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 162–165 errors

### 162–165 error messages

Error code	Description	Action
162.80	The motor (tray 2 pick/lift) did not turn on.	See <a href="#">“Motor (optional tray pick/lift) service check” on page 230</a> .
162.81	The motor (tray 2 pick/lift) did not turn off.	
162.82	The motor (tray 2 pick/lift) speed did not ramp up to the required level.	
162.83	The motor (tray 2 pick/lift) stalled.	
162.84	The motor (tray 2 pick/lift) ran too slow.	
162.85	The motor (tray 2 pick/lift) ran too fast.	
162.86	The motor (tray 2 pick/lift) did not run at the correct timing.	

Error code	Description	Action
163.80	The motor (tray 3 pick/lift) did not turn on.	See <a href="#">“Motor (optional tray pick/lift) service check” on page 230.</a>
163.81	The motor (tray 3 pick/lift) did not turn off.	
163.82	The motor (tray 3 pick/lift) speed did not ramp up to the required level.	
163.83	The motor (tray 3 pick/lift) stalled.	
163.84	The motor (tray 3 pick/lift) ran too slow.	
163.85	The motor (tray 3 pick/lift) ran too fast.	
163.86	The motor (tray 3 pick/lift) did not run at the correct timing.	
164.80	The motor (tray 4 pick/lift) did not turn on.	See <a href="#">“Motor (optional tray pick/lift) service check” on page 230.</a>
164.81	The motor (tray 4 pick/lift) did not turn off.	
164.82	The motor (tray 4 pick/lift) speed did not ramp up to the required level.	
164.83	The motor (tray 4 pick/lift) stalled.	
164.84	The motor (tray 4 pick/lift) ran too slow.	
164.85	The motor (tray 4 pick/lift) ran too fast.	
164.86	The motor (tray 4 pick/lift) did not run at the correct timing.	
165.80	The motor (tray 5 pick/lift) did not turn on.	See <a href="#">“Motor (optional tray pick/lift) service check” on page 230.</a>
165.81	The motor (tray 5 pick/lift) did not turn off.	
165.82	The motor (tray 5 pick/lift) speed did not ramp up to the required level.	
165.83	The motor (tray 5 pick/lift) stalled.	
165.84	The motor (tray 5 pick/lift) ran too slow.	
165.85	The motor (tray 5 pick/lift) ran too fast.	
165.86	The motor (tray 5 pick/lift) did not run at the correct timing.	

### Motor (optional tray pick/lift) service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Check the pick roller for misalignment and damage.</p> <p>Is the pick roller properly installed and free of damage?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Make sure that the motor cable is properly connected.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p><b>Step 3</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 166–169 errors

### 166–169 error messages

166.80	The motor (tray 2 pass-through) did not turn on.	See <a href="#">“Motor (optional tray pass-through) failure service check” on page 233.</a>
166.81	The motor (tray 2 pass-through) did not turn off.	
166.82	The motor (tray 2 pass-through) speed did not ramp up to the required level.	
166.83	The motor (tray 2 pass-through) stalled.	
166.84	The motor (tray 2 pass-through) ran too slow.	
166.85	The motor (tray 2 pass-through) ran too fast.	
166.86	The motor (tray 2 pass-through) did not run at the correct timing.	
167.80	The motor (tray 3 pass-through) did not turn on.	
167.81	The motor (tray 3 pass-through) did not turn off.	
167.82	The motor (tray 3 pass-through) speed did not ramp up to the required level.	
167.83	The motor (tray 3 pass-through) stalled.	
167.84	The motor (tray 3 pass-through) ran too slow.	
167.85	The motor (tray 3 pass-through) ran too fast.	
167.86	The motor (tray 3 pass-through) did not run at the correct timing.	
168.80	The motor (tray 4 pass-through) did not turn on.	
168.81	The motor (tray 4 pass-through) did not turn off.	
168.82	The motor (tray 4 pass-through) speed did not ramp up to the required level.	
168.83	The motor (tray 4 pass-through) stalled.	
168.84	The motor (tray 4 pass-through) ran too slow.	
168.85	The motor (tray 4 pass-through) ran too fast.	
168.86	The motor (tray 4 pass-through) did not run at the correct timing.	



169.80	The motor (tray 5 pass-through) did not turn on.	See <a href="#">“Motor (optional tray pass-through) failure service check” on page 233.</a>
169.81	The motor (tray 5 pass-through) did not turn off.	
169.82	The motor (tray 5 pass-through) speed did not ramp up to the required level.	
169.83	The motor (tray 5 pass-through) stalled.	
169.84	The motor (tray 5 pass-through) ran too slow.	
169.85	The motor (tray 5 pass-through) ran too fast.	
169.86	The motor (tray 5 pass-through) did not run at the correct timing.	

### Motor (optional tray pass-through) failure service check

Action	Yes	No
<b>Step 1</b> Restart the printer  Does the problem remain?	Go to step 2.	The problem is solved.
<b>Step 2</b> Make sure that the motor cable is properly connected.  Does the problem remain?	Go to step 3.	The problem is solved.
<b>Step 3</b> Restart the printer.  Does the problem remain?	Go to step 4.	The problem is solved.
<b>Step 4</b> Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429.</a>  Does the problem remain?	Contact the next level of support.	The problem is solved.

## 171–172 errors

### 171–172 error messages

Error code	Description	Action
171.82	The main fan speed did not ramp up to the required level.	See <a href="#">“Main fan service check” on page 234.</a>
171.83	The main fan stalled.	
171.84	The main fan ran too slow.	
171.85	The main fan ran too fast.	

Error code	Description	Action
172.82	The LVPS/fuser fan speed did not ramp up to the required level.	See <a href="#">“LVPS/fuser fan service check” on page 234.</a>
172.83	The LVPS/fuser fan stalled.	
172.84	The LVPS/fuser fan ran too slow.	
172.85	The LVPS fuser fan ran too fast.	

### LVPS/fuser fan service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Make sure that the fuser fan area is clear of obstructions.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p>Make sure that the JFAN1 connector on the engine board is properly connected to the fan.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Replace the fuser fan. See <a href="#">“Fuser fan removal” on page 313.</a></p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a></p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Main fan service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Make sure that the main fan area is clear of obstructions.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p>Make sure that the JFAN2 connector on the engine board is properly connected to the fan.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<b>Step 3</b> Replace the main fan. See <a href="#">“Main fan removal” on page 312.</a>  Does the problem remain?	Go to step 4.	The problem is solved.
<b>Step 4</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397.</a>  Does the problem remain?	Contact the next level of support.	The problem is solved.

## 600–661 errors

### 600–661 error messages

Error code	Description	Action	
600.95	RIP intentionally declared a jam error, usually to prevent a kiosk user from printing free pages.	See <a href="#">“RIP error service check” on page 237.</a>	
602.19	Tray 1 was unable to be ready for picking.	See <a href="#">“Unknown error service check” on page 238.</a>	
602.29	Tray 2 was unable to be ready for picking.		
602.39	Tray 3 was unable to be ready for picking.		
602.49	Tray 4 was unable to be ready for picking.		
602.59	Tray 5 was unable to be ready for picking.		
611.32	Lost HSYNC errors were detected. Laser safety interlock system may be the cause.		
611.34	A mirror motor lock error was detected.	See <a href="#">“Fuser service check” on page 214.</a>	
611.72	A facet map failure error occurred.		
621.01	The fuser heater was not hot enough when the paper entered the fuser nip.		
647.80	The motor (deskew) did not turn on.		See <a href="#">“Motor (deskew) service check” on page 220.</a>
647.81	The motor (deskew) did not turn off.		
647.82	The motor (deskew) speed did not ramp up to the required level.		
647.83	The motor (deskew) stalled.		
647.84	The motor (deskew) ran too slow.		
647.85	The motor (deskew) ran too fast.		
647.86	The motor (deskew) did not run at the correct timing.		

Error code	Description	Action
649.80	The motor (redrive) did not turn on.	See <a href="#">“Motor (exit/redrive) service check” on page 222.</a>
649.81	The motor (redrive) did not turn off.	
649.82	The motor (redrive) speed did not ramp up to the required level.	
649.83	The motor (redrive) stalled.	
649.84	The motor (redrive) ran too slow.	
649.85	The motor (redrive) ran too fast.	
649.86	The motor (redrive) did not run at the correct timing.	
650.80	The motor (duplex/MPF) did not turn on.	See <a href="#">“Motor (duplex/MPF) service check” on page 223.</a>
650.81	The motor (duplex/MPF) did not turn off.	
650.82	The motor (duplex/MPF) speed did not ramp up to the required level.	
650.83	The motor (duplex/MPF) stalled.	
650.84	The motor (duplex/MPF) ran too slow.	
650.85	The motor (duplex/MPF) ran too fast.	
650.86	The motor (duplex/MPF) did not run at the correct timing.	
653.80	The motor (isolation) unit did not turn on.	See <a href="#">“Isolation unit service check” on page 226.</a>
653.81	The motor (isolation) unit did not turn off.	
653.82	The motor (isolation) unit speed did not ramp up to the required level.	
653.83	The motor (isolation) stalled.	
653.84	The motor (isolation) ran too slow.	
653.85	The motor (isolation) ran too fast.	
653.86	The motor (isolation) did not run at the correct timing.	
660.80	The motor (duplex/MPF) did not turn on.	See <a href="#">“Motor (duplex/MPF) service check” on page 223.</a>
660.81	The motor (duplex/MPF) did not turn off.	
660.82	The motor (duplex/MPF) speed did not ramp up to the required level.	
660.83	The motor (duplex/MPF) stalled.	
660.84	The motor (duplex/MPF) ran too slow.	
660.85	The motor (duplex/MPF) ran too fast.	
660.86	The motor (duplex/MPF) did not run at the correct timing.	

Error code	Description	Action
661.13	The tray 1 lift plate failed to lift.	See <a href="#">“Motor (tray 1 pick/lift) lifting error service check” on page 228.</a>
661.80	The motor (tray 1 pick/lift) did not turn on.	
661.81	The motor (tray 1 pick/lift) did not turn off.	
661.82	The motor (tray 1 pick/lift) speed did not ramp up to the required level.	
661.83	The motor (tray 1 pick/lift) stalled.	
661.84	The motor (tray 1 pick/lift) ran too slow.	
661.85	The motor (tray 1 pick/lift) ran too fast.	
661.86	The motor (tray 1 pick/lift) did not run at the correct timing.	

## RIP error service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Open all printer doors, and then remove the manual feeder and tray.</p> <p><b>b</b> Check the paper path, tray, and bin for paper fragments and partially fed paper.</p> <p>Are the paper path, bin, and tray free of paper fragments and partially fed paper?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Remove the paper fragments and partially fed paper.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Reseat the HVPS flat cables.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p>Make sure that the controller board is properly installed. Reseat all the cables on the controller board.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p>Check the controller board and its connector pins for damage.</p> <p>Are the controller board and its connectors free of damage?</p>	Contact the next level of support.	Go to step 6.

Action	Yes	No
<p><b>Step 6</b>            Replace the controller board. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Unknown error service check

Action	Yes	No
<p>Restart the print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## 662–669 errors

### 662–669 error messages

Error code	Description	Action
662.23	The tray 2 lift plate failed to lift.	See <a href="#">“Motor (optional tray pick/lift) lifting error service check” on page 241.</a>
662.80	The motor (tray 2 pick/lift) did not turn on.	
662.81	The motor (tray 2 pick/lift) did not turn off.	
662.82	The motor (tray 2 pick/lift) speed did not ramp up to the required level.	
662.83	The motor (tray 2 pick/lift) stalled.	
662.84	The motor (tray 2 pick/lift) ran too slow.	
662.85	The motor (tray 2 pick/lift) ran too fast.	
662.86	The motor (tray 2 pick/lift) did not run at the correct timing.	
663.33	The tray 3 lift plate failed to lift.	
663.80	The motor (tray 3 pick/lift) did not turn on.	
663.81	The motor (tray 3 pick/lift) did not turn off.	
663.82	The motor (tray 3 pick/lift) speed did not ramp up to the required level.	
663.83	The motor (tray 3 pick/lift) stalled.	
663.84	The motor (tray 3 pick/lift) ran too slow.	
663.85	The motor (tray 3 pick/lift) ran too fast.	
663.86	The motor (tray 3 pick/lift) did not run at the correct timing.	
664.43	The tray 4 lift plate failed to lift.	
664.80	The motor (tray 4 pick/lift) did not turn on.	
664.81	The motor (tray 4 pick/lift) did not turn off.	
664.82	The motor (tray 4 pick/lift) speed did not ramp up to the required level.	
664.83	The motor (tray 4 pick/lift) stalled.	
664.84	The motor (tray 4 pick/lift) ran too slow.	
664.85	The motor (tray 4 pick/lift) ran too fast.	
664.86	The motor (tray 4 pick/lift) did not run at the correct timing.	

Error code	Description	Action
665.53	The tray 5 lift plate failed to lift.	See <a href="#">“Motor (optional tray pick/lift) lifting error service check” on page 241.</a>
665.80	The motor (tray 5 pick/lift) did not turn on.	
665.81	The motor (tray 5 pick/lift) did not turn off.	
665.82	The motor (tray 5 pick/lift) speed did not ramp up to the required level.	
665.83	The motor (tray 5 pick/lift) stalled.	
665.84	The motor (tray 5 pick/lift) ran too slow.	
665.85	The motor (tray 5 pick/lift) ran too fast.	
665.86	The motor (tray 5 pick/lift) did not run at the correct timing.	
666.80	The motor (tray 2 pass-through) did not turn on.	See <a href="#">“Motor (optional tray pass-through) stalled service check” on page 242.</a>
666.81	The motor (tray 2 pass-through) did not turn off.	
666.82	The motor (tray 2 pass-through) speed did not ramp up to the required level.	
666.83	The motor (tray 2 pass-through) stalled.	
666.84	The motor (tray 2 pass-through) ran too slow.	
666.85	The motor (tray 2 pass-through) ran too fast.	
666.86	The motor (tray 2 pass-through) did not run at the correct timing.	
667.80	The motor (tray 3 pass-through) did not turn on.	
667.81	The motor (tray 3 pass-through) did not turn off.	
667.82	The motor (tray 3 pass-through) speed did not ramp up to the required level.	
667.83	The motor (tray 3 pass-through) stalled.	
667.84	The motor (tray 3 pass-through) ran too slow.	
667.85	The motor (tray 3 pass-through) ran too fast.	
667.86	The motor (tray 3 pass-through) did not run at the correct timing.	
668.80	The motor (tray 4 pass-through) did not turn on.	
668.81	The motor (tray 4 pass-through) did not turn off.	
668.82	The motor (tray 4 pass-through) speed did not ramp up to the required level.	
668.83	The motor (tray 4 pass-through) stalled.	
668.84	The motor (tray 4 pass-through) ran too slow.	
668.85	The motor (tray 4 pass-through) ran too fast.	
668.86	The motor (tray 4 pass-through) did not run at the correct timing.	



Error code	Description	Action
669.80	The motor (tray 5 pass-through) did not turn on.	See <a href="#">“Motor (optional tray pass-through) stalled service check” on page 242.</a>
669.81	The motor (tray 5 pass-through) did not turn off.	
669.82	The motor (tray 5 pass-through) speed did not ramp up to the required level.	
669.83	The motor (tray 5 pass-through) stalled.	
669.84	The motor (tray 5 pass-through) ran too slow.	
669.85	The motor (tray 5 pass-through) ran too fast.	
669.86	The motor (tray 5 pass-through) did not run at the correct timing.	

### Motor (optional tray pick/lift) lifting error service check

Action	Yes	No
<p><b>Step 1</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Make sure that the tray insert is properly seated or fully inserted.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b>  <b>a</b> Enter the Diagnostics menu, and then navigate to:  <b>Additional input trays adjustments/tests &gt; Additional input tray sensors</b>  <b>b</b> Find the sensor (Pick roller index (tray [x])).  <b>Note:</b> [x] is the tray number.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Make sure that the sensor cable is properly connected.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p><b>Step 5</b> Check the affected motor for proper operation and noise.</p> <p><b>a</b> Remove the tray insert.</p> <p><b>b</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></p> <p><b>c</b> Select <b>Pick (tray [x])</b>, and then touch <b>Start</b>. <b>Note:</b> [x] is the tray number.</p> <p>Does the motor run or does it sound normal?</p>	Go to step 8.	Go to step 6.
<p><b>Step 6</b> Make sure that the motor cable is properly connected.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Restart the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Motor (optional tray pass-through) stalled service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Additional input trays adjustments/tests &gt; Additional input tray motors</b></p> <p><b>b</b> Select <b>Pass-through (tray [x])</b>, and then touch <b>Start</b>. <b>Note:</b> [x] is the tray number.</p> <p>Does the motor run?</p>	Go to step 4.	Go to step 2.
<p><b>Step 2</b> Make sure that the motor cable is properly connected.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p><b>Step 3</b> Check the motor for noise.</p> <p>Does the motor sound abnormal or do the gears make a grinding sound?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Replace the optional tray. See <a href="#">“Optional 550-sheet tray removal” on page 429</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	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**.

**Notes:**

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

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

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

**Notes:**

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

- Some printers are designed to restart automatically after a 9yy error. On these printers, you can retrieve the secondary crash code information using the SE menu.

**1** Open a web browser, type **http://printer\_IP\_address/se**, and then press **Enter**.

**2** Click **Logs Gzip Compressed**.

**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** E-mail the logs to your next level of support.

**Note:** To download the FWdebug log to a flash drive, see [“General SE” on page 288](#).

## 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** E-mail 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 use Scan to E-mail to send it to your next level of support.

## D. Collecting information from the user

Ask the user for information about the following:

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

## 900–901 errors

### 900–901 error messages

Error code	Description	Action
900.00	A RIP firmware error occurred.	See <a href="#">“System software error service check” on page 245.</a>
900.70	A RIP firmware error occurred.	
901.01	A RIP firmware error occurred.	
901.02	A RIP firmware error occurred.	

### System software error service check

Different types of 900.xx errors can occur. There may be a communication problem (bad cable, network connection, and software issues), or a hardware problem with the controller board or ISP (internal solutions port). Check the communication and software problems first. Determine if the problem is constant or intermittent. Use the following troubleshooting procedure to isolate the issue. Take notes as instructed. You will need that information in the event that you need to contact your next level of support.

Before troubleshooting:

- 1 Perform the [“Procedure before starting the 9yy service checks” on page 243.](#)
- 2 Determine the operating system used when the error occurred. If possible, determine whether a PostScript or PCL file was sent to the printer when the error occurred. Ask the customer which Lexmark Solutions applications are installed on the printer.

Action	Yes	No
<p><b>Step 1</b> Perform a POR.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p><b>a</b> Write down the exact 900.xx error code that appears on the display.</p> <p><b>b</b> Turn off the printer.</p> <p><b>c</b> Clear the print queues.</p> <p><b>d</b> Disconnect all communication cables, and then remove all memory options.</p> <p><b>e</b> Remove any installed ISP.</p> <p><b>f</b> Reset the printer into the Diagnostics menu.</p> <p>Does the problem remain?</p>	Go to step 3.	Go to step 6.
<p><b>Step 3</b> Check all the cables on the controller board for proper connection.</p> <p>Are the cables properly connected?</p>	Go to step 5.	Go to step 4.

Action	Yes	No
<p><b>Step 4</b></p> <p><b>a</b> Reconnect the cables.</p> <p><b>b</b> Reset the printer into the Diagnostics menu.</p> <p>Does the problem remain?</p>	Go to step 5.	Go to step 6.
<p><b>Step 5</b></p> <p><b>a</b> Replace the controller board. See <a href="#">“Controller board removal” on page 395.</a></p> <p><b>b</b> Reset the printer.</p> <p><b>Note:</b> If a different error code displays, then go to the service check for that error code.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p><b>Step 6</b></p> <p>Print the following:</p> <ul style="list-style-type: none"> <li>• Error Log</li> <li>• Menu Settings Page</li> <li>• Network Settings Page</li> </ul> <p>Does the problem remain while printing these pages?</p>	Go to step 20.	Go to step 7.
<p><b>Step 7</b></p> <p><b>Note:</b> Before performing this step, write down the following information about the file being sent to the printer:</p> <ul style="list-style-type: none"> <li>• Application used</li> <li>• Operating system</li> <li>• Driver type</li> <li>• File type (PCL, PostScript, XPS, etc.)</li> </ul> <p><b>a</b> Reattach the communications cable.</p> <p><b>b</b> Reset the printer.</p> <p><b>c</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 8.	Go to step 10.
<p><b>Step 8</b></p> <p><b>a</b> Reset the printer.</p> <p><b>b</b> Perform a different print job.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p><b>Step 9</b></p> <p><b>a</b> Upgrade the firmware.</p> <p><b>Note:</b> Contact your next level of support for the correct firmware level to use.</p> <p><b>b</b> Reset the printer.</p> <p><b>c</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 20.	Go to step 10.
<p><b>Step 10</b></p> <p>Verify if an ISP option is installed.</p> <p>Is an ISP option installed?</p>	Go to step 11.	Go to step 20.
<p><b>Step 11</b></p> <p><b>a</b> Reinstall the first ISP option.</p> <p><b>b</b> Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 13.	Go to step 12.
<p><b>Step 12</b></p> <p>Perform a job to test the option.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p><b>Step 13</b></p> <p><b>a</b> Upgrade the firmware if it was not upgraded in a previous step.</p> <p><b>Note:</b> Contact your next level of support for the correct firmware level to use.</p> <p><b>b</b> Reset the printer.</p> <p><b>c</b> Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p><b>Step 14</b></p> <p><b>a</b> Replace the faulty ISP option.</p> <p><b>b</b> Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 20.	Go to step 15.
<p><b>Step 15</b></p> <p>Verify if there are more ISP options to install.</p> <p>Are there more ISP options to install?</p>	Go to step 16.	Go to step 20.

Action	Yes	No
<p><b>Step 16</b></p> <p><b>a</b> Install the next ISP option.</p> <p><b>b</b> Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p><b>Step 17</b></p> <p>Perform a job to test the option.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p><b>Step 18</b></p> <p><b>a</b> Upgrade the firmware if it was not upgraded in a previous step.</p> <p><b>Note:</b> Contact your next level of support for the correct firmware level to use.</p> <p><b>b</b> Reset the printer.</p> <p><b>c</b> Send a print job.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p><b>Step 19</b></p> <p><b>a</b> Replace the faulty ISP option.</p> <p><b>b</b> Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p><b>Step 20</b></p> <p>Contact your next level of support.</p> <p>Provide the following information:</p> <ul style="list-style-type: none"> <li>• Exact 900.xx error digits and complete error message</li> <li>• Printed menu settings page</li> <li>• Printed network settings page</li> <li>• Device error log</li> <li>• A sample print file if the error appears to be isolated to a single file</li> <li>• File/Application used if the error is related to specific print file</li> <li>• Device operating system</li> <li>• Driver used (PCL/PS)</li> <li>• Frequency of the occurrence of the error</li> </ul>		



## 912–992 errors

### 912–992 error messages

Error code	Description	Action
912.05	An engine error occurred.	See <a href="#">“Engine software error service check”</a> on page 252.
912.08	An engine error occurred.	
912.09	An engine error occurred.	
912.15	An engine error occurred.	
912.16	An engine error occurred.	
912.17	An engine error occurred.	
912.19	An engine error occurred.	
912.28	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.	
912.38	An engine error occurred.	
912.40	An engine error occurred.	
912.42	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.	
912.50	An engine error occurred.	
912.52	An engine error occurred.	
912.58	An engine error occurred.	

Error code	Description	Action
912.60	An engine error occurred.	See <a href="#">“Engine software error service check” on page 252.</a>
912.61	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.	
912.74	An engine error occurred.	
912.76	An engine error occurred.	
912.77	An engine error occurred.	
912.79	An engine error occurred.	
912.80	An engine error occurred.	
912.81	An engine error occurred.	
912.82	An engine error occurred.	
912.85	An engine error occurred.	
912.86	An engine error occurred.	
912.88	An engine error occurred.	
938.04	Supplies security is not enabled.	See <a href="#">“Engine software error service check” on page 252.</a>
941.01	An engine communication error occurred.	
941.02	An engine communication error occurred.	
941.03	An engine communication error occurred.	
950.10	An NVRAM mismatch error occurred.	See <a href="#">“NVRAM failure service check” on page 252.</a>
953.99	An NVRAM chip error occurred on the mirrored part.	
958.99	A controller board NAND error occurred.	

Error code	Description	Action	
980.01	A validation failure was detected by the Paperport communication device.	See <a href="#">“Options communication error service check” on page 253.</a>	
980.02	A framing error or receive buffer overflow was detected by the Paperport communication device.		
980.03	A timeout error was detected by the Paperport communication device.		
980.04	An option failed to echo the last sent communication byte on time.		
980.05	An option declared a link reset.		
980.11	A Paperport command response was detected. Response was too large for the communications buffer.		
980.13	An optional device hot plug was detected by the printer. Low-level error occurred at the Paperport.		
980.14	An engine timeout error occurred while waiting for the following: <ul style="list-style-type: none"> <li>• A mechanical reset</li> <li>• An intervention required (IR) message to clear after inserting a tray</li> </ul>		
980.15	An engine timeout error occurred while waiting for an option to become idle.		
981.91	An Invalid Paperport protocol error occurred.		
982.92	A Paperport framing error occurred.		See <a href="#">“Options communication error service check” on page 253.</a>
982.93	A Paperport overrun error occurred.		
982.94	A Paperport parity error occurred.		
982.95	An Other Paperport error occurred.		
982.96	The Paperport encountered multiple communication errors.		
982.97	An invalid Paperport Echo occurred.		
983.98	An unsupported Paperport command error occurred.		
984.99	An invalid Paperport parameter error occurred.	See <a href="#">“Options communication error service check” on page 253.</a>	
992.01	An option device software error occurred.		

## Engine software error service check

Actions	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Remove the controller board shield. See <a href="#">“Controller board shield removal” on page 393</a>.</p> <p><b>b</b> Make sure that the controller board and engine board cables are properly connected.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p>Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Replace the controller board. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## NVRAM failure service check

**Warning—Potential Damage:** When replacing any of the following components, replace only one component at a time or the printer will be rendered inoperable:

Replace the required component, bring the printer up in Diagnostics mode, and then verify that the problem is fixed before performing a POR.

This error indicates a mismatch between the engine board and the controller board.

Actions	Yes	No
<p><b>Step 1</b></p> <p>Verify if the engine board has been replaced.</p> <p>Has the engine board been replaced?</p>	Go to step 2.	Go to step 3.
<p><b>Step 2</b></p> <p>Replace the engine board with a new engine board that has not undergone installation or use. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b></p> <p>Verify if the controller board has been replaced.</p> <p>Has the controller board been replaced?</p>	Go to step 4.	Go to step 5.

Actions	Yes	No
<p><b>Step 4</b></p> <p>Replace the controller board with a new controller board that has not undergone installation or use. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b></p> <p><b>a</b> Turn the printer off for ten or more seconds.</p> <p><b>b</b> Turn the printer back on.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b></p> <p>Restore the printer to factory defaults to clear the NVRAM.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b></p> <p>Replace the controller board. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Options communication error service check

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> Check if the firmware is updated, and then update the firmware if necessary.</p> <p><b>b</b> Make sure that the printer supports the option. See the <i>Printer, Option, and Stand Compatibility Guide</i>.</p> <p><b>c</b> Make sure that the option is properly attached to the printer or adjacent option.</p> <p><b>d</b> Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p>Reseat the option interface cable on the engine board.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p><b>Step 3</b></p> <p>Do the following to each option:</p> <ul style="list-style-type: none"> <li><b>a</b> Reinstall the option.</li> <li><b>b</b> Print a test page, and then check if the option is defective.</li> </ul> <p>Are all options properly working?</p>	Go to step 4.	Contact the next level of support
<p><b>Step 4</b></p> <p>Replace the option.</p> <p>Does the problem remain?</p>	Contact the next level of support	The problem is solved.

## Other symptoms

### Base printer symptoms

#### Base printer symptoms

Symptom	Action
Printer has no power.	See <a href="#">“Dead machine service check” on page 254.</a>
Control panel is not functioning.	See <a href="#">“Control panel service check” on page 255.</a>
Toner out message appears on the display.	See <a href="#">“Toner meter cycle (TMC) card service check” on page 194.</a>
Printer is not communicating with host (USB).	See <a href="#">“USB service check” on page 257.</a>
Printer is not communicating with host (network).	See <a href="#">“Network service check” on page 257.</a>
Bin paper jam or bin full message appears on the display.	See <a href="#">“Sensor (bin full) static jam service check” on page 260.</a>
Invalid engine code message appears on the display.	See <a href="#">“Engine board removal” on page 397.</a>

#### Dead machine service check

Action	Yes	No
<p><b>Step 1</b></p> <p>Check the AC line for proper voltage.</p> <p>Does the AC line have proper voltage?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b></p> <p>Use an electrical outlet that has proper voltage.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p><b>Step 3</b> Check the power cord for damage.</p> <p>Is the power cord free of damage?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Replace the power cord.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Make sure that the JLVPS1 connector on the engine board is properly connected to the LVPS.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p><b>Step 6</b> Measure the values of pin 4, 6, 8, and 11 to 26 of the JLVPS connector on the controller board. See <a href="#">“Controller board and engine board connectors” on page 433</a>.</p> <p>Are the values approximately correct?</p>	Go to step 8.	Go to step 7.
<p><b>Step 7</b> Replace the LVPS. See <a href="#">“LVPS removal” on page 310</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Replace the engine board. See <a href="#">“Engine board removal” on page 397</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Control panel service check

Action	Yes	No
<p><b>Step 1</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Check the LED on the control panel.</p> <p>Is the LED on?</p>	Go to step 3.	Go to step 4.

Action	Yes	No
<p><b>Step 3</b> Check the ethernet connection LEDs on the controller board.</p> <p>Are the LEDs on?</p>	Go to step 4.	Go to step 8.
<p><b>Step 4</b> Make sure that the control panel FFC is properly connected to the control panel and controller board.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p><b>Step 5</b> Check the control panel FFC for damage.</p> <p>Is the FFC free of damage?</p>	Go to step 7.	Go to step 6.
<p><b>Step 6</b> Replace the control panel FFC. See <a href="#">“Control panel FFC removal” on page 409</a>.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b> Replace the control panel display. See <a href="#">“Control panel display removal” on page 369</a>.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p><b>Step 8</b> Disconnect the LVPS cable from the engine board, and then measure the voltages of the red and orange wires.</p> <p>Is the reading on the red wire +6.5 V, and the orange wire +25 V?</p>	Go to step 10.	Go to step 9.
<p><b>Step 9</b> Replace the LVPS. See <a href="#">“LVPS removal” on page 310</a>.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p><b>Step 10</b> Replace the controller board. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.



## USB service check

Actions	Yes	No
<p><b>Step 1</b> Make sure that the USB cable is properly connected to the printer and host PC.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> Use a different USB cable.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Connect a different device to the USB cable.</p> <p>Did the host PC see the device?</p>	Go to step 4.	The issue is with the host machine.
<p><b>Step 4</b> Replace the controller board. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Network service check

### Notes:

- Before starting this service check, print out the network setup page. From the home screen, touch **Settings > Reports > Network > Network Setup Page**.
- Consult the network administrator to verify that the physical and wireless network settings displayed on the network settings page for the device are properly configured.
- If a wireless network is used, then verify that the printer is in range of the host computer or wireless access point, and there is no electronic interference.
- Have the network administrator verify that the device is using the correct SSID, and wireless security protocols.
- For more network troubleshooting information, consult the Lexmark Network Setup Guide.

Actions	Yes	No
<p><b>Step 1</b> If the printer is physically connected to the network, make sure that the Ethernet cable is properly connected on both ends.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b> If the network is wireless, check the online status of the printer under Printers and Faxes on the host computer. Delete all print jobs in the print queue.</p> <p>Is the printer online and in Ready state?</p>	Go to step 4.	Go to step 3.
<p><b>Step 3</b> Change the printer status to online.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Check the IP address displayed on the network settings page.</p> <p>Does it match the IP address in the port of the drivers using the printer?</p>	Go to step 9.	Go to step 5.
<p><b>Step 5</b> <b>Note:</b> A printer should use a static IP address on a network.</p> <p>Does the LAN use DHCP?</p>	Go to step 6.	Go to step 8.
<p><b>Step 6</b> Check the first two segments of the IP address.</p> <p>Does the IP address start with 169.254?</p>	Go to step 7.	Go to step 8.
<p><b>Step 7</b> Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 8</b> Reset the address on the printer to match the IP address on the driver.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p><b>Step 9</b> Have the network administrator check if the printer and computer IP address have identical subnet addresses.</p> <p>Are the subnet addresses the same?</p>	Go to step 11.	Go to step 10.

Actions	Yes	No
<p><b>Step 10</b> Using the subnet address supplied by the network administrator, assign a unique IP address to the printer.</p> <p><b>Note:</b> The printer IP address should match the IP address on the print driver.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p><b>Step 11</b></p> <p>Is the printer physically connected (Ethernet cable) to the network?</p>	Go to step 12.	Go to step 15.
<p><b>Step 12</b></p> <p>Try using a different Ethernet cable.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p><b>Step 13</b></p> <p>Have the network administrator check the network drop for activity.</p> <p>Is the network drop functioning properly?</p>	Go to step 14.	Contact the network administrator.
<p><b>Step 14</b></p> <p>Replace the controller board. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p><b>Step 15</b></p> <p>Is the printer on the same wireless network as the other devices?</p>	Go to step 17.	Go to step 16.
<p><b>Step 16</b></p> <p>Assign the correct wireless network to the printer.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p><b>Step 17</b></p> <p>Are the other devices on the wireless network communicating properly?</p>	Go to step 18.	Contact the network administrator.
<p><b>Step 18</b></p> <p>Make sure that the wireless card on the controller board is properly installed.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.

Actions	Yes	No
<p><b>Step 19</b> If there is an attached antenna, check it for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p><b>Step 20</b> Make sure that the antenna is properly connected to the wireless card.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p><b>Step 21</b> Replace the wireless card.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p><b>Step 22</b> Replace the controller board. See <a href="#">“Controller board removal” on page 395</a>.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

### Sensor (bin full) static jam service check

Action	Yes	No
<p><b>Step 1</b> <b>a</b> From the home screen, touch <b>Settings &gt; Device &gt; Preferences</b>. <b>b</b> Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p><b>Step 2</b> Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 5.	Go to step 4.
<p><b>Step 4</b> Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p><b>Step 5</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer diagnostics &amp; adjustments &gt; Sensor tests</b></p> <p><b>b</b> Find the sensor (Output bin full).</p> <p>Does the sensor status change while toggling the sensor?</p>	Contact the next level of support.	Go to step 6.
<p><b>Step 6</b></p> <p>Make sure that the JDSNS1 connector on the engine board is properly connected.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p>Check the sensor for damage.</p> <p>Is the sensor free of damage?</p>	Contact the next level of support.	Go to step 8.
<p><b>Step 8</b></p> <p><b>a</b> Replace the sensor.</p> <p><b>b</b> Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

## Toner patch sensing service check

### Pre-check procedure

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Color alignment adjust**

- 2 On the AA adjustment row, touch **Start**.

**Note:** This triggers the auto align routine which performs the color alignment error corrections (0.42 mm, 0.84 mm, and 3 mm range).

**Note:** If the AA adjustment is successful, an **AA adjustment passed** message appears on the screen. If an **AA adjustment passed** message does not appear, skip the next pre-check step, and then go directly to step 4 in the service check.

- 3 Enter the Diagnostics menu, and then navigate to:  
**Printer setup > EP setup > Toner patch sensor adjust > Full calibration**

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

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Troubleshooting &gt; Print Quality Test Pages</b>.</p> <p><b>b</b> On the Device information section of the print quality test page, check the CalSet values of the following:</p> <ul style="list-style-type: none"> <li>• C Developer operating point</li> <li>• C Laser operating point</li> <li>• C Linearization stat</li> <li>• M Developer operating point</li> <li>• M Laser operating point</li> <li>• M Linearization stat</li> <li>• Y Developer operating point</li> <li>• Y Laser operating point</li> <li>• Y Linearization stat</li> <li>• K Developer operating point</li> <li>• K Laser operating point</li> <li>• K Linearization stat</li> </ul> <p>Are the values 0?</p>	Go to step 2.	The problem is solved.
<p><b>Step 2</b></p> <p>Perform the blank or white pages service check. See <a href="#">“Blank or white pages check” on page 30</a>.</p> <p>Was an issue found and resolved?</p>	Go to step 3.	Go to step 4.
<p><b>Step 3</b></p> <p>Perform the auto alignment service check. See <a href="#">“Auto alignment service check” on page 263</a>.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b></p> <p><b>a</b> Enter the Diagnostics menu, and then navigate to: <b>Printer setup &gt; EP setup &gt; Toner patch sensor adjust</b></p> <p><b>b</b> On the sensor gain characterization row, touch <b>Start</b>.</p> <p><b>c</b> On the sensor gain verification row, touch <b>Start</b>.</p> <p><b>d</b> On the sensor gain verification section of the test page, check the average signal values of the patch number.</p> <p>Are the values within the requirement?</p>	The problem is solved.	Go to step 5.
<p><b>Step 5</b></p> <p>Perform the auto alignment service check. See <a href="#">“Auto alignment service check” on page 263</a>.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p><b>Step 6</b></p> <p>Make sure that the JTPS_C1 connector on the engine board is properly connected to the sensor (TPS).</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p><b>Step 7</b></p> <p><b>a</b> Replace the sensor (TPS). See <a href="#">“Sensor (TPS) removal” on page 349</a>.</p> <p><b>b</b> Enter the Diagnostics menu, and then navigate to: <b>Printer setup &gt; EP setup &gt; Toner patch sensor adjust</b></p> <p><b>c</b> On the sensor gain characterization row, touch <b>Start</b>.</p> <p><b>d</b> On the sensor gain verification row, touch <b>Start</b>.</p> <p><b>e</b> On the sensor gain verification section of the test page, check the average signal values of the patch number.</p> <p>Are the values within the requirement?</p>	The problem is solved.	Contact the next level of support.

## Auto alignment service check

### Pre-check procedure

- Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Color alignment adjust**
- On the AA adjustment row, touch **Start**.
 

**Note:** This triggers the auto align routine which performs the color alignment error corrections (0.42 mm, 0.84 mm, and 3 mm range).

**Note:** If the AA adjustment is successful, an **AA adjustment passed** message appears on the screen. If an **AA adjustment passed** message does not appear, skip the next pre-check step, and then go directly to step 3 in the service check.
- Enter the Diagnostics menu, and then navigate to:  
**Printer setup > EP setup > Toner patch sensor adjust > Full calibration**

**Note:** This triggers the auto align routine (0.42 mm range only).

Action	Yes	No
<p><b>Step 1</b></p> <p><b>a</b> From the home screen, touch <b>Settings &gt; Troubleshooting &gt; Print Quality Test Pages</b>.</p> <p><b>b</b> On the CalSet section of the test page, check the color alignment stat value.</p> <p>Is the value 0?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p><b>Step 2</b> Perform the blank or white pages service check or missing color service check. See <a href="#">“Blank or white pages check” on page 30</a> or <a href="#">“Missing color check” on page 70</a>.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p><b>Step 3</b> Make sure that the JTPS_C1 connector on the engine board is properly connected to the sensor (TPS).</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p><b>Step 4</b> Replace the sensor (TPS). See <a href="#">“Sensor (TPS) removal” on page 349</a>.</p> <p>Does the problem remain?</p>	The problem is solved.	Contact the next level of support.



# Service menus

## Understanding the printer control panel

### Using the control panel



	Control panel part	Function
1	Power button	<ul style="list-style-type: none"> <li>Turn on or turn off the printer.</li> <li><b>Note:</b> To turn off the printer, press and hold the power button for five seconds.</li> <li>Set the printer to Sleep mode.</li> <li>Wake the printer from Sleep or Hibernate mode.</li> </ul>
2	Display	<ul style="list-style-type: none"> <li>View the printer messages and supply status.</li> <li>Set up and operate the printer.</li> </ul>
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.

## Configuring the door interlock bypass jumpers

**Note:** The interlock bypass jumpers are only used with the following motors:

- Motor (fuser)
- Motor (K/transfer belt)
- Motor (tray 1 pick/lift)
- Motor (duplex/MPF)

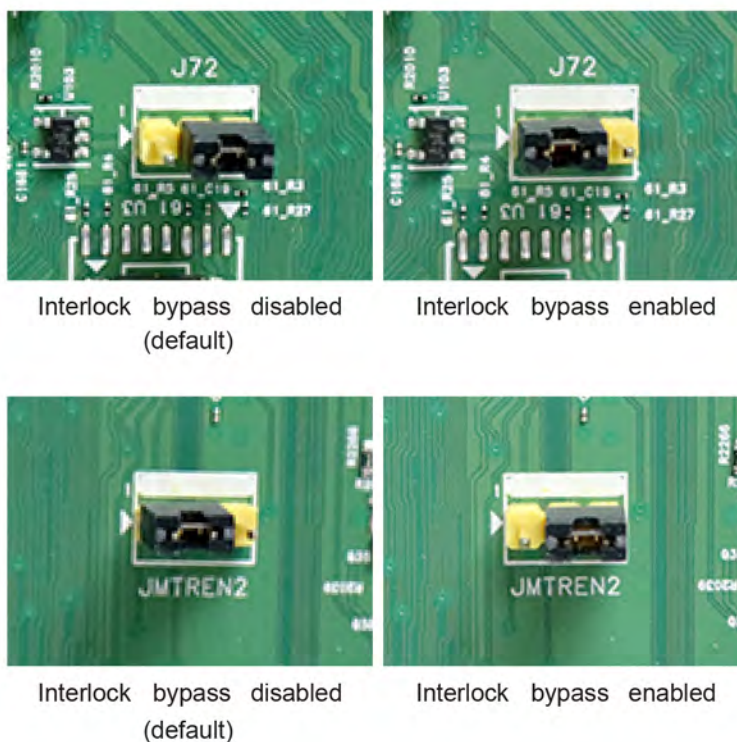
The engine board has two door interlock bypass jumpers. These jumpers allow you to leave the doors open to see the motors in operation while being tested in diagnostics mode.

The J72 jumper connector enables the motor (fuser) and motor (K/transfer belt) for diagnostic tests.

The JMTREN2 jumper connector enables the motor (tray1 pick/lift) and motor (duplex/MPF) for diagnostic tests.

**Note:** If the jumpers are not set to the bypass position and a motor test is performed while a door is open, then a 1yy.80 or other error can occur.

The following are the jumper configurations:



To set the jumpers:

- 1 Turn off the printer.
- 2 Remove the controller board shield. See [“Controller board shield removal” on page 393](#).
- 3 Locate the jumper connectors on the engine board.
- 4 Move the jumper of the motor being tested to the bypass position.
- 5 Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments > Motor tests**.

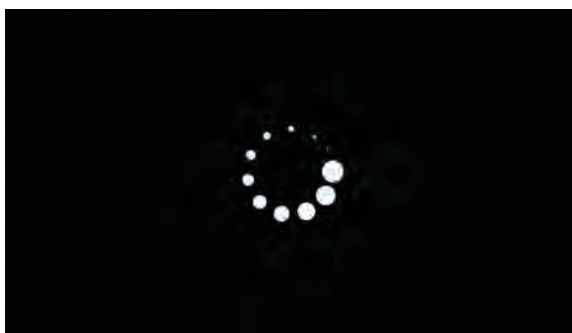
- 6 Observe precautions for motor tests. See [“Motor tests” on page 275](#).
- 7 Select a motor, and then touch **Start**.
- 8 After the test, turn off the printer, and then move the jumpers back to the default position.

## Diagnostics menu

### Entering the Diagnostics Menu

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

- To access the menu from POST, do the following:
  - 1 Unplug the power cord from the electrical outlet.
  - 2 Open tray 1.
  - 3 Connect the power cord to the electrical outlet.  
When the display shows the following icon, close tray 1.




- 4 From the menu that appears on the display, select **Diagnostics\_Mode**.



#### Notes:

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

- 5 Select **Boot**.

- To access the Diagnostics Menu from the home screen, do the following:
  - 1 From the home screen, touch .
  - 2 Touch **\*\*36**, and then touch **OK**.

## Reports

### Device

This report lists all the current printer settings.

Enter the Diagnostics menu, and then navigate to:

**Reports > Device**

### Licenses

This setting lists all the installed licenses and their feature data.

Enter the Diagnostics menu, and then navigate to:

**Reports > Licenses**

### Advanced Print Quality Samples

This setting prints a list of the printer settings and sample pages to check print quality.

Enter the Diagnostics menu, and then navigate to:

**Advanced Print Quality Samples > Advanced Print Quality Test Pages**

## Printer Setup

### Printed page count (mono)

This setting displays the amount of pages printed in mono.

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

### Printed page count (color)

This setting displays the amount of pages printed in color.

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

### Permanent page count

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

- 1 Enter the Diagnostics menu, and then touch **Printer Setup**.
- 2 View the permanent page count.

## Processor ID

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

- 1 Enter the Diagnostics menu, and then touch **Printer Setup**.
- 2 View the processor ID.

## Serial number

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

- 1 Enter the Diagnostics menu, and then touch **Printer Setup**.
- 2 View the serial number.

## Model name

This setting displays the model name of the printer.

- 1 Enter the Diagnostics menu, and then touch **Printer Setup**.
- 2 View the model name.

## Engine setting [x]

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

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

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer Setup > Engine setting [x]**
- 2 Select a setting, enter a value, and then touch **OK**.

## EP setup

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

This setting allows you to adjust the EP setup of the printer.

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer Setup > EP setup**
- 2 Select a setting.

## Waste toner sensor calibration

This procedure ensures the accuracy of the waste toner level detection.

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer Setup > Waste toner sensor calibration**
- 2 Remove the waste toner bottle.

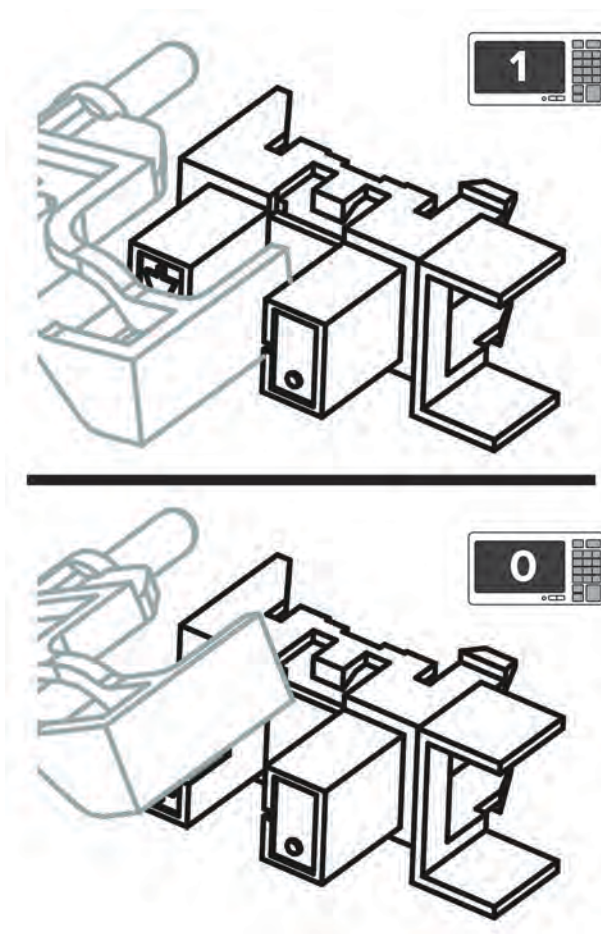
3 Touch **Start**.

## Printer diagnostics and adjustments

### Sensor tests

**Note:** For a video demonstration, see [Performing the printer sensor tests](#).

- 1 Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**.
- 2 From the Sensor tests row, touch **Start**.  
A list of sensors appears.
- 3 Find, and then manually toggle the sensor.

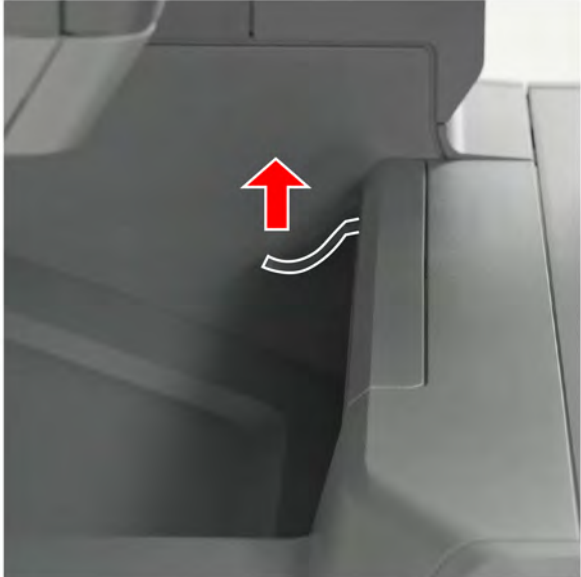



#### Notes:

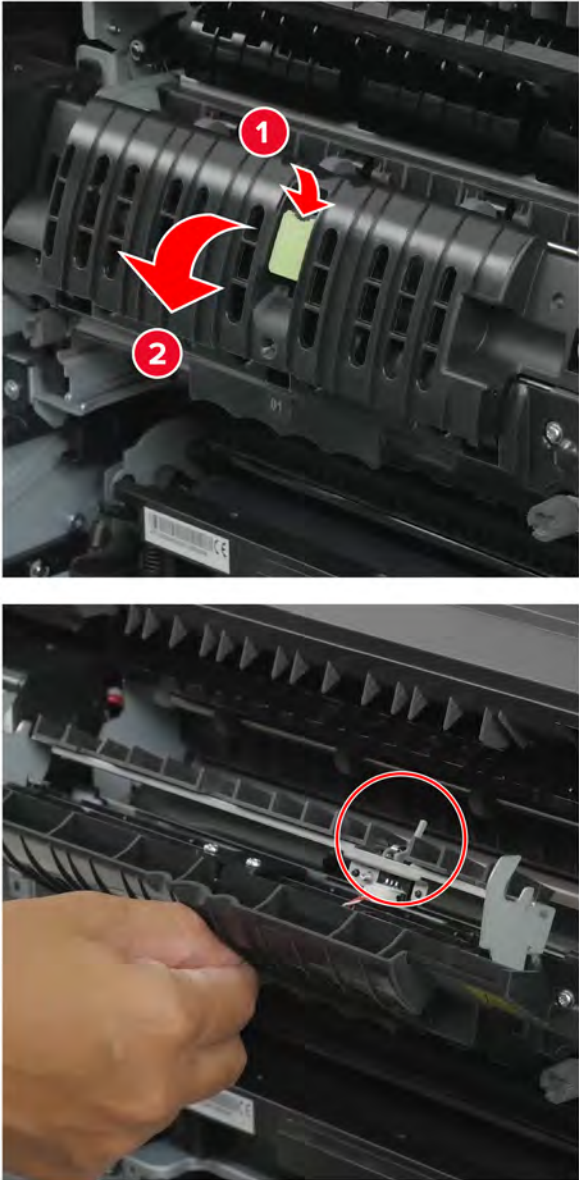
- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.



## List of sensor tests


Tests	Notes
Pick roller index (tray 1)	<ol style="list-style-type: none"> <li>1 Remove the tray insert.</li> </ol>
Paper present (tray 1)	<ol style="list-style-type: none"> <li>2 Lower the pick roller to toggle the sensor.</li> </ol> 
MPF media present	Load or remove paper on the MPF to toggle the sensor.
Tray 1 pick	--
MPF/pass-through	--
Input	--
Narrow media	<p>Open the front door to access the sensor.</p> 

Tests	Notes
Output bin full	<p data-bbox="609 205 1031 237">Lift the bin flag to toggle the sensor.</p>  A close-up photograph of the interior of a printer's output bin. A small, dark grey plastic flag is attached to the side of the bin. A red arrow points upwards from the flag, and a white curved arrow indicates the direction of movement for lifting the flag.
Redrive/Duplex path 1	--
Duplex path 2	--
Fuser buckle	<p data-bbox="609 1003 1096 1035">Open the front door to access the sensor.</p>  A close-up photograph of the fuser assembly inside a printer. A small, dark grey plastic component, likely a sensor, is highlighted with a red circle. The component is mounted on a grey plastic housing. A metal rod is visible in the background.



Tests	Notes
Fuser exit	<p data-bbox="609 205 1190 235">Open the fuser access door to access the sensor.</p>  <p>The top photograph shows the fuser assembly with a door handle. A red arrow labeled '1' points to the handle, and another red arrow labeled '2' points to the door's opening direction. A small green sticker is visible on the door. The bottom photograph shows the door open, with a red circle highlighting a sensor component inside the fuser assembly.</p>

Tests	Notes
Door interlock	<ol style="list-style-type: none"><li data-bbox="626 205 948 237">1 Open the cartridge door.</li><li data-bbox="626 247 1208 279">2 Toggle the sensor with a folded sheet of paper.</li></ol> 
Pass/Fail Cables	--
Waste Toner Bottle	<ol style="list-style-type: none"><li data-bbox="626 997 1024 1029">1 Remove the waste toner bottle.</li><li data-bbox="626 1039 1208 1071">2 Toggle the sensor with a folded sheet of paper.</li></ol> 

Tests	Notes
Media size (tray 1) switch 1	Remove the tray insert to access the switches. 
Media size (tray 1) switch 2	
Media size (tray 1) switch 3	
Media size (tray 1) switch 4	
K Toner meter	--
C Toner meter	--
M Toner meter	--
Y Toner meter	--

## Motor tests

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


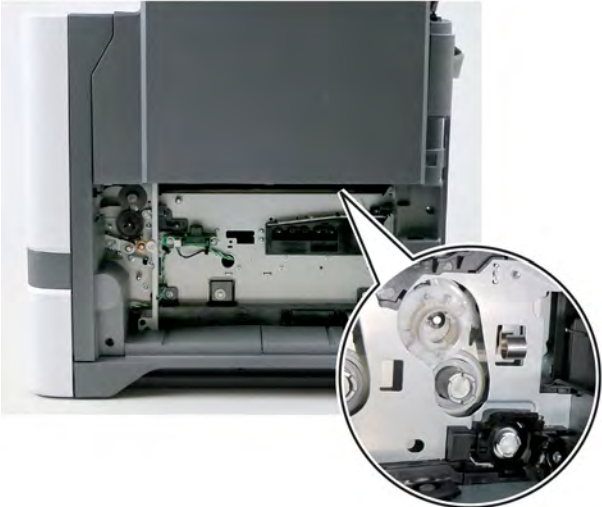
**Printer diagnostics & adjustments > Motor tests**

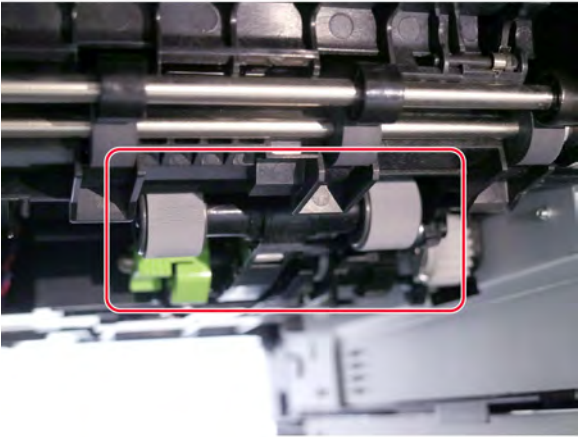
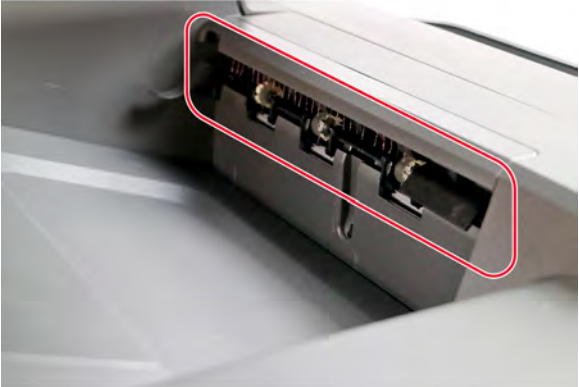
**2** Select a motor, and then touch **Start**.

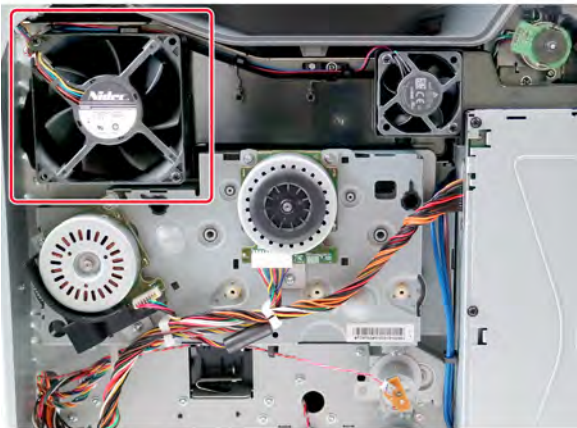
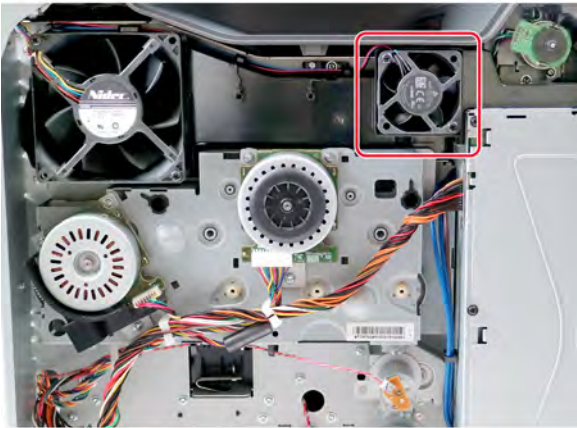
### Notes:

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

## List of motor tests

Test	Notes
CMY developer	<ol style="list-style-type: none"> <li><b>1</b> Remove the imaging kit.</li> <li><b>2</b> Close all doors.</li> </ol> <p>The test is successful if the couplings rotate.</p> 
K developer-transfer	<ol style="list-style-type: none"> <li><b>1</b> Remove the imaging kit.</li> <li><b>2</b> Remove the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</li> <li><b>3</b> Close all doors.</li> </ol> <p>The test is successful if the coupling rotates.</p> 

Test	Notes
Pick (tray 1)	<p>Remove the tray insert. The test is successful if the pick roller activates.</p> 
Isolation	--
Deskew	--
Fuser	Close all doors.
Redrive	<p>The test is successful if the rollers activate.</p> 
Duplex/MPF	--
Black only retract	<ol style="list-style-type: none"> <li><b>1</b> Remove the imaging kit.</li> <li><b>2</b> Remove the transfer module. See <a href="#">“Transfer module removal” on page 358</a>.</li> <li><b>3</b> Close all doors.</li> </ol>

Test	Notes
Fan (main)	<p>Remove the left cover.</p> <p>The test is successful if the main fan activates.</p> 
Fan (fuser)	<p>Remove the left cover.</p> <p>The test is successful if the fuser fan activates.</p> 

## Registration adjust

This setting lets you adjust the skew, margins, or perform a Quick Test. For more information, see [“Registration adjustment” on page 303](#).

