CX730, CX735, CX737, XC4342, XC4352 MFPs

Service Manual

November 2026

www.lexmark.com

Product information

Product name:
Lexmark CX730de, Lexmark CX735adse, Lexmark CX737adzse, Lexmark XC4342, Lexmark XC4352 MFPs
Machine type:
7530
Models:
236, 239, 678, 679, 878

Edition notice

September 2023

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Notices, conventions, and safety information

Laser notice

The printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, Chapter I, Subchapter J for Class I (1) laser products, and elsewhere is certified as a Class 1 consumer laser product conforming to the requirements of IEC 60825-1:2014, EN 60825-1:2014+A11:2021, and EN 50689:2021.
Class I laser products are not considered to be hazardous. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service conditions. The printer has a non-serviceable printhead assembly that contains a laser with the following specifications:
Class: IIIb (3b) AlGaAs
Nominal output power (milliwatts): 12
Wavelength (nanometers): 770–800

Conventions

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

CAUTION—POTENTIAL INJURY
Indicates a risk of injury.

CAUTION—SHOCK HAZARD
Indicates a risk of electrical shock.

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

CAUTION—TIPPING HAZARD
Indicates a crush hazard.

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

Safety information

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



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



CAUTION—POTENTIAL INJURY
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.



CAUTION—POTENTIAL INJURY
Do not use aerosol cleaners. Aerosol cleaners can cause explosions or fires when used on electromechanical equipment.

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
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.

ATTENTION : RISQUE DE BLESSURE
N’utilisez pas de nettoyants aérosols. Les nettoyants aérosols peuvent provoquer des explosions ou des incendies lorsqu’ils sont utilisés sur des équipements électromécaniques.

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

PRECAUCIÓN: POSIBLES DAÑOS
Para evitar el riesgo de incendio o descarga eléctrica, utilice exclusivamente el cable de alimentación que se suministra junto con este producto o el repuesto autorizado por el fabricante.

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

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

PRECAUCIÓN: POSIBLES DAÑOS
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.

PRECAUCIÓN: POSIBLES DAÑOS
No utilice limpiadores en aerosol. Los limpiadores en aerosol pueden provocar explosiones o incendios al utilizarse en equipos electromecánicos.

Sicherheitshinweise

- Die Sicherheit dieses Produkts basiert auf Tests und Zulassungen des Originaldesigns und der spezifischen Komponenten. Sofern nicht autorisierte Ersatzteile eingesetzt werden, übernimmt der Hersteller keinerlei Verantwortung in Bezug auf die Sicherheit dieses Produkts.
- Die Wartungsinformationen für dieses Produkt wurden für ausgebildete Servicemitarbeiter zusammengestellt und dürfen nicht von anderen verwendet werden.
- Möglicherweise besteht bei der Demontage und Wartung dieses Produkts eine erhöhte Stromschlag- und Verletzungsgefahr. Ausgebildete Servicemitarbeiter sollten sich dieser Gefahr bewusst sein und die notwendigen Vorsichtsmaßnahmen ergreifen.

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

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR
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.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR
Verwenden Sie keine Aerosolreiniger. Aerosolreiniger können bei Verwendung an elektromechanischen Geräten Explosionen oder Brände verursachen.

Change history

Change history

November 3, 2026

- Added P/N 41X6711 Convenience Stapler Installation Adapter as a new FRU in the Convenience Stapler topic under the Parts Catalog chapter. See Convenience stapler on page 699.
- Updated the description for P/N 41X2844 in the Paper path 2 topic of the Parts catalog chapter. See Paper path 2 on page 688.
- Updated the "Indicator light is alternating between blue and blinking red" topic to "Blue and blinking red indicator light or printer stuck at startup" in the Diagnostics and troubleshooting chapter. See Blue and blinking red indicator light or printer stuck at startup on page 411.

October 14, 2026

- Updated the Action links of the 602.xx and 611.xx error codes in the topic 600–661 error messages of the Diagnostics and troubleshooting chapter. See 600–661 error messages on page 358.
- Added new topic Tray not ready to feed to the Diagnostics and troubleshooting chapter. See Tray not ready to feed on page 363.

September 23, 2026

- Removed the Light print check topic in the Print quality issues group of the Diagnostics and troubleshooting chapter.
- Added the Light or faded print topic into the Print quality issues group of the Diagnostics and troubleshooting chapter. See Light or faded print on page 57.
- Updated the Sensor (input): Paper failed to arrive service check topic of the Diagnostics and troubleshooting chapter relating to restarting the printer. See Sensor (input): Paper failed to arrive service check on page 123.
- Added the Lost or forgotten printer security password topic to the Diagnostics and troubleshooting chapter. See Lost or forgotten printer security password on page 38.
- Added the Importing a configuration file topic to the Parts removal chapter. See Importing a configuration file on page 490.
- Added the Exporting a configuration file topic to the Parts removal chapter. See Exporting a configuration file on page 490.

September 15, 2026

- Added the Installing the printhead topic in the Parts removal chapter. See Installing the printhead on page 488.
- Updated the Installation Note in the Printhead removal topic of the Parts removal chapter. See Printhead removal on page 592.

June 29, 2026

- Updated the waste toner bottle service check. See Waste toner bottle error service check on page 318.

April 27, 2026

- Updated the "Sensor tests" topic under the "Additional input trays adjustment/tests" section. See Sensor tests on page 458.

April 22, 2026

- Added PN 41X0570 Sensor (bin full) to the Covers 1 topic of the Parts catalog chapter. See Covers 1 on page 673.

April 13, 2026

- Updated the Dead machine service check topic of the Diagnostics and troubleshooting chapter. See Dead machine service check on page 398.

March 30, 2026

- Added PN 41X6602 (SATA Hard drive) in the Miscellaneous section of the Parts catalog chapter. See Miscellaneous on page 702.

November 25, 2025

- Updated the Paper out actuator spring removal topic of the Parts removal chapter. See Paper out actuator spring removal

September 3, 2025

- Changed PN 41X1907 to 41X6469 in the Electrical topic of the Parts catalog chapter. See Electrical.

August 13, 2025

- Added the "Alternating blue and blinking red" color in the Colors of the indicator light topic of the Service Menu chapter. See Colors of the indicator light on page 437.
- Added the Indicator light is alternating between blue and blinking red topic in the Diagnostics and troubleshooting chapter.
- Added the Reset device topic in the Service menus chapter. See Reset Device on page 472.

July 4, 2025

- Updated the Resetting the printer without admin credentials topic to Clearing the printer security password topic in the Diagnostics and troubleshooting chapter. See Clearing the printer security password on page 35.
- Updated the Using the security reset jumper topic in the Diagnostics and troubleshooting chapter. See Using the security reset jumper on page 36.

July 2, 2025

- Updated the Printhead removal topic of the Parts removal chapter. See Printhead removal.

April 23, 2025

- Updated the Controller board removal topic of the Parts removal chapter. See Controller board removal on page 587.

April 21, 2025

- Updated the Fuser topic in the Parts catalog chapter. See Fuser on page 679.
- Added the Critical instructions for replacing and diagnosing the controller board topic of the Parts removal chapter. See Critical instructions for replacing and diagnosing the controller board on page 476.

February 10, 2025

- Updated the Light print check topic in the Diagnostics and troubleshooting chapter.
- Added the Fuzzy or grainy image print check topic in the Diagnostics and troubleshooting chapter. See Fuzzy or grainy image print check on page 60.

December 20, 2024

- Added PN 41X2868 (Special media separator bracket) to the Paper feed in the Parts catalog chapter. See Paper feed on page 684.

September 23, 2024

- Updated the Engine software error service check topic in the Diagnostics and troubleshooting chapter. For more information, see Engine software error service check on page 394.

August 9, 2024

- Added the 42.60–42.64K error codes in the 42 user attendance messages topic of the Diagnostics and troubleshooting chapter. See 42 user attendance messages on page 297.
- Added the Toner cartridge service check topic in the Diagnostics and troubleshooting chapter. See Toner cartridge service check on page 301.

August 1, 2024

- Updated the Missing toner cartridge, imaging unit, or imaging kit service check topic in the Diagnostics and Troubleshooting chapter. See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.

July 17, 2024

- Added the Black Only Retract (BOR) drive topic in the Theory of operation chapter. See Black Only Retract (BOR) drive on page 731.
- Updated the part number for Duplex outer guide from 41X0407 to 41X0426 in the Duplex topic of the Parts catalog chapter. See Duplex on page 690.

June 14, 2024

- Added information about the ellipses loading screen on the Entering Recovery mode topic of the Service menus chapter. See Entering Recovery mode on page 469.

February 9, 2024

- Applied the following changes in the Electrical on page 692 topic of the Parts Catalog chapter:
  - Removed PN 41X2876 (Engine board).
  - Removed the note indicating that PN 41X4581 (Engine board) is compatible with CS/CX737 models only.

January 10, 2024

- Added a note in step 3 of the ADF removal in the Parts removal chapter. See ADF removal on page 624.

August 9, 2023

- Added a note in the 32.40D, 32.41D, 32.42D, and 32.43D error codes in the 32 user attendance error messages topic of the Diagnostics and troubleshooting chapter. See 32 user attendance error messages on page 286.

June 26, 2023

- Added the PN 41X0906 (Screws pack) in the Miscellaneous assembly in the Parts catalog chapter. See Miscellaneous on page 702.

April 17, 2023

- Removed PN 41X2831 from the Control panel assembly in the Parts catalog chapter. See Control panel on page 677.
- Updated the following topics in the Diagnostics and troubleshooting chapter:
  - Print crooked or skewed check. See Print crooked or skewed check on page 69.
  - Image void scan direction check. See Image void scan direction check on page 97.

March 30, 2023

- Updated the topic Configuring the door interlock bypass jumpers in the Service menus chapter. See Configuring the door interlock bypass jumpers on page 437.
- Updated the following topics in the Diagnostics and troubleshooting chapter:
  - LVPS service check. See LVPS service check on page 333.
  - HVPS service check. See HVPS service check on page 334.
  - Fuser service check. See Fuser service check on page 331.
  - Sensor (ADF multifeed) jam service check. See Sensor (ADF multifeed) jam service check on page 271.
  - Scanner cover open service check. See Scanner cover open service check on page 273.
  - Engine software error service check. See Engine software error service check on page 394.
  - ADF paper jam service check. See ADF paper jam service check on page 268.
  - 31 user attendance error messages. See 31 user attendance error messages on page 282.
  - 32 user attendance error messages. See 32 user attendance error messages on page 286.
  - 121 error messages. See 121 error messages on page 327.
  - 126-127 error messages. See 126–127 error messages on page 332.
  - 200 paper jam messages. See 200 paper jam messages on page 120.
  - 912-992 error messages. See 912–992 error messages on page 391.
- Updated the following topics in the Removals chapter:
  - Registration adjustment. See Registration adjustment on page 492.
  - ADF registration adjustment. See ADF registration adjustment on page 496.
  - Headphone and USB socket cables removals. See Headphone and USB socket cables removals on page 524.
  - Headphone socket cable removal. See Headphone and USB socket cables removals on page 524.
  - Motor (BOR) removal. See Motor (BOR) removal on page 506.
  - Scanner glass pad removal. See Scanner glass pad removal on page 618.
  - Left cover removal. See Left cover removal on page 497.
  - HVPS removal. See HVPS removal on page 534.
  - Paper out actuator spring removal. See Paper out actuator spring removal on page 614.

- Control panel display (7-inch) removal. See Control panel display (7-inch) removal on page 559.
- Control panel base (7-inch) removal. See Control panel base (7-inch) removal on page 563.
- ADF tray removal. See ADF tray removal on page 623.
- Flatbed scanner removal. See Flatbed scanner removal on page 625.
- Scanner cables removal. See Scanner cables removal on page 632.
- Tilting the ADF and flatbed scanner to access parts. See Tilting the ADF and flatbed scanner to access parts on page 637.

- Updated the following topics in the Maintenance chapter:
  - Maintenance kits. See Maintenance kits.
  - Cleaning the pick roller in the multipurpose feeder. See Cleaning the pick roller in the multipurpose feeder on page 664.
- Updated the following topics in the Parts catalog chapter:
  - Fuser. See Fuser on page 679.
  - Maintenance kits. See Maintenance kits on page 653.
  - Electrical. See Electrical on page 692.
- Updated the topic Exit and redrive drive in the Theory of operation chapter. See Exit and redrive drive on page 730.

March 8, 2023

- Updated the following topics in the Diagnostics and troubleshooting chapter:
  - Blank or white pages check. See Blank or white pages check on page 41.
  - Gray or colored background check. See Gray or colored background check on page 52.
  - Horizontal colored lines or banding check. See Horizontal colored lines or banding check on page 55.
  - Light print check.
  - Print crooked or skewed check. See Print crooked or skewed check on page 69.
  - Repeating defects check. See Repeating defects check on page 73.
  - 32 user attendance error messages. See 32 user attendance error messages on page 286.
  - 33 user attendance error messages. See 33 user attendance error messages on page 291.
- Updated the following topics in the Service menus chapter:
  - Sensor tests. See Sensor tests on page 448.
  - Configuration menu. See Configuration Menu on page 462.
  - General SE. See General SE on page 469.
  - Network SE. See Network SE on page 470.
  - Fax SE. See Fax SE on page 471.
- Added the following topics in the Service menus chapter:
  - Memory tests. See Memory tests on page 457.
  - Controller Calibration. See Controller Calibration on page 446.

- Updated the following topics in the Removals chapter:
  - Imaging kit removal. See Imaging kit removal on page 517.
  - Transfer module removal. See Transfer module removal on page 547.
  - Entering the sensor (TPS) characterization data. See Entering the sensor (TPS) characterization data on page 540.
  - HVPS removal. See HVPS removal on page 534.
- Updated the topic Controller board and engine board connectors in the Component locations chapter. See Controller board and engine board connectors on page 643.
- Updated the topic Cleaning the pick roller in the Maintenance chapter. See Cleaning the pick roller on page 663.
- Updated the topic Fuser drive in the Theory of Operations chapter. See Fuser drive on page 728.
- Updated the Wiring Diagram.

February 1, 2023

- Changed the P/N for fax card from 41X1374 to 41X4916. See Miscellaneous on page 702.

December 22, 2022

- Added the topic Entering the sensor (TPS) characterization data in the Removals chapter. See Entering the sensor (TPS) characterization data on page 540.

November 29, 2022

- Added the topic group Securing the printer in the Diagnostics and troubleshooting chapter. It includes these topics:
  - Resetting the printer without admin credentials. See Resetting the printer without admin credentials.
  - Using the security reset jumper. See Using the security reset jumper.

November 10, 2022

- Added PN 41X1374 Fax card in the Miscellaneous parts topic of the Parts catalog chapter. See Miscellaneous on page 702.
- Changed the part number from 41X3899 to 41X0435 in the Covers 2 topic of the Parts catalog chapter. See Covers 2 on page 675.

October 20, 2022

- Updated the topic title from Sensor (fuser present) removal to Sensor (fuser nip) removal of the Parts removal chapter. See Sensor (fuser nip) removal on page 557.
- Added the 121.42 error code in the 121 error messages topic of the Diagnostics and troubleshooting chapter. See 121 error messages on page 327.
- Added the 32.xy fuser unsupported codes in the 32 user attendance error messages of the Diagnostics and troubleshooting chapter. See 32 user attendance error messages on page 286.
- Added the new sensor (fuser nip) art and updated the content of the Fuser nip subtopic under the Fuser drive topic of the Theory of operation chapter. See Fuser drive on page 728.
- Added PN 41X1083 Sensor (fuser nip) in the Fuser topic of the Parts catalog chapter. See Fuser on page 679.

August 2, 2022

- Added the following topics in the Parts Removal chapter:
  - Control panel display (7-inch) removal. See Control panel display (7-inch) removal on page 559.
  - Control panel base (7-inch) removal. See Control panel base (7-inch) removal on page 563.
  - Transfer module retainer removal. See Transfer module retainer removal on page 549.
- Added the Resetting the ADF rollers maintenance counter topic in the Maintenance chapter. See Resetting the ADF rollers maintenance counter on page 656.
- Updated the following topics:
  - Motor (duplex/MPF) removal topic in the Parts removals chapter. See Motor (duplex/MPF) removal on page 532.
  - Isolation unit removal topic of the Parts removals chapter. See Isolation unit removal on page 616.
  - Print crooked or skewed check topic in the Diagnostics and troubleshooting chapter. See Print crooked or skewed check on page 69.
  - Light print check topic of the Diagnostics and troubleshooting chapter.
- Updated the titles of the following topics:
  - From Resetting the maintenance counters to Resetting the fuser maintenance counter. See Resetting the fuser maintenance counter on page 656.
  - From Transfer module reset to Resetting the transfer module counter. See Resetting the transfer module counter on page 656.
- Added PN 41X2848 to the Maintenance kits topic of the Maintenance chapter. See Maintenance kits.
- Changed the part number of Bin exit cover from 41X3896 to 41X3895 in the **Assembly 1: Covers 1** topic of the Parts Catalog chapter. See Covers 1 on page 673.
- Removed PN 41X0578 (TPS wipers) from the **Assembly 10: Electrical** topic of the Parts Catalog chapter. See Electrical on page 692

July 7, 2022

- Added the **Applicability of Regulation (EU) 2019/2015 and (EU) 2019/2020** topic to the Printer Specifications chapter.
- Applied the following changes in the **Assembly 1: Covers 1** topic of the Parts Catalog chapter:
  - Changed Units/FRU of PN 41X0380 from 1 to 2.
  - Changed Units/FRU of PN 41X2032 from 1 to 4.

  See Covers 1 on page 673.
- Applied the following changes in the **Assembly 3: Control panel** topic of the Parts Catalog chapter:
  - Updated the description for PN 41X2831 to control panel cable bracket, which includes the following components:
    - Headphones and USB cable bracket
    - Control panel FFC.
  - Added PN 41X4466 (Control panel cables
    - Headphone and USB cable bracket

        - Headphone cable
        - Control panel FFC).

    See Control panel on page 677.

- Changed Units/mach of PN 41X0372 from 2 to 1 in the **Assembly 6: Paper feed** topic of the Parts Catalog chapter. See Paper feed on page 684.
- Added PN 41X4463 (Left side cables
    - LVPS cable
    - AC line in cable
    - CMY motor cable
    - Fuser AC cable
    - BOR motor cable
    - Fuser DC cable
    - K motor cable
    - Exit/redrive motor cable).

    to the **Assembly 7: Paper path 1** topic of the Parts Catalog chapter. See Paper path 1 on page 686.
- Changed Units/FRU of PN 41X4460 from 2 to 1 in the **Assembly 8: Paper path 2** topic of the Parts Catalog chapter. See Paper path 2 on page 688.
- Changed Units/FRU of PN 41X0379 from 1 to 2 in the **Assembly 9: Duplex** topic of the Parts Catalog chapter. See Duplex on page 690.
- Added the following parts to the **Assembly 10: Electrical** topic of the Parts Catalog chapter:
    - Added PN 41X4465 (Right side cables
        - Front door sensor cables
        - TMC card cable
        - Weather station sensor cable
        - Interlock switch cables
        - Optional tray cables).
    - Added 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 692.
- Updated the description for PN 41X3709 to Scanner cables in the **Assembly 11: ADF and flatbed scanner** topic of the Parts Catalog chapter. This part includes the following components:
    - ADF cables
    - ADF cable covers.

See ADF and flatbed scanner on page 695.

- Changed the note for PN 40X8149 in the **Assembly 13: Convenience stapler** topic of the Parts Catalog chapter. PN 40X8149 has a CRU sheet, not FRU sheet. See Convenience stapler on page 699.
- Added PN 41X1007 (Cleaning kit) in the **Assembly 15: Miscellaneous parts** topic of the Parts Catalog chapter. See Miscellaneous on page 702.
- Applied the following image updates:
    - Updated the image in the **Assembly 1: Covers 1** topic of 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.
- Indicated that all parts in the **Assembly 16: Maintenance kits** topic of the Parts Catalog chapter have CRU sheets. See Maintenance kits on page 653.
- Updated the wiring diagram to include the part numbers.

April 26, 2022

- Product announce

General information

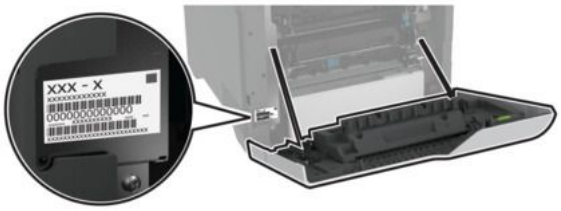
Printer model configurations

The Lexmark™ CX730, CX735 and Lexmark XC4342, XC4352 MFPs 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
CX730de	7-in. color touch screen display, duplex print, duplex scan, networking, ISD and hard disk support, optional tray support, wireless module support	7530-236
XC4342	7-in. color touch screen display, duplex print, duplex scan, networking, ISD and hard disk support, optional tray support, wireless module support	7530-239
CX735adse	10-in. color touch screen display, duplex print, duplex scan, networking, fax, multi-feed detection, ISD and hard disk support, optional tray support, wireless module support	7530-678
XC4352	10-in. color touch screen display, duplex print, duplex scan, networking, fax, multi-feed detection, ISD and hard disk support, optional tray support, wireless module support	7530-679

Finding the printer serial number

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



Selecting paper

Paper guidelines

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

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

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

Paper characteristics

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

Weight

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

Curl

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

Smoothness

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

Moisture content

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

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

Grain direction

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

Fiber content

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

Unacceptable paper

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

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

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

Storing paper

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

- Store paper in its original wrapper in the same environment as the printer for 24 to 48 hours before printing.
- Extend the time several days if the storage or transportation environment is very different from the printer environment. Thick paper may also require a longer conditioning period.
- For best results, store paper where the temperature is 21°C (70°F) and the relative humidity is 40 percent.
- Most label manufacturers recommend printing in a temperature range of 18–24°C (65–75°F) with relative humidity between 40 and 60 percent.
- Store paper in cartons, on a pallet or shelf, rather than on the floor.

- Store individual packages on a flat surface.
- Do not store anything on top of individual paper packages.
- Take paper out of the carton or wrapper only when you are ready to load it in the printer. The carton and wrapper help keep the paper clean, dry, and flat.

Selecting preprinted forms and letterhead

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

Setting the paper size and type

1. From the control panel, navigate to **Settings › Paper › Tray Configuration › Paper Size/Type**.
2. Select a paper source.
3. Set the paper size and type.

Supported paper sizes

Paper size	650-sheet duo tray	Optional 550-sheet tray	Two-sided printing	Scanner	ADF	
550-sheet tray	100-sheet multipurpose feeder					
A4 210 x 297 mm (8.27 x 11.7 in.)	✓	✓	✓	✓	✓	✓

Paper size	650-sheet duo tray	Optional 550-sheet tray	Two-sided printing	Scanner	ADF	
550-sheet tray	100-sheet multipurpose feeder					
A5 landscape [1] 210 x 148 mm (8.27 x 5.83 in.)	✓	✓	✓	✓	✓	✓
A5 portrait [1] 148 x 210 mm (5.83 x 8.27 in.)	✓	✓	✓	✓	✓	✓
A6 105 x 148 mm (4.13 x 5.83 in.)	✓	✓	✓	✓	✓	✓
Banner 215.9 x 1320.8 mm (8.5 x 52 in.)	X	✓	X	X	X	X
Executive 184.2 x 266.7 mm (7.25 x 10.5 in.)	✓	✓	✓	✓	✓	✓
Folio 215.9 x 330.2 mm (8.5 x 13 in.)	✓	✓	✓	✓	✓	✓

Paper size	650-sheet duo tray	Optional 550-sheet tray	Two-sided printing	Scanner	ADF	
550-sheet tray	100-sheet multipurpose feeder					
Hagaki 100 x 148 mm (3.94 x 5.83 in.)	X	✓	X	X	✓	X
JIS B5 182 x 257 mm (7.17 x 10.1 in.)	✓	✓	✓	✓	✓	✓
Legal 215.9 x 355.6 mm (8.5 x 14 in.)	✓	✓	✓	✓	✓	✓
Letter 215.9 x 279.4 mm (8.5 x 11 in.)	✓	✓	✓	✓	✓	✓
Oficio (Mexico) 216 x 340 mm (8.5 x 13.4 in.)	✓	✓	✓	✓	✓	✓
Statement 139.7 x 215.9 mm (5.5 x 8.5 in.)	✓	✓	✓	✓	✓	✓

Paper size	650-sheet duo tray	Optional 550-sheet tray	Two-sided printing	Scanner	ADF	
550-sheet tray	100-sheet multipurpose feeder					
Universal [2, 3] 76.2 x 127 mm to 215.9 x 355.6 mm (3 x 5 in. to 8.5 x 14 in.)	X	✓	X	X	X	X
Universal [2, 3] 105 x 148 mm to 215.9 x 355.6 mm (4.13 x 5.83 in. to 8.5 x 14 in.)	✓	✓	✓	✓	X	X
7 3/4 Envelope 98.4 x 190.5 mm (3.875 x 7.5 in.)	X	✓	X	X	✓	X
9 Envelope 98.4 x 225.4 mm (3.875 x 8.9 in.)	X	✓	X	X	✓	X
10 Envelope 104.8 x 241.3 mm (4.12 x 9.5 in.)	✓	✓	✓	X	✓	X

Paper size	650-sheet duo tray	Optional 550-sheet tray	Two-sided printing	Scanner	ADF	
550-sheet tray	100-sheet multipurpose feeder					
11 Envelope 114.3 x 263.525 mm (4.5 x 10.375 in.)	✓	✓	✓	X	✓	X
12 Envelope 120.65 x 279.4 mm (4.75 x 11 in.)	✓	✓	✓	X	✓	X
B5 Envelope 176 x 250 mm (6.93 x 9.84 in.)	✓	✓	✓	X	✓	X
B6 Envelope 125 x 176 mm (4.92 x 6.92 in.)	✓	✓	✓	X	✓	X
C5 Envelope 162 x 229 mm (6.38 x 9.01 in.)	✓	✓	✓	X	✓	X
C6 Envelope 114 x 162 mm (4.48 x 6.37 in.)	✓	✓	✓	X	✓	X

Paper size	650-sheet duo tray	Optional 550-sheet tray	Two-sided printing	Scanner	ADF	
550-sheet tray	100-sheet multipurpose feeder					
DL Envelope 110 x 220 mm (4.33 x 8.66 in.)	✓	✓	✓	X	✓	X
Monarch 98.4 x 190.5 mm (3.875 x 7.5 in.)	X	✓	X	X	✓	X
Other Envelope [4] 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	✓	X

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

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

[3] Load narrow paper in portrait orientation.

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

Supported paper types

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

Note:

- Labels, envelopes, and card stock always print at reduced speed.
- Card stock is supported in two-sided printing only up to 163 g/m^2 (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	ADF	
550-sheet tray	100-sheet multipurpose feeder			
60–218 g/m^2 (16–58-lb bond)	60–218 g/m^2 (16–58-lb bond)	60–218 g/m^2 (16–58-lb bond)	60–162 g/m^2 (16–43-lb bond)	52–120 g/m^2 (14–32-lb bond)

Note:

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

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

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

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

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

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

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

Precauciones durante la solución de problemas

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

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

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

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

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

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

Vorsichtsmaßnahmen bei der Fehlerbehebung

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

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

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

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

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

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

Troubleshooting overview

Performing the initial troubleshooting check

- With the power cord unplugged from the electrical outlet, check if the cord is free from breakage, short circuits, disconnected wires, or incorrect connections.
- Make sure that the printer is properly grounded.
- Make sure that the power supply line voltage is within 10% of the rated line voltage.
- Make sure that the printer is securely installed on a level surface in a well-ventilated area.
- Make sure that the temperature and relative humidity are within the specifications. See Temperature information on page 711.
- 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.

Securing the printer

Clearing the printer security password

Notes

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

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

Using the Reset Device menu

Notes

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

From the control panel, select , enter *** * 7 3**, select , and then select **Out of Service Erase**.

Using the Settings menu

1. From the control panel, select **Settings › Device › Maintenance › Out of Service Erase › Sanitize all information on nonvolatile memory**.
2. Select **Sanitize all information on nonvolatile memory**, and then select **Start initial setup wizard** or **Leave printer offline**.

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

Notes

- If there are installed applications that are difficult to reinstall, then use the security reset jumper to reset the printer to its factory defaults. For more information, see .
- It takes approximately 30 seconds from the moment you perform the reset until the screen changes to indicate the printer is processing the request.

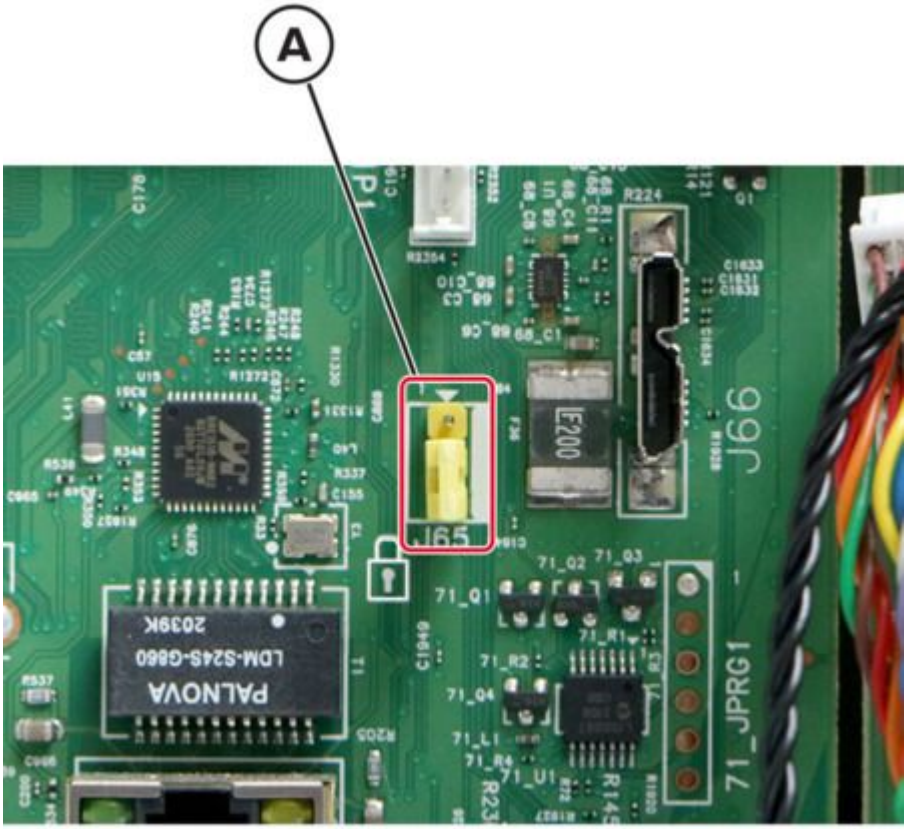
Using the security reset jumper

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

Notes

- To enable the effect of the security reset jumper, from the control panel navigate to: **Security › Miscellaneous › Security Reset Jumper › Enable “Guest” Access**.
- To disable the effect of the jumper, select **No Effect** from the Security Reset Jumper section in the Security menu. If the password is forgotten or lost, then perform an **Out of Service Erase** from the Diagnostics menu. For more information, see Restoring the printer configuration on page 479.

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



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

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

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

Notes

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

Data security notice

Identifying printer memory

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

The following parts can store memory:

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

Notes
The printer control panel and controller board contain NVRAM.

Erasing printer memory

To erase volatile memory, turn off the printer.

To erase nonvolatile memory, do the following:

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

To erase hard disk memory, do the following:

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

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

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

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

   Notes
   You can get printed copies of the form from your Lexmark partner manager.

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

Lost or forgotten printer security password

Issue description

- The printer security password is lost or forgotten.
- Protected menus, security settings, and other administrative functions are unavailable.

Customer resolution

Note: Resetting the printer deletes all security settings, applications, and licenses.

1. Contact the printer administrator for assistance with resetting the printer security password.
2. Before resetting the printer, back up the current configuration if you have access to the Embedded Web Server and permission to export printer settings. For more information, see Exporting a configuration file on page 490.

Remote resolution

1. Make sure that the user performs all the steps in the **Customer resolution** section.

   Note: Before resetting the printer, try **Admin** as the login name and the device XSN (9 or 10 digits) as the password.

2. Reset the printer using the first available method, in the order of preference.
   a. Using the **Reset Device** menu

      Notes
      - This menu is available only in FW 221.112 or later.
      - To enable the menu, set **Reset Device Modes** to **Allow with FAC** or **Allow**. From the control panel, navigate to **Settings › Security › Miscellaneous › Reset Device Modes**.

   b. Using the **Settings** menu
      i. From the control panel, navigate to **Settings › Device › Maintenance › Out of Service Erase**.

         Note: This process deletes the encryption key used to protect user data, making the data unrecoverable.

      ii. Select **Sanitize all information on nonvolatile memory**, and then select **Erase**.

      iii. Select **Start initial setup wizard** or **Leave printer offline**, and then select **Next**.

         Note: If neither reset method is available or if administrator credentials are required, continue to **Detailed diagnostics**.

Initial parts replacement

No part replacement is needed. This issue can be resolved using the preceding steps. If the issue persists, then contact the next level of support.

Detailed diagnostics

1. If installed applications are difficult to reinstall, use the security reset jumper to restore the printer to factory defaults. For more information, see Using the security reset jumper on page 36.
2. If **Out of Service Erase** is unavailable from the **Settings** menu or **Reset Device** menu, or if administrator credentials are required, perform **Out of Service Erase** from the **Diagnostics** menu.

   Depending on the printer model, use one of the following methods:
   - **4.3-inch display or larger**
     a. From the home screen, swipe right to open the **Control Center**.
     b. Enter ****73**, and then select **OK**.
     c. Select **Out of Service Erase**.
   - **2.8-inch display**
     a. Press **Back, Back, Home,** and **Start** in sequence.
     b. Select **Out of Service Erase**.
   - **2-line display**
     a. Press **Back, Right Arrow, Back,** and **Right Arrow** in sequence.
     b. Select **Out of Service Erase**.

3. Restore the printer configuration to complete the service procedure.

a. Use the **Service Restore Tool** to download the software bundle. For more information, see Restoring the printer configuration on page 479.

> **Note:** If the **Service Restore** tool is unavailable, contact the next level of support.

b. Restore printer settings and embedded solutions. For more information, see Restoring solutions, licenses, and configuration settings on page 481.

c. Import the exported configuration file back to the printer. For more information, see Importing a configuration file on page 490.

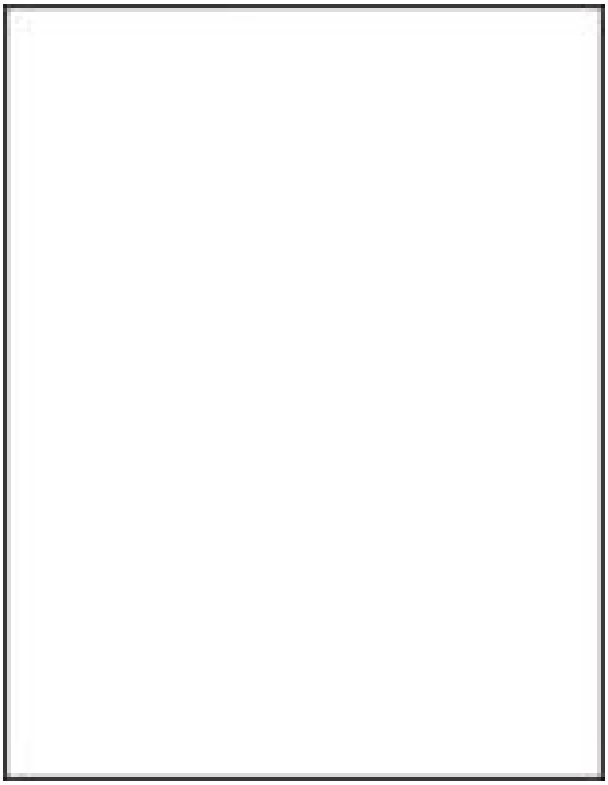
Fixing print quality issues

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



Notes
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 40.

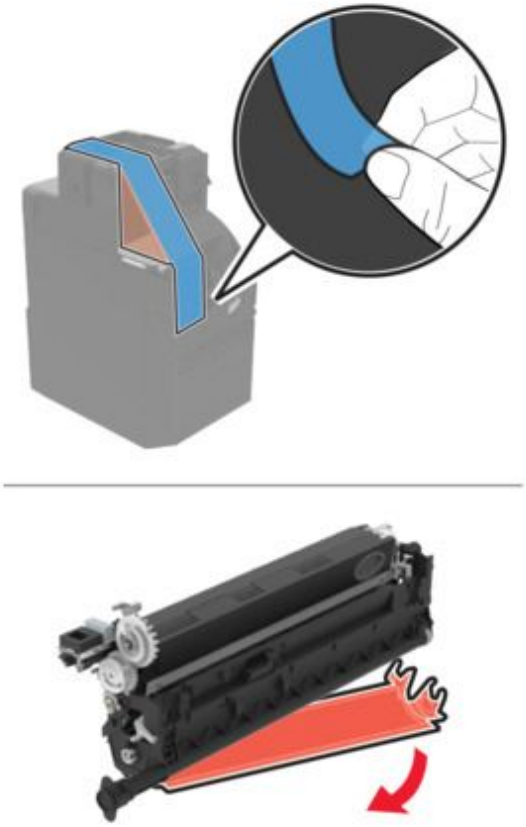
1. Perform the following tests:

   Make sure to remove all the packing material in the following areas:

   - Inside the printer



- Toner cartridges and imaging unit



Does the problem remain?

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

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

      Advanced Print Quality Samples > Advanced Print Quality Test Pages

   b. Check the test page.

   Is only one color missing?

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

3. Check the toner cartridge and imaging unit contacts of the affected color.

   Are the contacts clean?

   - **Yes**:

Go to step 5.

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

4. Clean the contacts.

   Does the problem remain?

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

5. Replace the affected imaging kit or imaging unit.

   Does the problem remain?

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

6. Perform the following tests:
   a. Remove the transfer module. See Transfer module removal on page 547.
   b. Close the front door or bypass the door interlock switch.
   c. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests.

   d. Select the motor of the affected color, and then touch **Start**.

   Does the motor run?

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

7. Replace the affected motor (EP drive). See Motor (EP drive) removal on page 503.

   Does the problem remain?

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

8. Perform the following tests:
   a. Manually turn the motor (EP drive).
   b. While turning the motor, check if the corresponding couplers that drive the affected toner cartridge or imaging unit move.

   Do the couplers move?

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

9. Replace the EP drive gearbox. See EP drive gearbox removal on page 504.

   Does the problem remain?

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

10. Check if the pins on the HVPS freely move.

    Do the pins freely move?

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

11. Replace the HVPS. See HVPS removal on page 534.

    Does the problem remain?

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

12. Check the continuity of the cable on the JWTH_SC1 connector on the engine board.

    Does the cable have continuity?

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

13. Replace the cable.

    Does the problem remain?

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

14. Make sure that the printhead cables on the engine board are properly connected.

    Does the problem remain?

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

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

15. Make sure that the JTH1 and JPWR1 cables are properly connected to the controller board and engine board.

    Does the problem remain?

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

16. Replace the printhead. See .Printhead removal on page 592

    Does the problem remain?

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

17. Replace the engine board. See Engine board removal on page 588.

    Does the problem remain?

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

Dark print check



Notes
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 40.

1. Perform the following tests:
   a. From the home screen, touch **Settings > Print > Quality > Toner Darkness**.
   b. Check the toner darkness setting value.

   Notes
   The default value for toner darkness is 4.

   Is the darkness setting too high?

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

2. Adjust the darkness setting to the proper value.

   Does the problem remain?

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

The problem is solved.

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

      Printer Setup > EP Setup > Toner Patch Sensor Adjust

   b. Make sure that Calibration reference values are set to default.

      Notes
      Default value for Black and CMY settings is 0.

   Does the problem remain?

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

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

      Advanced Print Quality Samples > Advanced Print Quality Test Pages

   b. Check the test page.

   Is only color affected?

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

5. Perform the following tests:
   a. Remove the black imaging unit from the imaging kit.
   b. Reinstall the black imaging unit.
   c. Remove the affected color developer unit from the imaging kit.
   d. Reinstall the affected color developer unit.

   If the affected color is C, M, or Y, then do the following:

   a. Remove the affected color developer unit from the imaging kit.
   b. Reinstall the affected color developer unit.

   Does the problem remain?

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

6. Replace the affected black imaging unit or the whole color imaging kit.

   Does the problem remain?

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

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

      Color alignment adjust

   b. On the AA adjustment row, touch **Start**.
   c. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.

   Does the problem remain?

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

8. Perform the toner patch sensing service check. See Toner patch sensing service check on page 407.

   Does the problem remain?

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

9. Reseat the HVPS cable on the engine board.

   Does the problem remain?

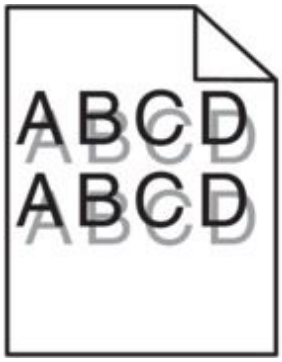
   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the HVPS. See HVPS removal on page 534.

    Does the problem remain?

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

Ghost images check





Notes
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 40.

1. Perform the following tests:
   a. From the home screen, touch **Settings > Paper > Tray Configuration > Default Source**.
   b. Select the paper source.
   c. Check if the paper type and size settings match the paper type and size set on the tray.

   Do the settings match?

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

2. Change the paper size and type, or adjust the size settings in the tray to match the paper size.

   Does the problem remain?

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

3. Perform the following tests:

   Notes
   Ghost images may occur when printing to a full-width media immediately after printing long jobs on narrow media.

   Did the issue occur right after printing a long job on narrow media?

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

4. 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.

   Does the problem remain?

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

5. Perform the following tests:
   a. From the home screen, touch **Status/Supplies**.
   b. Check the status of the black and color supplies.

   Are any of the supplies low?

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

6. Replace the affected supply.

   Does the problem remain?

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

7. Measure the distance from one point of the original image to the same point on the ghost image.

   Notes
   Defects that repeat after 43.6 mm are most likely caused by the developer roller.

   Is the distance 43.6 mm?

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

8. Replace the affected imaging kit or imaging unit.

   Does the problem remain?

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

9. Measure the distance from one point of the original image to the same point on the ghost image.

Notes
Defects that repeat after 94.5 mm are most likely caused by the photoconductor drum.

Is the distance 94.5 mm?

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

10. Replace the affected imaging kit or imaging unit.

    Does the problem remain?

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

11. Perform the following tests:
    a. From the home screen, touch **Settings > Reports > Menu Settings Page**.

    Notes
    Perform this step twice to clear any debris.

    b. Check the fuser area for toner contamination.

    Is there toner contamination?

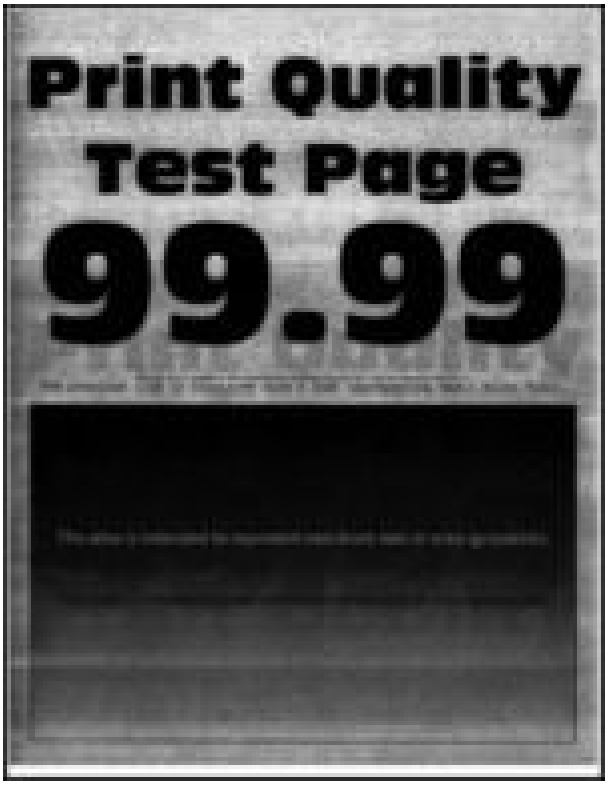
    - **Yes**:
      Go to the next step.
    - **No**:
      Contact the next level of support.

12. Replace the fuser. See .Fuser removal on page 551

    Does the problem remain?

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

Gray or colored background check



Notes
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 40.

1. Perform the following tests:
   a. Place a narrow strip of paper over the gap between the developer rollers.

      Notes
      Make sure that the paper stays in place when reinstalling the imaging unit to prevent the laser from discharging the photoconductor.

   b. From the home screen, touch **Settings > Troubleshooting > Print Quality Pages**.
   c. Check the test page.

   Is there vertical banding?

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

2. Perform the following tests:
   a. From the home screen, touch **Status/Supplies**.
   b. Check the status of the toner cartridges or imaging unit if any were recently replaced.

Were any of the toner cartridges or imaging unit recently replaced?

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

3. Reinstall the toner cartridges or imaging unit.

   Does the problem remain?

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

4. Check if black is the only color producing the background of the print job.

   Is black the only color producing the background?

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

5. Replace the black imaging unit.

   Does the problem remain?

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

6. Replace the imaging kit. See Imaging kit removal on page 517.

   Does the problem remain?

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

7. Reseat the HVPS cable on the HVPS and on the JHVPS1 connector on the engine board.

   Does the problem remain?

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

8. Check the contact pins connecting the HVPS to the transfer module for damage.

   Are the contact pins damaged?

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

9. Replace the HVPS. See HVPS removal on page 534.

   Does the problem remain?

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

10. Make sure that the printhead cables on the engine board are properly connected.

    Does the problem remain?

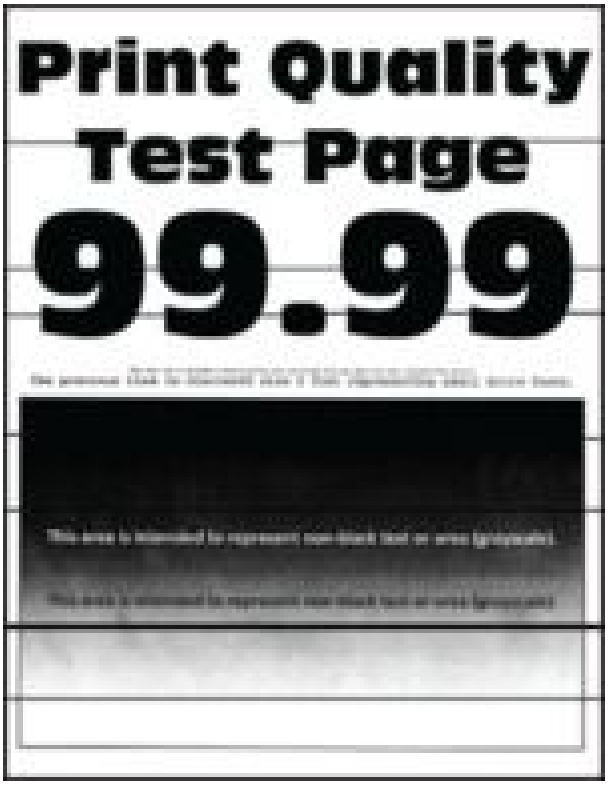
    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Replace the printhead. See .Printhead removal on page 592

    Does the problem remain?

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

Horizontal colored lines or banding check



Notes
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 40.

1. Check if the lines on the print quality test page are white.

   Are the lines white?

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

2. Perform the repeating defects check. See Repeating defects check on page 73.

   Does the problem remain?

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

3. Check if the lines appear only on the leading or trailing edge.

   Does the issue only occur on the leading or trailing edge?

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

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

4. Perform the Marks on leading or trailing edges check. See Marks on leading or trailing edges check on page 65.

   Does the problem remain?

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

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

      Advanced Print Quality Samples > Advanced Print Quality Test Pages

   b. Check if the lines appear on the same area of the page.

   Do the lines appear on the same area?

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

6. Perform the repeating defects check. See Repeating defects check on page 73.

   Does the problem remain?

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

7. Remove and reinstall the imaging kit. See Imaging kit removal on page 517.

   Does the problem remain?

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

8. Check the pages right after the defective page.

   Do the lines appear after two consecutive normal pages were printed?

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

9. Check the transfer module for contamination.

Is the transfer module free of contamination?

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

10. Clean or replace the transfer module. See Transfer module removal on page 547.

    Does the problem remain?

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

Light or faded print

Issue description

The printed output is significantly lighter than expected, text and images appear faded. In some cases, fine details are lost due to insufficient contrast.

Customer resolution

1. Print the **Print Quality Test Pages**, and then check if the defect on the test pages matches the defect shown in this topic. From the control panel, navigate to **Settings › Troubleshooting › Print Quality Test Pages**.

   Notes
   - Verify that the issue does not occur when using the scanner. Using the scanner glass, copy the first page of the **Print Quality Test Pages** to see if the issue occurs again. If it does, then see the **Scanning problems** section.
   - Check the source file and print driver settings to make sure that they are not causing the issue.

2. If they are not genuine supplies, then contact your supplier.

   Note: You can print the **Menu Settings Page** report to find the serial number of the supplies. From the control panel, navigate to **Settings › Reports › Menu Settings Page**.

3. Check the toner darkness setting. From the control panel, navigate to **Settings › Print › Quality › Toner Darkness**.

   Notes
   - If the print is too dark, then set the value to **Light** and print again.
   - If the print is too light, then set the value to **Dark** and print again.
   - Change the value back to **Normal** if there are no significant changes in the printed page.

4. Make sure that Color Saver is turned off. From the control panel, navigate to **Settings › Print › Quality › Color Saver**.
5. Check the paper loaded for the following:
   - The paper matches the paper size and type set in the printer. For more information, see Setting the paper size and type.
   - The paper size, paper type, and paper weight loaded are supported. For more information, see Supported paper sizes on page 24, Supported paper types on page 30, and Supported paper weights on page 31.
6. Check whether the paper has a textured or rough finish. If it does, replace it with plain paper.
7. Check the color imaging kit and the black imaging unit for improper installation.
   a. For black print quality issues, then check the black imaging unit. For more information, see Replacing the imaging unit.
   b. For cyan, magenta, or yellow print quality issues, then check the developer units. For more information, see Replacing the imaging kit.
8. Initiate the color adjust process.
   a. Open the front door, remove, and then insert the waste toner bottle. Close the front door. This action cleans the internal color adjust sensor.
   b. From the control panel, navigate to **Settings › Print › Quality › Advanced Imaging › Color Adjust.**

> **Note:** The color adjust process takes about one minute to complete.

Remote resolution

1. Make sure that the user performs all the steps in the **Customer resolution** section.
2. Make sure that the printer firmware is updated. For more information, see Updating the firmware using the control panel on page 484.
3. Make sure that the paper is loaded properly in the tray and the guides are adjusted to match the size of the paper loaded. Make sure that the stack height is below the maximum fill line. For more information, see Loading trays.
4. Inspect the second transfer roller area for orange internal packaging material. Remove any packaging material found.
5. Inspect the second transfer roller for paper or other obstructions. Remove any obstructions found.

Initial parts replacement

Send the appropriate customer replaceable unit to the customer:

- Black imaging unit—If the issue occurs in black. For the part number, see Ordering black imaging unit on page 658.
- Color imaging kit—If the issue occurs in cyan, magenta, or yellow. For the part number, see Ordering color imaging kit on page 658.

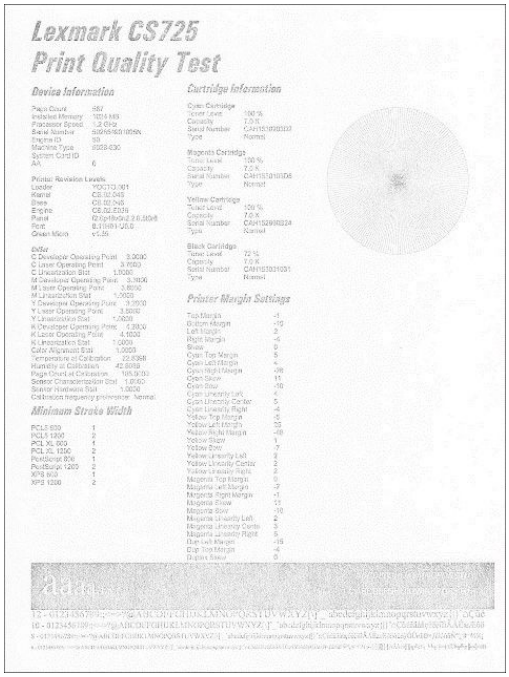
Detailed diagnostics

1. Check the imaging unit or imaging kit for contamination.
    a. Inspect the photoconductor drum for scratches or contamination.
    b. Inspect the charge roller for banding or contamination.
    c. Inspect the drive couplers for wear.
    d. Check the toner leakage or excessive toner buildup.
    e. Make sure that the imaging unit or imaging kit is properly installed.
2. Enter the **Diagnostics** menu, and then navigate to **Printer setup › EP setup**. Verify that the following settings are set to the indicated values:
    - **Toner patch sensor adjust**—In **Calibration reference**, set **Black** and **CMY** to **0**.
    - **Charge adjust**—**Normal**
    - **Developer adjust**—**Normal**
    - **Transfer adjust**—Set all values to 0
3. Check the transfer module for improper installation, damage, or contamination. Do the following:
    a. Inspect the transfer module for cracks, warping, excessive wear, toner buildup, or debris.
    b. Make sure that the transfer roller is properly seated and rotates smoothly.
    c. Inspect the the pressure springs and bushings for damage or wear.

    For more information, see Transfer module removal on page 547.
4. Check the HVPS for improper installation or damage. Do the following:
    a. Check that the HVPS contacts are not damaged or bent. For HVPS modules that contain contact pins, make sure that they move freely. For more information, see HVPS removal on page 534.
    b. Make sure that the cables and connectors between the HVPS and the controller board are properly connected and not damaged. Check for kinks, cuts, or bent pins. For more information, see Wiring Diagram.
5. Check the printhead for contamination.
    a. Clean the printhead lens.
    b. Check the laser path for obstructions.
    c. Check the printhead laser window for any contamination or damage.

    For more information, see Printhead removal on page 592.
6. Check the developer unit for the affected color for damage, contamination, and improper installation.
7. Make sure that the motor of the affected developer unit is functional. Do the following:
    a. Enter the **Diagnostics** menu, and then navigate to **Printer diagnostics & adjustments › Motor tests**.
    b. Select the motor for the affected color.
    c. Run the test.
    d. If the motor does not run, make sure that the motor cable is properly installed and not damaged.

Fuzzy or grainy image print check



Notes
Before performing this print quality check, print the Print Quality Test Pages. From the control panel, touch **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Initial print quality check on page 40.

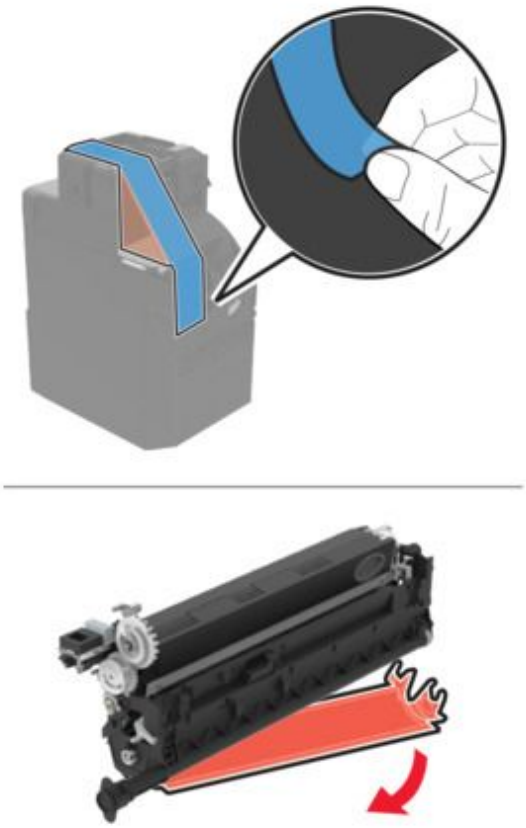
1. Perform the following tests:

   Make sure to remove all the packing material in the following areas:

   - Inside the printer



   - Toner cartridges and imaging unit



Does the problem remain?

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

2. Perform the following tests:
   a. From the home screen, touch **Settings > Print > Quality**.
   b. Check the toner darkness setting value.

> **Notes**
> The default toner darkness value is 4.

Is the darkness setting too low?

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

3. Adjust the darkness setting to the correct value.

   Does the problem remain?

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

4. Perform the following tests:
   a. From the home screen, touch **Device > Eco-mode > Print**.
   b. Make sure that Color saver is set to Off.

   Does the problem remain?

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

5. Make sure that no paper is wrapping around the second transfer roller.

   Does the problem remain?

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

6. Perform the following tests:
   a. From the home screen, navigate to: **Settings > Print > Quality > Advanced Imaging > Color Adjust**
   b. Touch **Color Adjust**.

   Does the problem remain?

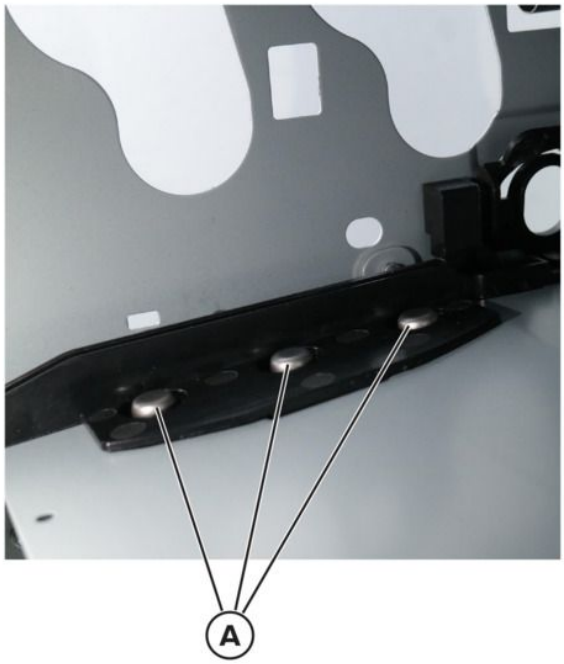
   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Remove, and then insert the imaging kit or imaging unit of the affected color.

   Does the problem remain?

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

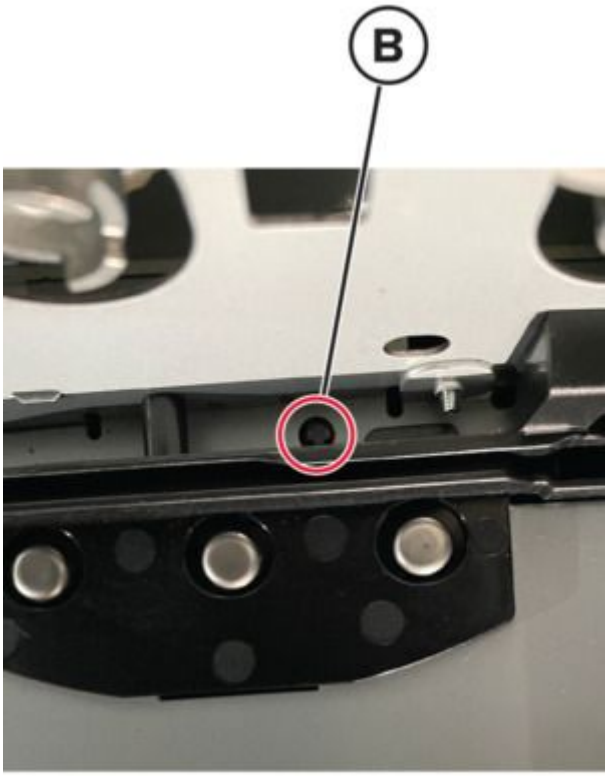
8. Perform the following tests:
   a. Remove the transfer module. See Transfer module removal.
   b. Check if the three contacts (A) are visible and if they freely move.



Are the contacts visible and do they freely move?

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

9. Check if the index pin behind the transfer contact plate (B) is visible and properly aligned.



Is the index pin visible and properly aligned?

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

10. Perform the following tests:
    a. Reseat the HVPS.
    b. Make sure that the contacts are visible and can freely move.
    c. Make sure that the index pin is properly aligned.

    Does the problem remain?

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

11. Check the HVPS cable on the HVPS and on the JHVPS1 connector on the engine board for proper connection.

    Is the cable properly connected at both ends?

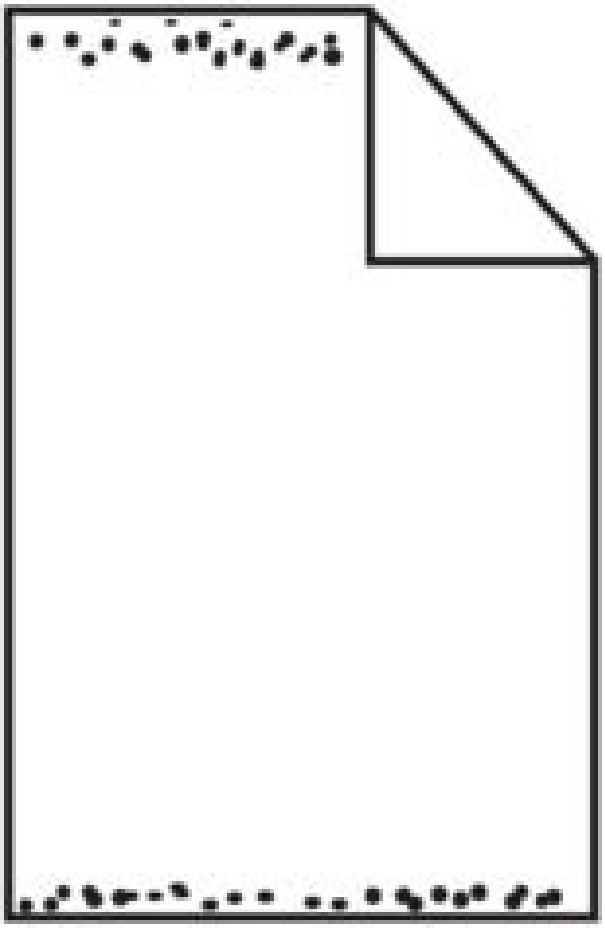
    - **Yes**:
      Contact the next level of support.
    - **No**:
      Go to the next step.

12. Reconnect the cable.

    Does the problem remain?

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

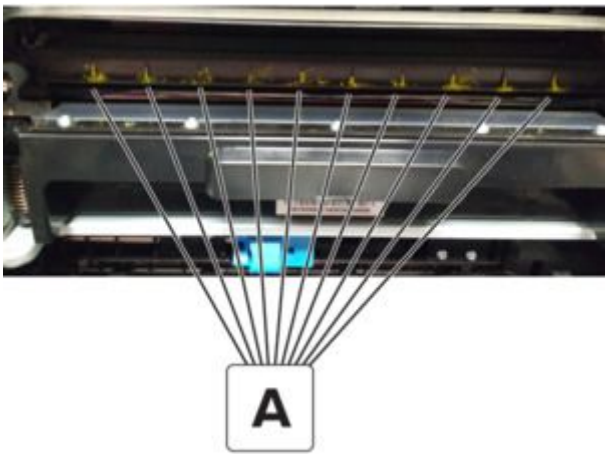
Marks on leading or trailing edges check



Notes
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 40.

1. Perform the following tests:
    a. Use a dry and lint-free cloth to clean the ribs (A) on the transfer module cleaning assembly housing.

        Notes
        Do not remove the transfer belt to clean the housing.



b. Use a toner vacuum to remove the remaining toner.

c. Perform a print job.

Does the problem remain?

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

Mottled print and dots check



Notes
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 40.

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   b. Check if the paper type and size settings match the paper type and size set on the tray.

   Do the settings match?

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

2. Change the paper size and type, or adjust the size settings in the tray to match the paper size.

   Does the problem remain?

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

3. Check the paper for texture or rough finish.

   Is the paper textured or rough?

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

4. Replace the textured or rough paper with plain paper.

   Does the problem remain?

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

5. Check the printer for toner leaks.

   Are there toner leaks?

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

6. Perform the following tests:
   a. Clean the printer thoroughly using a toner vacuum.

b. Perform a print job to clear the remaining toner from the imaging components.

Does the problem remain?

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

7. Replace the affected imaging kit or imaging unit.

   Does the problem remain?

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

8. Check the transfer module for improper installation and damage.

   Is the transfer module properly installed and free of damage?

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

9. Reinstall or replace the transfer module. See Transfer module removal on page 547.

   Does the problem remain?

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

10. Perform the following tests:
    a. Remove the fuser. See .Fuser removal on page 551
    b. Check the fuser for debris and damage.

    Is the fuser free of debris and damage?

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

11. Clean or replace the fuser.

    Does the problem remain?

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

Print crooked or skewed check



Notes
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 40.

1. Make sure that the paper is properly loaded and free of damage.

   Does the problem remain?

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

2. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   b. Check if the paper type and size settings match the paper type and size set on the tray.

   Do the settings match?

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

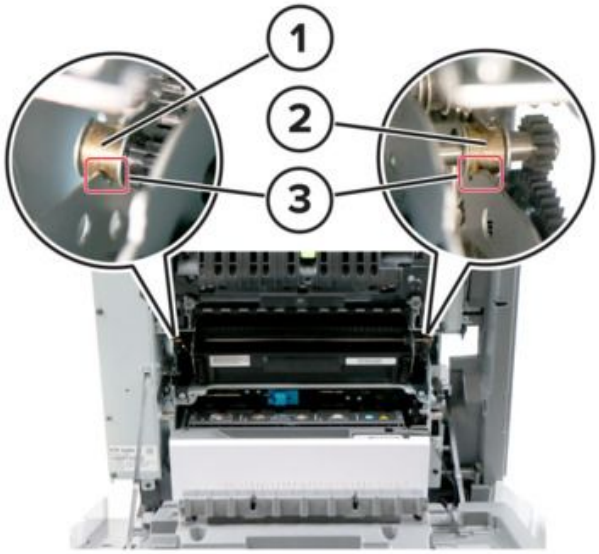
3. Perform the following tests:
   a. Change the paper size and type, or adjust the size settings in the tray to match the paper size.

b. Make sure that the tray or MPF paper guides are properly set and flush with the sides of the paper loaded.

Does the problem remain?

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

4. Perform the following tests:
   a. Check if the transfer module bearings are properly seated on the frame. Make sure that the bearings sit down into their vees.



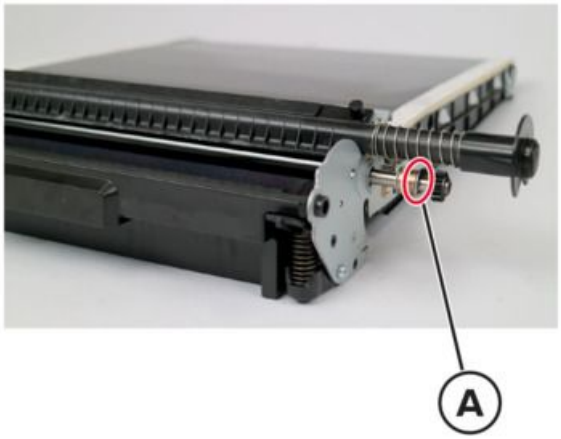
#	Part
1	Left bearing
2	Right bearing
3	Frame

   b. If necessary, reinstall the transfer module. See Transfer module removal on page 547.

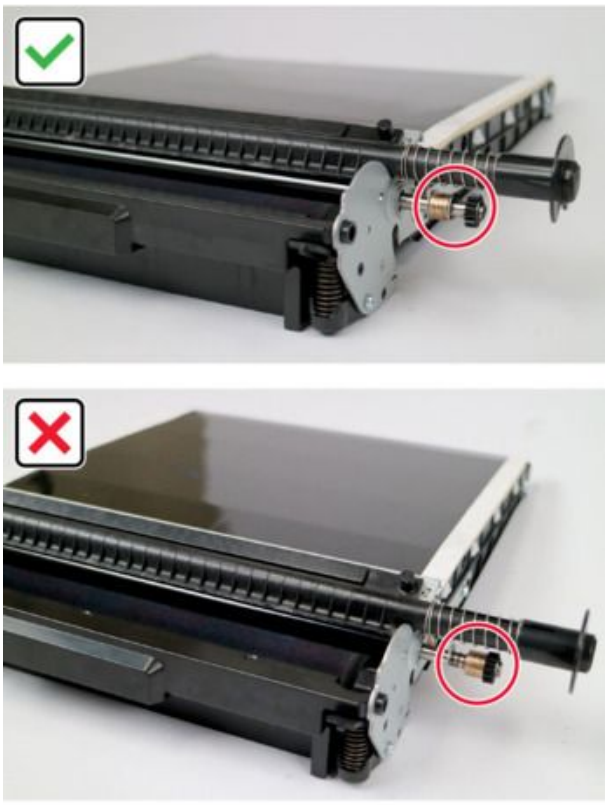
Does the problem remain?

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

5. Perform the following tests:
   a. Make sure that the transfer module E-clip (A) is not missing.



b. Make sure that the transfer module bearing (B) is properly seated.



Does the problem remain?

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

6. Check the isolation unit for dust or debris.

   Is the isolation unit free of dust or debris?

   - **Yes**:

Go to step 8.

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

7. Remove the dust or debris.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Motor tests > Deskew

   b. Touch **Start**.

   Does the motor run?

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

9. Check the cable on the JMTR1 connector on the engine board for proper connection and damage, and replace if necessary.

   Does the problem remain?

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

10. Replace the motor (deskew). See Motor (deskew) removal on page 506.

    Does the problem remain?

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

11. Check the condition of the aligner rollers.

    Are the rollers free from excess wear, contamination, and damage?

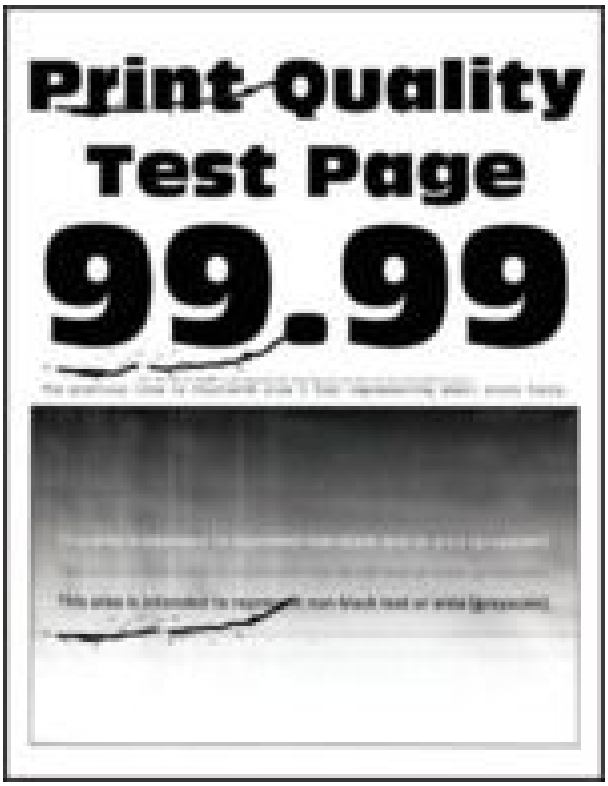
    - **Yes**:
      Contact the next level of support.
    - **No**:
      Go to the next step.

12. Clean or replace the rollers. See Aligner rollers removal on page 572.

Does the problem remain?

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

Repeating defects check



Note: Before performing this print quality check, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See Initial print quality check on page 40.

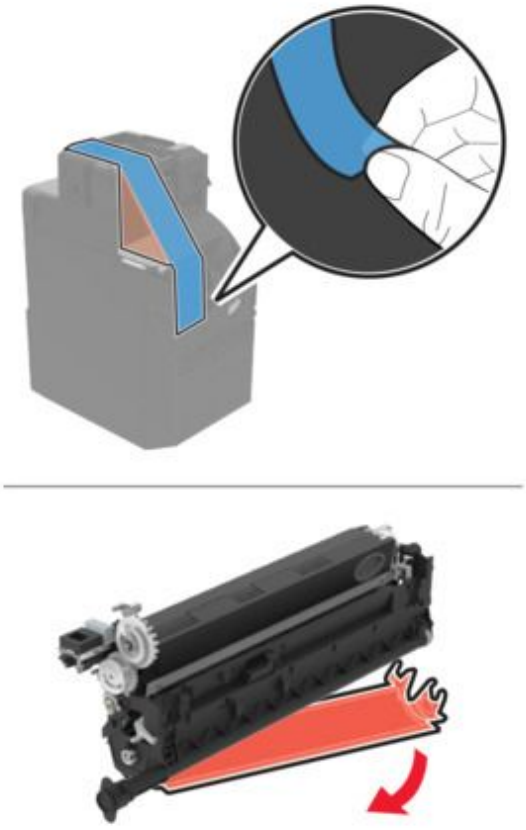
1. Perform the following tests:

   Make sure that the printer is free from dust and debris, and that the packing materials on the printer have been removed.

   - Inside the printer



- Toner cartridges and imaging unit



Is the printer free from dust, debris, and packing materials?

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

2. Remove the packing materials, dust, or debris.

Does the problem remain?

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

3. Measure the distance between the repeating marks.

> **Notes**
> 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.

Is the distance between the marks either 43.6 mm or 45 mm?

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

4. Replace the affected imaging kit or imaging unit.

Does the problem remain?

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

5. Measure the distance between the repeating marks.

> **Notes**
> 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.

Is the distance between the marks either 29.9 mm, 23.2 mm, or 94.5 mm?

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

6. Replace the affected imaging kit or imaging unit.

Does the problem remain?

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

7. Measure the distance between the repeating marks.

Notes
A distance of 95 mm is likely caused by the fuser belt.

Is the distance between the marks 95 mm or 110 mm?

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

8. Replace the fuser. See .Fuser removal on page 551

   Does the problem remain?

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

9. Measure the distance between the repeating marks.

   Notes
   Distances of 37.7 mm, 54.6 mm, and 78.5 mm points to the transfer module as the likely cause.

   Is the distance between the marks either 37.7 mm, 54.6 mm, or 78.5 mm?

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

10. Check the marks that appear on a multi-page print job.

    Do the marks appear on every other page?

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

11. Replace the transfer module. See Transfer module removal on page 547.

    Does the problem remain?

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

Solid color or black image check



Notes
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 40.

1. Perform the following tests:
   a. Place a narrow strip of paper over the gap between the developer rollers.

      Notes
      Make sure that the paper stays in place when reinstalling the imaging unit to prevent the laser from discharging the photoconductor.

   b. From the home screen, touch **Settings > Troubleshooting > Print Quality Pages**.
   c. Check the test page.

   Is there vertical banding?

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

2. Perform the following tests:
   a. Make sure that the cables are properly connected on the printhead and engine board.
   b. Make sure that the cables from the engine board are properly connected to the controller board.

Does the problem remain?

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

3. Replace the printhead. See .Printhead removal on page 592

   Does the problem remain?

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

4. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

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

5. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

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

6. Replace the affected imaging unit or imaging kit.

   Does the problem remain?

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

7. Turn off the printer.

   Check the cable connection at both ends.

   Check the continuity of the HVPS cable.

   Is the cable connected at both ends, and has continuity?

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

8. Replace the HVPS cable.

   Does the problem remain?

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

9. Replace the HVPS. See HVPS removal on page 534.

   Does the problem remain?

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

Text or images cut off check



Notes
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 40.

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   b. Check if the paper type and size settings match the paper type and size set on the tray.

Do the settings match?

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

2. Change the paper size and type, or adjust the size settings in the tray to match the paper size.

   Does the problem remain?

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

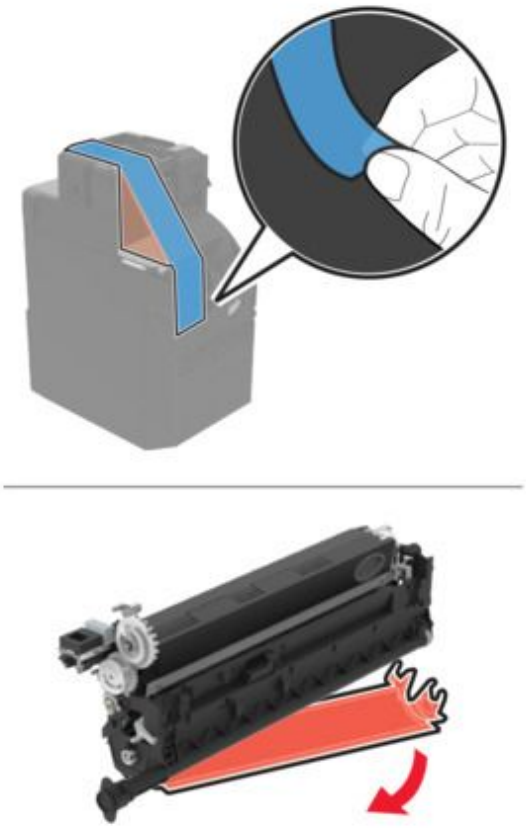
3. Perform the following tests:

   Make sure to remove all the packing material in the following areas:

   - Inside the printer



   - Toner cartridges and imaging unit



Does the problem remain?

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

4. Make sure that the black imaging unit and CMY imaging kit have not reached end-of-life.

   Does the problem remain?

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

Toner easily rubs off check



Notes
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 40.

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   b. Check if the paper type and size settings match the paper type and size set on the tray.

   Do the settings match?

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

2. Change the paper size and type, or adjust the size settings in the tray to match the paper size.

   Does the problem remain?

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

3. Check the paper for texture or rough finish.

   Is the paper textured or rough?

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

4. Replace the textured or rough paper with plain paper.

   Does the problem remain?

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

5. Remove, and then reinstall the fuser. See .Fuser removal on page 551

   Does the problem remain?

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

6. Replace the fuser. See .Fuser removal on page 551

   Does the problem remain?

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

7. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Reports > Event Log**.
   b. Check the log history for fuser error codes.

   Are there fuser error codes on the event log?

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

8. Perform the service check for the error code found.

   Does the problem remain?

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

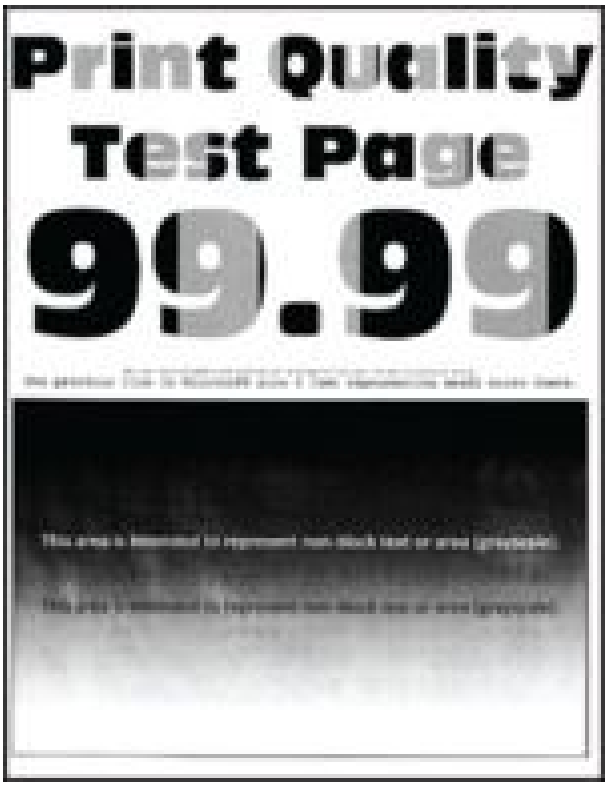
9. Replace the LVPS. See LVPS removal on page 499.

   Does the problem remain?

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

The problem is solved.

Uneven print density check



Notes
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 40.

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   b. Check if the paper type and size settings match the paper type and size set on the tray.

   Do the settings match?

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

2. Change the paper size and type, or adjust the size settings in the tray to match the paper size.

   Does the problem remain?

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

3. Check the paper for texture or rough finish.

   Is the paper textured or rough?

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

4. Replace the textured or rough paper with plain paper.

   Does the problem remain?

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

5. Perform the following tests:
   a. Remove the imaging kit. See Imaging kit removal on page 517.
   b. Inspect and clean the printhead lenses.
   c. Print a test page.

   Does the problem remain?

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

6. Perform the following tests:
   a. Remove the CMY developer units from the imaging kit, and then install them back to the imaging kit.
   b. Remove the black imaging unit from the imaging kit, and then install it back to the imaging kit.

   Does the problem remain?

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

7. Replace the affected imaging unit or imaging kit.

   Does the problem remain?

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

Vertical colored lines or banding check



Notes
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 40.

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

      Advanced Print Quality Samples > Advanced Print Quality Test Pages

   b. Check the test page.

   Is only one color producing the defect?

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

2. Replace the affected imaging kit or imaging unit.

   Does the problem remain?

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

3. Replace the transfer module. See Transfer module removal on page 547.

Does the problem remain?

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

4. Replace the fuser. See .Fuser removal on page 551

   Does the problem remain?

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

Vertical white lines check



Notes
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 40.

1. Perform the following tests:
   a. Remove the imaging kit. See Imaging kit removal on page 517.
   b. Inspect and clean the printhead lenses.
   c. Print a test page.

Does the problem remain?

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

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

      Advanced Print Quality Samples > Advanced Print Quality Test Pages

   b. Check the test page.

   Did the print defect appear on all the pages?

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

3. Replace the affected imaging kit or imaging unit.

   Does the problem remain?

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

4. Check the transfer module for improper installation and damage.

   Is the transfer module properly installed and free of damage?

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

5. Reinstall or replace the transfer module. See Transfer module removal on page 547.

   Does the problem remain?

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

6. Replace the printhead. See .Printhead removal on page 592

   Does the problem remain?

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

The problem is solved.

Blurred print or misaligned color check

Notes
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 40.

1. Check the print quality test page if it has one color that is blurred or misaligned.

   Is only one color blurred or misaligned?

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

2. Perform the color alignment adjustment on the misaligned color. See Color alignment adjust on page 456.

   Does the problem remain?

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

3. Perform color alignment adjustment on all colors. See Color alignment adjust on page 456.

   Does the problem remain?

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

4. Perform the Auto alignment service check. See Auto alignment service check on page 409.

   Does the problem remain?

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

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

   Advanced Print Quality Samples > Advanced Print Quality Test Pages

   Does the problem remain?

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

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

6. Remove the imaging kit, and then clean the printhead lenses. See Cleaning the printhead lenses on page 670.

   Does the problem remain?

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

7. Replace the motor (K/transfer belt). See Motor (EP drive) removal on page 503.

   Does the problem remain?

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

8. Replace the printhead. See .Printhead removal on page 592

   Does the problem remain?

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

9. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

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

Gapping or half color page check

Notes
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 40.

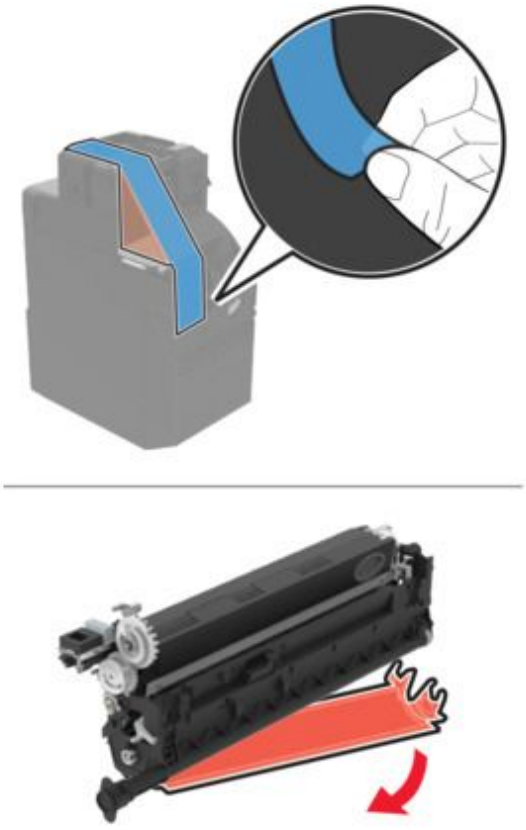
1. Perform the following tests:

   Make sure to remove all the packing material in the following areas:

   - Inside the printer



- Toner cartridges and imaging unit



Does the problem remain?

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

2. Perform the following tests:

a. Reinstall the toner cartridges and imaging unit.

b. Reinstall the imaging kit.

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

Advanced Print Quality Samples > Advanced Print Quality Test Pages

d. Check the test page.

Does the problem remain?

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

3. Check the developer hold down arms and their springs for damage.

   Are the developer hold down arms damaged?

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

4. Replace the affected developer hold down arm. See .Developer hold down arm removal on page 607

   Does the problem remain?

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

5. Replace the affected imaging kit or imaging unit.

   Does the problem remain?

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

Image void process direction check



Notes
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 40.

1. Load paper from a fresh package.

   Notes
   Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used.

   Does the problem remain?

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

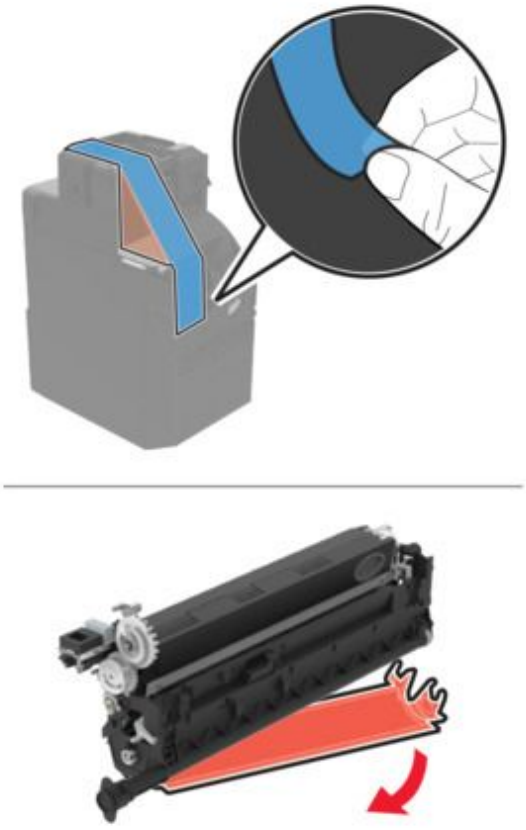
2. Perform the following tests:

   Make sure to remove all the packing material in the following areas:

   - Inside the printer



- Toner cartridges and imaging unit



Does the problem remain?

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

3. Perform the following tests:

a. Reseat the imaging kit.

b. Perform a print job.

Does the problem remain?

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

4. Check if the problem appears only on one side of the page.

   Does the problem appear only on one side?

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

5. Check the developer hold down arms for damage or loose springs.

   Are the developer hold down arms free of damage and loose springs?

   - **Yes**:
     Go to step 7.
   - **No**:
     The problem is solved.

6. Replace the developer hold down arms. See .Developer hold down arm removal on page 607

   Does the problem remain?

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

7. Check for missing colors.

   Is only one color missing?

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

8. Remove the imaging kit, and then clean the printhead lenses. See Cleaning the printhead lenses on page 670.

   Does the problem remain?

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

9. Perform the following tests:
    - If the affected color is cyan, magenta, or yellow, then replace the developer unit of the affected color.
    - If the affected color is black, then replace the imaging unit.

    Does the problem remain?

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

10. Replace the printhead. See .Printhead removal on page 592

    Does the problem remain?

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

11. Replace the engine board. See Engine board removal on page 588.

    Does the problem remain?

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

Image void scan direction check



Notes
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 40.

1. Load paper from a fresh package.

   Notes
   Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used.

   Does the problem remain?

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

2. Reseat the imaging kit, and then perform a print job.

   Does the problem remain?

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

3. Check if the problem affects only one color.

Does the problem affect only one color?

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

4. Replace the affected imaging kit or imaging unit.

   Does the problem remain?

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

5. Measure the interval between every defect.

   Does the defect occur in 55-mm intervals?

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

6. Replace the transfer module. See Transfer module removal on page 547.

   Does the problem remain?

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

7. Reseat the HVPS cable on the engine board.

   Does the problem remain?

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

8. Replace the HVPS. See HVPS removal on page 534.

   Does the problem remain?

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

9. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

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

10. Replace the printhead. See .Printhead removal on page 592

    Does the problem remain?

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

Missing color check

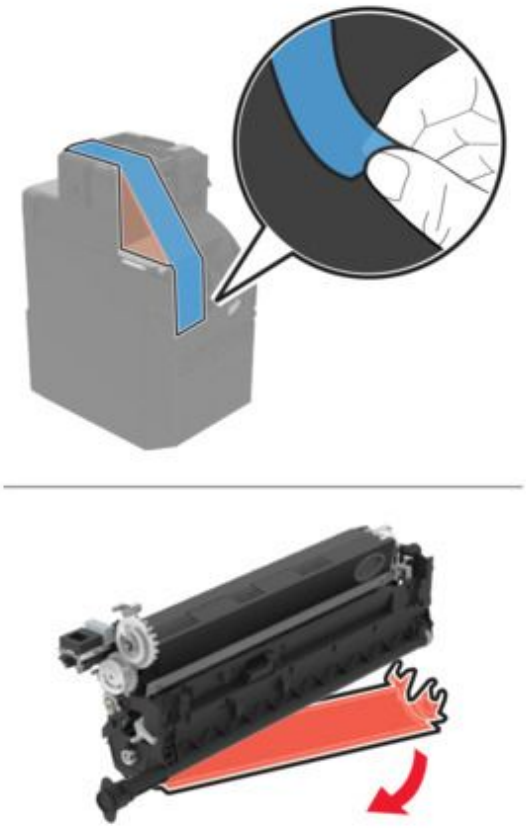
1. Perform the following tests:

   Make sure to remove all the packing material in the following areas:

   - Inside the printer

   - Toner cartridges and imaging unit



Does the problem remain?

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

2. Make sure that all supplies are properly installed.

   Does the problem remain?

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

3. Reinstall the imaging unit and imaging kit.

   Does the problem remain?

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

4. Reseat the printhead cable on the engine board.

   Does the problem remain?

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

5. Check the contacts on the imaging unit or imaging kit of the missing color for dust or debris.

   Are the contacts free of dust or debris?

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

6. Clean the contacts.

   Does the problem remain?

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

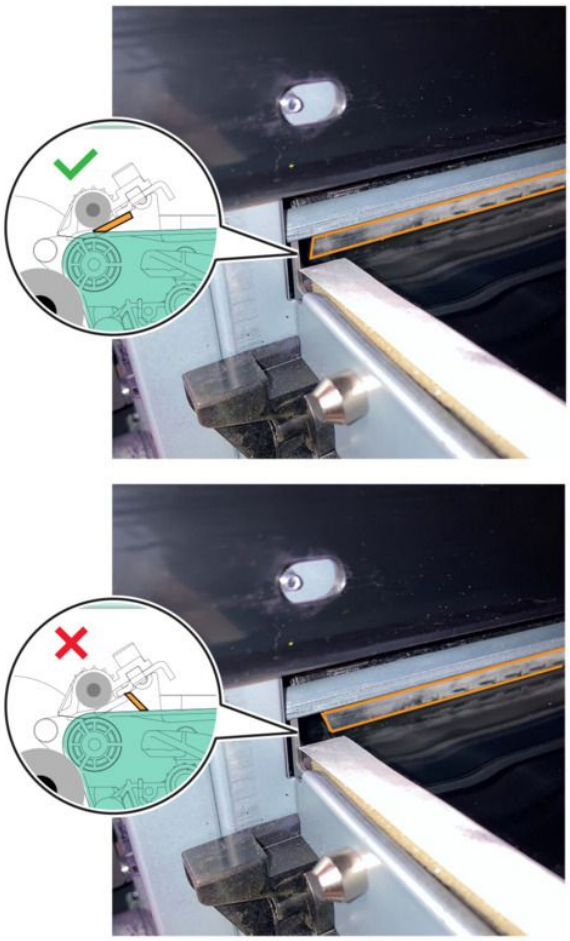
7. Check if the missing color is yellow.

   Is the affected color yellow?

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

8. Make sure that the cleaning blade on the transfer belt is facing the proper direction.

   > **Notes**
   > Look at the corner edge of the blade to determine the direction.



If the blade has flipped (and is now facing the wrong direction), replace the transfer module.

Does the problem remain?

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

9. Replace the affected imaging kit or imaging unit.

   Does the problem remain?

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

10. Check if the spring-loaded pins in the HVPS freely move in and out with an equal amount of spring force.

    Do the pins freely move?

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

Go to the next step.

11. Replace the HVPS. See HVPS removal on page 534.

    Does the problem remain?

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

12. Perform the following tests:
    a. Remove the transfer module. See Transfer module removal on page 547.
    b. Close the front door or bypass the door interlock switch.
    c. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests

    d. Select the motor of the affected color, and then touch **Start**.

    Does the motor run?

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

13. Replace the affected motor (EP drive). See Motor (EP drive) removal on page 503.

    Does the problem remain?

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

14. While manually turning the motors, check if the corresponding couplers move.

    Do the couplers move?

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

15. Replace the EP drive gearbox. See EP drive gearbox removal on page 504.

    Does the problem remain?

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

16. Perform the following tests:

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

b. Make sure that the JTH1 and JPWR1 cables are properly connected to the controller board and engine board.

Does the problem remain?

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

17. Replace the printhead. See .Printhead removal on page 592

    Does the problem remain?

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

18. Replace the engine board. See Engine board removal on page 588.

    Does the problem remain?

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

Random marks check

Notes
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 40.

1. Check the printer for toner leaks.

   Are there toner leaks?

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

2. Perform the following tests:
   a. Clean the printer thoroughly using a toner vacuum.

   b. Perform a print job to clear the remaining toner from the imaging components.

   Does the problem remain?

   - **Yes**:

Go to the next step.

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

3. Remove the imaging kit, and then check it for debris and fragments. See Imaging kit removal on page 517.

   Is the imaging kit free of debris and fragments?

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

4. Remove the debris and fragments.

   Does the problem remain?

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

5. Perform the following tests:
   a. Remove the transfer module. See Transfer module removal on page 547.
   b. Check the transfer module for debris and fragments.

   Is the transfer module free of debris and fragments?

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

6. Remove the debris and fragments.

   Does the problem remain?

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

7. Perform the following tests:
   a. Remove the fuser. See .Fuser removal on page 551
   b. Check the fuser for debris and damage.

   Is the fuser free of debris and damage?

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

8. Replace the fuser. See .Fuser removal on page 551

Does the problem remain?

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

Fixing scan quality issues

Dark image quality (using the ADF or scanner) check

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

   Advanced Print Quality Samples > Advanced Print Quality Test Pages

   Is the scan defect seen on the print quality samples?

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

2. Identify, and then resolve the print quality defect. See the “Fixing print quality issues” section..

   Does the problem remain?

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

3. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.

   Does the problem remain?

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

4. Perform the following tests:

   Clean the following parts. See Cleaning the scanner on page 661.

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

- ADF glass in door C

Does the problem remain?

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

5. Perform the following tests:
   a. Perform a copy job using the ADF.
   b. Perform a copy job using the scanner.

   Does the problem remain?

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

6. Replace the printer controller board. See Controller board removal on page 587.

   Does the problem remain?

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

Vertical lines (process direction using the ADF) check

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

   Advanced Print Quality Samples > Advanced Print Quality Test Pages

   Is the scan defect seen on the print quality samples?

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

2. Identify, and then resolve the print quality defect. See the “Fixing print quality issues” section.

   Does the problem remain?

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

3. Perform the following tests:

Clean the following parts. See Cleaning the scanner on page 661.

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

Does the problem remain?

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

4. Check the ADF glass on the scanner for cracks or damage.

   Is the scanner free of cracks and damage?

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

5. Check inside the flatbed scanner for dust and contamination.

   Is the flatbed scanner free of dust and contamination?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to step 8.

6. Perform a two-sided copy job using the ADF, and then check if the issue occurs on the front side.

   Does the issue occur on the front side?

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

7. Check if the issue occurs on the back side.

   Does the issue occur on the back side?

   - **Yes**:
     Go to step 9.
   - **No**:
     The problem is solved.

8. Replace the flatbed scanner. See Flatbed scanner removal on page 625.

Does the problem remain?

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

9. Replace the ADF. See ADF removal on page 624.

   Does the problem remain?

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

Spots (using the flatbed scanner) check

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

   Advanced Print Quality Samples > Advanced Print Quality Test Pages

   Is the scan defect seen on the print quality samples?

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

2. Identify, and then resolve the print quality defect. See the “Fixing print quality issues” section.

   Does the problem remain?

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

3. Perform the following tests:

   Clean the following parts. See Cleaning the scanner on page 661.

   - Scanner glass
   - Scanner glass pad

   Does the problem remain?

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

4. Perform the following tests:
   a. Replace the scanner glass pad. See Scanner glass pad removal on page 618.
   b. Perform a copy job using the scanner.

   Does the problem remain?

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

5. Check inside the flatbed scanner for dust and contamination.

   Is the flatbed scanner free of dust and contamination?

