MB2770, MX72x, MX82x, XM53xx, XM73xx MFPs

7464-0xx, 3xx, 836; 7465-4xx, 8xx

Service Manual

March 03, 2021

www.lexmark.com

Product information

Product name:

Lexmark MX721, MX722, MX725, MB2770, XM5365, XM5370, MX822, MX826, XM7355, XM7370 MFPs

Machine type:

7464, 7465

Model(s):

036, 037, 336, 337, 836, 388, 096, 396, 436, 496, 896

Edition notice

March 03, 2021

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Notices, conventions, and safety information

Laser notice

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

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

Class: IIIb (3b) AlGaAs

Nominal output power (milliwatts): 25

Wavelength (nanometers): 755–800

Avis relatif à l'utilisation du laser

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

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

Classe : IIIb (3b) AlGaAs

Puissance de sortie nominale (milliwatts) : 25

Longueur d'onde (nanomètres) : 755-800

Aviso de láser

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

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

Clase: IIIb (3b) AlGaAs

Potencia nominal de salida (milivatios): 25

Longitud de onda (nanómetros): 755-800

Laser-Hinweis

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

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

Klasse: IIIb (3b) AlGaAs

Nennausgangsleistung (Milliwatt): 25

Wellenlänge (Nanometer): 755–800

Conventions

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

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

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

Different types of caution statements include:

CAUTION—POTENTIAL INJURY: Indicates a risk of injury.

CAUTION—SHOCK HAZARD: Indicates a risk of electrical shock.

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

CAUTION—TIPPING HAZARD: Indicates a crush hazard.

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

Conventions

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

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

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

Il existe différentes mises en garde :

ATTENTION—RISQUE DE BLESSURE : Signale un risque de blessure.

ATTENTION—RISQUE D'ELECTROCUTION : Signale un risque d'électrocution.

ATTENTION—SURFACE CHAUDE : Signale un risque de brûlure de contact.

ATTENTION—RISQUE DE BASCULEMENT : Signale un risque d'écrasement.

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

Convenciones

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

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

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

Estos son los tipos de avisos de precaución que existen:

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

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

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

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

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

Konventionen

Hinweis: Ein *Hinweis* enthält nützliche Informationen.

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

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

Verschiedene Vorsichtshinweise:

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

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

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

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

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

Safety information

- The safety of this product is based on testing and approvals of the original design and specific components. The manufacturer is not responsible for safety in the event of use of unauthorized replacement parts.
- The maintenance information for this product has been prepared for use by a professional service person and is not intended to be used by others.

- There may be an increased risk of electrical shock and personal injury during disassembly and servicing of this product. Professional service personnel should understand this risk and take necessary precautions.

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

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

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

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

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

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

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

Consignes de sécurité

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

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

  ATTENTION—RISQUE DE BLESSURE : La batterie lithium de ce produit n'est pas destinée à être remplacée. Si vous ne respectez pas les instructions de remplacement de la batterie, vous risquez de provoquer une explosion. Ne rechargez pas, ne désassemblez pas et ne brûlez pas la batterie au lithium. Mettez les batteries lithium usagées au rebut selon les instructions du fabricant et les réglementations locales.

  ATTENTION—RISQUE DE BLESSURE : Pour éviter tout risque d'électrocution ou d'incendie, branchez le câble d'alimentation directement à une prise électrique répondant aux exigences requises et correctement mise à la terre, proche du produit et facile d'accès.

ATTENTION—RISQUE DE BLESSURE : Pour éviter tout risque d'incendie ou d'électrocution, utilisez uniquement le câble d'alimentation fourni avec ce produit ou un câble de remplacement autorisé par le fabricant.

ATTENTION—RISQUE DE BLESSURE : Ce produit ne doit pas être utilisé avec des rallonges, des barres multiprises, des rallonges multiprises ou des périphériques UPS. La capacité de ces types d'accessoires peut être facilement dépassée par une imprimante laser, d'où un risque de dégâts matériels, d'incendie ou de performances d'impression amoindries.

ATTENTION—RISQUE DE BLESSURE : Utilisez uniquement un parasurtenseur correctement raccordé à l'imprimante et au câble d'alimentation fourni avec la machine. L'utilisation de parasurtenseurs non fabriqués par Lexmark comporte un risque d'incendie et de dégâts matériels, et peut amoindrir les performances de l'imprimante.

ATTENTION—RISQUE DE BLESSURE : Si votre imprimante pèse plus de 20 kg (44 lb), l'intervention d'au moins deux personnes est nécessaire pour la soulever sans risque.

Información de seguridad

- La seguridad de este producto se basa en las pruebas y comprobaciones del diseño original y los componentes específicos. El fabricante no se hace responsable de la seguridad en caso de uso de piezas de repuesto no autorizadas.
- La información de mantenimiento de este producto se ha preparado para su uso por parte de un profesional de asistencia técnica y no está diseñada para su uso por parte de otros usuarios.
- Es posible que haya un mayor riesgo de descarga eléctrica y daños personales durante el desmontaje y el mantenimiento de este producto. El personal de asistencia profesional debe conocer este riesgo y tomar las precauciones necesarias.

PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS: Cuando vea este símbolo en el producto, existe peligro de tensiones peligrosas en el área del producto en la que está trabajando. Desconecte el producto antes de empezar o tenga cuidado si el producto debe recibir alimentación a fin de realizar la tarea.

PRECAUCIÓN: POSIBLES DAÑOS PERSONALES: La batería de litio de este producto no debe reemplazarse. Existe riesgo de explosión si se sustituye incorrectamente una batería de litio. No recargue, desmonte ni incinere una batería de litio. Deseche las baterías de litio usadas según las instrucciones del fabricante y las normativas locales.

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

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

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

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

PRECAUCIÓN: POSIBLES DAÑOS PERSONALES: si el peso de la impresora es superior a 20 kg (44 lb), pueden ser necesarias dos o más personas para levantarla de forma segura.

Sicherheitshinweise

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

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

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR Die Lithiumbatterie in diesem Produkt darf nicht ausgetauscht werden. Wird eine Lithiumbatterie nicht ordnungsgemäß ausgetauscht, besteht Explosionsgefahr. Lithiumbatterien dürfen auf keinen Fall wieder aufgeladen, auseinander genommen oder verbrannt werden. Befolgen Sie zum Entsorgen verbrauchter Lithiumbatterien die Anweisungen des Herstellers und die örtlichen Bestimmungen.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR Um Feuer- und Stromschlaggefahr zu vermeiden, schließen Sie das Netzkabel direkt an eine ordnungsgemäß geerdete Steckdose an, die sich in der Nähe des Geräts befindet und leicht zugänglich ist.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR Um das Risiko eines Feuers oder elektrischen Schlags zu vermeiden, verwenden Sie ausschließlich das diesem Produkt beiliegende Netzkabel bzw. ein durch den Hersteller zugelassenes Ersatzkabel.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR Verwenden Sie das Produkt nicht mit Verlängerungskabeln, Mehrfachsteckdosen, Mehrfachverlängerungen oder Geräten für unterbrechungsfreie Stromversorgung. Die Belastbarkeit solcher Zubehörteile kann durch Laserdrucker schnell überschritten werden, was zu Brandgefahr, Beschädigung von Eigentum oder einer eingeschränkten Druckerleistung führen kann.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR Mit diesem Produkt darf nur ein Lexmark Inline Surge Protector verwendet werden, der vorschriftsgemäß zwischen dem Drucker und dem mitgelieferten Netzkabel angeschlossen ist. Die Verwendung von nicht von Lexmark stammenden Überspannungsschutzgeräten kann zu Brandgefahr, Beschädigung von Eigentum oder einer eingeschränkten Druckerleistung führen.

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

Change history

Change history

March 3, 2021

- Replaced PN 41X1885 with PN 41X0915 in the Parts catalog chapter.

February 17, 2021

- Replaced PN 41X2351 with PN 41X2901 in the following Maintenance chapter and Parts catalog chapter.
- Removed PN 40X0289 and added PN 40X0269 in the Parts catalog chapter.
- Added the following topics in the General information chapter:
  - Supported fax
  - Finding the printer serial number
- Added the following topics in the Diagnostics and troubleshooting chapter:
  - Fax symptoms
  - Fax error log codes
  - Modem/fax card service check
  - Cannot set up etherFAX
  - Cannot send or receive faxes using etherFAX
  - Fax transmission service check
  - Fax reception service check
  - Lost connection to HTTPS fax server when using etherFAX service check
  - Fax station error service check
  - Fax failure service check
- Updated the Config Menu topic in the Service menus chapter.
- Added the following topics in the Service menus chapter:
  - Fax SE Menu
  - EWS SE Menu

December 15, 2020

- Rear door (41X1126) was added to the Covers 1 parts catalog.
- Duplex/MPF tray (41X1122) was added to the Duplex parts catalog.

October 15, 2020

- Icons were added to the scan quality checks.
- Print quality checks were renamed.
- Errors were added to the User attendance messages.
  - 71.01, 71.02, 71.03, 71.12, 71.13
  - 11.41, 11.42, 11.51, 11.52, 11. 91, 11.92
- Service checks were added to address the 71 errors.

- An installation note for unlocking the flatbed scanner CCDM was added to the Flatbed scanner removal.
- The 680.20 error code was added to the 6yy error messages.

August 14, 2020

- Resetting the ADF maintenance counter was added to the Maintenance chapter.
- The 950.10 and 953.99 error codes were added to the 912–992 error messages.
- NVRAM mismatch failure service check was added.
- Critical information for controller board and control panel replacement was revised.
- Power cords parts catalog was added. New FRUs were added.
  - 40X0289, Power cord (low-voltage, 6 feet)—USA, Canada
  - 40X0288, Power cord (high-voltage)—Argentina
  - 40X1766, Power cord (high-voltage)—Bolivia, Peru
  - 40X4596, Power cord (low-voltage)—Brazil PPB kits
  - 40X0273, Power cord (high-voltage)—Chile, Uruguay
  - 40X7104, Power cord (low-voltage, 8 feet)—USA, Canada
  - 40X0301, Power cord (high-voltage)—Australia, New Zealand
  - 40X0270, Power cord (100 V)—Japan
  - 40X0303, Power cord (high-voltage)—PRC
  - 40X1791, Power cord (low-voltage)—Taiwan
  - 40X1792, Power cord (high-voltage)—Korea
  - 40X7229, Power cord—India
  - 40X0271, Power cord (high-voltage)—United Kingdom, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam, Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka, Tibet, Hong Kong
  - 40X0278, Power cord (high-voltage)—Austria
  - 40X1774, Power cord (high-voltage)—Denmark, Finland, Norway, Sweden, Iceland
  - 40X1773, Power cord (high-voltage)—South Africa, Namibia, Lesotho, Botswana, Pakistan
  - 40X1772, Power cord (high-voltage)—Switzerland
  - 40X0275, Power cord (high-voltage)—Israel
  - 40X1767, Power cord (high-voltage, 8 feet)—Europe

August 3, 2020

- A note has been added in the Restoring the printer configuration after replacing the controller board topic in the Parts removal chapter.

July 29, 2020

- Control panel bezel (MX722) FRU PN was changed from 41X2377 to 41X2390 in the Control panel (MX72x, MB2770, XM53xx) parts catalog.
- 147 error messages were added.
  - 147.80, 147.81, 147.82, 147.83, 147.84, 147.85, 147.86
- ADF roller kit (41X2901) was added to the ADF 3 parts catalog.
- 41X0296, 41X2675, and 41X2676 FRUs have been deleted in the ADF 4 parts catalog. Number callouts for the artwork have been rearranged.

- 41X2792 and 41X2793 FRUs have been added to the ADF 4 parts catalog.
- A note that the FRU is obsolete was added to the 41X1014 FRU description.

April 17, 2020

- Special media separator pad (41X2865) was added to the Tray/feed parts catalog.
- Special media separator pad (41X2865) was added to the 250- and 550-sheet tray option 1 (MX72x, MB2770, and XM53xx) parts catalog.
- Special media separator pad (41X2865) was added to the 2100-sheet tray option 1 (MX72x, MB2770, and XM53xx) parts catalog.
- Bezel FRU PN was changed from 41X2377 to 41X2390 on the Control panel (MX72x, MB2770, XM53xx) parts catalog.

March 27, 2020

- Top cover with static brush (41X2862) was added to the Covers 2 (MX82x, XM73xx) parts catalog.
- Entering recovery mode information was updated.

February 21, 2020

- New FRU was added to the Miscellaneous parts catalog—TWN4 USB front reader kit authentication device (41X2615).
- Topics from the Service Engineer menu were removed.
  - Accessing the service engineer (SE) menu
  - Service engineer (SE) menu
- Topics were added to the Service Engineer menu.
  - General SE menu
  - Network SE menu
  - Fax SE menu
  - Scanner SE menu
- FRU PN was changed from 41X114 to 41X2230. The FRU (41X1130—Printhead access cover (MX72x, MB2770, XM53xx) was added to the Covers (MX72x, MB2770, XM53xx) parts catalog. This FRU was also removed from Covers 1 (MX82x, XM73xx) parts catalog.
- FRU descriptions and titles have been updated to include MX72x, MB2770, and XM53xx model information.
  - Covers (MX72x, MB2770, XM53xx) parts catalog
  - Flatbed covers 1 (MX72x, MB2770, and XM53xx)
  - Flatbed covers 2 (MX72x, MB2770, and XM53xx)
  - Control panel (MX72x, MB2770, and XM53xx)
  - Tray/feed parts catalog
  - ADF 1 parts catalog
  - ADF 4 parts catalog
  - Flatbed scanner 1 parts catalog
  - Flatbed scanner 3 parts catalog
- FRU descriptions and titles have been updated to include MX82x and XM73xx model information.
  - Covers 1 (MX82x, XM73xx) parts catalog
  - Covers 2 (MX82x, XM73xx) parts catalog

  - Control panel (MX82x, XM73xx) parts catalog
  - Tray/feed parts catalog
  - ADF 1 parts catalog
  - ADF 4 parts catalog
  - Flatbed scanner 1 parts catalog
  - Flatbed scanner 3 parts catalog
- A step for checking the sensor actuator was added to the Sensor (tray 1 pass-through) static jam service check.
- Artwork and Removal procedure references were updated for the Electronics 2 parts catalog.

January 24, 2020

- FRU descriptions have been revised on the 250- and 550-sheet tray option 1 (MX72x, MB27x, and XM53x) parts catalog.
  - 41X1658—from 'Optional 250-sheet tray' to 'Optional 550-sheet tray'
  - 41X2177—from 'Optional 550-sheet tray, lockable' to '250-sheet tray, lockable'
- Updated the Updating the printer firmware topic to include using a USB cable connection option.

January 10, 2020

- Front door pivot (41X1643) and front door pins (41X1154) were added to the Covers (MX72x) parts catalog.

December 19, 2019

- Resetting the roller kit counter information was removed from the Maintenance chapter.

November 29, 2019

- Fan (41X1177) was added to the Electronics 1 parts catalog.

November 15, 2019

- The exit bail retainer (41X2791) was added to the ADF 6 parts catalog.
- An error code (202.95) was added to the 202 paper jam messages.

October 11, 2019

- FRU PN for Sensor (ADF closed) was changed from 41X7592 to 40X7592 on the ADF 6 parts catalog.

September 20, 2019

- Supplies security error service check was added to address 938.04 errors.
- Model information for 41X1894 and 41X1895 were updated for the ADF 1 parts catalog.

August 16, 2019

- LVPS failure service check was updated to include replacing the controller board.
- Separator roller cover (41X2697) was added to the ADF 3 parts catalog.

July 18, 2019

- Part numbers and descriptions were updated for the Fuser parts catalog.
- Wax wiper FRU PN was changed from 40X0581 to 40X8581.

- Oil wiper FRU PN was changed from 40X0579 to 40X8579.
- Optional staple finisher operation section was added.

June 17, 2019

- Printhead error service check was updated.
- Error codes and descriptions were updated for the 32 user attendance messages.
- Unsupported toner cartridge service check was added to address 32.40D errors.
- HDMI cable pack (MX72x) (41X2675) and HDMI cable pack (MX82x) (41X2676) were added to the ADF 4 Parts catalog.

May 31, 2019

- Fuser components information was added to the Printer operation section.
- Inspection guide was added to the Maintenance section.
- Step for removing the printhead access cover was added to the Fuser removal.
- Wax wiper (40X0581) and oil wiper (40X0579) were added to the Fuser Parts catalog.
- Transfer roller contact (41X2673) was added to the Electronics 2 Parts catalog.
- Transfer roller contact removal was added.
- System software error service check was updated.

May 10, 2019

- Control panel cover, Control panel board, and control panel button kit removals were added.
- Critical information for controller board or control panel replacement was added to the Parts removal section.
- Descriptions for 41X1094 and 41X1093 were swapped on the Electronics 2 Parts catalog.

March 15, 2019

- Sensor (ADF top door interlock) PN was changed from 40X7592 to 41X1882 in the ADF 6 parts catalog.

February 15, 2019

- An error code was added to the 221 paper jam messages.
- An error code was added to the 240 paper jam messages.
- Error codes were added to the 241 paper jam messages.

January 22, 2019

- Updated the description for PN 41X2377 to Bezel, control panel (MX722).
- Added PN 41X2389 for Bezel, control panel (MX721).

January 11, 2019

- Added Maintenance kits in the parts catalog section.
- Upper hinge cover removal was added to the Parts removal section.
- Scanner front upper cover removal was revised.

November 29, 2018

- Control panel cable FRU PN was changed from 41X2321 to 41X2315 in the Control panel (MX72x) Parts catalog.

November 16, 2018

- Spacer (41X2181) and Caster wheel (41X2345) FRUs were added to the Miscellaneous Parts catalog.

October 30, 2018

- Guide roller (41X2610) was added to the Motors Parts catalog.
- Guide roller (41X2610) was added to the Electronics 1 Parts catalog.

October 16, 2018

- User attendance messages section was added.

September 27, 2018

- Step for checking the roller was added to the Sensor (fuser exit) late-arriving jam service check.
- New topics (147 error messages and MPF drive failure service check) were added.
- New error codes and service checks were added to the 420 paper jams section.
- New error codes and service checks were added to the 421–429 paper jams section.
- New error codes and service checks were added to the 435–438 paper jams section.
- 430–434 paper jams section was added.
- 440–444 paper jams section was added.
- 331 errors section was added.
- New error codes were added to the 320–323 error messages.

September 7, 2018

- 43y paper jams section was added.
- 200K Maintenance kit was changed to 225K Maintenance kit for the Belt SY fusers on the Maintenance kits topic.

August 17, 2018

- ADF maintenance kit (41X2351) was added to the ADF 3 parts catalog.
- 421–429 paper jams section was added.

August 3, 2018

- Data security notice was updated.
- 421–422 paper jams section was added.
- 420 paper jams section was added.
- 32y errors section was added.
- 316 errors section was added.
- Error codes were revised on the 415–418 paper jams.

July 17, 2018

- Software CD was added to the Miscellaneous Parts catalog.
- 415–418 paper jams section was added.

June 29, 2018

- Miscellaneous Parts catalog was added.
- Base printer symptoms and Network service check were added.

General information

Printer model configurations

The Lexmark™ MX72x, MX82x, MB2770, XM53xx, and XM73xx printers are network-capable, multifunction laser printers that print monochrome print jobs. 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
MX721ade	Network, duplex print, duplex scan, 7-inch e-Task touch screen, analog fax	7464-036
MX721adhe	Network, duplex print, duplex scan, 7-inch e-Task touch screen, analog fax, hard disk drive	7464-037
MX722ade	Network, duplex print, duplex scan, 7-inch e-Task touch screen, analog fax	7464-336
MX722adhe	Network, duplex, scan, 7-inch e-Task touch screen, analog fax, hard disk drive	7464-337
MB2770adwhe	Network, duplex print, duplex scan, 7-inch e-Task touch screen, analog fax, hard disk drive, Wireless	7464-388
MX725adve	Network, duplex print, duplex scan, 7-inch e-Task touch screen, analog fax, HR fuser	7464-836
XM5365	Network, duplex print, duplex scan, 7-inch e-Task touch screen, analog fax	7464-096
XM5370	Network, duplex print, duplex scan, 7-inch e-Task touch screen, analog fax	7464-396
MX822ade	Network, duplex print, duplex scan, 10.1-inch e-Task touch screen, fax, hard disk drive	7465-436
MX822adxe	Network, duplex print, duplex scan, 10.1-inch e-Task touch screen, fax, hard disk drive, optional 2100-sheet tray	7465-436
MX822adtfe	Network, duplex print, duplex scan, 10.1-inch e-Task touch screen, fax, hard disk drive, optional 550-sheet tray, optional staple finisher	7465-436
MX826ade	Network, duplex print, duplex scan, 10.1-inch e-Task touch screen, analog fax, hard disk drive	7465-836
MX826adxe	Network, duplex print, duplex scan, 10.1-inch e-Task touch screen, analog fax, hard disk drive, optional 2100-sheet tray	7465-836
MX826adtfe	Network, duplex print, duplex scan, 10.1-inch e-Task touch screen, analog fax, hard disk drive, optional 550-sheet tray, optional staple finisher	7465-836
XM7355	Network, duplex print, duplex scan, 10.1-inch e-Task touch screen, fax, hard disk drive	7465-496
XM7370	Network, duplex print, duplex scan, 10.1-inch e-Task touch screen, fax, hard disk drive	7465-896

Paper support

The following tables provide information on standard and optional paper sources and the sizes, types, and weights of paper they support.

Note: For an unlisted paper size, select the closest *larger* listed size.

Supported paper sizes

Paper sizes supported by the printer

Paper size	Standard 550-sheet tray, optional 250- or 550-sheet tray	Optional 2100-sheet tray	Multipurpose feeder	Two-sided printing
A4 210 x 297 mm (8.3 x 11.7 in.)	✓	✓	✓	✓
A5 or A5 LEF[1] 210 x 148 mm (8.3 x 5.8 in.)	✓	✓	✓	✓
A5 SEF[1] 148 x 210 mm (5.8 x 8.3 in.)	✓	X	✓	X
A6 105 x 148 mm (4.1 x 5.8 in.)	✓	X	✓	✓
JIS B5 182 x 257 mm (7.2 x 10.1 in.)	✓	X	✓	✓
Oficio (Mexico) 216 x 340 mm (8.5 x 13.4 in.)	✓	✓	✓	✓
Statement 140 x 216 mm (5.5 x 8.5 in.)	✓	X	✓	✓
Executive 184 x 267 mm (7.3 x 10.5 in.)	✓	X	✓	✓
Letter 216 x 279 mm (8.5 x 11 in.)	✓	✓	✓	✓
Legal 216 x 356 mm (8.5 x 14 in.)	✓	✓	✓	✓
Folio 216 x 330 mm (8.5 x 13 in.)	✓	✓	✓	✓
Universal 105 x 148 mm (4.1 x 5.8 in.) to 216 x 356 mm (8.5 x 14 in.)	✓	X	✓	✓

[1] A5 long edge feed (LEF) is recommended over A5 short edge feed (SEF).

[2] Envelopes wider than 101.6 mm (4.5 in.) may crease. This paper type must be tested for acceptability.

Paper size	Standard 550-sheet tray, optional 250- or 550-sheet tray	Optional 2100-sheet tray	Multipurpose feeder	Two-sided printing
7 3/4 Envelope (Monarch) 98 x 191 mm (3.9 x 7.5 in.)	√	X	√	X
9 Envelope 98 x 225 mm (3.9 x 8.9 in.)	√	X	√	X
10 Envelope[2] 105 x 241 mm (4.1 x 9.5 in.)	√	X	√	X
DL Envelope[2] 110 x 220 mm (4.3 x 8.7 in.)	√	X	√	X
C5 Envelope[2] 162 x 229 mm (6.4 x 9 in.)	√	X	√	X
B5 Envelope[2] 176 x 250 mm (6.9 x 9.8 in.)	√	X	√	X
Other Envelope[2] 98.4 x 162 mm (3.9 x 6.4 in.) to 176 x 250 mm (6.9 x 9.8 in.)	√	X	√	X

[1] A5 long edge feed (LEF) is recommended over A5 short edge feed (SEF).

[2] Envelopes wider than 101.6 mm (4.5 in.) may crease. This paper type must be tested for acceptability.

Paper sizes supported by the output options or finishers

Paper size	Offset stacker	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
A4 210 x 297 mm (8.3 x 11.7 in.)	√	√	√	√	√	√	√
A5 or A5 LEF 210 x 148 mm (8.3 x 5.8 in.)	√	√	√	√	√	√	√
A5 SEF 148 x 210 mm (5.8 x 8.3 in.)	√	√	√	X	√	X	X
A6 105 x 148 mm (4.1 x 5.8 in.)	√	√	X	X	X	X	X
JIS B5 182 x 257 mm (7.2 x 10.1 in.)	√	√	√	X	√	X	X

Paper size	Offset stacker	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
Oficio (Mexico) 216 x 340 mm (8.5 x 13.4 in.)	√	√	√	√	√	√	√
Statement 140 x 216 mm (5.5 x 8.5 in.)	√	√	√	X	√	X	X
Executive 184 x 267 mm (7.3 x 10.5 in.)	√	√	√	X	√	X	X
Letter 216 x 279 mm (8.5 x 11 in.)	√	√	√	√	√	√	√
Legal 216 x 356 mm (8.5 x 14 in.)	√	√	√	√	√	√	X
Folio 216 x 330 mm (8.5 x 13 in.)	√	√	√	√	√	√	√
Universal 105 x 148 mm (4.1 x 5.8 in.) to 216 x 356 mm (8.5 x 14 in.)	√	√	X	X	X	X	X
7 3/4 Envelope (Monarch) 98 x 191 mm (3.9 x 7.5 in.)	√	X	X	X	X	X	X
9 Envelope 98 x 225 mm (3.9 x 8.9 in.)	√	X	X	X	X	X	X
10 Envelope 105 x 241 mm (4.1 x 9.5 in.)	√	X	X	X	X	X	X
DL Envelope 110 x 220 mm (4.3 x 8.7 in.)	√	X	X	X	X	X	X
C5 Envelope 162 x 229 mm (6.4 x 9 in.)	√	X	X	X	X	X	X

Paper size	Offset stacker	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
B5 Envelope 176 x 250 mm (6.9 x 9.8 in.)	√	X	X	X	X	X	X
Other Envelopes 98.4 x 162 mm (3.9 x 6.4 in.) to 176 x 250 mm (6.9 x 9.8 in.)	√	X	X	X	X	X	X

Supported paper types

Paper types supported by the printer

Paper type	Standard 550-sheet tray, optional 250- or 550-sheet tray	Optional 2100-sheet tray	Multipurpose feeder	Two-sided printing
Plain paper	√	√	√	√
Card stock	√	X	√	X
Transparency*	√	X	√	X
Labels	√	X	√	√
Vinyl labels	√	X	√	X
Bond	√	X	√	√
Envelope	√	X	√	X
Rough envelope	√	X	√	X
Letterhead	√	X	√	√
Preprinted	√	X	√	√
Colored paper	√	X	√	√
Light	√	X	√	√

* To prevent transparencies from sticking together, print up to 20 pages only. Print the succeeding pages after three minutes.

Paper type	Standard 550-sheet tray, optional 250- or 550-sheet tray	Optional 2100-sheet tray	Multipurpose feeder	Two-sided printing
Heavy	√	X	√	√
Rough/Cotton	√	X	√	√
Custom type [x]	√	X	√	√

* To prevent transparencies from sticking together, print up to 20 pages only. Print the succeeding pages after three minutes.

Paper types supported by the output options or finishers

Paper type	Offset stacker	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
Plain paper	√	√	√	√	√	√	√
Card stock	√	X	√	X	√	X	X
Transparencies	√	X	√	X	√	X	X
Labels	√	X	X	X	X	X	X
Vinyl labels	√	X	X	X	X	X	X
Bond	√	√	√	√	√	√	√
Envelope	√	X	X	X	X	X	X
Rough envelope	√	X	X	X	X	X	X
Letterhead	√	X	X	X	X	X	X
Preprinted	√	X	X	X	X	X	X
Colored paper	√	X	X	X	X	X	X
Light	√	X	X	X	X	X	X
Heavy	√	X	X	X	X	X	X
Rough/Cotton	√	X	X	X	X	X	X
Custom type [x]	√	X	X	X	X	X	X

Supported paper weights

Paper weights supported by the printer

Paper type and weight	Standard 550-sheet tray, optional 250- or 550-sheet tray	Optional 2100-sheet tray	Multipurpose feeder	Two-sided printing
Plain paper or bond[1] 60–176 g/m² grain long (16–47-lb bond)	✓	✓	✓	✓
Card stock 203 g/m² grain long (125-lb bond)	✓	X	✓	✓
Card stock 199 g/m² grain long (110-lb bond)	✓	X	✓	✓
Card stock 176 g/m² grain long (65-lb bond)	✓	X	✓	✓
Transparency 138–146 g/m² grain long (37–39-lb bond)	✓	X	✓	X
Paper labels 180 g/m² (48-lb bond)	✓	X	✓	✓
Integrated forms 140–175 g/m² (37–47-lb bond)	✓	X	✓	✓
Integrated forms 75–135 g/m² (20–36-lb bond)	✓	X	✓	✓
Envelopes[2] 60–105 g/m² (16–28-lb bond)	✓	X	✓	✓

[1] Grain short is preferred for paper over 176 g/m² (47 lb).

[2] 28-lb bond envelopes are limited to 25% cotton content.

Paper weights supported by the output options or finishers

Paper type and weight	Offset stacker	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
Plain paper or bond 60–176 g/m² grain long (16–47-lb bond)	✓	✓	✓	✓	✓	✓	✓
Card stock 203 g/m² grain long (125-lb bond)	✓	X	✓	X	✓	X	X
Card stock 199 g/m² grain long (110-lb bond)	✓	X	✓	X	✓	X	X
Card stock 176 g/m² grain long (65-lb bond)	✓	X	✓	X	✓	X	X
Transparency 138–146 g/m² grain long (37–39-lb bond)	✓	X	✓	X	✓	X	X
Paper labels 180 g/m² (48-lb bond)	✓	X	X	X	X	X	X
Integrated forms 140–175 g/m² (37–47-lb bond)	✓	X	X	X	X	X	X
Integrated forms 75–135 g/m² (20–36-lb bond)	✓	X	X	X	X	X	X
Envelopes 60–105 g/m² (16–28-lb bond)	✓	X	X	X	X	X	X

Supported fax

Printer model	Analog fax	etherFAX[1]	Fax server	Fax over IP (FoIP)[2]
MB2770adwhe	✓	✓	✓	✓
MX721ade	✓	✓	✓	✓
MX721adhe	✓	✓	✓	✓
MX722ade	✓	✓	✓	✓
MX722adhe	✓	✓	✓	✓
MX722de	X	✓	✓	✓
MX722dhe	X	✓	✓	✓
MX725adve	✓	✓	✓	✓
XM5365	✓	✓	✓	✓
XM5365i	X	✓	✓	✓
XM5370	✓	✓	✓	✓
XM5370i	X	✓	✓	✓
MX822ade	✓	✓	✓	✓
MX822adtfe	✓	✓	✓	✓
MX822adxe	✓	✓	✓	✓
MX822de	X	✓	✓	✓
MX826ade	✓	✓	✓	✓
MX826adtfe	✓	✓	✓	✓
MX826adxe	✓	✓	✓	✓
MX826de	X	✓	✓	✓
XM7355	✓	✓	✓	✓

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

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

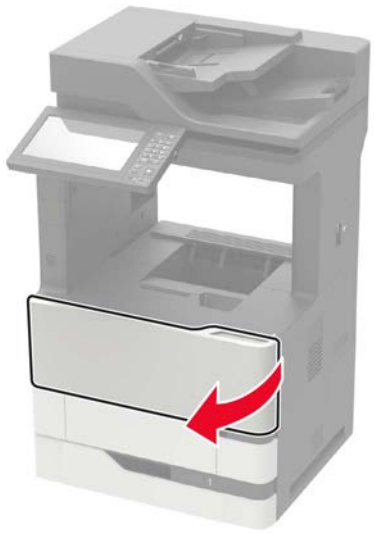
Printer model	Analog fax	etherFAX[1]	Fax server	Fax over IP (FoIP)[2]
XM7335b	√	√	√	√
XM7335bi	X	√	√	√
XM7335i	X	√	√	√
XM7370	√	√	√	√
XM7370i	X	√	√	√

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

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

Finding the printer serial number

1 Open door A.



2 Locate the serial number at the left side of the printer.

Tools required for service

- Flat-blade screwdrivers, various sizes
- #1 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic short-blade
- 7/32-inch (5.5-mm) open-end wrench
- 7.0-mm nut driver
- Needle-nose pliers
- Diagonal side cutters
- Spring hook
- Feeler gauges
- Analog or digital multimeter
- Parallel wrap plug 1319128
- Twinax/serial debug cable 1381963
- Coax/serial debug cable 1381964
- Flashlight (optional)
- 3-mm hex wrench
- 5.5-mm hex wrench

Diagnostics and troubleshooting

Troubleshooting precautions

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

CAUTION—SHOCK HAZARD: This product uses an electronic power switch. It does not physically disconnect the input AC voltage. To avoid the risk of electrical shock, always remove the power cord from the printer when removal of the input AC voltage is required.

CAUTION—SHOCK HAZARD: To avoid the risk of electrical shock while troubleshooting with covers removed or doors open, do not touch the exposed wires or circuits while the printer is connected to an electrical outlet.

CAUTION—SHOCK HAZARD: To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.

CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

CAUTION—PINCH HAZARD: To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Précautions de dépannage

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

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

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

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

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

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

Precauciones durante la solución de problemas

PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS: Cuando vea este símbolo en el producto, existe peligro de tensiones peligrosas en el área del producto en la que está trabajando. Desconecte el producto antes de empezar o tenga cuidado si el producto debe recibir alimentación a fin de realizar la tarea.

PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS: Este producto utiliza un interruptor de corriente electrónico. No desconecta físicamente la entrada de voltaje de CA. Para evitar el riesgo de descarga eléctrica, desenchufe siempre el cable de alimentación de la impresora cuando sea necesario retirar la entrada de voltaje de CA.

PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS: Para evitar el riesgo de descarga eléctrica al solucionar problemas sin las cubiertas o con las puertas abiertas, no toque los cables ni los circuitos expuestos mientras la impresora está conectada a una toma de corriente.

PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS: Para evitar el riesgo de descargas eléctricas y daños en la impresora, retire el cable de alimentación de la toma eléctrica y desconecte todas las conexiones a dispositivos externos antes de conectar o desconectar cualquier cable, placa electrónica o conjunto.

PRECAUCIÓN: SUPERFICIE CALIENTE: El interior de la impresora podría estar caliente. Para evitar el riesgo de heridas producidas por el contacto con un componente caliente, deje que la superficie se enfríe antes de tocarlo.

PRECAUCIÓN: PELIGRO DE ATRAPAMIENTO: Para evitar el riesgo de lesión por atrapamiento, preste atención en las áreas marcadas con esta etiqueta. Las lesiones por atrapamiento se pueden producir en torno a partes móviles, tales como engranajes, puertas, bandejas y cubiertas.

Vorsichtsmaßnahmen bei der Fehlerbehebung

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

VORSICHT – STROMSCHLAGGEFAHR: Dieses Produkt verwendet einen elektronischen Leistungsschalter. Er trennt die 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.

VORSICHT – STROMSCHLAGGEFAHR: Um die Gefahr eines Stromschlags während der Fehlerbehebung bei entfernten Abdeckungen oder offenen Klappen zu vermeiden, berühren Sie die freiliegenden Drähte oder Stromkreise nicht, wenn der Drucker an eine Steckdose angeschlossen ist.

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

VORSICHT – HEISSE OBERFLÄCHE: Das Innere des Druckers kann sehr heiß sein. Vermeiden Sie Verletzungen, indem Sie heiße Komponenten stets abkühlen lassen, bevor Sie ihre Oberfläche berühren.

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

Troubleshooting overview

Performing the initial troubleshooting check

Before you start the troubleshooting procedures, perform the following checks:

- Use genuine Lexmark supplies and parts for the best results. Third-party supplies or parts may affect the performance, reliability, or life of the printer and its imaging components.
- With the power cord unplugged from the electrical outlet, check that the cord is free from the breakage, short circuits, disconnected wires, or incorrect connections.
- Make sure the printer is properly grounded. Check the power cord ground terminal.
- Make sure the power supply line voltage is within 10% of the rated line voltage.
- Make sure the machine is securely installed on a level surface in a well-ventilated area.
- Make sure the room temperature is between 16 and 32°C (60 and 90°F) and that the relative humidity is between 20 and 80%.
- Avoid sites generating ammonia gas, high temperature, high humidity (near water faucets, kettles, humidifiers), cold spaces, near open flames, and dusty areas.
- Avoid sites exposed to direct sunlight.
- Make sure the paper is the recommended paper for this printer.
- Make a trial print with paper from a newly opened package, and check the result.

Using Safe Mode

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

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

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

- Enter Safe Mode from the Configuration menu, and then POR the printer. See **“Configuration Menu” on page 424**.
- Press the **6** and **7** keys, and then POR the printer.

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

Safe Mode print behavior

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

Safe Mode engine features	Engine behavior	Control panel behavior
Simplex printing only	Reports that duplex printing is disabled.	Duplex print option is not selectable.
Ignore duplex sensor		
Ignore standard bin full sensor	Standard bin full messages are not reported.	Standard bin full messages will not occur.
Print at narrow media operating point	Pages are printed slower.	N/A
Ignore all input options	Reports that only Tray 1 is installed.	Only Tray 1 and the MPF are selectable.
Ignore all output options	Does not any report installed finishing options.	No finishing options are selectable.
Ignore rear door sensor	Rear door open messages are not reported.	Rear door open messages do not occur.
Ignore rear lower door sensor (MX81x only)	Rear lower door open messages are not reported.	Rear lower door open messages do not occur.
Reduce print speed	Pages are printed slower.	N/A
Reduce time to first print	Slower time to first print.	N/A

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 (75-80 g/m^2) plain letter or A4 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.
- From the control panel, navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**.
- Print and keep the Menu Settings Page. The original page is used to restore the custom settings if necessary. From the control panel, navigate to **Settings** > **Reports** > **Menu Settings Page**, and then press **OK**.
- On the Menu Settings page, check if the print resolution is set to 600 dpi and the toner darkness is set to Normal.

- Check the toner cartridges for damage, and replace if necessary.
- Make sure that the correct print driver is used to prevent print problems. If the wrong print driver is installed, then incorrect characters could print and the copy may not fit the page correctly.

Blank or white pages check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Check and remove any packing material left on the imaging unit. **b** Firmly shake the imaging unit to redistribute the toner, and then reinstall it. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the imaging unit for damage and proper installation, and replace if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the transfer roller for proper installation. Is the transfer roller properly installed?	Go to step 7.	Go to step 6.

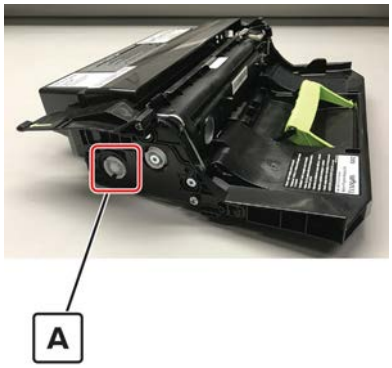
Actions	Yes	No
Step 6 Reinstall the transfer roller. See **"Transfer roller removal" on page 506**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the transfer roller for surface contamination and damage. Is the transfer roller free of contamination and damage?	Go to step 8.	Go to step 14.
Step 8 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check all the connections on the HVPS for proper connection. Is the HVPS properly connected?	Go to step 10.	Go to step 9.
Step 9 Replace the connections. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reseat connection J15 on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the connection. Does the problem remain?	Go to step 12.	The problem is solved.

Actions	Yes	No
Step 12 **a** Check the coupler for signs of damage. The coupler is located on the main motor drive of the printer. • Good condition  • Bad condition  **b** If the coupler is damaged, then replace the main motor drive. See **"Main motor drive removal" on page 465**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Reseat the cable J71 on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the transfer roller. See **"Transfer roller removal" on page 506**. Does the problem remain?	Go to step 15.	The problem is solved.

Actions	Yes	No
Step 15 Replace the laser printhead. See **"Printhead removal" on page 518**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Compressed images appear on prints check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Remove the imaging unit, and then inspect the white photoconductor coupler (A). The coupler should be firmly connected to the imaging unit and should not freely rotate.  Does the coupler move freely or appear damaged?	Go to step 2.	Go to step 3.
Step 2 Replace the imaging unit. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Replace the motor (main). See **"Main motor drive removal" on page 465**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Dark print check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Turn off the printer, wait for 10 seconds, and then turn on the printer. **b** Reduce the toner darkness. From the control panel, navigate to: **Settings** > **Print Settings** > **Quality menu** **Note:** 8 is the factory default setting. Does the problem remain?	Go to step 4.	The problem is solved.

Actions	Yes	No
Step 4 From the control panel, set the paper type, texture, and weight in the Paper menu to match the paper loaded. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Depending on the operating system, specify the paper type, texture, and weight from Printing Preferences or Print dialog. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Check if the paper loaded has texture or rough finishes. **b** From the control panel, set the paper texture in the Paper menu to match the texture of the paper loaded. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Make sure that the paper loaded is from a fresh package. **Note:** Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you use it. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the imaging unit. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check all the connections on the HVPS for proper connection. Is the HVPS properly connected?	Contact the next level of support.	Go to step 10.
Step 10 Replace the connections. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the HVPS. See **"HVPS removal" on page 481**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fine lines are not printed correctly check

Note: This issue mostly occurs on fonts or characters with fine lines (especially on Chinese characters). Small texts and details may also not be printed correctly.

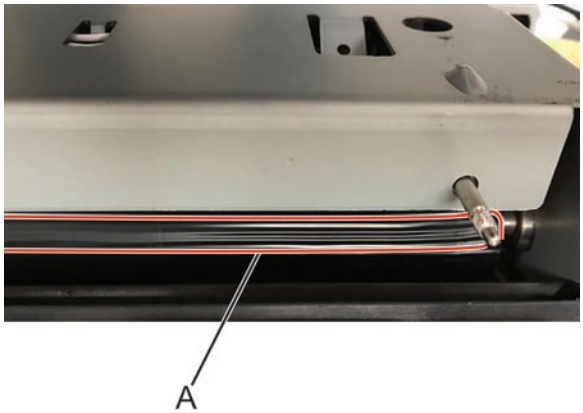
Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** From the control panel, navigate to: **Print** > **Quality** > **Pixel Boost** > **Fonts** **b** From the Quality menu, select **Toner Darkness**, and then adjust the setting to 7. **c** Submit the changes. **Note:** Adjusting the Toner Darkness setting to 7 results in a slightly lighter print. You may leave the Toner Darkness value at 8 in order to maintain the darkness that you have grown accustomed to, but this will result in reduced toner yield. Does the problem remain?	Contact the next level of support.	The problem is solved.

Folded or wrinkled paper check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Note: Do not replace the fuser due to a wrinkled backup roller (A).