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Registration adjust**
- 2 Select a setting to adjust.

## Color alignment adjust

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

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Color alignment adjust**
- 2 Select a setting.

## Supply reset

The setting resets the transfer module counter values to zero.

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Supply reset**
- 2 Select a setting, and then touch **Start**.

## Add-on cards tests

This setting allows you to test the add-on cards installed on the printer.

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Add-on cards tests**
- 2 Select a card.

## Weather station

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

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

## Fuser temperature

This setting lets you view the fuser temperature.

- 1 Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**.
- 2 From the Fuser temperature row, touch **Start**.

## Universal Override

This setting allows the user to load custom paper sizes into a paper source.

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Universal Override**
- 2 Select a setting to adjust.

## Out of service erase

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

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

**Out of service erase**

- 2 Touch **Start**.

## Event Log

### Display Log

This setting displays the panel text that appears when the event occurs.

Enter the Diagnostics menu, and then navigate to:

**Event Log > Display Log**

### Print Log

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

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

**Event Log > Print Log**

- 2 Touch **Start**.

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

### Print Log Summary

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

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

**Event Log > Print Log Summary**

- 2 Touch **Start**.

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

### Mark Log

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

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

**Event Log > Mark Log**

- 2 Select a log that you want to create, and then touch **Start**.

## Input tray quick print

**Note:** For a video demonstration, see [Performing the input tray quick print](#).



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

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

## Additional input trays adjustments/tests

### Sensor tests

- 1 Enter the Diagnostics menu, and then touch **Additional input trays adjustments/tests**.
- 2 From the Additional input tray sensors row, touch **Start**.  
A list of sensors appears.
- 3 Find, and then manually toggle the sensor.

#### Notes:

- 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

Media size (tray 2) switch 1
Media size (tray 2) switch 2
Media size (tray 2) switch 3
Media size (tray 2) switch 4
Media size (tray 3) switch 1
Media size (tray 3) switch 2
Media size (tray 3) switch 3
Media size (tray 3) switch 4
Media size (tray 4) switch 1
Media size (tray 4) switch 2
Media size (tray 4) switch 3
Media size (tray 4) switch 4
Media size (tray 5) switch 1
Media size (tray 5) switch 2
Media size (tray 5) switch 3
Media size (tray 5) switch 4
Pass-through (tray 2)
Pass-through (tray 3)

Pass-through (tray 4)
Pass-through (tray 5)
Trailing edge (tray 2)
Trailing edge (tray 3)
Trailing edge (tray 4)
Trailing edge (tray 5)
Pick roller index (tray 2)
Pick roller index (tray 3)
Pick roller index (tray 4)
Pick roller index (tray 5)
Paper present (tray 2)
Paper present (tray 3)
Paper present (tray 4)
Paper present (tray 5)

## Motor tests

1 Enter the Diagnostics menu, and then navigate to:

**Additional input trays adjustments/tests > Additional input tray motors**

2 Select a motor, and then touch **Start**.

### Notes:

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

## List of motor tests

Pick (tray 2)
Pick (tray 3)
Pick (tray 4)
Pick (tray 5)
Pass-through (tray 2)
Pass-through (tray 3)
Pass-through (tray 4)
Pass-through (tray 5)

# Configuration menu

## Entering the Configuration Menu

From the control panel, navigate to:

**Settings > Device > Maintenance > Configuration Menu**

## Configuration Menu

Menu item	Description
<b>USB Configuration</b> USB PnP 1* 2	Change the USB driver mode of the printer to improve its compatibility with a personal computer.
<b>USB Configuration</b> USB Speed Full Auto*	Set the USB port to run at full speed and disable its high-speed capabilities.
<b>Tray Configuration</b> Size Sensing Tray [x] Sensing (On*)	Set the tray to sense automatically the paper size loaded into it.
<b>Tray Configuration</b> Tray Linking Automatic* Off	Set the printer to link the trays that have the same paper type and paper size settings.
<b>Tray Configuration</b> 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.
<b>Tray Configuration</b> A5 Loading Short Edge Long Edge*	Determine the default loading orientation for the A5 size paper in all paper sources.
<b>Tray Configuration</b> Paper Prompts Auto* Multipurpose Feeder Manual Paper	Set the paper source that the user fills when a prompt to load paper appears.  <b>Note:</b> For Multipurpose Feeder to appear, in the Paper menu, set Configure MP to Cassette.
<b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description
<b>Tray Configuration</b> Envelope Prompts Auto* Multipurpose Feeder Manual Envelope	Set the paper source that the user fills when a prompt to load envelope appears.  <b>Note:</b> For Multipurpose Feeder to appear, in the Paper menu, set Configure MP to Cassette.
<b>Tray Configuration</b> Action for Prompts Prompt user* Continue Use current	Set the printer to resolve paper- or envelope-related change prompts.
<b>Reports</b> Menu Settings Page Event Log Event Log Summary	Print reports about printer menu settings and event logs.
<b>Supply Usage And Counters</b> Clear Supply Usage History	Reset the supply usage history to the factory default level.
<b>Supply Usage And Counters</b> Reset Black Cartridge Counter Reset Cyan Cartridge Counter Reset Magenta Cartridge Counter Reset Yellow Cartridge Counter	Reset the counter after installing a new cartridge.
<b>Supply Usage And Counters</b> Reset Black Imaging Unit Counter	Reset the counter after installing a new black imaging unit.
<b>Supply Usage And Counters</b> Reset Color Imaging Kit Counter	Reset the counter after installing a new color imaging kit.
<b>Supply Usage And Counters</b> Reset Maintenance Counter	Reset the counter after installing a new fuser.
<b>Supply Usage And Counters</b> Tiered Coverage Ranges	Adjust the amount of color coverage for each printing range.
<b>Printer Emulations</b> PPDS Emulation Off* On	Set the printer to recognize and use the PPDS data stream.
<b>Printer Emulations</b> PS Emulation Off On*	Set the printer to recognize and use the PS data stream.
<b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.	

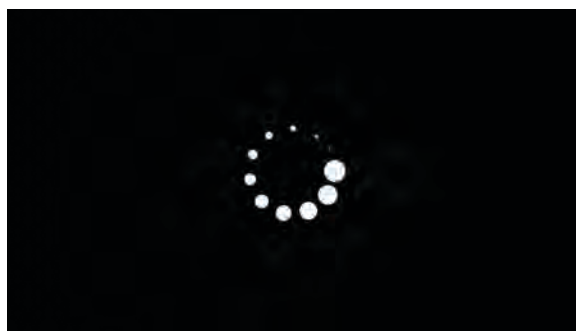
Menu item	Description
<b>Printer Emulations</b> Enable Formsmerge Off* On	Activate Formsmerge to store the forms into the hard disk or Intelligent Storage Drive (ISD). <b>Note:</b> A hard disk or an ISD must be installed.
<b>Printer Emulations</b> Enable Prescribe Off* On	Enable Prescribe emulation.
<b>Printer Emulations</b> Emulator Security Page Timeout (60 minutes*) Reset Emulator After Job (Off*) Disable Printer Message Access (On*)	Configure the security settings of the printer during emulation mode.
<b>Print Configuration</b> Black Only Mode Off* On	Set the printer to print always color content in grayscale .
<b>Print Configuration</b> Color Trapping Off 1 2* 3 4 5	Enhance the printed output to compensate for misregistration in the printer.
<b>Print Configuration</b> 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.
<b>Device Operations</b> Quiet Mode Off* On	Change the amount of noise that the printer produces. <b>Note:</b> Enabling this setting slows down the overall performance of the printer.
<b>Device Operations</b> Panel Menus Off On*	Enable access to the printer menus from the control panel.
<b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description
<b>Device Operations</b> 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.
<b>Device Operations</b> Clear Custom Status	Erase user-defined strings for the Default or Alternate custom messages.
<b>Device Operations</b> Clear all remotely-installed messages	Erase messages that were remotely installed.
<b>Device Operations</b> 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.
<b>App Configuration</b> LES Applications Off On*	Enable Lexmark Embedded Solutions (LES) applications.
<b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.	

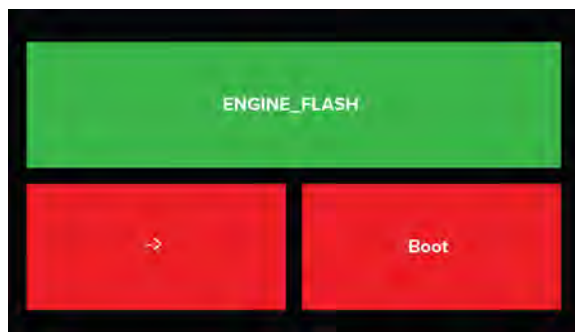
## Entering Invalid engine mode

This mode allows the printer to load the correct firmware code. For more information, see [“Updating the printer firmware ” on page 299](#).

- 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. While in this mode, you can only flash firmware code through a USB cable directly connected to a PC.

- 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 **RECOVERY**.

**Note:** The selected menu turns green.

- 5 Touch **Boot**.

## Service Engineer menu

### Entering the Service Engineer (SE) menu

- 1 From the home screen, touch .
- 2 Touch **\*\*411**, and then touch **OK**.

## General SE

Enter the Service Engineer (SE) menu, and then select **General SE**.

The following settings are available:

- Capture logs to USB drive
- Code versions
- Debug level

## Network SE

Enter the Service Engineer (SE) menu, and then select **Network SE**.

**Note:** Use these settings as directed by the next level of support.

Top level menu	Intermediate menu
History	<ul style="list-style-type: none"> <li>• Print History</li> <li>• Mark History</li> </ul>
MAC	<ul style="list-style-type: none"> <li>• Set Card Speed</li> <li>• LAA</li> <li>• Keep Alive</li> </ul>
NPAP	Print Alerts
TCP/IP	<ul style="list-style-type: none"> <li>• DHCP Request options</li> <li>• Allow SNMP Set</li> <li>• netstat</li> <li>• arp</li> <li>• Meditech Mode</li> <li>• MTU</li> <li>• RAW LPR Mode</li> <li>• Garp Interval</li> </ul>
Wireless settings <b>Note:</b> This setting is only available if a wireless module is installed.	Wireless Performance Enhancement
Wireless SE menu	<ul style="list-style-type: none"> <li>• Enable WFA_DUT on wlan interface</li> <li>• Enable WFA_DUT on wfd interface</li> <li>• Disable HT40 support</li> <li>• Enable Sigma Debug File</li> <li>• Enable TurboMode</li> <li>• Disable Forced MixedMode</li> <li>• Grab Wake Lock</li> <li>• Enable Radio Reset</li> <li>• Limit Band to b/g</li> </ul>



Top level menu	Intermediate menu
Ping Test	<ul style="list-style-type: none"> <li>• Ping Address</li> <li>• Attempts</li> <li>• Packet Size</li> <li>• Ping</li> </ul>
Other Actions	<ul style="list-style-type: none"> <li>• ifconfig</li> <li>• IPtables [Firewall Dump]</li> <li>• IP6tables [Firewall Dump]</li> <li>• IPsec Dump</li> </ul>
Enable DHCPCD Debugging	N/A
Enable WPA-suplicant Debugging	N/A
Enable Ethernet Gigabit	N/A



# Parts removal

## Data security notice

### Identifying printer memory

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

The following parts can store memory:

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

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

### Erasing printer memory

To erase volatile memory, turn off the printer.

To erase nonvolatile memory, do the following:

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

To erase hard disk memory, do the following:

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






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

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






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

**Note:** You can get printed copies of the form from your Lexmark partner manager.
- 3 Take a photo of the signed form, and then upload it to the Service Request debrief tool.
- 4 Fax or e-mail the signed form to the number or e-mail address shown at the bottom of the form.

## 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

-  **ATTENTION—RISQUE D'ELECTROCUTION :** 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.
-  **ATTENTION—RISQUE D'ELECTROCUTION :** 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.
-  **ATTENTION—RISQUE D'ELECTROCUTION :** 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.
-  **ATTENTION—SURFACE CHAUDE :** 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.
-  **ATTENTION : RISQUE DE PINCEMENT :** 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

-  **PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS:** 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.
-  **PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS:** 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.
-  **PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS:** 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.
-  **PRECAUCIÓN: SUPERFICIE CALIENTE:** 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.
-  **PRECAUCIÓN: PELIGRO DE ATRAPAMIENTO:** 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


-  **VORSICHT – STROMSCHLAGGEFAHR:** 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.
-  **VORSICHT – STROMSCHLAGGEFAHR:** Dieses Produkt verwendet einen elektronischen Leistungsschalter. Er trennt die Eingangswchselspannung nicht physikalisch. Um das Risiko eines elektrischen Schlags zu vermeiden, ziehen Sie stets das Netzkabel vom Drucker ab, wenn eine Abtrennung der Eingangswchselspannung erforderlich ist.
-  **VORSICHT – STROMSCHLAGGEFAHR:** 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.
-  **VORSICHT – HEISSE OBERFLÄCHE:** Das Innere des Druckers kann sehr heiß sein. Vermeiden Sie Verletzungen, indem Sie heiße Komponenten stets abkühlen lassen, bevor Sie ihre Oberfläche berühren.
-  **VORSICHT – QUETSCHGEFAHR:** Um das Risiko einer Quetschung zu vermeiden, gehen Sie in Bereichen, die mit diesem Etikett gekennzeichnet sind, mit Vorsicht vor. Quetschungen können im Bereich von beweglichen Komponenten auftreten, wie z. B. Zahnrädern, Klappen, Fächern und Abdeckungen.


## Handling ESD-sensitive parts


To prevent damage to the electrostatic discharge (ESD)-sensitive parts in the printer, do the following:


- Turn off the printer before removing logic boards.
- Keep the parts in their original packing material until you are ready to install them into the printer.
- Make the least-possible movements with your body to prevent an increase of static electricity from clothing fibers, carpets, and furniture.
- Use the ESD wrist strap. Connect the wrist band to the system ground point. This action discharges any static electricity in your body to the printer.
- Hold the parts by their edge connector shroud. Do not touch its pins. If you are removing a pluggable module, then use the correct tool.
- If possible, keep all parts in a grounded metal cabinet.
- Do not place the parts on the printer cover or on a metal table. If you need to put down the parts, then put them in their packing material.
- Prevent parts from being accidentally touched by other personnel. Cover the printer when you are not working on it.
- Be careful while working with the parts when cold-weather heating is used. Low humidity increases static electricity.

## Critical information for controller board or engine board replacement

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

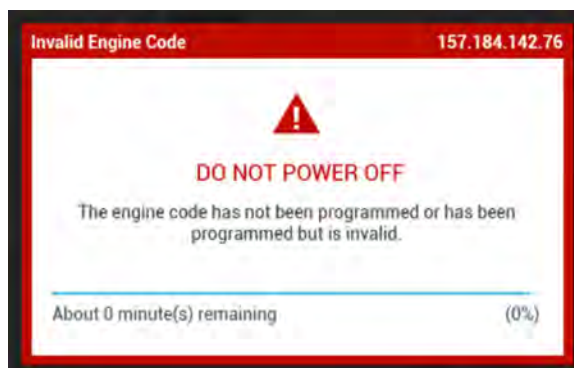
 **ATTENTION—RISQUE DE BLESSURE :** La batterie lithium de ce produit n'est pas destinée à être remplacée. Il existe un risque d'explosion si une batterie lithium est placée de façon incorrecte. Ne rechargez pas, ne démontez pas et n'incinerez pas une batterie lithium. Mettez les batteries lithium usagées au rebut selon les instructions du fabricant et les réglementations locales.

 **PRECAUCIÓN: POSIBLES DAÑOS PERSONALES:** 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.

 **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.

Read the following instructions carefully before performing them. Practice accessing `DIAGNOSTICS_MODE` first before replacing the part. See [“Entering the Diagnostics Menu” on page 267](#).

**Warning—Potential Damage:** An invalid engine code error occurs if the controller board and engine board are not on the same firmware level. Resolve the error shown with firmware updates. For more information, see [“Entering Invalid engine mode” on page 286](#) and [“Updating the printer firmware ” on page 299](#).



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

- Engine board
- Controller board

To replace a component and to test whether the problem is resolved:

- 1 Replace the affected component.

**Warning—Potential Damage:** Do not perform a Power-On Reset (POR) until the problem is resolved. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

- 2 Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

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

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

## Restoring the printer configuration after replacing the controller board

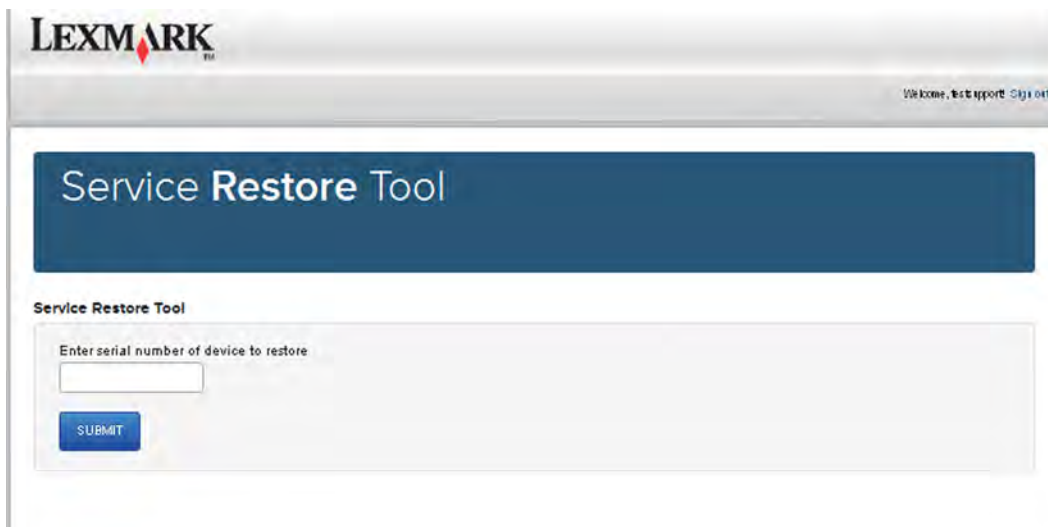
Restore the printer to its correct configuration to complete the replacement service. Use the Service Restore Tool to download the software bundle, and then flash the printer settings and embedded solutions.

**Note:** The software bundle contains the latest version of the firmware, applications, and software licenses from the Lexmark Virtual Solutions Center (VSC). The printer firmware may be at a different level from what was used before replacing the controller board.

### Using the Service Restore Tool

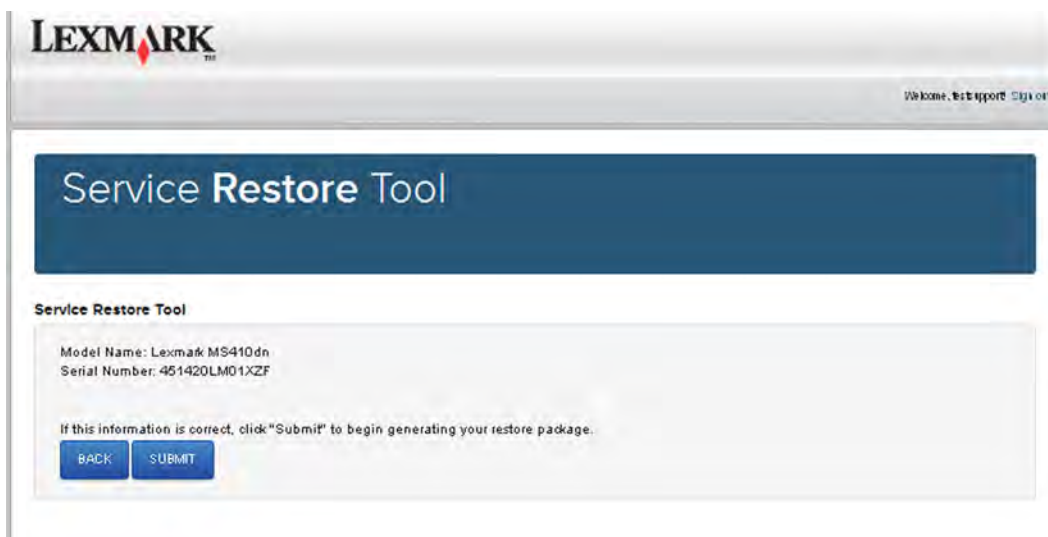
- 1 Go to <https://cdp.lexmark.com/service-restore-tool/> to access the tool.
- 2 Log in using your Lexmark or partner login.  
If your login fails, then contact your next level of support.

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



The screenshot shows the Lexmark Service Restore Tool interface. At the top left is the Lexmark logo. At the top right, there is a navigation bar with the text "Welcome, test support" and a "Sign out" link. Below this is a large blue header with the text "Service Restore Tool". Underneath the header, the text "Service Restore Tool" is repeated. A form area contains the instruction "Enter serial number of device to restore" above a text input field. Below the input field is a blue "SUBMIT" button.

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

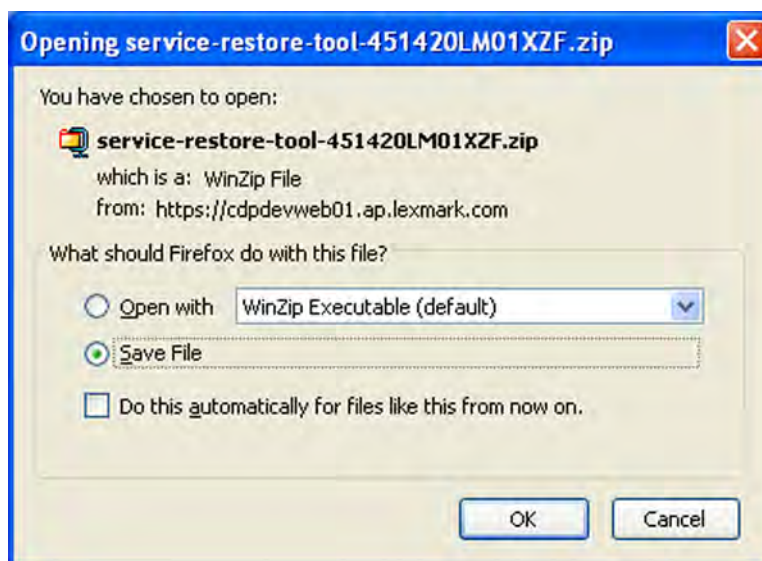


The screenshot shows the Lexmark Service Restore Tool interface at the verification stage. At the top left is the Lexmark logo. At the top right, there is a navigation bar with the text "Welcome, test support" and a "Sign out" link. Below this is a large blue header with the text "Service Restore Tool". Underneath the header, the text "Service Restore Tool" is repeated. The form area displays the following information: "Model Name: Lexmark MS410dn" and "Serial Number: 451420LM01XZF". Below this information is the instruction "If this information is correct, click 'Submit' to begin generating your restore package." At the bottom of the form are two blue buttons: "BACK" and "SUBMIT".

- 4 Save the zip file.

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





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

**Notes:**

- Perform the install instructions on the *Readme* file in the exact order shown. Restart the printer only if the file says so.
- For more information on how to flash the downloaded files, see [“Updating the printer firmware” on page 299](#).
- To load the zip files that are extracted from the Service Restore Tool, see [“Restoring solutions, licenses, and configuration settings” on page 298](#).

```

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

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

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

```

6 After performing the installation instructions in the *Readme* file, confirm from the customer if all the eSF apps have been installed.

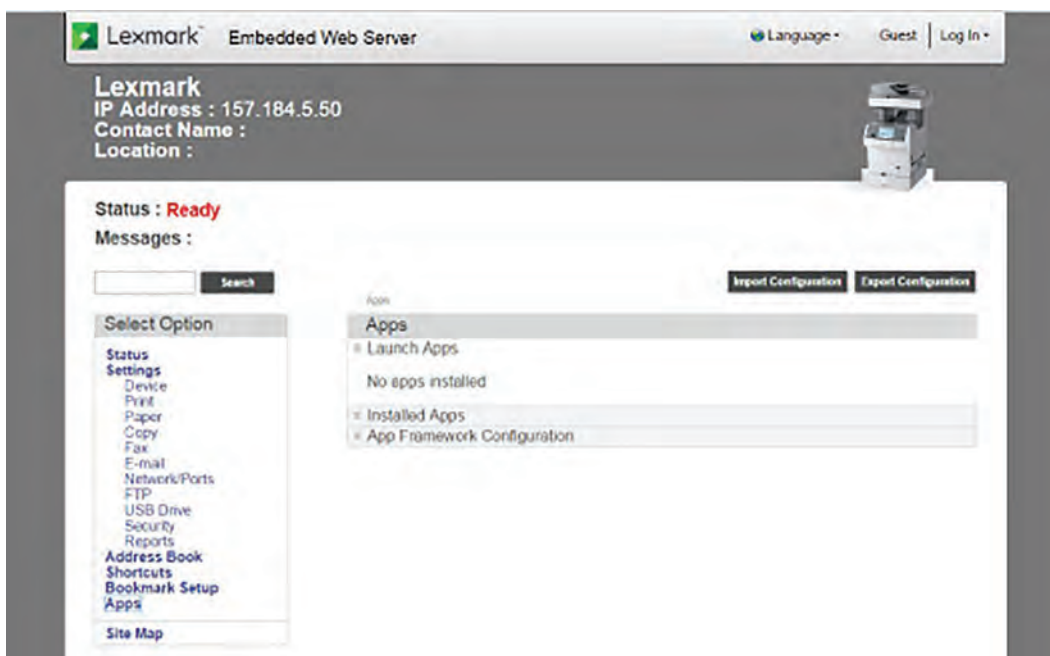
**Notes:**

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

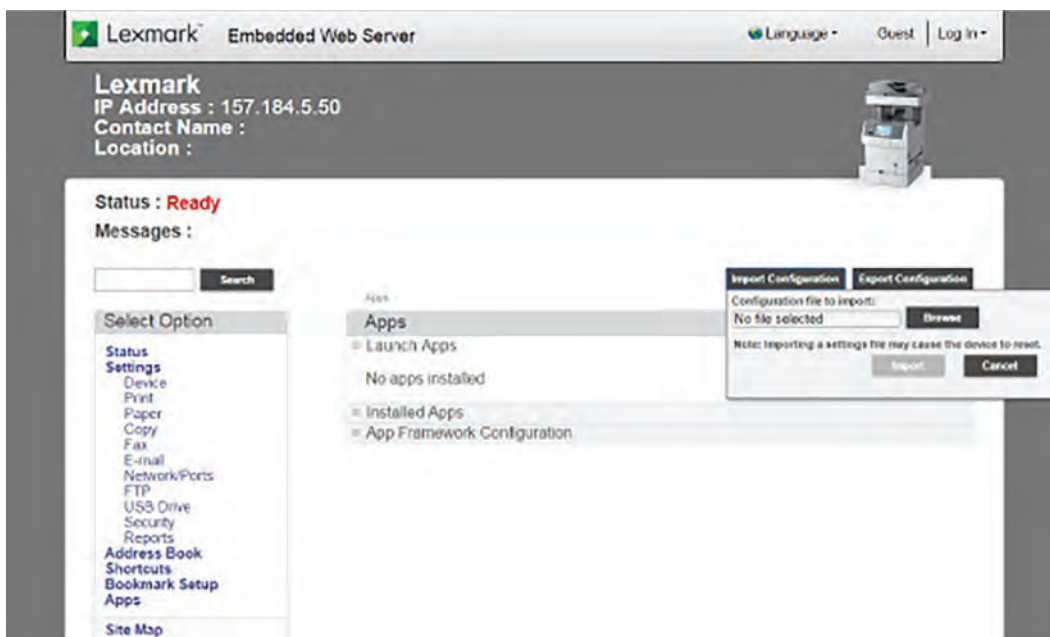
## Restoring solutions, licenses, and configuration settings

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

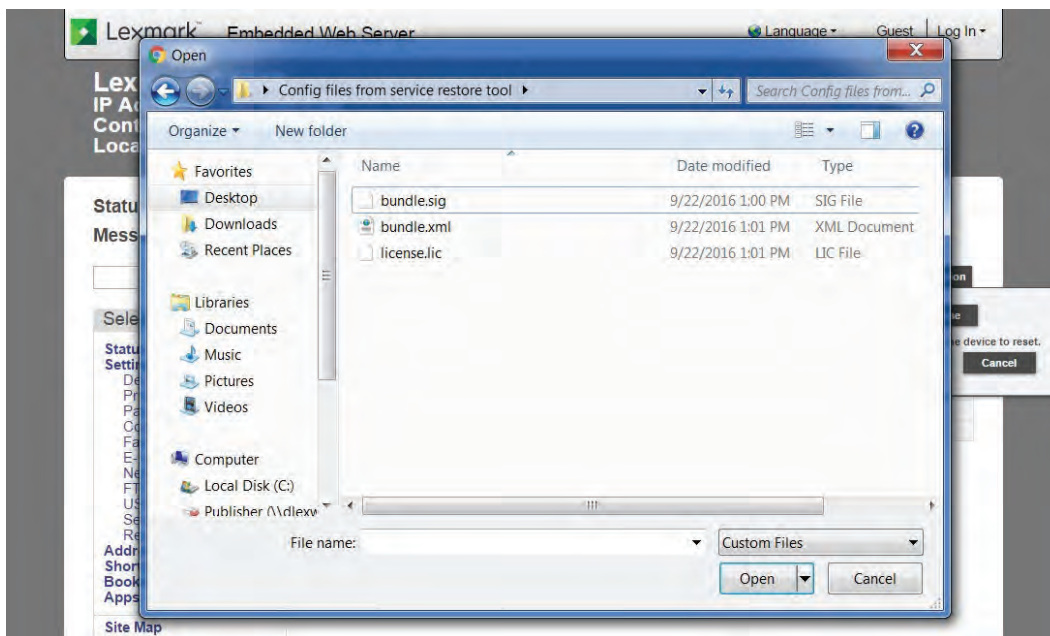
- 1 Open a web browser, and then type the printer IP address.



- 2 Click **Import Configuration**, and then click **Browse**.



- 3 Navigate to the folder where the zip files are extracted from the Service Restore Tool.



- 4 Select the file to import, and then click **Import**.
- 5 Repeat step 2 through step 4 for the other files that are included in the extracted zip file.

## Updating the printer firmware

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

The printer must be in ready state in order to update the firmware. For more information, see [“Entering Invalid engine mode” on page 286](#).

### Using a flash drive

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

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

- 1 Insert the flash drive.  
The display lists the files on the thumbdrive.

- 2 Select the file that you need to flash.

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

## Using a network computer

### Using the File Transfer Protocol (FTP)

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

- 1 Turn on the printer.
- 2 Obtain the IP address:
  - From the home screen
  - From the TCP/IP section of the Network/Ports menu
- 3 From the command prompt of a network computer, open an FTP session to the printer IP address.
- 4 Use a PUT command to place the firmware file on the printer.  
The printer performs a POR sequence and terminates the FTP session.
- 5 Repeat step 2 through to step 4 for the other files.

### Using the Embedded Web Server

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

- 1 Open a web browser, and then type the printer IP address.
- 2 From the home page, navigate to **Configuration > Update Firmware**.
- 3 Select the file to use.  
The printer performs a POR sequence and terminates the FTP session.
- 4 Repeat step 2 through to step 4 for the other files.

## Backing up eSF solutions and settings

**Note:** Export the eSF solutions and settings from the printer before replacing the controller board.

### Exporting eSF solutions and settings file

- 1 Reset the printer into Invalid engine mode. See [“Entering Invalid engine mode” on page 286](#).
- 2 Open a web browser, and then type the printer IP address.  
**Note:** If the web page cannot be accessed or an error occurs when starting the printer into Invalid engine mode, then data backup is not an option. Inform the customer that the data cannot be saved.
- 3 Click **Apps**, click **Export Configuration**, and then select one of the options in the dropdown menu.
- 4 Click **Export**.  
**Note:** The size limit of the export file is 128 KB.

# Adjustments

## Printhead alignment adjustment

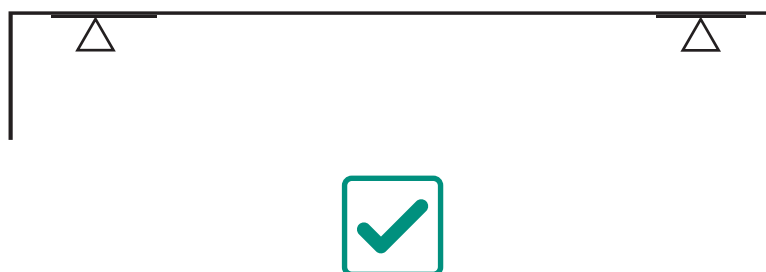
Printhead misalignment may cause crooked or skewed print. Perform this procedure after replacing the printhead or if there are skewed print issues.

### Checking the test page for alignment

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Registration adjust > Quick test**

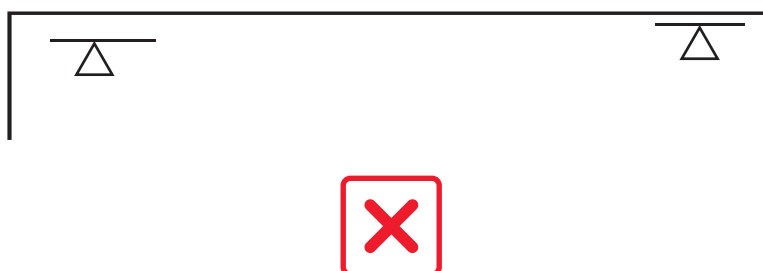
- 2 Check the test page.

The following test page result shows a properly aligned printhead:

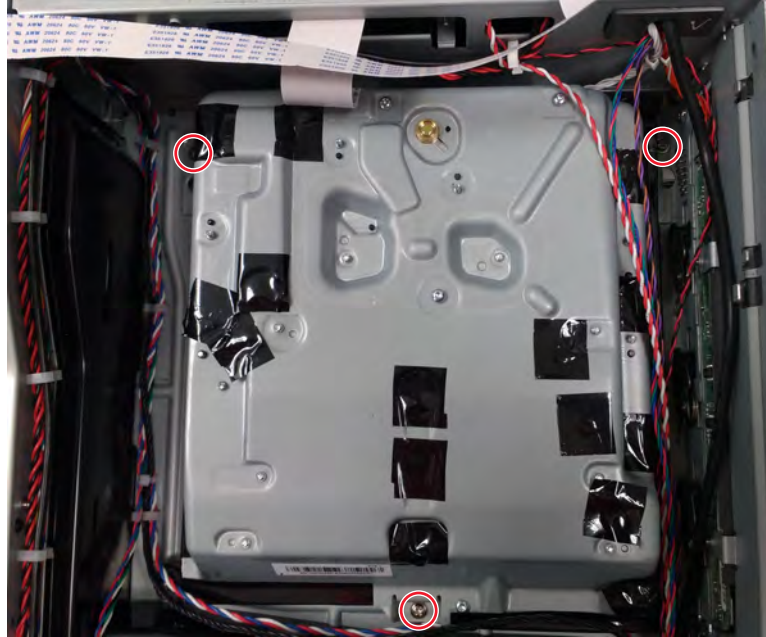


### Aligning a printhead skewed in the counterclockwise direction

In most cases, the printhead is skewed counterclockwise, as shown in the following test page result.



- 1 Remove the top cover. See [“Top cover removal” on page 400](#).
- 2 Loosen the three screws.



- 3 Adjust the printhead until the front left corner of the printhead touches the alignment pin (A).

**A**

- 4 Print another test page, and then check if the printhead is aligned.
- 5 Repeat steps 3 through step 4 until the printhead is aligned.
- 6 Tighten the three screws.

## Registration adjustment

Image misalignments can occur after printhead replacement. Perform this procedure to correct the position of the image relative to the paper edges.

**Note:** You cannot perform mechanical registration or skew adjustments on this printhead.

Before performing the procedure, make sure that the tray guides are properly set and the paper settings on the printer match the paper size loaded in the tray.

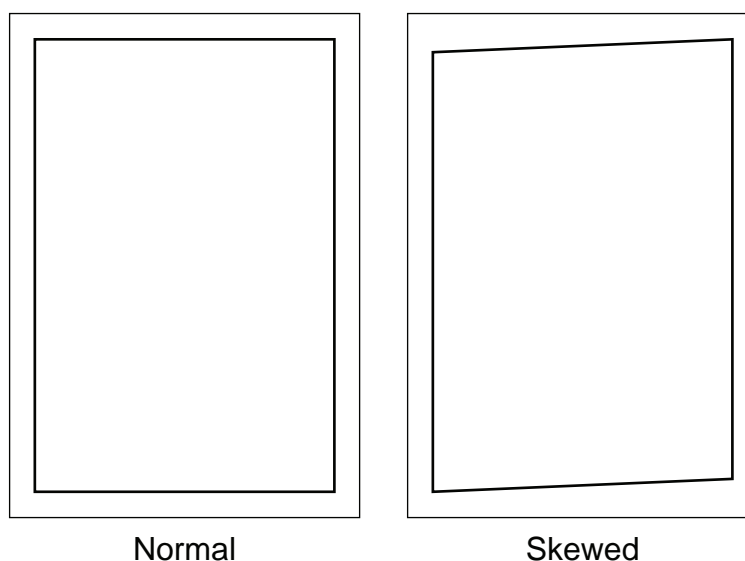
## Adjusting the skew

The skew adjustment changes the angle of the horizontal lines so that the lines can be aligned with the leading edge of the page. As the skew setting is changed, the top line on the test page stays in place at the left end, while its right end tilts up or down. All horizontal lines on the page will tilt at that same angle while the vertical lines will remain vertical. Changing the skew setting moves the right edge of the page up and down, and changes the angle of the top and bottom lines. If the skew is properly adjusted, the horizontal lines at the top of the page will be parallel to the leading edge of the page.

To check for skew:

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Registration adjust**
- 2 Select **Quick Test**, and then touch **Start**.

The printer prints a test page.



**Note:** If there is no skew on the page, then see [“Adjusting the top and bottom margins” on page 305](#).

To adjust the skew:

- 1 Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Registration adjust > Top skew**
- 2 Specify the value. The value range is from -100 to 100.

**Notes:**

- Raising the value of the skew rotates the horizontal lines clockwise. The left end of the line remains in the same place and the right end moves downward.



- Decreasing the value of the skew rotates the horizontal lines counterclockwise. The left end of the line remains in the same place and the right end moves upward.

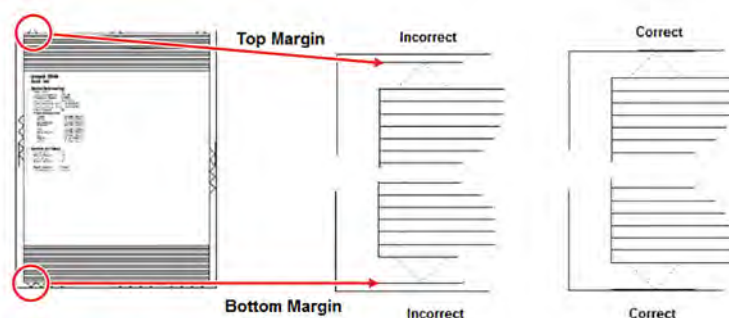
- 3 Touch **OK**.
- 4 Print a Quick test page to verify the change.
- 5 Repeat step 1 through step 4 until the horizontal line is properly aligned with the leading edge of the page.
- 6 Check for proper margin alignment. See [“Adjusting the top and bottom margins” on page 305](#).

## Adjusting the top and bottom margins

- 1 Load Letter- or A4-size paper into tray 1.
- 2 From the home screen, touch **Settings** > **Paper** > **Tray Configuration** > **Default Source** > **Tray 1**.
- 3 Verify that the paper type and size settings match the paper type and size loaded in the tray.
- 4 Enter the Diagnostics menu, and then navigate to **Printer diagnostics & adjustments** > **Registration adjust**.
- 5 Touch **Quick Test**, and then touch **Start**.  
The printer prints a test page.
- 6 Check the top and bottom margins of the test page for correct alignment.

### Notes:

- The arrows should be completely visible along the edges.
- The tip of the arrows should point to the edges of the paper.



- 7 Change the value of the top margin or bottom margin as needed.
  - a Select the margin that needs adjustment.
  - b Enter a value in the field.

### Notes:

- The value range is from -80 to 80.
- Increasing the value of the top margin pushes the top edge of the image downward. Increasing the value of the bottom margin pushes the bottom edge of the image upward.

- c Touch **Start**.
- 8 Print a test page to verify the changes.
  - 9 Repeat step 7 through step 8 as needed.
  - 10 Check for proper color alignment. See [“Adjusting the color alignment” on page 306](#).

## Adjusting the color alignment

1 Enter the Diagnostics menu, and then navigate to:

**Printer diagnostics & adjustments > Color alignment adjust**

On the AA Adjustment row, touch **Start**.

**Note:** The Color alignment procedure is performed on the cyan, magenta, and yellow colors.

2 Enter the Diagnostics menu, and then navigate to:

**Printer diagnostics & adjustments > Color alignment adjust > Cyan > Quick test**

Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.

3 Enter the Diagnostics menu, and then navigate to:

**Printer diagnostics & adjustments > Color alignment adjust > Yellow > Quick test**

Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.

4 Enter the Diagnostics menu, and then navigate to:

**Printer diagnostics & adjustments > Color alignment adjust > Magenta > Quick test**

Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.

5 If color misalignment still occurs, then repeat step 1 through step 4.

## TPS characterization data entry

**Note:** This procedure only applies to a new sensor (TPS).

Follow the instructions on the accompanying FRU sheet of the sensor (TPS).

## Removal procedures

Keep the following tips in mind as you replace parts:

- Some removal procedures require removing cable ties. Do not forget to install these cable ties during reassembly to avoid pinching wires, obstructing the paper path, or restricting mechanical movement.
- Remove the imaging unit and imaging kit before removing other printer parts. Carefully set the imaging unit and imaging kit on a clean, smooth, and flat surface. Protect the imaging unit and imaging kit 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.

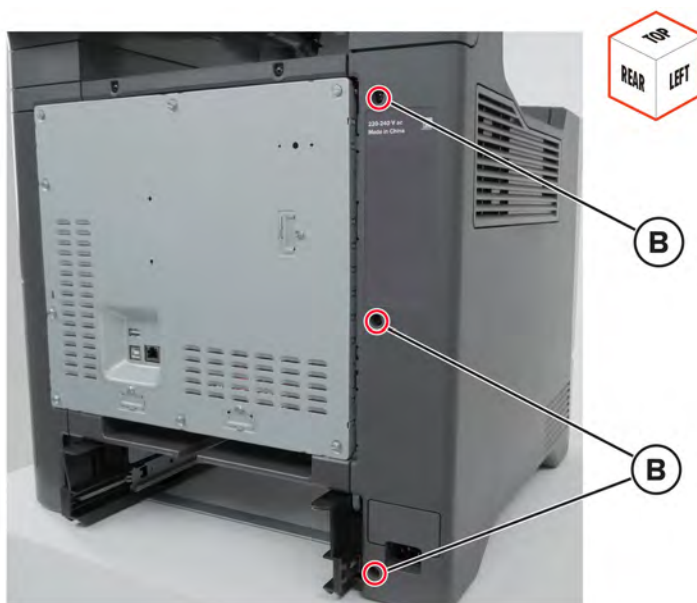
## Left side removals

### Left cover removal

- 1 Remove the screw (A).



- 2 Remove the three screws (B).

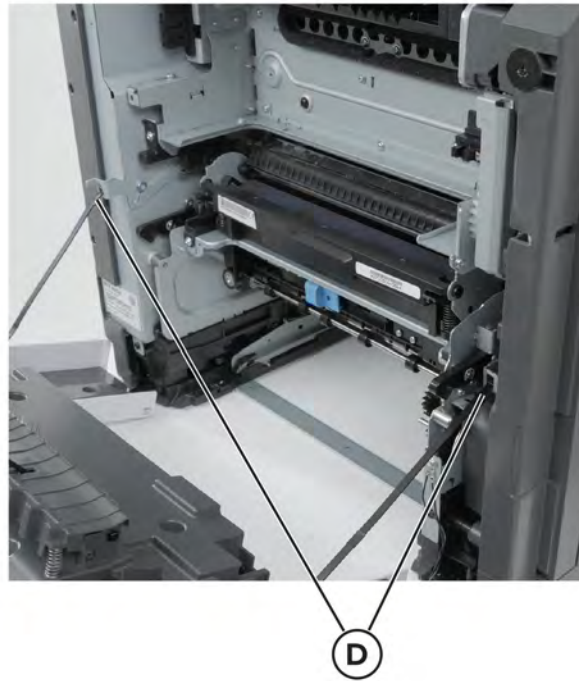


- 3 Remove the three screws (C).



- 4 Release the straps (D) to loosen the door.

**Warning—Potential Damage:** Make sure that the door does not fall.

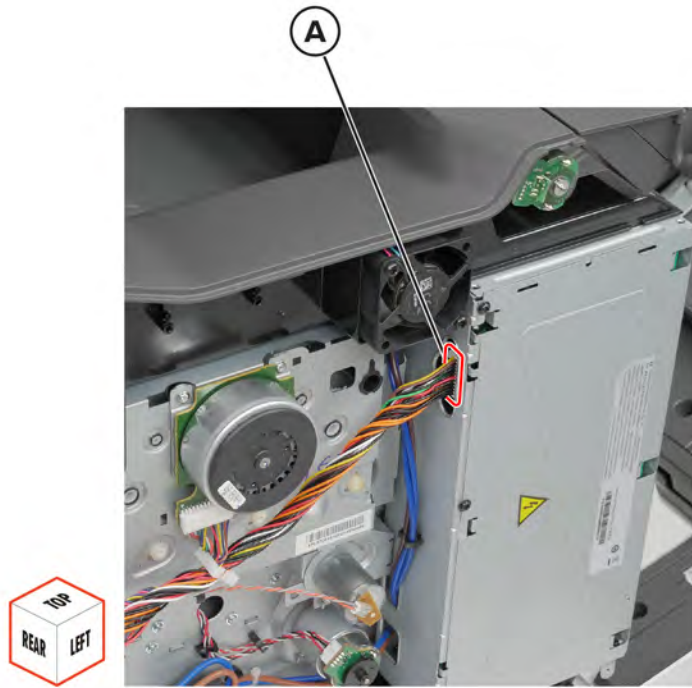


**5** Remove the left cover.

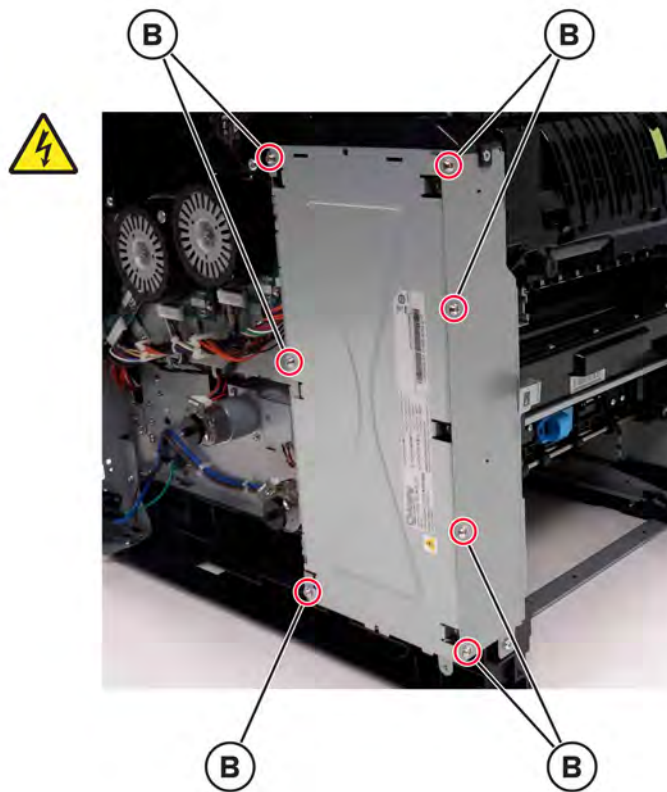
## LVPS removal

**Note:** For a video demonstration, see [Replacing the LVPS](#).

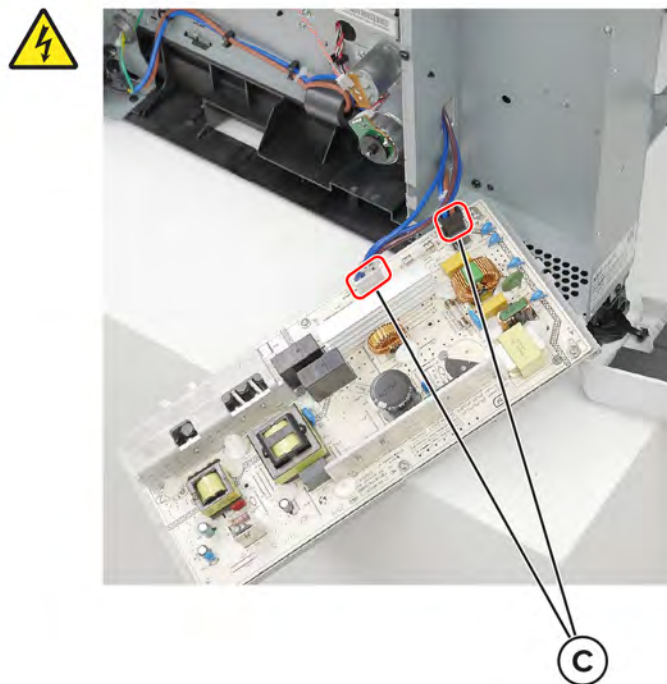
- 1 Remove the left cover. See [“Left cover removal” on page 307](#).
- 2 Disconnect the cable (A).



**3** Remove the seven screws (B), and then pull the LVPS.



**4** Disconnect the cables (C).



**5** Remove the LVPS.

## Main fan removal

- 1 Remove the left cover. See [“Left cover removal” on page 307](#).
- 2 Remove the controller board shield. See [“Controller board shield removal” on page 393](#).
- 3 Disconnect the cable (A).





4 Remove the two screws (B).



5 Remove the fan.

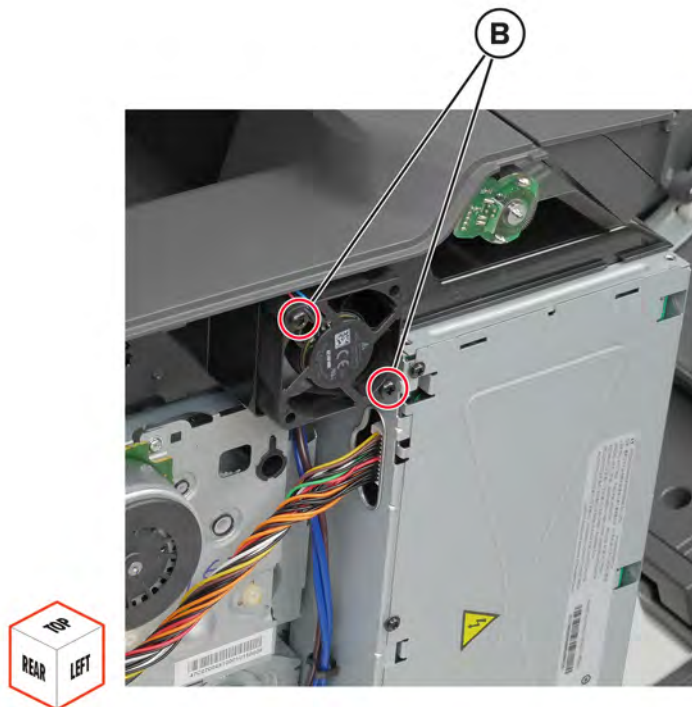
## Fuser fan removal

- 1 Remove the left cover. See [“Left cover removal” on page 307.](#)
- 2 Remove the controller board shield. See [“Controller board shield removal” on page 393.](#)

- 3 Disconnect the cable (A).



- 4 Remove the two screws (B).



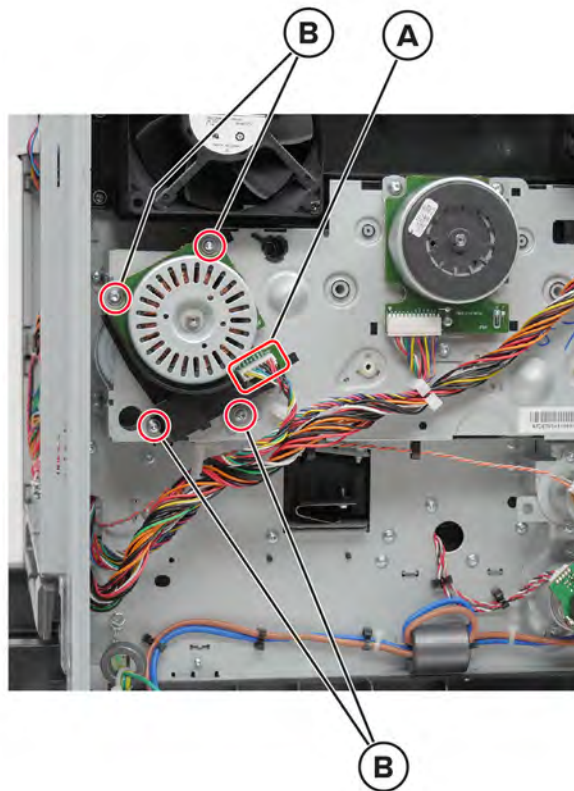
- 5 Release the cable from its guides, and then remove the fan.

**Installation note:** Pay attention to the cable route.

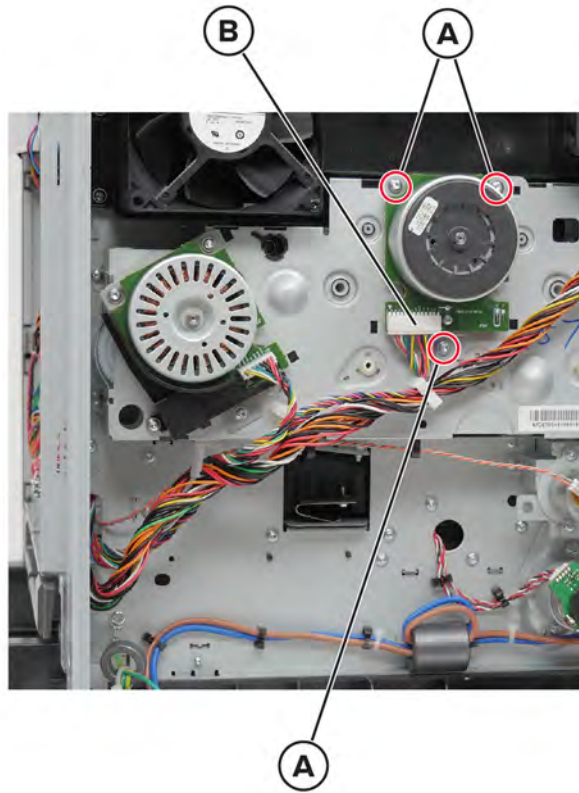


## Motor (EP drive) removal

- 1 Remove the left cover. See [“Left cover removal” on page 307.](#)
- 2 Disconnect the cable (A), and then remove the screws (B).
  - Motor (K/transfer belt)



- Motor (CMY)

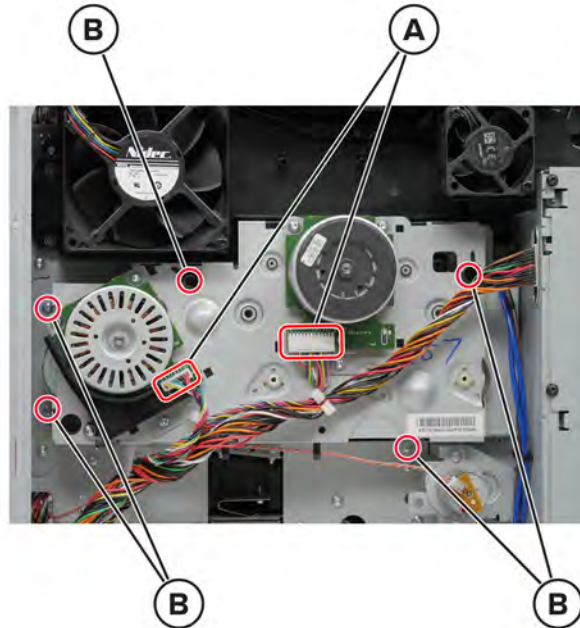


**3** Remove the motor.

## EP drive gearbox removal

**Note:** For a video demonstration, see [Replacing the EP drive gearbox](#).

- 1 Remove the left cover. See [“Left cover removal” on page 307](#).
- 2 Disconnect the cables (A), and then remove the five screws (B).



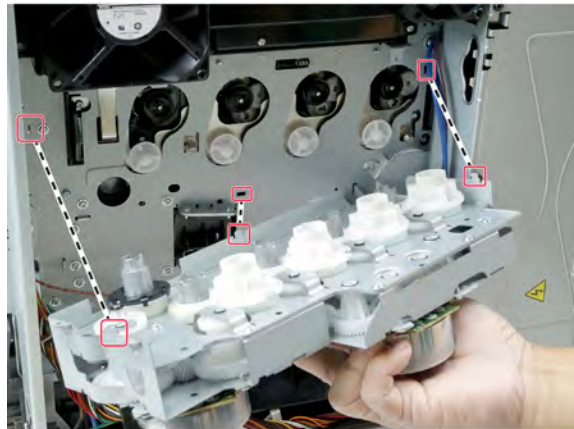
- 3 Remove the gearbox.