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

6. Perform the following tests:
   a. Replace the flatbed scanner. See Flatbed scanner removal on page 625.
   b. Perform a copy job using the scanner.

   Does the problem remain?

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

ADF skew check

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

   Advanced Print Quality Samples > Advanced Print Quality Test Pages

   Is the scan defect seen on the print quality samples?

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

2. Identify, and then resolve the print quality defect. See the “Fixing print quality issues” section.

   Does the problem remain?

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

The problem is solved.

3. Make sure that the printer is placed on a flat, sturdy, and stable surface.

   Does the problem remain?

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

4. Perform the following tests:
   a. Make sure that the document is properly loaded in the ADF tray.

      Notes
      The ADF guide positions should match the width of the document.

   b. Perform a copy job using the ADF.

   Does the problem remain?

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

5. Clear the ADF paper path of obstructions.

   Does the problem remain?

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

6. Open, and then properly close the ADF top cover.

   Does the problem remain?

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

7. From the home screen, navigate to:

   Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > ADF Deskew > ADF Electronic Deskew > On

   Does the problem remain?

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

The problem is solved.

8. Check the ADF pick roller and separator roller for wear and damage.

   Are the rollers free of wear and damage?

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

9. Replace the ADF rollers. See ADF rollers removal on page 621.

   Does the problem remain?

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

Media damage (using the ADF) check

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

   > **Notes**
   > The ADF guide positions should match the width of the document.

   Does the problem remain?

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

2. Clear the ADF paper path of any obstructions.

   Does the problem remain?

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

3. Open, and then properly close the ADF top cover.

   Does the problem remain?

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

4. Check the ADF pick roller and separator roller for wear and damage.

   Are the rollers free of wear and damage?

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

5. Replace the ADF rollers. See ADF rollers removal on page 621.

   Does the problem remain?

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

Blank page copy check

1. Print a test page.

   Is the page blank?

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

2. Resolve the print quality issue. See Blank or white pages check on page 41.

   Does the problem remain?

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

3. Make sure that the orientation of the original document is correct.

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

   Does the problem remain?

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

4. Perform the following tests:
   a. Make sure that the ADF FFC is properly connected to the ADF and controller board.
   b. Make sure that the flatbed scanner FFC is properly connected to the flatbed scanner and controller board.

   Does the problem remain?

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

5. Check the ADF and flatbed scanner FFC cables for damage.

   Are the FFC cables free of damage?

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

6. Replace the damaged cables.

   Does the problem remain?

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

7. Replace the flatbed scanner. See Flatbed scanner removal on page 625.

   > **Notes**
   > If the backside scan is blank, replace the ADF.

   Does the problem remain?

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

8. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

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

Black page copy check

1. Print a test page.

   Is the page black?

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

2. Resolve the print quality issue. See Solid color or black image check on page 77.

   Does the problem remain?

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

3. Perform the following tests:

   Clean the following parts. See Cleaning the scanner on page 661.

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

   Does the problem remain?

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

4. Perform the following tests:
   a. Make sure that the ADF FFC is properly connected to the ADF and controller board.
   b. Make sure that the flatbed scanner FFC is properly connected to the flatbed scanner and controller board.

   Does the problem remain?

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

5. Check the ADF and flatbed scanner FFC cables for damage.

Are the FFC cables free of damage?

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

6. Replace the damaged cables.

   Does the problem remain?

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

7. Replace the flatbed scanner. See Flatbed scanner removal on page 625.

   > **Notes**
   > If the backside scan is blank, replace the ADF.

   Does the problem remain?

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

8. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

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

Paper jams

Avoiding jams

Load paper properly

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

Correct loading of paper	Incorrect loading of paper
	

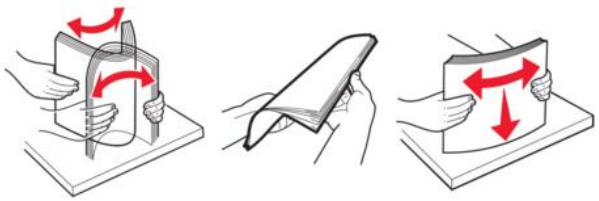
- Do not load or remove a tray while the printer is printing.
- Do not load too much paper. Make sure that the stack height is below the maximum paper fill indicator.
- Do not slide paper into the tray. Load paper as shown in the illustration.



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

Use recommended paper

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



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

Identifying jam locations

Note:

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



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

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 Sensor (input): Paper failed to arrive service check on page 123.
200.05	Paper fed from the MPF never cleared the sensor (input).	See Sensor (input): Paper failed to clear service check on page 127.
200.12	Paper fed from tray 1 was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early service check on page 122.
200.13	Paper fed from tray 1 never arrived at the sensor (input).	See Sensor (input): Paper failed to arrive service check on page 123.
200.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early service check on page 129.
200.15	Paper fed from tray 1 never cleared the sensor (input).	See Sensor (input): Paper failed to clear service check on page 127.
200.22	Paper fed from tray 2 was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early service check on page 122.
200.23	Paper fed from tray 2 did not reach the sensor (input).	See Sensor (input): Paper failed to arrive service check on page 123.
200.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early service check on page 129.
200.25	Paper fed from tray 2 never cleared the sensor (input).	See Sensor (input): Paper failed to clear service check on page 127.
200.26	Paper fed from tray 2 was picked but it never reached the sensor (input).	See Sensor (input): Paper failed to arrive service check on page 123.
200.32	Paper fed from tray 3 was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early service check on page 122.
200.33	Paper fed from tray 3 did not reach the sensor (input).	See Sensor (input): Paper failed to arrive service check on page 123.

Error code	Description	Action
200.34	Paper fed from tray 3 cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early service check on page 129.
200.35	Paper fed from tray 3 never cleared the sensor (input).	See Sensor (input): Paper failed to clear service check on page 127.
200.36	Paper fed from tray 3 was picked but it never reached the sensor (input).	See Sensor (input): Paper failed to arrive service check on page 123.
200.42	Paper fed from tray 4 was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early service check on page 122.
200.43	Paper fed from tray 4 did not reach the sensor (input).	See Sensor (input): Paper failed to arrive service check on page 123.
200.44	Paper fed from tray 4 cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early service check on page 129.
200.45	Paper fed from tray 4 never cleared the sensor (input).	See Sensor (input): Paper failed to clear service check on page 127.
200.46	Paper fed from tray 4 was picked but it never reached the sensor (input).	See Sensor (input): Paper failed to arrive service check on page 123.
200.52	Paper fed from tray 5 was detected earlier than expected at the sensor (input).	See Sensor (input): Paper arrived too early service check on page 122.
200.53	Paper fed from tray 5 did not reach the sensor (input).	See Sensor (input): Paper failed to arrive service check on page 123.
200.54	Paper fed from tray 5 cleared the sensor (input) earlier than expected.	See Sensor (input): Paper cleared too early service check on page 129.
200.55	Paper fed from tray 5 never cleared the sensor (input).	See Sensor (input): Paper failed to clear service check on page 127.
200.56	Paper fed from tray 5 was picked but it never reached the sensor (input).	See Sensor (input): Paper failed to arrive service check on page 123.
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See Sensor (input) static jam service check on page 131.

Sensor (input): Paper arrived too early service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the tray for overfilling.

   Is the tray overfilled?

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

4. Remove the excess paper from the tray.

   Does the problem remain?

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

5. Check the paper path along the tray exit.

   Is the paper path free of fragments and contamination?

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

6. Clean the paper path.

   Does the problem remain?

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

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

7. Perform a print job.

   Does the problem remain?

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

Sensor (input): Paper failed to arrive service check

1. Perform a Power-On-Reset on the printer. Do the following:
   a. Turn off the printer, and then unplug the power cord.
   b. Wait 30 seconds to discharge electrical energy and clear buffered data.
   c. Connect the power cord, and then turn on the printer.
   d. Wait for the printer to fully initialize before sending a job.

2. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   b. Check if the paper type and size settings match the paper type and size set on the tray.

   Does the paper size match the size set on the tray?

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

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

   Does the problem remain?

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

4. Check the paper path for paper jams and fragments.

   Notes
   If necessary, remove the transfer module to properly see the paper path. See Transfer module removal on page 547.

   Is the paper path free of jams and fragments?

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

5. Remove the jams and fragments.

   Does the problem remain?

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

6. Check the tray insert and its paper path guides and drive gears for damage.

   Is the tray insert free of damage?

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

7. Replace the tray insert. See 550-sheet tray insert removal on page 608.

   Does the problem remain?

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

8. Perform the following tests:
   a. Make sure that the pick roller is properly installed.

      Notes
      Firmly press the pick roller to its shaft to make sure that it is properly engaged.

   b. Check the pick roller for excess wear, contamination, and damage.

   Is the pick roller free from excess wear, contamination, and damage?

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

9. Replace the pick roller. See Pick roller removals on page 609.

   Does the problem remain?

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

The problem is solved.

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

       Printer diagnostics and adjustments > Motor tests > Pick (tray 1)

    b. Select a setting, and then touch **Start**.

    Does the motor run?

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

11. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Check the motor and the other paper feeder components for damage.

    Are the motor and paper feeder free of damage?

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

12. Perform the following tests:
    a. Replace the paper feeder. See Paper feeder removal on page 613.
    b. Perform a print job.

    Does the problem remain?

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

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

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (Input).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

14. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.

b. Check the sensor for damage.

Is the sensor free of damage?

- **Yes**:
  Go to step 15.
- **No**:
  Go to the next step.

15. Replace the sensor. See Sensor (input) removal on page 550.

    Does the problem remain?

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

16. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments > Motor tests > Isolation**
    b. Touch **Start**, and then listen to the sound of the motor.
    c. Check if the sound of the motor (isolation) is similar to this: https://contentdelivery.lexmark.com/webcontent/kbase/articles/SO8339/Bad_Isolation_Motor.mp3.

    Does the motor create a similar grinding sound?

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

17. Check the motor and its cable for damage.

    Are the motor and its cable free of damage?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

18. Replace the isolation unit. See Isolation unit removal on page 616.

    Does the problem remain?

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

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

       Printer diagnostics & adjustments > Motor tests > Deskew

b. Touch **Start**.

Does the motor run?

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

20. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Check the motor (deskew) for damage.

    Is the motor free of damage?

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

21. Replace the motor (deskew). See Motor (deskew) removal on page 506.

    Does the problem remain?

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

Sensor (input): Paper failed to clear service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the paper path for paper jams and obstructions.

   Notes
   If necessary, remove the transfer module to properly see the paper path. See Transfer module removal on page 547.

   Is the paper path free of jams and obstructions?

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

4. Remove the jams and obstructions.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Input).

   Does the sensor status change while toggling the sensor?

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

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

7. Replace the sensor. See Sensor (input) removal on page 550.

   Does the problem remain?

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

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

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

      Printer diagnostics & adjustments > Motor tests > Deskew

   b. Touch **Start**.

   Does the motor run?

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

9. Perform the following tests:
   a. Make sure that the motor cable is properly connected.
   b. Check the motor (deskew) for damage.

   Is the motor free of damage?

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

10. Replace the motor (deskew). See Motor (deskew) removal on page 506.

    Does the problem remain?

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

Sensor (input): Paper cleared too early service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

Does the problem remain?

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

3. Check the tray for overfilling.

   Is the tray overfilled?

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

4. Remove the excess paper from the tray.

   Does the problem remain?

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

5. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

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

6. Replace the crumpled or damaged paper.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Input).

   Does the sensor status change while toggling the sensor?

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

The problem is solved.

8. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

9. Replace the sensor. See Sensor (input) removal on page 550.

   Does the problem remain?

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

10. Perform a print job.

    Does the problem remain?

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

Sensor (input) static jam service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

The problem is solved.

3. Check the paper path for partially fed or jammed paper.

   Notes
   If necessary, remove the transfer module to properly see the paper path. See Transfer module removal on page 547.

   Is the paper path free of partially fed or jammed paper?

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

4. Remove the partially fed or jammed paper.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Input).

   Does the sensor status change while toggling the sensor?

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

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

7. Replace the sensor. See Sensor (input) removal on page 550.

   Does the problem remain?

   - **Yes**:

Go to the next step.

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

8. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Sensor (fuser buckle) jam service check on page 133.

Sensor (fuser buckle) jam service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

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

4. Remove the partially fed or jammed paper.

   Notes
   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.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Fuser buckle).

   Does the sensor status change while toggling the sensor?

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

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

7. Replace the sensor. See Sensors (fuser buckle and narrow media) removal on page 579.

   Does the problem remain?

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

8. Perform a print job.

Does the problem remain?

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

202 paper jams

202 paper jam messages

Error code	Description	Action
202.02	Paper fed from the MPF was detected earlier than expected at the sensor (fuser exit).	See Sensor (fuser exit): Paper arrived too early service check on page 137.
202.03	Paper fed from the MPF never arrived at the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to arrive service check on page 138.
202.04	Paper fed from the MPF cleared the sensor (fuser exit) earlier than expected.	See Sensor (fuser exit): Paper cleared too early service check on page 144.
202.05	Paper fed from the MPF never cleared the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to clear service check on page 142.
202.12	Paper fed from tray 1 was detected earlier than expected at the sensor (fuser exit).	See Sensor (fuser exit): Paper arrived too early service check on page 137.
202.13	Paper fed from tray 1 never arrived at the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to arrive service check on page 138.
202.14	Paper fed from tray 1 cleared the sensor (fuser exit) earlier than expected.	See Sensor (fuser exit): Paper cleared too early service check on page 144.
202.15	Paper fed from tray 1 never cleared the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to clear service check on page 142.
202.22	Paper fed from tray 2 was detected earlier than expected at the sensor (fuser exit).	See Sensor (fuser exit): Paper arrived too early service check on page 137.
202.23	Paper fed from tray 2 never arrived at the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to arrive service check on page 138.

Error code	Description	Action
202.24	Paper fed from tray 2 cleared the sensor (fuser exit) earlier than expected.	See Sensor (fuser exit): Paper cleared too early service check on page 144.
202.25	Paper fed from tray 2 never cleared the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to clear service check on page 142.
202.32	Paper fed from tray 3 was detected earlier than expected at the sensor (fuser exit).	See Sensor (fuser exit): Paper arrived too early service check on page 137.
202.33	Paper fed from tray 3 never arrived at the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to arrive service check on page 138.
202.34	Paper fed from tray 3 cleared the sensor (fuser exit) earlier than expected.	See Sensor (fuser exit): Paper cleared too early service check on page 144.
202.35	Paper fed from tray 3 never cleared the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to clear service check on page 142.
202.42	Paper fed from tray 4 was detected earlier than expected at the sensor (fuser exit).	See Sensor (fuser exit): Paper arrived too early service check on page 137.
202.43	Paper fed from tray 4 never arrived at the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to arrive service check on page 138.
202.44	Paper fed from tray 4 cleared the sensor (fuser exit) earlier than expected.	See Sensor (fuser exit): Paper cleared too early service check on page 144.
202.45	Paper fed from tray 4 never cleared the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to clear service check on page 142.
202.52	Paper fed from tray 5 was detected earlier than expected at the sensor (fuser exit).	See Sensor (fuser exit): Paper arrived too early service check on page 137.
202.53	Paper fed from tray 5 never arrived at the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to arrive service check on page 138.
202.54	Paper fed from tray 5 cleared the sensor (fuser exit) earlier than expected.	See Sensor (fuser exit): Paper cleared too early service check on page 144.
202.55	Paper fed from tray 5 never cleared the sensor (fuser exit).	See Sensor (fuser exit): Paper failed to clear service check on page 142.
202.91	Paper remains detected at the sensor (fuser exit) after the printer is turned on.	See Sensor (fuser exit) static jam service check on page 146.

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the paper path just before the fuser for paper jams and fragments.

   Is the paper path free of fragments and contamination?

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

4. Remove the paper jams and fragments.

   > **Notes**
   > 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.

   Does the problem remain?

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

5. Check the fuser rollers for damage.

   Are the rollers free of damage?

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

6. Replace the fuser. See .Fuser removal on page 551

   Does the problem remain?

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

7. Perform a print job.

   Does the problem remain?

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

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

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

4. Remove the jams and fragments.

Notes
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.

Does the problem remain?

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

5. Check the fuser for obstructions.

   Is the fuser free from obstructions?

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

6. Remove the obstructions in the fuser area.

   Does the problem remain?

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

7. Perform the following tests:
   a. Make sure that the fuser life has not ended.
   b. Check the fuser for damage.

   Is the fuser free of damage?

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

8. Replace the fuser. See .Fuser removal on page 551

   Does the problem remain?

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

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

Printer diagnostics & adjustments > Sensor tests

b. Find the sensor (Fuser exit).

Does the sensor status change while toggling the sensor?

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

10. Perform the following tests:
    a. Make sure that the fuser is properly seated.
    b. Make sure that the JFSNS1 connector on the engine board is properly connected.
    c. Check the sensor for damage.

    Is the sensor free of damage?

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

11. Replace the fuser. See .Fuser removal on page 551

    Does the problem remain?

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

12. Check the transfer module for damage.

    Is the transfer module free of damage?

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

13. Replace the transfer module. See Transfer module removal on page 547.

    Does the problem remain?

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

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

Printer diagnostics & adjustments > Motor tests > Fuser

b. Select a setting, and then touch **Start**.

Does the motor run?

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

15. Make sure that the JFDRV1 connector on the engine board is properly connected.

    Does the problem remain?

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

16. Perform the following tests:
    a. Replace the motor. See .Fuser removal on page 551
    b. Perform a print job.

    Does the problem remain?

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

17. Perform the following tests:
    a. Remove the transfer module. See Transfer module removal on page 547.
    b. Close the front door or bypass the door interlock switch.
    c. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > K developer/transfer

    d. Touch **Start**.

    Does the motor run?

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

18. Make sure that the JKDRV1 connector on the engine board is properly connected.

    Does the problem remain?

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

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

19. Perform the following tests:
    a. Replace the motor (K/transfer belt). See Motor (EP drive) removal on page 503.
    b. Perform a print job.

    Does the problem remain?

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

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

1. Perform the following tests:
    a. From the home screen, touch **Settings > Device > Preferences**.
    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?

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

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

    Does the problem remain?

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

3. Check the paper path for paper jams and fragments.

    Is the paper path free of jams and fragments?

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

4. Remove the jams and fragments.

    Notes
    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.

Does the problem remain?

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

5. Check the fuser for obstructions.

   Is the fuser free from obstructions?

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

6. Remove the obstructions in the fuser area.

   Does the problem remain?

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

7. Check the fuser for damage or life expiration, and replace if necessary. See .Fuser removal on page 551

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Fuser exit).

   Does the sensor status change while toggling the sensor?

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

9. Perform the following tests:
   a. Make sure that the fuser is properly seated.
   b. Make sure that the JFSNS1 connector on the engine board is properly connected.
   c. Check the sensor for damage.

   Is the sensor free of damage?

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

10. Replace the fuser. See .Fuser removal on page 551

    Does the problem remain?

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

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

       Printer diagnostics & adjustments > Motor tests > Fuser

    b. Select a setting, and then touch **Start**.

    Does the motor run?

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

12. Make sure that the motor cable is properly connected.

    Does the problem remain?

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

13. Perform the following tests:
    a. Replace the motor. See .Fuser removal on page 551

    b. Perform a print job.

    Does the problem remain?

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

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

1. Perform the following tests:

a. From the home screen, touch **Settings > Device > Preferences**.

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?

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

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

   Does the problem remain?

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

3. Check the fuser rollers for damage.

   Are the rollers free of damage?

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

4. Replace the fuser. See .Fuser removal on page 551

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Fuser exit).

   Does the sensor status change while toggling the sensor?

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

6. Make sure that the sensor cable is properly connected.

   Does the problem remain?

   - **Yes**:

Go to the next step.

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

7. Replace the fuser. See .Fuser removal on page 551

   Does the problem remain?

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

8. Perform a print job.

   Does the problem remain?

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

Sensor (fuser exit) static jam service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

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

4. Remove the partially fed or jammed paper.

   Notes
   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.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Fuser exit).

   Does the sensor status change while toggling the sensor?

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

6. Perform the following tests:
   a. Make sure that the fuser is properly seated.
   b. Make sure that the JFSNS1 connector on the engine board is properly connected.
   c. Check the sensor for damage.

   Is the sensor free of damage?

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

7. Replace the fuser. See .Fuser removal on page 551

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 .Sensor (redrive): Paper failed to arrive service check on page 149
221.04	Paper fed from the MPF cleared the sensor (redrive) earlier than expected.	See Sensor (redrive): Paper cleared too early service check on page 153.
221.05	Paper fed from the MPF never cleared the sensor (redrive).	See Sensor (redrive): Paper failed to clear service check on page 151.
221.13	Paper fed from tray 1 never arrived at the sensor (redrive).	See .Sensor (redrive): Paper failed to arrive service check on page 149
221.14	Paper fed from tray 1 cleared the sensor (redrive) earlier than expected.	See Sensor (redrive): Paper cleared too early service check on page 153.
221.15	Paper fed from tray 1 never cleared the sensor (redrive).	See Sensor (redrive): Paper failed to clear service check on page 151.
221.23	Paper fed from tray 2 never arrived at the sensor (redrive).	See .Sensor (redrive): Paper failed to arrive service check on page 149
221.24	Paper fed from tray 2 cleared the sensor (redrive) earlier than expected.	See Sensor (redrive): Paper cleared too early service check on page 153.
221.25	Paper fed from tray 2 never cleared the sensor (redrive).	See Sensor (redrive): Paper failed to clear service check on page 151.
221.33	Paper fed from tray 3 never arrived at the sensor (redrive).	See .Sensor (redrive): Paper failed to arrive service check on page 149
221.34	Paper fed from tray 3 cleared the sensor (redrive) earlier than expected.	See Sensor (redrive): Paper cleared too early service check on page 153.
221.35	Paper fed from tray 3 never cleared the sensor (redrive).	See Sensor (redrive): Paper failed to clear service check on page 151.
221.43	Paper fed from tray 4 never arrived at the sensor (redrive).	See .Sensor (redrive): Paper failed to arrive service check on page 149

Error code	Description	Action
221.44	Paper fed from tray 4 cleared the sensor (redrive) earlier than expected.	See Sensor (redrive): Paper cleared too early service check on page 153.
221.45	Paper fed from tray 4 never cleared the sensor (redrive).	See Sensor (redrive): Paper failed to clear service check on page 151.
221.53	Paper fed from tray 5 never arrived at the sensor (redrive).	See .Sensor (redrive): Paper failed to arrive service check on page 149
221.54	Paper fed from tray 5 cleared the sensor (redrive) earlier than expected.	See Sensor (redrive): Paper cleared too early service check on page 153.
221.55	Paper fed from tray 5 never cleared the sensor (redrive).	See Sensor (redrive): Paper failed to clear service check on page 151.
221.94	Paper cleared the sensor (redrive) earlier than expected. Paper source is undetermined.	See Sensor (redrive): Paper cleared too early service check on page 153.

Sensor (redrive): Paper failed to arrive service check

1. Check the fuser and exit paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

2. Remove the jams and obstructions.

   Does the problem remain?

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

3. Check the duplex paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

4. Remove the jams and obstructions.

Does the problem remain?

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

5. Inspect the ribs on the top frame base cover for wear, nicks, or other damage that could obstruct the paper path.

   Is there any damage?

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

6. Replace the top frame base cover. See Top frame base cover removal on page 591.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Redrive/Duplex Path 1).

   Does the sensor status change while toggling the sensor?

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

8. Replace the sensor. See Sensor (redrive) removal on page 555.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Motor tests > Fuser

   b. Select a setting, and then touch **Start**.

Does the motor run?

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

10. Make sure that the JFDRV1 connector on the engine board is properly connected.

    Does the problem remain?

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

11. Perform the following tests:
    a. Replace the motor. See Motor (fuser) removal on page 530.
    b. Perform a print job.

    Does the problem remain?

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

Sensor (redrive): Paper failed to clear service check

1. Check the fuser and exit paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

2. Remove the jams and obstructions.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

b. Find the sensor (Redrive/Duplex path 1).

Does the sensor status change while toggling the sensor?

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

4. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

5. Replace the sensor. See .Sensor (redrive) removal on page 555

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Motor tests > Redrive

   b. Select a setting, and then touch **Start**.

   Does the motor run?

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

7. Perform the following tests:
   a. Make sure that the motor cable is properly connected.
   b. Check the motor for damage.

   Is the motor free of damage?

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

8. Perform the following tests:
   a. Replace the motor. See Motor (exit/redrive) removal on page 509.
   b. Perform a print job.

   Does the problem remain?

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

Sensor (redrive): Paper cleared too early service check

1. Check the fuser and exit paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

2. Remove the jams and obstructions.

   Does the problem remain?

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

3. Check the duplex paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

4. Remove the jams and obstructions.

   Does the problem remain?

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

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

Printer diagnostics & adjustments > Sensor tests

b. Find the sensor (Redrive/Duplex Path 1).

Does the sensor status change while toggling the sensor?

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

6. Replace the sensor. See .Sensor (redrive) removal on page 555

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Motor tests > Redrive

   b. Select a setting, and then touch **Start**.

   Does the motor run?

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

8. Make sure that the JOUTDC1 connector on the engine board is properly connected.

   Does the problem remain?

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

9. Replace the motor (exit/redrive). See Motor (exit/redrive) removal on page 509.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 .Sensor (redrive): Paper (duplex job) failed to arrive service check on page 156
230.05	Paper fed from the MPF never cleared the sensor (redrive).	See Sensor (redrive): Paper (duplex job) failed to clear service check on page 158.
230.13	Paper fed from tray 1 never arrived at the sensor (redrive).	See .Sensor (redrive): Paper (duplex job) failed to arrive service check on page 156
230.15	Paper fed from tray 1 never cleared the sensor (redrive).	See Sensor (redrive): Paper (duplex job) failed to clear service check on page 158.
230.23	Paper fed from tray 2 never arrived at the sensor (redrive).	See .Sensor (redrive): Paper (duplex job) failed to arrive service check on page 156
230.25	Paper fed from tray 2 never cleared the sensor (redrive).	See Sensor (redrive): Paper (duplex job) failed to clear service check on page 158.
230.33	Paper fed from tray 3 never arrived at the sensor (redrive).	See .Sensor (redrive): Paper (duplex job) failed to arrive service check on page 156
230.35	Paper fed from tray 3 never cleared the sensor (redrive).	See Sensor (redrive): Paper (duplex job) failed to clear service check on page 158.
230.43	Paper fed from tray 4 never arrived at the sensor (redrive).	See .Sensor (redrive): Paper (duplex job) failed to arrive service check on page 156
230.45	Paper fed from tray 4 never cleared the sensor (redrive).	See Sensor (redrive): Paper (duplex job) failed to clear service check on page 158.
230.53	Paper fed from tray 5 never arrived at the sensor (redrive).	See .Sensor (redrive): Paper (duplex job) failed to arrive service check on page 156
230.55	Paper fed from tray 5 never cleared the sensor (redrive).	See Sensor (redrive): Paper (duplex job) failed to clear service check on page 158.
230.91	Paper remains detected at the sensor (duplex path 1) after the printer is turned on.	See Sensor (redrive) static jam service check on page 161.

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the redrive paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

4. Remove the jams and obstructions.

   Does the problem remain?

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

5. Check the duplex paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

6. Remove the jams and obstructions.

   Does the problem remain?

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

7. Inspect the ribs on the top frame base cover for wear, nicks, or other damage that could obstruct the paper path.

   Is there any damage?

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

8. Replace the top frame base cover. See Top frame base cover removal on page 591.

   Does the problem remain?

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

9. Check the diverter for smooth movement.

   Does the diverter freely move witthout interference?

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

10. Replace the diverter. See Diverter removal on page 555.

    Does the problem remain?

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

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

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (Redrive/Duplex Path 1).

    Does the sensor status change while toggling the sensor?

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

12. Replace the sensor. See Sensor (redrive) removal on page 555.

    Does the problem remain?

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

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

       Printer diagnostics & adjustments > Motor tests > Redrive

    b. Select a setting, and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

14. Make sure that the JOUTDC1 connector on the engine board is properly connected.

    Does the problem remain?

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

15. Replace the motor (exit/redrive). See Motor (exit/redrive) removal on page 509.

    Does the problem remain?

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

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.

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

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

   Does the problem remain?

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

3. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

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

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

   Does the problem remain?

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

5. Check the paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

6. Remove the jams and obstructions.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Redrive/Duplex path 1).

   Does the sensor status change while toggling the sensor?

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

8. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

9. Replace the sensor. See .Sensor (redrive) removal on page 555

   Does the problem remain?

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

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

       Printer diagnostics & adjustments > Motor tests > Duplex/MPF

    b. Select a setting, and then touch **Start**.

    Does the motor run?

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

11. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Check the motor for damage.

    Is the motor free of damage?

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

12. Perform the following tests:
    a. Replace the motor. See Motor (duplex/MPF) removal on page 532.
    b. Perform a print job.

Does the problem remain?

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

Sensor (redrive) static jam service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

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

4. Remove the partially fed or jammed paper.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

b. Find the sensor (Redrive/Duplex path 1).

Does the sensor status change while toggling the sensor?

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

6. Perform the following tests:
   a. Make sure that the JDSNS1 connector on the engine board is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

7. Replace the sensor. See .Sensor (redrive) removal on page 555

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Sensor (duplex staging): Paper failed to arrive service check on page 165.
231.05	Paper fed from tray 1 never cleared the sensor (duplex staging).	See Sensor (duplex staging): Paper failed to clear service check on page 167.
231.13	Paper fed from tray 1 never arrived at the sensor (duplex staging).	See Sensor (duplex staging): Paper failed to arrive service check on page 165.
231.14	Paper fed from tray 1 cleared the sensor (duplex staging) earlier than expected.	See Sensor (duplex staging): Paper (duplex job) cleared too early service check on page 170.

Error code	Description	Action
231.15	Paper fed from tray 1 never cleared the sensor (duplex staging).	See Sensor (duplex staging): Paper failed to clear service check on page 167.
231.23	Paper fed from tray 2 never arrived at the sensor (duplex staging).	See Sensor (duplex staging): Paper failed to arrive service check on page 165.
231.24	Paper fed from tray 2 cleared the sensor (duplex staging) earlier than expected.	See Sensor (duplex staging): Paper (duplex job) cleared too early service check on page 170.
231.25	Paper fed from tray 2 never cleared the sensor (duplex staging).	See Sensor (duplex staging): Paper failed to clear service check on page 167.
231.32	Paper fed from tray 3 was detected earlier than expected at the sensor (duplex staging).	See Sensor (duplex staging): Paper arrived too early service check on page 164.
231.33	Paper fed from tray 3 never arrived at the sensor (duplex staging).	See Sensor (duplex staging): Paper failed to arrive service check on page 165.
231.34	Paper fed from tray 3 cleared the sensor (duplex staging) earlier than expected.	See Sensor (duplex staging): Paper (duplex job) cleared too early service check on page 170.
231.35	Paper fed from tray 3 never cleared the sensor (duplex staging).	See Sensor (duplex staging): Paper failed to clear service check on page 167.
231.42	Paper fed from tray 4 was detected earlier than expected at the sensor (duplex staging).	See Sensor (duplex staging): Paper arrived too early service check on page 164.
231.43	Paper fed from tray 4 never arrived at the sensor (duplex staging).	See Sensor (duplex staging): Paper failed to arrive service check on page 165.
231.44	Paper fed from tray 4 cleared the sensor (duplex staging) earlier than expected.	See Sensor (duplex staging): Paper (duplex job) cleared too early service check on page 170.
231.45	Paper fed from tray 4 never cleared the sensor (duplex staging).	See Sensor (duplex staging): Paper failed to clear service check on page 167.
231.52	Paper fed from tray 5 was detected earlier than expected at the sensor (duplex staging).	See Sensor (duplex staging): Paper arrived too early service check on page 164.
231.53	Paper fed from tray 5 never arrived at the sensor (duplex staging).	See Sensor (duplex staging): Paper failed to arrive service check on page 165.
231.54	Paper fed from tray 5 cleared the sensor (duplex staging) earlier than expected.	See Sensor (duplex staging): Paper (duplex job) cleared too early service check on page 170.

Error code	Description	Action
231.55	Paper fed from tray 5 never cleared the sensor (duplex staging).	See Sensor (duplex staging): Paper failed to clear service check on page 167.
231.91	Paper remains detected at the sensor (duplex staging) after the printer is turned on.	See Sensor (duplex staging) static jam service check on page 171.

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   b. Check if the paper settings matches the paper in the tray guides.

   Do the paper settings match the paper in the tray?

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

4. Change the paper size and type, or adjust the size settings in the tray to match the paper size.

   Does the problem remain?

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

5. Check the duplex paper path for paper jams and obstructions.

Is the paper path free of jams and obstructions?

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

6. Remove the jams and obstructions.

   Does the problem remain?

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

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the duplex paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

4. Remove the jams and obstructions.

   Does the problem remain?

   - **Yes**:

Go to the next step.

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Duplex path 2).

   Does the sensor status change while toggling the sensor?

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

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

7. Replace the sensor (duplex staging).

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Motor tests > Duplex/MPF

   b. Select a setting, and then touch **Start**.

   Does the motor run?

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

9. Perform the following tests:
   a. Make sure that the motor cable is properly connected.

b. Check the motor for damage.

Is the motor free of damage?

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

10. Perform the following tests:
    a. Replace the motor. See Motor (duplex/MPF) removal on page 532.
    b. Perform a print job.

    Does the problem remain?

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

11. Check the duplex inner guide and its gears, belts, and rollers for damage.

    Are the duplex inner guide and its components free of damage?

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

12. Perform the following tests:
    a. Replace the duplex inner guide. See Duplex inner guide removal on page 578.
    b. Perform a print job.

    Does the problem remain?

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

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

1. Perform the following tests:
    a. From the home screen, touch **Settings > Device > Preferences**.
    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?

    - **Yes**:
      Go to step 3.

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

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

   Does the problem remain?

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

3. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

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

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

   Does the problem remain?

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

5. Check the paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

6. Remove the jams and obstructions.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Duplex path 2).

   Does the sensor status change while toggling the sensor?

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

8. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

9. Replace the sensor (duplex staging).

   Does the problem remain?

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

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

       Printer diagnostics & adjustments > Motor tests > Isolation

    b. Touch **Start**.

    Does the motor run?

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

11. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Check the motor and isolation unit for damage.

    Are the motor and isolation unit free of damage?

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

12. Perform the following tests:
    a. Replace the isolation unit. See Isolation unit removal on page 616.
    b. Perform a print job.

Does the problem remain?

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

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the duplex inner guide and its gears, belts, and rollers for damage.

   Are the duplex inner guide and its components free of damage?

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

4. Perform the following tests:
   a. Replace the duplex inner guide. See Duplex inner guide removal on page 578.
   b. Perform a print job.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Duplex path 2).

   Does the sensor status change while toggling the sensor?

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

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

7. Replace the sensor (duplex staging).

   Does the problem remain?

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

8. Perform a print job.

   Does the problem remain?

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

Sensor (duplex staging) static jam service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:

Go to step 3.

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

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

   Does the problem remain?

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

3. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

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

4. Remove the partially fed or jammed paper.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Duplex path 2).

   Does the sensor status change while toggling the sensor?

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

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

Go to the next step.

7. Perform the following tests:
   a. Replace the sensor (duplex staging).
   b. Perform a print job.

   Does the problem remain?

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

232 paper jams

232 paper jam messages

Error code	Description	Action
232.03	During a duplex print job, paper fed from the MPF never arrived at the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check on page 175.
232.04	During a duplex print job, paper fed from the MPF cleared the sensor (MPF/pass-through) earlier than expected.	See Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check on page 179.
232.05	During a duplex print job, paper fed from the MPF never cleared the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check on page 177.
232.13	During a duplex print job, paper fed from tray 1 never arrived at the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check on page 175.
232.14	During a duplex print job, paper fed from tray 1 cleared the sensor (MPF/pass-through) earlier than expected.	See Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check on page 179.
232.15	During a duplex print job, paper fed from tray 1 never cleared the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check on page 177.
232.23	During a duplex print job, paper fed from tray 2 never arrived at the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check on page 175.

Error code	Description	Action
232.24	During a duplex print job, paper fed from tray 2 cleared the sensor (MPF/pass-through) earlier than expected.	See Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check on page 179.
232.25	During a duplex print job, paper fed from tray 2 never cleared the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check on page 177.
232.33	During a duplex print job, paper fed from tray 3 never arrived at the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check on page 175.
232.34	During a duplex print job, paper fed from tray 3 cleared the sensor (MPF/pass-through) earlier than expected.	See Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check on page 179.
232.35	During a duplex print job, paper fed from tray 3 never cleared the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check on page 177.
232.43	During a duplex print job, paper fed from tray 4 never arrived at the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check on page 175.
232.44	During a duplex print job, paper fed from tray 4 cleared the sensor (MPF/pass-through) earlier than expected.	See Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check on page 179.
232.45	During a duplex print job, paper fed from tray 4 never cleared the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check on page 177.
232.53	During a duplex print job, paper fed from tray 5 never arrived at the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check on page 175.
232.54	During a duplex print job, paper fed from tray 5 cleared the sensor (MPF/pass-through) earlier than expected.	See Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check on page 179.
232.55	During a duplex print job, paper fed from tray 5 never cleared the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check on page 177.
232.93	During a duplex print job, paper never arrived at the sensor (MPF/pass-through). Paper source is undetermined.	See Sensor (MPF/pass-through): Paper (duplex job) failed to arrive service check on page 175.

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 Sensor (MPF/pass-through): Paper (duplex job) cleared too early service check on page 179.
232.95	During a duplex print job, paper never cleared the sensor (MPF/pass-through). Paper source is undetermined.	See Sensor (MPF/pass-through): Paper (duplex job) failed to clear service check on page 177.

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

1. Check the duplex paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

2. Remove the jams and obstructions.

   Does the problem remain?

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

3. Check the sensor (MPF/pass-through) area for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

4. Remove the jams and obstructions.

   Does the problem remain?

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

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

Printer diagnostics & adjustments > Sensor tests

b. Find the sensor (MPF/pass-through).

Does the sensor status change while toggling the sensor?

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

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor and its flag for damage.
   c. Check the isolation unit components for damage.

   Are the sensor and isolation unit components free of damage?

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

7. Replace the isolation unit. See Isolation unit removal on page 616.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Motor tests > Duplex/MPF

   b. Select a setting, and then touch **Start**.

   Does the motor run?

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

9. Perform the following tests:
   a. Make sure that the motor cable is properly connected.
   b. Check the motor for damage.

   Is the motor free of damage?

   - **Yes**:

Go to step 11.

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

10. Perform the following tests:
    a. Replace the motor. See Motor (duplex/MPF) removal on page 532.
    b. Perform a print job.

    Does the problem remain?

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

11. Check the duplex inner guide and its gears, belts, and rollers for damage.

    Are the duplex inner guide and its components free of damage?

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

12. Perform the following tests:
    a. Replace the duplex inner guide. See Duplex inner guide removal on page 578.
    b. Perform a print job.

    Does the problem remain?

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

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

1. Check the duplex paper path for paper jams and obstructions.

   Is the paper path free of jams and obstructions?

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

2. Remove the jams and obstructions.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (MPF/pass-through).

   Does the sensor status change while toggling the sensor?

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

4. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor and its flag for damage.
   c. Check the isolation unit components for damage.

   Are the sensor and isolation unit components free of damage?

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

5. Replace the isolation unit. See Isolation unit removal on page 616.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Motor tests > Deskew

   b. Touch **Start**.

   Does the motor run?

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

7. Perform the following tests:
   a. Make sure that the motor cable is properly connected.
   b. Check the motor for damage.

   Does the problem remain?

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

8. Perform the following tests:
   a. Replace the motor (deskew). See Motor (deskew) removal on page 506.
   b. Perform a print job.

   Does the problem remain?

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

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

1. Check the duplex inner guide and its gears, belts, and rollers for damage.

   Are the duplex inner guide and its components free of damage?

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

2. Perform the following tests:
   a. Replace the duplex inner guide. See Duplex inner guide removal on page 578.
   b. Perform a print job.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

b. Find the sensor (MPF/pass-through).

Does the sensor status change while toggling the sensor?

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

4. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

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

5. Replace the isolation unit. See Isolation unit removal on page 616.

   Does the problem remain?

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

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Sensor (MPF/pass-through): Paper failed to clear service check on page 181.
240.06	Paper fed from the MPF was picked but it never arrived at the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (MPF) failed to arrive service check on page 183.

Error code	Description	Action
240.23	Paper fed from tray 2 was picked but it never arrived at the sensor (MPF/pass-through).	SeeSensor (MPF/pass-through): Paper (tray 2) failed to arrive service check on page 187.
240.25	Paper fed from tray 2 was picked but it never cleared the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper failed to clear service check on page 181.
240.33	Paper fed from tray 3 was picked but it never arrived at the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (tray 3) failed to arrive service check on page 190.
240.35	Paper fed from tray 3 was picked but it never cleared the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper failed to clear service check on page 181.
240.43	Paper fed from tray 4 was picked but it never arrived at the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (tray 4) failed to arrive service check on page 192.
240.45	Paper fed from tray 4 was picked but it never cleared the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper failed to clear service check on page 181.
240.53	Paper fed from tray 5 was picked but it never arrived at the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper (tray 5) failed to arrive service check on page 196.
240.55	Paper fed from tray 5 was picked but it never cleared the sensor (MPF/pass-through).	See Sensor (MPF/pass-through): Paper failed to clear service check on page 181.
240.82	The motor (duplex/MPF) has stalled.	See Motor (duplex/MPF) jam service check on page 201.
240.84	The motor (duplex/MPF) failed to achieve expected speed or has stalled.	See Motor (duplex/MPF) jam service check on page 201.
240.91	Paper remains detected at the sensor (MPF/pass-through) after the printer is turned on.	See Sensor (MPF/pass-through) static jam service check on page 200.

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:

Go to step 3.

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

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

   Does the problem remain?

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

3. Check the duplex and MPF paper paths for paper jams and obstructions.

   Are the paper paths free of jams and obstructions?

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

4. Remove the paper jams and obstructions.

   Does the problem remain?

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

5. Check the tray insert and its paper path guides and drive gears for damage.

   Is the tray insert free of damage?

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

6. Replace the tray insert. See 550-sheet tray insert removal on page 608.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (MPF/pass-through).

Does the sensor status change while toggling the sensor?

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

8. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor and its flag for damage.
   c. Check the isolation unit components for damage.

   Are the sensor and isolation unit components free of damage?

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

9. Replace the isolation unit. See Isolation unit removal on page 616.

   Does the problem remain?

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

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   b. Check if the paper size matches the size set on the MPF guides.

   Does the paper size match the size set on the MPF?

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

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

   Does the problem remain?

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

The problem is solved.

3. Check the MPF for overfilling.

   Is the MPF overfilled?

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

4. Remove the excess paper from the MPF.

   Does the problem remain?

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

5. Check the paper condition in the MPF.

   Is the paper crumpled or damaged?

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

6. Replace the crumpled or damaged paper.

   Does the problem remain?

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

7. Perform the following tests:
   a. Make sure that the MPF pick roller is properly installed.

      Notes
      Firmly press the pick roller to its shaft to make sure that is properly engaged.

   b. Check the MPF pick roller for excess wear, contamination, and damage.

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

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

8. Replace the MPF pick roller. See Pick roller removals on page 609.

Does the problem remain?

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

9. Check the tray exit paper path for paper fragments and contamination.

   Is the paper path free of fragments and contamination?

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

10. Clean the paper path.

    Does the problem remain?

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

11. Check the tray insert and its paper path guides and drive gears for damage.

    Is the tray insert free of damage?

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

12. Replace the tray insert. See 550-sheet tray insert removal on page 608.

    Does the problem remain?

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

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

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (MPF/pass-through).

    Does the sensor status change while toggling the sensor?

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

Go to the next step.

14. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Check the sensor and its flag for damage.
    c. Check the isolation unit components for damage.

    Are the sensor and isolation unit components free of damage?

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

15. Replace the isolation unit. See Isolation unit removal on page 616.

    Does the problem remain?

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

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

       Printer diagnostics & adjustments > Motor tests > Duplex/MPF

    b. Select a setting, and then touch **Start**.

    Does the motor run?

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

17. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Check the motor for damage.

    Is the motor free of damage?

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

18. Perform the following tests:
    a. Replace the motor. See Motor (duplex/MPF) removal on page 532.
    b. Perform a print job.

    Does the problem remain?

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

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the tray for overfilling.

   Is the tray overfilled?

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

4. Remove the excess paper from the tray.

   Does the problem remain?

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

5. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

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

- **No**:
  Go to step 7.

6. Replace the crumpled or damaged paper.

   Does the problem remain?

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

7. Perform the following tests:
   a. Make sure that the tray 2 pick roller is properly installed.

      Notes
      Firmly press the pick roller to its shaft to make sure that it is properly engaged.

   b. Check the tray 2 pick roller for excess wear, contamination, and damage.

   Is the tray 2 pick roller free from excess wear, contamination, and damage?

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

8. Replace the tray 2 pick roller. See Pick roller removals on page 609.

   Does the problem remain?

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

9. Check the tray exit paper path for fragments and contamination.

   Is the paper path free of fragments and contamination?

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

10. Clean the paper path.

    Does the problem remain?

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

11. Perform the following tests:

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

   Printer diagnostics & adjustments > Sensor tests

b. Find the sensor (MPF/pass-through).

Does the sensor status change while toggling the sensor?

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

12. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Check the sensor and its flag for damage.
    c. Check the isolation unit components for damage.

    Are the sensor and isolation unit components free of damage?

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

13. Replace the isolation unit. See Isolation unit removal on page 616.

    Does the problem remain?

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

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

       Additional input trays adjustments/tests > Additional input tray motors > Pick (tray 2)

    b. Select a setting, and then touch **Start**.

    Does the motor run?

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

15. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Check the motor and the other optional tray components for damage.

    Are the motor and the optional tray free of damage?

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

16. Replace the tray insert. See 550-sheet tray insert removal on page 608.

    Does the problem remain?

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

17. Perform the following tests:
    a. Replace the optional tray. See Optional 550-sheet tray removal on page 640.
    b. Perform a print job.

    Does the problem remain?

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

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

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

Printer diagnostics & adjustments > Sensor tests

b. Find the sensor (MPF/pass-through).

Does the sensor status change while toggling the sensor?

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

4. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor and its flag for damage.
   c. Check the isolation unit components for damage.

   Are the sensor and isolation unit free of damage?

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

5. Replace the isolation unit. See Isolation unit removal on page 616.

   Does the problem remain?

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

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

      Additional input trays adjustments/tests > Additional input tray sensors

   b. Find the sensor (Pass-through (tray 2)).

   Does the sensor status change while toggling the sensor?

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

7. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor and the other optional tray components for damage.

   Are the sensor and the optional tray free of damage?

   - **Yes**:

Go to the next step.

- **No**:
  Go to step 10.

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

      Additional input trays adjustments/tests > Additional input tray motors > Pass-through (tray 2)

   b. Select a setting, and then touch **Start**.

   Does the motor run?

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

9. Perform the following tests:
   a. Make sure that the motor cable is properly connected.
   b. Check the motor and the other optional tray components for damage.

   Are the motor and the optional tray free of damage?

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

10. Perform the following tests:
    a. Replace the optional tray. See Optional 550-sheet tray removal on page 640.
    b. Perform a print job.

    Does the problem remain?

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

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

3. Check the paper path in tray 3 for paper jams and fragments.

   Is the paper path free of jams and fragments?

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

4. Remove the paper jams and fragments.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (MPF/pass-through).

   Does the sensor status change while toggling the sensor?

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

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor and its flag for damage.
   c. Check the isolation unit components for damage.

   Are the sensor and isolation unit free of damage?

   - **Yes**:

Go to step 8.

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

7. Replace the isolation unit. See Isolation unit removal on page 616.

   Does the problem remain?

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

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

      Additional input trays adjustments/tests > Additional input tray sensors

   b. Find the sensor (Pass-through (tray 2)).

   Does the sensor status change while toggling the sensor?

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

9. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor and the other optional tray components for damage.

   Are the sensor and the optional tray free of damage?

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

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

       Additional input trays adjustments/tests > Additional input tray motors > Pass-through (tray 2)

    b. Select a setting, and then touch **Start**.

    Does the motor run?

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

11. Perform the following tests:

a. Make sure that the motor cable is properly connected.

b. Check the motor and the other optional tray components for damage.

Are the motor and the optional tray free of damage?

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

12. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

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

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

       Additional input trays adjustments/tests > Additional input tray sensors

    b. Find the sensor (Pass-through (tray 3)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

14. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.

    b. Check the sensor and the other optional tray components for damage.

    Are the sensor and the optional tray free of damage?

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

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

       Additional input trays adjustments/tests > Additional input tray motors > Pass-through (tray 3)

    b. Select a setting, and then touch **Start**.

    Does the motor run?

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

16. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Check the motor and the other optional tray components for damage.

    Are the motor and the optional tray free of damage?

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

17. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

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

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

1. Perform the following tests:
    a. From the home screen, touch **Settings > Device > Preferences**.
    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?

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

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

    Does the problem remain?

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

3. Check the paper path in tray 4 for paper jams and fragments.

Is the paper path free of jams and fragments?

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

4. Remove the paper jams and fragments.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (MPF/pass-through).

   Does the sensor status change while toggling the sensor?

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

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor and its flag for damage.
   c. Check the isolation unit components for damage.

   Are the sensor and isolation unit free of damage?

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

7. Replace the isolation unit. See Isolation unit removal on page 616.

   Does the problem remain?

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

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

Additional input trays adjustments/tests > Additional input tray sensors

b. Find the sensor (Pass-through (tray 3)).

Does the sensor status change while toggling the sensor?

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

9. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor and the other optional tray components for damage.

   Are the sensor and the optional tray free of damage?

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

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

       Additional input trays adjustments/tests > Additional input tray motors > Pass-through (tray 3)

    b. Select a setting, and then touch **Start**.

    Does the motor run?

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

11. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Check the motor and the other optional tray components for damage.

    Are the motor and the optional tray free of damage?

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

12. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:

Go to the next step.

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

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

       Additional input trays adjustments/tests > Additional input tray sensors

    b. Find the sensor (Pass-through (tray 4)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

14. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Check the sensor and the other optional tray components for damage.

    Are the sensor and the optional tray free of damage?

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

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

       Additional input trays adjustments/tests > Additional input tray motors > Pass-through (tray 4)

    b. Select a setting, and then touch **Start**.

    Does the motor run?

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

16. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Check the motor and the other optional tray components for damage.

    Are the motor and the optional tray free of damage?

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

Go to the next step.

17. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

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

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

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

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

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (MPF/pass-through).

   Does the sensor status change while toggling the sensor?

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

4. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor and its flag for damage.
   c. Check the isolation unit components for damage.

Are the sensor and isolation unit free of damage?

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

5. Perform the following tests:
   a. Replace the isolation unit. See Isolation unit removal on page 616.
   b. Perform a print job.

   Does the problem remain?

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

Motor (duplex/MPF) jam service check

1. Check if the MPF is the source tray used during the error.

   Is the MPF the source tray?

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

2. Check the MPF for overfilling.

   Is the tray overfilled?

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

3. Remove the excess paper from the MPF.

   Does the problem remain?

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

4. Check the paper condition in the MPF.

   Is the paper crumpled or damaged?

   - **Yes**:

Go to the next step.

- **No**:
  Go to step 6.

5. Replace the crumpled or damaged paper.

   Does the problem remain?

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

6. Check the duplex and MPF paper path guides along the tray 1 exit area.

   Is the paper path free of paper fragments and contamination?

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

7. Clean the paper path.

   Does the problem remain?

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

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

      Printer diagnostics & adjustments > Motor tests > Duplex/MPF

   b. Select a setting, and then touch **Start**.

   Does the motor run?

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

9. Perform the following tests:
   a. Make sure that the motor cable JMTR1 on the engine board is properly connected.
   b. Check the motor for damage.

   Is the motor free of damage?

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

Go to the next step.

10. Perform the following tests:
    a. Replace the motor. See Motor (duplex/MPF) removal on page 532.
    b. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 Sensor (tray 1 pick): Paper arrived too early service check on page 206.
241.14	Paper fed from tray 1 cleared the sensor (tray 1 pick) earlier than expected.	See Sensor (tray 1 pick): Paper cleared too early service check on page 207.
241.15	Paper fed from tray 1 never cleared the sensor (tray 1 pick).	See Sensor (tray 1 pick): Paper failed to clear service check on page 204.
241.16	Paper fed from tray 1 was picked but it never arrived at the sensor (tray 1 pick).	See Sensor (input): tray 1 failed to pick service check on page 209.
241.82	The motor (tray 1 pick) stalled or did not reach the expected speed.	See Motor (tray 1 pick) jam service check on page 214.
241.83	The motor (tray 1 pick) stalled or did not reach the expected speed.	See Motor (tray 1 pick) jam service check on page 214.
241.84	The motor (tray 1 pick) stalled or did not reach the expected speed.	See Motor (tray 1 pick) jam service check on page 214.
241.91	Paper remains detected at the sensor (tray 1 pick) after the printer is turned on.	See Sensor (tray 1 pick) static jam service check on page 213.

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

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the tray insert and its paper path guides and drive gears for damage.

   Is the tray insert free of damage?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Replace the tray insert. See 550-sheet tray insert removal on page 608.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Input).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

8. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor for damage.

   Is the sensor free of damage?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Replace the sensor. See Sensor (input) removal on page 550.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Isolation

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      Go to the next step.

11. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Check the motor and isolation unit for damage.

Are the motor and isolation unit free of damage?

- **Yes**:
  Contact the next level of support.
- **No**:
  Go to the next step.

12. Perform the following tests:
    a. Replace the isolation unit. See Isolation unit removal on page 616.
    b. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (tray 1 pick): Paper arrived too early service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the tray for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Remove the excess paper from the tray.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Check the tray exit paper path for fragments and contamination.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Sensor (tray 1 pick): Paper cleared too early service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

3. Check the tray for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Input).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 9.
   - **No**:
     The problem is solved.

8. Perform the following tests:

a. Make sure that the sensor cable is properly connected.

b. Check the sensor for damage.

Is the sensor free of damage?

- **Yes**:
  Go to step 9.
- **No**:
  Go to the next step.

9. Replace the sensor. See Sensor (input) removal on page 550.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (input): tray 1 failed to pick service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.

   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check if the paper size matches the size set on the tray guides.

Does the paper size match the size set on the tray?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

4. Replace the paper or change the paper size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper tray for overfilling.

   Is the paper tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   a. Make sure that the tray pick roller is properly installed.

> **Notes**
> Firmly press the pick roller to its shaft to make sure that it is properly engaged.

b. Check the tray pick roller for excess wear, contamination, and damage.

Is the tray pick roller free from excess wear, contamination, and damage?

- **Yes**:
  Go to step 11.
- **No**:
  Go to the next step.

10. Replace the pick roller. See Pick roller removals on page 609.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Check the tray exit paper path for paper fragments and contamination.

    Is the paper path free of paper fragments and contamination?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

12. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (Tray 1 pick).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

14. Perform the following tests:

a. Make sure that the sensor cable is properly connected.

b. Make sure that the sensor is properly installed.

c. Check the sensor and the other optional tray components for damage.

Are the sensor and optional tray free of damage?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 17.

15. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics and adjustments > Motor tests > Pick (tray 1)

    b. Select a setting, and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

16. Perform the following tests:
    a. Make sure that the motor cable is properly connected.

    b. Check the motor and the other paper feeder components for damage.

    Are the motor and paper feeder free of damage?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

17. Perform the following tests:
    a. Replace the paper feeder. See Paper feeder removal on page 613.

    b. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

18. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.

- **No**:
  The problem is solved.

Sensor (tray 1 pick) static jam service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Tray 1 pick).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

4. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Check the sensor and the other isolation units for damage.

   Are the sensor and isolation unit free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

5. Perform the following tests:

a. Replace the isolation unit. See Isolation unit removal on page 616.

b. Perform a print job.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

Motor (tray 1 pick) jam service check

1. Check the tray for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.

2. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the tray exit paper path for fragments and contamination.

   Is the paper path free of fragments and contamination?

   - **Yes**:

Go to step 7.

- **No**:
  Go to the next step.

6. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics and adjustments > Motor tests > Pick (tray 1)

   b. Select a setting, and then touch **Start**.

   Does the motor run?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

8. Perform the following tests:
   a. Make sure that the motor cable is properly connected.
   b. Check the motor and the other paper feeder components for damage.

   Are the motor and paper feeder free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

9. Perform the following tests:
   a. Replace the paper feeder. See Paper feeder removal on page 613.
   b. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
242.23	Paper fed from tray 2 never arrived at the sensor (tray 2 pass-through).	See Sensor (tray 2 pass-through): Paper failed to arrive service check on page 232.
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 .Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243
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 .Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243
242.26	Paper fed from tray 2 was picked but it never arrived at the sensor (tray 2 pass-through).	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.
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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
242.33	Paper fed from tray 3 never arrived at the sensor (tray 2 pass-through).	See Sensor (tray 2 pass-through): Paper failed to arrive service check on page 232.
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 .Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243

Error code	Description	Action
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 .Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243
242.36	Paper fed from tray 3 was picked but it never arrived at the sensor (tray 2 pass-through).	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.
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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
242.43	Paper fed from tray 4 never arrived at the sensor (tray 2 pass-through).	See Sensor (tray 2 pass-through): Paper failed to arrive service check on page 232.
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 .Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243
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 .Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243
242.46	Paper fed from tray 4 was picked but it never arrived at the sensor (tray 2 pass-through).	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.
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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
242.53	Paper fed from tray 5 never arrived at the sensor (tray 2 pass-through).	See Sensor (tray 2 pass-through): Paper failed to arrive service check on page 232.
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 .Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243

Error code	Description	Action
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 .Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243
242.56	Paper fed from tray 5 was picked but it never arrived at the sensor (tray 2 pass-through).	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.
242.70	Motor (550-sheet tray 2 transport) does not turn on.	See Optional tray transport drive jam service check on page 261.
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 Optional tray pick drive failure service check on page 263.
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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.

Error code	Description	Action
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
242.93	Paper never arrived at the sensor (tray 2 pass-through). Paper source is undetermined.	See Sensor (tray 2 pass-through): Paper failed to arrive service check on page 232.
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 .Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243
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 .Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243
242.96	Paper was picked but it never arrived at the sensor (tray 2 pass-through). Paper source is undetermined.	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.

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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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
243.33	Paper fed from tray 3 never arrived at the sensor (tray 3 pass-through).	See Sensor (tray 3 pass-through): Paper failed to arrive service check on page 236.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.

Error code	Description	Action
243.36	Paper fed from tray 3 was picked but it never arrived at the sensor (tray 3 pass-through).	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.
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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
243.43	Paper fed from tray 4 never arrived at the sensor (tray 3 pass-through).	See Sensor (tray 3 pass-through): Paper failed to arrive service check on page 236.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
243.46	Paper fed from tray 4 was picked but it never arrived at the sensor (tray 3 pass-through).	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.
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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
243.53	Paper fed from tray 5 never arrived at the sensor (tray 3 pass-through).	See Sensor (tray 3 pass-through): Paper failed to arrive service check on page 236.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.

Error code	Description	Action
243.56	Paper fed from tray 5 was picked but it never arrived at the sensor (tray 3 pass-through).	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.
243.70	Motor (550-sheet tray 3 transport) does not turn on.	See Optional tray transport drive jam service check on page 261.
243.71	Motor (550-sheet tray 3 transport) does not turn off.	See Optional tray transport drive jam service check on page 261.
243.72	Motor (550-sheet tray 3 transport) speed did not ramp up to expected level.	See Optional tray transport drive jam service check on page 261.
243.73	Motor (550-sheet tray 3 transport) stalled.	See Optional tray transport drive jam service check on page 261.
243.74	Motor (550-sheet tray 3 transport) ran too slow.	See Optional tray transport drive jam service check on page 261.
243.75	Motor (550-sheet tray 3 transport) ran too fast.	See Optional tray transport drive jam service check on page 261.
243.76	Motor (550-sheet tray 3 transport) ran too long.	See Optional tray transport drive jam service check on page 261.
243.80	Motor (550-sheet tray 3 pick/lift) does not turn on.	See Optional tray pick drive failure service check on page 263.
243.81	Motor (550-sheet tray 3 pick/lift) does not turn off.	See Optional tray pick drive failure service check on page 263.
243.82	Motor (550-sheet tray 3 pick/lift) speed did not ramp up to expected level.	See Optional tray pick drive failure service check on page 263.
243.83	Motor (550-sheet tray 3 pick/lift) stalled.	See Optional tray pick drive failure service check on page 263.
243.84	Motor (550-sheet tray 3 pick/lift) ran too slow.	See Optional tray pick drive failure service check on page 263.
243.85	Motor (550-sheet tray 3 pick/lift) ran too fast.	See Optional tray pick drive failure service check on page 263.
243.86	Motor (550-sheet tray 3 pick/lift) ran too long.	See Optional tray pick drive failure service check on page 263.

Error code	Description	Action
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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
243.93	Paper never arrived at the sensor (tray 3 pass-through). Paper source is undetermined.	See Sensor (tray 3 pass-through): Paper failed to arrive service check on page 236.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
243.96	Paper was picked but it never arrived at the sensor (tray 3 pass-through). Paper source is undetermined.	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.

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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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
244.43	Paper fed from tray 4 never arrived at the sensor (tray 4 pass-through).	See Sensor (tray 4 pass-through): Paper failed to arrive service check on page 239.

Error code	Description	Action
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
244.46	Paper fed from tray 4 was picked but it never arrived at the sensor (tray 4 trailing edge).	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.
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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
244.53	Paper fed from tray 5 never arrived at the sensor (tray 4 pass-through).	See Sensor (tray 4 pass-through): Paper failed to arrive service check on page 239.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
244.56	Paper fed from tray 5 was picked but it never arrived at the sensor (tray 4 trailing edge).	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.
244.70	Motor (550-sheet tray 4 transport) does not turn on.	See Optional tray transport drive jam service check on page 261.
244.71	Motor (550-sheet tray 4 transport) does not turn off.	See Optional tray transport drive jam service check on page 261.
244.72	Motor (550-sheet tray 4 transport) speed did not ramp up to expected level.	See Optional tray transport drive jam service check on page 261.
244.73	Motor (550-sheet tray 4 transport) stalled.	See Optional tray transport drive jam service check on page 261.
244.74	Motor (550-sheet tray 4 transport) ran too slow.	See Optional tray transport drive jam service check on page 261.

Error code	Description	Action
244.75	Motor (550-sheet tray 4 transport) ran too fast.	See Optional tray transport drive jam service check on page 261.
244.76	Motor (550-sheet tray 4 transport) ran too long.	See Optional tray transport drive jam service check on page 261.
244.80	Motor (550-sheet tray 4 pick/lift) does not turn on.	See Optional tray pick drive failure service check on page 263.
244.81	Motor (550-sheet tray 4 pick/lift) does not turn off.	See Optional tray pick drive failure service check on page 263.
244.82	Motor (550-sheet tray 4 pick/lift) speed did not ramp up to expected level.	See Optional tray pick drive failure service check on page 263.
244.83	Motor (550-sheet tray 4 pick/lift) stalled.	See Optional tray pick drive failure service check on page 263.
244.84	Motor (550-sheet tray 4 pick/lift) ran too slow.	See Optional tray pick drive failure service check on page 263.
244.85	Motor (550-sheet tray 4 pick/lift) ran too fast.	See Optional tray pick drive failure service check on page 263.
244.86	Motor (550-sheet tray 4 pick/lift) ran too long.	See Optional tray pick drive failure service check on page 263.
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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
244.93	Paper fed from tray 4 never arrived at the sensor (tray 4 pass-through). Paper source is undetermined.	See Sensor (tray 4 pass-through): Paper failed to arrive service check on page 239.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.

Error code	Description	Action
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
244.96	Paper was picked but it never arrived at the sensor (tray 4 pass-through). Paper source is undetermined.	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.
244.97	Paper never cleared the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge). Paper source is undetermined.	See Sensors (optional tray trailing edge and pass-through): Paper failed to clear service check on page 253.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too late service check on page 256.

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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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
245.53	Paper fed from tray 5 never arrived at the sensor (tray 5 pass-through).	See Sensor (tray 4 pass-through): Paper failed to arrive service check on page 239.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
245.56	Paper fed from tray 5 was picked but it never arrived at the sensor (tray 5 trailing edge).	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.

Error code	Description	Action
245.70	Motor (550-sheet tray 5 transport) does not turn on.	See Optional tray transport drive jam service check on page 261.
245.71	Motor (550-sheet tray 5 transport) does not turn off.	See Optional tray transport drive jam service check on page 261.
245.72	Motor (550-sheet tray 5 transport) speed did not ramp up to expected level.	See Optional tray transport drive jam service check on page 261.
245.73	Motor (550-sheet tray 5 transport) stalled.	See Optional tray transport drive jam service check on page 261.
245.74	Motor (550-sheet tray 5 transport) ran too slow.	See Optional tray transport drive jam service check on page 261.
245.75	Motor (550-sheet tray 5 transport) ran too fast.	See Optional tray transport drive jam service check on page 261.
245.76	Motor (550-sheet tray 5 transport) ran too long.	See Optional tray transport drive jam service check on page 261.
245.80	Motor (550-sheet tray 5 pick/lift) does not turn on.	See Optional tray pick drive failure service check on page 263.
245.81	Motor (550-sheet tray 5 pick/lift) does not turn off.	See Optional tray pick drive failure service check on page 263.
245.82	Motor (550-sheet tray 5 pick/lift) speed did not ramp up to expected level.	See Optional tray pick drive failure service check on page 263.
245.83	Motor (550-sheet tray 5 pick/lift) stalled.	See Optional tray pick drive failure service check on page 263.
245.84	Motor (550-sheet tray 5 pick/lift) ran too slow.	See Optional tray pick drive failure service check on page 263.
245.85	Motor (550-sheet tray 5 pick/lift) ran too fast.	See Optional tray pick drive failure service check on page 263.
245.86	Motor (550-sheet tray 5 pick/lift) ran too long.	See Optional tray pick drive failure service check on page 263.
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 Sensors (optional tray trailing edge and pass-through) static jam service check on page 227.

Error code	Description	Action
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check on page 230.
245.93	Paper fed from tray 5 never arrived at the sensor (tray 5 pass-through). Paper source is undetermined.	See Sensor (tray 4 pass-through): Paper failed to arrive service check on page 239.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
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 Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check on page 243.
245.96	Paper was picked but it never arrived at the sensor (tray 5 pass-through). Paper source is undetermined.	See Sensor (optional tray pass-through): optional tray failed to pick service check on page 249.
245.97	Paper never cleared the sensor (tray 5 pass-through) or at the sensor (tray 5 trailing edge). Paper source is undetermined.	See Sensors (optional tray trailing edge and pass-through): Paper failed to clear service check on page 253.
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 Sensors (optional tray trailing edge and pass-through): Paper arrived too late service check on page 256.

Sensors (optional tray trailing edge and pass-through) static jam service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the partially fed or jammed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays adjustments/tests > Additional input tray sensors

   b. Find the sensor (Trailing edge (tray [x])).

      > **Notes**
      > [x] is the tray number.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Make sure that the sensor is properly installed.
   c. Check the sensor for damage.

   Is the sensor free of damage?

   - **Yes**:
     Go to the next step.

- **No**:
  Go to step 9.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays adjustments/tests > Additional input tray sensors

   b. Find the sensor (Pass-through (tray [x])).

      Notes
      [x] is the tray number.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

8. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Make sure that the sensor is properly installed.
   c. Check the sensor and the other optional tray components for damage.

   Is the sensor free of damage?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensors (optional tray trailing edge and pass-through): Paper arrived too early service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the partially fed or jammed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays adjustments/tests > Additional input tray sensors

   b. Find the sensor (Trailing edge (tray [x])).

      Notes
      [x] is the tray number.

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 7.
- **No**:
  Go to the next step.

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Make sure that the sensor is properly installed.
   c. Check the sensor for damage.

   Is the sensor free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays adjustments/tests > Additional input tray sensors

   b. Find the sensor (Pass-through (tray [x])).

      Notes
      [x] is the tray number.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

8. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Make sure that the sensor is properly installed.
   c. Check the sensor and the other optional tray components for damage.

   Is the sensor free of damage?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

10. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (tray 2 pass-through): Paper failed to arrive service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Replace the paper or change the paper size setting in the tray.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Check the paper tray for overfilling.

   Is the paper tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Remove the partially fed or jammed paper.

    Does the problem remain?

    - **Yes**:
      Go to the next step.

- **No**:
  The problem is solved.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray sensors

    b. Find the sensor (Pass-through (tray 2)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Make sure that the sensor is properly installed.
    c. Check the sensor and the other optional tray components for damage.

    Is the sensor free of damage?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 15.

13. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray motors

    b. Select **Pass-through (tray 2)**, and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.

14. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Make sure that the motor is properly installed.
    c. Check the motor and the other optional tray components for damage.

    Are the motor and the optional tray free of damage?

    - **Yes**:
      Go to step 16.
    - **No**:

Go to the next step.

15. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray motors

    b. Select **Pass-through (tray 3)**, and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 19.
    - **No**:
      Go to the next step.

17. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Make sure that the motor is properly installed.
    c. Check the motor and the other optional tray components for damage.

    Are the motor and optional tray free of damage?

    - **Yes**:
      Go to step 19.
    - **No**:
      Go to the next step.

18. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (tray 3 pass-through): Paper failed to arrive service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Replace the paper or change the paper size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper tray for overfilling.

   Is the paper tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Remove the excess paper from the tray.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

7. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Remove the partially fed or jammed paper.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray sensors

    b. Find the sensor (Pass-through (tray 3)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Perform the following tests:

a. Make sure that the sensor cable is properly connected.

b. Make sure that the sensor is properly installed.

c. Check the sensor and the other optional tray components for damage.

Is the sensor free of damage?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 15.

13. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray motors

    b. Select **Pass-through (tray 3)**, and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.

14. Perform the following tests:
    a. Make sure that the motor cable is properly connected.

    b. Make sure that the motor is properly installed.

    c. Check the motor and the other optional tray components for damage.

    Are the motor and the optional tray free of damage?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.

15. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray motors

    b. Select **Pass-through (tray 4)**, and then touch **Start**.

Does the motor run?

- **Yes**:
  Go to step 19.
- **No**:
  Go to the next step.

17. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Make sure that the motor is properly installed.
    c. Check the motor and the other optional tray components for damage.

    Are the motor and optional tray free of damage?

    - **Yes**:
      Go to step 19.
    - **No**:
      Go to the next step.

18. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (tray 4 pass-through): Paper failed to arrive service check

1. Perform the following tests:
    a. From the home screen, touch **Settings > Device > Preferences**.
    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?

    - **Yes**:
      Go to step 3.
    - **No**:

Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Replace the paper or change the paper size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper tray for overfilling.

   Is the paper tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the crumpled or damaged paper.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

9. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Remove the partially fed or jammed paper.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray sensors

    b. Find the sensor (Pass-through (tray 4)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Make sure that the sensor is properly installed.
    c. Check the sensor and the other optional tray components for damage.

    Is the sensor free of damage?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 15.

13. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

Additional input trays adjustments/tests > Additional input tray motors

b. Select **Pass-through (tray 4)**, and then touch **Start**.

Does the motor run?

- **Yes**:
  Go to step 16.
- **No**:
  Go to the next step.

14. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Make sure that the motor is properly installed.
    c. Check the motor and the other optional tray components for damage.

    Are the motor and the optional tray free of damage?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.

15. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray motors

    b. Select **Pass-through (tray 5)**, and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 19.
    - **No**:
      Go to the next step.

17. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Make sure that the motor is properly installed.
    c. Check the motor and the other optional tray components for damage.

    Are the motor and optional tray free of damage?

- **Yes**:
  Go to step 19.
- **No**:
  Go to the next step.

18. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 5.

- **No**:
  Go to the next step.

4. Replace the paper or change the paper size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper tray for overfilling.

   Is the paper tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays adjustments/tests > Additional input tray sensors

   b. Find the sensor (Trailing edge (tray [x])).

Notes
[x] is the tray number.

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 11.
- **No**:
  Go to the next step.

10. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Make sure that the sensor is properly installed.
    c. Check the sensor for damage.

    Is the sensor free of damage?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 13.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray sensors

    b. Find the sensor (Pass-through (tray [x])).

    Notes
    [x] is the tray number.

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.

12. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Make sure that the sensor is properly installed.
    c. Check the sensor and the other optional tray components for damage.

    Is the sensor free of damage?

    - **Yes**:
      Go to step 14.

- **No**:
  Go to the next step.

13. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensors (optional tray trailing edge and pass-through): Paper cleared too early service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Replace the paper or change the paper size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper tray for overfilling.

   Is the paper tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays adjustments/tests > Additional input tray sensors

   b. Find the sensor (Trailing edge (tray [x])).

      Notes
      [x] is the tray number.

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 11.
- **No**:
  Go to the next step.

10. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Make sure that the sensor is properly installed.
    c. Check the sensor for damage.

    Is the sensor free of damage?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 13.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray sensors

    b. Find the sensor (Pass-through (tray [x])).

       Notes
       [x] is the tray number.

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.

12. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Make sure that the sensor is properly installed.
    c. Check the sensor and the other optional tray components for damage.

    Is the sensor free of damage?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.

13. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

14. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (optional tray pass-through): optional tray failed to pick service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Replace the paper or change the paper size setting in the tray.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Check the paper tray for overfilling.

   Is the paper tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   a. Make sure that the optional tray pick roller is properly installed.

      Notes
      Firmly press the pick roller to its shaft to make sure that it is properly engaged.

   b. Check the optional tray pick roller for excess wear, contamination, and damage.

   Is the optional tray pick roller free from excess wear, contamination, and damage?

   - **Yes**:
     Go to step 11.
   - **No**:

Go to the next step.

10. Replace the pick roller. See Pick roller removals on page 609.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Check the tray exit paper path for paper fragments and contamination.

    Is the paper path free of paper fragments and contamination?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

12. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray sensors

    b. Find the sensor (Trailing edge (tray [x])).

       > **Notes**
       > [x] is the tray number.

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

14. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Make sure that the sensor is properly installed.
    c. Check the sensor and the other optional tray components for damage.

    Are the sensor and optional tray free of damage?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 17.

15. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests

    b. Select **Pick (tray [x])**, and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

16. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Make sure that the motor is properly installed.
    c. Check the motor and the other optional tray components for damage.

    Are the motor and the optional tray free of damage?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

17. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

18. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensors (optional tray trailing edge and pass-through): Paper failed to clear service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the partially fed or jammed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays adjustments/tests > Additional input tray sensors

   b. Find the sensor (Trailing edge (tray [x])).

      Notes
      [x] is the tray number.

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 7.
- **No**:
  Go to the next step.

6. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Make sure that the sensor is properly installed.
   c. Check the sensor for damage.

   Is the sensor free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 11.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays adjustments/tests > Additional input tray sensors

   b. Find the sensor (Pass-through (tray [x])).

      Notes
      [x] is the tray number.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Perform the following tests:
   a. Make sure that the sensor cable is properly connected.
   b. Make sure that the sensor is properly installed.
   c. Check the sensor and the other optional tray components for damage.

   Is the sensor free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 11.

9. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

Additional input trays adjustments/tests > Additional input tray motors

b. Select **Pass-through (tray [x])**, and then touch **Start**.

> **Notes**
> [x] is the tray number.

Does the motor run?

- **Yes**:
  Go to step 12.
- **No**:
  Go to the next step.

10. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Make sure that the motor is properly installed.
    c. Check the motor and the other optional tray components for damage.

    Are the motor and optional tray free of damage?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests

    b. Find the motor (Duplex/MPF), and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

13. Reseat the motor cable, and then check the motor for misalignment and damage.

    Is the motor properly installed and free of damage?

- **Yes**:
  Go to step 15.
- **No**:
  Go to the next step.

14. Reinstall or replace the motor. See Motor (duplex/MPF) removal on page 532.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensors (optional tray trailing edge and pass-through): Paper arrived too late service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 5.

- **No**:
  Go to the next step.

4. Replace the paper or change the paper size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper tray for overfilling.

   Is the paper tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   a. Make sure that the separator bracket is properly installed.
   b. Check the separator bracket for damage.

   Is the separator bracket free of damage?

   - **Yes**:
     Go to step 11.

- **No**:
  Go to the next step.

10. Replace the separator bracket. See Separator bracket removal on page 608.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    a. Make sure that the optional tray pick roller is properly installed.

    > **Notes**
    > Firmly press the pick roller to its shaft to make sure that it is properly engaged.

    b. Check the optional tray pick roller for excess wear, contamination, and damage.

    Is the optional tray pick roller free from excess wear, contamination, and damage?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Replace the pick roller. See Pick roller removals on page 609.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Check the tray exit paper path for paper fragments and contamination.

    Is the paper path free of paper fragments and contamination?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

14. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:

a. Enter the Diagnostics menu, and then navigate to:

Additional input trays adjustments/tests > Additional input tray sensors

b. Find the sensor (Trailing edge (tray [x])).

> **Notes**
> [x] is the tray number.

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 17.
- **No**:
  Go to the next step.

16. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Make sure that the sensor is properly installed.
    c. Check the sensor for damage.

    Is the sensor free of damage?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 23.

17. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

    Additional input trays adjustments/tests > Additional input tray motors

    b. Select **Pick (tray [x])**, and then touch **Start**.

    > **Notes**
    > [x] is the tray number.

    Does the motor run?

    - **Yes**:
      Go to step 19.
    - **No**:
      Go to the next step.

18. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Make sure that the motor is properly installed.
    c. Check the motor and the other optional tray components for damage.

Are the motor and the optional tray free of damage?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 23.

19. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray sensors

    b. Find the sensor (Pass-through (tray [x])).

       Notes
       [x] is the tray number.

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 21.
- **No**:
  Go to the next step.

20. Perform the following tests:
    a. Make sure that the sensor cable is properly connected.
    b. Make sure that the sensor is properly installed.
    c. Check the sensor and the other optional tray components for damage.

Are the sensor and optional tray free of damage?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 23.

21. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input trays adjustments/tests > Additional input tray motors

    b. Select **Pass-through (tray [x])**, and then touch **Start**.

       Notes
       [x] is the tray number.

Does the motor run?

- **Yes**:
  Go to step 24.

- **No**:
  Go to the next step.

22. Perform the following tests:
    a. Make sure that the motor cable is properly connected.
    b. Make sure that the motor is properly installed.
    c. Check the motor and the other optional tray components for damage.

    Are the motor and optional tray free of damage?

    - **Yes**:
      Go to step 24.
    - **No**:
      Go to the next step.

23. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

24. Perform a print test.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Optional tray transport drive jam service check

1. Check the paper path and trays for paper fragments and partially fed paper.

   Is the paper path free of paper fragments and partially fed paper?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper fragments and partially fed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Make sure that all the trays and tray inserts are properly installed.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Enter the Diagnostics menu, and then navigate to:

   Input tray quick print > select source tray **> Single**

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray adjustments/tests > Additional input tray motors

   b. Select **Pass-through (tray [x])**, and then touch **Start**.

      > **Notes**
      > [x] is the tray number.

   Does the motor run?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Reseat the cable on the motor and on the optional tray controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:

   Remove the source tray insert, and then check if the following components are functional and free of damage:

   - Paper guides
   - Lift plate

Notes
Move the components or turn gears to check for proper mechanisms.

Are the tray insert and its components functional and free of damage?

- **Yes**:
  Go to step 9.
- **No**:
  Go to the next step.

8. Replace the tray insert.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Make sure that the controller board of the affected tray is properly installed. Reseat all the cables on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the affected tray controller board and its connector pins for damage.

    Are the tray controller board and its connectors free of damage?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

11. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Optional tray pick drive failure service check

1. Check the paper path and trays for paper fragments and partially fed paper.

   Is the paper path free of paper fragments and partially fed paper?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Remove the paper fragments and partially fed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Make sure that all the trays and tray inserts are properly installed.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Enter the Diagnostics menu, and then navigate to:

   Input tray quick print > select source tray **> Single**

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests

   b. Select **Pick (tray [x])**, and then touch **Start**.

      > **Notes**
      > [x] is the tray number.

   Does the motor run?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Reseat the cable on the motor and on the optional tray controller board.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

7. Check the source tray controller board and its connector pins for damage.

   Are the tray controller board and its connectors free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

8. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

280–295 paper jams

280–295 paper jam messages

Error code	Description	Action
280.06	No paper was detected in the ADF tray during an ADF scan job.	See ADF paper undetected service check on page 266.
280.11	Paper remains detected at the sensor (ADF scan 1) after the printer is turned on.	See ADF paper jam service check on page 268.
280.13	Paper did not reach the sensor (ADF scan 1).	See ADF paper jam service check on page 268.
280.15	Paper did not clear the sensor (ADF scan 1).	See ADF paper jam service check on page 268.
280.91	Paper remains detected at the sensor (ADF scan 1) after the printer is turned on.	See ADF paper jam service check on page 268.
280.93	Paper did not reach the sensor (ADF scan 1).	See ADF paper jam service check on page 268.
280.95	Paper did not clear the sensor (ADF scan 1).	See ADF paper jam service check on page 268.

Error code	Description	Action
284.11	Paper remains detected at the sensor (ADF scan 2) during a duplex scan job.	See ADF paper jam service check on page 268.
284.13	Paper did not reach the sensor (ADF scan 2) during a duplex scan job.	See ADF paper jam service check on page 268.
284.15	Paper did not clear the sensor (ADF scan 2) during a duplex scan job.	See ADF paper jam service check on page 268.
284.91	Paper remains detected at the sensor (ADF scan 2) during a duplex scan job.	See ADF paper jam service check on page 268.
284.93	Paper did not reach the sensor (ADF scan 2) during a duplex scan job.	See ADF paper jam service check on page 268.
284.95	Paper did not clear the sensor (ADF scan 2) during a duplex scan job.	See ADF paper jam service check on page 268.
288.10	The sensor (ADF multifeed) detected a double-feed.	See Sensor (ADF multifeed) jam service check on page 271.
288.90	The sensor (ADF multifeed) detected a double-feed.	See Sensor (ADF multifeed) jam service check on page 271.
291.06	The scanner cover was open during an ADF job.	See Scanner cover open service check on page 273.
295.01	Imagepipe Error—Page gap is too small.	See ADF feed errors service check on page 413.

ADF paper undetected service check

1. Make sure that the paper is properly loaded in the ADF tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Sensor tests

   b. Find the sensor (ADF media present).

   Does the status of each sensor change while toggling the sensors?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

3. Check the sensor for dirt and debris.

   Is the sensor free of dirt and debris?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Clean the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check if the actuator is stuck or damaged.

   Is the actuator stuck or damaged?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

6. Reseat the JADF2 connector on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Reseat the ADF cables on the ADF.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Replace the ADF. See ADF removal on page 624.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.

- **No**:
  The problem is solved.

ADF paper jam service check

Note:

- Before performing this check, update the scanner firmware. For more information on the correct firmware version, contact the next level of support.
- If the paper does not feed into the ADF, then see ADF feed errors service check on page 413.

1. Check the paper path for paper jams and fragments.

   Is the paper path free of fragments and debris?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check if the paper feeds into the ADF.

   Does the paper feed into the ADF?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Perform the ADF feed error service check. See ADF feed errors service check on page 413.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check if the paper has a bent or curled leading edge.

   Does the paper have a bent or curled leading edge?

   - **Yes**:

Go to the next step.

- **No**:
  Go to step 9.

6. Replace the paper, and then resend the scan job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check if the paper is damp or heavy.

   Is the paper damp or heavy?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the paper, and then resend the scan job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Motor tests > ADF pick

   b. Touch **Start**.
   c. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Motor tests > ADF transport

   d. Touch **Start**.

   Do the motors run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Perform the following tests:
    a. Reseat the JADF2 connector on the controller board.
    b. Reseat the ADF cables on the ADF.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Scanner diagnostics > Sensor tests

    b. Find the following sensors:
       i. Sensor (ADF media present)
       ii. Sensor (ADF 1st scan)
       iii. Sensor (ADF 2nd scan)

    Does the status of each sensor change while toggling the sensors?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

12. Check the affected sensor for dirt and debris.

    Is the sensor free of dirt and debris?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

13. Clean the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Check if the actuator is stuck or damaged.

    Is the actuator stuck or damaged?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.

15. Perform the following tests:

a. Reseat the JADF2 connector on the controller board.

b. Reseat the ADF cables on the ADF.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

16. Replace the ADF. See ADF removal on page 624.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (ADF multifeed) jam service check

1. Perform the following tests:

   Check the original document:

   - Remove sticky notes, tape, paper clips, staples, and other objects that could cause or contribute to jams.
   - Check the document for damage such as creases, tears, holes, and excess wear.

   Is the original document free of contaminations and damage?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the contaminations or replace the damaged original document.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Enter the Diagnostics menu, and then navigate to:

   Scanner diagnostics > Feed test

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

4. Check the ADF paper path and sensor (ADF multifeed) for paper fragments and contaminations such as pieces of tape, paper clips and staples.

   Are the paper path and sensor free of obstructions and contaminations?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Remove the obstructions and contaminations.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform the following tests:
   a. Make sure that the cable of the sensor (ADF multifeed) is properly connected to the sensor and controller board.
   b. Load an undamaged document into the ADF tray, and then perform a copy job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:

   Check the condition of the ADF rollers.

   - ADF pick roller
   - ADF feed roller
   - ADF separator roller

   Are the ADF rollers free from excess wear, contamination, and damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Clean or replace the ADF rollers. See ADF rollers removal on page 621.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

9. Perform the following tests:
   a. Make sure that the cable of the sensor (ADF multifeed) is properly connected to the sensor and controller board.
   b. Load an undamaged document into the ADF tray, and then perform a copy job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the ADF. See ADF removal on page 624.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Scanner cover open service check

1. Make sure that the scanner cover is properly closed.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Sensor tests

   b. Find the sensor (ADF closed).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Check the sensor actuator for misalignment and damage.

Is the actuator misaligned or damaged?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 5.

4. Perform the following tests:
   a. Reseat the JADF2 connector on the controller board.
   b. Reseat the ADF cables on the ADF.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the ADF. See ADF removal on page 624.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform an ADF scan job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Door interlock switch service check on page 275.
8.03	ADF top cover was detected as open.	See ADF top cover open service check on page 276.

Supply error service check

1. Make sure that the supplies are properly and completely installed.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Door interlock switch service check

1. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Door interlock).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     The problem is solved.
   - **No**:
     Go to the next step.

2. Make sure that the sensor cable is properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Remove the motor cover. See Motor cover removal on page 543.
   b. Make sure that the interlock sensor cable relay is properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the front door interlock switch actuator for damage.

   Is the actuator free of damage?

   - **Yes**:

Go to step 6.

- **No**:
  Go to the next step.

5. Replace the duplex outer guide. See Duplex outer guide removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the toner door interlock switch actuator for damage.

   Is the actuator free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Replace the toner door. See Toner door removal on page 521.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Replace the motor cover. See Motor cover removal on page 543.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

ADF top cover open service check

1. Check if the ADF top cover is completely closed.

Is the ADF top cover completely closed?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Close the ADF top cover completely.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Reset the printer, and then perform an ADF scan job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Sensor tests

   b. Find the sensor (ADF top door interlock).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

5. Check the actuator for misalignment and damage.

   Is the actuator misaligned or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Replace the ADF. See ADF removal on page 624.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

7. Perform an ADF scan job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Auto reboot error service check

1. Turn off the printer, wait for about 10 seconds, and then turn on the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Turn off the printer.
   b. Turn on the printer and enter the Diagnostics menu.
   c. Do a print test.
   d. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Make sure that the controller board is properly installed. Reseat all the cables on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the firmware version.

   Is the firmware updated to the latest version?

   - **Yes**:
     Go to step 6.
   - **No**:

Go to the next step.

5. Update the firmware.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the controller board and its connector pins for damage.

   Are the controller board and its connectors free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

7. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Mismatched paper size service check on page 281.
11.12	A wrong paper type, size, or orientation was detected on tray 1.	See Mismatched paper size service check on page 281.
11.21	A wrong paper type or size was detected on tray 2.	See Mismatched paper size service check on page 281.
11.22	A wrong paper type, size, or orientation was detected on tray 2.	See Mismatched paper size service check on page 281.
11.31	A wrong paper type or size was detected on tray 3.	See Mismatched paper size service check on page 281.

Error code	Description	Action
11.32	A wrong paper type, size, or orientation was detected on tray 3.	See Mismatched paper size service check on page 281.
11.41	A wrong paper type or size was detected on tray 4.	See Mismatched paper size service check on page 281.
11.42	A wrong paper type, size, or orientation was detected on tray 4.	See Mismatched paper size service check on page 281.
11.51	A wrong paper type or size was detected on tray 5.	See Mismatched paper size service check on page 281.
11.52	A wrong paper type, size, or orientation was detected on tray 5.	See Mismatched paper size service check on page 281.
11.81	A wrong paper type or size was detected on the MPF.	See Mismatched paper size service check on page 281.
11.82	A wrong paper type, size, or orientation was detected on the MPF.	See Mismatched paper size service check on page 281.
11.91	A wrong paper type or size was detected on the MPF.	See Mismatched paper size service check on page 281.
11.92	A wrong paper type, size, or orientation was detected on the MPF.	See Mismatched paper size service check on page 281.
12.11	A wrong setting for paper type or size was detected on tray 1.	See Mismatched paper size service check on page 281.
12.12	A wrong setting for paper type, size, or orientation was detected on tray 1.	See Mismatched paper size service check on page 281.
12.21	A wrong setting for paper type or size was detected on tray 2.	See Mismatched paper size service check on page 281.
12.22	A wrong setting for paper type, size, or orientation was detected on tray 2.	See Mismatched paper size service check on page 281.
12.31	A wrong setting for paper type or size was detected on tray 3.	See Mismatched paper size service check on page 281.
12.32	A wrong setting for paper type, size, or orientation was detected on tray 3.	See Mismatched paper size service check on page 281.
12.41	A wrong setting for paper type or size was detected on tray 4.	See Mismatched paper size service check on page 281.
12.42	A wrong setting for paper type, size, or orientation was detected on tray 4.	See Mismatched paper size service check on page 281.

Error code	Description	Action
12.51	A wrong setting for paper type or size was detected on tray 5.	See Mismatched paper size service check on page 281.
12.52	A wrong setting for paper type, size, or orientation was detected on tray 5.	See Mismatched paper size service check on page 281.
12.81	A wrong setting for paper type or size was detected on the MPF.	See Mismatched paper size service check on page 281.
12.82	A wrong setting for paper type, size, or orientation was detected on the MPF.	See Mismatched paper size service check on page 281.
12.91	A wrong setting for paper type or size was detected on the MPF.	See Mismatched paper size service check on page 281.
12.92	A wrong setting for paper type, size, or orientation was detected on the MPF.	See Mismatched paper size service check on page 281.

Mismatched paper size service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the engine board and its pins for damage.

   Is the engine board free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

4. Replace the engine board. See Engine board removal on page 588.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  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 Waste toner bottle error service check on page 318.
31.35B	A waste toner bottle smart chip or sensor communication error was detected.	See Waste toner bottle error service check on page 318.
31.35C	A waste toner bottle smart chip or sensor communication error was detected.	See Waste toner bottle error service check on page 318.
31.35D	A waste toner bottle smart chip or sensor communication error was detected.	See Waste toner bottle error service check on page 318.
31.35E	A waste toner bottle smart chip or sensor communication error was detected.	See Waste toner bottle error service check on page 318.
31.35F	A waste toner bottle smart chip or sensor communication error was detected.	See Waste toner bottle error service check on page 318.
31.35G	A waste toner bottle smart chip or sensor communication error was detected.	See Waste toner bottle error service check on page 318.
31.35H	A waste toner bottle smart chip or sensor communication error was detected.	See Waste toner bottle error service check on page 318.
31.40A	A black toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.40B	A black toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.

Error code	Description	Action
31.40C	A black toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.40D	A black toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.40E	A black toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.40F	A black toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.40G	A black toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.40H	A black toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.41A	A cyan toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.41B	A cyan toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.41C	A cyan toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.41D	A cyan toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.41E	A cyan toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.41F	A cyan toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.41G	A cyan toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.41H	A cyan toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.42A	A magenta toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.

Error code	Description	Action
31.42B	A magenta toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.42C	A magenta toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.42D	A magenta toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.42E	A magenta toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.42G	A magenta toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.43A	A yellow toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.43B	A yellow toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.43C	A yellow toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.43D	A yellow toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.43E	A yellow toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.43F	A yellow toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.43G	A yellow toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.43H	A yellow toner cartridge smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.60A	A black imaging unit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.60B	A black imaging unit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.

Error code	Description	Action
31.60C	A black imaging unit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.60D	A black imaging unit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.60E	A black imaging unit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.60F	A black imaging unit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.60G	A black imaging unit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.60H	A black imaging unit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.64A	A CMY imaging kit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.64B	A CMY imaging kit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.64C	A CMY imaging kit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.64D	A CMY imaging kit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.64E	A CMY imaging kit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.64F	A CMY imaging kit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.64G	A CMY imaging kit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.64H	A CMY imaging kit smart chip or sensor communication error was detected.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
31.80A 31.80Y	A fuser smart chip or sensor communication error was detected.	See Fuser service check on page 331.

Error code	Description	Action
31.80Z		

32 user attendance error messages

Error code	Description	Action
32.40A	The black toner cartridge is unsupported.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
32.40B	The black toner cartridge is unsupported.	
32.40C	The black toner cartridge is unsupported.	
32.40D	The black toner cartridge is unsupported. **Notes** • A toner cartridge that ships with the printer or equipment (SWE) cannot be switched with another SWE toner cartridge. • Make sure to replace the SWE toner cartridge only when prompted to do so. • Replace the used SWE toner cartridge only with a newly ordered aftermarket toner cartridge compatible with the printer.	
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 Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
32.41B	The cyan toner cartridge is unsupported.	
32.41C	The cyan toner cartridge is unsupported.	

Error code	Description	Action
32.41D	The cyan toner cartridge is unsupported. **Notes** • A toner cartridge that ships with the printer or equipment (SWE) cannot be switched with another SWE toner cartridge. • Make sure to replace the SWE toner cartridge only when prompted to do so. • Replace the used SWE toner cartridge only with a newly ordered aftermarket toner cartridge compatible with the printer.	
32.41E	The cyan toner cartridge is unsupported.	
32.41F	The cyan toner cartridge is unsupported.	
32.42A	The magenta toner cartridge is unsupported.	See Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
32.42B	The magenta toner cartridge is unsupported.	
32.42C	The magenta toner cartridge is unsupported.	

Error code	Description	Action
32.42D	The magenta toner cartridge is unsupported. **Notes** • A toner cartridge that ships with the printer or equipment (SWE) cannot be switched with another SWE toner cartridge. • Make sure to replace the SWE toner cartridge only when prompted to do so. • Replace the used SWE toner cartridge only with a newly ordered aftermarket toner cartridge compatible with the printer.	
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 Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
32.43B	The yellow toner cartridge is unsupported.	
32.43C	The yellow toner cartridge is unsupported.	

Error code	Description	Action
32.43D	The yellow toner cartridge is unsupported. **Notes** • A toner cartridge that ships with the printer or equipment (SWE) cannot be switched with another SWE toner cartridge. • Make sure to replace the SWE toner cartridge only when prompted to do so. • Replace the used SWE toner cartridge only with a newly ordered aftermarket toner cartridge compatible with the printer.	
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 Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
32.60B	The black imaging unit is unsupported.	
32.60C	The black imaging unit is unsupported.	

Error code	Description	Action
32.60D	The black imaging unit is unsupported. **Note:** • An imaging unit that ships with the printer or equipment (SWE) cannot be switched with another SWE imaging unit. • Make sure to replace the SWE imaging unit only when prompted to do so. • Replace the used SWE imaging unit only with a newly ordered imaging unit compatible with the printer.	
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 Missing toner cartridge, imaging unit, or imaging kit service check on page 293.
32.64B	The CMY imaging kit is unsupported.	
32.64C	The CMY imaging kit is unsupported.	

Error code	Description	Action
32.64D	The CMY imaging kit is unsupported. **Note:** • An imaging kit that ships with the printer or equipment (SWE) cannot be switched with another SWE imaging kit. • Make sure to replace the SWE imaging kit only when prompted to do so. • Replace the used SWE imaging kit only with a newly ordered imaging kit compatible with the printer.	
32.64E	The CMY imaging kit is unsupported.	
32.64F	The CMY imaging kit is unsupported.	
32.80x	The fuser is unsupported.	CS/CX730/735 fuser is installed in a CS/CX737 machine or vice versa. Remove the fuser, and then install a supported one. For more information, see the instruction sheet that came with the part.

33 user attendance error messages

Error code	Description	Action
33.40	An inauthentic black toner cartridge was detected.	See Non-Lexmark supply on page 292.
33.41	An inauthentic cyan toner cartridge was detected.	See Non-Lexmark supply on page 292.
33.42	An inauthentic magenta toner cartridge was detected.	See Non-Lexmark supply on page 292.
33.43	An inauthentic yellow toner cartridge was detected.	See Non-Lexmark supply on page 292.