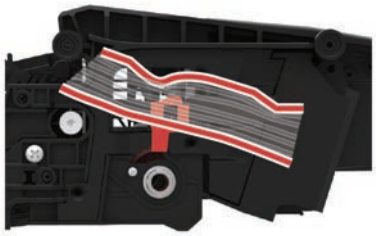
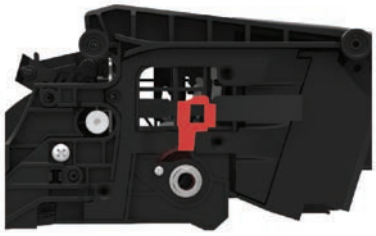
Actions	Yes	No
Step 1 **a** Check if the printer is using a non-Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then do not replace the imaging unit. Refer the users to their cartridge supplier. **b** Make sure that the toner cartridge is compatible with the imaging unit. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Check if the paper loaded is from a fresh package. **Note:** The amount of moisture in paper affects both print quality and printer ability to feed paper correctly. **b** Make sure that the printer supports the paper loaded. For a complete list of supported paper, see the printer *User's Guide*. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Make sure that the fuser entry guide is free of waste toner and dust. **Warning—Potential Damage:** Clean the fuser entry guide with a toner vacuum and cloth. Do not use compressed air. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 If the fuser has reached end of life, then replace the maintenance kit. Does the problem remain?	Contact the next level of support.	The problem is solved.

Gray background check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 **a** Turn off the printer, wait for 10 seconds, and then turn on the printer. **b** From the printer control panel: **1** Increase the toner darkness in the Quality menu. **Note:** 8 is the factory default setting. **2** Set the paper type, texture, and weight in the Paper menu to match the paper loaded. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 4.	Go to step 3.

Actions	Yes	No
Step 3 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Remove any packing material left on the imaging unit, including pieces of tape on the side of the unit and the red separator plastic.   **Note:** You may need a pair of pliers to remove a piece of broken plastic inside the imaging unit. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the imaging unit. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Make sure that connection J15 on the controller board and the connections on the HVPS are properly connected. Are the connections properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the connections. Does the problem remain?	Go to step 8.	The problem is solved.

Actions	Yes	No
Step 8 Check all connections in the HVPS for proper connection. Is the HVPS properly connected?	Go to step 10.	Go to step 9.
Step 9 Replace the connections. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the HVPS. See **"HVPS removal" on page 481**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Horizontal light bands check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Remove, and then clean the imaging unit contacts. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check if the printer is using a genuine and supported Lexmark imaging unit. Is the printer using a genuine and supported imaging unit?	Go to step 4.	Go to step 3.
Step 3 Install a genuine and supported imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.

Actions	Yes	No
Step 4 Turn off the printer, wait for 10 seconds, and then turn on the printer. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Remove the HVPS. See **"HVPS removal" on page 481**. **b** Check if the HVPS wire connectors are pinched or damaged. Are the wire connectors pinched or damaged?	Go to step 6.	Go to step 7.
Step 6 Repair or replace the wire connectors. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check connection J15 from the controller board to the HVPS, and then check all other connections on the HVPS. Are the connections properly connected?	Go to step 9.	Go to step 8.
Step 8 Replace the connections. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the HVPS. See **"HVPS removal" on page 481**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Incorrect margins on prints check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Adjust the guides in the tray according to the size of the paper loaded. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Do one of the following: • From the printer control panel, set the paper size in the Paper menu to match the paper loaded in the tray. • Change the paper loaded in the tray to match the paper size specified in the tray settings. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Depending on the operating system used, specify the paper size from Printing Preferences or from the Print dialog. Does the problem remain?	Go to step 4 or contact the next level of support.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Registration adjust** **b** Adjust the margins. Does the problem remain?	Contact the next level of support.	The problem is solved.

Light print check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Turn off the printer, wait for 10 seconds, and then turn on the printer. **b** From the control panel: **1** Increase the toner darkness in the Quality menu. **Note:** 8 is the factory default setting. **2** Set the paper type, texture, and weight in the Paper menu to match the paper loaded. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Remove the toner cartridge and imaging unit. **b** Push either side of the transfer roller, located below the imaging unit, to check if it depresses and bounces back into place. **c** If the transfer roller does not depress and bounce back into place, then reinstall it by pulling up the blue gear and pulling it out from the right side to the left. **d** Firmly shake the imaging unit to redistribute the toner, and then reinstall it. **e** Reinstall the toner cartridge. **f** Turn off the printer, wait for 10 seconds, and then turn on the printer. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** If the issue happens after installing a new maintenance kit, then check whether the transfer roller included with the kit is installed in the printer. **b** If necessary, replace the transfer roller. See **"Transfer roller removal" on page 506**. Does the problem remain?	Go to step 6.	The problem is solved.

Actions	Yes	No
Step 6 Check the shutter on the imaging unit for signs of damage. **Note:** The shutter opens to receive toner from the toner cartridge. Is the shutter on the imaging unit working properly?	Go to step 7.	Go to step 8.
Step 7 **a** Check the status of the imaging unit. **1** From the home screen, select **Status/supplies**. **2** Select **Supplies**. **b** Check the condition of the imaging unit. Is the imaging unit near end of life and/or showing signs of toner leakage?	Go to step 8.	Go to step 9.
Step 8 Replace the imaging unit. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Remove the HVPS shield. See **"HVPS removal" on page 481**. **b** Verify if all the cables on the HVPS are properly installed. If necessary, reinstall the cables. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the transfer roller. See **"Transfer roller removal" on page 506**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the HVPS. See **"HVPS removal" on page 481**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check connection J71 on the controller board and the connection on the toner add motor for proper connection. Are the connections properly connected?	Go to step 14.	Go to step 13.
Step 13 Replace the connections. Does the problem remain?	Go to step 14.	The problem is solved.

Actions	Yes	No
Step 14 Replace the controller board. See **"Controller board removal" on page 486**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Mottled print and dots check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if toner specks appear only on the edges or back side of the pages. Do toner specks appear only on the edges or back side of the pages?	Go to step 4.	Go to step 5.
Step 4 Replace the transfer roller. See **"Transfer roller removal" on page 506**. Does the problem remain?	Go to step 5.	The problem is solved.

Actions	Yes	No
Step 5 **a** Check the status of the imaging unit. **1** From the home screen, select **Status/supplies**. **2** Select **Supplies** . **b** Check the condition of the imaging unit. Is the imaging unit near end of life and/or showing signs of toner leakage?	Go to step 6.	Go to step 7.
Step 6 Replace the imaging unit. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the printer for stray toner contamination. Is the printer contaminated with stray toner?	Go to step 8.	Contact the next level of support.
Step 8 Using an approved toner vaccum cleaner, completely clean the printer, toner cartridge, and imaging unit of toner contamination. Does the problem remain?	Contact the next level of support.	The problem is solved.

Paper curl check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **“Initial print quality check” on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Adjust the guides in the tray to the correct position for the paper loaded. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 From the control panel, set the paper size, type, and weight in the Paper menu to match the paper loaded. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Depending on the operating system, specify the paper size from Printing Preferences or Print dialog. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Remove paper from the tray, and then turn it over. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Make sure that the paper loaded is from a fresh package. **Note:** Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you use it. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Make sure that the printer supports the paper loaded. Is the paper supported?	Contact the next level of support.	Go to step 9.

Actions	Yes	No
Step 9 Load a supported paper. Does the problem remain?	Contact the next level of support.	The problem is solved.

Print crooked or skewed check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check the guides in the tray where the skewed prints are sourced from. **Note:** If paper is sourced from the MPF, then proceed to step 9. Does the position of the guides match the paper loaded?	Go to step 3.	Go to step 2.
Step 2 Adjust the guides to match the paper loaded. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the printer supports the paper loaded. **Note:** For a complete list of supported paper, see the printer *User's Guide*. Is the paper supported?	Go to step 5.	Go to step 4.
Step 4 Remove the paper, and then load a supported one. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the tray pick roller for excess wear and contamination. Is the pick roller free from excess wear and contamination?	Go to step 7.	Go to step 6.

Actions	Yes	No
Step 6 Replace the pick roller. See **"Pick roller removal" on page 527**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Perform a print test. Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray [x]** > **Single** **Note:** [x] refers to the tray where the skewed prints are sourced from. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Registration adjust** **b** Adjust the margins. Does the problem remain?	Go to step 15.	The problem is solved.
Step 9 Check the guides in the MPF tray. Does the position of the guides match the paper loaded?	Go to step 11.	Go to step 10.
Step 10 Adjust the guides to match the paper loaded. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check if the printer supports the paper loaded. **Note:** For a complete list of supported paper, see the printer *User's Guide*. Is the paper supported?	Go to step 13.	Go to step 12.
Step 12 Remove the paper, and then load a supported one. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the MPF pick roller for excess wear and contamination. Is the MPF pick roller free from excess wear and contamination?	Go to step 15.	Go to step 14.

Actions	Yes	No
Step 14 Replace the MPF pick roller. See **"MPF pick roller removal" on page 504**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Perform the paper skew adjustment. See **"Adjustments" on page 446**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Repeating defects check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

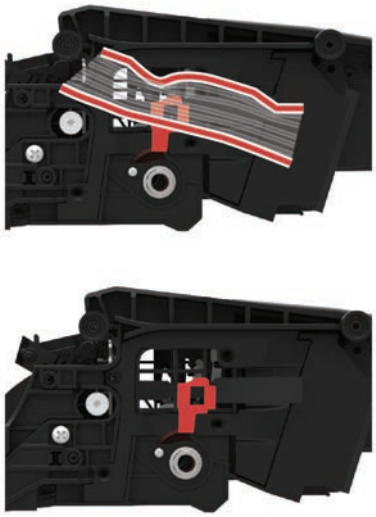
Actions	Yes	No
Step 1 **a** From the control panel, navigate to: **Menu** > **Help** > **Print Defects Guide** **b** Using the Print Defects Guide, check if the distance between defects is equal to any of the following: • 96 mm (3.78 in.) • 49 mm (1.93 in.) • 47.5 mm (1.87 in.) • 30.2 mm (1.18 in.) **Note:** Make sure to measure the defect interval accurately. Does the distance measured match any of the items listed?	Go to step 2.	Go to step 3.
Step 2 Replace the imaging unit. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Measure the distance between repeating defects, and then check if it matches any of the following: • 3.71 in. (94.25 mm) • 3.75 in. (95.2 mm) Does the distance measured match any of the items listed?	Go to step 4.	Contact the next level of support.
Step 4 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the transfer roller. See **"Transfer roller removal" on page 506**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Solid black pages check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Remove any packing material left on the imaging unit, including pieces of tape on the side of the unit and the red separator plastic.  **Note:** You may need a pair of pliers to remove a piece of broken plastic inside the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the imaging unit. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the cable connections between the HVPS and J15 on the controller board. If necessary, reseat the cables. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the HVPS. See **"HVPS removal" on page 481**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Text or images cut off check

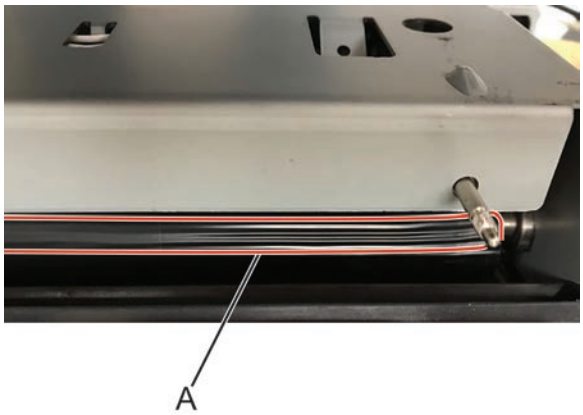
Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Remove, and then reinstall the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the imaging unit. Does the problem remain?	Contact the next level of support.	The problem is solved.

Toner easily rubs off check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Note: Do not replace a fuser due to a wrinkled backup roller (A).



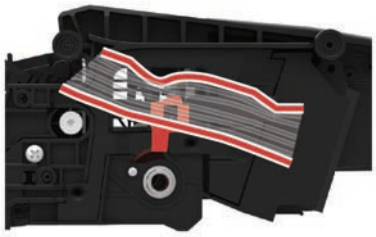
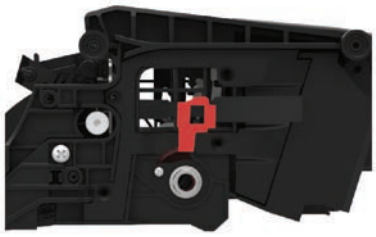
Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 From the control panel, set the paper type, texture, and weight in the Paper menu to match the paper loaded. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Remove, and then reinstall the fuser. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 6.	The problem is solved.

Actions	Yes	No
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the connections on the LVPS. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the LVPS. See **"LVPS removal" on page 468**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical dark bands check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Remove any packing material left on the imaging unit, including pieces of tape on the side of the unit and the red separator plastic.   **Note:** You may need a pair of pliers to remove a piece of broken plastic inside the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the imaging unit. Does the problem remain?	Contact the next level of support.	The problem is solved.

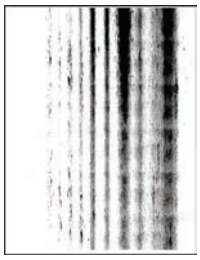
Vertical dark lines check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Note: This check applies only to printer models with a hot roll fuser.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Remove, and then reinstall the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the imaging unit. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Remove the hot roll fuser, and then check for scratches and other damage. Is the fuser free of scratches and other damage?	Contact the next level of support.	Go to step 6.
Step 6 Replace the hot roll fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Contact the next level of support.	The problem is solved.
Step 7 Remove the fuser, and then check the rollers and belts for damage or debris. Are the rollers and belts free of damage or debris?	Contact the next level of support.	Go to step 8.
Step 8 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical dark streaks with print missing check



Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Replace the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check connection J15 from the controller board to the HVPS, and then check all other connections on the HVPS. Are the connections properly connected?	Go to step 6.	Go to step 5.
Step 5 Reconnect the cables. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the HVPS. See **"HVPS removal" on page 481**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical light bands check

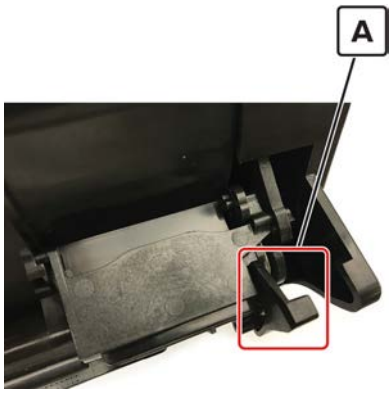
Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Clean the printhead glass. See **"Cleaning the printhead glass" on page 817**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the printhead. See **"Printhead removal" on page 518**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the imaging unit. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical white lines check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 52**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, do not replace the imaging unit. Refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Set the paper type and weight settings in the Paper menu to match the paper loaded. **Note:** Make sure that the printer supports the paper loaded. For a complete list of supported paper, see the printer *User's Guide*. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Update the firmware to the latest version available. **b** Enter the Diagnostics menu, and then change the EngSetting 14 value to 48. **Note:** You can also change the setting through a bundle file or NPA command. **c** Set Quite mode to Off. **d** Review the Event Log Summary sheets and check if either error code 31.46 or 31.66 events occurred for the imaging unit. If they did, check if they are occurring with the current toner cartridge. Do the errors occur with the current toner cartridge?	Go to step 6.	Go to step 5.

Actions	Yes	No
Step 5 Check the shutter tab (A) on the toner cartridge for signs of damage.  Is the shutter tab damaged?	Go to step 6.	Go to step 7.
Step 6 Replace the imaging unit and the toner cartridge. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the printhead glass for contamination. Is the printhead glass free from dust and debris?	Go to step 8.	Go to step 9.
Step 8 Clean the printhead glass. See **"Cleaning the printhead glass" on page 817**. **Warning—Potential Damage:** When cleaning the printhead glass, do not use compressed air. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check connection J15 from the controller board to the HVPS, and then check all other connections on the HVPS. Are the connections properly connected?	Go to step 11.	Go to step 10.
Step 10 Replace the connections. Does the problem remain?	Go to step 11.	The problem is solved.

Actions	Yes	No
Step 11 Replace the HVPS. See **"HVPS removal" on page 481**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the laser printhead. See **"Printhead removal" on page 518**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fixing scan quality issues

Dark image quality (using the ADF or scanner) check

Actions	Yes	No
Step 1 Navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**. Is the scan defect seen on the print quality samples?	Go to step 2.	Go to step 3.
Step 2 Identify, and then resolve the print quality defect. See **"Fixing print quality issues" on page 52**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Clean the ADF glass and the scanner glass. For more information, see **"Cleaning the scanner" on page 814**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clean the ADF glass pad and the scanner glass pad. For more information, see **"Cleaning the scanner" on page 814**. Does the problem remain?	Go to step 5.	The problem is solved.

Actions	Yes	No
Step 5 **a** Open the ADF bottom door (door E). **b** In door E, clean the ADF glass and its pad. For more information, see **"Cleaning the scanner" on page 814**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Replace the appropriate CCDM. See **"ADF scanner CCD removal" on page 552** or **"Flatbed scanner CCDM removal" on page 563**. **b** Perform a scan-to-print test using both the ADF scanner and flatbed scanner. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the printer controller board. See **"Controller board removal" on page 486**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical lines (process direction using the ADF) check

Actions	Yes	No
Step 1 Navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**. Is the scan defect seen on the print quality samples?	Go to step 2.	Go to step 3.
Step 2 Identify, and then resolve the print quality defect. See **"Fixing print quality issues" on page 52**. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 **a** Clean the ADF glass and the scanner glass. For more information, see **"Cleaning the scanner" on page 814**. **b** Using the ADF, perform a scan job on a blank sheet. Does the issue occur on the front page?	Go to step 4.	Go to step 8.
Step 4 Check the ADF glass for damage. Is the glass free of damage?	Go to step 5.	Go to step 7.
Step 5 Using the flatbed scanner, perform a scan job on a blank sheet. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the scanner glass for damage. Is the glass free of damage?	Go to step 9.	Go to step 7.
Step 7 Replace the flatbed scanner top cover. See **"Flatbed scanner top cover removal" on page 562**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 8 **a** Open the ADF bottom door (door E). **b** In door E, clean the ADF glass and its pad. For more information, see **"Cleaning the scanner" on page 814**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 9 **a** Replace the flatbed scanner CCDM. See **"Flatbed scanner CCDM removal" on page 563**. **b** Perform a scan-to-print test using both the ADF scanner and flatbed scanner. Does the problem remain?	Go to step 11.	The problem is solved.
Step 10 **a** Replace the ADF scanner CCD. See **"ADF scanner CCD removal" on page 552**. **b** Perform a scan-to-print test using both the ADF scanner and flatbed scanner. Does the problem remain?	Go to step 11.	The problem is solved.

Actions	Yes	No
Step 11 **a** Replace the printer controller board. See **"Controller board removal" on page 486**. **b** Perform a scan-to-print test using both the ADF scanner and flatbed scanner. Does the problem remain?	Contact the next level of support.	The problem is solved.

Spots (using the flatbed scanner) check

Actions	Yes	No
Step 1 Navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**. Is the scan defect seen on the print quality samples?	Go to step 2.	Go to step 3.
Step 2 Identify, and then resolve the print quality defect. See **"Fixing print quality issues" on page 52**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Clean the ADF glass and the scanner glass. For more information, see **"Cleaning the scanner" on page 814**. **b** Check the scanner glass for damage. Is the glass free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the flatbed scanner top cover. See **"Flatbed scanner top cover removal" on page 562**. Does the problem remain?	Go to step 5.	The problem is solved.

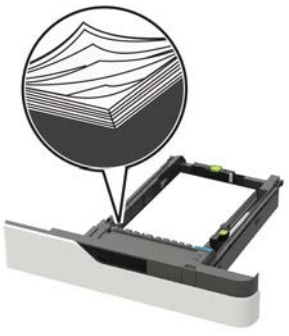
Actions	Yes	No
Step 5 **a** Open the ADF bottom door (door E). **b** In door E, clean the ADF glass and its pad. For more information, see **"Cleaning the scanner" on page 814**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Replace the flatbed scanner CCDM. See **"Flatbed scanner CCDM removal" on page 563**. **b** Perform a scan-to-print test using both the ADF scanner and flatbed scanner. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Replace the printer controller board. See **"Controller board removal" on page 486**. **b** Perform a scan-to-print test using both the ADF scanner and flatbed scanner. Does the problem remain?	Contact the next level of support.	The problem is solved.

Paper jams

Avoiding jams

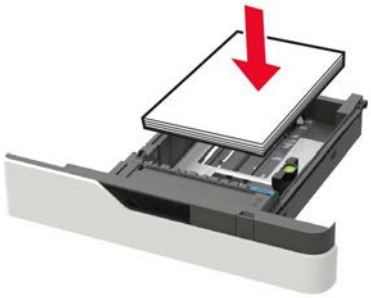
Load paper properly

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

Correct loading of paper	Incorrect loading of paper
	

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

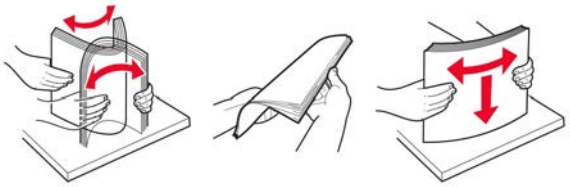
- Do not slide paper into the tray. Load paper as shown in the illustration.



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

Use recommended paper

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

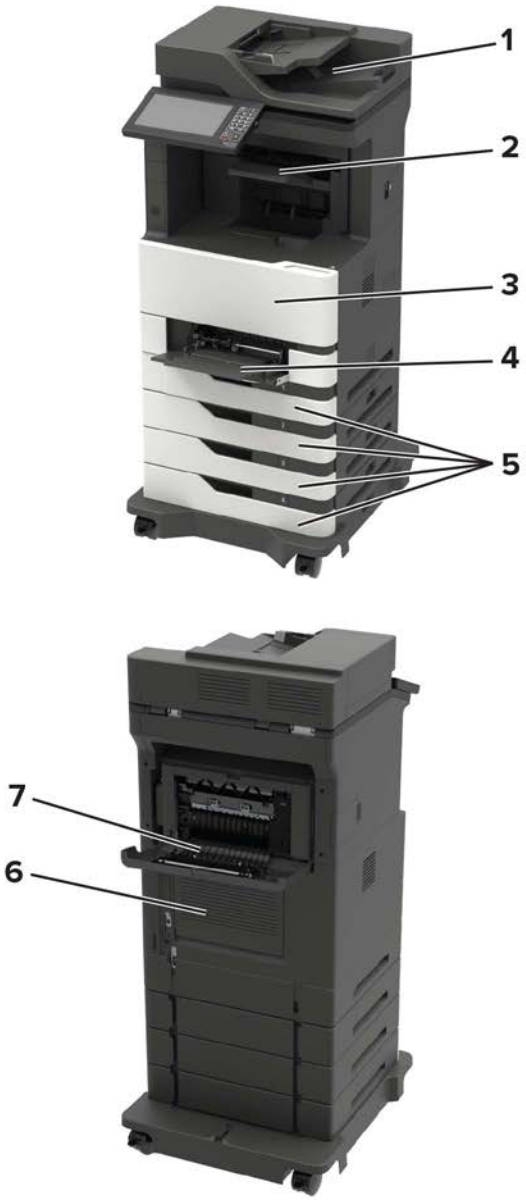


- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure that the paper size and type are set correctly on the computer or printer control panel.
- Store paper according to manufacturer recommendations.

Identifying jam locations

Notes:

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



	Jam locations
1	Automatic document feeder
2	Standard, finisher, or output option bin
3	Door A
4	Multipurpose feeder
5	Trays
6	Door C
7	Finisher or output option rear door • Door H • Door N • Door P

200 paper jams

200 paper jam messages

Error code	Description	Action
200.02	Paper fed from the MPF was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 93**.
200.03	Paper fed from the MPF was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 95**.
200.04	Paper fed from the MPF cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 101**.
200.05	Paper fed from the MPF never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 97**.
200.12	Paper fed from tray 1 was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 93**.
200.13	Paper fed from tray 1 was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 95**.
200.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 101**.
200.15	Paper fed from tray 1 never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 97**.
200.22	Paper fed from tray 2 was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 93**.
200.23	Paper fed from tray 2 was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 95**.
200.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 101**.
200.25	Paper fed from tray 2 never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 97**.
200.32	Paper fed from tray 3 was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 93**.
200.33	Paper fed from tray 3 was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 95**.
200.34	Paper fed from tray 3 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 101**.
200.35	Paper fed from tray 3 never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 97**.
200.36	Paper fed from tray 3 was picked but it never reached the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 95**.

Error code	Description	Action
200.42	Paper fed from tray 4 was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 93**.
200.43	Paper fed from tray 4 was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 95**.
200.44	Paper fed from tray 4 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 101**.
200.45	Paper fed from tray 4 never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 97**.
200.52	Paper fed from tray 5 was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 93**.
200.53	Paper fed from tray 5 was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 95**.
200.54	Paper fed from tray 5 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 101**.
200.55	Paper fed from tray 5 never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 97**.
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See **"Sensor (input) static jam service check" on page 100**.

Sensor (input) early-arriving jam service check

Action	Yes	No
Step 1 Identify the source tray. Is the MPF the source tray?	Go to step 2.	Go to step 7.
Step 2 Check the MPF pick roller for excess wear and contamination. Is the pick roller free of excess wear and contamination?	Go to step 4.	Go to step 3.
Step 3 Clean or replace the MPF pick roller. See **"MPF pick roller removal" on page 504**. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Remove the left cover. See **"Left cover removal" on page 458**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (MPF pick), and then touch **Start**. Does the motor run?	Go to step 6.	Go to step 5.
Step 5 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the motor. See **"Motor (MPF) removal" on page 468**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check if paper is properly loaded in each tray. Is paper properly loaded in each tray?	Go to step 9.	Go to step 8.
Step 8 Remove the paper, and then properly load it to the tray. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check each tray for paper fragments and partially fed paper. Are the trays free of paper fragments and partially fed paper?	Go to step 11.	Go to step 10.
Step 10 Remove all paper fragments and partially fed paper. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 15.	Go to step 12.

Action	Yes	No
Step 12 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 14.	Go to step 13.
Step 13 Reseat the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the sensor. See **"Sensor (input) removal" on page 503**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) never- or late-arriving jam service check

Action	Yes	No
Step 1 Check if blank pages were fed out before the error occurred. Were there blank pages fed out prior to the error?	Go to step 10.	Go to step 2.
Step 2 Pull out all the source trays, and then check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 4.	Go to step 3.
Step 3 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check if the tray is overfilled. Is the tray overfilled?	Go to step 5.	Go to step 6.

Action	Yes	No
Step 5 Remove the excess paper from the tray. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the tray for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 8.	Go to step 7.
Step 7 Replace the affected sheets. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the aligner rollers for obstructions. Are the aligner rollers free of obstructions?	Go to step 10.	Go to step 9.
Step 9 Remove the obstructions. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 11.
Step 11 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 13.	Go to step 12.
Step 12 Reseat the cable. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the sensor. See **"Sensor (input) removal" on page 503**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 **a** Remove the left cover. See **"Left cover removal" on page 458**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Imaging unit), and then touch **Start**. Does the motor run?	Go to step 17.	Go to step 15.
Step 15 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the motor. See **"Main motor drive removal" on page 465**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) late-leaving or did-not-clear jam service check

Action	Yes	No
Step 1 Pull out all the source trays, and then check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the tray is overfilled. Is the tray overfilled?	Go to step 4.	Go to step 5.

Action	Yes	No
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the tray for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 7.	Go to step 6.
Step 6 Replace the affected sheets. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Identify the source tray. Is the MPF the source tray?	Go to step 8.	Go to step 13.
Step 8 Check the MPF pick roller for excess wear and contamination. Is the pick roller free of excess wear and contamination?	Go to step 10.	Go to step 9.
Step 9 Clean or replace the MPF pick roller. See **"MPF pick roller removal" on page 504**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the left cover. See **"Left cover removal" on page 458**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (MPF pick), and then touch **Start**. Does the motor run?	Go to step 13.	Go to step 11.
Step 11 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the motor. See **"Motor (MPF) removal" on page 468**. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the pick roller of the source tray for dirt, excess wear, and contamination. **Note:** Check also the gears for debris and toner. Are the pick roller components free of dirt, excess wear, and contamination?	Go to step 15.	Go to step 14.
Step 14 Clean or replace the pick roller. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the aligner rollers for obstructions. Are the aligner rollers free of obstructions?	Go to step 17.	Go to step 16.
Step 16 Remove the obstructions. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 21.	Go to step 18.
Step 18 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 20.	Go to step 19.
Step 19 Reseat the cable. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the sensor. See **"Sensor (input) removal" on page 503**. Does the problem remain?	Go to step 21.	The problem is solved.

Action	Yes	No
Step 21 Perform a print test on each tray, and then check if the paper is properly picked and transported out of the source tray by the paper feeder. Was the paper properly transported by the paper feeder?	Go to step 23.	Go to step 22.
Step 22 Replace the affected paper feeder. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Perform a print test, and then check if the paper is properly transported by the main motor drive to the sensor (input). Was the paper properly transported by the main motor drive?	Go to step 25.	Go to step 24.
Step 24 Replace the main motor drive. See **"Main motor drive removal" on page 465**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) static jam service check

Action	Yes	No
Step 1 Check the paper path for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 4.

Action	Yes	No
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. See **"Sensor (input) removal" on page 503**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) early-leaving jam service check

Action	Yes	No
Step 1 Check the paper path for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if paper is properly loaded in each tray. Is paper properly loaded in each tray?	Go to step 5.	Go to step 4.
Step 4 Remove the paper, and then properly load it to the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

202 paper jams

202 paper jam messages

Error code	Description	Action
202.02	Paper fed from the MPF was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 103**.
202.03	Paper fed from the MPF never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 104**.
202.04	Paper fed from the MPF cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 108**.
202.05	Paper fed from the MPF never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 109**.
202.12	Paper fed from tray 1 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 103**.
202.13	Paper fed from tray 1 never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 104**.
202.14	Paper fed from tray 1 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 108**.
202.15	Paper fed from tray 1 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 109**.
202.22	Paper fed from tray 2 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 103**.
202.23	Paper fed from tray 2 never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 104**.
202.24	Paper fed from tray 2 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 108**.
202.25	Paper fed from tray 2 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 109**.
202.32	Paper fed from tray 3 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 103**.
202.33	Paper fed from tray 3 never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 104**.
202.34	Paper fed from tray 3 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 108**.
202.35	Paper fed from tray 3 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 109**.
202.42	Paper fed from tray 4 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 103**.
202.43	Paper fed from tray 4 never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 104**.
202.44	Paper fed from tray 4 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 108**.

Error code	Description	Action
202.45	Paper fed from tray 4 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 109**.
202.52	Paper fed from tray 5 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 103**.
202.53	Paper fed from tray 5 never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 104**.
202.54	Paper fed from tray 5 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 108**.
202.55	Paper fed from tray 5 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 109**.
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 111**.
202.93	The sensor (fuser exit) detected a jam during or after a flush action.	See **"Sensor (fuser exit) late-arriving jam service check" on page 104**.
202.95	Paper never cleared the sensor (fuser exit). Paper source is undetermined.	See **"Sensor (fuser exit) late-leaving jam service check" on page 109**.

Sensor (fuser exit) early-arriving jam service check

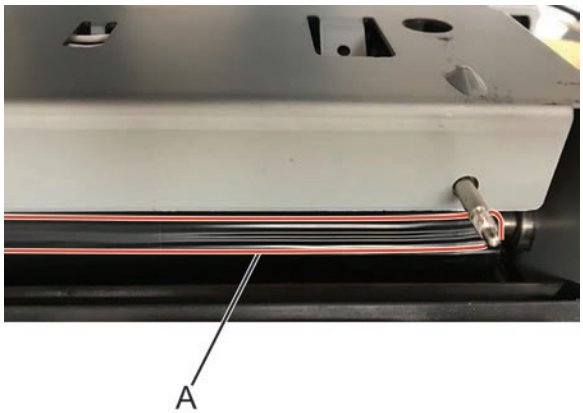
Action	Yes	No
Step 1 Check if paper is properly loaded in each tray. Is paper properly loaded in each tray?	Go to step 3.	Go to step 2.
Step 2 Remove the paper, and then properly load it to the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the paper path and trays for paper fragments and partially fed paper. Are the paper path and trays free of paper fragments and partially fed paper?	Go to step 5.	Go to step 4.
Step 4 Remove all paper fragments and partially fed paper. Does the problem remain?	Go to step 5.	The problem is solved.

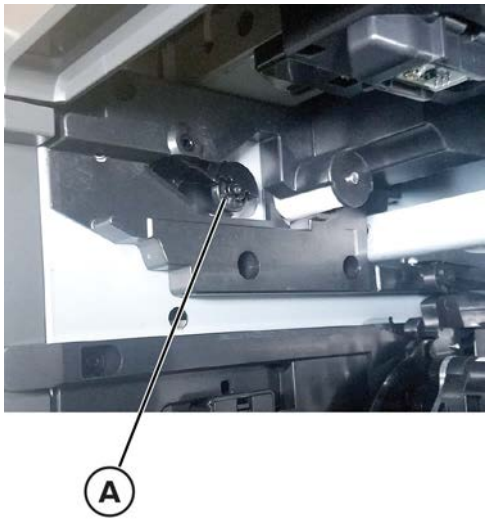
Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (fuser exit) late-arriving jam service check

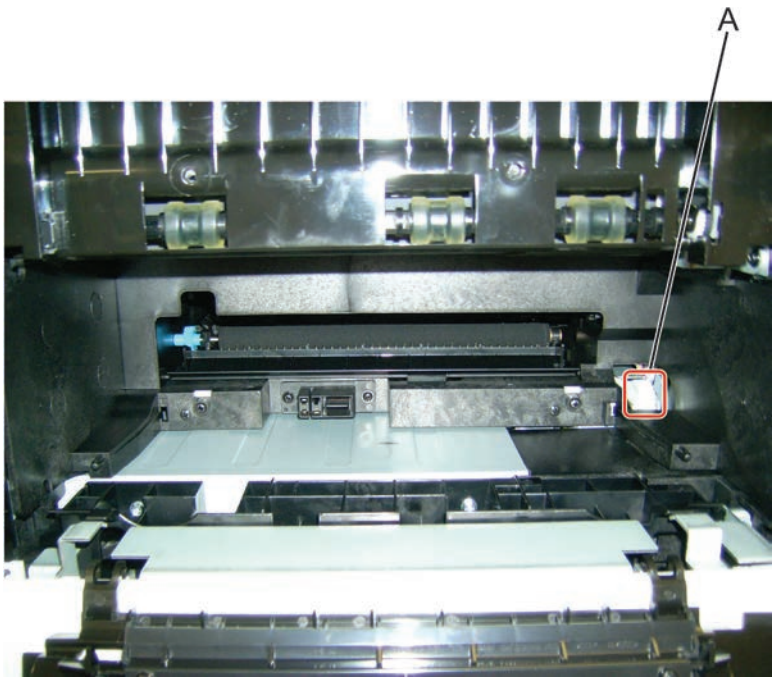
Notes:

- Make sure to install a genuine and supported toner cartridge.
- Do not replace a fuser due to a wrinkled backup roller (A).



Action	Yes	No
Step 1 **a** Remove the toner cartridge. **b** Inside the printer on the left side, check if the roller (A) is missing.  **Note:** A dislodged or missing roller may cause a grinding noise when the printer is operating. Is the roller missing?	Go to step 2.	Go to step 3.
Step 2 **a** Find the missing roller at the following locations: • Check inside the printer. • Remove, and then check the toner cartridge drive. **b** Reinstall the roller (if found) or replace the toner cartridge drive. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the fuser for damage and life expiration. Is the fuser damaged or has it reached end of life?	Go to step 4.	Go to step 5.
Step 4 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Remove obstructions from the fuser. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 8.
Step 8 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the transfer roller for damage. Is the transfer roller free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the transfer roller. See **"Transfer roller removal" on page 506**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 **a** Remove the fuser. See **"Fuser removal" on page 514**. **b** Manually rotate the fuser drive gear (A). **Note:** The gear should turn smoothly, but with some resistance.  Does the gear rotate properly?	Go to step 14.	Go to step 13.
Step 13 Replace the fuser drive gear. See **"Fuser drive gear removal" on page 466**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the aligner rollers for obstructions and damage. Are the aligner rollers free of obstructions and damage?	Go to step 16.	Go to step 15.
Step 15 Remove the obstructions or replace the aligner rollers. See **"Aligner removal" on page 502**. Does the problem remain?	Go to step 16.	The problem is solved.

Action	Yes	No
Step 16 Perform a print test, and then check if the paper is properly transported by the fuser drive motor assembly to the sensor (fuser exit). Was the paper properly transported by the fuser drive motor assembly?	Go to step 19.	Go to step 17.
Step 17 Reseat the cable J71 on the controller board. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the motor (fuser). See **"Main motor drive removal" on page 465**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (fuser exit) early-leaving jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Are the paper path and trays free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove all paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Perform a print test. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (fuser exit) late-leaving jam service check

Action	Yes	No
Step 1 Check the rear door for damage. Make sure that the rear door properly closes. Is the rear door functional and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the rear door. See **"Rear door removal" on page 509**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the fuser for damage and life expiration. Is the fuser damaged or has it reached end of life?	Go to step 4.	Go to step 5.
Step 4 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the upper redrive for damage. Is the upper redrive free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the upper redrive. See **"Upper redrive removal" on page 515**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **b** Select the motor (redrive), and then touch **Start**. Does the motor run?	Go to step 14.	Go to step 12.
Step 12 Reseat the cable J66 on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the motor (redrive). See **"Motor (redrive) removal" on page 471**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (fuser exit) static jam service check

Action	Yes	No
Step 1 Check the paper path and the trays for paper fragments and partially fed paper. Are the paper path and trays free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

221 paper jams

221 paper jam messages

Error code	Description	Action
221.91	Paper remains detected at the sensor (narrow media) after the printer is turned on.	See **"Sensor (narrow media) static jam service check" on page 112**.
221.93	Paper never arrived at the sensor (narrow media). Paper source is undetermined.	See **"Sensor (narrow media) late-arriving jam service check" on page 113**.

Sensor (narrow media) static jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Are the paper path and trays free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Narrow media). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (narrow media) late-arriving jam service check

Action	Yes	No
Step 1 Check the fuser for damage and life expiration. Is the fuser damaged or has it reached end of life?	Go to step 2.	Go to step 3.
Step 2 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Remove obstructions from the fuser. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Narrow media). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 5.
Step 5 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

230 paper jams

230 paper jam messages

Error code	Description	Action
230.03	Paper fed from the MPF never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 116**.
230.05	Paper fed from the MPF never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 118**.
230.12	Paper fed from tray 1 was detected earlier than expected at the sensor (duplex path).	See **"Sensor (duplex path) early-arriving jam service check" on page 115**.
230.13	Paper fed from tray 1 never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 116**.
230.14	Paper fed from tray 1 cleared the sensor (duplex path) earlier than expected.	See **"Sensor (duplex path) early-leaving jam service check" on page 118**.
230.15	Paper fed from tray 1 never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 118**.
230.22	Paper fed from tray 2 was detected earlier than expected at the sensor (duplex path).	See **"Sensor (duplex path) early-arriving jam service check" on page 115**.
230.23	Paper fed from tray 2 never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 116**.
230.24	Paper fed from tray 2 cleared the sensor (duplex path) earlier than expected.	See **"Sensor (duplex path) early-leaving jam service check" on page 118**.
230.25	Paper fed from tray 2 never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 118**.
230.32	Paper fed from tray 3 was detected earlier than expected at the sensor (duplex path).	See **"Sensor (duplex path) early-arriving jam service check" on page 115**.
230.33	Paper fed from tray 3 never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 116**.
230.34	Paper fed from tray 3 cleared the sensor (duplex path) earlier than expected.	See **"Sensor (duplex path) early-leaving jam service check" on page 118**.
230.35	Paper fed from tray 3 never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 118**.
230.42	Paper fed from tray 4 was detected earlier than expected at the sensor (duplex path).	See **"Sensor (duplex path) early-arriving jam service check" on page 115**.
230.43	Paper fed from tray 4 never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 116**.

Error code	Description	Action
230.44	Paper fed from tray 4 cleared the sensor (duplex path) earlier than expected.	See **"Sensor (duplex path) early-leaving jam service check" on page 118**.
230.45	Paper fed from tray 4 never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 118**.
230.52	Paper fed from tray 5 was detected earlier than expected at the sensor (duplex path).	See **"Sensor (duplex path) early-arriving jam service check" on page 115**.
230.53	Paper fed from tray 5 never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 116**.
230.54	Paper fed from tray 5 cleared the sensor (duplex path) earlier than expected.	See **"Sensor (duplex path) early-leaving jam service check" on page 118**.
230.55	Paper fed from tray 5 never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 118**.
230.91	Paper remains detected at the sensor (duplex path) after the printer is turned on.	See **"Sensor (duplex path) static jam service check" on page 120**.

Sensor (duplex path) early-arriving jam service check

Action	Yes	No
Step 1 Check the duplex paper path for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex paper path free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Duplex path). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. See **"Sensor (duplex path) with cover removal" on page 528**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (duplex path) late-arriving jam service check

Action	Yes	No
Step 1 Check the fuser access area on the rear door for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the fuser access area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 5.	Go to step 4.
Step 4 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Duplex path). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (duplex path) with cover removal" on page 528**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Remove the rear door. See **"Rear door removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Duplex), and then touch **Start**. Does the motor run?	Go to step 12.	Go to step 10.
Step 10 Reseat the motor cable J27 on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the motor. See **"Motor (duplex) removal" on page 513**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (duplex path) early-leaving jam service check

Action	Yes	No
Step 1 Check the paper path for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if paper is properly loaded in each tray. Is paper properly loaded in each tray?	Go to step 5.	Go to step 4.
Step 4 Remove the paper, and then properly load it to the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (duplex path) late-leaving jam service check

Action	Yes	No
Step 1 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Duplex path). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. See **"Sensor (duplex path) with cover removal" on page 528**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the upper redrive for damage. Is the upper redrive free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the upper redrive. See **"Upper redrive removal" on page 515**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Remove the rear door. See **"Rear door removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Duplex), and then touch **Start**. Does the motor run?	Go to step 12.	Go to step 10.

Action	Yes	No
Step 10 Reseat the motor cable J27 on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the motor. See **"Motor (duplex) removal" on page 513**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (duplex path) static jam service check

Action	Yes	No
Step 1 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Duplex path). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. See **"Sensor (duplex path) with cover removal" on page 528**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

232 paper jams

232 paper jam messages

Error code	Description	Action
232.03	During a duplex print job, paper fed from the MPF never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 122**.
232.04	During a duplex print job, paper fed from the MPF cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 123**.
232.05	During a duplex print job, paper fed from the MPF never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 124**.
232.13	During a duplex print job, paper fed from tray 1 never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 122**.
232.14	During a duplex print job, paper fed from tray 1 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 123**.
232.15	During a duplex print job, paper fed from tray 1 never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 124**.
232.23	During a duplex print job, paper fed from tray 2 never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 122**.
232.24	During a duplex print job, paper fed from tray 2 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 123**.
232.25	During a duplex print job, paper fed from tray 2 never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 124**.
232.33	During a duplex print job, paper fed from tray 3 never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 122**.
232.34	During a duplex print job, paper fed from tray 3 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 123**.