**Warning—Potential Damage:** The right edge of the gearbox may be sharp. Be careful not to cut the cables (A).



A

**Installation note:** Make sure to align the locating tabs with their corresponding slots.

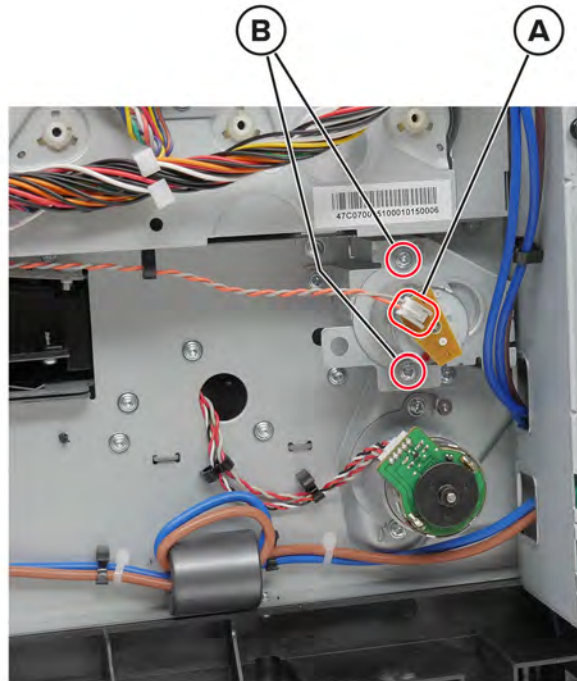


Parts removal

**318**

## Motor (BOR) removal

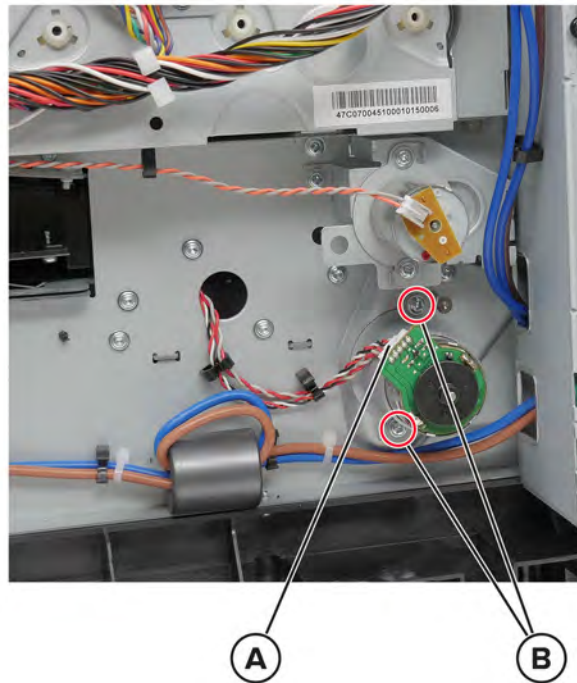
- 1 Remove the left cover. See [“Left cover removal” on page 307](#).
- 2 Disconnect the cable (A), and then remove the two screws (B).



- 3 Remove the motor.

## Motor (deskew) removal

- 1 Remove the left cover. See [“Left cover removal” on page 307](#).
- 2 Disconnect the cable (A), and then remove the two screws (B).

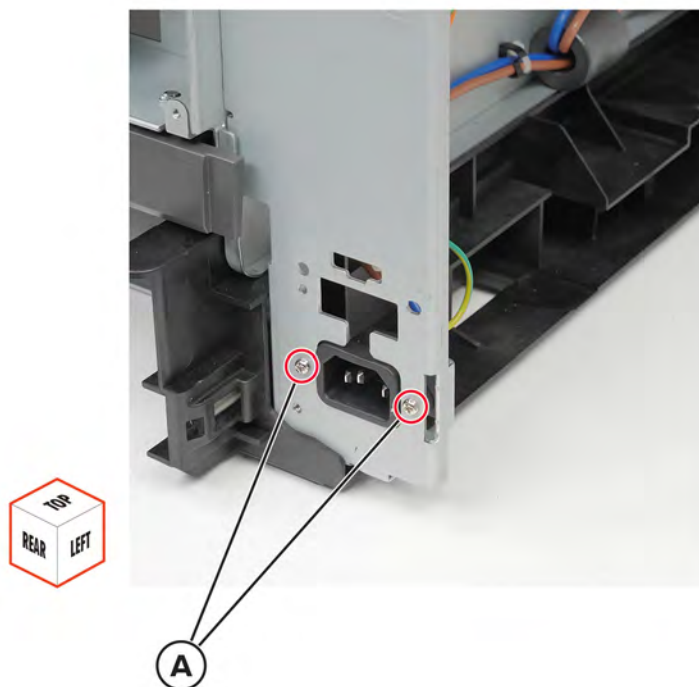


- 3 Remove the motor.

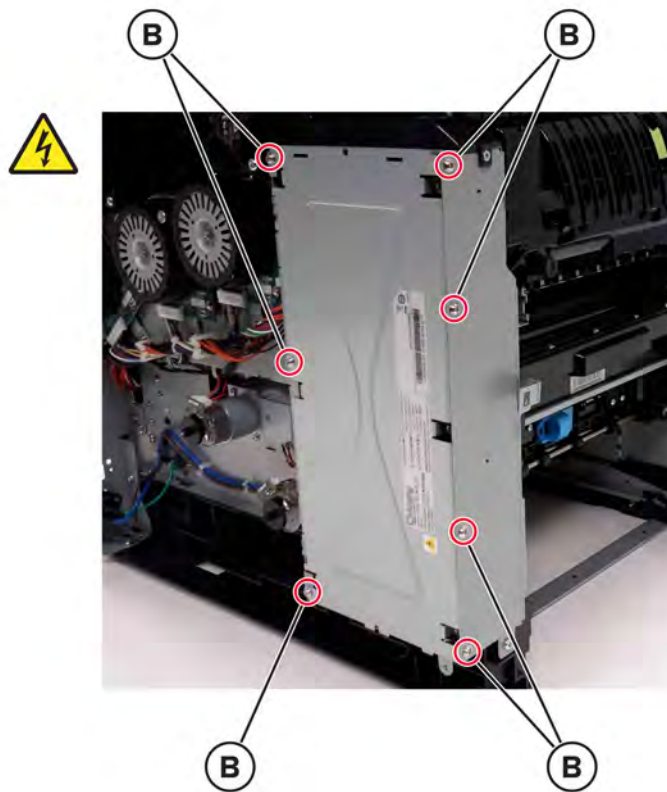


## Power cable removal

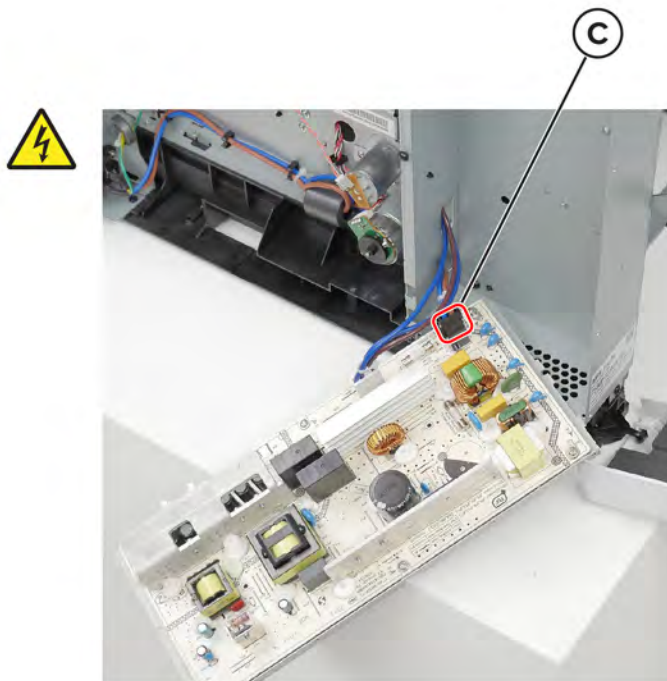
- 1 Remove the left cover. See [“Left cover removal” on page 307](#).
- 2 Remove the two screws (A), and then release the socket.



**3** Remove the seven screws (B), and then pull the LVPS.

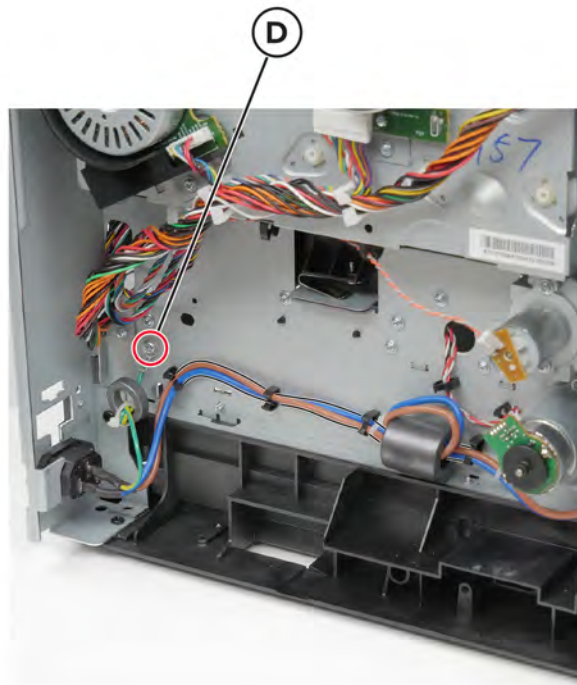


**4** Disconnect the cable (C).



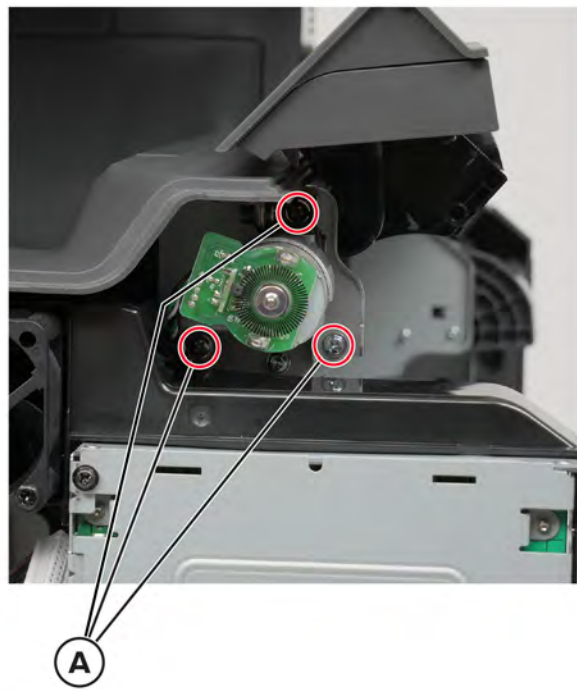
**5** Remove the ground screw (D), and then remove the cable from its guides.

**Installation note:** Pay attention to the cable route.



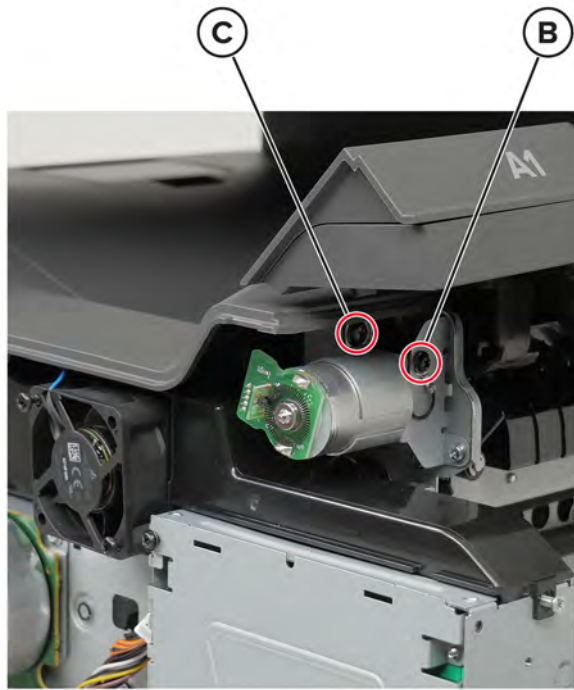
## Motor (exit/redrive) removal

- 1 Remove the left cover. See [“Left cover removal” on page 307](#).
- 2 Open door A1, and then remove the three screws (A).

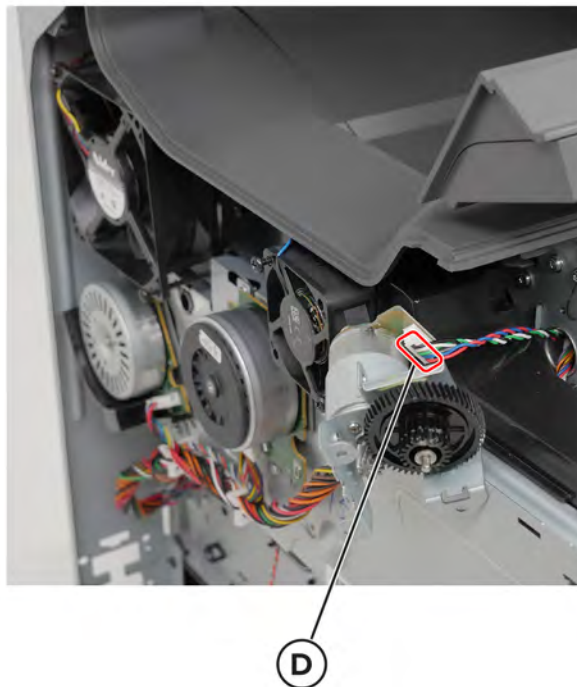


Parts removal

**3** Remove the ground screw (B) and the other screw (C).



**4** Disconnect the cable (D), and then remove the motor.

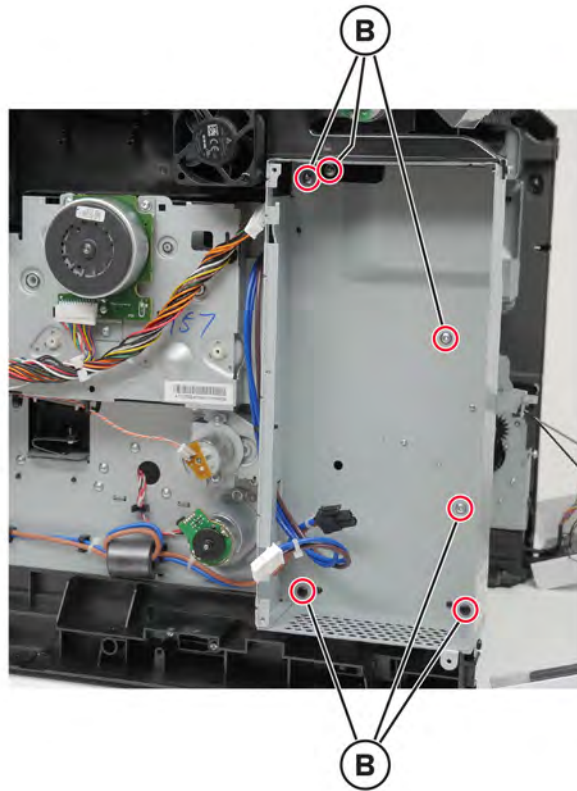


## LVPS cage removal

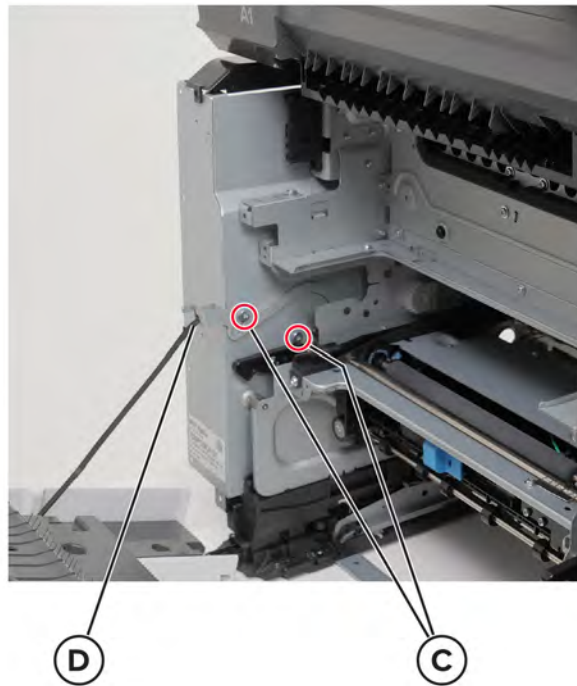
- 1 Remove the fuser. See [“Fuser removal” on page 363](#).
- 2 Remove the transfer module. See [“Transfer module removal” on page 358](#).
- 3 Remove the left cover. See [“Left cover removal” on page 307](#).
- 4 Remove the LVPS. See [“LVPS removal” on page 310](#).
- 5 Remove the two screws (A).



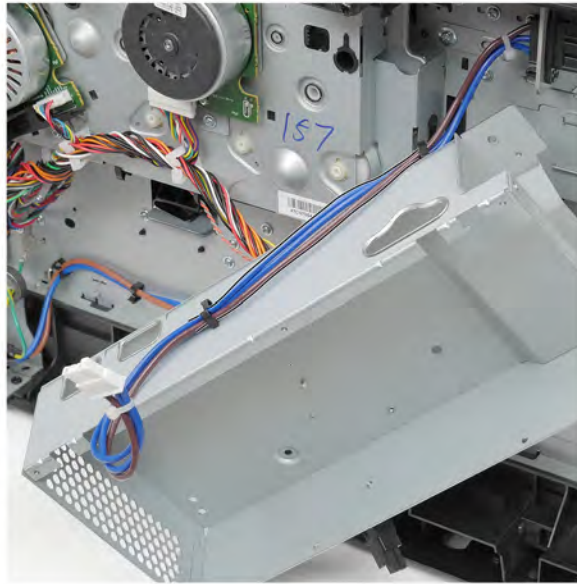
**6** Remove the six screws (B).



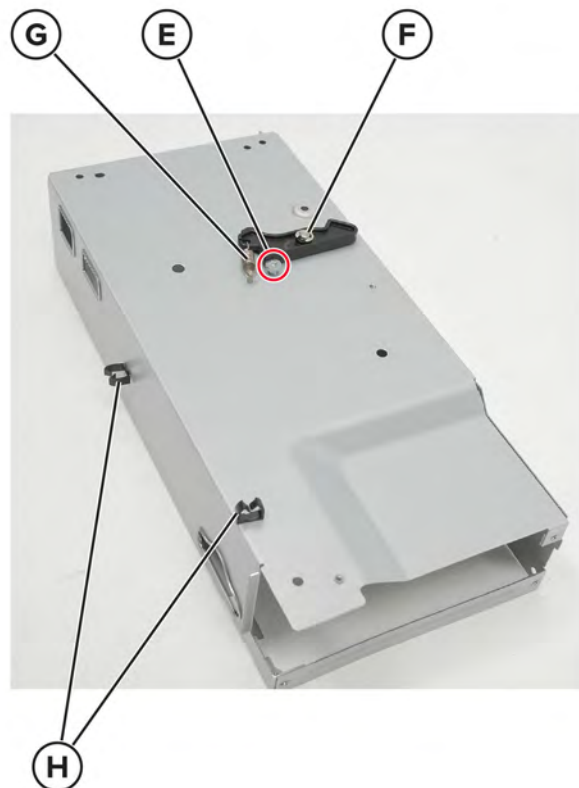
**7** Remove the screw (C), and then release the strap (D).



- 8 Release the cable from its guides, and then remove the cage.

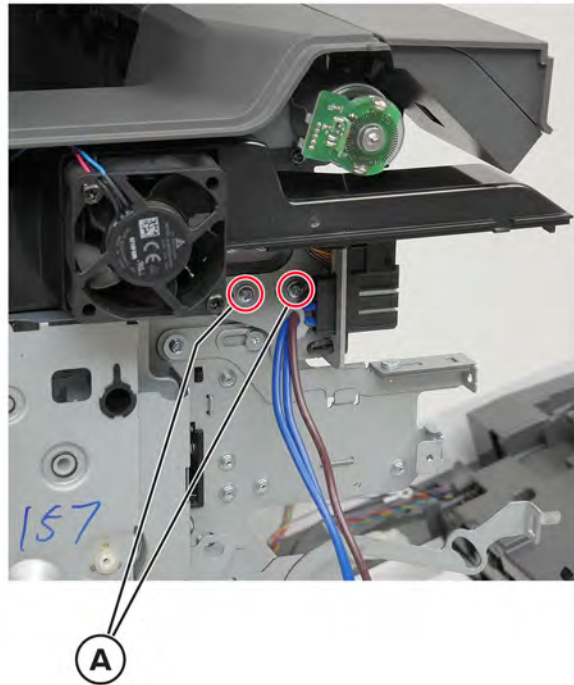


- 9 Remove the screw (E), E-clip (F), spring (G), and guides (H) from the cage.



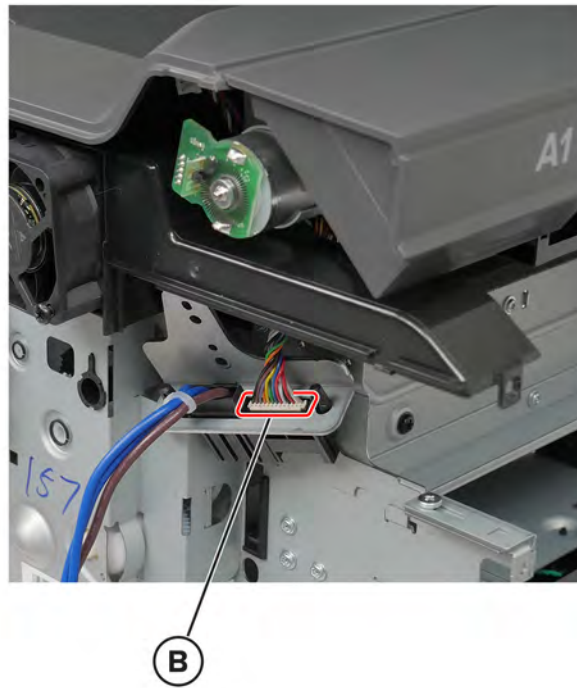
## Fuser interconnect cable removal

- 1 Remove the fuser. See [“Fuser removal” on page 363](#).
- 2 Remove the transfer module. See [“Transfer module removal” on page 358](#).
- 3 Remove the left cover. See [“Left cover removal” on page 307](#).
- 4 Remove the LVPS. See [“LVPS removal” on page 310](#).
- 5 Remove the LVPS cage. See [“LVPS cage removal” on page 325](#).
- 6 Remove the two screws (A), and then pull the bracket.

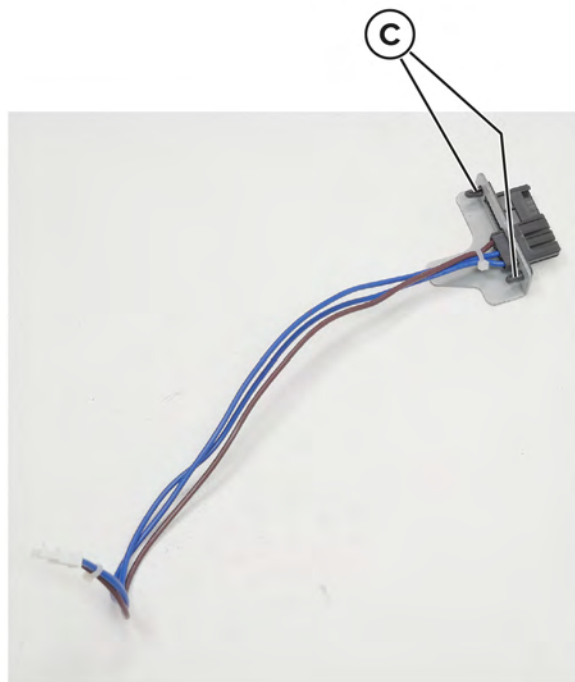




**7** Disconnect the cable (B), and then remove the bracket.



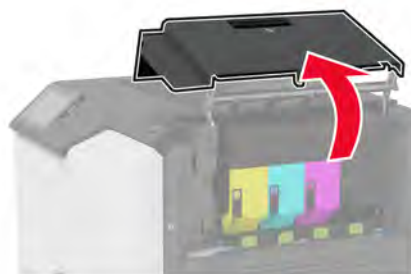
**8** Release the pins (C) from the bracket using a pair of pliers, and then remove the cable.



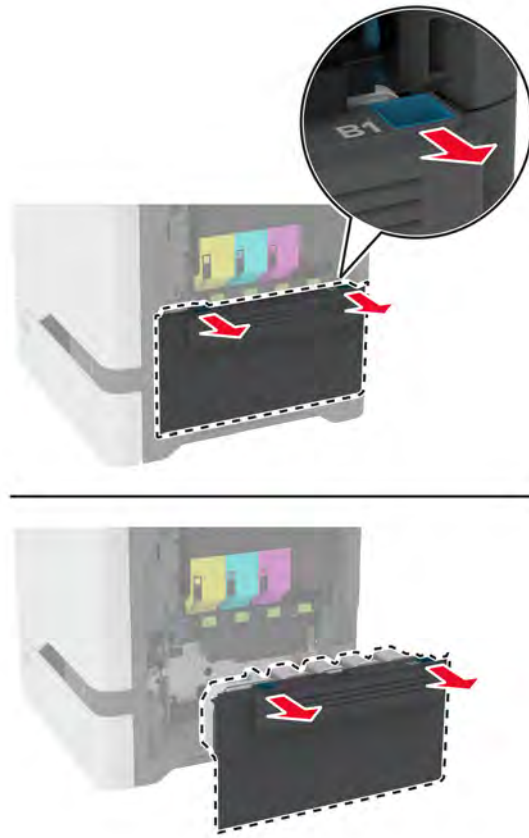
## Right side removals

### Waste toner bottle removal

- 1 Open door B.



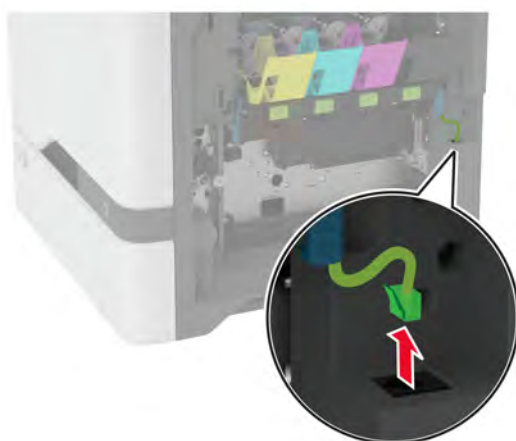
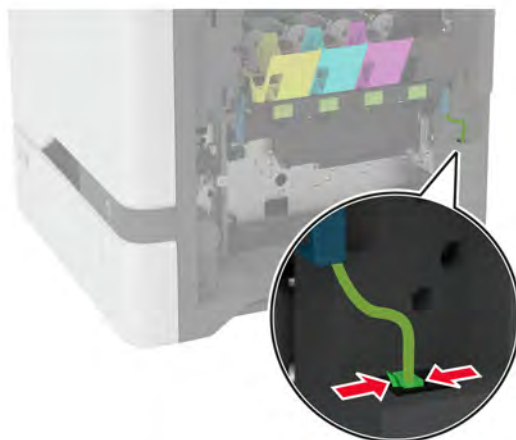
2 Remove the waste toner bottle.

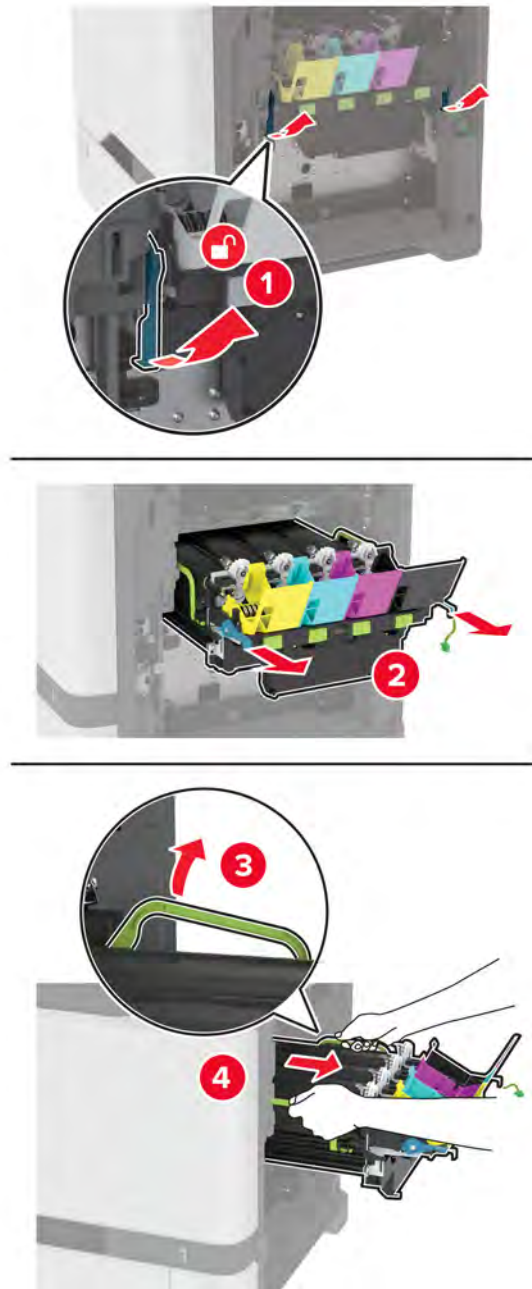


**Note:** To avoid spilling the toner, place the bottle in an upright position.

## Imaging kit removal

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330](#).
- 2 Disconnect the imaging kit cable.



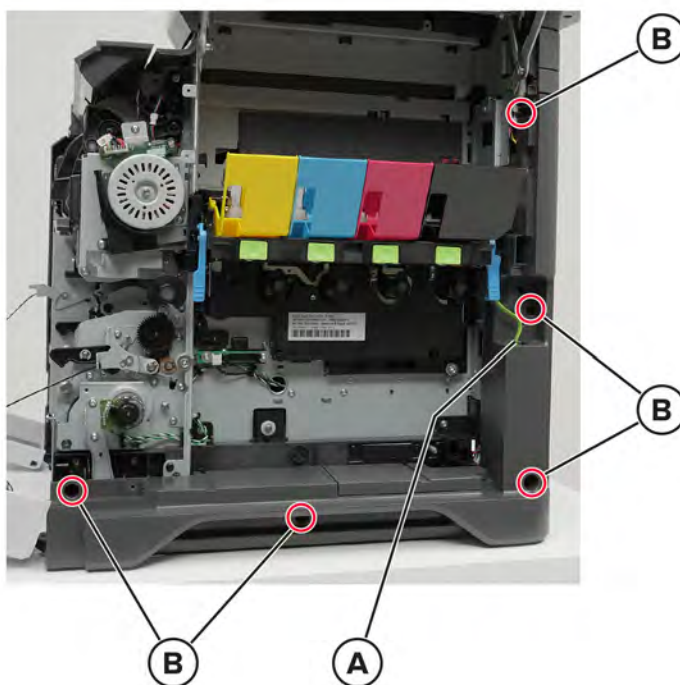
**3** Remove the imaging kit.

**Note:** To avoid scratching the imaging kit or damaging the photoconductor drum, place the imaging kit in an uplifted position.

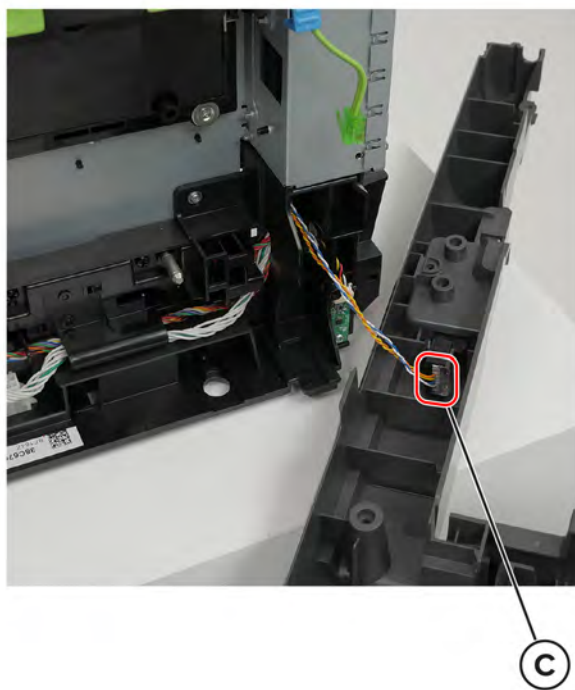


## Right cover removal

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330](#).
- 2 Remove the motor cover. See [“Motor cover removal” on page 356](#).
- 3 Disconnect the cable (A), and then remove the five screws (B).



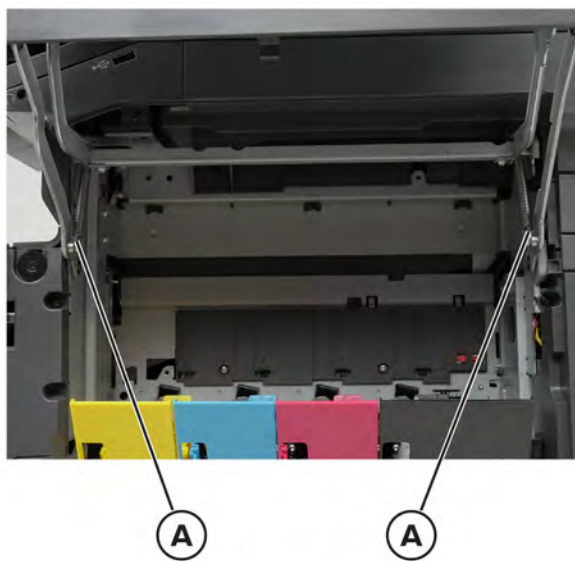
- 4 Pull the cover, and then disconnect the cable (C).



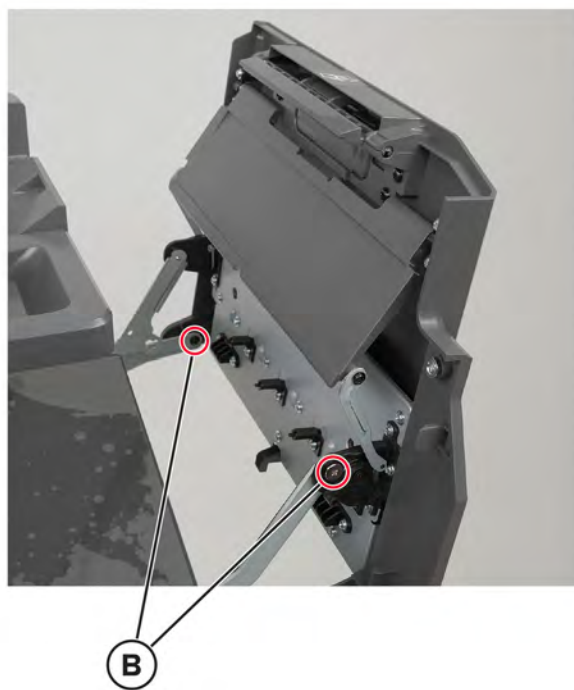
- 5 Remove the cover.

## Toner door removal

- 1 Open the cartridge door.
- 2 Release the springs (A).



**3** Remove the two screws (B).



**4** Remove the two screws (C).

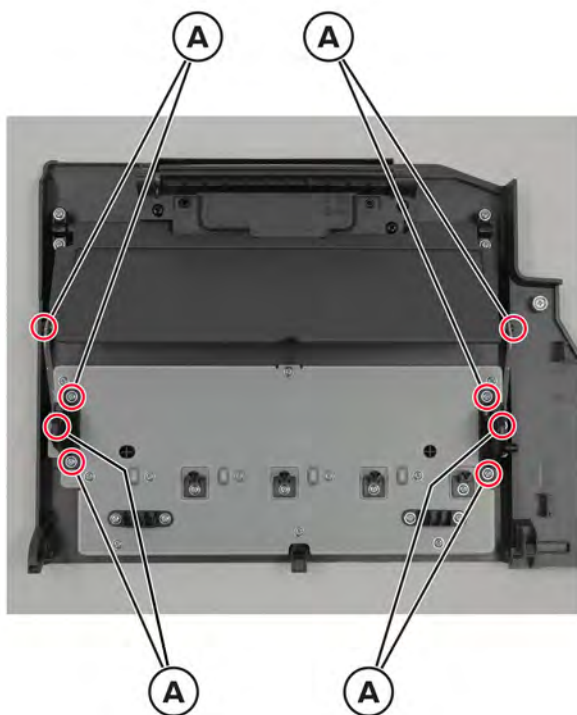


**5** Remove the door.



## Toner door mount bracket removal

- 1 Remove the toner door. See [“Toner door removal” on page 335](#).
- 2 Remove the eight screws (A).

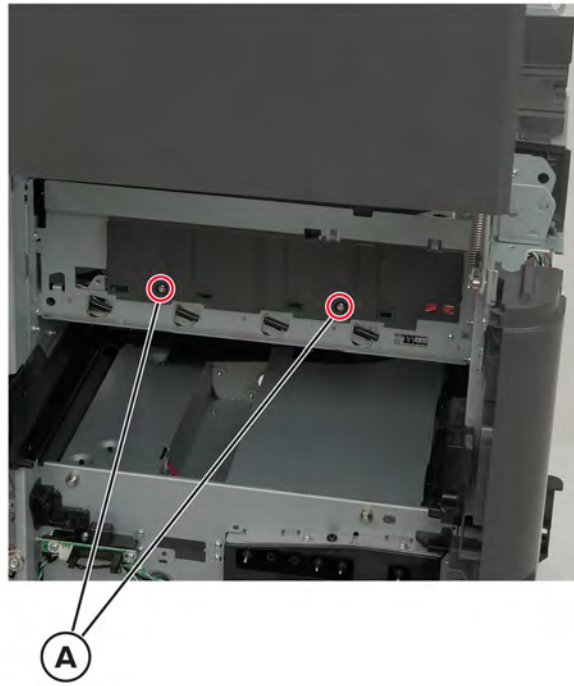


- 3 Remove the brackets.

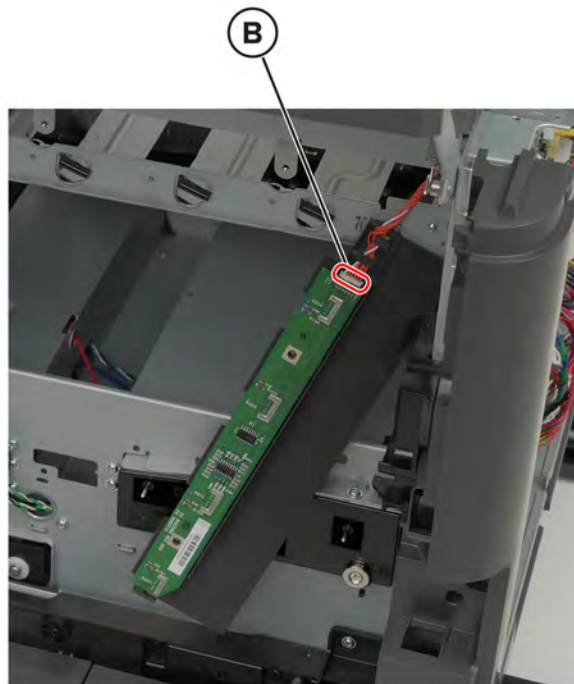
## TMC card removal

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330](#).
- 2 Remove the imaging kit. See [“Imaging kit removal” on page 332](#).

**3** Remove the two screws (A), and then pull the cover.

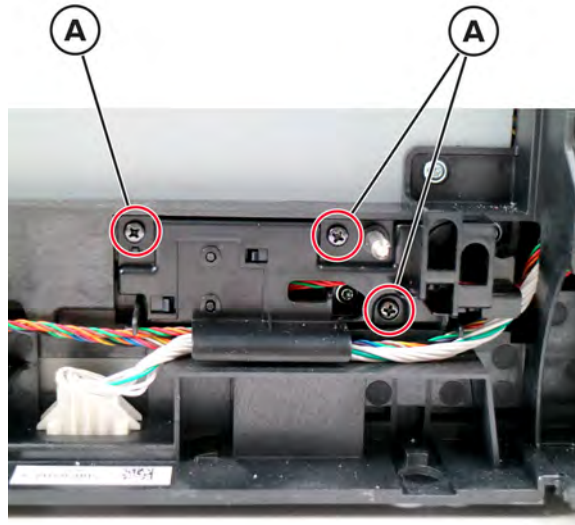


**4** Disconnect the cable (B), and then remove the card.

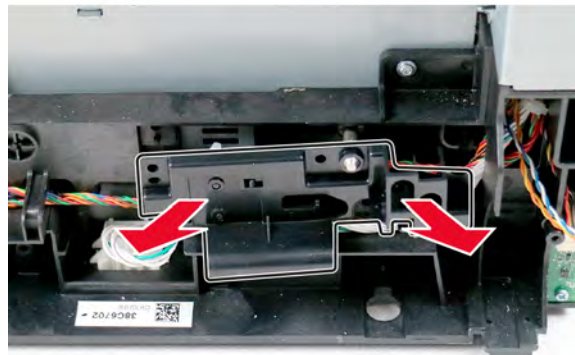


## Sensor (paper size) removal

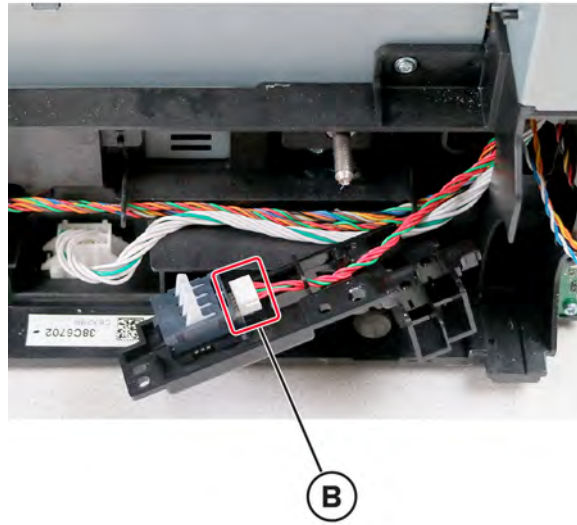
- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Remove the motor cover. See [“Motor cover removal” on page 356.](#)
- 3 Remove the right cover. See [“Right cover removal” on page 334.](#)
- 4 Remove the three screws (A).



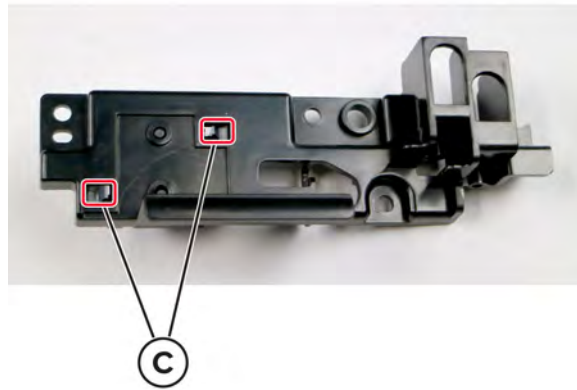
- 5 Pull the mounting assembly away from the printer.



**6** Disconnect the sensor cable (B).

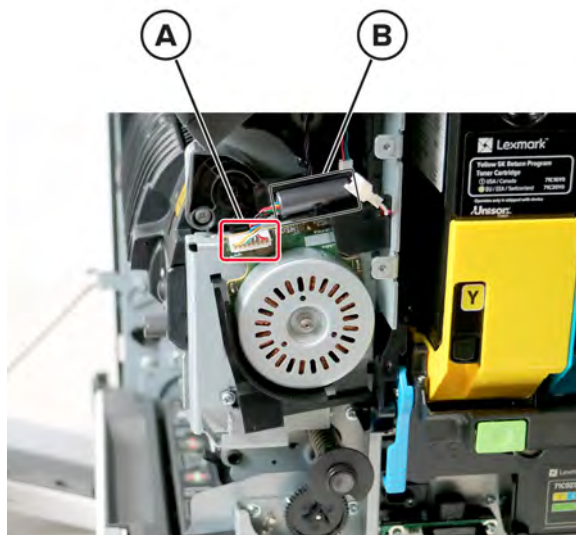


**7** Release the two tabs (C) from the mounting assembly, and then remove the sensor.

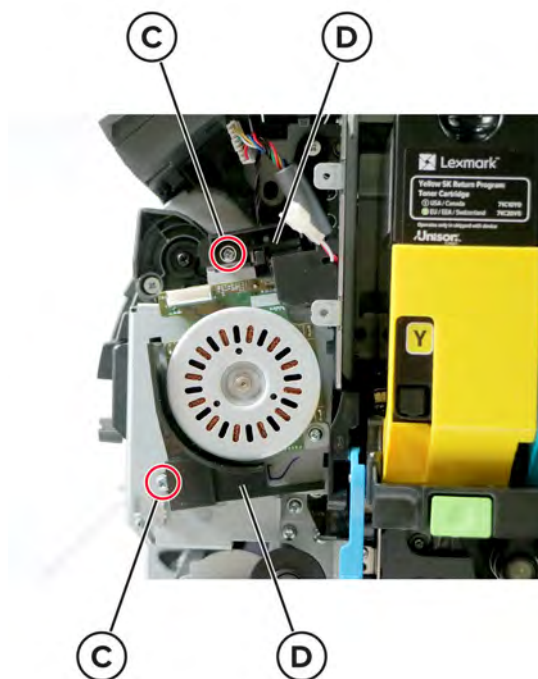


## Motor (fuser) removal

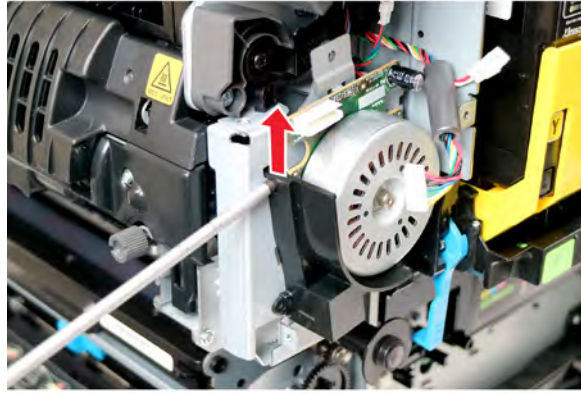
- 1 Remove the motor cover. See [“Motor cover removal” on page 356](#).
- 2 Disconnect the motor cable (A), and then release the toroid (B).



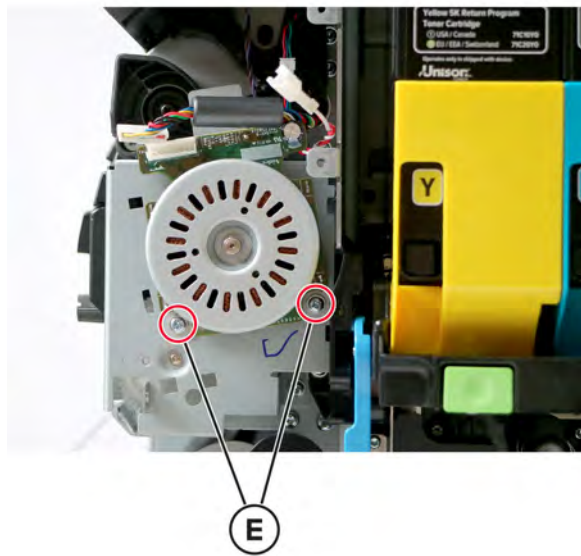
- 3 Remove the two screws (C), and then remove the two covers (D).



**Note:** Pry the latch of the bottom cover to release it.

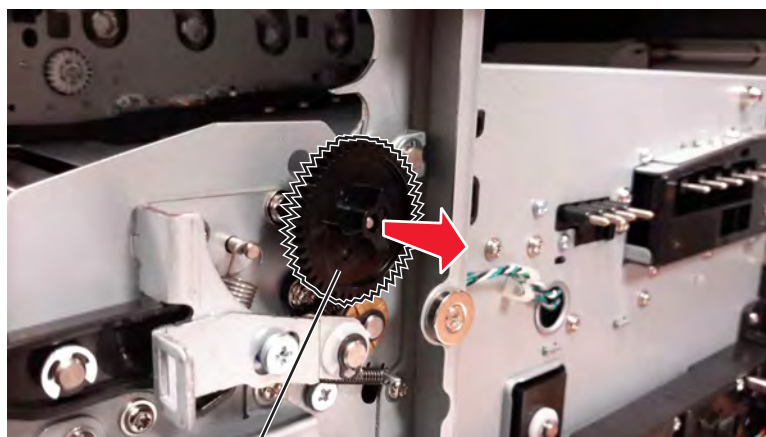


4 Remove the two screws (E), and then remove the motor.



## Waste toner bottle idler gear removal

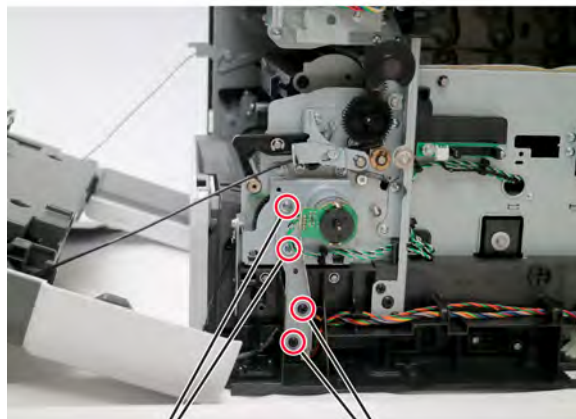
- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330](#).
- 2 Remove the gear.



A

## Motor (duplex/MPF) removal

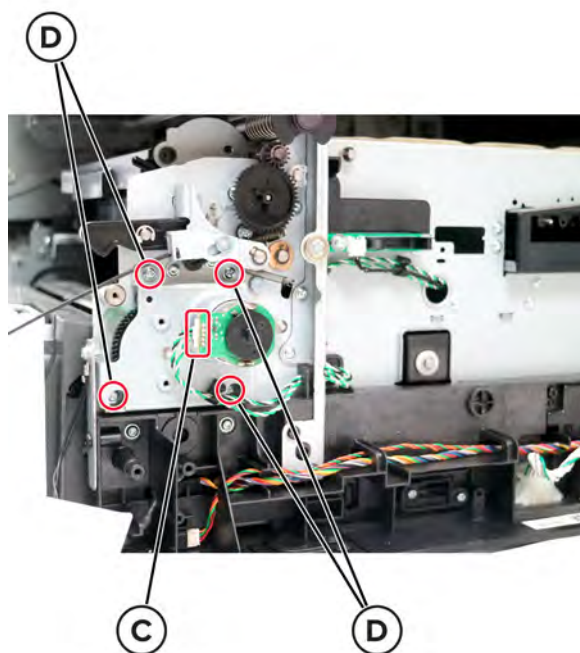
- 1 Remove the motor cover. See [“Motor cover removal” on page 356](#).
- 2 Remove the right cover. See [“Right cover removal” on page 334](#).
- 3 Remove the screws (A and then B), and then remove the bracket.



A

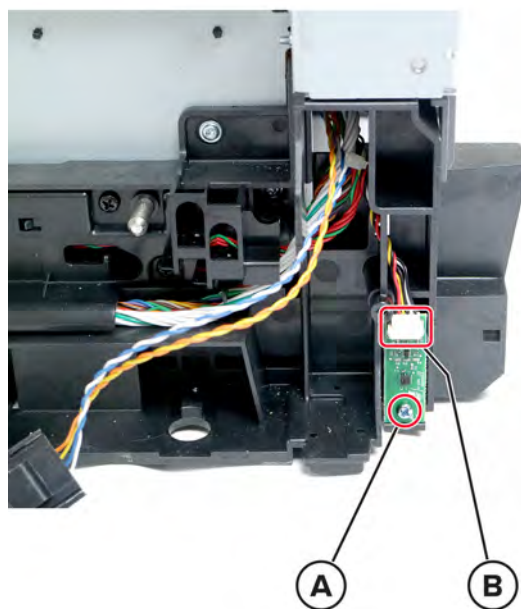
B

- 4 Disconnect the cable (C), remove the four screws (D), and then remove the motor.



## Sensor (weather station) removal

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Remove the motor cover. See [“Motor cover removal” on page 356.](#)
- 3 Remove the right cover. See [“Right cover removal” on page 334.](#)
- 4 Remove the screw (A), disconnect the cable (B), and then remove the sensor.



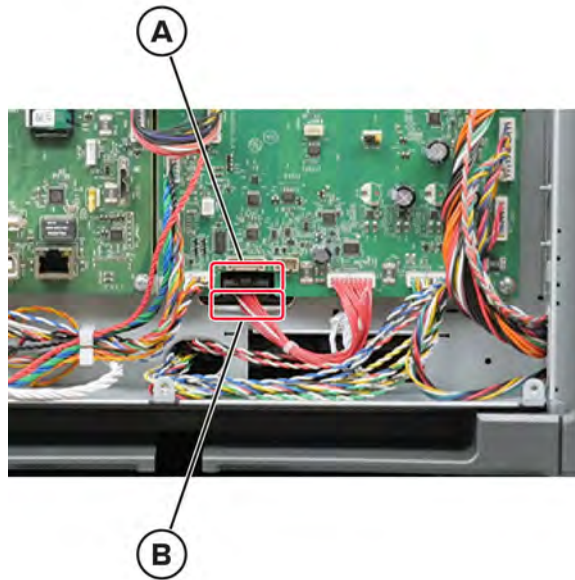
Parts removal



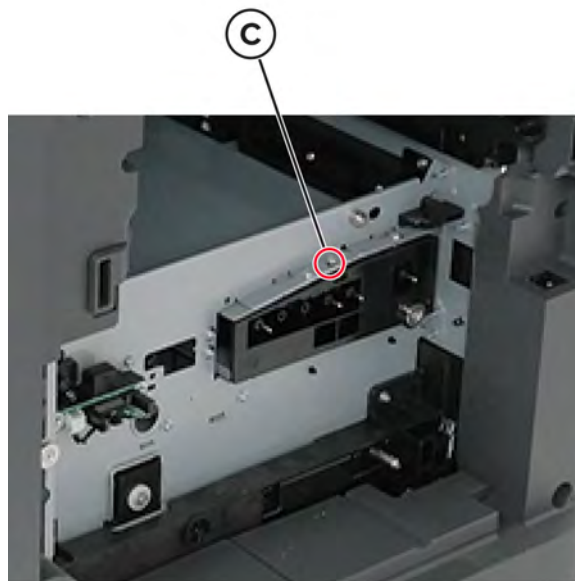
## HVPS removal

**Note:** For a video demonstration, see [Replacing the HVPS](#).

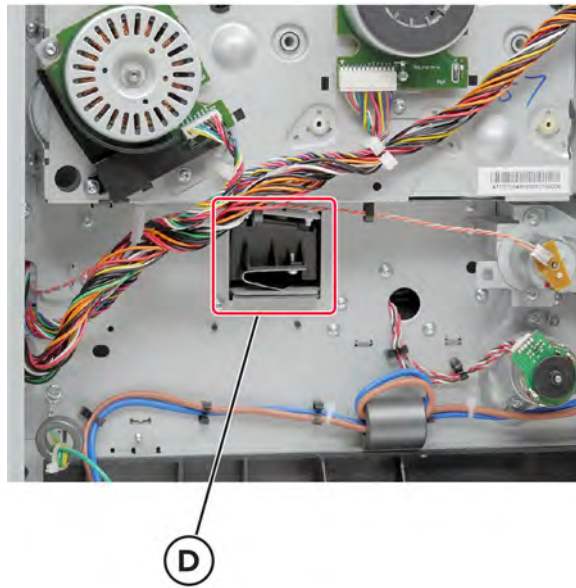
- 1 Remove the left cover. See [“Left cover removal” on page 307](#).
- 2 Remove the right cover. See [“Right cover removal” on page 334](#).
- 3 Remove the controller board shield. See [“Controller board shield removal” on page 393](#).
- 4 Press the latch (A) to release it, and then disconnect the cable (B).



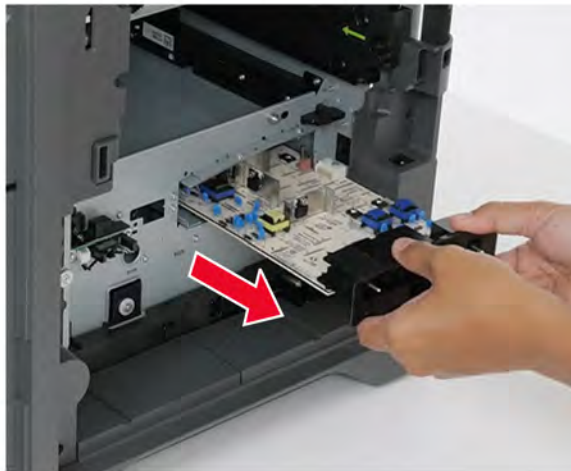
- 5 Remove the screw (C) securing the HVPS.



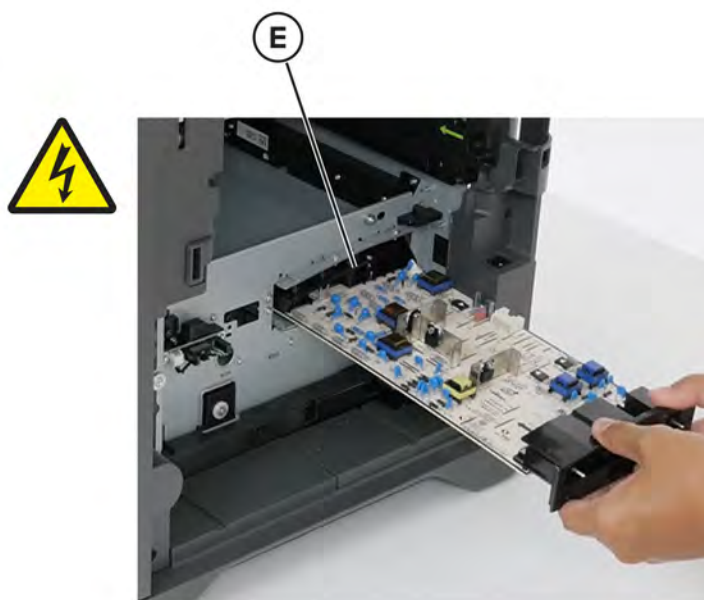
- 6 At the opposite end of the HVPS, press down on the latch (D) and slide the HVPS inwards to release it.



- 7 Remove the HVPS.

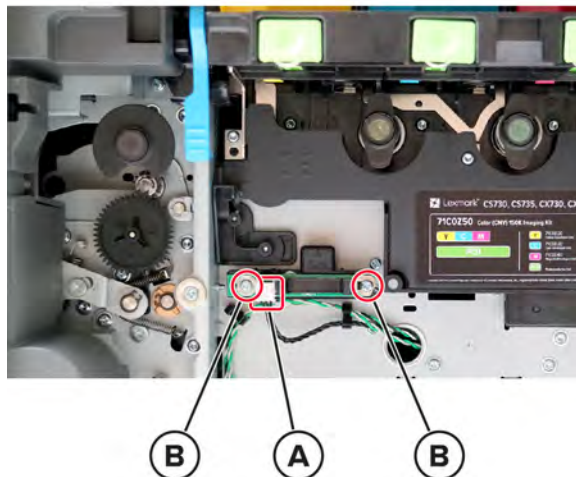


**Installation note:** Press on the side of the toner contacts (E) while removing the HVPS to fully release it.



## Sensor (waste toner) removal

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Disconnect the cable (A), and then remove the two screws (B).