Error code	Description	Action
33.60	An inauthentic black imaging unit was detected.	See Non-Lexmark supply on page 292.
33.64	An inauthentic CMY imaging kit was detected.	See Non-Lexmark supply on page 292.

37–39 user attendance messages

Error code	Description	Action
37.03	The memory is insufficient to collate the job.	See Insufficient memory service check on page 296.
38.00	The memory is full.	See Insufficient memory service check on page 296.
38.01	The memory is full.	See Insufficient memory service check on page 296.
39.01	The page is too complex to print.	See Complex page service check on page 296.
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, ask the customer to select **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 control panel, select **Settings > Device > Maintenance > Configuration Menu > Supply Usage And Counters > Reset Maintenance Counter**.
2. Select **Start**.

Notes
If resetting the supply usage counter fails, then the customer must return the supply item to the place of purchase.

Missing toner cartridge, imaging unit, or imaging kit service check

1. Perform the following tests:
   a. Make sure that the toner cartridge or imaging unit is properly installed.
   b. Make sure that the supply is genuine and supported.

   Does the problem remain?

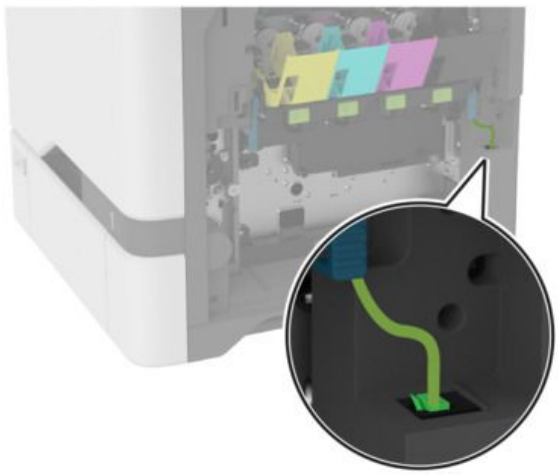
   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Make sure that the printer model matches with the settings. Do the following:
   a. From the home screen, navigate to **Settings › Reports › Menu Settings Page**
   b. Compare the printer model with the model indicated in the Menu Settings Page.

   Does the printer model match with the settings?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.

3. Make sure that the imaging kit cable is properly connected.



   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

4. Perform the following tests:
   a. Remove the imaging kit. See Imaging kit removal on page 517. Make sure that the springs allow for proper contact. If the imaging kit is damaged, then go to step 4.
   b. Make sure that the imaging kit cable is properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the imaging kit. See Imaging kit removal on page 517. Reuse the current supplies.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Make sure that the HVPS pogo pin cables are properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the pogo pin contacts for dust or debris.

   Are the contacts free of dust or debris?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

8. Remove the dust or debris.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check the HVPS and its pogo pin contacts for damage.

   Is the HVPS free of damage?

   - **Yes**:

Go to step 10.

- **No**:
  Go to the next step.

10. Replace the HVPS. See HVPS removal on page 534.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find, and then test the sensor of the affected supply.
       - K Toner Meter
       - C Toner Meter
       - M Toner Meter
       - Y Toner Meter

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

12. Replace the TMC card. See TMC card removal on page 527.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Replace the engine board. See Engine board removal on page 588.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Insufficient memory service check

1. Perform the following tests:
   a. Perform a POR.
   b. From the home screen, navigate to **Settings > Print > Setup > Download Target > Disk**.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Complex page service check

1. Reset the printer, and then navigate to:

   Settings > Print > Setup > Download Target > Disk

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Enter the Diagnostics menu, and then navigate to:

   Input tray quick print > Tray 1 > Single

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the controller board pins for damage, and replace if necessary. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Region mismatch service check on page 300.
42.02	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.03	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.04	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.05	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.09	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.10	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.12	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.13	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.14	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.15	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.19	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.20	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.21	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.23	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.24	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.25	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.29	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.

Error code	Description	Action
42.30	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.31	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.32	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.34	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.35	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.39	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.40	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.41	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.42	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.43	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.45	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.49	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.50	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.51	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.52	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.53	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.54	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.59	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.60	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 301.
42.60K	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 301.

Error code	Description	Action
42.61	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 301.
42.61K	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 301.
42.62	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 301.
42.62K	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 301.
42.63	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 301.
42.63K	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 301.
42.64	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 301.
42.64K	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 301.
42.90	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.91	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.92	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.93	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.94	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.
42.95	The toner cartridge and printer regions are mismatched.	See Region mismatch service check on page 300.

43 user attendance error messages

Error code	Description	Action
43.40Y	A black TMC error was detected.	See Toner meter cycle (TMC) card service check on page 302.
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.	

Error code	Description	Action
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

Note:

- 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
4	Latin America
5	Rest of Europe, Middle East, Africa
6	Australia, New Zealand
9	Invalid region

1. Check the region number of the cartridge and the printer.

   Do the numbers match?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

2. Install the appropriate cartridge.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.

- **No**:
  The problem is solved.

Toner cartridge service check

1. Make sure that the imaging unit and toner cartridge are genuine Lexmark supplies.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Shake the toner cartridge.
   b. Clean the toner cartridge smart chip contacts, and then check the contacts for damage.
   c. Clean the toner cartridge spring contacts, and then check the contacts for damage.
   d. Perform a print test.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Make sure that the toner cartridge is changed from shipped with equipment (SWE) toner to a compatible toner.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Reset the printer configuration. See Restoring the printer configuration on page 479.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Toner meter cycle (TMC) card service check

1. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (toner meter) of the affected color.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.

2. Replace the toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Replace the TMC card. See TMC card removal on page 527.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

5y user attendance errors

55–59 user attendance error messages

Error code	Description	Action
55.1	An unsupported USB device was detected.	See Unsupported USB device or hub service check on page 303.
55.2	An unsupported USB hub was detected.	See Unsupported USB device or hub service check on page 303.
58A	Too many optional trays were detected.	See Excess options service check on page 304.
58B	Too many optional trays were detected.	See Excess options service check on page 304.

Error code	Description	Action
58C	Too many optional trays were detected.	See Excess options service check on page 304.
58D	Too many optional trays were detected.	See Excess options service check on page 304.
59C	An unsupported option was detected.	See Incompatible option service check on page 305.
59D	An unsupported option was detected.	See Incompatible option service check on page 305.

Unsupported USB device or hub service check

1. Make sure that the flash drive supports the File Allocation Table (FAT) system.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Try another flash drive.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is not with the printer. Replace the unsupported or defective flash drive.

3. Check the firmware version.

   Is the firmware updated to the latest version?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Update the firmware.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Make sure that the controller board is properly installed. Reseat all the cables on the controller board.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

6. Check the controller board and its connector pins for damage.

   Are the controller board and its connectors free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

7. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Excess options service check

1. Perform a POR, and then resend the print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check the number of optional trays allowed, and then remove the excess optional trays.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the engine board pins for damage.

   Are the pins free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

4. Replace the engine board. See Engine board removal on page 588.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

Incompatible option service check

1. Perform the following tests:
   a. Unplug the printer, and then reseat the optional tray interface cable.
   b. Plug the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check if the engine firmware supports the optional tray, and update the firmware if necessary.

   > **Notes**
   > Contact the next level of support for the correct firmware version.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the optional tray and its controller board for damage.

   Are the optional tray and its controller board free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

4. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Hard disk failure service check on page 306.
62	The hard disk is full.	See Hard disk failure service check on page 306.
63	The hard disk is not formatted.	See Hard disk failure service check on page 306.
64	The hard disk format is unsupported.	See Hard disk failure service check on page 306.
66	The hard disk needs to be formatted.	See Hard disk failure service check on page 306.

Hard disk failure service check

1. Perform the following tests:

   Delete unnecessary files.

   - From the home screen, navigate to **Settings > Device > Maintenance**

     > Out-of-Service Erase > Erase Hard Disk > Sanitize all information on hard disk > Erase downloads.
   - From the home screen, navigate to **Settings > Maintenance > Configuration Menu > Out-of-Service Erase > Erase Hard Disk > Sanitize all information on hard disk**, and erase the jobs.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Make sure that the printer is using the latest firmware version.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:

a. Make sure that the hard disk cable is properly connected.

b. Make sure that the hard disk is properly installed.

c. Check the hard disk for damage.

Is the hard disk free of damage?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

4. Replace the hard disk.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the controller board pins for damage.

   Are the pins free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

6. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

7y user attendance errors

71–72 user attendance error messages

Error code	Description	Action
71.01	The fax station name is not set up.	See Fax station error service check on page 308.
71.02	The fax station number is not set up.	See Fax station error service check on page 308.
71.03	The analog phone line is not found.	See Fax failure service check on page 309.

Error code	Description	Action
71.04	The analog phone line is incorrectly connected.	See Modem/fax card service check on page 417.
71.05	An invalid FoIP license was detected.	See Modem/fax card service check on page 417.
71.06	The fax server is not found.	See Modem/fax card service check on page 417.
71.12	The printer cannot print faxes because the fax memory is full.	See Fax failure service check on page 309.
71.13	The printer cannot send faxes because the fax memory is full.	See Fax failure service check on page 309.
71.20	The fax partition is not working.	See Modem/fax card service check on page 417.
72.01	The SMTP server is not set up.	

Fax station error service check

1. Turn off the printer, wait for about 10 seconds, and then turn on the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. From the control panel, navigate to:

      Settings > Fax > Fax defaults > Fax setup > General fax settings

   b. Set the fax name and fax number.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the firmware version.

   Is the firmware updated to the latest version?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Update the firmware.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Make sure that the controller board is properly installed. Reseat all the cables on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the controller board and its connector pins for damage.

   Are the controller board and its connectors free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

7. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Fax failure service check

1. Turn off the printer, wait for about 10 seconds, and then turn on the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Make sure that the telephone cable is properly connected to the line port of the printer.
   b. Make sure that the other end of the cable is connected to an active analog wall jack. Contact the analog phone service provider if necessary.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Check the line port connector pins of the fax card for corrosion and damage.

   Notes
   The telephone cable must properly fit with the line port.

   Is the fax card connector free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the firmware version.

   Is the firmware updated to the latest version?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Update the firmware.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Make sure that the controller board is properly installed. Reseat all the cables on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the controller board and its connector pins for damage.

   Are the controller board and its connectors free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

8. Replace the controller board. See Controller board removal on page 587.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  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 Maintenance kit service check on page 318.
80.09	The maintenance kit is nearly low. The user-selected EWS set point has been reached.	See Maintenance kit service check on page 318.
80.11	The maintenance kit is low. The backup roll or fuser page count threshold has been reached.	See Maintenance kit service check on page 318.
80.19	The maintenance kit is low. The user-selected EWS set point has been reached.	See Maintenance kit service check on page 318.
80.21	The maintenance kit is very low. The backup roll or fuser page count threshold has been reached.	See Maintenance kit service check on page 318.
80.29	The maintenance kit is very low. The user-selected EWS set point has been reached.	See Maintenance kit service check on page 318.
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.	See Maintenance kit service check on page 318.
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.	See Maintenance kit service check on page 318.

82 user attendance error messages

Error code	Description	Action
82.00	The waste toner bottle has a nearly low remaining life.	See Waste toner bottle error service check on page 318.
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.	

Error code	Description	Action
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 Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.01	The black imaging unit or CMY imaging kit is nearly low.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.03	The black imaging unit or CMY imaging kit is nearly low. The side count set point has been reached.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.09	The black imaging unit or CMY imaging kit is nearly low. The user-selected EWS set point has been reached.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.11	The black imaging unit or CMY imaging kit is low.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.13	The black imaging unit or CMY imaging kit is low. The side count set point has been reached.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.19	The black imaging unit or CMY imaging kit is low. The user-selected EWS set point has been reached.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.21	The black imaging unit or CMY imaging kit is very low.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.

Error code	Description	Action
84.23	The black imaging unit or CMY imaging kit is very low. The side count set point has been reached.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.29	The black imaging unit or CMY imaging kit is very low. The user-selected EWS set point has been reached.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.31	The black imaging unit or CMY imaging kit has reached end-of-life.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.33	The black imaging unit or CMY imaging kit has reached end-of-life.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.41	The black imaging unit or CMY imaging kit has reached beyond end-of-life.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.43	The black imaging unit or CMY imaging kit has reached beyond end-of-life.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
84.48	The black imaging unit or CMY imaging kit has reached beyond end-of-life.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.

88 user attendance error messages

Error code	Description	Action
88.00K	The black toner cartridge is nearly low.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
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.	

Error code	Description	Action
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 Toner cartridge, imaging unit, or imaging kit error service check on page 319.
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.	

Error code	Description	Action
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.	
88.20K	The black toner cartridge is very low.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
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.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
88.30C	The cyan toner cartridge is at end-of-life.	
88.30M	The magenta toner cartridge is at end-of-life.	

Error code	Description	Action
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.	
88.40K	The black toner cartridge is beyond end-of-life.	See Toner cartridge, imaging unit, or imaging kit error service check on page 319.
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.	

Error code	Description	Action
88.48Y	The yellow toner cartridge is beyond end-of-life.	

Maintenance kit service check

1. Turn off the printer.
2. Replace the required maintenance kit.
3. Turn on the printer.
4. Reset the maintenance counter. For more information, see Resetting the maintenance counter.

For more information, see Maintenance kits.

Waste toner bottle error service check

Customer resolution

Remove the waste toner bottle, and then insert it back into the printer.

> **Note:** Make sure that the waste toner bottle is inserted properly.

Remote resolution

Make sure that the user performs all the steps in the **Customer resolution** section.

Initial parts replacement

Send the following field replaceable unit to the field technician:

- Sensor (waste toner bottle)—For the part number, see .

Detailed diagnostics

1. Make sure that the waste toner bottle and the sensor (waste toner bottle) are free of debris and clear of obstruction. Do the following:
    a. Remove the waste toner bottle.
    b. Clean the waste toner bottle and the sensor (waste toner bottle) with a cloth.
    c. Clean the sensor window on the waste toner bottle that interfaces with the sensor.
    d. Insert the waste toner bottle.

2. Make sure that the sensor (waste toner bottle) is functional. Do the following:
    a. Enter the **Diagnostics** menu, and then navigate to **Printer diagnostics and adjustments › Sensor tests**.
    b. Select **Waste toner bottle**.
    c. Toggle the sensor manually and observe the printer display. The state state should change between **0** and **1**.
    d. Verify if the sensor is free of damage. If the test fails, then do the following:
        i. Make sure that the cable and connector between the sensor (waste toner bottle) and the HVPS are properly connected and not damaged. For more information, see Wiring Diagram.
        ii. Check the sensor (waste toner bottle) for wear, damage, and improper connection. For more information, see .

3. Make sure that the sensor (waste toner bottle) is calibrated. Do the following:
    a. Enter the **Diagnostics** menu, and then navigate to **Printer setup › Waste toner sensor calibration**.
    b. Remove the waste toner bottle.
    c. Select **Start calibration**.

    If the calibration is successful, then a **`Test passed`** message appears on the display.
    d. Insert the waste toner bottle, and then restart the printer.

Toner cartridge, imaging unit, or imaging kit error service check

1. Perform the following tests:
    a. Make sure that the toner cartridges, black imaging unit, and CMY imaging kit are all completely installed.
    b. Make sure that the toner cartridges, black imaging unit, and CMY imaging kit are genuine and supported.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

2. Perform the following tests:
    a. Make sure that the toner cartridges, black imaging unit, and CMY imaging kit are properly installed.
    b. Make sure that the imaging kit cable is properly connected.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

3. Check the TMC card contacts for damage.

   Are the TMC card contacts free of damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Replace the TMC card. See TMC card removal on page 527.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the engine board and its pins for damage.

   Is the engine board free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

6. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Sensor (weather station) service check on page 321.
100.04D	The printhead thermistor reading is out of range.	See Printhead service check on page 324.
100.25	The TPS thermistor reading is out of range.	See TPS thermistor service check on page 321.

Sensor (weather station) service check

1. Check the sensor cable for proper connection and damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Replace the sensor. See Sensor (weather station) removal on page 533.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

TPS thermistor service check

1. Make sure that the sensor (TPS) is properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Replace the sensor (TPS). See Sensor (TPS) removal on page 538.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

101 errors

101 error messages

Error code	Description	Action
101.20	Tray 2 product ID is invalid.	See Invalid input option type or ID is detected service check on page 322.

Error code	Description	Action
101.21	Tray 2 board ID is invalid.	See Invalid input option type or ID is detected service check on page 322.
101.22	Tray 2 type is invalid.	See Invalid input option type or ID is detected service check on page 322.
101.30	Tray 3 product ID is invalid.	See Invalid input option type or ID is detected service check on page 322.
101.31	Tray 3 board ID is invalid.	See Invalid input option type or ID is detected service check on page 322.
101.32	Tray 3 type is invalid.	See Invalid input option type or ID is detected service check on page 322.
101.40	Tray 4 product ID is invalid.	See Invalid input option type or ID is detected service check on page 322.
101.41	Tray 4 board ID is invalid.	See Invalid input option type or ID is detected service check on page 322.
101.42	Tray 4 type is invalid.	See Invalid input option type or ID is detected service check on page 322.
101.50	Tray 5 product ID is invalid.	See Invalid input option type or ID is detected service check on page 322.
101.51	Tray 5 board ID is invalid.	See Invalid input option type or ID is detected service check on page 322.
101.52	Tray 5 type is invalid.	See Invalid input option type or ID is detected service check on page 322.

Invalid input option type or ID is detected service check

1. Perform the following tests:
   a. Make sure that the latest firmware is installed.
   b. Make sure that the options configuration is supported. See the *Printer, Option, and Stand Compatibility Guide*.
   c. Restart the printer.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

2. Reinstall the optional tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Printhead service check on page 324.
110.21	The printhead power was off when the laser servo started.	See Printhead service check on page 324.
110.31	A printhead error (no first Hysnc) was detected.	See Printhead service check on page 324.
110.32	A printhead error (lost first Hysnc) was detected.	See Printhead service check on page 324.
110.33	A printhead error (lost first Hysnc) was detected during servo.	See Printhead service check on page 324.

Error code	Description	Action
110.34	A printhead error (mirror motor lost lock) was detected.	See Printhead service check on page 324.
110.35	A printhead error (mirror motor no first lock) was detected.	See Printhead service check on page 324.
110.36	A printhead error (mirror motor never stabilized) was detected.	See Printhead service check on page 324.
110.37	The printhead type was undetermined.	See Printhead service check on page 324.
110.41	A printhead NVRAM read failure occurred.	See Printhead service check on page 324.
110.70	The printhead NVRAM values were incorrect.	See Printhead service check on page 324.
110.71	A printhead timing measurement error was detected.	See Printhead service check on page 324.
110.91	A printhead timing reading error was detected.	See Printhead service check on page 324.
110.92	A printhead NVRAM checksum mismatch occurred.	See Printhead service check on page 324.

Printhead service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Make sure that the printhead cable is properly connected.
   b. Make sure that the following connectors on the engine board are properly connected.
      - JMIRR1 or JMIRR2
      - JPH1

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Replace the printhead. See .Printhead removal on page 592

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

120 errors

120 error messages

Error code	Description	Action
120.80	The motor (fuser) did not turn on. **Note:** • 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. • 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.	See Motor (fuser) service check on page 326.

Error code	Description	Action
120.81	The motor (fuser) did not turn off.	See Motor (fuser) service check on page 326.
120.82	The motor (fuser) speed did not ramp up to the required level.	See Motor (fuser) service check on page 326.
120.83	The motor (fuser) stalled.	See Motor (fuser) service check on page 326.
120.84	The motor (fuser) ran too slow.	See Motor (fuser) service check on page 326.
120.85	The motor (fuser) ran too fast.	See Motor (fuser) service check on page 326.
120.86	The motor (fuser) did not run at the correct timing.	See Motor (fuser) service check on page 326.

Motor (fuser) service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Check if the fuser has reached end-of-life.
   b. Check the fuser for damage.

   Is the fuser still functional and free of damage?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Replace the fuser. See .Fuser removal on page 551

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.

4. Make sure that the JFDRV1 connector is properly connected to the engine board and motor (fuser).

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Remove the fuser, and then manually turn the fuser drive gear.

   Does the gear freely turn?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Replace the fuser drive gear.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the motor (fuser). See .Fuser removal on page 551

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

121 errors

121 error messages

Error code	Description	Action
121.00	Fuser failed to reach the temperature during warm-up.	See Fuser service check on page 331.
121.01	There was an attempt to heat fuser, but it was not installed.	See Fuser service check on page 331.

Error code	Description	Action
121.02	Fuser went over the required temperature during EWC/line voltage detection.	See Fuser service check on page 331.
121.03	Fuser hardware and driver mismatch.	See Fuser service check on page 331.
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. **Note:** • 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. • 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.	See Fuser service check on page 331.
121.05	There was an attempt to heat fuser, but fuser relay was open and fuser PIC microcontroller reported an error.	See Fuser service check on page 331.
121.08	Fuser did not reach the required temperature while the page is in the fuser.	See Fuser service check on page 331.
121.09	Fuser did not reach the required temperature for motors. **Notes** Not applicable to standby mode.	See Fuser service check on page 331.

Error code	Description	Action
121.10	Fuser did not reach the required temperature during start of EWC/line voltage detection.	See Fuser service check on page 331.
121.11	Fuser reached the required temperature during final EWC/ line voltage detection too late.	See Fuser service check on page 331.
121.12	Fuser did not reach the required temperature during final EWC/ line voltage detection.	See Fuser service check on page 331.
121.13	Fuser reached the required temperature during final EWC/ line voltage detection too fast.	See Fuser service check on page 331.
121.22	Open fuser relay was detected.	See Fuser service check on page 331.
121.32	Fuser did not reach the required temperature at 100% power. **Note:** • 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. • 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.	See Fuser service check on page 331.
121.33	Fuser did not reach the required temperature while the page is in the fuser.	See Fuser service check on page 331.
121.34	Fuser did not reach the required temperature during steady state control.	See Fuser service check on page 331.

Error code	Description	Action
121.35	Fuser too warm to power up and execute EWC/line voltage detection after a wrong fuser was installed.	See Fuser service check on page 331.
121.36	Open fuser relay was detected in very cold or unknown ambient temperature.	See Fuser service check on page 331.
121.41	Fuser mechanism did not detect the expected cam sensor signal.	See Fuser service check on page 331.
121.42	Fuser gate time is increasingly out of range.	See Fuser service check on page 331.
121.43	The motor (fuser) current exceeded the limit.	See Fuser service check on page 331.
121.50	Fuser went over the required temperature during global over temperature check.	See Fuser service check on page 331.
121.52	Fuser main heater thermistor temperature is out of range.	See Fuser service check on page 331.
121.53	Fuser main heater thermistor temperature change rate is out of range.	See Fuser service check on page 331.
121.56	Fuser middle heater thermistor temperature is out of range (or narrow thermistor for CS/CX737).	See Fuser service check on page 331.
121.57	Fuser middle heater thermistor temperature change rate is out of range (or narrow thermistor for CS/CX737).	See Fuser service check on page 331.
121.58	Fuser edge thermistor temperature is out of range.	See Fuser service check on page 331.
121.59	Fuser edge thermistor temperature change rate is out of range.	See Fuser service check on page 331.
121.67	Fuser narrow media backup roll thermistor temperature change rate is out of range.	See Fuser service check on page 331.
121.71	Open fuser main heater thermistor was detected.	See Fuser service check on page 331.
121.73	Open fuser middle heater thermistor was detected (or narrow thermistor for CS/CX737).	See Fuser service check on page 331.
121.74	Open fuser edge thermistor was detected.	See Fuser service check on page 331.

Fuser service check

1. 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.

   Note:
   - The fuser type number can be found on the fuser sticker.
   - The fuser types supported are 00, 01, and 02 for all models except CS/CX737.
   - For CS/CX737, the only supported fuser type is 05.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Make sure that the JLVPS1 connector is properly connected to the engine board and LVPS.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Make sure that the JFSNS1 connector is properly connected to the engine board and fuser.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the fuser. See .Fuser removal on page 551

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Make sure that the sensor (fuser nip) is properly installed. See Sensor (fuser nip) removal on page 557.

   Note:
   - Check if the actuator and the sensor are not dislodged.
   - Check if the cable is not disconnected.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

6. Replace the sensor (fuser nip).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the LVPS. See LVPS removal on page 499.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 LVPS service check on page 333.
126.06	The LVPS power rail was down after POR.	
126.07	The LVPS sensor rail was down during POR.	

Error code	Description	Action
126.10	No LVPS line frequency was detected.	1. See step 1 (only) of Fuser service check on page 331. 2. See LVPS service check on page 333.
126.11	The LVPS line frequency has gone outside the operating range.	
126.14	The LVPS relay is stuck in close position.	See LVPS service check on page 333.
127.01	HVPS was not detected.	See HVPS service check on page 334.

LVPS service check

1. 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.

   Note:
   - The fuser type number can be found on the fuser sticker.
   - The fuser types supported are 00, 01, and 02 for all models except CS/CX737.
   - For CS/CX737, the only supported fuser type is 05.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Turn off the printer, and then disconnect it from the electrical outlet for more than five seconds.
   b. Reconnect and restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Make sure that the JLVPS1 connector on the engine board and LVPS is properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

4. Replace the LVPS. See LVPS removal on page 499.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

HVPS service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Make sure that the JHVPS1 connector on the engine board is properly connected to the HVPS.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Replace the HVPS. See HVPS removal on page 534.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

142 errors

142 error messages

Error code	Description	Action
142.80	The motor (CMY) did not turn on.	See Motor (CMY) service check on page 335.
142.81	The motor (CMY) did not turn off.	See Motor (CMY) service check on page 335.
142.82	The motor (CMY) speed did not ramp up to the required level.	See Motor (CMY) service check on page 335.
142.83	The motor (CMY) stalled.	See Motor (CMY) service check on page 335.
142.84	The motor (CMY) ran too slow.	See Motor (CMY) service check on page 335.
142.85	The motor (CMY) ran too fast.	See Motor (CMY) service check on page 335.
142.86	The motor (CMY) did not run at the correct timing.	See Motor (CMY) service check on page 335.

Motor (CMY) service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Remove the imaging kit. See Imaging kit removal on page 517.
   b. Remove the transfer module. See Transfer module removal on page 547.
   c. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > CMY developer

d. Touch **Start**.

Does the motor run?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

3. Make sure that the JCDRV1 connector on the engine board is properly connected to the motor (CMY).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the motor (CMY). See Motor (EP drive) removal on page 503.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Check if the CMY imaging kit has reached end-of-life.
   b. Check the CMY imaging kit for damage.

   Is the CMY imaging kit functional and free of damage?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Replace the affected CMY imaging kit. See Imaging kit removal on page 517.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Manually turn the drive gears.

   Do the CMY drive gears freely turn?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Replace the EP drive gearbox. See EP drive gearbox removal on page 504.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

145 errors

145 error messages

Error code	Description	Action
145.80	The motor (BOR) did not turn on.	See Motor (BOR) service check on page 337.
145.81	The motor (BOR) did not turn off.	See Motor (BOR) service check on page 337.
145.82	The motor (BOR) speed did not ramp up to the required level.	See Motor (BOR) service check on page 337.
145.83	The motor (BOR) stalled.	See Motor (BOR) service check on page 337.
145.84	The motor (BOR) ran too slow.	See Motor (BOR) service check on page 337.
145.85	The motor (BOR) ran too fast.	See Motor (BOR) service check on page 337.
145.86	The motor (BOR) did not run at the correct timing.	See Motor (BOR) service check on page 337.

Motor (BOR) service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

2. Perform the following tests:
   a. Remove the transfer module. See Transfer module removal on page 547.
   b. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Black only retract

   c. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

3. Make sure that the JBOR1 connector on the engine board is properly connected to the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the motor. See Motor (BOR) removal on page 506.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Manually turn the BOR gear on the transfer module.

   Does the gear freely turn?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

6. Replace the transfer module. See Transfer module removal on page 547.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

147 errors

147 error messages

Error code	Description	Action
147.80	The motor (deskew) did not turn on.	See Motor (deskew) service check on page 339.
147.81	The motor (deskew) did not turn off.	See Motor (deskew) service check on page 339.
147.82	The motor (deskew) speed did not ramp up to the required level.	See Motor (deskew) service check on page 339.
147.83	The motor (deskew) stalled.	See Motor (deskew) service check on page 339.
147.84	The motor (deskew) ran too slow.	See Motor (deskew) service check on page 339.
147.85	The motor (deskew) ran too fast.	See Motor (deskew) service check on page 339.
147.86	The motor (deskew) did not run at the correct timing.	See Motor (deskew) service check on page 339.

Motor (deskew) service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > Motor tests > Deskew

b. Touch **Start**.

Does the motor run?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

3. Make sure that the JMTR1 connector on the engine board is properly connected to the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.

4. Replace the motor. See Motor (deskew) removal on page 506.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.

5. Manually turn the aligner rollers.

   Is there binding or uneven movement when turning the rollers?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Check the aligner rollers and drivetrain for damage.

   Are the aligner roller and drivetrain free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Replace the affected aligner roller or drivetrain. See Aligner rollers removal on page 572.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

149 errors

149 error messages

Error code	Description	Action
149.80	The motor (exit/redrive) did not turn on.	See Motor (exit/redrive) service check on page 341.
149.81	The motor (exit/redrive) did not turn off.	See Motor (exit/redrive) service check on page 341.
149.82	The motor (exit/redrive) speed did not ramp up to the required level.	See Motor (exit/redrive) service check on page 341.
149.83	The motor (exit/redrive) stalled.	See Motor (exit/redrive) service check on page 341.
149.84	The motor (exit/redrive) ran too slow.	See Motor (exit/redrive) service check on page 341.
149.85	The motor (exit/redrive) ran too fast.	See Motor (exit/redrive) service check on page 341.
149.86	The motor (exit/redrive) did not run at the correct timing.	See Motor (exit/redrive) service check on page 341.

Motor (exit/redrive) service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Make sure that the JOUTDC1 connector on the engine board is properly connected to the motor.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the motor. See Motor (exit/redrive) removal on page 509.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

150 errors

150 error messages

Error code	Description	Action
150.80	The motor (duplex/MPF) did not turn on.	See Motor (duplex/MPF) service check on page 343.
150.81	The motor (duplex/MPF) did not turn off.	See Motor (duplex/MPF) service check on page 343.

Error code	Description	Action
150.82	The motor (duplex/MPF) speed did not ramp up to the required level.	See Motor (duplex/MPF) service check on page 343.
150.83	The motor (duplex/MPF) stalled.	See Motor (duplex/MPF) service check on page 343.
150.84	The motor (duplex/MPF) ran too slow.	See Motor (duplex/MPF) service check on page 343.
150.85	The motor (duplex/MPF) ran too fast.	See Motor (duplex/MPF) service check on page 343.
150.86	The motor (duplex/MPF) did not run at the correct timing.	See Motor (duplex/MPF) service check on page 343.

Motor (duplex/MPF) service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Duplex/MPF

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

3. Make sure that the JMTR1 connector is properly connected to the engine board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Open the front door, and then manually turn the duplex/MPF drive gears.

   Do the gears move freely?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

5. Replace the motor. See Motor (duplex/MPF) removal on page 532.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Motor (K/transfer belt) service check on page 345.
151.81	The motor (K/transfer belt) did not turn off.	See Motor (K/transfer belt) service check on page 345.
151.82	The motor (K/transfer belt) speed did not ramp up to the required level.	See Motor (K/transfer belt) service check on page 345.
151.83	The motor (K/transfer belt) stalled.	See Motor (K/transfer belt) service check on page 345.
151.84	The motor (K/transfer belt) ran too slow.	See Motor (K/transfer belt) service check on page 345.
151.85	The motor (K/transfer belt) ran too fast.	See Motor (K/transfer belt) service check on page 345.
151.86	The motor (K/transfer belt) did not run at the correct timing.	See Motor (K/transfer belt) service check on page 345.

Motor (K/transfer belt) service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Remove the imaging kit. See Imaging kit removal on page 517.
   b. Remove the transfer module. See Transfer module removal on page 547.
   c. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > K developer/Transfer

   d. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

3. Make sure that the JKDRV1 connector on the engine board is properly connected to the motor (K/transfer belt).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the motor (K/transfer belt). See Motor (EP drive) removal on page 503.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Check if the black imaging unit and transfer module have reached end-of-life.
   b. Check the black imaging unit and transfer module for damage.

   Are the black imaging unit and transfer module functional and free of damage?

   - **Yes**:

Go to step 7.

- **No**:
  Go to the next step.

6. Replace the affected black imaging unit or transfer module. See Transfer module removal on page 547.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Manually turn the drive gears.

   Do the black imaging unit and transfer module drive gears freely turn?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Replace the EP drive gearbox. See EP drive gearbox removal on page 504.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

153 errors

153 error messages

Error code	Description	Action
153.80	The motor (isolation) unit did not turn on.	See Isolation unit service check on page 347.
153.81	The motor (isolation) unit did not turn off.	See Isolation unit service check on page 347.

Error code	Description	Action
153.82	The motor (isolation) unit speed did not ramp up to the required level.	See Isolation unit service check on page 347.
153.83	The motor (isolation) stalled.	See Isolation unit service check on page 347.
153.84	The motor (isolation) ran too slow.	See Isolation unit service check on page 347.
153.85	The motor (isolation) ran too fast.	See Isolation unit service check on page 347.
153.86	The motor (isolation) did not run at the correct timing.	See Isolation unit service check on page 347.

Isolation unit service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Isolation

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.

3. Make sure that the JMTR1 connector on the engine board is properly connected to the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Manually turn the isolation rollers and the alternate isolation rollers.

   Do the rollers move freely?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

5. Replace the isolation unit. See Isolation unit removal on page 616.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

160 errors

160 error messages

Error code	Description	Action
160.80	The motor (duplex/MPF) did not turn on.	See Motor (duplex/MPF) service check on page 343.
160.81	The motor (duplex/MPF) did not turn off.	See Motor (duplex/MPF) service check on page 343.
160.82	The motor (duplex/MPF) speed did not ramp up to the required level.	See Motor (duplex/MPF) service check on page 343.
160.83	The motor (duplex/MPF) stalled.	See Motor (duplex/MPF) service check on page 343.
160.84	The motor (duplex/MPF) ran too slow.	See Motor (duplex/MPF) service check on page 343.
160.85	The motor (duplex/MPF) ran too fast.	See Motor (duplex/MPF) service check on page 343.
160.86	The motor (duplex/MPF) did not run at the correct timing.	See Motor (duplex/MPF) service check on page 343.

161–164 errors

161 error messages

Error code	Description	Action
161.80	The motor (tray 1 pick/lift) did not turn on.	See Motor (tray 1 pick/lift) lifting error service check on page 349.
161.81	The motor (tray 1 pick/lift) did not turn off.	See Motor (tray 1 pick/lift) lifting error service check on page 349.
161.82	The motor (tray 1 pick/lift) speed did not ramp up to the required level.	See Motor (tray 1 pick/lift) lifting error service check on page 349.
161.83	The motor (tray 1 pick/lift) stalled.	See Motor (tray 1 pick/lift) lifting error service check on page 349.
161.84	The motor (tray 1 pick/lift) ran too slow.	See Motor (tray 1 pick/lift) lifting error service check on page 349.
161.85	The motor (tray 1 pick/lift) ran too fast.	See Motor (tray 1 pick/lift) lifting error service check on page 349.
161.86	The motor (tray 1 pick/lift) did not run at the correct timing.	See Motor (tray 1 pick/lift) lifting error service check on page 349.

Motor (tray 1 pick/lift) lifting error service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Make sure that the tray insert is properly seated or fully inserted.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

b. Find the sensor (Pick roller index (tray 1)).

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

4. Make sure that the JMTR1 connector on the engine board is properly connected to the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Remove the tray insert.
   b. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Pick (tray 1)

   c. Select **Pick (tray 1) lifting**, and then touch **Start**.

   Does the motor run or does it sound normal?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

6. Make sure that the JMTR1 connector on the engine board is properly connected to the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the paper feeder. See Paper feeder removal on page 613.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Restart the printer.

   Does the problem remain?

   - **Yes**:

Contact the next level of support.

- **No**:
  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 Motor (optional tray pick/lift) service check on page 352.
162.81	The motor (tray 2 pick/lift) did not turn off.	See Motor (optional tray pick/lift) service check on page 352.
162.82	The motor (tray 2 pick/lift) speed did not ramp up to the required level.	See Motor (optional tray pick/lift) service check on page 352.
162.83	The motor (tray 2 pick/lift) stalled.	See Motor (optional tray pick/lift) service check on page 352.
162.84	The motor (tray 2 pick/lift) ran too slow.	See Motor (optional tray pick/lift) service check on page 352.
162.85	The motor (tray 2 pick/lift) ran too fast.	See Motor (optional tray pick/lift) service check on page 352.
162.86	The motor (tray 2 pick/lift) did not run at the correct timing.	See Motor (optional tray pick/lift) service check on page 352.
163.80	The motor (tray 3 pick/lift) did not turn on.	See Motor (optional tray pick/lift) service check on page 352.
163.81	The motor (tray 3 pick/lift) did not turn off.	See Motor (optional tray pick/lift) service check on page 352.
163.82	The motor (tray 3 pick/lift) speed did not ramp up to the required level.	See Motor (optional tray pick/lift) service check on page 352.
163.83	The motor (tray 3 pick/lift) stalled.	See Motor (optional tray pick/lift) service check on page 352.
163.84	The motor (tray 3 pick/lift) ran too slow.	See Motor (optional tray pick/lift) service check on page 352.
163.85	The motor (tray 3 pick/lift) ran too fast.	See Motor (optional tray pick/lift) service check on page 352.
163.86	The motor (tray 3 pick/lift) did not run at the correct timing.	See Motor (optional tray pick/lift) service check on page 352.
164.80	The motor (tray 4 pick/lift) did not turn on.	See Motor (optional tray pick/lift) service check on page 352.

Error code	Description	Action
164.81	The motor (tray 4 pick/lift) did not turn off.	See Motor (optional tray pick/lift) service check on page 352.
164.82	The motor (tray 4 pick/lift) speed did not ramp up to the required level.	See Motor (optional tray pick/lift) service check on page 352.
164.83	The motor (tray 4 pick/lift) stalled.	See Motor (optional tray pick/lift) service check on page 352.
164.84	The motor (tray 4 pick/lift) ran too slow.	See Motor (optional tray pick/lift) service check on page 352.
164.85	The motor (tray 4 pick/lift) ran too fast.	See Motor (optional tray pick/lift) service check on page 352.
164.86	The motor (tray 4 pick/lift) did not run at the correct timing.	See Motor (optional tray pick/lift) service check on page 352.
165.80	The motor (tray 5 pick/lift) did not turn on.	See Motor (optional tray pick/lift) service check on page 352.
165.81	The motor (tray 5 pick/lift) did not turn off.	See Motor (optional tray pick/lift) service check on page 352.
165.82	The motor (tray 5 pick/lift) speed did not ramp up to the required level.	See Motor (optional tray pick/lift) service check on page 352.
165.83	The motor (tray 5 pick/lift) stalled.	See Motor (optional tray pick/lift) service check on page 352.
165.84	The motor (tray 5 pick/lift) ran too slow.	See Motor (optional tray pick/lift) service check on page 352.
165.85	The motor (tray 5 pick/lift) ran too fast.	See Motor (optional tray pick/lift) service check on page 352.
165.86	The motor (tray 5 pick/lift) did not run at the correct timing.	See Motor (optional tray pick/lift) service check on page 352.

Motor (optional tray pick/lift) service check

1. Check the pick roller for misalignment and damage.

   Is the pick roller properly installed and free of damage?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Make sure that the motor cable is properly connected.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

166–169 errors

166–169 error messages

Error code	Description	Action
166.80	The motor (tray 2 pass-through) did not turn on.	See Motor (optional tray pass-through) failure service check on page 355.
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.	

Error code	Description	Action
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.	See Motor (optional tray pass-through) failure service check on page 355.
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 Motor (optional tray pass-through) failure service check on page 355.
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.	

Error code	Description	Action
169.86	The motor (tray 5 pass-through) did not run at the correct timing.	

Motor (optional tray pass-through) failure service check

1. Restart the printer

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Make sure that the motor cable is properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Main fan service check on page 357.
171.83	The main fan stalled.	
171.84	The main fan ran too slow.	
171.85	The main fan ran too fast.	
172.82	The LVPS/fuser fan speed did not ramp up to the required level.	See LVPS/fuser fan service check on page 356.
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

1. Make sure that the fuser fan area is clear of obstructions.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Make sure that the JFAN1 connector on the engine board is properly connected to the fan.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Replace the fuser fan. See Fuser fan removal on page 501.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Main fan service check

1. Make sure that the main fan area is clear of obstructions.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Make sure that the JFAN2 connector on the engine board is properly connected to the fan.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Replace the main fan. See Main fan removal on page 500.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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.	For more information, see RIP error service check on page 362.
602.19	Tray 1 was unable to be ready for picking.	For more information, see Tray not ready to feed on page 363.
602.29	Tray 2 was unable to be ready for picking.	For more information, see Tray not ready to feed on page 363.
602.39	Tray 3 was unable to be ready for picking.	For more information, see Tray not ready to feed on page 363.
602.49	Tray 4 was unable to be ready for picking.	For more information, see Tray not ready to feed on page 363.
602.59	Tray 5 was unable to be ready for picking.	For more information, see Tray not ready to feed on page 363.
611.32	Lost HSYNC errors were detected. Laser safety interlock system may be the cause.	For more information, see Printhead service check on page 324.
611.34	A mirror motor lock error was detected.	For more information, see Printhead service check on page 324.
611.72	A facet map failure error occurred.	For more information, For more information, see Printhead service check on page 324.
621.01	The fuser heater was not hot enough when the paper entered the fuser nip.	For more information, For more information, see Fuser service check on page 331.
647.80	The motor (deskew) did not turn on.	For more information, For more information, see Motor (deskew) service check on page 339.
647.81	The motor (deskew) did not turn off.	For more information, For more information, see Motor (deskew) service check on page 339.
647.82	The motor (deskew) speed did not ramp up to the required level.	For more information, For more information, see Motor (deskew) service check on page 339.
647.83	The motor (deskew) stalled.	For more information, For more information, see Motor (deskew) service check on page 339.

Error code	Description	Action
647.84	The motor (deskew) ran too slow.	For more information, For more information, see Motor (deskew) service check on page 339.
647.85	The motor (deskew) ran too fast.	For more information, For more information, see Motor (deskew) service check on page 339.
647.86	The motor (deskew) did not run at the correct timing.	For more information, For more information, see Motor (deskew) service check on page 339.
649.80	The motor (redrive) did not turn on.	For more information, For more information, see Motor (exit/redrive) service check on page 341.
649.81	The motor (redrive) did not turn off.	For more information, For more information, see Motor (exit/redrive) service check on page 341.
649.82	The motor (redrive) speed did not ramp up to the required level.	For more information, For more information, see Motor (exit/redrive) service check on page 341.
649.83	The motor (redrive) stalled.	For more information, For more information, see Motor (exit/redrive) service check on page 341.
649.84	The motor (redrive) ran too slow.	For more information, For more information, see Motor (exit/redrive) service check on page 341.
649.85	The motor (redrive) ran too fast.	For more information, For more information, see Motor (exit/redrive) service check on page 341.
649.86	The motor (redrive) did not run at the correct timing.	For more information, For more information, see Motor (exit/redrive) service check on page 341.
650.80	The motor (duplex/MPF) did not turn on.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
650.81	The motor (duplex/MPF) did not turn off.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.

Error code	Description	Action
650.82	The motor (duplex/MPF) speed did not ramp up to the required level.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
650.83	The motor (duplex/MPF) stalled.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
650.84	The motor (duplex/MPF) ran too slow.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
650.85	The motor (duplex/MPF) ran too fast.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
650.86	The motor (duplex/MPF) did not run at the correct timing.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
653.80	The motor (isolation) unit did not turn on.	For more information, For more information, see Isolation unit service check on page 347.
653.81	The motor (isolation) unit did not turn off.	For more information, For more information, see Isolation unit service check on page 347.
653.82	The motor (isolation) unit speed did not ramp up to the required level.	For more information, For more information, see Isolation unit service check on page 347.
653.83	The motor (isolation) stalled.	For more information, For more information, see Isolation unit service check on page 347.
653.84	The motor (isolation) ran too slow.	For more information, For more information, see Isolation unit service check on page 347.
653.85	The motor (isolation) ran too fast.	For more information, For more information, see Isolation unit service check on page 347.
653.86	The motor (isolation) did not run at the correct timing.	For more information, For more information, see Isolation unit service check on page 347.
660.80	The motor (duplex/MPF) did not turn on.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.

Error code	Description	Action
660.81	The motor (duplex/MPF) did not turn off.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
660.82	The motor (duplex/MPF) speed did not ramp up to the required level.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
660.83	The motor (duplex/MPF) stalled.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
660.84	The motor (duplex/MPF) ran too slow.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
660.85	The motor (duplex/MPF) ran too fast.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
660.86	The motor (duplex/MPF) did not run at the correct timing.	For more information, For more information, see Motor (duplex/MPF) service check on page 343.
661.13	The tray 1 lift plate failed to lift.	For more information, For more information, see Motor (tray 1 pick/lift) lifting error service check on page 349.
661.80	The motor (tray 1 pick/lift) did not turn on.	For more information, For more information, see Motor (tray 1 pick/lift) lifting error service check on page 349.
661.81	The motor (tray 1 pick/lift) did not turn off.	For more information, For more information, see Motor (tray 1 pick/lift) lifting error service check on page 349.
661.82	The motor (tray 1 pick/lift) speed did not ramp up to the required level.	For more information, For more information, see Motor (tray 1 pick/lift) lifting error service check on page 349.
661.83	The motor (tray 1 pick/lift) stalled.	For more information, For more information, see Motor (tray 1 pick/lift) lifting error service check on page 349.
661.84	The motor (tray 1 pick/lift) ran too slow.	For more information, For more information, see Motor (tray 1 pick/lift) lifting error service check on page 349.

Error code	Description	Action
661.85	The motor (tray 1 pick/lift) ran too fast.	For more information, For more information, see Motor (tray 1 pick/lift) lifting error service check on page 349.
661.86	The motor (tray 1 pick/lift) did not run at the correct timing.	For more information, For more information, see Motor (tray 1 pick/lift) lifting error service check on page 349.

RIP error service check

1. Perform the following tests:
   a. Open all printer doors, and then remove the manual feeder and tray.
   b. Check the paper path, tray, and bin for paper fragments and partially fed paper.

   Are the paper path, bin, and tray free of paper fragments and partially fed paper?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper fragments and partially fed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Reseat the HVPS flat cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Make sure that the controller board is properly installed. Reseat all the cables on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the controller board and its connector pins for damage.

Are the controller board and its connectors free of damage?

- **Yes**:
  Contact the next level of support.
- **No**:
  Go to the next step.

6. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Tray not ready to feed

Issue description

Applicable error codes: 602.19, 602.29, 602.39, 602.49, 602.59

Customer resolution

1. Make sure that the paper is loaded properly in the tray and the guides are adjusted to match the size of the paper loaded. Make sure that the stack height is below the maximum fill line. For more information, see Loading trays.
2. Make sure that the tray is installed properly and free from obstructions and damage. Verify that the side guides can move freely and are not broken. If there are signs of damage, then contact customer support.
3. Check the paper loaded for the following:
   - The paper matches the paper size and type set in the printer. For more information, see Setting the paper size and type.
   - The paper size, paper type, and paper weight loaded are supported. For more information, see Supported paper sizes on page 24, Supported paper types on page 30, and Supported paper weights on page 31.
4. Remove paper from the tray or feeder and inspect for damage or defects. Fan the paper, flip it, and then reload. If the paper is damp, damaged, wavy, or curled, then replace it.

Remote resolution

Make sure that the user performs all the steps in the **Customer resolution** section.

Initial parts replacement

No part replacement is needed. This issue can be resolved using the preceding steps. If the issue persists, then contact the next level of support.

Detailed diagnostics

No additional diagnosis is available. The issue can be resolved using the preceding steps. If the issue persists, then contact the next level of support.

Unknown error service check

1. Restart the print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 Motor (optional tray pick/lift) lifting error service check on page 368.
662.80	The motor (tray 2 pick/lift) did not turn on.	See Motor (optional tray pick/lift) lifting error service check on page 368.
662.81	The motor (tray 2 pick/lift) did not turn off.	See Motor (optional tray pick/lift) lifting error service check on page 368.
662.82	The motor (tray 2 pick/lift) speed did not ramp up to the required level.	See Motor (optional tray pick/lift) lifting error service check on page 368.
662.83	The motor (tray 2 pick/lift) stalled.	See Motor (optional tray pick/lift) lifting error service check on page 368.

Error code	Description	Action
662.84	The motor (tray 2 pick/lift) ran too slow.	See Motor (optional tray pick/lift) lifting error service check on page 368.
662.85	The motor (tray 2 pick/lift) ran too fast.	See Motor (optional tray pick/lift) lifting error service check on page 368.
662.86	The motor (tray 2 pick/lift) did not run at the correct timing.	See Motor (optional tray pick/lift) lifting error service check on page 368.
663.33	The tray 3 lift plate failed to lift.	See Motor (optional tray pick/lift) lifting error service check on page 368.
663.80	The motor (tray 3 pick/lift) did not turn on.	See Motor (optional tray pick/lift) lifting error service check on page 368.
663.81	The motor (tray 3 pick/lift) did not turn off.	See Motor (optional tray pick/lift) lifting error service check on page 368.
663.82	The motor (tray 3 pick/lift) speed did not ramp up to the required level.	See Motor (optional tray pick/lift) lifting error service check on page 368.
663.83	The motor (tray 3 pick/lift) stalled.	See Motor (optional tray pick/lift) lifting error service check on page 368.
663.84	The motor (tray 3 pick/lift) ran too slow.	See Motor (optional tray pick/lift) lifting error service check on page 368.
663.85	The motor (tray 3 pick/lift) ran too fast.	See Motor (optional tray pick/lift) lifting error service check on page 368.
663.86	The motor (tray 3 pick/lift) did not run at the correct timing.	See Motor (optional tray pick/lift) lifting error service check on page 368.
664.43	The tray 4 lift plate failed to lift.	See Motor (optional tray pick/lift) lifting error service check on page 368.
664.80	The motor (tray 4 pick/lift) did not turn on.	See Motor (optional tray pick/lift) lifting error service check on page 368.
664.81	The motor (tray 4 pick/lift) did not turn off.	See Motor (optional tray pick/lift) lifting error service check on page 368.
664.82	The motor (tray 4 pick/lift) speed did not ramp up to the required level.	See Motor (optional tray pick/lift) lifting error service check on page 368.

Error code	Description	Action
664.83	The motor (tray 4 pick/lift) stalled.	See Motor (optional tray pick/lift) lifting error service check on page 368.
664.84	The motor (tray 4 pick/lift) ran too slow.	See Motor (optional tray pick/lift) lifting error service check on page 368.
664.85	The motor (tray 4 pick/lift) ran too fast.	See Motor (optional tray pick/lift) lifting error service check on page 368.
664.86	The motor (tray 4 pick/lift) did not run at the correct timing.	See Motor (optional tray pick/lift) lifting error service check on page 368.
665.53	The tray 5 lift plate failed to lift.	See Motor (optional tray pick/lift) lifting error service check on page 368.
665.80	The motor (tray 5 pick/lift) did not turn on.	See Motor (optional tray pick/lift) lifting error service check on page 368.
665.81	The motor (tray 5 pick/lift) did not turn off.	See Motor (optional tray pick/lift) lifting error service check on page 368.
665.82	The motor (tray 5 pick/lift) speed did not ramp up to the required level.	See Motor (optional tray pick/lift) lifting error service check on page 368.
665.83	The motor (tray 5 pick/lift) stalled.	See Motor (optional tray pick/lift) lifting error service check on page 368.
665.84	The motor (tray 5 pick/lift) ran too slow.	See Motor (optional tray pick/lift) lifting error service check on page 368.
665.85	The motor (tray 5 pick/lift) ran too fast.	See Motor (optional tray pick/lift) lifting error service check on page 368.
665.86	The motor (tray 5 pick/lift) did not run at the correct timing.	See Motor (optional tray pick/lift) lifting error service check on page 368.
666.80	The motor (tray 2 pass-through) did not turn on.	See Motor (optional tray pass-through) stalled service check on page 370.
666.81	The motor (tray 2 pass-through) did not turn off.	See Motor (optional tray pass-through) stalled service check on page 370.
666.82	The motor (tray 2 pass-through) speed did not ramp up to the required level.	See Motor (optional tray pass-through) stalled service check on page 370.

Error code	Description	Action
666.83	The motor (tray 2 pass-through) stalled.	See Motor (optional tray pass-through) stalled service check on page 370.
666.84	The motor (tray 2 pass-through) ran too slow.	See Motor (optional tray pass-through) stalled service check on page 370.
666.85	The motor (tray 2 pass-through) ran too fast.	See Motor (optional tray pass-through) stalled service check on page 370.
666.86	The motor (tray 2 pass-through) did not run at the correct timing.	See Motor (optional tray pass-through) stalled service check on page 370.
667.80	The motor (tray 3 pass-through) did not turn on.	See Motor (optional tray pass-through) stalled service check on page 370.
667.81	The motor (tray 3 pass-through) did not turn off.	See Motor (optional tray pass-through) stalled service check on page 370.
667.82	The motor (tray 3 pass-through) speed did not ramp up to the required level.	See Motor (optional tray pass-through) stalled service check on page 370.
667.83	The motor (tray 3 pass-through) stalled.	See Motor (optional tray pass-through) stalled service check on page 370.
667.84	The motor (tray 3 pass-through) ran too slow.	See Motor (optional tray pass-through) stalled service check on page 370.
667.85	The motor (tray 3 pass-through) ran too fast.	See Motor (optional tray pass-through) stalled service check on page 370.
667.86	The motor (tray 3 pass-through) did not run at the correct timing.	See Motor (optional tray pass-through) stalled service check on page 370.
668.80	The motor (tray 4 pass-through) did not turn on.	See Motor (optional tray pass-through) stalled service check on page 370.
668.81	The motor (tray 4 pass-through) did not turn off.	See Motor (optional tray pass-through) stalled service check on page 370.
668.82	The motor (tray 4 pass-through) speed did not ramp up to the required level.	See Motor (optional tray pass-through) stalled service check on page 370.
668.83	The motor (tray 4 pass-through) stalled.	See Motor (optional tray pass-through) stalled service check on page 370.

Error code	Description	Action
668.84	The motor (tray 4 pass-through) ran too slow.	See Motor (optional tray pass-through) stalled service check on page 370.
668.85	The motor (tray 4 pass-through) ran too fast.	See Motor (optional tray pass-through) stalled service check on page 370.
668.86	The motor (tray 4 pass-through) did not run at the correct timing.	See Motor (optional tray pass-through) stalled service check on page 370.
669.80	The motor (tray 5 pass-through) did not turn on.	See Motor (optional tray pass-through) stalled service check on page 370.
669.81	The motor (tray 5 pass-through) did not turn off.	See Motor (optional tray pass-through) stalled service check on page 370.
669.82	The motor (tray 5 pass-through) speed did not ramp up to the required level.	See Motor (optional tray pass-through) stalled service check on page 370.
669.83	The motor (tray 5 pass-through) stalled.	See Motor (optional tray pass-through) stalled service check on page 370.
669.84	The motor (tray 5 pass-through) ran too slow.	See Motor (optional tray pass-through) stalled service check on page 370.
669.85	The motor (tray 5 pass-through) ran too fast.	See Motor (optional tray pass-through) stalled service check on page 370.
669.86	The motor (tray 5 pass-through) did not run at the correct timing.	See Motor (optional tray pass-through) stalled service check on page 370.

Motor (optional tray pick/lift) lifting error service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Make sure that the tray insert is properly seated or fully inserted.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays adjustments/tests > Additional input tray sensors

   b. Find the sensor (Pick roller index (tray [x])).

      Notes
      [x] is the tray number.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Make sure that the sensor cable is properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Remove the tray insert.
   b. Enter the Diagnostics menu, and then navigate to:

      Additional input trays adjustments/tests > Additional input tray motors

   c. Select **Pick (tray [x])**, and then touch **Start**.

      Notes
      [x] is the tray number.

   Does the motor run or does it sound normal?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

6. Make sure that the motor cable is properly connected.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

7. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Motor (optional tray pass-through) stalled service check

1. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays adjustments/tests > Additional input tray motors

   b. Select **Pass-through (tray [x])**, and then touch **Start**.

      > **Notes**
      > [x] is the tray number.

   Does the motor run?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

2. Make sure that the motor cable is properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

3. Check the motor for noise.

   Does the motor sound abnormal or do the gears make a grinding sound?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the optional tray. See Optional 550-sheet tray removal on page 640.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

680 errors

680 error messages

Error code	Description	Action
680.10	During and ADF job, the ADF top cover was detected as open.	See ADF top cover open service check on page 276.
680.20	During an ADF job, no paper was detected on the ADF tray.	See ADF paper undetected service check on page 266.
680.40	During a scan job, a communication error occurred.	See Scanner communication failure service check on page 374.

84y errors

840–845 error messages

Error code	Description	Action
840.01	The scanner was manually disabled by the user.	See Scanner disabled error service check on page 372.
840.02	The scanner was automatically disabled by the printer after two consecutive hardware failures.	See Scanner disabled error service check on page 372.
842.00	A scanner communication error (no response) was detected.	See Scanner communication failure service check on page 374.
842.01	A scanner communication error (HW protocol) was detected.	See Scanner communication failure service check on page 374.
842.02	A scanner communication error (logical protocol) was detected.	See Scanner communication failure service check on page 374.
843.00	The CIS scanner failed to reach its home position.	See Flatbed CIS scanner home position service check on page 375.
843.01	An ADF mechanical failure occurred.	See ADF feed/exit drive service check on page 376.
845.02	The scanner front side scan module was detected as unplugged.	See Front side scan error service check on page 380.
845.03	The ADF back side scan module was detected as unplugged.	See Duplex scan error service check on page 377.

Scanner disabled error service check

1. Perform the following tests:
   a. From the home screen, navigate to:

      Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > Disable Scanner > No

   b. Reset the printer, and then perform an ADF scan job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

2. Perform the following tests:
   a. From the home screen, navigate to:

      Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > Disable Scanner > Yes

   b. Restart the printer, and then perform an ADF scan job.

   Does the display indicate that the ADF is disabled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.

3. Perform the following tests:
   a. Reseat the JADF1 connector on the controller board.
   b. Reseat the ADF cables on the ADF.
   c. Repeat step 1.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the following tests:
   a. Replace the ADF. See ADF removal on page 624.
   b. Repeat step 1.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Reseat the JFB1, JFBM1, and JHS1 connectors on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform the following tests:
   a. Replace the scanner. See Flatbed scanner removal on page 625.
   b. Repeat step 1.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

7. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Scanner communication failure service check

1. Reseat the JADF1 connector on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Reseat the JFB1 connector on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Replace the ADF. See ADF removal on page 624.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the scanner. See Flatbed scanner removal on page 625.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Flatbed CIS scanner home position service check

1. Turn off the printer.

   Does the CIS scanner move and return to the home position?

   - **Yes**:
     The problem is solved.
   - **No**:
     Go to the next step.

2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Sensor tests

   b. Find the sensor (FB CCD home).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Reseat the JHS1 connector on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Reseat the JFBM1 connector on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Measure the voltage of pin 1 of the JFBM1 connector on the controller board.

Is the voltage equal to +24 V AC?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 7.

6. Measure the voltage of pin 1 of the JHS1 connector on the controller board.

   Notes
   Pin 2 is GND.

   Is the voltage equal to +5 V AC?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

7. Replace the scanner. See Flatbed scanner removal on page 625.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

ADF feed/exit drive service check

1. Manually turn the ADF feed/exit roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Motor tests

   b. Select **ADF transport**, and then touch **Start**.

   Do the motors run?

   - **Yes**:
     Go to step 4.

- **No**:
  Go to the next step.

3. Perform the following tests:
   a. Reseat the JADF2 connector on the controller board.
   b. Reseat the ADF cables on the ADF.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the ADF. See ADF removal on page 624.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Duplex scan error service check

1. Perform the following tests:

   Check the ADF paper path for paper fragments, partially fed paper, and obstructions.

   - Under the ADF top cover
   - Under the ADF
   - ADF bin

   Is the paper path free of paper fragments, partially fed paper, and obstructions?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper fragments, partially fed paper, and obstructions.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

Scanner diagnostics > Motor tests

b. Select **ADF transport**, and then start the test.

Does the motor run?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

4. Perform the following tests:
   a. Make sure that the ADF is properly installed. Lift the ADF, and then check if it closes properly.
   b. Check the ADF for damage.

   Is the ADF free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Sensor tests

   b. Run the test on the following sensors:
      - ADF media present
      - ADF 1st scan

   Does the sensor status change while toggling the sensors?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

6. Check the affected sensor and its flag for damage.

   Is the sensor free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Perform the following tests:
   a. Reseat the scanner cables and JADF1 connector on the controller board.
   b. Reseat the ADF cables on the ADF.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

8. Check the cables for damage.

   Are the cables free of damage?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Replace the affected scanner or ADF cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check if the scanner lamp lights up during scanning.

    Is the scanner lamp functional?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Replace the scanner. See Flatbed scanner removal on page 625.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

12. Replace the ADF. See ADF removal on page 624.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Front side scan error service check

1. Perform the following tests:

   Check the ADF paper path for paper fragments, partially fed paper, and obstructions.

   - Under the ADF top cover
   - Under the ADF
   - ADF bin

   Is the paper path free of paper fragments, partially fed paper, and obstructions?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper fragments, partially fed paper, and obstructions.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Scanner diagnostics > Motor tests

   b. Select **ADF transport**, and then start the test.

   Does the motor run?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Perform the following tests:
   a. Make sure that the ADF is properly installed. Lift the ADF, and then check if it closes properly.
   b. Check the ADF for damage.

   Is the ADF free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

5. Perform the following tests:

a. Enter the Diagnostics menu, and then navigate to:

   Scanner diagnostics > Sensor tests

b. Run the test on the following sensors:
   - ADF media present
   - ADF 1st scan

Does the sensor status change while toggling the sensors?

- **Yes**:
  Go to step 8.
- **No**:
  Go to the next step.

6. Check the affected sensor and its flag for damage.

   Is the sensor free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Perform the following tests:
   a. Reseat the scanner cables and JFB1 connector on the controller board.
   b. Reseat the ADF cables on the ADF.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the cables for damage.

   Are the cables free of damage?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Replace the affected scanner or ADF cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check if the scanner lamp lights up during scanning.

    Is the scanner lamp functional?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Replace the scanner. See Flatbed scanner removal on page 625.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

12. Replace the ADF. See ADF removal on page 624.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Procedure before starting the 9yy service checks

Retrieve certain information that helps your next level of support in diagnosing the problem before replacing the controller board.

> **Warning—Potential Damage**
> Do not replace the controller board unless instructed by your next level of support.

1. Collect the history information and firmware logs (Fwdebug and logs.tar.gz) from the SE menu.
2. Collect the settings from the Menu Settings Page.
3. Collect information from the user.

> **Notes**
> Not all of the items are retrievable from the printer that you are working on.

A. Collecting the history information from the SE menu

> **Notes**
> Make sure that your printer is connected to a network or to a print server.

1. Open a web browser, type **`http://printer_IP_address/se`**, and then press **Enter**.

Note:

- **`printer_IP_address`** is the TCP/IP address of the printer.
- **`se`** is required to access the printer diagnostic information.

2. Click **History Information**, copy all information, and then save it as a text file.
3. Email the text file to your next level of support.

B. Collecting the firmware logs (Fwdebug and logs.tar.gz) from the SE menu

Note:

- Make sure that your printer is connected to a network or to a print server.
- Some printers are designed to restart automatically after a 9yy error. On these printers, you can retrieve the secondary crash code information using the SE menu.

1. Open a web browser, type **`http://printer_IP_address/se`**, and then press **Enter**.
2. Click **Logs Gzip Compressed**.

Notes
A logs.tar.gz file is saved to the Downloads folder. The file may take several minutes to save. You may rename the file if a logs.tar.gz already exists in the Downloads folder.

3. Email the logs to your next level of support.

Notes
To download the FWdebug log to a flash drive, see General SE on page 469.

C. Collecting the settings from the Menu Settings Page

Notes
The Menu Settings Page is different for each printer. For more information, see the *User's Guide*. Your next level of support will tell you which page they want to see.

Copying the Menu Settings Page from the Embedded Web Server (EWS)

Notes
Make sure that your printer is connected to a network or to a print server.

1. Open a web browser, type **`http://printer_IP_address`**, and then press **Enter**.

2. Click **Settings**, and then select one of the settings pages from the links shown on the page.
3. Copy all the information, and then save it as a text file.
4. Email the text file to your next level of support.

Printing the Menu Settings Page

1. From the home screen, navigate to:

   Reports > Menu Settings Page

2. Print the Menu Settings Page, and then email a scanned copy of the page to your next level of support.

D. Collecting information from the user

Ask the user for information about the following:

- Print job being run
- Operating system being used
- Print driver being used
- Other information on what was happening when the 9yy error occurred

900–901 errors

900–901 error messages

Error code	Description	Action
900.00	A RIP firmware error occurred.	See .System software error service check on page 384
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 382.

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.

1. Perform a POR.

   Does the error remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Write down the exact 900.xx error code that appears on the display.
   b. Turn off the printer.
   c. Clear the print queues.
   d. Disconnect all communication cables, and then remove all memory options.
   e. Remove any installed ISP.
   f. Reset the printer into the Diagnostics menu.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 6.

3. Check all the cables on the controller board for proper connection.

   Are the cables properly connected?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Perform the following tests:
   a. Reconnect the cables.
   b. Reset the printer into the Diagnostics menu.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 6.

5. Perform the following tests:
   a. Replace the controller board. See Controller board removal on page 587.
   b. Reset the printer.

Notes
If a different error code displays, then go to the service check for that error code.

Does the problem remain?

- **Yes**:
  Go to step 28.
- **No**:
  The problem is solved.

6. Perform the following tests:

   Print the following:

   - Error Log
   - Menu Settings Page
   - Network Settings Page

   Does the problem remain while printing these pages?

   - **Yes**:
     Go to step 28.
   - **No**:
     Go to the next step.

7. Perform the following tests:
   a. Reattach the communications cable.
   b. Reset the printer.
   c. Perform a print job.

   - Application used
   - Operating system
   - Driver type
   - File type (PCL, PostScript, XPS, etc.)

   a. Reattach the communications cable.
   b. Reset the printer.
   c. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 10.

8. Perform the following tests:

a. Reset the printer.

b. Perform a different print job.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 10.

9. Perform the following tests:
   a. Upgrade the firmware.

   > **Notes**
   > Contact your next level of support for the correct firmware level to use.

   b. Reset the printer.

   c. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Go to step 28.
   - **No**:
     Go to the next step.

10. Verify if the printer is an MFP.

    Is the printer an MFP?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 18.

11. Perform a copy job.

    Does the problem remain?

    - **Yes**:
      Go to step 28.
    - **No**:
      Go to the next step.

12. Perform a scan to PC job.

    Does the problem remain?

    - **Yes**:
      Go to step 28.
    - **No**:
      Go to the next step.

13. Verify if a fax card is installed.

    Is a fax card installed?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 18.

14. Perform the following tests:
    a. Reinstall the fax card.
    b. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 17.

15. Perform the following tests:
    a. Upgrade the firmware if it was not upgraded in a previous step.

    > **Notes**
    > Contact your next level of support for the correct firmware level to use.

    b. Reset the printer.
    c. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Perform the following tests:
    a. Replace the fax card.
    b. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to step 28.
    - **No**:
      The problem is solved.

17. Perform a fax job.

    Does the problem remain?

    - **Yes**:

Go to step 28.

- **No**:
  Go to the next step.

18. Verify if an ISP option is installed.

    Is an ISP option installed?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Perform the following tests:
    a. Reinstall the first ISP option.
    b. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to step 21.
    - **No**:
      Go to the next step.

20. Perform a job to test the option.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 26.

21. Perform the following tests:
    a. Upgrade the firmware if it was not upgraded in a previous step.

    > **Notes**
    > Contact your next level of support for the correct firmware level to use.

    b. Reset the printer.
    c. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Perform the following tests:
    a. Replace the faulty ISP option.
    b. Reset the printer.

Does the problem remain?

- **Yes**:
  Go to step 28.
- **No**:
  Go to the next step.

23. Verify if there are more ISP options to install.

    Are there more ISP options to install?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 28.

24. Perform the following tests:
    a. Install the next ISP option.
    b. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

25. Perform a job to test the option.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

26. Perform the following tests:
    a. Upgrade the firmware if it was not upgraded in a previous step.

    > **Notes**
    > Contact your next level of support for the correct firmware level to use.

    b. Reset the printer.
    c. Send a print job.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

27. Perform the following tests:
    a. Replace the faulty ISP option.
    b. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

28. Perform the following tests:

    Contact your next level of support.

    Provide the following information:

    - Exact 900.xx error digits and complete error message
    - Printed menu settings page
    - Printed network settings page
    - Device error log
    - A sample print file if the error appears to be isolated to a single file
    - File/Application used if the error is related to specific print file
    - Device operating system
    - Driver used (PCL/PS)
    - Frequency of the occurrence of the error

    - **Yes**:
    - **No**:

912–992 errors

912–992 error messages

Error code	Description	Action
912.05	An engine error occurred.	See Engine software error service check on page 394.
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.	

Error code	Description	Action
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.	
912.60	An engine error occurred.	
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.	

Error code	Description	Action
912.88	An engine error occurred.	
938.04	Supplies security is not enabled.	See Engine software error service check on page 394.
941.01	An engine communication error occurred.	
941.02	An engine communication error occurred.	
941.03	An engine communication error occurred.	
940.00	Serial communication failure between the controller board and engine board.	
950.10	An NVRAM mismatch error occurred.	See NVRAM failure service check on page 395.
953.99	An NVRAM chip error occurred on the mirrored part.	
958.99	A controller board NAND error occurred.	
980.01	A validation failure was detected by the Paperport communication device.	See Options communication error service check on page 397.
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.	

Error code	Description	Action
980.14	An engine timeout error occurred while waiting for the following: • A mechanical reset • An intervention required (IR) message to clear after inserting a tray	
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.	
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.	
992.01	An option device software error occurred.	

Engine software error service check

1. Perform the following tests:
   a. Perform a POR.
   b. Wait for 10 seconds, and then turn on the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

2. Perform the following tests:
   a. Remove the controller board shield. See Controller board shield removal on page 583.
   b. Make sure that the controller board and engine board cables, including the FFC, are properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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.

1. Verify if the engine board has been replaced.

   Has the engine board been replaced?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.

2. Replace the engine board with a new engine board that has not undergone installation or use. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Verify if the controller board has been replaced.

   Has the controller board been replaced?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Replace the controller board with a new controller board that has not undergone installation or use. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Turn the printer off for ten or more seconds.
   b. Turn the printer back on.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Restore the printer to factory defaults to clear the NVRAM.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the engine board. See Engine board removal on page 588.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

8. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Options communication error service check

1. Perform the following tests:
   a. Check if the firmware is updated, and then update the firmware if necessary.
   b. Make sure that the printer supports the option. See the *Printer, Option, and Stand Compatibility Guide*.
   c. Make sure that the option is properly attached to the printer or adjacent option.
   d. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Reseat the option interface cable on the engine board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Reinstall the option.
   b. Print a test page, and then check if the option is defective.

   Are all options properly working?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support

4. Replace the option.

Does the problem remain?

- **Yes**:
  Contact the next level of support
- **No**:
  The problem is solved.

Other symptoms

Base printer symptoms

Base printer symptoms

Symptom	Action
Printer has no power.	See Dead machine service check on page 398.
Control panel is not functioning.	See .Control panel service check on page 399
Toner out message appears on the display.	See Toner meter cycle (TMC) card service check on page 302.
Printer is not communicating with host (USB).	See USB service check on page 400.
Printer is not communicating with host (network).	See Network service check on page 401.
Bin paper jam or bin full message appears on the display.	See .Sensor (bin full) static jam service check on page 405
Invalid engine code message appears on the display.	See Engine board removal on page 588.

Dead machine service check

1. Make sure that the electrical outlet is not turned off by a switch or breaker.
2. Plug another device into the outlet to confirm that it is working.
3. Check the printer label to confirm its required voltage, and then ensure the electrical outlet you are using provides the same voltage.

   Note: Using power strips or uninterruptible power supplies can cause low amperage inside the printer, which may trigger a false fuser error.

4. Make sure that the LVPS is not damaged. Do the following:
   a. Inspect for burnt, discolored, or melted circuit components.
   b. Check LVPS cables for cracks, dents, or other deformations in components or connectors.

c. Reseat all cables connected to the LVPS.

d. Make sure that the cable and connector between the LVPS and the controller board are properly connected and not damaged. For more information, see Wiring Diagram.

5. Make sure that the cable between the controller board, the control panel and the control panel card are connected properly and free of damage. For more information, see Wiring Diagram.

Control panel service check

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check the LED on the control panel.

   Is the LED on?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.

3. Check the ethernet connection LEDs on the controller board.

   Are the LEDs on?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.

4. Make sure that the control panel FFC is properly connected to the control panel and controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the control panel FFC for damage.

   Is the FFC free of damage?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Replace the control panel FFC. See Control panel FFC removal on page 602.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the control panel display. See Control panel display (10-inch) removal on page 558 or Control panel display (7-inch) removal on page 559.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Disconnect the LVPS cable from the engine board, and then measure the voltages of the red and orange wires.

   Is the reading on the red wire +6.5 V, and the orange wire +25 V?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Replace the LVPS. See LVPS removal on page 499.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the controller board. See Controller board removal on page 587.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

USB service check

1. Make sure that the USB cable is properly connected to the printer and host PC.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

2. Use a different USB cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Connect a different device to the USB cable.

   Did the host PC see the device?

   - **Yes**:
     Go to the next step.
   - **No**:
     The issue is with the host machine.

4. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Network service check

Note:

- 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.

1. If the printer is physically connected to the network, make sure that the Ethernet cable is properly connected on both ends.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

2. 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.

   Is the printer online and in Ready state?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Change the printer status to online.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the IP address displayed on the network settings page.

   Does it match the IP address in the port of the drivers using the printer?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

5. Perform the following tests:

   > **Notes**
   > A printer should use a static IP address on a network.

   Does the LAN use DHCP?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.

6. Check the first two segments of the IP address.

   Does the IP address start with 169.254?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.

7. Restart the printer.

Does the problem remain?

- **Yes**:
  Go to step 9.
- **No**:
  The problem is solved.

8. Reset the address on the printer to match the IP address on the driver.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Have the network administrator check if the printer and computer IP address have identical subnet addresses.

   Are the subnet addresses the same?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Using the subnet address supplied by the network administrator, assign a unique IP address to the printer.

    Notes
    The printer IP address should match the IP address on the print driver.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:

    Is the printer physically connected (Ethernet cable) to the network?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 15.

12. Try using a different Ethernet cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:

The problem is solved.

13. Have the network administrator check the network drop for activity.

    Is the network drop functioning properly?

    - **Yes**:
      Go to the next step.
    - **No**:
      Contact the network administrator.

14. Replace the controller board. See Controller board removal on page 587.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:

    Is the printer on the same wireless network as the other devices?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.

16. Assign the correct wireless network to the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Perform the following tests:

    Are the other devices on the wireless network communicating properly?

    - **Yes**:
      Go to the next step.
    - **No**:
      Contact the network administrator.

18. Make sure that the wireless card on the controller board is properly installed.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. If there is an attached antenna, check it for damage, and replace if necessary.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

20. Make sure that the antenna is properly connected to the wireless card.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Replace the wireless card.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Replace the controller board. See Controller board removal on page 587.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (bin full) static jam service check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   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?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

3. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the partially fed or jammed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Output bin full).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

6. Make sure that the JDSNS1 connector on the engine board is properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the sensor for damage.

   Is the sensor free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

8. Perform the following tests:

a. Replace the sensor. See Sensor (bin full) removal on page 598.

b. Perform a print job.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  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**.

   Notes
   This triggers the auto align routine which performs the color alignment error corrections (0.42 mm, 0.84 mm, and 3 mm range).

   Notes
   If the AA adjustment is successful, an **`AA adjustment passed`** message appears on the screen. If an **`AA adjustment passed`** message does not appear, skip the next pre-check step, and then go directly to step 4 in the service check.

3. Enter the Diagnostics menu, and then navigate to:

   Printer setup > EP setup > Toner patch sensor adjust > Full calibration

   Notes
   This triggers the auto align routine (0.42 mm range only) and the solid area and linearization adjustments.

1. Perform the following tests:
   a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
   b. On the Device information section of the print quality test page, check the CalSet values of the following:
      - C Developer operating point
      - C Laser operating point
      - C Linearization stat
      - M Developer operating point
      - M Laser operating point
      - M Linearization stat

- Y Developer operating point
- Y Laser operating point
- Y Linearization stat
- K Developer operating point
- K Laser operating point
- K Linearization stat

Are the values 0?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

2. Perform the blank or white pages service check. See Blank or white pages check on page 41.

   Was an issue found and resolved?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.

3. Perform the auto alignment service check. See Auto alignment service check on page 409.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer setup > EP setup > Toner patch sensor adjust

   b. On the sensor gain characterization row, touch **Start**.
   c. On the sensor gain verification row, touch **Start**.
   d. On the sensor gain verification section of the test page, check the average signal values of the patch number.

   Are the values within the requirement?

   - **Yes**:
     The problem is solved.
   - **No**:
     Go to the next step.

5. Perform the auto alignment service check. See Auto alignment service check on page 409.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

6. Make sure that the JTPS_C1 connector on the engine board is properly connected to the sensor (TPS).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Replace the sensor (TPS). See Sensor (TPS) removal on page 538.
   b. Enter the Diagnostics menu, and then navigate to:

      Printer setup > EP setup > Toner patch sensor adjust

   c. On the sensor gain characterization row, touch **Start**.
   d. On the sensor gain verification row, touch **Start**.
   e. On the sensor gain verification section of the test page, check the average signal values of the patch number.

   Are the values within the requirement?

   - **Yes**:
     The problem is solved.
   - **No**:
     Contact the next level of support.

Auto alignment 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**.

> **Notes**
> This triggers the auto align routine which performs the color alignment error corrections (0.42 mm, 0.84 mm, and 3 mm range).

Notes
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.

3. Enter the Diagnostics menu, and then navigate to:

   Printer setup > EP setup > Toner patch sensor adjust > Full calibration

   Notes
   This triggers the auto align routine (0.42 mm range only).

1. Perform the following tests:
   a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
   b. On the CalSet section of the test page, check the color alignment stat value.

   Is the value 0?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the blank or white pages service check or missing color service check. See Blank or white pages check on page 41 or Missing color check on page 99.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Make sure that the JTPS_C1 connector on the engine board is properly connected to the sensor (TPS).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the sensor (TPS). See Sensor (TPS) removal on page 538.

   Does the problem remain?

   - **Yes**:
     The problem is solved.
   - **No**:
     Contact the next level of support.

Blue and blinking red indicator light or printer stuck at startup

Issue description

The indicator light alternates between blue and blinking red, or the printer is stuck on a startup screen.

Customer resolution

1. Perform a Power-On-Reset on the printer. Do the following:
   a. Turn off the printer, and then unplug the power cord.
   b. Wait 30 seconds to discharge electrical energy and clear buffered data.
   c. Connect the power cord, and then turn on the printer.
   d. Wait for the printer to fully initialize before sending a job.
2. Make sure that the printer firmware is updated. For more information, see Updating the firmware using the control panel on page 484.

Remote resolution

Make sure that the user performs all the steps in the **Customer resolution** section.

Initial parts replacement

No part replacement is needed. This issue can be resolved using the preceding steps. If the issue persists, then contact the next level of support.

Detailed diagnostics

1. Turn off the printer.
2. Unplug the power cord from the electrical outlet, and then from the printer.
3. Verify that the cable between the controller board and the control panel card is properly connected and not damaged.
4. Connect the power cord to the printer, and then to the electrical outlet.

   CAUTION—SHOCK HAZARD
   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.

5. Enter **Recovery Mode** and update the printer firmware. For more information, see Entering Recovery mode on page 469.

   Note: Do not turn off the printer during the firmware update process.

6. If the issue persists after the firmware update, replace the controller board. For more information, see Controller board removal on page 587.

Scan, fax, and copy symptoms

Scan, fax, and copy symptoms

Symptom	Action
The ADF does not scan both sides of the document.	See ADF duplex service check on page 412.
The scanned image using the ADF is skewed.	See ADF feed errors service check on page 413.
Multiple documents feed into the ADF.	See ADF feed errors service check on page 413.
Documents do not feed into the ADF.	See ADF feed errors service check on page 413.
The scanner makes a buzzing noise on startup or during a scan.	See Flatbed CIS scanner home position service check on page 375.
The copied page is blank.	See Blank page copy check on page 113.
The copied page is black.	See Black page copy check on page 115.
There is no dial tone.	See Modem/fax card service check on page 417.
The printer does not connect to a fax machine.	The fax machine is turned off. Ask the fax recipient to check the machine.
Incoming fax has blank spaces or poor quality.	See Blank spaces on incoming fax service check on page 418.
Incoming fax has stretched words.	See Stretched words on incoming fax service check on page 419.
The printer does not transmit faxes.	See Fax transmission service check on page 419.
The printer does not receive faxes.	See Fax reception service check on page 423.
The ADF makes a rattling noise.	See ADF rattling noise service check on page 426.
The scanner does not scan a legal-size document.	See Scanner legal-size scan service check on page 426.

ADF duplex service check

1. Check if all the ADF motors run. See Motor tests on page 440.

   Does each motor run?

   - **Yes**:
     Go to the next step.
   - **No**:

Go to step 5.

2. Check if the status of each ADF sensor changes while toggling the sensor. See Sensor test on page 442.

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

3. Check if the actuator of each sensor is dirty or stuck.

   Is the actuator dirty or stuck?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Clean the actuator.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Reseat the JADF1 connector on the controller board.
   b. Reseat the ADF cables on the ADF.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Replace the ADF. See ADF removal on page 624.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

ADF feed errors service check

1. Check if multiple pages can feed into the ADF.

Can multiple pages feed into the ADF?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

2. Check the ADF separator roller and ADF pick roller for dirt.

   Are the ADF rollers clean?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Using a lint-free cloth and isopropyl alcohol, clean the separator roller and pick roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the ADF rollers. See ADF rollers removal on page 621.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check if the document that fed into the ADF is skewed.

   Is the document skewed?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Set the ADF tray guides correctly.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Make sure that the ADF top cover is closed completely.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

8. Check if the document has a wrinkled or torn leading edge.

   Does the document have a wrinkled or torn leading edge?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 10.

9. Replace the document, and then resend the scan job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Scanner diagnostics > Motor tests

    b. Test the following motors.
       - ADF pick
       - ADF transport

    Do the motors run?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Perform the following tests:
    a. Reseat the JADF1 connector on the controller board.
    b. Reseat the ADF cables on the ADF.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

Scanner diagnostics > Sensor tests

b. Find the sensor (ADF media present).

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 16.
- **No**:
  Go to the next step.

13. Check if the actuator is dirty or stuck.

    Is the actuator dirty or stuck?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 15.

14. Clean the actuator.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:
    a. Reseat the JADF1 connector on the controller board.
    b. Reseat the ADF cables on the ADF.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Replace the ADF. See ADF removal on page 624.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Replace the controller board. SeeController board removal on page 587.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.

- **No**:
  The problem is solved.

Modem/fax card service check

1. Reseat the telephone cable on the LINE port of the printer and on the wall jack.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check if the telephone cable sends and receives calls.

   Does the cable send and receive calls?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Connect the telephone cable to a working wall jack.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Reseat the modem card ribbon cable on the modem card and on the JFAX1 connector on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the modem card ribbon cable for continuity.

   Does the cable have continuity?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Replace the modem card ribbon cable.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

7. Measure the voltages of pins 4, 5, and 7 of the JFAX1 connector on the controller board.

   Notes
   Pins 9, 11, 13, 15, 17, and 19 are GND.

   Are the voltages of pins 4 and 5 equal to +3.3 V DC and pin 7 equal to +5 V DC?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the fax card.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Blank spaces on incoming fax service check

1. Have a fax sent from another machine.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Attach the MFP to a different phone line.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

3. Print a test page.

   Does the image quality issue remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Install a new toner cartridge.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Stretched words on incoming fax service check

1. Have a fax sent from another machine.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Fax transmission service check

1. Reseat the telephone cable on the LINE port of the printer and on the wall jack.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check for a dial tone.

   Is there a dial tone?

   - **Yes**:
     Go to the next step.

- **No**:
  Go to step 5.

3. Use a telephone to check if the telephone line sends and receives calls.

   Does the line send and receive calls?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

4. Use a telephone handset to check if the telephone line is free of static or external noise.

   Is the line free of static or external noise?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Connect the telephone cable to a working wall jack.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform the following tests:
   a. From the home screen, navigate to:

      Settings > Fax > Fax defaults > Fax setup > Fax Receive Settings > Admin Controls > Enable Fax Receive

   b. Touch **On**.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. From the home screen, navigate to:

      Settings > Fax > Fax defaults > Fax setup > Fax Receive Settings > Admin Controls > Answer on

   b. Select a ring pattern.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

8. Check if the telephone line is analog.

   Is the line analog?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

9. Check if the telephone line is a VOIP line.

   Is the line VOIP?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Ask the system administrator to check if the VOIP server is configured to receive faxes.

    Is the server configured to receive faxes?

    - **Yes**:
      Go to the next step.
    - **No**:
      Contact the next level of support.

11. Check if the printer receives a fax from one specific remote device.

    Does the printer receive a fax from one specific remote device?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Check if a different device can send a fax.

    Does the device send a fax?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      Go to the next step.

13. Perform the following tests:
    a. From the home screen, navigate to:

       Settings > Fax > Fax defaults > Fax setup > Fax Receive Settings > Admin Controls > Block no name fax

    b. Touch **Off**.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

14. Perform the following tests:
    a. From the home screen, navigate to:

       Settings > Fax > Fax defaults > Fax setup > Fax Receive Settings > Admin Controls > Banned fax list

    b. Check if the remote device number is on the list.

Is the number on the list?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 16.

15. Remove the remote device number from the list.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Perform the following tests:
    a. Enter the Service Engineer menu, and then navigate to:

       Fax SE > Modem Settings > Receive Thresh

    b. Adjust the setting in steps of 2 dB.

       > **Notes**
       > The recommended adjustment range is between -33 dB and -48dB.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Perform the following tests:
    a. Enter the Service Engineer menu, and then navigate to:

       Fax SE > Fax Settings > AutoPrint T30 Logs

b. Check the reported error code. See Fax error log codes on page 428.

c. Perform the action suggested for the error.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

Fax reception service check

Notes
Before performing this service check, make sure that the correct country code is selected.

1. Reseat the telephone cable on the LINE port of the printer and on the wall jack.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check if the telephone cable sends and receives calls.

   Does the cable send and receive calls?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Connect the telephone cable to a working wall jack.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check if the telephone line is analog.

   Is the telephone line analog?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

5. Check if the telephone line is a VOIP line.

Is the line VOIP?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 7.

6. Ask the system administrator to verify if the VOIP server is configured to receive faxes.

   Is the server configured to receive faxes?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.

7. Check if the printer is on a PABX.

   Is the printer on a PABX?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Perform the following tests:
   a. From the home screen, navigate to:

      Settings > Fax > Fax defaults > Fax setup > Fax Send Settings > Behind a PABX

   b. Touch **Yes**.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   a. From the home screen, navigate to:

      Settings > Fax > Fax defaults > Fax setup > Fax Send Settings > Behind a PABX

   b. Touch **No**.

   c. Check if access to an outside line needs a dial prefix.

   Does access need a dial prefix?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 11.

10. Send a fax using a dial prefix.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

11. Check if the printer sends a fax to one specific destination.

    Does the printer send a fax to one specific destination?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Check if the device that does not receive a fax can send a fax.

    Does the device send a fax?

    - **Yes**:
      Go to the next step.
    - **No**:
      Contact the next level of support.

13. Perform the following tests:
    a. Enter the Service Engineer menu, and then navigate to:

       Fax SE > Fax Settings > AutoPrint T30 Logs

    b. Check the reported error code. See Fax error log codes on page 428.

    c. Perform the action suggested for the error.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Perform the following tests:
    a. Enter the Service Engineer menu, and then navigate to:

       Fax SE > Modem Settings > Transmit Level

    b. Adjust the setting in steps of 1 dB.

       > **Notes**
       > The recommended adjustment range is ±5 dB from the default value.

    Does the problem remain?

    - **Yes**:

Contact the next level of support.

- **No**:
  The problem is solved.

ADF rattling noise service check

1. Reinstall the ADF pick roller and ADF separator roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Replace the ADF pick roller and ADF separator roller. See ADF rollers removal on page 621.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Reinstall the ADF top cover.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the ADF top cover. See ADF top cover removal on page 634.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Scanner legal-size scan service check

1. Perform the following tests:
   a. Open the scanner cover.
   b. Check if the X mark on the scanner glass pad is visible and free of damage.

   Is the X mark visible and free of damage?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Replace the scanner glass pad. See Scanner glass pad removal on page 618.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Open the scanner cover.
   b. Check if the X mark is in the rear right of the scanner glass pad.

   Is the X mark in the rear right of the scanner glass pad?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Reinstall the scanner glass pad in the correct orientation.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Perform scanner calibration. See Scanner Calibration Reset on page 446.
   b. Send a scan job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform the following tests:
   a. Replace the scanner. See Flatbed scanner removal on page 625.
   b. Send a scan job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

7. Replace the controller board. See Controller board removal on page 587.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Fax error log codes

Error code	Description	Action
000	No error occurred during fax transmission.	No action is needed.
200	Error occurred when transmitting training.	• Check line quality. • Select a lower Max Speed value under Fax Send settings. • Adjust the transmit level.
3XX	Error occurred when receiving image data.	• Check line quality. • Adjust Receive Threshold. • Select a lower Max Speed value under Fax Receive settings.
4XX	Error occurred when sending image data.	• Check line quality. • Adjust ‘Transmit Level’. • Select a lower ‘Max Speed’ value under Fax Receive settings.
5XX	Received unknown response from remote fax device.	No action needed. Issue is with the other device.
6XX	Error occurred when receiving a frame.	• Check line quality. • Adjust ‘Receive Threshold’.

Error code	Description	Action
7XX	Error occurred when sending a frame.	• Check line quality. • Adjust ‘Transmit Level’. • Select a lower ‘Max Speed’ value under Fax Send settings.
800	Received EOT unexpectedly from the modem in V34 mode.	If error persists, then disable V34 modulation scheme.
802	Too many timeouts occurred during ECM reception.	If error persists, then disable ECM mode.
803	Fax cancelled by user	No action needed.
804	Unexpectedly received a disconnect command from the remote end.	• Check line quality. • Adjust Transmit Level/ Receive Threshold values. • Remote device could be requesting an unsupported feature.
805	Remote fax device failed to respond to the DCS command.	• Adjust Transmit Level/ Receive Threshold values. • Remote device could be malfunctioning.
808	T1 timeout occurred when trying to establish a connection with a remote fax device.	Adjust Transmit Level/Receive Threshold values.
809	T2 Timeout occurred due to loss of command/response synchronization.	Adjust Transmit Level/Receive Threshold values.
80A	T5 Timeout occurred when transmitting image data to remote fax device.	• Check line quality. • Adjust ‘Transmit Level’. • Select a lower ‘Max Speed’ value under Fax Send settings.

Error code	Description	Action
80B	Too many errors when transmitting in ECM mode.	• Check line quality. • Adjust ‘Transmit Level’. • Select a lower ‘Max Speed’ value under Fax Send settings.
80C	Remote device failed to respond to the CTC command.	• Select a lower ‘Max Speed’ value under Fax Send settings. • Adjust ‘Transmit Level’.
80D	Received too many requests from remote end to repeat the previous command sent.	• Check line quality. • Adjust ‘Transmit Level’. • Check if line conditions on remote end will facilitate a good connection.
80E	Functional limitation-Remote fax device does not support G3 receive capability.	No action needed. Issue with the remote device.
811	Failed to detect a fax device at the remote end.	• Verify MFD is answering to fax call and not a voice call. • Decrease value of ‘Rings To Answer’ setting.
812	No more data rates available in V34 modulation scheme.	Adjust to a lower modulation scheme.
813	Timeout occurred after waiting too long to receive a good frame.	Adjust “Receive Threshold”.
814	Tried too many times at selected speed using V34 modulation scheme.	• Adjust ‘Transmit Level’. • Adjust to a lower modulation scheme.
815	Fax transmission was interrupted due to power failure.	Troubleshoot MFP if error persists. See Modem/fax card service check on page 417.
818	Fax transmission failed due to insufficient memory to store scanned image.	Adjust ‘Memory Use’ setting to allocate more memory for send jobs.

Error code	Description	Action
819	Fax transmission failed due to insufficient memory to store received image.	Adjust ‘Memory Use’ setting to allocate more memory for receive jobs.
81A	A timeout occurred during transmission of a page in ECM mode.	Select a lower ‘Max Speed’ value under Fax Send settings.
880	Failure to transmit training successfully in V17, V29, V27 terminal modulation schemes.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
881	Failure to transmit training successfully in V33, V29, V27 terminal modulation schemes.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
882	Failure to transmit training successfully in V17, V29 terminal modulation schemes.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
883	Failure to transmit training successfully in V17, V27 terminal modulation schemes.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
884	Failure to transmit training successfully in V29, V27 terminal modulation schemes.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.

Error code	Description	Action
885	Failure to transmit training successfully in V17 terminal modulation scheme.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
886	Failure to transmit training successfully in V29 terminal modulation scheme.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
887	Failure to transmit training successfully in V27 terminal modulation scheme.	• Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
888	Failure to transmit training successfully at 2400 bps in V27 terminal modulation scheme.	• Adjust “Transmit Level”. • Check line quality.
889	Failed to connect at the minimum speed supported by the MFP.	• Adjust “Transmit Level”. • Incompatible connection.
88A	Failed to connect using V.34 modulation scheme.	• Check line quality. • Adjust to a lower modulation scheme. • Adjust Transmit Level Receive Threshold values.

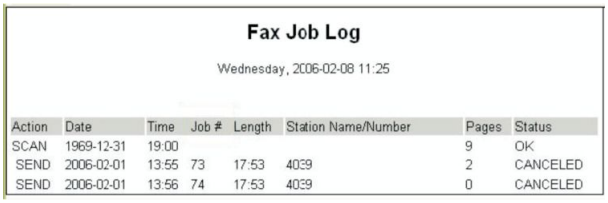
Error code	Description	Action
901	No fax tones detected from remote end.	• Verify destination phone number. • Verify that the remote fax is authorized to receive faxes.
902	No dial tone detected.	• Check by enabling 'Behind a PABX' setting. • Check phone line. • Check MFD modem hardware.
903	Busy tone detected.	Check with remote end if successive attempts fail.
904	Hardware error detected.	See Modem/fax card service check on page 417.
905	A timeout occurred after dialing the number and waiting for a response.	Check with remote end if successive attempts fail.
906	Fax cancelled by user.	No action needed.
907	Modem detected a digital line connection.	Verify the MFP is connected to an analog line. See Fax transmission service check on page 419.
908	Phone line was disconnected	Restore phone line connection.
A00	Received request for unsupported function from remote fax device.	No action needed.
A01	Received request for unsupported image width from remote fax device.	No action needed.
A02	Received request for unsupported image resolution from remote fax device.	No action needed.
A03	Received request for unsupported compression type from remote fax device.	No action needed.
A04	Received request for unsupported image length from remote fax device.	No action needed.
F00	Unknown error occurred.	No action needed.

Escalating a fax issue to second-level support

Before contacting the second-level support, go to the SE menu on the MFP, and then generate a Fax error file. This file contains machine settings information and debug information that will help second-level support determine the cause of a failure.

To generate the fax error file, perform the following steps:

1. In a Web browser, type **`http://MFP/<IP address>/se`**.
2. The MFP's SE menu page will display. Click the "Dump Job History" link. The following displays:

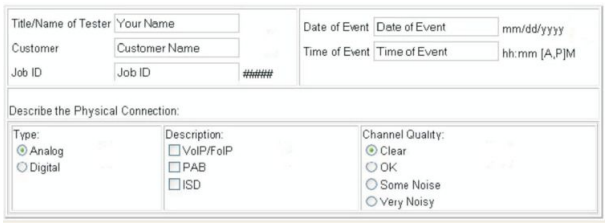


Fax Job Log

Wednesday, 2006-02-08 11:25

Action	Date	Time	Job #	Length	Station Name/Number	Pages	Status
SCAN	1969-12-31	19:00				9	OK
SEND	2006-02-01	13:55	73	17:53	4039	2	CANCELED
SEND	2006-02-01	13:56	74	17:53	4039	0	CANCELED

3. Write down the type of connection, the type of error, and the job in which the error occurred.
4. In the Web browser address bar, type **`http://MFP/<IP address>/se`**.
5. Click **Report a Fax Problem**. The fax check list displays.
6. Fill in the requested information. This is where you will type in the information you retrieved in step 3. Second-level support can assist you if you have questions about the information requested on the page.