Error code	Description	Action
232.35	During a duplex print job, paper fed from tray 3 never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 124**.
232.43	During a duplex print job, paper fed from tray 4 never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 122**.
232.44	During a duplex print job, paper fed from tray 4 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 123**.
232.45	During a duplex print job, paper fed from tray 4 never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 124**.
232.53	During a duplex print job, paper fed from tray 1 never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 122**.
232.54	During a duplex print job, paper fed from tray 1 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 123**.
232.55	During a duplex print job, paper fed from tray 1 never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 124**.

Sensor (input) late-arriving jam (during duplex print) service check

Action	Yes	No
Step 1 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. See **"Sensor (input) removal" on page 503**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the rear door. See **"Rear door removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Duplex), and then touch **Start**. Does the motor run?	Go to step 10.	Go to step 8.
Step 8 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the motor cable J27 on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor. See **"Motor (duplex) removal" on page 513**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) early-leaving jam (during duplex print) service check

Action	Yes	No
Step 1 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check the sensor (input) area for paper fragments and partially fed paper. Is the area free of paper fragments and partially fed paper?	Go to step 5.	Go to step 4.
Step 4 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) late-leaving jam (during duplex print) service check

Action	Yes	No
Step 1 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the sensor (input) area for paper fragments and partially fed paper. Is the area free of paper fragments and partially fed paper?	Go to step 5.	Go to step 4.
Step 4 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Remove the left cover. See **"Left cover removal" on page 458**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Imaging unit), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.

Action	Yes	No
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor. See **"Main motor drive removal" on page 465**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

240 paper jams

240 paper jam messages

Error code	Description	Action
240.06	Paper fed from the MPF was picked but it never reached the sensor (input).	See **"MPF pick jam service check" on page 125**.
240.82	The motor (MPF) has stalled.	See **"MPF drive control failure service check" on page 128**.
240.84	The motor (MPF) has stalled.	

MPF pick jam service check

Action	Yes	No
Step 1 Check if the printer supports the paper loaded. **Note:** For a complete list of supported paper, see the printer *User's Guide*. Is the paper supported?	Go to step 3.	Go to step 2.
Step 2 Remove the paper, and then load a supported one. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check if the paper size matches the size set on the MPF tray guides. Does the paper size match the size set on the tray?	Go to step 7.	Go to step 4.
Step 4 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check if the MPF tray is overfilled. Is the tray overfilled?	Go to step 6.	Go to step 5.
Step 6 Remove the excess paper from the tray. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the MPF tray for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 9.	Go to step 8.
Step 8 Replace the affected sheets. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the MPF tray pick roller for proper installation. Is the pick roller properly installed?	Go to step 11.	Go to step 10.
Step 10 Reinstall the pick roller. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the MPF pick roller for excess wear, damage, and contamination. Is the pick roller free of excess wear, damage, and contamination?	Go to step 13.	Go to step 12.
Step 12 Replace the pick roller. See **“MPF pick roller removal” on page 504**. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (MPF media present). Does the sensor status change while toggling the sensor?	Go to step 18.	Go to step 14.
Step 14 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J73 on the controller board for proper connection. Is the cable properly connected?	Go to step 16.	Go to step 15.
Step 15 Reseat the cable. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the sensor (MPF paper present). Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 22.	Go to step 19.
Step 19 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 21.	Go to step 20.
Step 20 Reseat the cable. Does the problem remain?	Go to step 21.	The problem is solved.

Action	Yes	No
Step 21 Replace the sensor. See **"Sensor (input) removal" on page 503**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 **a** Remove the left cover. See **"Left cover removal" on page 458**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (MPF pick), and then touch **Start**. Does the motor run?	Go to step 25.	Go to step 23.
Step 23 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Replace the motor. See **"Motor (MPF) removal" on page 468**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

MPF drive control failure service check

Action	Yes	No
Step 1 Check if the paper size matches the size set on the MPF tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the MPF tray is overfilled. Is the tray overfilled?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the MPF tray for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 7.	Go to step 6.
Step 6 Replace the affected sheets. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the left cover. See **"Left cover removal" on page 458**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (MPF pick/aligner), and then touch **Start**. Does the motor run?	Go to step 10.	Go to step 8.
Step 8 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the motor cable J71 on the controller board. **c** Reseat the motor cable. **d** Restart the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (MPF). See **"Motor (MPF) removal" on page 468**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

241 paper jams

241 paper jam messages

Error code	Description	Action
241.16	Paper fed from tray 1 was picked but it never reached the sensor (input).	See **"Tray 1 pick jam service check" on page 130**.
241.23	Paper fed from tray 2 never reached the sensor (tray 1 pass-through).	See **"Sensor (tray 1 pass-through) late-arriving jam service check" on page 136**.
241.25	Paper fed from tray 2 cleared the sensor (tray 1 pass-through) later than expected.	
241.33	Paper fed from tray 3 never reached the sensor (tray 1 pass-through).	
241.35	Paper fed from tray 3 cleared the sensor (tray 1 pass-through) later than expected.	See **"Sensor (tray 1 pass-through) late-leaving or did-not-clear jam service check" on page 139**.
241.43	Paper fed from tray 4 never reached the sensor (tray 1 pass-through).	See **"Sensor (tray 1 pass-through) late-arriving jam service check" on page 136**.
241.45	Paper fed from tray 4 cleared the sensor (tray 1 pass-through) later than expected.	See **"Sensor (tray 1 pass-through) late-leaving or did-not-clear jam service check" on page 139**.
241.53	Paper fed from tray 5 never reached the sensor (tray 1 pass-through).	See **"Sensor (tray 1 pass-through) late-arriving jam service check" on page 136**.
241.55	Paper fed from tray 5 cleared the sensor (tray 1 pass-through) later than expected.	See **"Sensor (tray 1 pass-through) late-leaving or did-not-clear jam service check" on page 139**.
241.82	The motor (tray 1 pick) has stalled.	See **"Tray 1 paper feeder control failure service check" on page 133**.
241.84	The motor (tray 1 pick) has stalled.	
241.91	Paper remains detected at the sensor (tray 1 pass-through) after the printer is turned on.	See **"Sensor (tray 1 pass-through) static jam service check" on page 134**.

Tray 1 pick jam service check

Action	Yes	No
Step 1 Pull out tray 1, and then check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check if tray 1 is overfilled. Is the tray overfilled?	Go to step 4.	Go to step 5.
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check tray 1 for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 7.	Go to step 6.
Step 6 Replace the affected sheets. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tray 1 pick roller for proper installation. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed?	Go to step 9.	Go to step 8.
Step 8 Reinstall the pick roller. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the tray 1 pick roller and separator pad for excess wear, damage, and contamination. Is the pick roller and separator pad free of excess wear, damage, and contamination?	Go to step 11.	Go to step 10.
Step 10 Replace the affected pick roller or separator pad. See **“Pick roller removal” on page 527**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the tray 1 tray insert for damage. Is the tray insert free of damage?	Go to step 13.	Go to step 12.

Action	Yes	No
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the aligner for obstructions. Is the aligner free of obstructions?	Go to step 15.	Go to step 14.
Step 14 Remove the obstructions. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 19.	Go to step 16.
Step 16 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 18.	Go to step 17.
Step 17 Reseat the cable. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the sensor. See **"Sensor (input) removal" on page 503**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Remove the left cover. See **"Left cover removal" on page 458**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Pick (tray 1)), and then touch **Start**. Does the motor run?	Go to step 22.	Go to step 20.

Action	Yes	No
Step 20 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the motor cable J73 on the controller board. **c** Reseat the paper feeder cable. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the paper feeder. See **"Paper feeder removal" on page 471**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 1 paper feeder control failure service check

Action	Yes	No
Step 1 Pull out tray 1, and then check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if tray 1 is overfilled. Is the tray overfilled?	Go to step 4.	Go to step 5.
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check tray 1 for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Replace the affected sheets. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the left cover. See **"Left cover removal" on page 458**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Pick (tray 1)), and then touch **Start**. Does the motor run?	Go to step 10.	Go to step 8.
Step 8 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the motor cable J73 on the controller board. **c** Reseat the paper feeder cable. **d** Restart the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the paper feeder. See **"Paper feeder removal" on page 471**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 1 pass-through) static jam service check

Action	Yes	No
Step 1 Check the paper path for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Make sure that the actuator of the sensor (tray 1 pass-through) is not dislodged or stuck. **b** Check the actuator for damage. Is the sensor actuator functional and free of damage?	Go to step 4.	Go to step 7.
Step 4 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Tray 1 pass-through). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 5.
Step 5 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J73 on the controller board for proper connection. Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (tray 1 pass-through) removal" on page 529**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 1 pass-through) late-arriving jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Tray 1 pass-through). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J73 on the controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (tray 1 pass-through) removal" on page 529**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 607**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 526**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Remove the left cover. See **"Left cover removal" on page 458**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (MPF pick/aligner), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor. See **"Motor (MPF) removal" on page 468**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.

Action	Yes	No
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 23.
Step 23 Replace the controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 1 pass-through) late-leaving or did-not-clear jam service check

Action	Yes	No
Step 1 Pull out all the source trays, and then check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the tray is overfilled. Is the tray overfilled?	Go to step 4.	Go to step 5.
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the tray for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 7.	Go to step 6.
Step 6 Replace the affected sheets. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Check the pick roller of the source tray for dirt, excess wear, and contamination. **Note:** Check also the gears for debris and toner. Are the pick roller components free of dirt, excess wear, and contamination?	Go to step 9.	Go to step 8.
Step 8 Clean or replace the pick roller. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the aligner rollers for obstructions. Are the aligner rollers free of obstructions?	Go to step 11.	Go to step 10.
Step 10 Remove the obstructions. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Tray 1 pass-through). Does the sensor status change while toggling the sensor?	Go to step 15.	Go to step 12.
Step 12 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J73 on the controller board for proper connection. Is the cable properly connected?	Go to step 14.	Go to step 13.
Step 13 Reseat the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the sensor. See **"Sensor (tray 1 pass-through) removal" on page 529**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 Perform a print test on each tray, and then check if the paper is properly picked and transported out of the source tray by the paper feeder. Was the paper properly transported by the paper feeder?	Go to step 17.	Go to step 16.
Step 16 Replace the affected paper feeder. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Perform a print test, and then check if the paper is properly transported by the MPF motor drive to the sensor (tray 1 pass-through). Was the paper properly transported by the MPF motor drive?	Go to step 19.	Go to step 18.
Step 18 Replace the motor (MPF). See **"Motor (MPF) removal" on page 468**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

242 paper jams

242 paper jam messages

Error code	Description	Action
242.26	Paper fed from tray 2 was picked but it never reached the sensor (tray 1 pass-through).	See **"Tray 2 pick jam service check" on page 145**.
242.31	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 3 is the paper source.	See **"Sensor (tray 2 pass-through) static jam service check" on page 143**.
242.33	Paper fed from tray 3 never reached the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through) late-arriving or late-leaving jam service check" on page 149**.
242.35	Paper fed from tray 3 cleared the sensor (tray 2 pass-through) later than expected.	
242.37	Paper fed from tray 3 never cleared the sensor (tray 2 pass-through).	

Error code	Description	Action
242.41	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 4 is the paper source.	See **"Sensor (tray 2 pass-through) static jam service check" on page 143**.
242.43	Paper fed from tray 4 never reached the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through) late-arriving or late-leaving jam service check" on page 149**.
242.45	Paper fed from tray 4 cleared the sensor (tray 2 pass-through) later than expected.	
242.47	Paper fed from tray 4 never cleared the sensor (tray 2 pass-through).	
242.51	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 5 is the paper source.	See **"Sensor (tray 2 pass-through) static jam service check" on page 143**.
242.53	Paper fed from tray 5 never reached the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through) late-arriving or late-leaving jam service check" on page 149**.
242.55	Paper fed from tray 5 cleared the sensor (tray 2 pass-through) later than expected.	
242.57	Paper fed from tray 5 never cleared the sensor (tray 2 pass-through).	
242.70	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) does not turn on.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
242.70	Motor (2100-sheet tray 2 elevator) does not turn on.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
242.71	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) does not turn off.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
242.71	Motor (2100-sheet tray 2 elevator) does not turn off.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
242.72	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) speed did not ramp up to the required level.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
242.72	Motor (2100-sheet tray 2 elevator) speed did not ramp up to the required level.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
242.73	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) stalled.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
242.73	Motor (2100-sheet tray 2 elevator) stalled.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
242.74	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) ran too slow.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
242.74	Motor (2100-sheet tray 2 elevator) ran too slow.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
242.75	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) ran too fast.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.

Error code	Description	Action
242.75	Motor (2100-sheet tray 2 elevator) ran too fast.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
242.76	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) ran too long.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
242.76	Motor (2100-sheet tray 2 elevator) ran too long.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
242.80	Motor (tray 2 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 336**.
242.81	Motor (tray 2 pick/lift) does not turn off.	
242.82	Motor (tray 2 pick/lift) speed did not ramp up to the required level.	
242.83	Motor (tray 2 pick/lift) stalled.	
242.84	Motor (tray 2 pick/lift) ran too slow.	
242.85	Motor (tray 2 pick/lift) ran too fast.	
242.86	Motor (tray 2 pick/lift) ran too long.	
242.91	Paper remains detected at the sensor (tray 2 pass-through) after the printer is turned on.	See **"Sensor (tray 2 pass-through) static jam service check" on page 143**.
242.93	Paper never arrived at the sensor (tray 2 pass-through). Paper source is undetermined.	See **"Sensor (tray 2 pass-through) unknown source late-arriving or late-leaving jam service check" on page 157**.
242.95	Paper cleared the sensor (tray 2 pass-through) later than expected. Paper source is undetermined.	
242.96	Paper was picked but it never reached the sensor (tray 2 pass-through). Paper source is undetermined.	See **"Sensor (tray 2 pass-through) unknown source pick jam service check" on page 152**.
242.97	Paper never cleared the sensor (tray 2 pass-through). Paper source is undetermined.	See **"Sensor (tray 2 pass-through) unknown source late-arriving or late-leaving jam service check" on page 157**.

Sensor (tray 2 pass-through) static jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 5.
Step 5 **a** Remove the tray 2 left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Remove the source tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 2 pick jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 2** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the source tray separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 526**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 607**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the tray insert. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Tray 1 pass-through). Does the sensor status change while toggling the sensor?	Go to step 15.	Go to step 12.
Step 12 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable J73 on the controller board for proper connection. Is the cable properly connected?	Go to step 14.	Go to step 13.
Step 13 Reseat the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the sensor. See **"Sensor (tray 1 pass-through) removal" on page 529**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pick (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 19.	Go to step 16.

Action	Yes	No
Step 16 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 18.	Go to step 17.
Step 17 Reseat the cable. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the sensor. See **"Sensor (250- and 550-sheet tray pick) removal" on page 611**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Media out (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 23.	Go to step 20.
Step 20 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 22.	Go to step 21.
Step 21 Reseat the cable. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the sensor. See **"Sensor (250- and 550-sheet tray paper present) removal" on page 613**. Does the problem remain?	Go to step 23.	The problem is solved.

Action	Yes	No
Step 23 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pick roller index (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 27.	Go to step 24.
Step 24 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 26.	Go to step 25.
Step 25 Reseat the cable. Does the problem remain?	Go to step 26.	The problem is solved.
Step 26 Replace the sensor. See **"Sensor (250- and 550-sheet tray pick roller index) removal" on page 612**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Check if the source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 29.	Go to step 28.
Step 28 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 **a** Remove the source tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 30.	The problem is solved.

Action	Yes	No
Step 30 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 31.
Step 31 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 2 pass-through) late-arriving or late-leaving jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.

Action	Yes	No
Step 6 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 607**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 526**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 2)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 2 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 21.	Go to step 19.

Action	Yes	No
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 23 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 2 pass-through) unknown source pick jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** **b** Do feed tests from trays 2 to 5. Check if the same error occurs. Does the same problem remain?	Go to step 5.	Perform the appropriate service check for the specific error.
Step 5 Check the affected source tray separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 526**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the affected source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 607**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Remove the affected source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 11.	Go to step 10.

Action	Yes	No
Step 10 Replace the tray insert. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 15.	Go to step 12.
Step 12 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 14.	Go to step 13.
Step 13 Reseat the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the sensor. See **"Sensor (tray 1 pass-through) removal" on page 529**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pick (tray x)). **Note:** For tray x, choose the tray number of the affected source tray. Does the sensor status change while toggling the sensor?	Go to step 19.	Go to step 16.
Step 16 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 18.	Go to step 17.

Action	Yes	No
Step 17 Reseat the cable. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the sensor. See **"Sensor (250- and 550-sheet tray pick) removal" on page 611**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Media out (tray x)). **Note:** For tray x, choose the tray number of the affected source tray. Does the sensor status change while toggling the sensor?	Go to step 23.	Go to step 20.
Step 20 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 22.	Go to step 21.
Step 21 Reseat the cable. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the sensor. See **"Sensor (250- and 550-sheet tray paper present) removal" on page 613**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pick roller index (tray x)). **Note:** For tray x, choose the tray number of the affected source tray. Does the sensor status change while toggling the sensor?	Go to step 27.	Go to step 24.

Action	Yes	No
Step 24 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 26.	Go to step 25.
Step 25 Reseat the cable. Does the problem remain?	Go to step 26.	The problem is solved.
Step 26 Replace the sensor. See **"Sensor (250- and 550-sheet tray pick roller index) removal" on page 612**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check if the affected source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 29.	Go to step 28.
Step 28 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 Make sure that the affected source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 30.	The problem is solved.
Step 30 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 31.
Step 31 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 2 pass-through) unknown source late-arriving or late-leaving jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** **b** Do feed tests from trays 2 to 5. Check if the same error occurs. Does the same problem remain?	Go to step 5.	Perform the appropriate service check for the specific error.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the affected source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 607**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the affected source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 526**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 2)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 2 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 21.	The problem is solved.

Action	Yes	No
Step 21 Make sure that the affected source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 23 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

250- and 550-sheet tray transport drive jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected tray. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor. See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the tray insert. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 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?	Go to step 11.	The problem is solved.
Step 11 Check the affected tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.

Action	Yes	No
Step 12 Replace the affected tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2100-sheet tray elevator drive jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the pick roller. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Plck roller index (tray x)). **Note:** For tray x, choose the tray number of the affected source tray. Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 8.
Step 8 **a** Remove the optional tray left cover. See **"2100-sheet tray left cover removal" on page 577**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. See **"Sensor (2100-sheet tray pick roller index) removal" on page 595**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Remove the left cover from the optional tray whose motor will be tested. See **"2100-sheet tray left cover removal" on page 577**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (High capacity tray lift), and then touch **Start**. Does the motor run?	Go to step 14.	Go to step 12.
Step 12 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the motor drive. See **"2100-sheet tray elevator drive removal" on page 588**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Perform a print test again, and then observe if the motor (2100-sheet tray transport) is running. Does the motor run?	Go step 17.	Go to step 15.
Step 15 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the motor. See **"Motor (2100-sheet tray transport) removal" on page 582**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 18 Replace the optional tray controller board. See **"2100-sheet tray controller board removal" on page 587**. Does the problem remain?	Contact the next level of support.	The problem is solved.

243 paper jams

243 paper jam messages

Error code	Description	Action
243.36	Paper fed from tray 3 was picked but it never reached the sensor (tray 2 pass-through).	See **"Tray 3 pick jam service check" on page 168**.
243.41	Paper remains detected at the sensor (tray 3 pass-through) although the printer is idle. Tray 4 is the paper source.	See **"Sensor (tray 3 pass-through) static jam service check" on page 166**.
243.43	Paper fed from tray 4 never reached the sensor (tray 3 pass-through).	See **"Sensor (tray 3 pass-through) late-arriving or late-leaving jam service check" on page 171**.
243.45	Paper fed from tray 4 cleared the sensor (tray 3 pass-through) later than expected.	
243.47	Paper fed from tray 4 never cleared the sensor (tray 3 pass-through).	

Error code	Description	Action
243.51	Paper remains detected at the sensor (tray 3 pass-through) although the printer is idle. Tray 5 is the paper source.	See **"Sensor (tray 3 pass-through) static jam service check" on page 166**.
243.53	Paper fed from tray 5 never reached the sensor (tray 3 pass-through).	See **"Sensor (tray 3 pass-through) late-arriving or late-leaving jam service check" on page 171**.
243.55	Paper fed from tray 5 cleared the sensor (tray 3 pass-through) later than expected.	
243.57	Paper fed from tray 5 never cleared the sensor (tray 3 pass-through).	
243.70	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) does not turn on.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
243.70	Motor (2100-sheet tray 3 elevator) does not turn on.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
243.71	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) does not turn off.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
243.71	Motor (2100-sheet tray 3 elevator) does not turn off.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
243.72	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) speed did not ramp up to the required level.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
243.72	Motor (2100-sheet tray 3 elevator) speed did not ramp up to the required level.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
243.73	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) stalled.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
243.73	Motor (2100-sheet tray 3 elevator) stalled.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
243.74	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) ran too slow.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
243.74	Motor (2100-sheet tray 3 elevator) ran too slow.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
243.75	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) ran too fast.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
243.75	Motor (2100-sheet tray 3 elevator) ran too fast.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
243.76	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) ran too long.	See **"250- and 550-sheet tray transport drive jam service check" on page 160**.
243.76	Motor (2100-sheet tray 3 elevator) ran too long.	See **"2100-sheet tray elevator drive jam service check" on page 162**.

Error code	Description	Action
243.80	Motor (tray 3 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 336**.
243.81	Motor (tray 3 pick/lift) does not turn off.	
243.82	Motor (tray 3 pick/lift) speed did not ramp up to the required level.	
243.83	Motor (tray 3 pick/lift) stalled.	
243.84	Motor (tray 3 pick/lift) ran too slow.	
243.85	Motor (tray 3 pick/lift) ran too fast.	
243.86	Motor (tray 3 pick/lift) ran too long.	
243.91	Paper remains detected at the sensor (tray 3 pass-through) after the printer is turned on.	See **"Sensor (tray 3 pass-through) static jam service check" on page 166**.
243.92	Paper was detected earlier than expected at the sensor (tray 3 pass-through). Paper source is undetermined.	See **"Sensor (tray 3 pass-through) unknown source late-arriving or late-leaving jam service check" on page 174**.
243.93	Paper never arrived at the sensor (tray 3 pass-through). Paper source is undetermined.	
243.95	Paper cleared the sensor (tray 3 pass-through) later than expected. Paper source is undetermined.	
243.96	Paper was picked but it never reached the sensor (tray 3 pass-through). Paper source is undetermined.	See **"Sensor (tray 3 pass-through) unknown source pick jam service check" on page 178**.
243.97	Paper never cleared the sensor (tray 3 pass-through). Paper source is undetermined.	See **"Sensor (tray 3 pass-through) unknown source late-arriving or late-leaving jam service check" on page 174**.

Sensor (tray 3 pass-through) static jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 5.
Step 5 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Remove the source tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 3 pick jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 3** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 607**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 8.

Action	Yes	No
Step 8 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the source tray separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 526**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 2)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 2 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray 3)), and then touch **Start**. Does the motor run?	Go to step 20.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check if the source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 22.	Go to step 21.
Step 21 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 22.	The problem is solved.

Action	Yes	No
Step 22 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 3 pass-through) late-arriving or late-leaving jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.

Action	Yes	No
Step 6 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 607**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 526**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 3 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 21.	Go to step 19.

Action	Yes	No
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 23 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 3 pass-through) unknown source late-arriving or late-leaving jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** **b** Do feed tests from trays 3 to 5. Check if the same error occurs. Does the same problem remain?	Go to step 5.	Perform the appropriate service check for the specific error.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the affected source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 607**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Remove the affected source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 526**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 3 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 18.	The problem is solved.

Action	Yes	No
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Make sure that the affected source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 23 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 3 pass-through) unknown source pick jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** **b** Do feed tests from trays 3 to 5. Check if the same error occurs. Does the same problem remain?	Go to step 5.	Perform the appropriate service check for the specific error.
Step 5 Check the affected source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 607**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 8.

Action	Yes	No
Step 8 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the affected source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 526**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 3 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 20.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check if the affected source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 22.	Go to step 21.

Action	Yes	No
Step 21 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Make sure that the affected source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

244 paper jams

244 paper jam messages

Error code	Description	Action
244.46	Paper fed from tray 4 was picked but it never reached the sensor (tray 3 pass-through).	See **"Tray 4 pick jam service check" on page 184**.
244.51	Paper remains detected at the sensor (tray 4 pass-through) although the printer is idle. Tray 5 is the paper source.	See **"Sensor (tray 4 pass-through) static jam service check" on page 183**.
244.53	Paper fed from tray 5 never reached the sensor (tray 4 pass-through).	See **"Sensor (tray 4 pass-through) late-arriving or late-leaving jam service check" on page 187**.
244.55	Paper fed from tray 5 cleared the sensor (tray 4 pass-through) later than expected.	
244.57	Paper fed from tray 5 never cleared the sensor (tray 4 pass-through).	

Error code	Description	Action
244.70	Motor (2100-sheet tray 4 elevator) does not turn on.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
244.71	Motor (2100-sheet tray 4 elevator) does not turn off.	
244.72	Motor (2100-sheet tray 4 elevator) speed did not ramp up to the required level.	
244.73	Motor (2100-sheet tray 4 elevator) stalled.	
244.74	Motor (2100-sheet tray 4 elevator) ran too slow.	
244.75	Motor (2100-sheet tray 4 elevator) ran too fast.	
244.76	Motor (2100-sheet tray 4 elevator) ran too long.	
244.80	Motor (tray 4 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 336**.
244.81	Motor (tray 4 pick/lift) does not turn off.	
244.82	Motor (tray 4 pick/lift) speed did not ramp up to the required level.	
244.83	Motor (tray 4 pick/lift) stalled.	
244.84	Motor (tray 4 pick/lift) ran too slow.	
244.85	Motor (tray 4 pick/lift) ran too fast.	
244.86	Motor (tray 4 pick/lift) moved too long.	
244.91	Paper remains detected at the sensor (tray 4 pass-through) after the printer is turned on.	See **"Sensor (tray 4 pass-through) static jam service check" on page 183**.
244.93	Paper never arrived at the sensor (tray 4 pass-through). Paper source is undetermined.	See **"Sensor (tray 4 pass-through) late-arriving or late-leaving jam service check" on page 187**.
244.95	Paper cleared the sensor (tray 4 pass-through) later than expected. Paper source is undetermined.	
244.96	Paper was picked but it never reached the sensor (tray 4 pass-through). Paper source is undetermined.	See **"Tray 5 pick jam service check" on page 193**.
244.97	Paper never cleared the sensor (tray 4 pass-through). Paper source is undetermined.	See **"Sensor (tray 4 pass-through) late-arriving or late-leaving jam service check" on page 187**.

Sensor (tray 4 pass-through) static jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 4)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 5.
Step 5 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Remove the source tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 4 pick jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 4** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 607**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 8.
Step 8 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the source tray separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 526**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor. See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray 4)), and then touch **Start**. Does the motor run?	Go to step 20.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.

Action	Yes	No
Step 20 Check if the source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 22.	Go to step 21.
Step 21 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 4 pass-through) late-arriving or late-leaving jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 5** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 4)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the tray 5 pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall, clean, or replace the pick roller. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 4)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 4 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 18.	The problem is solved.

Action	Yes	No
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray 5)), and then touch **Start**. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the tray 5 paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 23 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

245 paper jams

245 paper jam messages

Error code	Description	Action
245.56	Paper fed from tray 5 was picked but it never reached the sensor (tray 4 pass-through).	See **"Tray 5 pick jam service check" on page 193**.
245.70	Motor (2100-sheet tray 5 elevator) does not turn on.	See **"2100-sheet tray elevator drive jam service check" on page 162**.
245.71	Motor (2100-sheet tray 5 elevator) does not turn off.	
245.72	Motor (2100-sheet tray 5 elevator) speed did not ramp up to the required level.	
245.73	Motor (2100-sheet tray 5 elevator) stalled.	
245.74	Motor (2100-sheet tray 5 elevator) ran too slow.	
245.75	Motor (2100-sheet tray 5 elevator) ran too fast.	
245.76	Motor (2100-sheet tray 5 elevator) ran too long.	
245.80	Motor (tray 5 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 336**.
245.81	Motor (tray 5 pick/lift) does not turn off.	
245.82	Motor (tray 5 pick/lift) speed did not ramp up to the required level.	
245.83	Motor (tray 5 pick/lift) stalled.	
245.84	Motor (tray 5 pick/lift) ran too slow.	
245.85	Motor (tray 5 pick/lift) ran too fast.	
245.86	Motor (tray 5 pick/lift) moved too long.	
245.91	Paper remains detected at the sensor (tray 5 pass-through) after the printer is turned on.	See **"Sensor (tray 5 pass-through) static jam service check" on page 191**.

Sensor (tray 5 pass-through) static jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 5)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 5.
Step 5 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Make sure that the optional tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 5 pick jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 5** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the tray 5 pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 607**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 4)). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 8.

Action	Yes	No
Step 8 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 611**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the tray 5 tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the tray 5 separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 526**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 4)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor. See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 600**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray 5)), and then touch **Start**. Does the motor run?	Go to step 20.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check if the tray 5 paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 22.	Go to step 21.
Step 21 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 22.	The problem is solved.

Action	Yes	No
Step 22 Make sure that the tray 5 controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

280 paper jams

280 paper jam messages

Error code	Description	Action
280.11	Paper remains detected at the sensor (ADF 1st scan) after the printer is turned on.	See **"Sensor (ADF 1st scan) static jam service check" on page 196**.
280.13	Paper never arrived at the sensor (ADF 1st scan).	See **"Sensor (ADF 1st scan): Paper failed to arrive service check" on page 197**.
280.15	Paper never cleared the sensor (ADF 1st scan).	See **"Sensor (ADF 1st scan): Paper failed to clear service check" on page 199**.

Sensor (ADF 1st scan) static jam service check

Action	Yes	No
Step 1 Check the paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF 1st scan). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (ADF 1st scan): Paper failed to arrive service check

Action	Yes	No
Step 1 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 3.	Go to step 2.
Step 2 Remove the obstructions and contaminations. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the condition of the ADF pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 5.	Go to step 4.
Step 4 Clean or replace the pick roller. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 5 Check the condition of the ADF feed belt. Is the feed belt free from excess wear, contamination, and damage?	Go to step 7.	Go to step 6.
Step 6 Clean or replace the feed belt. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 7 Check the condition of the ADF separator roller. Is the separator roller free from excess wear, contamination, and damage?	Go to step 9.	Go to step 8.
Step 8 Clean or replace the separator roller. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF 1st scan). Does the sensor status change while toggling the sensor?	Go to step 12.	Go to step 10.
Step 10 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the sensor. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF transport** **b** Touch **Start**. Does the motor run?	Go to step 15.	Go to step 13.

Action	Yes	No
Step 13 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the motor. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (ADF 1st scan): Paper failed to clear service check

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF 1st scan). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF transport** **b** Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

281 paper jams

281 paper jam messages

Error code	Description	Action
281.11	Paper remains detected at the sensor (ADF pick) after the printer is turned on.	See **"Sensor (ADF pick) static jam service check" on page 201**.
281.15	Paper never cleared the sensor (ADF pick).	See **"Sensor (ADF pick): Paper failed to clear service check" on page 202**.
281.16	Paper never arrived at the sensor (ADF pick).	See **"Sensor (ADF pick): ADF failed to pick service check" on page 204**.

Sensor (ADF pick) static jam service check

Note: Update the firmware after resolving the problem with this service check. When the printer is in the jammed state, the firmware cannot be updated. Resolve the jam error first before updating the firmware.

Action	Yes	No
Step 1 Check the ADF paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF pick). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF deskew). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 7.
Step 7 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (ADF pick): Paper failed to clear service check

Note: Update the firmware after resolving the problem with this service check. When the printer is in the jammed state, the firmware cannot be updated. Resolve the jam error first before updating the firmware.

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF pick). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF deskew). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 9.
Step 9 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF pick** **b** Touch **Start**. Does the motor run?	Go to step 14.	Go to step 12.
Step 12 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the motor. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (ADF pick): ADF failed to pick service check

Note: Update the firmware after resolving the problem with this service check. When the printer is in the jammed state, the firmware cannot be updated. Resolve the jam error first before updating the firmware.

Action	Yes	No
Step 1 Check if the document size matches the size set on the ADF tray guides. Does the document size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check the ADF tray guides for damage. Are the tray guides free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the ADF tray. See **"ADF tray removal" on page 536**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 7.	Go to step 6.
Step 6 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips and staples. Is the paper path free of obstructions and contaminations?	Go to step 9.	Go to step 8.
Step 8 Remove the obstructions and contaminations. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the condition of the ADF pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.
Step 10 Clean or replace the pick roller. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 11 Check the condition of the ADF feed belt. Is the feed belt free from excess wear, contamination, and damage?	Go to step 13.	Go to step 12.
Step 12 Clean or replace the feed belt. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 13 Check the condition of the ADF separator roller. Is the separator roller free from excess wear, contamination, and damage?	Go to step 15.	Go to step 14.
Step 14 Clean or replace the separator roller. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF pick). Does the sensor status change while toggling the sensor?	Go to step 18.	Go to step 16.
Step 16 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the sensor. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF deskew). Does the sensor status change while toggling the sensor?	Go to step 21.	Go to step 19.

Action	Yes	No
Step 19 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the sensor. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF transport** **b** Touch **Start**. Does the motor run?	Go to step 24.	Go to step 22.
Step 22 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Replace the motor. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

282 paper jams

282 paper jam messages

Error code	Description	Action
282.11	Paper remains detected at the sensor (ADF exit) after the printer is turned on.	See **"Sensor (ADF exit) static jam service check" on page 208**.
282.13	Paper never arrived at the sensor (ADF exit).	See **"Sensor (ADF exit): Paper failed to arrive service check" on page 209**.
282.15	Paper never cleared the sensor (ADF exit).	See **"Sensor (ADF exit): Paper failed to clear service check" on page 211**.

Sensor (ADF exit) static jam service check

Action	Yes	No
Step 1 Check the ADF paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF media exit). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (ADF exit): Paper failed to arrive service check

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the condition of the ADF pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 7.	Go to step 6.
Step 6 Clean or replace the pick roller. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 7 Check the condition of the ADF feed belt. Is the feed belt free from excess wear, contamination, and damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Clean or replace the feed belt. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 9 Check the condition of the ADF separator roller. Is the separator roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.
Step 10 Clean or replace the separator roller. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF media exit). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 12.
Step 12 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the sensor. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF transport** **b** Touch **Start**. Does the motor run?	Go to step 17.	Go to step 15.
Step 15 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 16.	The problem is solved.

Action	Yes	No
Step 16 Replace the motor. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (ADF exit): Paper failed to clear service check

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF media exit). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF transport** **b** Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

283 paper jams

283 paper jam messages

Error code	Description	Action
283.11	Paper remains detected at the sensor (ADF deskew) after the printer is turned on.	See **"Sensor (ADF deskew) static jam service check" on page 213**.
283.13	Paper never arrived at the sensor (ADF deskew).	See **"Sensor (ADF deskew): Paper failed to arrive service check" on page 214**.
283.15	Paper never cleared the sensor (ADF deskew).	See **"Sensor (ADF deskew): Paper failed to clear service check" on page 216**.

Sensor (ADF deskew) static jam service check

Action	Yes	No
Step 1 Check the ADF paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF deskew). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (ADF deskew): Paper failed to arrive service check

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the condition of the ADF pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 7.	Go to step 6.
Step 6 Clean or replace the pick roller. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 7 Check the condition of the ADF feed belt. Is the feed belt free from excess wear, contamination, and damage?	Go to step 9.	Go to step 8.
Step 8 Clean or replace the feed belt. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 9 Check the condition of the ADF separator roller. Is the separator roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.
Step 10 Clean or replace the separator roller. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF dekew). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 12.
Step 12 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the sensor. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF pick** **b** Touch **Start**. Does the motor run?	Go to step 17.	Go to step 15.

Action	Yes	No
Step 15 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the motor. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (ADF deskew): Paper failed to clear service check

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF deskew). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF deskew** **b** Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

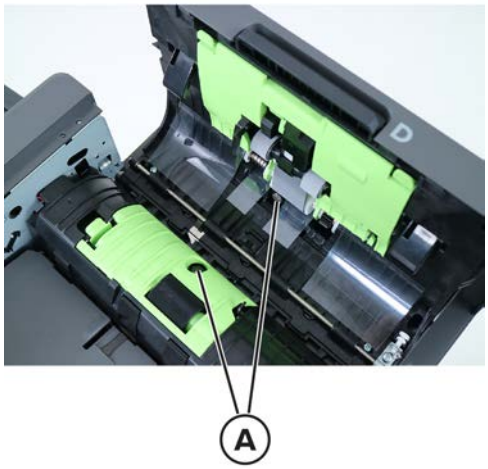
288–289 paper jams

288–289 paper jam messages

Error code	Description	Action
288.10	Jam is detected at the sensor (ADF multi-feed detect).	See **"Sensor (ADF multi-feed detect) jam service check" on page 218**.
289.01	The scanner controller communication failed.	See **"Scanner communication failure service check" on page 361**.

Sensor (ADF multi-feed detect) jam service check

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check the ADF paper path and sensor (A) for paper fragments and contaminations such as pieces of tape, paper clips and staples.  Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the condition of the ADF feed belt. Is the feed belt free from excess wear, contamination, and damage?	Go to step 7.	Go to step 6.
Step 6 Clean or replace the feed belt. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 7 Check the condition of the ADF separator roller. Is the separator roller free from excess wear, contamination, and damage?	Go to step 9.	Go to step 8.
Step 8 Clean or replace the separator roller. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor (ADF multi-feed detect). Does the problem remain?	Contact the next level of support.	The problem is solved.

415–418 paper jams

415–418 paper jam messages

Error code	Description	Action
415.13	The bin 1 diverter plunger did not reach the sensor (OE diverter plunger) on time.	See **"Mailbox diverter drive jam service check" on page 221**.
415.15	The bin 1 diverter plunger did not clear the sensor (OE diverter plunger) on time.	
416.52	The bin 1 motor (mailbox transport) did not ramp up to the required level.	See **"Mailbox transport drive jam service check" on page 223**.
416.53	The bin 1 motor (mailbox transport) stalled.	
416.54	The bin 1 motor (mailbox transport) ran too slow.	
416.55	The bin 1 motor (mailbox transport) ran too fast.	
417.11	Paper remains detected at the bin 1 sensor (mailbox pass-through 1) after the printer is turned on.	See **"Sensor (mailbox pass-through 1) static jam service check" on page 224**.
417.13	Paper did not reach the bin 1 sensor (mailbox pass-through 1) on time.	See **"Sensor (mailbox pass-through 1) late-arriving or late-leaving jam service check" on page 226**.
417.15	Paper did not clear the bin 1 sensor (mailbox pass-through 1) on time.	
418.11	Paper remains detected at the bin 1 sensor (mailbox pass-through 2) after the printer is turned on.	See **"Sensor (mailbox pass-through 2) static jam service check" on page 228**.
418.13	Paper did not reach the bin 1 sensor (mailbox pass-through 2) on time.	See **"Sensor (mailbox pass-through 2) late-arriving or late-leaving jam service check" on page 230**.
418.15	Paper did not clear the bin 1 sensor (mailbox pass-through 2) on time.	

Mailbox diverter drive jam service check

Action	Yes	No
Step 1 Make sure that the optional bin is properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open the optional bin door, and then check the paper path and bin for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**. **b** Reseat the cable on the motor (mailbox diverter) and on the mailbox controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (mailbox diverter) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (mailbox diverter) removal" on page 714**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Reseat the cable on the sensor (mailbox diverter plunger) and on the mailbox controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. See **"Sensor (mailbox diverter plunger) removal" on page 710**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the mailbox diverter plunger for improper installation and damage. Is the diverter plunger properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the diverter plunger. See **"Mailbox diverter plunger assembly removal" on page 705**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Make sure that the controller board of the optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the bin controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 16.
Step 16 Replace the bin controller board. See **"Mailbox controller board removal" on page 709**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Mailbox transport drive jam service check

Action	Yes	No
Step 1 Make sure that the optional bin is properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open the optional bin door, and then check the paper path and bin for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**. **b** Reseat the cable on the motor (mailbox transport) and on the mailbox controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (mailbox transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (mailbox transport) removal" on page 704**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the mailbox transport drive gear for damage. Is the drive gear free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the gear. See **"Mailbox transport drive gear removal" on page 700**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the controller board of the optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the bin controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the bin controller board. See **"Mailbox controller board removal" on page 709**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (mailbox pass-through 1) static jam service check

Action	Yes	No
Step 1 Make sure that the optional bin is properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open the optional bin door, and then check the paper path and bin for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**. **b** Reseat the cable of the sensor (mailbox pass-through 1) on the mailbox controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the sensor (mailbox pass-through 1) for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the sensor. See **"Sensor (mailbox pass-through) removal" on page 735**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the controller board of the optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the bin controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the bin controller board. See **"Mailbox controller board removal" on page 709**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (mailbox pass-through 1) late-arriving or late-leaving jam service check

Action	Yes	No
Step 1 Make sure that the optional bin is properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open the optional bin door, and then check the paper path and bin for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**. **b** Reseat the cable of the sensor (mailbox pass-through 1) on the mailbox controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the sensor (mailbox pass-through 1) for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the sensor. See **"Sensor (mailbox pass-through) removal" on page 735**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the mailbox rear door for improper installation and damage. Is the door properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the door. See **"Mailbox rear door removal" on page 691**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the mailbox middle diverter for improper installation and damage. Is the diverter properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the diverter. See **"Mailbox middle diverter removal" on page 730**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the mailbox top diverter for improper installation and damage. Is the diverter properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the diverter. See **"Mailbox top diverter removal" on page 725**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Reseat the cable on the motor (mailbox transport) and on the mailbox controller board. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the motor (mailbox transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the motor. See **"Motor (mailbox transport) removal" on page 704**. Does the problem remain?	Go to step 18.	The problem is solved.

Action	Yes	No
Step 18 Check the mailbox belts for improper installation, wear, and damage. Are the belts properly installed and free of wear and damage?	Go to step 20.	Go to step 19.
Step 19 Reinstall or replace the affected belt. See **"Mailbox belt removal" on page 720**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Make sure that the controller board of the optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Check the bin controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 22.
Step 22 Replace the bin controller board. See **"Mailbox controller board removal" on page 709**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (mailbox pass-through 2) static jam service check

Action	Yes	No
Step 1 Make sure that the optional bin is properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open the optional bin door, and then check the paper path and bin for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Mailbox 1** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**. **b** Reseat the cable of the sensor (mailbox pass-through 2) on the mailbox controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor (mailbox pass-through 2) for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (mailbox pass-through) removal" on page 735**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**. **b** Make sure that the controller board of the optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Check the bin controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the bin controller board. See **"Mailbox controller board removal" on page 709**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (mailbox pass-through 2) late-arriving or late-leaving jam service check

Action	Yes	No
Step 1 Make sure that the optional bin is properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open the optional bin door, and then check the paper path and bin for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Mailbox 1** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**. **b** Reseat the cable of the sensor (mailbox pass-through 2) on the mailbox controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor (mailbox pass-through 2) for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (mailbox pass-through) removal" on page 735**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the mailbox rear door for improper installation and damage. Is the door properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the door. See **"Mailbox rear door removal" on page 691**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the mailbox middle diverter for improper installation and damage. Is the diverter properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the diverter. See **"Mailbox middle diverter removal" on page 730**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Check the mailbox top diverter for improper installation and damage. Is the diverter properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the diverter. See **"Mailbox top diverter removal" on page 725**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**. **b** Reseat the cable on the motor (mailbox transport) and on the mailbox controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the motor (mailbox transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Reinstall or replace the motor. See **"Motor (mailbox transport) removal" on page 704**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the mailbox belts for improper installation, wear, and damage. Are the belts properly installed and free of wear and damage?	Go to step 21.	Go to step 20.
Step 20 Reinstall or replace the affected belt. See **"Mailbox belt removal" on page 720**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Make sure that the controller board of the optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.