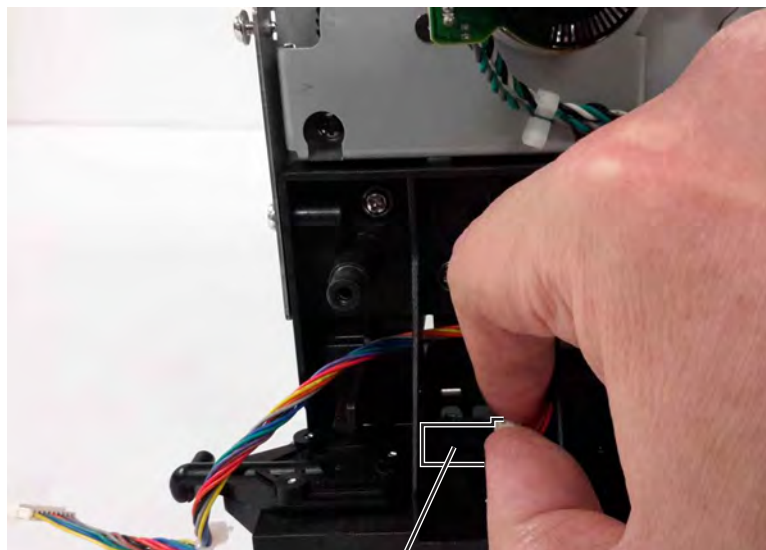


- 3 Remove the sensor (waste toner).

## Sensor (MPF paper present) removal

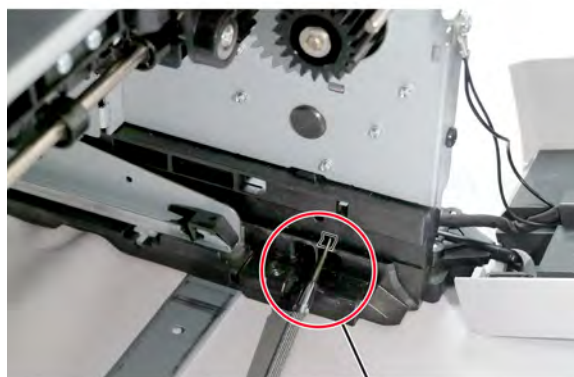
- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Remove the motor cover. See [“Motor cover removal” on page 356.](#)
- 3 Remove the right cover. See [“Right cover removal” on page 334.](#)

4 Remove the four screws (A).



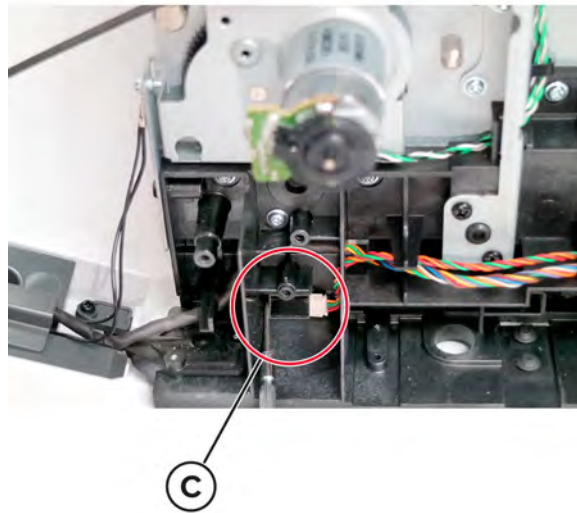
A

5 On the other side of the sensor, insert the prying tool into the hole (B) to release the sensor.

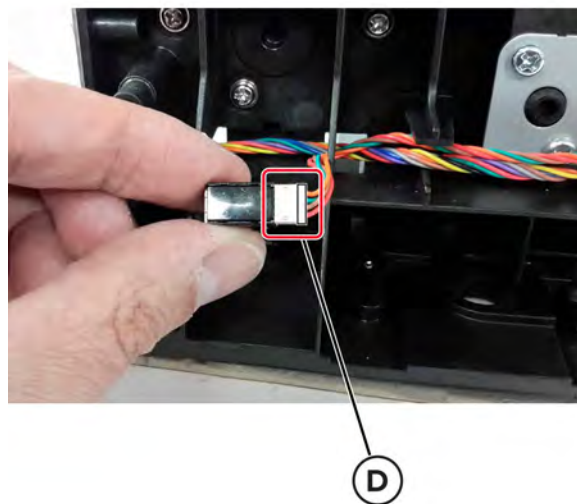


B

6 Pry the sensor (C) out of the printer.



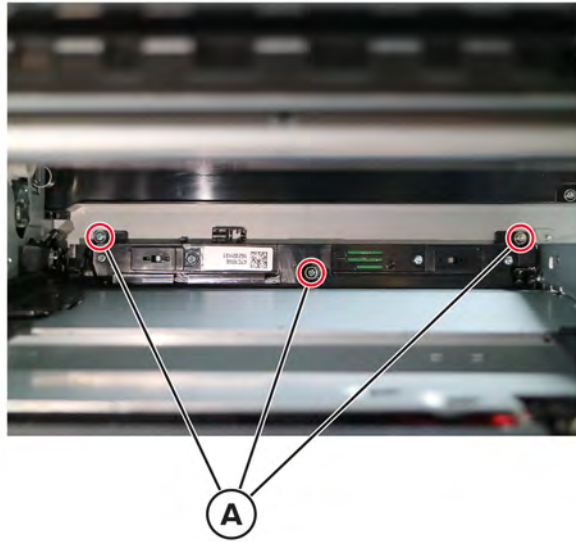
7 Disconnect the sensor cable (D), and then remove the sensor.



## Sensor (TPS) removal

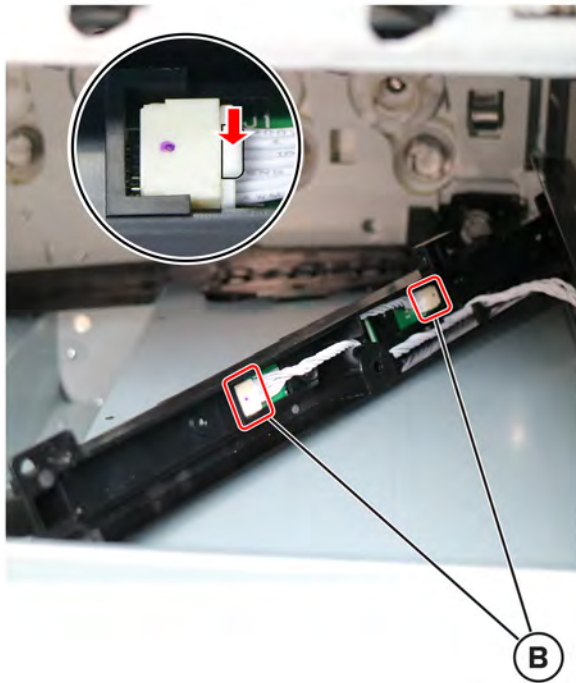
- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Remove the imaging kit. See [“Imaging kit removal” on page 332.](#)
- 3 Remove the transfer module. See [“Transfer module removal” on page 358.](#)

- 4 Remove the three screws (A).



- 5 Disconnect the two cables (B).

**Warning—Potential Damage:** Press the tab, before disconnecting the cable



- 6 Remove the sensor.

**Installation note:** When installing a new sensor (TPS), perform the TPS characterization data entry as instructed in the accompanying FRU sheet.

## Front side removals

### Control panel cover removal

- 1 Open the front door, and then open door A1.



**2** Remove the two screws (A), and then release the latch (B).

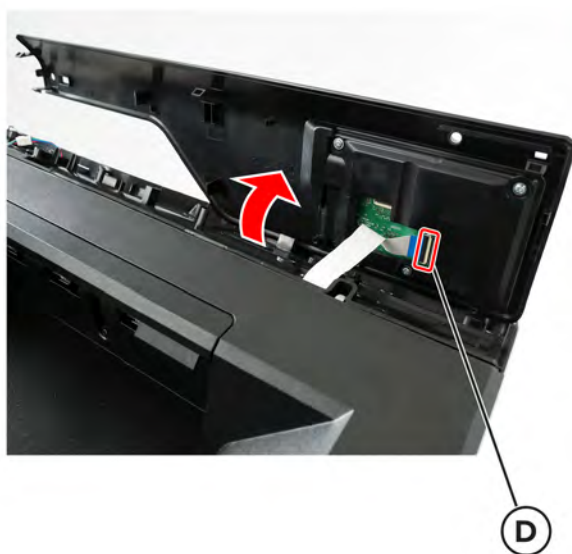


**3** Release the two latches (C).

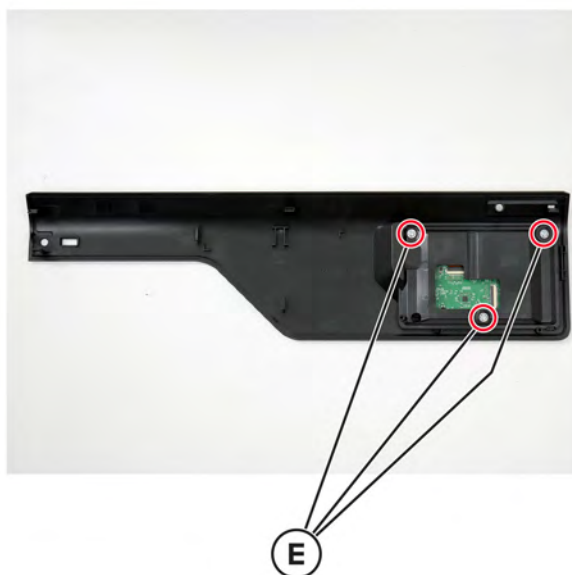




- 4 Carefully lift the cover, and then disconnect the cable (D).



- 5 Remove the three screws (E).



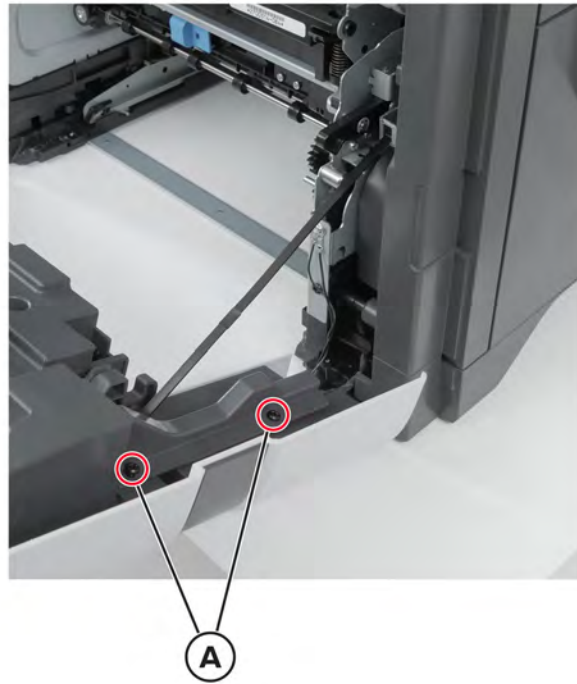
- 6 Remove the control panel from the cover.

## Front door removal

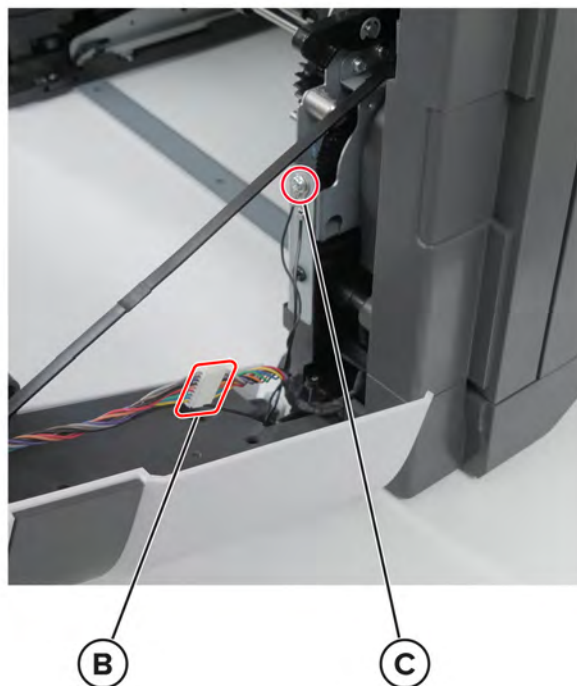
- 1 Remove the screw, and then remove the cover.



- 2 Remove the two screws (A), and then remove the cable cover.

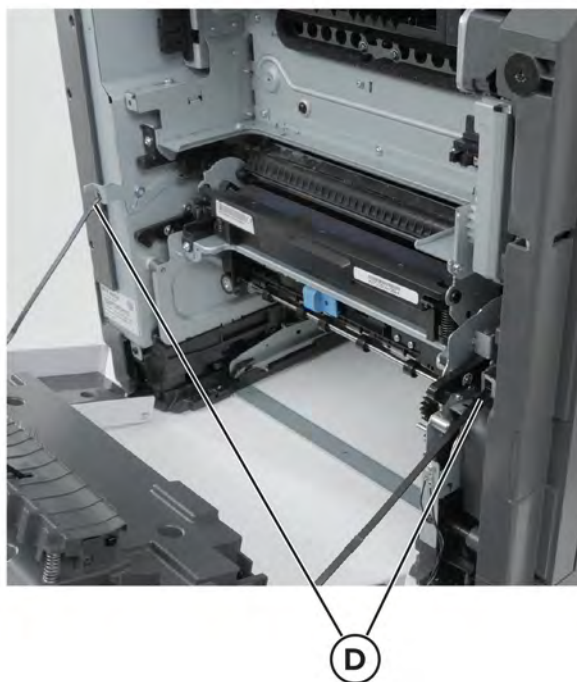


- 3 Disconnect the cable (B), and then remove the ground screw (C).



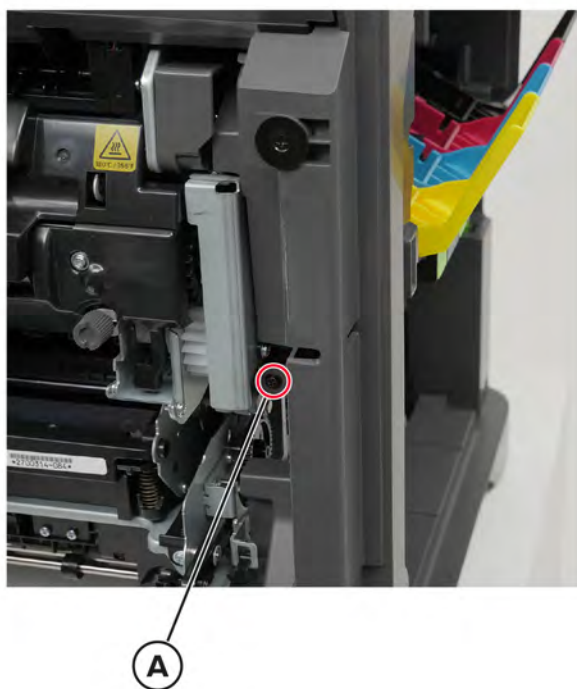
- 4 Release the straps (D), and then remove the door.

**Warning—Potential Damage:** Make sure that the door does not fall.



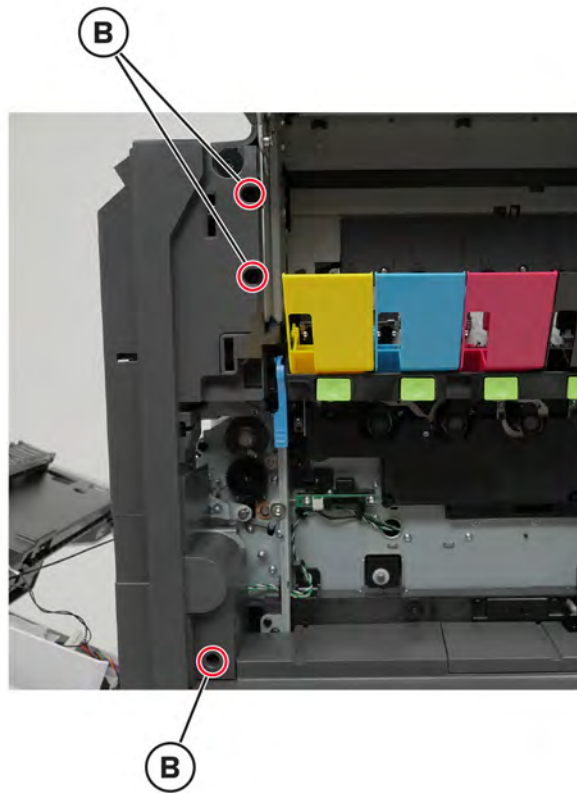
## Motor cover removal

- 1 Open the front door and cartridge door.
- 2 Remove the screw (A).

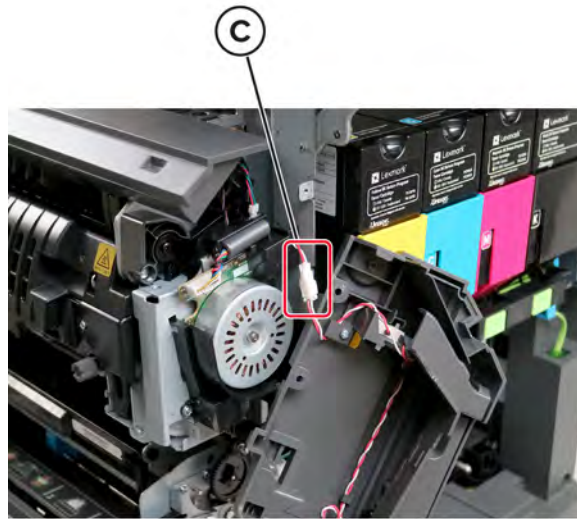


Parts removal

**3** Remove the three screws (B).



**4** Disconnect the switch cable (C).



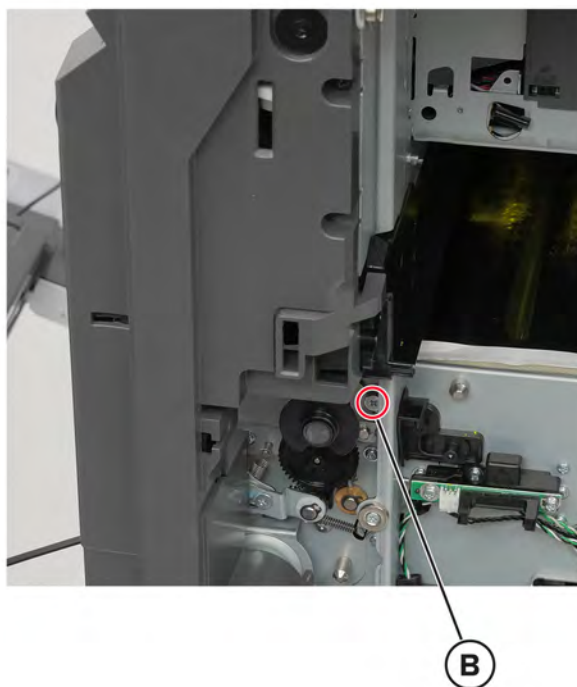
**5** Remove the cover.

## Transfer module removal

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330](#).
- 2 Remove the imaging kit. See [“Imaging kit removal” on page 332](#).
- 3 Open the front door.
- 4 Remove the screw (A), and then remove the transfer module retainer.



- 5 Open the cartridge door, and then remove the screw (B).

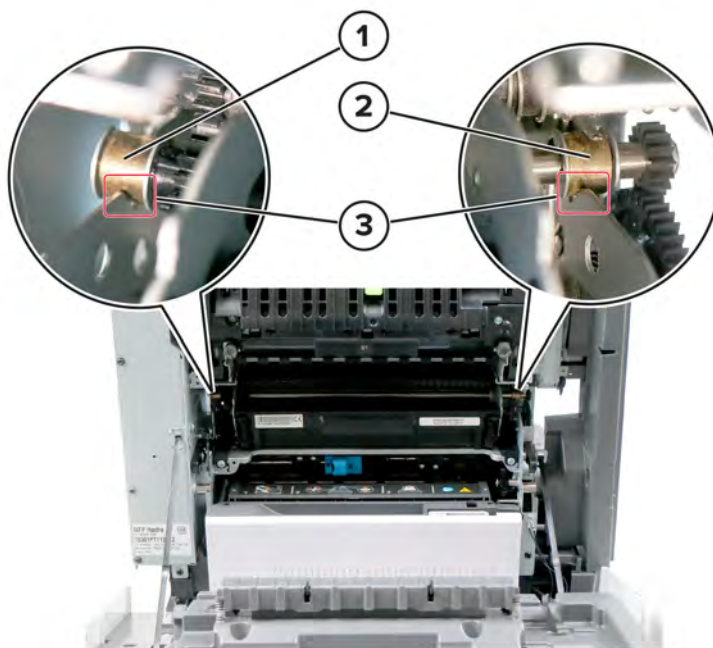


- 6 Remove the transfer module.



**Installation notes:**

- Check if the transfer module bearings are properly seated on the frame. Make sure that the bearings sit on top of their slots.



#	Part
1	Left bearing
2	Right bearing
3	Frame

- Reset the transfer module counter. See [“Transfer module reset” on page 445](#).
- Align the top and bottom margins. See [“Registration adjustment” on page 303](#).

## Transfer module retainer removal

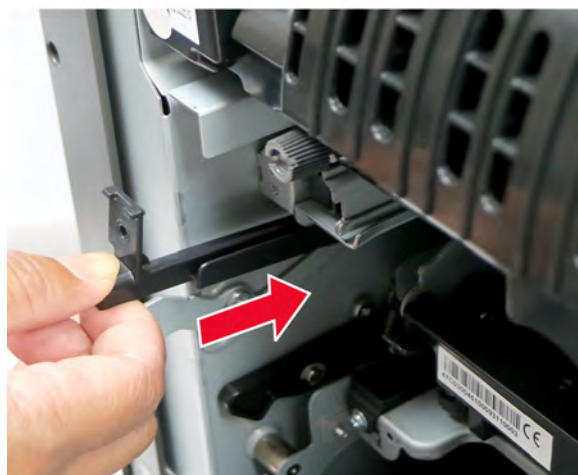
- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330](#).
- 2 Remove the imaging kit. See [“Imaging kit removal” on page 332](#).
- 3 Open the front door.



- 4 Remove the screw (A), and then remove the transfer module retainer.



**Installation note:** Slide the transfer module retainer into the printer.



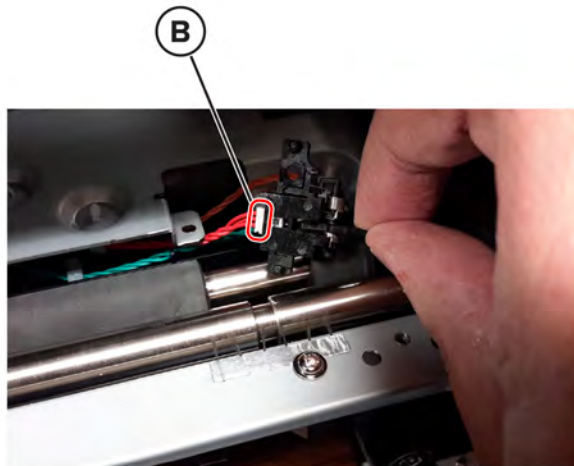
## Sensor (input) removal

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Remove the imaging kit. See [“Imaging kit removal” on page 332.](#)
- 3 Remove the transfer module. See [“Transfer module removal” on page 358.](#)

**4** Remove the screw (A), and then lift the sensor.



**5** Disconnect the cable (B), and then remove the sensor.

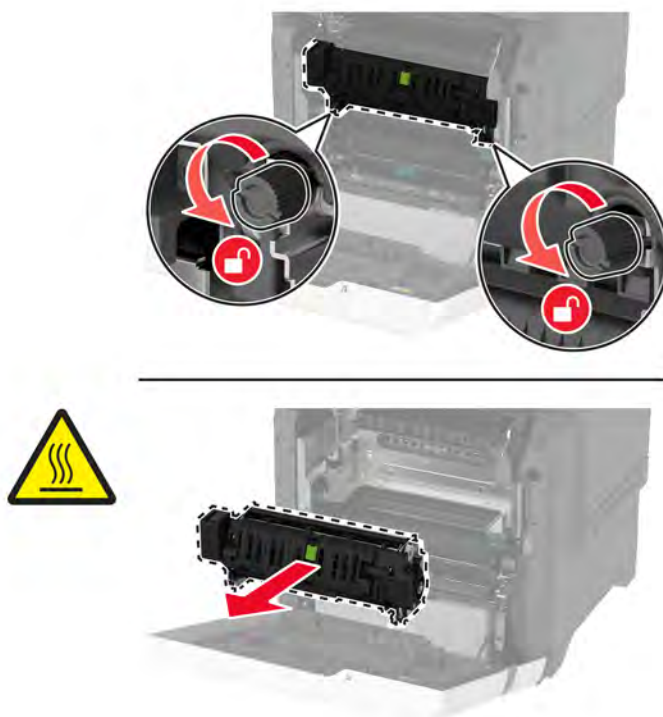


## Fuser removal

- 1 Open door A, and then open door A1.



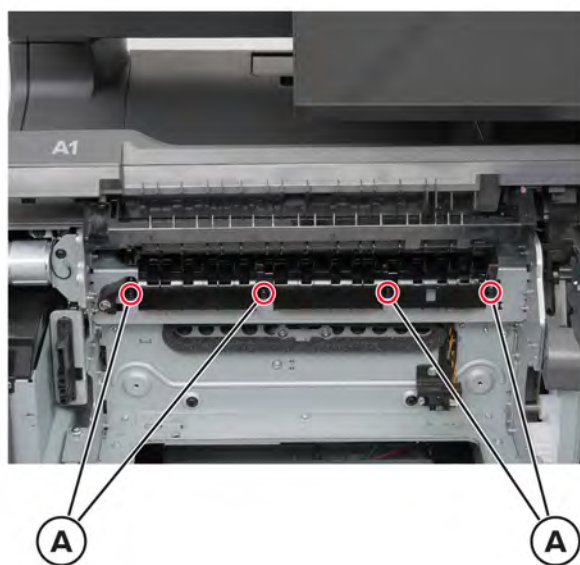
- 2 Remove the fuser.



**Installation note:** After installing a new fuser, reset the maintenance counter. See [“Resetting the maintenance counter” on page 445](#).

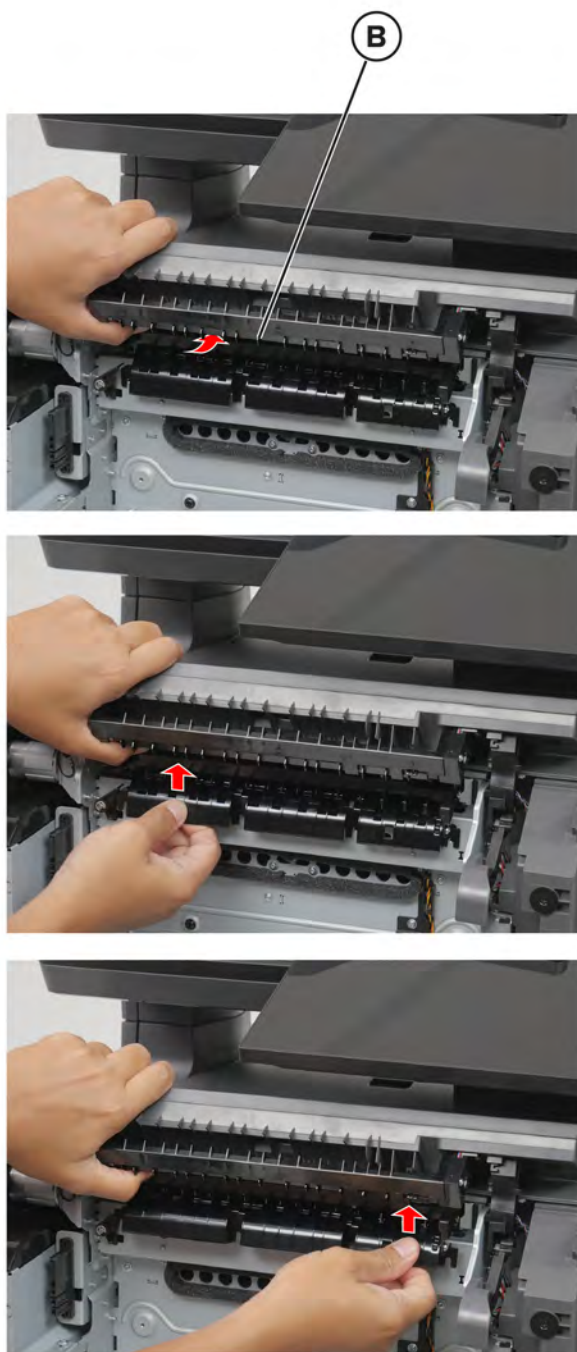
## Redrive guide removal

- 1 Remove the fuser. See [“Fuser removal” on page 363](#).
- 2 Remove the four screws (A).



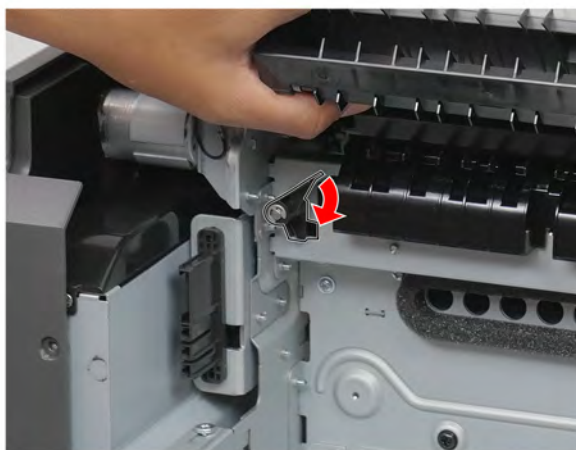
Parts removal

- 3 Move the diverter (B) out of the way, and then release the cover from its frame.



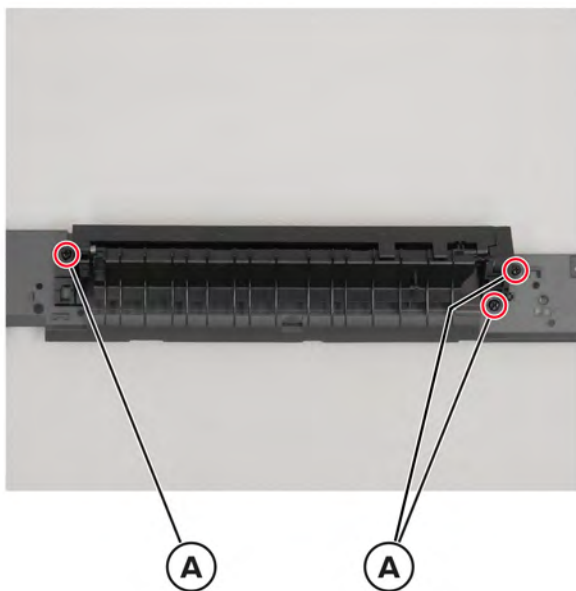
- 4 Remove the cover.

**Note:** If necessary, turn the lever to make way for the cover.



## Diverter removal

- 1 Remove the fuser. See [“Fuser removal” on page 363](#).
- 2 Remove the control panel cover. See [“Control panel cover removal” on page 351](#).
- 3 Remove the control panel base cover. See [“Control panel base cover removal” on page 410](#).
- 4 Remove the three screws (A).

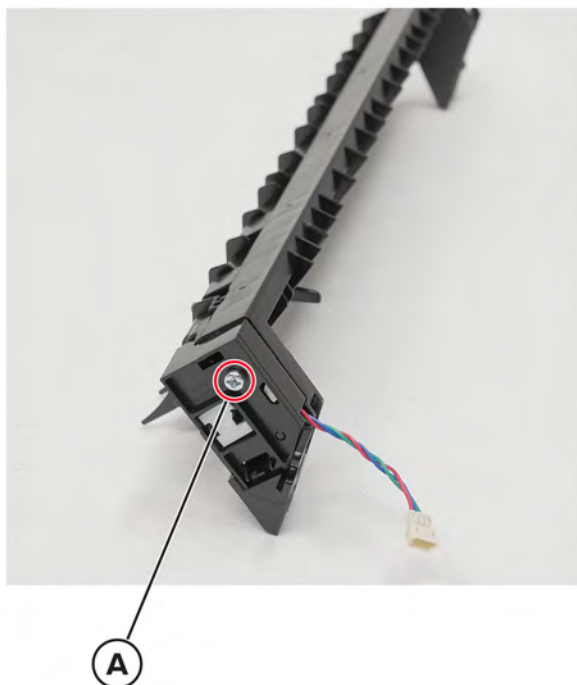


- 5 Remove the diverter.

## Sensor (redrive) removal

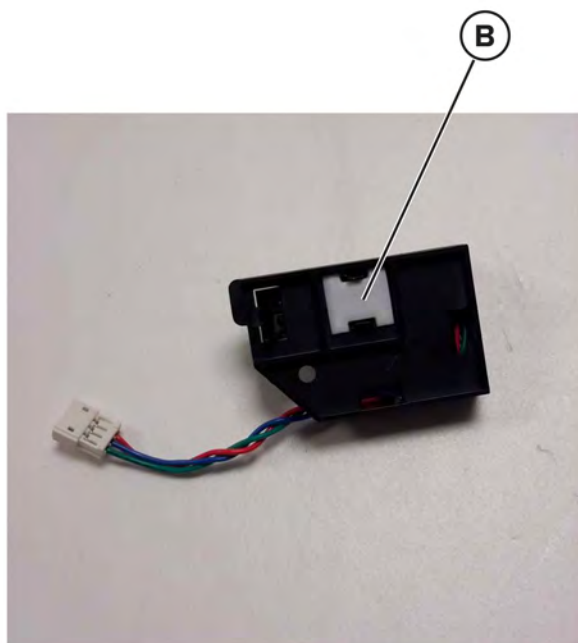
- 1 Remove the fuser. See [“Fuser removal” on page 363](#).
- 2 Remove the control panel cover. See [“Control panel cover removal” on page 351](#).

- 3 Remove the control panel base cover. See [“Control panel base cover removal” on page 410](#).
- 4 Remove the diverter. See [“Diverter removal” on page 366](#).
- 5 Remove the screw (A), and then remove the sensor bracket.



- 6 Remove the retainer (B), and then remove the sensor from its bracket.

**Installation note:** Make sure that the retainer is installed with the replacement sensor.



## Sensor (fuser present) removal

- 1 Remove the fuser. See [“Fuser removal” on page 363](#).
- 2 Remove the two screws (A).



- 3 Disconnect the cable (B), and then remove the sensor.





## Control panel display removal

**Note:** For a video demonstration, see [Replacing the control panel display](#).

- 1 Open the front door, and then open door A1.



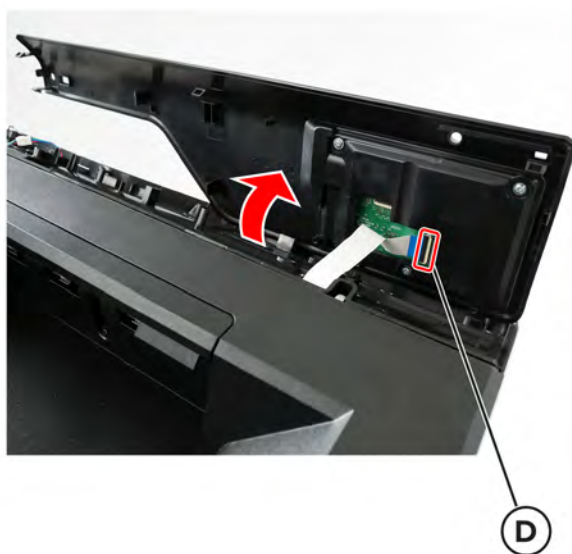
**2** Remove the two screws (A), and then release the latch (B).



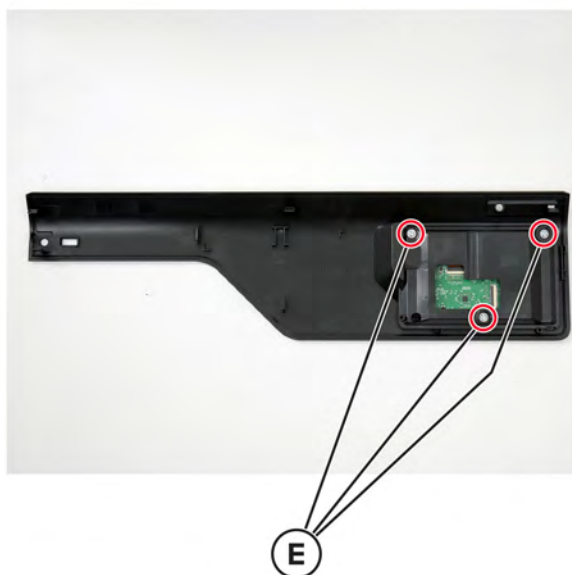
**3** Release the two latches (C).



- 4 Carefully lift the cover, and then disconnect the cable (D).



- 5 Remove the three screws (E).



- 6 Remove the control panel display from the cover.

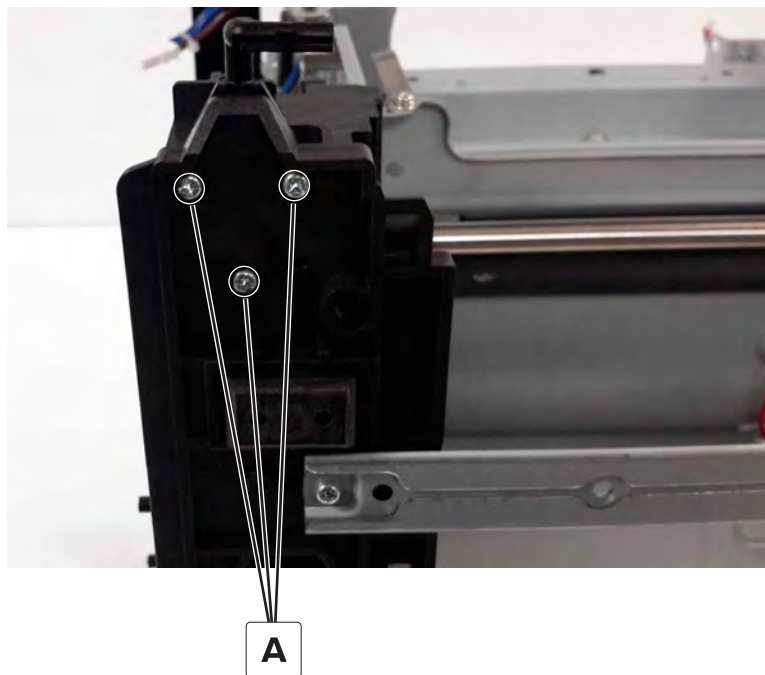
## Front door hinges removal

**Warning—Potential Damage:** Remove the waste toner bottle and imaging kit first before removing the hinges. Failure to do this can lead to toner spillage and damage to the printer.

**Note:** This procedure is applicable to the left and right hinges.

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330](#).
- 2 Remove the imaging kit. See [“Imaging kit removal” on page 332](#).

- 3 Remove the front door. See [“Front door removal” on page 354](#).
- 4 Place the printer on its side.
- 5 Remove the three screws (A) securing the hinge, and then remove the hinge.

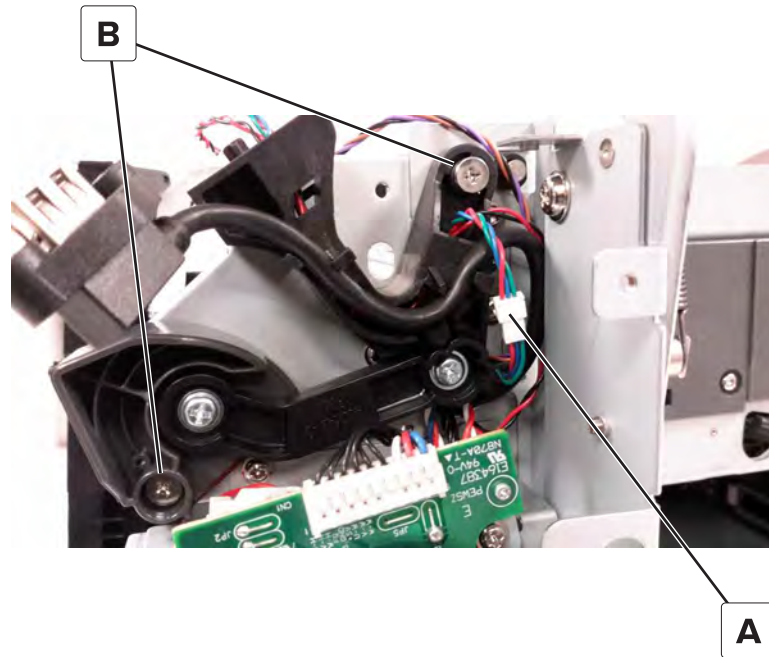


## Control panel arms removal

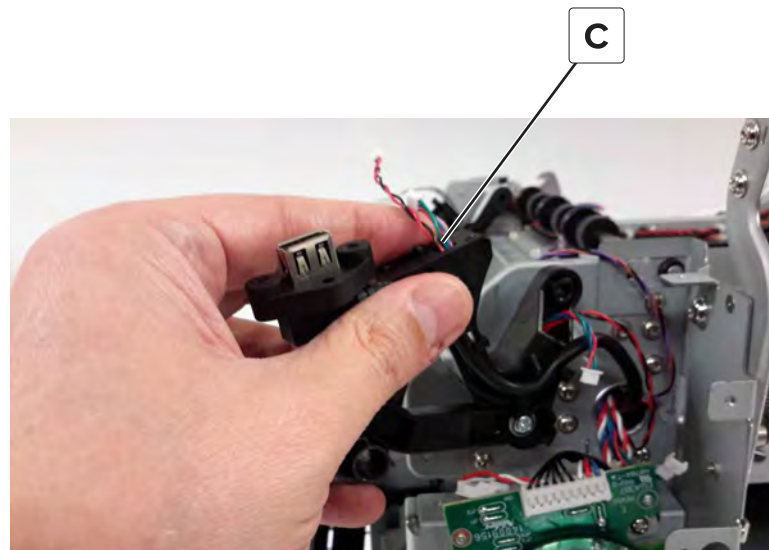
**Note:** The control panel arms are two separate FRUs. This procedure shows how to remove both arms.

- 1 Remove the fuser. See [“Fuser removal” on page 363](#).
- 2 Remove the redrive guide. See [“Redrive guide removal” on page 364](#).
- 3 Remove the control panel cover. See [“Control panel cover removal” on page 351](#).
- 4 Remove the control panel base cover. See [“Control panel base cover removal” on page 410](#).

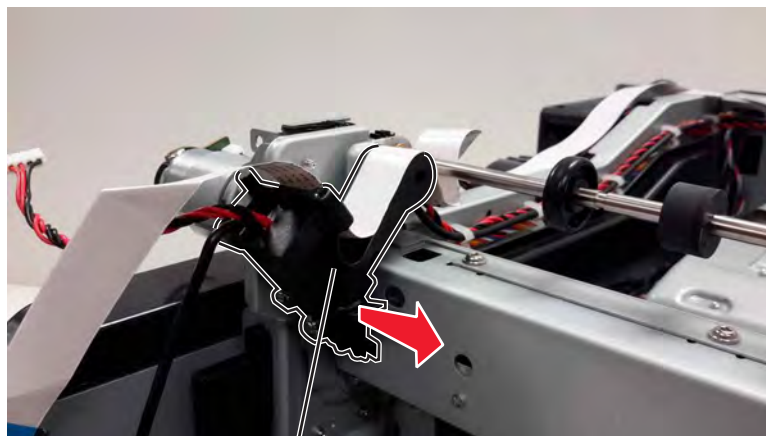
**5** Disconnect the cable (A), and then remove the two screws (B).



**6** Remove the control panel right arm, and then release the cables (C) from the arm.

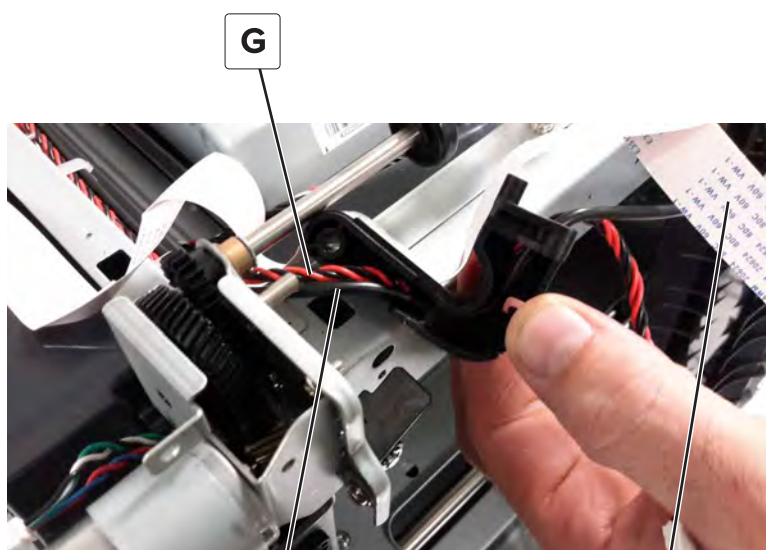


- 7 Remove the left arm (D) from the mounting pin.



D

- 8 Carefully remove the ribbon cable (E), and then release the control panel cable (F) and headphone cable (G) from the control panel left arm.



G

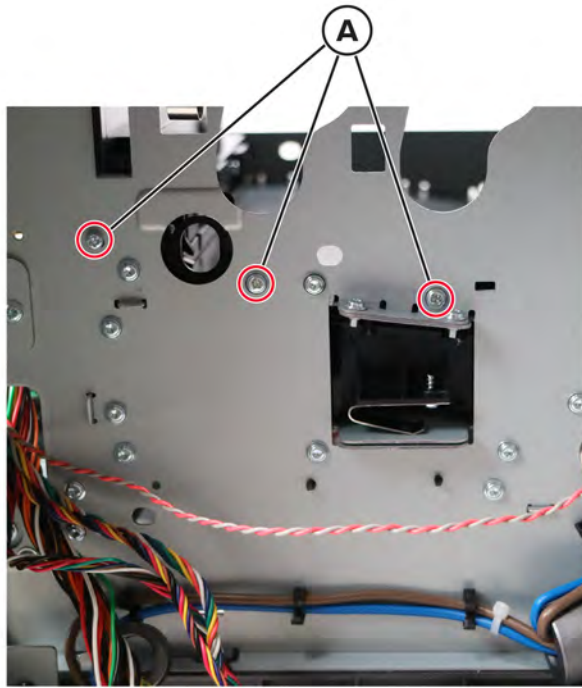
F

E

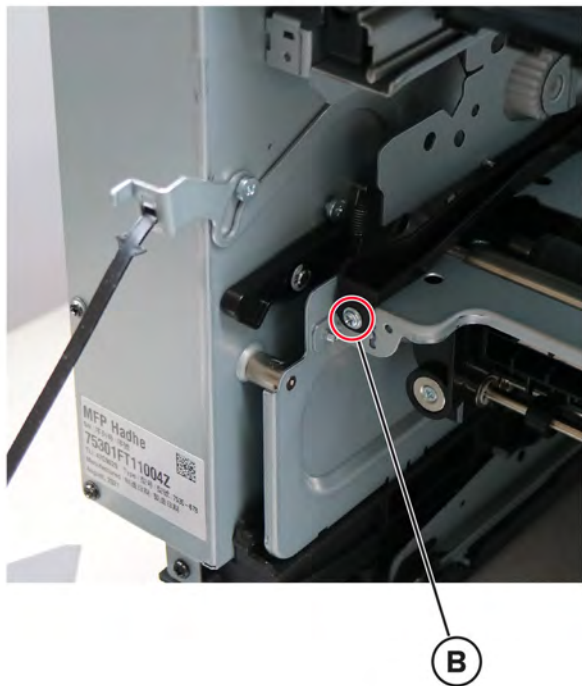
## Transfer module guide rail removal

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Remove the imaging kit. See [“Imaging kit removal” on page 332.](#)
- 3 Remove the transfer module. See [“Transfer module removal” on page 358.](#)
- 4 Remove the left cover. See [“Left cover removal” on page 307.](#)
- 5 Remove the EP drive gearbox. See [“EP drive gearbox removal” on page 317.](#)

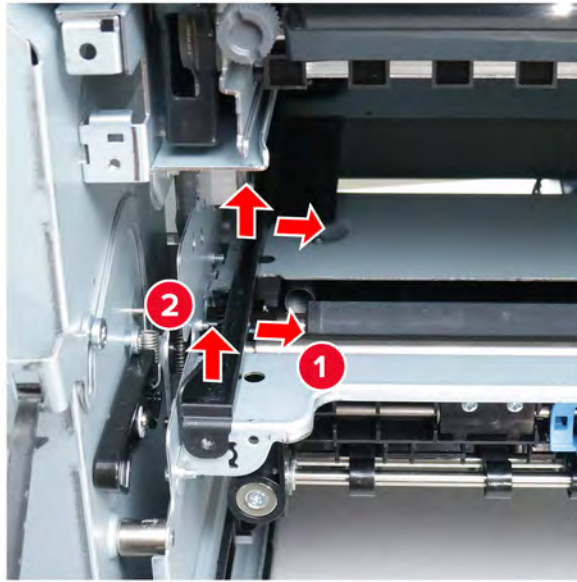
**6** Remove the three screws (A).



**7** Remove the screw (B).



8 Gently release the guide rail from the frame.

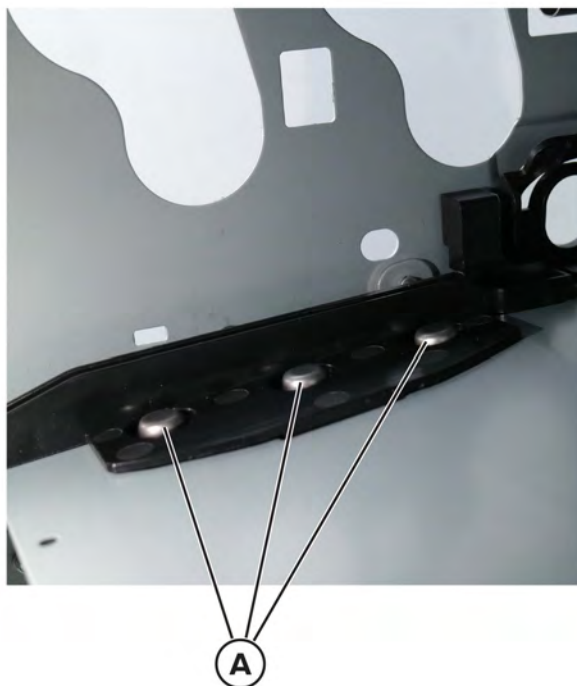


9 Release the spring (C), and then remove the spring and coupling (D) from the guide rail.



**Installation note:** Make sure that the HVPS contacts (A) are aligned and unblocked.

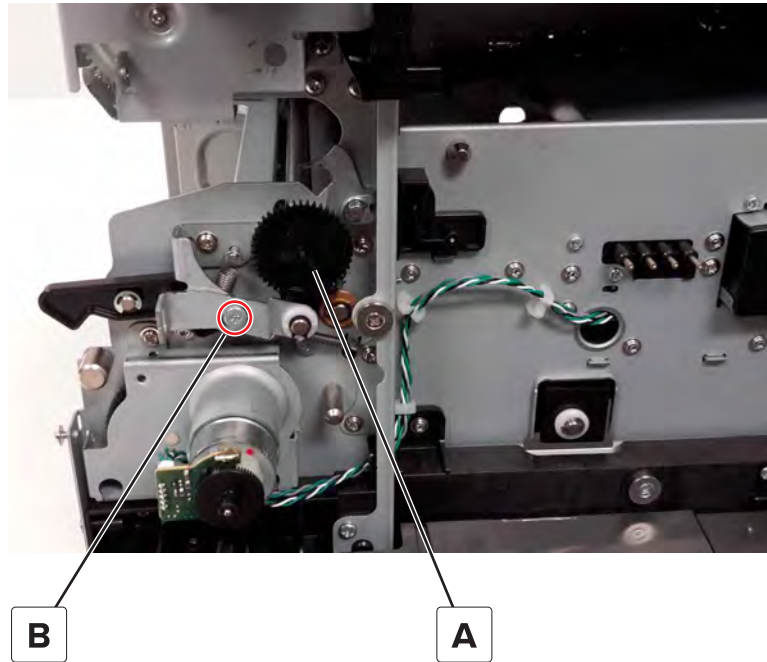




## Aligner rollers removal

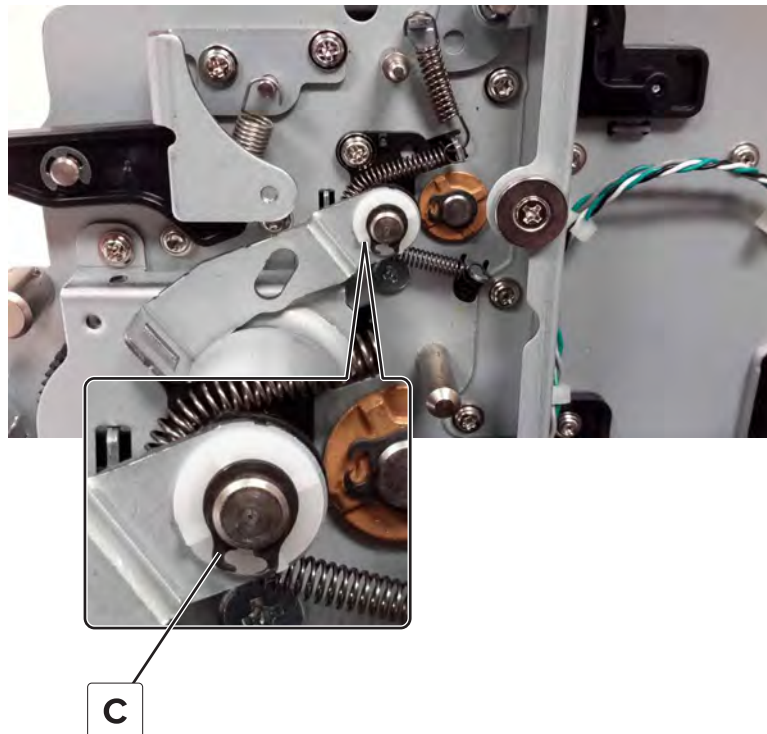
- 1 Remove the fuser. See [“Fuser removal” on page 363](#).
- 2 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330](#).
- 3 Remove the imaging kit. See [“Imaging kit removal” on page 332](#).
- 4 Remove the transfer module. See [“Transfer module removal” on page 358](#).
- 5 Remove the left cover. See [“Left cover removal” on page 307](#).
- 6 Remove the LVPS. See [“LVPS removal” on page 310](#).
- 7 Remove the LVPS cage. See [“LVPS cage removal” on page 325](#).
- 8 Remove the motor cover. See [“Motor cover removal” on page 356](#).
- 9 Remove the right cover. See [“Right cover removal” on page 334](#).
- 10 Remove the sensor (input). See [“Sensor \(input\) removal” on page 361](#).

- 11** On the right side of the printer, remove the gear (A), and then remove the screw (B).

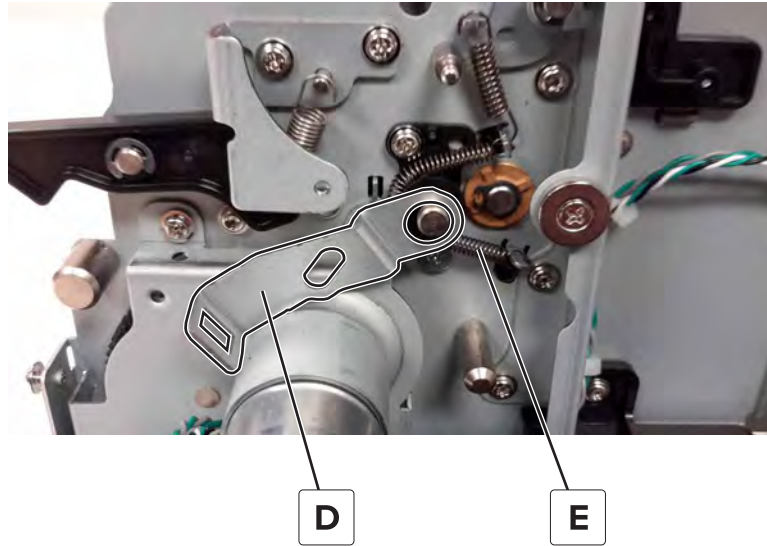


- 12** Remove the C-clip (C), and then remove the spacer.

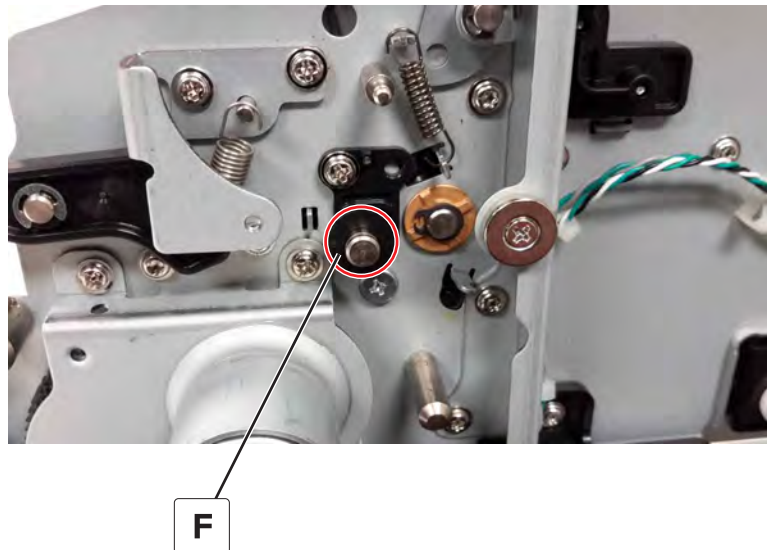
**Warning—Potential Damage:** Be careful not to overextend the clip when removing or installing.