Title/Name of Tester: Your Name
Customer: Customer Name
Job ID: Job ID ######
Date of Event: Date of Event mm/dd/yyyy
Time of Event: Time of Event hh:mm [A,P]M
Describe the Physical Connection:
Type: (•) Analog ( ) Digital
Description: [ ] VoIP/FoIP [ ] PAB [ ] ISD
Channel Quality: (•) Clear ( ) OK ( ) Some Noise ( ) Very Noisy

> **Notes**
> The fields requesting the code levels, model number, type of problem are auto-filled. If the information is not in the fields, it can be retrieved from the SE menu. The SE menu can be accessed by pressing **`**411`** or typing **`http://MFP/<IP address>/se`** in a Web browser.

7. After all the requested information is entered into the Fax Checklist Web page, press the **Submit** button on the bottom of the page. A dialogue asking you to save the file appears.

> **Notes**
> The file generated by the MFP is not automatically transmitted to second-level support. It is placed on the computer desktop.

8. Enter a name for the file, and indicated where you want to save the file.
9. Press **OK**. The file appears on the desktop.
10. E-mail the file to second-level support.

Contacting customer support

Contacting customer support

To accurately diagnose your issue, our support agents must perform diagnostic troubleshooting with you during your call. Make sure you are near your device so you can follow the on-screen or spoken instructions.

If you are not near your device, you can call us back when you are ready.

Have the following information ready when you contact support:

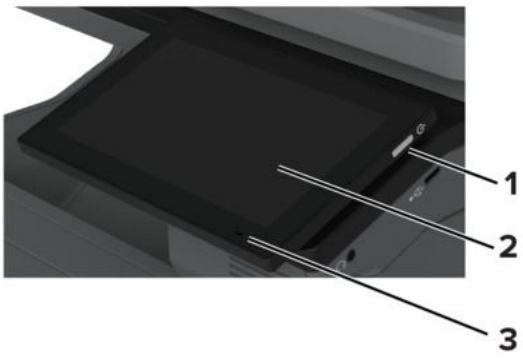
- Printer model and serial number
- A brief description of the issue
- Any error messages (if applicable)

Technical support via telephone is also available. In the U.S. or Canada, call **1-800-539-6257**. For other countries or regions, go to www.lexmark.com/supportdirectory.

Service menus

Understanding the printer control panel

Using the control panel



	Control panel part	Function
1	Power button	• Turn on or turn off the printer. **Notes** To turn off the printer, press and hold the power button for five seconds. • Set the printer to Sleep mode. • Wake the printer from Sleep or Hibernate mode.
2	Display	• View the printer messages and supply status. • Set up and operate the printer.
3	Indicator light	Check the status of the printer.

Colors of the indicator light

Color of the 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.
Alternating between blue and blinking red	The printer is not responding or showing anything on the display. For more information, see Indicator light is alternating between blue and blinking red.

Configuring the door interlock bypass jumpers

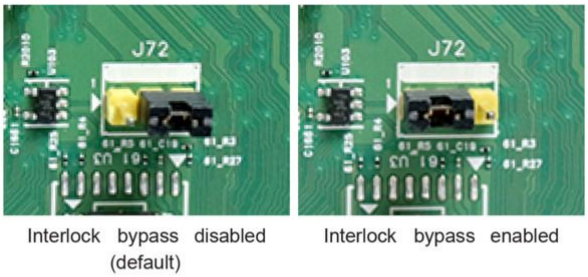
Notes
The interlock bypass jumpers are only used with the following motors:

- 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.

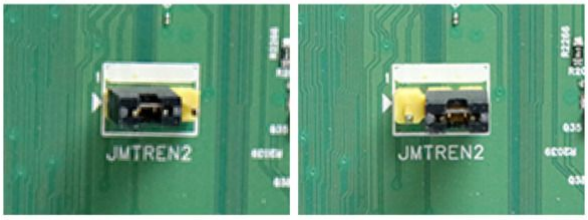
Notes
If the jumpers are not set to the bypass position and a motor test is performed while a door is open, then a 1yy.80 or other error can occur.

The following are the jumper configurations:



Interlock bypass disabled (default)

Interlock bypass enabled



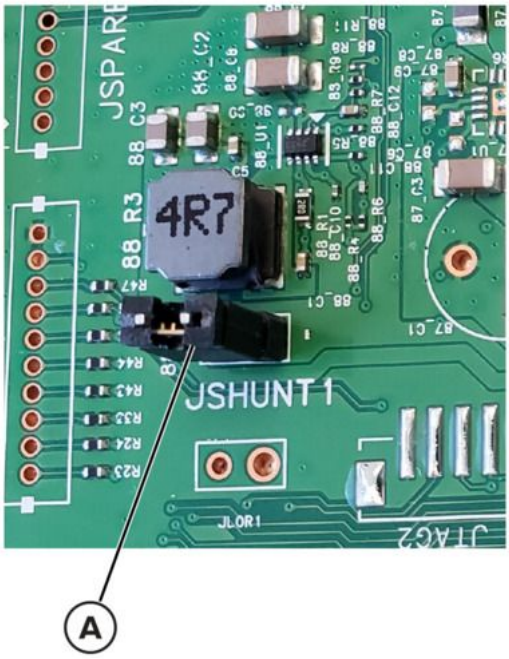
Interlock bypass disabled (default)

Interlock bypass enabled

To set the jumpers:

1. Turn off the printer.
2. Remove the controller board shield. See Controller board shield removal on page 583.
3. Locate the jumper connectors on the engine board.
4. Move the jumper of the motor being tested to the bypass position.

> **Notes**
> If no jumper is available on the header, borrow the jumper from the JSHUNT1 connector (A) on the upper right side of the engine board.



5. Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments > Motor tests**.
6. Observe precautions for motor tests. See .Motor tests
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.

Notes
If the JSHUNT1 jumper was borrowed, restore it to the JSHUNT1 connector.

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**.

     Note:
     - Make sure that the selected menu turns green.
     - If the **Diagnostics_Mode** option does not show on the display, touch **->** repeatedly until it appears.

  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

Format Fax Storage

This setting deletes stored fax jobs.

1. Enter the Diagnostics menu, and then navigate to:

   Format Fax Storage

2. Touch **Start**.

Notes
If the device is registered to etherFAX™, it must be unregistered and then registered again for etherFAX™ to work. For more information, visit https://www.etherfax.net/lexmark.

Scanner Diagnostics

Motor tests

Notes
For a video demonstration, see Performing the scanner motor tests.

1. Enter the Diagnostics menu, and then select navigate to:

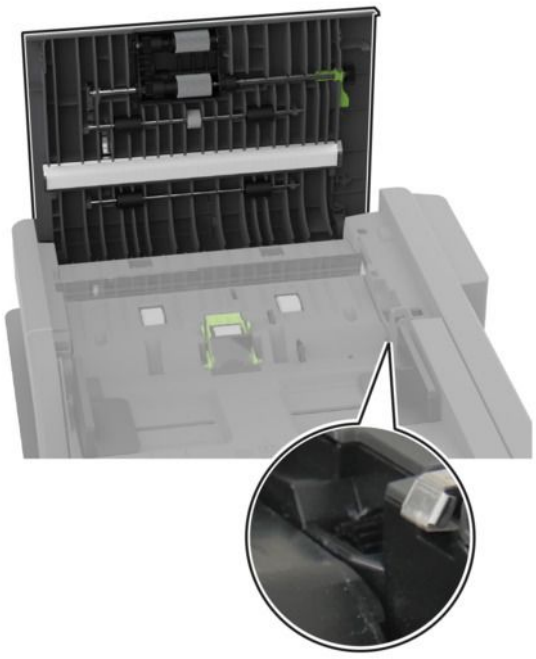
Scanner diagnostics > Motor tests

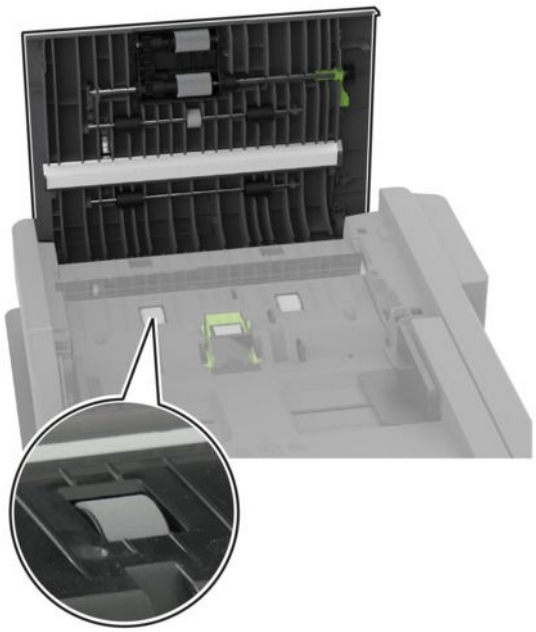
2. Select a motor, and then touch **Start**.

Note:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of motor tests

Test	Notes
ADF pick	Open the ADF top cover to view the pick drive gear. 

Test	Notes
ADF transport	Open the ADF top cover to view the ADF feed/exit roller. 
Flatbed scanner	Open the scanner cover to view the flatbed CIS scanner. 

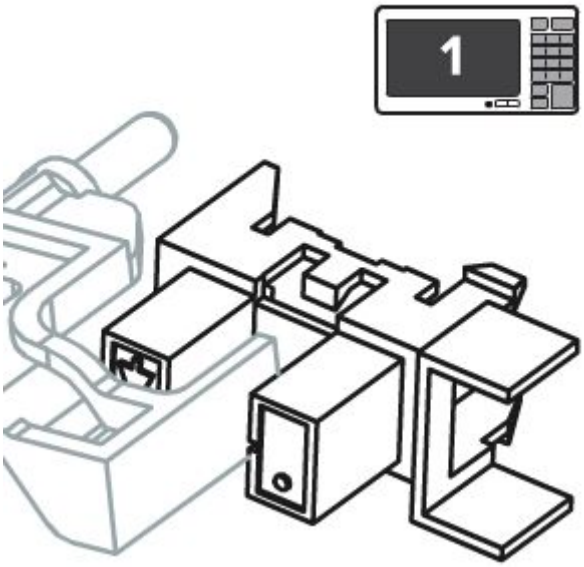
Sensor test

Notes
For a video demonstration, see Performing the scanner sensor tests.

This test verifies the status of the scanner sensors.

1. Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
2. From the Sensor test row, touch **Start**.

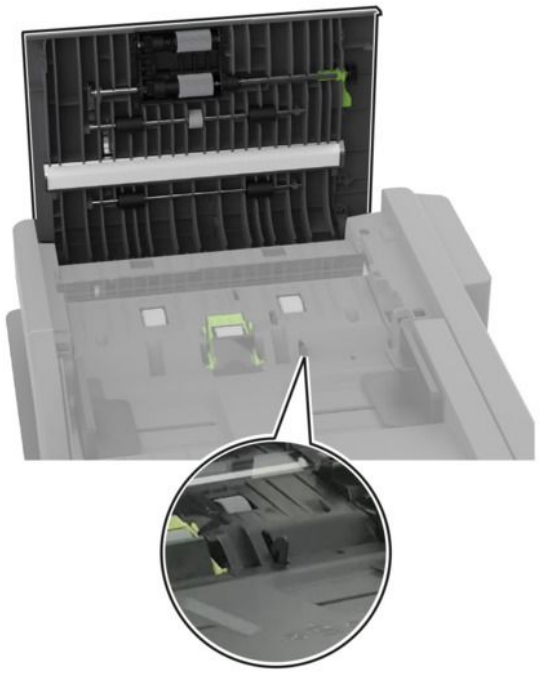
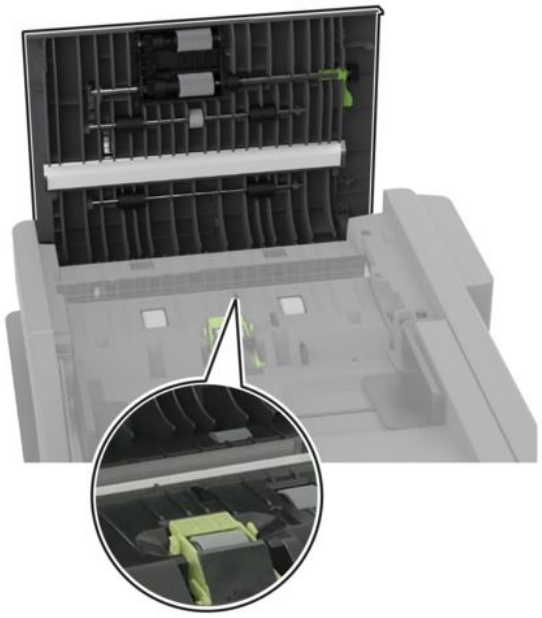
   A list of sensors appears.
3. Find, and then manually toggle the sensor.



Note:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of sensor tests

Tests	Notes
ADF media present	Open the ADF top cover to access the sensor. 
ADF 1st scan	Open the ADF top cover to access the sensor. 

Tests	Notes
ADF 2nd scan	1. Open the scanner cover. 2. Insert a sheet of paper to toggle the sensor. 
ADF closed	Open or close the scanner cover to toggle the sensor.
ADF top door interlock	Open or close the ADF top cover to toggle the sensor.
ADF calibration strip home	--
FB CCD home	--

Multifeed calibration

Notes
For a video demonstration, see Performing the scanner multifeed calibration.

1. Load a single letter or A4 size paper on the ADF tray.
2. Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
3. Select Multifeed Calibration, and then touch **Start**.

Feed Test

Notes
For a video demonstration, see Performing the scanner feed test.

This test allows for a continuous feed from the ADF or flatbed.

1. Enter the Diagnostics menu, and then navigate to:

   Scanner diagnostics > Feed Test

2. Select a paper size.
3. From the Feed Test row, touch **Start**.

Scanner Calibration Reset

Before starting the test, make sure that the scanner glass and scanner pad are clean. For more information, see Cleaning the scanner on page 661.

1. Enter the **Diagnostics** menu, and then touch **Scanner diagnostics**.
2. From the **Scanner Calibration Reset** row, touch **Start**.

To verify the result, do the following:

1. Load the ADF with a document containing light and dark content.
2. Print a two-sided copy of the document.

> **Notes**
> - If the back side of the copy has vertical streaks, then clean the scanner glass and backing material, and then print another copy.
> - If the streaks still appear, then repeat the cleaning and verification procedure or replace the ADF.

Controller Calibration

> **Warning—Potential Damage**
> Do not perform this operation without specific instructions from the next level of support.

1. Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
2. From the Controller Calibration row, touch **Start**.

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

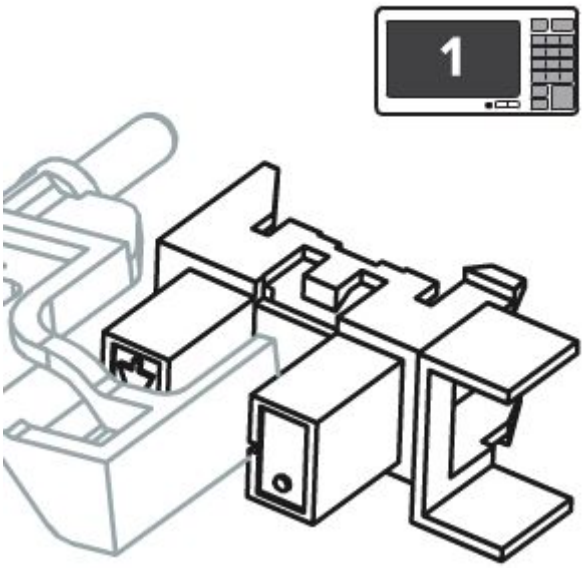
Sensor tests

Notes
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.

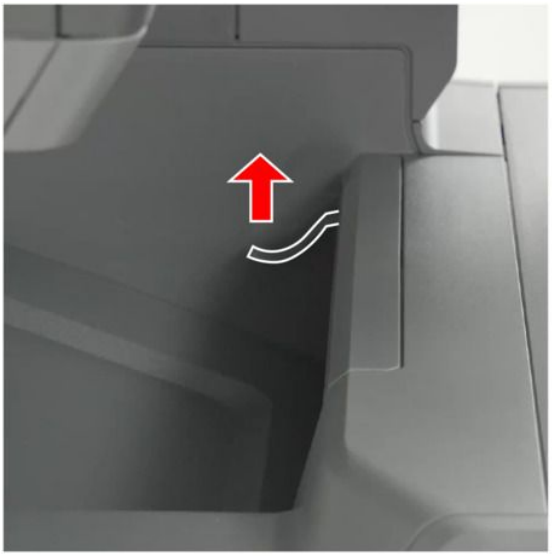


Note:

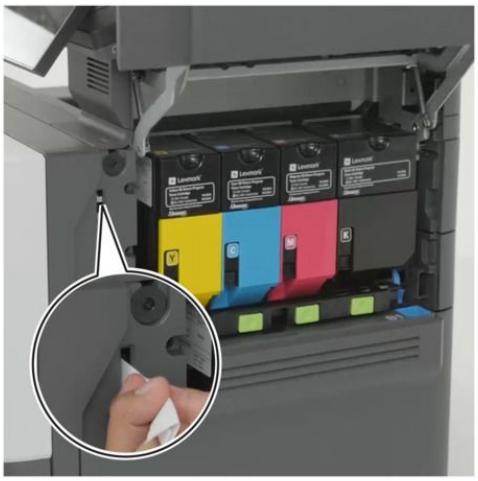
- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of sensor tests

Tests	Notes
Pick roller index (tray 1)	1. Remove the tray insert. 2. Lower the pick roller to toggle the sensor. 
Paper present (tray 1)	
MPF media present	Load or remove paper on the MPF to toggle the sensor.

Tests	Notes
Tray 1 pick	--
MPF/pass-through	--
Input	--
Narrow media	Open the front door to access the sensor. 
Output bin full	Lift the bin flag to toggle the sensor. 
Redrive/Duplex path 1	--
Duplex path 2	--

Tests	Notes
Fuser buckle	Open the front door to access the sensor. 
Fuser exit	Open the fuser access door to access the sensor. 
Fuser nip release home	--

Tests	Notes
Door interlock	1. Open the cartridge door. 2. Toggle the sensor with a folded sheet of paper. 
Pass/Fail Cables	--
Waste Toner Bottle	1. Remove the waste toner bottle. 2. Toggle the sensor with a folded sheet of paper. 

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

Notes
For a video demonstration, see Performing the scanner motor tests.

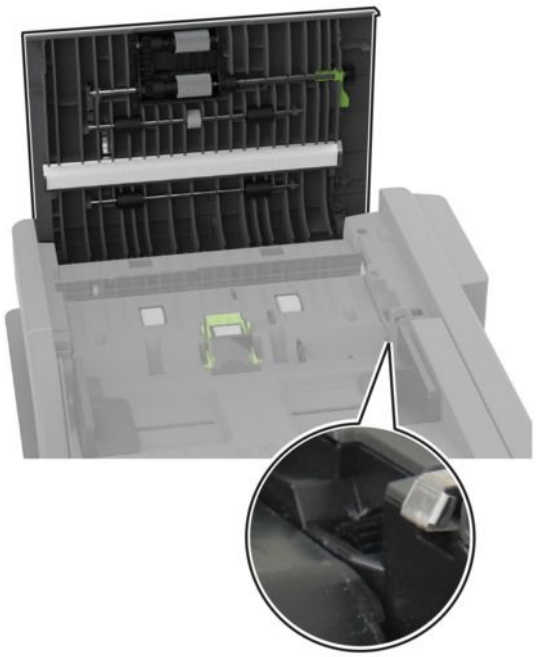
1. Enter the Diagnostics menu, and then select navigate to:

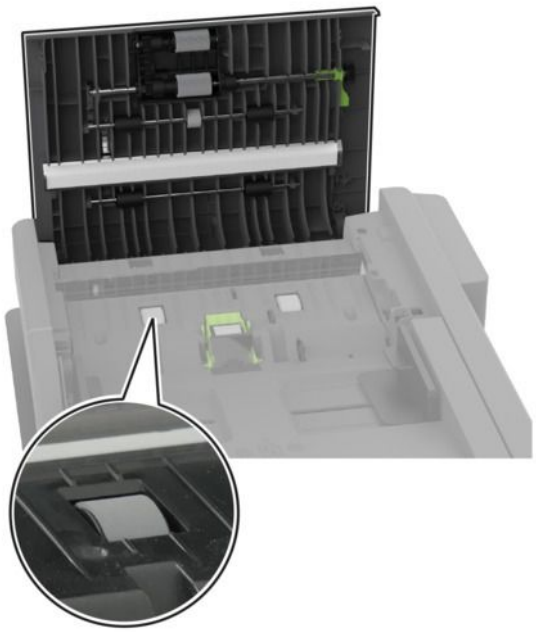
   Scanner diagnostics > Motor tests
2. Select a motor, and then touch **Start**.

Note:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of motor tests

Test	Notes
ADF pick	Open the ADF top cover to view the pick drive gear. 

Test	Notes
ADF transport	Open the ADF top cover to view the ADF feed/exit roller. 
Flatbed scanner	Open the scanner cover to view the flatbed CIS scanner. 

Registration adjust

This setting lets you adjust the skew, margins, or perform a Quick Test. For more information, see Registration adjustment on page 492.

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.

Memory tests

This setting lets you test or flash the printer memory or test or format the printer hard disk.

1. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Memory tests
2. Select a setting.

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**.

Notes
The events that appear in the report vary depending on the operational history of the printer.

Print Log Summary

This setting lists a brief summary of the various printer events.

1. Enter the Diagnostics menu, and then navigate to:

   Event Log > Print Log Summary
2. Touch **Start**.

Notes
The events that appear in the report vary depending on the operational history of the printer.

Mark Log

This setting allows you to create a service, maintenance, or custom log entry. Each log entry is added in the printer event log.

1. Enter the Diagnostics menu, and then navigate to:

   Event Log > Mark Log
2. Select a log that you want to create, and then touch **Start**.

Input tray quick print

Notes
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.

Note:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of sensor tests

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

Notes
For a video demonstration, see Performing the scanner motor tests.

1. Enter the Diagnostics menu, and then select navigate to:

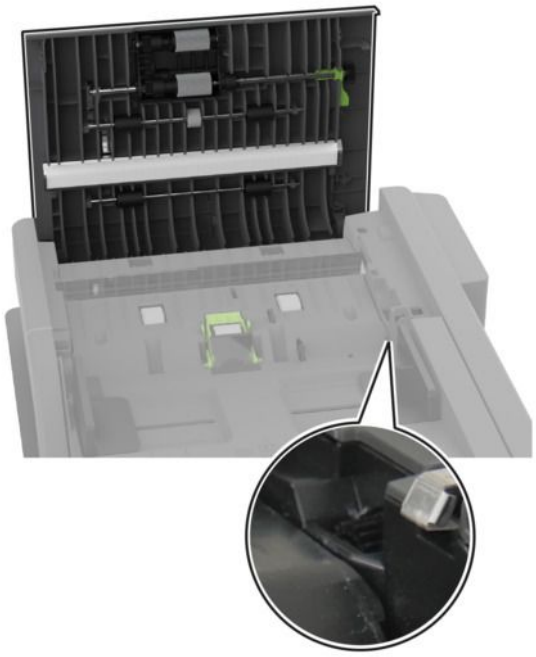
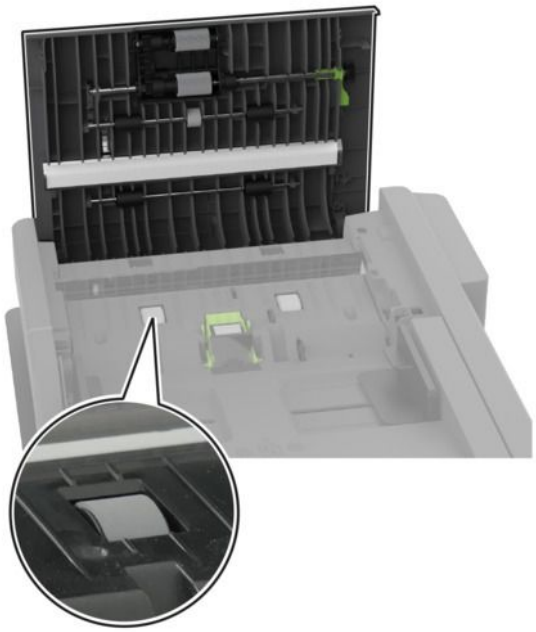
   Scanner diagnostics > Motor tests

2. Select a motor, and then touch **Start**.

Note:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of motor tests

Test	Notes
ADF pick	Open the ADF top cover to view the pick drive gear. 
ADF transport	Open the ADF top cover to view the ADF feed/exit roller. 

Test	Notes
Flatbed scanner	Open the scanner cover to view the flatbed CIS scanner. 

Configuration menu

Entering the Configuration Menu

From the control panel, navigate to:
Settings > Device > Maintenance > Configuration Menu

Configuration Menu

Menu item	Description
USB Configuration USB PnP 1* 2	Change the USB driver mode of the printer to improve its compatibility with a personal computer.
USB Configuration USB Scan to Local On* Off	Set whether the USB device driver enumerates as a USB Simple device (single interface) or as a USB Composite device (multiple interfaces).
USB Configuration USB Speed Full Auto*	Set the USB port to run at full speed and disable its high-speed capabilities.

Menu item	Description
Tray Configuration Size Sensing Tray [x] Sensing Off On*	Set the tray to sense automatically the paper size loaded into it.
Tray Configuration Tray Linking Automatic* Off	Set the printer to link the trays that have the same paper type and paper size settings.
Tray Configuration Show Tray Insert Message Off Only for unknown sizes* Always	Display a message that lets the user change the paper size and paper type settings after inserting the tray.
Tray Configuration A5 Loading Short Edge Long Edge*	Determine the default loading orientation for the A5 size paper in all paper sources.
Tray Configuration Paper Prompts Auto* Multipurpose Feeder Manual Paper	Set the paper source that the user fills when a prompt to load paper appears. **Notes** For Multipurpose Feeder to appear, in the Paper menu, set Configure MP to Cassette.
Tray Configuration Envelope Prompts Auto* Multipurpose Feeder Manual Envelope	Set the paper source that the user fills when a prompt to load envelope appears. **Notes** For Multipurpose Feeder to appear, in the Paper menu, set Configure MP to Cassette.
Tray Configuration Action for Prompts Prompt user* Continue Use current	Set the printer to resolve paper- or envelope-related change prompts.
Tray Configuration Multiple Universal Sizes Off On*	Set the tray to support multiple universal paper sizes.

Menu item	Description
Reports Menu Settings Page Event Log Event Log Summary	Print reports about printer menu settings, status, and event logs.
Supply Usage And Counters Clear Supply Usage History	Reset the supply usage history, such as number of pages and days remaining, to the factory shipped level.
Supply Usage And Counters ITM Reset Reset Black Cartridge Counter Reset Cyan Cartridge Counter Reset Magenta Cartridge Counter Reset Yellow Cartridge Counter Reset Maintenance Counter	Reset the counter after installing a new supply item or maintenance kit.
Supply Usage And Counters Tiered Coverage Ranges	Adjust the amount of color coverage for each printing range.
Printer Emulations PPDS Emulation Off* On	Set the printer to recognize and use the PPDS data stream.
Printer Emulations PS Emulation Off On*	Set the printer to recognize and use the PS data stream.
Printer Emulations Enable Formsmerge Off* On	Activate formsmerge to store the forms into the hard disk or intelligent storage drive (ISD). **Notes** The printer must have a hard disk or an ISD installed.
Printer Emulations Enable Prescribe Off* On	Activate Prescribe. **Notes** The Prescribe license must be installed.
Printer Emulations Emulator Security Page Timeout 0–60 (60*)	Set the page timeout during emulation.

Menu item	Description
Printer Emulations Emulator Security Reset Emulator After Job Off* On	Reset the emulator after a print job.
Printer Emulations Emulator Security Disable Printer Message Access Off On*	Disable access to printer message during emulation.
Fax Configuration Fax Low Power Support Disable Sleep Permit Sleep Auto*	Set fax to enter Sleep mode whenever the printer determines that it must.
Fax Configuration Fax Storage Location NAND Disk*	Set the storage location for all faxes. **Notes** This menu item appears only when a hard disk or an ISD is installed.
Print Configuration Black Only Mode Off* On	Print non-copy jobs in grayscale.
Print Configuration Color Trapping Off 1 2* 3 4 5	Enhance the printed output to compensate for misregistration in the printer.
Print Configuration Font Sharpening 0–150 (24*)	Set a text point-size value below which the high-frequency screens are used when printing font data. For example, if the value is 24, then all fonts sized 24 points or less use the high-frequency screens.

Menu item	Description
Device Operations Quiet Mode Off* On	Set the printer to operate in Quiet Mode. **Notes** Enabling this setting slows down the overall performance of the printer.
Device Operations Panel Menus Off On*	Enable access to the printer menus from the control panel.
Device Operations Safe Mode Off* On	Set the printer to operate in a special mode, in which it attempts to continue offering as much functionality as possible, despite known issues. For example, when set to On, and the duplex motor is nonfunctional, the printer performs one-sided printing of the documents even if the job is two-sided printing.
Device Operations Minimum Copy Memory 80 MB* 100 MB	Set the minimum memory allocation for storing copy jobs.
Device Operations Clear Custom Status	Erase user-defined strings for the Default or Alternate custom messages.
Device Operations Clear all remotely-installed messages	Erase messages that were remotely installed.
Device Operations Automatically Display Error Screens Off On*	Show existing error messages on the display after the printer remains inactive on the home screen for a length of time.
Device Operations Honor orientation on fast path copy Off* On	Enable the printer to use the orientation setting under the Copy menu when sending quick copy jobs.
Toner patch sensor setup Calibration frequency preference Disabled Fewest color adjustments Fewer color adjustments Normal* Better color accuracy Best color accuracy	Set how often color calibration and color alignment is performed.

Menu item	Description
Toner patch sensor setup Full calibration	Optimize print darkness, print linearization, and color alignment.
Toner patch sensor setup Print TPS information page	Print a diagnostic page that contains information on toner patch sensor calibration.
App Configuration LES Applications Off On*	Enable Lexmark Embedded Solutions (LES) applications.
Scanner Configuration Scanner Manual Registration Print Quick Test	Print a Quick Test target page. **Notes** Make sure that the margin spacing on the target page is uniform all the way around the target. If it is not, then the printer margins must be reset.
Scanner Configuration Scanner Manual Registration Front ADF Registration Rear ADF Registration Flatbed Registration	Manually register the flatbed and ADF after replacing the ADF, scanner glass, or controller board.
Scanner Configuration Reset Maintenance Counter	Reset the counter after replacing the ADF maintenance kit.
Scanner Configuration Edge Erase Flatbed Edge Erase (3*) ADF Edge Erase (3*)	Set the size, in millimeters, of the no-print area around an ADF or flatbed scan job.
Scanner Configuration ADF Deskew ADF Electronic Deskew (On*)	Reduce skewing of documents that are scanned from the ADF.
Scanner Configuration Disable Scanner No* Yes ADF Only	Disable the scanner when it is not working properly.

Menu item	Description
Scanner Configuration Tiff Byte Order CPU Endianness* Little Endian Big Endian	Set the byte order of a TIFF-formatted scan output.
Scanner Configuration Exact Tiff Rows Per Strip On* Off	Set the RowsPerStrip tag value of a TIFF-formatted scan output.

Notes
An asterisk (*) next to a value indicates the factory default setting.

Entering Invalid engine mode

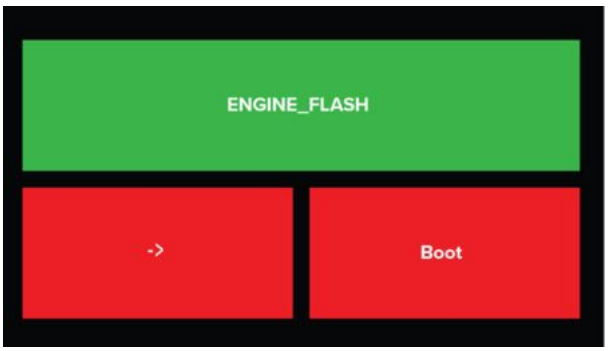
This mode allows the printer to load the correct firmware code. For more information, see Updating the printer firmware.

1. Unplug the power cord from the electrical outlet.
2. Open tray 1.
3. Connect the power cord to the electrical outlet.

   When the display shows the following icon, close tray 1.



4. Touch **->** to navigate the menu that appears on the display, and then select **ENGINE_FLASH**.



> **Notes**
> The selected menu turns green.

5. Touch **Boot**.

Entering Recovery mode

This mode allows the printer to boot from a secondary partition to flash firmware code. For more information, see Flashing the printer firmware on page 486.

1. Turn off the printer.
2. Pull out tray 1.

> **Note:** Make sure that paper is loaded in the tray.

3. Turn on the printer.
4. When the display shows the ellipsis, insert tray 1.



> **Note:** If tray 1 is not inserted, the printer boots normally.

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

- Capture Logs to Internal Storage
- Code Versions
- Debug Level

Network SE

Enter the Service Engineer (SE) menu, and then select **Network SE**.

Notes
Use these settings as directed by the next level of support.

Top level menu	Intermediate menu
History	• Print History • Mark History
MAC	• Set Card Speed • LAA • Keep Alive
NPAP	Print Alerts
TCP/IP	• DHCP Request Options • netstat • arp • Allow SNMP Set • MTU • Meditech Mode • RAW LPR Mode • Garp Interval
Wireless Settings **Notes** This setting is only available if a wireless module is installed.	• Wireless Performance Enhancement • Unset Wireless Region • Disable Wireless 11n • Disable PMF

Top level menu	Intermediate menu
Ping Test	• Ping Address • Attempts • Packet Size • Ping
Other Actions	• ifconfig • IPtables [Firewall Dump] • IP6tables [Firewall Dump] • IPsec Dump
Enable DHCPCD Debugging	N/A
Enable WPA-supplicant Debugging	N/A
Enable Ethernet Gigabit	N/A
Enable Dual-NIC	N/A
Enable BLE	N/A
Netconfig Debug Level	N/A
IPP ICONS	• Delete intermediate icons • Delete current icons

Fax SE

Use this menu for the fax transmission and fax reception service checks.
Enter the Service Engineer (SE) menu, and then select **Fax SE**.

Notes
Use these settings as directed by the next level of support.

Top level menu	Intermediate menu
Agency Test Menu	• Go Off Hook • Ring Detect • Generate Tones • Modulations

Top level menu	Intermediate menu
Fax Settings	• Fax Modulations • FOIP Settings • Miscellaneous Settings • Reset Fax Settings
Modem Settings	• Caller ID Pattern **Notes** Changing the value of this setting also changes the value of the Caller ID setting in the Fax Settings. • Pulse Dial Type • Disable Sending CRP • Dial Wait Time • ANSam Transmit Time
Fax Logs	• Print All T30 Logs • Print CallerID Log • Print Call Log • Print Fax Settings • Print Job Log • Print All T30 Error Logs • Print T30 Log • Print T38 Trace Log • Clear T38 Trace Log • Reboot System
Reboot System	N/A

Scanner SE

Use this setting to view the scanner calibration data.
Enter the Service Engineer (SE) menu, and then select **Scanner SE**.

Reset Device

Erase nonvolatile memory, device and network settings, security settings, and embedded solutions.

Notes

- This menu is available only in FW 221.112 or later.
- To enable the menu, set **Reset Device Modes** to **Allow with FAC** or **Allow**. From the control panel, navigate to **Settings › Security › Miscellaneous › Reset Device Modes**.

Depending on your printer model, do any of the following to enter the menu and reset the printer.

- For 2.4-, 4.3-, 7-, or 10-inch display, select *** * 7 3**, select **OK**, and then select **Out of Service Erase**.
- For 2.8-inch display, select the **Back, Back, Home, Start** buttons in sequence, and then select **Out of Service Erase**.
- For 2-line display, select the **Back, Left, Back, Right** buttons in sequence, and then select **Out of Service Erase**.

Parts removal

Important removal information

Removal precautions

CAUTION—SHOCK HAZARD
The low-voltage power supply (LVPS) and the high-voltage power supply (HVPS) may have residual voltage present. To avoid the risk of electrical shock, do not touch their circuit components or the solder side of the board. Only handle them by their outer edges or metal housing.

CAUTION—SHOCK HAZARD
This product uses an electronic power switch. It does not physically disconnect the input AC voltage. To avoid the risk of electrical shock, always remove the power cord from the printer when removal of the input AC voltage is required.

CAUTION—SHOCK HAZARD
To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.

CAUTION—HOT SURFACE
The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

CAUTION—PINCH HAZARD
To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Précautions de retrait

CAUTION—SHOCK HAZARD
Une tension résiduelle peut être présente dans le bloc d'alimentation basse tension (LVPS) et le bloc d'alimentation haute tension (HVPS). Pour éviter tout risque d'électrocution, ne touchez pas les composants du circuit ou le côté soudure de la carte. Tenez-les uniquement par leurs extrémités ou le boîtier en métal.

CAUTION—SHOCK HAZARD
Ce produit utilise un commutateur d'alimentation électronique. Il ne déconnecte pas physiquement la tension d'alimentation CA. Pour éviter tout risque d'électrocution, débranchez toujours le cordon d'alimentation de l'imprimante lorsque vous devez déconnecter la tension d'alimentation CA.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution et éviter d'endommager l'imprimante, débranchez le cordon d'alimentation de la prise électrique et déconnectez toute connexion à tout périphérique externe avant de brancher ou débrancher des câbles ou circuits et assemblages électroniques.

CAUTION—HOT SURFACE
L'intérieur de l'imprimante risque d'être brûlant. pour réduire le risque de brûlure, laissez la surface ou le composant refroidir avant d'y toucher.

CAUTION—PINCH HAZARD
Pour éviter tout risque de blessure par pincement, agissez avec précaution au niveau des zones signalées par cette étiquette. Les blessures par pincement peuvent se produire autour des pièces mobiles telles que les engrenages, portes, tiroirs et capots.

Precauciones durante la extracción

CAUTION—SHOCK HAZARD
La fuente de alimentación de bajo voltaje (LVPS) y la fuente de alimentación de alto voltaje (HVPS) pueden presentar voltaje residual. Para evitar el riesgo de descarga eléctrica, no toque los componentes del circuito ni el lateral soldado de la placa. Manipule solo los bordes exteriores o la carcasa metálica.

CAUTION—SHOCK HAZARD
Este producto utiliza un interruptor de corriente electrónico. No desconecta físicamente la entrada de voltaje de CA. Para evitar el riesgo de descarga eléctrica, desenchufe siempre el cable de alimentación de la impresora cuando sea necesario retirar la entrada de voltaje de CA.

CAUTION—SHOCK HAZARD
Para evitar el riesgo de descargas eléctricas y daños en la impresora, retire el cable de alimentación de la toma eléctrica y desconecte todas las conexiones a dispositivos externos antes de conectar o desconectar cualquier cable, placa electrónica o conjunto.

CAUTION—HOT SURFACE
El interior de la impresora podría estar caliente. Para evitar el riesgo de heridas producidas por el contacto con un componente caliente, deje que la superficie se enfríe antes de tocarlo.

CAUTION—PINCH HAZARD
Para evitar el riesgo de lesión por atrapamiento, preste atención en las áreas marcadas con esta etiqueta. Las lesiones por atrapamiento se pueden producir en torno a partes móviles, tales como engranajes, puertas, bandejas y cubiertas.

Vorsichtsmaßnahmen bei der Demontage

CAUTION—SHOCK HAZARD
Im Niederspannungsnetzteil (LVPS) und Hochspannungsnetzteil (HVPS) liegt unter Umständen Restspannung vor. Um das Risiko eines elektrischen Schlags zu vermeiden, berühren Sie keine umliegenden Bauteile oder die Lötseite der Platine. Fassen Sie sie nur an den Außenkanten oder am Metallgehäuse an.

CAUTION—SHOCK HAZARD
Dieses Produkt verwendet einen elektronischen Leistungsschalter. Er trennt die Eingangswechselspannung nicht physikalisch. Um das Risiko eines elektrischen Schlags zu vermeiden, ziehen Sie stets das Netzkabel vom Drucker ab, wenn eine Abtrennung der Eingangswechselspannung erforderlich ist.

CAUTION—SHOCK HAZARD
Um das Risiko eines elektrischen Schlags und Schäden am Drucker zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose und trennen Sie alle Verbindungen zu jeglichen externen Geräten, bevor Sie Kabel, Elektronikplatinen oder Baugruppen einstecken oder abziehen.

CAUTION—HOT SURFACE
Das Innere des Druckers kann sehr heiß sein. Vermeiden Sie Verletzungen, indem Sie heiße Komponenten stets abkühlen lassen, bevor Sie ihre Oberfläche berühren.

CAUTION—PINCH HAZARD
Um das Risiko einer Quetschung zu vermeiden, gehen Sie in Bereichen, die mit diesem Etikett gekennzeichnet sind, mit Vorsicht vor. Quetschungen können im Bereich von beweglichen Komponenten auftreten, wie z. B. Zahnrädern, Klappen, Fächern und Abdeckungen.

Handling ESD-sensitive parts

To prevent damage to the electrostatic discharge (ESD)-sensitive parts in the printer, do the following:

- Turn off the printer before removing logic boards.
- Keep the parts in their original packing material until you are ready to install them into the printer.
- Make the least-possible movements with your body to prevent an increase 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 instructions for replacing and diagnosing the controller board

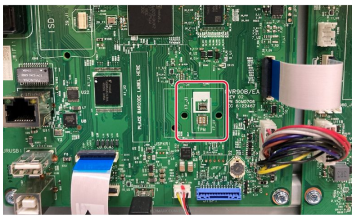
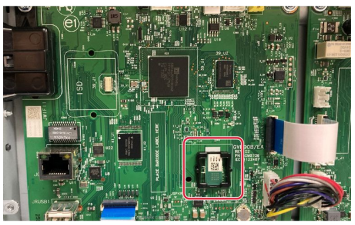
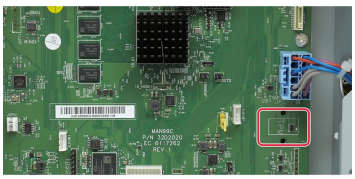
Controller boards may include one of the following Trusted Platform Module (TPM) configurations:

- Permanent TPM
- Removable TPM
- No TPM

Replacement boards may not match the TPM type installed in the printer, so the required service action depends on both the printer controller board and the replacement part.

To determine the correct procedure, follow these steps:

1. Identify the TPM type installed in the printer. Examine the controller board and determine whether it has:

Permanent TPM	Removable TPM	No Installed TPM
		

2. Check the TPM configuration of the replacement controller board. Replacement service parts come with one of the following configurations:

Controller board configuration	Description
Permanent TPM	Board includes a permanently mounted TPM.
Removable TPM	Board includes no TPM, and the TPM is packaged separately for installation.
No TPM	Board includes no TPM, and no TPM is supplied in the box.

3. Use the following table for reference before replacing the controller board in the printer.

Service part TPM type	Printer TPM type		
	Permanent TPM	Removable TPM	No TPM
Permanent TPM	Replace the printer controller board.	Replace the printer controller board.	Replace the controller board. If prompted to use the secure element, then select **No**.
Removable TPM	Insert the service part TPM into the service part controller board, and then replace the printer controller board.	Insert the service part TPM into the service part controller board, and then replace the printer controller board.	Use only the service part controller board. Do not install the service part TPM.
No TPM	Not compatible. Order a service part TPM to use with the service part controller board.	Insert the printer TPM into the service part controller board, and then replace the printer controller board.	Replace the printer controller board.

Note:
When installing a controller board that has no TPM, the new board adds security features to the printer. Because of this, the storage device must be reformatted, which will result in data loss.

Controller board replacement

Before replacing the controller board, read the following precautions:

Warning—Potential Damage:

- To avoid NVRAM issues, replace only one of the following components at a time:
  - Controller board
- If a storage device is installed, then it must be reformatted to work with the new TPM.
- Confirm if replacing the controller board is necessary. After a new controller board is installed and the printer powers on normally, the board cannot be used in another printer.

Notes

- Practice entering **Diagnostics** mode before replacing the part.
- Follow all required procedures when handling the old controller board and its TPM.
- Export the eSF solutions and settings from the printer before replacing the controller board, if possible. For more information, see Backing up eSF solutions and settings.

1. Replace the controller board. For more information, see Controller board removal on page 587.

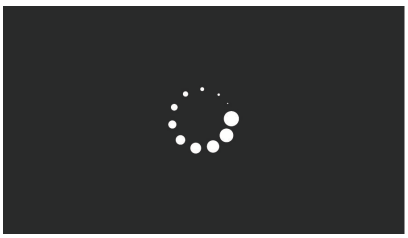
   Warning—Potential Damage:
   Do not power on the printer normally until the issue is resolved. Power it on in **Diagnostics** mode to verify whether the problem persists.

   Note: We recommend that the printer firmware is updated to the latest version after replacing the controller board.

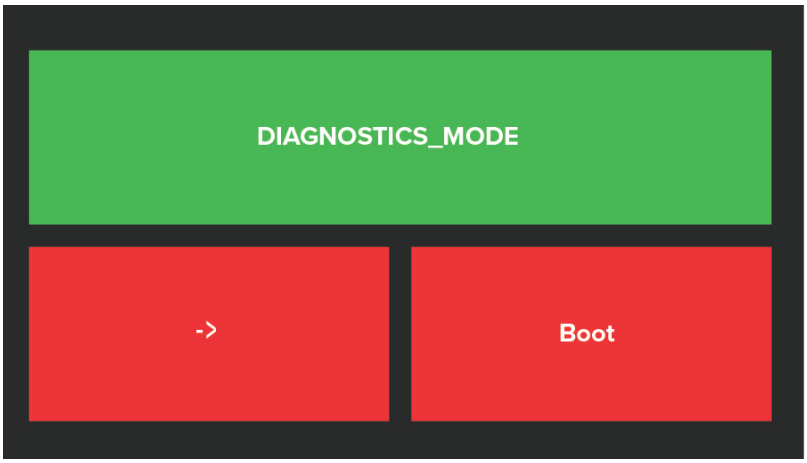
2. Enter the **Diagnostics** mode.
   a. Open tray 1.

      Note: Make sure that paper is loaded in the tray.

   b. Turn on the printer.
   c. When the following icon appears on the display, close tray 1.

   d. From the menu that appears on the display, select **DIAGNOSTICS_MODE**.



Warning—Potential Damage:
If **DIAGNOSTICS_MODE** is not selected within five seconds, the printer performs a Power-On Reset (POR). If a POR occurs at this stage, the replacement part can no longer be used in another printer.

Notes

- If the **DIAGNOSTICS_MODE** does not appear, then touch **->** until it appears.
- The selected option turns green. If an asterisk (*) appears next to **DIAGNOSTICS_MODE**, tap it again until the asterisk is removed.

3. Check if the problem is resolved.
   - If the problem is not resolved—Turn off the printer, and then install the old part.
   - If the problem is resolved—Perform a POR.

Restoring the printer configuration

Restore the printer to its correct configuration to complete the replacement service. Use the Service Restore Tool utility to download the software bundle, and then flash the printer settings and embedded solutions.

Notes

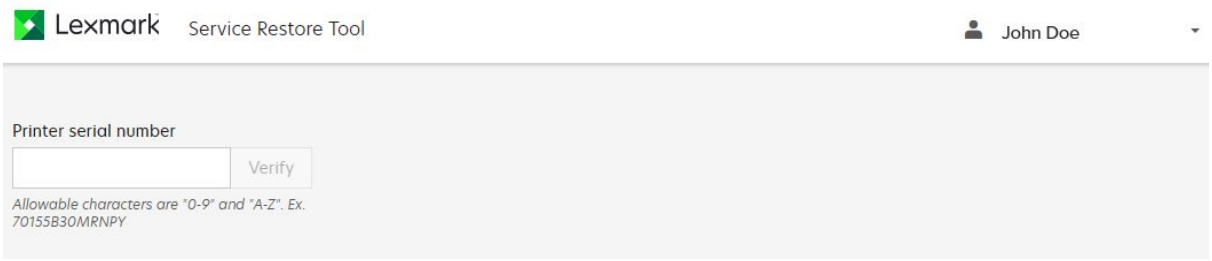
- If you do not have access to the Service Restore Tool, then contact your next level of support.
- The software bundle contains the latest version of the firmware, applications, and software licenses from the Lexmark CFM and Package Builder. The printer firmware may be at a different level from what is used before replacement of the part.

Using the Service Restore Tool

1. Go to https://iss.lexmark.com/cdp/service-restore-tool/.
2. Log in using your Lexmark or partner login.

   If your login fails, then contact your next level of support.

3. Enter the printer serial number, and then submit the information.

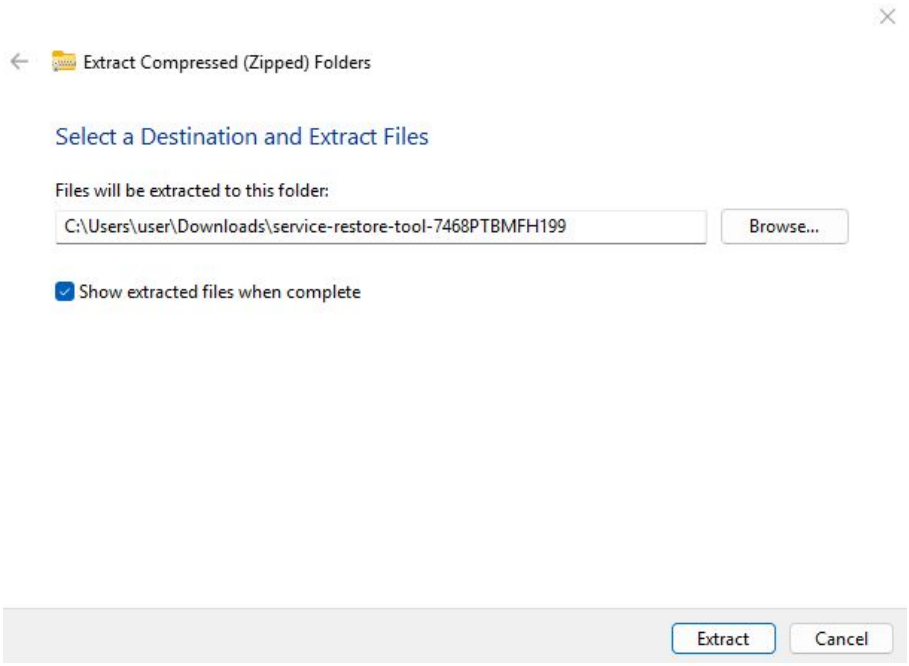


Note: Make sure that the model name and serial number that appear on the verification screen is correct.



4. Click **Download restoration package**, and then click **Download**.
5. Save the zip file.

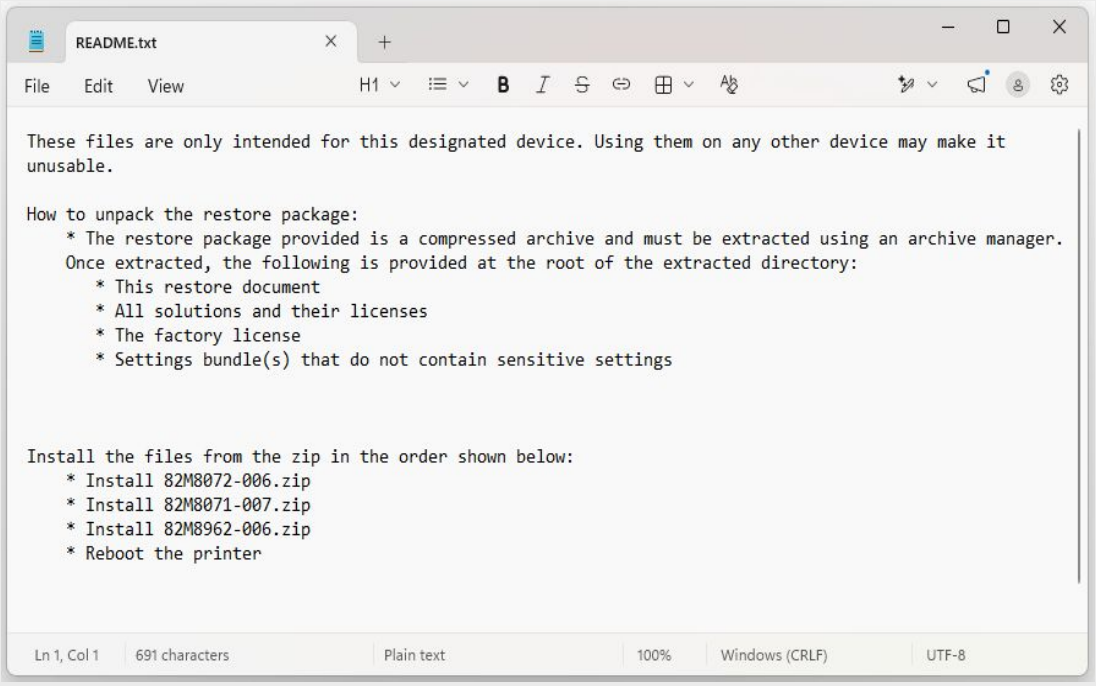
Note: Make sure that the serial number in the zip file matches the serial number of the printer being restored.



6. Extract the contents of the service restore tool, 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.



- To load the zip files that are extracted from Service Restore Tool, see Restoring solutions, licenses, and configuration settings on page 481.

7. If the printer had Lexmark eSF apps previously installed, then confirm from the customer if all the eSF apps have been installed after performing the installation instructions in the *Readme* file.

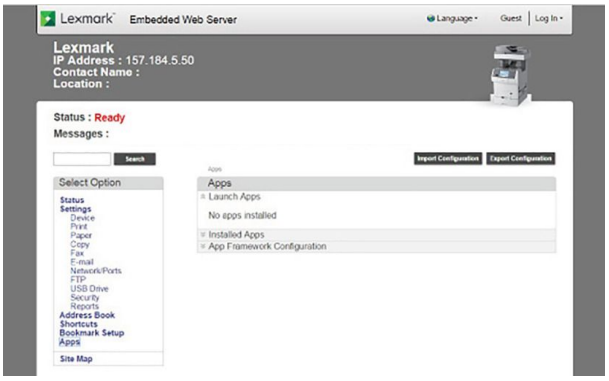
Notes

- If you are unable to access the administrative menus to verify that the printer is restored, then ask the customer for access rights.
- If a 10.00 error appears after you restart the printer, then contact the next level of support.

Restoring solutions, licenses, and configuration settings

To load extracted files from the Service Restore Tool, do the following:

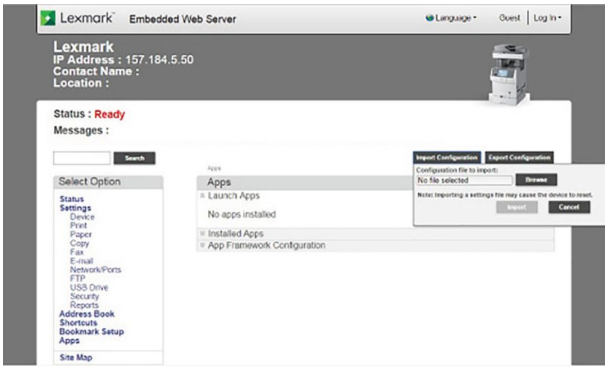
1. Open a web browser, and then type the printer IP address.



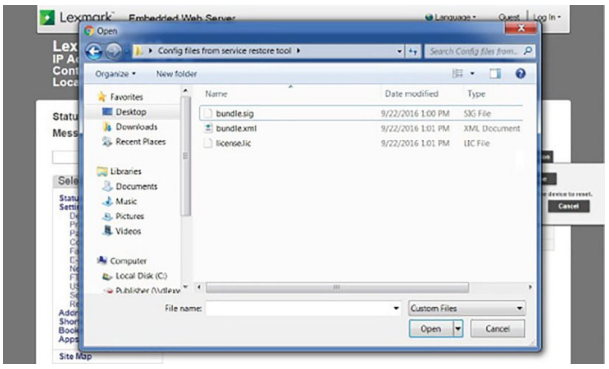
Notes

- You can find the IP address at the top of the printer display.
- Make sure that the printer and computer are connected to the same network.

2. Click **Import Configuration**, and then click **Browse**.



3. Navigate to the folder that contains the extracted files from the Service Restore Tool.



4. Select a file, and then click **Import**.
5. Repeat step 2 through step 4 for the remaining files.

Printer firmware instructions

Checking the printer firmware version

Using the Embedded Web Server

1. Open a web browser, and then type the printer IP address in the address field.

   Notes
   - You can find the IP address at the top of the printer display.
   - Make sure that the printer and computer are connected to the same network.

2. Click **Reports › Device › Device Information**.
3. Look for **Base**.

   Note: The firmware version appears as sets of letters and numbers separated by periods. For example, ABCDE.123.123.

Using the control panel

1. From the control panel, navigate to **Settings › Device › About this Printer**.
2. Look for **Firmware Version**.

   Note: The firmware version appears as sets of letters and numbers separated by periods. For example, ABCDE.123.123.

Downloading the printer firmware

Note: Download the firmware only if you plan to update it using the Embedded Web Server with a firmware flash file or a flash drive.

1. Go to www.lexmark.com/downloads, and then click **Drivers & downloads**.
2. In the **Search by Device Model** field, type the printer model, and then click **Find Drivers & Downloads**.
3. In the **Recommended Firmware** section, **Download Firmware Package**.
4. Accept the End-User License Agreement, and then click **Start Download**.

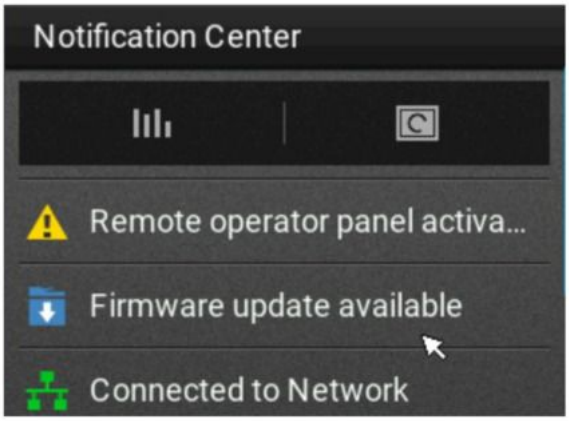
Updating firmware

Updating the firmware using the control panel

Keeping your printer firmware updated helps it run efficiently and securely. Firmware updates can improve performance, add new features, fix firmware or hardware issues, and enhance the security of your printer and network.

Using Notification Center

1. From the home screen, select the notification icon to go to the Notification Center screen.
2. Select **Firmware update available**.



3. Select **Install now**.



The printer restarts automatically after the update.

Using the Settings menu

1. From the control panel, navigate to **Settings › Device**.
2. Depending on your printer model, do either of the following:

- Select **Firmware Update › Check for updates**.
- Select **Update firmware › Check for updates now**.

3. If an update is available, then select **Install now**.

The printer restarts automatically after the update.

Updating the firmware using the Embedded Web Server

Keeping your printer firmware up-to-date helps it runs efficiently and securely. Firmware updates can improve performance, add new features, fix firmware or hardware issues, and enhance the security of your printer and network.

Using the update button

1. Open a web browser, and then type the printer IP address in the address field.

   Notes
   - You can find the IP address at the top of the printer display.
   - Make sure that the printer and computer are connected to the same network.

2. Click **Device**.
3. Depending on your printer model, do either of the following:
   - Select **Firmware Update › Check for updates**.
   - Select **Update firmware › Check for updates now**.

   Note: If **Firmware Update** or **Update firmware** does not appear, make sure that you are logged in to the printer as an administrator.

4. If an update is available, then select **Install now**.

The printer restarts automatically after the update.

Using the firmware flash file (.fls)

Before you begin, make sure that:

- The printer and computer are connected to the same network.
- You have downloaded the firmware file (.fls). For more information, see Downloading the printer firmware on page 483.

1. Open a web browser, and then type the printer IP address in the address field.

Notes
- You can find the IP address at the top of the printer display.
- Make sure that the printer and computer are connected to the same network.

2. Click **Device**.
3. Click **Firmware Update**.

Note: If **Firmware Update** or **Update firmware** does not appear, make sure that you are logged in to the printer as an administrator.

4. In the **Update Firmware from File** section, click **Browse**.
5. Search, and then select the **.fls** file.
6. Click **Upload**.

The printer restarts automatically after the update.

Flashing the printer firmware

Warning—Potential Damage
Download the correct firmware file for the printer model. Flashing an incorrect file in **Recovery** or **Invalid Engine** mode can damage the printer and prevent it from starting.

Note: To download the firmware, see Downloading the printer firmware on page 483.

For a Windows computer and a network-connected printer

The printer must be connected to the network using an Ethernet cable.

1. Restart the printer in **Recovery Mode**. For more information, see Entering Recovery mode on page 469.

Note: These instructions also apply to printers in **Invalid Engine** mode.

2. Obtain the printer IP address.

Notes
- The printer may take time to obtain an IP address.
- The IP address may differ from the previously assigned address.

3. Download winbidi.exe and save it to the same location as the firmware file.
4. Open the command prompt on the computer.
5. Change to the directory that contains the firmware file, and then type **`winbidi.exe <printer_ip_address:9400> <firmware_file>`**.

Note: This command uses **winbidi.exe** to send the firmware file through port **9400**.

For example, **`winbidi.exe 192.168.100.100:9400 CSTZJ.223.308.fls`**, where:
- **`192.168.100.100`** is the printer IP address.

- ***CSTZJ.223.308.fls*** is the firmware file.

The printer display shows that the printer is reading the firmware file. The printer restarts automatically after receiving the complete file.

For a Windows computer and a USB-connected printer

The printer must be connected to the computer using a USB cable.

1. Restart the printer in **Recovery Mode**. For more information, see Entering Recovery mode on page 469.

   Note: These instructions also apply to printers in **Invalid Engine** mode.

2. Download winbidi.exe and save it to the same location as the firmware file.
3. From the computer, open the command prompt.
4. Change to the directory that contains the firmware file, and then type **`winbidi.exe <printer_port> <firmware_file>`**.

   Note: This command uses **winbidi.exe** to send the firmware file through the printer port, usually **USB1**.

   For example, **`winbidi.exe USB1 CSTZJ.223.308.fls`**, where:
   - ***USB1*** is the printer port.
   - ***CSTZJ.223.308.fls*** is the firmware file.

The printer display shows that the printer is reading the firmware file. The printer restarts automatically after receiving the complete file.

For a Mac or Linux computer and a network-connected printer

The printer must be connected to the network using an Ethernet cable.

1. Restart the printer in **Recovery Mode**. For more information, see Entering Recovery mode on page 469.

   Note: These instructions also apply to printers in **Invalid Engine** mode.

2. Obtain the printer IP address.

   Notes
   - The printer may take time to obtain an IP address.
   - The IP address may differ from the previously assigned address.

3. Open the command prompt on the computer.
4. Change to the directory that contains the firmware file, and then type **`nc <printer_ip> 9400 < <firmware_file>`**.

   Note: This command uses Netcat, which is installed on Linux and Mac by default, to send the firmware file through port **9400**.

   For example, **`nc 192.168.100.100 9400 < CSTZJ.076.308.fls`**, where:

- ***192.168.100.100*** is the printer IP address.
- ***CSTZJ.076.308.fls*** is the firmware file.

The printer display shows that the printer is reading the firmware file. The printer restarts automatically after receiving the complete file.

Backing up eSF solutions and settings

> **Notes**
> Export the eSF solutions and settings from the printer before replacing the controller board.

Exporting eSF solutions and settings file

1. Reset the printer into Invalid engine mode. See Entering Invalid engine mode on page 468.
2. Open a web browser, and then type the printer IP address.

   > **Notes**
   > If the web page cannot be accessed or an error occurs when starting the printer into Invalid engine mode, then data backup is not an option. Inform the customer that the data cannot be saved.

3. Click **Apps**, click **Export Configuration**, and then select one of the options in the dropdown menu.
4. Click **Export**.

   > **Notes**
   > The size limit of the export file is 128 KB.

Installing the printhead

This sheet contains information about the two printhead types used in this printhead assembly. Both types are compatible and use the same part number.

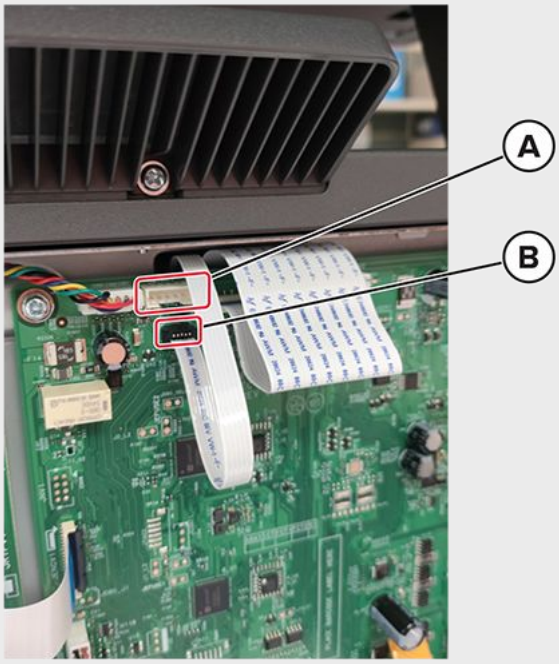
1. Identify the replacement printhead. Refer to the following table to identify the printhead type.

Printhead with a flat cable	Printhead with a round cable
	

2. Remove the printhead. For more information, see the Printhead removal on page 592.
3. Install the replacement printhead.

Installation Notes

- If the printhead has a round cable, connect it to port (A).
- If the printhead has a flat cable, connect it to port (B).



Importing a configuration file

Importing a configuration file lets you apply previously saved settings to your printer. This is useful when restoring a backup or setting up another printer with the same configuration.

1. Open a web browser, and then type the printer IP address in the address field.

   Notes

   - You can find the IP address at the top of the printer display.
   - Make sure that the printer and computer are connected to the same network.

2. In the Embedded Web Server, click **Import Configuration**.
3. Browse to the location where the file is saved.

   Note: Depending on the configuration that you selected, the files are saved in either ZIP or CSV format.

4. Click **Import**.

Exporting a configuration file

Exporting a configuration file lets you save the current settings of your printer to a file, which you can use as a backup or apply to another printer.

1. Open a web browser, and then type the printer IP address in the address field.

Notes

- You can find the IP address at the top of the printer display.
- Make sure that the printer and computer are connected to the same network.

2. In the Embedded Web Server, click **Export Configuration**.
3. Select a configuration to export.

Note: Depending on the configuration that you selected, the files are exported in either ZIP or CSV format.

Adjustments

Printhead alignment adjustment

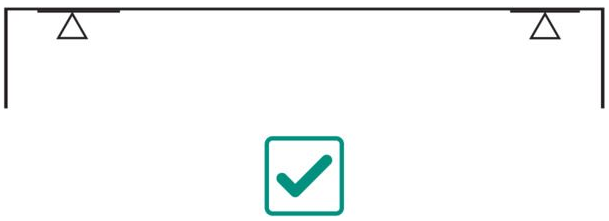
Printhead misalignment may cause crooked or skewed print. Perform this procedure after replacing the printhead or if there are skewed print issues.

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:



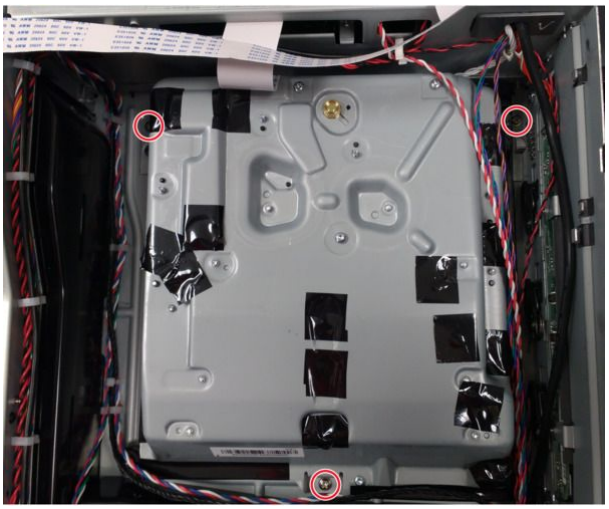
Aligning a printhead skewed in the counterclockwise direction

In most cases, the printhead is skewed counterclockwise, as shown in the following test page result.



1. Tilt the ADF and flatbed scanner. See Tilting the ADF and flatbed scanner to access parts on page 637.
2. Remove the bin cover. See Bin cover removal on page 590.

3. Loosen the three screws.



4. Adjust the printhead until the front left corner of the printhead touches the printhead stop (A).



5. Print another test page, and then check if the printhead is aligned.
6. Repeat step 4 through step 5 until the printhead is aligned.
7. Tighten the three screws.

Registration adjustment

Image misalignments can occur after printhead replacement. Perform the succeeding procedures to correct the position of the image relative to the paper edges.

Note:

- You cannot perform mechanical registration or skew adjustments on the printhead.
- Before performing the procedures, make sure that the tray guides are properly set and the paper settings on the printer match the size of the paper loaded in the tray.

Adjusting the skew

The skew adjustment changes the angle of the horizontal lines so that the lines are aligned with the leading edge of the page. As the skew setting is changed, the top line on the test page stays in place at the left end, while its right end tilts up or down. All horizontal lines on the page tilt at that same angle while the vertical lines remain at the same angle.

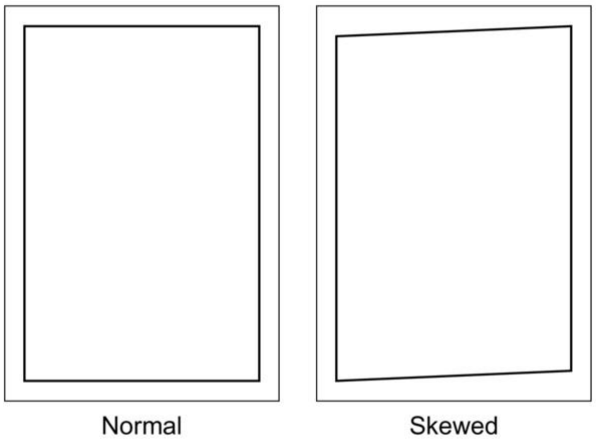
Changing the skew setting moves the right edge of the page up or down, and changes the angle of the top and bottom lines. If the skew is properly adjusted, the horizontal line at the top of the page is parallel to the leading edge of the page.

To check for skew:

1. Enter the Diagnostics menu.
   a. From the home screen, touch .
   b. Touch ****36**, and then touch **OK**.
2. Navigate to:

   Printer diagnostics & adjustments > Registration adjust
3. Select **Quick Test**, and then touch **Start**.

   The printer prints a test page.



Notes
If there is no skew on the page, then see Adjusting the margins.

To adjust the skew:

1. Enter the Diagnostics menu.
   a. From the home screen, touch .
   b. Touch ****36**, and then touch **OK**.
2. Navigate to:

   Printer diagnostics & adjustments > Registration adjust > Top skew
3. Specify the value. The value range is from -100 to 100.

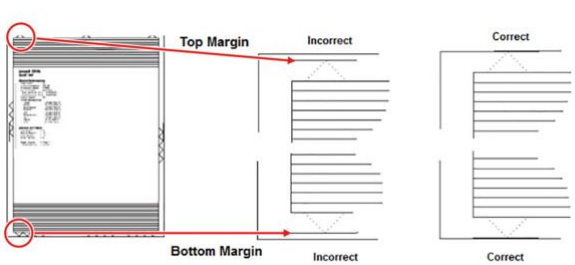
   Note:
   - Raising the value of the skew rotates the horizontal lines clockwise. The left end of the line remains in the same place and the right end moves downward.
   - Decreasing the value of the skew rotates the horizontal lines counterclockwise. The left end of the line remains in the same place and the right end moves upward.
4. Touch **OK**.
5. Print a Quick test page to verify the change.
6. Repeat step 1 through step 4 until the horizontal line is properly aligned with the leading edge of the page.
7. Check for proper margin alignment. See Adjusting the margins.

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 type and size of the paper loaded in the tray.
4. Enter the Diagnostics menu, and then navigate to **Printer diagnostics & adjustments > Registration adjust**.
5. 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.

   Note:
   - 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.

Note:
- 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.

Adjusting the color alignment

The Color alignment procedure is performed on the cyan, magenta, and yellow colors only.

1. Enter the Diagnostics menu.
   a. From the home screen, touch .
   b. Touch ****36**, and then touch **OK**.
2. Navigate to:

   Printer diagnostics & adjustments > Color alignment adjust

   On the AA Adjustment row, touch **Start**.
3. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Color alignment adjust > Cyan > Quick test

   Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.
4. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Color alignment adjust > Yellow > Quick test

   Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.
5. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > Color alignment adjust > Magenta > Quick test

   Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.
6. If color misalignment still occurs, then repeat step 1 through step 4.

Scanner Manual Registration

Use this setting to register the flatbed and ADF on the scanner. Perform a registration adjustment whenever the ADF, flatbed, or controller board is replaced.

Notes
This setting does not appear if the Disable Scanner setting is set to Auto Disabled.

For more information on adjusting the scanner registration, see ADF registration adjustment on page 496 and Flatbed registration adjustment on page 496.

ADF registration adjustment

1. From the home screen, navigate to:

   Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > Scanner Manual Registration
2. From the Print Quick Test section, touch **Start**.
3. Place the test page faceup on the ADF, and then select **Front ADF Registration**.
4. From the Copy Quick Test section, touch **Start**.
5. Compare the pages from the print quick and copy quick tests.
6. Adjust the value of the top margin and vertical magnification settings.
7. Apply the changes.
8. Repeat step 2 through step 7 to make further adjustments.
9. From the Print Quick Test section, touch **Start**.
10. Place the quick test page facedown on the ADF, and then select **Rear ADF Registration**.
11. From the Copy Quick Test section, touch **Start**.
12. Compare the pages from the print quick and copy quick tests.
13. Adjust the value of the top margin settings.
14. Apply the changes.
15. Repeat step 9 through step 14 to make further adjustments.

Flatbed registration adjustment

1. From the home screen, navigate to:

   Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > Scanner Manual Registration
2. From the Print Quick Test section, touch **Start**.
3. Place the test page on the flatbed, and then select **Flatbed Registration**.
4. From the Copy Quick Test section, touch **Start**.
5. Compare the pages from the print quick and copy quick tests.
6. Adjust the value of the top margin, left margin, and vertical magnification settings.
7. Apply the changes.
8. Repeat steps 2 through step 7 to make further adjustments.

TPS characterization data entry

Notes
This procedure only applies to a new sensor (TPS).

Follow the instructions on the accompanying FRU sheet of the sensor (TPS).

Removal procedures

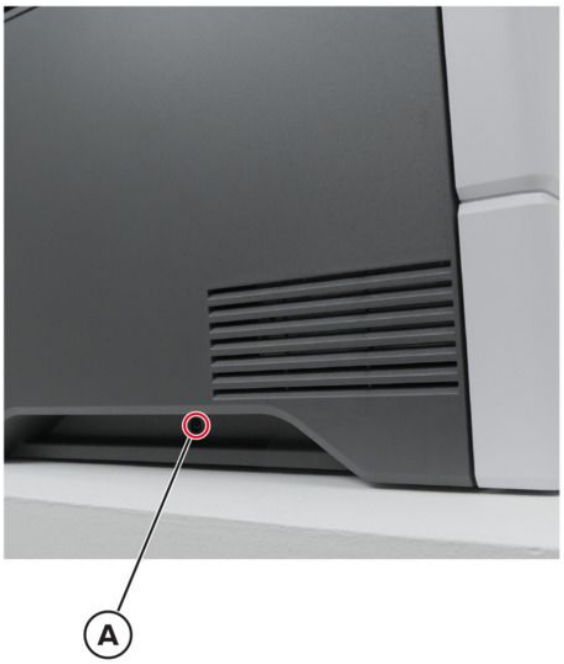
Keep the following tips in mind as you replace parts:

- Some removal procedures require removing cable ties. 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.

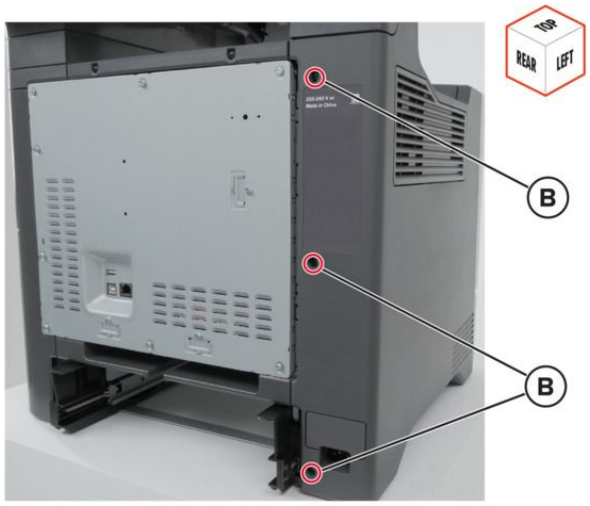
Left side removals

Left cover removal

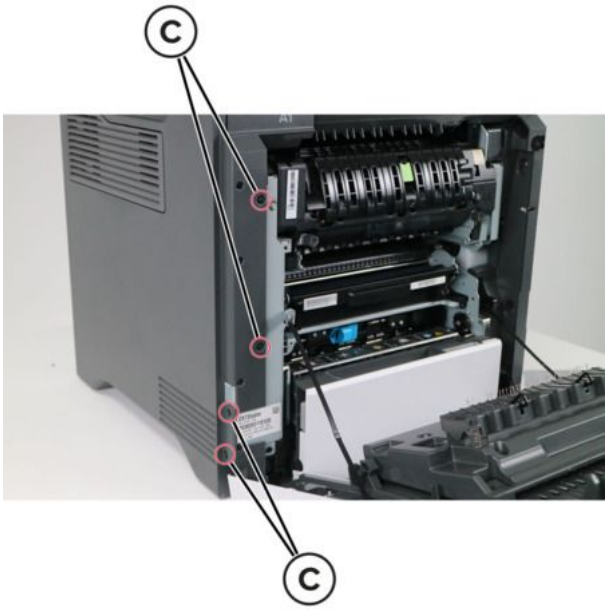
1. Remove the screw (A).



2. Remove the three screws (B).

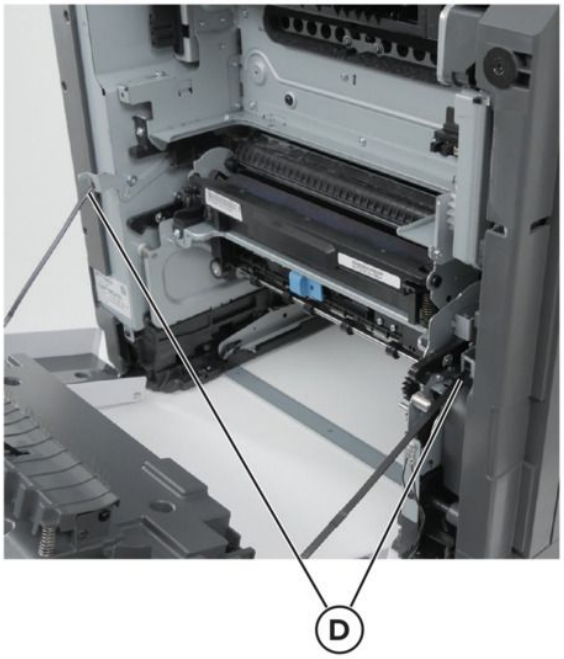


3. Remove the four screws (C).



4. Release the straps (D) to loosen the door.

> **Warning—Potential Damage**
> Make sure that the door does not fall.

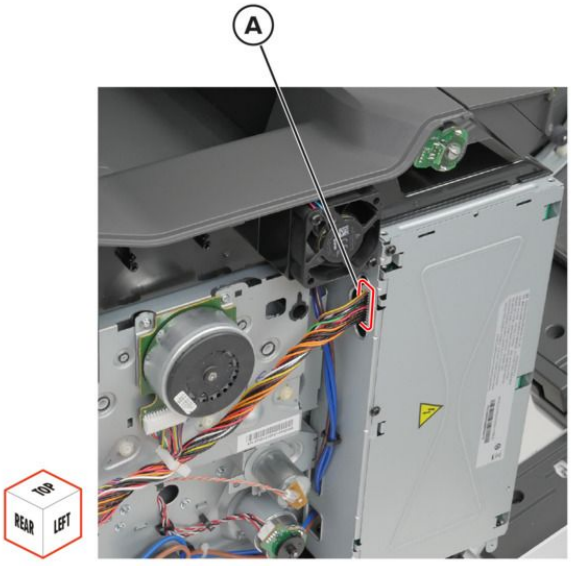


5. Remove the left cover.

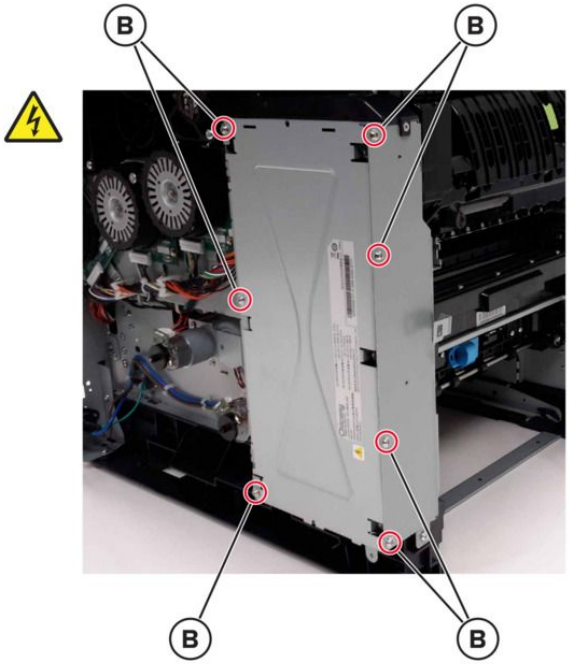
LVPS removal

Notes
For a video demonstration, see Replacing the LVPS.

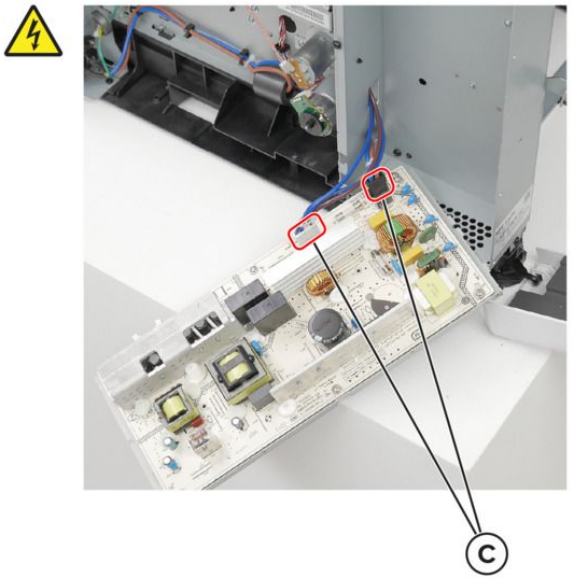
1. Remove the left cover. See Left cover removal on page 497.
2. Disconnect the cable (A).



3. Remove the seven screws (B), and then pull the LVPS.



4. Disconnect the cables (C).



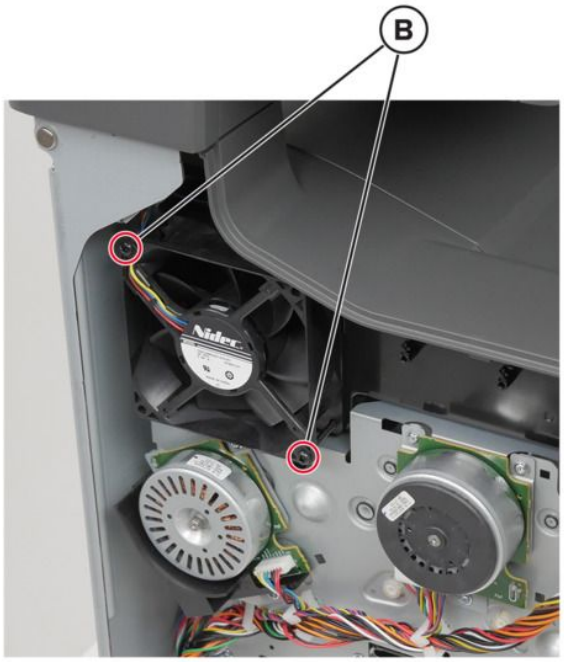
5. Remove the LVPS.

Main fan removal

1. Remove the left cover. See Left cover removal on page 497.
2. Remove the controller board shield. See Controller board shield removal on page 583.
3. Disconnect the cable (A).



4. Remove the two screws (B).



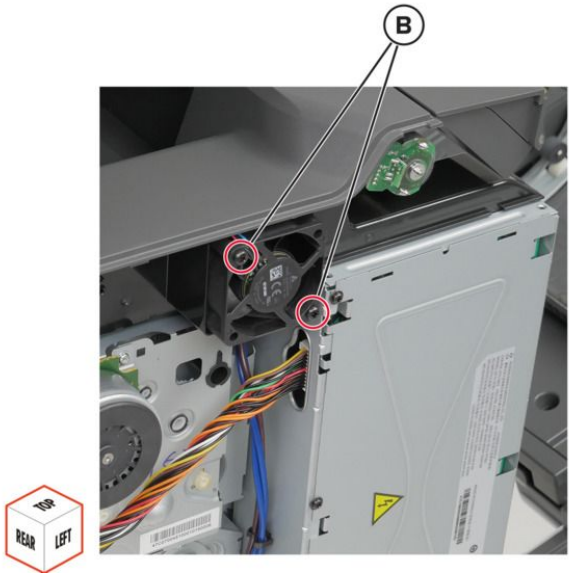
5. Remove the fan.

Fuser fan removal

1. Remove the left cover. See Left cover removal on page 497.
2. Remove the controller board shield. See Controller board shield removal on page 583.
3. Disconnect the cable (A).



4. Remove the two screws (B).



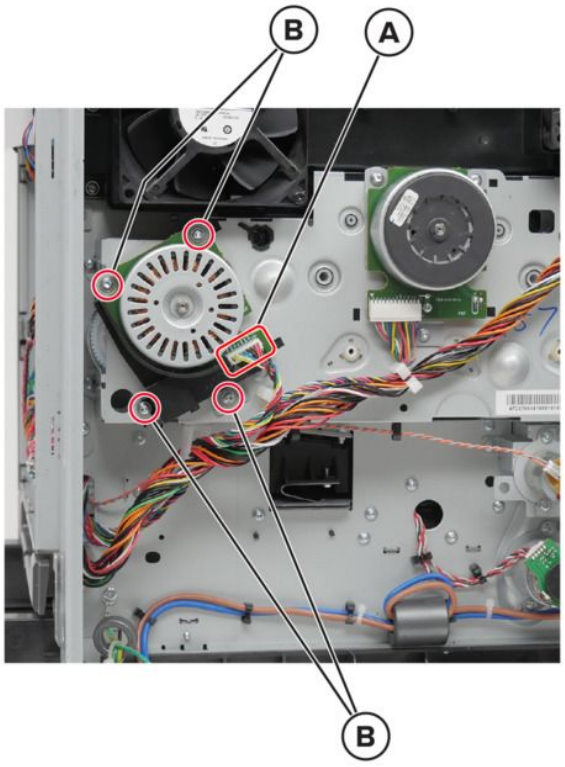
5. Release the cable from its guides, and then remove the fan.

> **Installation Note**
> Pay attention to the cable route.

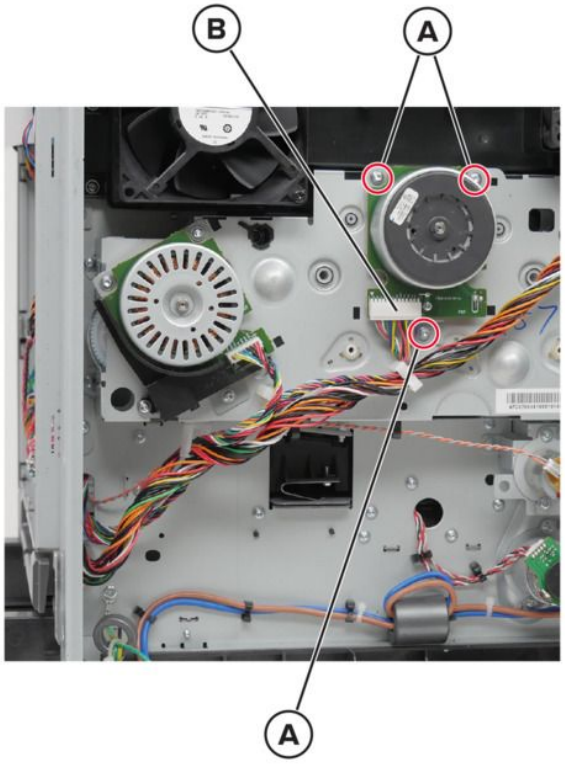


Motor (EP drive) removal

1. Remove the left cover. See Left cover removal on page 497.
2. Disconnect the cable (A), and then remove the screws (B).
    - Motor (K/transfer belt)



    - Motor (CMY)

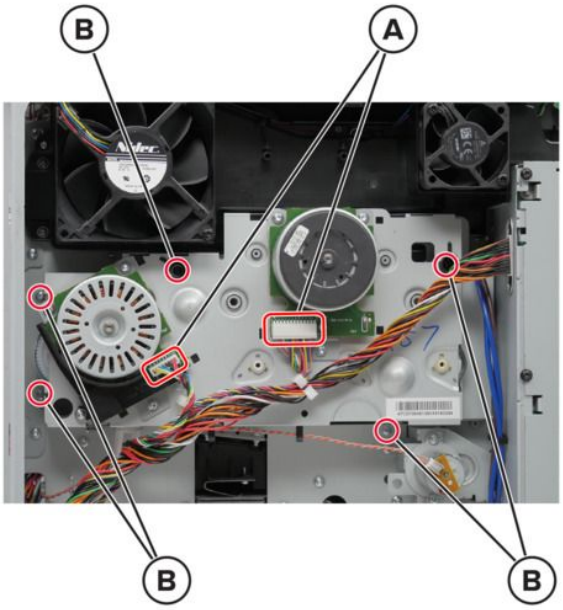


3. Remove the motor.

EP drive gearbox removal

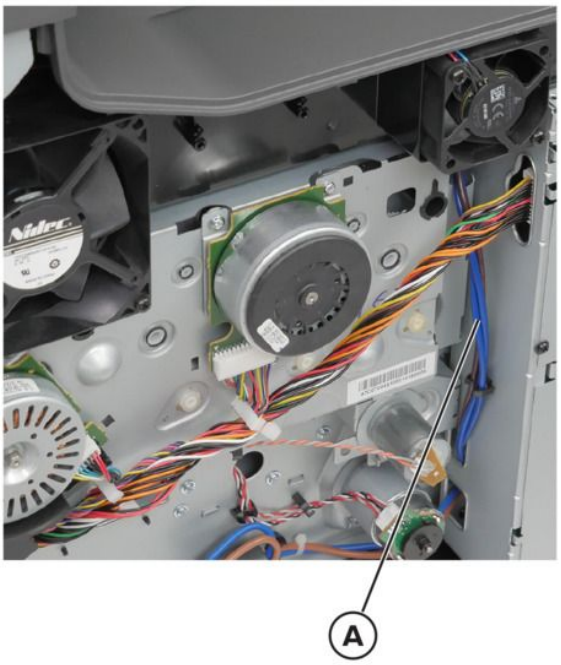
Notes
For a video demonstration, see Replacing the EP drive gearbox.

1. Remove the left cover. See Left cover removal on page 497.
2. Disconnect the cables (A), and then remove the five screws (B).

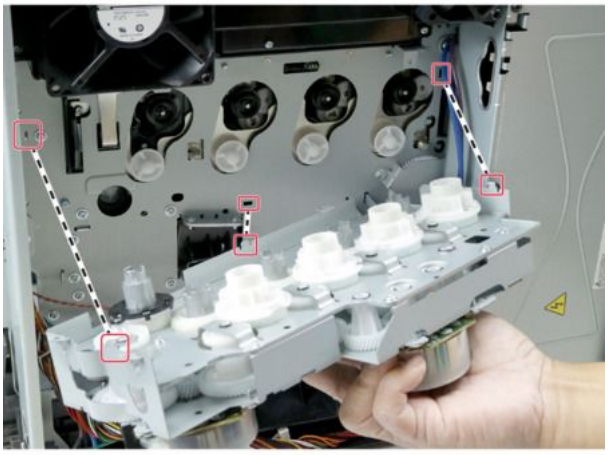


3. Lift up the gearbox to free the hooks from the frame, and then slowly remove the gearbox.

Warning—Potential Damage
The right edge of the gearbox may be sharp. Be careful not to cut the cables (A).

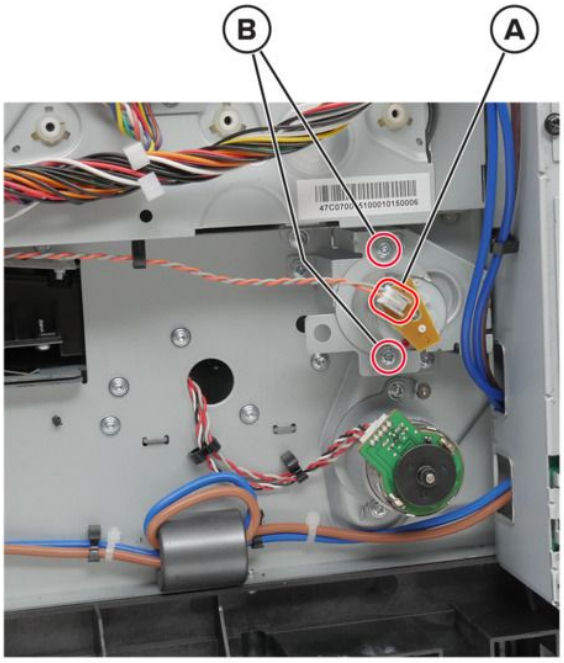


Installation Note
Make sure to align the locating tabs with their corresponding slots.



Motor (BOR) removal

1. Remove the left cover. See Left cover removal on page 497.
2. Disconnect the cable (A), and then remove the two screws (B).



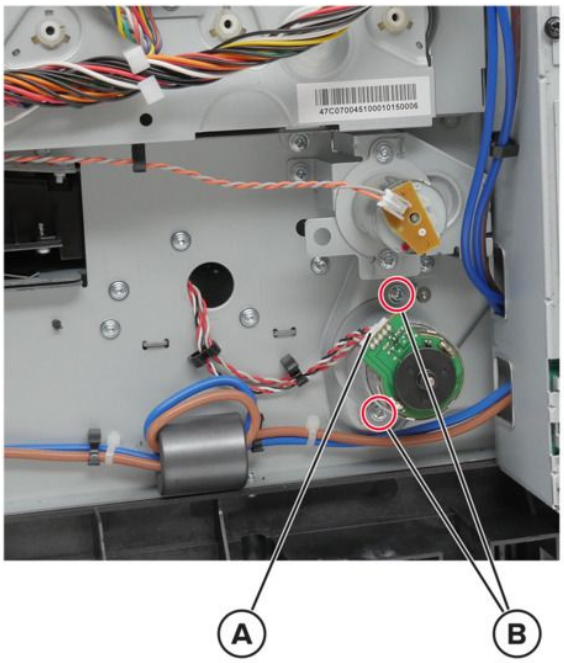
3. Remove the motor.

> **Installation Note**
> Align the motor to the center hole to correctly install it.

Motor (deskew) removal

1. Remove the left cover. See Left cover removal on page 497.

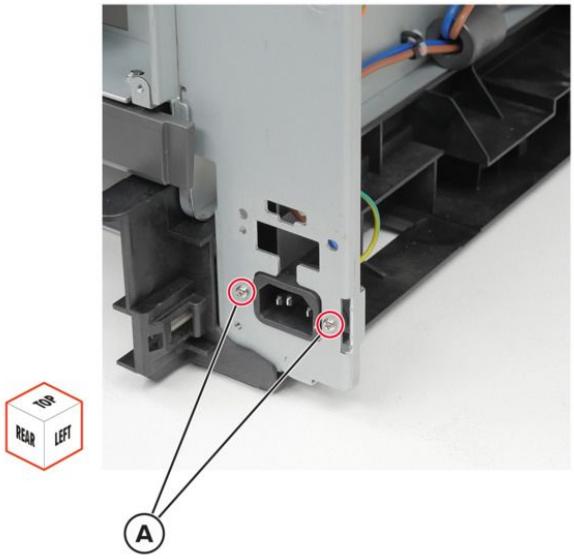
2. Disconnect the cable (A), and then remove the two screws (B).