Action	Yes	No
Step 22 Check the bin controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 23.
Step 23 Replace the bin controller board. See **"Mailbox controller board removal" on page 709**. Does the problem remain?	Contact the next level of support.	The problem is solved.

420 paper jams

420 paper jam messages

Error code	Description	Action
420.11	Paper remains detected at the bin 1 sensor (staple finisher pass-through) after the printer is turned on.	See **"Sensor (staple finisher pass-through) static jam service check" on page 234**.
420.11	Paper remains detected at the bin 1 sensor (HPU leading edge) after the printer is turned on.	See **"Sensor (HPU leading edge) jam service check" on page 242**.
420.12	Paper going to bin 1 was detected earlier than expected at the sensor (staple finisher pass-through).	See **"Sensor (staple finisher pass-through) early- or late-arriving jam service check" on page 236**.
420.12	Paper going to bin 1 was detected earlier than expected at the sensor (HPU leading edge).	See **"Sensor (HPU leading edge) jam service check" on page 242**.
420.13	Paper going to bin 1 did not reach the sensor (staple finisher pass-through) on time.	See **"Sensor (staple finisher pass-through) early- or late-arriving jam service check" on page 236**.
420.13	Paper going to bin 1 did not reach the sensor (HPU leading edge) on time.	See **"Sensor (HPU leading edge) jam service check" on page 242**.
420.15	Paper going to bin 1 did not clear the sensor (staple finisher pass-through) on time.	See **"Sensor (staple finisher pass-through) late leaving jam service check" on page 239**.
420.15	Paper going to bin 1 did not clear the sensor (HPU leading edge) on time.	See **"Sensor (HPU leading edge) jam service check" on page 242**.
420.54	The bin 1 motor (staple finisher transport) ran too slow.	See **"Staple finisher transport drive failure service check" on page 390**.
420.54	The bin 1 motor (SHPF transport) ran too slow.	See **"SHPF transport drive jam service check" on page 243**.

Error code	Description	Action
420.55	The bin 1 motor (staple finisher transport) ran too fast.	See **"Staple finisher transport drive failure service check" on page 390**.
420.55	The bin 1 motor (SHPF transport) ran too fast.	See **"SHPF transport drive jam service check" on page 243**.

Sensor (staple finisher pass-through) static jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.

Action	Yes	No
Step 7 **a** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **b** Reseat the cable of the sensor (staple finisher pass-through) on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher/offset stacker pass-through) removal" on page 680**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the staple finisher rear door for improper installation and damage. Is the door properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the door. See **"Staple finisher/offset stacker rear door removal" on page 621**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 14.
Step 14 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (staple finisher pass-through) early- or late-arriving jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple finisher left cover. See **"Staple finisher/ offset stacker left cover removal" on page 623**. **b** Reseat the cable of the sensor (staple finisher pass-through) on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher/offset stacker pass-through) removal" on page 680**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the staple finisher rear door for improper installation and damage. Is the door properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the door. See **"Staple finisher/offset stacker rear door removal" on page 621**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **b** Reseat the cable on the sensor (staple finisher diverter plunger) and on the staple finisher controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the sensor. See **"Sensor (staple finisher/offset stacker diverter plunger) removal" on page 633**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Reseat the cable on the motor (staple finisher diverter) and on the staple finisher controller board. Does the problem remain?	Go to step 16.	The problem is solved.

Action	Yes	No
Step 16 Check the motor (staple finisher diverter) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the motor. See **"Motor (staple finisher/offset stacker diverter) removal" on page 632**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the staple finisher diverter plunger for improper installation and damage. Is the diverter plunger properly installed and free of damage?	Go to step 20.	Go to step 19.
Step 19 Reinstall or replace the diverter plunger. See **"Staple finisher/offset stacker diverter plunger assembly removal" on page 637**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Reseat the cable on the motor (staple finisher transport) and on the staple finisher controller board. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Check the motor (staple finisher transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 23.	Go to step 22.
Step 22 Reinstall or replace the motor. See **"Motor (staple finisher/offset stacker transport) removal" on page 633**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the staple finisher drive gear for improper installation and damage. Is the drive gear properly installed and free of damage?	Go to step 25.	Go to step 24.

Action	Yes	No
Step 24 Reinstall or replace the gear. See **"Staple finisher/offset stacker drive gear assembly removal" on page 638**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 26.	The problem is solved.
Step 26 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 27.
Step 27 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (staple finisher pass-through) late leaving jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **b** Reseat the cable of the sensor (staple finisher pass-through) on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher/offset stacker pass-through) removal" on page 680**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the staple finisher rear door for improper installation and damage. Is the door properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the door. See **"Staple finisher/offset stacker rear door removal" on page 621**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Check the tamper aligners for improper installation and damage. Are the tamper aligners properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the tamper aligner. See **"Staple finisher/offset stacker tamper aligner removal" on page 664**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the staple finisher drive gear for improper installation and damage. Is the drive gear properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the gear. See **"Staple finisher/offset stacker drive gear assembly removal" on page 638**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 18.
Step 18 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (HPU leading edge) jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the cable of the sensor (HPU leading edge) on the HPU controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 10.	Contact the next level of support.
Step 10 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF transport drive jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the cable on the motor (SHPF transport) and on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (SHPF transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (SHPF transport) removal" on page 755**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the SHPF drive gear for improper installation and damage. Is the drive gear properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the gear. See **"SHPF drive gear assembly removal" on page 758**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

421–429 paper jams

421–429 paper jam messages

Error code	Description	Action
421.13	The bin 1 left tamper did not reach the sensor (staple finisher left tamper) on time.	See **"Left tamper jam service check" on page 247**.
421.13	The bin 1 left tamper did not reach the sensor (SHPF left tamper) on time.	See **"SHPF left tamper jam service check" on page 261**.
421.15	The bin 1 left tamper did not clear the sensor (staple finisher left tamper) on time.	See **"Left tamper jam service check" on page 247**.
421.15	The bin 1 left tamper did not clear the sensor (SHPF left tamper) on time.	See **"SHPF left tamper jam service check" on page 261**.
422.13	The bin 1 right tamper did not reach the sensor (staple finisher right tamper) on time.	See **"Right tamper jam service check" on page 250**
422.13	The bin 1 right tamper did not reach the sensor (SHPF right tamper) on time.	See **"SHPF right tamper jam service check" on page 264**.
422.15	The bin 1 right tamper did not clear the sensor (staple finisher right tamper) on time.	See **"Right tamper jam service check" on page 250**
422.15	The bin 1 right tamper did not clear the sensor (SHPF right tamper) on time.	See **"SHPF right tamper jam service check" on page 264**.
423.13	The bin 1 ejector belt did not reach the sensor (staple finisher ejector) on time.	See **"Staple finisher ejector drive failure service check" on page 391**.
423.13	The bin 1 ejector belt did not reach the sensor (SHPF ejector) on time.	See **"SHPF ejector jam service check" on page 266**.
423.15	The bin 1 ejector belt did not clear the sensor (staple finisher ejector) on time.	See **"Staple finisher ejector drive failure service check" on page 391**.

Error code	Description	Action
423.15	The bin 1 ejector belt did not clear the sensor (SHPF ejector) on time.	See **"SHPF ejector jam service check" on page 266**.
423.51	The bin 1 motor (staple finisher ejector) did not turn off.	See **"Staple finisher ejector drive failure service check" on page 391**.
423.51	The bin 1 motor (SHPF ejector) did not turn off.	See **"SHPF ejector jam service check" on page 266**.
423.54	The bin 1 motor (staple finisher ejector) did not reach the required speed.	See **"Staple finisher ejector drive failure service check" on page 391**.
423.54	The bin 1 motor (SHPF ejector) did not reach the required speed.	See **"SHPF ejector jam service check" on page 266**.
423.55	The bin 1 motor (staple finisher ejector) went over the required speed.	See **"Staple finisher ejector drive failure service check" on page 391**.
423.55	The bin 1 motor (SHPF ejector) went over the required speed.	See **"SHPF ejector jam service check" on page 266**.
424.13	The bin 1 paddle did not reach the sensor (staple finisher paddle) on time.	See **"Staple finisher paddle jam service check" on page 253**.
424.13	The bin 1 paddle did not reach the sensor (SHPF paddle) on time.	See **"SHPF paddle jam service check" on page 268**.
424.15	The bin 1 paddle did not clear the sensor (staple finisher paddle) on time.	See **"Staple finisher paddle jam service check" on page 253**.
424.15	The bin 1 paddle did not clear the sensor (SHPF paddle) on time.	See **"SHPF paddle jam service check" on page 268**.
425.13	The bin 1 bin clamp did not reach the sensor (staple finisher bin clamp) on time.	See **"Staple finisher ejector drive failure service check" on page 391**.
425.13	The bin 1 bin clamp did not reach the sensor (SHPF bin clamp) on time.	See **"SHPF ejector jam service check" on page 266**.
425.15	The bin 1 bin clamp did not clear the sensor (staple finisher bin clamp) on time.	See **"Staple finisher ejector drive failure service check" on page 391**.
425.15	The bin 1 bin clamp did not clear the sensor (SHPF bin clamp) on time.	See **"SHPF ejector jam service check" on page 266**.
427.13	The bin 1 diverter plunger did not reach the sensor (staple finisher diverter plunger) on time.	See **"Staple finisher diverter jam service check" on page 255**.
427.13	The bin 1 diverter plunger did not reach the sensor (SHPF diverter plunger) on time.	See **"SHPF diverter jam service check" on page 269**.
427.15	The bin 1 diverter plunger did not clear the sensor (staple finisher diverter plunger) on time.	See **"Staple finisher diverter jam service check" on page 255**.
427.15	The bin 1 diverter plunger did not clear the sensor (SHPF diverter plunger) on time.	See **"SHPF diverter jam service check" on page 269**.

Error code	Description	Action
428.13	The bin 1 stapler head did not reach its home position.	See **"Staple jam service check" on page 257** or **"SHPF staple jam service check" on page 271**.
428.15	The bin 1 stapler head did not clear its home position.	
429.11	Paper remains detected at the bin 1 sensor (staple throat paper present) after the printer is turned on.	See **"Sensor (staple throat paper present) jam service check" on page 259**.
429.11	Paper remains detected at the bin 1 sensor (SHPF staple throat paper present) after the printer is turned on.	See **"SHPF staple throat jam service check" on page 274**.
429.13	Paper going to bin 1 did not reach the sensor (staple throat paper present) on time.	See **"Sensor (staple throat paper present) jam service check" on page 259**.
429.13	Paper going to bin 1 did not reach the sensor (SHPF staple throat paper present) on time.	See **"SHPF staple throat jam service check" on page 274**.
429.14	Paper going to bin 1 cleared the sensor (staple throat paper present) earlier than expected.	See **"Sensor (staple throat paper present) jam service check" on page 259**.
429.14	Paper going to bin 1 cleared the sensor (SHPF staple throat paper present) earlier than expected.	See **"SHPF staple throat jam service check" on page 274**.
429.15	Paper going to bin 1 did not clear the sensor (staple throat paper present) on time.	See **"Sensor (staple throat paper present) jam service check" on page 259**.
429.15	Paper going to bin 1 did not clear the sensor (SHPF staple throat paper present) on time.	See **"SHPF staple throat jam service check" on page 274**.

Left tamper jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Tamper, left). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple finisher top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**. **b** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **c** Reseat the cable on the sensor (staple finisher left tamper) and on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher/offset stacker left tamper) removal" on page 660**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 **a** Remove the staple finisher top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**. **b** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **c** Reseat the cable on the motor (staple finisher left tamper) and on the staple finisher controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (staple finisher left tamper) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"Motor (staple finisher/offset stacker left tamper) removal" on page 656**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the tamper drive belt for improper installation, wear, and damage. Is the drive belt properly installed and free of wear and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the drive belt. See **"Staple finisher/Offset stacker tamper drive belt removal" on page 657**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the tamper aligner for improper installation and damage. Is the tamper aligner properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the tamper aligner. See **"Staple finisher/offset stacker tamper aligner removal" on page 664**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the tamper gear for improper installation and damage. Is the gear properly installed and free of damage?	Go to step 19.	Go to step 18.

Action	Yes	No
Step 18 Reinstall or replace the gear. See **"Staple finisher/Offset stacker tamper drive belt removal" on page 657**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Right tamper jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Tamper, right). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple finisher top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**. **b** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **c** Reseat the cable on the sensor (staple finisher right tamper) and on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher/offset stacker right tamper) removal" on page 658**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the staple finisher top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**. **b** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **c** Reseat the cable on the motor (staple finisher right tamper) and on the staple finisher controller board. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Check the motor (staple finisher right tamper) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"Motor (staple finisher/offset stacker left tamper) removal" on page 656**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the tamper drive belt for improper installation, wear, and damage. Is the drive belt properly installed and free of wear and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the drive belt. See **"Staple finisher/Offset stacker tamper drive belt removal" on page 657**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the tamper aligner for improper installation and damage. Is the tamper aligner properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the tamper aligner. See **"Staple finisher/offset stacker tamper aligner removal" on page 664**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the tamper gear for improper installation and damage. Is the gear properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Reinstall or replace the gear. See **"Staple finisher/Offset stacker tamper drive belt removal" on page 657**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 20.	The problem is solved.

Action	Yes	No
Step 20 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher paddle jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Paddle). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple finisher top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**. **b** Reseat the cable on the sensor (staple finisher paddle) and on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher/offset stacker paddle) removal" on page 655**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **b** Reseat the cable on the motor (staple finisher paddle) and on the staple finisher controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (staple finisher paddle) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"Motor (staple finisher/offset stacker paddle) removal" on page 629**. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher diverter jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **b** Reseat the cable on the sensor (staple finisher diverter plunger) and on the staple finisher controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the sensor. See **"Sensor (staple finisher/offset stacker diverter plunger) removal" on page 633**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reseat the cable on the motor (staple finisher diverter) and on the staple finisher controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor (staple finisher diverter) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the motor. See **"Motor (staple finisher/offset stacker diverter) removal" on page 632**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the staple finisher diverter plunger for improper installation and damage. Is the diverter plunger properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the diverter plunger. See **"Staple finisher/offset stacker diverter plunger assembly removal" on page 637**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 16.
Step 16 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Staple test** **b** Select a staple job. Does the finisher staple?	Go to step 12.	Go to step 7.
Step 7 **a** Remove the staple finisher right cover. See **"Stapler right cover removal" on page 681**. **b** Make sure that the staple cartridge is properly installed. **c** Clear the staple unit of any obstructions. **d** Reseat the staple unit cables. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the staple unit for damage. Is the staple unit free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the staple unit. See **"Staple unit removal" on page 683**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Clear the staple cartridge holder of any obstructions. **b** Check the staple cartridge holder for improper installation and damage. Is the cartridge holder properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the staple cartridge holder. See **"Staple cartridge holder removal" on page 746**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 14.

Action	Yes	No
Step 14 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (staple throat paper present) jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Stapler throat, right). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.

Action	Yes	No
Step 7 **a** Remove the staple unit. See **"Staple unit removal" on page 683**. **b** Reseat the cable on the sensor (staple throat paper present) and on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple throat paper present) removal" on page 686**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the staple finisher left cover. See **"Staple finisher/ offset stacker left cover removal" on page 623**. **b** Reseat the staple finisher ejector assembly cable on the staple finisher controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the staple finisher ejector assembly operate properly?	Go to step 14.	Go to step 12.
Step 12 Check the ejector assembly for damage. Is the ejector assembly free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the staple finisher ejector assembly. See **"Staple finisher/ offset stacker ejector assembly removal" on page 674**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 16.
Step 16 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF left tamper jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Tamper, left). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF top cover. See **"Staple, hole punch finisher top cover removal" on page 745**. **b** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **c** Reseat the cable on the sensor (SHPF left tamper) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the SHPF top cover. See **"Staple, hole punch finisher top cover removal" on page 745**. **b** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **c** Reseat the cable on the motor (SHPF left tamper) and on the SHPF controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (SHPF left tamper) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the tamper drive belt for improper installation, wear, and damage. Is the drive belt properly installed and free of wear and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the drive belt. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the tamper aligner for improper installation and damage. Is the tamper aligner properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the tamper aligner. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the tamper gear for improper installation and damage. Is the gear properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Reinstall or replace the gear. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF right tamper jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Tamper, left). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF top cover. See **"Staple, hole punch finisher top cover removal" on page 745**. **b** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **c** Reseat the cable on the sensor (SHPF left tamper) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the SHPF top cover. See **"Staple, hole punch finisher top cover removal" on page 745**. **b** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **c** Reseat the cable on the motor (SHPF left tamper) and on the SHPF controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (SHPF left tamper) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the tamper drive belt for improper installation, wear, and damage. Is the drive belt properly installed and free of wear and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the drive belt. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the tamper aligner for improper installation and damage. Is the tamper aligner properly installed and free of damage?	Go to step 17.	Go to step 16.

Action	Yes	No
Step 16 Reinstall or replace the tamper aligner. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the tamper gear for improper installation and damage. Is the gear properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Reinstall or replace the gear. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF ejector jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 8.
Step 8 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF paddle jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Paddle). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF top cover. See **"Staple, hole punch finisher top cover removal" on page 745**. **b** Reseat the cable on the sensor (SHPF paddle) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (SHPF paddle) removal" on page 778**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the cable on the motor (SHPF paddle) and on the SHPF controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (SHPF paddle) for improper installation and damage. Is the motor properly installed and free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"Motor (SHPF paddle) removal" on page 748**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF diverter jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the cable on the motor (SHPF diverter plunger) and on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (SHPF diverter plunger) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (SHPF diverter plunger) removal" on page 754**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reseat the cable on the sensor (SHPF diverter plunger) and on the SHPF controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 12.	Go to step 11.

Action	Yes	No
Step 11 Reinstall or replace the sensor. See **"Sensor (staple finisher/offset stacker diverter plunger) removal" on page 633**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the SHPF diverter plunger for improper installation and damage. Is the diverter plunger properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the diverter plunger. See **"SHPF diverter plunger assembly removal" on page 757**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 16.
Step 16 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF staple jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments** > **Staple test** **b** Select the staple job for the right staple unit. Does the finisher staple?	Go to step 13.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Make sure that the SHPF staple cartridge door close limit switch is properly installed. Reseat the cable on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the limit switch and its connector pins for damage. Are the limit switch and its connectors free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the limit switch. See **"SHPF staple cartridge door close limit switch removal" on page 748**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 **a** Remove the SHPF right cover. See **"Staple, hole punch finisher right cover removal" on page 743**. **b** Make sure that the staple cartridge is properly installed. **c** Clear the staple unit of any obstructions. **d** Reseat the staple unit cables. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the staple unit for damage. Is the staple unit free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the staple unit. See **"Right staple unit removal" on page 768**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF staple throat jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Stapler throat, right). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Remove the right staple unit. See **"Right staple unit removal" on page 768**. **c** Reseat the cable on the sensor (SHPF staple throat paper present) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (SHPF staple throat paper present) removal" on page 771**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

430–434 paper jams

430–434 paper jam messages

Error code	Description	Action
430.19	The bin 1 right stapler head failed to prime.	See **"Staple jam service check" on page 257** or **"SHPF stapler head prime failure service check" on page 276**.
431.13	The bin 1 elevator bin did not reach the sensor (SHPF elevator, top) on time.	See **"SHPF elevator top jam service check" on page 278**.
431.15	The bin 1 elevator bin did not clear the sensor (SHPF elevator, top) on time.	
431.54	The bin 1 motor (SHPF elevator) did not reach the required speed.	
431.55	The bin 1 motor (SHPF elevator) went over the required speed.	

Error code	Description	Action
432.13	The bin 1 left stapler head did not reach its home position.	See **"SHPF left staple jam service check" on page 280**.
432.15	The bin 1 left stapler head did not clear its home position.	
433.13	Paper going to bin 1 did not reach the left sensor (SHPF staple throat paper present) on time.	See **"SHPF left staple throat jam service check" on page 282**.
433.14	Paper going to bin 1 cleared the left sensor (SHPF staple throat paper present) earlier than expected.	
433.15	Paper going to bin 1 did not clear the left sensor (SHPF staple throat paper present) on time.	
434.19	The bin 1 left stapler head failed to prime.	See **"SHPF left staple jam service check" on page 280**.

SHPF stapler head prime failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments** > **Staple test** **b** Select the staple job for the right staple unit. Does the finisher staple?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF right cover. See **"Staple, hole punch finisher right cover removal" on page 743**. **b** Make sure that the staple cartridge is properly installed. **c** Clear the staple unit of any obstructions. **d** Reseat the staple unit cables. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the staple unit for damage. Is the staple unit free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the staple unit. See **"Right staple unit removal" on page 768**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF elevator top jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Bin elevator top). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the cable of the sensor (SHPF elevator, top) on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Staple, hole punch finisher elevator drive removal" on page 764**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reseat the cable on the motor (SHPF elevator). Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the SHPF elevator drive for improper installation and damage. Is the elevator drive properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the elevator drive. See **"Staple, hole punch finisher elevator drive removal" on page 764**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF left staple jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments** > **Staple test** **b** Select the staple job for the left staple unit. Does the finisher staple?	Go to step 13.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Make sure that the SHPF staple cartridge door close limit switch is properly installed. Reseat the cable on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the limit switch and its connector pins for damage. Are the limit switch and its connectors free of damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Replace the limit switch. See **"SHPF staple cartridge door close limit switch removal" on page 748**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Make sure that the staple cartridge is properly installed. **b** Clear the staple unit of any obstructions. **c** Reseat the staple unit cables. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the staple unit for damage. Is the staple unit free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the staple unit. See **"Left staple unit removal" on page 751**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF left staple throat jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Stapler throat, left). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the left staple unit. See **"Left staple unit removal" on page 751**. **b** Reseat the cable on the sensor (SHPF staple throat paper present) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Left staple unit removal" on page 751**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the left staple unit. See **"Left staple unit removal" on page 751**. **b** Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

435–438 paper jams

435–438 paper jam messages

Error code	Description	Action
435.13	The bin 1 stack height actuator did not reach the sensor (staple finisher stack height) on time.	See **"Staple finisher stack jam service check" on page 284**.
435.13	The bin 1 stack height actuator did not reach the sensor (SHPF stack height) on time.	See **"SHPF stack jam service check" on page 287**.

Error code	Description	Action
435.15	The bin 1 stack height actuator did not clear the sensor (staple finisher stack height) on time.	See **"Staple finisher stack jam service check" on page 284**.
435.15	The bin 1 stack height actuator did not clear the sensor (SHPF stack height) on time.	See **"SHPF stack jam service check" on page 287**.
438.xx	A mechanical reset timeout occurred at the staple finisher or SHPF.	See **"Staple finisher timeout error service check" on page 286** or **"SHPF timeout error service check" on page 289**.

Staple finisher stack jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **b** Reseat the cable on the motor (staple finisher stack height) and on the staple finisher controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the staple finisher stack height assembly and its motor for improper installation and damage. Is the stack height assembly properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the stack height assembly. See **"Staple finisher/offset stacker stack height assembly removal" on page 666**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reseat the cable on the sensor (staple finisher stack height) and on the staple finisher controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 14.

Action	Yes	No
Step 14 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher timeout error service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **b** Reseat the staple finisher interface cable on the controller board. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Remove the staple finisher. See **"Optional staple finisher/offset stacker removal" on page 620**. **b** Check the connector and pins of the staple finisher interface cable for damage. **c** Check the staple finisher interface cable for improper installation. Is the interface cable properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the interface cable. See **"Staple finisher/offset stacker interface cable removal" on page 629**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF stack jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Compiler stack height). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the cable on the sensor (SHPF stack height) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the cable on the motor (SHPF stack height) and on the SHPF controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the SHPF stack height assembly and its motor for improper installation and damage. Is the stack height assembly properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the stack height assembly. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF timeout error service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the staple, hole punch finisher interface cable on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the staple, hole punch finisher. See **"Optional staple, hole punch finisher removal" on page 740**. **b** Check the connector and pins of the staple, hole punch finisher interface cable for damage. **c** Check the staple, hole punch finisher interface cable for improper installation. Is the interface cable properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the interface cable. See **"Staple, hole punch finisher interface cable removal" on page 753**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 11.	Contact the next level of support.
Step 11 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

44y paper jams

440–444 paper jam messages

Error code	Description	Action
440.11	Paper remains detected at the bin 1 sensor (HPU leading edge) after the printer is turned on.	See **"Sensor (HPU leading edge) hole punch jam service check" on page 292**.
440.13	During a hole punch job, paper did not reach the bin 1 sensor (HPU leading edge) on time.	
440.15	During a hole punch job, paper did not clear the bin 1 sensor (HPU leading edge) on time.	
440.19	During a hole punch job, too many sheets were detected at bin 1.	
441.11	Paper remains detected at the bin 1 sensor (HPU trailing edge) after the printer is turned on.	See **"Sensor (HPU trailing edge) jam service check" on page 293**.
441.13	Paper did not reach the bin 1 sensor (HPU trailing edge) on time.	
441.15	Paper did not clear the bin 1 sensor (HPU trailing edge) on time.	

Error code	Description	Action
442.13	Paper did not reach the bin 1 sensor (SHPF light array) on time.	See **"Sensor (SHPF light array) jam service check" on page 295**.
442.15	Paper did not clear the bin 1 sensor (SHPF light array) on time.	
442.19	A bin 1 sensor (SHPF light array) error occurred.	
444.13	The bin 1 hole punch did not reach its home position on time.	See **"SHPF hole punch drive failure service check" on page 297**.
444.15	The bin 1 hole punch did not clear its home position on time.	
444.19	A bin 1 hole punch homing error occurred.	

Sensor (HPU leading edge) hole punch jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 8.	Contact the next level of support.
Step 8 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (HPU trailing edge) jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the staple, hole punch finisher interface cable on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the staple, hole punch finisher. See **"Optional staple, hole punch finisher removal" on page 740**. **b** Check the connector and pins of the staple, hole punch finisher interface cable for damage. **c** Check the staple, hole punch finisher interface cable for improper installation. Is the interface cable properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the interface cable. See **"Staple, hole punch finisher interface cable removal" on page 753**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the cable J13 from the SHPF controller board is properly connected with the cable J14 on the HPU controller board. **Warning—Potential Damage:** Cable J14 and cable J16 on the HPU controller board are not interchangeable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 12.	Contact the next level of support.
Step 12 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 14.
Step 14 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (SHPF light array) jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the staple, hole punch finisher interface cable on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the staple, hole punch finisher. See **"Optional staple, hole punch finisher removal" on page 740**. **b** Check the connector and pins of the staple, hole punch finisher interface cable for damage. **c** Check the staple, hole punch finisher interface cable for improper installation. Is the interface cable properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the interface cable. See **"Staple, hole punch finisher interface cable removal" on page 753**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 11.	Contact the next level of support.
Step 11 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF hole punch drive failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the staple, hole punch finisher interface cable on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the staple, hole punch finisher. See **"Optional staple, hole punch finisher removal" on page 740**. **b** Check the connector and pins of the staple, hole punch finisher interface cable for damage. **c** Check the staple, hole punch finisher interface cable for improper installation. Is the interface cable properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the interface cable. See **"Staple, hole punch finisher interface cable removal" on page 753**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reseat the cable on the motor (hole punch). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 12.	Contact the next level of support.
Step 12 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 14.

Action	Yes	No
Step 14 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

User attendance messages

10–32 user attendance errors

10–32 user attendance messages

Error code	Description	Action
10.01	Too many vinyl labels printed successively.	Reduce the vinyl labels printed. Print less than 50 vinyl labels in a row, or print at least one vinyl label per six plain paper pages.
10.02	Too many vinyl labels printed successively.	
11.41	A wrong paper type, size, or orientation was detected on tray 4.	Use the recommended paper. See **"Avoiding jams" on page 89**.
11.42	A wrong paper type or size was detected on tray 4.	
11.51	A wrong paper type, size, or orientation was detected on tray 5.	
11.52	A wrong paper type or size was detected on tray 5.	
11.91	A wrong paper type, size, or orientation was detected on the MPF.	
11.92	A wrong paper type or size was detected on the MPF.	
31.40	A toner cartridge smart chip or sensor communication problem was detected.	See **"Toner cartridge smart chip error service check" on page 300**.
31.60	An imaging unit smart chip or sensor communication problem was detected.	See **"Imaging unit smart chip error service check" on page 302**.
31.80	A fuser smart chip or sensor communication problem was detected.	See **"Fuser smart chip error service check" on page 303**.

Error code	Description	Action
32.40A	The toner cartridge is unsupported. Letter code descriptions: • A—Unsupported memory map version in the smart chip • B—Failed capacity class/model compatibility check • C—Failed OEM check • E—The supply is on the revoked list • F—The toner cartridge is MICR, and the firmware release does not support MICR	See **"Unsupported third party supply service check" on page 304**.
32.40B		
32.40C		
32.40E		
32.40F		
32.40D	The toner cartridge is incorrect or unsupported. Letter code description: • D—Failed SWE marriage check	See **"Unsupported toner cartridge service check" on page 305**.
32.40Z	The toner cartridge is incorrect or unsupported. Letter code description: • Z—Failed barrel shutter sensor	See **"Toner cartridge shutter error service check" on page 307**.
32.60	The imaging unit is unsupported.	See **"Unsupported third party supply service check" on page 304**.
32.80	The fuser is unsupported.	

Toner cartridge smart chip error service check

Action	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine Lexmark toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that the toner cartridge is properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Remove the toner cartridge, and then install a different unit. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Remove the left cover. See **"Left cover removal" on page 458**. **b** Remove the right cover. See **"Right cover removal" on page 475**. **c** Reseat the cable at the sensor (toner smart chip) and the cable J66 on the controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the sensor (toner smart chip) and its contact for damage. Is the sensor and its contact free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the sensor (toner smart chip). See **"Sensor (toner smart chip) removal" on page 472**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the RIP firmware version. Does the RIP firmware have the latest version?	Go to step 10.	Go to step 9.
Step 9 Update the RIP firmware. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Restart the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the printer firmware version. Does the printer firmware have the latest version?	Contact the next level of support.	Go to step 12.
Step 12 Update the printer firmware. Does the problem remain?	Contact the next level of support.	The problem is solved.

Imaging unit smart chip error service check

Action	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark imaging unit. Is the printer using a genuine and supported imaging unit?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported imaging unit. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that the imaging unit is properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Remove the imaging unit, and then install a different unit. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Reseat the cables of the high voltage contacts guide on the HVPS and the controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the high voltage contacts and its cables for damage. Are the contacts and its cables free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the high voltage contacts guide. See **"High voltage contacts guide removal" on page 488**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the RIP firmware version. Does the RIP firmware have the latest version?	Go to step 10.	Go to step 9.
Step 9 Update the RIP firmware. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Restart the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the printer firmware version. Does the printer firmware have the latest version?	Contact the next level of support.	Go to step 12.
Step 12 Update the printer firmware. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fuser smart chip error service check

Action	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark fuser. Is the printer using a genuine and supported fuser?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported fuser. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that the fuser is properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Replace the fuser. See **"Fuser removal" on page 514**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the RIP firmware version. Does the RIP firmware have the latest version?	Go to step 9.	Go to step 8.
Step 8 Update the RIP firmware. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Restart the printer. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the printer firmware version. Does the printer firmware have the latest version?	Contact the next level of support.	Go to step 11.
Step 11 Update the printer firmware. Does the problem remain?	Contact the next level of support.	The problem is solved.

Unsupported third party supply service check

Action	Yes	No
Step 1 Check whether third party supplies are used. • toner cartridge • imaging unit • fuser Are third party supplies used?	Go to step 2.	Contact the next level of support.
Step 2 Replace the third party supply (toner cartridge, imaging unit, or fuser) with a genuine Lexmark part. Does the problem remain?	Contact the next level of support.	The problem is solved.

Unsupported toner cartridge service check

Action	Yes	No
Step 1 Check whether the correct toner cartridge is used. **Notes:** • The original or first toner cartridge used is called an SWE toner cartridge. SWE stands for *shipped with equipment*. The SWE toner cartridge cannot be installed to another printer. • If the SWE toner cartridge is used by another printer, then a 32.40D error occurs. Is the printer using the incorrect toner cartridge?	Go to step 2.	Contact the next level of support.
Step 2 Do either of the following: • Find the SWE toner cartridge, and then reinstall it. • Replace the cartridge with the correct and genuine Lexmark part. Does the problem remain?	Contact the next level of support.	The problem is solved.

4y user attendance errors

41–44 user attendance messages

Error code	Description	Action
41.60	The toner cartridge and imaging unit are mismatched.	See **"Incompatible Lexmark supply service check" on page 306**.
42.xy	The toner cartridge and printer regions are mismatched.	See **"Region mismatch service check" on page 306**.
43.40	A toner cartridge shutter error was detected.	See **"Toner cartridge shutter error service check" on page 307**.
44.40	The toner cartridge and printer are mismatched.	See **"Incompatible Lexmark supply service check" on page 306**.
44.60	The imaging unit and printer are mismatched.	

Incompatible Lexmark supply service check

Action	Yes	No
Step 1 Check whether the Lexmark supplies used are genuine and compatible with the printer model. • toner cartridge • imaging unit • fuser Are the Lexmark supplies used genuine and compatible?	Contact the next level of support.	Go to step 2.
Step 2 Replace the incorrect Lexmark supply (toner cartridge, imaging unit, or fuser). Does the problem remain?	Contact the next level of support.	The problem is solved.

Region mismatch service check

Action	Yes	No
Step 1 Check if the toner cartridge has the correct region that matches the printer region. The *.xy* error code value represents the required region number, where *x* indicates the printer's region number and *y* for the cartridge's region number. • 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 **Note:** To find the region settings of the printer and toner cartridge, print the print quality test pages. From the control panel, navigate to: **Settings** > **Troubleshooting** > **Print Quality Test Pages**. Do the regions match?	Contact the next level of support.	Go to step 2.
Step 2 Replace the mismatched toner cartridge with the correct supply. A toner cartridge with a worldwide region may also be used. Does the problem remain?	Contact the next level of support.	The problem is solved.

Toner cartridge shutter error service check

Action	Yes	No
Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine Lexmark toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Remove the toner cartridge. **b** Check the toner cartridge actuator (A) for damage.  Is the actuator free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the toner cartridge. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Remove the toner cartridge shutter actuator. See **"Toner cartridge shutter actuator removal" on page 491**. **b** Check the toner cartridge shutter actuator for damage. Is the actuator free of damage?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Replace the toner cartridge shutter actuator. See **"Toner cartridge shutter actuator removal" on page 491**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the sensor (toner cartridge shutter) for improper installation and damage. Is the sensor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the sensor. See **"Sensor (toner cartridge shutter) removal" on page 491**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Remove the right cover. See **"Right cover removal" on page 475**. **b** Check the sensor cable and the cable J8 on the controller board for proper connection. Is the cable properly connected?	Contact the next level of support.	Go to step 10.
Step 10 Reseat the cable. Does the problem remain?	Contact the next level of support.	The problem is solved.

5y user attendance errors

58–59 user attendance messages

Error code	Description	Action
58	The optional trays or optional bins installed are too many.	See **"Excess optional trays or optional bins service check" on page 309**.
59	The optional tray or optional bin is incompatible with the printer.	See **"Incompatible optional trays or optional bins service check" on page 309**.

Excess optional trays or optional bins service check

Action	Yes	No
a Turn off the printer, and then unplug it. **b** Remove the excess optional trays or optional bins. For more information, see **"Printer configurations" on page 781**. **c** Plug the printer, and then turn it on. Does the problem remain?	Contact the next level of support.	The problem is solved.

Incompatible optional trays or optional bins service check

Action	Yes	No
a Turn off the printer, and then unplug it. **b** Remove the incompatible optional trays or optional bins. For more information, see **"Printer configurations" on page 781**. **c** Plug the printer, and then turn it on. Does the problem remain?	Contact the next level of support.	The problem is solved.

7y user attendance errors

71 user attendance messages

Error code	Description	Action
71.01	The fax station name is not set up.	See **"Fax station error service check" on page 309**.
71.02	The fax station number is not set up.	
71.03	The analog line is not detected.	See **"Fax failure service check" on page 310**.
71.12	The printer cannot print faxes because the fax memory is full.	
71.13	The printer cannot send faxes because the fax memory is full.	

Fax station error service check

Note: These instructions apply only to printers that support analog fax. For more information, see **"Supported fax" on page 45**.

Action	Yes	No
Step 1 Turn off the printer, wait for about 10 seconds, and then turn on the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** From the control panel, navigate to: **Settings** > **Fax** > **Analog Fax Setup** > **General Fax Settings** **b** Set the fax name and fax number. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the firmware version. Is the firmware updated to the latest version?	Go to step 5.	Go to step 4.
Step 4 Update the firmware. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Make sure that the controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the controller board and its connector pins for damage. Are the controller board and its connectors free of damage?	Contact the next level of support.	Go to step 7.
Step 7 Replace the controller board. See **"Controller board removal" on page 486**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fax failure service check

Note: These instructions apply only to printers that support analog fax. For more information, see **"Supported fax" on page 45**.

Action	Yes	No
Step 1 Turn off the printer, wait for about 10 seconds, and then turn on the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **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?	Go to step 3.	The problem is solved.
Step 3 Check the line port connector pins of the fax card for corrosion and damage. **Note:** The telephone cable must properly fit with the line port. Is the fax card connector free of damage?	Go to step 4.	The problem is solved.
Step 4 Check the firmware version. Is the firmware updated to the latest version?	Go to step 6.	Go to step 5.
Step 5 Update the firmware. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Make sure that the controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the controller board and its connector pins for damage. Are the controller board and its connectors free of damage?	Contact the next level of support.	Go to step 8.
Step 8 Replace the controller board. See **“Controller board removal” on page 486**. Does the problem remain?	Contact the next level of support.	The problem is solved.

8y user attendance errors

80–88 user attendance messages

Error code	Description	Action
80.01	The remaining life of the maintenance kit is nearly low.	Replace the maintenance kit.
80.03	The remaining life of the maintenance kit is nearly low.	
80.09	The remaining life of the maintenance kit is nearly low.	
80.11	The remaining life of the maintenance kit is low.	
80.13	The remaining life of the maintenance kit is low.	
80.19	The remaining life of the maintenance kit is low.	
80.21	The remaining life of the maintenance kit is very low.	
80.23	The remaining life of the maintenance kit is very low.	
80.29	The remaining life of the maintenance kit is very low.	
80.31	The maintenance kit life has ended.	Replace the maintenance kit.
80.33	The maintenance kit life has ended.	
80.36	The maintenance kit life has ended.	
80.39	The maintenance kit life has ended.	
80.41	The maintenance kit life has ended. The printer forces a hard stop on the fuser.	
80.43	The maintenance kit life has ended. The printer forces a hard stop on the fuser.	
80.48	The maintenance kit life has ended. The printer forces a hard stop on the fuser.	

Error code	Description	Action
84.00	The remaining life of the imaging unit is nearly low.	Replace the imaging unit.
84.01	The remaining life of the imaging unit is nearly low.	
84.02	The remaining life of the imaging unit is nearly low.	
84.09	The remaining life of the imaging unit is nearly low.	
84.11	The remaining life of the imaging unit is low.	
84.12	The remaining life of the imaging unit is low.	
84.13	The remaining life of the imaging unit is low.	
84.19	The remaining life of the imaging unit is low.	
84.21	The remaining life of the imaging unit is very low.	Replace the imaging unit.
84.22	The remaining life of the imaging unit is very low.	
84.23	The remaining life of the imaging unit is very low.	
84.29	The remaining life of the imaging unit is very low.	
84.31	The imaging unit life has ended.	
84.32	The imaging unit life has ended.	
84.33	The imaging unit life has ended.	
84.38	The imaging unit life has ended.	
84.41	The imaging unit life has ended.	Replace the imaging unit.
84.42	The imaging unit life has ended.	
84.43	The imaging unit life has ended.	
84.48	The imaging unit life has ended.	

Error code	Description	Action
88.00	The remaining life of the toner cartridge is nearly low.	Replace the toner cartridge.
88.09	The remaining life of the toner cartridge is nearly low.	
88.10	The remaining life of the toner cartridge is low.	
88.19	The remaining life of the toner cartridge is low.	
88.20	The remaining life of the toner cartridge is very low.	
88.29	The remaining life of the toner cartridge is very low.	
88.30	The toner cartridge life has ended.	
88.40	The toner cartridge life has ended. The printer forces a hard stop on the toner cartridge.	
88.48	The toner cartridge life has ended. The printer forces a hard stop on the toner cartridge.	

Printer hardware errors

111 errors

111 error messages

Error code	Description	Action
111.20	Printhead error (mirror motor lock) was detected before the motor was turned on.	See **"Printhead error service check" on page 315**.
111.21	No printhead power (+5V) when the laser servo started.	
111.30	The printhead failed during power on tests.	See **"Printhead error service check" on page 315**.
111.31	Printhead error (no first HSYNC) was detected.	
111.32	Printhead error (lost HSYNC) was detected.	
111.33	Printhead error (lost HSYNC) was detected during servo.	
111.34	Printhead error (mirror motor lost lock) was detected.	
111.35	Printhead error (mirror motor never got first lock) was detected.	
111.36	Printhead error (mirror motor lock never stabilized) was detected.	

Error code	Description	Action
111.40	The wrong printhead is installed.	See **"Printhead error service check" on page 315**.
111.41	Printhead NVRAM read failure occurred.	

Printhead error service check

Action	Yes	No
Step 1 Restart the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check if the cables J6 and J19 on the controller board are properly connected and free of damage. Are the cables properly connected and free of damage?	Go to step 4.	Go to step 3.
Step 3 Reseat the cables or replace the printhead. See **"Printhead removal" on page 518**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Restart the printer. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the controller board. See **"Controller board removal" on page 486**. Does the problem remain?	Contact the next level of support.	The problem is solved.

12y errors

120 error messages

Error code	Description	Action
120.80	Motor (fuser) does not turn on.	See **"Fuser drive failure service check" on page 318**.
120.81	Motor (fuser) does not turn off.	
120.82	Motor (fuser) speed did not ramp up to the required level.	
120.83	Motor (fuser) stalled.	
120.84	Motor (fuser) ran too slow.	
120.85	Motor (fuser) ran too fast.	
120.86	Motor (fuser) moved too long.	