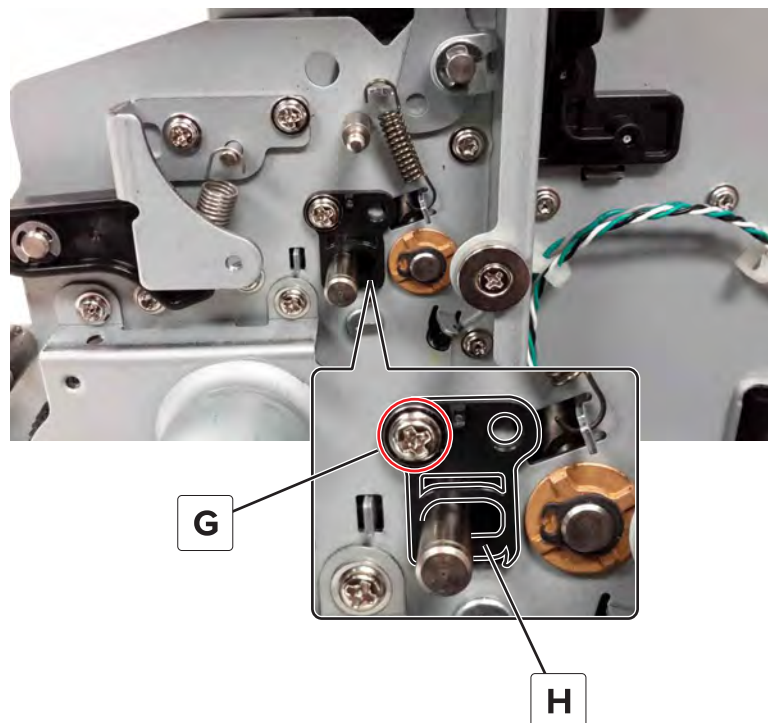
**13** Remove the bracket (D), and then release the spring (E).



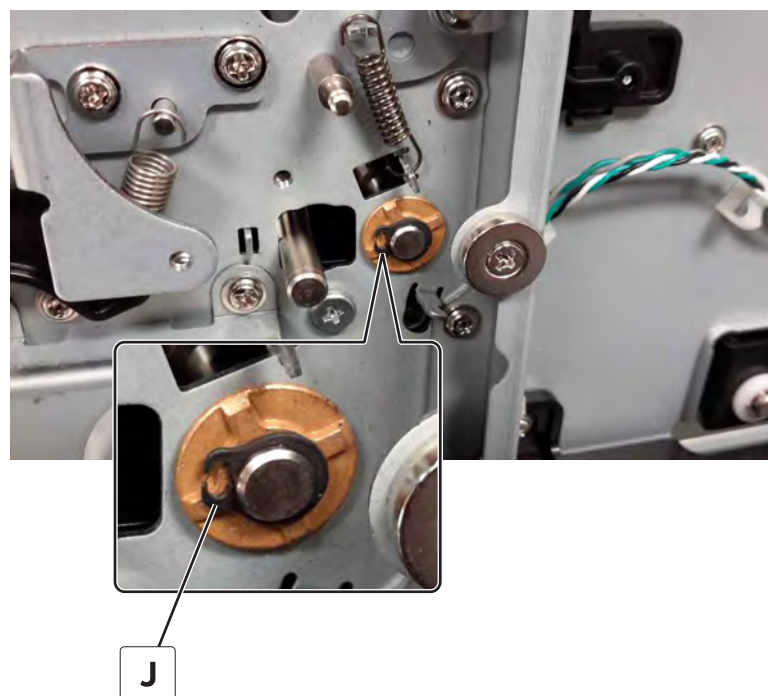
**14** Remove the spacer (F).



**15** Remove the screw (G), and then remove the guide (H).



**16** Remove the C-clip (J), and then remove the bushing.

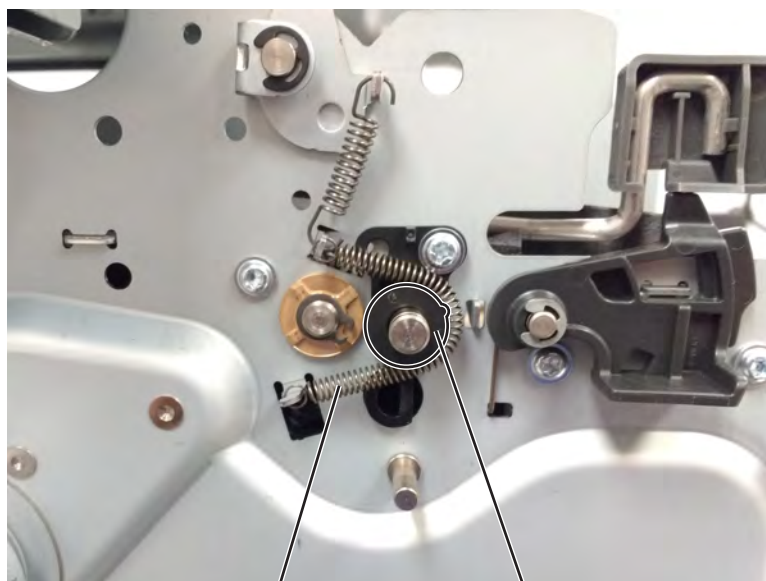


**17** Remove the C-clip (K), and then remove the spacer.



**K**

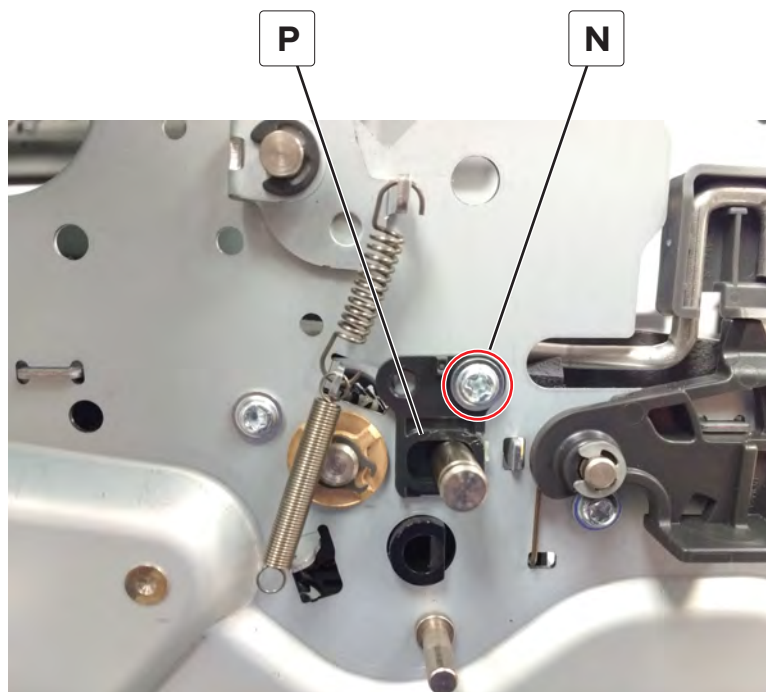
**18** Remove the spring (L), and then remove the spacer (M).



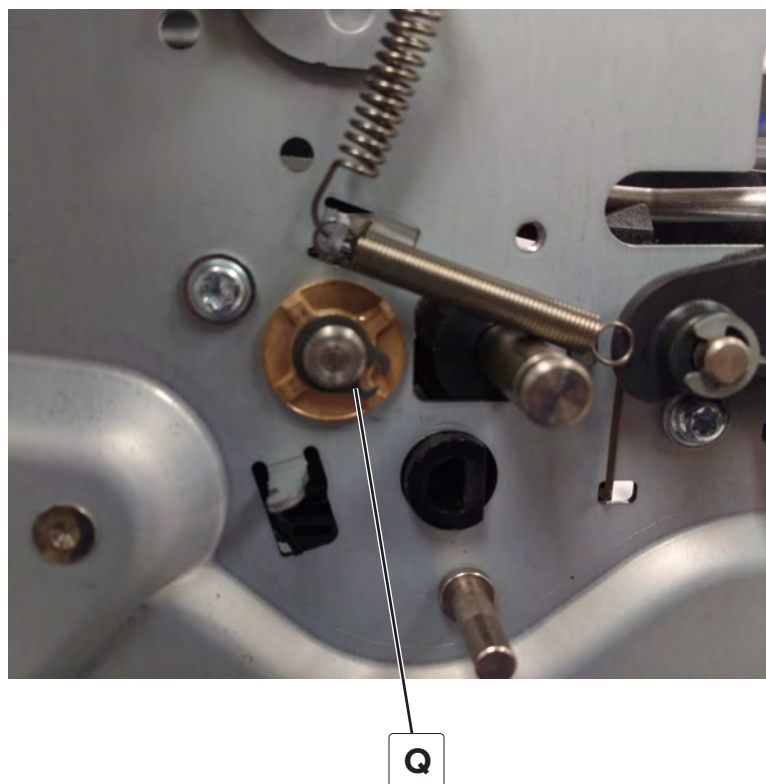
**L**

**M**

**19** Remove the screw (N), and then remove the guide (P).

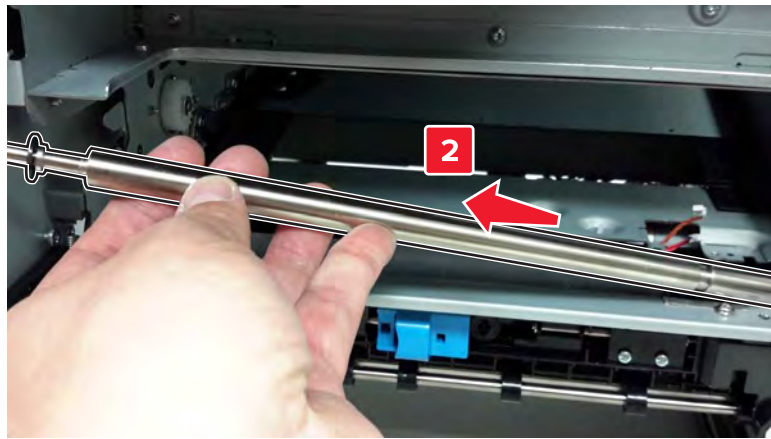
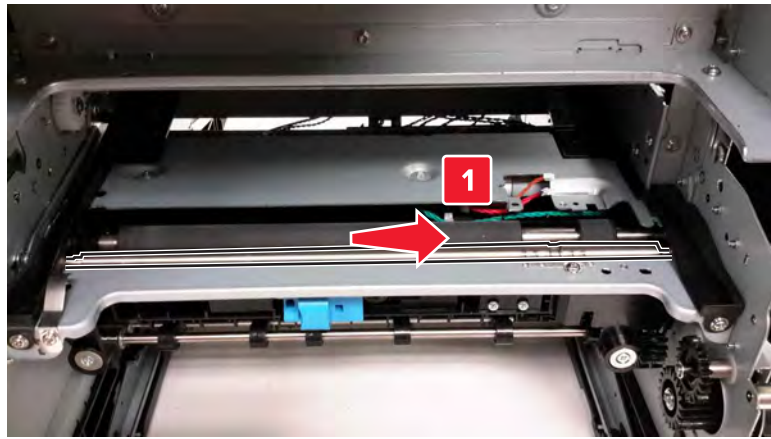


**20** Remove the C-clip (Q), and then remove the bushing.



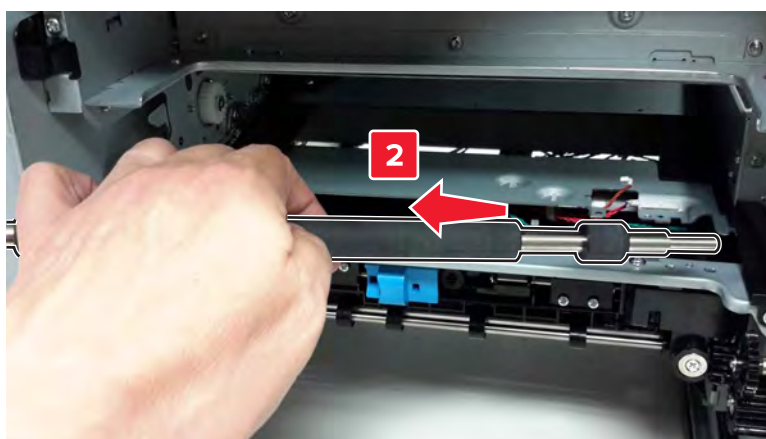
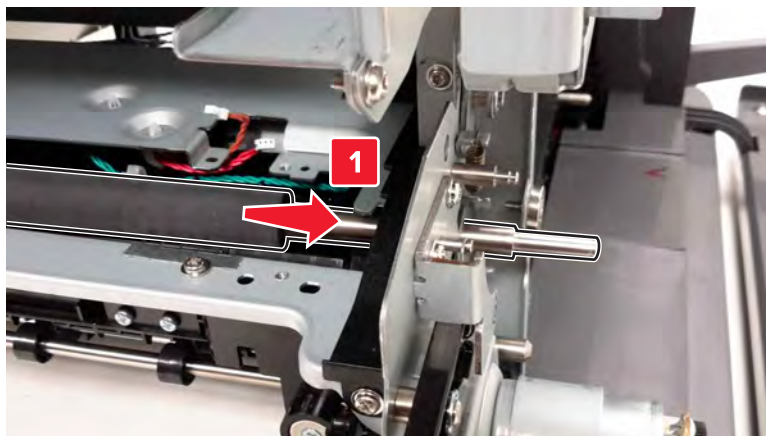
**21** Slide the front aligner roller to the right to remove.

**Note:** Be careful not to drop or lose the washer on the left side of the shaft.



Parts removal

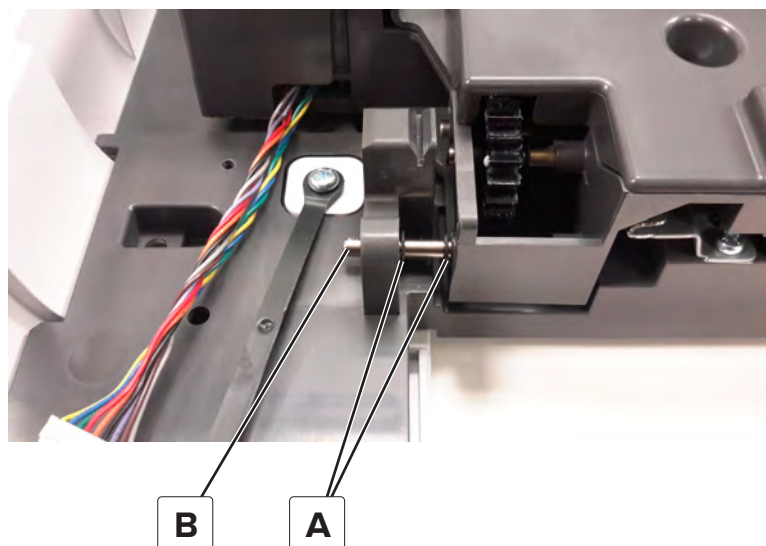
**22** Slide the rear aligner roller to the right to remove.





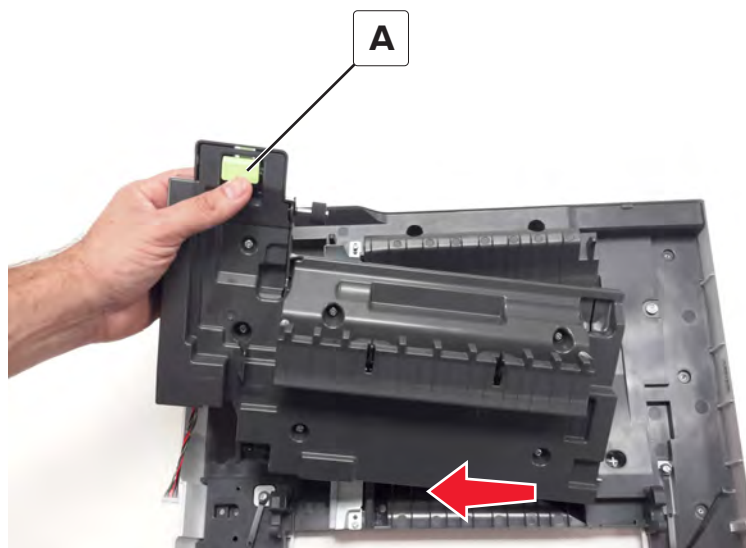
## Pivot shaft removal

- 1 Remove the front door. See [“Front door removal” on page 354](#).
- 2 Remove the two E-clips (A), and then remove the shaft (B).



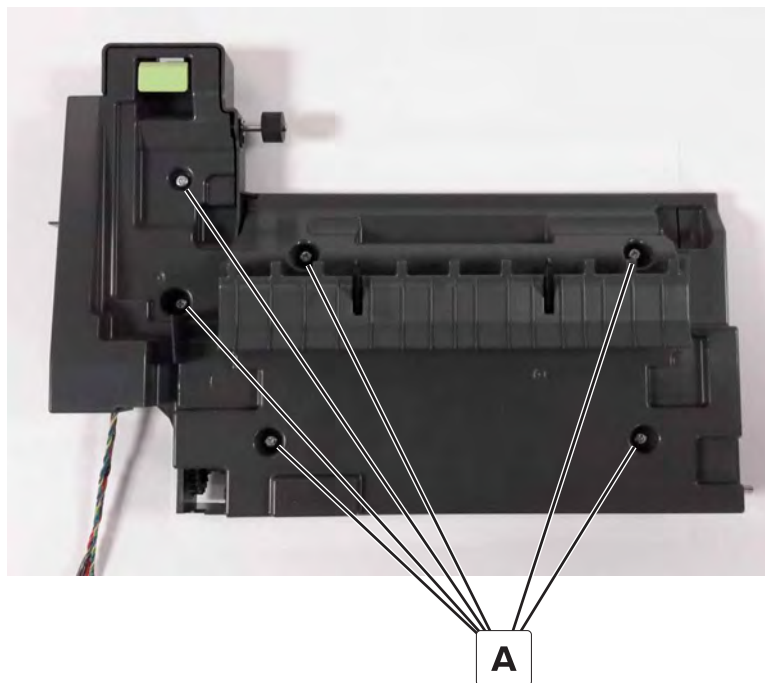
## Duplex inner guide removal

- 1 Remove the front door. See [“Front door removal” on page 354](#).
- 2 Remove the pivot shaft. See [“Pivot shaft removal” on page 385](#).
- 3 Release the latch (A), and then slide the guide to remove.

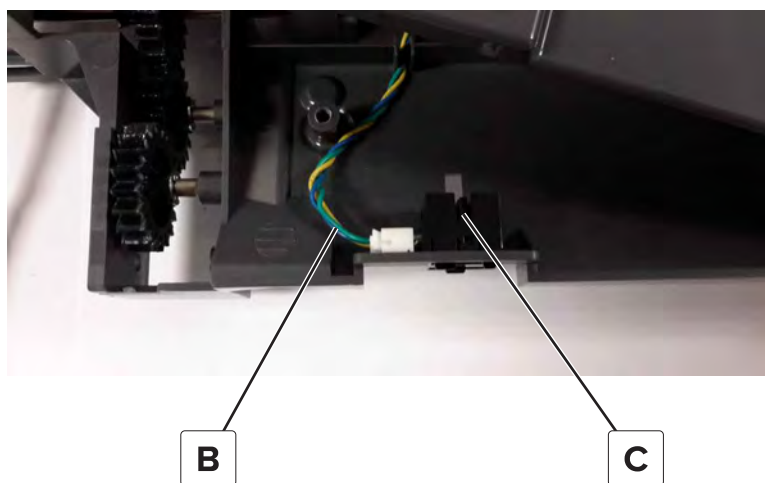


## Sensor (duplex staging) removal

- 1 Remove the front door. See [“Front door removal” on page 354.](#)
- 2 Remove the pivot shaft. See [“Pivot shaft removal” on page 385.](#)
- 3 Remove the duplex inner guide. See [“Duplex inner guide removal” on page 385.](#)
- 4 Remove the six screws (A).

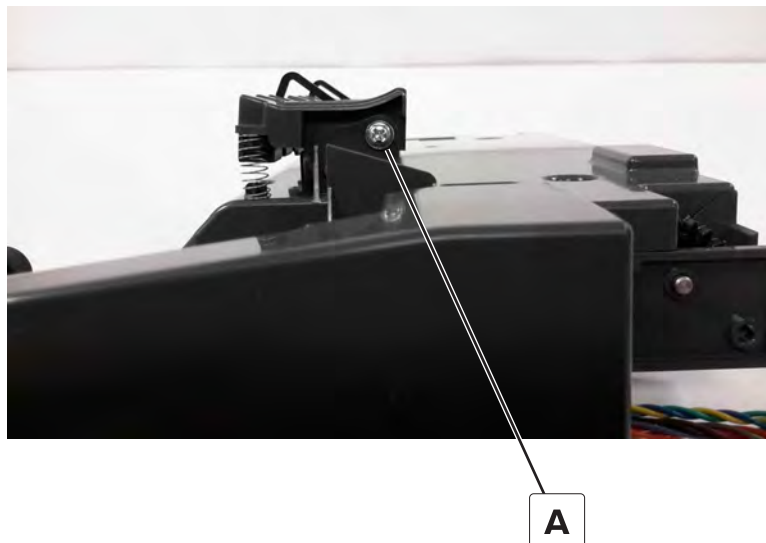


- 5 Disconnect the cable (B), and then remove the sensor (C).



## Sensors (fuser buckle and narrow media) removal

- 1 Open the front door.
- 2 Remove the screw (A).

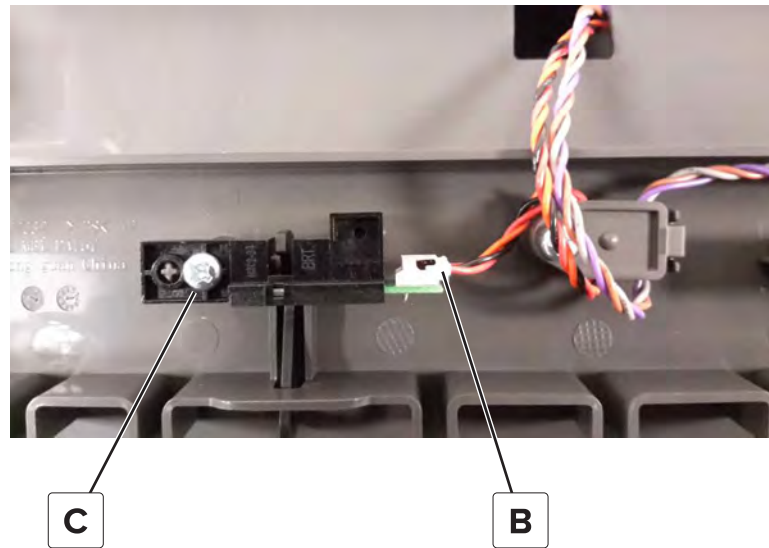


- 3 Slide the paper guide to the right to remove.



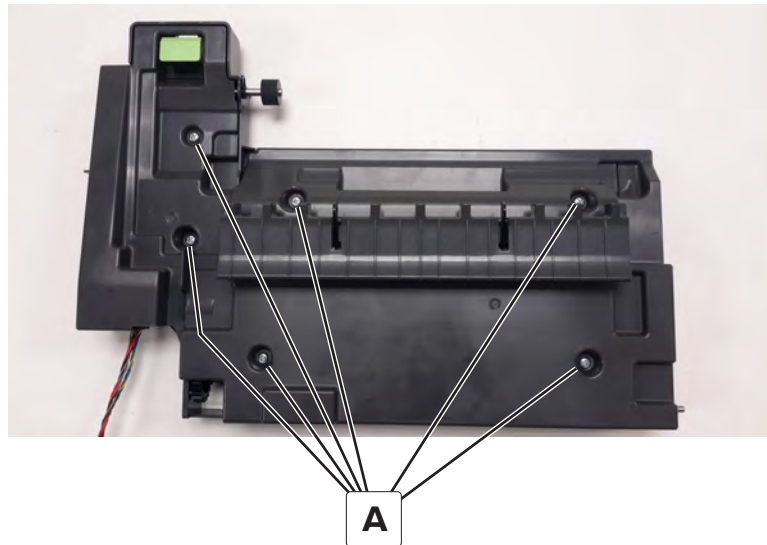
- 4 Disconnect the sensor cable (B), remove the screw (C), and then remove the sensors.

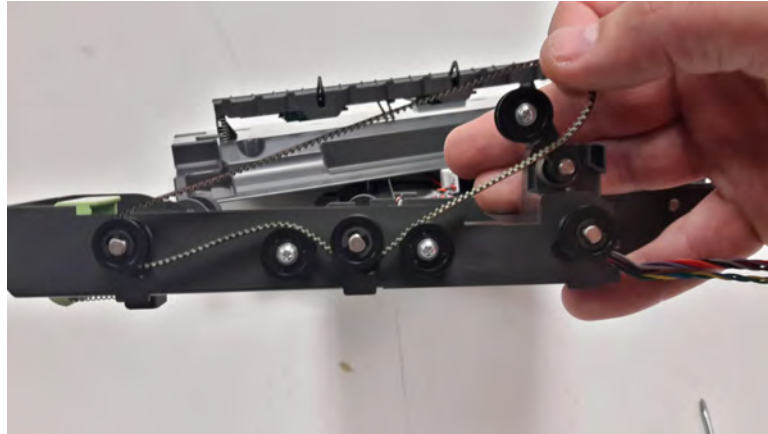
**Note:** The left sensor is the sensor (fuser buckle). The right sensor is the sensor (narrow media). For more information, see [“Fuser drive” on page 510](#).



## Tensioner belt removal

- 1 Remove the front door. See [“Front door removal” on page 354.](#)
- 2 Remove the pivot shaft. See [“Pivot shaft removal” on page 385.](#)
- 3 Remove the duplex inner guide. See [“Duplex inner guide removal” on page 385.](#)
- 4 Remove the six screws (A), and then remove the cover.



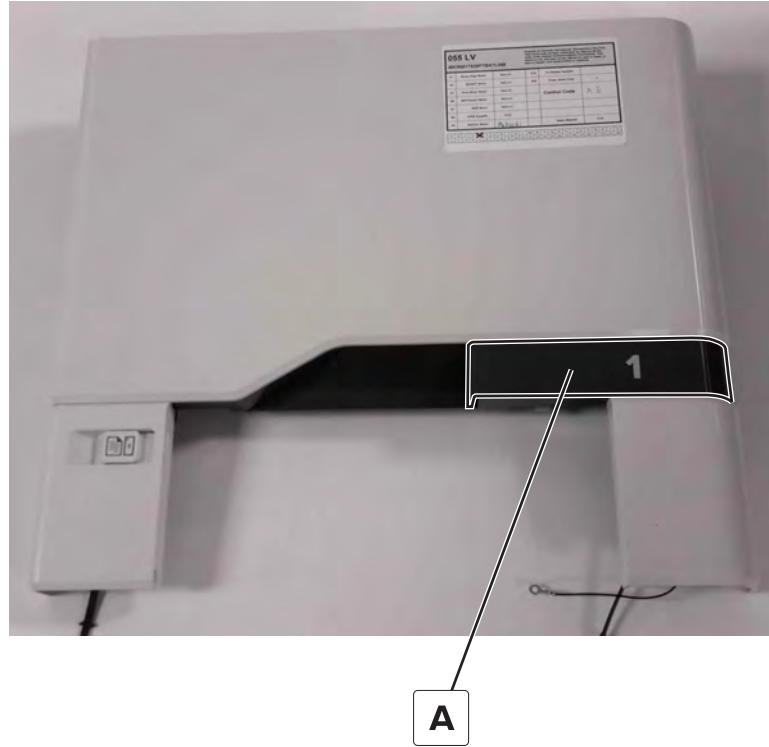
**5** Remove the belt.

**Note:** Pay attention to the belt path before removing the belt.

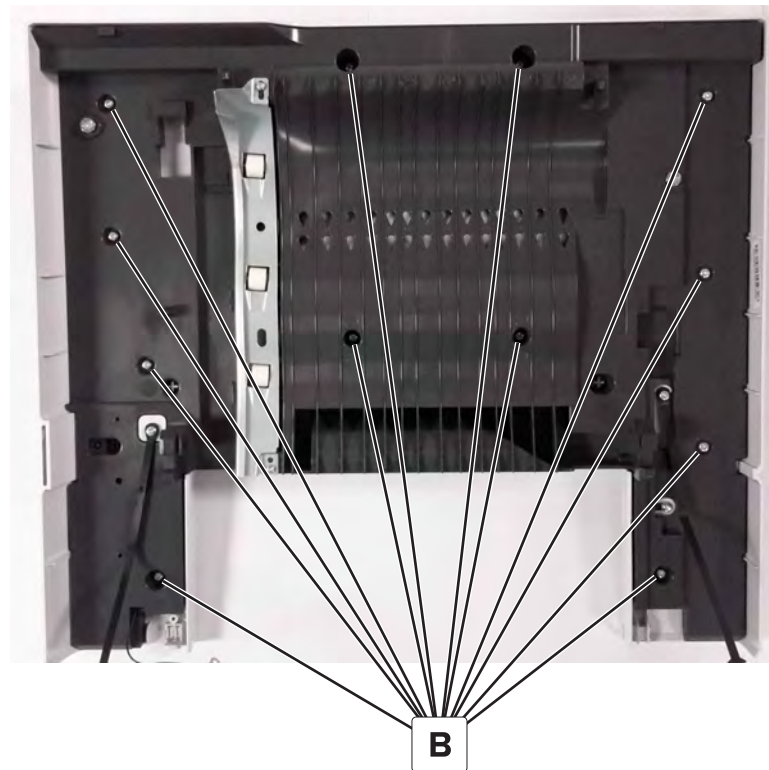
**Duplex outer guide removal**

- 1 Remove the front door. See [“Front door removal” on page 354.](#)
- 2 Remove the pivot shaft. See [“Pivot shaft removal” on page 385.](#)
- 3 Remove duplex inner guide. See [“Duplex inner guide removal” on page 385.](#)

4 Remove the tray indicator (A).



5 Remove the 12 screws (B), and then remove the duplex outer guide.

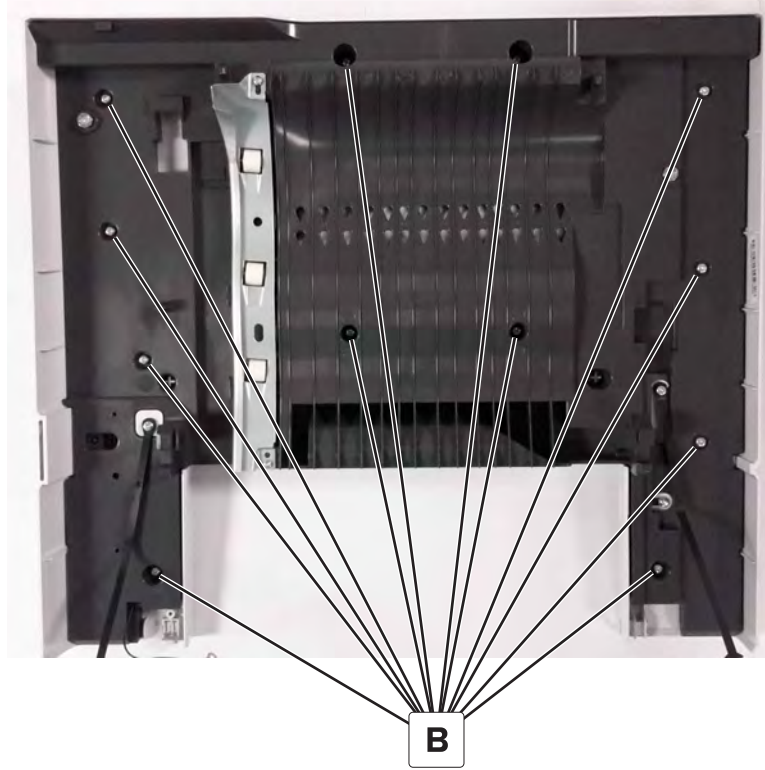


## Front door cover removal

- 1 Remove the front door. See [“Front door removal” on page 354](#).
- 2 Remove the pivot shaft. See [“Pivot shaft removal” on page 385](#).
- 3 Remove duplex inner guide. See [“Duplex inner guide removal” on page 385](#).
- 4 Remove the tray indicator (A).



- 5 Remove the 12 screws (B), and then remove the front door cover from the duplex outer guide.

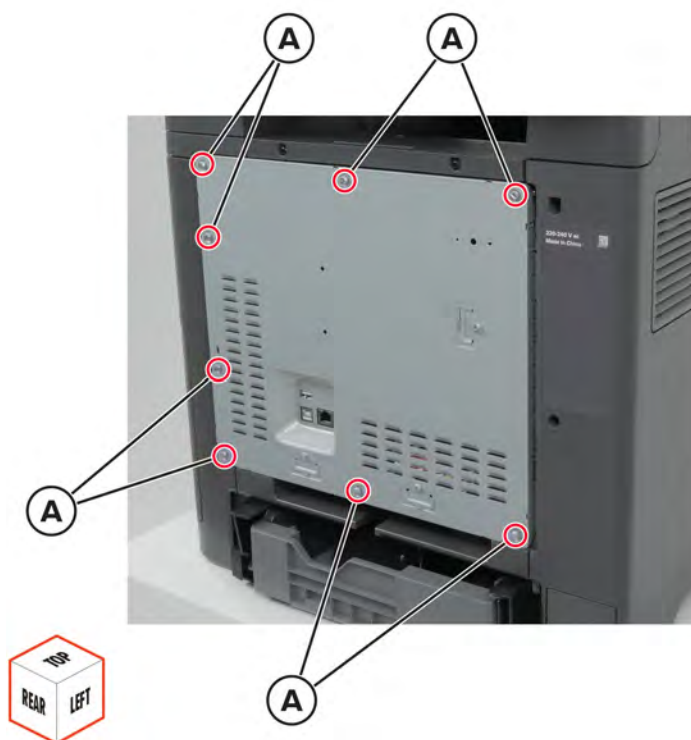




## Rear side removals

### Controller board shield removal

- 1 Remove the eight screws (A).



- 2 Remove the shield.

**Installation warning:** The screws may damage the board cables. Make sure that the board cables are out of the way before screwing the shield in place.

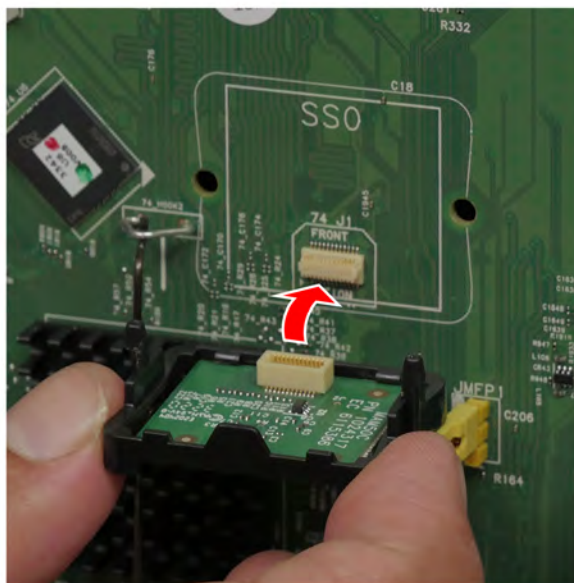
### ISD card removal

- 1 Remove the controller board shield. See [“Controller board shield removal” on page 393](#).
- 2 Release the latches, and then remove the card.

**Warning—Potential Damage:** To avoid electrical damage, make sure that the printer is unplugged.



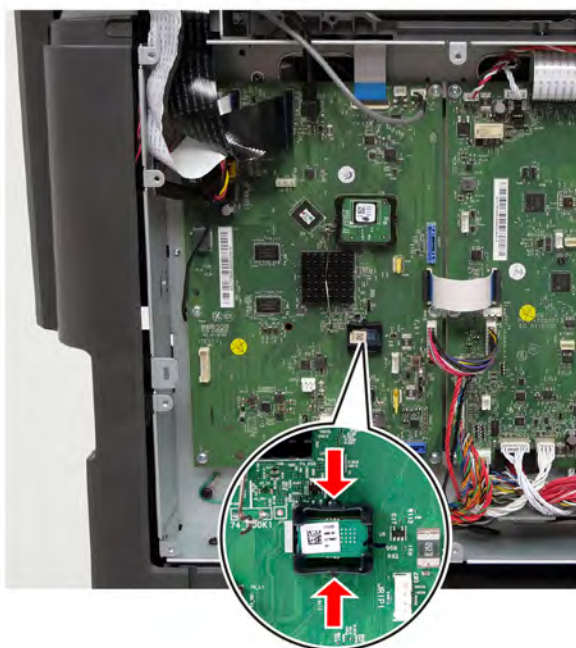
**Installation note:** Make sure that the connector is plugged.



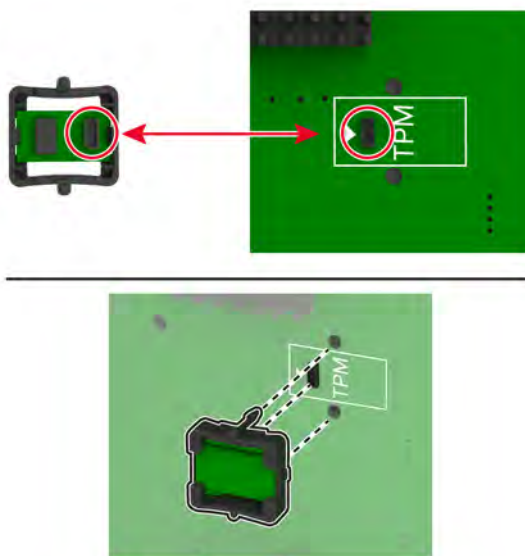
## TPM card removal

- 1 Remove the controller board shield. See [“Controller board shield removal” on page 393](#).
- 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.

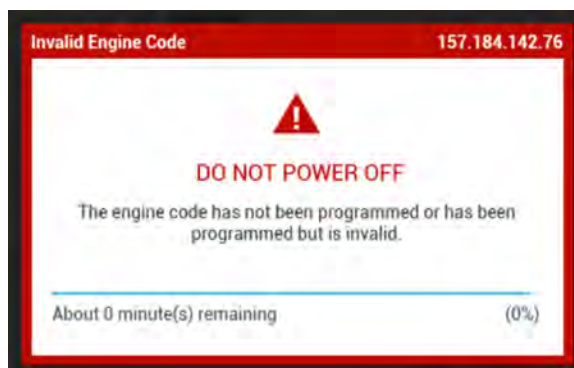


## Controller board removal

### Critical information for controller board or engine board replacement

Read the following instructions carefully before performing them. Practice accessing DIAGNOSTICS\_MODE first before replacing the part. See [“Entering the Diagnostics Menu” on page 267](#).

**Warning—Potential Damage:** An invalid engine code error occurs if the controller board and engine board are not on the same firmware level. Resolve the error shown with firmware updates. For more information, see [“Entering Invalid engine mode” on page 286](#) and [“Updating the printer firmware ” on page 299](#).



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

- Engine board
- Controller board

To replace a component and to test whether the problem is resolved:

- 1 Replace the affected component.

**Warning—Potential Damage:** Do not perform a Power-On Reset (POR) until the problem is resolved. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

- 2 Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

**Warning—Potential Damage:** Some printers will automatically perform 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 reinstall the old part.
  - If the problem is resolved—Perform a POR.

## Removal procedure

**Note:** For a video demonstration, see [Replacing the controller board](#).

- 1 Remove the controller board shield. See [“Controller board shield removal” on page 393](#).
- 2 Disconnect all the cables, and then remove the six screws (A).



- 3 Remove the board.

**Installation notes:**

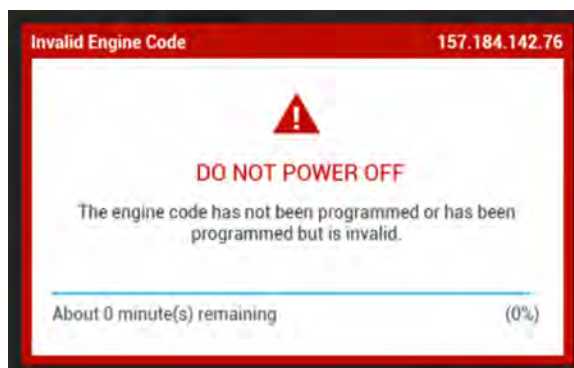
- a Some controller boards have a TPM card or ISD card attached. Make sure to install these cards to the new controller board. See [“ISD card removal” on page 393](#) and [“TPM card removal” on page 394](#).
- b After the new controller board is installed, restore the printer configuration. See [“Restoring the printer configuration after replacing the controller board” on page 295](#).

## Engine board removal

### Critical information for controller board or engine board replacement

Read the following instructions carefully before performing them. Practice accessing DIAGNOSTICS\_MODE first before replacing the part. See [“Entering the Diagnostics Menu” on page 267](#).

**Warning—Potential Damage:** An invalid engine code error occurs if the controller board and engine board are not on the same firmware level. Resolve the error shown with firmware updates. For more information, see [“Entering Invalid engine mode” on page 286](#) and [“Updating the printer firmware ” on page 299](#).



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

- Engine board
- Controller board

To replace a component and to test whether the problem is resolved:

**1** Replace the affected component.

**Warning—Potential Damage:** Do not perform a Power-On Reset (POR) until the problem is resolved. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

**2** Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

**Warning—Potential Damage:** Some printers will automatically perform 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.

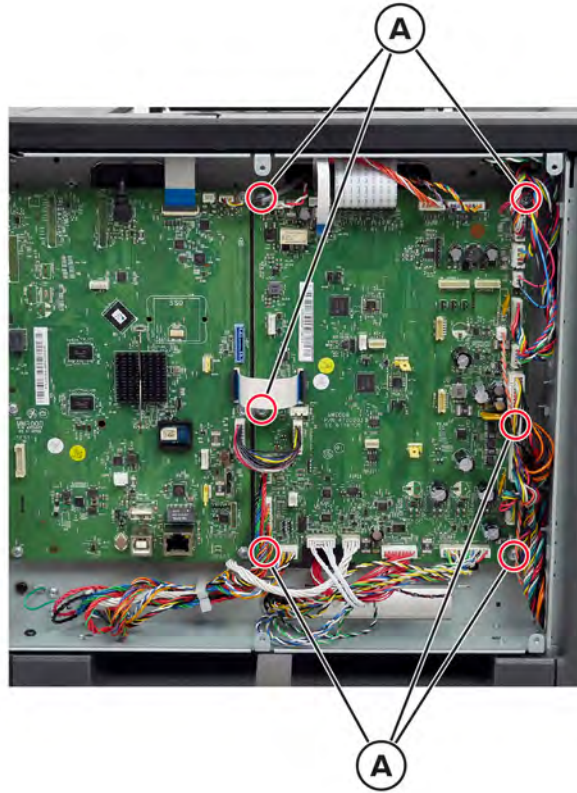
**3** Use the Diagnostics Menu to test the replacement part. Perform a feed test to check if the problem is resolved.

- If the problem is not resolved—Turn off the printer, and then reinstall the old part.
- If the problem is resolved—Perform a POR.

## Removal procedure

**Note:** For a video demonstration, see [Replacing the engine board](#).

- 1 Remove the controller board shield. See [“Controller board shield removal” on page 393](#).
- 2 Disconnect all the cables, and then remove the six screws (A).



- 3 Remove the board.

## Top side removals

### Top cover removal

- 1 Open the front door, and then open door A1.

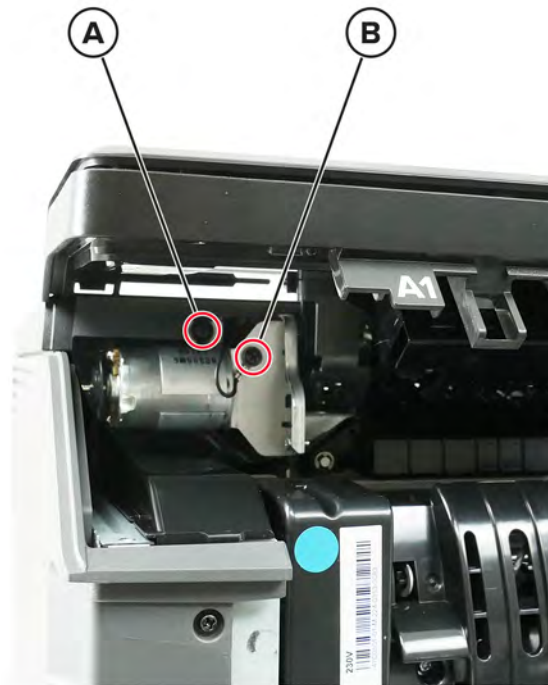


Parts removal

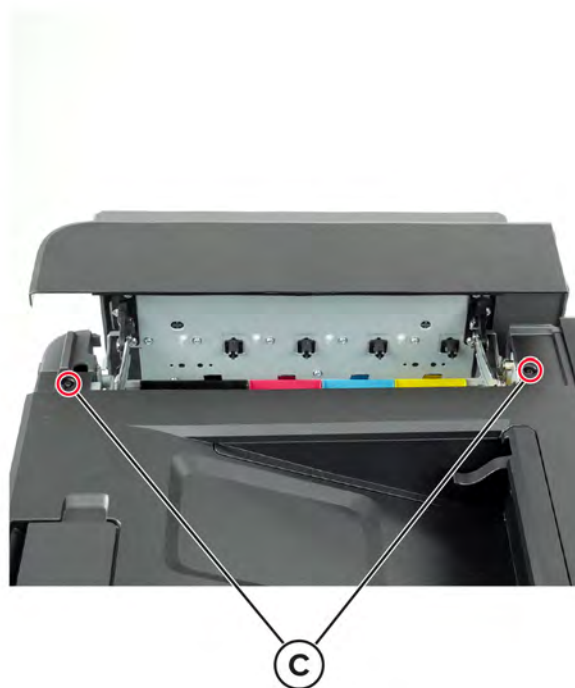
**400**



**2** Remove the screw (A) and ground screw (B).



**3** Open the cartridge door, and then remove the two screws (C).



Parts removal

**401**

4 Remove the screw (D).



5 Remove the screw (E).



Parts removal

**402**

- 6 Lift the cover, and then disconnect the cable (F).

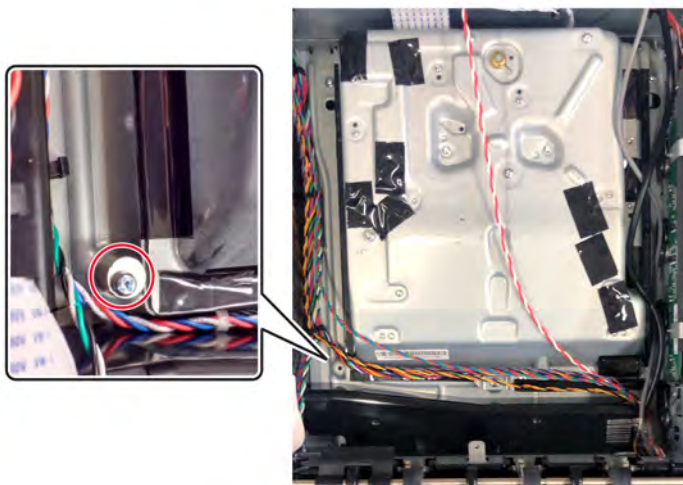


- 7 Remove the cover.

## Printhead removal

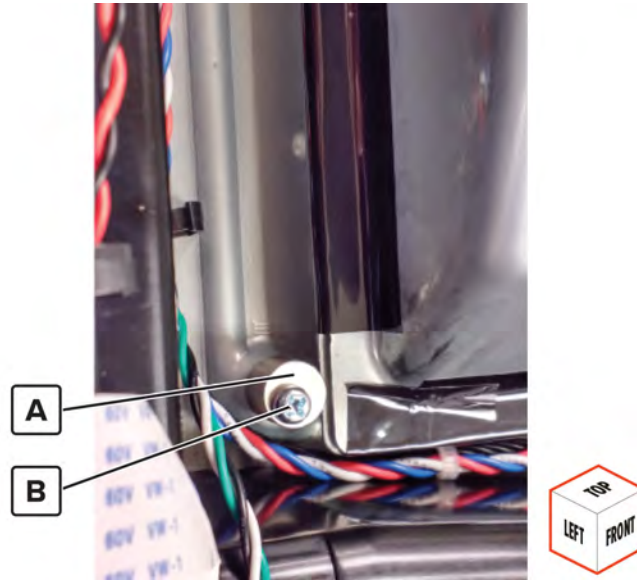
**Note:** For a video demonstration, see [Replacing the printhead](#).

- 1 Remove the controller board shield. See [“Controller board shield removal” on page 393](#).
- 2 Remove the top cover. See [“Top cover removal” on page 400](#).
- 3 Before removing the printhead, do the following:
  - a Check if a printhead stop is installed on the old printhead. If there is none, a printhead stop is included with the new printhead.

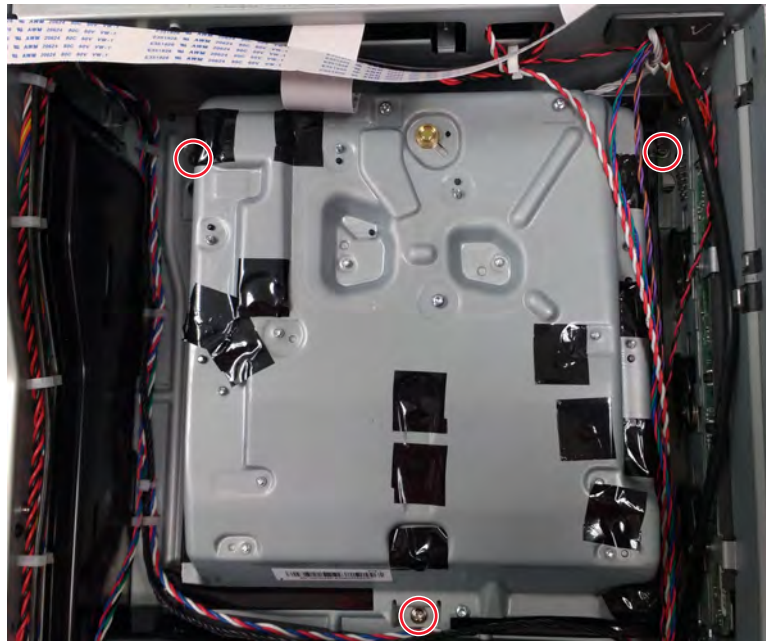


- b If no stop is installed, then place the stop (A) next to the printhead and turn the stop until it touches the printhead.

c Fasten the stop with the screw (B).



4 Remove the three screws.



- 5 Disconnect the cables (A).



- 6 Remove the printhead.

**Installation notes:**

- a When installing the printhead, replace the screws but do not tighten them right away. After installing the screws, turn the printhead clockwise until it stops.
- b Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Registration adjust > Quick test**
- c If the printhead needs alignment, perform a printhead alignment adjustment. See [“Printhead alignment adjustment” on page 301](#).
- d Tighten the screws.
- e Perform a color alignment adjustment. See [“Color alignment adjust” on page 279](#).

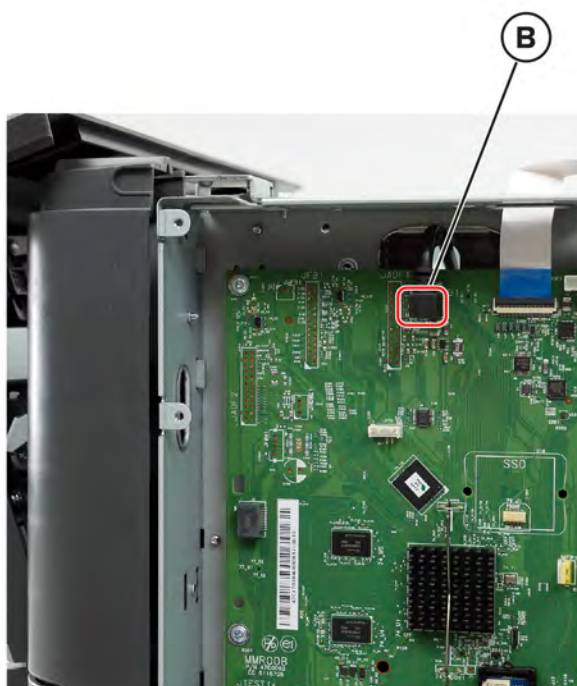
## USB socket cable removal

- 1 Remove the controller board shield. See [“Controller board shield removal” on page 393](#).
- 2 Remove the control panel cover. See [“Control panel cover removal” on page 351](#).
- 3 Remove the top cover. See [“Top cover removal” on page 400](#).

**4** Remove the two screws (A).



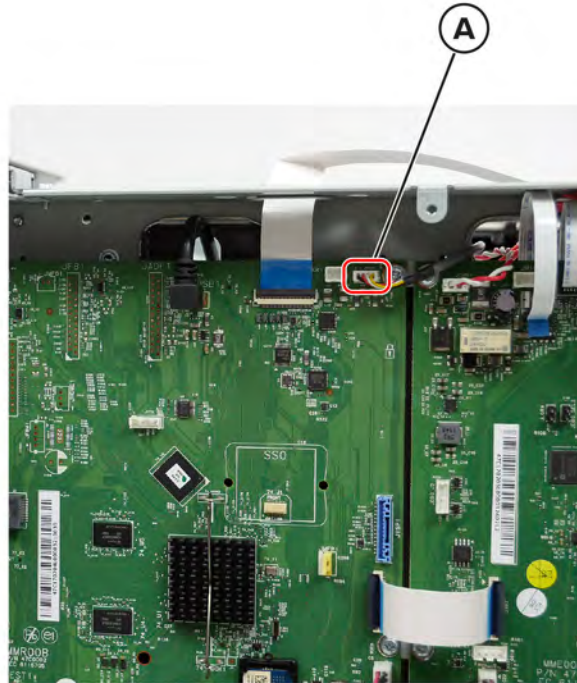
**5** Disconnect the cable (B).



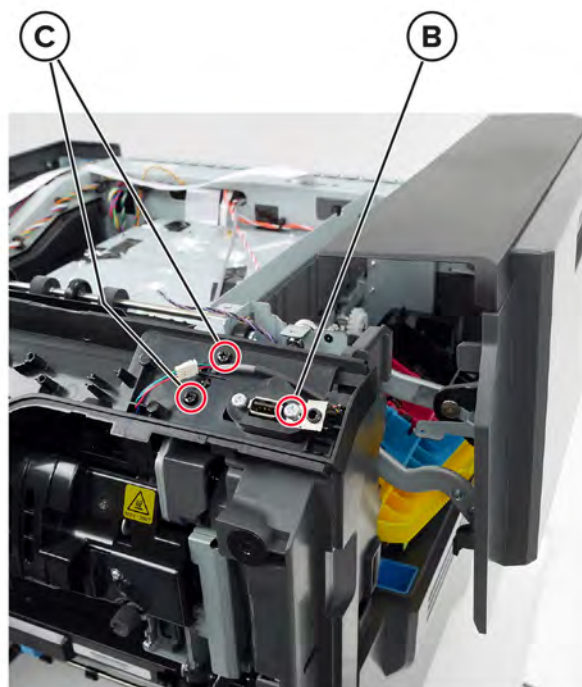
**6** Remove the cable.

## Headphone socket cable removal

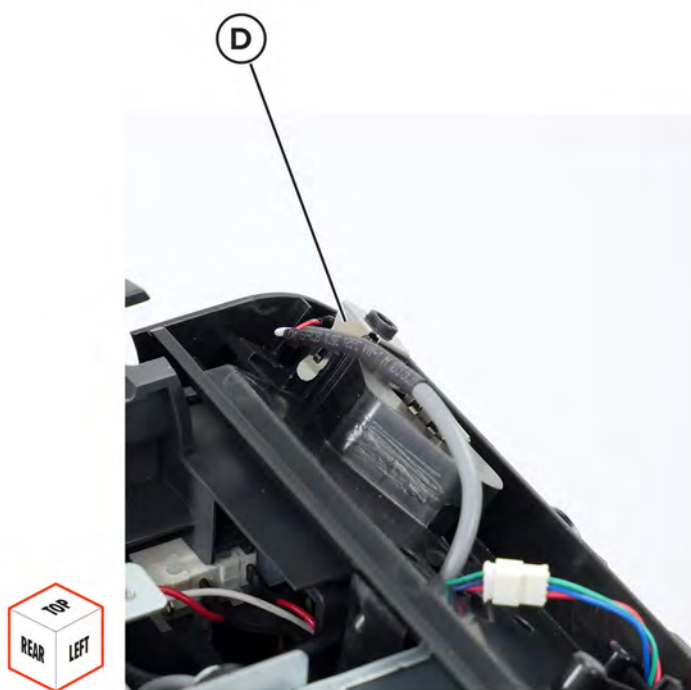
- 1 Remove the controller board shield. See [“Controller board shield removal” on page 393.](#)
- 2 Remove the control panel cover. See [“Control panel cover removal” on page 351.](#)
- 3 Remove the top cover. See [“Top cover removal” on page 400.](#)
- 4 Disconnect the cable (A).



**5** Remove the screw (B) and the two screws (C).



**6** Release the retainer (D), and then release the headphone socket.



**7** Remove the cable.



## Control panel FFC removal

- 1 Remove the controller board shield. See [“Controller board shield removal” on page 393.](#)
- 2 Remove the control panel. See [“Control panel display removal” on page 369.](#)
- 3 Remove the top cover. See [“Top cover removal” on page 400.](#)
- 4 Disconnect the cable (A).



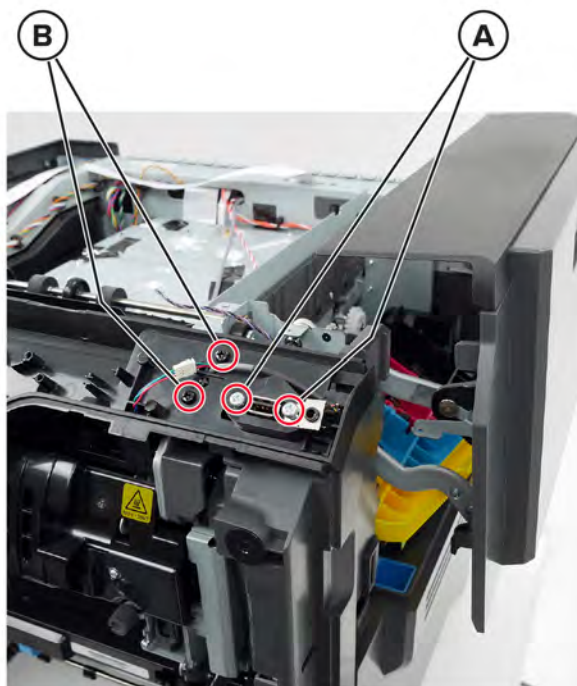
- 5 Remove the cable.