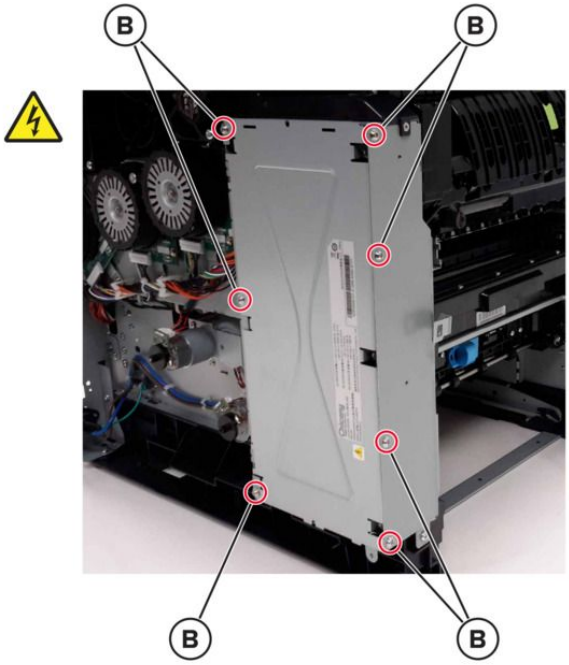
3. Remove the motor.

Power cable removal

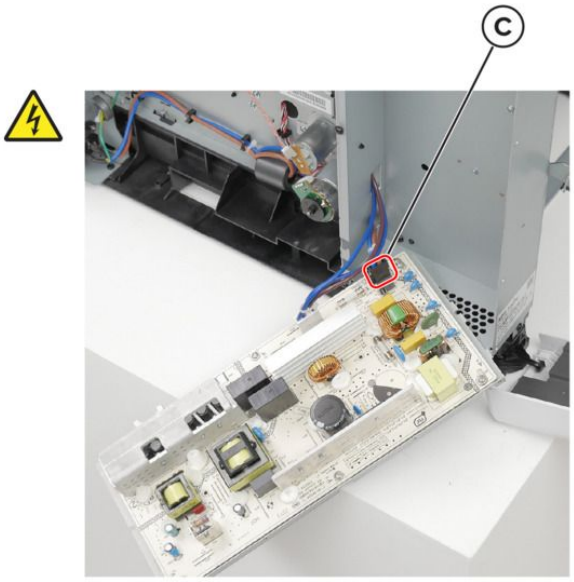
1. Remove the left cover. See Left cover removal on page 497.
2. Remove the two screws (A), and then release the socket.



3. Remove the seven screws (B), and then pull the LVPS.

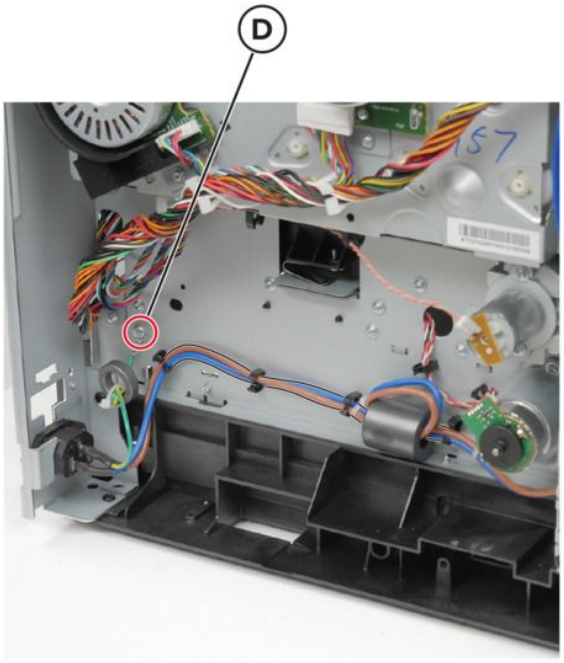


4. Disconnect the cable (C).



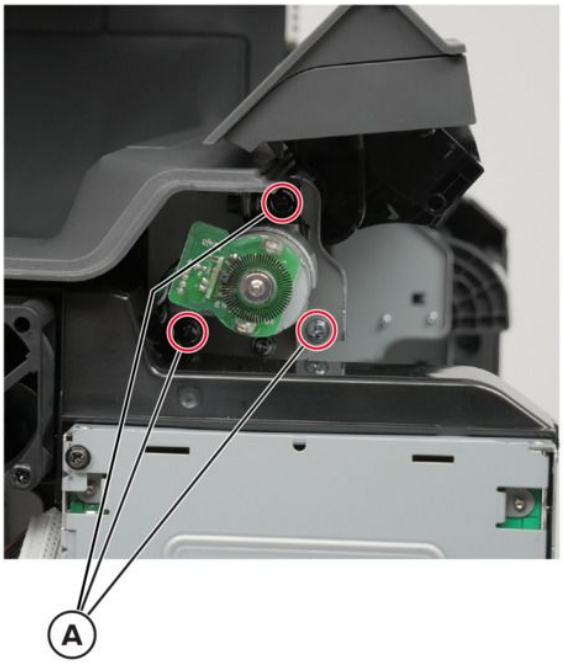
5. Remove the ground screw (D), and then remove the cable from its guides.

Installation Note
Pay attention to the cable route.

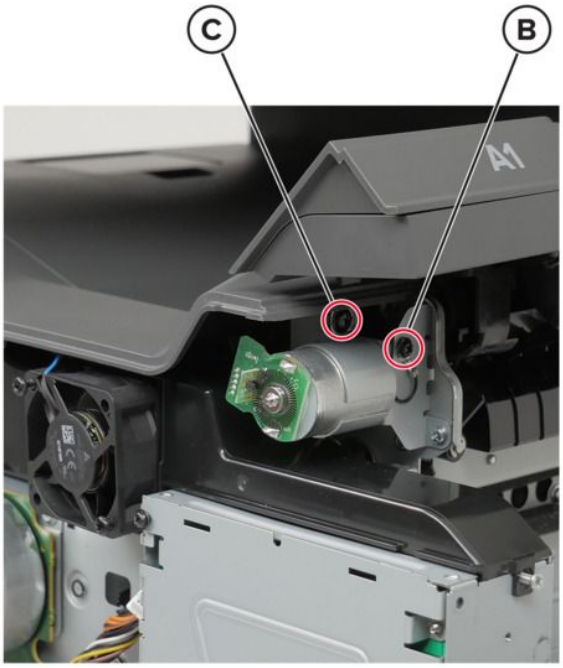


Motor (exit/redrive) removal

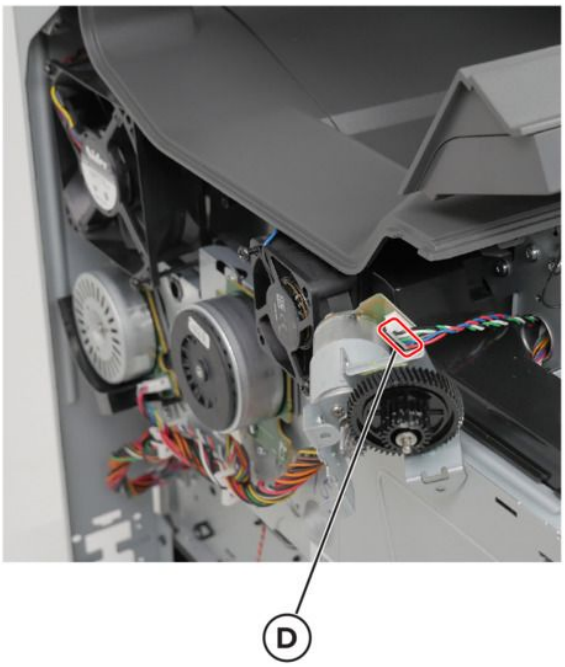
1. Remove the left cover. See Left cover removal on page 497.
2. Open door A1, and then remove the three screws (A).



3. Remove the ground screw (B) and the other screw (C).



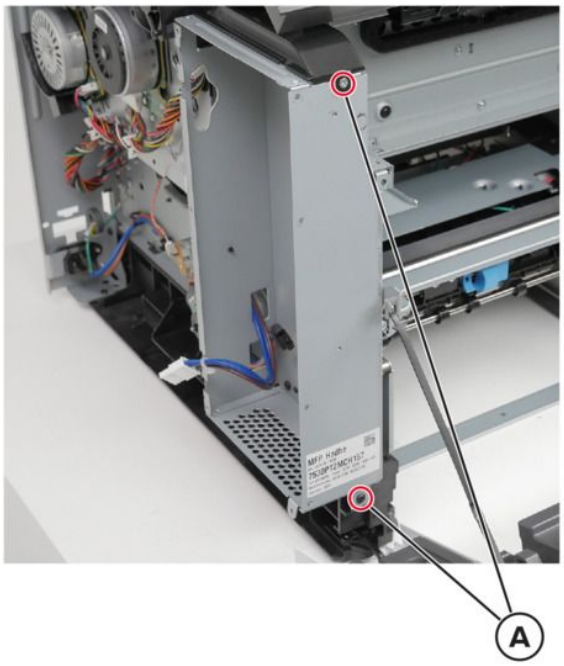
4. Disconnect the cable (D), and then remove the motor.



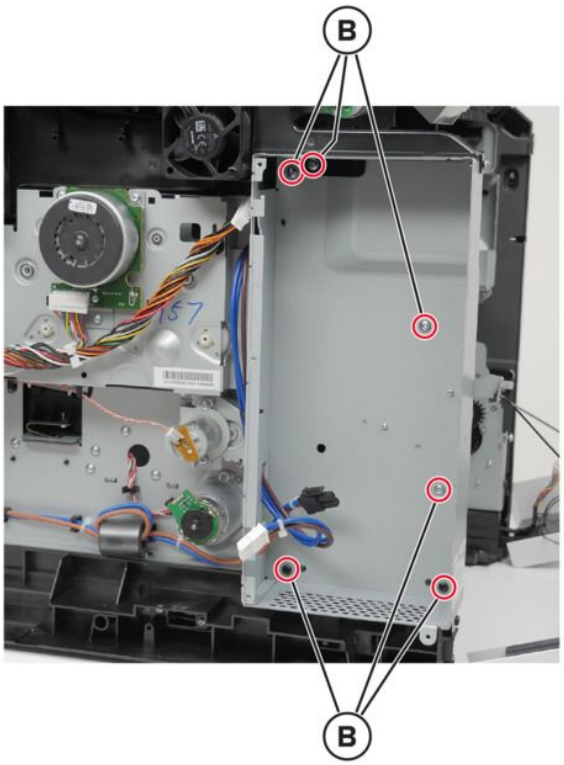
LVPS cage removal

1. Remove the fuser. See .Fuser removal on page 551
2. Remove the transfer module. See Transfer module removal on page 547.
3. Remove the left cover. See Left cover removal on page 497.
4. Remove the LVPS. See LVPS removal on page 499.

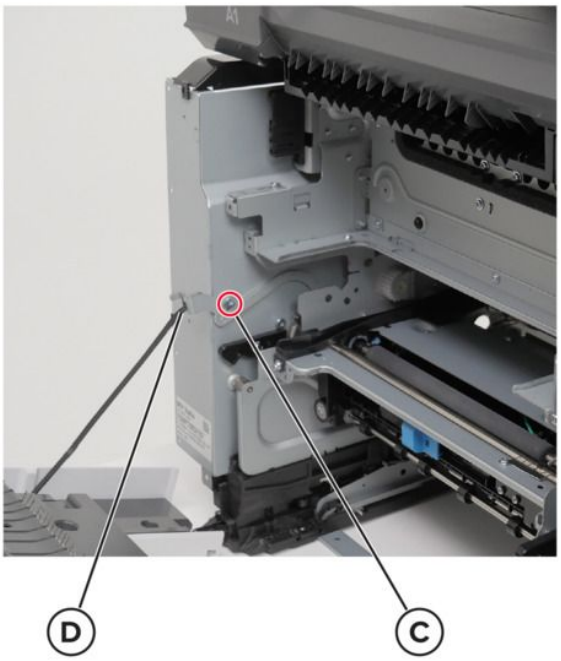
5. Remove the two screws (A).



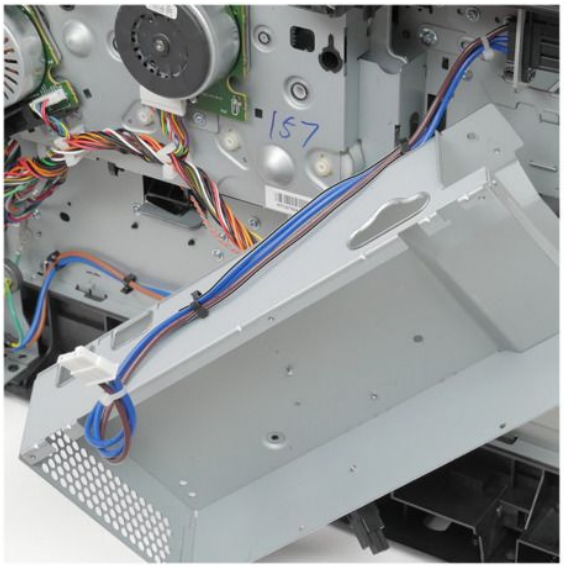
6. Remove the six screws (B).



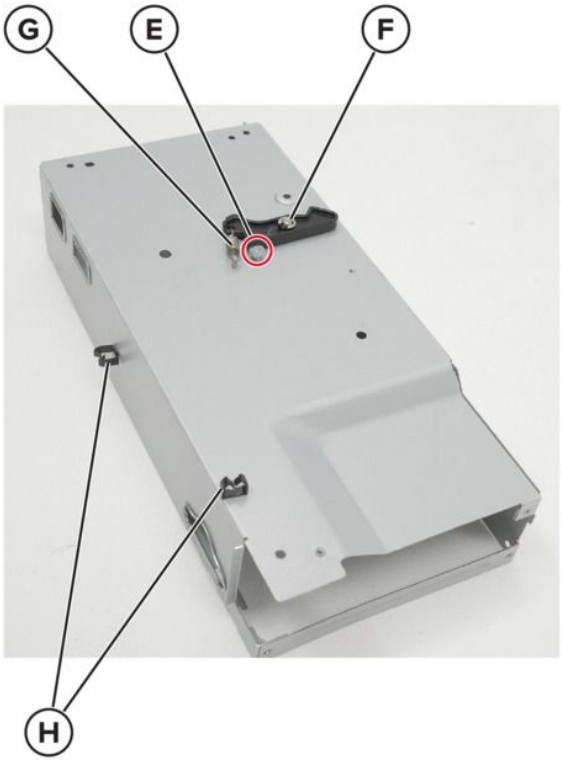
7. Remove the screw (C), and then release the strap (D).



8. Release the cable from its guides, and then remove the cage.

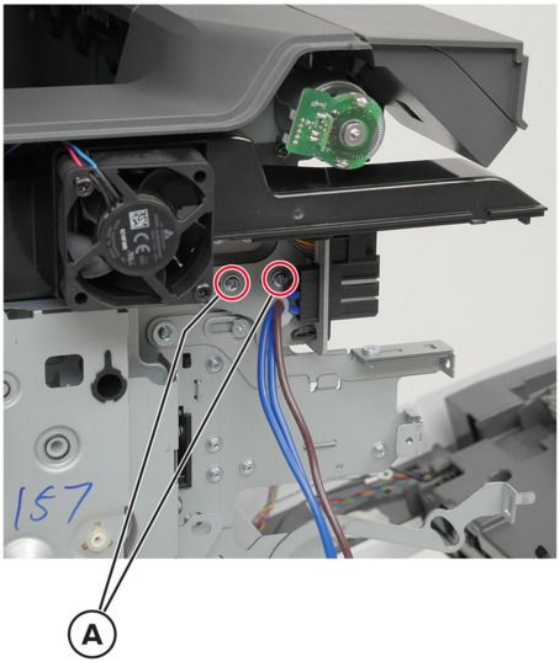


9. Remove the screw (E), E-clip (F), spring (G), and guides (H) from the cage.

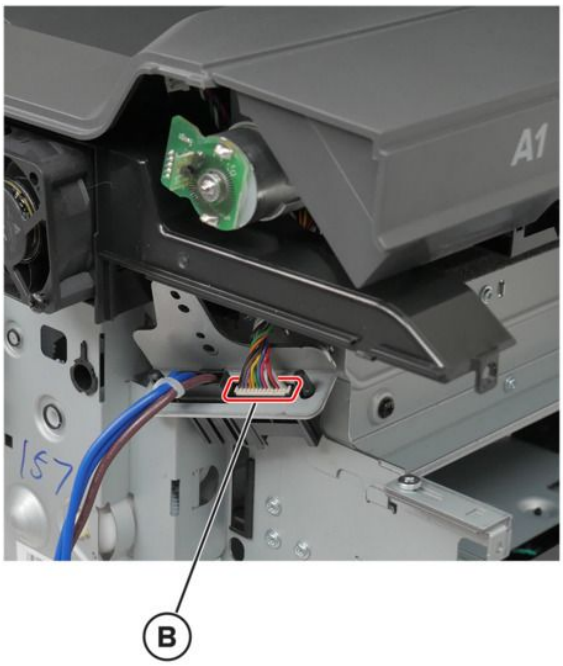


Fuser interconnect cable removal

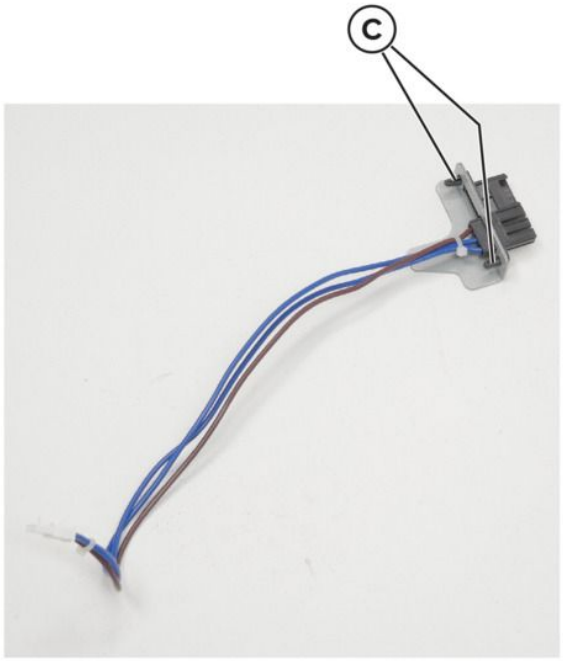
1. Remove the fuser. See .Fuser removal on page 551
2. Remove the transfer module. See Transfer module removal on page 547.
3. Remove the left cover. See Left cover removal on page 497.
4. Remove the LVPS. See LVPS removal on page 499.
5. Remove the LVPS cage. See LVPS cage removal on page 510.
6. Remove the two screws (A), and then pull the bracket.



7. Disconnect the cable (B), and then remove the bracket.



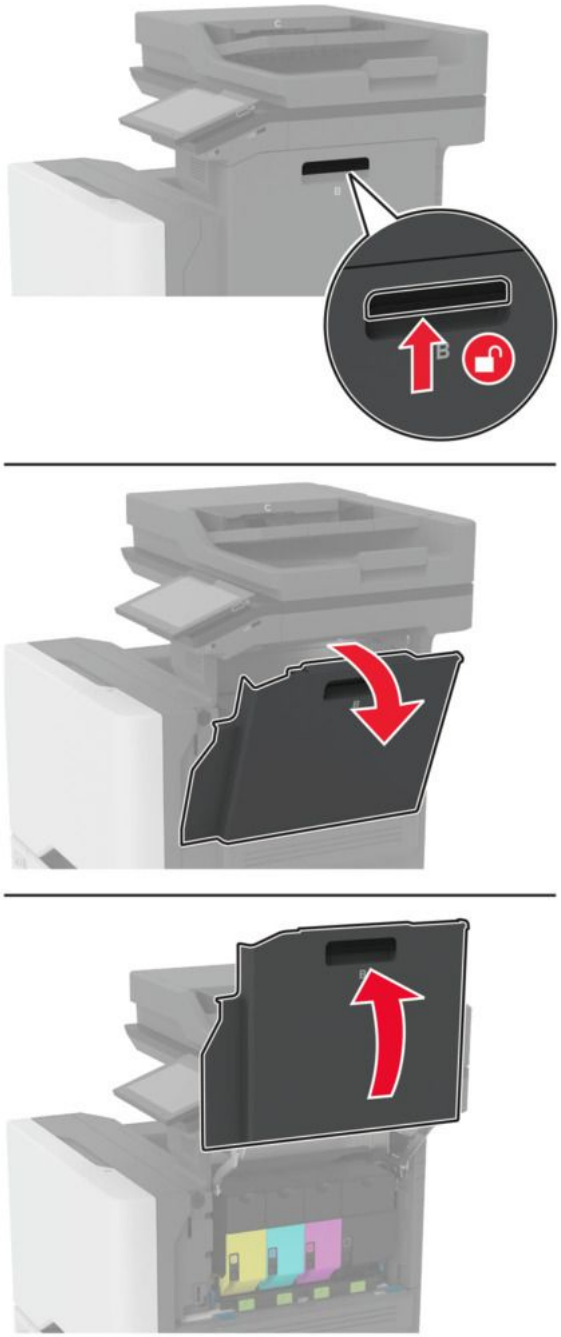
8. Release the pins (C) from the bracket using a pliers, and then remove the cable.



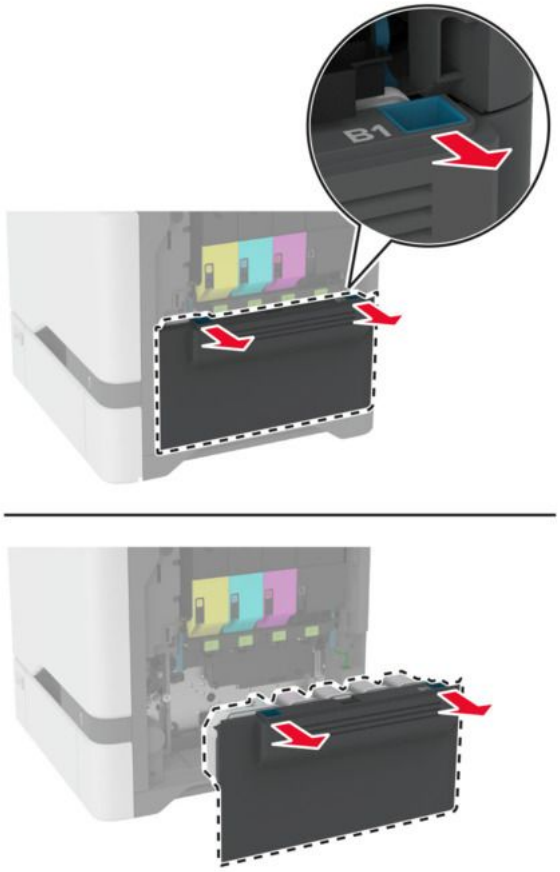
Right side removals

Waste toner bottle removal

1. Open door B.



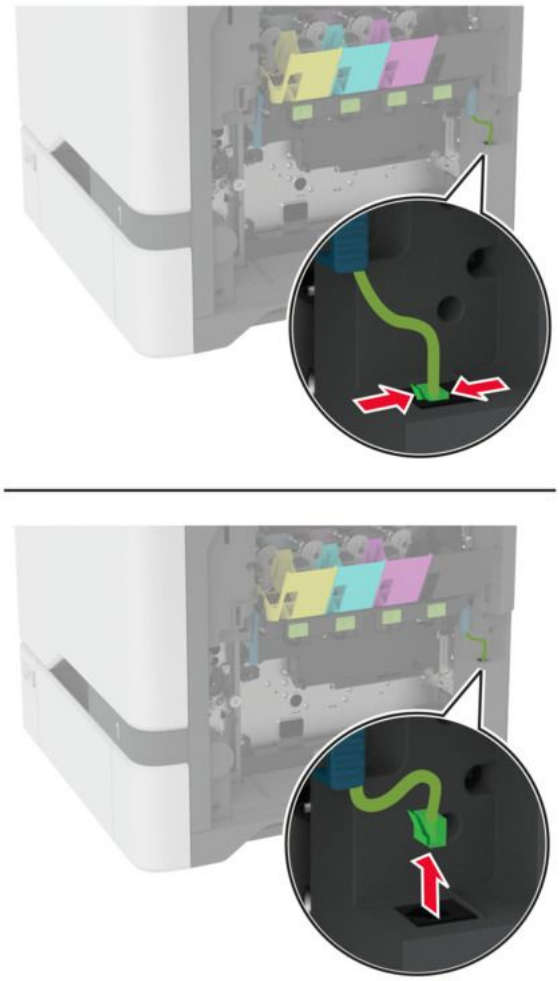
2. Remove the waste toner bottle.



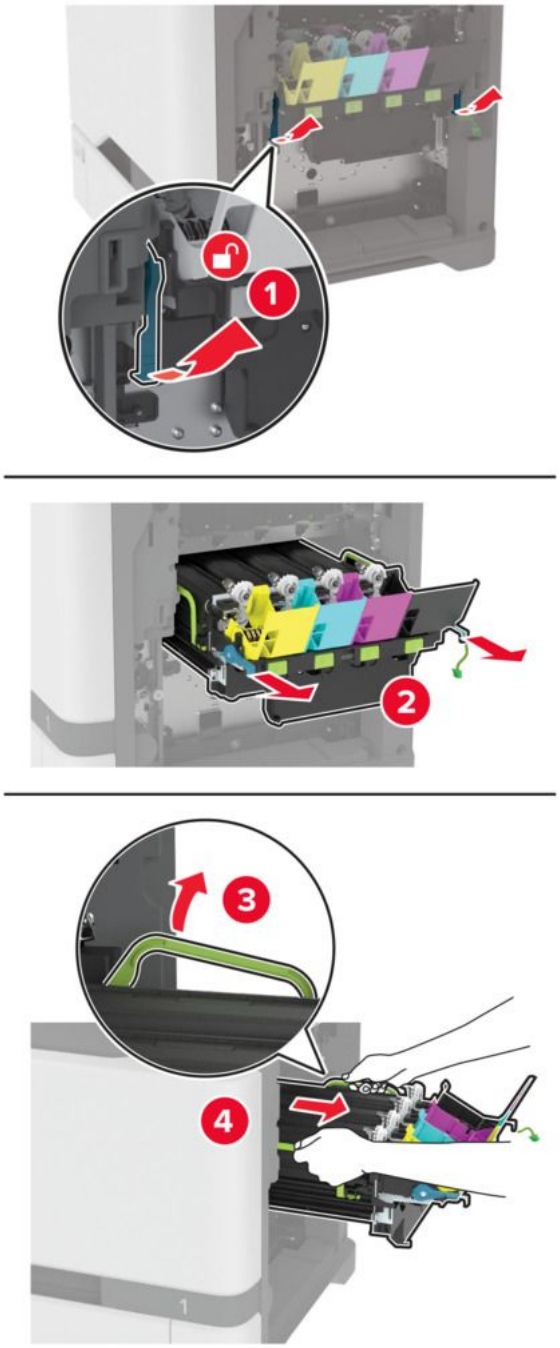
Notes
To avoid spilling the toner, place the bottle in an upright position.

Imaging kit removal

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Disconnect the imaging kit cable.



3. Remove the imaging kit.



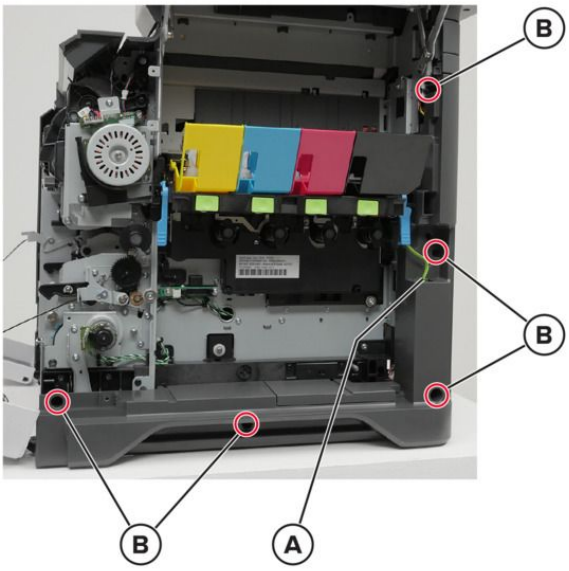
Notes
To avoid scratching the imaging kit or damaging the photoconductor drum, place the imaging kit in an uplifted position.



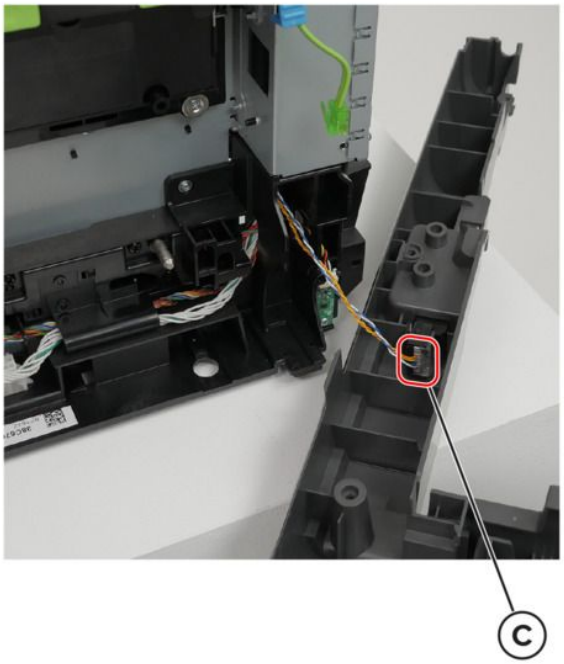
Warning—Potential Damage
Do not expose the photoconductor unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.

Right cover removal

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the motor cover. See Motor cover removal on page 543.
3. Disconnect the cable (A), and then remove the five screws (B).



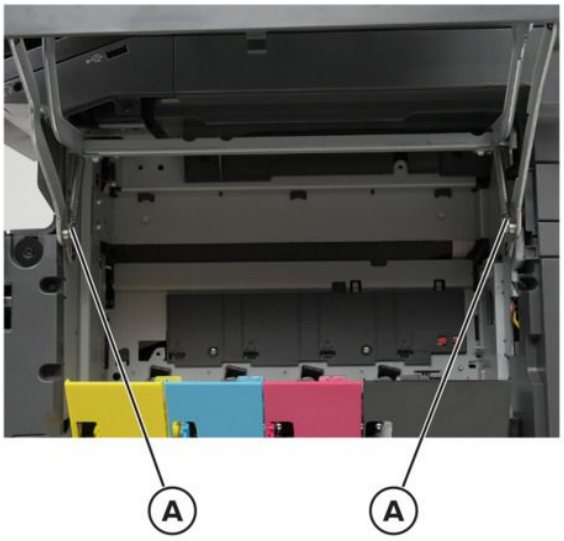
4. Pull the cover, and then disconnect the cable (C).



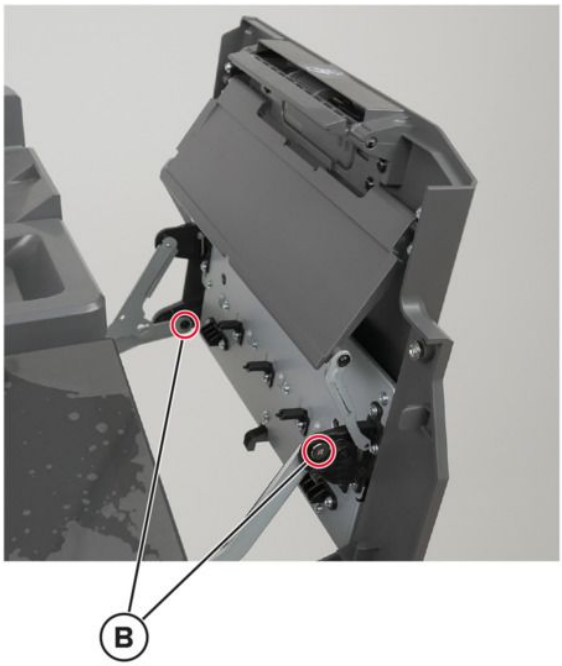
5. Remove the cover.

Toner door removal

1. Open the toner door.
2. Release the springs (A).



3. Remove the two screws (B).



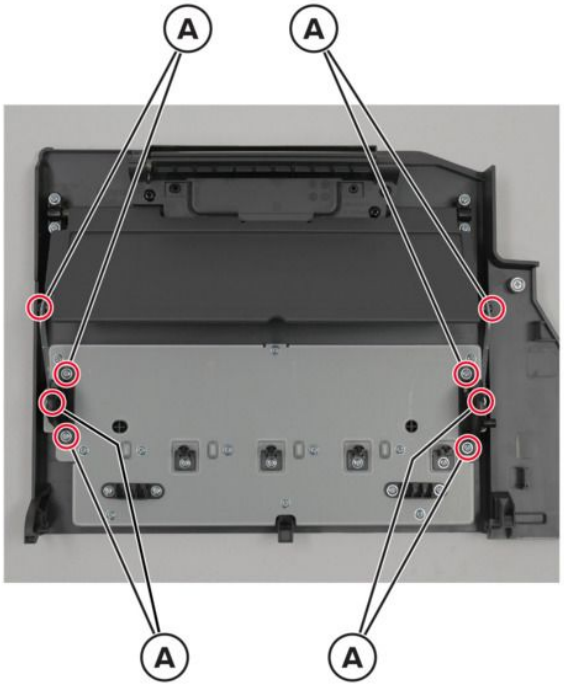
4. Remove the two screws (C).



5. Remove the door.

Toner door mount bracket removal

1. Remove the toner door. See Toner door removal on page 521.
2. Remove the eight screws (A).



3. Remove the brackets.

USB cover removal

1. Open the cartridge door.
2. Remove the screw (A), and then remove the cover.



Headphone and USB socket cables removals

Headphone socket cable removal

1. Remove the scanner rear right cover. See Scanner rear right cover removal on page 584.
2. Remove the scanner rear left cover. See Scanner rear left cover removal on page 585.
3. Remove the ADF. See ADF removal on page 624.
4. Remove the controller board shield. See Controller board shield removal on page 583.
5. Remove the flatbed scanner. See Flatbed scanner removal on page 625.
6. Remove the output bin door.
7. Remove or loosen the top cover. See Top cover removal on page 596.
8. Remove the screw (A), and then remove the cover.



9. Remove the screw (B), and then release the headphone socket.



10. Disconnect the cable (C).



11. Remove the cable.

USB socket cable removal

1. Remove the scanner rear right cover. See Scanner rear right cover removal on page 584.
2. Remove the scanner rear left cover. See Scanner rear left cover removal on page 585.
3. Remove the ADF. See ADF removal on page 624.
4. Remove the controller board shield. See Controller board shield removal on page 583.
5. Remove the flatbed scanner. See Flatbed scanner removal on page 625.

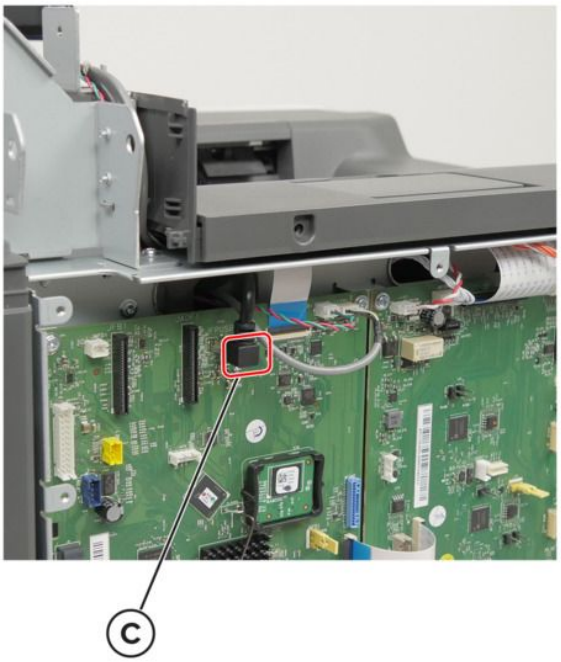
6. Remove the output bin door.
7. Remove or loosen the top cover. See Top cover removal on page 596.
8. Remove the screw (A), and then remove the cover.



9. Remove the two screws (B), and then release the USB socket.



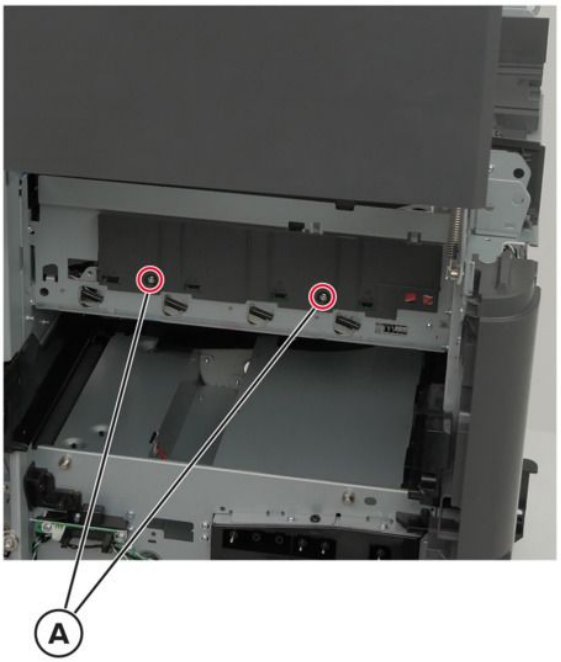
10. Disconnect the cable (C).



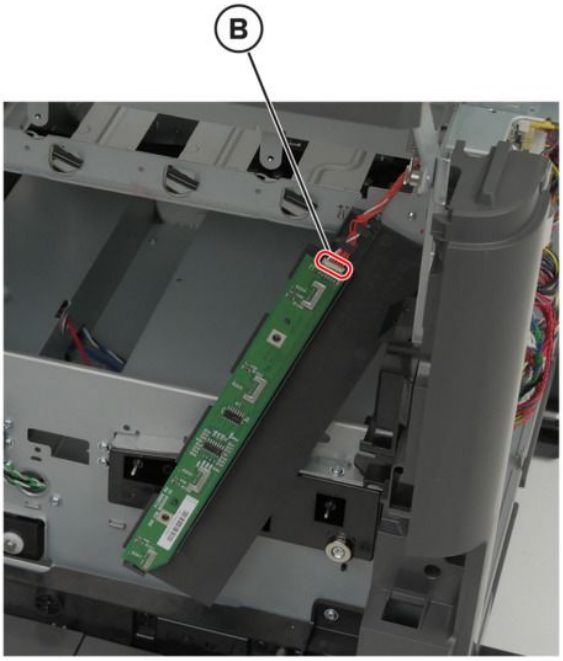
11. Remove the cable.

TMC card removal

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the imaging kit. See Imaging kit removal on page 517.
3. Remove the two screws (A), and then pull the cover.

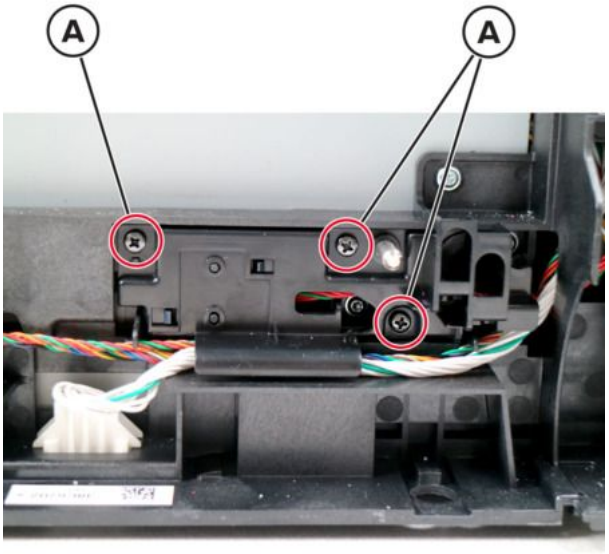


4. Disconnect the cable (B), and then remove the card.

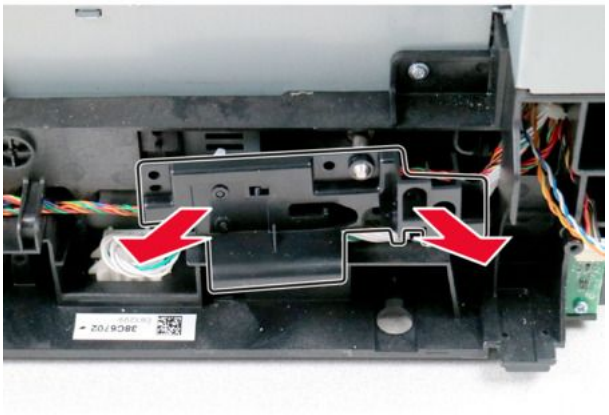


Sensor (paper size) removal

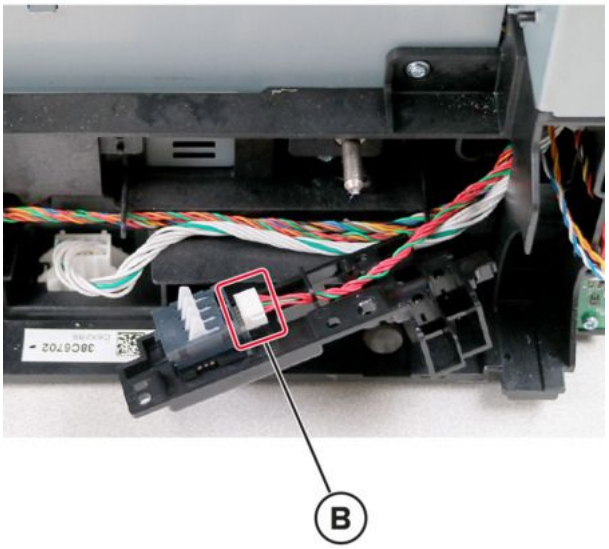
1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the motor cover. See Motor cover removal on page 543.
3. Remove the right cover. See Right cover removal on page 520.
4. Remove the three screws (A).



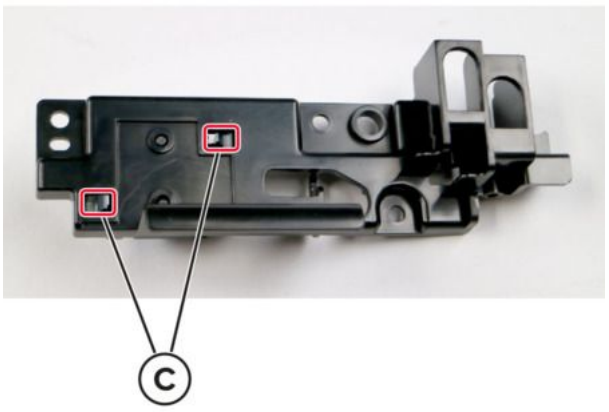
5. Pull the mounting assembly away from the printer.



6. Disconnect the sensor cable (B).

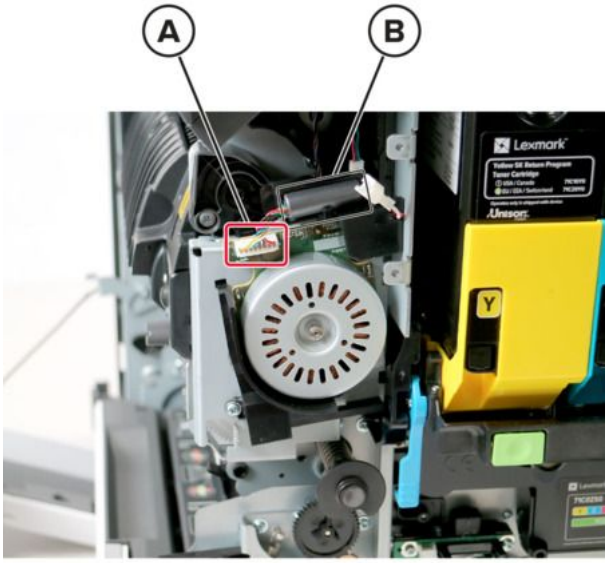


7. Release the two tabs (C) from the mounting assembly, and then remove the sensor.

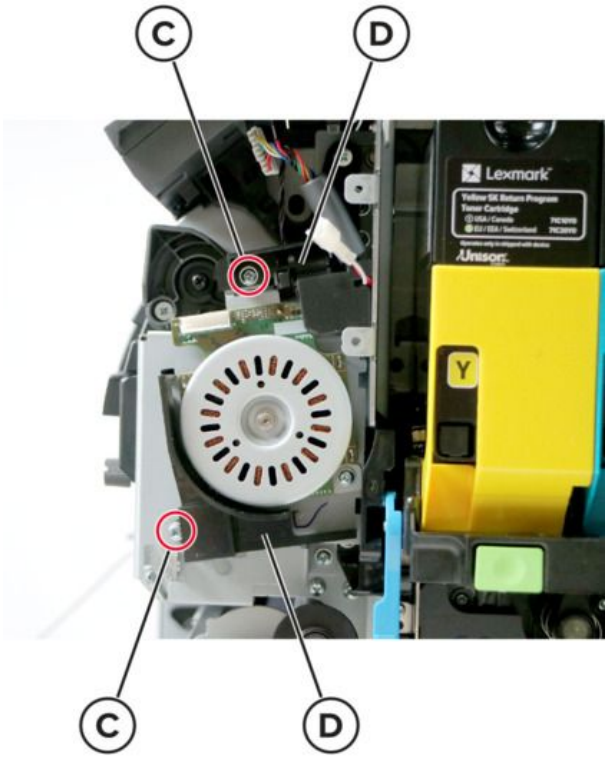


Motor (fuser) removal

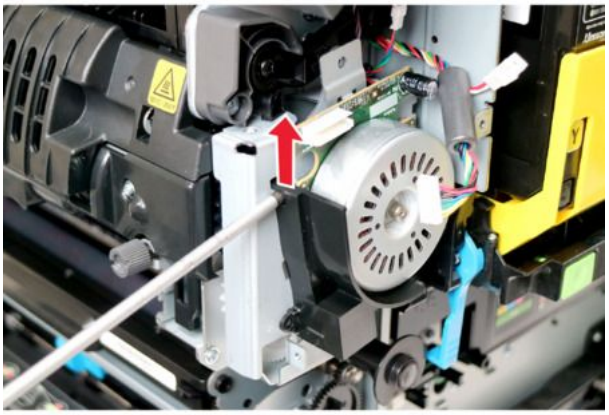
1. Remove the motor cover. See Motor cover removal on page 543.
2. Disconnect the motor cable (A), and then release the toroid (B).



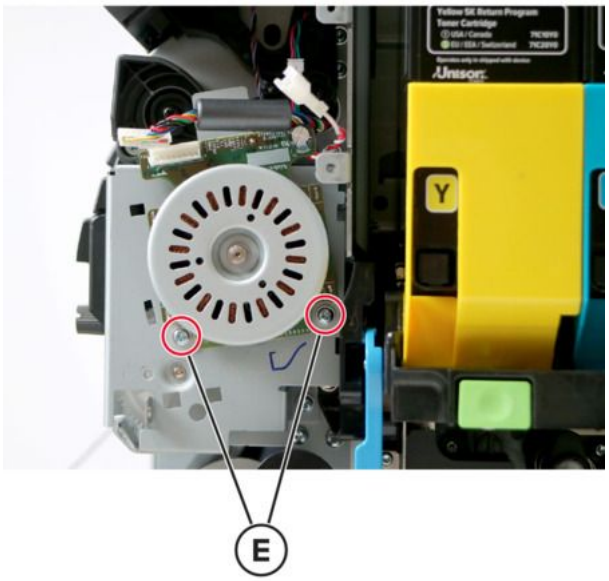
3. Remove the two screws (C), and then remove the two covers (D).



Notes
Pry the latch of the bottom cover to release it.

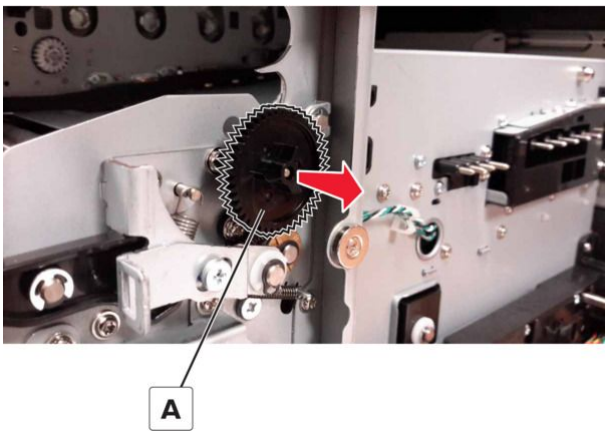


4. Remove the two screws (E), and then remove the motor.



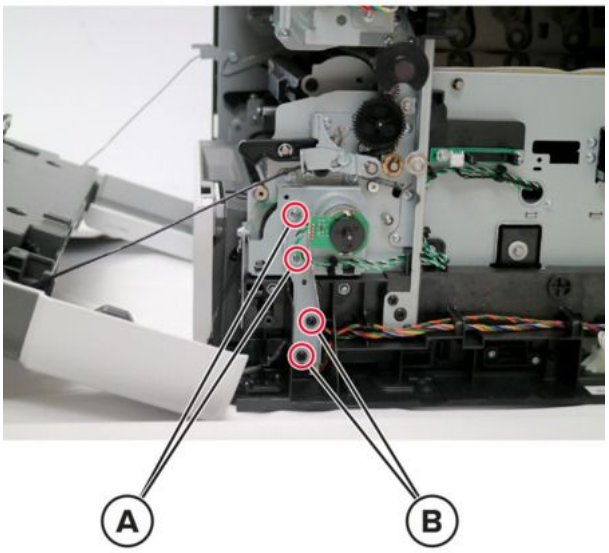
Waste toner bottle idler gear removal

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the gear.

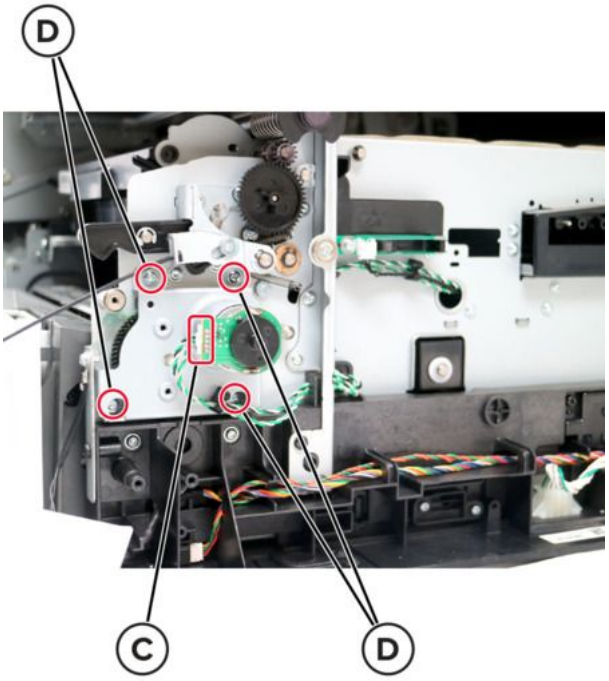


Motor (duplex/MPF) removal

1. Remove the motor cover. See Motor cover removal on page 543.
2. Remove the right cover. See Right cover removal on page 520.
3. Remove the screws (A and then B), and then remove the bracket.

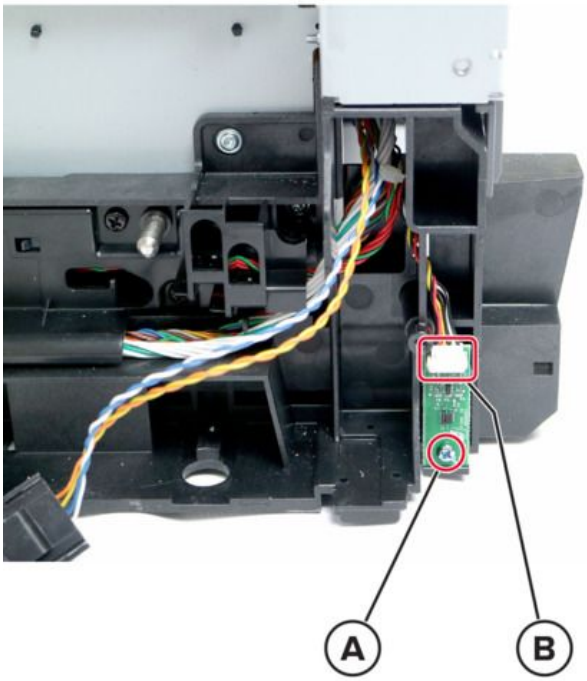


4. Disconnect the cable (C), remove the four screws (D), and then remove the motor.



Sensor (weather station) removal

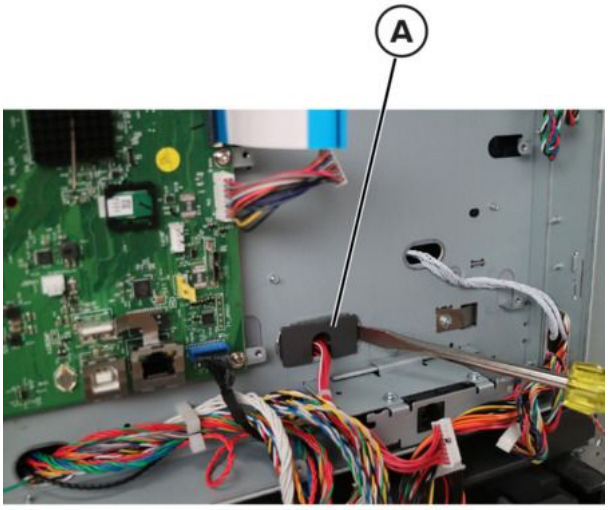
1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the motor cover. See Motor cover removal on page 543.
3. Remove the right cover. See Right cover removal on page 520.
4. Remove the screw (A), disconnect the cable (B), and then remove the sensor.



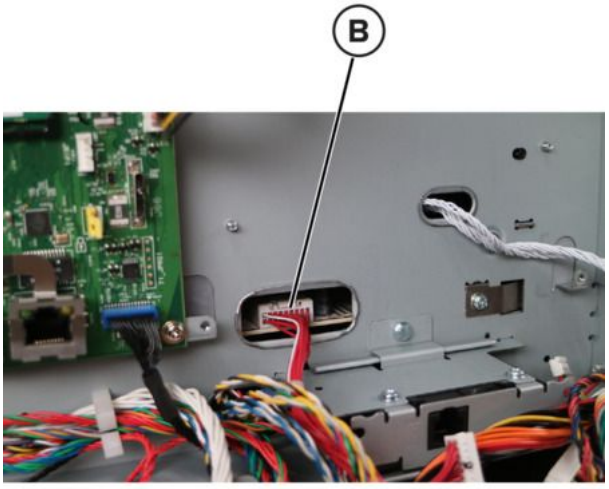
HVPS removal

Notes
For a video demonstration, see Replacing the HVPS.

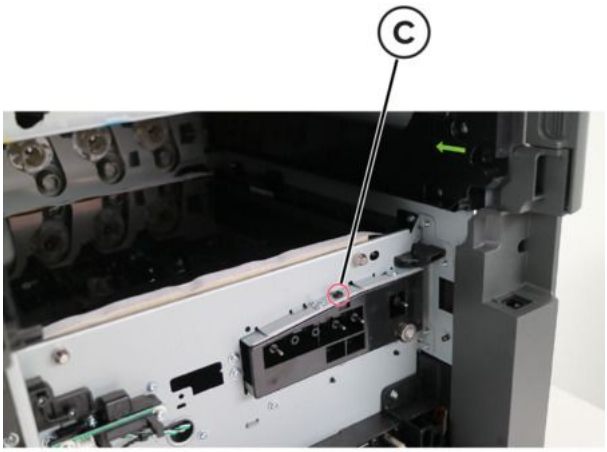
1. Remove the imaging kit. See Imaging kit removal on page 517.
2. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
3. Remove the left cover. See Left cover removal on page 497.
4. Remove the controller board shield. See Controller board shield removal on page 583.
5. Remove the engine board. See Engine board removal on page 588.
6. Remove the retainer (A).



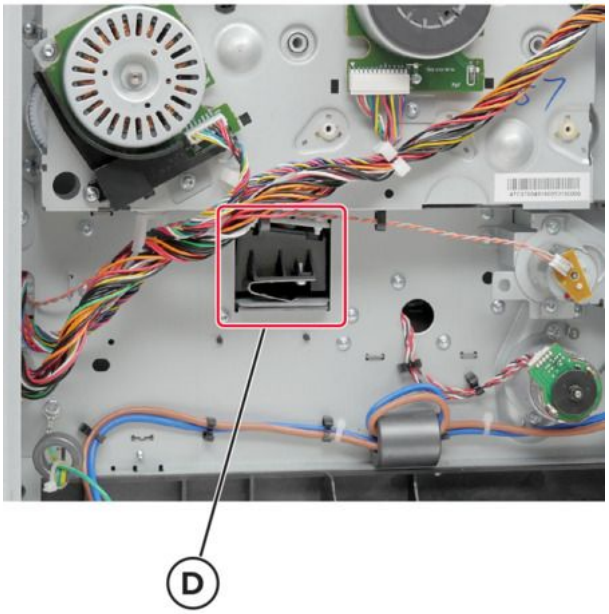
7. Press the latch to release it, and then disconnect the cable (B).



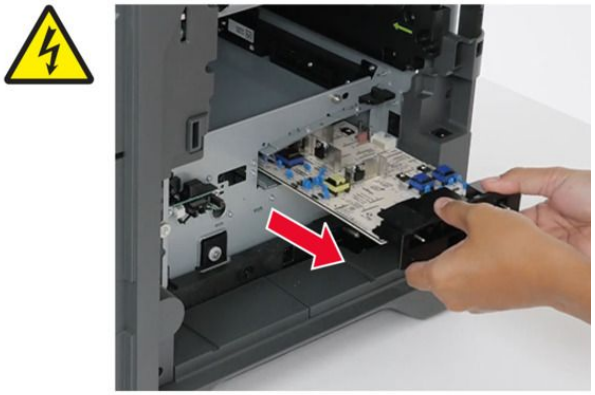
8. Remove the screw (C) securing the HVPS.



9. At the opposite end of the HVPS, press down on the latch (D), and then slide the HVPS inward to release it.

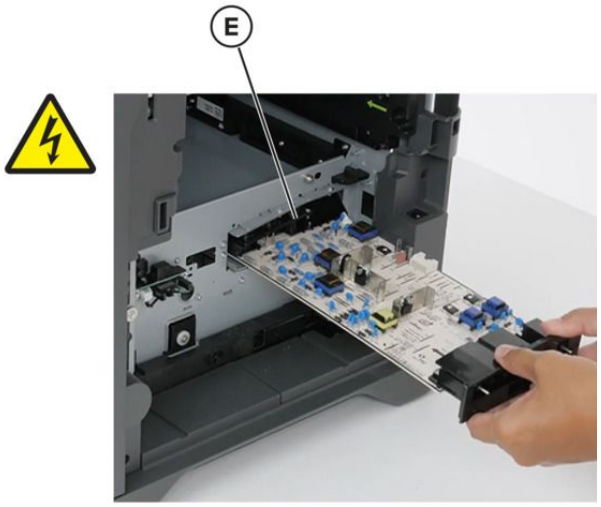


10. Remove the HVPS.



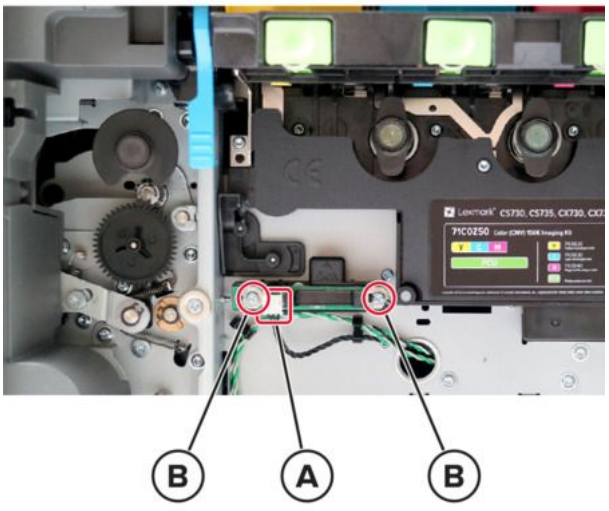
Installation Note

- Press on the three toner contacts (location shown in E) while inserting the HVPS.
- Make sure that the three toner contacts freely move and are fully extended after installation.



Sensor (waste toner) removal

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Disconnect the cable (A), and then remove the two screws (B).

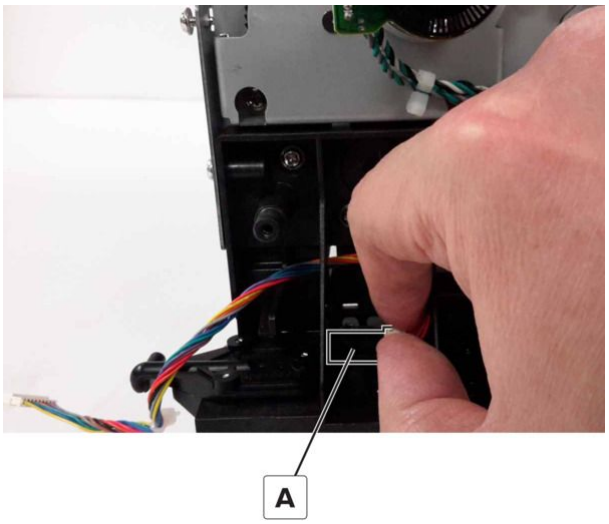


3. Remove the sensor (waste toner).

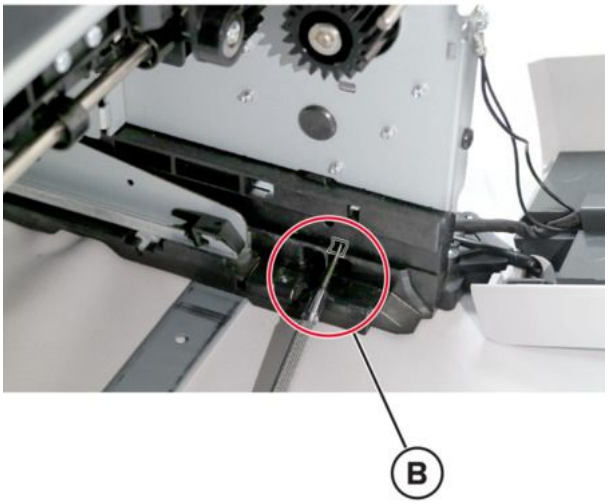
Sensor (MPF paper present) removal

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.

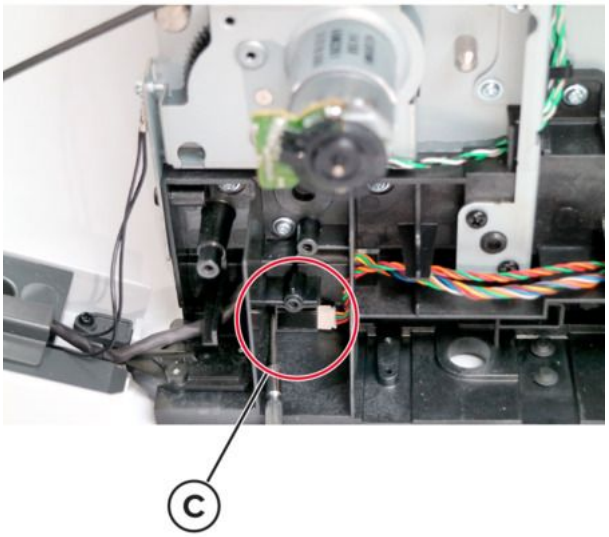
2. Remove the motor cover. See Motor cover removal on page 543.
3. Remove the right cover. See Right cover removal on page 520.
4. Remove the four screws (A).



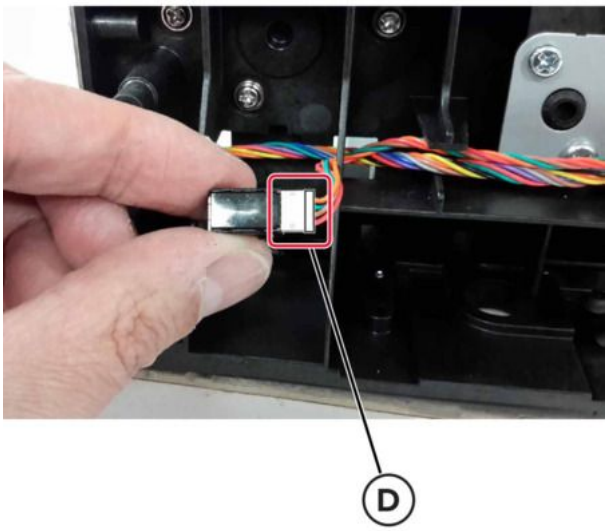
5. On the other side of the sensor, insert the prying tool into the hole (B) to release the sensor.



6. Pry the sensor (C) out of the printer.

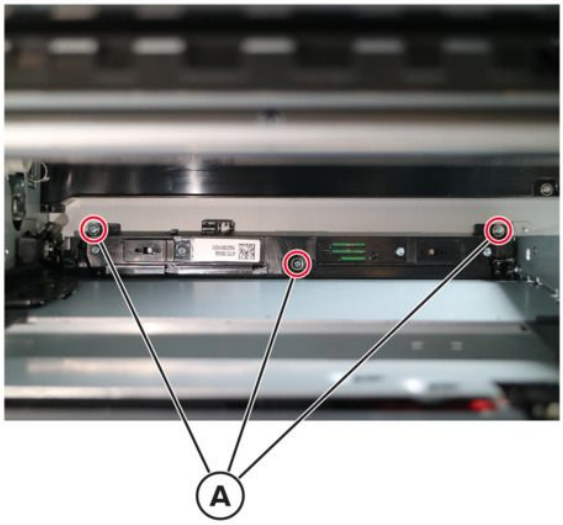


7. Disconnect the sensor cable (D), and then remove the sensor.



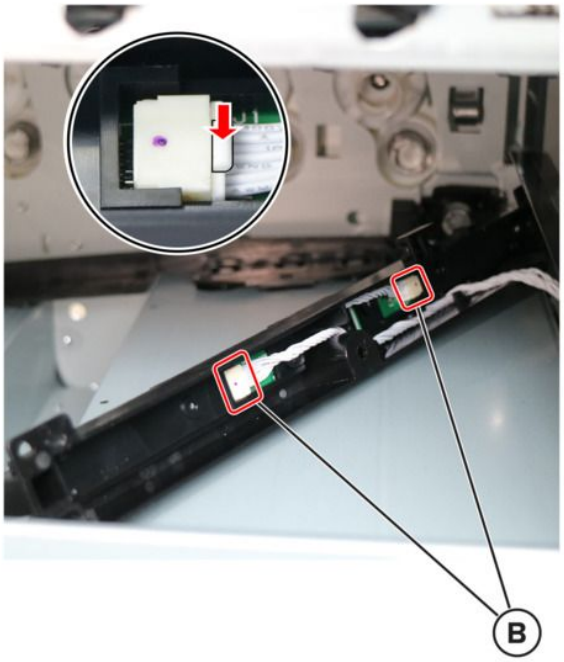
Sensor (TPS) removal

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the imaging kit. See Imaging kit removal on page 517.
3. Remove the transfer module. See Transfer module removal on page 547.
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. For more information, see Entering the sensor (TPS) characterization data on page 540.

Entering the sensor (TPS) characterization data

Entering data automatically from the flash drive

Note:

- A new sensor (TPS) includes a flash drive that contains the characterization data. Entering data automatically from the flash drive is the easier method.
- The characterization data cannot be used on another sensor.

After installing a new sensor (TPS), do the following:

1. Insert the flash drive into the front USB port.

   Notes
   The printer copies automatically the required data from the flash drive.

2. Remove the flash drive.
3. Enter the Diagnostics menu.

   a. From the home screen, touch .
   b. Touch ****36**, and then touch **OK**.

4. Navigate to: **Printer setup > EP setup > Toner patch sensor adjust**
5. Perform the following procedures:

   - Full calibration
   - Sensor gain characterization
   - Sensor gain verification

   Notes
   Check the results for errors (in red). Contact the next level of support if needed.

6. From the home screen, navigate to: **Settings > Print > Quality > Advanced Imaging > Color Adjust**
7. Touch **Color Adjust**.

Entering data manually

Note:

- Perform this method if it is not possible to access the data using the flash drive.
- The characterization data cannot be used on another sensor.

After installing a new sensor (TPS), do the following:

1. Enter the Diagnostics menu.
    a. From the home screen, touch .
    b. Touch ****36**, and then touch **OK**.
2. Navigate to: **Printer setup > EP setup > Toner patch sensor adjust > TPS characterization data**
3. Enter the characterization data from the FRU sheet.
    a. Select **Left sensor data**, and then enter the corresponding strings.
    b. Select **Right sensor data**, and then enter the corresponding strings.
    c. Select **Shared sensor data**, and then enter the corresponding strings.
    d. Select **Serial number**, and then enter the corresponding strings.
    e. Select **Save all TPS sensor data**, and then touch **Start**.
4. Enter the Diagnostics menu, and then navigate to: **Printer setup > EP setup > Toner patch sensor adjust**
5. Perform the following procedures:
    - Full calibration
    - Sensor gain characterization
    - Sensor gain verification

    > **Notes**
    > Check the results for errors (in red). Contact the next level of support if needed.

6. From the home screen, navigate to: **Settings > Print > Quality > Advanced Imaging > Color Adjust**
7. Touch **Color Adjust**.

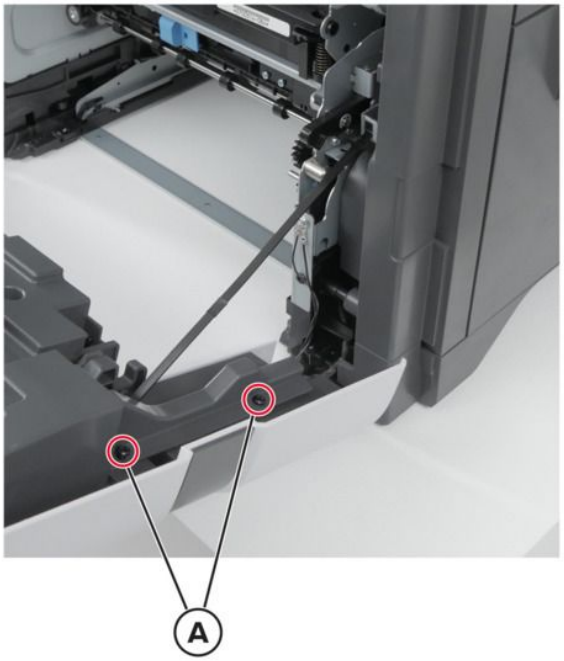
Front side removals

Front door removal

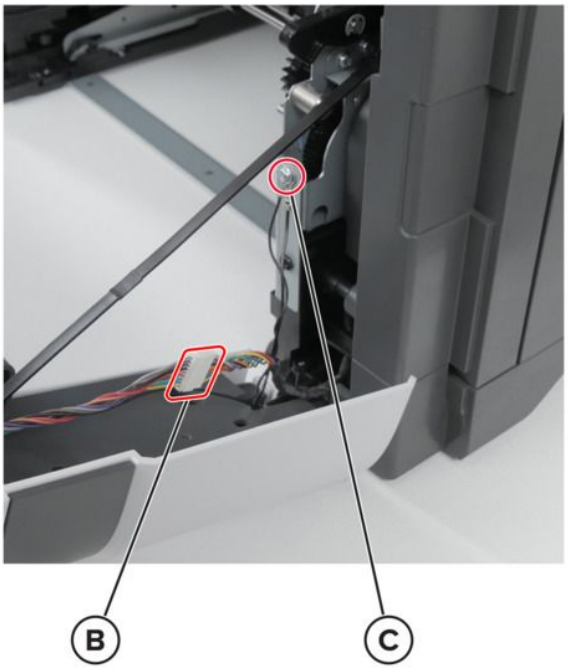
1. Remove the screw, and then remove the cover.



2. Remove the two screws (A), and then remove the cable cover.

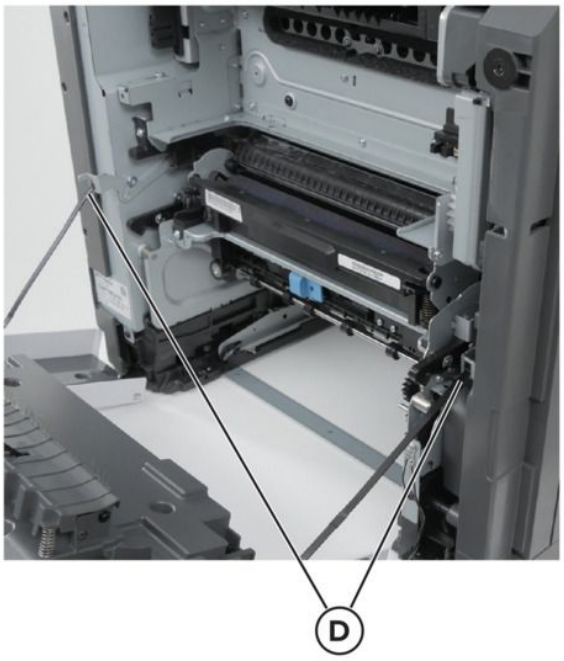


3. Disconnect the cable (B), and then remove the ground screw (C).



4. Release the straps (D), and then remove the door.

> **Warning—Potential Damage**
> Make sure that the door does not fall.



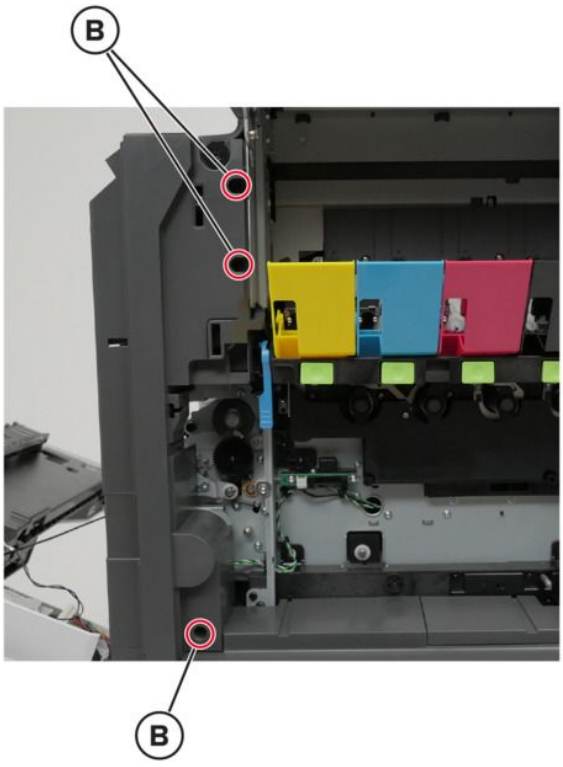
Motor cover removal

1. Open the front door and cartridge door.

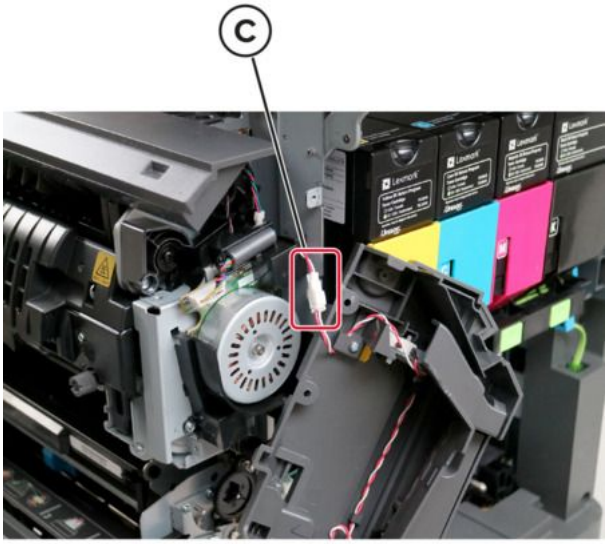
2. Remove the screw (A).



3. Remove the three screws (B).



4. Disconnect the switch cable (C).



5. Remove the cover.

Scanner front cover removal

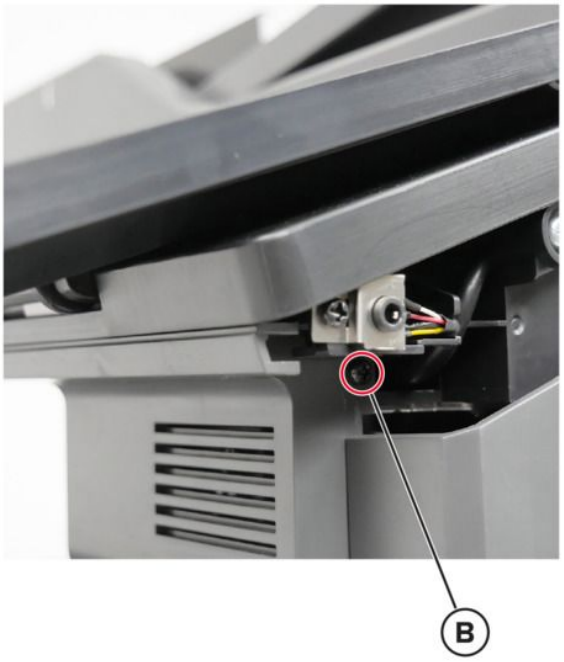
1. Remove the USB cover. See USB cover removal on page 523.
2. Remove the badge cover.



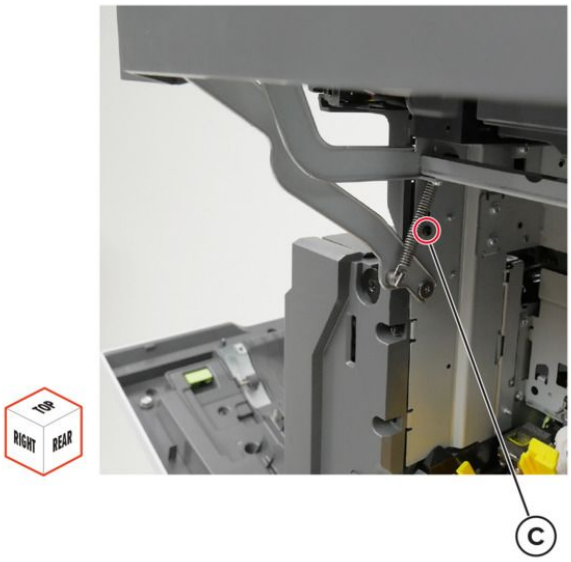
3. Remove the screw (A).



4. Remove the screw (B).



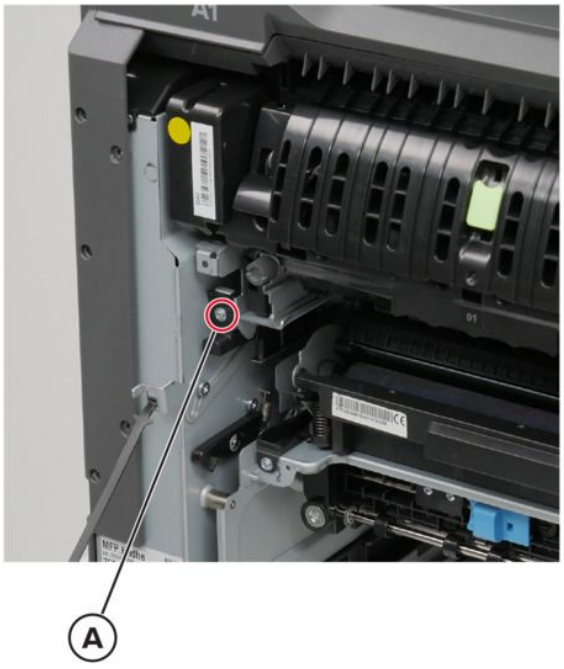
5. Open the cartridge door, and then remove the screw (C).



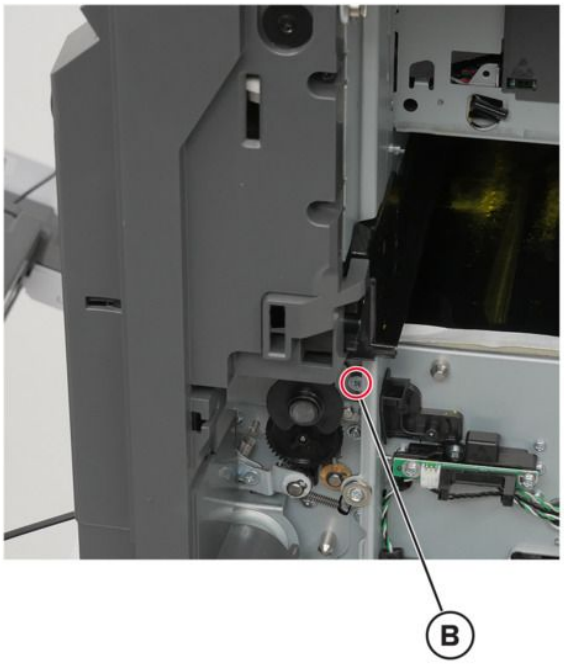
6. Remove the cover.

Transfer module removal

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the imaging kit. See Imaging kit removal on page 517.
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).

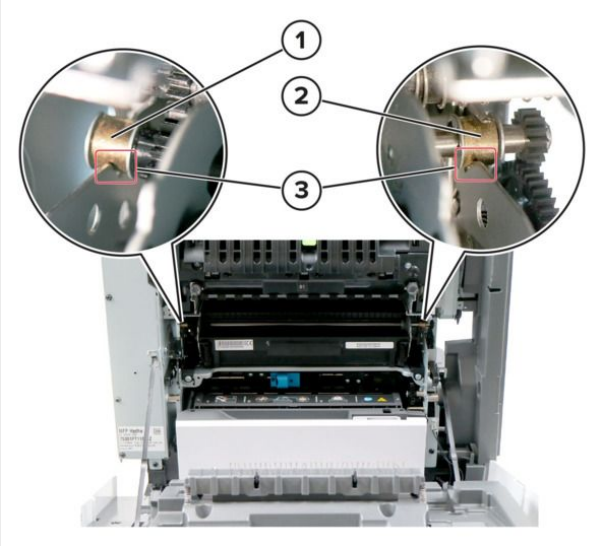


6. Remove the transfer module.



Installation Note

- Check if the transfer module bearings are properly seated on the frame. Make sure that the bearings sit down into their vees.

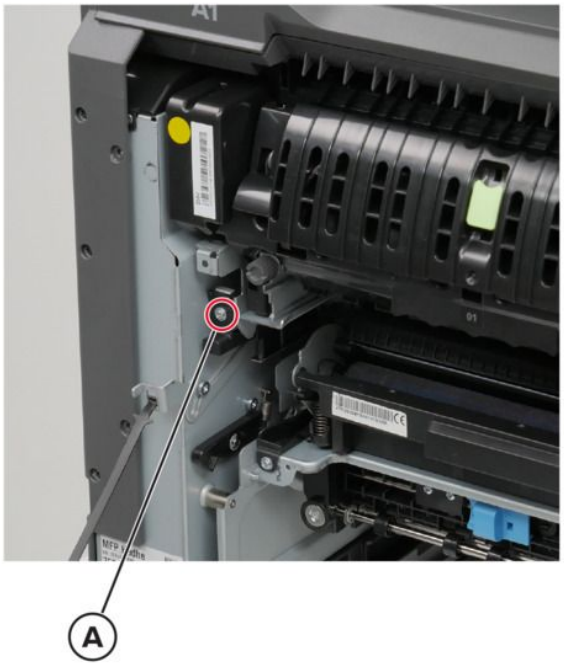


#	Part
1	Left bearing
2	Right bearing
3	Frame

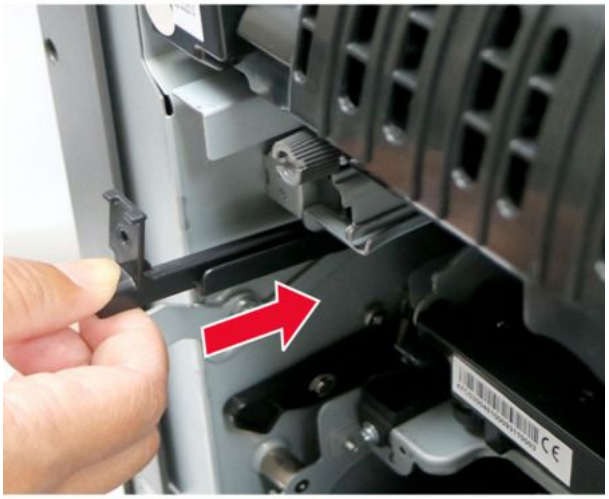
- Reset the transfer module counter. See Resetting the transfer module counter on page 656.
- Align the top and bottom margins. See Registration adjustment on page 492.

Transfer module retainer removal

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the imaging kit. See Imaging kit removal on page 517.
3. Open the front door.
4. Remove the screw (A), and then remove the transfer module retainer.

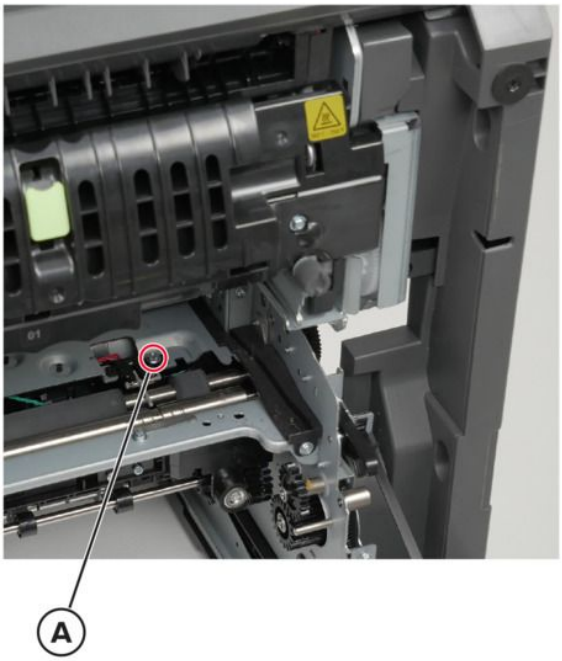


Installation Note
Slide the transfer module retainer into the printer.

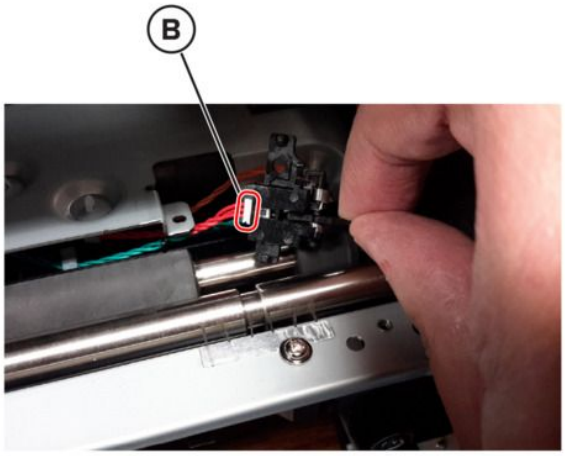


Sensor (input) removal

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the imaging kit. See Imaging kit removal on page 517.
3. Remove the transfer module. See Transfer module removal on page 547.
4. Remove the screw (A), and then lift the sensor.

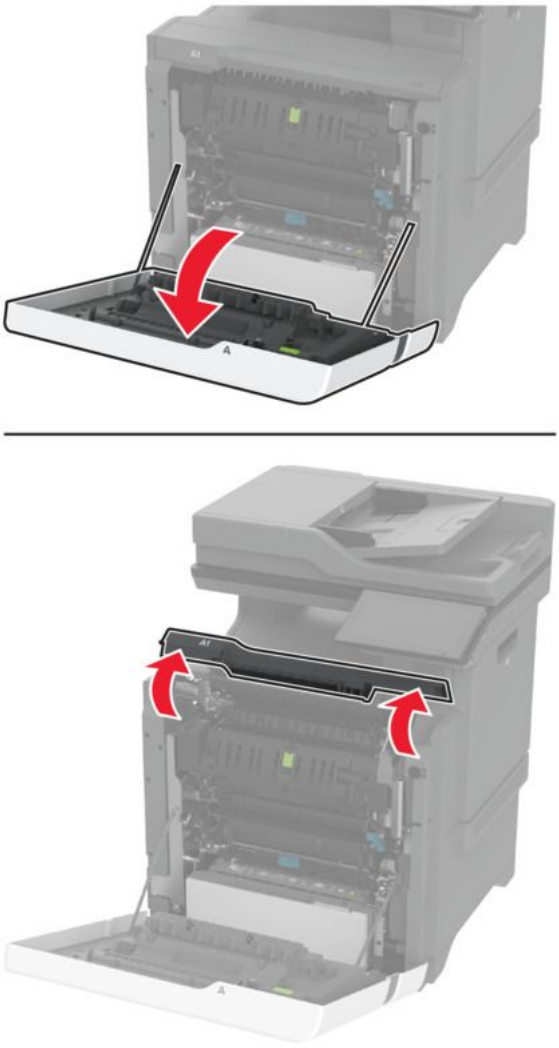


5. Disconnect the cable (B), and then remove the sensor.

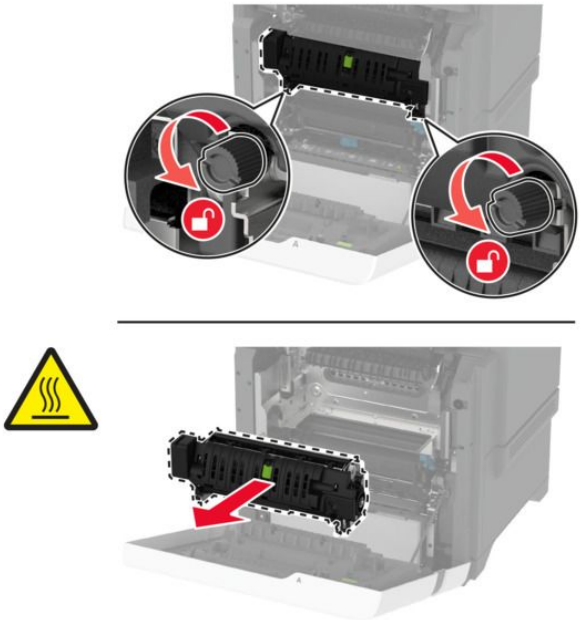


Fuser removal

1. Open door A, and then open door A1.



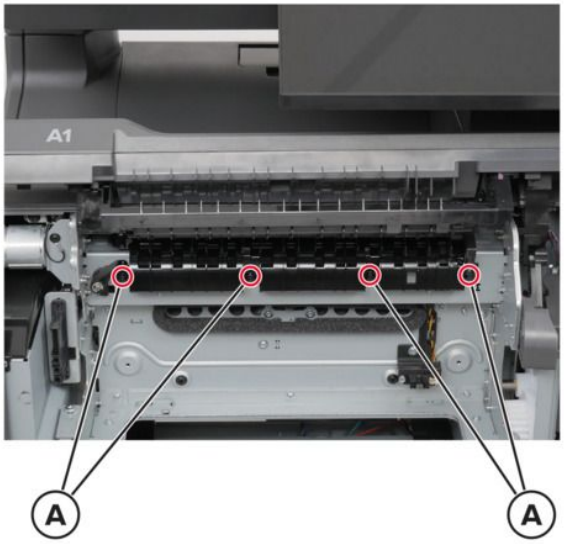
2. Remove the fuser.



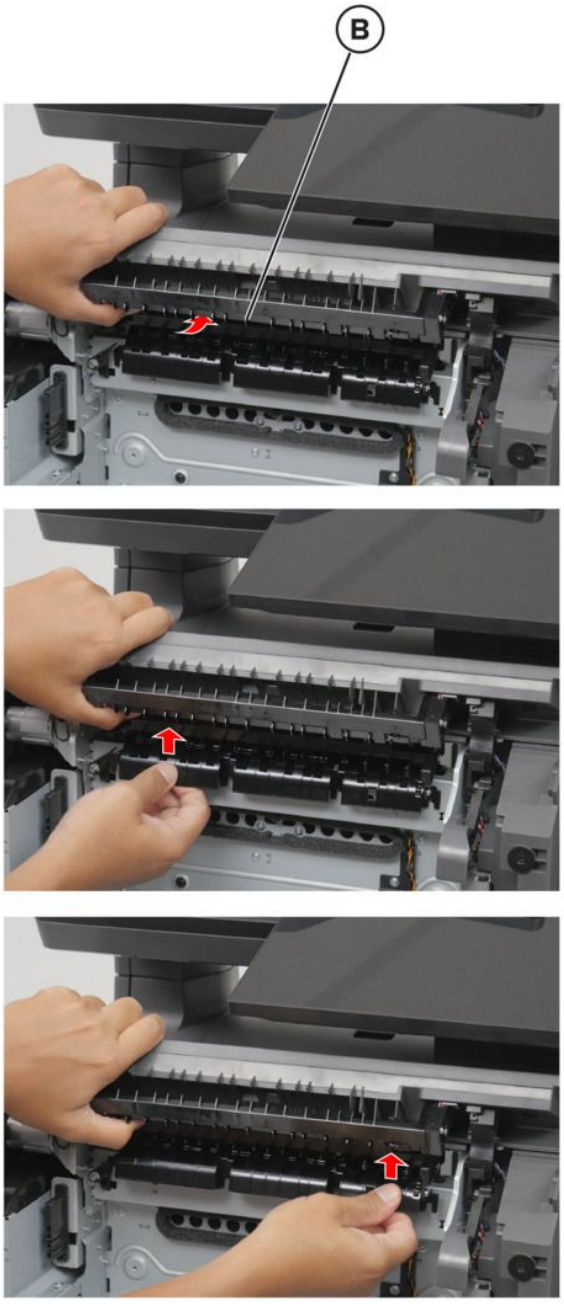
Installation Note
After installing a new fuser, reset the fuser maintenance counter. See Resetting the fuser maintenance counter on page 656.

Redrive guide removal

1. Remove the fuser. See .Fuser removal on page 551
2. Remove the four screws (A).

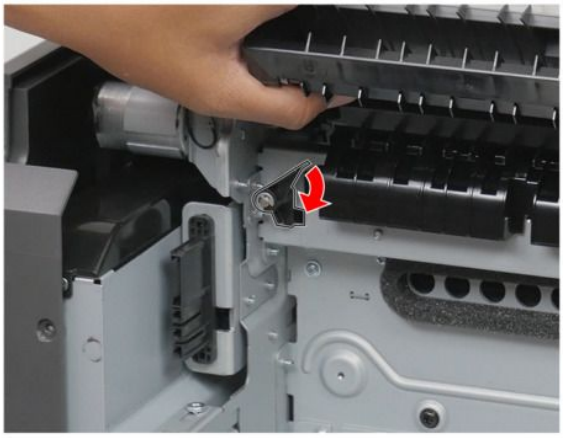


3. Move the diverter (B) out of the way, and then release the cover from its frame.



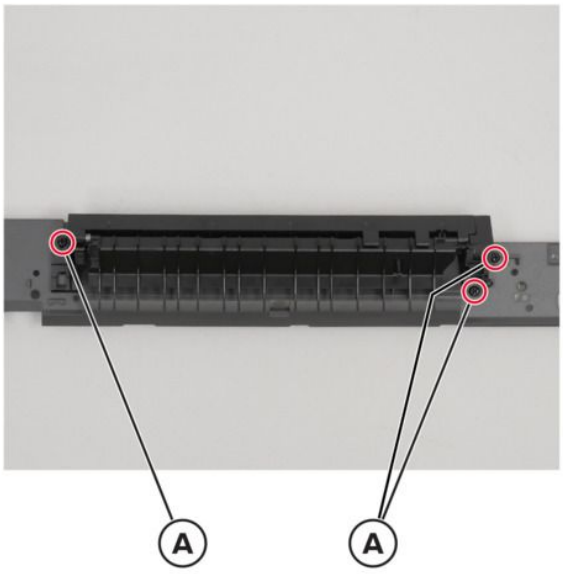
4. Remove the cover.

Notes
If necessary, turn the lever to make way for the cover.



Diverter removal

1. Remove the fuser. See Fuser removal on page 551.
2. Remove the top frame cover. See Top frame cover removal on page 591.
3. Remove the top frame base cover. See Top frame base cover removal on page 591.
4. Remove the three screws (A).