121 error messages

Error code	Description	Action
121.00	Fuser did not reach the required temperature.	See **"Fuser temperature error service check" on page 319**.
121.01	During an attempt to heat up, the fuser was not detected.	
121.02	Fuser went over the required temperature (during EWC/line voltage detection).	
121.03	Fuser hardware and driver are mismatched.	
121.04	During an attempt to heat up, the fuser relay was open and the microcontroller was not reporting an error.	
121.05	During an attempt to heat up, the fuser relay was open and the microcontroller was reporting an error.	
121.09	Fuser fell below the required temperature for motors. **Note:** Error is not applicable to standby mode.	

Error code	Description	Action
121.10	Fuser did not reach the required temperature (during start of EWC/line voltage detection).	See **"Fuser temperature error service check" on page 319**.
121.11	Fuser reached the required temperature (during final EWC/line voltage detection) too late.	
121.12	Fuser did not reach the required temperature (during final EWC/line voltage detection).	
121.13	Fuser reached the required temperature (during final EWC/line voltage detection) too fast.	
121.19	Fuser high power trace reached the required temperature (during final EWC/line voltage detection) too fast.	
121.20	Fuser high power trace heating rate went over the limit.	See **"Fuser temperature error service check" on page 319**.
121.21	Fuser low power trace heating rate (from 165°C to 180°C) went over the limit.	
121.22	Open fuser relay was detected.	
121.28	Fuser did not reach the required temperature (during EP warm-up).	
121.30	Fuser did not reach the required temperature even if it has been on for a long time.	See **"Fuser temperature error service check" on page 319**.
121.32	Fuser did not reach the required temperature (on 100% power).	
121.33	Fuser did not reach the required temperature (while page is in the fuser).	
121.34	Fuser did not reach the required temperature (during steady state control).	
121.36	Open fuser relay was detected with very cold or unknown ambient temperature.	
121.50	Fuser went over the required temperature (during global overtemp check).	See **"Fuser temperature error service check" on page 319**.
121.51	Fuser went over the required temperature (at the secondary heater).	
121.52	Main thermistor temperature is out of range.	
121.53	Main thermistor temperature change rate is out of range.	
121.58	Edge thermistor temperature is out of range.	
121.59	Edge thermistor temperature change rate is out of range.	

Error code	Description	Action
121.60	Belt contact thermistor temperature is out of range.	See **"Fuser temperature error service check" on page 319**.
121.61	Belt contact thermistor temperature change rate is out of range.	
121.66	Narrow media thermistor temperature is out of range.	
121.67	Narrow media thermistor temperature change rate is out of range.	
121.71	Open fuser main heater thermistor was detected.	See **"Fuser temperature error service check" on page 319**.
121.74	Open fuser edge thermistor was detected.	
121.76	Open belt contact thermistor was detected.	
121.81	Open fuser backup roll thermistor was detected.	See **"Fuser temperature error service check" on page 319**.
121.82	Open fuser second backup roll thermistor was detected.	
121.83	Open fuser narrow media backup roll thermistor was detected.	

126 error messages

Error code	Description	Action
126.01	Line frequency has gone outside the operating range.	See **"LVPS failure service check" on page 321**.
126.05	The LVPS power dropped but the printer was not in sleep mode.	
126.06	LVPS 25V line error was detected.	
126.07	LVPS 5V rail was down during power-on.	
126.10	No line frequency was detected.	
126.11	Line frequency has gone outside the operating range.	

Fuser drive failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected and free of damage: • cable J71 on the controller board • fuser motor cable Are the cables properly connected and free of damage?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Reseat or replace the cables. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the motor (main). See **"Main motor drive removal" on page 465**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fuser temperature error service check

Action	Yes	No
Step 1 Check the fuser for proper installation. Is the fuser properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the fuser. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the fuser is a genuine and supported Lexmark unit. Is the fuser a genuine and supported Lexmark unit?	Go to step 4.	Go to step 6.
Step 4 Check if the fuser type is compatible with the specific model of the printer. Are the fuser and printer compatible?	Go to step 5.	Go to step 6.
Step 5 Check the fuser life. Is the fuser still within its rated or recommended life?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Replace the fuser. See **"Fuser removal" on page 514**. **Note:** Make sure that the new fuser is supported by the specific model of the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Make sure that the voltage output of the electrical outlet matches the voltage rating of the printer. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the cable J66 on the controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cables. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the cables on the LVPS for proper connection. Are the cables properly connected?	Go to step 12.	Go to step 11.
Step 11 Reseat the cables. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Make sure that the LVPS voltage selection switch is set to match with the voltage rating of the electrical outlet. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Restart the printer. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the LVPS. See **"LVPS removal" on page 468**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

LVPS failure service check

Action	Yes	No
Step 1 Check if the printer is plugged to a power strip or UPS. Make sure that the printer is directly plugged to the electrical outlet. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Make sure that the voltage output of the electrical outlet matches the voltage rating of the printer. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the J62 cable on the controller board for proper connection. Is the cable properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the cables on the LVPS for proper connection. Are the cables properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cables. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Make sure that the LVPS voltage selection switch is set to match with the voltage rating of the electrical outlet. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Restart the printer. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Replace the LVPS. See **"LVPS removal" on page 468**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Restart the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the controller board. See **"Controller board removal" on page 486**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

133 errors

133 error messages

Error code	Description	Action
133.04	CTLS timeout was detected at the imaging unit.	See **"Imaging unit CTLS failure service check" on page 322**.
133.05	CTLS reading at the imaging unit is above the maximum expected value.	
133.06	CTLS reading at the imaging unit is below the minimum expected value.	
133.08	Excessive CTLS noise was detected at the imaging unit.	

Imaging unit CTLS failure service check

Action	Yes	No
Step 1 Check the imaging unit for proper installation. Is the imaging unit properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the imaging unit. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Replace the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check if the cables J88 and JCTLS1 on the controller board are properly connected and free of damage. Are the cables properly connected and free of damage?	Go to step 6.	Go to step 5.
Step 5 Reseat or replace the cables. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the imaging unit high voltage contacts for damage. Are the high voltage contacts free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the imaging unit contact guide. See **"High voltage contacts guide removal" on page 488**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

14y errors

140 error messages

Error code	Description	Action
140.80	Motor (main) does not turn on.	See **"Main drive failure service check" on page 324**.
140.81	Motor (main) does not turn off.	
140.82	Motor (main) speed did not ramp up to the required level.	
140.83	Motor (main) stalled.	
140.84	Motor (main) ran too slow.	
140.85	Motor (main) ran too fast.	
140.86	Motor (main) moved too long.	

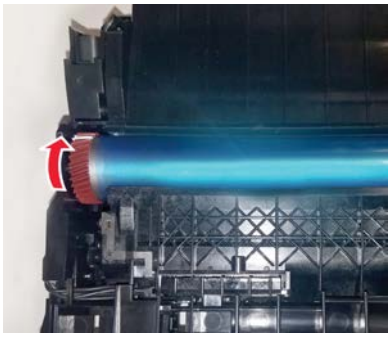
147 error messages

Error code	Description	Action
147.80	Motor (MPF) does not turn on.	See **"MPF drive failure service check" on page 330**.
147.81	Motor (MPF) does not turn off.	
147.82	Motor (MPF) speed did not ramp up to the required level.	
147.83	Motor (MPF) stalled.	
147.84	Motor (MPF) ran too slow.	
147.85	Motor (MPF) ran too fast.	
147.86	Motor (MPF) moved too long.	

149 error messages

Error code	Description	Action
149.80	Motor (redrive) does not turn on.	See **"Redrive drive failure service check" on page 325**.
149.81	Motor (redrive) does not turn off.	
149.82	Motor (redrive) speed did not ramp up to the required level.	
149.83	Motor (redrive) stalled.	
149.84	Motor (redrive) ran too slow.	
149.85	Motor (redrive) ran too fast.	
149.86	Motor (redrive) moved too long.	

Main drive failure service check

Action	Yes	No
Step 1 **a** Remove the imaging unit. **b** To check for cleaning blade failure, manually turn the photoconductor gear.  Does the photoconductor drum rotate?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Replace the imaging unit. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the following cables are properly connected and free of damage: • cable J71 on the controller board • main motor cable Are the cables properly connected and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reseat or replace the cables. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the motor (main). See **"Main motor drive removal" on page 465**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Redrive drive failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected and free of damage: • cable J66 on the controller board • redrive motor cable Are the cables properly connected and free of damage?	Go to step 3.	Go to step 2.
Step 2 Reseat or replace the cables. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the motor (redrive). See **"Motor (redrive) removal" on page 471**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

15y errors

150 error messages

Error code	Description	Action
150.80	Motor (duplex) does not turn on.	See **"Duplex drive failure service check" on page 327**.
150.81	Motor (duplex) does not turn off.	
150.82	Motor (duplex) speed did not ramp up to the required level.	
150.83	Motor (duplex) stalled.	
150.84	Motor (duplex) ran too slow.	
150.85	Motor (duplex) ran too fast.	
150.86	Motor (duplex) moved too long.	

155 error messages

Error code	Description	Action
155.80	Motor (toner cartridge) does not turn on.	See **"Toner cartridge drive failure service check" on page 328**.
155.81	Motor (toner cartridge) does not turn off.	
155.82	Motor (toner cartridge) speed did not ramp up to the required level.	
155.83	Motor (toner cartridge) stalled.	
155.84	Motor (toner cartridge) ran too slow.	
155.85	Motor (toner cartridge) ran too fast.	
155.86	Motor (toner cartridge) moved too long.	

Duplex drive failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected and free of damage: • cable J27 on the controller board • duplex motor cable Are the cables properly connected and free of damage?	Go to step 3.	Go to step 2.
Step 2 Reseat or replace the cables. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the motor (duplex). See **“Motor (duplex) removal” on page 513**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Toner cartridge drive failure service check

Action	Yes	No
Step 1 **a** Remove the toner cartridge, and then check it for damage. **b** Manually turn the toner cartridge gear, and then check if it is stuck.  Is the toner cartridge functional and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the following cables are properly connected and free of damage: • cable J71 on the controller board • toner cartridge motor cable Are the cables properly connected and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reseat or replace the cables. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the toner cartridge drive. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

160–161 errors

160 error messages

Error code	Description	Action
160.80	Motor (MPF) does not turn on.	See **"MPF drive failure service check" on page 330**.
160.81	Motor (MPF) does not turn off.	
160.82	Motor (MPF) speed did not ramp up to the required level.	
160.83	Motor (MPF) stalled.	
160.84	Motor (MPF) ran too slow.	
160.85	Motor (MPF) ran too fast.	
160.86	Motor (MPF) moved too long.	

161 error messages

Error code	Description	Action
161.80	Motor (tray 1 pick/lift) does not turn on.	See **"Tray 1 pick drive failure service check" on page 330**.
161.81	Motor (tray 1 pick/lift) does not turn off.	
161.82	Motor (tray 1 pick/lift) speed did not ramp up to the required level.	
161.83	Motor (tray 1 pick/lift) stalled.	
161.84	Motor (tray 1 pick/lift) ran too slow.	
161.85	Motor (tray 1 pick/lift) ran too fast.	
161.86	Motor (tray 1 pick/lift) moved too long.	

MPF drive failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected and free of damage: • cable J71 on the controller board • MPF motor cable Are the cables properly connected and free of damage?	Go to step 3.	Go to step 2.
Step 2 Reseat or replace the cables. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the motor (MPF). See **“Motor (MPF) removal” on page 468**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the controller board. See **“Controller board removal” on page 486**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 1 pick drive failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected and free of damage: • cable J73 on the controller board • tray 1 pick motor cable Are the cables properly connected and free of damage?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Reseat or replace the cables. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the tray 1 paper feeder. See **"Paper feeder removal" on page 471**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

162–169 errors

162 error messages

Error code	Description	Action
162.80	Motor (tray 2 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 336**.
162.81	Motor (tray 2 pick/lift) does not turn off.	
162.82	Motor (tray 2 pick/lift) speed did not ramp up to the required level.	
162.83	Motor (tray 2 pick/lift) stalled.	
162.84	Motor (tray 2 pick/lift) ran too slow.	
162.85	Motor (tray 2 pick/lift) ran too fast.	
162.86	Motor (tray 2 pick/lift) moved too long.	

163 error messages

Error code	Description	Action
163.80	Motor (tray 3 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 336**.
163.81	Motor (tray 3 pick/lift) does not turn off.	
163.82	Motor (tray 3 pick/lift) speed did not ramp up to the required level.	
163.83	Motor (tray 3 pick/lift) stalled.	
163.84	Motor (tray 3 pick/lift) ran too slow.	
163.85	Motor (tray 3 pick/lift) ran too fast.	
163.86	Motor (tray 3 pick/lift) moved too long.	

164 error messages

Error code	Description	Action
164.80	Motor (tray 4 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 336**.
164.81	Motor (tray 4 pick/lift) does not turn off.	
164.82	Motor (tray 4 pick/lift) speed did not ramp up to the required level.	
164.83	Motor (tray 4 pick/lift) stalled.	
164.84	Motor (tray 4 pick/lift) ran too slow.	
164.85	Motor (tray 4 pick/lift) ran too fast.	
164.86	Motor (tray 4 pick/lift) moved too long.	

165 error messages

Error code	Description	Action
165.80	Motor (tray 5 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 336**.
165.81	Motor (tray 5 pick/lift) does not turn off.	
165.82	Motor (tray 5 pick/lift) speed did not ramp up to the required level.	
165.83	Motor (tray 5 pick/lift) stalled.	
165.84	Motor (tray 5 pick/lift) ran too slow.	
165.85	Motor (tray 5 pick/lift) ran too fast.	
165.86	Motor (tray 5 pick/lift) moved too long.	

166 error messages

Error code	Description	Action
166.70	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) does not turn on.	See **"2100-sheet tray transport and elevator drive failure service check" on page 349**.
166.71	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) does not turn off.	
166.72	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) speed did not ramp up to the required level.	
166.73	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) stalled.	
166.74	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) ran too slow.	
166.75	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) ran too fast.	
166.76	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) ran too long.	
166.80	Motor (tray 2 transport) does not turn on.	See **"Tray 2 transport motor failure service check" on page 338**.
166.81	Motor (tray 2 transport) does not turn off.	
166.82	Motor (tray 2 transport) speed did not ramp up to the required level.	See **"Tray 2 transport drive failure service check" on page 339**.
166.83	Motor (tray 2 transport) stalled.	
166.84	Motor (tray 2 transport) ran too slow.	
166.85	Motor (tray 2 transport) ran too fast.	
166.86	Motor (tray 2 transport) ran too long.	

167 error messages

Error code	Description	Action
167.70	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) does not turn on.	See **"2100-sheet tray transport and elevator drive failure service check" on page 349**.
167.71	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) does not turn off.	
167.72	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) speed did not ramp up to the required level.	
167.73	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) stalled.	
167.74	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) ran too slow.	
167.75	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) ran too fast.	
167.76	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) ran too long.	
167.80	Motor (tray 3 transport) does not turn on.	See **"Tray 3 transport motor failure service check" on page 341**.
167.81	Motor (tray 3 transport) does not turn off.	
167.82	Motor (tray 3 transport) speed did not ramp up to the required level.	See **"Tray 3 transport drive failure service check" on page 342**.
167.83	Motor (tray 3 transport) stalled.	
167.84	Motor (tray 3 transport) ran too slow.	
167.85	Motor (tray 3 transport) ran too fast.	
167.86	Motor (tray 3 transport) ran too long.	

168 error messages

Error code	Description	Action
168.70	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) does not turn on.	See **"2100-sheet tray transport and elevator drive failure service check" on page 349**.
168.71	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) does not turn off.	
168.72	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) speed did not ramp up to the required level.	
168.73	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) stalled.	
168.74	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) ran too slow.	
168.75	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) ran too fast.	
168.76	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) ran too long.	
168.80	Motor (tray 4 transport) does not turn on.	See **"Tray 4 transport motor failure service check" on page 344**.
168.81	Motor (tray 4 transport) does not turn off.	
168.82	Motor (tray 4 transport) speed did not ramp up to the required level.	See **"Tray 4 transport drive failure service check" on page 345**.
168.83	Motor (tray 4 transport) stalled.	
168.84	Motor (tray 4 transport) ran too slow.	
168.85	Motor (tray 4 transport) ran too fast.	
168.86	Motor (tray 4 transport) ran too long.	

169 error messages

Error code	Description	Action
169.70	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) does not turn on.	See **"2100-sheet tray transport and elevator drive failure service check" on page 349**.
169.71	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) does not turn off.	
169.72	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) speed did not ramp up to the required level.	
169.73	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) stalled.	
169.74	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) ran too slow.	
169.75	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) ran too fast.	
169.76	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) ran too long.	
169.80	Motor (tray 5 transport) does not turn on.	See **"Tray 5 transport motor failure service check" on page 347**.
169.81	Motor (tray 5 transport) does not turn off.	
169.82	Motor (tray 5 transport) speed did not ramp up to the required level.	See **"Tray 5 transport drive failure service check" on page 348**.
169.83	Motor (tray 5 transport) stalled.	
169.84	Motor (tray 5 transport) ran too slow.	
169.85	Motor (tray 5 transport) ran too fast.	
169.86	Motor (tray 5 transport) ran too long.	

Optional tray pick drive failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 9 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 2 transport motor failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 3** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 2)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 2 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Make sure that the tray 2 interface cable is properly installed. Reseat the interface cable on the optional tray controller board. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 614**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the optional tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 13 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 2 transport drive failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 3** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 2)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 2 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Remove the optional tray insert, and then check if its transport rollers are functional and free of damage. **Note:** Turn the transport roller gear to check for proper mechanism. Are the tray insert and its rollers functional and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the tray insert. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 11 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 3 transport motor failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 4** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 3 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Make sure that the tray 3 interface cable is properly installed. Reseat the interface cable on the optional tray controller board. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 614**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the optional tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the opitonal tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 13 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 3 transport drive failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 4** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 3 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Remove the optional tray insert, and then check if its transport rollers are functional and free of damage. **Note:** Turn the transport roller gear to check for proper mechanism. Are the tray insert and its rollers functional and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the tray insert. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 11 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 4 transport motor failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 5** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 4)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 4 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Make sure that the tray 4 interface cable is properly installed. Reseat the interface cable on the optional tray controller board. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 614**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the optional tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 13 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 4 transport drive failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 5** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 4)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 4 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Remove the optional tray insert, and then check if its transport rollers are functional and free of damage. **Note:** Turn the transport roller gear to check for proper mechanism. Are the tray insert and its rollers functional and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the tray insert. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 11 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 5 transport motor failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 5)), and then touch **Start**. Does the motor run?	Go to step 7.	Go to step 5.
Step 5 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the motor (tray 5 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Make sure that the tray 5 interface cable is properly installed. Reseat the interface cable on the optional tray controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 614**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Make sure that the optional tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 12 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 5 transport drive failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 5)), and then touch **Start**. Does the motor run?	Go to step 7.	Go to step 5.

Action	Yes	No
Step 5 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the motor (tray 5 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Remove the optional tray insert, and then check if its transport rollers are functional and free of damage. **Note:** Turn the transport roller gear to check for proper mechanism. Are the tray insert and its rollers functional and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the tray insert. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 10 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2100-sheet tray transport and elevator drive failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Perform a print test again, and then observe if the motor (2100-sheet tray transport) is running. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor. See **"Motor (2100-sheet tray transport) removal" on page 582**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (High capacity tray lift), and then touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor drive. See **"2100-sheet tray elevator drive removal" on page 588**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 12 Replace the optional tray controller board. See **"2100-sheet tray controller board removal" on page 587**. Does the problem remain?	Contact the next level of support.	The problem is solved.

17y errors

171 error messages

Error code	Description	Action
171.82	Main fan speed did not ramp up to the required level.	See **"Main fan failure service check" on page 351**.
171.83	Main fan stalled.	
171.84	Main fan ran too slow.	
171.85	Main fan ran too fast.	

173 error messages

Error code	Description	Action
173.82	Cartridge fan speed did not ramp up to the required level.	See **"Cartridge fan failure service check" on page 352**.
173.83	Cartridge fan stalled.	
173.84	Cartridge fan ran too slow.	
173.85	Cartridge fan ran too fast.	

Main fan failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected: • cable J71 on the controller board • main fan cable Are the cables properly connected?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the main fan. See **"Main fan removal" on page 467**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Cartridge fan failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected: • cable J15 on the controller board • cartridge fan cable Are the cables properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the cartridge fan. See **"Cartridge fan removal" on page 483**. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

6yy errors

6yy error messages

Error code	Description	Action
600.01	Toner tally from the RIP was not received.	Restart the print job. If the error persists, then contact the next level of support.
600.02	Video did not start.	
600.03	Transfer servo did not start.	
600.04	Duplex page was not picked.	
600.07	Page is at image point before EP is ready.	
600.09	EP update error was detected.	
600.10	EP late run-in error was detected.	
600.95	RIP intentionally declared a jam error, usually to prevent a kiosk user from printing free pages.	
602.19	Tray 1 was unable to be ready for picking.	Restart the print job. If the error persists, then contact the next level of support.
602.29	Tray 2 was unable to be ready for picking.	
602.39	Tray 3 was unable to be ready for picking.	
602.49	Tray 4 was unable to be ready for picking.	
602.59	Tray 5 was unable to be ready for picking.	
611.02	An Input ISR error occurred and the printhead was not ready.	
611.32	Lost HSYNC errors were detected. Laser safety interlock system may be the cause.	
611.33	Lost HSYNC error occurred during servo.	
611.34	A mirror motor lock error was detected.	
621.01	The fuser heater was not hot enough when the paper entered the fuser nip.	Restart the print job. If the error persists, then contact the next level of support.
647.xx	The motor (main) stalled.	
649.xx	The motor (redrive) stalled.	
650.xx	The motor (duplex) stalled.	
655.xx	The motor (toner cartridge) stalled.	
661.13	The tray 1 lift plate failed to lift.	See **“Tray 1 paper feeder control failure service check” on page 133**.
661.8x	Motor (tray 1 pick/lift) error was detected.	

Error code	Description	Action
662.23	The tray 2 lift plate failed to lift.	See **"Optional tray lift jam service check" on page 354**.
662.8x	Motor (tray 2 pick/lift) error was detected.	See **"Optional tray pick/lift drive failure service check" on page 357**.
663.33	The tray 3 lift plate failed to lift.	See **"Optional tray lift jam service check" on page 354**.
663.8x	Motor (tray 3 pick/lift) error was detected.	See **"Optional tray pick/lift drive failure service check" on page 357**.
664.43	The tray 4 lift plate failed to lift.	See **"Optional tray lift jam service check" on page 354**.
664.8x	Motor (tray 4 pick/lift) error was detected.	See **"Optional tray pick/lift drive failure service check" on page 357**.
665.53	The tray 5 lift plate failed to lift.	See **"Optional tray lift jam service check" on page 354**.
665.8x	Motor (tray 5 pick/lift) error was detected.	See **"Optional tray pick/lift drive failure service check" on page 357**.
666.8x	Motor (tray 2 transport) error was detected.	See **"Optional tray transport drive failure service check" on page 358**.
667.8x	Motor (tray 3 transport) error was detected.	
668.8x	Motor (tray 4 transport) error was detected.	
669.8x	Motor (tray 5 transport) error was detected.	
680.20	During an ADF job, there was no paper detected on the ADF tray.	Clear the ADF paper path of paper jams and fragments, and then restart the job.

Optional tray lift jam service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pick roller index (tray x)). **Note:** For tray x, choose the tray number of the affected source tray. Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pick roller index) removal" on page 612**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the tray insert. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Check if the source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Make sure that the interface cable of the affected tray is properly installed. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 614**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 17.
Step 17 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Optional tray pick/lift drive failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 9.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check if the source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 608**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Optional tray transport drive failure service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected optional tray. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (transport) of the affected optional tray. See **"Motor (250- and 550-sheet tray transport) removal" on page 608**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Make sure that the interface cable of the affected tray is properly installed. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 614**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.

Action	Yes	No
Step 13 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

8yy errors

800–845 error messages

Error code	Description	Action
800.00	A communication failure has occurred between the printer controller board and the scanner.	See **"Scanner communication failure service check" on page 361**.
840.01	The scanner was manually disabled by the user.	See **"Scanner disabled (manual) service check" on page 362**.
840.02	The scanner was automatically disabled by the printer after two consecutive hardware failures.	See **"Scanner disabled (automatic) service check" on page 362**.
842.00	A communication failure has occurred due to no response from the scanner to the system controller.	See **"Scanner communication failure service check" on page 361**.
842.01	A communication failure has occurred due to an incorrect response from the scanner to the printer controller.	
842.02	A communication failure has occurred during front side scanning.	See **"Front side scan CCDM failure service check" on page 363**.
843.00	The flatbed CCDM failed to reach its home position.	See **"Flatbed CCDM home position failure service check" on page 364**.
843.01	The ADF calibration roller failed to reach its home position.	See **"ADF calibration strip failure service check" on page 367**.
843.07	The ADF tray lift arm failed to reach its home position.	See **"ADF tray lift failure service check" on page 368**.
843.15	The motor (ADF tray lift) stalled.	See **"Motor (ADF tray lift) stalled service check" on page 369**.
843.18	The ADF pick roller failed to reach its proper picking position.	See **"ADF pick position failure service check" on page 371**.
845.03	A communication failure has occurred during back side scanning.	See **"Back side scan CCDM failure service check" on page 373**.

Scanner communication failure service check

Action	Yes	No
Step 1 Check the HDMI cables on the printer controller board and ADF controller board for proper connection. Are the cables properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cables. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the following sockets for proper connection. • J on the printer controller board • JSPWR1 on the ADF controller board Are the cables properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cables. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check socket J1 on the printer controller board for proper connection. Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Reset the printer. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the ADF controller board. See **“ADF controller board removal” on page 536**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reset the printer. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Replace the printer controller board. See **"Controller board removal" on page 486**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Scanner disabled (manual) service check

Action	Yes	No
Navigate to **Settings** > **Device** > **Maintenance** > **Configuration Menu** > **Scanner Configuration**. Set Disable Scanner to Enabled. Does the problem remain?	Contact the next level of support.	The problem is solved.

Scanner disabled (automatic) service check

Note: This only applies when, after performing the required service actions, the scanner remains in disabled state.

Action	Yes	No
Step 1 From the “Scanner disabled” error screen, select **Reboot and automatically enable scanner**. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** From the home screen, navigate to: **Settings** > **Device** > **Maintenance** > **Configuration Menu** > **Scanner Configuration** **b** Scroll down and select **Disable Scanner**. **Note: `Enabled`** prompts, but ignore this message since the scanner was automatically disabled at the microcode level. **c** Select **Disabled**, and then reset or power cycle the printer. **d** Observe the behavior, which is no errors and no messages on boot-up. **e** Navigate to **Settings** > **Device** > **Maintenance** > **Configuration Menu** > **Scanner Configuration** > **Disable Scanner**. **f** Select **Enabled**, and then reset the printer once more to complete the procedure and return the scanner to full operation. Does the problem remain?	Contact the next level of support.	The problem is solved.

Front side scan CCDM failure service check

Action	Yes	No
Step 1 Check socket J1 on the printer controller board for proper connection. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the flatbed scanner CCDM cable for proper connection. Is the cable properly connected to the CCDM?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Replace the flatbed scanner CCDM. See **"Flatbed scanner CCDM removal" on page 563**.	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Flatbed CCDM home position failure service check

Action	Yes	No
Step 1 Check the HDMI cables on the printer controller board and ADF controller board for proper connection. Are the cables properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cables. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the following sockets for proper connection. • J on the printer controller board • JSPWR1 on the ADF controller board Are the cables properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cables. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the following sockets for proper connection. • JICC on the ADF controller board • JICC on the flatbed scanner board Are the cables properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cables. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Check socket J1 on the printer controller board for proper connection. Is the cable properly connected?	Go to step 9.	Go to step 8.
Step 8 Reseat the cable. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the scanner belt for misalignment and damage. Is the scanner belt properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the scanner belt. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the tension of the scanner belt. **Note:** With the proper belt tension, the flatbed CCDM will move smoothly. Is the belt tension properly set?	Go to step 13.	Go to step 12.
Step 12 Reset or adjust the belt tension. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the sensor (FB CCD home) for proper installation. Is the sensor properly mounted to the scanner frame?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the sensor. See **"Sensor (FB CCDM) removal" on page 569**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **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?	Go to step 18.	Go to step 16.

Action	Yes	No
Step 16 Check the sensor cable for proper connection, and then reseat if necessary. • Check JFB1 on the flatbed scanner board. • Check the connector on the sensor. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the sensor. See **"Sensor (FB CCDM) removal" on page 569**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the sensor actuator on the flatbed scanner CCDM. Does the actuator on the CCDM properly trigger the sensor (FB CCD home)?	Go to step 20.	Go to step 19.
Step 19 Replace the flatbed scanner CCDM. See **"Flatbed scanner CCDM removal" on page 563**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Reset the printer. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the ADF controller board. See **"ADF controller board removal" on page 536**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

ADF calibration strip failure service check

Action	Yes	No
Step 1 **a** Open the ADF bottom door, and then manually rotate the ADF calibration roller. **b** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check socket JCSHM on the ADF controller board. Is the cable properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF calibration strip home). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 5.
Step 5 Check the sensor cable for proper connection, and then reseat if necessary. • Check the connector on the ADF controller board. • Check the connector on the sensor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Reset the printer. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the ADF bottom door. See **"ADF bottom door removal" on page 538**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Reset the printer. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the ADF controller board. See **"ADF controller board removal" on page 536**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

ADF tray lift failure service check

Action	Yes	No
Step 1 Check the ADF tray lift mechanism for obstructions. Is the lift mechanism free of obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF tray upper limit). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. • Check the connector on the ADF controller board. • Check the connector on the sensor. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the ADF controller board. See **"ADF controller board removal" on page 536**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (ADF tray lift) stalled service check

Action	Yes	No
Step 1 Check the ADF pick roller for proper installation. Is the pick roller properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the ADF pick roller. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the sensor actuator on the ADF pick roller. Does the actuator on the pick roller properly trigger the sensor (ADF pick roller index)?	Go to step 5.	Go to step 4.
Step 4 Replace the ADF pick roller. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the ADF tray lift mechanism for obstructions. Is the lift mechanism free of obstructions?	Go to step 7.	Go to step 6.
Step 6 Remove the obstructions. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF tray lift** **b** Touch **Start**. Does the motor run?	Go to step 10.	Go to step 8.
Step 8 Check the motor cable for proper connection, and then reseat if necessary. • Check the connector on the ADF controller board. • Check the connector on the motor. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor. See **"Motor (ADF) removal" on page 542**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF tray upper limit). Does the sensor status change while toggling the sensor?	Go to step 13.	Go to step 11.
Step 11 Check the sensor cable for proper connection, and then reseat if necessary. • Check the connector on the ADF controller board. • Check the connector on the sensor. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the sensor. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Reset the printer. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the ADF controller board. See **"ADF controller board removal" on page 536**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

ADF pick position failure service check

Action	Yes	No
Step 1 Check the ADF pick roller for proper installation. Is the pick roller properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the ADF pick roller. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the sensor actuator on the ADF pick roller. Does the actuator on the pick roller properly trigger the sensor (ADF pick roller index)?	Go to step 5.	Go to step 4.
Step 4 Replace the ADF pick roller. See **"ADF roller kit removal" on page 532**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the ADF pick roller cover for proper installation. Is the cover properly installed?	Go to step 7.	Go to step 6.
Step 6 Reinstall the cover. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the ADF tray lift mechanism for obstructions. Is the lift mechanism free of obstructions?	Go to step 9.	Go to step 8.
Step 8 Remove the obstructions. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF pick roller index high) and sensor (ADF pick roller index low). **Note:** The sensor (ADF pick roller index) consists of two sensors to detect the high and low positions of the pick roller. Does the sensor status change while toggling the sensor?	Go to step 12.	Go to step 10.
Step 10 Check the sensor cable for proper connection, and then reseat if necessary. • Check socket JHINGE1 on the ADF controller board. • Check the connector on the sensor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the sensor. See **"ADF top door removal" on page 545**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the ADF controller board. See **"ADF controller board removal" on page 536**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Back side scan CCDM failure service check

Action	Yes	No
Step 1 Check the HDMI cables on the printer controller board and ADF controller board for proper connection. Are the cables properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cables. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check socket JCCDM1 on the ADF controller board for proper connection. Is the cable properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the ADF CCDM cable for proper connection. Is the cable properly connected to the CCDM?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the ADF CCDM. See **“ADF scanner CCD removal” on page 552**.	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the ADF controller board. See **“ADF controller board removal” on page 536**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the printer controller board. See **"Controller board removal" on page 486**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Procedure before starting the 9yy service checks

You will need to retrieve certain information. This information aids your next level of support in diagnosing the problem before replacing the controller board.

Warning—Potential Damage: Do not replace the controller board unless directed by your next level of support.

1. Collect the history information and firmware logs (Fwdebug and logs.tar.gz) from the SE menu.
2. Collect the settings from the menu settings page.
3. Collect information from the user.

   Note: Not all of the items are retrievable from the printer you are working on.

A. Collecting the history information from the SE menu

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

1. Open a web browser, type **`http://printer_IP_address/se`**, and then press **Enter**.

   Notes:

   - **`printer_IP_address`** is the TCP/IP address of the printer.
   - **`se`** is required to access the printer diagnostic information.
2. Click **History Information**, copy all information, and then save it as a text file.
3. E-mail the text file to your next level of support.

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

Notes:

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

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

1. Open a Web browser, type **`http://printer_IP_address/se`**, and then press **Enter**.
2. Click **Logs Gzip Compressed**.

   Note: A logs.tar.gz file is saved to the Downloads folder. The file may take several minutes to save. You may rename the file if a logs.tar.gz already exists in the Downloads folder.
3. E-mail the logs to your next level of support.

C. Collecting the settings from the menu settings page

Note: The menu settings page is different for each printer. For more information, see the *User's Guide*. Your next level of support will tell you which page they want to see.

Copying the menu settings page from the Embedded Web Server (EWS)

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

1. Open a Web browser, type **`http://printer_IP_address`**, and then press **Enter**.
2. Click Settings, and then select one of the settings pages from the links shown on the page.
3. Copy all the information, and then save it as a text file.
4. E-mail the text file to your next level of support.

Printing the menu settings page

1. From the home screen, navigate to:

   Reports > **Menu Settings Page**
2. Print the menu settings page, and then use Scan to E-mail to send it to your next level of support.

D. Collecting information from the user

Ask the user for information about the following:

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

900 errors

900-909 error messages

Error code	Description	Action
900-909.xx	RIP firmware errors	See **"System software error service check" on page 376**.

System software error service check

Different types of 90y.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, do the following:

1. Perform the **"Procedure before starting the 9yy service checks" on page 374**.
2. Determine the operating system used when the error occurred. If possible, determine whether a PostScript™ or PCL™ file was sent to the printer when the error occurred. Ask the customer which Lexmark Solutions applications are installed on the printer.

Action	Yes	No
Step 1 Perform a POR. Does the error remain?	Go to step 2.	The problem is solved.
Step 2 **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?	Go to step 3.	Go to step 6.
Step 3 Check all the cables on the controller board for proper connection. Are the cables properly connected?	Go to step 5.	Go to step 4.
Step 4 **a** Reconnect the cables. **b** Reset the printer into the Diagnostics menu. Does the problem remain?	Go to step 5.	Go to step 6.

Action	Yes	No
Step 5 **a** Replace the controller board. See **"Controller board removal" on page 486**. **b** Reset the printer. **Note:** If a different error code displays, then go to the service check for that error code. Does the problem remain?	Go to step 31.	The problem is solved.
Step 6 Print the following: • Error Log • Menu Settings Page • Network Settings Page Does the problem remain while printing these pages?	Go to step 31.	Go to step 7.
Step 7 **Note:** Before performing this step, write down the following information about the file being sent to the printer: • 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?	Go to step 8.	Go to step 10.
Step 8 **a** Reset the printer. **b** Perform a different print job. Does the problem remain?	Go to step 9.	Go to step 10.
Step 9 **a** Upgrade the firmware. **Note:** 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?	Go to step 31.	Go to step 10.

Action	Yes	No
Step 10 Verify if the printer is an MFP. Is the printer an MFP?	Go to step 11.	Go to step 13.
Step 11 Perform a copy job. Does the problem remain?	Go to step 31.	Go to step 12.
Step 12 Scan a document to the computer. Does the problem remain?	Go to step 31.	Go to step 13.
Step 13 Verify if an optional memory is installed. Is there an optional memory installed?	Go to step 14.	Go to step 16.
Step 14 **a** Reinstall the memory. **b** Perform a print job. Does the problem remain?	Go to step 15.	Go to step 16.
Step 15 **a** Install a Lexmark-recommended memory option. **b** Perform a print job. Does the problem remain?	Go to step 31.	The problem is solved.
Step 16 Verify if a modem is installed. Is a modem installed?	Go to step 17.	Go to step 21.
Step 17 **a** Reinstall the modem. **b** Reset the printer. Does the problem remain?	Go to step 18.	Go to step 20.

Action	Yes	No
Step 18 **a** Upgrade the firmware if it was not upgraded in a previous step. **Note:** 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?	Go to step 19.	The problem is solved.
Step 19 **a** Replace the modem. **b** Reset the printer. Does the problem remain?	Go to step 31.	The problem is solved.
Step 20 Perform a fax job. Does the problem remain?	Go to step 31.	Go to step 21.
Step 21 Verify if an ISP option is installed. Is an ISP option installed?	Go to step 22.	The problem is solved.
Step 22 **a** Reinstall the first ISP option. **b** Reset the printer. Does the problem remain?	Go to step 24.	Go to step 23.
Step 23 Perform a job to test the option. Does the problem remain?	Go to step 24.	Go to step 26.
Step 24 **a** Upgrade the firmware if it was not upgraded in a previous step. **Note:** 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?	Go to step 25.	The problem is solved.

Action	Yes	No
Step 25 **a** Replace the faulty ISP option. **b** Reset the printer. Does the problem remain?	Go to step 31.	Go to step 26.
Step 26 Verify if there are more ISP options to install. Are there more ISP options to install?	Go to step 27.	The problem is solved.
Step 27 **a** Install the next ISP option. **b** Reset the printer. Does the problem remain?	Go to step 29.	Go to step 28.
Step 28 Perform a job to test the option. Does the problem remain?	Go to step 29.	Go to step 26.
Step 29 **a** Upgrade the firmware if it was not upgraded in a previous step. **Note:** 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?	Go to step 30.	Go to step 26.
Step 30 **a** Replace the faulty ISP option. **b** Reset the printer. Does the problem remain?	Go to step 31.	Go to step 26.

Action	Yes	No
Step 31 Contact your next level of support. Provide the following information: • Exact 90y.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 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		

912–992 errors

912–992 error messages

Error code	Description	Action
912.01	An engine error occurred.	Restart the print job. If the error persists, then contact the next level of support.
912.02	An engine error occurred.	
912.04	An engine error occurred.	
912.05	An engine error occurred.	
912.06	An engine error occurred.	
912.07	An engine error occurred.	See **“Optional tray communication error service check” on page 384**.
912.08	An engine error occurred.	Restart the print job. If the error persists, then contact the next level of support.
912.09	An engine error occurred.	
912.10	An engine error occurred.	Restart the print job. If the error persists, then contact the next level of support.
912.11	An engine error occurred.	
912.12	An engine error occurred.	
912.13	An engine error occurred.	
912.14	An engine error occurred.	
912.15	An engine error occurred.	
912.16	An engine error occurred.	
912.17	An engine error occurred.	
912.18	An engine error occurred.	
912.19	An engine error occurred.	

Error code	Description	Action
912.20	An engine error occurred.	Restart the print job. If the error persists, then contact the next level of support.
912.21	An engine error occurred.	
912.22	An engine error occurred.	
912.28	An engine error occurred.	See **"System software error service check" on page 376**.
912.36	An engine error occurred.	
912.38	An engine error occurred.	See **"Optional tray communication error service check" on page 384**.
912.39	An engine error occurred.	See **"System software error service check" on page 376**.
912.49	An engine error occurred.	
912.52	An engine error occurred.	
912.59	An engine error occurred.	
912.60	An engine error occurred.	
912.75	An engine error occurred.	
912.78	An engine error occurred.	
912.82	An engine error occurred.	
938.04	Supplies security is not enabled.	See **"Supplies security error service check" on page 385**.
938.05	Controller board failure due to a bad capacitor.	See **"System software error service check" on page 376**.
950.10	An NVRAM mismatch error occurred.	See **"NVRAM mismatch failure service check" on page 386**.
953.99	A control panel NVRAM error occurred.	

Error code	Description	Action
980.01	A validation failure was detected by the Paperport communication device.	See **"Optional tray communication error service check" on page 384**.
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.	
980.06	A Paperport prioritizer error was detected. Message from the option device was not read by the prioritizer.	
980.11	A Paperport command response was detected. Response was too large for the communications buffer.	
980.13	An optional device hot plug was detected by the printer. Low-level error occurred at the Paperport.	
980.14	An engine timeout error occurred while waiting for the following: • a mechanical reset • an intervention required (IR) 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.	See **"Optional tray communication error service check" on page 384**.
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.xx	An option device software error occurred.	

Optional tray communication error service check

Action	Yes	No
Step 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?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** Perform the print test on each optional tray. Does the error occur in any of the optional trays?	Go to step 6.	Go to step 5.
Step 5 **a** Remove the optional trays. **b** Reinstall the optional trays one at a time, and then identify which tray is causing the error. Does the error occur in any of the optional trays?	Go to step 6.	Contact the next level of support.
Step 6 Make sure that the interface cable of the affected tray is properly installed. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the optional tray interface cable. See **“250- and 550-sheet tray interface cable removal” on page 614**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 11 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 610**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Supplies security error service check

Action	Yes	No
Step 1 Turn off the printer, wait for 10 seconds, and then turn on the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Turn off the printer. **b** Remove, and then reinstall the toner cartridge, imaging unit, and fuser. **c** Wait for 10 seconds, and then turn on the printer. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Turn off the printer. **b** Make sure that all the cables on the controller board are properly connected. **Note:** Reseat the flexible flat cables (FFC) on the controller board. **c** Wait for 10 seconds, and then turn on the printer. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Turn off the printer. **b** Replace the controller board. See **"Controller board removal" on page 486**. **c** Wait for 10 seconds, and then turn on the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

NVRAM mismatch failure service check

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

- Control panel 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 use temporarily the replacement part.

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

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

Action	Yes	No
Step 1 Check if the control panel board was recently replaced. Was the control panel board recently replaced?	Go to step 2.	Go to step 4.
Step 2 Replace the current control panel board with the original control panel board. See **"Control panel board removal" on page 496**. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Replace the original control panel board with a new control panel board. **Note:** Make sure that the new control panel board is not previously installed from another printer. Does the problem remain?	Contact the next level of support.	The problem is solved.
Step 4 Check if the controller board was recently replaced. Was the controller board recently replaced?	Go to step 5.	Contact the next level of support.
Step 5 Replace the current controller board with the original controller board. See **"Controller board removal" on page 486**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the original controller board with a new controller board. **Note:** Make sure that the new controller board is not previously installed from another printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Optional bin hardware errors

316 errors

316 error messages

Error code	Description	Action
316.50	The bin 1 motor (mailbox transport) did not turn on.	See **"Mailbox transport drive failure service check" on page 388**.
316.51	The bin 1 motor (mailbox transport) did not turn off.	