**Installation note:** Pay attention to the cable route.

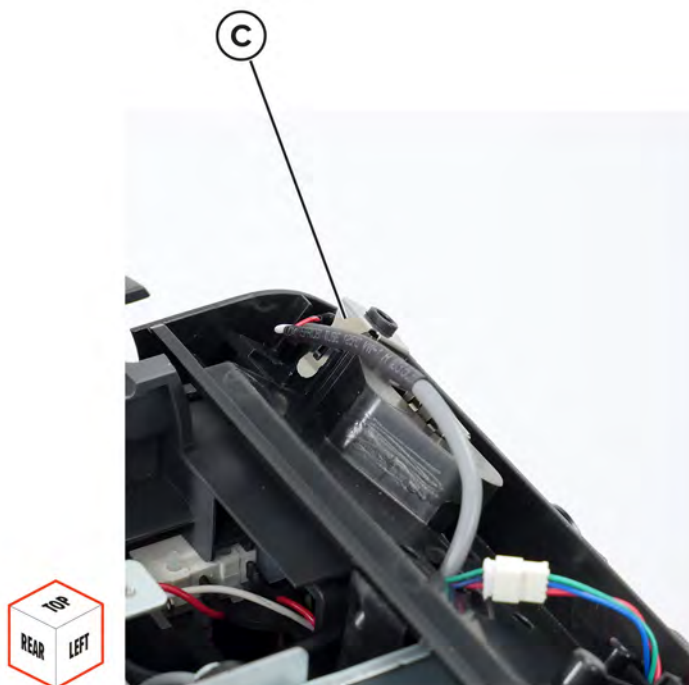


## Control panel base cover removal

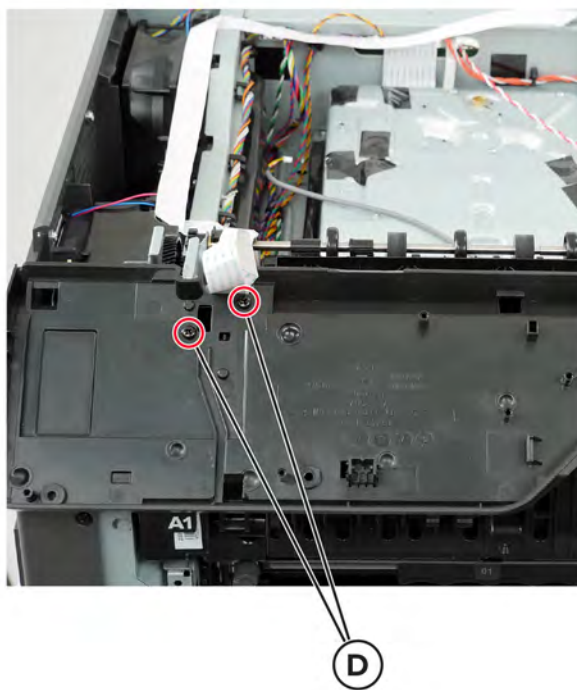
- 1 Remove the control panel cover. See [“Control panel cover removal” on page 351](#).
- 2 Remove the two screws (A) and two screws (B).



- 3 Release the retainer (C), and then release the headphone socket.



**4** Remove the two screws (D).



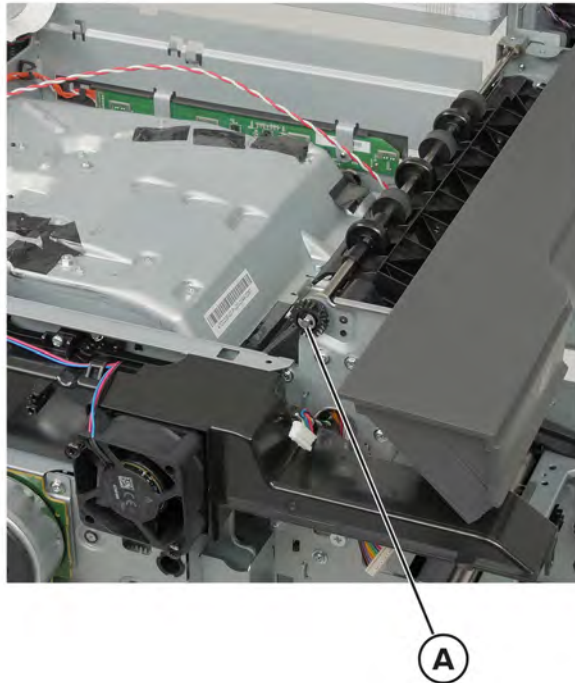
**5** Disconnect the cable (E).



**6** Release the cables, and then remove the cover.

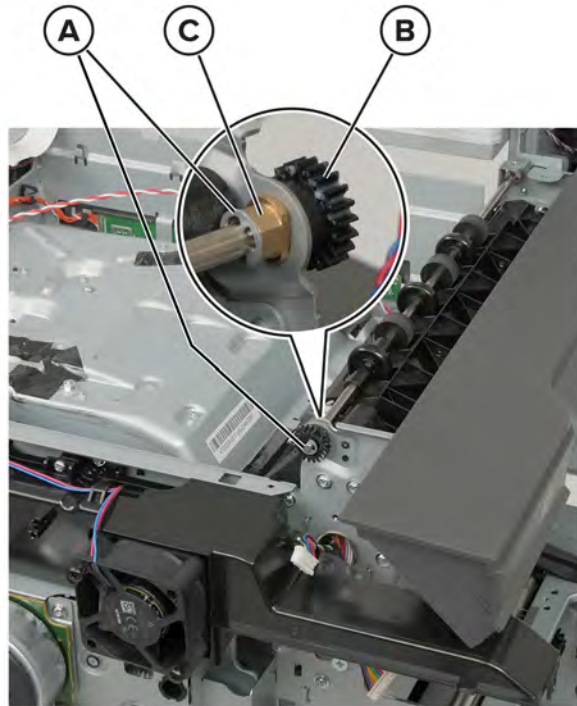
## Exit roller gear removal

- 1 Remove the top cover. See [“Top cover removal” on page 400](#).
- 2 Remove the E-clip (A), and then remove the gear.



## Exit roller removal

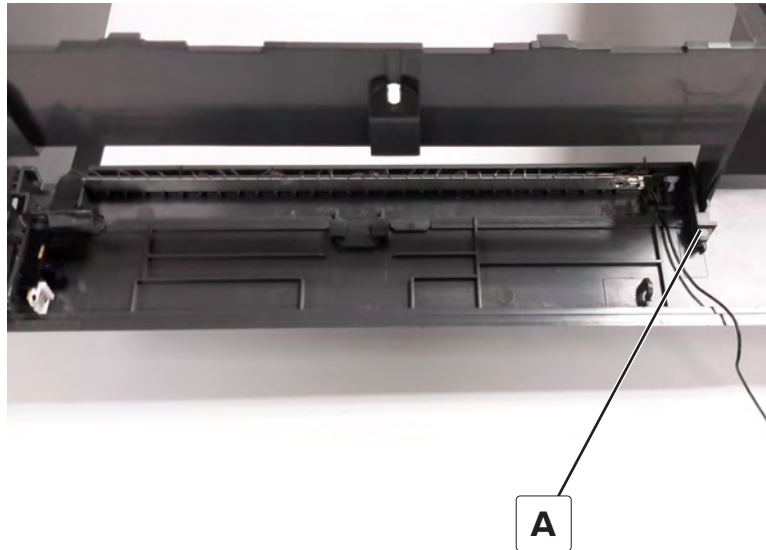
- 1 Remove the top cover. See [“Top cover removal” on page 400](#).
- 2 Remove the two E-clips (A), and then remove the gear (B) and bushing (C).



- 3 Remove the roller.

## Bin exit cover removal

- 1 Remove the top cover. See [“Top cover removal” on page 400.](#)
- 2 Disengage the tab (A), and then remove the cable from the tabs.



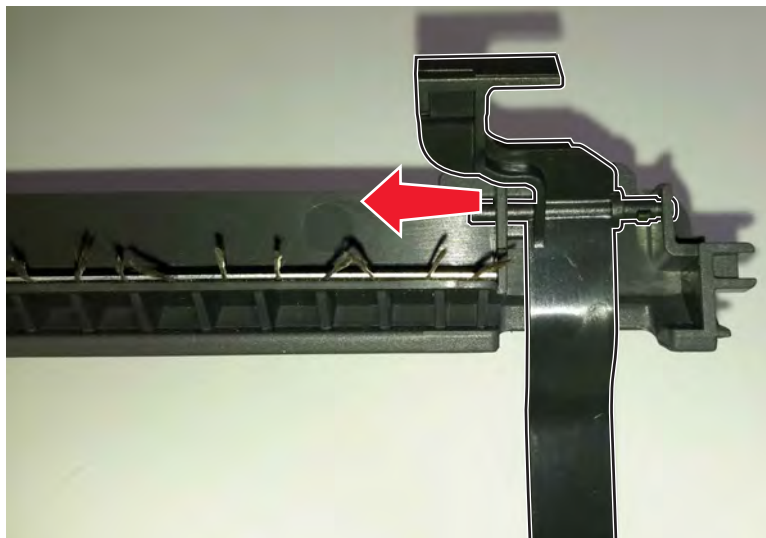
- 3 Remove the cover.



## Bin flag removal

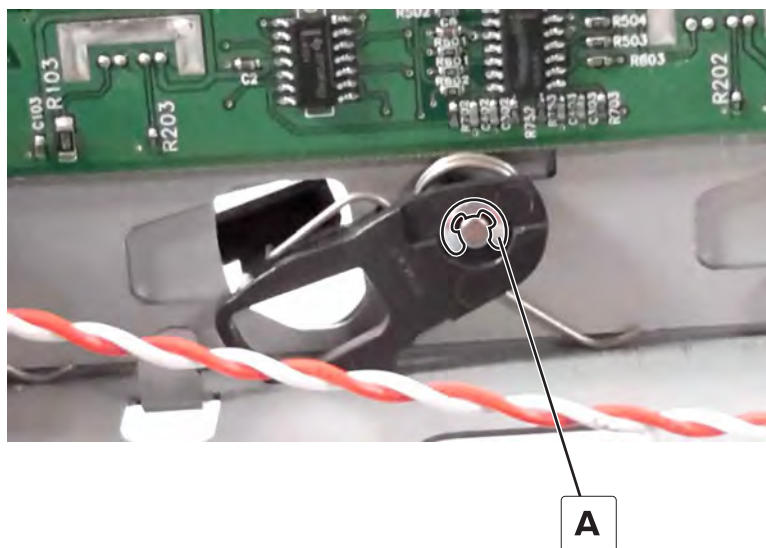
- 1 Remove the top cover. See [“Top cover removal” on page 400.](#)
- 2 Remove the bin exit cover. See [“Bin exit cover removal” on page 414.](#)

- 3 Slide the flag to the left to remove.

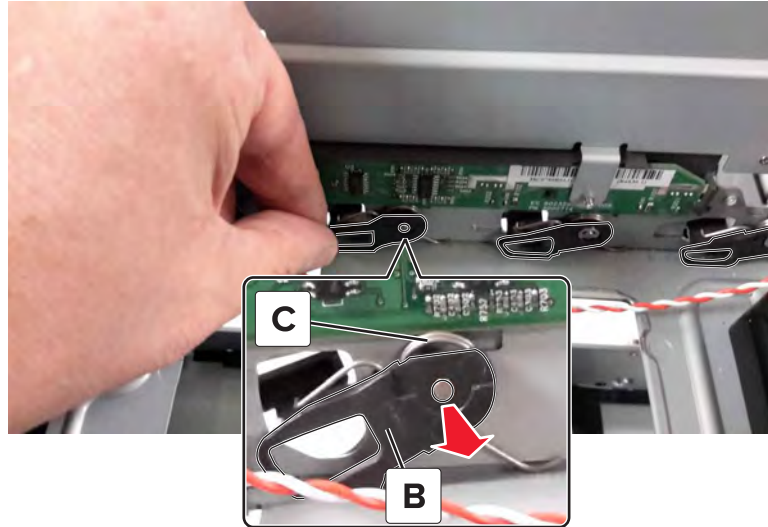


### Developer hold down arm removal

- 1 Remove the controller board shield. See [“Controller board shield removal” on page 393.](#)
- 2 Remove the top cover. See [“Top cover removal” on page 400.](#)
- 3 Remove the printhead. See [“Printhead removal” on page 403.](#)
- 4 Remove the E-clip (A).



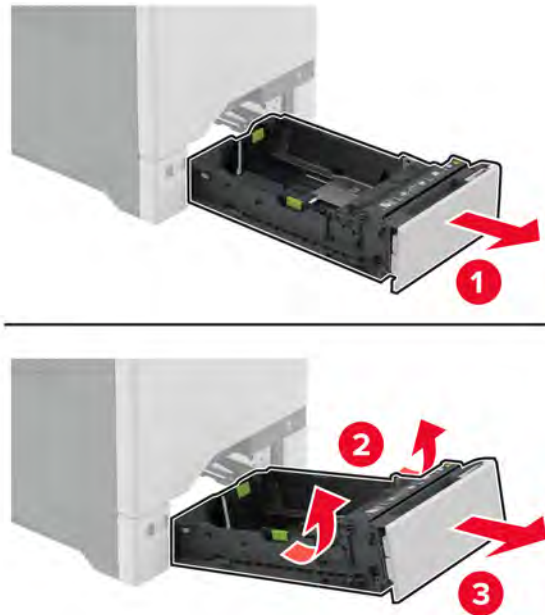
- 5 Pull the bell crank (B) and spring (C) off the mounting pin, and then remove the developer hold down arm.



## Bottom side removals

### 550-sheet tray insert removal

Remove the tray.



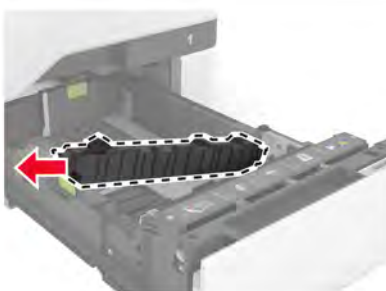


## Separator bracket removal

1 Pull out the tray.



2 Remove the separator bracket.

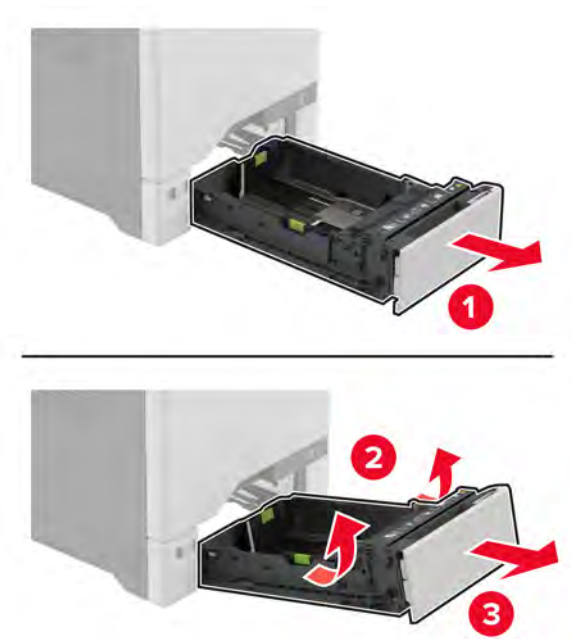


Parts removal

## Pick roller removals

### Tray 1 pick roller removal

- 1 Remove the tray.

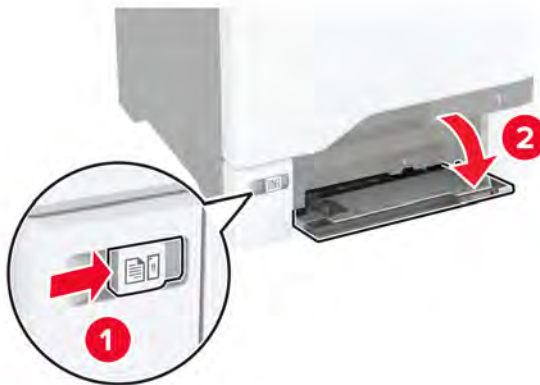


2 Remove the pick roller.



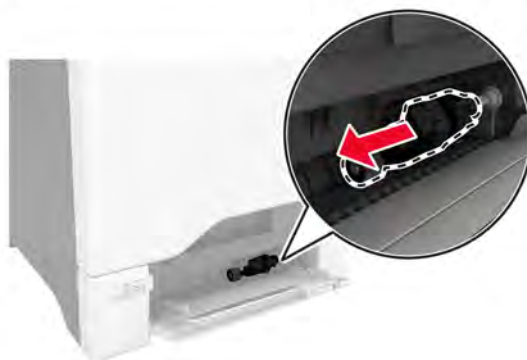
### MPF pick roller removal

1 Open the multipurpose feeder.



Parts removal

- 2 Remove the pick roller.

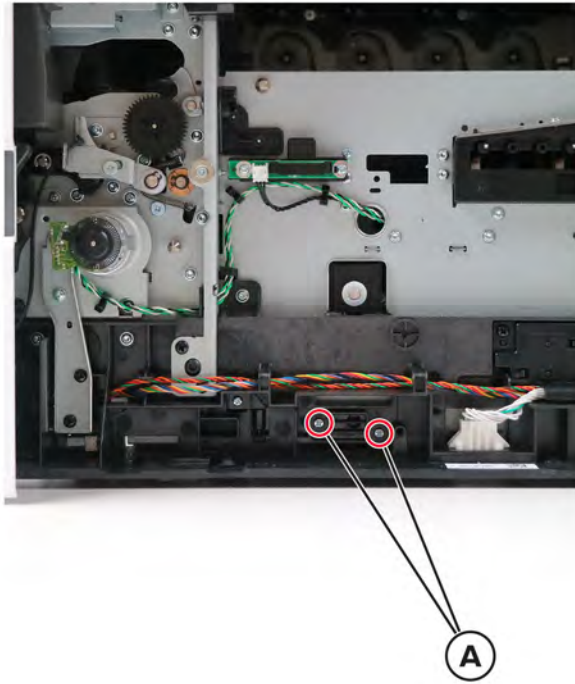


## Tray rail removal

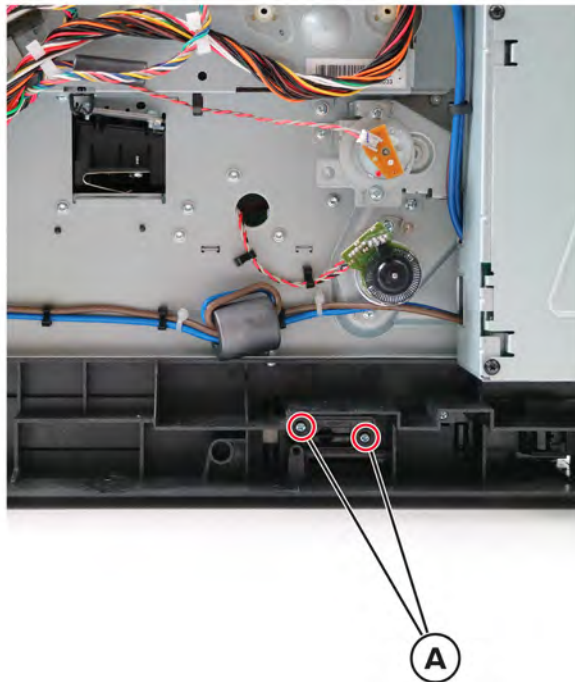
- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Remove the tray insert. See [“550-sheet tray insert removal” on page 416.](#)
- 3 Remove the left cover. See [“Left cover removal” on page 307.](#)
- 4 Remove the motor cover. See [“Motor cover removal” on page 356.](#)
- 5 Remove the right cover. See [“Right cover removal” on page 334.](#)

**6** Remove the screws (A), and then remove the tray rail stops.

- Right side

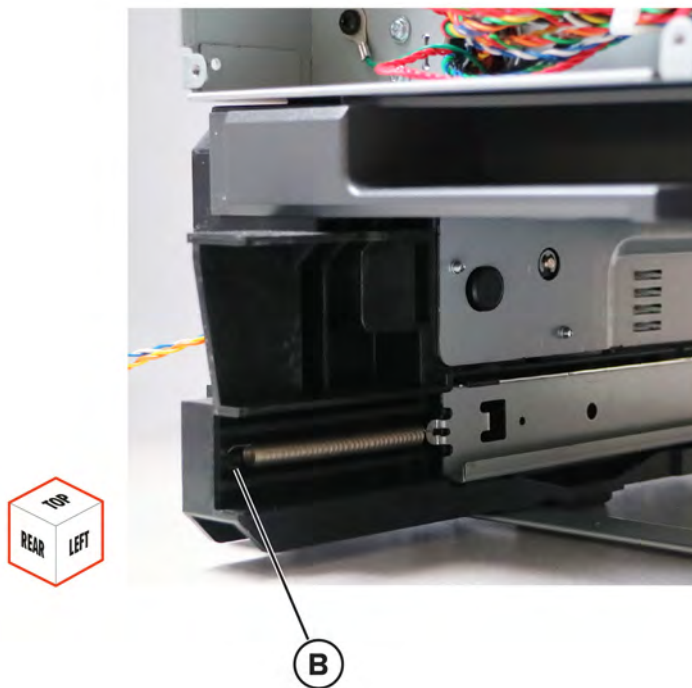


- Left side

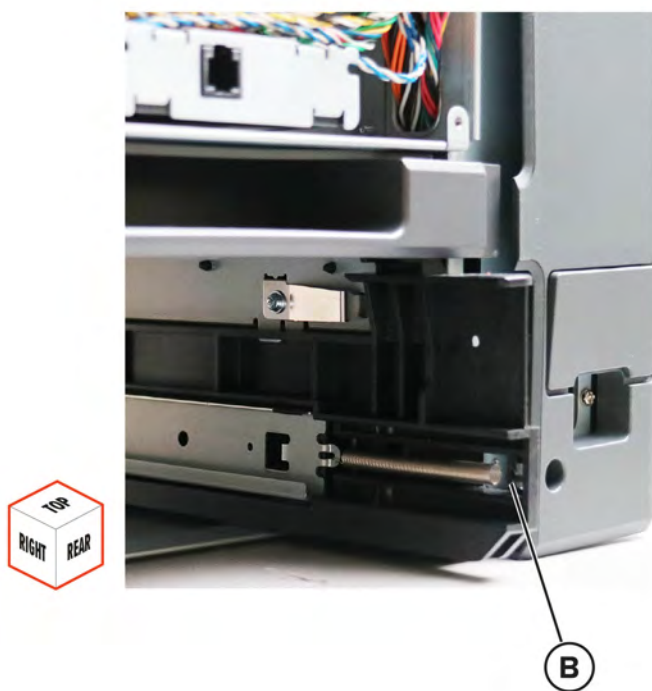


**7** Release the springs (B).

- Right side



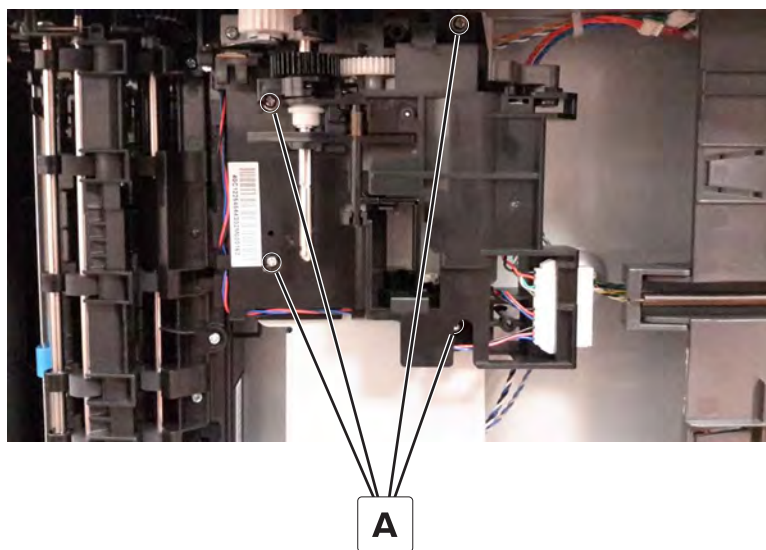
- Left side

**8** Remove the tray rails.

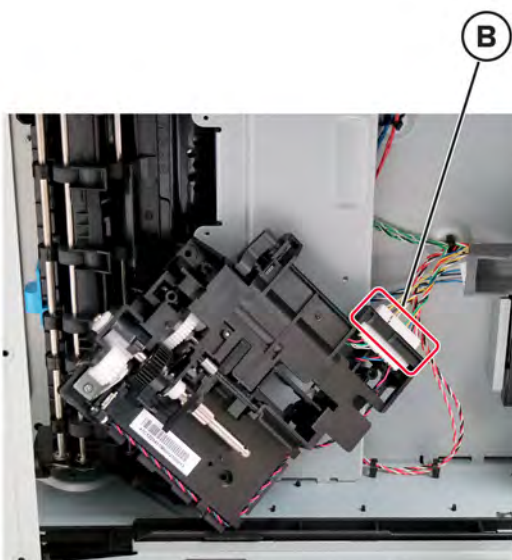
## Paper feeder removal

**Warning—Potential Damage:** Remove the waste toner bottle and imaging kit first before removing the paper feeder. Failure to do this can lead to toner spillage and damage to the printer.

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Remove the imaging kit. See [“Imaging kit removal” on page 332.](#)
- 3 Remove the tray insert. See [“550-sheet tray insert removal” on page 416.](#)
- 4 Remove the tray 1 pick roller. See [“Pick roller removals” on page 418.](#)
- 5 Place the printer on its back, and then disconnect the cables.
- 6 Remove the four screws (A).



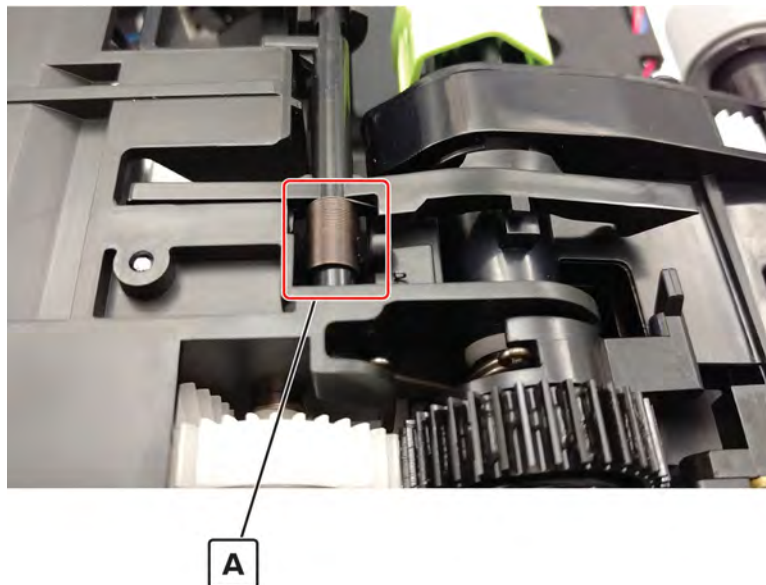
- 7 Disconnect the cable (B), and then remove the paper feeder.



Parts removal

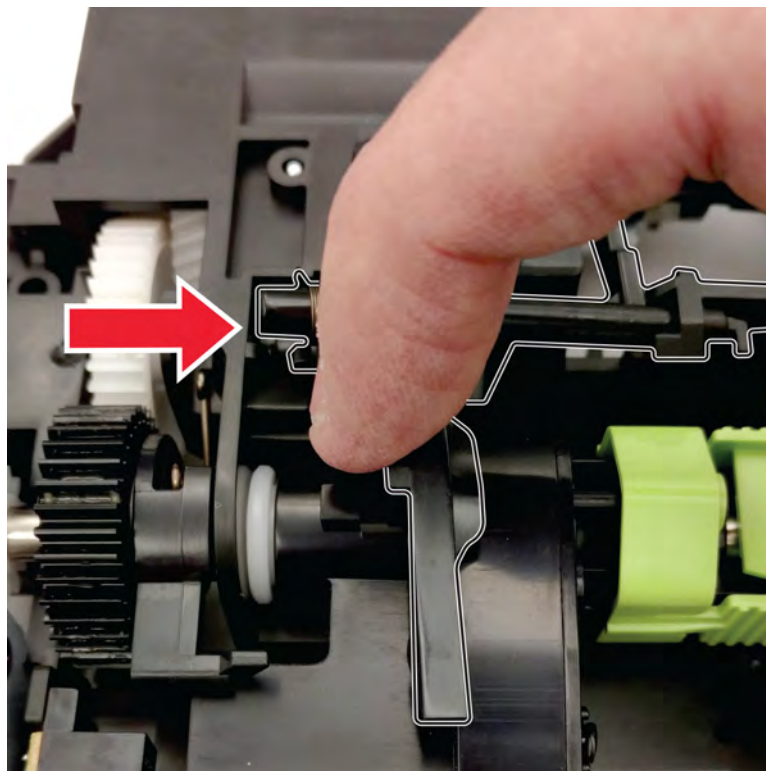
## Paper out actuator spring removal

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Remove the imaging kit. See [“Imaging kit removal” on page 332.](#)
- 3 Remove the tray insert. See [“550-sheet tray insert removal” on page 416.](#)
- 4 Remove the tray 1 pick roller. See [“Pick roller removals” on page 418.](#)
- 5 Remove the paper feeder. See [“Paper feeder removal” on page 423.](#)
- 6 Pay attention to the position of the paper out actuator spring (A).





7 Move the actuator to the right, and then release it.



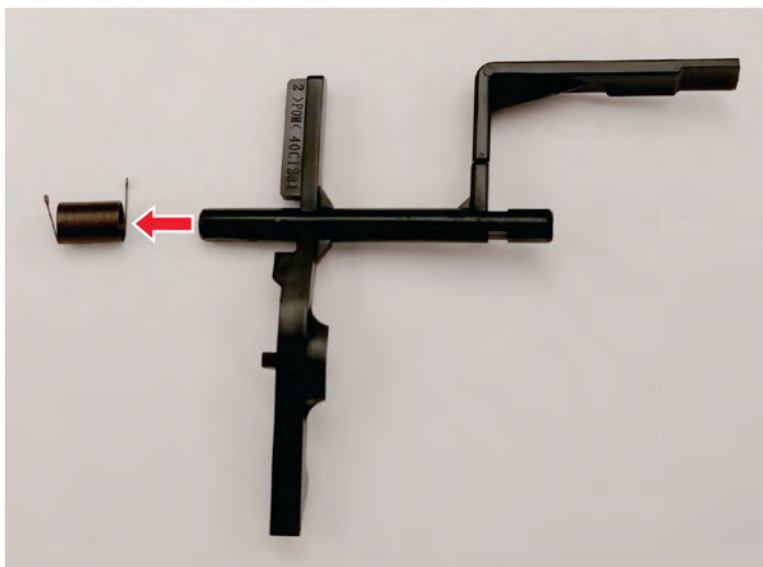
8 Remove the actuator.



Parts removal

425

- 9 Remove the spring.



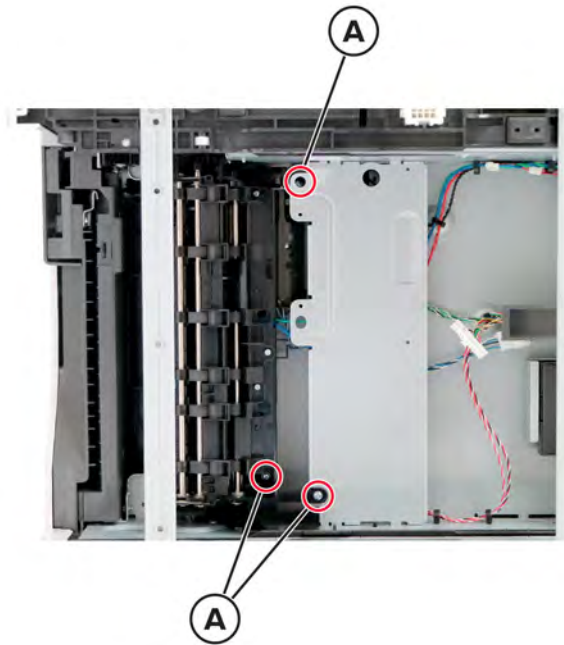
**Installation note:** When installing the spring, make sure to install it as shown in step 6.

## Isolation unit removal

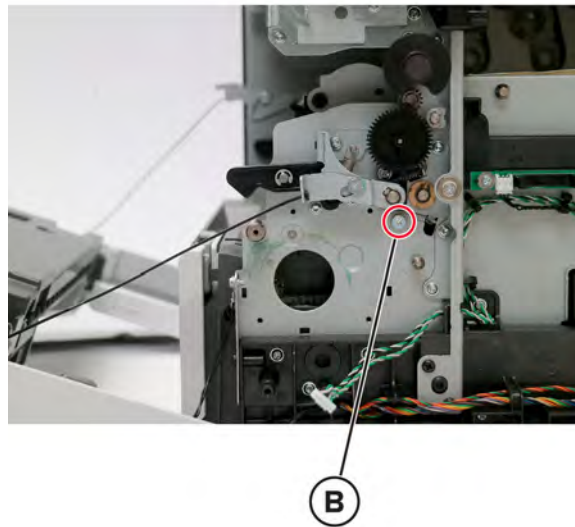
**Warning—Potential Damage:** To avoid toner spillage and printer damage, remove the waste toner bottle and imaging kit first before removing the isolation unit.

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Remove the imaging kit. See [“Imaging kit removal” on page 332.](#)
- 3 Remove the tray insert. See [“550-sheet tray insert removal” on page 416.](#)
- 4 Remove the tray 1 pick roller. See [“Pick roller removals” on page 418.](#)
- 5 Remove the paper feeder. See [“Paper feeder removal” on page 423.](#)
- 6 Remove the motor cover. See [“Motor cover removal” on page 356.](#)
- 7 Remove the right cover. See [“Right cover removal” on page 334.](#)
- 8 Remove the motor (duplex/MPF). See [“Motor \(duplex/MPF\) removal” on page 343.](#)

9 Remove the three screws (A) that are securing the isolation unit.



10 Remove the biasing screw (B).

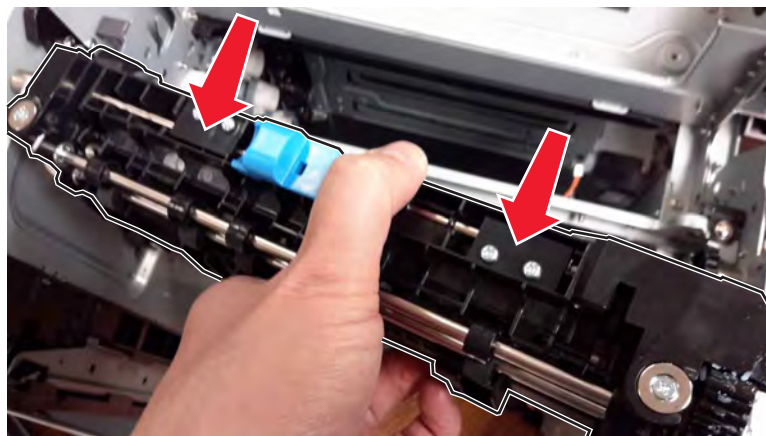


**Installation note:** Make sure to install the biasing screw first before installing the other three screws.

**11** Disconnect the motor cable (C) and sensor cable (D).



**12** Tilt the right portion of the isolation unit to the front, and then remove the unit.



**13** Release the isolation unit cables from the printer.

## Optional 550-sheet tray removals

### Optional 550-sheet tray removal

Unlock, and then remove the tray.





# Component locations

## Printer configurations



<b>1</b>	Standard bin
<b>2</b>	650-sheet duo tray <b>Note:</b> The tray is composed of a 550-sheet tray and a 100-sheet multipurpose feeder.
<b>3</b>	Optional 550-sheet trays
<b>4</b>	Control panel

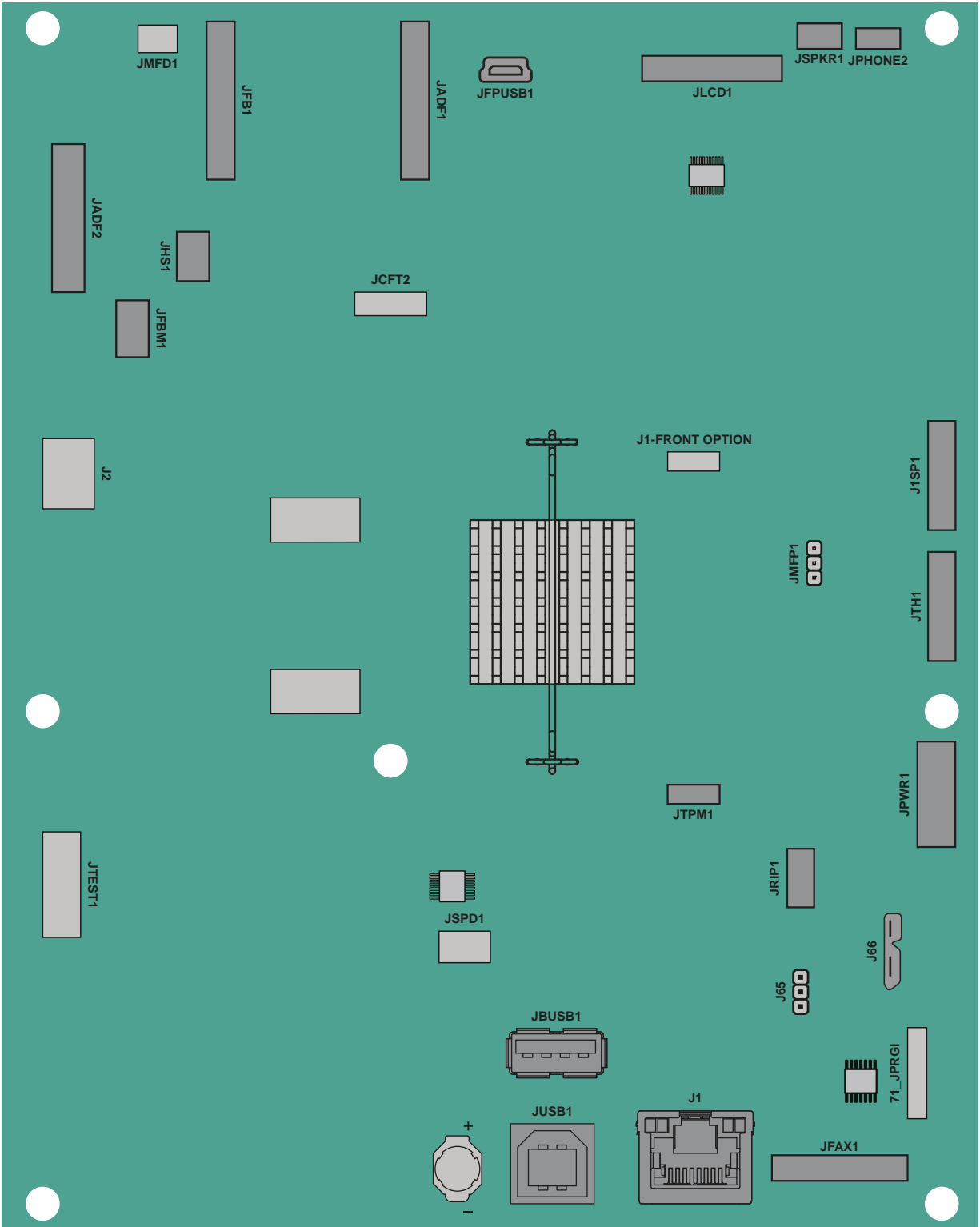
## Port locations



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



# Controller board and engine board connectors



Component locations

**Controller board connectors**

Connector	Connects to
J61	Wireless module
J65	Connector jumper
JBUSB1	Rear USB port
JETH1	Ethernet port
JFPUSB1	Front USB port
JISP1	Internal Solutions Port
JLCD1	Control panel display
JMFP1	Connector jumper
JPHONE1	Headphones
JPWR1	Engine board, power connection
JSPKR1	Speaker
JTH1	Engine board, data connection
JTPM	Trusted Platform Module
JUSB1	USB printer port

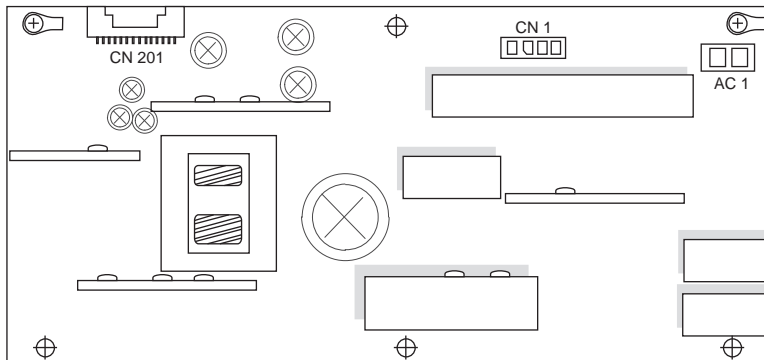


## Engine board connectors

Connector	Connects to
J72	Connector jumper
JBOR1	Motor (BOR)
JCDRV1	Motor (CMY)
JCTM1	TMC card
JCVR1	Interlock switches
JDSNS1	<ul style="list-style-type: none"> <li>• Sensor (redrive)</li> <li>• Sensor (exit/bin full)</li> </ul>
JFAN2	Main fan
JFDRV1	Motor (fuser)
JFSNS1	Sensor (fuser present)
JHVPS1	HVPS
JKDRV1	Motor (K/transfer belt)
JLVPS1	LVPS
JMIRR1	Printhead mirror
JMIRR2	Printhead mirror
JMSPZ1	<ul style="list-style-type: none"> <li>• Sensor (tray 1 paper size)</li> <li>• Sensor (MPF paper present)</li> <li>• Front door sensors <ul style="list-style-type: none"> <li>– Sensor (duplex staging)</li> <li>– Sensor (fuser buckle)</li> <li>– Sensor (narrow media)</li> </ul> </li> </ul>
JMTR1	<ul style="list-style-type: none"> <li>• Pick drive <ul style="list-style-type: none"> <li>– Motor (tray 1 pick)</li> <li>– Sensor (tray 1 pick position)</li> <li>– Sensor (tray 1 paper present)</li> </ul> </li> <li>• Motor (deskew)</li> <li>• Motor (duplex/MPF)</li> <li>• Isolation unit <ul style="list-style-type: none"> <li>– Motor (isolation)</li> </ul> </li> </ul>
JMTREN2	Connector jumper
JOPT1	Optional tray
JOUTDC1	Motor (exit/redrive)
JPH1	Printhead

Connector	Connects to
JPKSNS1	<ul style="list-style-type: none"> <li>• Sensor (waste toner contact)</li> <li>• Sensor (input)</li> <li>• Isolation unit               <ul style="list-style-type: none"> <li>– Sensor (tray 1 pick)</li> <li>– Sensor (MPF/pass-through)</li> </ul> </li> </ul>
JPWR2	Controller board, power connection
JTH2	Controller board, data connection
JTPS_C1	Sensor (TPS)
JWTH_SC1	<ul style="list-style-type: none"> <li>• Sensor (weather station)</li> <li>• Imaging unit and imaging kit</li> </ul>

## LVPS board connectors

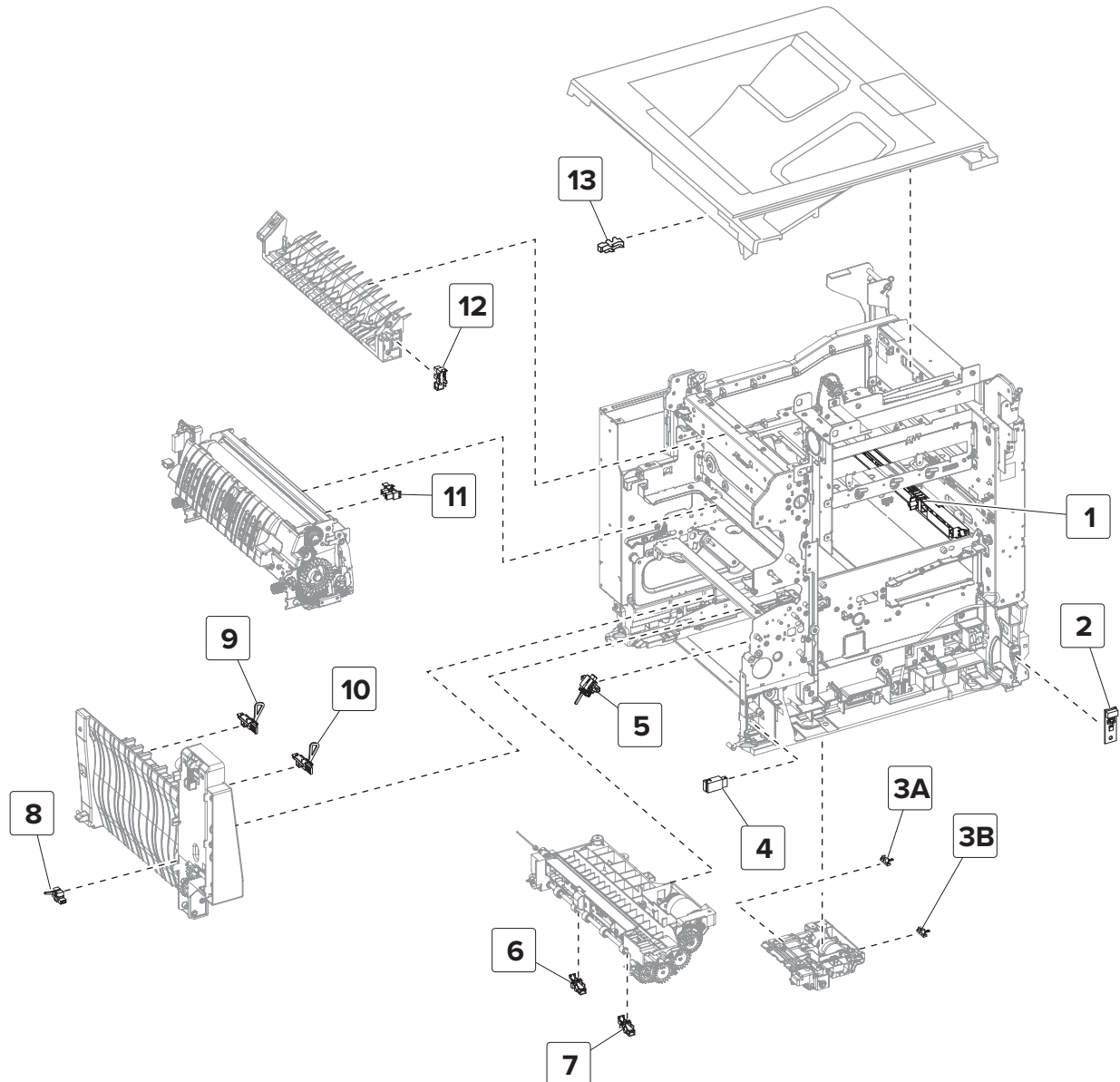


Connector	Connects to	Pin no.	Signal
CN201	Engine board	1	+25V
		2	GND
		3	+25V
		4	GND
		5	+25V
		6	GND
		7	+25V
		8	GND
		9	+25V
		10	GND
		11	+25V
		12	GND
		13	+25V
		14	GND
		15	+25V
		16	GND
		17	GND
		18	GND
		19	Zero_Cross
		20	Heat_On2
		21	Heat_On1
		22	Main_On_Off
		23	Tx_PwrMtr
		24	Relay_Drive
		25	Ground
		26	+6.5V
		27	+6.5V
		28	+6.5V
		29	Rx_PwrMtr
		30	Heat_On3
CN1	Fuser	1	AC Common
		2	AC Out 3
		3	AC Out 2
		4	AC Out 1

Component locations

Connector	Connects to	Pin no.	Signal
AC1	AC line in	1	Phase
		2	Neutral

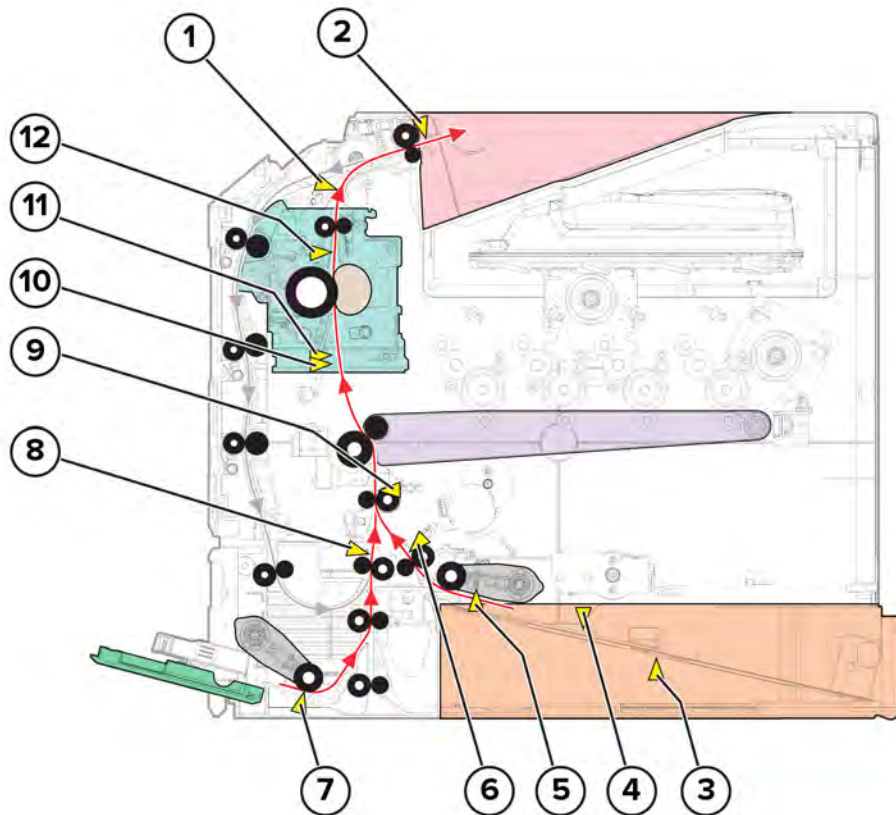
## Sensor locations



Component locations

<b>1</b>	Sensor (TPS)
<b>2</b>	Sensor (weather station)
<b>3A</b>	Sensor (tray 1 paper present)
<b>3B</b>	Sensor (pick position)
<b>4</b>	Sensor (MPF paper present)
<b>5</b>	Sensor (input)
<b>6</b>	Sensor (tray 1 pick)
<b>7</b>	Sensor (MPF/pass-through)
<b>8</b>	Sensor (duplex staging)
<b>9</b>	Sensor (narrow media)
<b>10</b>	Sensor (fuser buckle)
<b>11</b>	Sensor (fuser exit)
<b>12</b>	Sensor (redrive)
<b>13</b>	Sensor (exit/bin full)

## Standard paper path sensors

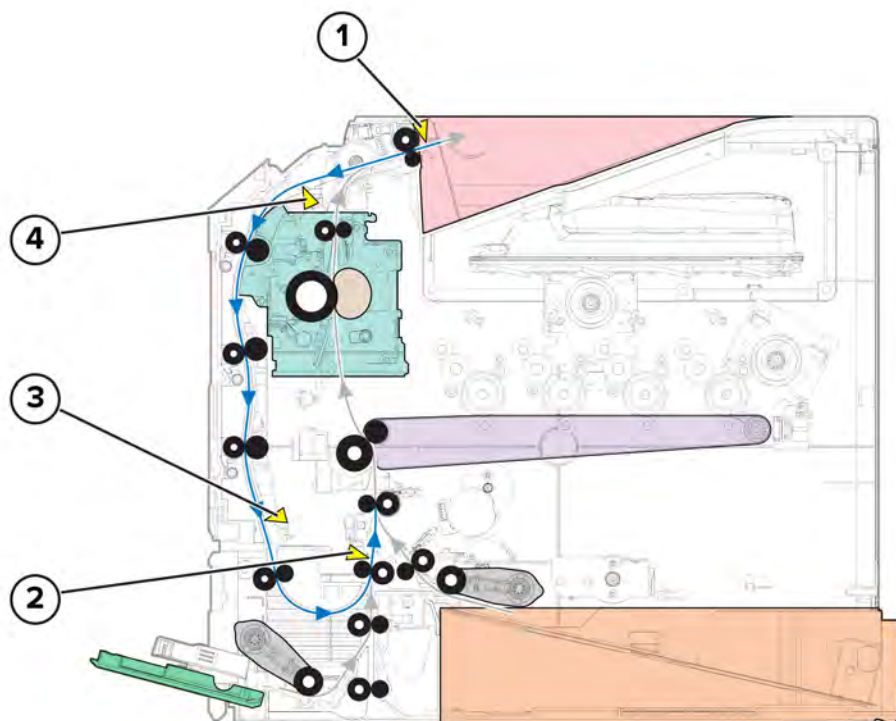


Component locations



1	Sensor (redrive)
2	Sensor (exit/bin full)
3	Sensor (paper size)
4	Sensor (tray 1 paper present)
5	Sensor (pick position)
6	Sensor (tray 1 pick)
7	Sensor (MPF paper present)
8	Sensor (MPF/pass-through)
9	Sensor (input)
10	Sensor (fuser buckle)
11	Sensor (narrow media)
12	Sensor (fuser exit)

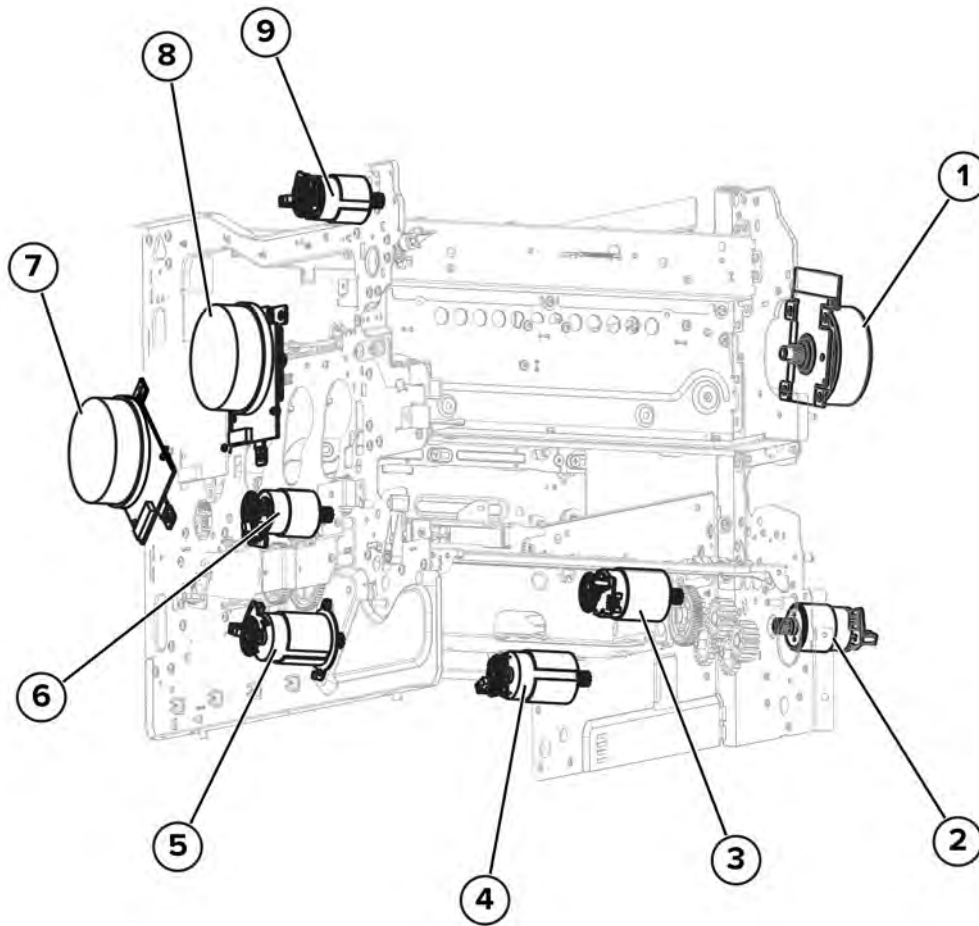
## Duplex paper path sensors



1	Sensor (exit/bin full)
2	Sensor (MPF/pass-through)
3	Sensor (duplex staging)
4	Sensor (redrive)

Component locations

## Motor locations



1	Motor (fuser)
2	Motor (duplex/MPF)
3	Motor (isolation)
4	Motor (tray 1 pick/lift)
5	Motor (deskew)
6	Motor (BOR)
7	Motor (K/transfer belt)
8	Motor (CMY)
9	Motor (exit/redrive)

# 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 should be inspected:

Printer parts	Every service call	Every 150K	Every 360K	Notes
<b>Tray insert</b> <ul style="list-style-type: none"> <li>• Width guides</li> <li>• Length guides</li> </ul>	Inspect	Inspect	Inspect	Check for correct positioning.
<b>Transfer module</b>	Inspect	Inspect	Inspect	Ensure correct installation.
<b>Fuser</b>	Inspect	Replace	Inspect	Ensure correct installation.
<b>Pick rollers</b> <ul style="list-style-type: none"> <li>• Tray pick roller</li> <li>• MPF pick roller</li> <li>• Separator bracket</li> </ul>	Inspect and clean if needed.	Inspect and clean if needed.	Replace	Clean with a damp cloth.
<b>Paper path rollers</b>	Inspect	Inspect	Inspect	<ul style="list-style-type: none"> <li>• Check for paper fragments.</li> <li>• Check for excessive toner build-up on rollers.</li> <li>• Clean with damp cloth if needed.</li> </ul>
<b>Others</b> <ul style="list-style-type: none"> <li>• Toner spillage</li> </ul>	Clean	Clean	Clean	Use a toner vacuum and cloth to remove all toner spillage from the printer.

## Scheduled maintenance

### Maintenance kits

The control panel displays an **80 .xx** error when it reaches certain page counts. It is necessary to replace the appropriate maintenance kit to maintain print quality and printer reliability. For more information, see [“80 user attendance error messages” on page 198](#).

**Note:** When replacing the maintenance kit, install all the parts that are included in the box, and then reset the maintenance counter.

The printer may stop printing when the fuser rated life is reached. After 150K printed pages (sides) a maintenance kit may be required.

The parts are available as a maintenance kit with the following part numbers:

Kit	Contents	Page count	Notes
41X3884—Maintenance kit, 100 V	<ul style="list-style-type: none"> <li>• 41X2932—Fuser, 100V</li> <li>• 41X0956—Pick roller</li> <li>• 41X0374—Separator bracket</li> </ul>	150K	Reset the fuser maintenance counter after replacing the fuser maintenance kit. See <a href="#">“Resetting the maintenance counter” on page 445.</a>
41X3882—Maintenance kit, 110 V	<ul style="list-style-type: none"> <li>• 41X2930—Fuser, 115V</li> <li>• 41X0956—Pick roller</li> <li>• 41X0374—Separator bracket</li> </ul>	150K	Reset the fuser maintenance counter after replacing the fuser maintenance kit. See <a href="#">“Resetting the maintenance counter” on page 445.</a>
41X3883—Maintenance kit, 220 V	<ul style="list-style-type: none"> <li>• 41X2931—Fuser, 220 V</li> <li>• 41X0956—Pick roller</li> <li>• 41X0374—Separator bracket</li> </ul>	150K	Reset the fuser maintenance counter after replacing the fuser maintenance kit. See <a href="#">“Resetting the maintenance counter” on page 445.</a>

When performing the scheduled maintenance procedure, the following areas should be cleaned of paper dust and toner contamination:

- Trays
- Imaging kit and imaging unit areas
- Transfer roller area
- Duplex area
- Standard bin

## Resetting maintenance counters

### Resetting the maintenance counter





- 1 From the home screen, touch **Settings > Device > Maintenance > Configuration menu > Supply usage and counters > Reset Maintenance Counter**.
- 2 Touch **Start**.