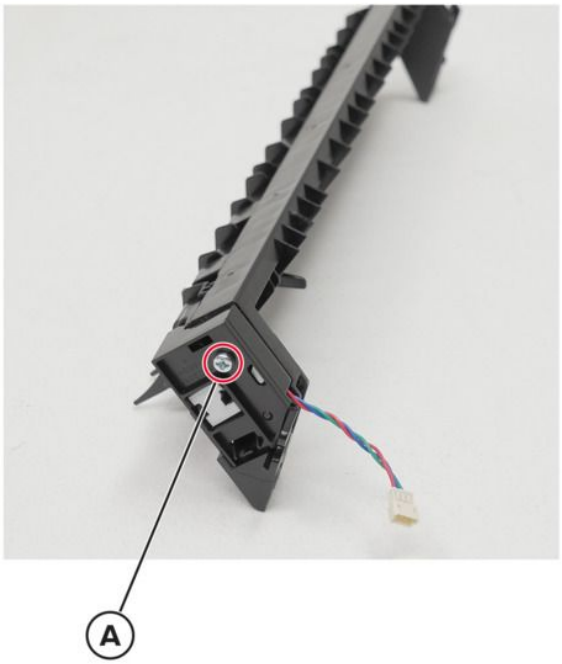


5. Remove the diverter.

Sensor (redrive) removal

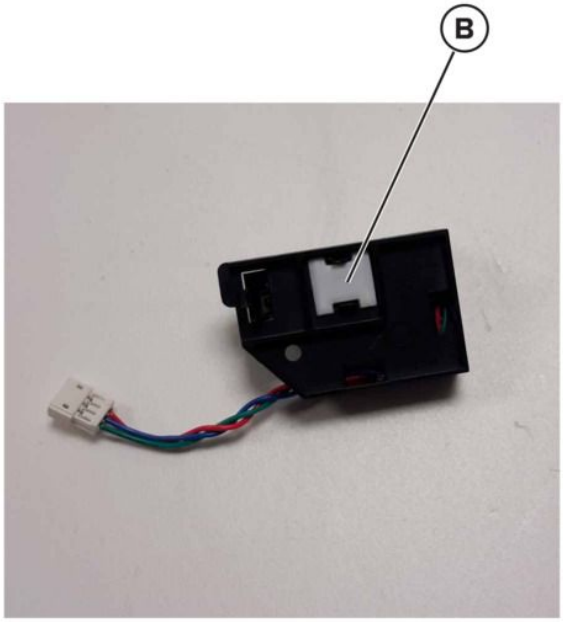
1. Remove the fuser. See Fuser removal on page 551.
2. Remove the top frame cover. See Top frame cover removal on page 591.
3. Remove the top frame base cover. See Top frame base cover removal on page 591.

4. Remove the diverter. See Diverter removal on page 555.
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 nip) removal

1. Remove the fuser. See .Fuser removal on page 551
2. Remove the two screws (A).



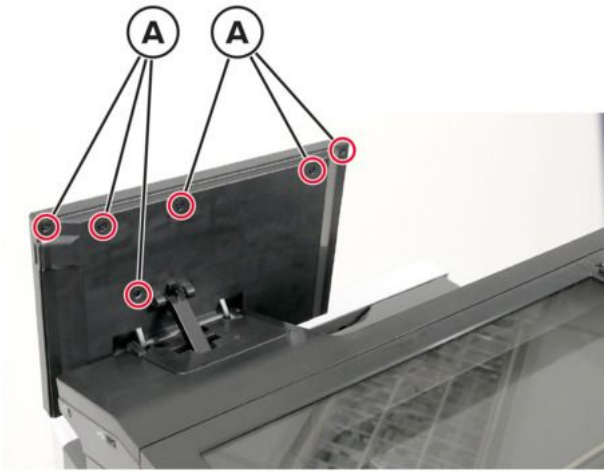
3. Disconnect the cable (B), and then remove the sensor.



Control panel display (10-inch) removal

Notes
For a video demonstration, see Replacing the control panel display and control panel base.

1. Remove the six screws (A) behind the control panel.

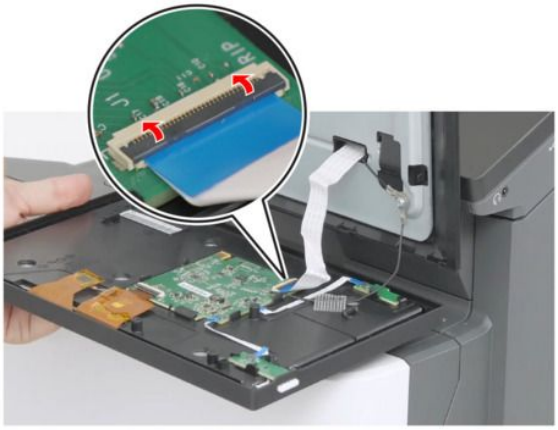


2. Pry the control panel display to release, and then pull it to access the cable.

Warning—Potential Damage
The FFC may get damaged if the control panel display is dropped. Make sure to hold the control panel display after releasing it.



3. Unlock the clip, and then disconnect the cable.

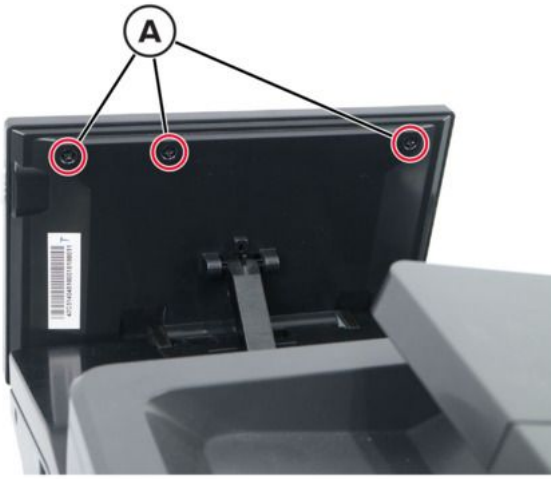


4. Remove the ground screw (B), and then remove the control panel display.



Control panel display (7-inch) removal

1. Remove the screws (A) behind the control panel.

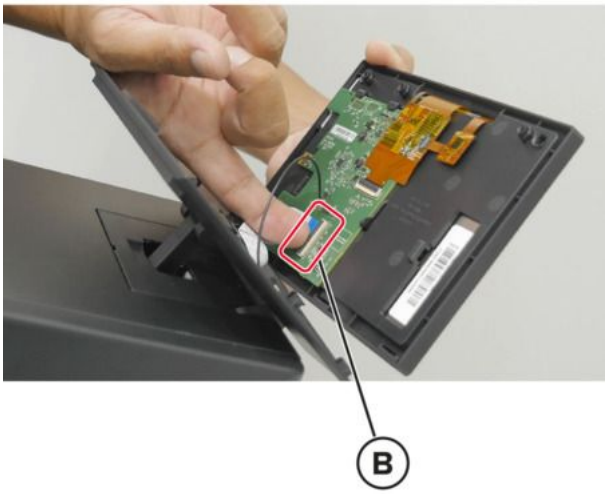


2. Pry the control panel display to release it, and then pull the panel to access the cable.

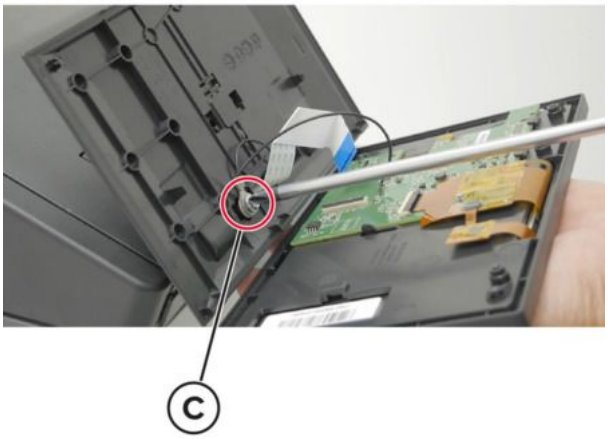
> **Warning—Potential Damage**
> To avoid damaging the cable, make sure to hold the control panel display after releasing it.



3. Remove the cable (B).



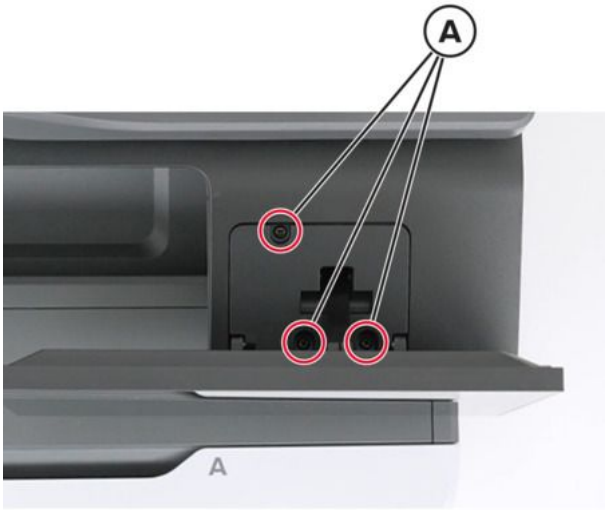
4. Remove the screw (C).



5. Remove the control panel.

Control panel base (10-inch) removal

1. Remove the control panel. See Control panel display (10-inch) removal on page 558.
2. Remove the three screws (A) under the control panel.



3. Release the control panel hinge.

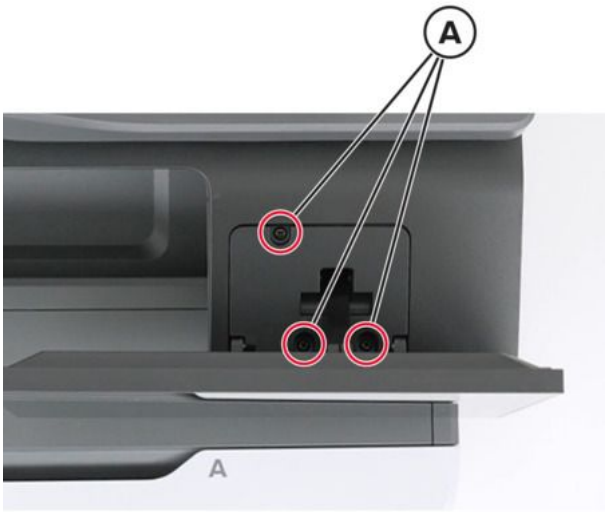


4. Release the flat flex and ground cables from the control panel rear cover to remove the control panel base with rear cover.

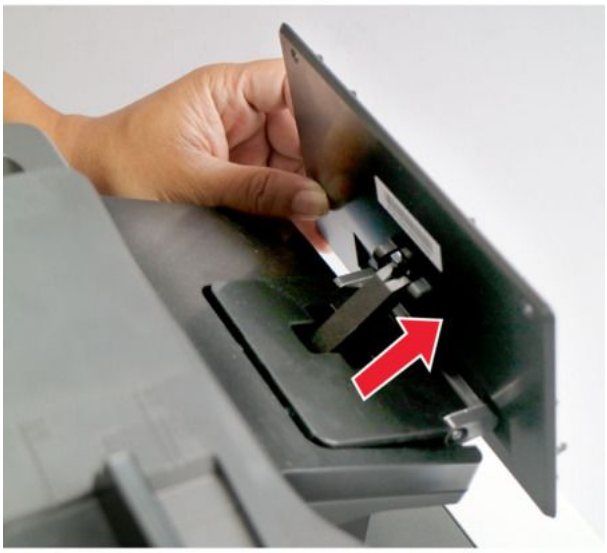


Control panel base (7-inch) removal

1. Remove the control panel. See Control panel display (7-inch) removal on page 559.
2. Remove the screws (A) under the control panel.



3. Release the control panel hinge.

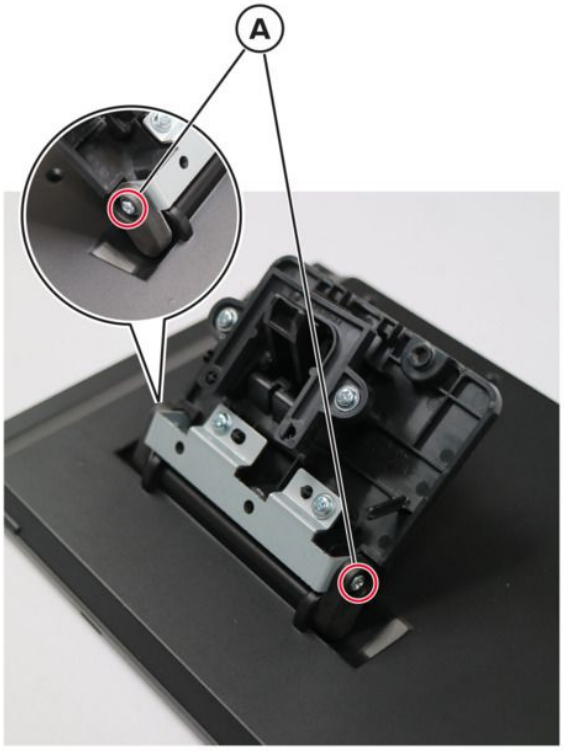


4. Release the FFC (B) from the control panel rear cover to remove the control panel base with rear cover.



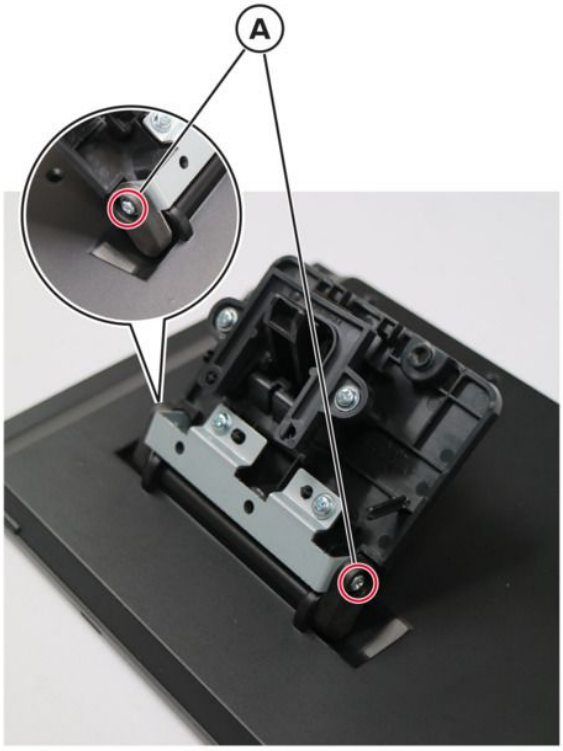
Control panel hinge removal

1. Remove the control panel. See Control panel display (10-inch) removal on page 558 or Control panel display (7-inch) removal on page 559.
2. Remove the control panel base. See Control panel base (10-inch) removal on page 561 or Control panel base (7-inch) removal on page 563.
3. Remove the two screws (A), and then remove the control panel hinge from the rear cover.



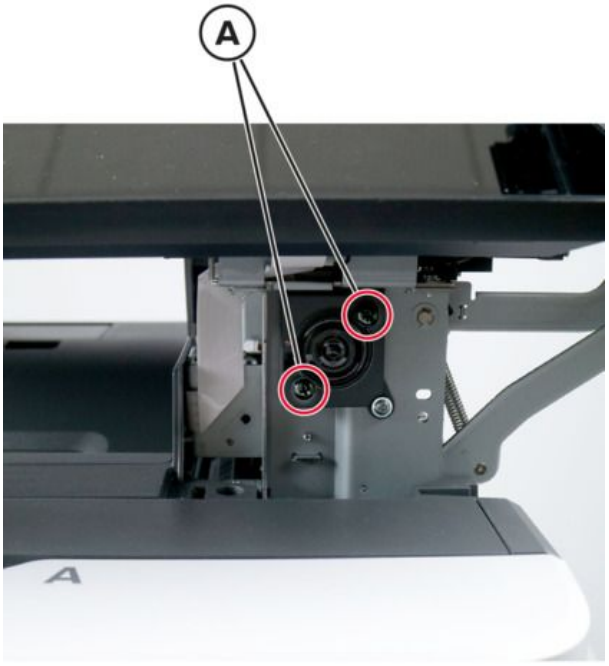
Control panel rear cover removal

1. Remove the control panel. See Control panel display (10-inch) removal on page 558 or Control panel display (7-inch) removal on page 559.
2. Remove the control panel base. See Control panel base (10-inch) removal on page 561 or Control panel base (7-inch) removal on page 563.
3. Remove the two screws (A), and then remove the control panel rear cover from the hinge.

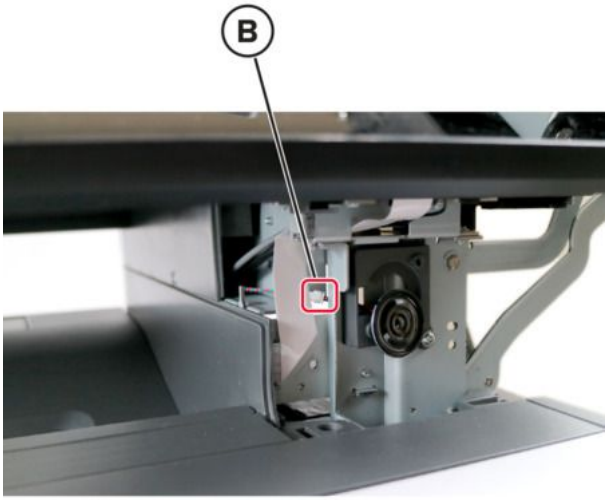


Speaker removal

1. Remove the USB cover. See USB cover removal on page 523.
2. Remove the scanner front cover. See Scanner front cover removal on page 545.
3. Remove the two screws (A).



4. Disconnect the cable (B).



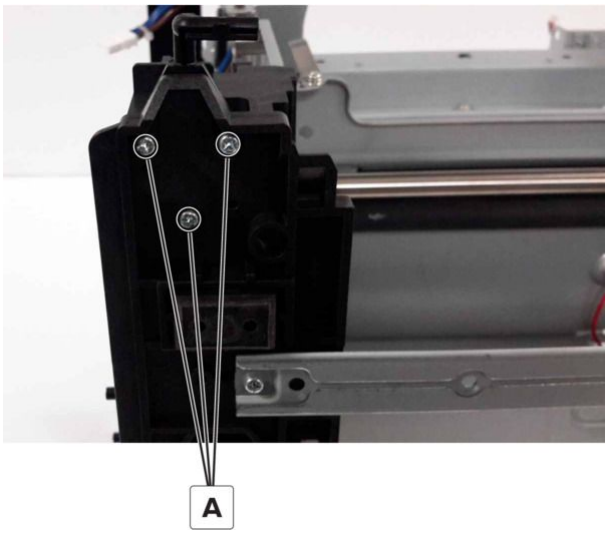
5. Remove the speaker.

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.

Notes
This procedure is applicable to the left and right hinges.

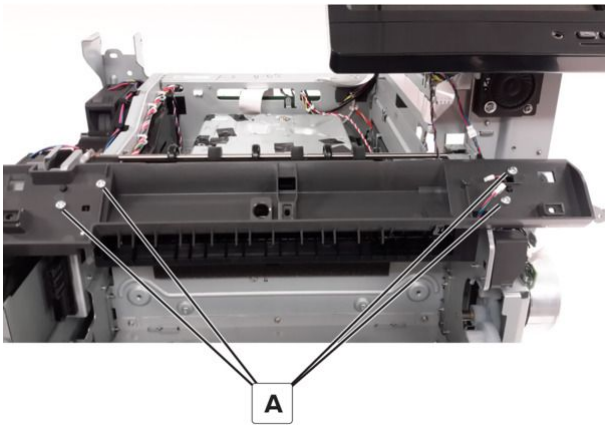
1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the imaging kit. See Imaging kit removal on page 517.
3. Remove the front door. See Front door removal on page 541.
4. Place the printer on its side.
5. Remove the three screws (A) securing the hinge, and then remove the hinge.



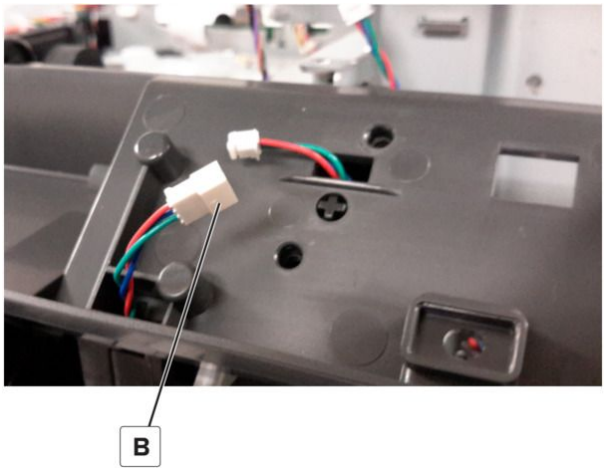
Control panel arms removal

Notes
The control panel arms are two separate FRUs. This procedure shows how to remove both arms.

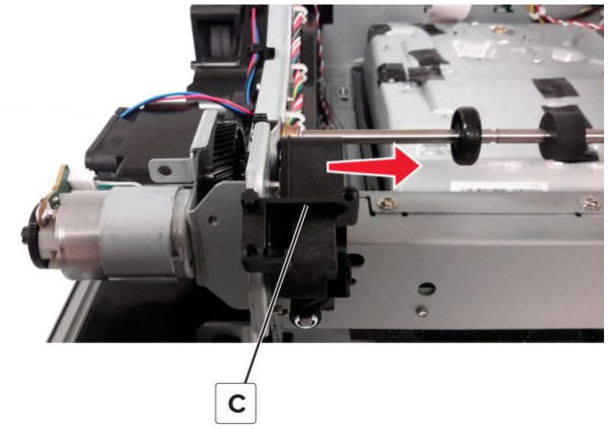
1. Remove the fuser. See Fuser removal on page 551.
2. Remove the top frame cover. See Top frame cover removal on page 591.
3. Remove the four screws (A).



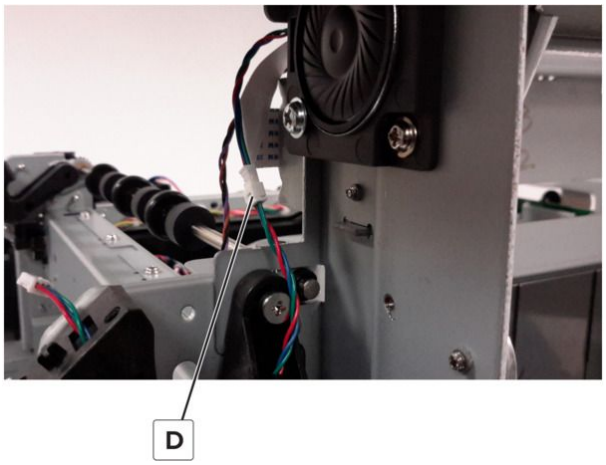
4. Disconnect the cable (B).



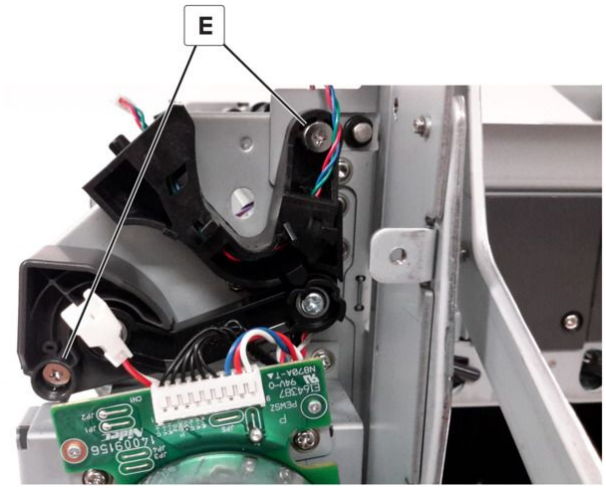
5. Remove the redrive guide. See Redrive guide removal on page 553.
6. Remove the control panel left arm (C) from the mounting pin.



7. Disconnect the cable (D).



8. Remove the two screws (E), and then remove the right arm.

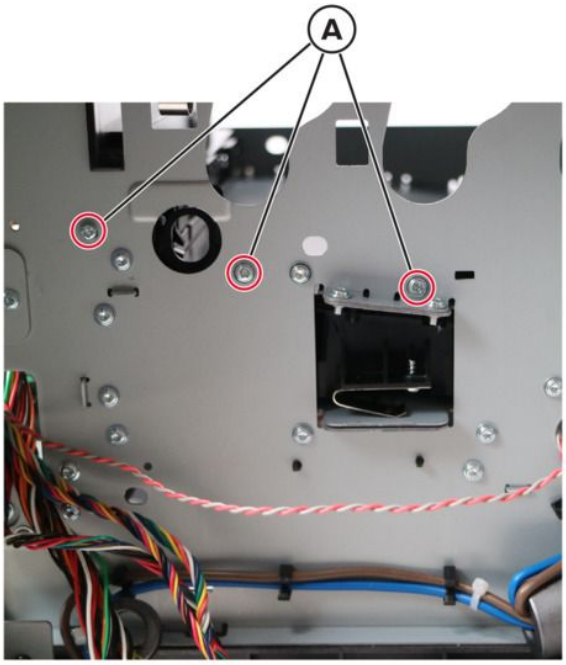


9. Remove the cable (F) from the right arm.

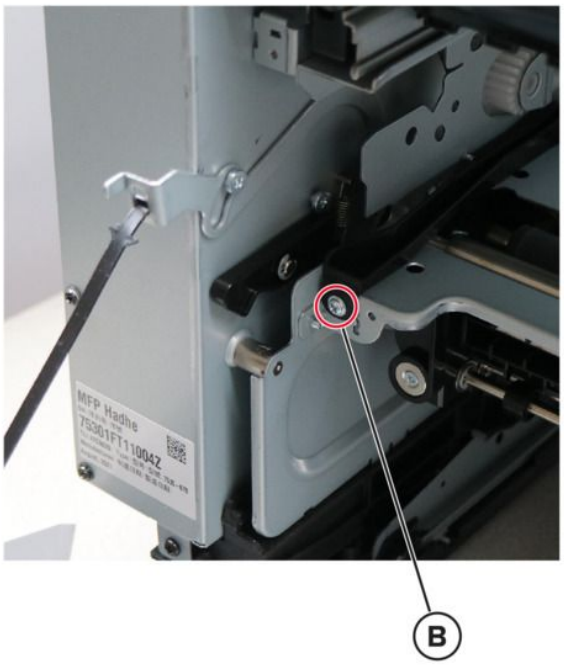


Transfer module guide rail removal

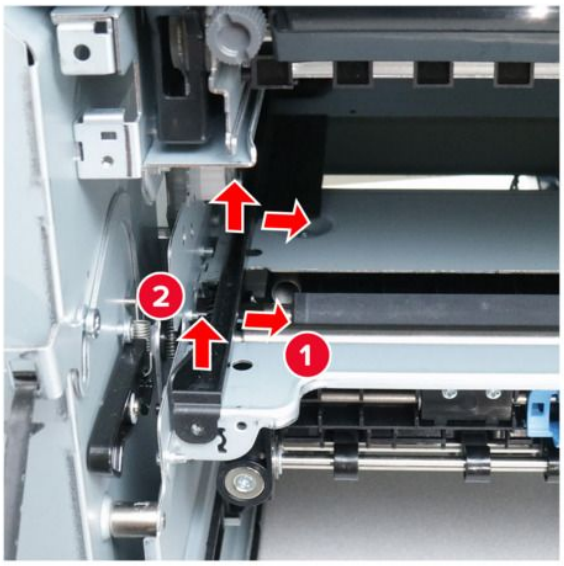
1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the imaging kit. See Imaging kit removal on page 517.
3. Remove the transfer module. See Transfer module removal on page 547.
4. Remove the left cover. See Left cover removal on page 497.
5. Remove the EP drive gearbox. See EP drive gearbox removal on page 504.
6. Remove the three screws (A).



7. Remove the screw (B).



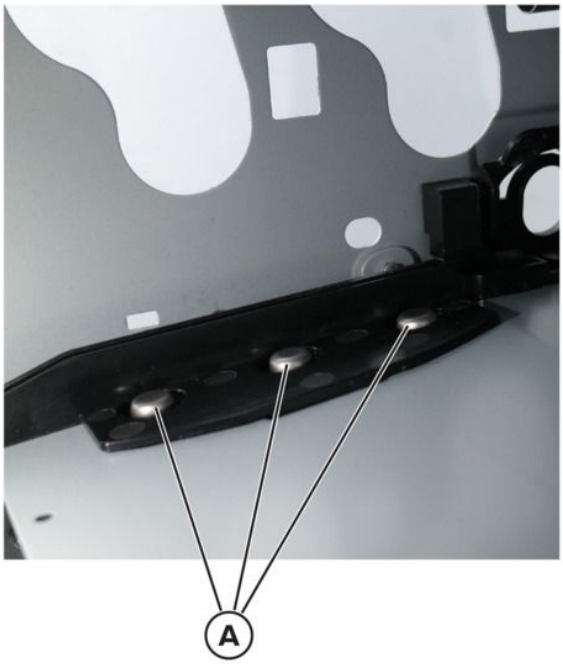
8. Gently release the guide rail from the frame.



9. Release the spring (C), and then remove the spring and coupling (D) from the guide rail.



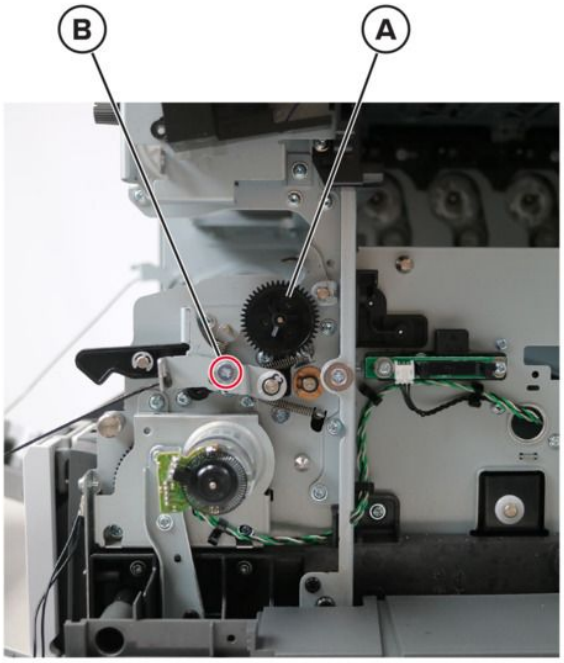
Installation Note
Make sure that the HVPS contacts (A) are aligned and unblocked.



Aligner rollers removal

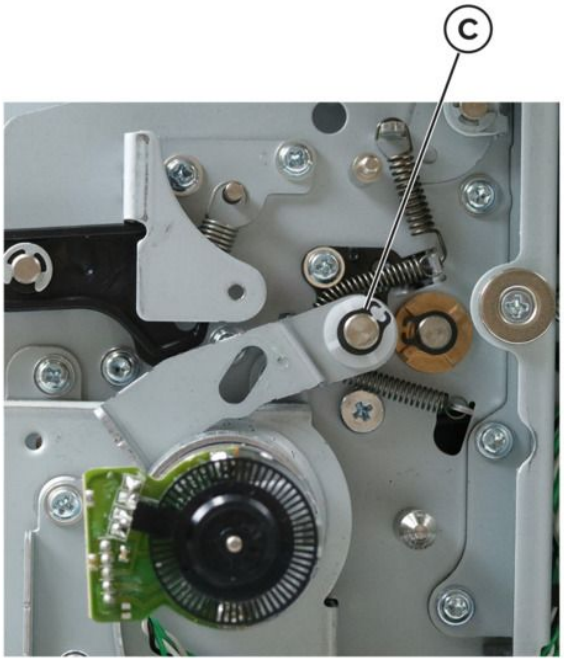
1. Remove the fuser. See .Fuser removal on page 551
2. Remove the waste toner bottle. See Waste toner bottle removal on page 515.

3. Remove the imaging kit. See Imaging kit removal on page 517.
4. Remove the transfer module. See Transfer module removal on page 547.
5. Remove the left cover. See Left cover removal on page 497.
6. Remove the LVPS. See LVPS removal on page 499.
7. Remove the LVPS cage. See LVPS cage removal on page 510.
8. Remove the motor cover. See Motor cover removal on page 543.
9. Remove the right cover. See Right cover removal on page 520.
10. Remove the sensor (input). See Sensor (input) removal on page 550.
11. On the right side of the printer, remove the gear (A), and then remove the screw (B).

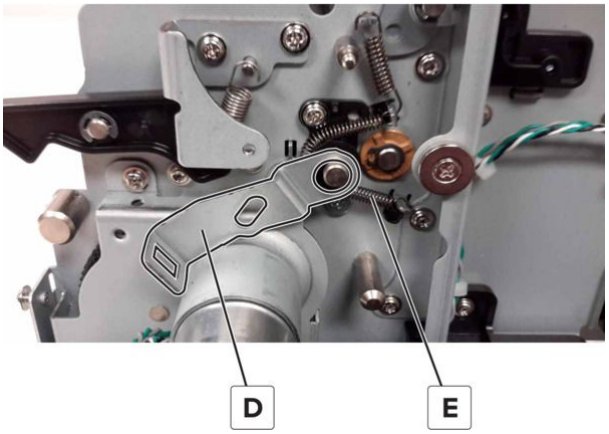


12. Remove the C-clip (C), and then remove the spacer.

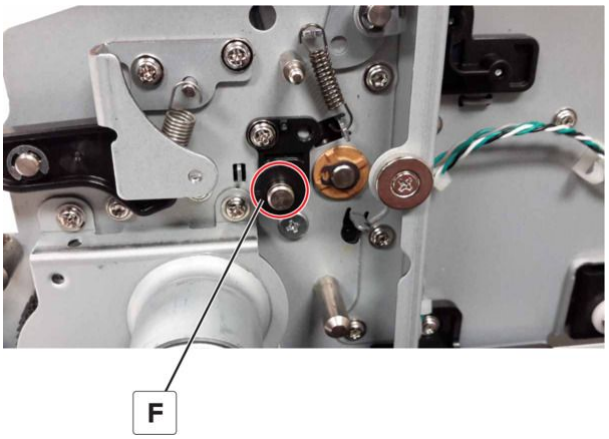
> **Warning—Potential Damage**
> Be careful not to overextend the clip when removing or installing.



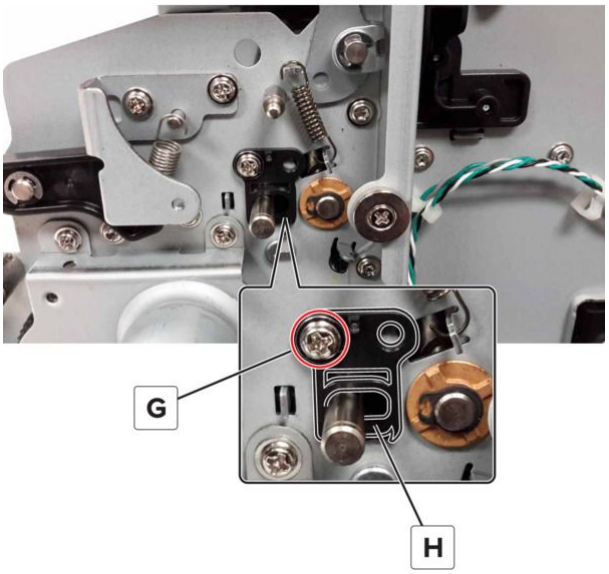
13. Remove the bracket (D), and then release the spring (E).



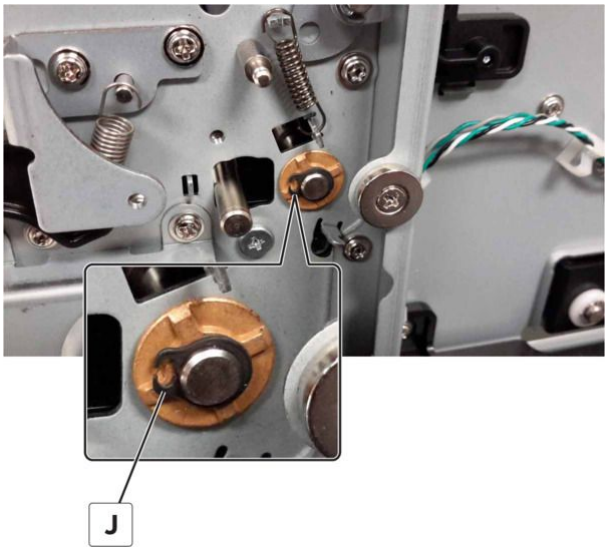
14. Remove the spacer (F).



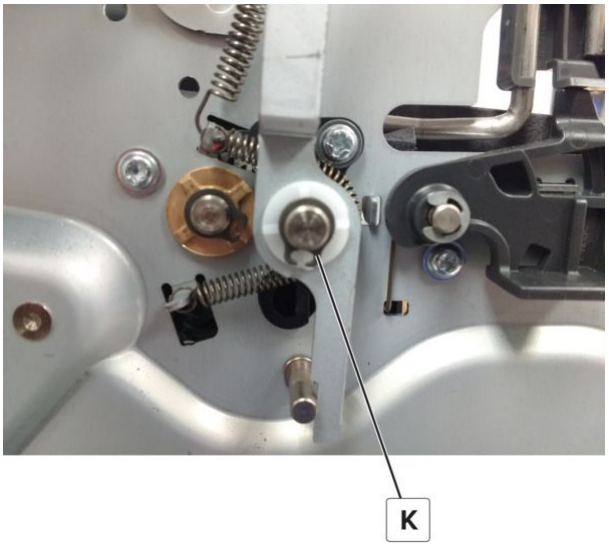
15. Remove the screw (G), and then remove the guide (H).



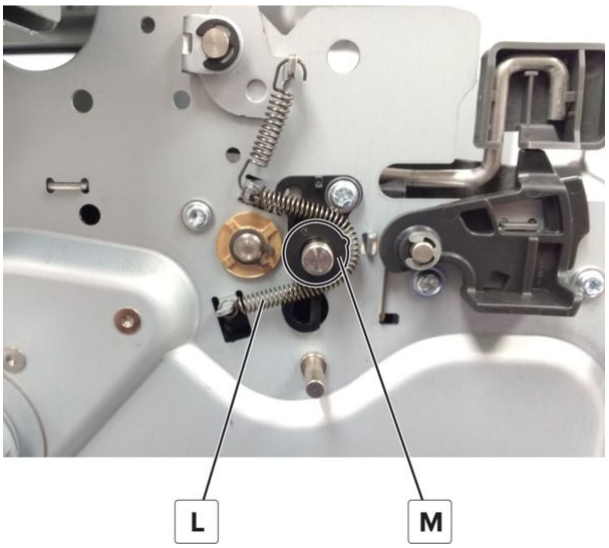
16. Remove the C-clip (J), and then remove the bushing.



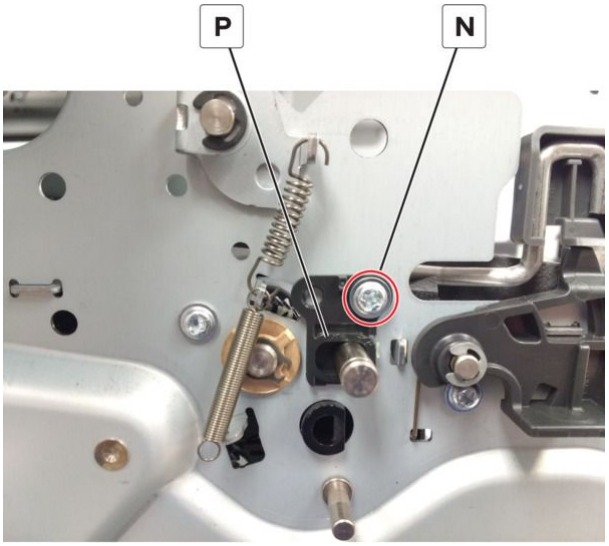
17. Remove the C-clip (K), and then remove the spacer.



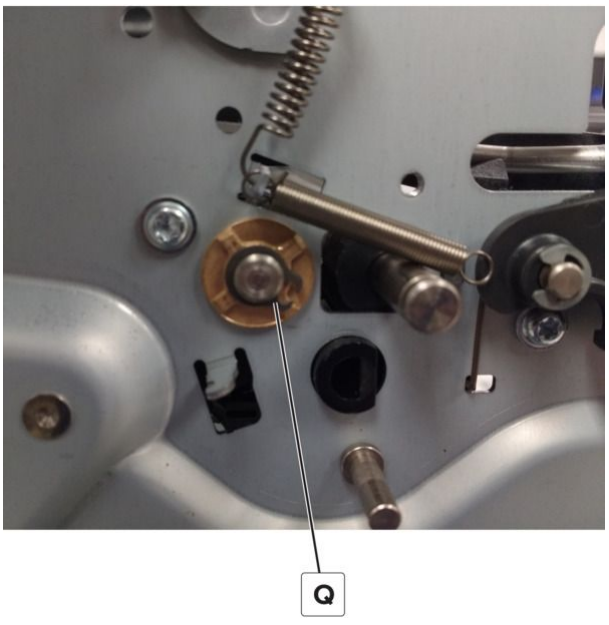
18. Remove the spring (L), and then remove the spacer (M).



19. Remove the screw (N), and then remove the guide (P).

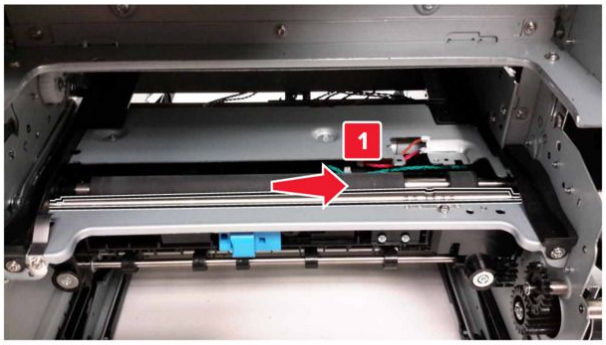


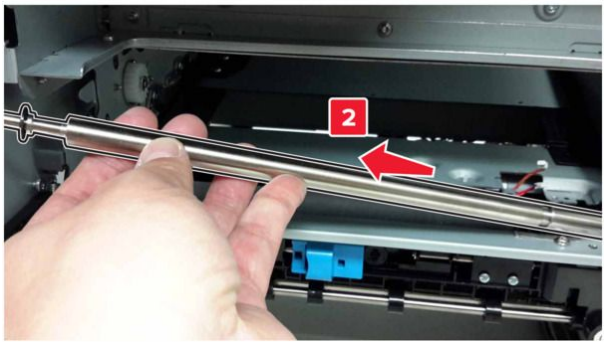
20. Remove the C-clip (Q), and then remove the bushing.



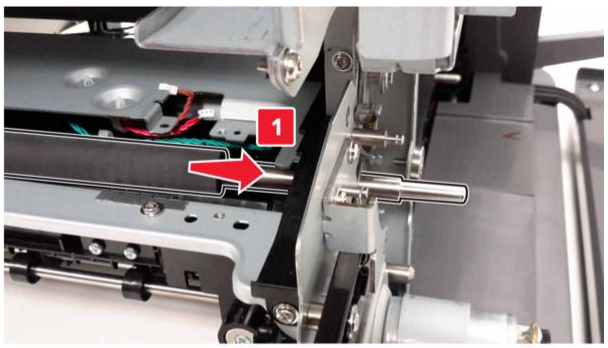
21. Slide the front aligner roller to the right to remove.

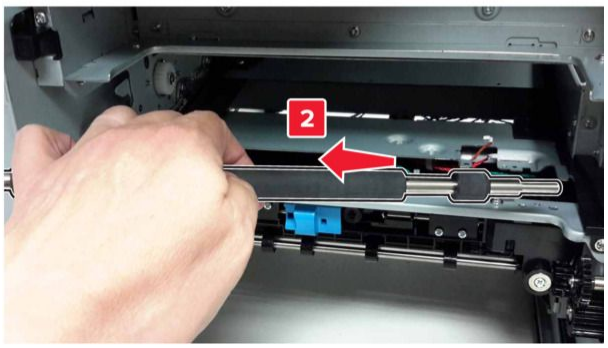
> **Notes**
> Be careful not to drop or lose the washer on the left side of the shaft.





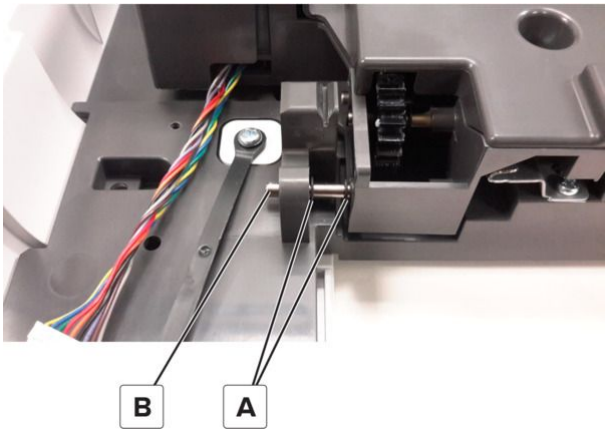
22. Slide the rear aligner roller to the right to remove.





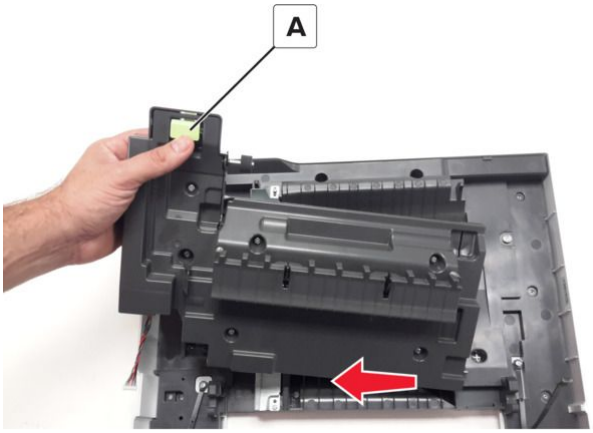
Pivot shaft removal

1. Remove the front door. See Front door removal on page 541.
2. Remove the two E-clips (A), and then remove the shaft (B).



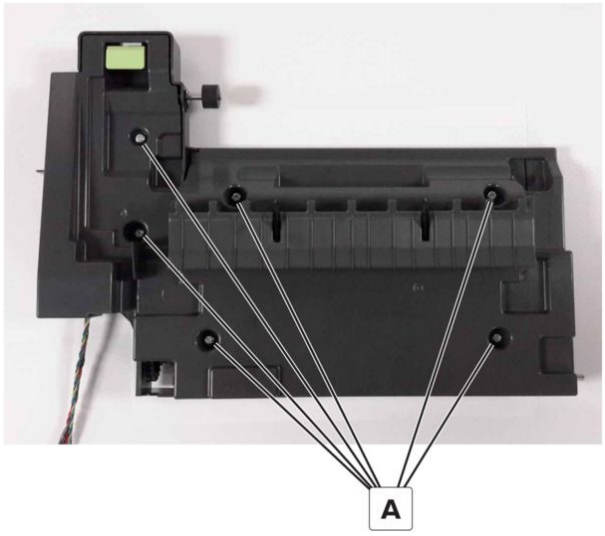
Duplex inner guide removal

1. Remove the front door. See Front door removal on page 541.
2. Remove the pivot shaft. See Pivot shaft removal on page 578.
3. Release the latch (A), and then slide the guide to remove.

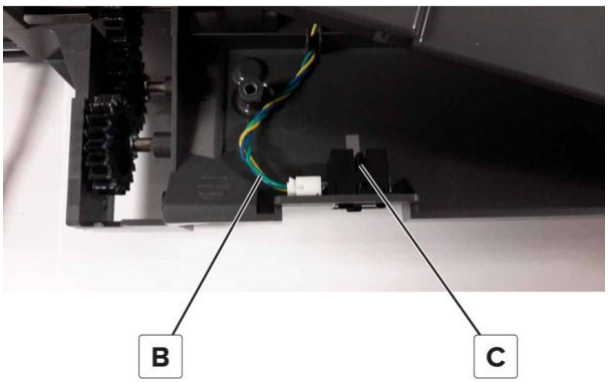


Sensor (duplex staging) removal

1. Remove the front door. See Front door removal on page 541.
2. Remove the pivot shaft. See Pivot shaft removal on page 578.
3. Remove the duplex inner guide. See Duplex inner guide removal on page 578.
4. Remove the six screws (A).

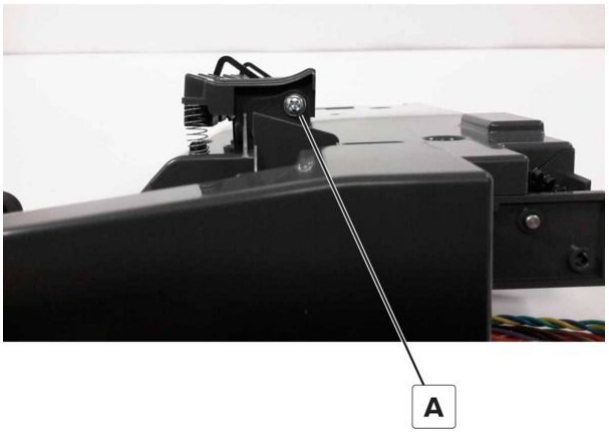


5. Disconnect the cable (B), and then remove the sensor (C).



Sensors (fuser buckle and narrow media) removal

1. Open the front door.
2. Remove the screw (A).

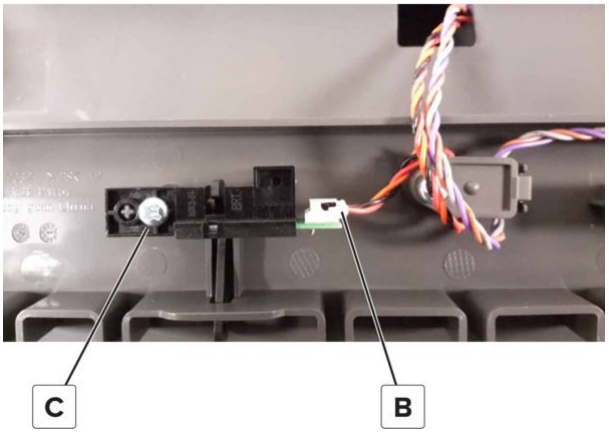


3. Slide the paper guide to the right to remove.



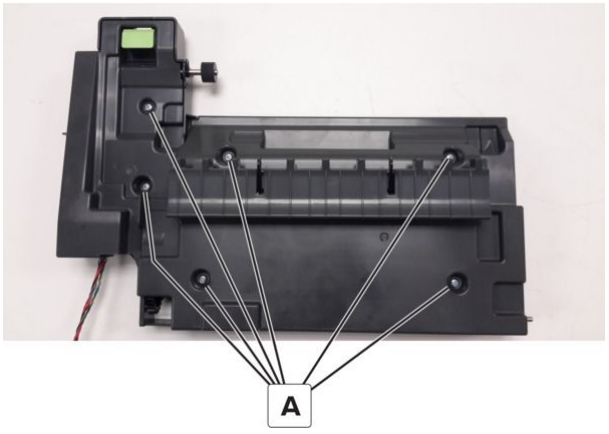
4. Disconnect the sensor cable (B), remove the screw (C), and then remove the sensors.

> **Notes**
> The left sensor is the sensor (fuser buckle). The right sensor is the sensor (narrow media). For more information, see Fuser drive on page 728.

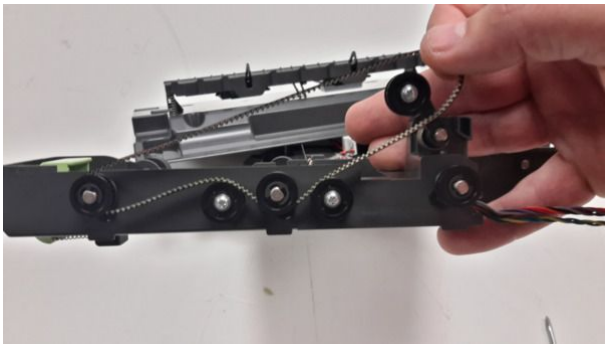


Tensioner belt removal

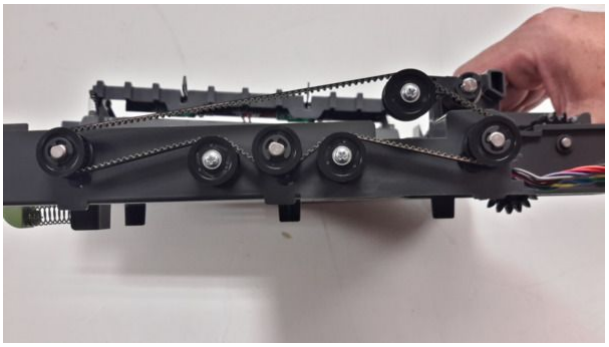
1. Remove the front door. See Front door removal on page 541.
2. Remove the pivot shaft. See Pivot shaft removal on page 578.
3. Remove the duplex inner guide. See Duplex inner guide removal on page 578.
4. Remove the six screws (A), and then remove the cover.



5. Remove the belt.

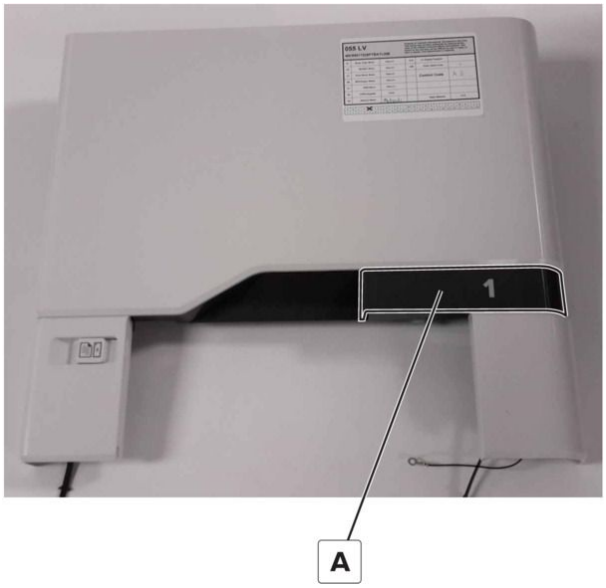


Notes
Pay attention to the belt path before removing the belt.

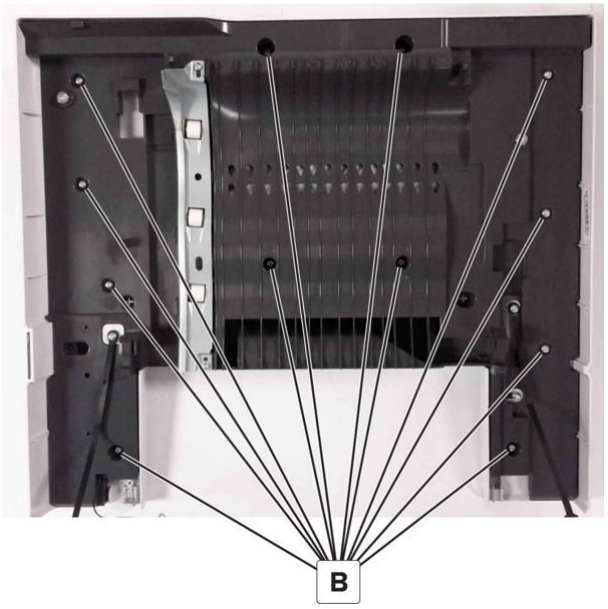


Duplex outer guide removal

1. Remove the front door. See Front door removal on page 541.
2. Remove the pivot shaft. See Pivot shaft removal on page 578.
3. Remove duplex inner guide. See Duplex inner guide removal on page 578.
4. Remove the tray indicator (A).

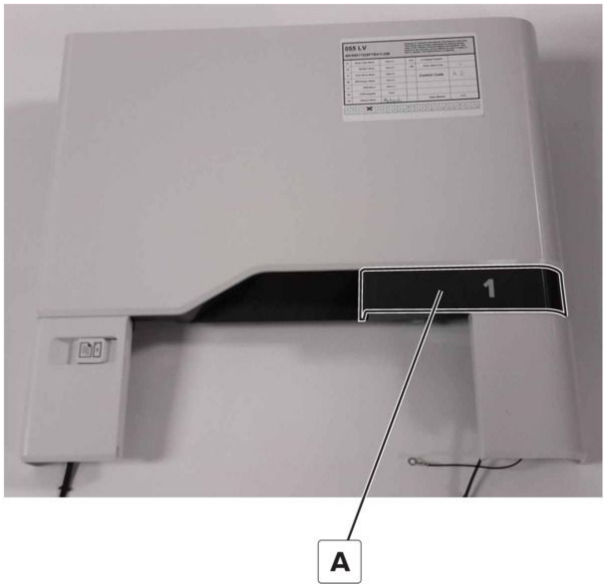


5. Remove the 12 screws (B), and then remove the duplex outer guide.

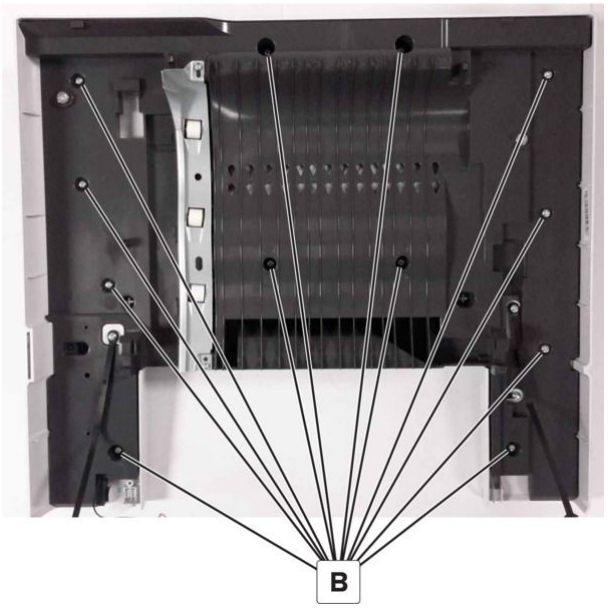


Front door cover removal

1. Remove the front door. See Front door removal on page 541.
2. Remove the pivot shaft. See Pivot shaft removal on page 578.
3. Remove duplex inner guide. See Duplex inner guide removal on page 578.
4. Remove the tray indicator (A).



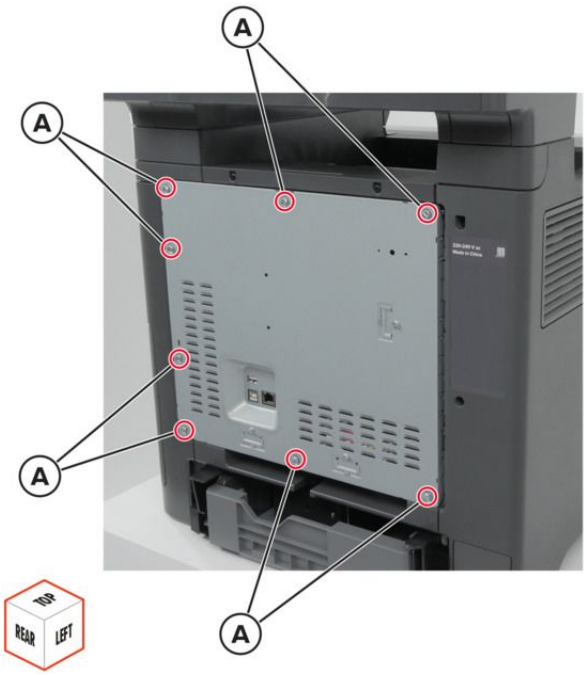
5. Remove the 12 screws (B), and then remove the front door cover from the duplex outer guide.



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.

Scanner rear right cover removal

Remove the cover (A).



Scanner rear left cover removal

Remove the cover (A).



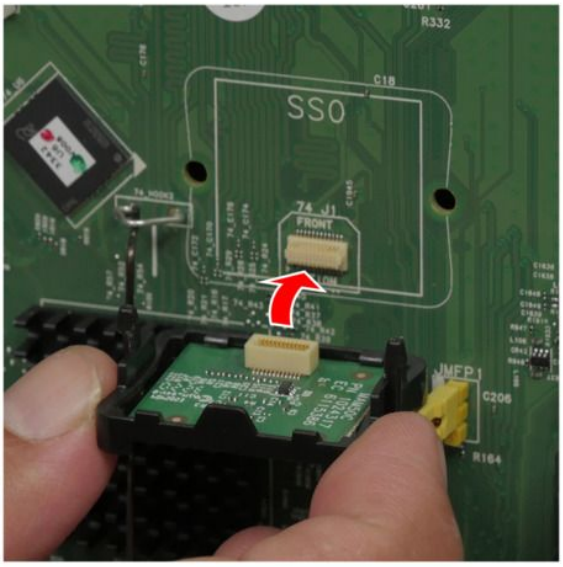
ISD card removal

1. Remove the controller board shield. See Controller board shield removal on page 583.
2. Release the latches, and then remove the card.

> **Warning—Potential Damage**
> To avoid electrical damage, make sure that the printer is unplugged.



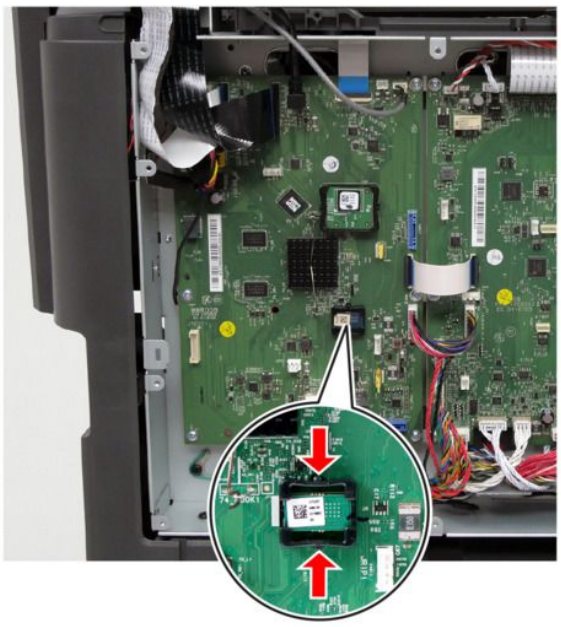
Installation Note
Make sure that the connector is plugged.



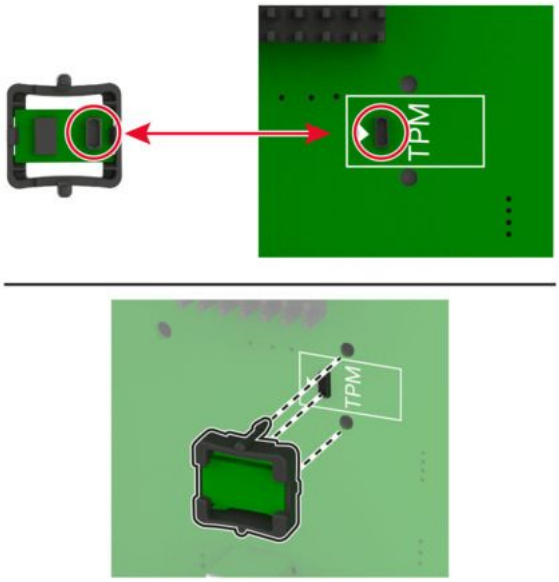
TPM card removal

1. Remove the controller board shield. See Controller board shield removal on page 583.
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 in.



Controller board removal

Warning--Potential Damage:
Before performing the removal, see Critical instructions for replacing and diagnosing the controller board on page 476.

Removal procedure

Notes
For a video demonstration, see Replacing the controller board.

1. Remove the controller board shield. See Controller board shield removal on page 583.
2. Disconnect all the cables, and then remove the six screws (A).



3. Remove the board.

Installation Note

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 585 and TPM card removal on page 586.

b. After the new controller board is installed, restore the printer configuration. See Restoring the printer configuration on page 479.

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 439.

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 468 and Updating the printer firmware.



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

Notes
For a video demonstration, see Replacing the engine board.

1. Remove the controller board shield. See Controller board shield removal on page 583.
2. Disconnect all the cables, and then remove the six screws (A).

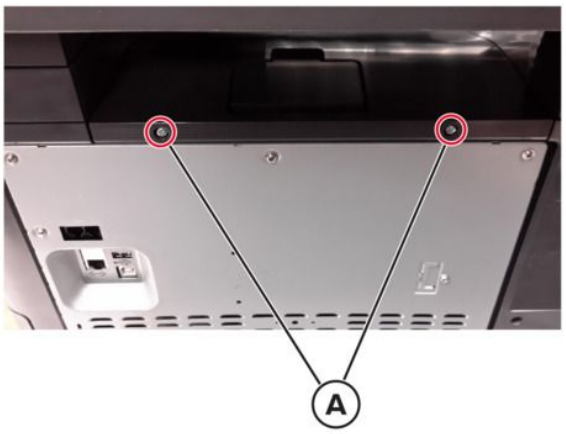


3. Remove the board.

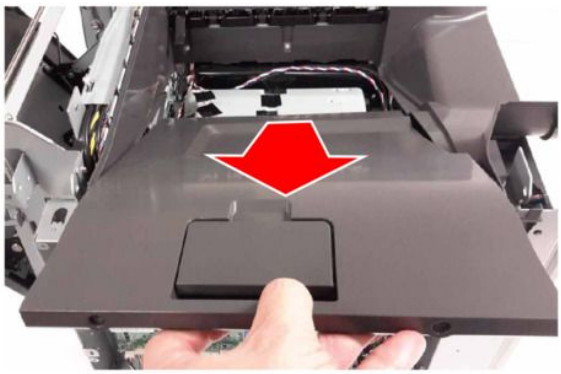
Top side removals

Bin cover removal

1. From the rear, remove the two screws (A).

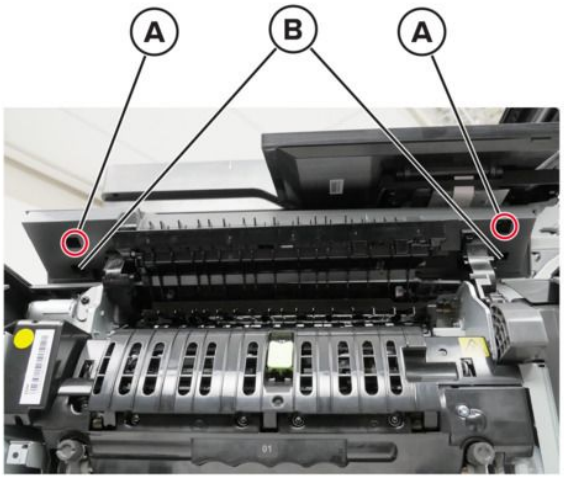


2. Remove the cover.



Top frame cover removal

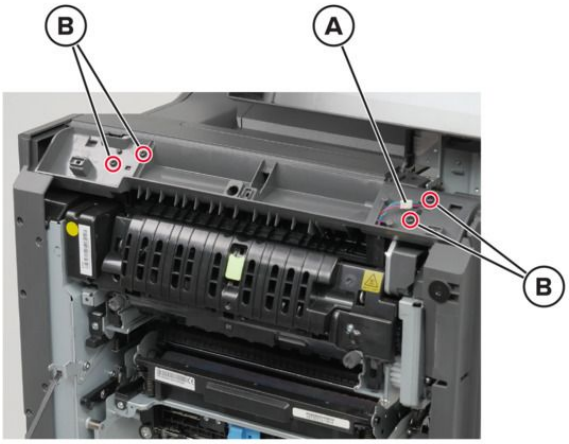
1. Open the front door and door A1.
2. Remove the two screws (A), and then release the two latches (B).



3. Remove the cover.

Top frame base cover removal

1. Remove the top frame cover. See Top frame cover removal on page 591.
2. Disconnect the cable (A), and then remove the four screws (B).



3. Remove the cover.

Upper front door removal

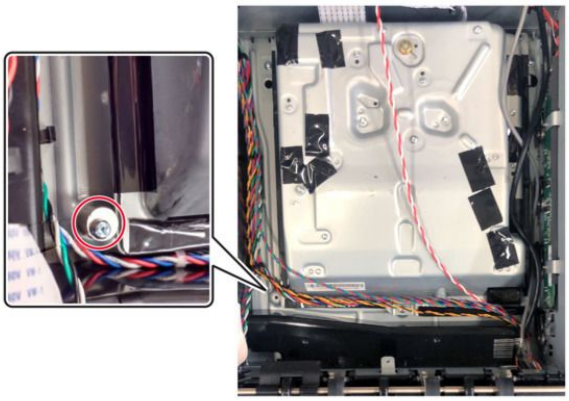
Notes
The upper front door consists of the top frame cover and top frame base cover.

1. Remove the top frame cover. See Top frame cover removal on page 591.
2. Remove the top frame base cover. See Top frame base cover removal on page 591.

Printhead removal

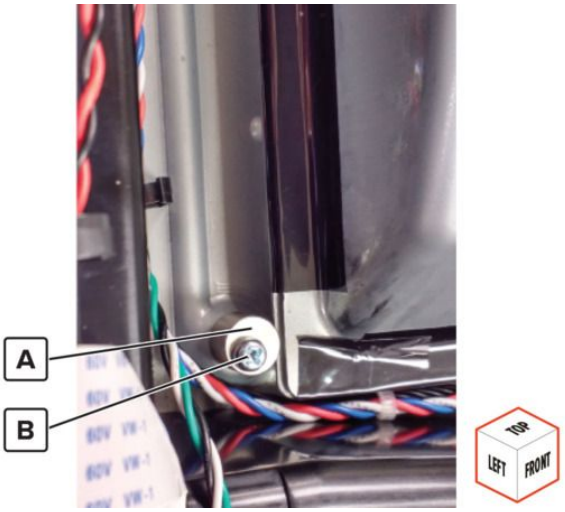
Notes
For a video demonstration, see Replacing the printhead.

1. Tilt the ADF and flatbed scanner. See Tilting the ADF and flatbed scanner to access parts on page 637.
2. Remove the controller board shield. See Controller board shield removal on page 583.
3. Remove the bin cover. See Bin cover removal on page 590.
4. 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.

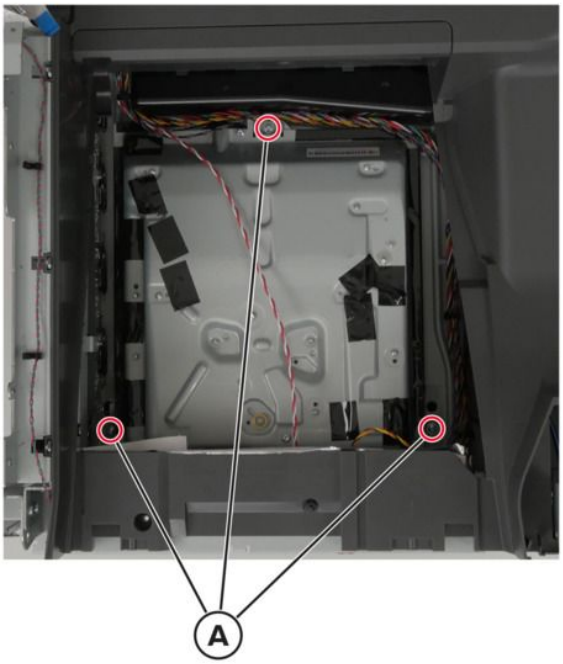


b. If no stop is installed, then place the stop (A) next to the printhead and turn the stop until it touches the printhead.

c. Fasten the stop with the screw (B).



5. Remove the three screws (A).



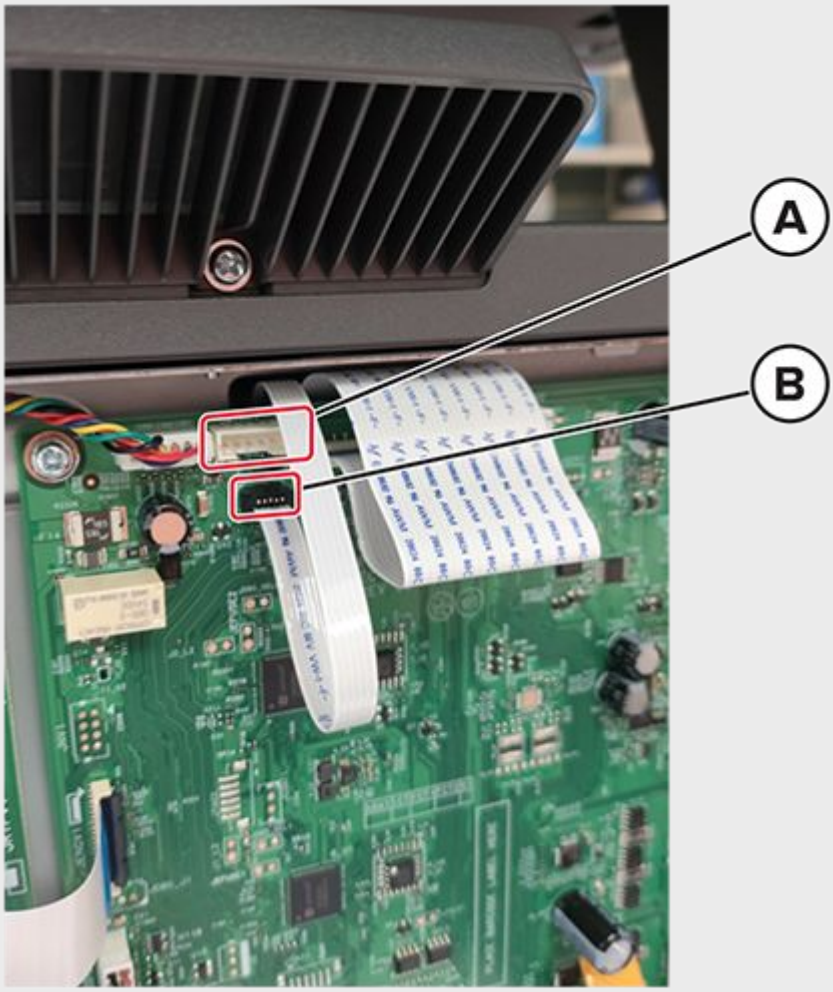
6. Disconnect the cables (B).



Note:

a. Connect to port (A) if cable wire.

b. Connect to port (B) if flat wire.



7. Remove the printhead.

Installation Note

a. Inspect the replacement printhead. For more information, see Installing the printhead on page 488.

b. 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.

c. Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > Registration adjust > Quick test

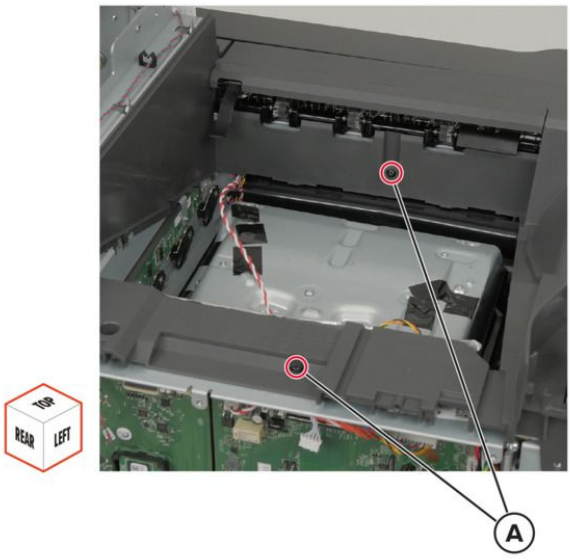
d. If the printhead needs alignment, perform a printhead alignment adjustment. See Printhead alignment adjustment on page 491.

e. Tighten the screws.

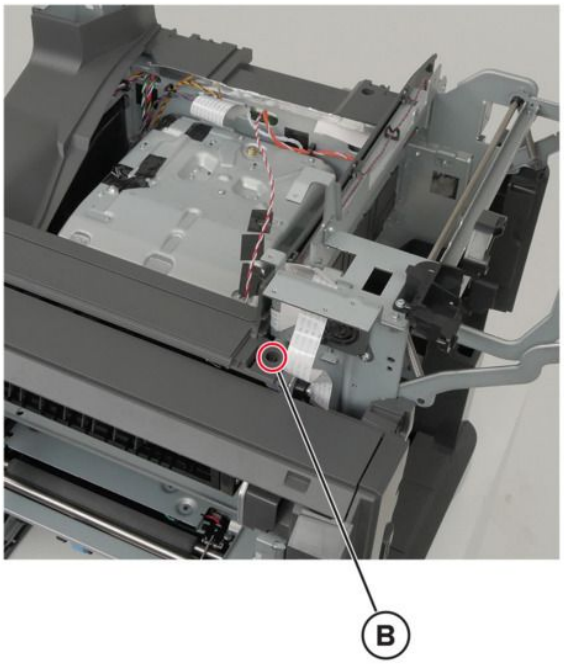
f. Perform a color alignment adjustment. See Color alignment adjust on page 456.

Top cover removal

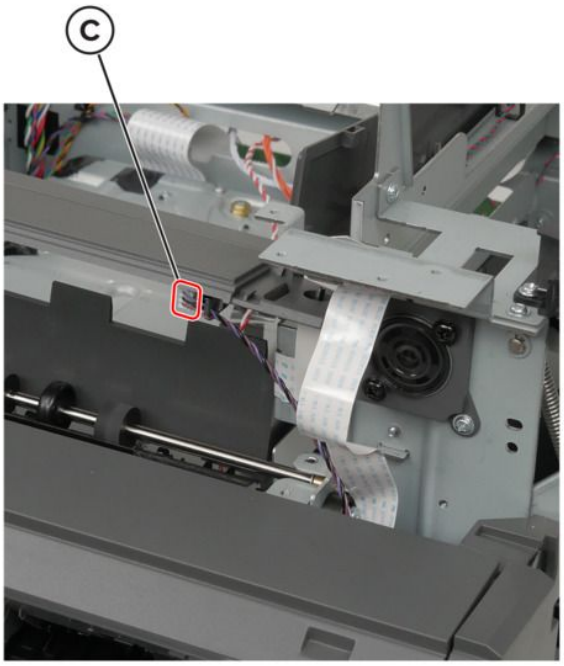
1. Remove the scanner rear right cover. See Scanner rear right cover removal on page 584.
2. Remove the scanner rear left cover. See Scanner rear left cover removal on page 585.
3. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
4. Remove the imaging kit. See Imaging kit removal on page 517.
5. Remove the motor cover. See Motor cover removal on page 543.
6. Remove or loosen the right cover. See Right cover removal on page 520.
7. Remove the controller board shield. See Controller board shield removal on page 583.
8. Remove the USB cover. See USB cover removal on page 523.
9. Remove the scanner front cover. See Scanner front cover removal on page 545.
10. Remove the control panel. See Control panel display (10-inch) removal on page 558 or Control panel display (7-inch) removal on page 559.
11. Remove the control panel base. See Control panel base (10-inch) removal on page 561 or Control panel base (7-inch) removal on page 563.
12. Remove the façade cover. See Facade cover removal on page 604.
13. Remove the ADF and flatbed scanner. See Flatbed scanner removal on page 625.
14. Remove the bin cover. See Bin cover removal on page 590.
15. Remove the two screws (A).



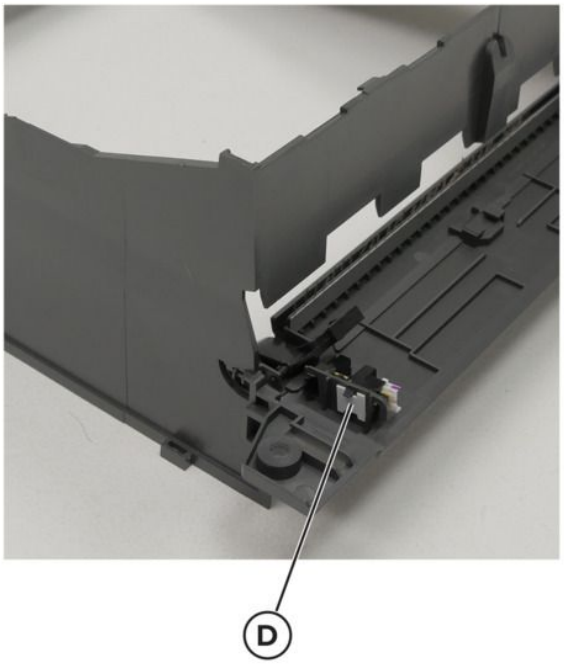
16. Remove the screw (B).



17. Lift the cover, and then disconnect the sensor cable (C).

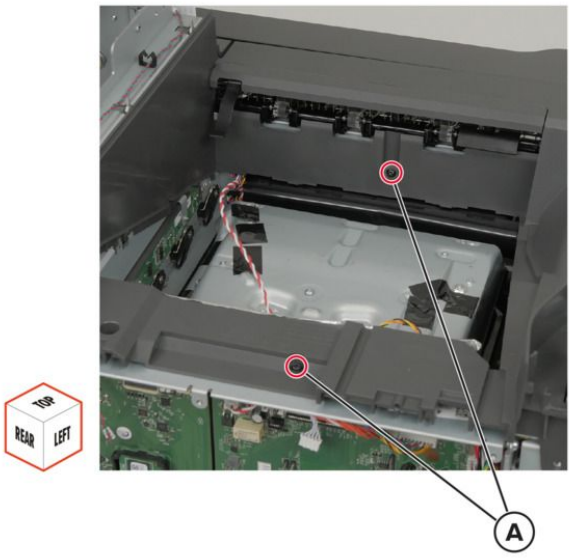


18. Remove the sensor retainer (D), and then remove the sensor from the cover.

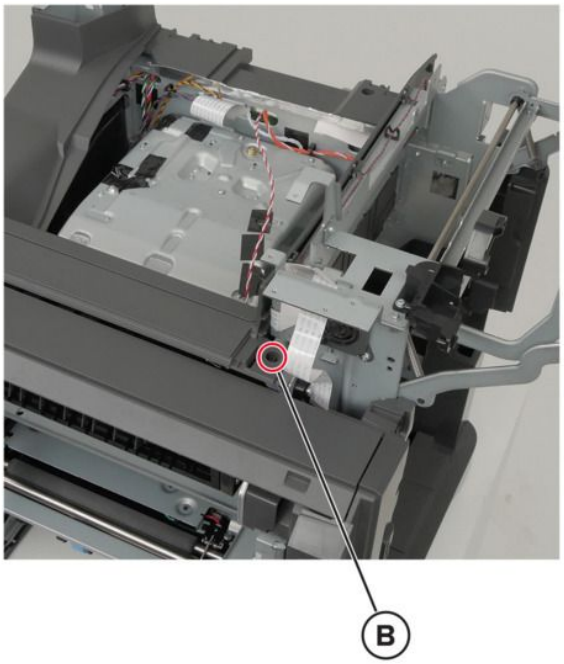


Sensor (bin full) removal

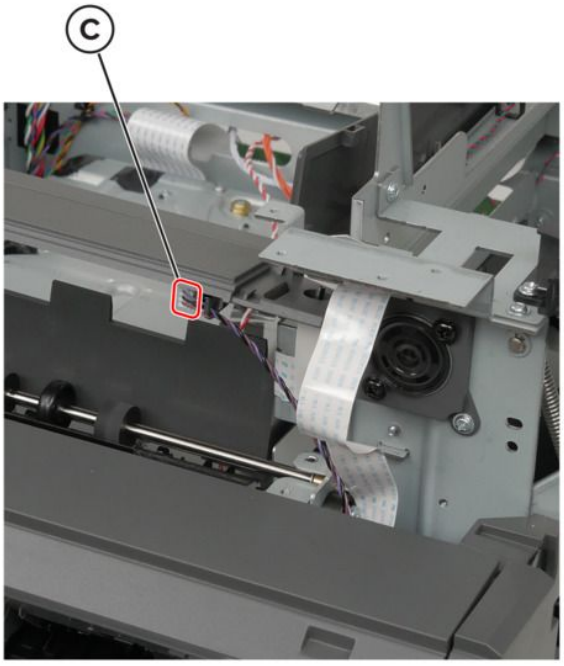
1. Remove the scanner rear right cover. See Scanner rear right cover removal on page 584.
2. Remove the scanner rear left cover. See Scanner rear left cover removal on page 585.
3. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
4. Remove the imaging kit. See Imaging kit removal on page 517.
5. Remove the motor cover. See Motor cover removal on page 543.
6. Remove or loosen the right cover. See Right cover removal on page 520.
7. Remove the controller board shield. See Controller board shield removal on page 583.
8. Remove the USB cover. See USB cover removal on page 523.
9. Remove the scanner front cover. See Scanner front cover removal on page 545.
10. Remove the control panel. See Control panel display (10-inch) removal on page 558 or Control panel display (7-inch) removal on page 559.
11. Remove the control panel base. See Control panel base (10-inch) removal on page 561 or Control panel base (7-inch) removal on page 563.
12. Remove the façade cover. See Facade cover removal on page 604.
13. Remove the ADF and flatbed scanner. See Flatbed scanner removal on page 625.
14. Remove the bin cover. See Bin cover removal on page 590.
15. Remove the two screws (A).



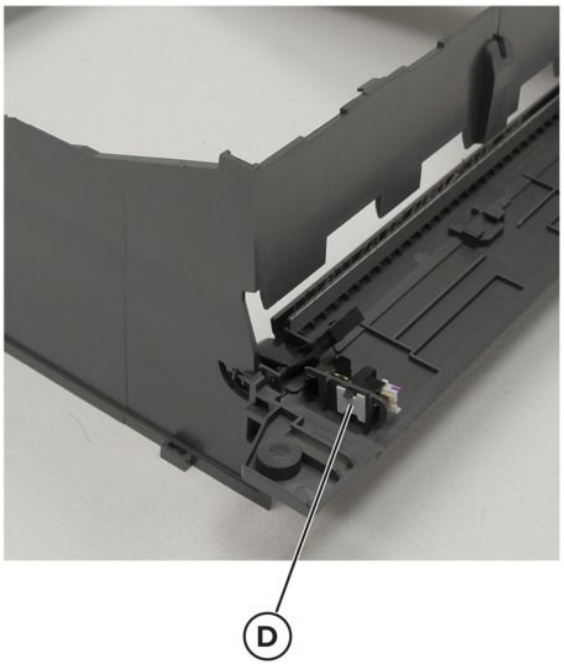
16. Remove the screw (B).



17. Lift the cover, and then disconnect the sensor cable (C).



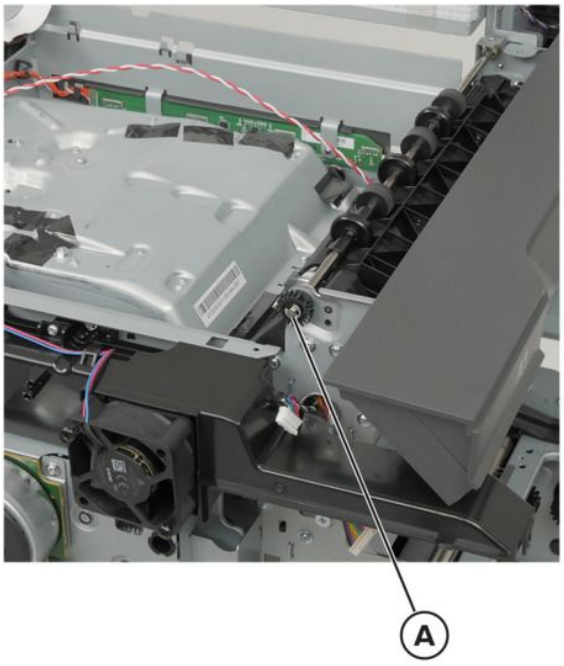
18. Remove the sensor retainer (D), and then remove the sensor from the cover.



Exit roller gear removal

1. Remove the scanner rear right cover. See Scanner rear right cover removal on page 584.
2. Remove the scanner rear left cover. See Scanner rear left cover removal on page 585.
3. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
4. Remove the imaging kit. See Imaging kit removal on page 517.

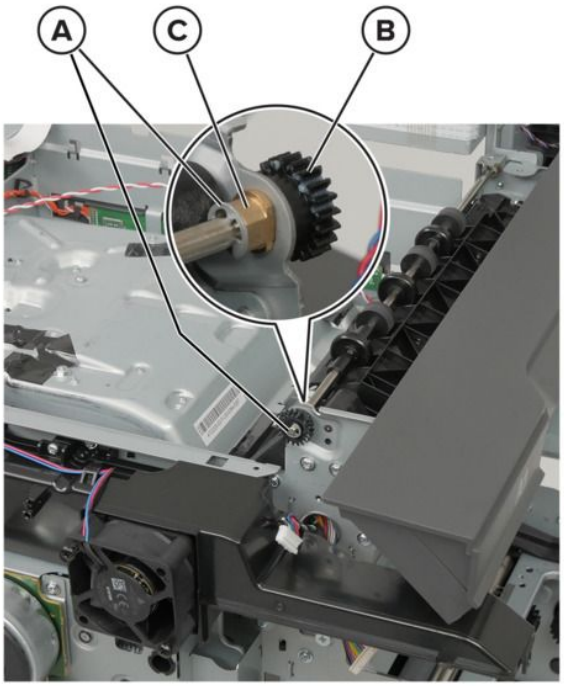
5. Remove the motor cover. See Motor cover removal on page 543.
6. Remove or loosen the right cover. See Right cover removal on page 520.
7. Remove the controller board shield. See Controller board shield removal on page 583.
8. Remove the USB cover. See USB cover removal on page 523.
9. Remove the scanner front cover. See Scanner front cover removal on page 545.
10. Remove the control panel. See Control panel display (10-inch) removal on page 558 or Control panel display (7-inch) removal on page 559.
11. Remove the control panel base. See Control panel base (10-inch) removal on page 561 or Control panel base (7-inch) removal on page 563.
12. Remove the façade cover. See Facade cover removal on page 604.
13. Remove the ADF and flatbed scanner. See Flatbed scanner removal on page 625.
14. Remove the bin cover. See Bin cover removal on page 590.
15. Remove the top cover. See Top cover removal on page 596.
16. Remove the E-clip (A), and then remove the gear.



Exit roller removal

1. Remove the scanner rear right cover. See Scanner rear right cover removal on page 584.
2. Remove the scanner rear left cover. See Scanner rear left cover removal on page 585.
3. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
4. Remove the imaging kit. See Imaging kit removal on page 517.
5. Remove the motor cover. See Motor cover removal on page 543.
6. Remove or loosen the right cover. See Right cover removal on page 520.

7. Remove the controller board shield. See Controller board shield removal on page 583.
8. Remove the USB cover. See USB cover removal on page 523.
9. Remove the scanner front cover. See Scanner front cover removal on page 545.
10. Remove the control panel. See Control panel display (10-inch) removal on page 558 or Control panel display (7-inch) removal on page 559.
11. Remove the control panel base. See Control panel base (10-inch) removal on page 561 or Control panel base (7-inch) removal on page 563.
12. Remove the façade cover. See Facade cover removal on page 604.
13. Remove the ADF and flatbed scanner. See Flatbed scanner removal on page 625.
14. Remove the bin cover. See Bin cover removal on page 590.
15. Remove the top cover. See Top cover removal on page 596.
16. Remove the two E-clips (A), and then remove the gear (B) and bushing (C).

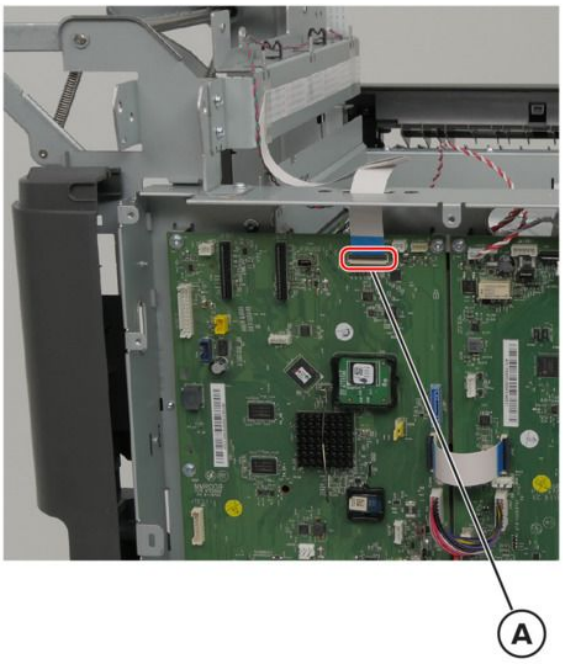


17. Remove the roller.

Control panel FFC removal

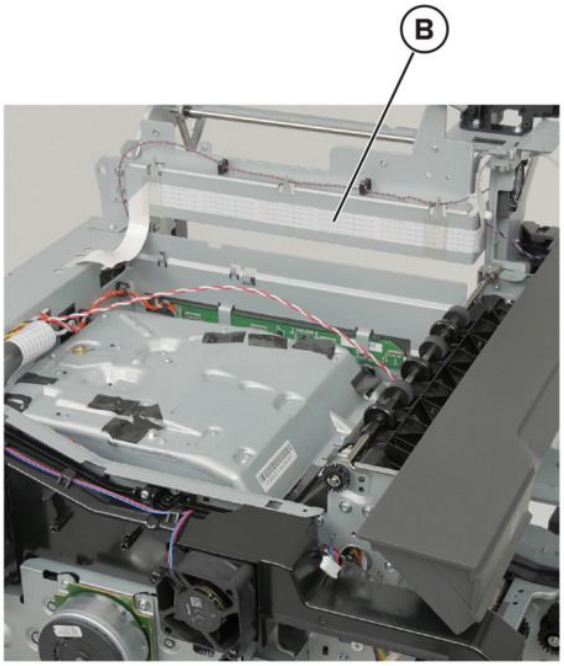
1. Remove the scanner rear right cover. See Scanner rear right cover removal on page 584.
2. Remove the scanner rear left cover. See Scanner rear left cover removal on page 585.
3. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
4. Remove the imaging kit. See Imaging kit removal on page 517.
5. Remove the motor cover. See Motor cover removal on page 543.
6. Remove or loosen the right cover. See Right cover removal on page 520.
7. Remove the controller board shield. See Controller board shield removal on page 583.

8. Remove the USB cover. See USB cover removal on page 523.
9. Remove the scanner front cover. See Scanner front cover removal on page 545.
10. Remove the control panel. See Control panel display (10-inch) removal on page 558 or Control panel display (7-inch) removal on page 559.
11. Remove the control panel base. See Control panel base (10-inch) removal on page 561 or Control panel base (7-inch) removal on page 563.
12. Remove the façade cover. See Facade cover removal on page 604.
13. Remove the ADF and flatbed scanner. See Flatbed scanner removal on page 625.
14. Remove the bin cover. See Bin cover removal on page 590.
15. Remove the top cover. See Top cover removal on page 596.
16. Disconnect the cable (A).



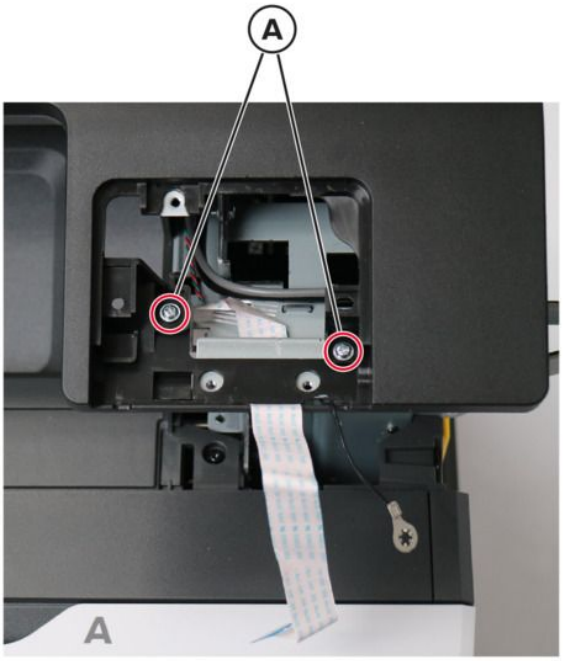
17. Remove the cable (B).

Installation Note
Pay attention to the cable route.



Facade cover removal

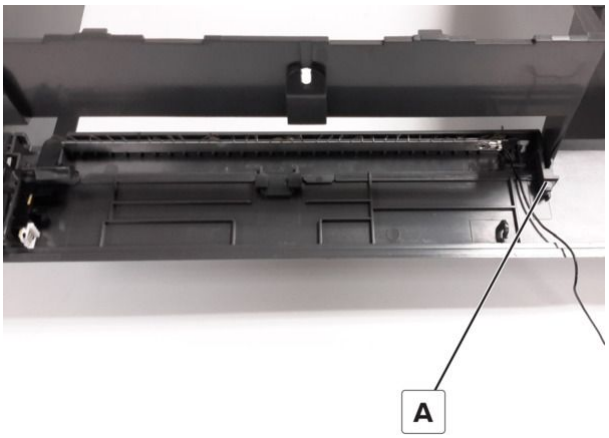
1. Remove the USB cover. See USB cover removal on page 523.
2. Remove the scanner front cover. See Scanner front cover removal on page 545.
3. Remove the control panel. See Control panel display (10-inch) removal on page 558 or Control panel display (7-inch) removal on page 559.
4. Remove the control panel base. See Control panel base (10-inch) removal on page 561 or Control panel base (7-inch) removal on page 563.
5. Remove the two screws (A).



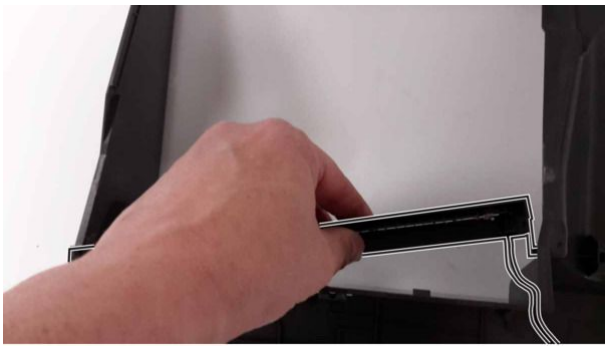
6. Remove the cover.