Mailbox transport drive failure service check

Action	Yes	No
Step 1 Make sure that the optional bin is properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open the optional bin door, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**. **b** Reseat the cable on the motor (mailbox transport) and on the mailbox controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (mailbox transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (mailbox transport) removal" on page 704**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Make sure that the controller board of the optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the bin controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the bin controller board. See **"Mailbox controller board removal" on page 709**. Does the problem remain?	Contact the next level of support.	The problem is solved.

32y errors

320–323 error messages

Error code	Description	Action
320.50	The bin 1 motor (staple finisher transport) did not turn on.	See **"Staple finisher transport drive failure service check" on page 390**.
320.50	The bin 1 motor (SHPF transport) did not turn on.	See **"SHPF transport drive jam service check" on page 243**.
320.51	The bin 1 motor (staple finisher transport) did not turn off.	See **"Staple finisher transport drive failure service check" on page 390**.
320.51	The bin 1 motor (SHPF transport) did not turn off.	See **"SHPF transport drive jam service check" on page 243**.
323.50	The bin 1 motor (staple finisher ejector) did not turn on.	See **"Staple finisher ejector drive failure service check" on page 391**.
323.50	The bin 1 motor (SHPF ejector) did not turn on.	See **"SHPF ejector jam service check" on page 266**.
323.51	The bin 1 motor (staple finisher ejector) did not turn off.	See **"Staple finisher ejector drive failure service check" on page 391**.
323.51	The bin 1 motor (SHPF ejector) did not turn off.	See **"SHPF ejector jam service check" on page 266**.

Staple finisher transport drive failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **b** Reseat the cable on the motor (staple finisher transport) and on the staple finisher controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (staple finisher transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (staple finisher/offset stacker transport) removal" on page 633**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the staple finisher drive gear for improper installation and damage. Is the drive gear properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the gear. See **"Staple finisher/offset stacker drive gear assembly removal" on page 638**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher ejector drive failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**. **b** Reseat the staple finisher ejector assembly cable on the staple finisher controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Reseat the cable of the sensor (staple finisher ejector) on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor (staple finisher ejector) for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher/offset stacker ejector) removal" on page 677**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the staple finisher ejector assembly operate properly?	Go to step 13.	Go to step 11.
Step 11 Check the ejector assembly for damage. Is the ejector assembly free of damage?	Go to step 13.	Go to step 12.

Action	Yes	No
Step 12 Replace the staple finisher ejector assembly. See **"Staple finisher/offset stacker ejector assembly removal" on page 674**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**. Does the problem remain?	Contact the next level of support.	The problem is solved.

331 errors

331 error messages

Error code	Description	Action
331.50	The bin 1 motor (SHPF elevator) did not turn on.	See **"SHPF elevator drive failure service check" on page 394**.
331.51	The bin 1 motor (SHPF elevator) did not turn off.	

SHPF elevator drive failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 741**. **b** Reseat the cable on the motor (SHPF elevator). Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the SHPF elevator drive for improper installation and damage. Is the elevator drive properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the elevator drive. See **"Staple, hole punch finisher elevator drive removal" on page 764**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 747**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Other symptoms

Base printer symptoms

Base printer symptoms

Symptom	Action
The printer is not communicating with the network host.	See **"Network service check" on page 395**.

Network service check

Action	Yes	No
Step 1 Check if the printer is using an Ethernet network. Is the printer using an Ethernet network?	Go to step 2.	Go to step 3.
Step 2 Make sure that the Ethernet cable is properly connected at both ends. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 3 **a** Make sure that the printer is not physically connected to a wired LAN. **b** If the printer is connected using an Ethernet connection, then unplug the cable from the printer, and then perform a POR to connect the printer to a wireless network. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** From the home screen, navigate to **Settings** > **Network/Ports** > **Active Adapters**. **b** Check if the adapter that appears matches the adapter used in the printer. Do the adapters match?	Go to step 6.	Go to step 5.
Step 5 Change the active adapter setting to match the adapter used in the printer. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Check the online status of the printer under Printers and Faxes on the host computer. **b** Delete all print jobs in the print queue. Is the printer online and in the Ready state?	Go to step 8.	Go to step 7.
Step 7 Change the printer status to Online. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the printer IP address on the Network Settings Page. Does it match the IP address in the port of the drivers using the printer?	Go to step 13.	Go to step 9.
Step 9 Check if the printer uses a static IP address on a network. Is the printer using a DHCP IP address?	Go to step 10.	Go to step 12.
Step 10 Check the first two segments of the IP address. Does the IP address start with 169.254?	Go to step 11.	Go to step 12.

Action	Yes	No
Step 11 Perform a POR. Does the problem remain?	Go to step 13.	The problem is solved.
Step 12 Reset the IP address on the printer to match the IP address on the driver. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check if the printer and computer IP addresses have the same subnet address. Does the printer and computer IP addresses have the same subnet address?	Go to step 15.	Go to step 14
Step 14 Using the subnet address supplied by the network administrator, assign a unique IP address to the printer. **Note:** The printer IP address should match the IP address on the print driver. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check if the printer is physically connected to the network. Is the printer physically connected to the network?	Go to step 16.	Go to step 23.
Step 16 Use a different Ethernet cable. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Have the network administrator check the network drop for activity. Is the network drop functioning properly?	Go to step 19.	Go to step 18.
Step 18 Try a known and functioning network drop. Does the problem remain?	Go to step 19.	The problem is solved.

Action	Yes	No
Step 19 Check if the bulit-in Ethernet port on the controller board is used to connect to the network. Is the built-in Ethernet port on the controller board used to connect to the network?	Go to step 22.	Go to step 20.
Step 20 Make sure that the option Ethernet card is properly installed, and reseat if necessary Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the option Ethernet card. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the controller board. See **"Controller board removal" on page 486**. Does the problem remain?	Contact the next level of support.	The problem is solved.
Step 23 Check if the printer is on the same wireless network as the other devices. Is the printer on the same wireless network as the other devices?	Go to step 25.	Go to step 24.
Step 24 Assign the correct wireless network to the printer. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Check if the other devices on the wireless network are properly communicating. Are the other devices on the wireless network properly communicating?	Go to step 26.	Contact the network administrator.
Step 26 Make sure that the wireless card on the printer is properly installed. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Check if an antenna is attached to the wireless card. Is an antenna attached to the wireless card?	Go to step 28.	Go to step 29.

Action	Yes	No
Step 28 Check the antenna for proper installation and damage, and replace if necessary. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 Replace the wireless card. Does the problem remain?	Go to step 30.	The problem is solved.
Step 30 Replace the controller board. See **"Controller board removal" on page 486**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fax symptoms

Fax symptoms

Symptom	Action
No dial tone.	See **"Modem/fax card service check" on page 403**.
The printer does not transmit faxes.	See **"Fax transmission service check" on page 406**.
The printer does not receive faxes.	See **"Fax reception service check" on page 408**.
Cannot set up etherFAX.	See **"Cannot set up etherFAX" on page 404**.
Cannot send or receive faxes using Etherfax.	See **"Cannot send or receive faxes using etherFAX" on page 405**.
A **`Lost connection to HTTPS Fax Server`** error message appears.	See **"Lost connection to HTTPS fax server when using etherFAX service check" on page 411**.

Fax error log codes

Error code	Description	Action
000	No error occurred during a fax transmission.	No action is needed.
200	An error occurred when transmitting training.	• Check the line quality. • Select a lower Max Speed value under the Fax Send settings. • Adjust the transmit level.

Error code	Description	Action
3XX	An error occurred when receiving an image data.	• Check the line quality. • Adjust the Receive Threshold. • Select a lower Max Speed value unde the r Fax Receive settings.
4XX	An error occurred when sending an image data.	• Check the line quality. • Adjust the Transmit Level. • Select a lower Max Speed value under the Fax Receive settings.
5XX	An unknown response is received from a remote fax device.	No action is needed. The issue is with the other device.
6XX	An error occurred when receiving a frame.	• Check the line quality. • Adjust the Receive Threshold.
7XX	An error occurred when sending a frame.	• Check the line quality. • Adjust the Transmit Level. • Select a lower Max Speed value under the Fax Send settings.
800	An EOT was unexpectedly received from the modem in V34 mode.	If the error persists, then disable the V34 modulation scheme.
802	Too many time-outs occurred during ECM reception.	If the error persists, then disable the ECM mode.
803	Fax cancelled by the user.	No action is needed.
804	Unexpectedly received a disconnect command from the remote end.	• Check the line quality. • Adjust the Transmit Level or Receive Threshold setting. • The remote device could be requesting an unsupported feature.
805	The remote fax device failed to respond to the DCS command.	• Adjust the Transmit Level or Receive Threshold setting. • The remote device could be malfunctioning.
808	T1 timeout occurred when trying to establish a connection with a remote fax device.	Adjust the Transmit Level or Receive Threshold setting.
809	T2 Timeout occurred due to loss of command/response synchronization.	Adjust the Transmit Level or Receive Threshold setting.
80A	T5 Timeout occurred when transmitting image data to remote fax device.	• Check line quality. • Adjust the Transmit Level setting • Decrease the Max Speed setting under Fax Send settings.

Error code	Description	Action
80B	Too many errors when transmitting in ECM mode.	• Check line quality. • Adjust the Transmit Level setting • Select a lower 'Max Speed' value under Fax Send settings.
80C	Remote device failed to respond to the CTC command.	• Decrease the Max Speed setting under Fax Send settings. • Adjust the Transmit Level setting
80D	Received too many requests from remote end to repeat the previous command sent.	• Check line quality. • Adjust the Transmit Level setting • 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 the Rings To Answer setting.
812	No more data rates available in V34 modulation scheme.	Decrease the modulation scheme.
813	Timeout occurred after waiting too long to receive a good frame.	Adjust the Receive Threshold setting.
814	Tried too many times at selected speed using V34 modulation scheme.	• Adjust the Transmit Level setting. • Decrease the modulation scheme.
815	Fax transmission was interrupted due to power failure.	Troubleshoot MFP if error persists. See **"Modem/fax card service check" on page 403**.
818	Fax transmission failed due to insufficient memory to store scanned image.	Adjust the Memory Use setting to allocate more memory for send jobs.
819	Fax transmission failed due to insufficient memory to store received image.	Adjust the Memory Use setting to allocate more memory for receive jobs.
81A	A timeout occurred during transmission of a page in ECM mode.	Decrease the Max Speed setting under Fax Send settings.
880	Failure to transmit training successfully in V17, V29, V27 terminal modulation schemes.	• Decrease the Max Speed setting under Fax Send settings. • Adjust the Transmit Level setting. • Check line quality.
881	Failure to transmit training successfully in V33, V29, V27 terminal modulation schemes.	• Decrease the Max Speed setting under Fax Send settings. • Adjust the Transmit Level setting. • Check line quality.

Error code	Description	Action
882	Failure to transmit training successfully in V17, V29 terminal modulation schemes.	• Decrease the Max Speed setting under Fax Send settings. • Adjust the Transmit Level setting. • Check line quality.
883	Failure to transmit training successfully in V17, V27 terminal modulation schemes.	• Decrease the Max Speed setting under Fax Send settings. • Adjust the Transmit Level setting. • Check line quality.
884	Failure to transmit training successfully in V29, V27 terminal modulation schemes.	• Decrease the Max Speed setting under Fax Send settings. • Adjust the Transmit Level setting. • Check line quality.
885	Failure to transmit training successfully in V17 terminal modulation scheme.	• Decrease the Max Speed setting under Fax Send settings. • Adjust the Transmit Level setting. • Check line quality.
886	Failure to transmit training successfully in V29 terminal modulation scheme.	• Decrease the Max Speed setting under Fax Send settings. • Adjust the Transmit Level setting. • Check line quality.
887	Failure to transmit training successfully in V27 terminal modulation scheme.	• Decrease the Max Speed setting under Fax Send settings. • Adjust the Transmit Level setting. • Check line quality.
888	Failure to transmit training successfully at 2400 bps in V27 terminal modulation scheme.	• Adjust the Transmit Level setting. • Check line quality.
889	Failed to connect at the minimum speed supported by the MFP.	• Adjust the Transmit Level setting. • Incompatible connection.
88A	Failed to connect using V.34 modulation scheme.	• Check line quality. • Decrease the modulation scheme. • Adjust the Transmit Level or Receive Threshold settings.
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.

Error code	Description	Action
903	Busy tone detected.	Check with remote end if successive attempts fail.
904	Hardware error detected.	See **"Modem/fax card service check" on page 403**.
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 that the MFP is connected to an analog line. See **"Fax transmission service check" on page 406**.
908	Phone line was disconnected	Restore phone line connection.
A00	Received request for unsupported function from remote fax device.	No action needed.
A01	Received request for unsupported image width from remote fax device.	No action needed.
A02	Received request for unsupported image resolution from remote fax device.	No action needed.
A03	Received request for unsupported compression type from remote fax device.	No action needed.
A04	Received request for unsupported image length from remote fax device.	No action needed.
F00	Unknown error occurred.	No action needed.

Modem/fax card service check

Action	Yes	No
Step 1 Check if the telephone cable is properly connected to the modem card and electrical outlet. Is the cable properly connected to the modem card and electrical outlet?	Go to step 2.	Go to step 3.
Step 2 Connect the telephone cable to the modem card and electrical outlet. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the telephone cable can make and receive calls. Is the phone line properly working?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Connect the printer to a properly functioning telephone jack. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Make sure that the modem cable is properly connected to the modem card and to the JFAX2 connector on the controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the fax card. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the voltages values of the following pins on the JFAX1 connector on the controller board: • Pin 5: +5 V dc • Pin 7: Ground • Pin 9: Ground • Pin 11: Ground • Pin 13: Ground Are the voltage values approximately the same?	Contact the next level of support.	Go to step 8.
Step 8 Replace the controller board. See **"Controller board removal" on page 486**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Cannot set up etherFAX

Action	Yes	No
Step 1 Check the printer connectivity. **a** Print the Network Setup Page. From the home screen, touch **Settings** > **Reports** > **Network** > **Network Setup Page**. **b** Check the network status. Is the printer connected to the network?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Make sure that the printer is connected to a network and that the network is connected to the Internet. Can you set up etherFAX?	The problem is solved.	Go to step 3.
Step 3 Make sure that etherFAX is set up correctly. For more information, see the printer *User's Guide*. Can you set up etherFAX?	The problem is solved.	Go to https://www.etherfax.net/lexmark.

Cannot send or receive faxes using etherFAX

Action	Yes	No
Step 1 Make sure that the printer is connected to a network and that the network is connected to the Internet. Can you send or receive faxes using etherFAX?	The problem is solved.	Go to step 2.
Step 2 **a** From the home screen, touch **Settings** > **Fax** > **Fax Setup** > **General Fax Settings**. **b** Make sure that you have the correct fax number. **c** Make sure that Fax Transport is set to etherFAX. Can you send or receive faxes using etherFAX?	The problem is solved.	Go to step 3.
Step 3 Split large documents into smaller file sizes. Can you send or receive faxes using etherFAX?	The problem is solved.	Go to https://www.etherfax.net/lexmark.

Fax transmission service check

Note: These instructions apply only to printers that support analog fax. For more information, see **"Supported fax" on page 45**.

Actions	Yes	No
Step 1 Reseat the telephone cable on the LINE port of the printer and on the wall jack. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check for a dial tone. Is there a dial tone?	Go to step 3.	Go to step 5.
Step 3 Check if the telephone line can send and receives calls. Is the phone line properly working?	Go to step 6.	Go to step 4.
Step 4 Check if the telephone line is free of static or external noise. Is the line free of static or external noise?	Go to step 6.	Go to step 5.
Step 5 Connect the telephone cable to a working wall jack. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** From the home screen, navigate to **Settings** > **Fax** > **Analog Fax Setup** > **Fax Receive Settings** > **Admin Controls** > **Enable Fax Receive**. **b** Select **On**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** From the home screen, navigate to **Settings** > **Fax** > **Analog Fax Setup** > **Fax Receive Settings** > **Admin Controls** > **Answer on**. **b** Select a ring pattern. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check if the telephone line is analog. Is the line analog?	Go to step 11.	Go to step 9.

Actions	Yes	No
Step 9 Check if the telephone line is a VOIP line. Is the line VOIP?	Go to step 11.	Go to step 10.
Step 10 Ask the system administrator to check if the VOIP server is configured to receive faxes. Is the server configured to receive faxes?	Go to step 11.	Contact the next level of support.
Step 11 Check if the printer receives a fax from one specific remote device. Does the printer receive a fax from one specific remote device?	Go to step 13.	Go to step 12.
Step 12 Check if a different device can send a fax. Can the device send a fax?	Contact the next level of support.	Go to step 13.
Step 13 **a** From the home screen, navigate to **Settings** > **Fax** > **Analog Fax Setup** > **Fax Receive Settings** > **Admin Controls** > **Block No Name Fax**. **b** Select **Off**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** From the home screen, navigate to **Settings** > **Fax** > **Analog Fax Setup** > **Fax Receive Settings** > **Admin Controls** > **Banned Fax List**. **b** Check if the remote device number is on the list. Is the number on the list?	Go to step 15.	Go to step 16.
Step 15 Remove the remote device number from the list. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Enter the Service Engineer menu, and then navigate to: **Fax SE** > **Modem Settings** > **Receive Thresh** **b** Adjust the setting in steps of 2 dB. **Note:** The recommended adjustment range is between -33 dB and -48 dB. Does the problem remain?	Go to step 17.	The problem is solved.

Actions	Yes	No
Step 17 **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 399**. **c** Perform the action suggested for the error. Does the problem remain?	Contact the next level of support.	The problem is solved.

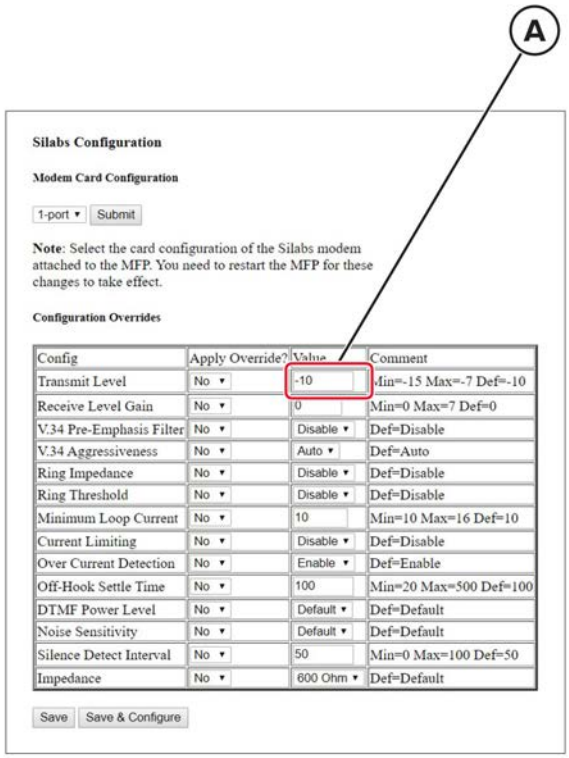
Fax reception service check

Note: These instructions apply only to printers that support analog fax. For more information, see **"Supported fax" on page 45**.

Note: Before performing this service check, make sure that the correct country code is selected.

Actions	Yes	No
Step 1 Reseat the telephone cable on the LINE port of the printer and on the wall jack. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check if the telephone line can send and receive calls. Is the phone line properly working?	Go to step 4.	Go to step 3.
Step 3 Connect the telephone cable to a working wall jack. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check if the telephone line is analog. Is the telephone line analog?	Go to step 7.	Go to step 5.
Step 5 Check if the telephone line is a VOIP line. Is the line VOIP?	Go to step 6.	Go to step 7.
Step 6 Ask the system administrator to verify if the VOIP server is configured to receive faxes. Is the server configured to receive faxes?	Go to step 7.	Contact the next level of support.

Actions	Yes	No
Step 7 Check if the printer is on a PABX. Is the printer on a PABX?	Go to step 9.	Go to step 8.
Step 8 **a** From the home screen, navigate to **Settings** > **Fax** > **Analog Fax Setup** > **Fax Send Settings** > **Behind a PABX**. **b** Select **Yes**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** From the home screen, navigate to **Settings** > **Fax** > **Analog Fax Setup** > **Fax Send Settings** > **Behind a PABX**. **b** Select **No**. **c** Check if access to an outside line needs a dial prefix. Does access to an outside line need a dial prefix?	Go to step 10.	Go to step 11.
Step 10 Send a fax using a dial prefix. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check if the printer sends a fax to one specific destination. Does the printer send a fax to one specific destination?	Go to step 13.	Go to step 12.
Step 12 Check if the device that does not receive a fax can send a fax. Can the device send a fax?	Go to step 13.	Contact the next level of support.
Step 13 **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 399**. **c** Perform the action suggested for the error. Does the problem remain?	Go to step 14.	The problem is solved.

Actions	Yes	No
Step 14 Check the TIA/EIA-IS-968 Standard "Technical Requirements for Connection of Terminal Equipment to the Telephone Network" for your geography. Is it permitted for analog modulated transmitted data to transmit above -9 dBm?	Go to step 15.	Contact the next level of support.
Step 15 **a** Open a web browser and then type **`https://<IP address>/se`**. **b** Navigate to: **Fax** > **Settings** > **Silabs Configuration** **c** Adjust the Transmit Level setting (A) in steps of ±1 dB.  Does the problem remain?	Contact the next level of support.	The problem is solved.

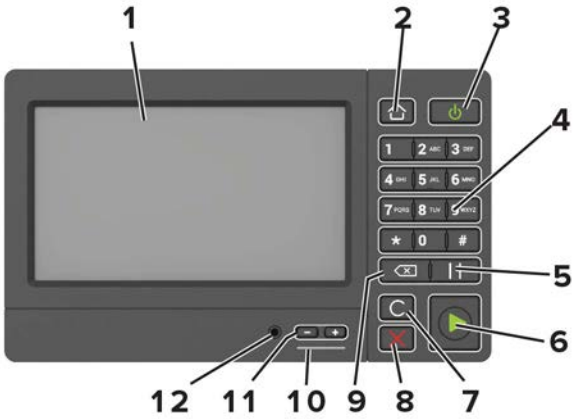
Lost connection to HTTPS fax server when using etherFAX service check

Action	Yes	No
Step 1 **a** Enter the Service Engineer (SE) menu, and then navigate to: **Fax SE Menu** > **Fax Settings** **b** Make sure that the Fax Transport option is set to **etherFAX**. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Make sure that the printer is connected to a stable network. **b** Perform a POR. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the printer controller board was previously replaced. Was the printer controller board previously replaced?	Go to step 4.	Go to step 5.
Step 4 **a** Go to your etherFAX portal account, and then remove the printer from the etherFAX registry. **b** Perform a POR. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Make sure that the printer serial number is properly added in your etherFAX portal account. Does the problem remain?	Contact the next level of support.	The problem is solved.

Service menus

Understanding the printer control panel

Using the control panel



	Use the	To
1	Display	• View the printer messages and supply status. • Set up and operate the printer.
2	Home button	Go to the home screen.
3	Power button	• Turn on or turn off the printer. **Note:** To turn off the printer, press and hold the power button for five seconds. • Set the printer to Sleep or Hibernate mode. • Wake the printer from Sleep or Hibernate mode.
4	Keypad	Enter numbers or symbols in an input field.
5	Pause button	Place a dial pause in a fax number.
6	Start button	Start a job, depending on which mode is selected.
7	Clear all or Reset button	Reset the default settings of a function such as copying, faxing, or scanning.
8	Stop or Cancel button	Stop the current job.
9	Backspace button	Move the cursor backward and delete a character in an input field.
10	Indicator light	Check the status of the printer.
11	Volume buttons	Adjust the volume of the headset or speaker.
12	Headset or speaker port	Attach a headset or speaker.

Understanding the status of the power button and indicator light

Indicator light	Printer status
Off	The printer is off or in Hibernate mode.
Blue	The printer is ready or processing data.
Red	The printer requires user intervention.

Power button light	Printer status
Off	The printer is off, ready, or processing data.
Solid amber	The printer is in Sleep mode.
Blinking amber	The printer is in Hibernate mode.

Using the home screen

Note: Your home screen may vary depending on your home screen customization settings, administrative setup, and active embedded solutions.

Touch		To
1	Copy	Make copies.
2	E-mail	Send e-mails.
3	Settings	Access the printer menus.
4	Fax	Send fax.
5	Address Book	Manage a contact list that other applications on the printer can access.
6	Status/Supplies	• Show a printer warning or error message whenever the printer requires intervention to continue processing. • View more information on the printer warning or message, and on how to clear it. **Note:** You can also access this setting by touching the top section of the home screen.

Touch		To
7	USB Drive	• Print photos and documents from a flash drive. • Scan photos and documents to a flash drive
8	Job Queue	Show all the current print jobs. **Note:** You can also access this setting by touching the top section of the home screen.
9	Held Jobs	Show the print jobs that are held in the printer memory.
10	Shortcut Center	Organize all shortcuts.
11	App Profiles	Access application profiles.
12	Scan Profiles	Scan and save documents directly to the computer.
13	FTP	Scan and save documents directly to an FTP server.
14	Bookmarks	Organize all bookmarks.
15	Change Language	Change the language on the display.

Diagnostics menu

Entering the Diagnostics menu

The Diagnostics menu contains tests that are used to help isolate issues with the printer. To access some of these tests, avoid POST tests that run at POR. Some POST tests can generate errors that prevent a diagnostic test from running.

Do either of the following:

- To access the Diagnostics menu from the home screen, press * * **3 6** on the control panel. This method is preferable.
- To access the Diagnostics menu without running the POST tests:
  1. Press and hold the **3** and **6** buttons while turning on the printer.
  2. Release the buttons when the splash screen appears.

Reports

Device Settings

This report lists all the current printer settings.

Enter the Diagnostics menu, and then navigate to:

Reports > **Device Settings**

Installed Licenses

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

Enter the Diagnostics menu, and then navigate to:

Reports > **Installed Licenses**

Advanced Print Quality Samples

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

Enter the Diagnostics menu, and then navigate to:

Advanced Print Quality Samples > **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 > **Format Fax Storage**
2. Touch **Start**.

Event log

Display Log

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

Enter the Diagnostics menu, and then navigate to:

Event Log > **Display Log**

Print Log

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

1. Enter the Diagnostics menu, and then navigate to:
   Event Log > **Print Log**
2. Touch **Start**.

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

Print Log Summary

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

1. Enter the Diagnostics menu, and then navigate to:
   Event Log > **Print Log Summary**
2. Touch **Start**.

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

Mark Log

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

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

   Event Log > **Mark Log**

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

Input tray quick print

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

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

Output bin quick feed

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

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

Permanent page count

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

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

Enable edge-to-edge (printing)

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

Note: Contamination of the second transfer roller may result from printing up to the physical edges of the page.

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

   Printer Setup > **Enable edge-to-edge (printing)**

2. Select a setting to adjust.

   Note: This feature does not work in PPDS emulation.

Enable edge-to-edge (copy)

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

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

   Printer Setup > **Enable edge-to-edge (copy)**

2. Select a setting to adjust.

Processor ID

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

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

Serial number

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

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

Model name

This setting displays the model name of the printer.

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

Engine setting [x]

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

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

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

   Printer Setup > **Engine setting [x]**

2. Select a setting, enter a value, and then touch **OK**.

EP setup

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

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

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

   Printer Setup > **EP setup**

2. Select a setting.

Printer diagnostics and adjustments

Sensor tests

1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**.
2. From the Sensor tests section, touch **Start**.

   A dialog listing the sensor tests appears.
3. Find, and then manually toggle the sensor.

   Notes:

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

List of sensor tests

MPF media present
Media out (tray 1)
Pick roller index (tray 1)
Pick (tray 1)
Tray 1 pass-through
Input
Narrow media
Fuser exit
Duplex path
Duplex interlock
Output bin full
Front door interlock
Rear door interlock
Media size (tray [x]) switch [x]

Motor tests

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

   Printer diagnostics & adjustments > **Motor tests**

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

Notes:

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

List of motor tests

MPF pick
Pick (tray 1) picking
Pick (tray 1) lifting
Fuser (fusing)
Fuser (retracting)
Duplex
Redrive (forward)
Redrive (reverse)
Imaging unit
K toner add
Fan (main)
Fan (cartridge)

Registration adjust

This setting lets you adjust the skew, margins, or perform a Quick Test.

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

   Printer diagnostics & adjustments > **Registration adjust**

2. Select a setting to adjust.

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.

Margin Offset

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

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

   Printer diagnostics & adjustments > **Margin Offset**

2. Select a setting.

Universal Override

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

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

   Printer diagnostics & adjustments > **Universal Override**

2. Select a setting to adjust.

Additional input tray diagnostics

Sensor tests

1. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics**.
2. From the Sensor tests section, touch **Start**.

   A dialog listing the sensor tests appears.
3. Find, and then manually toggle the sensor.

   Notes:

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

Motor tests

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

   Additional input tray diagnostics > **Motor tests**

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

   Notes:

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

Output device diagnostics

Staple test

Note: This menu appears only when a finisher is installed.

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

   Output device diagnostics > **Staple test**

2. Select a staple job, and then check the output for any issues.

Sensor tests

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

   Output device diagnostics > **Sensor tests**

2. Select the output device where the sensor is located.
3. Find, and then manually toggle the sensor.

   Notes:

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

Scanner diagnostics

Motor tests

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

   Scanner diagnostics > **Motor tests**

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

Notes:

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

List of motor tests

Flatbed Scanner
Run ADF Transport Forward
Run ADF Transport Backward
ADF Stop Transport

ADF Pick
Raise ADF Tray
Lower ADF Tray
ADF Deskew On
ADF Deskew Off
ADF Calibration

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 tests section, touch **Start**.

   A dialog listing the sensor tests appears.
3. Find, and then manually toggle the sensor.

   Notes:

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

List of sensor tests

FB CCD home
ADF closed
ADF media present
ADF pick
ADF deskew
ADF 1st scan
ADF top door interlock
ADF calibration strip home

Multifeed calibration

1. Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
2. Select Multifeed Calibration, and then touch **Start**.

Feed Test

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

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

   Scanner diagnostics > **Feed Test**

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

Scanner Calibration Reset

Before starting the test, make sure that the scanner glass and backing material are clean. For more information, go to **"Cleaning the scanner" on page 814**.

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

To verify the result, do the following:

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

   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

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

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

   Scanner Diagnostics > **Controller Calibration**

2. Touch **Start**.

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

Menu item	Description
USB Configuration USB Scan to Local Off On*	Set whether the USB device driver enumerates as a USB Simple device (single interface) or as a USB Composite device (multiple interfaces).
USB Configuration USB Speed Full Auto*	Set the USB port to run at full speed and disable its high-speed capabilities.
Tray Configuration 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 to select paper size and type 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.
Tray Configuration Envelope Prompts Auto* Multipurpose Feeder Manual Envelope	Set the paper source that the user fills when a prompt to load envelope appears.
Tray Configuration Action for Prompts Prompt user* Continue Use current	Set the printer to resolve paper- or envelope-related change prompts.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description
Reports Menu Settings Page Event Log Event Log Summary HealthCheck Statistics	Print reports about printer menu settings, status, and event logs.
Supply Usage And Counters Clear Supply Usage History	Reset the supply page counter or view the total printed pages.
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 Emulator Security Page Timeout 0–60 (60*)	Set the page timeout during emulation.
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 should. **Note:** This menu item appears only in some printer models.
Fax Configuration Fax Storage Location NAND Disk*	Set the storage location for all faxes. **Notes:** • This menu item appears only when a hard disk is installed. • This menu item appears only in some printer models.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description
Print Configuration Font Sharpening 0–150 (24*)	Set a text point-size value below which the high-frequency screens are used when printing font data. For example, if the value is 24, then all fonts sized 24 points or less use the high-frequency screens.
Print Configuration Print Density 1–5 (3*) Copy Density 1–5 (3*)	Adjust the toner density when printing or copying documents.
Print Configuration A4 Fuser Compress* Clip	Set the fuser behavior when printing on a letter-size paper.
Device Operations Quiet Mode Off* On	Set the printer to operate in Quiet Mode. **Note:** Enabling this setting slows down the overall performance of the printer.
Device Operations Safe Mode Off* On	Set the printer to operate in a special mode, in which it attempts to continue offering as much functionality as possible, despite known issues. For example, when set to On, and the duplex motor is nonfunctional, the printer performs one-sided printing of the documents even if the job is two-sided printing.
Device Operations Minimum Copy Memory 20 MB* 30 MB 50 MB 80 MB 100 MB	Set the minimum memory allocation for storing copy jobs.
Device Operations Clear Custom Status	Erase user-defined strings for the Default or Alternate custom messages.
Device Operations Clear all remotely-installed messages	Erase messages that were remotely installed.
Device Operations Automatically Display Error Screens Off On*	Show existing error messages on the display after the printer remains inactive on the home screen for a length of time equal to the Screen Timeout setting.
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.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description
App Configuration LES Applications Off On*	Enable the Lexmark Embedded Solutions (LES) applications. **Notes:** • When set to On, this setting does not affect built-in applications. • This menu item appears only in the Embedded Web Server.
Scanner Configuration Scanner Manual Registration Print Quick Test	Print a Quick Test target page. **Note:** Make sure that the margin spacing on the target page is uniform all the way around the target. If it is not, then the printer margins must be reset.
Scanner Configuration Scanner Manual Registration Front ADF Registration Rear ADF Registration Flatbed Registration	Manually register the flatbed and ADF after replacing the ADF, scanner glass, or controller board.
Scanner Configuration Reset Maintenance Counter Resetting ADF 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 Enabled* Disabled ADF Disabled	Disable the scanner when it is not working properly.
Scanner Configuration Tiff Byte Order CPU Endianness* Little Endian Big Endian	Set the byte order of a TIFF-formatted scan output.
Scanner Configuration Exact Tiff Rows Per Strip On* Off	Set the RowsPerStrip tag value of a TIFF-formatted scan output.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Service Engineer menu

Entering the Service Engineer (SE) menu

To access the Service Engineer (SE) menu:

1. Turn on the printer.
2. When the home screen appears, press * * **411** on the control panel.

General SE Menu

- Capture Logs to USB Drive

  Note: This setting allows you to save a log file to a USB drive.
- Code Versions
- Debug Level

Network SE Menu

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

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

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

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

Scanner SE Menu

Enter this setting to view the calibration data.

Fax SE Menu

Use this menu to help resolve fax transmission and reception issues.

Enter the SE menu, and then touch **Fax SE Menu**.

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

Note: For printers with firmware version FW7.1 and up, adjust the Transmit Level setting via EWS SE. See **"EWS SE Menu" on page 431**

Top-level menu	Intermediate menu
Agency Test Menu	• Go Off Hook • Ring Detect • Generate Tones • Modulations
Fax Settings	• Fax Modulations • FOIP Settings • Miscellaneous Settings • Reset Fax Settings
Modem Settings	• Caller ID Pattern **Note:** 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

Top-level menu	Intermediate menu
Fax logs	• Print all T30 Logs • Print CallerID Log • Print Call Log • Print Fax Settings • Print Job Log • Print All T30 Log Errors • Print All Auto Captured Logs On • Print T38 Trace Log • Clear T38 Trace Log
Reboot System	N/A

EWS SE Menu

Enter this setting to help resolve customer communication related printing issues.

To access the Silabs configuration:

1. Open a web browser and then type **`https://<IP address>/se`** .
2. Navigate to:

   Fax > **Settings** > **Silabs Configuration**

Entering invalid engine mode

This mode is used if the machine has invalid code and needs the correct code loaded. After entering this mode, the firmware code can be updated.

1. Turn off the printer.
2. Press and hold the **3**, **4**, and **6** buttons simultaneously.
3. Turn on the printer.
4. Release the buttons after 10 seconds.

Entering Recovery mode

This mode allows the printer to boot from a secondary set of instructions and flash firmware code. While in this mode, you can only flash firmware code through a USB cable directly connected to a PC.

Depending on your printer model, do any of the following:

For LED display

1. Turn off the printer.
2. Open the front door.
3. Press and hold the **Stop** button.

4 Turn on the printer.

5 When all the icons flash, release the button.

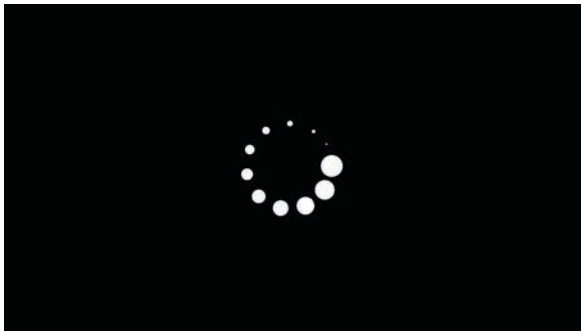
For 2-line display

1 Turn off the printer.

2 Press and hold the **OK** and **Back** buttons.

3 Turn on the printer.

4 When the display shows the following icon, release the buttons.



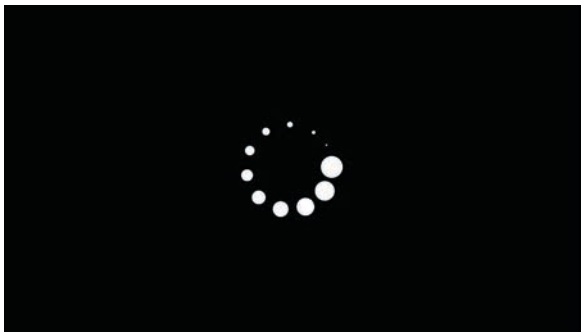
For 2.4-, 4.3-, 7-, and 10-inch displays

1 Turn off the printer.

2 Press and hold the **2**, **7**, and **8** buttons.

3 Turn on the printer.

4 When the display shows the following icon, release the buttons.



For 2.8-inch display

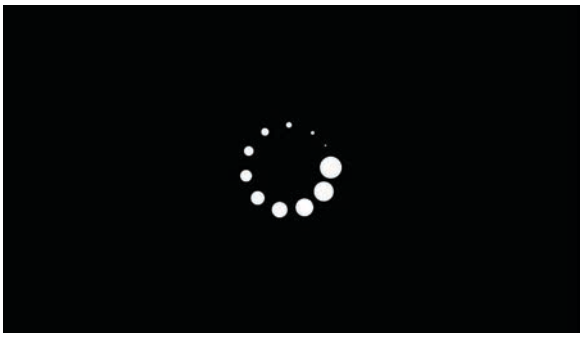
1 Turn off the printer.

2 Open tray 1.

3 Make sure that paper is loaded in tray 1.

4 Turn on the printer.

5 When the display shows the following icon, close tray 1.



Note: If tray 1 is not closed, then the printer will boot normally.

6 A screen with red selection items appears.

Touch **->** to navigate to Recovery mode.

7 Touch **Boot** or **RECOVERY**.

Parts removal

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 a soft power switch. It does not physically disconnect the input AC voltage. To avoid the risk of electrical shock, always remove the power cord from the printer when removal of the input AC voltage is required.

CAUTION—SHOCK HAZARD: To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.

CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

CAUTION—PINCH HAZARD: To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Précautions de retrait

ATTENTION—RISQUE D'ELECTROCUTION : Une tension résiduelle peut être présente dans le bloc d'alimentation basse tension (LVPS) et le bloc d'alimentation haute tension (HVPS). Pour éviter tout risque d'électrocution, ne touchez pas les composants du circuit ou le côté soudure de la carte. Tenez-les uniquement par leurs extrémités ou le boîtier en métal.

ATTENTION—RISQUE D'ELECTROCUTION : Ce produit utilise un commutateur d'alimentation logiciel. Il ne déconnecte pas physiquement la tension d'alimentation CA. Pour éviter tout risque d'électrocution, débranchez toujours le cordon d'alimentation de l'imprimante lorsque vous devez déconnecter la tension d'alimentation CA.

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

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

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

Precauciones durante la extracción

PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS: La fuente de alimentación de bajo voltaje (LVPS) y la fuente de alimentación de alto voltaje (HVPS) pueden presentar voltaje residual. Para evitar el riesgo de descarga eléctrica, no toque los componentes del circuito ni el lateral soldado de la placa. Manipule solo los bordes exteriores o la carcasa metálica.

PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS: Este producto utiliza un interruptor de corriente de software. No desconecta físicamente la entrada de voltaje de CA. Para evitar el riesgo de descarga eléctrica, desenchufe siempre el cable de alimentación de la impresora cuando sea necesario retirar la entrada de voltaje de CA.

PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS: Para evitar el riesgo de descargas eléctricas y daños en la impresora, retire el cable de alimentación de la toma eléctrica y desconecte todas las conexiones a dispositivos externos antes de conectar o desconectar cualquier cable, placa electrónica o conjunto.

PRECAUCIÓN: SUPERFICIE CALIENTE: El interior de la impresora podría estar caliente. Para evitar el riesgo de heridas producidas por el contacto con un componente caliente, deje que la superficie se enfríe antes de tocarlo.

PRECAUCIÓN: PELIGRO DE ATRAPAMIENTO: Para evitar el riesgo de lesión por atrapamiento, preste atención en las áreas marcadas con esta etiqueta. Las lesiones por atrapamiento se pueden producir en torno a partes móviles, tales como engranajes, puertas, bandejas y cubiertas.

Vorsichtsmaßnahmen bei der Demontage

VORSICHT – STROMSCHLAGGEFAHR: Im Niederspannungsnetzteil (LVSP) und Hochspannungsnetzteil (HVPS) liegt unter Umständen Restspannung vor. Um das Risiko eines elektrischen Schlags zu vermeiden, berühren Sie keine umliegenden Bauteile oder die Lötseite der Platine. Fassen Sie sie nur an den Außenkanten oder am Metallgehäuse an.

VORSICHT – STROMSCHLAGGEFAHR: Dieses Produkt verwendet einen weichen Netzschalter. Er trennt die Eingangswechselspannung nicht physisch. Um das Risiko eines elektrischen Schlags zu vermeiden, ziehen Sie stets das Netzkabel vom Drucker ab, wenn eine Abtrennung der Eingangswechselspannung erforderlich ist.

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

VORSICHT – HEISSE OBERFLÄCHE: Das Innere des Druckers kann sehr heiß sein. Vermeiden Sie Verletzungen, indem Sie heiße Komponenten stets abkühlen lassen, bevor Sie ihre Oberfläche berühren.

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

Data security notice

Identifying printer memory

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

- **Hard disk memory**—Some printers have a hard disk drive installed. The hard disk is designed for printer-specific functionality and cannot be used for long-term storage of data that is not print-related. The hard disk does not let users extract information, create folders, create disk or network file shares, or transfer FTP information directly from a client device. The hard disk can retain buffered user data from complex print jobs, form data, and font data.

The following parts can store memory:

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

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

Erasing printer memory

To erase volatile memory, turn off the printer.

To erase nonvolatile memory, do the following:

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

To erase hard disk memory, do the following:

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

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

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

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

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

Handling ESD-sensitive parts

Many electronic products use parts that are known to be sensitive to electrostatic discharge (ESD). To prevent damage to ESD-sensitive parts, do the following:

- Turn off the printer before removing logic boards.
- Keep the parts in their original packing material until you are ready to install them into the printer.