### Transfer module reset

- 1 From the home screen, touch **Settings > Device > Maintenance > Configuration menu > Supply usage and counters > ITM Reset**.
- 2 Touch **Start**.

## Cleaning the printer

### 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.
-  **ATTENTION—RISQUE D'ELECTROCUTION :** 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.
-  **PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS:** 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.
-  **VORSICHT – STROMSCHLAGGEFAHR:** Um das Risiko eines elektrischen Schlags beim Reinigen des Druckergehäuses zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose, und ziehen Sie alle Kabel vom Drucker ab, bevor Sie fortfahren.

#### Notes:


- Perform this task after every few months.
  - Damage to the printer caused by improper handling is not covered by the printer warranty.
- 1 Turn off the printer, and then unplug the power cord from the electrical outlet.
  - 2 Remove paper from the standard bin and multipurpose feeder.
  - 3 Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.
  - 4 Wipe the outside of the printer with a damp, soft, lint-free cloth.


#### Notes:


- Do not use household cleaners or detergents, as they may damage the finish of the printer.


- Make sure that all areas of the printer are dry after cleaning.

**5** Connect the power cord to the electrical outlet, and then turn on the printer.


 **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.


 **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.


 **PRECAUCIÓN: POSIBLES DAÑOS PERSONALES:** 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.


 **VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR** Um das Risiko eines Feuers oder eines elektrischen Schlags zu vermeiden, schließen Sie das Netzkabel an eine ordnungsgemäß geerdete Steckdose an, die sich in der Nähe des Geräts befindet und leicht zugänglich ist.

## 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.

 **ATTENTION—RISQUE D'ELECTROCUTION :** 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.

 **PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS:** 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.

 **VORSICHT – STROMSCHLAGGEFAHR:** Um das Risiko eines elektrischen Schlags beim Reinigen des Druckergehäuses zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose, und ziehen Sie alle Kabel vom Drucker ab, bevor Sie fortfahren.

**1** Turn off the printer, and then unplug the power cord from the electrical outlet.

**2** Using a damp, soft, lint-free cloth, wipe the touch screen.

### Notes:

- Do not use household cleaners or detergents, as they may damage the touch screen.
- Make sure that the touch screen is dry after cleaning.

- 3 Connect the power cord to the electrical outlet, and then turn on the printer.

**⚠ 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.

**⚠ 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.

**⚠ PRECAUCIÓN: POSIBLES DAÑOS PERSONALES:** 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.

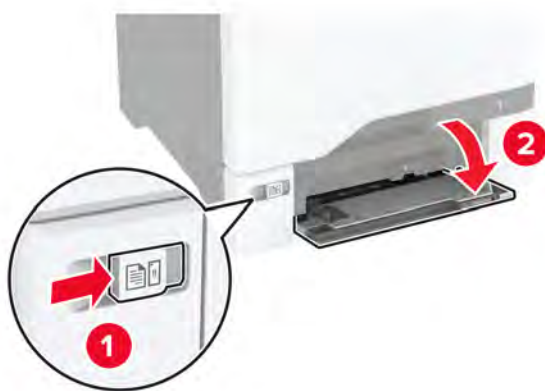
**⚠ VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR** Um das Risiko eines Feuers oder eines elektrischen Schlags zu vermeiden, schließen Sie das Netzkabel an eine ordnungsgemäß geerdete Steckdose an, die sich in der Nähe des Geräts befindet und leicht zugänglich ist.

## Cleaning the pick roller

- 1 Turn off the printer, and then unplug the power cord from the electrical outlet.
- 2 Remove the pick roller. See [“Pick roller removals” on page 418](#) or [“MPF pick roller removal” on page 419](#).
- 3 Apply isopropyl alcohol to a soft, lint-free cloth, and then wipe the pick tires.

## Cleaning the pick roller in the multipurpose feeder

- 1 Turn off the printer, and then unplug the power cord from the electrical outlet.
- 2 Open the multipurpose feeder.



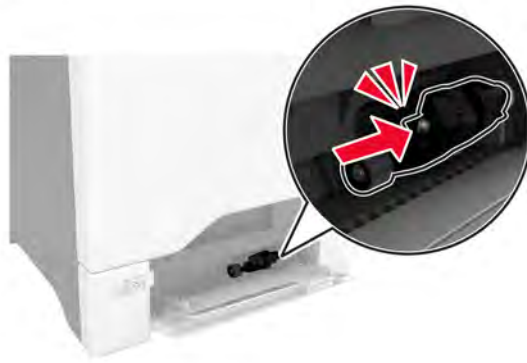
**3** Remove the pick roller.



**4** Apply isopropyl alcohol to a soft, lint-free cloth, and then wipe the pick roller.



5 Insert the pick roller.

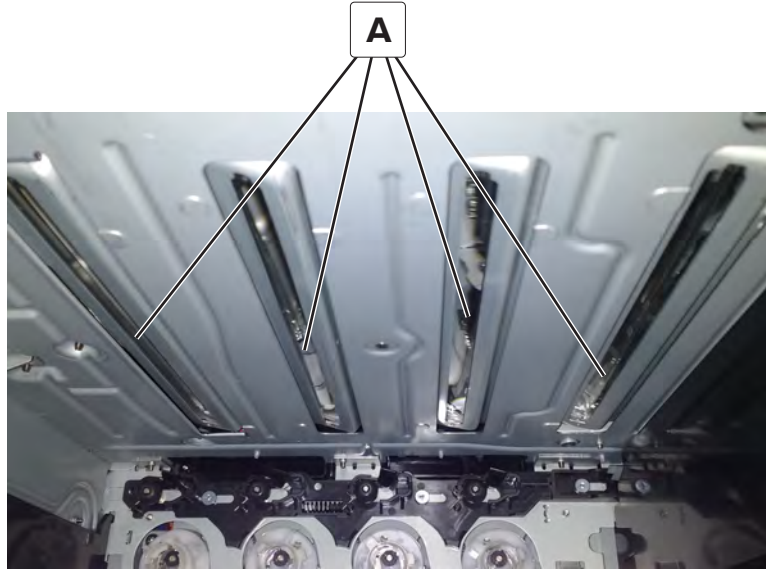


6 Close the multipurpose feeder.

## Cleaning the printhead lenses

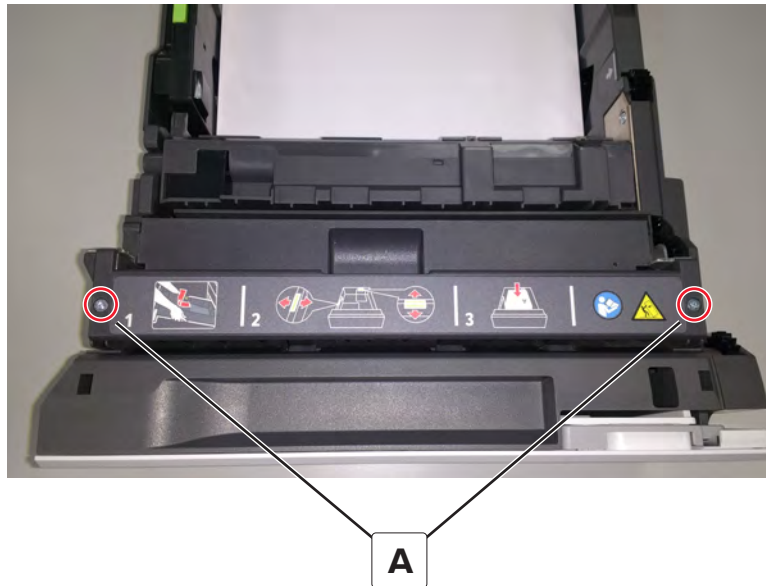
- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 330.](#)
- 2 Remove the imaging kit. See [“Imaging kit removal” on page 332.](#)

**3** Using a lint-free cloth, wipe the printhead lenses (A).

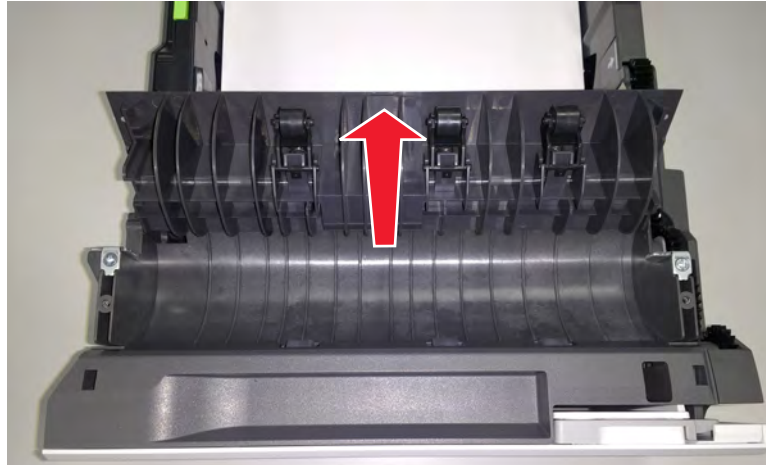


## Cleaning the tray 1 duplex turnaround

**1** Pull tray 1, and then remove the two screws (A).



**2** Open the turnaround cover.



**3** Remove the debris in the duplex turnaround area.

**4** Close the cover, and then screw it back in place.

# Parts catalog

## Legend

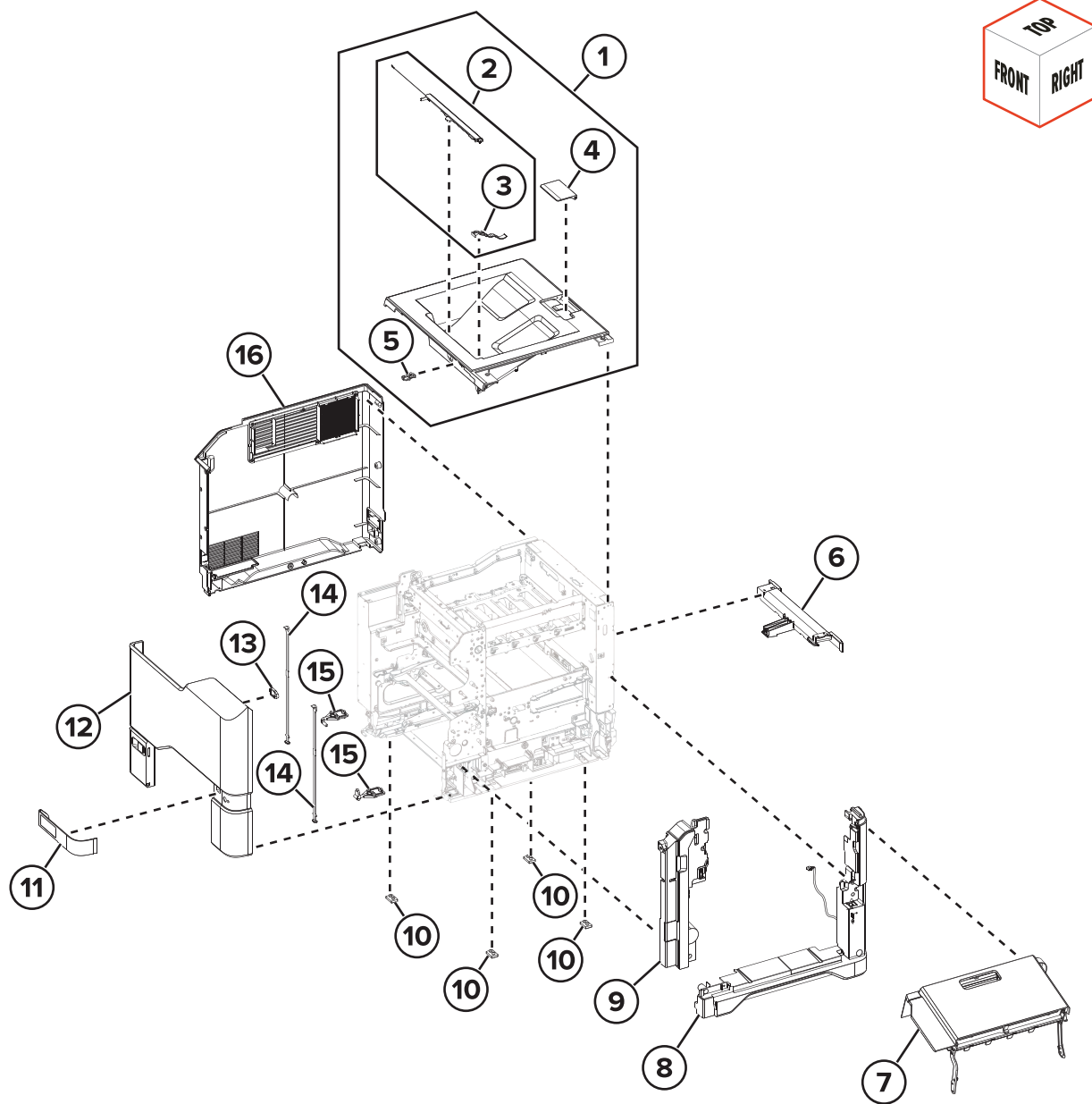
The following column headings are used in the parts catalog:

- **Asm-index**—Identifies the item in the illustration
- **P/N**—Identifies the part number of a FRU
- **Units/mach**—Refers to the number of units in a printer
- **Units/opt**—Refers to the number of units in an option
- **Units/FRU**—Refers to the number of units in a FRU
- **Description**—A brief description of the part

The following abbreviations are used in the parts catalog:

- **NS** (not shown) in the Asm-index column indicates that the part is procurable but is not shown in the illustration.
- **PP** (parts packet) in the Description column indicates that the part is contained in a parts packet.

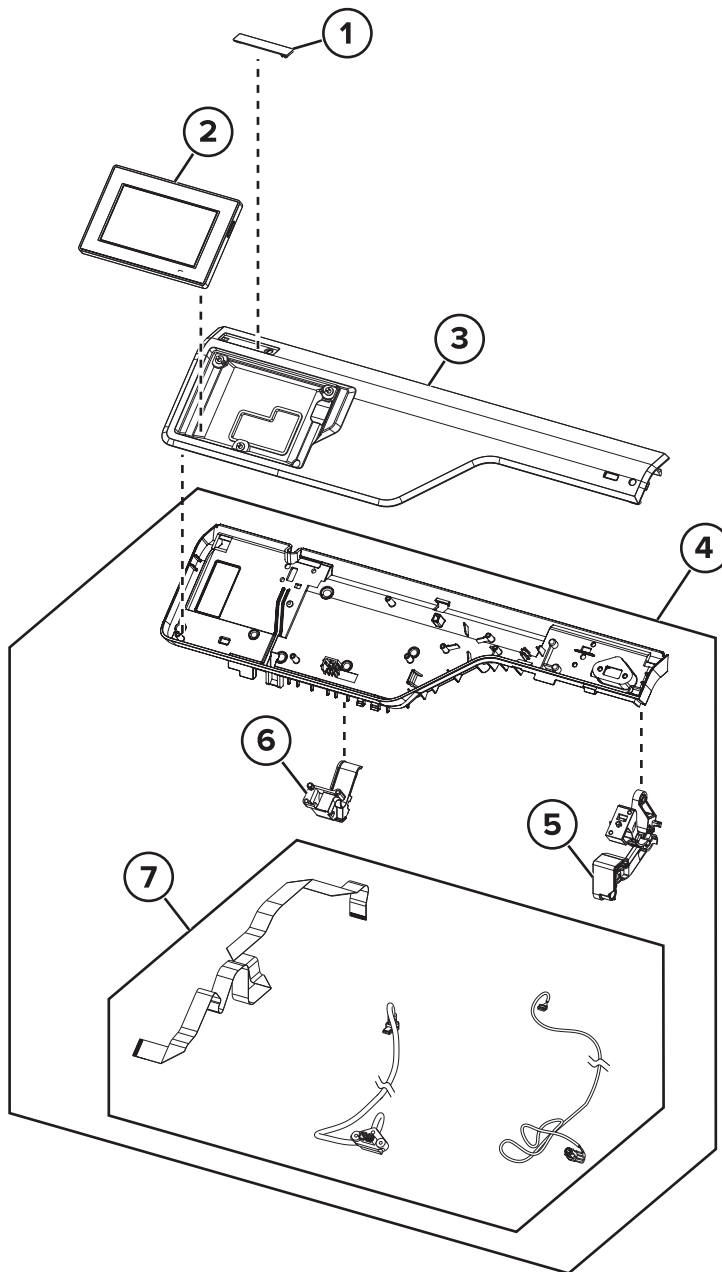
# Assembly 1: Covers



## Assembly 1: Covers

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2899	1	1	Top cover with sensor (bin full)	<a href="#">“Top cover removal” on page 400</a>
2	41X3894	1	1	Bin exit cover	<a href="#">“Bin exit cover removal” on page 414</a>
3	41X0772	1	1	Bin flag	<a href="#">“Bin flag removal” on page 414</a>
4	41X0410	1	1	Bin extender	--
5	41X0570	1	1	Sensor (bin full)	--
6	41X0424	1	1	Rear handle cover	--
7	41X2917	1	1	Toner door with linkages	<a href="#">“Toner door removal” on page 335</a>
8	41X2827	1	1	Right cover	<a href="#">“Right cover removal” on page 334</a>
9	41X2828	1	1	Motor cover	<a href="#">“Motor cover removal” on page 356</a>
10	41X2032	4	1	Rubber feet	--
11	41X0401	1	1	Tray indicator	--
12	41X0411	1	1	Front door cover	<a href="#">“Front door cover removal” on page 391</a>
13	41X0560	1	1	Front door bracket	--
14	41X0380	2	2	Front door straps	--
15	41X0567	1	1	Front door hinges	<a href="#">“Front door hinges removal” on page 371</a>
16	41X2888	1	1	Left cover	<a href="#">“Left cover removal” on page 307</a>

## Assembly 2: Control panel

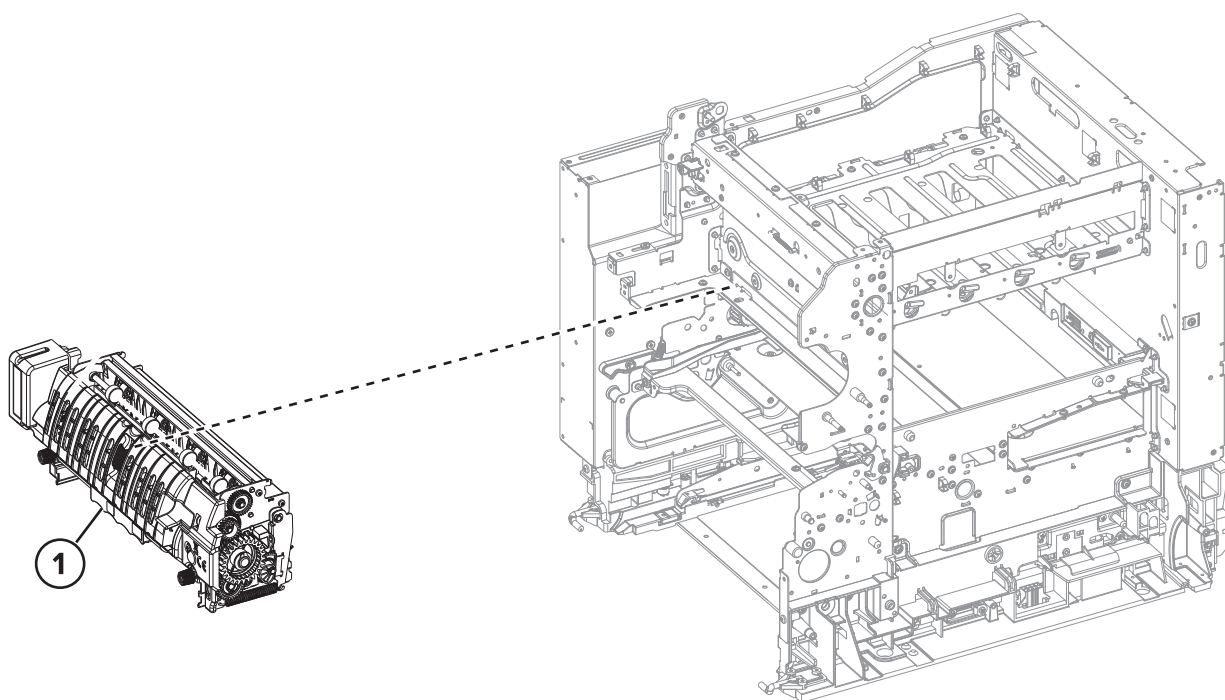


## Assembly 2: Control panel

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X4317	1	1	Badge cover (C4342, C4352, CS730, and CS735 models only)	--
2	41X4351	1	1	Control panel display, 4.3-inch	<a href="#">“Control panel display removal” on page 369</a>
3	41X2886	1	1	Control panel cover	<a href="#">“Control panel cover removal” on page 351</a>
4	41X2834	1	1	Control panel base cover	<a href="#">“Control panel base cover removal” on page 410</a>
5	41X0562	1	1	Control panel right arm	<a href="#">“Control panel arms removal” on page 372</a>
6	41X0561	1	1	Control panel left arm	<a href="#">“Control panel arms removal” on page 372</a>
7	41X2887	1	1	Control panel cable bracket <ul style="list-style-type: none"> <li>• Headphone and USB cable bracket</li> <li>• Control panel FFC</li> <li>• Front USB host cable</li> </ul>	--



## Assembly 3: Fuser

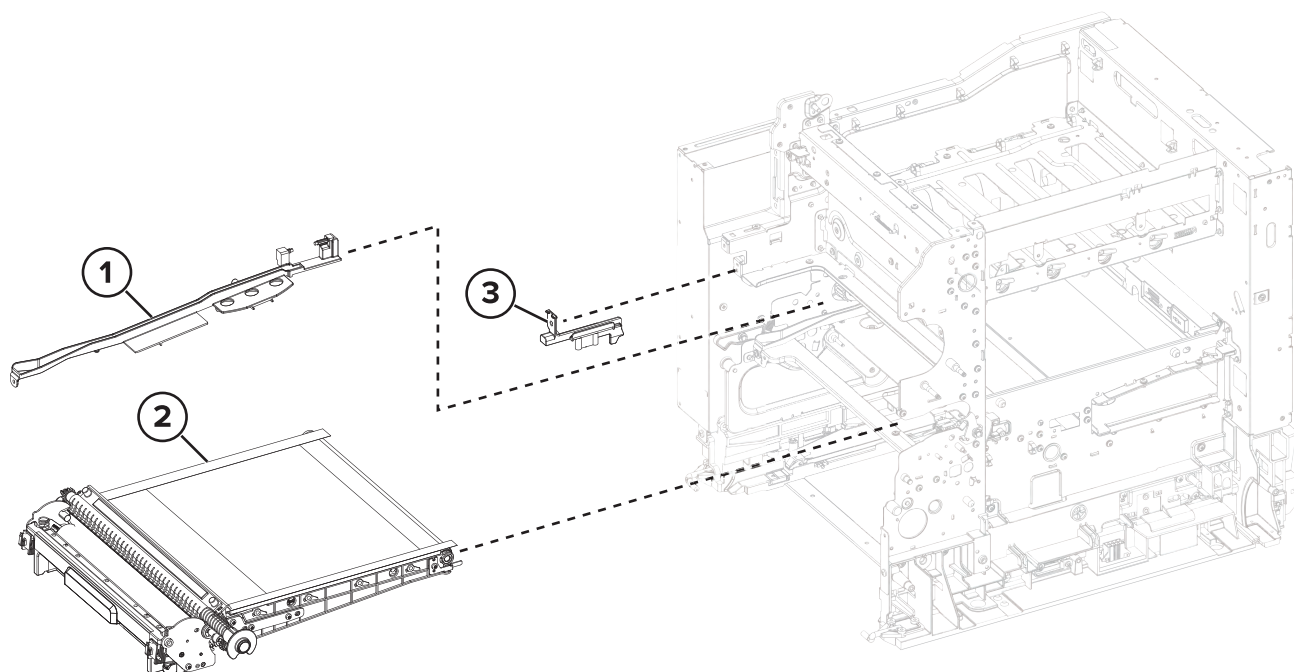


## Assembly 3: Fuser

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2930	1	1	Fuser, 115 V <sup>1</sup>	<a href="#">“Fuser removal” on page 363</a>
1	41X2931	1	1	Fuser, 220 V <sup>1</sup>	<a href="#">“Fuser removal” on page 363</a>
1	41X2932	1	1	Fuser, 100 V <sup>1</sup>	<a href="#">“Fuser removal” on page 363</a>

<sup>1</sup> This part has a CRU sheet.

## Assembly 4: Transfer module

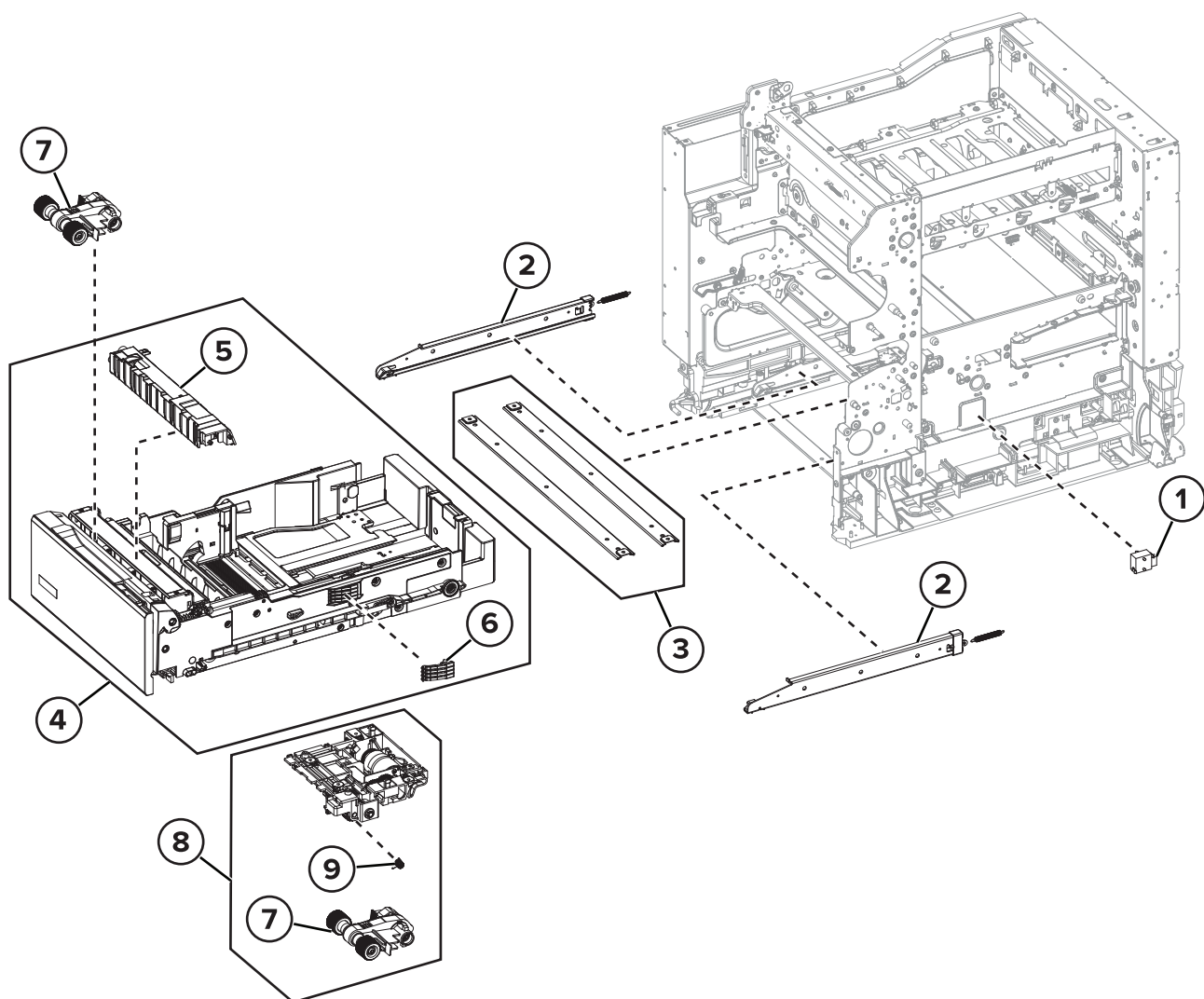


## Assembly 4: Transfer module

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2900	1	1	Transfer module guide rail	<a href="#">“Transfer module guide rail removal” on page 374</a>
2	41X2689	1	1	Transfer module <sup>1</sup>	<a href="#">“Transfer module removal” on page 358</a>
3	41X2833	1	1	Transfer module retainer	<a href="#">“Transfer module removal” on page 358</a>

<sup>1</sup> This part has a FRU sheet.

## Assembly 5: Paper feed



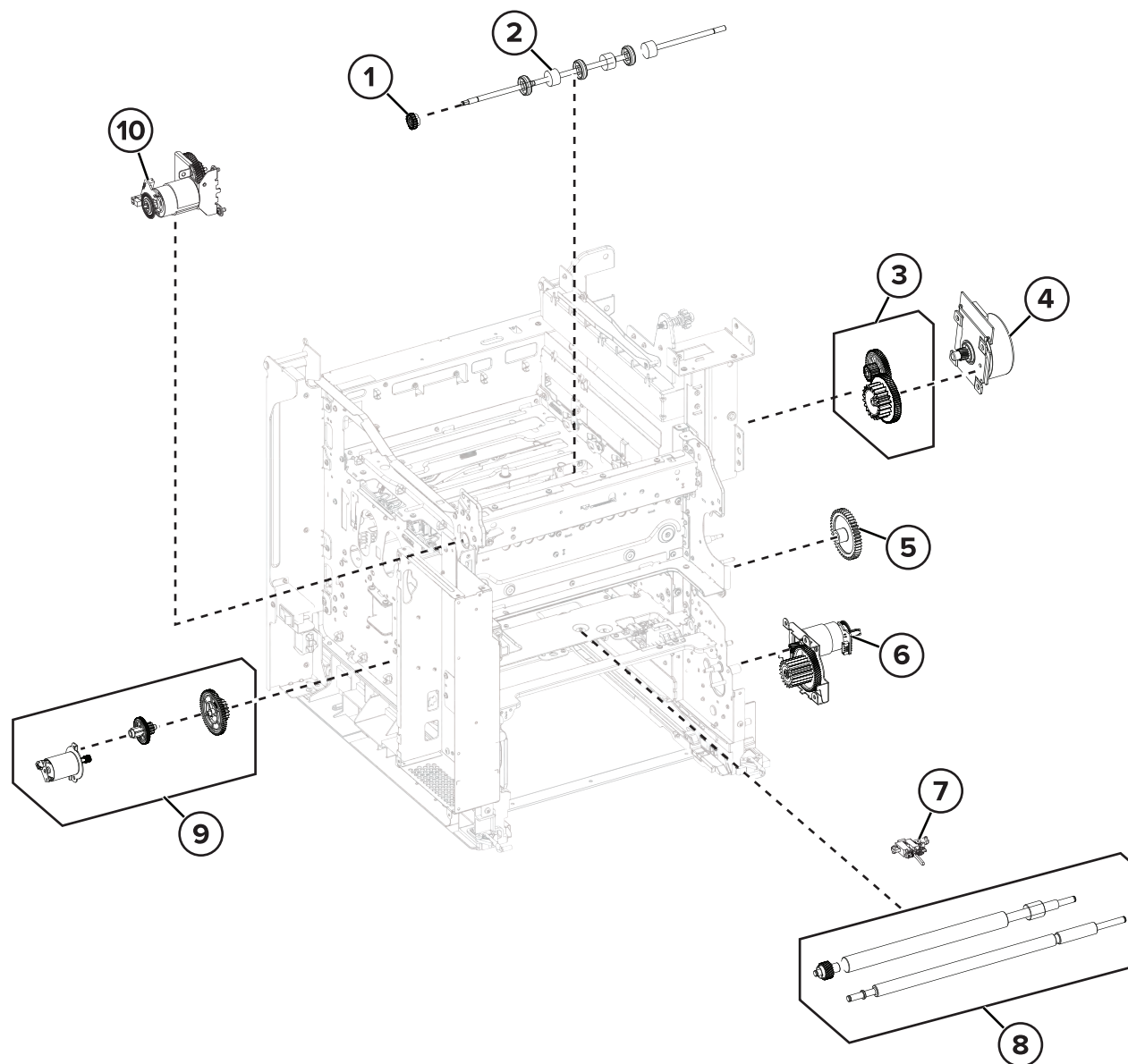
## Assembly 5: Paper feed

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X7911	1	1	Sensor (paper size)	<a href="#">“Sensor (paper size) removal” on page 339</a>
2	41X0372	1	1	Tray rails	<a href="#">“Tray rail removal” on page 420</a>
3	41X0825	2	2	Support straps	--
4	41X0268	1	1	550-sheet tray insert <sup>1</sup>	<a href="#">“550-sheet tray insert removal” on page 416</a>
5	41X0374	1	1	Separator bracket <sup>1</sup>	<a href="#">“Separator bracket removal” on page 417</a>
6	41X0373	1	1	Paper size sensor actuators	--
7	41X0956	2	1	Pick roller <sup>1</sup>	<a href="#">“Pick roller removals” on page 418</a>
8	41X4450	1	1	Paper feeder	<a href="#">“Paper feeder removal” on page 423</a>
9	41X2034	1	1	Paper actuator spring <sup>2</sup>	<a href="#">“Paper out actuator spring removal” on page 424</a>

<sup>1</sup> This part has a CRU sheet.

<sup>2</sup> This part has a FRU sheet.

## Assembly 6: Paper path 1

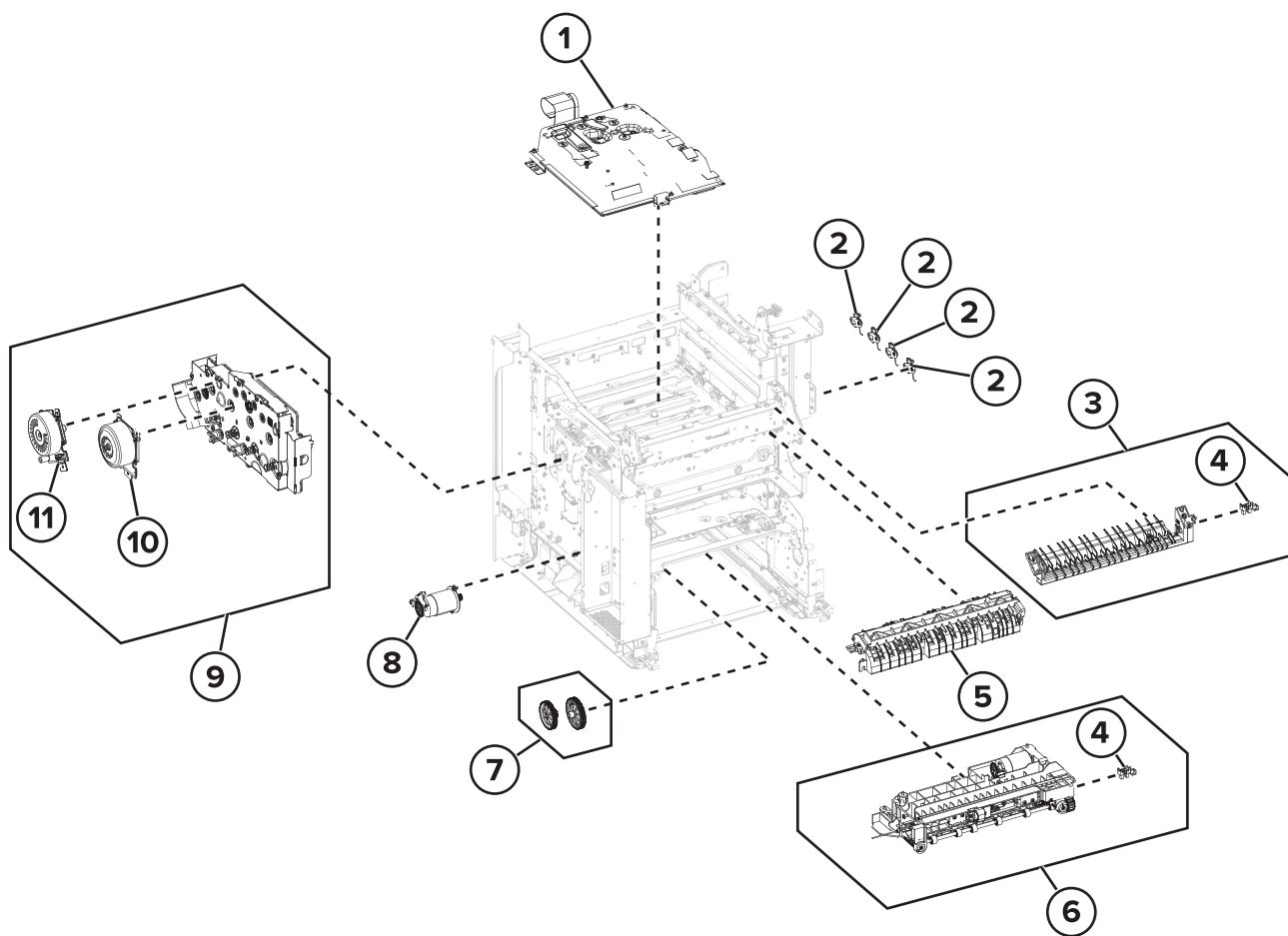


## Assembly 6: Paper path 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0391	1	1	Exit roller gear	<a href="#">“Exit roller gear removal” on page 412</a>
2	41X0390	1	1	Exit roller	<a href="#">“Exit roller removal” on page 413</a>
3	41X0395	1	1	Fuser drive gear	--
4	41X4460	1	1	Motor (fuser)	<a href="#">“Motor (fuser) removal” on page 341</a>
5	41X0757	1	1	Waste toner bottle idler gear	<a href="#">“Waste toner bottle idler gear removal” on page 343</a>
6	41X0381	1	1	Motor (duplex/MPF)	<a href="#">“Motor (duplex/MPF) removal” on page 343</a>
7	41X0385	1	1	Sensor (input)	<a href="#">“Sensor (input) removal” on page 361</a>
8	41X0386	1	1	Aligner rollers	<a href="#">“Aligner rollers removal” on page 377</a>
9	41X2825	1	1	Motor (BOR)	<a href="#">“Motor (BOR) removal” on page 319</a>
10	41X0392	1	1	Motor (exit/redrive)	<a href="#">“Motor (exit/redrive) removal” on page 323</a>
NS	41X4463	1	1	Left side cables <ul style="list-style-type: none"> <li>• LVPS cable</li> <li>• AC line in cable</li> <li>• CMY motor cable</li> <li>• Fuser AC cable</li> <li>• BOR motor cable</li> <li>• Fuser DC cable</li> <li>• K motor cable</li> <li>• Exit/redrive motor cable</li> </ul>	--



## Assembly 7: Paper path 2

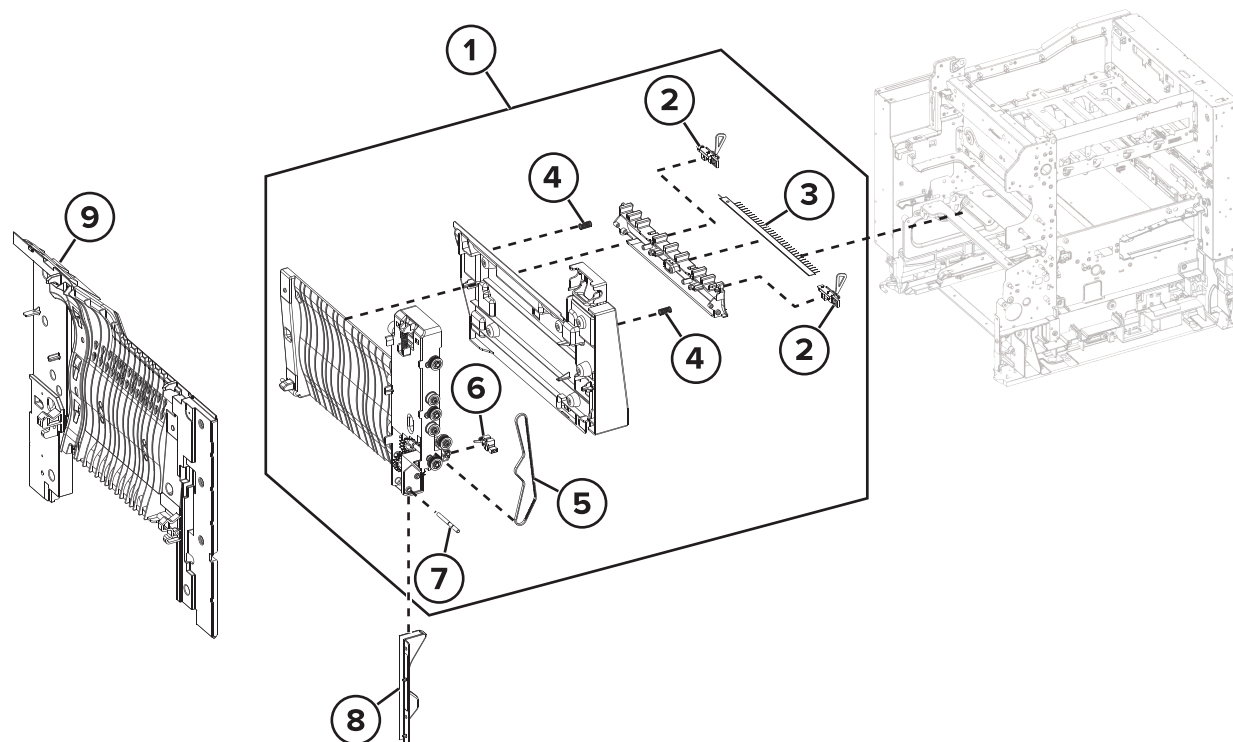


## Assembly 7: Paper path 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2844	1	1	Print head <sup>1</sup>	<a href="#">“Printhead removal” on page 403</a>
2	41X0897	4	1	Developer hold down arm	<a href="#">“Developer hold down arm removal” on page 415</a>
3	41X0389	1	1	Diverter	<a href="#">“Diverter removal” on page 366</a>
4	41X0570	1	1	Sensor (redrive)	<a href="#">“Sensor (redrive) removal” on page 366</a>
4	41X0570	1	1	Sensor (MPF/pass-through)	--
5	41X0388	1	1	Redrive guide	<a href="#">“Redrive guide removal” on page 364</a>
6	41X0384	1	1	Isolation unit	<a href="#">“Isolation unit removal” on page 426</a>
7	41X0758	1	1	Aligner drivetrain kit	--
8	41X0387	1	1	Motor (deskew)	<a href="#">“Motor (deskew) removal” on page 320</a>
9	41X2768	1	1	EP drive gearbox	<a href="#">“EP drive gearbox removal” on page 317</a>
10	41X4461	1	1	Motor (CMY)	<a href="#">“Motor (EP drive) removal” on page 315</a>
11	41X4460	1	1	Motor (K/transfer belt)	<a href="#">“Motor (EP drive) removal” on page 315</a>

<sup>1</sup> This part has a FRU sheet.

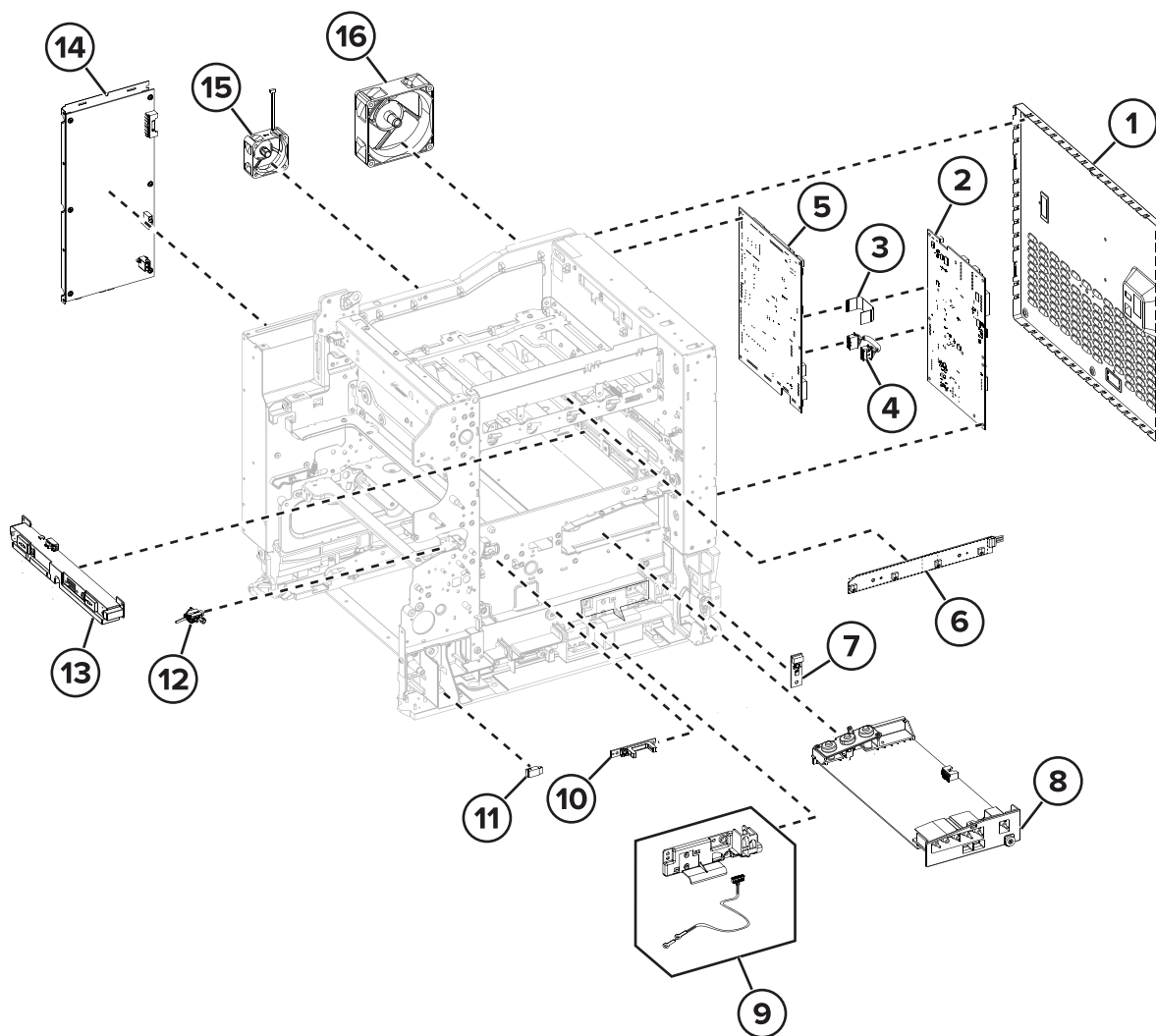
## Assembly 8: Duplex



## Assembly 8: Duplex

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0376	1	1	Duplex inner guide	<a href="#">“Duplex inner guide removal” on page 385</a>
2	41X0447	1	1	Sensor (fuser buckle)	<a href="#">“Sensors (fuser buckle and narrow media) removal” on page 387</a>
2	41X0447	1	1	Sensor (narrow media)	<a href="#">“Sensors (fuser buckle and narrow media) removal” on page 387</a>
3	41X0824	1	1	Static brush	--
4	41X0379	2	2	Guide springs	--
5	41X0378	1	1	Tensioner belt	<a href="#">“Tensioner belt removal” on page 388</a>
6	41X0446	1	1	Sensor (duplex staging)	<a href="#">“Sensor (duplex staging) removal” on page 386</a>
7	41X0377	1	1	Pivot shaft	<a href="#">“Pivot shaft removal” on page 385</a>
8	41X0400	1	1	Cable cover	<a href="#">“Front door removal” on page 354</a>
9	41X0407	1	1	Duplex outer guide	<a href="#">“Duplex outer guide removal” on page 389</a>

## Assembly 9: Electrical



## Assembly 9: Electrical

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1906	1	1	Controller board shield	<a href="#">“Controller board shield removal” on page 393</a>
2	41X2874	1	1	Controller board <sup>1</sup>	<a href="#">“Controller board removal” on page 395</a>
3	41X2878	1	1	Print data cable	--
4	41X2877	1	1	Controller power cable	--
5	41X2876	1	1	Engine board <sup>1</sup>	<a href="#">“Engine board removal” on page 397</a>
6	41X0394	1	1	TMC card	<a href="#">“TMC card removal” on page 337</a>
7	41X0785	1	1	Sensor (weather station)	<a href="#">“Sensor (weather station) removal ” on page 344</a>
8	41X2777	1	1	HVPS	<a href="#">“HVPS removal” on page 345</a>
9	41X0486	1	1	Sensor (waste toner contact)	--
10	41X4488	1	1	Sensor (waste toner) <sup>1</sup>	<a href="#">“Sensor (waste toner) removal” on page 347</a>
11	41X0566	1	1	Sensor (MPF paper present)	<a href="#">“Sensor (MPF paper present) removal” on page 347</a>
12	41X0385	1	1	Sensor (input)	<a href="#">“Sensor (input) removal” on page 361</a>
13	41X2832	1	1	Sensor (TPS) <sup>1</sup>	<a href="#">“Sensor (TPS) removal” on page 349</a>
14	41X2794	1	1	LVPS, 110 V	<a href="#">“LVPS removal” on page 310</a>
14	41X2795	1	1	LVPS, 220 V	<a href="#">“LVPS removal” on page 310</a>
15	41X0398	1	1	Fuser fan	<a href="#">“Fuser fan removal” on page 313</a>
16	41X0397	1	1	Main fan	<a href="#">“Main fan removal” on page 312</a>
NS	41X4465	1	1	Right side cables <ul style="list-style-type: none"> <li>• Front door sensor cables</li> <li>• TMC card cable</li> <li>• Weather station sensor cable</li> <li>• Interlock switch cables</li> <li>• Optional tray cables</li> </ul>	--

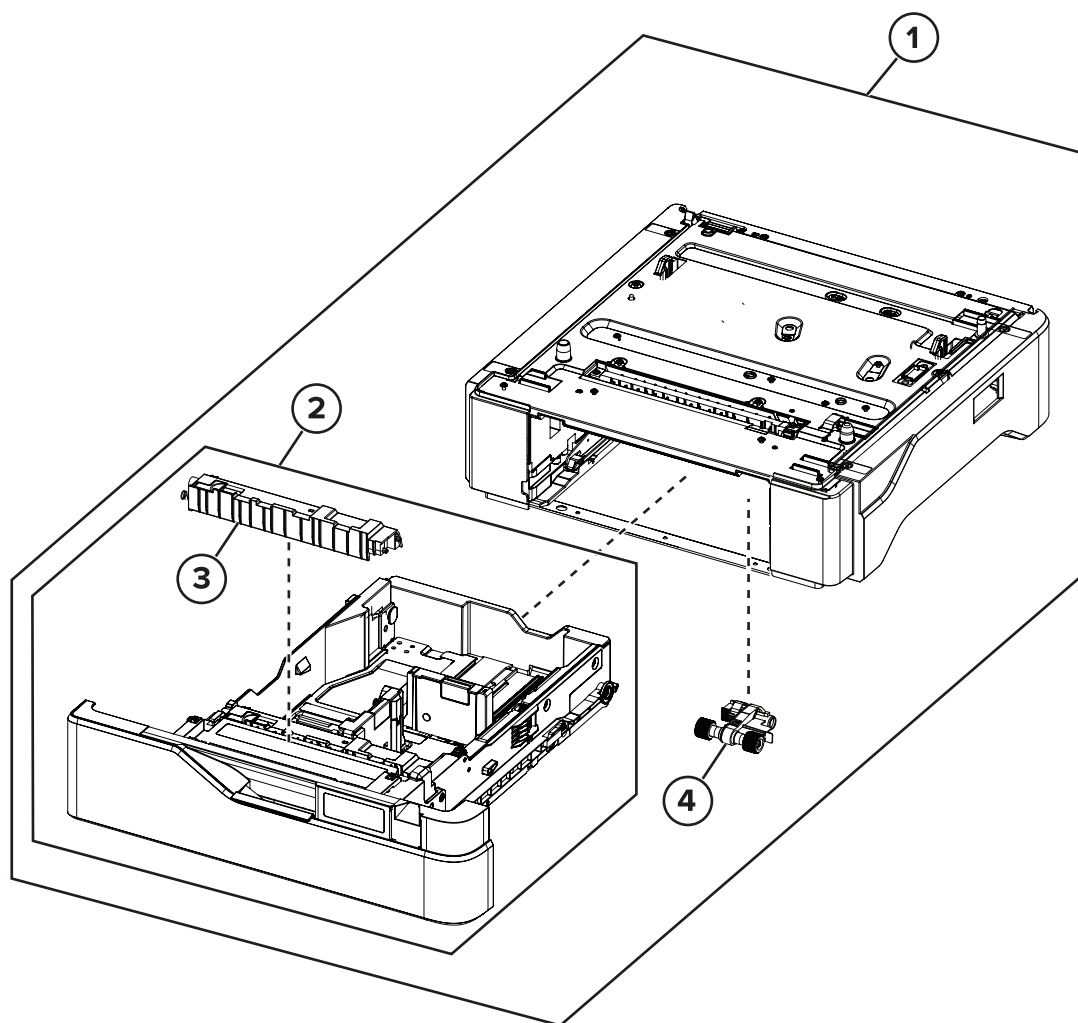
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X4464	1	1	Middle section cables <ul style="list-style-type: none"><li>• HVPS cable</li><li>• Aligner sensor cables, waste toner sensor cable</li><li>• Upper paper path sensor cables</li><li>• Fuser buckle sensor cable</li><li>• TPS cable</li><li>• Paper path motor cables</li><li>• Fuser motor cables</li></ul>	--

<sup>1</sup> This part has a FRU sheet.





## Assembly 10: Optional 550-sheet tray

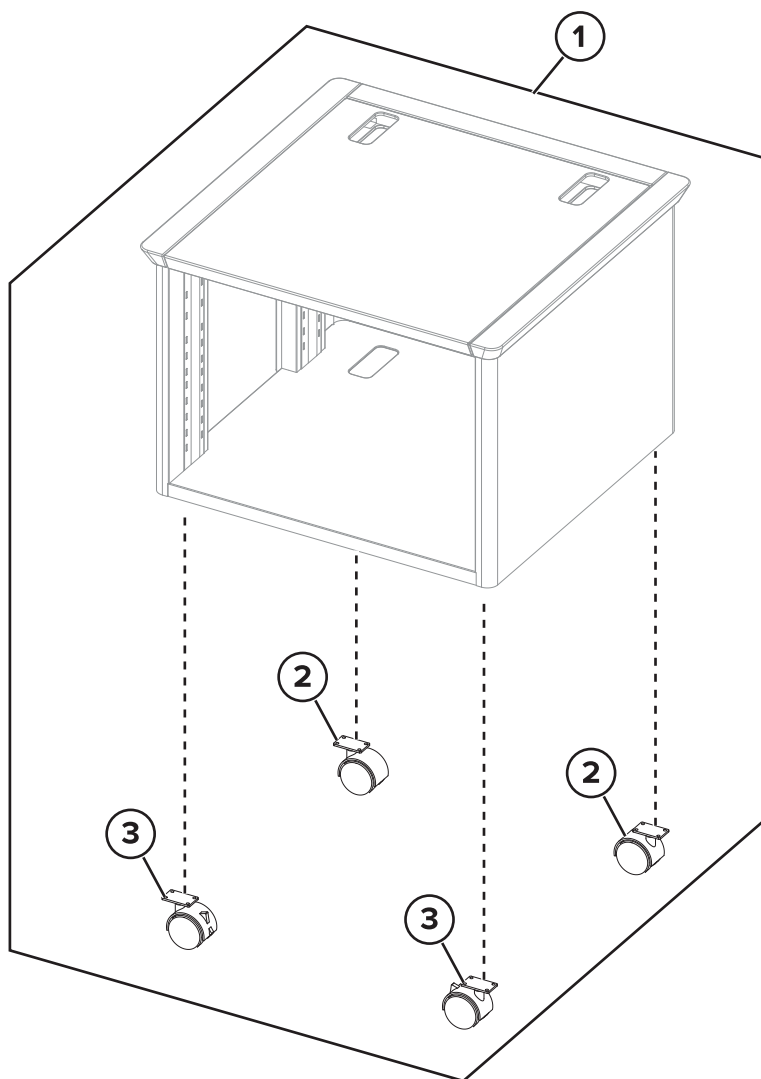


## Assembly 10: Optional 550-sheet tray

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0271	1	1	Optional 550-sheet tray <sup>1</sup>	<a href="#">“Optional 550-sheet tray removal” on page 429</a>
2	41X0361	1	1	Optional 550-sheet tray insert <sup>1</sup>	<a href="#">“550-sheet tray insert removal” on page 416</a>
3	41X0374	1	1	Separator bracket <sup>1</sup>	<a href="#">“Separator bracket removal” on page 417</a>
4	41X0956	1	1	Pick roller <sup>1</sup>	<a href="#">“Waste toner bottle removal” on page 330</a>

<sup>1</sup> This part has a CRU sheet.

## Assembly 11: Printer stand



## Assembly 11: Printer stand

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0764	1	1	Printer stand	--
2	41X0775	2	1	Nonlocking caster	--
3	41X0774	2	1	Locking caster	--

## Assembly 12: Miscellaneous parts

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X2543	1	1	MarkNet N8370 wireless print server	--
NS	40X9652	1	1	Adapter–Fiber gigabit ISP	--
NS	40X8671	1	1	Cover kit, removable hard disk drive	--
NS	40X9934	1	1	Hard disk drive, 320+ GB	--
NS	41X1872	1	1	MarkNet N8372 802.11 a/b/g/n/ac wireless print server	--
NS	40X4819	1	1	RS-232C serial interface card	--
NS	41X1945	1	1	MarkNet N8230 fiber ISP with side cover	--
NS	41X0357	1	1	Surge protective device, 110-120 V	--
NS	41X0370	1	1	Surge protective device, 220-240 V	--
NS	40X1368	1	1	USB cable, 2 m	--
NS	41X2854	1	1	Intelligent storage drive	<a href="#">“ISD card removal” on page 393</a>
NS	41X2873	1	1	Trusted platform module (TPM) card <sup>1</sup>	<a href="#">“TPM card removal” on page 394</a>
NS	41X0021	1	1	Parallel ISP backpack kit	--
NS	41X0020	1	1	Serial ISP backpack kit	--
NS	41X0045	1	1	Keyboard	--
NS	41X1007	1	1	Cleaning kit	--

<sup>1</sup> This part has a FRU sheet.