Bin exit cover removal

1. Remove the scanner rear right cover. See Scanner rear right cover removal on page 584.
2. Remove the scanner rear left cover. See Scanner rear left cover removal on page 585.
3. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
4. Remove the imaging kit. See Imaging kit removal on page 517.
5. Remove the motor cover. See Motor cover removal on page 543.
6. Remove or loosen the right cover. See Right cover removal on page 520.
7. Remove the controller board shield. See Controller board shield removal on page 583.
8. Remove the USB cover. See USB cover removal on page 523.
9. Remove the scanner front cover. See Scanner front cover removal on page 545.
10. Remove the control panel. See Control panel display (10-inch) removal on page 558 or Control panel display (7-inch) removal on page 559.
11. Remove the control panel base. See Control panel base (10-inch) removal on page 561 or Control panel base (7-inch) removal on page 563.
12. Remove the façade cover. See Facade cover removal on page 604.
13. Remove the ADF and flatbed scanner. See Flatbed scanner removal on page 625.
14. Remove the bin cover. See Bin cover removal on page 590.
15. Remove the top cover. See Top cover removal on page 596.
16. Disengage the tab (A), and then remove the cable from the tabs.



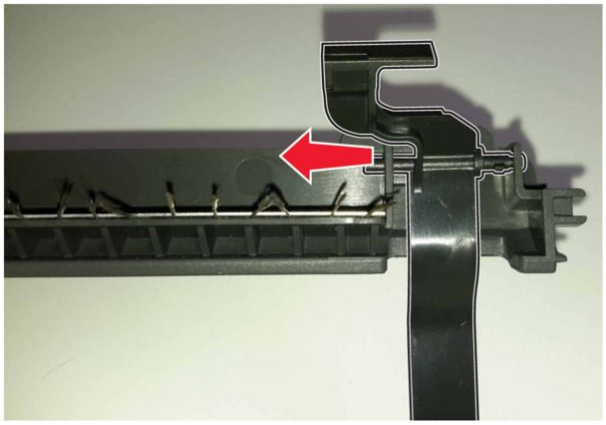
17. Remove the cover.



Bin flag removal

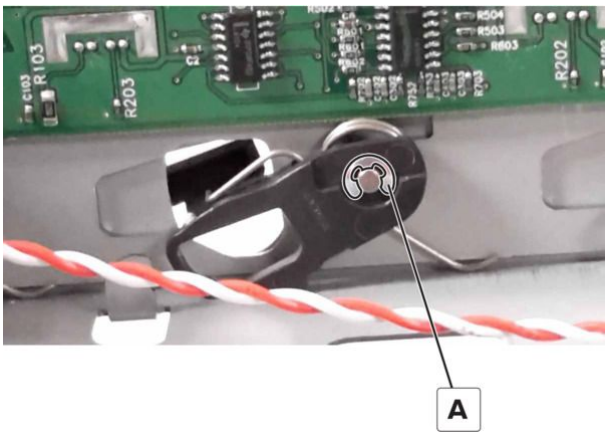
1. Remove the scanner rear right cover. See Scanner rear right cover removal on page 584.
2. Remove the scanner rear left cover. See Scanner rear left cover removal on page 585.
3. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
4. Remove the imaging kit. See Imaging kit removal on page 517.
5. Remove the motor cover. See Motor cover removal on page 543.
6. Remove or loosen the right cover. See Right cover removal on page 520.
7. Remove the controller board shield. See Controller board shield removal on page 583.
8. Remove the USB cover. See USB cover removal on page 523.
9. Remove the scanner front cover. See Scanner front cover removal on page 545.
10. Remove the control panel. See Control panel display (10-inch) removal on page 558 or Control panel display (7-inch) removal on page 559.
11. Remove the control panel base. See Control panel base (10-inch) removal on page 561 or Control panel base (7-inch) removal on page 563.
12. Remove the façade cover. See Facade cover removal on page 604.
13. Remove the ADF and flatbed scanner. See Flatbed scanner removal on page 625.
14. Remove the bin cover. See Bin cover removal on page 590.
15. Remove the top cover. See Top cover removal on page 596.

16. Remove the bin exit cover. See Bin exit cover removal on page 605.
17. Slide the flag to the left to remove.

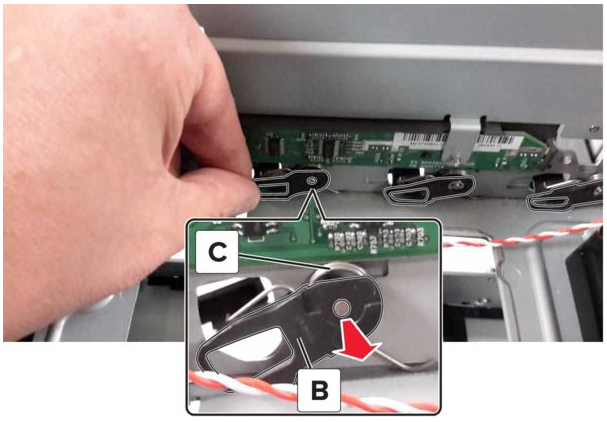


Developer hold down arm removal

1. Tilt the ADF and flatbed scanner. See Tilting the ADF and flatbed scanner to access parts on page 637.
2. Remove the controller board shield. See Controller board shield removal on page 583.
3. Remove the bin cover. See Bin cover removal on page 590.
4. Remove the printhead. See Printhead removal on page 592.
5. Remove the E-clip (A).



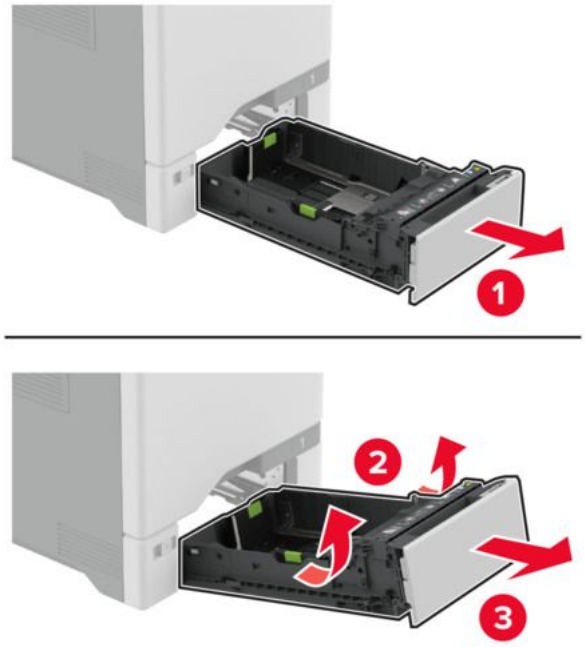
6. Pull the bell crank (B) and spring (C) off the mounting pin, and then remove the developer hold down arm.



Bottom side removals

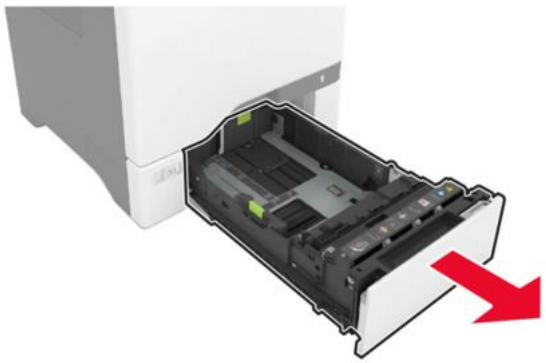
550-sheet tray insert removal

Remove the tray.

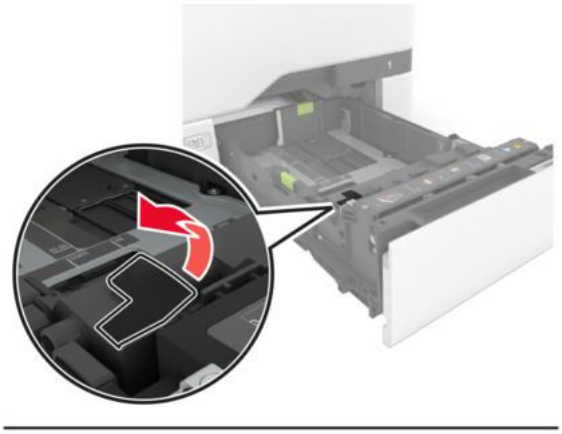


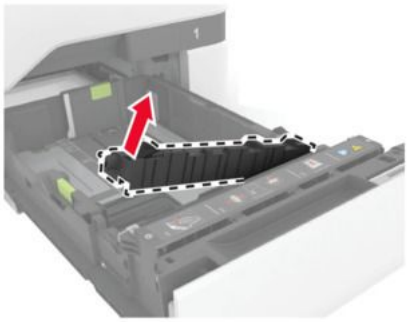
Separator bracket removal

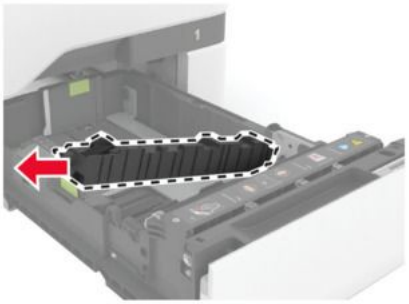
1. Pull out the tray.



2. Remove the separator bracket.



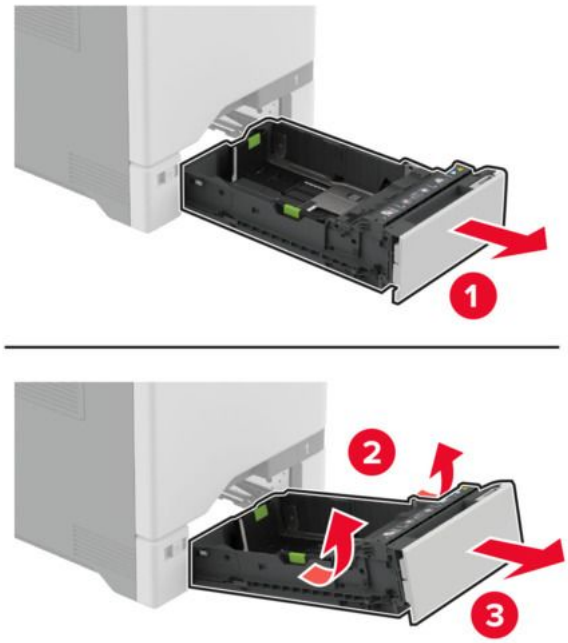




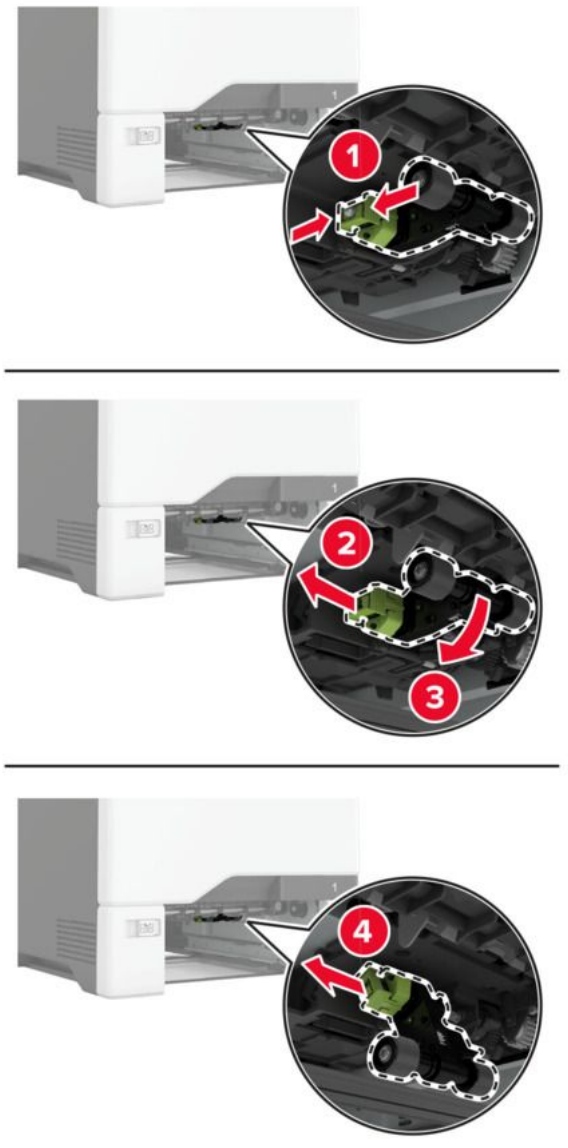
Pick roller removals

Tray 1 pick roller removal

1. Remove the tray.

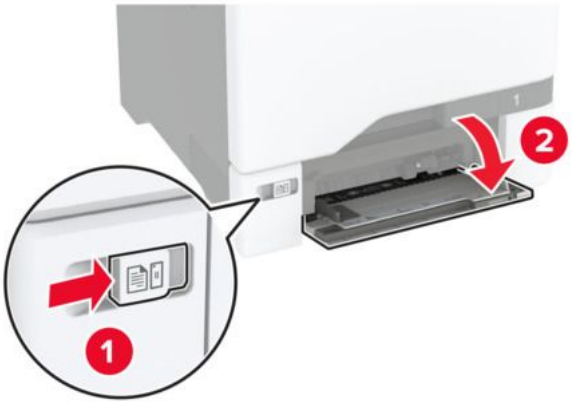


2. Remove the pick roller.

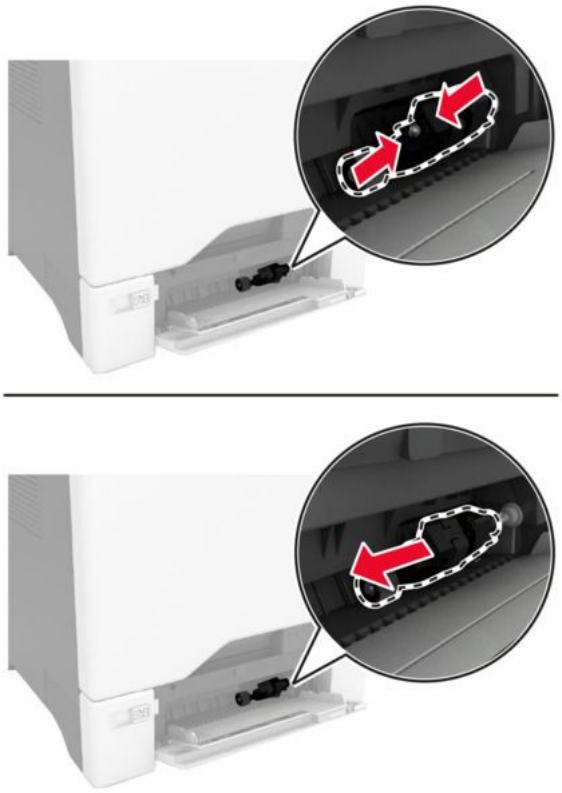


MPF pick roller removal

1. Open the multipurpose feeder.



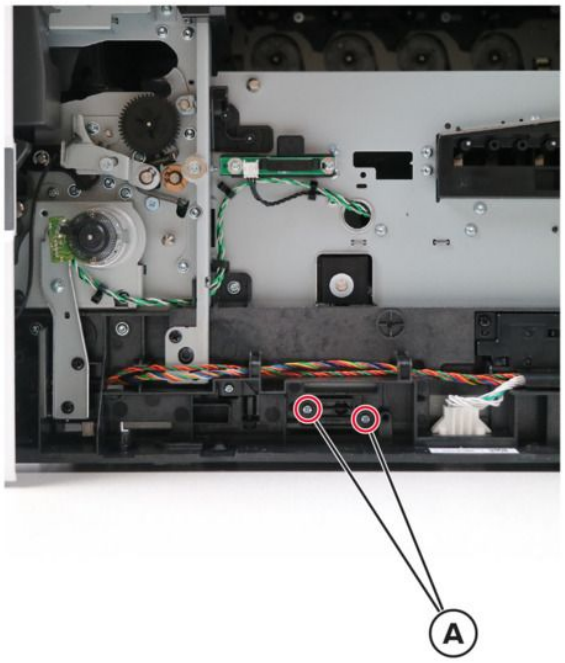
2. Remove the pick roller.



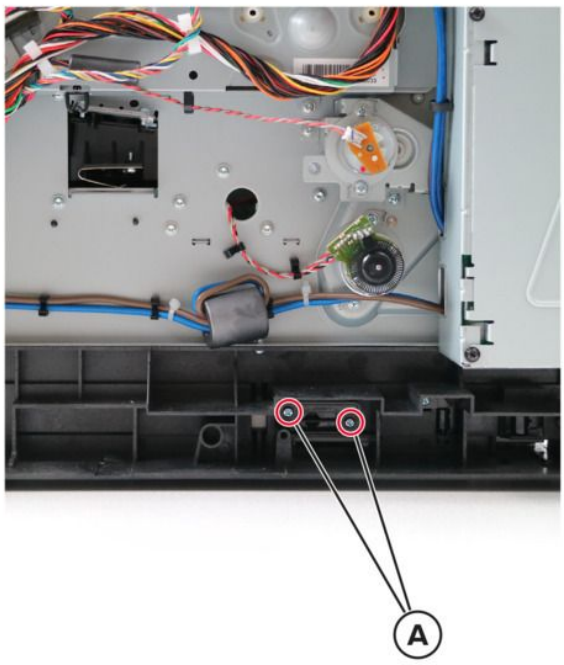
Tray rail removal

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the tray insert. See 550-sheet tray insert removal on page 608.
3. Remove the left cover. See Left cover removal on page 497.
4. Remove the motor cover. See Motor cover removal on page 543.

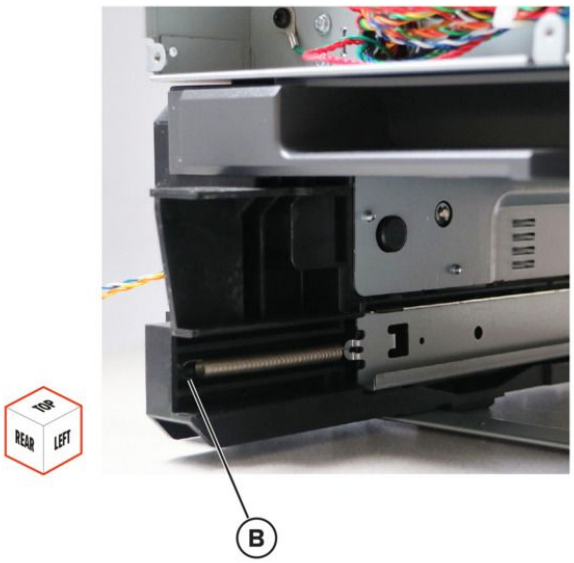
5. Remove the right cover. See Right cover removal on page 520.
6. Remove the screws (A), and then remove the tray rail stops.
    - Right side



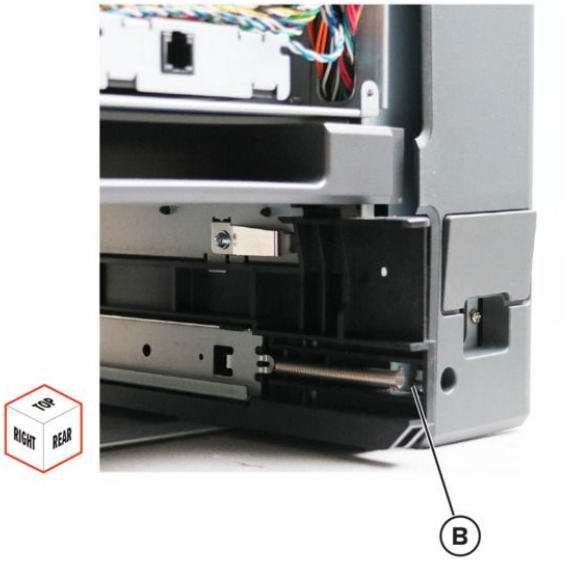
    - Left side



7. Release the springs (B).
    - Right side



- Left side



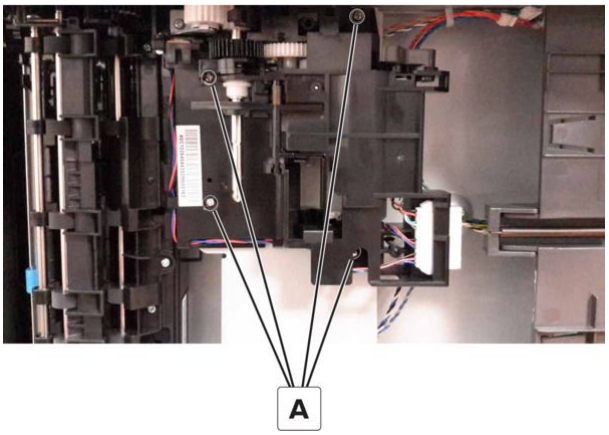
8. Remove the tray rails.

Paper feeder removal

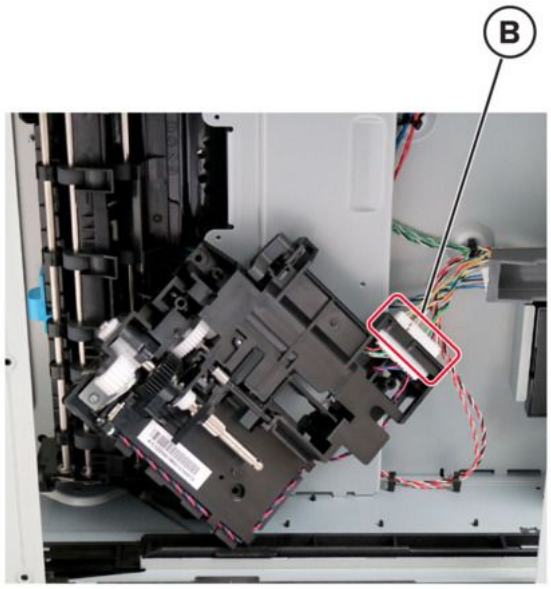
Warning—Potential Damage
Remove the waste toner bottle and imaging kit first before removing the paper feeder. Failure to do this can lead to toner spillage and damage to the printer.

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the imaging kit. See Imaging kit removal on page 517.
3. Remove the tray insert. See 550-sheet tray insert removal on page 608.
4. Remove the tray 1 pick roller. See Pick roller removals on page 609.
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.

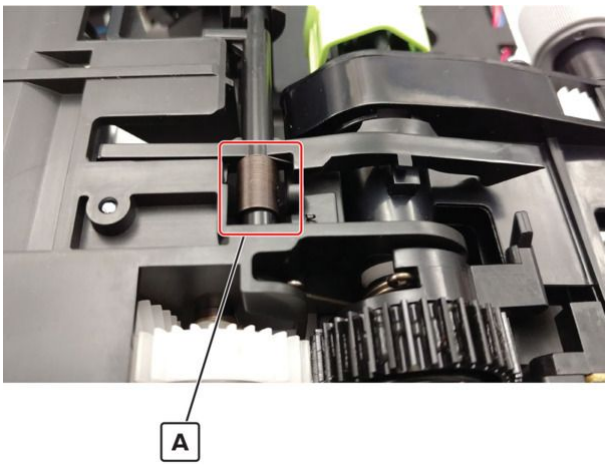


Paper out actuator spring removal

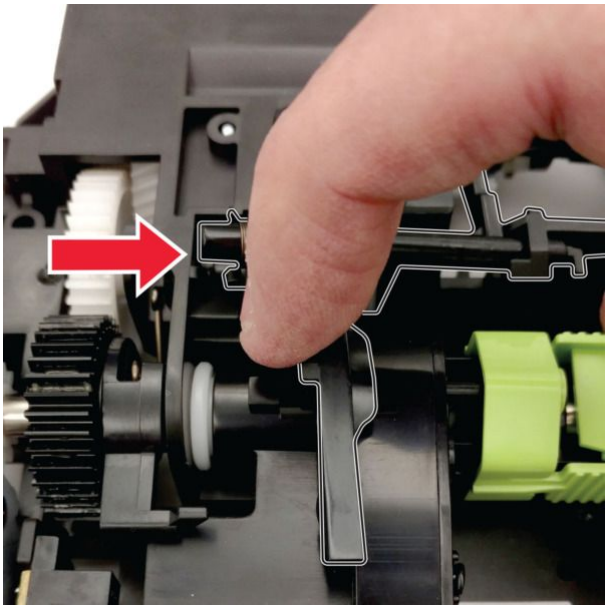
1. Remove the paper feeder. See Paper feeder removal on page 613.

> **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.

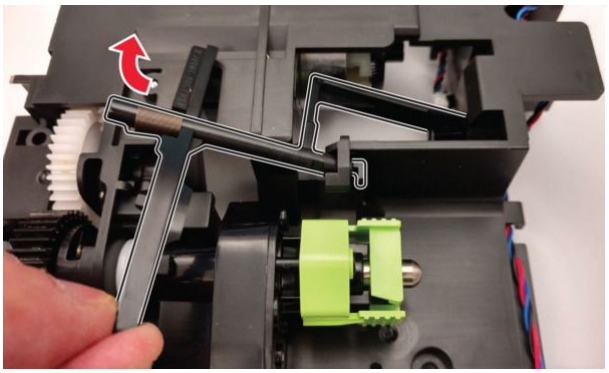
2. Pay attention to the position of the paper out actuator spring (A).



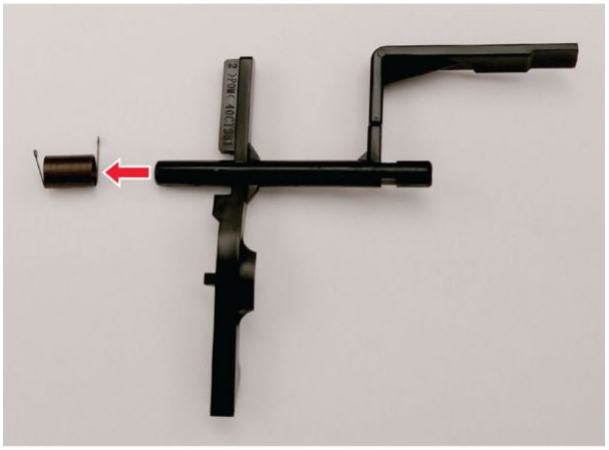
3. Move the actuator to the right, and then release it.



4. Remove the actuator.



5. Remove the spring.

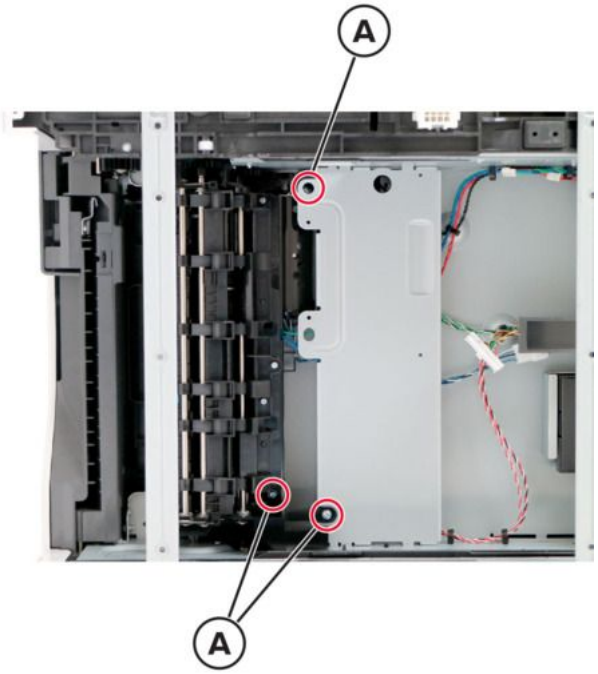


Installation Note
When installing the spring, make sure to install it as shown in step 5.

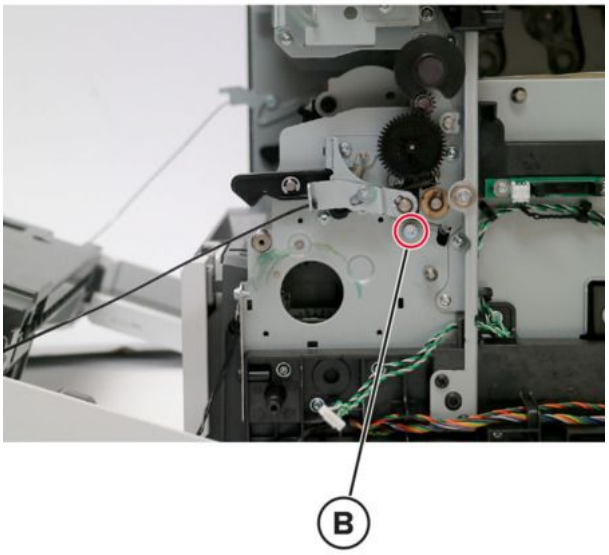
Isolation unit removal

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 515.
2. Remove the imaging kit. See Imaging kit removal on page 517.
3. Remove the tray insert. See 550-sheet tray insert removal on page 608.
4. Remove the tray 1 pick roller. See Pick roller removals on page 609.
5. Remove the paper feeder. See Paper feeder removal on page 613.
6. Remove the motor cover. See Motor cover removal on page 543.
7. Remove the right cover. See Right cover removal on page 520.
8. Remove the motor (duplex/MPF). See Motor (duplex/MPF) removal on page 532.
9. Remove the three screws (A) that are securing the isolation unit.



10. Remove the biasing screw (B).

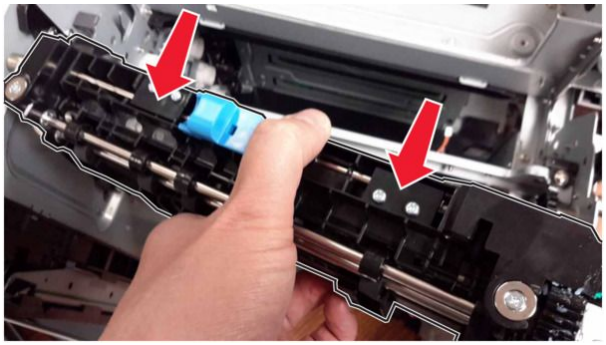


Installation Note
Make sure to install the biasing screw first before installing the other three screws.

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.

ADF and flatbed scanner removals

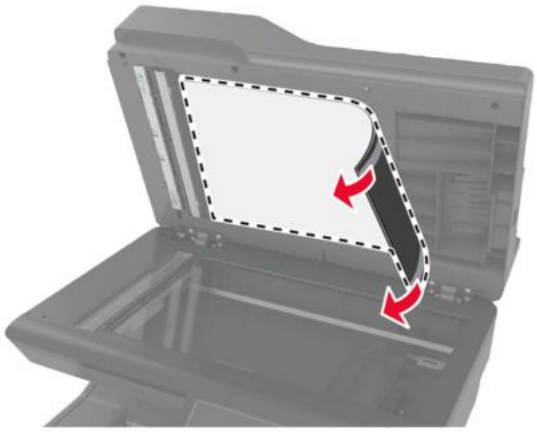
Scanner glass pad removal

1. Open the scanner cover.



2. Slowly remove the scanner glass pad.

> **Notes**
> Make sure to avoid tearing the adhesive from the foam pad, or tear the foam itself.



Installation Note

a. Place the white area of the new scanner glass pad facedown on the scanner glass, and then remove the backing on the tape.



> **Notes**
> Make sure that the scanner glass pad is aligned correctly on the edges of the scanner glass.

b. Close the scanner cover to stick the new scanner glass pad to the cover.

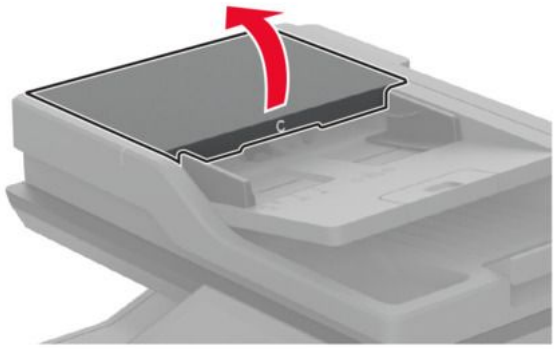


c. Open the scanner cover to check if the new scanner glass pad is properly attached to the cover.

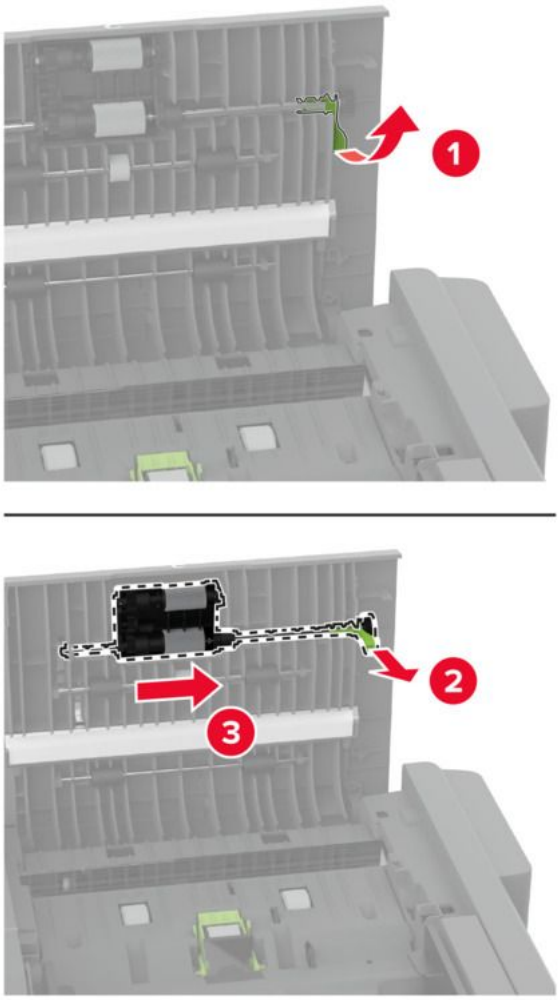
ADF rollers removal

1. Open door C.

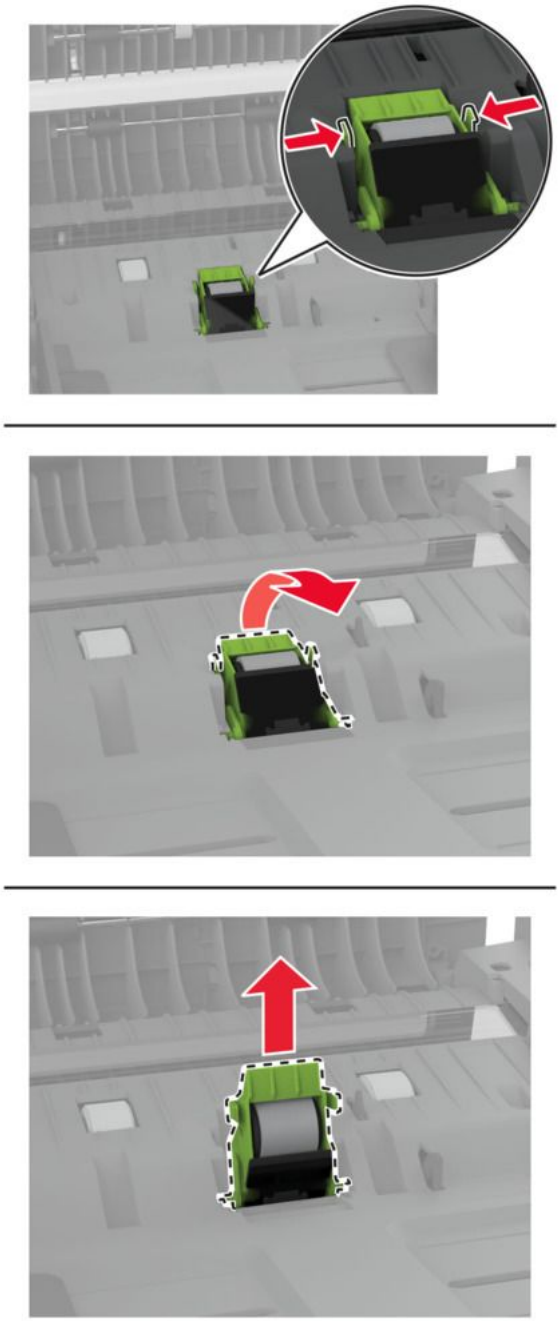
Warning—Potential Damage
To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.



2. Remove the ADF pick roller.



3. Remove the ADF separator roller.



Installation Warning
To avoid damage and poor printer performance, make sure that your hands are clean when handling the parts.

ADF tray removal

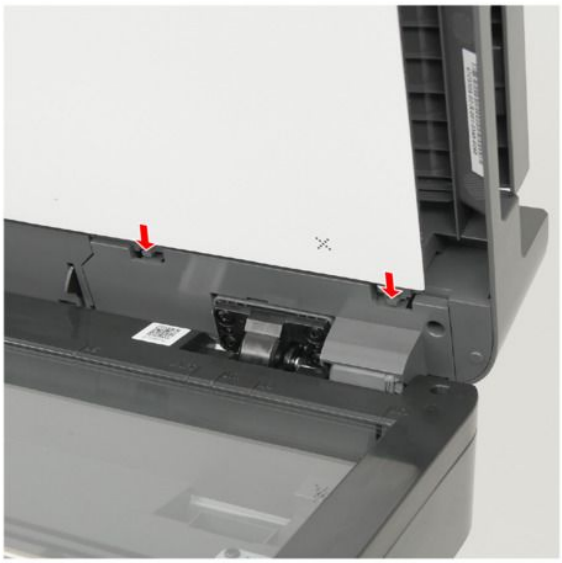
1. Release the front hinge.



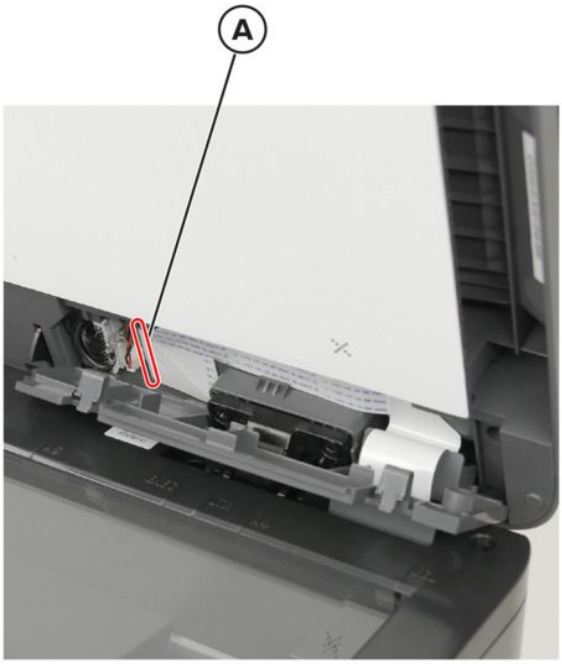
2. Remove the ADF tray.

ADF removal

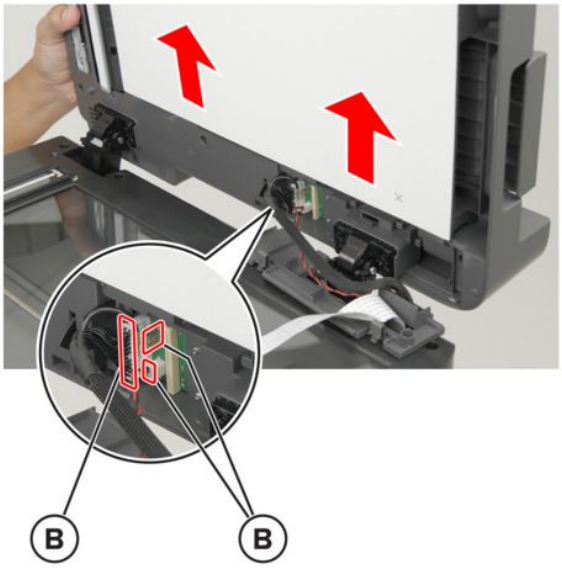
1. Release the latches, and then remove the cover.



2. Disconnect the FFC (A).



3. Slightly lift the ADF, and then disconnect the cables (B).



> **Note**
> Depending on the printer model, the cables may vary.

4. Remove the ADF.

Flatbed scanner removal

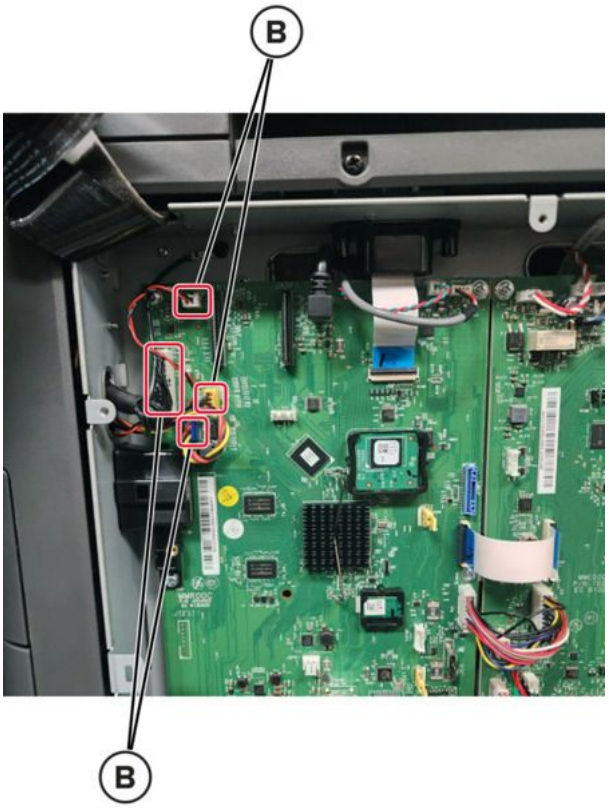
> **Notes**
> For a video demonstration, see Replacing the scanner.

1. Remove the ADF. See ADF removal on page 624.
2. Remove the scanner rear left cover. See Scanner rear left cover removal on page 585.

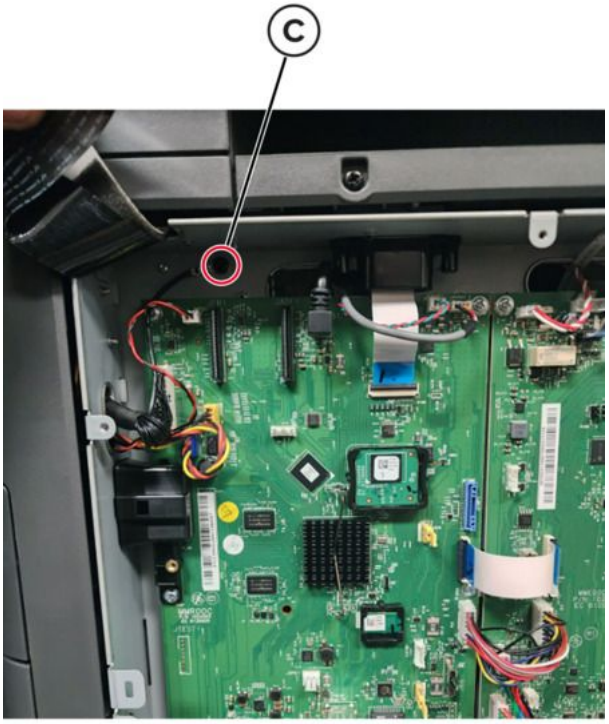
3. Remove the controller board shield. See Controller board shield removal on page 583.
4. Disconnect the two cables (A).



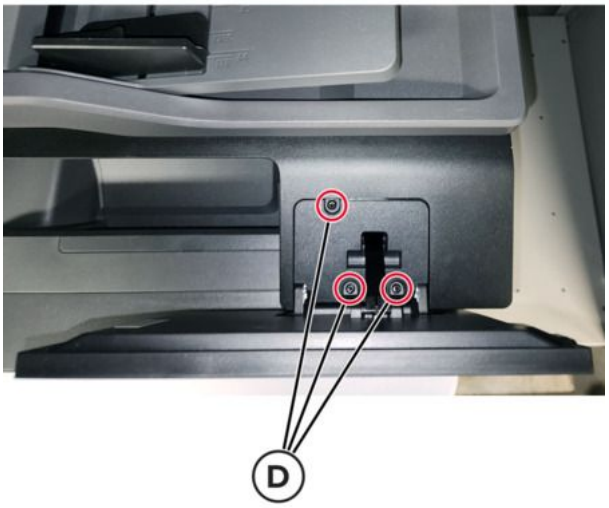
5. Disconnect the four connectors (B).



6. Remove the ground screw (C).



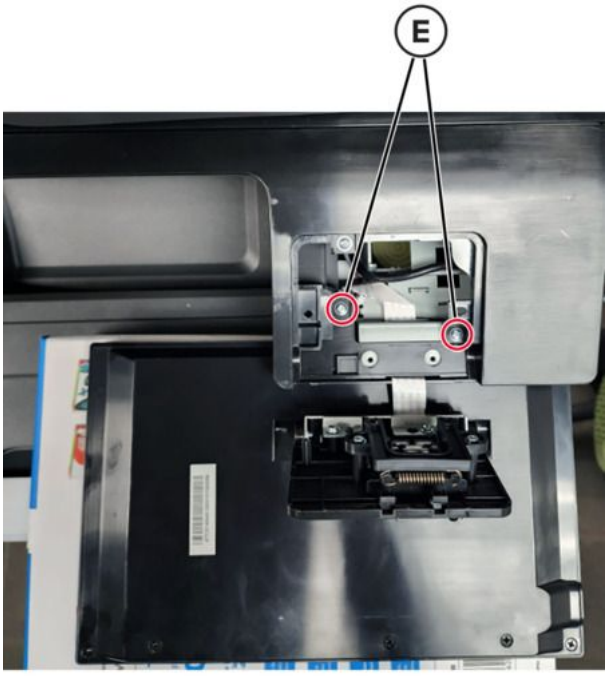
7. Remove the three screws (D), and then remove the control panel base cover.



Warning—Potential Damage
Do not allow the control panel display to fall. Place a ream of paper or a similar object under the display to support it once it is detached.



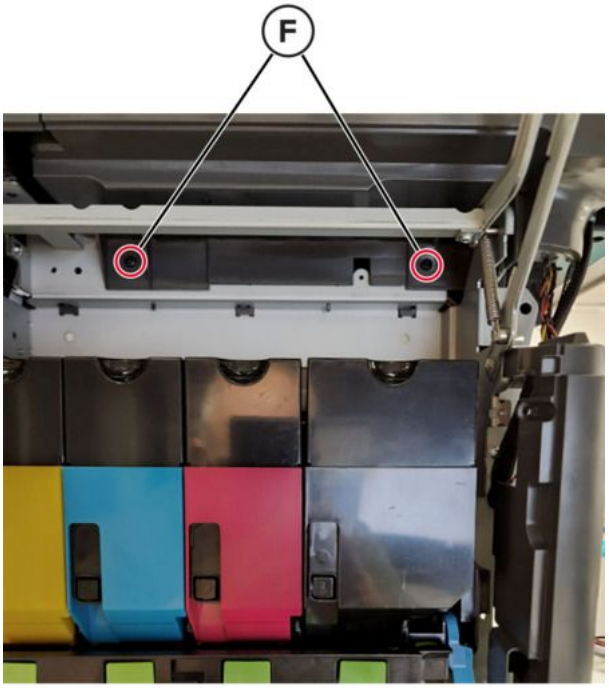
8. Remove the two screws (E).



9. Gently insert a flat-tipped screwdriver under the left side of the cover, and then lift upwards to release the fastening hook.



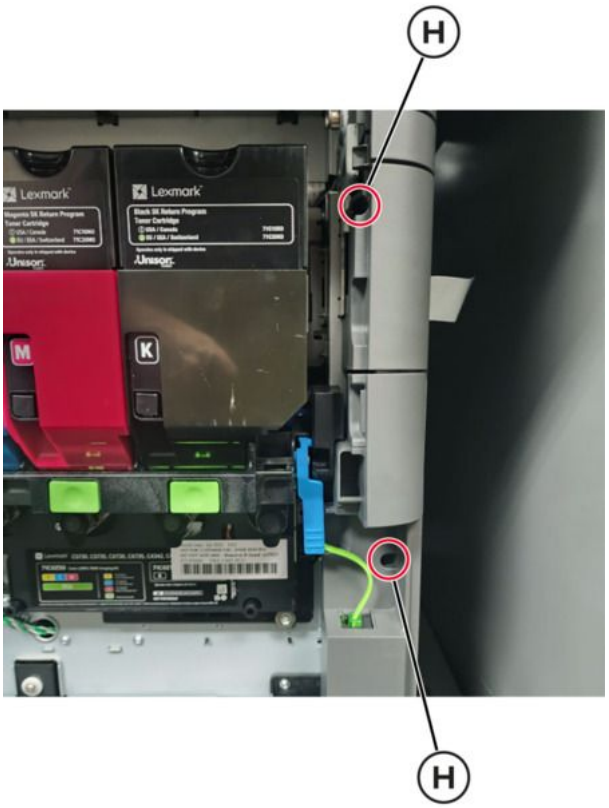
10. Remove the two screws (F).



11. Remove the scanner rear right cover. See Scanner rear right cover removal on page 584.
12. Remove the waste toner cover and bottle.
13. Remove the screw (G).



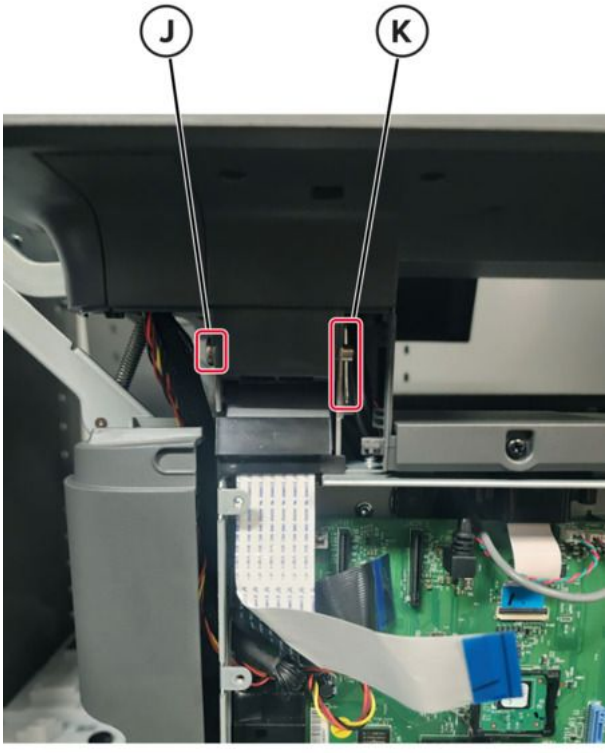
14. Remove the two screws (H).



15. Gently flex the right cover, and then remove the cables (I) from the hole in the controller board cage.



16. Remove the pin (J) and the clip (K).



17. Remove the clip (L) and the pin (M).

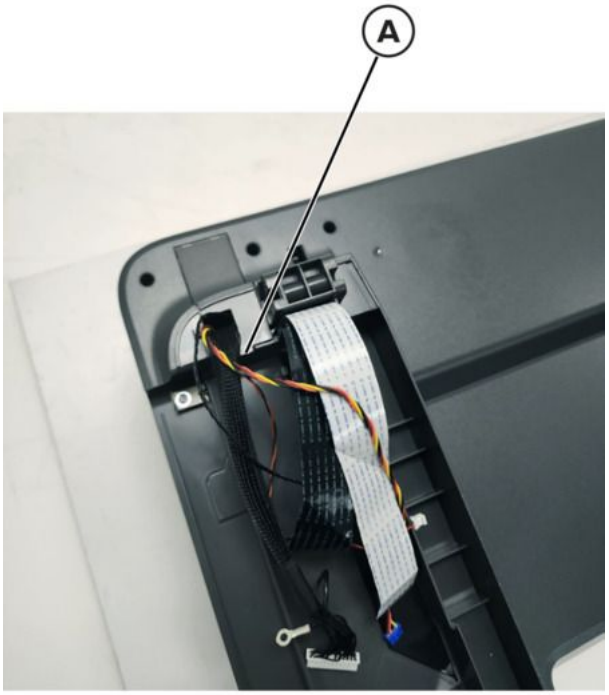


18. Gently remove the scanner from the frame.

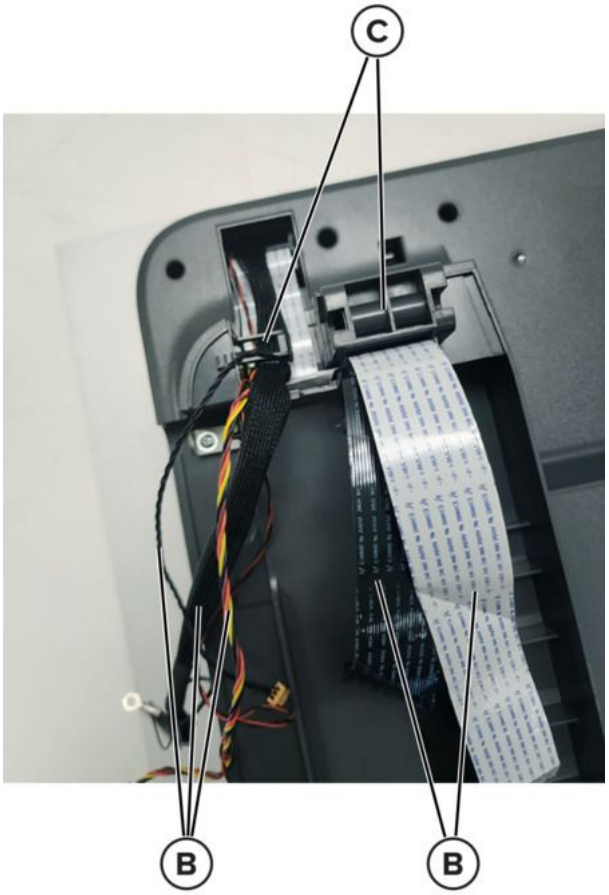
> **Notes**
> Ensure the scanner cables are free from their routings before removing the scanner.

Scanner cables removal

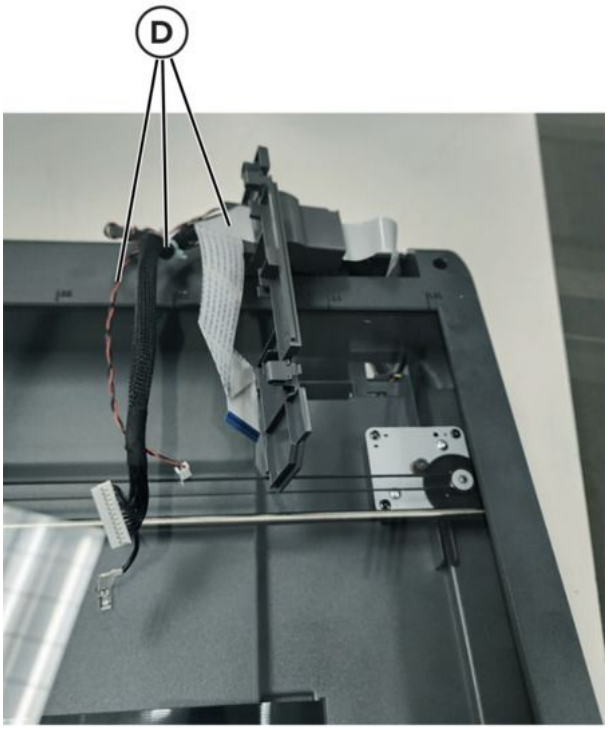
1. Remove the ADF. See ADF removal on page 624.
2. Remove the scanner. See Flatbed scanner removal on page 625.
3. Place the scanner upside down on a table, lift the hook (A), and then remove the cable cover.



4. Detach the cables (B) from their retainers (C).



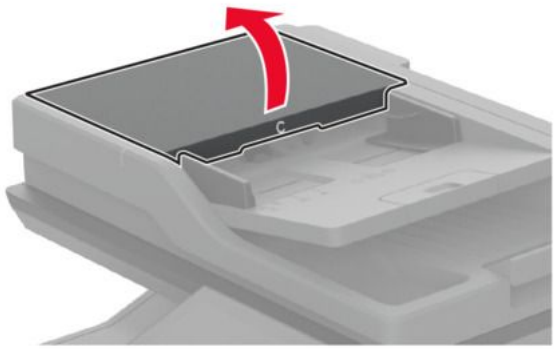
5. Turn the scanner the right side up, and then remove the scanner cables (D).



ADF top cover removal

1. Open door C.

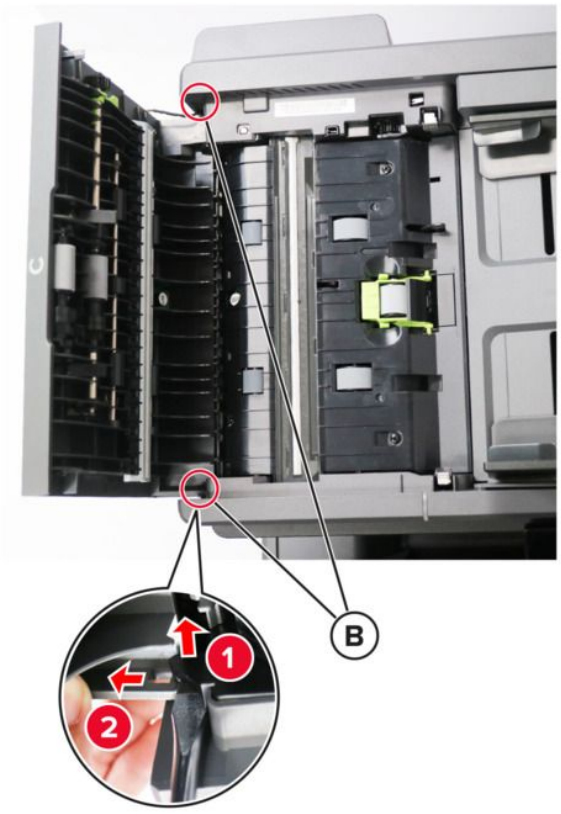
> **Warning—Potential Damage**
> To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.



2. Disconnect the cable (A).



3. Using a flat-blade screwdriver, release the hinges (B).



4. Remove the cover.

ADF right hinge removal

1. Remove the ADF. See ADF removal on page 624.

2. Remove the four screws (A), and then remove the hinge.



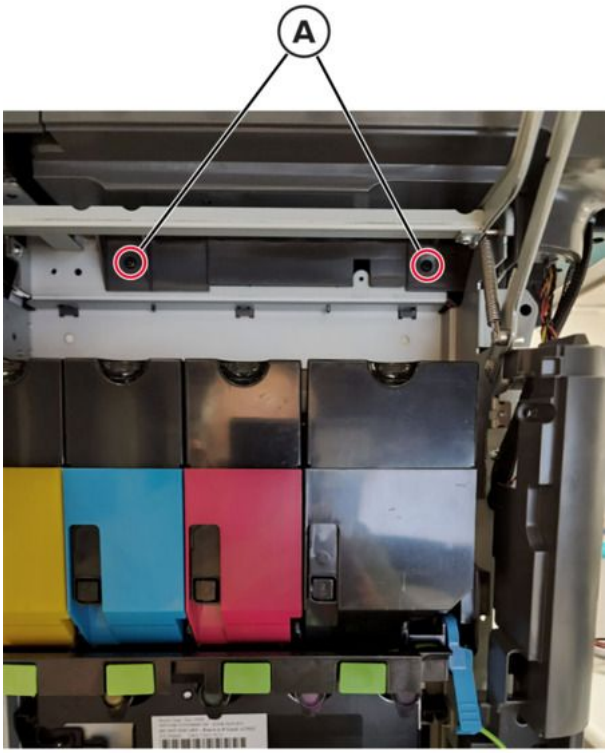
ADF left hinge removal

1. Remove the ADF. See ADF removal on page 624.
2. Remove the four screws (A), and then remove the hinge.

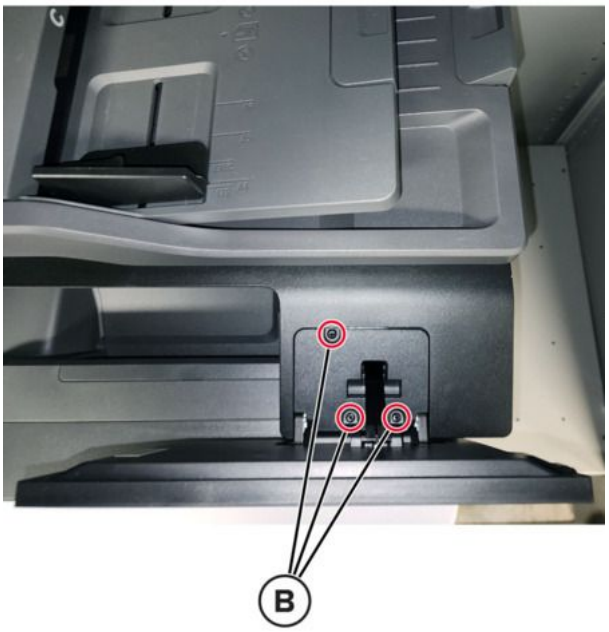


Tilting the ADF and flatbed scanner to access parts

1. Open the toner door.
2. Remove the two screws (A).



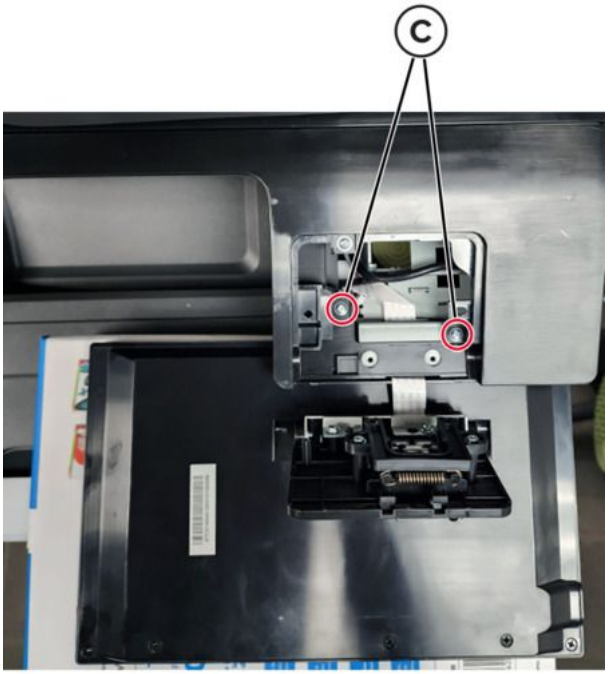
3. Remove the three screws (B), and then remove the control panel base cover.



Warning—Potential Damage
Do not allow the control panel display to fall. Place a ream of paper or a similar object under the display to support the panel once it is detached.



4. Remove the two screws (C).



5. Gently insert a flat-tipped screwdriver under the left side of the cover, and then lift upwards to release the fastening hook.



6. Remove the scanner rear left cover. See Scanner rear left cover removal on page 585.
7. Remove the scanner rear right cover. See Scanner rear right cover removal on page 584.
8. Remove the screw (D).



9. Lower the ADF, then gently lift the flatbed scanner up and rotate it back.

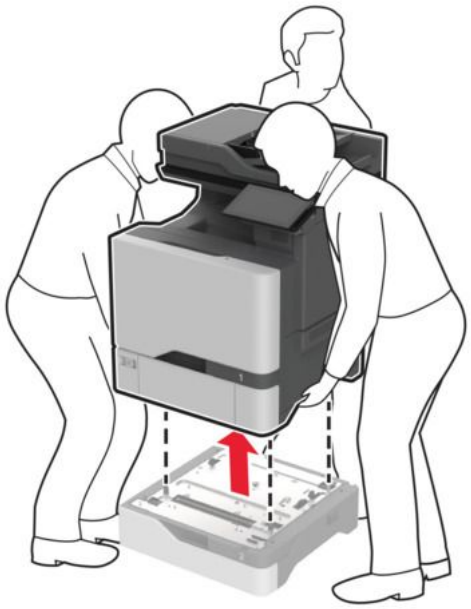


Optional 550-sheet tray removals

Optional 550-sheet tray removal

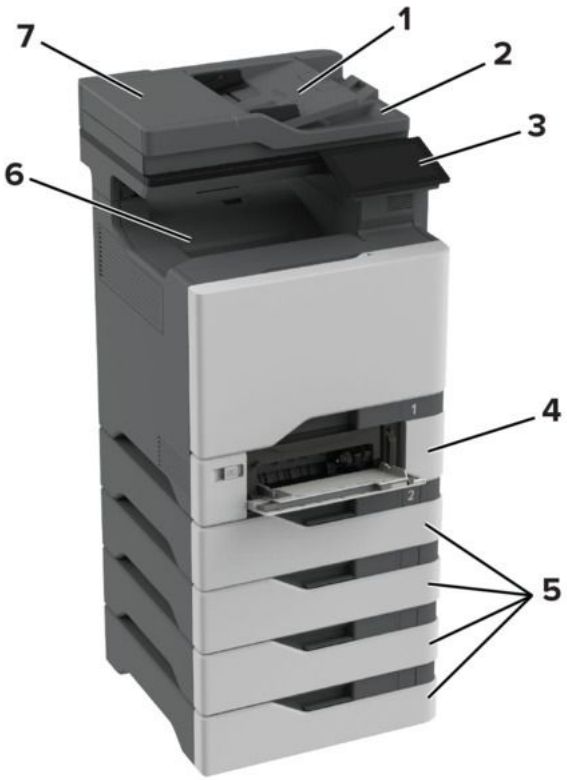
Unlock, and then remove the tray.





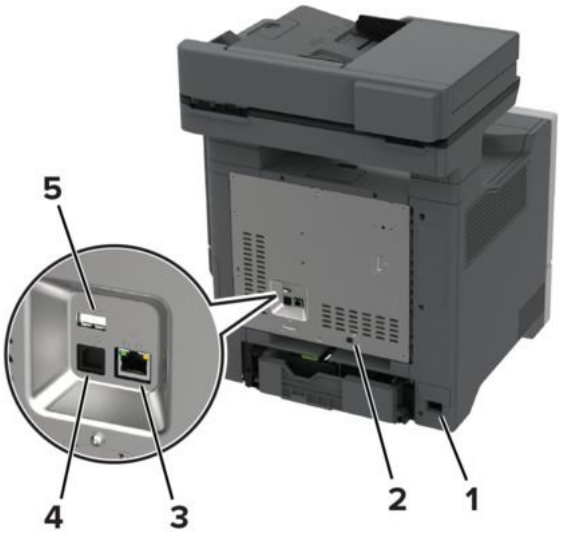
Component locations

Printer configurations



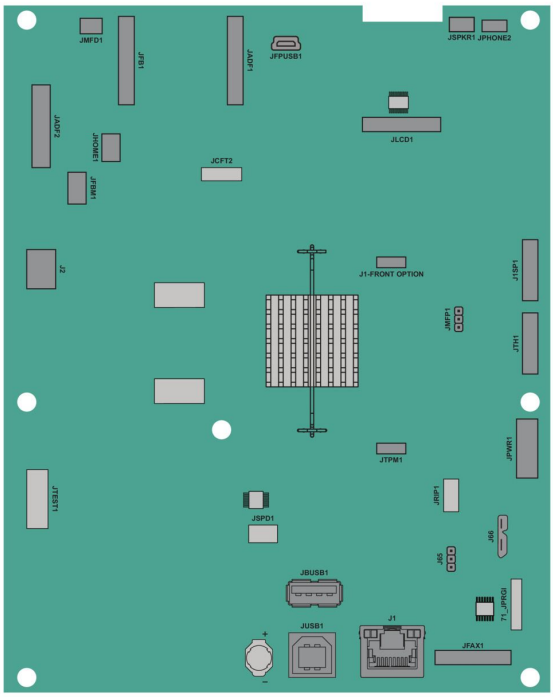
1	ADF tray
2	ADF bin
3	Control panel
4	650-sheet duo tray **Notes** The tray is composed of a 550-sheet tray and a 100-sheet multipurpose feeder.
5	Optional 550-sheet trays **Notes** Up to four optional trays can be installed.
6	Standard bin
7	Automatic document feeder (ADF)

Port locations



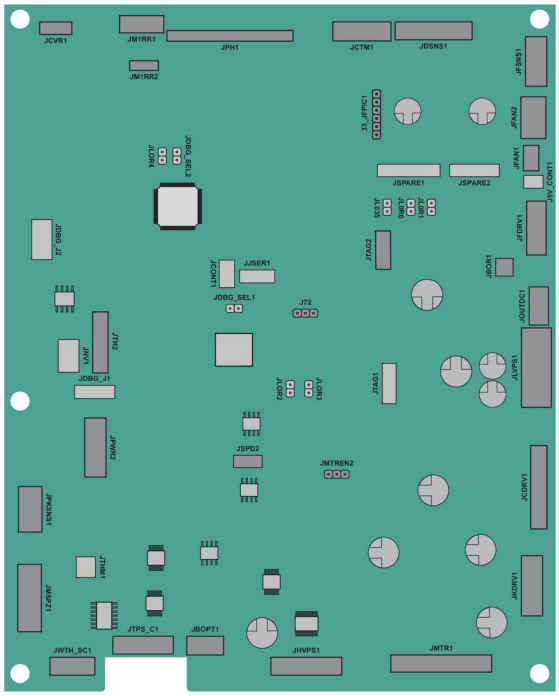
	Printer port	Function
1	Power cord socket	Connect the printer to a properly grounded electrical outlet.
2	LINE port **Notes** Available only in some printer models.	Connect the printer to an active telephone line through a standard wall jack (RJ-11), DSL filter, or VoIP adapter, or any other adapter that allows you to access the telephone line to send and receive faxes.
3	Ethernet port	Connect the printer to a network.
4	USB printer port	Connect the printer to a computer.
5	USB port	Attach a keyboard or any compatible option.

Controller board and engine board connectors



Connector	Connects to
J2	Wireless module
J65	Connector jumper
JADF1	ADF back side scan module
JADF2	• ADF sensors • Motor (ADF pick) • Motor (ADF transport)
JBUSB1	Rear USB port
J1	Ethernet port
JFAX1	Fax card
JFB1	Scanner front side scan module
JFBM1	Motor (flatbed CIS scanner)
JFPUSB1	Front USB port
JHOME1	Sensor (flatbed CIS scanner)
JISP1	Internal Solutions Port
JLCD1	Control panel display
JMFD1	Sensor (ADF multifeed)

Connector	Connects to
JMFP1	Connector jumper
JPHONE2	Headphones
JPWR1	Engine board, power connection
JSPKR1	Speaker
JTH1	Engine board, data connection
JTPM1	Trusted Platform Module
JUSB1	USB printer port
J66	HDD Connector (internal or external)



Connector	Connects to
J72	Connector jumper
JBOR1	Motor (BOR)
JCDRV1	Motor (CMY)
JCTM1	TMC card
JCVR1	Interlock switches
JDSNS1	• Sensor (redrive) • Sensor (exit/bin full)
JFAN2	Main fan

Connector	Connects to
JFDRV1	Motor (fuser)
JFSNS1	Sensor (fuser nip)
JHVPS1	HVPS
JKDRV1	Motor (K/transfer belt)
JLVPS1	LVPS
JMIRR1	Printhead mirror
JMIRR2	Printhead mirror

JMSPZ1	• Sensor (tray 1 paper size)
	• Sensor (MPF paper present)
	• Front door sensors
	  ◦ Sensor (duplex staging)
	  ◦ Sensor (fuser buckle)
	  ◦ Sensor (narrow media)

JMTR1	• Pick drive
	  ◦ Motor (tray 1 pick)
	  ◦ Sensor (tray 1 pick position)
	  ◦ Sensor (tray 1 paper present)
	• Motor (deskew)
	• Motor (duplex/MPF)
	• Isolation unit
	  ◦ Motor (isolation)

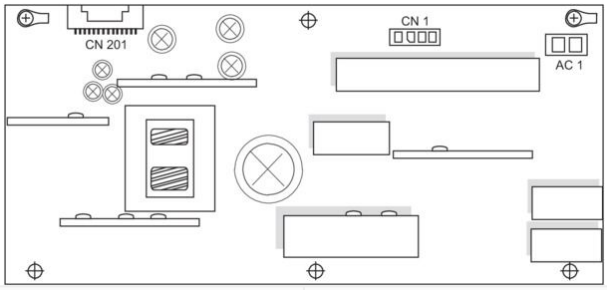
JMTREN2	Connector jumper
JBOPT1	Optional tray
JOUTDC1	Motor (exit/redrive)
JPH1	Printhead

Connector	Connects to

JPKSNS1	• Sensor (waste toner contact)
	• Sensor (input)
	• Isolation unit
	  ◦ Sensor (tray 1 pick)
	  ◦ Sensor (MPF/pass-through)

JPWR2	Controller board, power connection
JTH2	Controller board, data connection
JTPS_C1	Sensor (TPS)
JWTH_SC1	• Sensor (weather station) • Imaging unit and imaging kit
JFAN1	Fuser fan

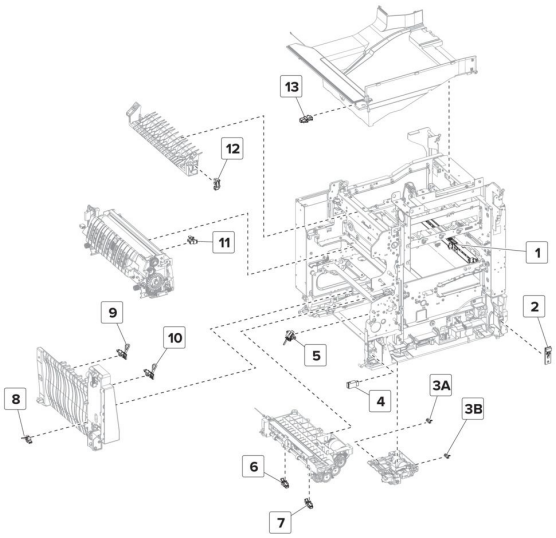
LVPS board connectors



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		

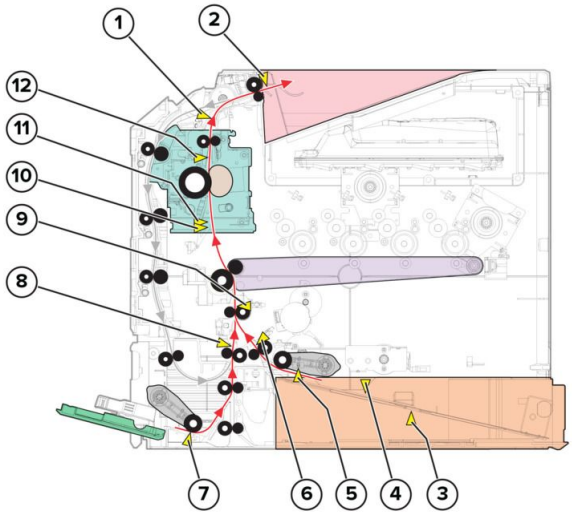
Connector	Connects to	Pin no.	Signal
11	+25V		
12	GND		
13	+25V		
14	GND		
15	+25V		
16	GND		
17	GND		
18	GND		
19	Zero_Cross		
20	Heat_On2		
21	Heat_On1		
22	Main_On_Off		
23	Tx_PwrMtr		
24	Relay_Drive		
25	Ground		
26	+6.5V		
27	+6.5V		
28	+6.5V		
29	Rx_PwrMtr		
30	Heat_On3		
CN1	Fuser	1	AC Common
2	AC Out 3		
3	AC Out 2		
4	AC Out 1		
AC1	AC line in	1	Phase
2	Neutral		

Sensor locations



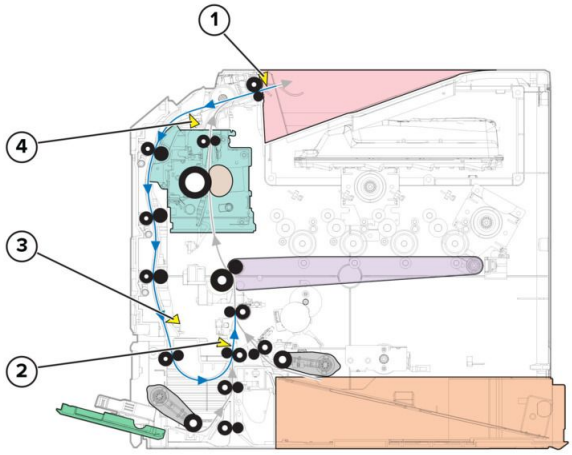
1	Sensor (TPS)
2	Sensor (weather station)
3A	Sensor (tray 1 paper present)
3B	Sensor (pick position)
4	Sensor (MPF paper present)
5	Sensor (input)
6	Sensor (tray 1 pick)
7	Sensor (MPF/pass-through)
8	Sensor (duplex staging)
9	Sensor (narrow media)
10	Sensor (fuser buckle)
11	Sensor (fuser exit)
12	Sensor (redrive)
13	Sensor (exit/bin full)

Standard paper path sensors



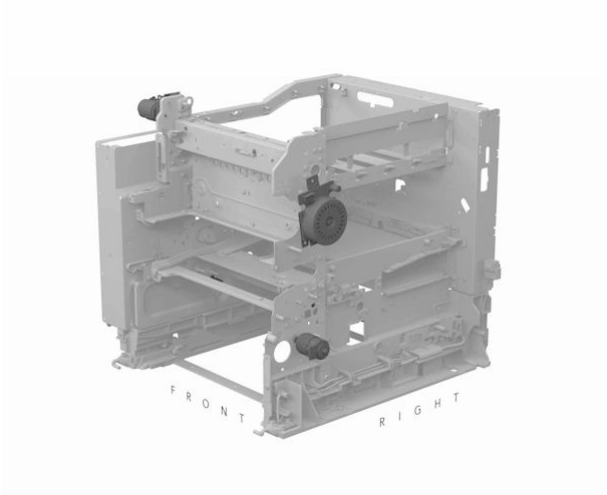
1	Sensor (redrive)
2	Sensor (exit/bin full)
3	Sensor (paper size)
4	Sensor (tray 1 paper present)
5	Sensor (pick position)
6	Sensor (tray 1 pick)
7	Sensor (MPF paper present)
8	Sensor (MPF/pass-through)
9	Sensor (input)
10	Sensor (fuser buckle)
11	Sensor (narrow media)
12	Sensor (fuser exit)

Duplex paper path sensors



1	Sensor (exit/bin full)
2	Sensor (MPF/pass-through)
3	Sensor (duplex staging)
4	Sensor (redrive)

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 to inspect the specified parts:

Printer parts	Every service call	Every 150K	Every 360K	Notes
Tray insert • Width guides • Length guides	Inspect	Inspect	Inspect	Check for correct positioning.
Transfer module	Inspect	Inspect	Inspect	Ensure correct installation.
Fuser	Inspect	Replace	Inspect	Ensure correct installation.
Pick rollers • Tray pick roller • MPF pick roller • Separator bracket	Inspect and clean if needed.	Inspect and clean if needed.	Replace	Clean with a damp cloth.

Printer parts	Every service call	Every 150K	Every 360K	Notes
Paper path rollers	Inspect	Inspect	Inspect	• Check for paper fragments. • Check for excessive toner build-up on rollers. • Clean with damp cloth if needed.
Others • Toner spillage	Clean	Clean	Clean	Use a toner vacuum and cloth to remove all toner spillage from the printer.

Scheduled maintenance

Maintenance kits

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
NS	41X3882	1	1	Maintenance kit, 110 V • Fuser, 115 V • Pick roller • Separator bracket **Notes** This part has a CRU sheet.	--	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
NS	41X3883	1	1	Maintenance kit, 220 V • Fuser, 220 V • Pick roller • Separator bracket **Notes** This part has a CRU sheet.	--	
NS	41X3884	1	1	Maintenance kit, 100 V • Fuser, 100 V • Pick roller • Separator bracket **Notes** This part has a CRU sheet.	--	
NS	41X4512	1	1	Maintenance kit, 115 V (narrow media; for CS/CX737 models only) • Fuser, 115 V (narrow media; for CS/CX737 models only) • Pick roller • Separator bracket **Notes** This part has a CRU sheet.	--	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
NS	41X2848	1	1	ADF rollers • ADF pick roller • ADF separator roller **Notes** This part has a CRU sheet.	--	

Resetting counters

Resetting the fuser maintenance counter

1. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Supply Usage and Counters > Reset Maintenance Counter**.
2. Touch **Start**.

Resetting the ADF rollers maintenance counter

1. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > Reset Maintenance Counter**.

Resetting the transfer module counter

1. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Supply Usage and Counters > ITM Reset**.
2. Touch **Start**.

Ordering parts and supplies

Contact information and precaution

To order supplies in the U.S., contact Lexmark at 1-800-539-6275 for information about Lexmark authorized supplies dealers in your area. In other countries or regions, go to www.lexmark.com or contact the place where you purchased the printer.

Note: All life estimates for printer supplies assume printing on letter- or A4-size plain paper.

Warning—Potential Damage
Failure to maintain optimum printer performance or to replace supplies can cause damage to your printer.

Using genuine Lexmark parts and supplies

Your Lexmark printer is designed to function best with genuine Lexmark parts and supplies. Use of third-party supplies or parts may affect the performance, reliability, or life of the printer and its imaging components. It can also affect warranty coverage. Damage caused by the use of third-party parts and supplies is not covered by the warranty. All life indicators are designed to function with Lexmark parts and supplies, and may deliver unpredictable results if third-party parts and supplies are used. Imaging component usage beyond the intended life may damage your Lexmark printer or its associated components.

Warning—Potential Damage
Supplies and parts without Return Program agreement terms may be reset and remanufactured. However, the manufacturer’s warranty does not cover any damage caused by non-genuine supplies or parts. Resetting counters on the supply or part without proper remanufacturing can cause damage to your printer. After resetting the supply or part counter, your printer may display an error indicating the presence of the reset item.

Ordering a toner cartridge

Notes

- The estimated cartridge yield is based on the ISO/IEC 19798 standard.
- Extremely low print coverage for extended periods of time may negatively affect actual yield.

Item	North America	Europe	Rest of the World
Return Program toner cartridges			
Cyan	71C10C0	71C20C0	71C80C0
Magenta	71C10M0	71C20M0	71C80M0
Yellow	71C10Y0	71C20Y0	71C80Y0
Black	71C10K0	71C20K0	71C80K0
High Yield Return Program toner cartridges [1]			
Cyan	71C1HC0	71C2HC0	71C8HC0
Magenta	71C1HM0	71C2HM0	71C8HM0
Yellow	71C1HY0	71C2HY0	71C8HY0
Black	71C1HK0	71C2HK0	71C8HK0
Extra High Yield Return Program toner cartridges [2]			
Cyan	81C1XC0	81C2XC0	81C8XC0
Magenta	81C1XM0	81C2XM0	81C8XM0
Yellow	81C1XY0	81C2XY0	81C8XY0
Black	81C1XK0	81C2XK0	81C8XK0

[1] Supported only in the Lexmark CX730 printer model.

[2] Supported only in the Lexmark CX735 printer model.

For more information on countries in each region, go to www.lexmark.com/regions.

Item	Worldwide
Cyan	71C0H20
Magenta	71C0H30
Yellow	71C0H40

Item	Worldwide
Black	71C0H10

Item	Worldwide
Cyan	81C0X20
Magenta	81C0X30
Yellow	81C0X40
Black	81C0X10

Item	Worldwide
Cyan	24B7515
Magenta	24B7516
Yellow	24B7517
Black	24B7518

Ordering black imaging unit

Item	Part number
Black imaging unit	71C0Z10

Ordering color imaging kit

Item	Part number
Color imaging kit	71C0Z50

Ordering a waste toner bottle

Item	Part number
Waste toner bottle	71C0W00

Ordering a fuser maintenance kit

Notes

- Using certain types of paper requires more frequent replacement of the maintenance kit.
- The separator assembly, fuser, and pick roller assembly are included in the maintenance kit and can be ordered individually and replaced if necessary.
- For more information on replacing the maintenance kit, see the documentation that came with the kit.

Item	Part number
Fuser maintenance kit, 110–120 V	41X3882
Fuser maintenance kit, 220–240 V	41X3883
Fuser maintenance kit, 100 V	41X3884
Fuser maintenance kit, 115 V (Narrow media)*	41X4511

* Supported only in and required for Lexmark CX737.

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.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution lors du nettoyage de l'extérieur de l'imprimante, débranchez le cordon d'alimentation électrique de la prise et déconnectez tous les câbles de l'imprimante avant de continuer.

CAUTION—SHOCK HAZARD
Para evitar el riesgo de descarga eléctrica al limpiar el exterior de la impresora, desconecte el cable de alimentación de la toma eléctrica y desconecte todos los cables de la impresora antes de realizar la operación.

CAUTION—SHOCK HAZARD
Um das Risiko eines elektrischen Schlags beim Reinigen des Druckergehäuses zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose, und ziehen Sie alle Kabel vom Drucker ab, bevor Sie fortfahren.

Note:

- Perform this task after every few months.
- Damage to the printer caused by improper handling is not covered by the printer warranty.

1. Turn off the printer, and then unplug the power cord from the electrical outlet.
2. Remove paper from the standard bin and multipurpose feeder.

3. Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.
4. Wipe the outside of the printer with a damp, soft, lint-free cloth.

   Note:
   - Do not use household cleaners or detergents, as they may damage the finish of the printer.
   - Make sure that all areas of the printer are dry after cleaning.

5. Connect the power cord to the electrical outlet, and then turn on the printer.

   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
   Pour éviter tout risque d'électrocution ou d'incendie, branchez le câble d'alimentation directement à une prise électrique répondant aux exigences requises et correctement mise à la terre, proche du produit et facile d'accès.

   CAUTION—POTENTIAL INJURY
   Para evitar el riesgo de incendio o descarga eléctrica, conecte el cable de alimentación a una toma de corriente debidamente conectada a tierra con la potencia adecuada que se encuentre cerca del dispositivo y resulte fácilmente accesible.

   CAUTION—POTENTIAL INJURY
   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.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution lors du nettoyage de l'extérieur de l'imprimante, débranchez le cordon d'alimentation électrique de la prise et déconnectez tous les câbles de l'imprimante avant de continuer.

CAUTION—SHOCK HAZARD
Para evitar el riesgo de descarga eléctrica al limpiar el exterior de la impresora, desconecte el cable de alimentación de la toma eléctrica y desconecte todos los cables de la impresora antes de realizar la operación.

CAUTION—SHOCK HAZARD
Um das Risiko eines elektrischen Schlags beim Reinigen des Druckergehäuses zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose, und ziehen Sie alle Kabel vom Drucker ab, bevor Sie fortfahren.

1. Turn off the printer, and then unplug the power cord from the electrical outlet.
2. Using a damp, soft, lint-free cloth, wipe the touch screen.

   Note:
   - Do not use household cleaners or detergents, as they may damage the touch screen.
   - Make sure that the touch screen is dry after cleaning.

3. Connect the power cord to the electrical outlet, and then turn on the printer.

   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
   Pour éviter tout risque d'électrocution ou d'incendie, branchez le câble d'alimentation directement à une prise électrique répondant aux exigences requises et correctement mise à la terre, proche du produit et facile d'accès.

   CAUTION—POTENTIAL INJURY
   Para evitar el riesgo de incendio o descarga eléctrica, conecte el cable de alimentación a una toma de corriente debidamente conectada a tierra con la potencia adecuada que se encuentre cerca del dispositivo y resulte fácilmente accesible.

   CAUTION—POTENTIAL INJURY
   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 scanner

1. Open the scanner cover.



2. Using a damp, soft, lint-free cloth, wipe the following areas:
    - ADF glass pad



    - Scanner glass pad



    - ADF glass



    - Scanner glass



3. Close the scanner cover.
4. Open door C.
5. Using a damp, soft, lint-free cloth, wipe the following areas:
    - ADF glass pad in door C



    - ADF glass in door C



6. Close door C.

Cleaning the 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 609 or Pick roller removals on page 609.
3. Apply isopropyl alcohol to a soft, lint-free cloth, and then wipe the pick tires.
4. Connect the power cord to the electrical outlet, and then turn on the printer.

CAUTION—POTENTIAL INJURY
To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

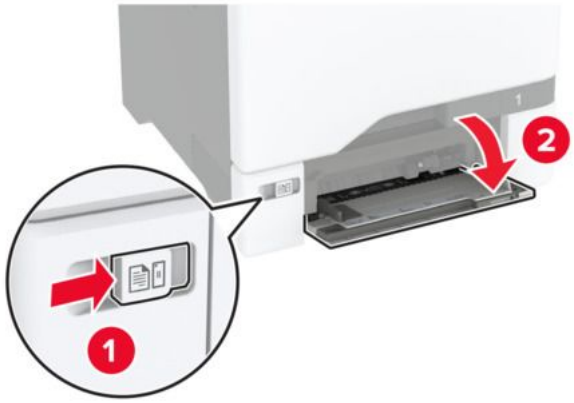
CAUTION—POTENTIAL INJURY
Pour éviter tout risque d'électrocution ou d'incendie, branchez le câble d'alimentation directement à une prise électrique répondant aux exigences requises et correctement mise à la terre, proche du produit et facile d'accès.

CAUTION—POTENTIAL INJURY
Para evitar el riesgo de incendio o descarga eléctrica, conecte el cable de alimentación a una toma de corriente debidamente conectada a tierra con la potencia adecuada que se encuentre cerca del dispositivo y resulte fácilmente accesible.

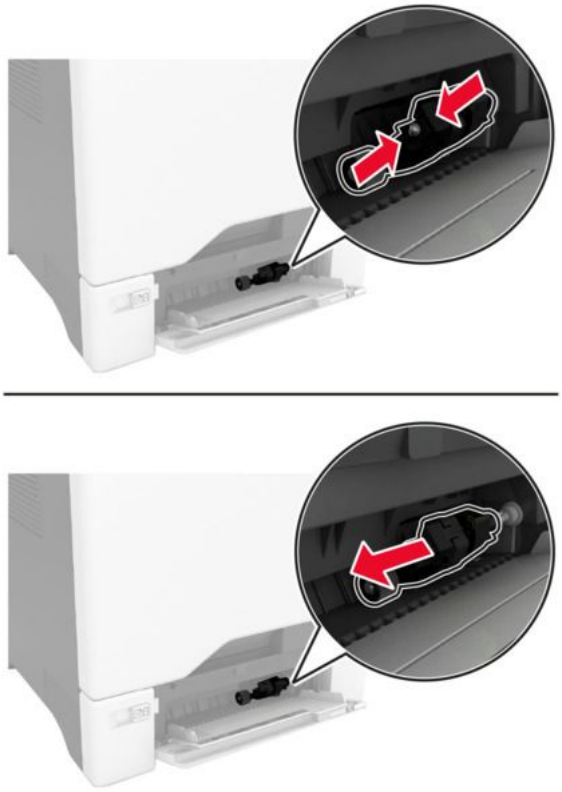
CAUTION—POTENTIAL INJURY
Um das Risiko eines Feuers oder eines elektrischen Schlags zu vermeiden, schließen Sie das Netzkabel an eine ordnungsgemäß geerdete Steckdose an, die sich in der Nähe des Geräts befindet und leicht zugänglich ist.

Cleaning the pick roller in the multipurpose feeder

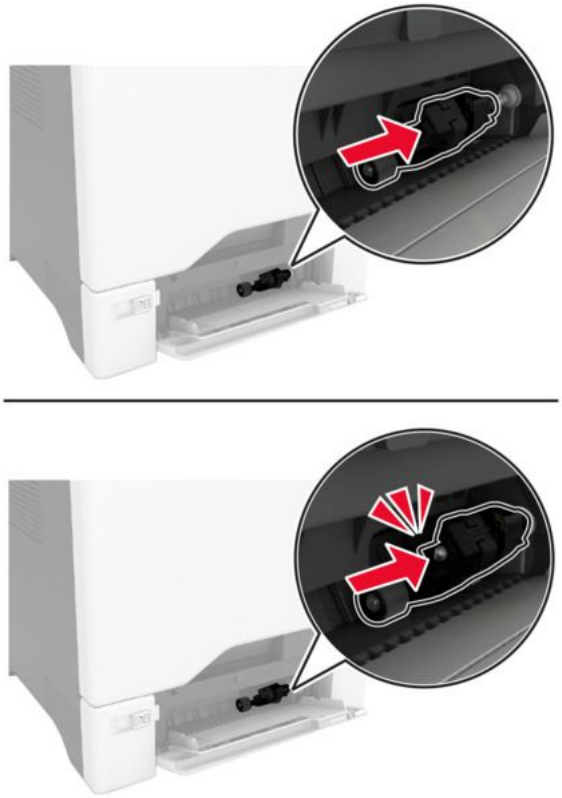
1. Turn off the printer, and then unplug the power cord from the electrical outlet.
2. Open the multipurpose feeder.



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.

7. 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.

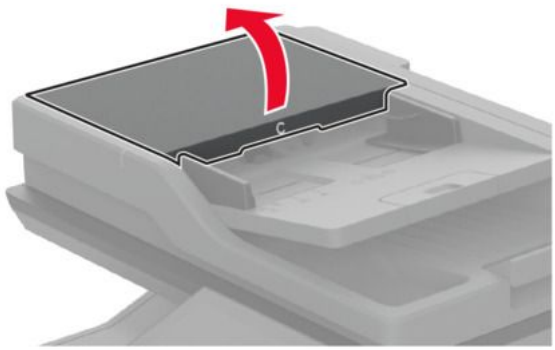
CAUTION—POTENTIAL INJURY
Pour éviter tout risque d'électrocution ou d'incendie, branchez le câble d'alimentation directement à une prise électrique répondant aux exigences requises et correctement mise à la terre, proche du produit et facile d'accès.

CAUTION—POTENTIAL INJURY
Para evitar el riesgo de incendio o descarga eléctrica, conecte el cable de alimentación a una toma de corriente debidamente conectada a tierra con la potencia adecuada que se encuentre cerca del dispositivo y resulte fácilmente accesible.

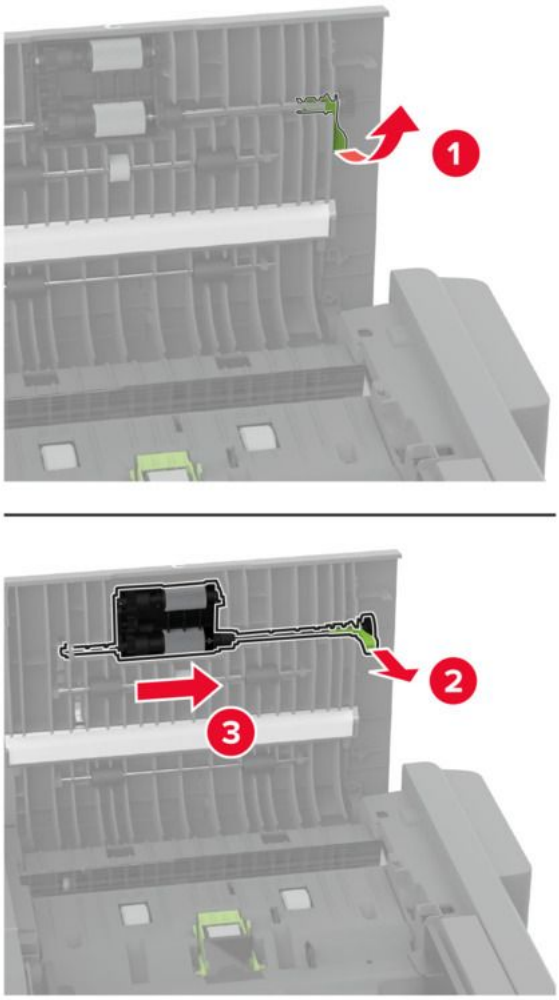
CAUTION—POTENTIAL INJURY
Um das Risiko eines Feuers oder eines elektrischen Schlags zu vermeiden, schließen Sie das Netzkabel an eine ordnungsgemäß geerdete Steckdose an, die sich in der Nähe des Geräts befindet und leicht zugänglich ist.

Cleaning the ADF rollers

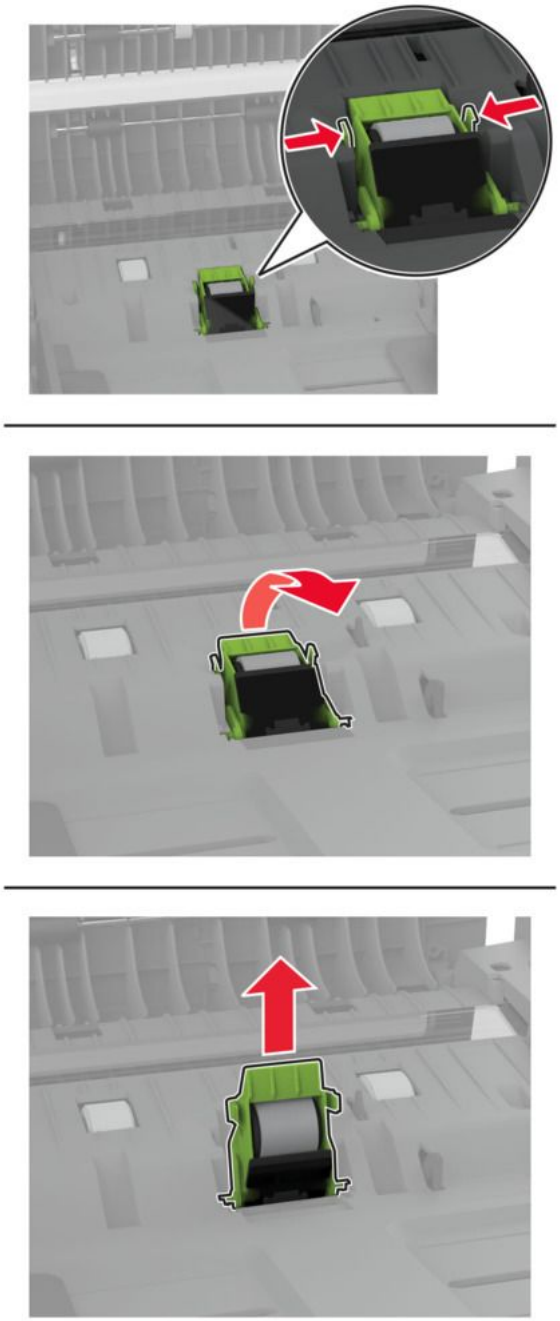
1. Open door C.