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

Critical information for controller board or control panel replacement

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

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

PRECAUCIÓN: POSIBLES DAÑOS PERSONALES: La batería de litio de este producto no debe reemplazarse. Existe riesgo de explosión si se sustituye incorrectamente una batería de litio. No recargue, desmonte ni incinere una batería de litio. Deseche las baterías de litio según las instrucciones del fabricante y las normativas locales.

VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR Die Lithiumbatterie in diesem Produkt darf nicht ausgetauscht werden. Wird eine Lithiumbatterie nicht ordnungsgemäß ausgetauscht, besteht Explosionsgefahr. Lithiumbatterien dürfen auf keinen Fall wieder aufgeladen, auseinander genommen oder verbrannt werden. Befolgen Sie zum Entsorgen verbrauchter Lithiumbatterien die Anweisungen des Herstellers und die örtlichen Bestimmungen.

Warning—Potential Damage: Observe all precautions when handling ESD sensitive parts. See **“Handling ESD-sensitive parts” on page 437**.

Warning—Potential Damage: Carefully remove cables and connectors. Make sure they are not damaged.

Note: Some models have eSF solutions, it is recommended to back up the eSF solutions and settings before replacing the controller board. See **“Backing up eSF solutions and settings” on page 444**.

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

- Control panel
- Controller board

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

1 Replace the affected component.

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

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

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

3 Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.

- If the problem is not resolved—Turn off the printer, and then reinstall the old part.
- If the problem is resolved—Perform a POR.
- If NVRAM error occurs during the replacement, go to **"NVRAM mismatch failure service check" on page 386**

Restoring the printer configuration after replacing the controller board

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

Note: Perform this procedure only if the printer has an eSF application that is installed from the Virtual Solution Center, during manufacturing, or through customization. If you do not have access to Service Restore Tool, then contact your next level of support.

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

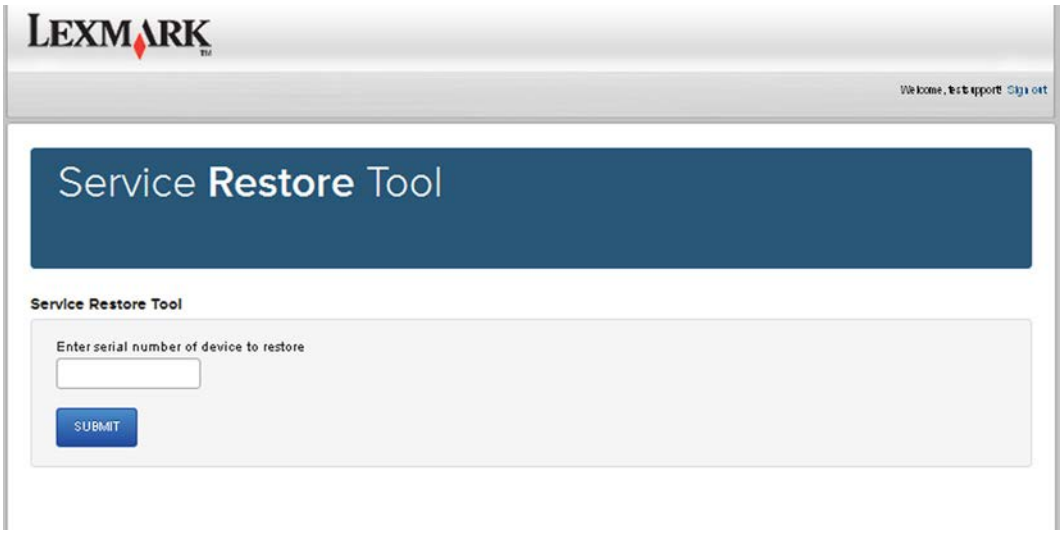
Using the Service Restore Tool

1 Go to **https://cdp.lexmark.com/service-restore-tool/** to access the tool.

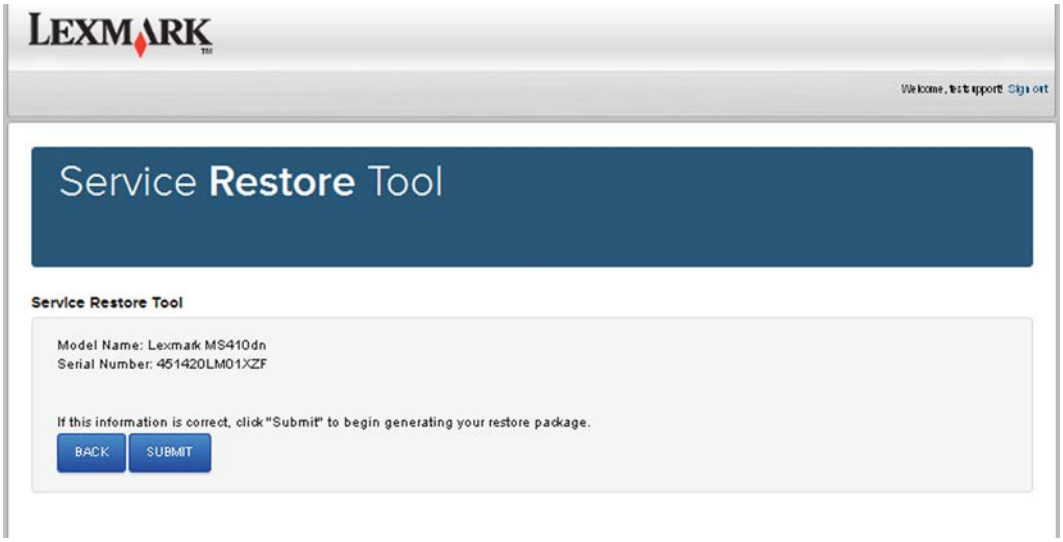
2 Log in using your Lexmark or partner login.

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

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

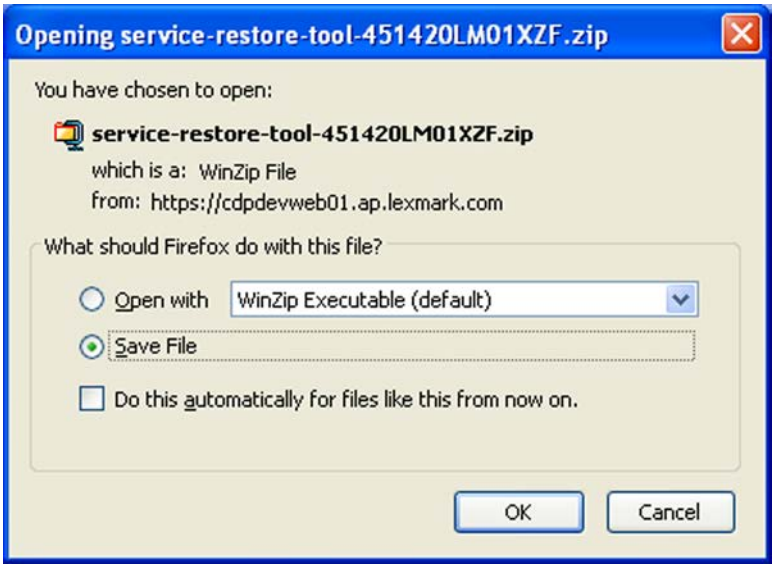


Note: Make sure that the serial number that appears on the verification screen is correct.



4 Save the zip file.

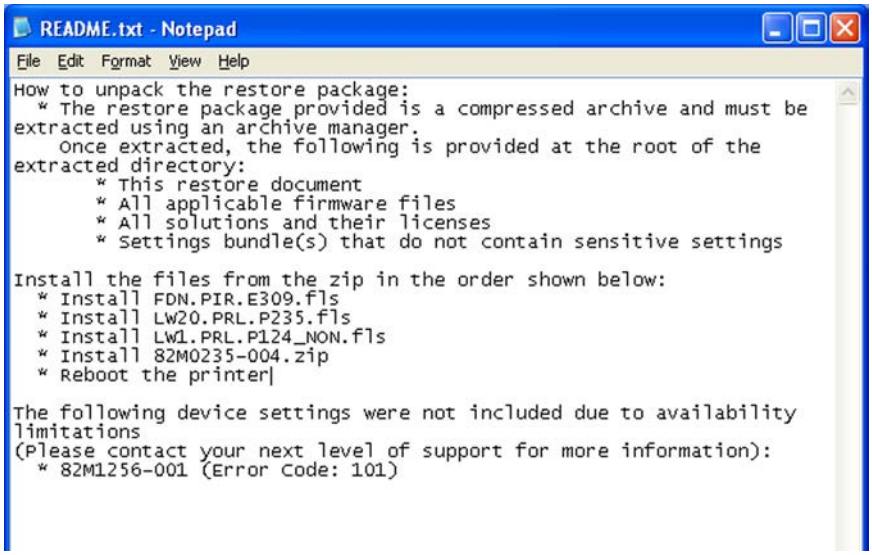
Note: Make sure that the serial number in the zip file matches the serial number of the printer being restored.



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

Notes:

- Perform the install instructions on the *Readme* file in the exact order shown. Restart the printer only if the file says so.
- For more information on how to flash the downloaded files, see **"Updating the printer firmware " on page 443**.
- To load the zip files that are extracted from the Service Restore Tool, see **"Restoring solutions, licenses, and configuration settings" on page 442**.



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

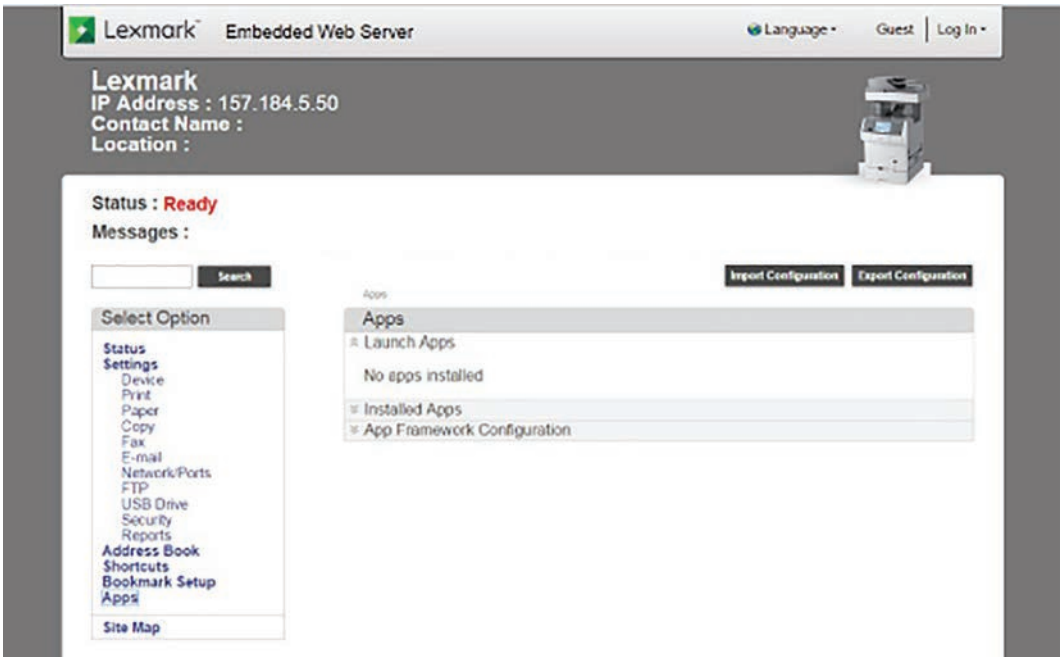
Notes:

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

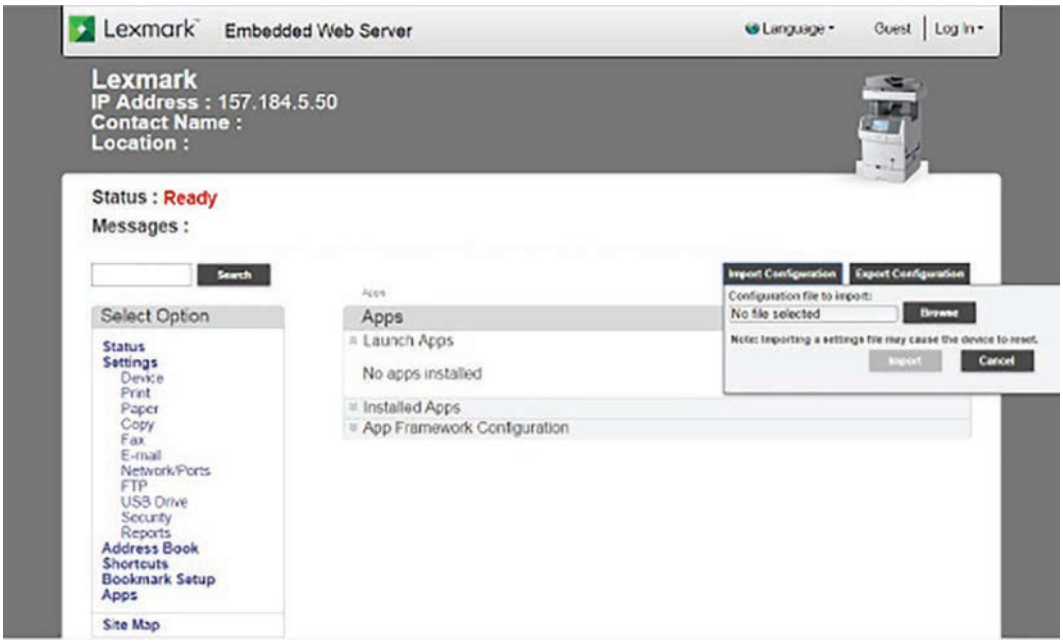
Restoring solutions, licenses, and configuration settings

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

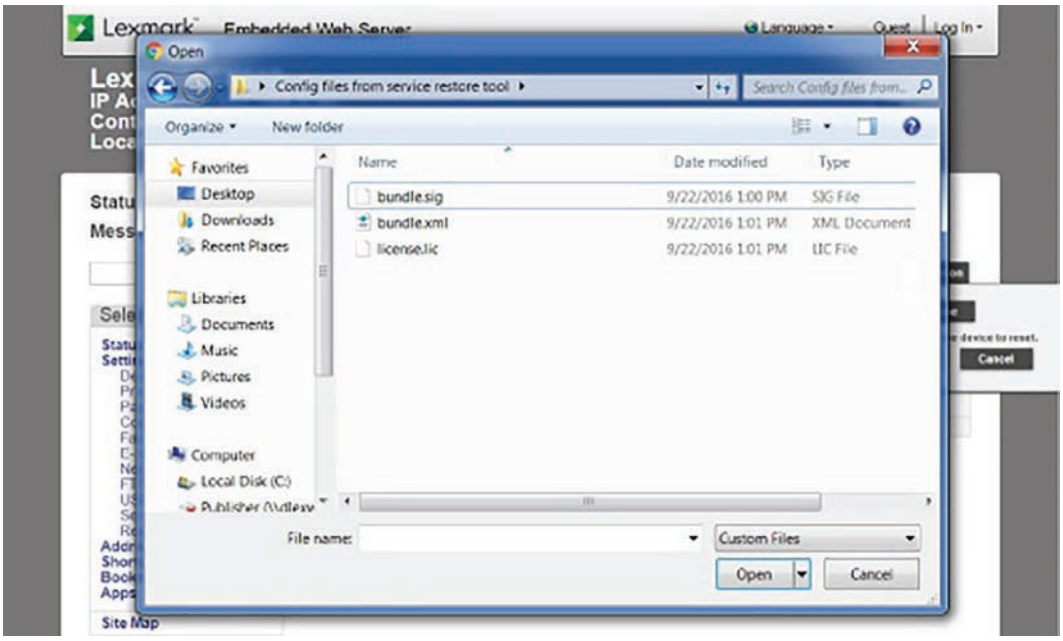
1 Open a web browser, and then type the printer IP address.



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



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



4 Select the file to import, and then click **Import**.

5 Repeat step 2 through step 4 for the other files that are included in the extracted zip file.

Updating the printer firmware

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

Using a flash drive

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

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

1 Insert the flash drive into the USB port.

2 Depending on the printer model, do any of the following:

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

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

Using a network computer

Using the File Transfer Protocol (FTP)

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

1 Turn on the printer.

2 Obtain the IP address from the home screen.

3 From the command prompt of a network computer, open an FTP session to the printer IP address.

4 Use a PUT command to place the firmware file on the printer.

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

Using the Embedded Web Server

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

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

2 Click **Settings** > **Device** > **Update Firmware**.

3 Select the file to use.

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

Using a USB cable connection

Note: Make sure that the cable is connected to the rear USB port.

Using USB Flash Utility

1 Go to **support.lexmark.com**, and then download USB Flash Utility.

2 Extract, and then run the utility.

3 Click **Browse Files**, and then browse to the firmware file directory.

4 Select the firmware file.

5 Select the source printer.

6 Click **Start**.

Using USButil

1 Go to **support.lexmark.com**, and then download USButil.

2 Extract, and then drag and drop the firmware file onto the USButil icon.

3 A command prompt window appears briefly.

Note: Make sure to disconnect other USB devices when using USButil.

Backing up eSF solutions and settings

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

Exporting eSF solutions and settings file

1 Reset the printer into Invalid engine mode. See **"Entering invalid engine mode" on page 431**.

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

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

3 Navigate to **Settings** > **Solutions** > **Embedded Solutions**.

4 From the Embedded Solutions page, select the applications that you want to export.

5 Click **Export**.

Note: The size limit of the export file is 128 KB.

Importing eSF solutions and settings file

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

1 Reset the printer into Invalid engine mode. See **"Entering invalid engine mode" on page 431**.

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

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

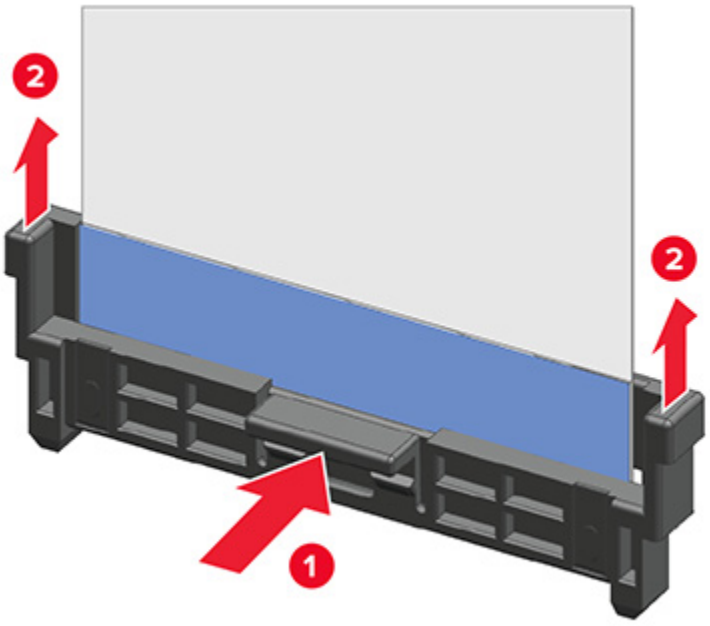
3 Navigate to **Settings** > **Solutions** > **Embedded Solutions**.

4 From the Embedded Solutions page, select the applications that you want to import.

5 Click **Import**.

Disconnecting ribbon cables

Warning—Potential Damage: The ribbon cable and its socket may get damaged if it is not properly disconnected. When disconnecting the cable, hold its connector and press its tab before unplugging it.

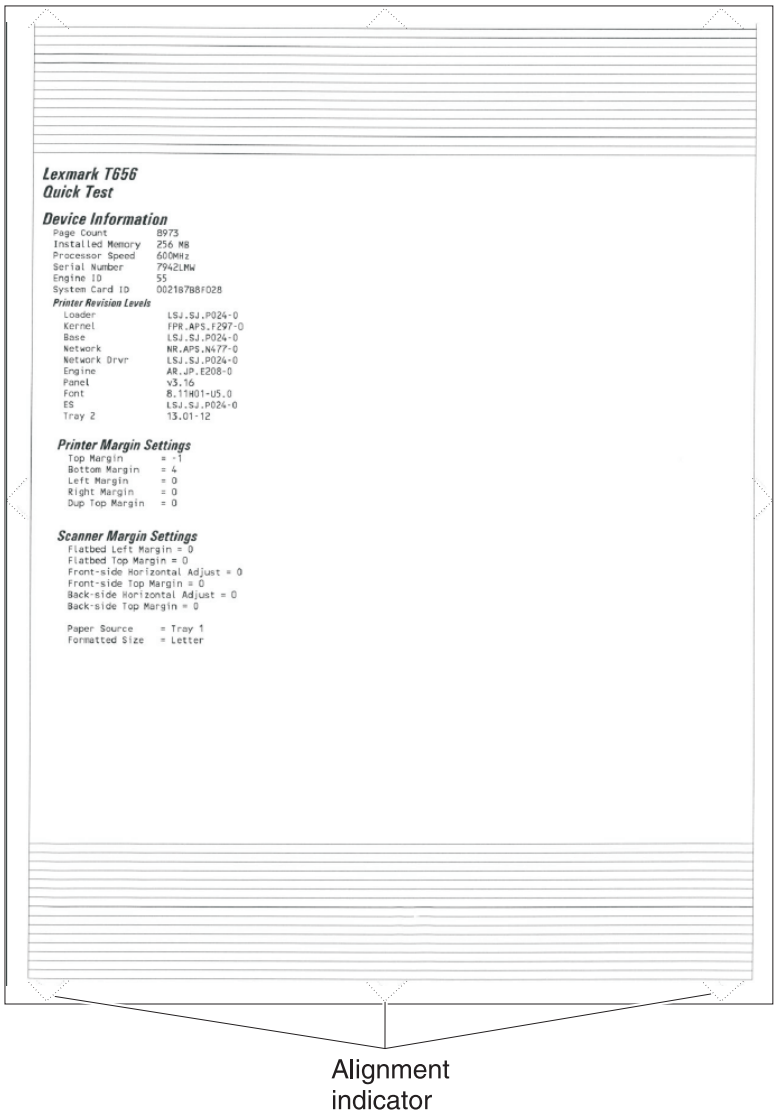


Adjustments

Registration adjustment

The allowable image skew on the test page is one dot (0.5 mm) or less delta measured between the left and right alignment indicators for the top and bottom margins.

Note: The following sample test page shows the alignment indicators at the bottom margin.



The amount of skew may vary from sheet to sheet, so multiple test pages may need to be printed.

Generating a test page for margin alignment

Note: Before printing a test page, make sure that the paper guides on the source tray are positioned correctly. The test page should be printed only on Letter or A4 paper from tray 1.

1 From the home screen, press ****36** to enter the Diagnostics menu.

2 Navigate to:

Printer diagnostics & adjustments > **Registration adjust** > **Quick test**

A test page showing the margins is generated.

3 Review the test page to check for skews at the alignment indicators.

- The alignment indicator arrows must be completely visible along the edge.
- The tip of the arrows must point to the edge.

If the top margin is skewed (or if the aligner rollers have been replaced), then see **"Aligner roller adjustment" on page 447**.

If both the top and bottom margins are skewed (or mostly the bottom margin), then do the following:

- Adjust the aligner roller to make the leading edge parallel with the trailing edge. See **"Aligner roller adjustment" on page 447**.
- Adjust the printhead to align both margins. See **"Polygon printhead mechanical registration adjustment" on page 450**.
- The aligner roller may need adjustment again after the bottom skew is aligned.

Aligner roller adjustment

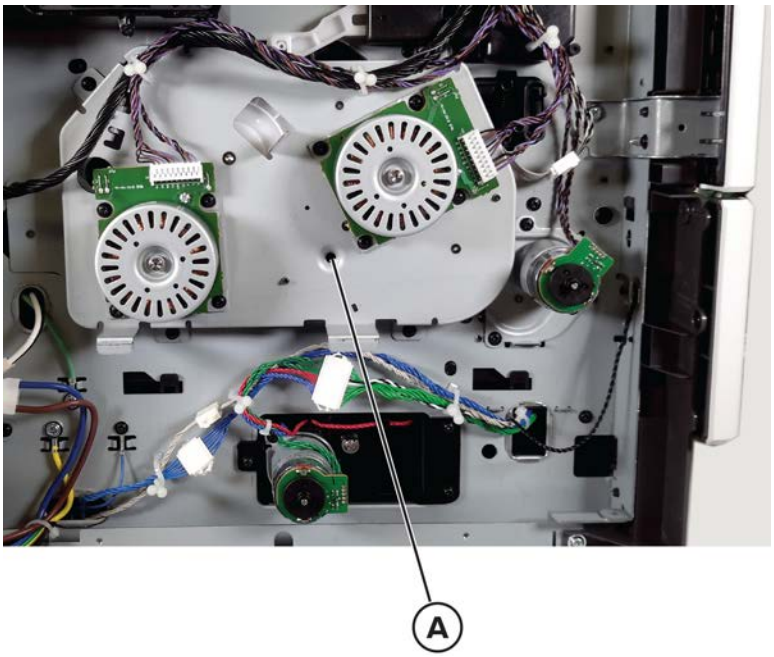
Perform the aligner roller adjustment after replacing the aligner roller. Always print a copy of the Quick Test Page before making any adjustments to the aligner roller.

Note: When replacing the aligner roller, unscrew the reference adjustment screw just far enough to remove the old aligner roller and install the new one. It is not necessary to completely remove the screw.

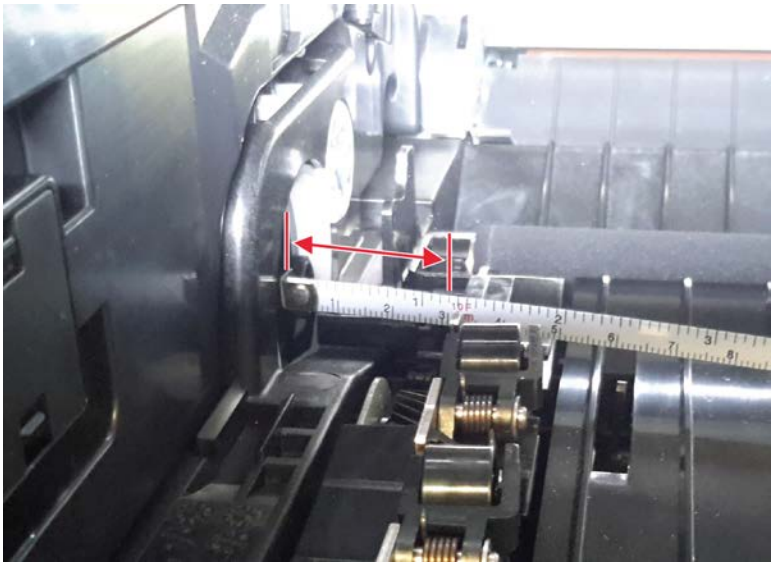
- If you have just replaced the aligner roller, see Step A.
- If you are only correcting the top margin skew, see Step B.
- If you are correcting the bottom margin skew or both top and bottom margin skews, see Step C.

Step A

Set the initial position of the aligner roller plate using a 3-mm hex wrench at the aligner roller reference adjustment screw (A).



Adjust the screw until the aligner roller plate is offset by 31 mm as shown in the following image. This setting is the nominal point to minimize the amount of adjustment needed.

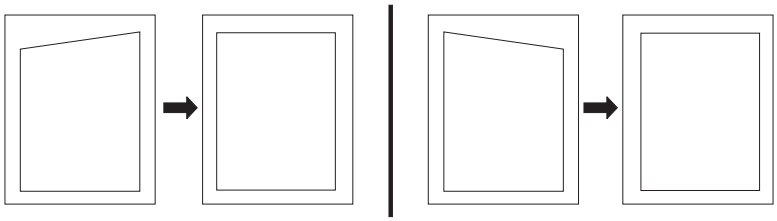


Continue to Step B.

Step B

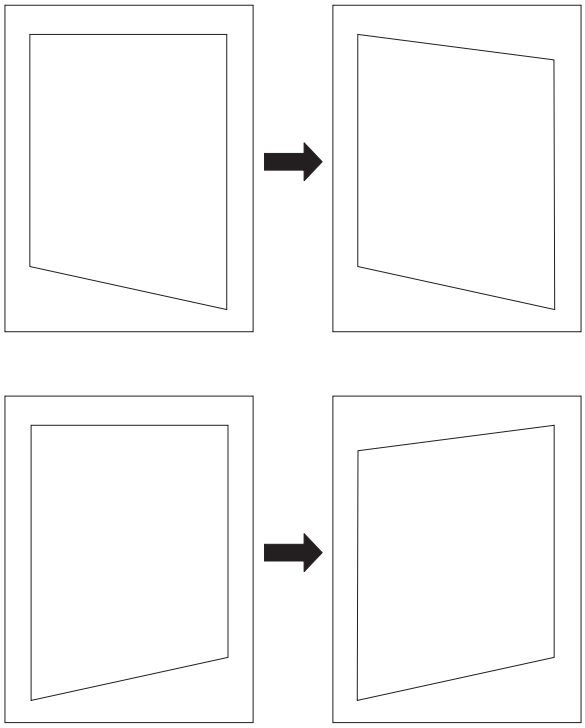
Print a Quick Test Page, and then check the top alignment indicators on the test page. The difference in the print location to the top edge of the paper between the left and right alignment indicators should be 0.5 mm (one dot) or less. Depending on the skew, turn the screw either clockwise or counterclockwise using a 3-mm hex wrench, and print a copy of the Quick Test Page to check the arrow indicators on the top and bottom margins. Continue adjusting the screw as you check the results of each adjustment on a new test page until the top image skew is below 0.5 mm. One full 360-degree turn of the aligner screw changes the top edge skew by roughly 1 mm (2 alignment indicator dots).

Adjustment is typically 0–2 rotations. More than 3–4 turns, in either direction from the 31 mm nominal spot, is not necessary and may indicate other issues with the tray (such as problems with the tray paper guides, pick rollers, or transfer roller). If the top and bottom skew are below 0.5 mm, then the alignment process is complete.



Step C

Print a Quick Test Page, and then check the top and bottom alignment indicators on the test page. The goal is to make the skew at the top and bottom of the page parallel. Depending on the skew, turn the screw either clockwise or counterclockwise using a 3-mm hex wrench, and print a Quick Test Page to check the arrow indicators on the top and bottom margins. Continue adjusting the screw as you check the results of each adjustment on a new test page until you obtain the results you want. One full 360-degree turn of the aligner adjustment screw changes the leading edge skew by roughly 1 mm (2 alignment indicator dots).



After the aligner roller adjustment is done, perform the polygon printhead mechanical registration adjustment. See **"Polygon printhead mechanical registration adjustment" on page 450**.

Polygon printhead mechanical registration adjustment

Perform the printhead mechanical registration adjustment procedure after you remove or replace the printhead, or loosen the mounting screws.

Install the new printhead with the mounting screws lightly tightened before printing the Quick Test Page to see if adjustment is needed.

To perform the printhead mechanical registration adjustment:

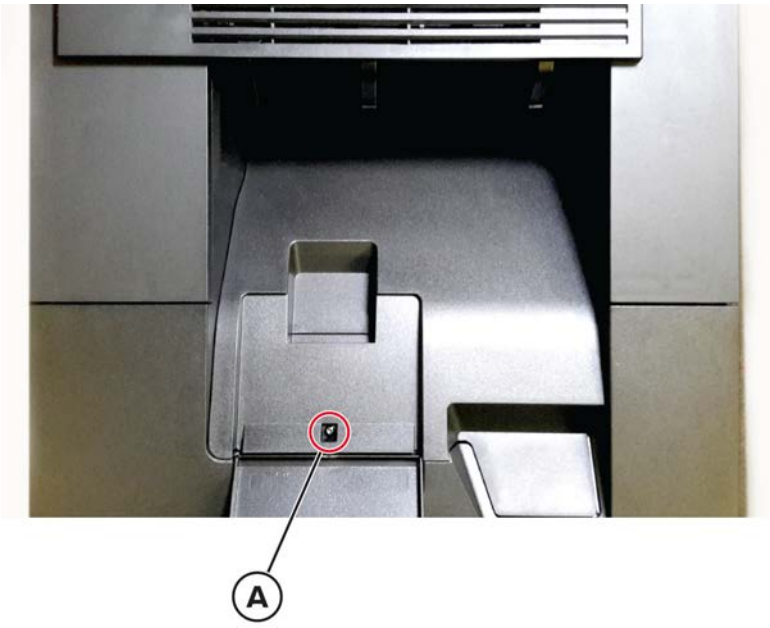
1. Print a Quick Test Page.

   From the Diagnostics menu, navigate to:

   Printer diagnostics & adjustments > **Registration adjust** > **Quick test**

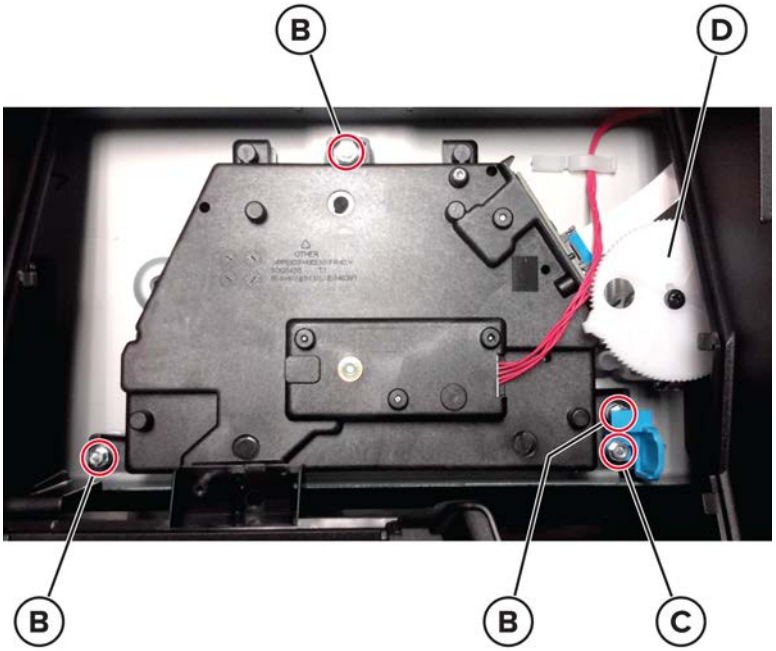
   If the skew between the bottom left and bottom right alignment indicators is greater than 0.5 mm (1 dot), then proceed with adjustment. Otherwise, printhead adjustment is not needed.

2. Remove the screw (A) under the bin extender, and then remove the cover.

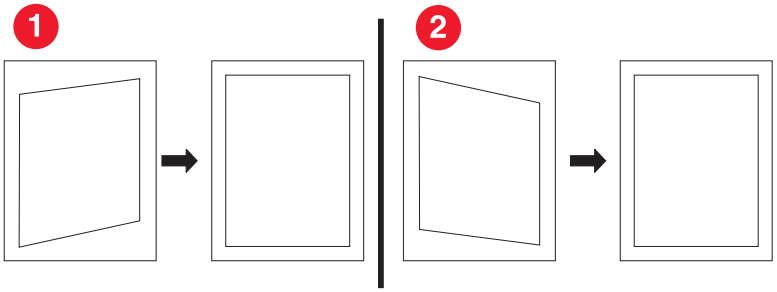


3. Loosen, by a half turn, each of the three printhead mounting screws (B) securing the printhead to the printer frame. Use a 5.5-mm hex-socket screwdriver.

4 Loosen the printhead alignment lock screw (C). With the printhead unlocked, its alignment can now be adjusted by the printhead adjustment wheel (D).



5 Check the Quick Test Page for any sign of misalignment by checking the alignment indicators at the bottom left and bottom right of the test page for equal distance from the bottom of the page. If necessary, rotate the printhead adjustment wheel either clockwise (to rotate the image clockwise) or counterclockwise (to rotate the image counterclockwise), and then print another Quick Test Page. You may need to repeat this step two times or more before you get satisfactory bottom skew results.



1	To correct, turn the printhead adjustment wheel clockwise to rotate both edges clockwise.
2	To correct, turn the printhead adjustment wheel counterclockwise to rotate both edges counterclockwise.

Warning—Potential Damage: Do not rotate the printhead adjustment wheel at a full clockwise or counterclockwise turn.

Warning—Potential Damage: In some cases the adjustment process may take several cycles of tightening and loosening of the printhead mounting screws. Care should be taken to avoid stripping the mounting screw bosses. Use only a manual hex head screwdriver to avoid damage.

6 When you have the correct alignment, ensure that the printhead alignment screw is properly tightened, and then print a final Quick Test Page for verification.

7 Check the top edge skew and perform the aligner roller adjustment if required. See **"Aligner roller adjustment" on page 447**.

ADF skew adjustments

Note: Before you start any of the ADF skew adjustment procedures, make sure the **"Aligner roller adjustment" on page 447** has been properly performed.

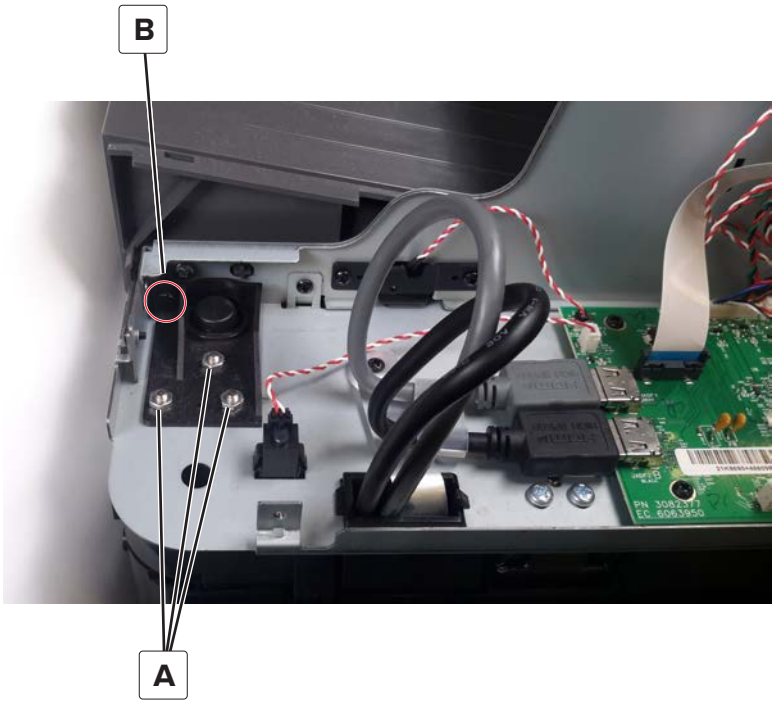
ADF skew adjustment (front side)

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.

2 Remove the scanner glass cushion.

3 Loosen, but do not remove the three nuts (A) securing the adjusting bracket to the ADF frame.

4 Turn the skew adjustment screw (B) clockwise for positive skew or counterclockwise for negative skew.



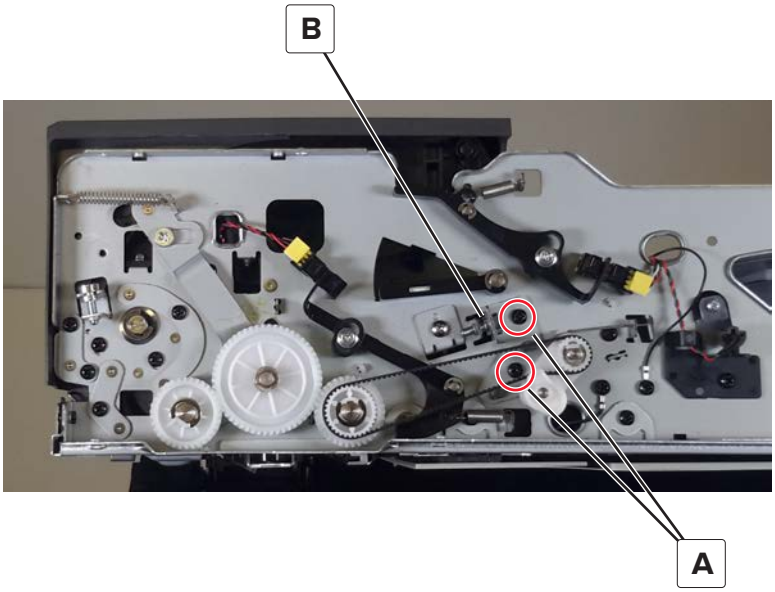
Notes:

- Do not completely remove the nuts or screws when performing this adjustment.
- Each full turn of the adjustment screw yields 0.3 mm of skew correction. The maximum adjustment is two full turns either way.

5 After the skew has been corrected, tighten the three nuts, and then reinstall the ADF rear cover.

ADF skew adjustment (back side)

1. Remove the ADF front cover. See **"ADF front cover removal" on page 537**.
2. Loosen the two screws (A) securing the adjusting bracket to the ADF frame.
3. Turn the skew adjustment screw (B) clockwise for negative skew or counterclockwise for positive skew.



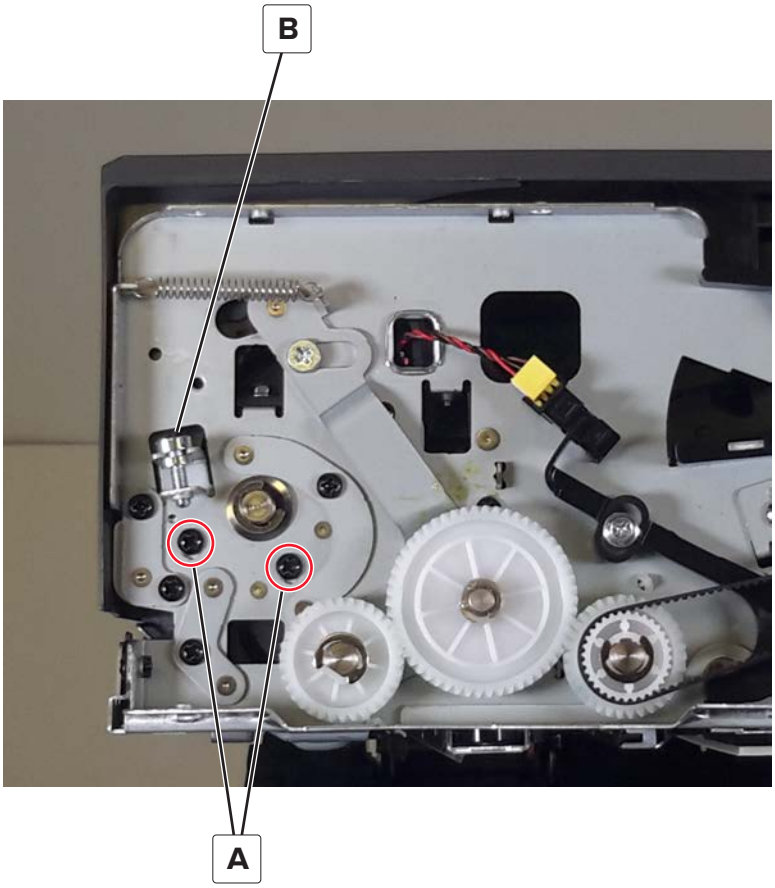
Note: Each full turn of the adjustment screw yields 0.6 mm of skew correction. The maximum adjustment is one full turn either way.