## Assembly 13: Maintenance kits

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X3882	1	1	Maintenance kit, 110 V <sup>1</sup> <ul style="list-style-type: none"> <li>• Fuser, 115 V</li> <li>• Pick roller</li> <li>• Separator bracket</li> </ul>	--
NS	41X3883	1	1	Maintenance kit, 220 V <sup>1</sup> <ul style="list-style-type: none"> <li>• Fuser, 220 V</li> <li>• Pick roller</li> <li>• Separator bracket</li> </ul>	--
NS	41X3884	1	1	Maintenance kit, 100 V <sup>1</sup> <ul style="list-style-type: none"> <li>• Fuser, 100 V</li> <li>• Pick roller</li> <li>• Separator bracket</li> </ul>	--

<sup>1</sup> This part has a CRU sheet.





## Assembly 14: Power cords

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	40X7104	1	1	US, Canada, Latin America LV	--
NS	40X0288	1	1	Argentina	--
NS	40X0259	1	1	Brazil LV	--
NS	40X0273	1	1	Chile, Uruguay	--
NS	40X0297	1	1	Bolivia, Peru, Paraguay	--
NS	40X0301	1	1	Australia, New Zealand	--
NS	40X3609	1	1	Japan	--
NS	40X1792	1	1	Korea	--
NS	40X0303	1	1	PRC	--
NS	40X1791	1	1	Taiwan	--
NS	40X0271	1	1	Hong Kong	--
NS	40X0279	1	1	Philippines, Thailand	--
NS	40X1767	1	1	Indonesia, Vietnam, Cambodia, Laos	--
NS	40X1773	1	1	Bangladesh, Nepal, Bhutan	--
NS	40X0271	1	1	Singapore, Malaysia, Pakistan, Sri Lanka, Myanmar, Brunei, India	--
NS	40X1767	1	1	Algeria, Austria, Benelux (Belgium, Luxembourg, Netherlands), Bosnia, Bulgaria, Croatia, Czech Republic, Egypt, Estonia, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Morocco, Poland, Portugal, Romania, Russia (CIS), Serbia, Slovakia, Spain, Turkey	--
NS	40X1774	1	1	Nordics	--
NS	40X0275	1	1	Israel	--
NS	40X1773	1	1	South Africa	--
NS	40X1772	1	1	Switzerland	--
NS	40X0271	1	1	UK, Saudi Arabia	--



# Printer specifications

## 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: 610 (CS730de, C4342); 740 (CS735de, C4352) Two-sided: 510 (CS730de, C4342); 610 (CS735de, C4352)
Copy	The product is generating hard-copy output from hard-copy original documents.	N/A
Scan	The product is scanning hard-copy documents.	N/A
Ready	The product is waiting for a print job.	27.0 (CS730de, C4342); 25.0 (CS735de, C4352)
Sleep Mode	The product is in a high-level energy-saving mode.	1.0
Hibernate	The product is in a low-level energy-saving mode.	0.1
Off	The product is plugged into an electrical outlet, but the power switch is turned off.	0.1

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average.

Values are subject to change. See [www.lexmark.com](http://www.lexmark.com) for current values.

### Sleep Mode

This product is designed with an energy-saving mode called *Sleep Mode*. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the *Sleep Mode Timeout*.

Factory default Sleep Mode Timeout for this product (in minutes):	15
---	----

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes, or between 1 minute and 114 minutes, depending on the printer model. If the printer speed is less than or equal to 30 pages per minute, then you can set the timeout only up to 60 minutes or 54 minutes, depending on the printer model. Setting the Sleep Mode Timeout to a low value reduces energy consumption, but may increase the response time of the product. Setting the Sleep Mode Timeout to a high value maintains a fast response, but uses more energy.

Some models support a *Deep Sleep Mode*, which further reduces power consumption after longer periods of inactivity.

## Hibernate Mode

This product is designed with an ultra-low power operating mode called *Hibernate mode*. When operating in Hibernate Mode, all other systems and devices are powered down safely.

The Hibernate mode can be entered in any of the following methods:

- Using the Hibernate Timeout
- Using the Schedule Power modes

Factory default Hibernate Timeout for this product in all countries or regions	3 days
--	--------

The amount of time the printer waits after a job is printed before it enters Hibernate mode can be modified between one hour and one month.

### Notes on EPEAT-registered imaging equipment products:

- Standby power level occurs in Hibernate or Off mode.
- The product shall automatically power down to a standby power level of  $\leq 1$  W. The auto standby function (Hibernate or Off) shall be enabled at product shipment.

## Off mode

If this product has an off mode which still consumes a small amount of power, then to completely stop product power consumption, disconnect the power supply cord from the electrical outlet.

## Total energy usage

It is sometimes helpful to estimate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum of each mode's energy usage.

## Applicability of Regulation (EU) 2019/2015 and (EU) 2019/2020

Per Commission Regulation (EU) 2019/2015 and (EU) 2019/2020, the light source contained within this product or its component is intended to be used for Image Capture or Image Projection only, and is not intended for use in other applications.

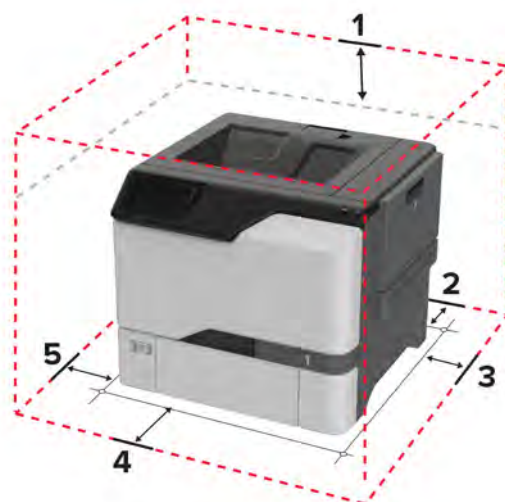
## Selecting a location for the printer

- Set up the printer near an appropriately rated and properly grounded electrical outlet.
- Leave enough room to open trays, covers, and doors and to install hardware options.
- 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 water or wet locations.
  - 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	178 mm (7 in.)
2	Rear	76 mm (3 in.)
3	Right side	127 mm (5 in.)
4	Front	508 mm (20 in.)
5	Left side	127 mm (5 in.)

## 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: 52 (CS730de, C4342); 53 (CS735de, C4352) Two-sided: 53 (CS730de, C4342); 55 (CS735de, C4352)

1-meter average sound pressure, dBA	
Ready	14

Values are subject to change. See [www.lexmark.com](http://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 <sup>2</sup> : 22.8°C (73°F) Non-condensing environment
Printer / cartridge / imaging unit long-term storage <sup>1</sup>	15.6 to 32.2°C (60 to 90°F) and 8 to 80% RH Maximum wet-bulb temperature <sup>2</sup> : 22.8°C (73°F)
Printer / cartridge / imaging unit short-term shipping	-40 to 40°C (-40 to 104°F)
<sup>1</sup> 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. <sup>2</sup> Wet-bulb temperature is determined by the air temperature and the relative humidity.	

## Using the security reset jumper

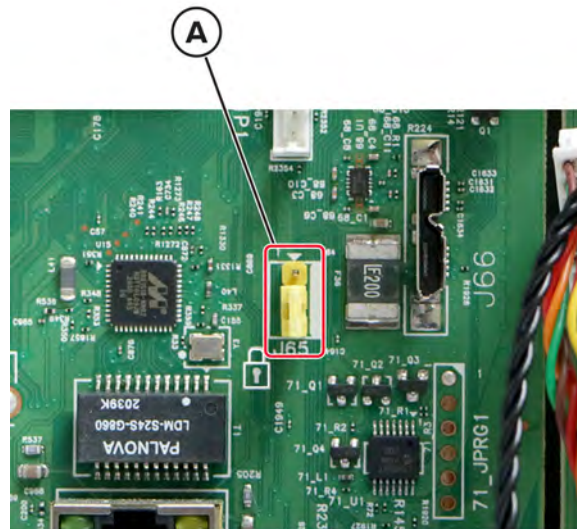
### Notes:

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

To reset the jumper:

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

**Note:** The jumper is located next to a lock icon 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 Turn on the printer.





# Options and features

## Available internal options

- Intelligent storage drive (ISD)
  - Fonts
    - Simplified Chinese
    - Traditional Chinese
    - Japanese
    - Korean
    - Arabic
  - Mass storage
- Printer hard disk
- Licensed features
  - IPDS
  - Bar Code
- Lexmark Internal solutions port (ISP)
  - IEEE 1284-B Parallel Card
  - RS-232C Serial Card
  - Fiber Port
- Wireless module
  - MarkNet™ N8370
  - MarkNet N8372

### Notes:

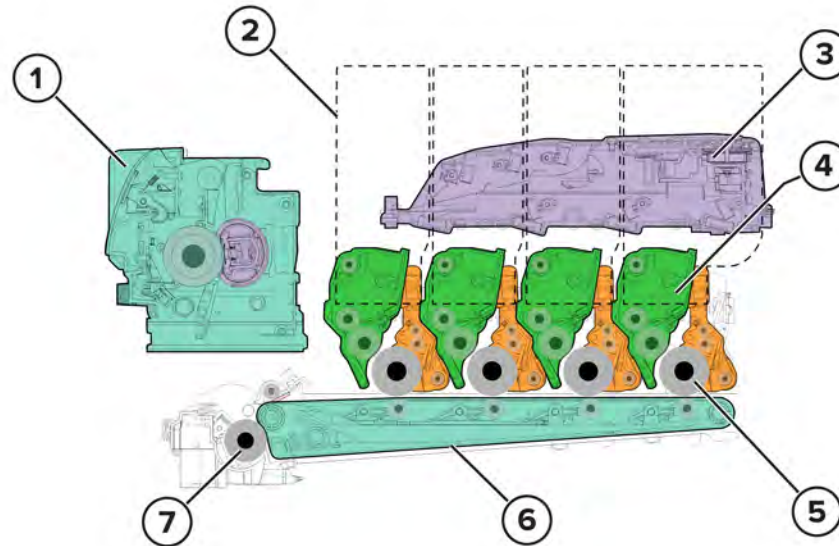
- An ISD or a hard disk is required to activate formsmerge and other features.
- Some IPDS features require an ISD or a hard disk.



# Theory of operation

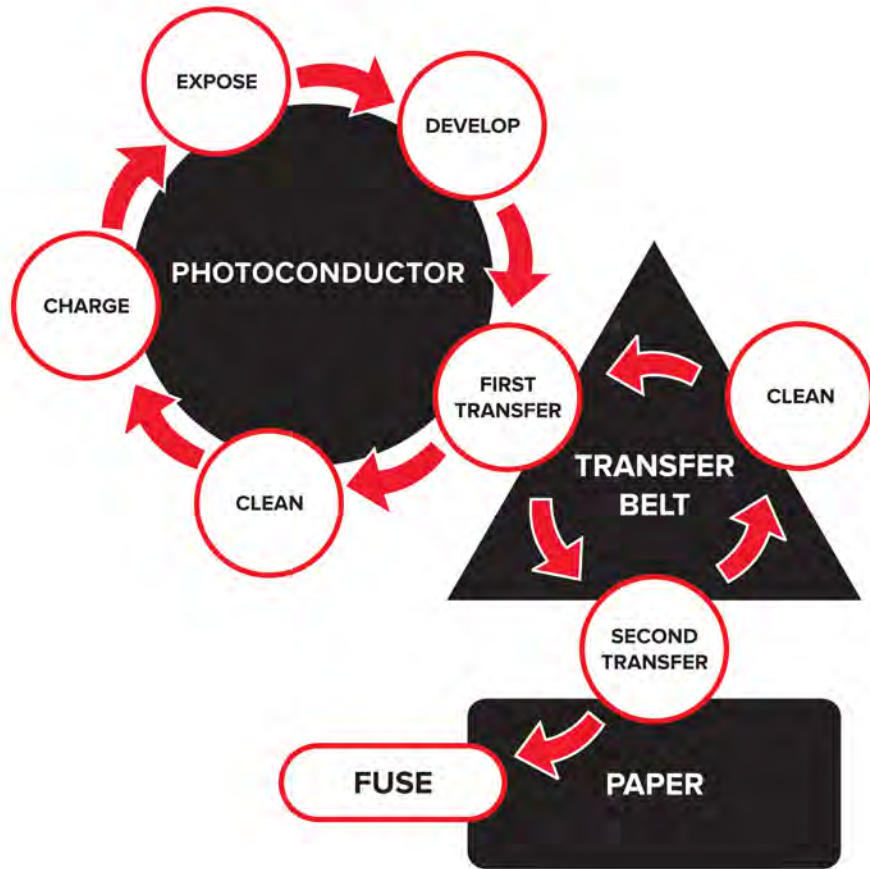
## Electrophotographic (EP) process

### Print engine layout



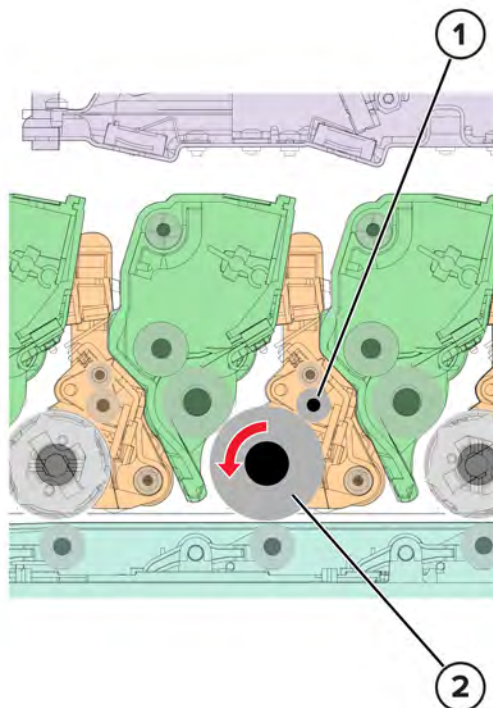
1	Fuser
2	Toner cartridges (Y, C, M, K)
3	Printhead
4	Developer unit
5	Photoconductor drum
6	Transfer belt
7	Second transfer roller

# Flowchart



## EP process

### Charge



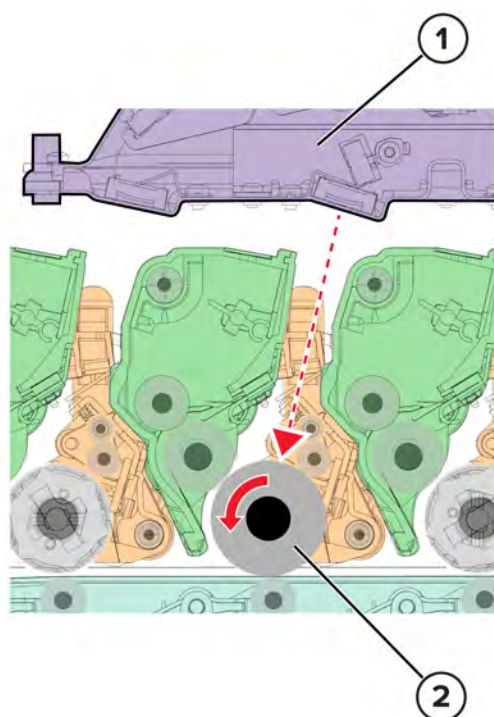
1	Charge roller
2	Photoconductor drum

The charge roller applies a uniform negative electrical charge to the surface of the photoconductor drum. The photoconductor drum, because of its photoconductive properties, holds the charge as long as it is not exposed to light.

#### Service tips

- If the surface of the charge roller is damaged, such as having a nick or pit, then the charge on the photoconductor drum is uneven. A repeating mark may appear on the printed page. For more information, see [“Repeating defects check” on page 51](#).
- If the charge roller is severely damaged, then the surface of the photoconductor drum is not properly charged. Excessive amounts of toner particles are deposited on the photoconductor drum. The printed page becomes saturated with 100% of the color from the supply with the defective charge roller. The affected imaging unit or kit must be replaced immediately.

## Expose



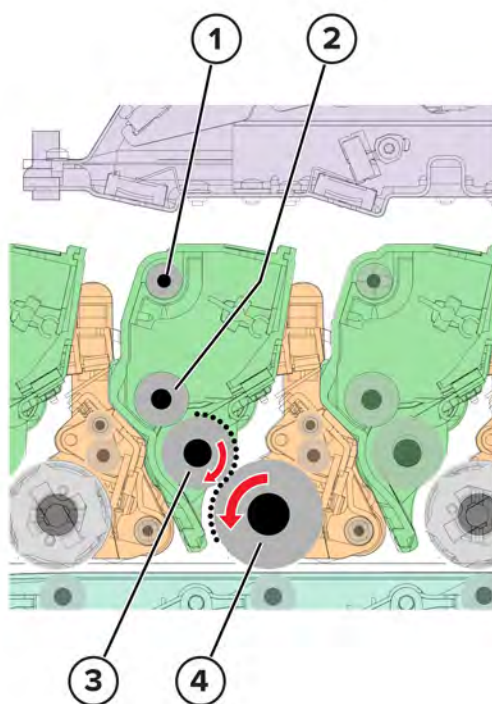
1	Printhead
2	Photoconductor drum

The printhead lasers emit the light that contacts the surface of the photoconductor drum. An invisible image, called *digital latent image*, is written as the light turns on or off. The light causes areas of the photoconductor drum surface to lose charge, resulting in a relative opposite polarity.

### Service tips

- Do not touch the surface of the photoconductor drum with your bare hand. The oil from your skin may cause a charge disparity on the surface, and the toner may no longer stick properly. The result can be repeating blotches or voids on the printed page or patches of light print. The affected imaging unit or kit may need to be replaced.
- The surface of the photoconductor drum is coated with an organic substance that makes it sensitive to light. Make sure to cover the photoconductor drum when you are working on the printer. If it is exposed to light for too long, then light or dark print quality problems may occur. The imaging unit or imaging kit may need to be replaced.
- Toner particles or dirt that get stuck on the printhead lens may obstruct the path of the laser beam. The result can be vertical light streaks on the printed page. If cleaning is not possible, then the printhead may need to be replaced.

## Develop



1	Auger
2	Toner add roller
3	Developer roller
4	Photoconductor drum

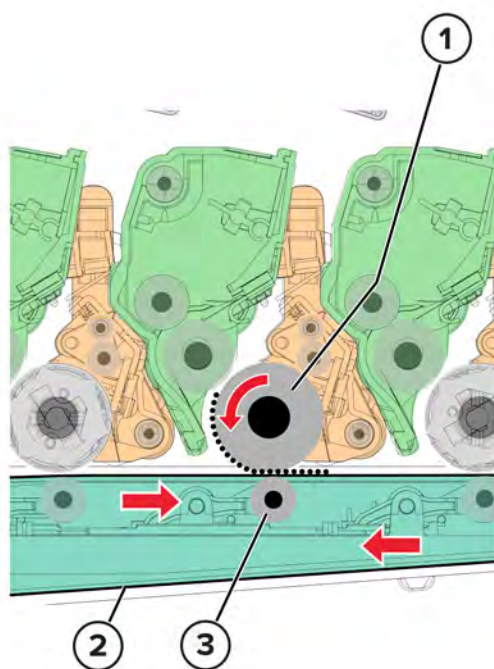
The developer roller applies the toner from the toner cartridge to the photoconductor drum. The relative opposite polarity in charge causes the toner particles to attract to the photoconductor drum areas which were exposed to light.

This process is similar to using glue to write on a can, and then rolling the can over glitter. The glitter sticks to the glue but does not stick to the rest of the can.

### Service tips

- Do not touch the surface of the developer roller with your bare hand. The oil from your skin may cause a charge disparity on the surface, and the toner may no longer stick properly. The result can be repeating blotches or voids on the printed page or patches of light print. The affected developer unit may need to be replaced.
- If the developer roller is damaged, then it cannot contact the surface of the photoconductor drum properly. The result can be repeating marks, thin vertical voids, or thin vertical lines of color on the printed page. Check the surface of the developer roller for damage. For more information, see [“Repeating defects check” on page 51](#).

## First transfer



1	Photoconductor drum
2	Transfer belt
3	First transfer roller

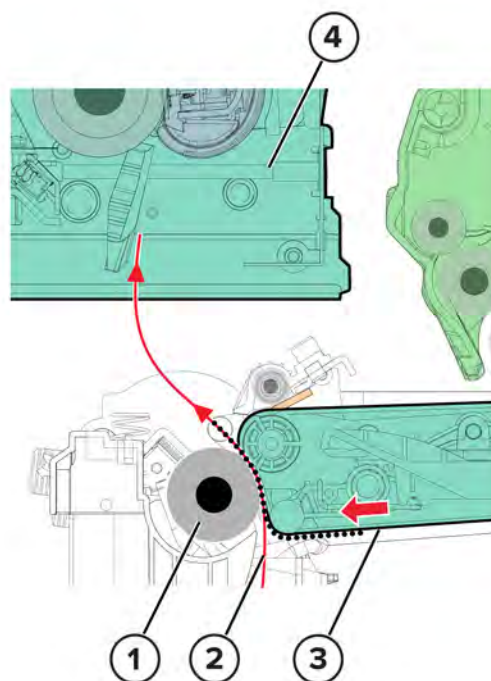
For each color, the charge difference between the developed toner image on the photoconductor drum surface and the first transfer roller causes the images to transfer to the surface of the transfer belt. This transfer occurs during a direct surface-to-surface contact between the photoconductor drum and the transfer belt.

### Service tips

- Do not touch the surface of the transfer belt with your bare hand. The oil from your skin may cause a charge disparity on the surface, and the toner may no longer stick properly. The result can be repeating blotches or voids on the printed page or patches of light print. The transfer module may need to be replaced. For more information, see [“Repeating defects check” on page 51](#).
- Do not use solvents or other cleaners to clean the transfer belt surface. If the surface gets scratches or charge disparities due to solvents or other cleaners, then voids on the printed page or blotches of light print may occur. The transfer module may need to be replaced.
- The transfer belt surface can be easily damaged by sharp and hard objects. Be careful when using the screwdriver or prying tool near the transfer module. If the transfer belt has tears or cracks, then the transfer module may need to be replaced.



## Second transfer



1	Second transfer roller
2	Paper
3	Transfer belt
4	Fuser

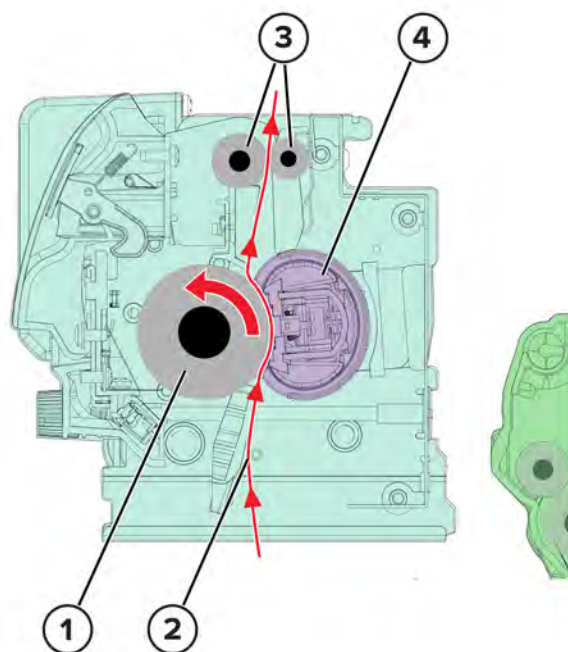
On the transfer belt, the four-color image is carried toward the second transfer roller. When the image on the transfer belt reaches a predetermined point, the paper pick is timed so that the paper is at the exact position between the transfer belt and second transfer roller.

When the image on the transfer belt reaches the second transfer roller, the negatively charged toner clings to the paper. The entire image is then transferred from the transfer belt to the paper.

### Service tips

- If the second transfer roller has nicks, pits, or flat spots, then its surface cannot come into contact with the paper and transfer belt. The result can be voids on the printed page or spots of light print (or repeating voids or spots). For more information, see [“Repeating defects check” on page 51](#).
- If the toner does not fully transfer, then the entire page may be very light or blank due to the following:
  - The second transfer roller does not properly engage the transfer belt.
  - The HVPS does not have voltage. Any toner that does transfer, is due to contact alone (without charge). Check the HVPS contacts to the second transfer roller.

## Fuse



1	Pressure roller
2	Paper
3	Fuser decurl rollers
4	Heat belt

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

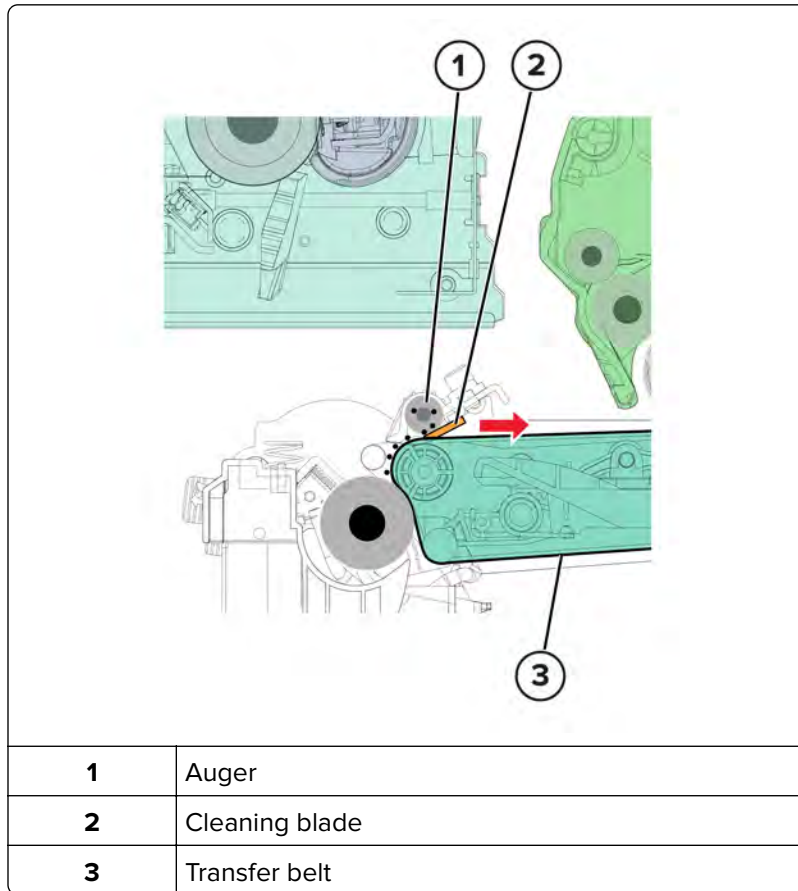
### Service tips

- If the pressure roller or heat belt is damaged, then the toner may be pulled off the page. Paper jams may also occur.
- Toner rubbing off a printed page indicates a malfunctioning fuser or an incorrect paper type setting. Always check the paper type setting before replacing the fuser. A common mistake is to print on heavier paper, such as card stock, with the paper type set to plain paper.
- After a jam is called on the fuser area, the fuser roller automatically releases to relieve the pressure on the paper. If possible, never pull paper with unfused toner through the fuser. Try to pull the jammed paper out of the fuser in the opposite direction it was traveling.

### Clean

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

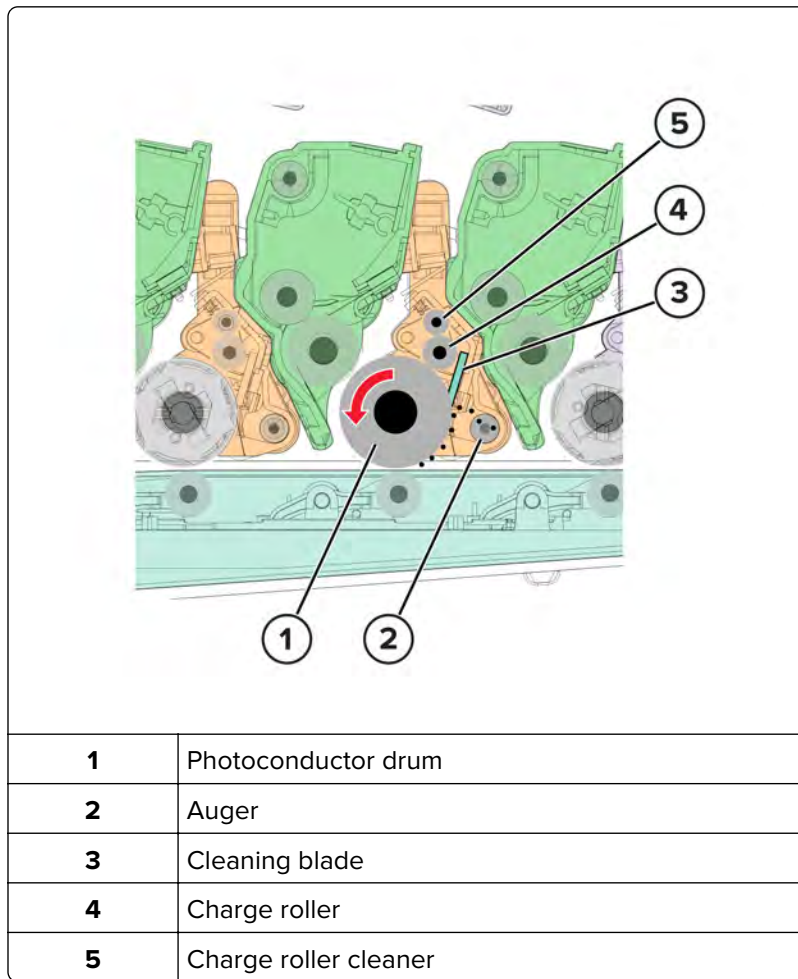
## Transfer belt clean



When the toner image on the transfer belt is transferred to the page, the transfer belt rotates and gets cleaned by the cleaning blade. The cleaning occurs for every page that is printed.

The removed toner is moved to the waste toner bottle using a rotating auger.

## Photoconductor drum clean



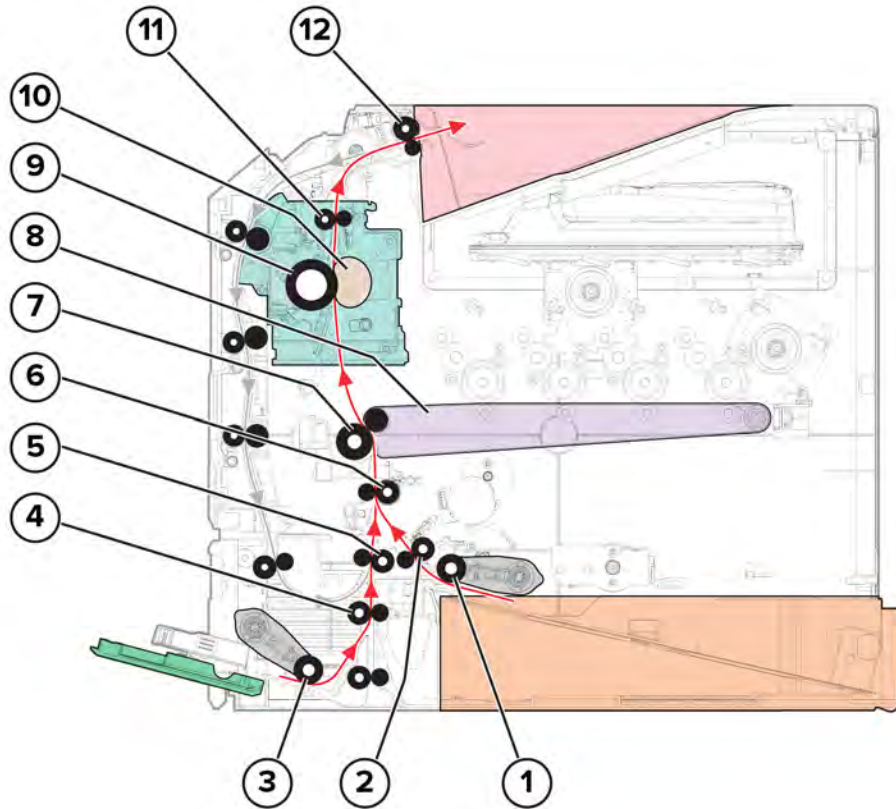
After each plane of color is transferred to the transfer belt from the photoconductor drums, a cleaning blade scrapes the remaining toner from the surface of each photoconductor drum.

The photoconductor drum surface is prepared to restart the EP process.

# Printer operation

## Printer paper path rollers

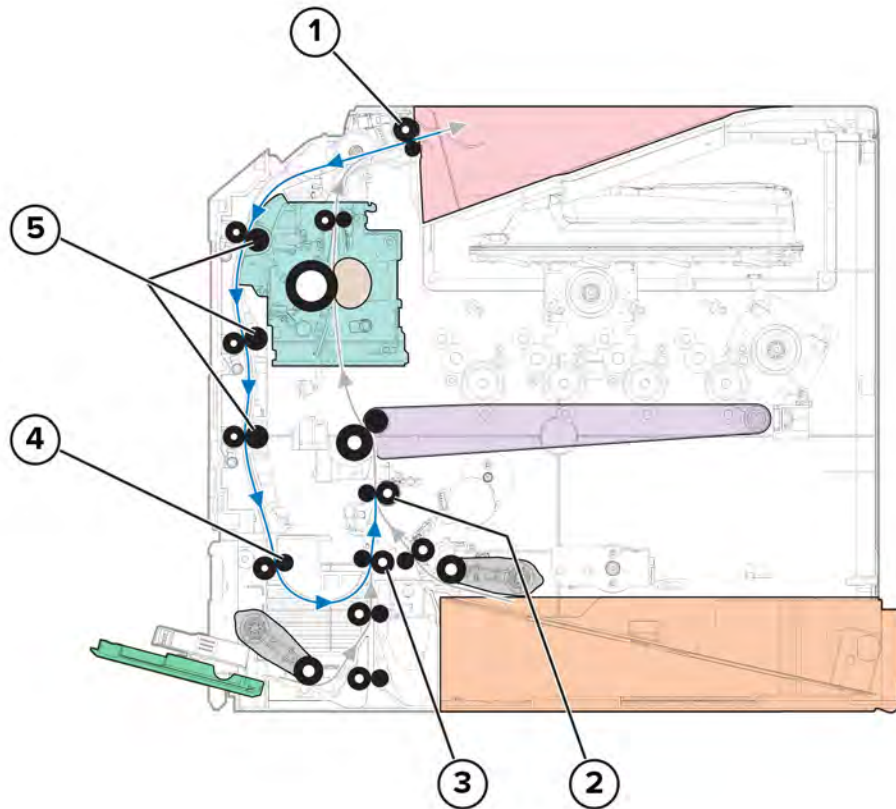
### Standard paper path



1	Tray 1 pick roller
2	Isolation roller
3	MPF pick roller
4	MPF reference edge roller
5	Alternate isolation roller
6	Aligner roller
7	Second transfer roller
8	Transfer belt
9	Fuser pressure roller
10	Fuser belt
11	Fuser decurl roller
12	Exit roller

Theory of operation

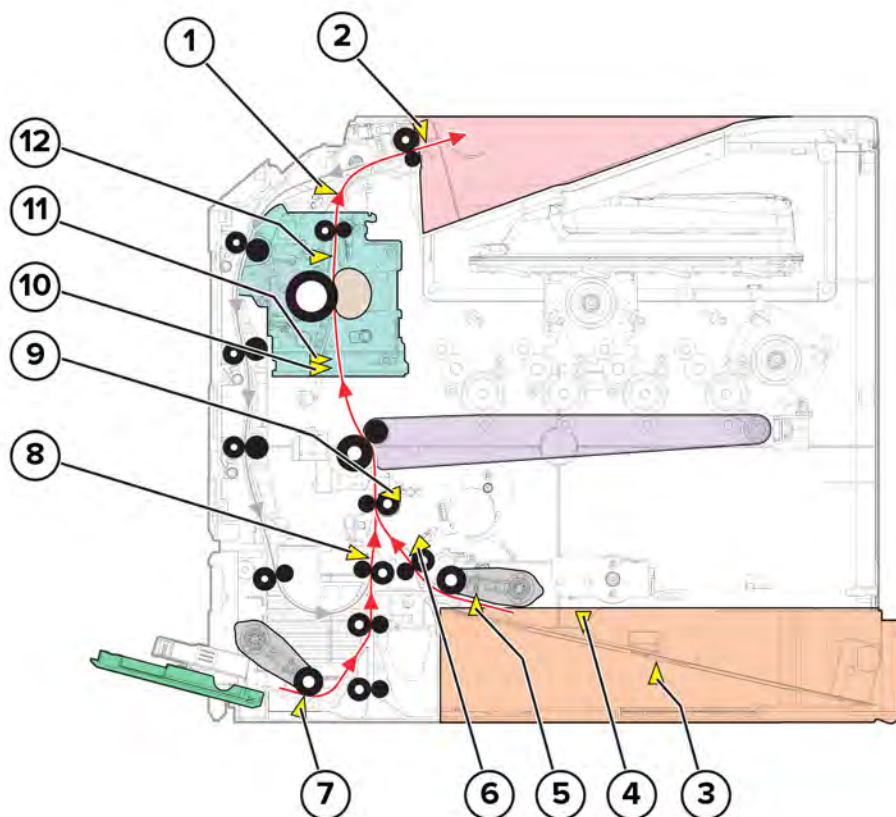
## Duplex paper path



1	Exit roller
2	Aligner roller
3	Alternate isolation roller
4	Duplex feed roller
5	Duplex aligner rollers

## Printer paper path sensors

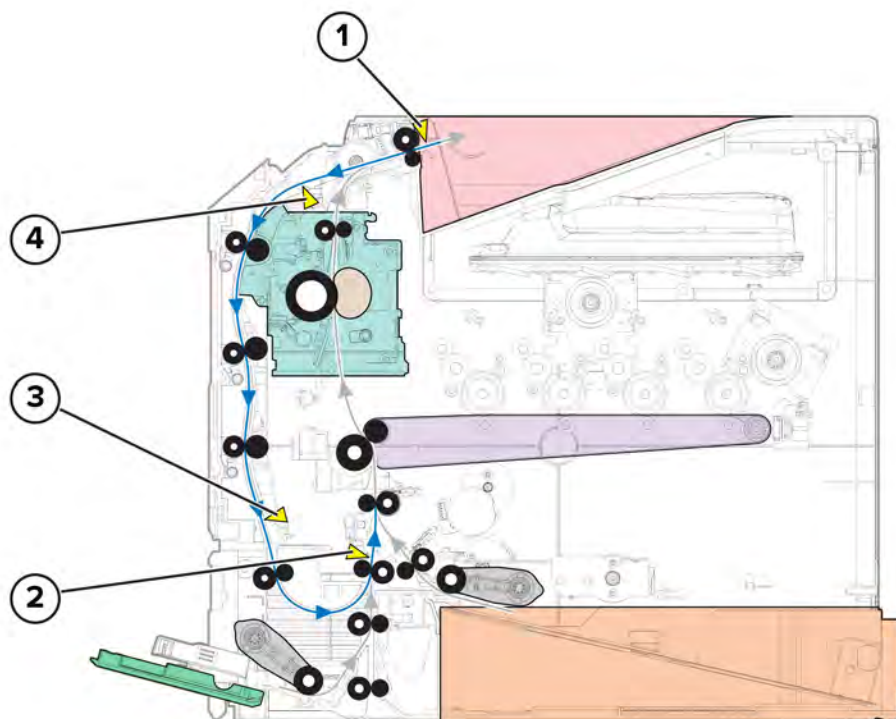
### Standard paper path



#	Sensor	Functions
1	Sensor (redrive)	<ul style="list-style-type: none"> <li>• Detects the paper as it exits the printer.</li> <li>• Detects the paper as it enters the duplex paper path.</li> </ul>
2	Sensor (bin full)	Detects if the bin is full.
3	Sensor (paper size)	Detects the position of the rear paper guide for determining the paper length.
4	Sensor (tray 1 paper present)	Detects the presence or absence of paper in the tray.
5	Sensor (pick position)	Detects if the pick roller is in position to pick.
6	Sensor (tray 1 pick)	Detects the paper as it is picked and fed to the printer.
7	Sensor (MPF paper present)	Detects the paper that is loaded in the MPF.
8	Sensor (MPF/pass-through)	<ul style="list-style-type: none"> <li>• Detects the paper that is fed from the MPF or duplex path.</li> <li>• Detects the paper that is transferred from the optional trays.</li> </ul>
9	Sensor (input)	Detects the paper as it approaches the transfer belt. The movements of the transfer belt and aligner roller are exactly timed to ensure the proper placement of the image on the paper.
10	Sensor (fuser buckle)	Detects the paper as it buckles at the fuser entrance. To prevent jams, the rollers slow down or speed up depending on the size of the buckle.

#	Sensor	Functions
11	Sensor (narrow media)	Detects if the paper width is narrow.
12	Sensor (fuser exit)	Detects the paper exiting the fuser.

## Duplex paper path

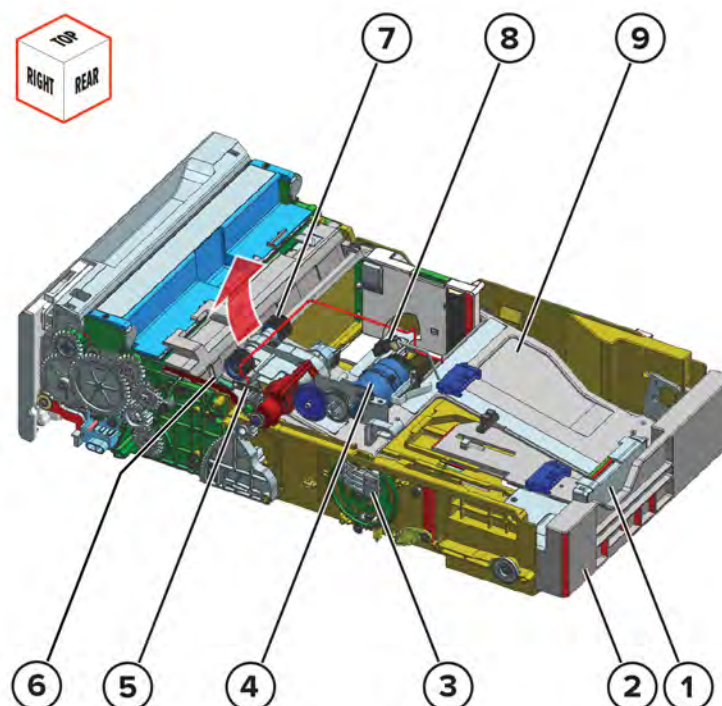


#	Sensor	Functions
1	Sensor (bin full)	Detects if the bin is full.
2	Sensor (MPF/pass-through)	<ul style="list-style-type: none"> <li>• Detects the paper that is fed from the MPF or duplex path.</li> <li>• Detects the paper that is transported from the optional trays.</li> </ul>
3	Sensor (duplex staging)	Detects the paper from the duplex path as it is realigned at its reference edge.
4	Sensor (redrive)	<ul style="list-style-type: none"> <li>• Detects the paper as it exits the printer.</li> <li>• Detects the paper as it enters the duplex paper path.</li> </ul>



## Pick drive

### Tray 1



1	Length guide
2	Tray
3	Paper size sensor actuator
4	Motor (tray 1 pick/lift)
5	Sensor (pick position)
6	Separator pad
7	Tray 1 pick roller
8	Sensor (tray 1 paper present)
9	Lift plate

Paper is lifted by the lift plate until the sensor (pick position) is triggered. The motor (pick/lift) starts, and then enables the pick roller to feed the paper into the printer.

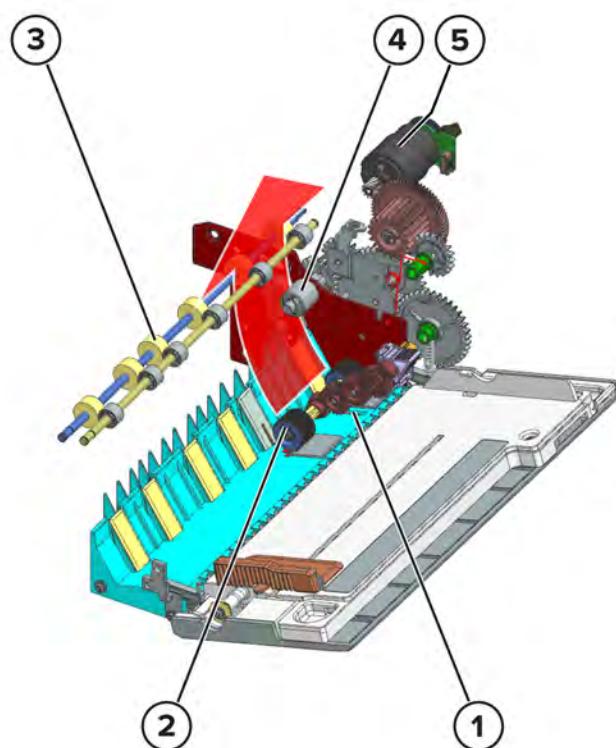
**Note:** The motor (pick/lift) also drives the lift plate when rotating in reverse.

To avoid multi-sheet picking, the friction from the separator pad prevents the extra paper from entering the printer.

The sensor (paper present) detects if the tray is empty.

The paper size is only detected based on the setting of the length guide. The paper size information is decoded using the paper size sensor actuator, and then sent to the controller board.

## MPF



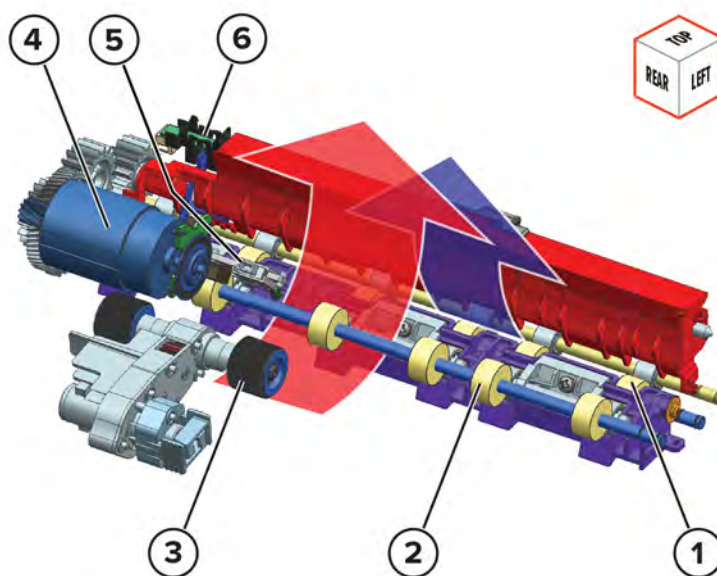
1	Sensor (MPF paper present)
2	MPF pick roller
3	Alternate isolation roller
4	MPF reference edge roller
5	Motor (duplex/MPF)

The MPF pick roller feeds the paper into the printer. At the MPF reference edge roller, paper is aligned along the reference edge and transported to the alternate isolation roller.

The motor (duplex/MPF) drives the MPF pick roller and reference edge roller. During duplex transport, a clutch in the gear mechanism prevents the MPF pick roller from picking paper.

The sensor (MPF paper present) detects if paper is loaded in the MPF.

## Isolation drive

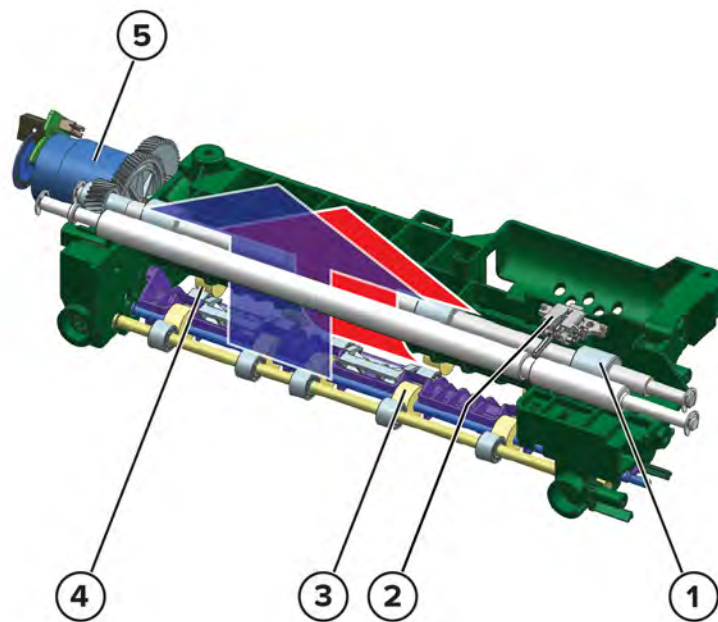


1	Alternate isolation roller
2	Isolation roller
3	Tray 1 pick roller
4	Motor (isolation)
5	Sensor (tray 1 pick)
6	Sensor (MPF/pass-through)

Isolation rollers receive the paper from different paths. For tray 1 print jobs, the path direction is indicated by the red arrow. For MPF, optional tray, or duplex print jobs, the path direction is indicated by the blue arrow. Sensors along the path detect the paper being transported.

The motor (isolation) drives the isolation rollers.

## Aligner drive

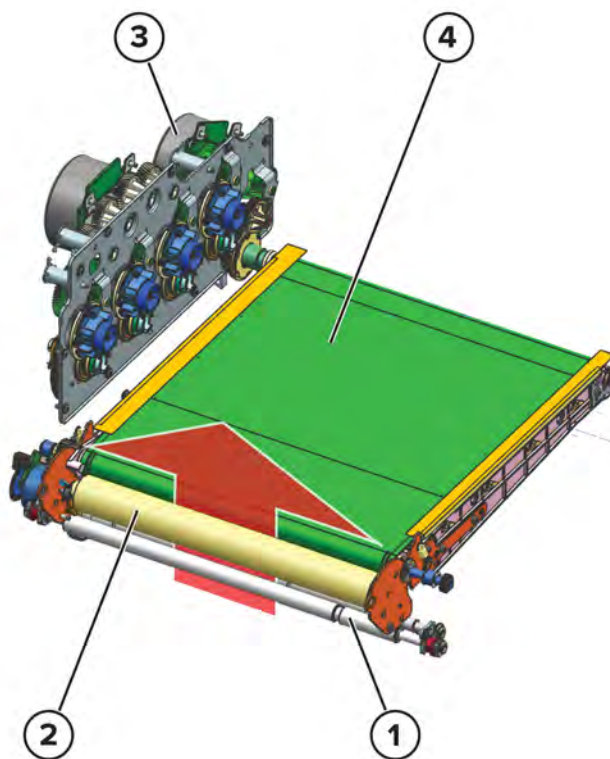


1	Aligner roller
2	Sensor (input)
3	Alternate isolation roller
4	Isolation roller
5	Motor (deskew)

Paper stops at the aligner roller to undergo skew correction. The isolation roller pushes the paper against the aligner roller. As the paper buckles, its leading edge aligns with the aligner roller. Paper then passes the aligner rollers, where it is detected by the sensor (input). The movements of the transfer belt and aligner roller are exactly timed to ensure the proper placement of the image on the paper.

The motor (deskew) drives the aligner roller.

## Transfer drive

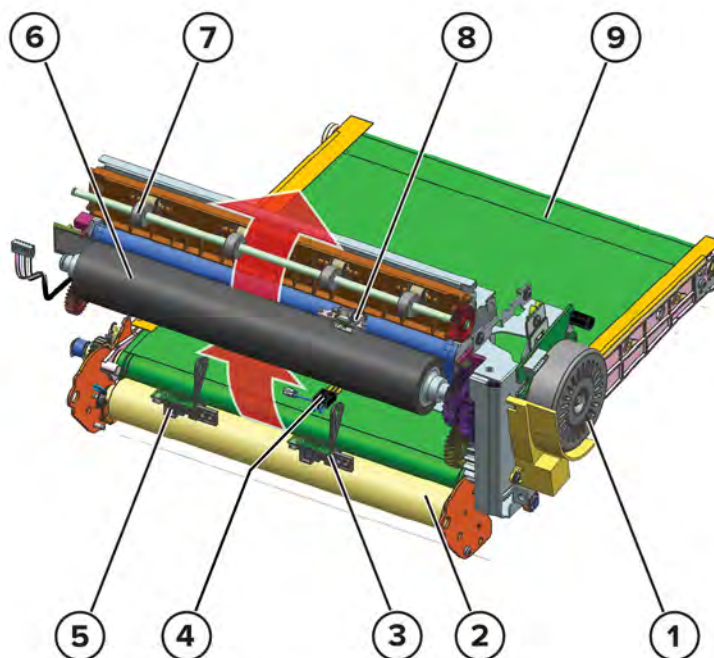


1	Aligner roller
2	Second transfer roller
3	Motor (K/transfer belt)
4	Transfer belt

After the paper is aligned, it passes between the second transfer roller and transfer belt. At this point, the four-color image is transferred to the paper.

The motor (K/transfer belt) drives the transfer belt. The movements of the transfer belt and aligner roller are exactly timed to ensure the proper placement of the image on the paper.

## Fuser drive



1	Motor (fuser)
2	Second transfer roller
3	Sensor (fuser buckle)
4	Sensor (fuser temperature)
5	Sensor (narrow media)
6	Fuser pressure roller
7	Fuser decurl roller
8	Sensor (fuser exit)
9	Transfer belt

The paper buckles when it reaches the fuser roller. If the buckle is small, then the fuser roller slows down to avoid pulling the paper from the transfer belt nip. If the buckle is big, then the roller speeds up to avoid smearing the image. The sensor (fuser buckle) detects the buckle.

As the paper passes the fuser, heat and pressure are applied to permanently bond the toner to the paper.

To counteract the paper curl after fusing, the fuser decurl roller applies a curl in the opposite direction. The roller also transports the paper to the exit path.

The sensor (fuser exit) detects the paper. The sensor (narrow media) determines if the paper is narrow.

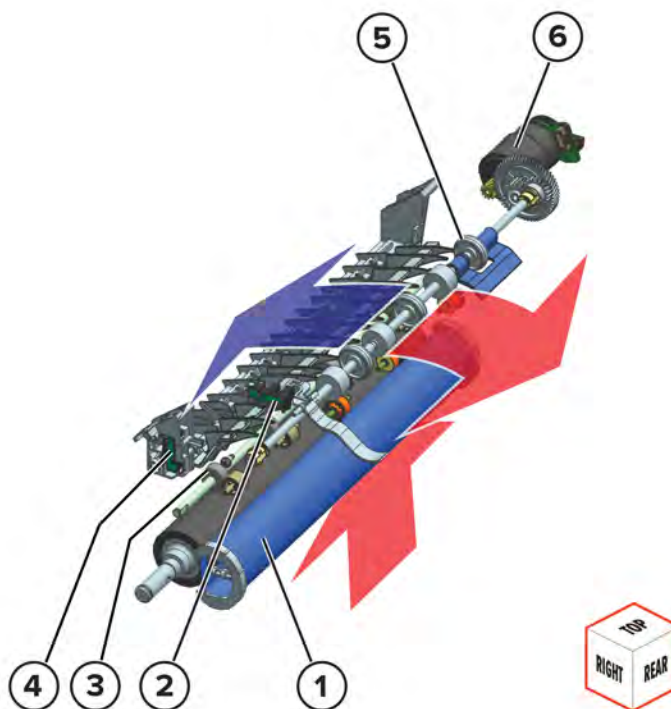
The motor (fuser) drives the fuser rollers.

## Fuser nip

The fuser nip may not release if the printer is still powered on. In some cases, the printer may need to be turned off first before removing jams in the fuser nip.

The fuser nip will not release if the doors are open or the waste toner box is missing because the fuser motor is interlocked.

## Exit and redrive drive



1	Fuser belt
2	Sensor (bin full)
3	Fuser decurl roller
4	Sensor (redrive)
5	Exit roller
6	Motor (exit/redrive)

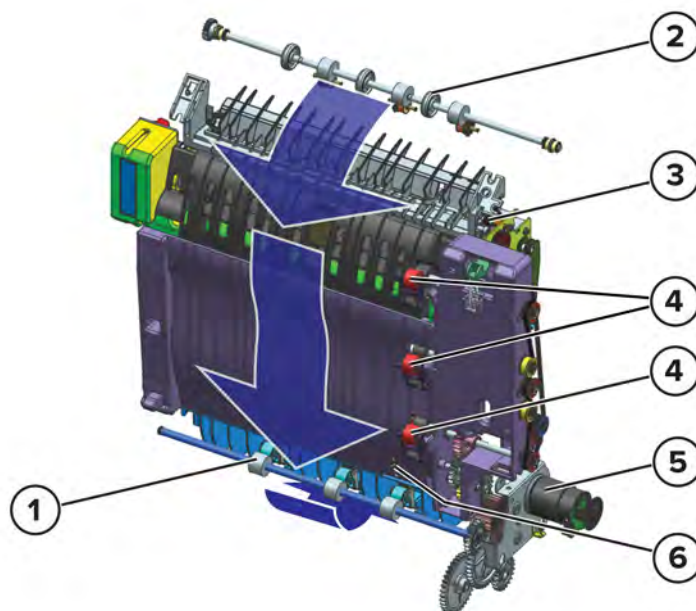
Paper is ejected by the exit roller to the bin. The exit roller is controlled by the motor (exit/redrive). The sensor (redrive) detects the paper going to the bin. The sensor (bin full) detects if the bin is full.

For duplex print jobs, the exit roller reverses its rotation to feed the paper back to the printer following the duplex paper path.

**Note:** The duplex paper path moves in the direction indicated by the blue arrow.

The sensor (redrive) also detects the paper entering the duplex path.

## Duplex drive



1	Duplex feed roller
2	Exit roller
3	Sensor (redrive)
4	Duplex aligner roller.
5	Motor (duplex/MPF)
6	Sensor (duplex staging)

For duplex print jobs, paper from the exit roller travels along the duplex aligner rollers. The aligner rollers also push the paper to the right, to align the side edge of the paper along the reference edge. As paper reaches the duplex feed roller, it is fed to the alternate isolation roller (see [“Isolation drive” on page 507](#)). Paper is then fed back to the standard paper path to print on the opposite side.

Sensors along the duplex path detect the paper. The motor (duplex/MPF) drives the duplex rollers.



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# CS730, CS735, C4342, C4352

## WIRING DIAGRAM