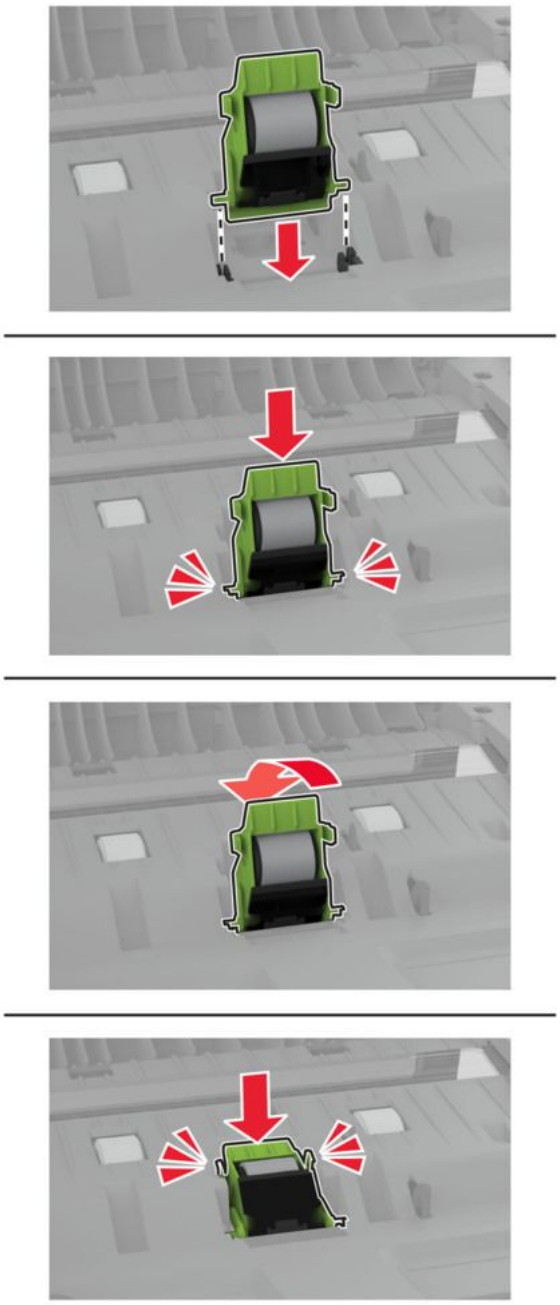
2. Remove the ADF pick roller.



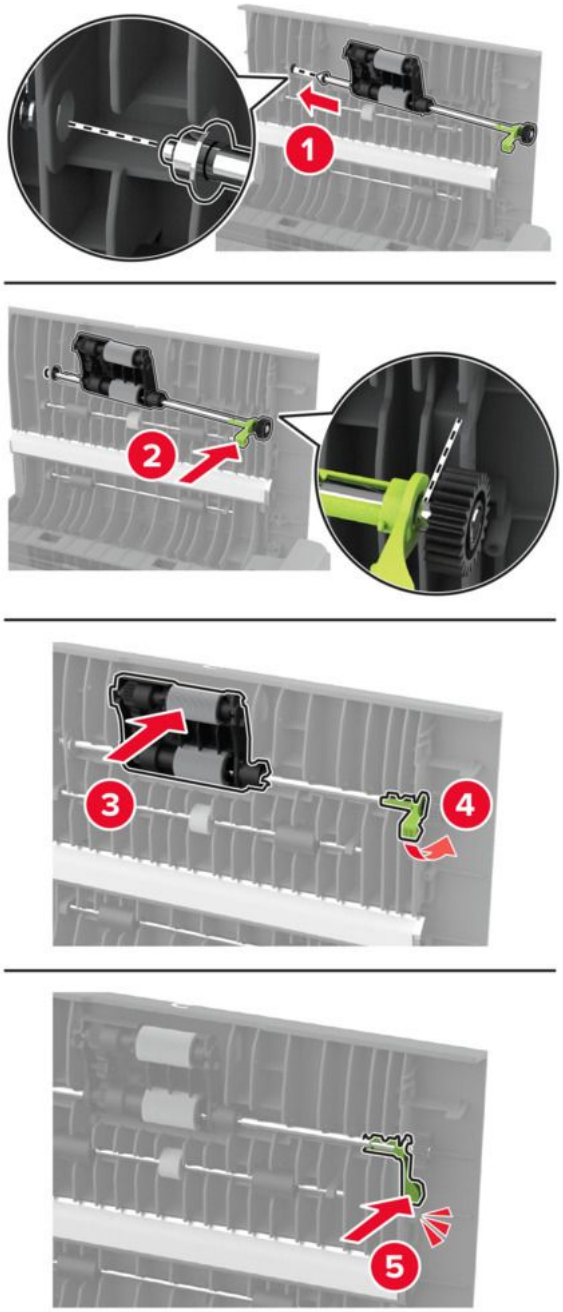
3. Remove the ADF separator roller.



4. Apply isopropyl alcohol to a soft, lint-free cloth, and then wipe the ADF pick roller and ADF separator roller.
5. Insert the ADF separator roller until it clicks into place.



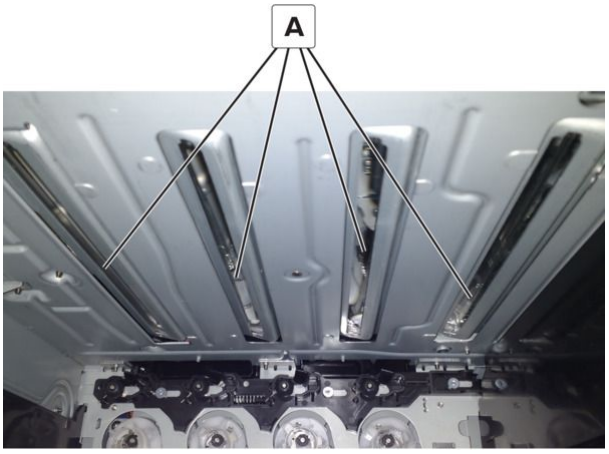
6. Insert the ADF pick roller until it clicks into place.



7. Close door C.

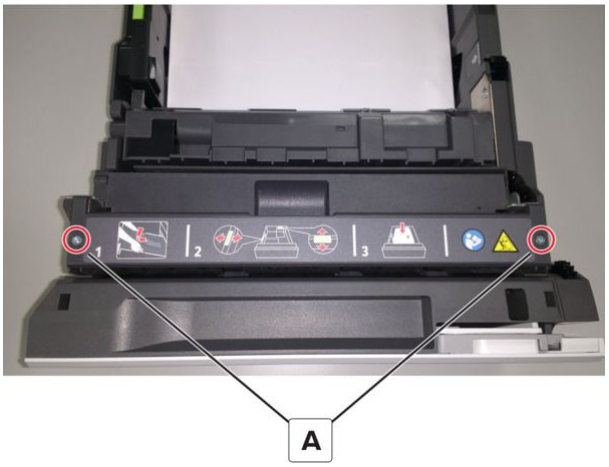
Cleaning the printhead lenses

1. Remove the waste toner bottle. See Waste toner bottle removal on page 515.
2. Remove the imaging kit. See Imaging kit removal on page 517.
3. Using a lint-free cloth, wipe the printhead lenses (A).

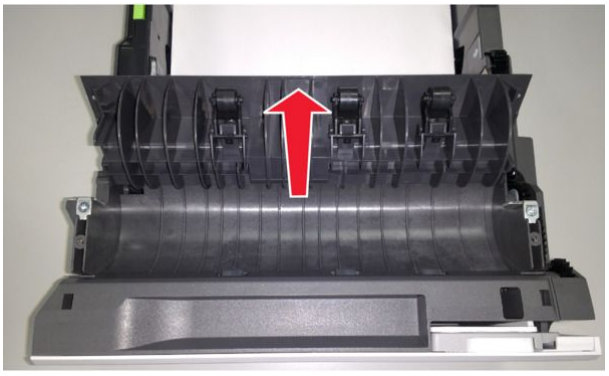


Cleaning the tray 1 duplex turnaround

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

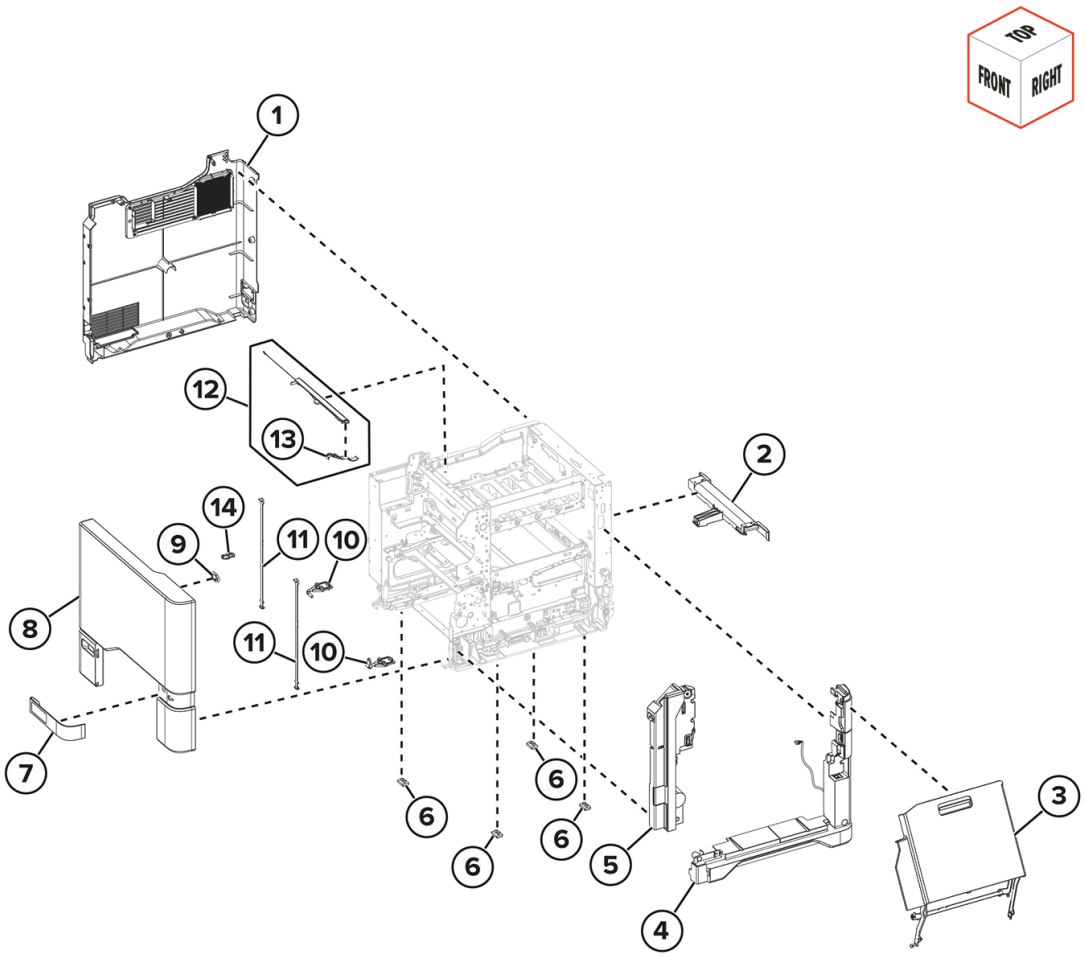
The following column headings are used in the parts catalog:

- **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.

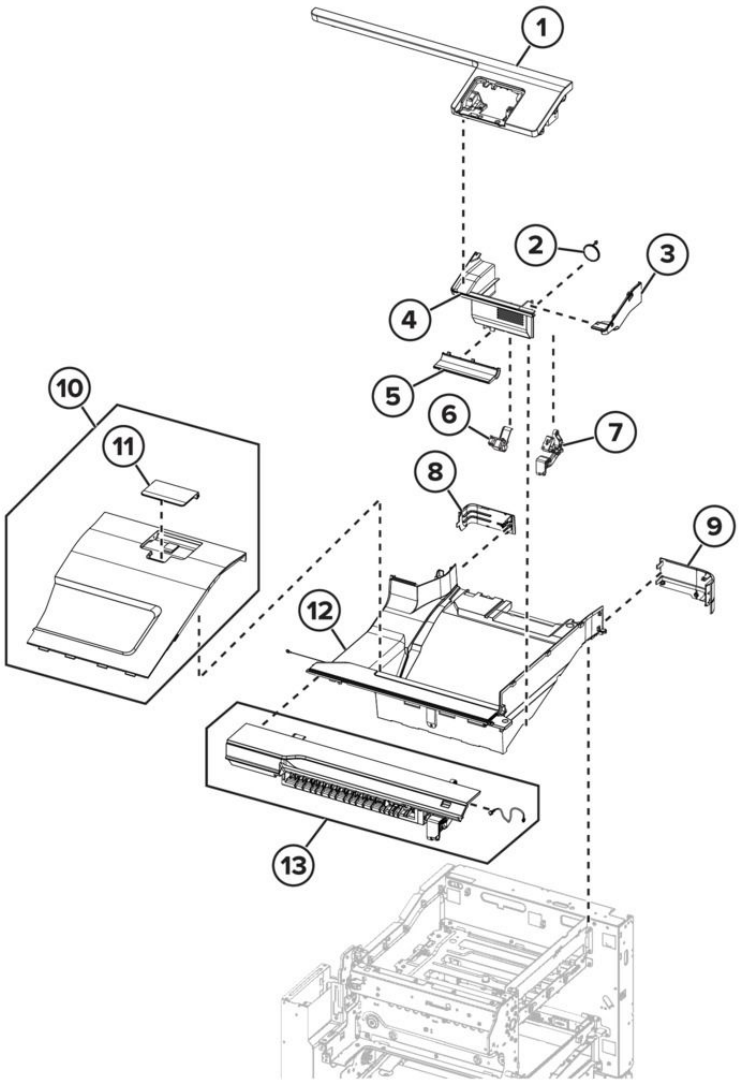
Covers 1



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X2889	1	1	Left cover	Left cover removal on page 497	
2	41X0424	1	1	Rear handle cover	--	
3	41X2918	1	1	Toner door with linkages	Toner door removal on page 521	
4	41X2827	1	1	Right cover	Right cover removal on page 520	
5	41X2897	1	1	Motor cover	Motor cover removal on page 543	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
6	41X2032	4	4	Rubber feet	--	
7	41X0401	1	1	Tray indicator	--	
8	41X0442	1	1	Front door cover	Front door cover removal on page 582	
9	41X0560	1	1	Front door bracket	--	
10	41X0567	1	1	Front door hinges	Front door hinges removal on page 567	
11	41X0380	2	2	Front door straps	--	
12	41X3895	1	1	Bin exit cover	Bin exit cover removal on page 605	
13	41X0772	1	1	Bin flag	Bin flag removal on page 606	
14	41X0570	1	1	Sensor (bin full)	Sensor (bin full) removal on page 598	

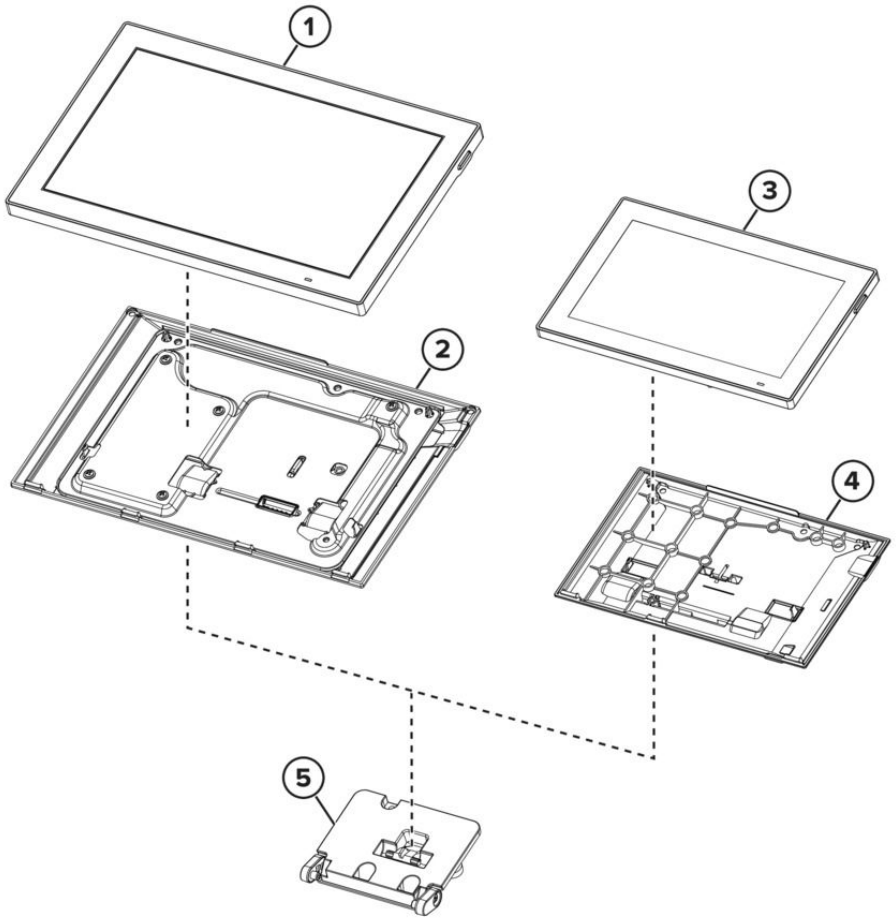
Covers 2



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X2830	1	1	Façade cover	Facade cover removal on page 604	
2	41X4224	1	1	Speaker	Speaker removal on page 566	
3	41X2837	1	1	USB cover	USB cover removal on page 523	
4	41X2829	1	1	Scanner front cover	Scanner front cover removal on page 545	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
5	41X4316	1	1	Badge cover	Scanner front cover removal on page 545	
6	41X0561	1	1	Control panel left arm	Control panel arms removal on page 568	
7	41X0562	1	1	Control panel right arm	Control panel arms removal on page 568	
8	41X3898	1	1	Scanner rear left cover	Scanner rear left cover removal on page 585	
9	41X0435	1	1	Scanner rear right cover	Scanner rear right cover removal on page 584	
10	41X3897	1	1	Bin cover	Bin cover removal on page 590	
11	41X0410	1	1	Bin extender	--	
12	41X2898	1	1	Top cover	Top cover removal on page 596	
13	41X2919	1	1	Upper front door (with cable)	Upper front door removal on page 592	

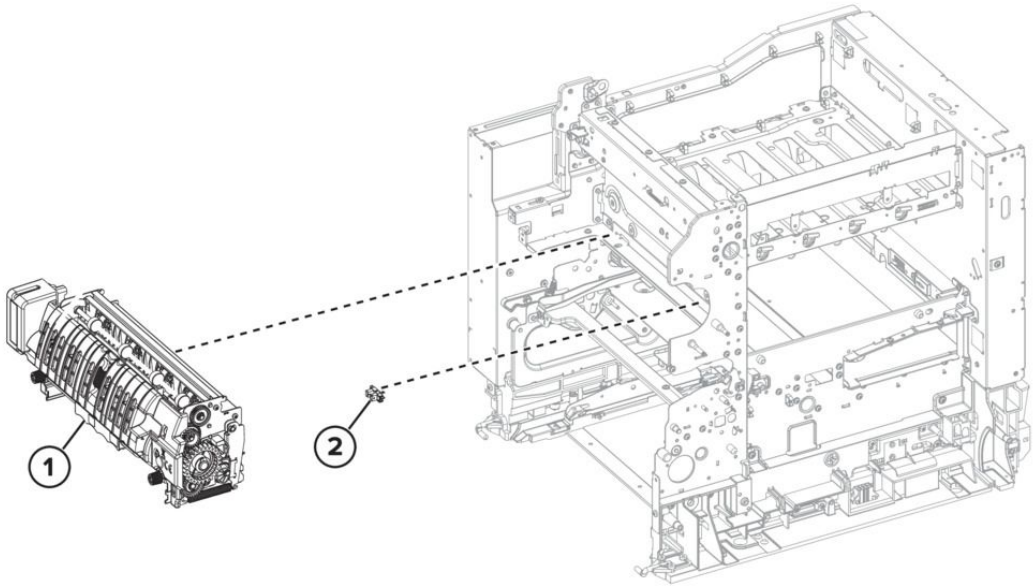
Control panel



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X2881	1	1	Control panel display, 10-inch **Notes** This part has a FRU sheet.	Control panel display (10-inch) removal on page 558	
2	41X2884	1	1	Control panel (10-inch display) rear cover	Control panel rear cover removal on page 565	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
3	41X2880	1	1	Control panel display, 7-inch **Notes** This part has a FRU sheet.	--	
4	41X2883	1	1	Control panel (7-inch display) rear cover	--	
5	41X2835	1	1	Control panel hinge	Control panel hinge removal on page 564	
NS	41X4466	1	1	Control panel cables	--	

Fuser



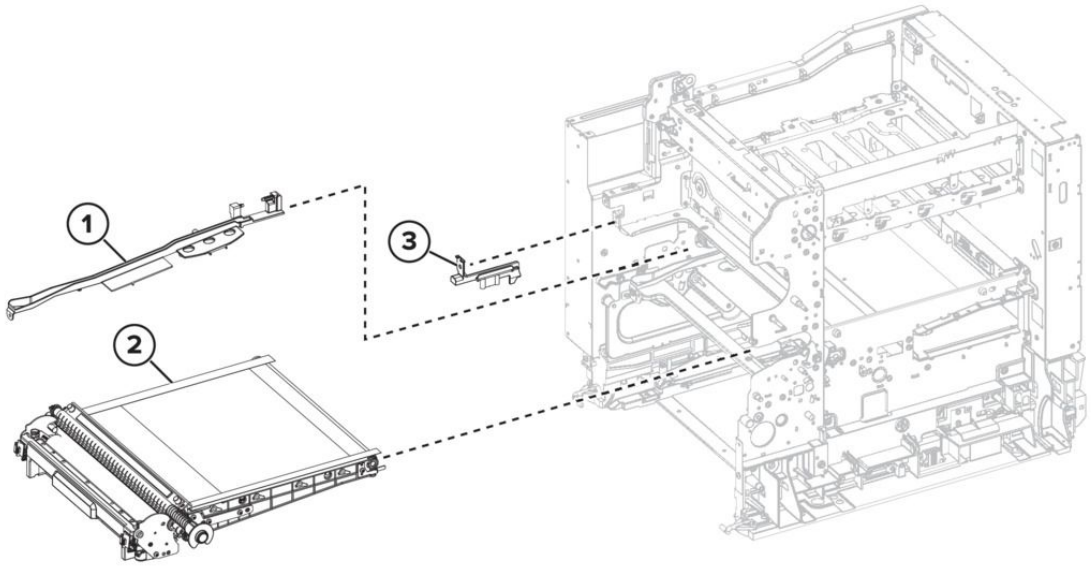
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X4511	1	1	Fuser, 115 V (narrow media) **Notes** • This part is only for CS/CX 737 models. • This part has a CRU sheet.	Fuser removal on page 551	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X2930	1	1	Fuser, 115 V **Notes** • This part is not compatible with CS/CX 737 models. • This part has a CRU sheet.	Fuser removal on page 551	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X2931	1	1	Fuser, 220 V **Notes** • This part is not compatible with CS/CX 737 models. • This part has a CRU sheet.	Fuser removal on page 551	

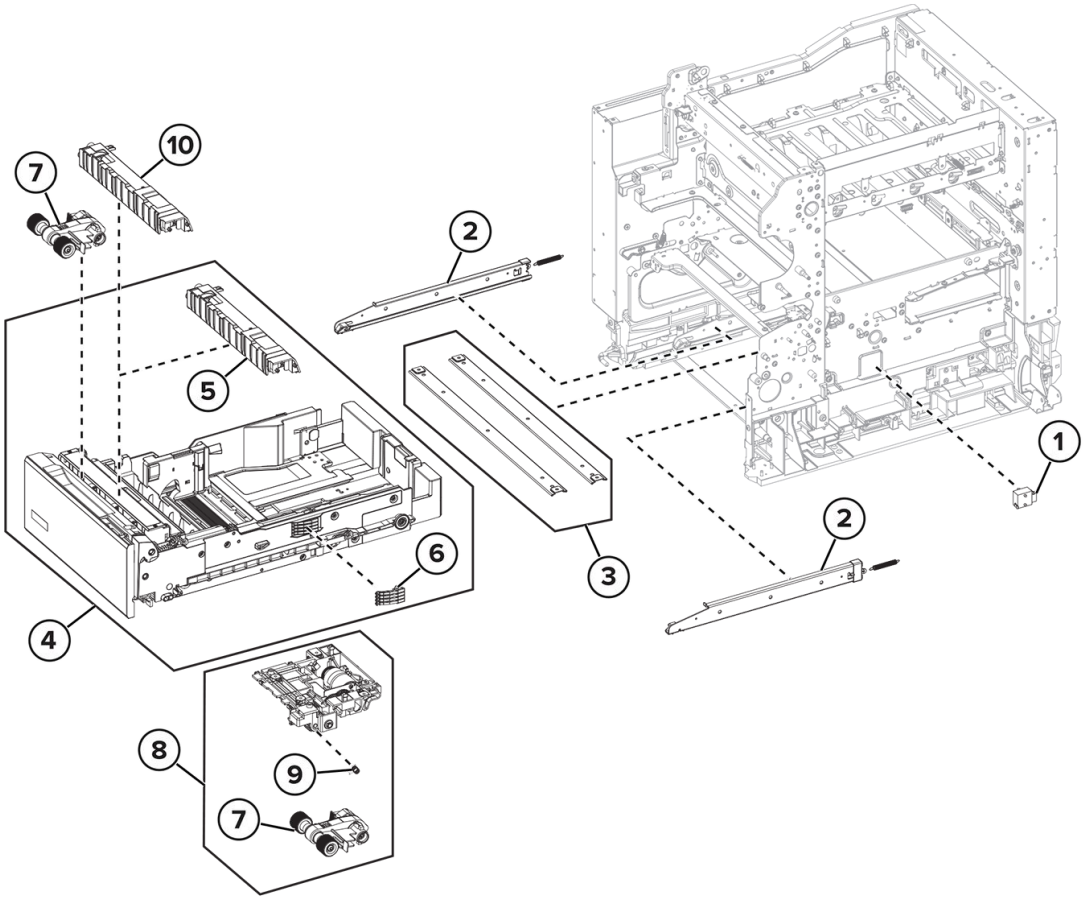
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X2932	1	1	Fuser, 100 V **Notes** • This part is not compatible with CS/CX 737 models. • This part has a CRU sheet.	Fuser removal on page 551	
2	41X1083	1	1	Sensor (fuser nip)	Sensor (fuser nip) removal on page 557	

Transfer module



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X2900	1	1	Transfer module guide rail	Transfer module guide rail removal on page 570	
2	41X2689	1	1	Transfer module **Notes** This part has a FRU sheet.	Transfer module removal on page 547	
3	41X2833	1	1	Transfer module retainer	Transfer module removal on page 547	

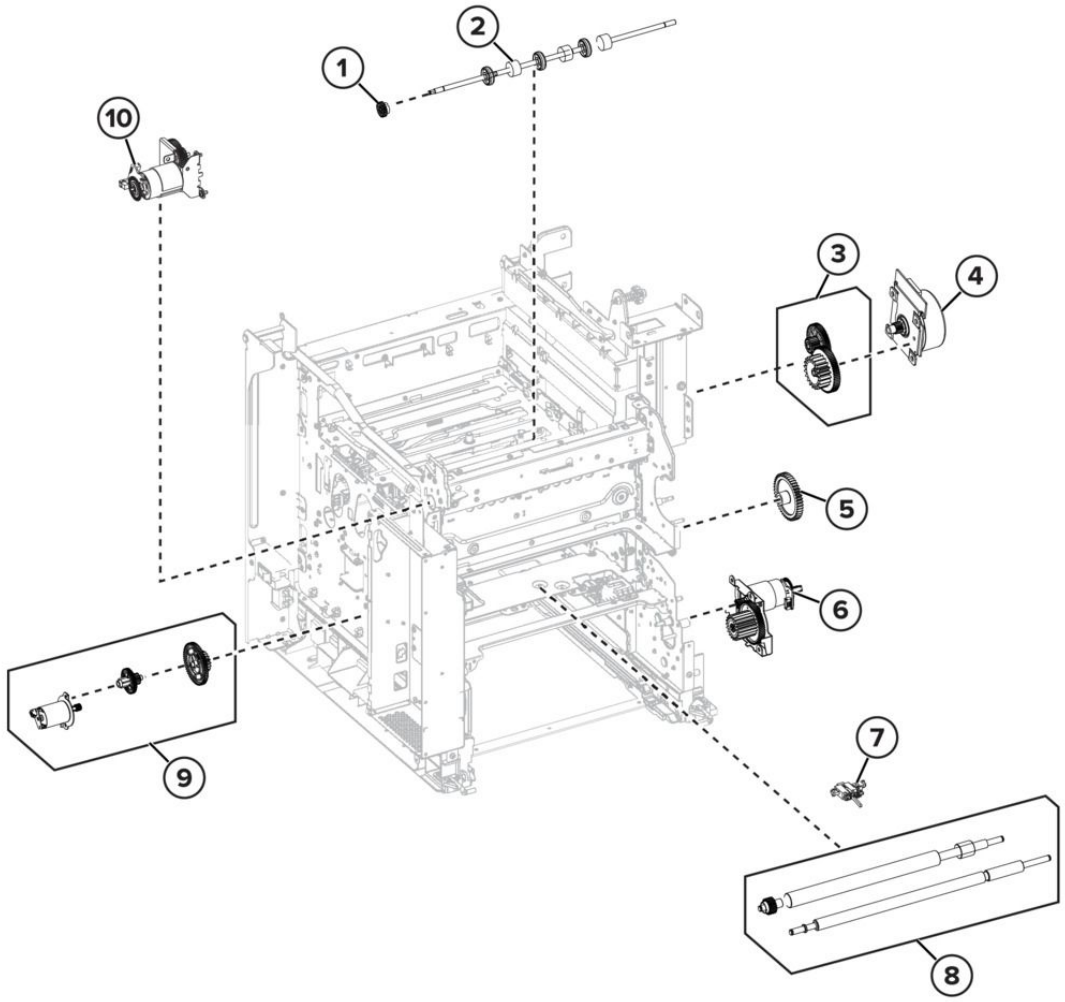
Paper feed



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	40X7911	1	1	Sensor (paper size)	Sensor (paper size) removal on page 528	
2	41X0372	1	1	Tray rails	Tray rail removal on page 611	
3	41X0825	2	2	Support straps	--	
4	41X0268	1	1	550-sheet tray insert **Notes** This part has a CRU sheet.	550-sheet tray insert removal on page 608	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
5	41X0374	1	1	Separator bracket **Notes** This part has a CRU sheet.	Separator bracket removal on page 608	
6	41X0373	1	1	Paper size sensor actuators	--	
7	41X0956	2	1	Pick roller **Notes** This part has a CRU sheet.	Pick roller removals on page 609	
8	41X4450	1	1	Paper feeder	Paper feeder removal on page 613	
9	41X2034	1	1	Paper actuator spring **Notes** This part has a FRU sheet.	Paper out actuator spring removal on page 614	
10	41X2868	1	1	Special media separator bracket		

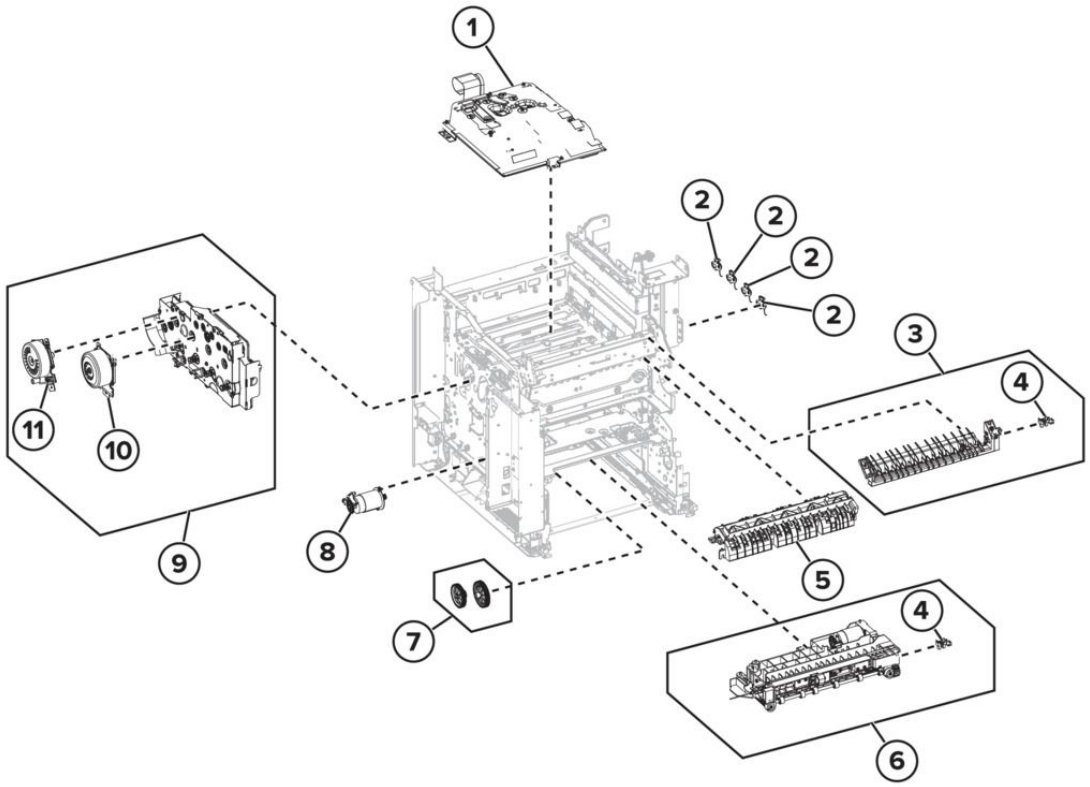
Paper path 1



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X0391	1	1	Exit roller gear	Exit roller gear removal on page 600	
2	41X0390	1	1	Exit roller	Exit roller removal on page 601	
3	41X0395	1	1	Fuser drive gear	--	
4	41X4460	1	1	Motor (fuser)	Motor (fuser) removal on page 530	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
5	41X0757	1	1	Waste toner bottle idler gear	Waste toner bottle idler gear removal on page 531	
6	41X0381	1	1	Motor (duplex/ MPF)	Motor (duplex/ MPF) removal on page 532	
7	41X0385	1	1	Sensor (input)	Sensor (input) removal on page 550	
8	41X0386	1	1	Aligner rollers	Aligner rollers removal on page 572	
9	41X2825	1	1	Motor (BOR)	Motor (BOR) removal on page 506	
10	41X0392	1	1	Motor (exit/ redrive)	Motor (exit/ redrive) removal on page 509	
NS	41X4463	1	1	Left side cables • LVPS cable • AC line in cable • CMY motor cable • Fuser AC cable • BOR motor cable • Fuser DC cable • K motor cable • Exit/ redrive motor cable	--	

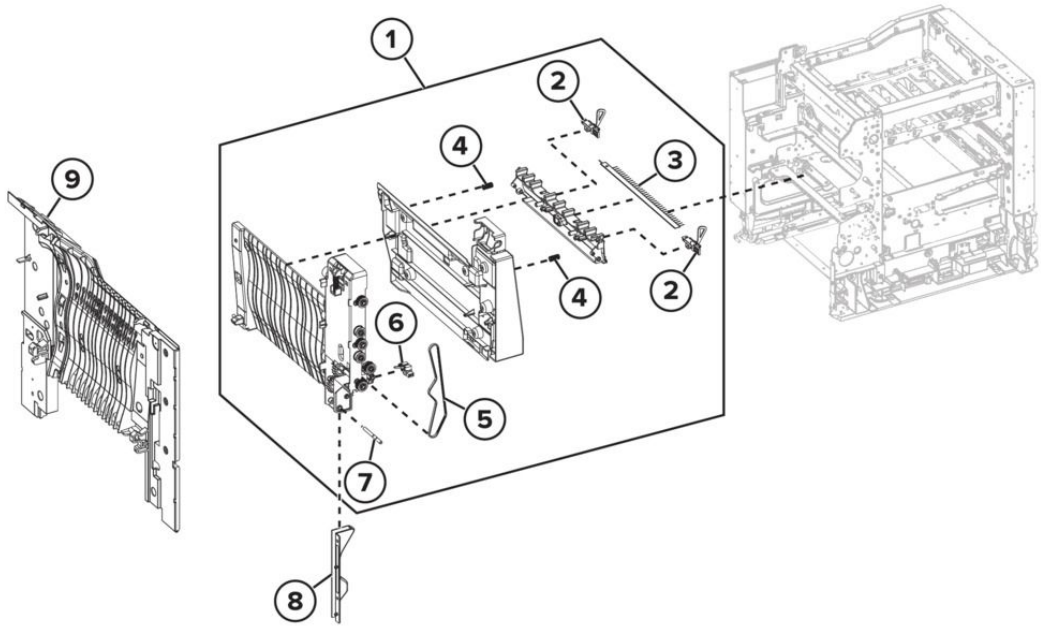
Paper path 2



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X2844	1	1	Printhead **Notes** This part has a FRU sheet.	Printhead removal on page 592	
2	41X0897	4	1	Developer hold down arm	Developer hold down arm removal on page 607	
3	41X0389	1	1	Diverter	Diverter removal on page 555	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
4	41X0570	1	1	Sensor (redrive)	Sensor (redrive) removal on page 555	
4	41X0570	1	1	Sensor (MPF/ pass-through)	--	
5	41X0388	1	1	Redrive guide	Redrive guide removal on page 553	
6	41X0384	1	1	Isolation unit	Isolation unit removal on page 616	
7	41X0758	1	1	Aligner drivetrain kit	--	
8	41X0387	1	1	Motor (deskew)	Motor (deskew) removal on page 506	
9	41X2768	1	1	EP drive gearbox	EP drive gearbox removal on page 504	
10	41X4461	1	1	Motor (CMY)	Motor (EP drive) removal on page 503	
11	41X4460	1	1	Motor (K/ transfer belt)	Motor (EP drive) removal on page 503	

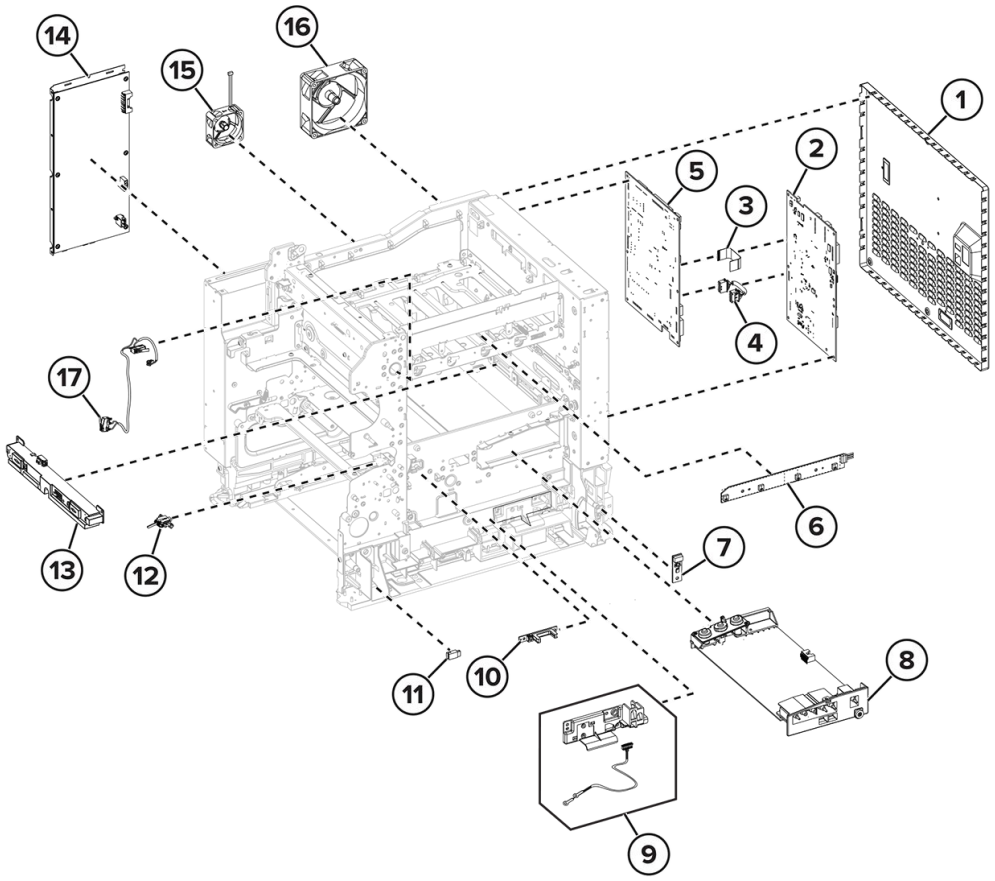
Duplex



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X0376	1	1	Duplex inner guide	Duplex inner guide removal on page 578	
2	41X0447	1	1	Sensor (fuser buckle)	Sensors (fuser buckle and narrow media) removal on page 579	
2	41X0447	1	1	Sensor (narrow media)	Sensors (fuser buckle and narrow media) removal on page 579	
3	41X0824	1	1	Static brush	--	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
4	41X0379	2	2	Guide springs	--	
5	41X0378	1	1	Tensioner belt	Tensioner belt removal on page 580	
6	41X0446	1	1	Sensor (duplex staging)	Sensor (duplex staging) removal on page 578	
7	41X0377	1	1	Pivot shaft	Pivot shaft removal on page 578	
8	41X0400	1	1	Cable cover	Front door removal on page 541	
9	41X0426	1	1	Duplex outer guide	Duplex outer guide removal on page 581	

Electrical

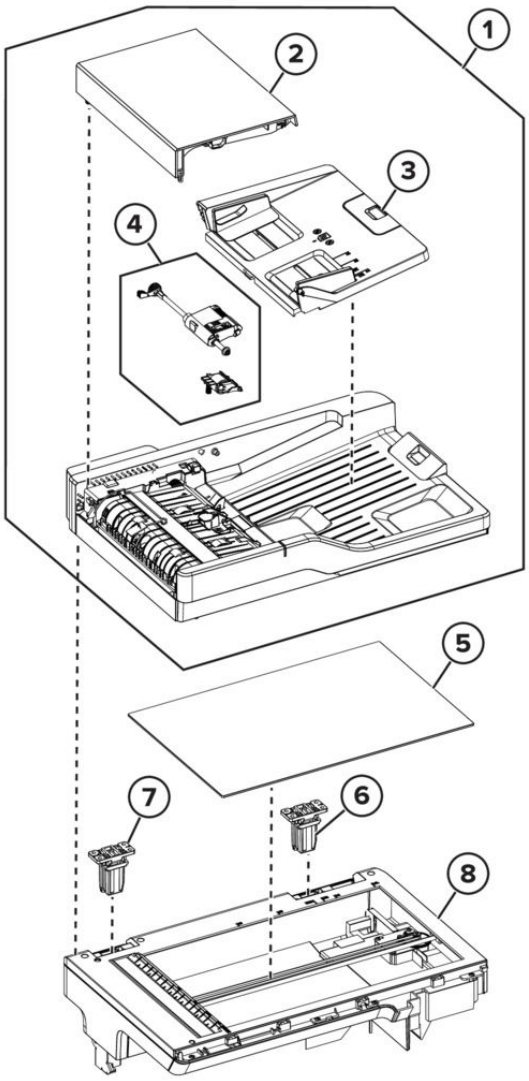


Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X6469	1	1	Controller board shield	Controller board shield removal on page 583	
2	41X2875	1	1	Controller board **Notes** This part has a FRU sheet.	Controller board removal on page 587	
3	41X2878	1	1	Print data cable	--	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
4	41X2877	1	1	Controller power cable	--	
5	41X4581	1	1	Engine board **Notes** This part has a FRU sheet.	Engine board removal on page 588	
6	41X0394	1	1	TMC Card	TMC card removal on page 527	
7	41X0785	1	1	Sensor (weather station)	Sensor (weather station) removal on page 533	
8	41X2777	1	1	HVPS	HVPS removal on page 534	
9	41X0486	1	1	Sensor (waste toner contact)	--	
10	41X4488	1	1	Sensor (waste toner)[1]	Sensor (waste toner) removal on page 536	
11	41X0566	1	1	Sensor (MPF paper present)	Sensor (MPF paper present) removal on page 536	
12	41X0385	1	1	Sensor (input)	Sensor (input) removal on page 550	
13	41X2832	1	1	Sensor (TPS)[1]	Sensor (TPS) removal on page 538	
14	41X2794	1	1	LVPS, 110 V	LVPS removal on page 499	
14	41X2795	1	1	LVPS, 220 V	LVPS removal on page 499	
15	41X0398	1	1	Fuser fan	Fuser fan removal on page 501	
16	41X0397	1	1	Main fan	Main fan removal on page 500	
17	41X0448	1	1	Interlock switch	--	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
NS	41X4465	1	1	Right side cables • Front door sensor cables • TMC card cable • Weather station sensor cable • Interlock switch cables • Optional tray cables	--	
NS	41X4464	1	1	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	--	

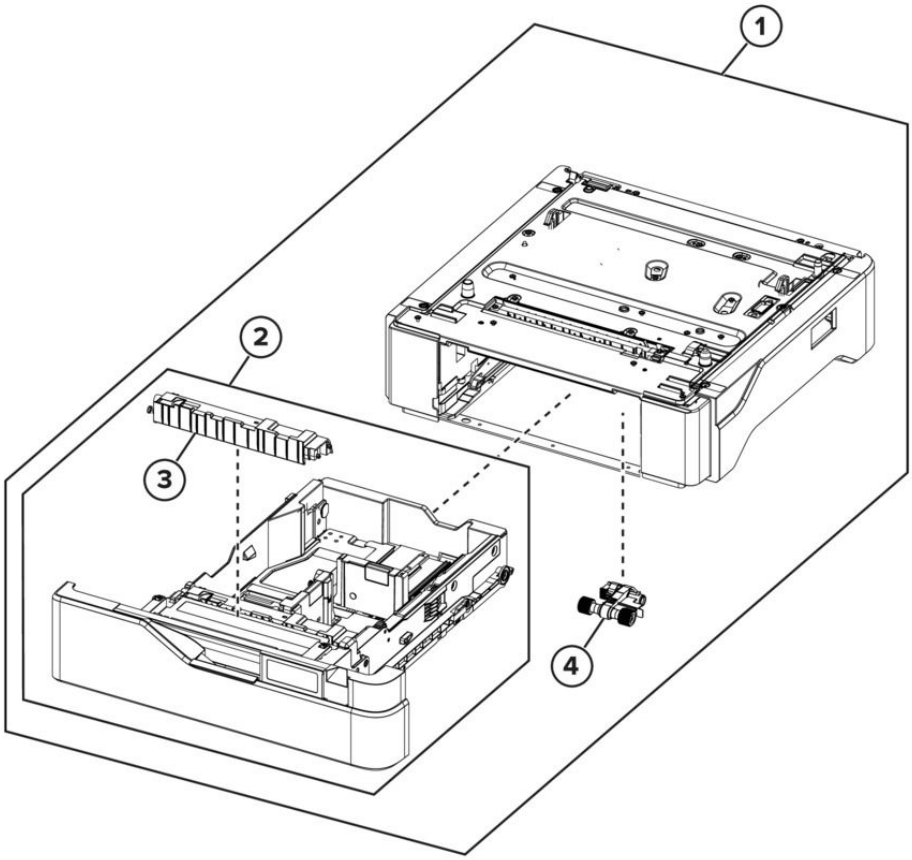
ADF and flatbed scanner



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X2850	1	1	ADF	ADF removal on page 624	
2	41X2846	1	1	ADF top cover	ADF top cover removal on page 634	
3	41X2847	1	1	ADF tray	--	
4	41X2848	1	1	ADF rollers **Notes** This part has a CRU sheet.	ADF rollers removal on page 621	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
5	41X2853	1	1	Scanner glass pad **Notes** This part has a CRU sheet.	Scanner glass pad removal on page 618	
6	40X7546	1	1	ADF right hinge	ADF right hinge removal on page 635	
7	41X2845	1	1	ADF left hinge	ADF left hinge removal on page 636	
8	41X2849	1	1	Flatbed scanner	Flatbed scanner removal on page 625	
NS	41X3709	1	1	ADF and scanner cables • ADF and scanner cables • Cable covers	Scanner cables removal on page 632	

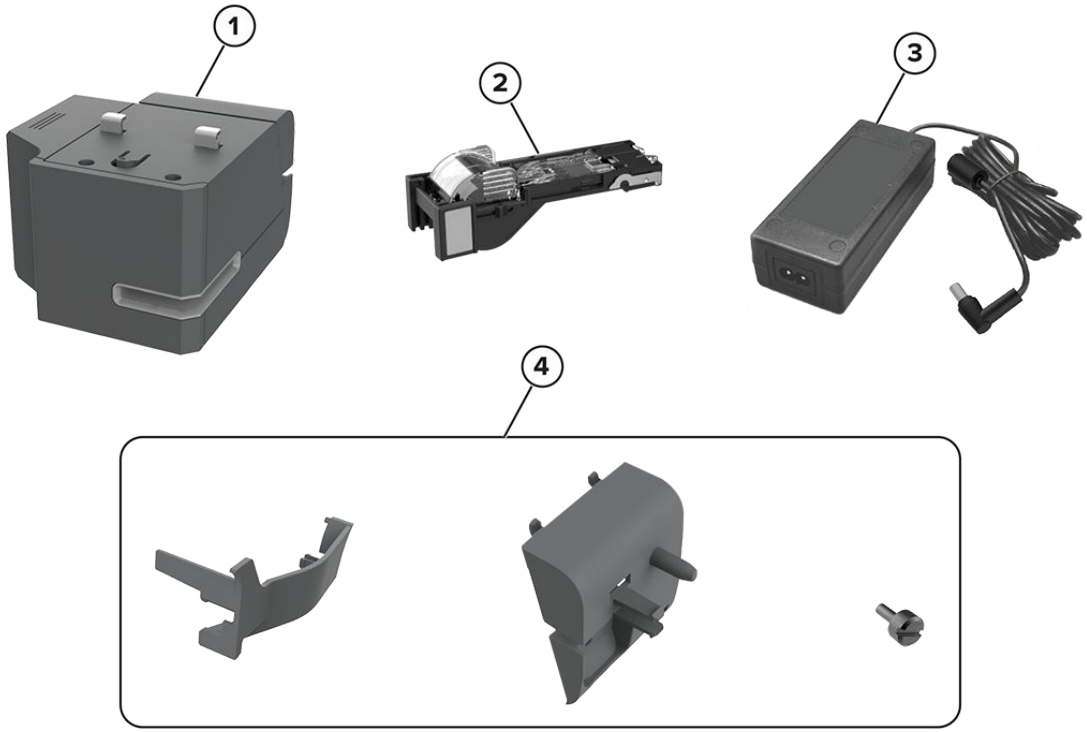
Optional 550-sheet tray



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X0271	1	1	Optional 550-sheet tray **Notes** This part has a CRU sheet.	Optional 550-sheet tray removal on page 640	
2	41X0361	1	1	Optional 550-sheet tray insert **Notes** This part has a CRU sheet.	550-sheet tray insert removal on page 608	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
3	41X0374	1	1	Separator bracket **Notes** This part has a CRU sheet.	Separator bracket removal on page 608	
4	41X0956	1	1	Pick roller **Notes** This part has a CRU sheet.	Waste toner bottle removal on page 515	

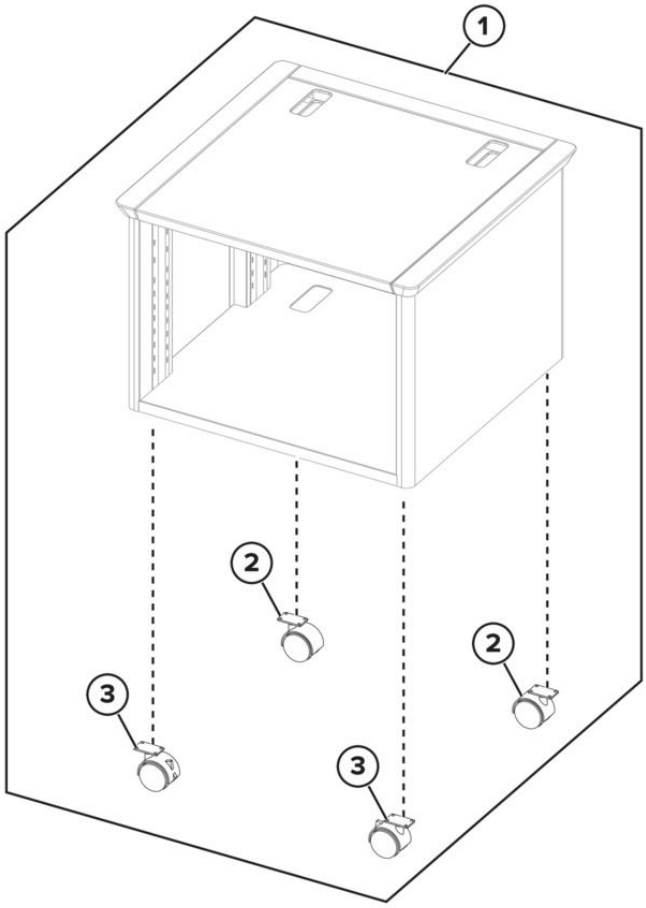
Convenience stapler



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X4236	1	1	Convenience stapler **Notes** This part has a CRU sheet.	--	
2	40X8149	1	1	Staple cartridge holder **Notes** This part has a CRU sheet.	--	
3	41X4237	1	1	Universal AC power adapter **Notes** This part has a CRU sheet.	--	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
4	41X6711	1	1	Convenience stapler installation adapter -Cover -Installation adapter -Screw **Notes** This part has a CRU sheet.	--	

Printer stand



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
1	41X0764	1	1	Printer stand	--	
2	41X0775	2	1	Nonlocking caster	--	
3	41X0774	2	1	Locking caster	--	

Miscellaneous

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
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	ISD card removal on page 585	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
NS	41X2873	1	1	Trusted platform module (TPM) card **Notes** This part has a FRU sheet.	TPM card removal on page 586	
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	--	
NS	41X4916	1	1	Fax card	--	
NS	41X0906	1	1	Screws pack	--	
NS	41X6602	1	1	SATA Hard drive	--	

Maintenance kits

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
NS	41X3882	1	1	Maintenance kit, 110 V • Fuser, 115 V • Pick roller • Separator bracket **Notes** This part has a CRU sheet.	--	
NS	41X3883	1	1	Maintenance kit, 220 V • Fuser, 220 V • Pick roller • Separator bracket **Notes** This part has a CRU sheet.	--	
NS	41X3884	1	1	Maintenance kit, 100 V • Fuser, 100 V • Pick roller • Separator bracket **Notes** This part has a CRU sheet.	--	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
NS	41X4512	1	1	Maintenance kit, 115 V (narrow media; for CS/CX737 models only) • Fuser, 115 V (narrow media; for CS/CX737 models only) • Pick roller • Separator bracket **Notes** This part has a CRU sheet.	--	
NS	41X2848	1	1	ADF rollers • ADF pick roller • ADF separator roller **Notes** This part has a CRU sheet.	--	

Power cords

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
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	--	

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure	Notes
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.

Notes
Some modes may not apply to your product.

Mode	Description	Power consumption (Watts)
Printing	The product is generating hard-copy output from electronic inputs.	One-sided: 630 (CX730, XC4342); 760 (CX735, CX737, XC4352) Two-sided: 520 (CX730, XC4342); 640 (CX735, CX737, XC4352)
Copy	The product is generating hard-copy output from hard-copy original documents.	640 (CX730, XC4342); 800 (CX735, CX737, XC4352)
Scan	The product is scanning hard-copy documents.	44.5 (CX730, XC4342); 45.0 (CX735, CX737, XC4352)
Ready	The product is waiting for a print job.	31.5 (CX730, XC4342); 32.0 (CX735, CX737, XC4352)
Sleep Mode	The product is in a high-level energy-saving mode.	1.0 (CX730, XC4342); 1.2 (CX735, CX737, XC4352)
Hibernate	The product is in a low-level energy-saving mode.	0.1
Off	The product is plugged into an electrical outlet, but the power switch is turned off.	0.1

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average.
Values are subject to change. See www.lexmark.com for current values.

Sleep Mode

This product is designed with an energy-saving mode called **Sleep Mode**. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the **Sleep Mode Timeout**.

Factory default Sleep Mode Timeout for this product (in minutes):	15

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes, or between 1 minute and 114 minutes, depending on the printer model. If the printer speed is less than or equal to 30 pages per minute, then you can set the timeout only up to 60 minutes or 54 minutes, depending on the printer model. Setting the Sleep Mode Timeout to a low value reduces energy consumption, but may increase the response time of the product. Setting the Sleep Mode Timeout to a high value maintains a fast response, but uses more energy.
Some models support a **Deep Sleep Mode**, which further reduces power consumption after longer periods of inactivity.

Hibernate Mode

This product is designed with an ultra-low power operating mode called **Hibernate mode**. When operating in Hibernate Mode, all other systems and devices are powered down safely.
The Hibernate mode can be entered in any of the following methods:

- Using the Hibernate Timeout
- Using the Schedule Power modes

Factory default Hibernate Timeout for this product in all countries or regions	3 days

The amount of time the printer waits after a job is printed before it enters Hibernate mode can be modified between one hour and one month.
Notes on EPEAT-registered imaging equipment products:

- Standby power level occurs in Hibernate or Off mode.
- The product shall automatically power down to a standby power level of ≤ 1 W. The auto standby function (Hibernate or Off) shall be enabled at product shipment.

Off mode

If this product has an off mode which still consumes a small amount of power, then to completely stop product power consumption, disconnect the power supply cord from the electrical outlet.

Total energy usage

It is sometimes helpful to estimate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum of each mode's energy usage.

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	229 mm (9 in.)
2	Rear	101.6 mm (4 in.)
3	Right side	178 mm (7 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.

Notes
Some modes may not apply to your product.

1-meter average sound pressure, dBA	
Printing	One-sided: 52 (CX730de, XC4342); 53 (CX735, CX737, XC4352) Two-sided: 53 (CX730, XC4342); 55 (CX735, CX737, XC4352)
Scanning	51
Copying	Mono: 55 (CX730, XC4342); 56 (CX735, CX737, XC4352) Color: 51 (CX730, XC4342); 52 (CX735, CX737, XC4352)
Ready	14

Values are subject to change. See www.lexmark.com for current values.

Temperature information

Operating temperature and relative humidity	10 to 32.2°C (50 to 90°F) and 15 to 80% RH 15.6 to 32.2°C (60 to 90°F) and 8 to 80% RH Maximum wet-bulb temperature[2]: 22.8°C (73°F) Non-condensing environment
Printer / cartridge / imaging unit long-term storage[1]	15.6 to 32.2°C (60 to 90°F) and 8 to 80% RH Maximum wet-bulb temperature[2]: 22.8°C (73°F)
Printer / cartridge / imaging unit short-term shipping	-40 to 40°C (-40 to 104°F)

[1] Supplies shelf life is approximately 2 years. This is based on storage in a standard office environment at 22°C (72°F) and 45% humidity.

[2] Wet-bulb temperature is determined by the air temperature and the relative humidity.

Options and features

Available internal options

- Intelligent storage drive (ISD)
    - Fonts
        - Simplified Chinese
        - Traditional Chinese
        - Japanese
        - Korean
        - Arabic
    - Mass storage
- 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

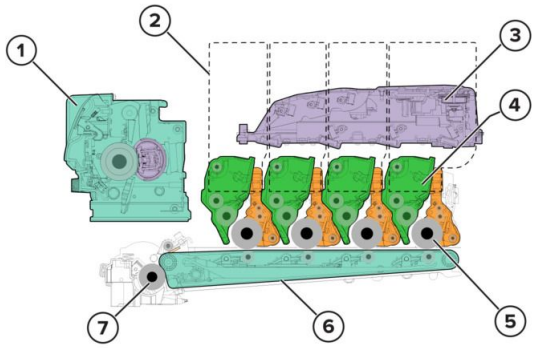
Note:

- 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

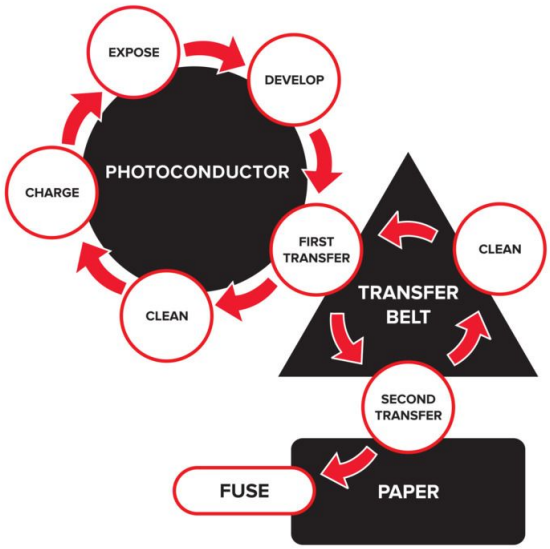
Electrophotographic (EP) process

Print engine layout



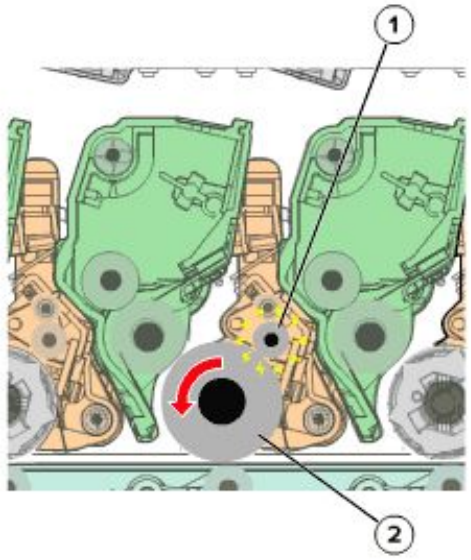
1	Fuser
2	Toner cartridges (Y, C, M, K)
3	Printhead
4	Developer unit
5	Photoconductor drum
6	Transfer belt
7	Second transfer roller

Flowchart



EP process

Charge



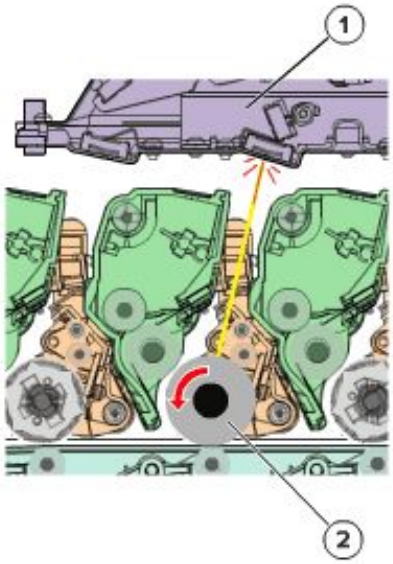
1	Charge roller
2	Photoconductor drum

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 from the laser printhead.

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 73.
- 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 may need to be replaced.

Expose



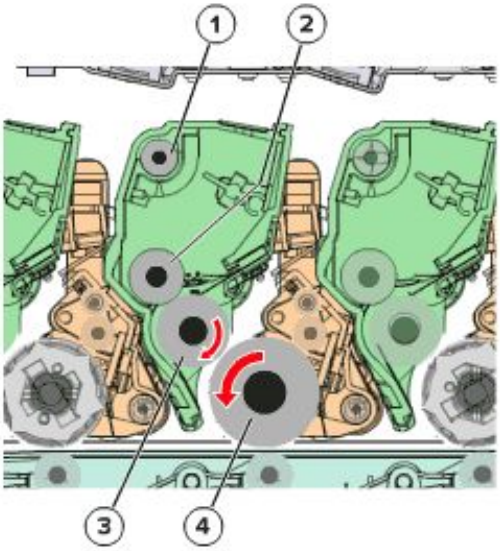
1	Printhead
2	Photoconductor drum

The printhead lasers emit the light that contacts the surface of the photoconductor drum. An invisible image, called *digital latent image*, is written on the drum 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

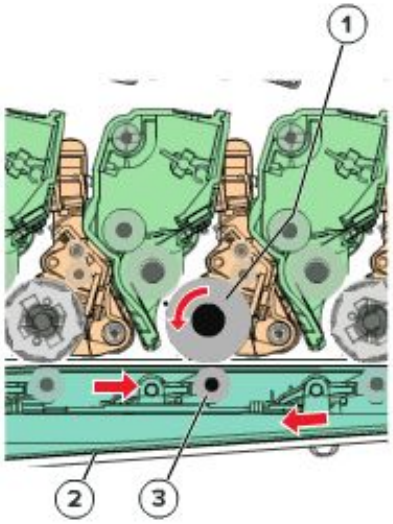
The developer roller applies the toner from the toner cartridge to the photoconductor drum. The relative opposite polarity in charge causes the toner particles to attract to the photoconductor drum areas which were exposed to light. In the process, the digital latent image on the drum is developed.

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 73.

First transfer



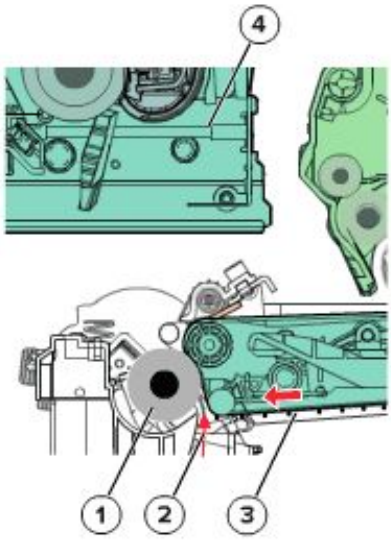
1	Photoconductor drum
2	Transfer belt
3	First transfer roller

For each color, there is a charge difference between the developed toner image on the photoconductor drum surface and the first transfer roller. This difference causes the image to transfer to the surface of the transfer belt. This transfer occurs during a direct surface-to-surface contact between the photoconductor drum and the transfer belt.

Service tips

- Do not touch the surface of the transfer belt with your bare hand. The oil from your skin may cause a charge disparity on the surface, and the toner may no longer stick properly. The result can be repeating blotches or voids on the printed page or patches of light print. The transfer module may need to be replaced. For more information, see Repeating defects check on page 73.
- Do not use solvents or other cleaners to clean the transfer belt surface. Their chemicals may result to scratches or charge disparities. Voids on the printed page or blotches of light print may occur. The transfer module may need to be replaced.
- Sharp and hard objects can damage the transfer belt surface. Be careful when using a screwdriver or prying tool near the transfer module. If the transfer belt has tears or cracks, then the transfer module may need to be replaced.

Second transfer



1	Second transfer roller
2	Paper
3	Transfer belt
4	Fuser

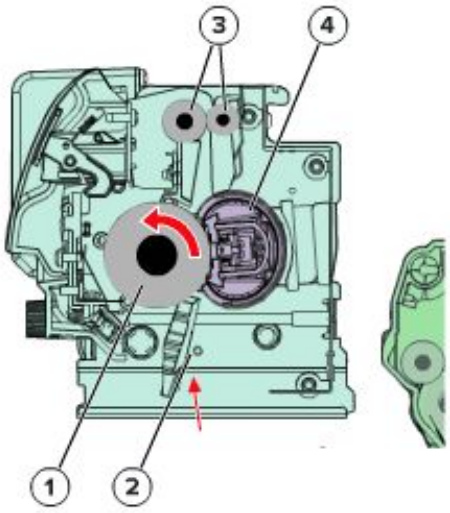
On the transfer belt, the four-color image is carried toward the second transfer roller until it reaches a set point. The paper pick is timed when the paper is at the exact position between the transfer belt and second transfer roller.

When the image on the transfer belt reaches the second transfer roller, the negatively charged toner clings to the paper. The entire image is then transferred from the transfer belt to the paper.

Service tips

- If the second transfer roller has nicks, pits, or flat spots, then its surface cannot come into contact with the paper and transfer belt. The result can be voids on the printed page or spots of light print (or repeating voids or spots). For more information, see Repeating defects check on page 73.
- 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

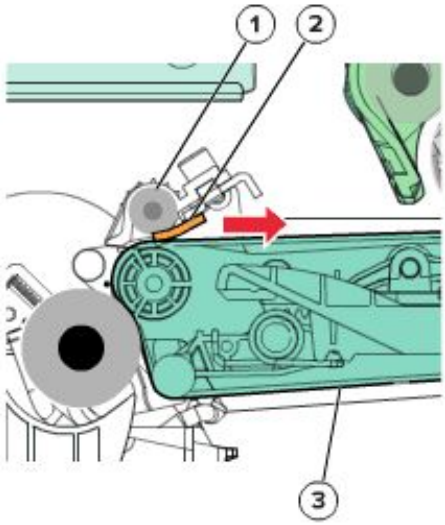
Even if the toner image is already on the paper, the toner particles are not yet permanently bonded to the surface. Paper is transported from the second transfer roller to the fuser where heat and pressure are applied to it. As a result, the toner particles melt and permanently fuse with the paper, completing 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, an incorrect paper type setting, a malfunctioning LVPS, or a bad fuser power connection. 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 non-fused toner through the fuser. Try to pull the jammed paper out of the fuser in the opposite direction it was traveling.

Clean

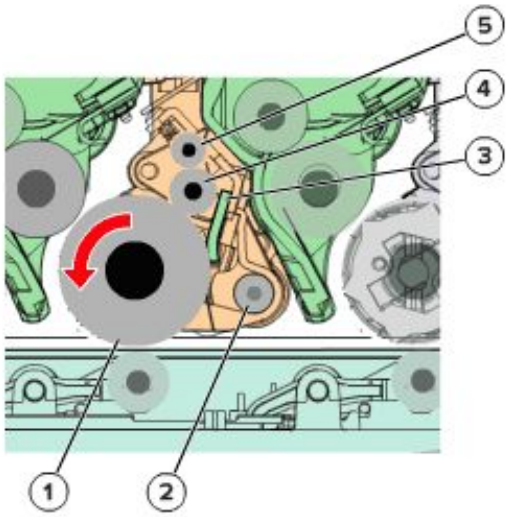
Two cleaning processes take place during the EP process. Both processes remove the residual toner from the system.



1	Auger
2	Cleaning blade
3	Transfer belt

When the toner image on the transfer belt is transferred to the page, the transfer belt rotates and gets cleaned by the cleaning blade. The cleaning occurs for every page that is printed.

The removed toner is moved to the waste toner bottle using a rotating auger.



1	Photoconductor drum
2	Auger
3	Cleaning blade
4	Charge roller
5	Charge roller cleaner

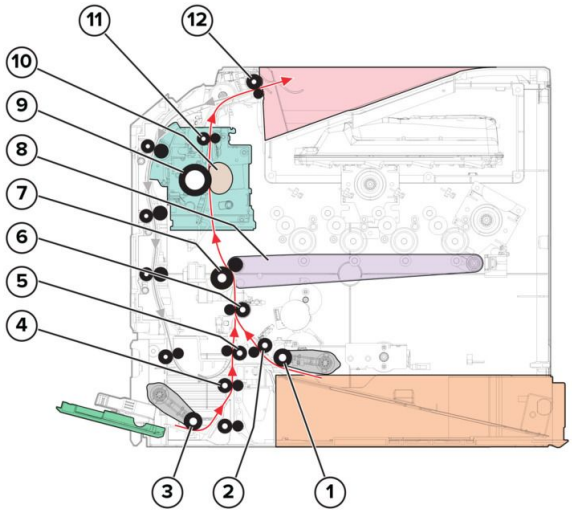
After each plane of color is transferred to the transfer belt from the photoconductor drums, a cleaning blade scrapes the remaining toner from the drums.

The photoconductor drum surface is prepared to restart the EP process.

Printer operation

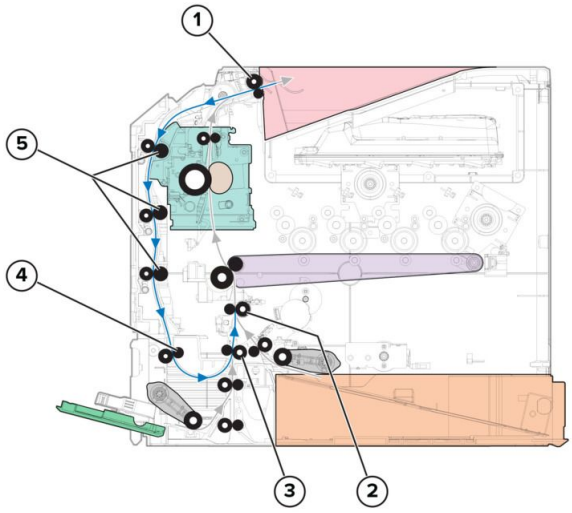
Printer paper path rollers

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

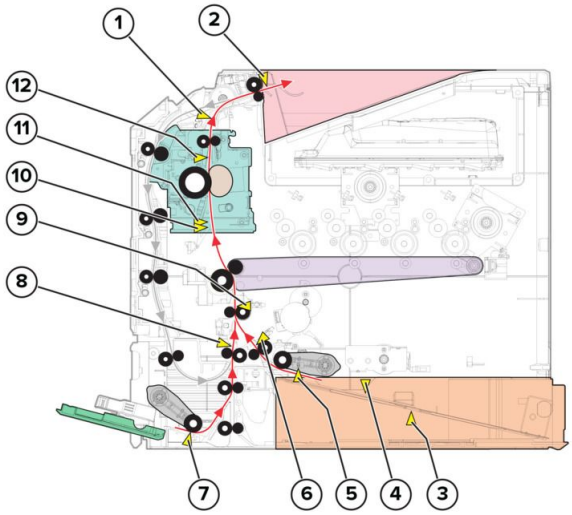
Duplex paper path



1	Exit roller
2	Aligner roller
3	Alternate isolation roller
4	Duplex feed roller
5	Duplex aligner rollers

Printer paper path sensors

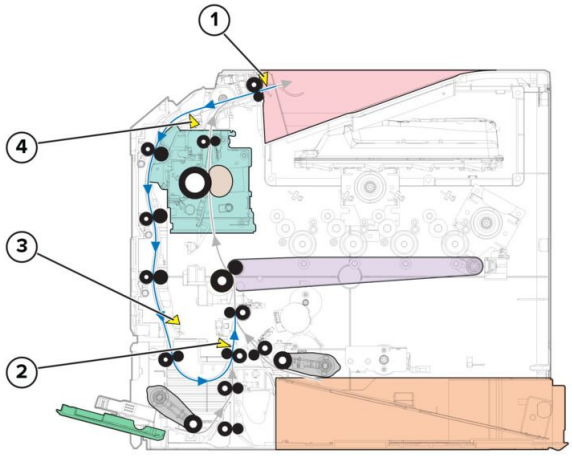
Standard paper path



#	Sensor	Functions
1	Sensor (redrive)	• Detects the paper as it exits the printer. • Detects the paper as it enters the duplex paper path.
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)	• Detects the paper that is fed from the MPF or duplex path. • Detects the paper that is transferred from the optional trays.
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.
11	Sensor (narrow media)	Detects if the paper width is narrow.

#	Sensor	Functions
12	Sensor (fuser exit)	Detects the paper exiting the fuser.

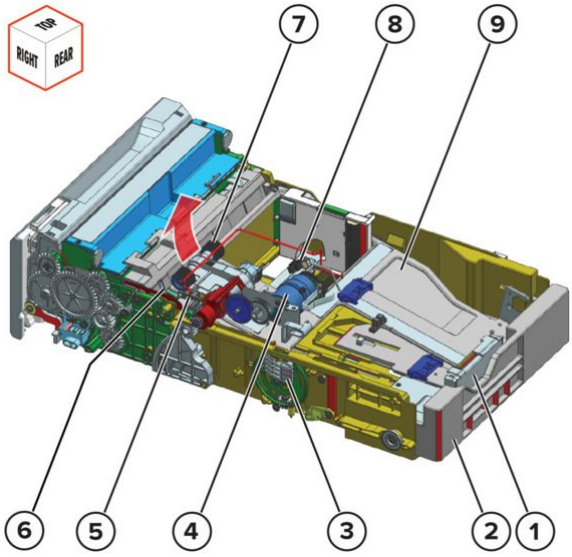
Duplex paper path



#	Sensor	Functions
1	Sensor (bin full)	Detects if the bin is full.
2	Sensor (MPF/pass-through)	• Detects the paper that is fed from the MPF or duplex path. • Detects the paper that is transported from the optional trays.
3	Sensor (duplex staging)	Detects the paper from the duplex path as it is realigned at its reference edge.
4	Sensor (redrive)	• Detects the paper as it exits the printer. • Detects the paper as it enters the duplex paper path.

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.

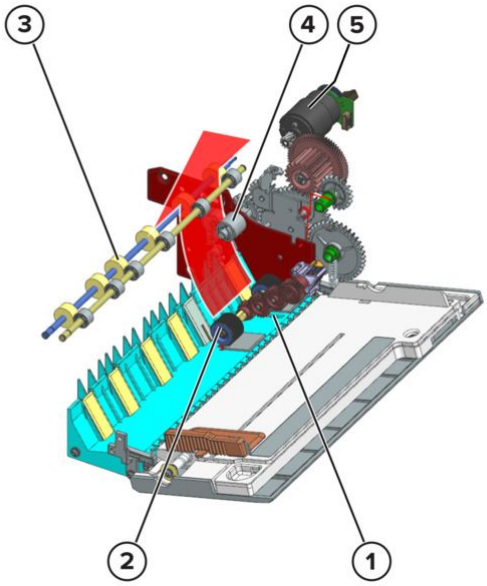
Notes
The motor (pick/lift) also drives the lift plate when rotating in reverse.

To avoid multiple-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



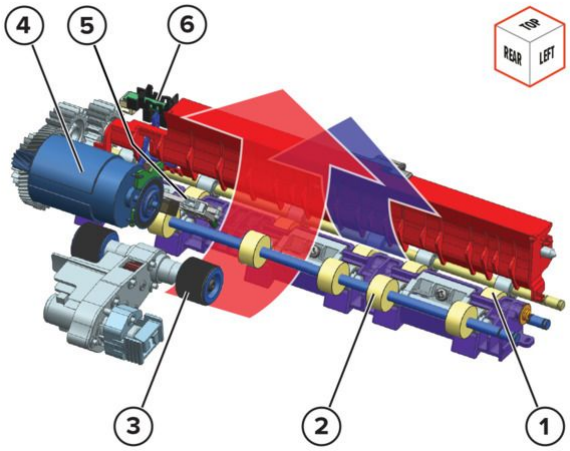
1	Sensor (MPF paper present)
2	MPF pick roller
3	Alternate isolation roller
4	MPF reference edge roller
5	Motor (duplex/MPF)

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.

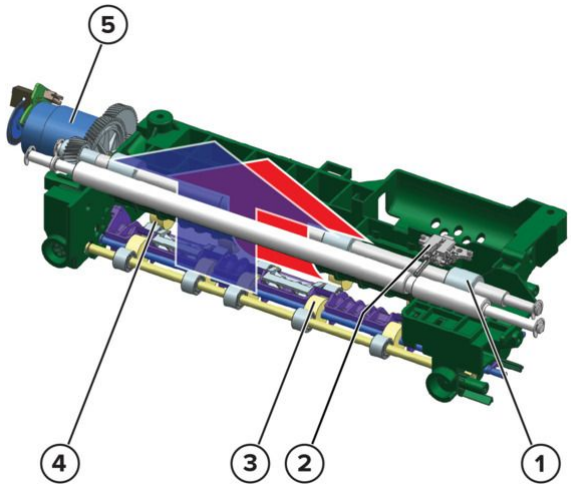
Isolation drive



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.

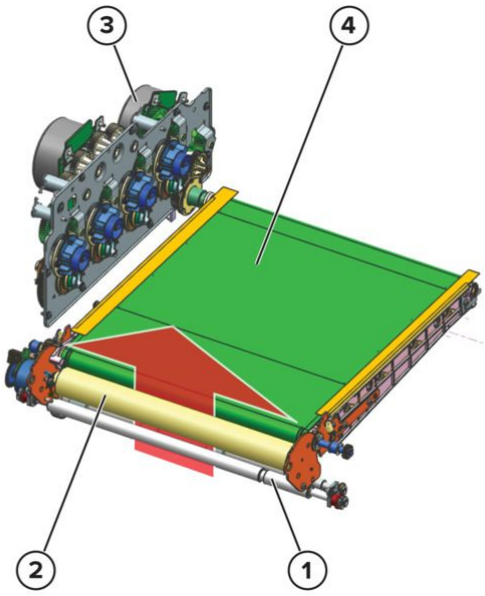
Aligner drive



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.

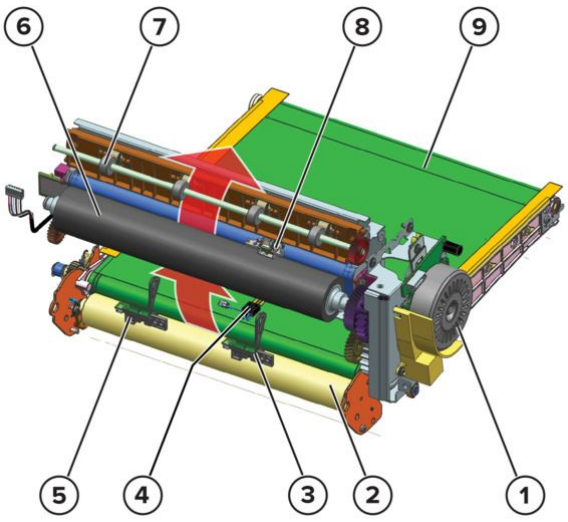
Transfer drive



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

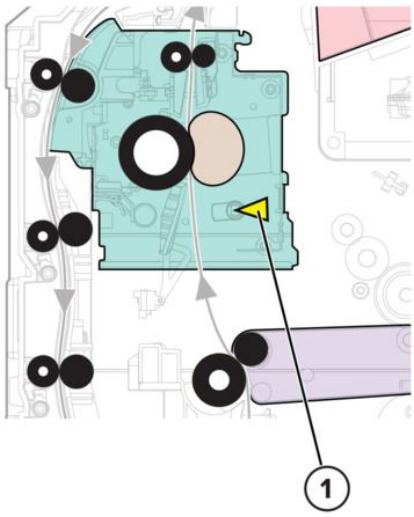


1	Motor (fuser)
2	Second transfer roller

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

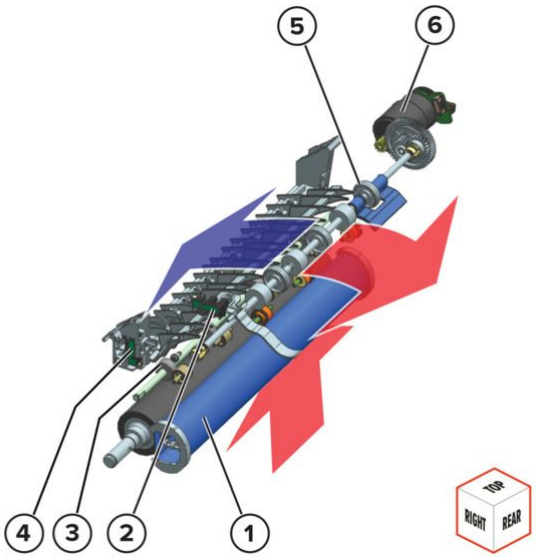


1	Sensor (fuser nip)

The sensor (fuser nip) detects if the rollers are squeezing the paper.

The fuser nip may not release if the printer is still powered on. The fuser nip will not release if the doors are open or the waste toner bottle is missing because the fuser motor is interlocked. In some cases, the printer may need to be turned off first before removing jams in the fuser nip.

Exit and redrive drive

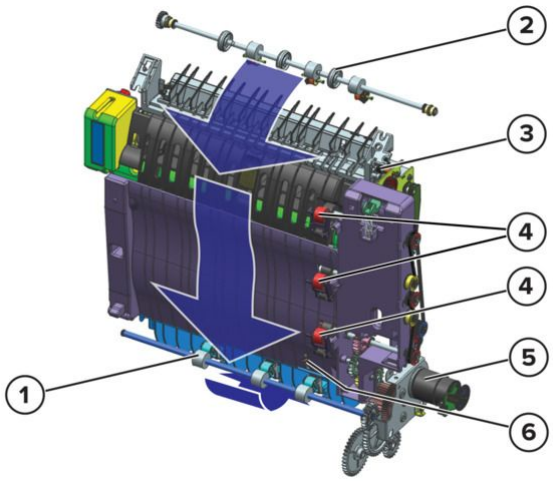


1	Fuser belt
2	Sensor (bin full)
3	Fuser decurl roller
4	Sensor (redrive)
5	Exit roller
6	Motor (exit/redrive)

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. (It also detects paper entering the duplex path.)
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.

Notes
The duplex paper path moves in the direction indicated by the blue arrow.

Duplex drive



1	Duplex feed roller
2	Exit roller
3	Sensor (redrive)
4	Duplex aligner roller.
5	Motor (duplex/MPF)
6	Sensor (duplex staging)

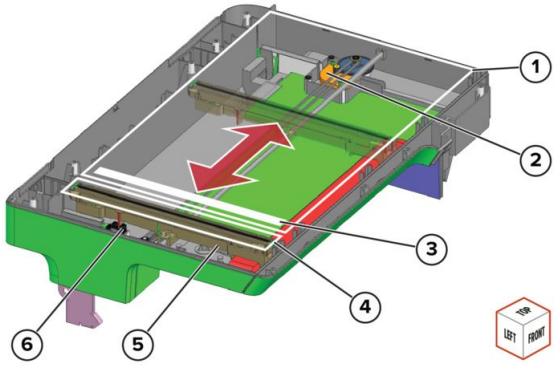
For duplex print jobs, paper from the exit roller travels along the duplex aligner rollers. The aligner rollers also push the paper to the right, to align the side edge of the paper along the reference edge. As paper reaches the duplex feed roller, it is fed to the alternate isolation roller (see Isolation drive on page 726). 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.

Black Only Retract (BOR) drive

For black and white print jobs, only the K first transfer roller needs to be engaged with the transfer belt.
For colorless printing, the C, M, and Y first transfer rollers inside the transfer belt retract to move away from the C, M, and Y photoconductor drums.
As a result, image transfer only occurs on the K photoconductor drum.
The motor (BOR) controls the positions of the first transfer rollers.

ADF and scanner operation

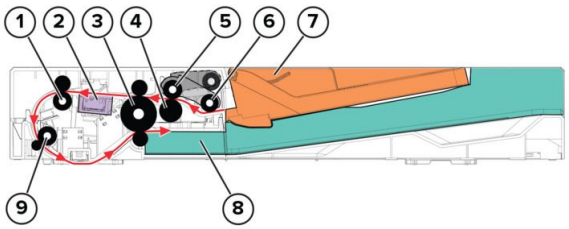
Flatbed scanner drive



1	Scanner glass area
2	Motor (flatbed CIS scanner)
3	Calibration reference strip
4	ADF glass area
5	Flatbed CIS scanner
6	Sensor (flatbed CIS scanner)

The flatbed scanner has a contact image sensor (CIS) scan module that illuminates the surface of the document. The reflections produced are detected by the CIS scanner to create the scan image.
For flatbed scan jobs, the CIS scanner moves across the scanner glass area to scan the front side of the document (facedown). The motor (flatbed CIS scanner) controls the CIS scanner position. The CIS scanner is detected at its home position by the sensor (flatbed CIS scanner). The position of the CIS scanner is also detected based on the computed distance relative to the calibration reference strip. To maintain the correct shading levels if needed, the CIS scanner scans the white surface of the calibration reference strip.
During ADF scan jobs, the CIS scanner stays at the ADF glass area to scan the front side of the document.

ADF paper path rollers

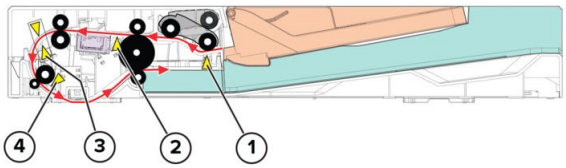


1	ADF transport roller
2	ADF CIS scanner
3	ADF feed/exit roller
4	ADF separator roller

5	ADF feed roller
6	ADF pick roller
7	ADF tray
8	ADF bin
9	ADF scan roller

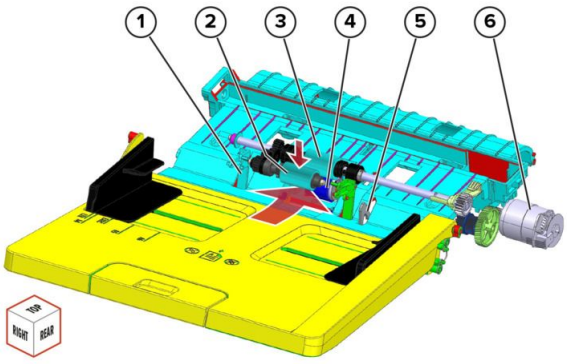
Paper from the ADF tray enters the ADF through the pick roller, feed roller, and separator roller.
The back side of the paper is scanned after the paper passes the ADF feed/exit roller. The front side of the paper is scanned after the paper passes the ADF scan roller.
After the paper is scanned, it is ejected by the feed/exit roller to the ADF bin.

ADF paper path sensors



#	Sensor	Function
1	Sensor (ADF paper present)	Detects paper presence in the ADF tray
2	Sensor (ADF scan 2)	Detects the paper that is about to be scanned at its back side
3	Sensor (ADF multifeed)	Detects multiple paper feed
4	Sensor (ADF scan 1)	Detects the paper that is about to be scanned at its front side

ADF pick and feed drive



1	Paper stop

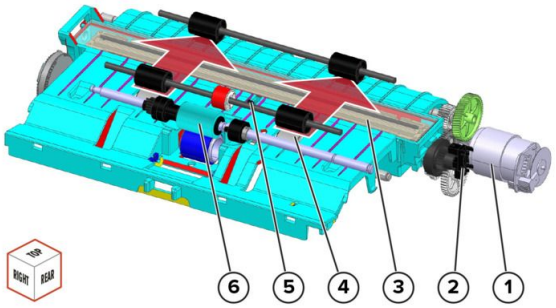
2	ADF pick roller
3	ADF feed roller
4	ADF separator roller
5	Sensor (ADF paper present)
6	Motor (ADF pick)

The sensor (ADF paper present) detects if paper is loaded in the ADF tray. When the scan job command is signaled, the pick roller lowers to pick the paper from the ADF tray.

Notes
When the pick roller is raised, the leading edges of the paper in the tray are aligned by the paper stops.

When paper reaches the feed roller, the resistance of the separator roller allows only the topmost sheet to feed. The motor (ADF pick) drives the ADF pick and feed rollers.

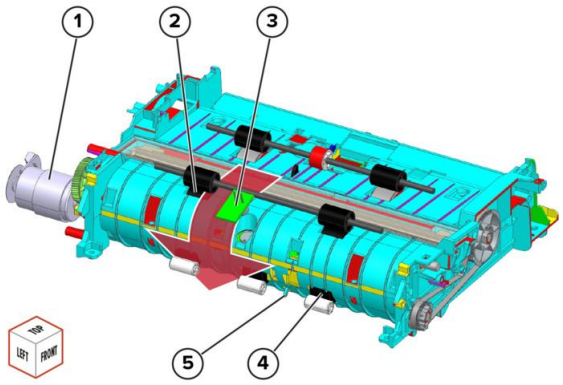
ADF transport and scan drive



1	Motor (ADF transport)
2	Sensor (ADF calibration)
3	ADF CIS scanner
4	ADF feed/exit roller
5	Sensor (ADF scan 2)
6	ADF feed roller

As paper enters the ADF, the ADF feed/exit roller receives it. The sensor (ADF scan 2) detects the paper to begin the scan. The ADF CIS scanner scans the back side of the document.
The motor (ADF transport) drives the ADF feed/exit roller.

Notes
If needed, calibration for the ADF CIS scanner occurs automatically before a job to adjust shading levels. During calibration, the ADF CIS scanner moves laterally to scan a reference white surface on the opposite side. The ADF CIS scanner is detected at its home position by the sensor (ADF calibration).

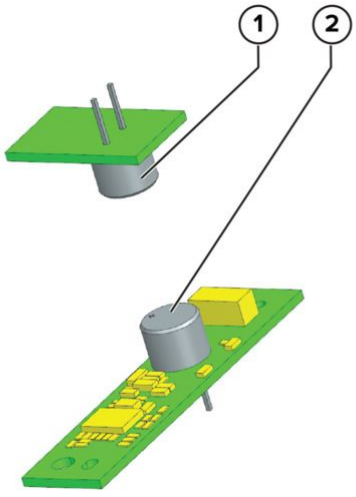


1	Motor (ADF transport)
2	ADF transport roller
3	Sensor (ADF multifeed)
4	ADF scan roller
5	Sensor (ADF scan 1)

After the back side is scanned, the ADF transport roller transports paper to the ADF scan roller. At this point, the sensor (ADF multifeed) detects if the document has multiple sheets.
The motor (ADF transport) drives the ADF transport and scan rollers.

Multifeed detection

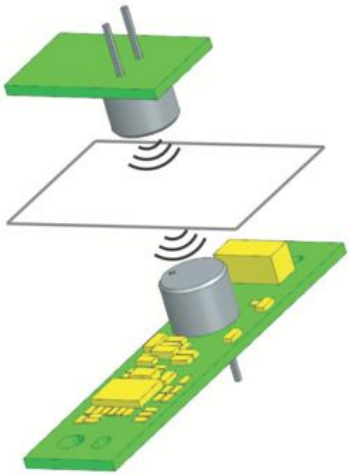
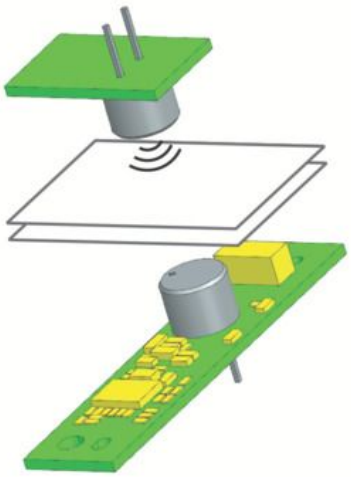
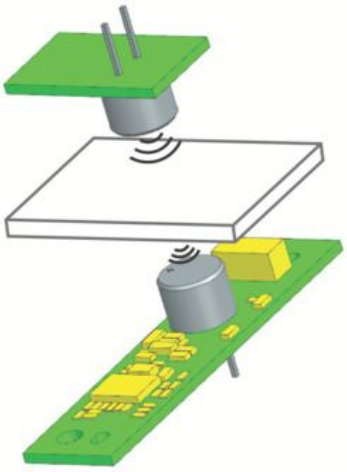
Notes
Multifeed detection is supported only in some printer models.



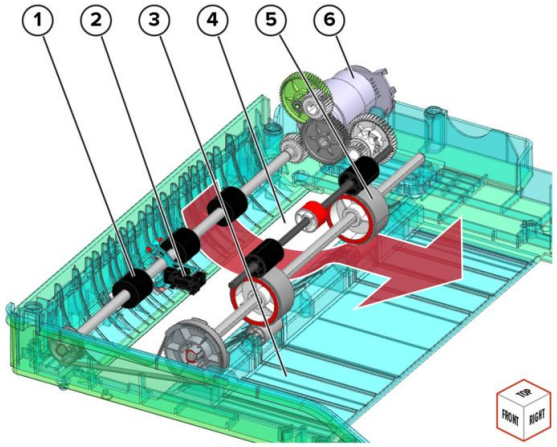
1	Transmitter
2	Receiver

The sensor (ADF multifeed) consists of a transmitter and a receiver. The sensor detects the presence of an air gap between sheets of paper passing between the transmitter and receiver. The transmitter emits an ultrasonic

frequency in the direction of the receiver. The signal that arrives at the receiver drops to nearly nothing when multiple sheets are in the path.

Single sheet (normal)	
Multiple sheets	
Single sheet (thick)	

ADF exit drive



1	ADF scan roller
2	Sensor (ADF scan 1)
3	ADF bin
4	ADF glass
5	ADF feed/exit roller
6	Motor (ADF transport)

Paper is fed to the ADF scan roller for front-side scanning. At the ADF glass area, the flatbed scanner does the scan. The ADF feed/exit roller ejects the scanned document to the ADF bin.
The motor (ADF transport) drives the scan and exit rollers. The sensor (ADF scan 1) detects the paper entering the ADF glass area.

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