4. After the skew has been corrected, tighten the two screws, and then reinstall the ADF front cover.

ADF skew adjustment (deskew roller)

1. Remove the ADF front cover. See **"ADF front cover removal" on page 537**.
2. Loosen the two screws (A) securing the adjusting bracket to the ADF frame.

3 Turn the skew adjustment screw (B) clockwise for negative skew or counterclockwise for positive skew.

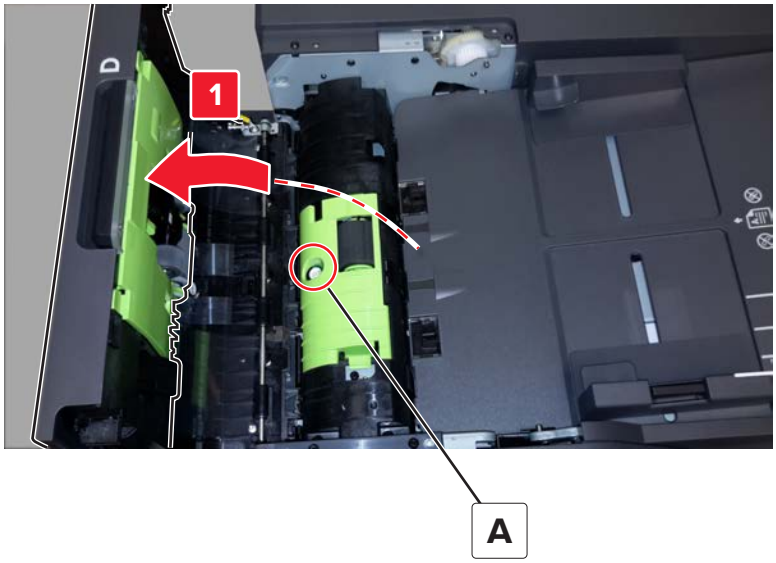


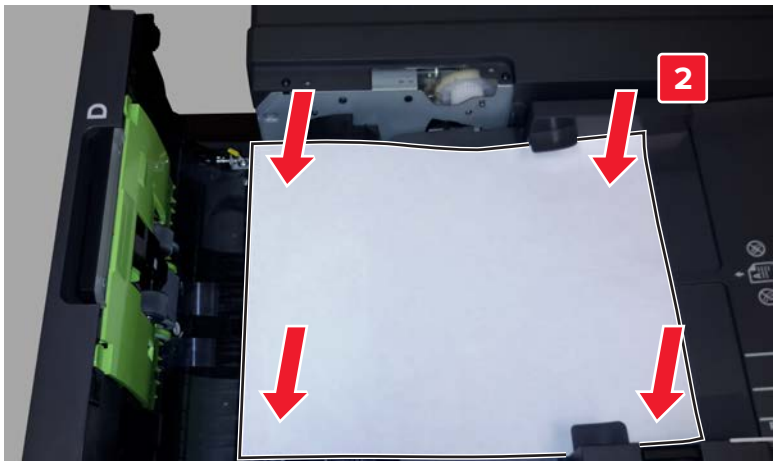
4 After the skew has been corrected, tighten the two screws, and then reinstall the ADF front cover.

Sensor (ADF multifeed) calibration

The sensor (ADF multifeed) detects the air gaps between sheets to detect double feeds. Perform this procedure after replacing the sensor or if there are double feed issues in the ADF.

1. Open door D, and then cover the sensor (A) with a sheet of paper (16–20 lb).





2. Close the door.
3. Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
4. Select Multifeed Calibration, and then touch **Start**.

Removal procedures

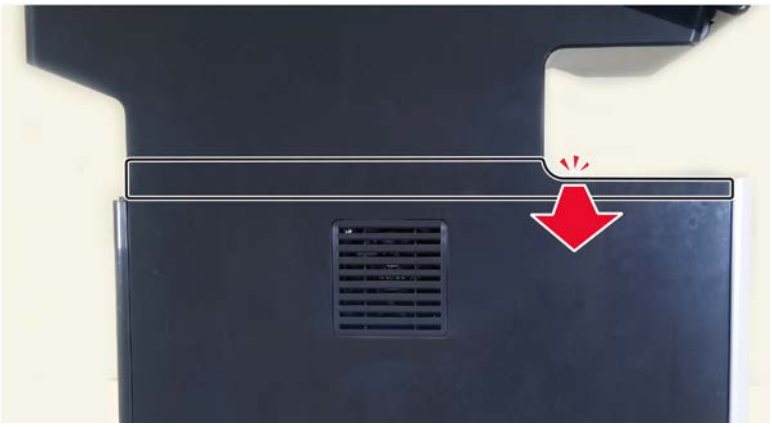
Keep the following tips in mind as you replace parts:

- Some removal procedures require removing cable ties. You must replace cable ties during reassembly to avoid pinching wires, obstructing the paper path, or restricting mechanical movement.
- Remove the toner cartridges, imaging kit, and trays before removing other printer parts. The imaging kit must be carefully set on a clean, smooth, and flat surface. It must also be protected from light while out of the printer.
- Disconnect all external cables from the printer to prevent possible damage during service.
- Unless otherwise stated, reinstall the parts in reverse order of removal.
- When reinstalling a part held with several screws, start all screws before the final tightening.
- For printers that have a soft power switch, make sure to unplug the power cord after powering off.

Left side removals

Left trim cover removal

1 Release the cover at the point shown.

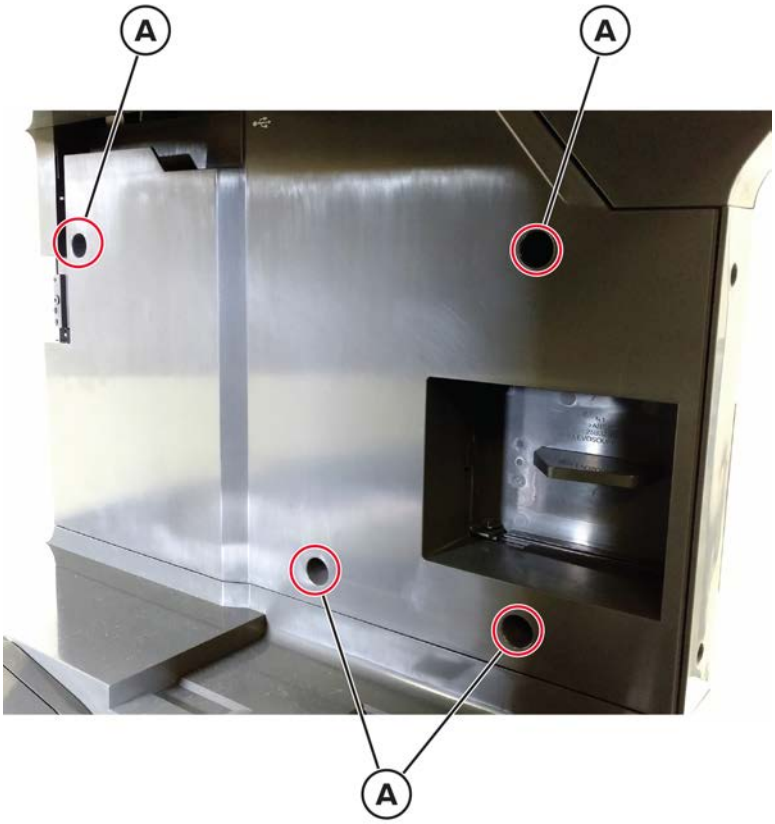


2 Carefully pull the cover, and then remove it.

Left inner column cover removal

1 Remove the keyboard option cover.

2 From the inner left side, remove the four screws (A).



3 Release the rear side of the cover.

4 Release the front side of the cover.

5 Remove the cover.

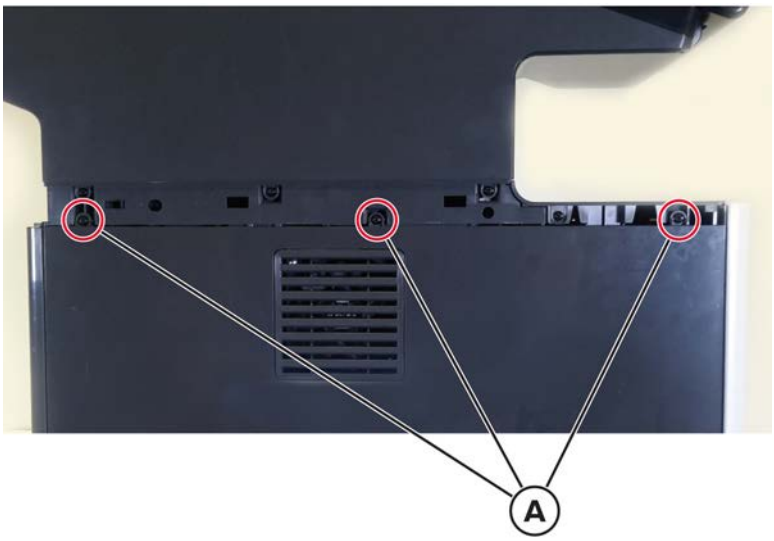
Left cover removal

MX72x left cover

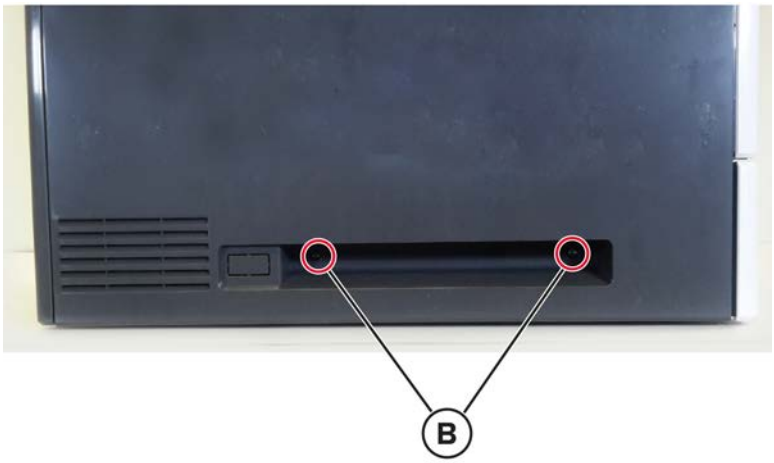
1 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**.

2 Remove the left trim cover. See **"Left trim cover removal" on page 456**.

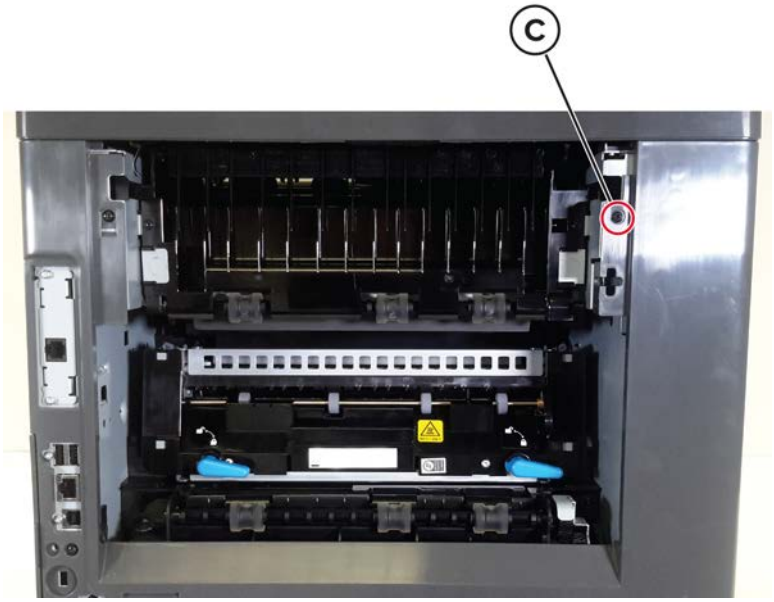
3 Remove the three upper screws (A).



4 Remove the two lower screws (B).



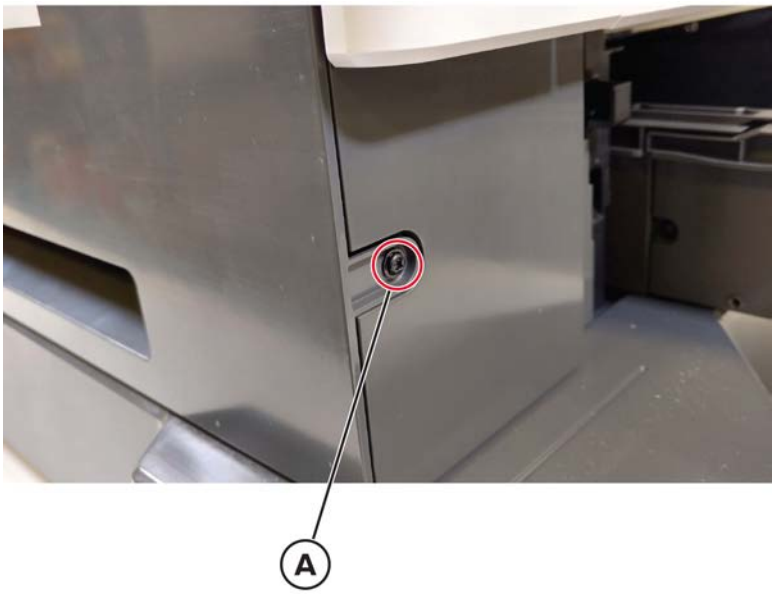
5 Remove the rear screw (C), and then remove the cover.



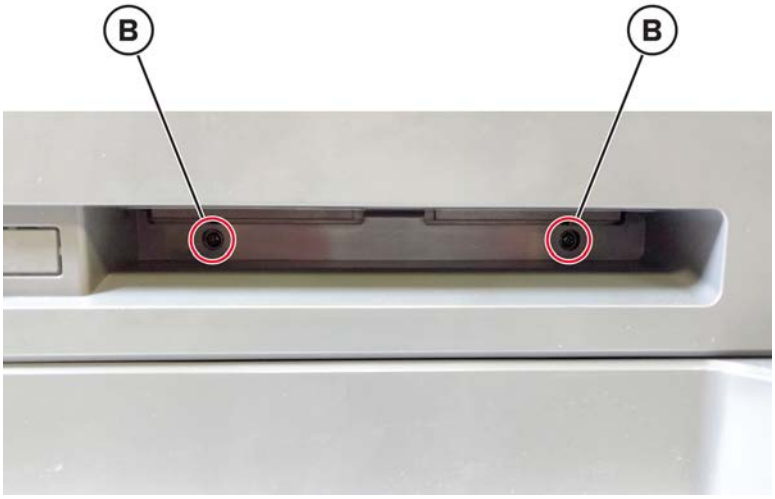
MX82x left cover

1 Remove the front door. See **"Front door removal" on page 499**.

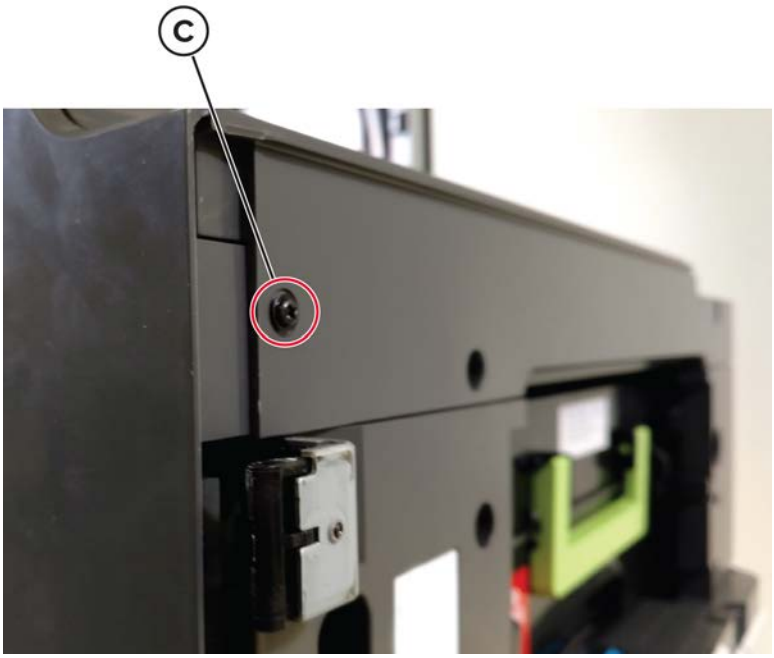
2 Pull out tray 1, and then remove the screw (A).



3 Remove the two bottom screws (B).

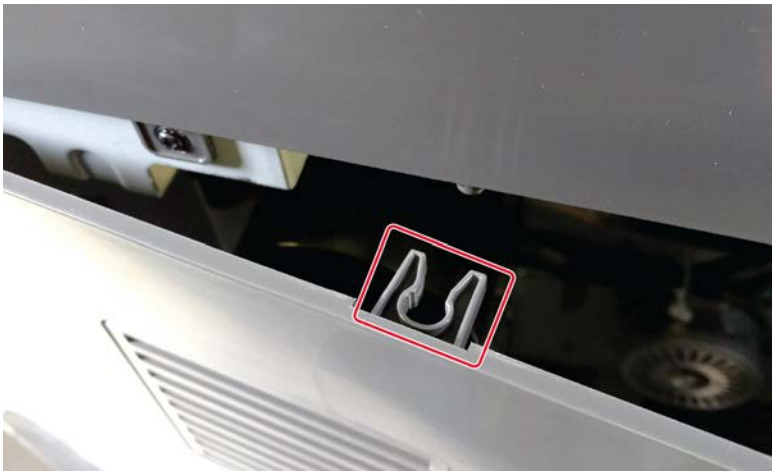


4 Remove the screw (C).



5 Release the front side of the cover.

6 Release the top side of the cover.



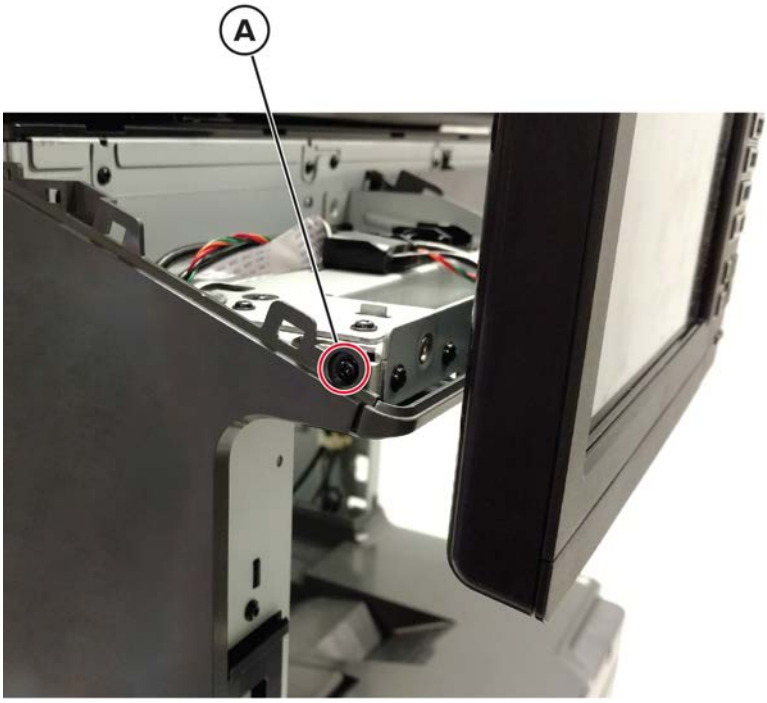
7 Remove the cover.

Left outer column cover removal

1 Behind the control panel, remove the cover.

2 Remove the scanner front upper cover.

3 Remove the screw (A).



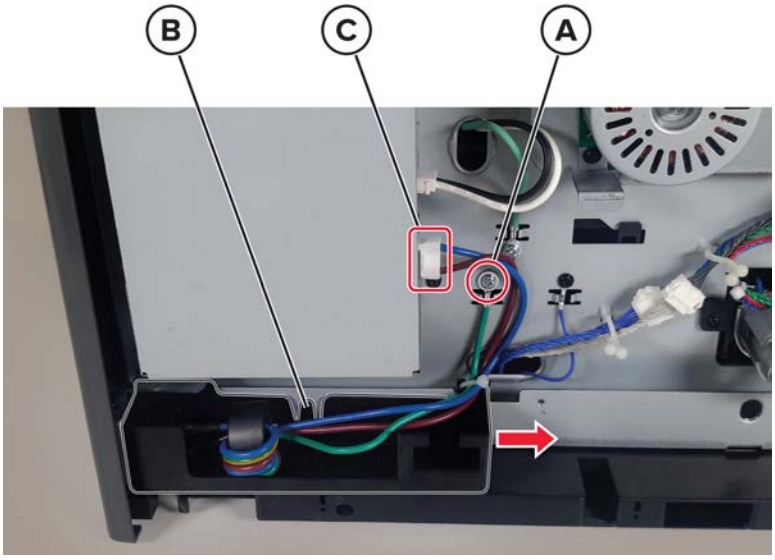
4 Remove the two bottom screws (B), and then remove the cover.

AC power socket removal

1 Remove the left cover. See **"Left cover removal" on page 458**.

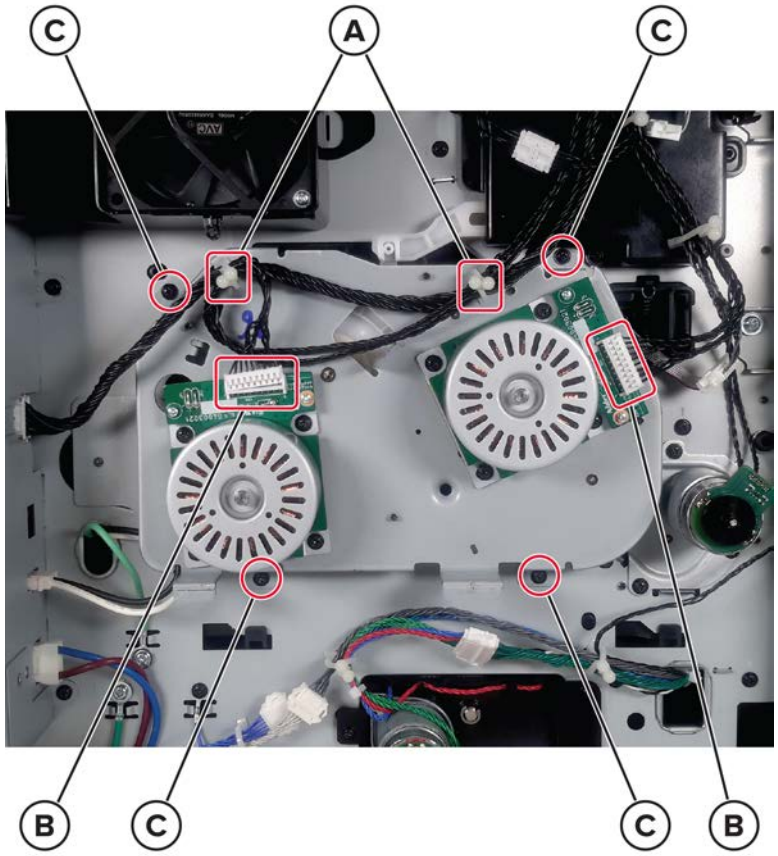
2 Remove the ground screw (A), release the latch (B), and then move the power connector to the front.

3 Disconnect the cable (C), and then remove the power connector.



Main motor drive removal

1. Open the front door, and then remove the toner cartridge and imaging unit.
2. Remove the left cover. See **"Left cover removal" on page 458**.
3. Release the cables from the cable holders (A), and then disconnect the two cables (B).
4. Remove the four screws (C), and then remove the motor drive.

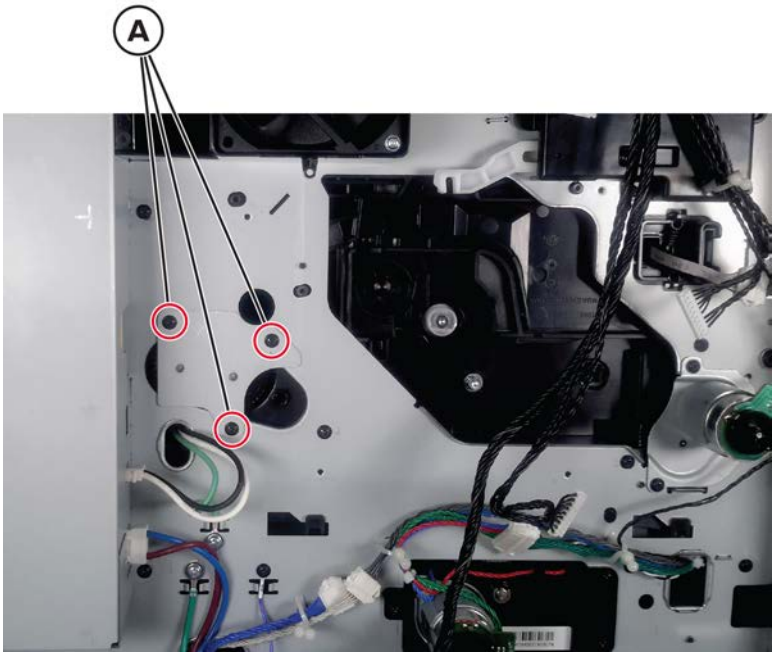


Installation warning: Make sure that the imaging unit is not reinstalled before the main motor drive.

Installation warning: Make sure that the motor actuator and lever are properly engaged.

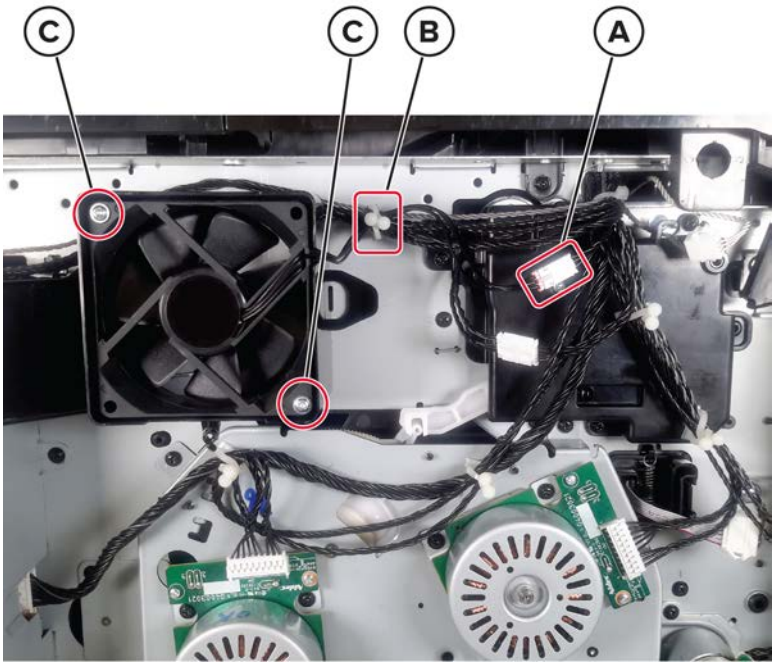
Fuser drive gear removal

1. Remove the fuser. See **"Fuser removal" on page 514**.
2. Remove the left cover. See **"Left cover removal" on page 458**.
3. Remove the main motor drive. See **"Main motor drive removal" on page 465**.
4. Remove the three screws (A), and then remove the drive gear.



Main fan removal

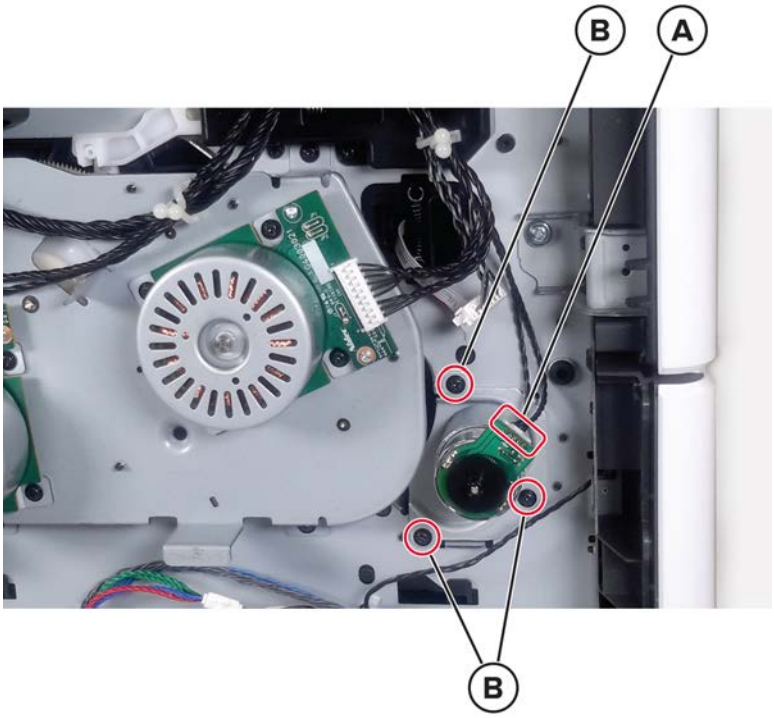
1. Remove the left cover. See **“Left cover removal” on page 458**.
2. Disconnect the cable (A), and then release it from its holder (B).
3. Remove the two screws (C), and then remove the fan.



Motor (MPF) removal

1 Remove the left cover. See **“Left cover removal” on page 458**.

2 Disconnect the cable (A), and then remove the three screws (B).



3 Remove the motor.

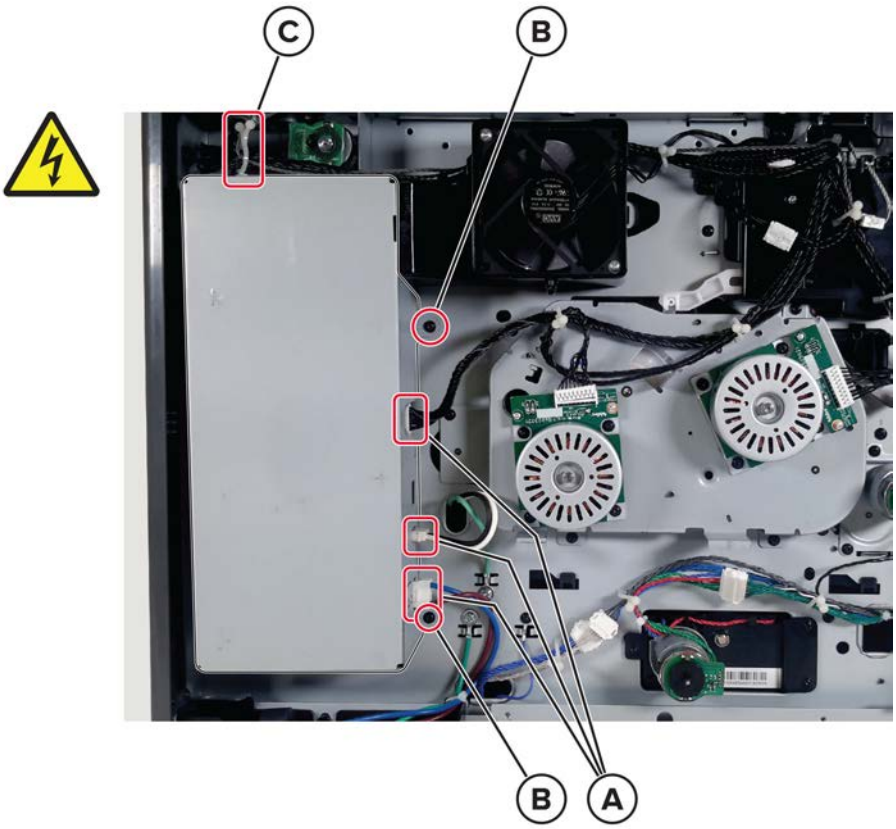
LVPS removal

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

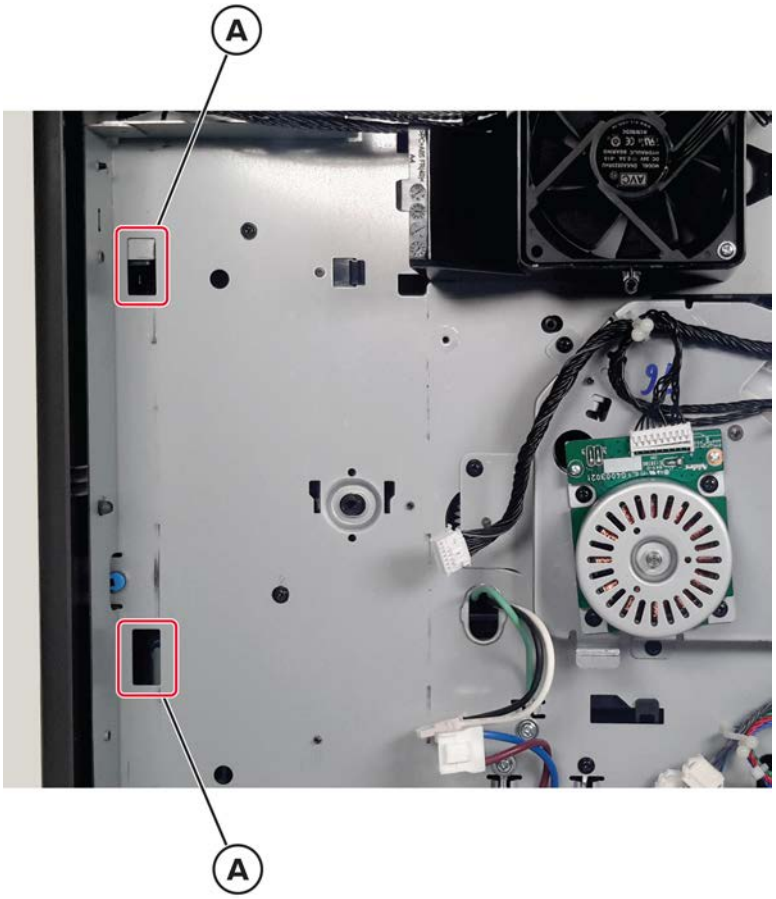
2 Remove the left cover. See **“Left cover removal” on page 458**.

3 Disconnect the three cables (A), and then remove the two screws (B).

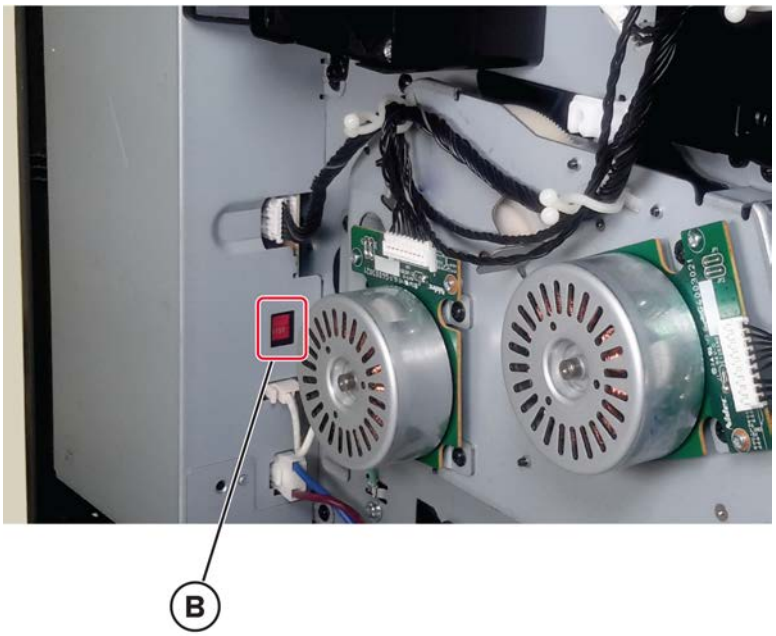
4 Release the cables from their holder (C), and then remove the LVPS.



Installation note: Make sure that LVPS tabs are properly engaged with their appropriate slots (A) on the printer frame.

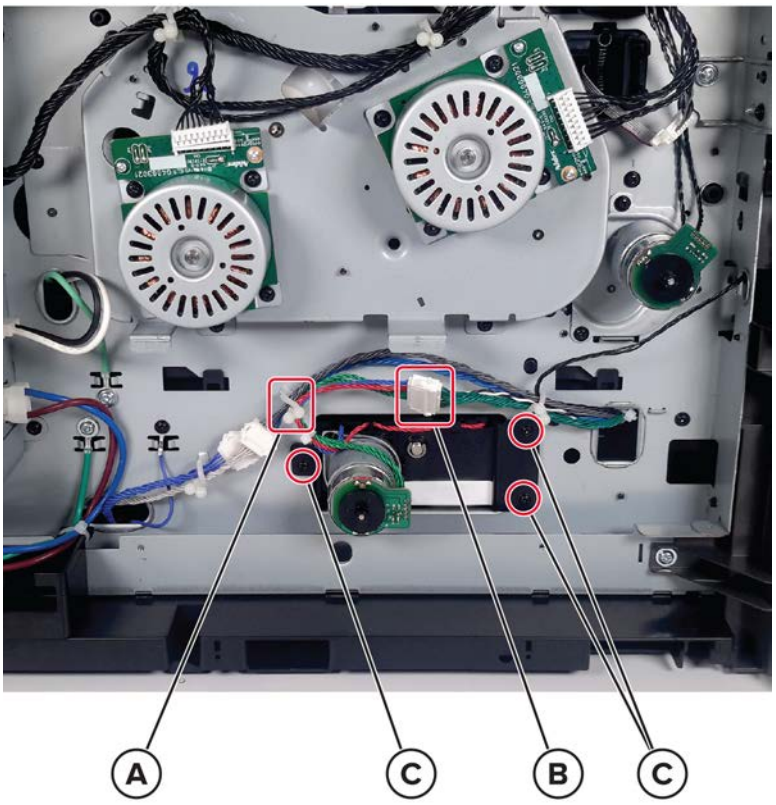


Installation note: Make sure that the voltage selector switch (B) is set to the proper voltage.



Paper feeder removal

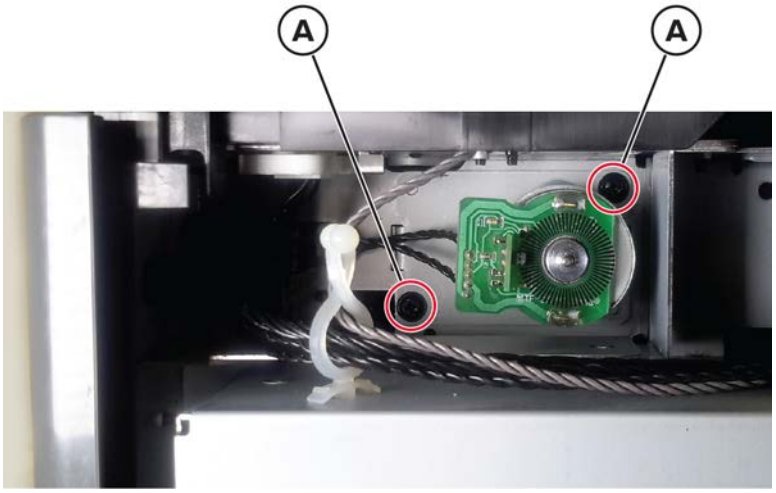
1. Remove tray 1, and then remove the pick roller. See **"Pick roller removal" on page 527**.
2. Remove the left cover. See **"Left cover removal" on page 458**.
3. Release the cable holder (A), and then disconnect the cable (B).
4. Remove the three screws (C), and then remove the paper feeder.



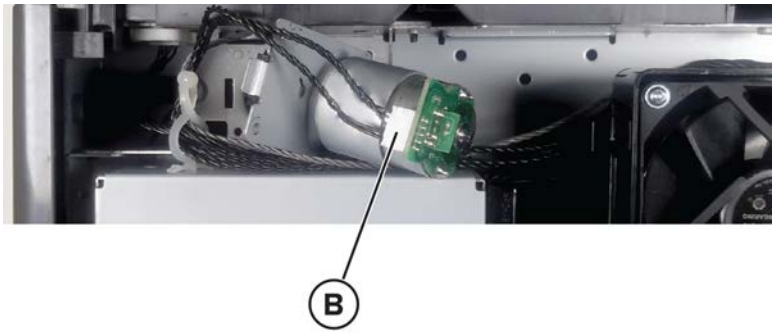
Motor (redrive) removal

1. Remove the left cover. See **"Left cover removal" on page 458**.
2. Remove the two screws (A), and then release the motor.

   Note: If the top cover is not removed yet, then the motor cannot be released.



3 Swing the motor to the right, and then disconnect the cable (B).



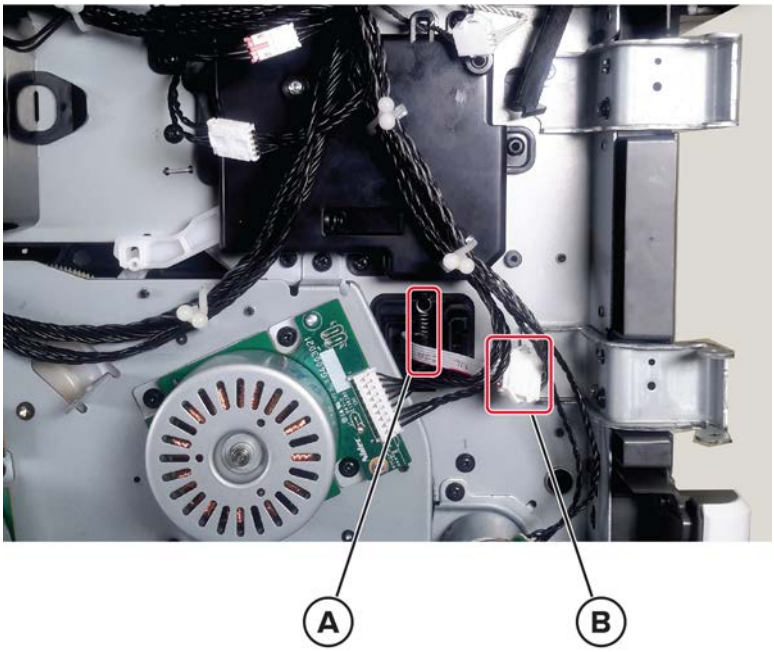
4 Remove the motor.

Sensor (toner smart chip) removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the left cover. See **“Left cover removal” on page 458**.

3 Unhook the toner smart chip spring (A), and then disconnect the sensor cable (B).

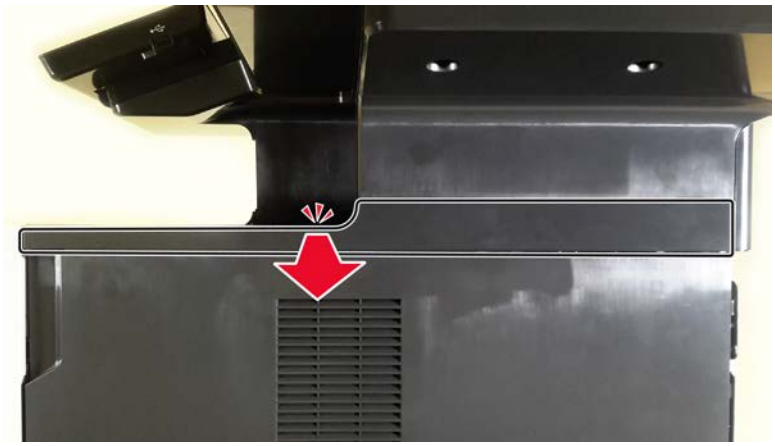


4 Remove the sensor.

Right side removals

Right trim cover removal

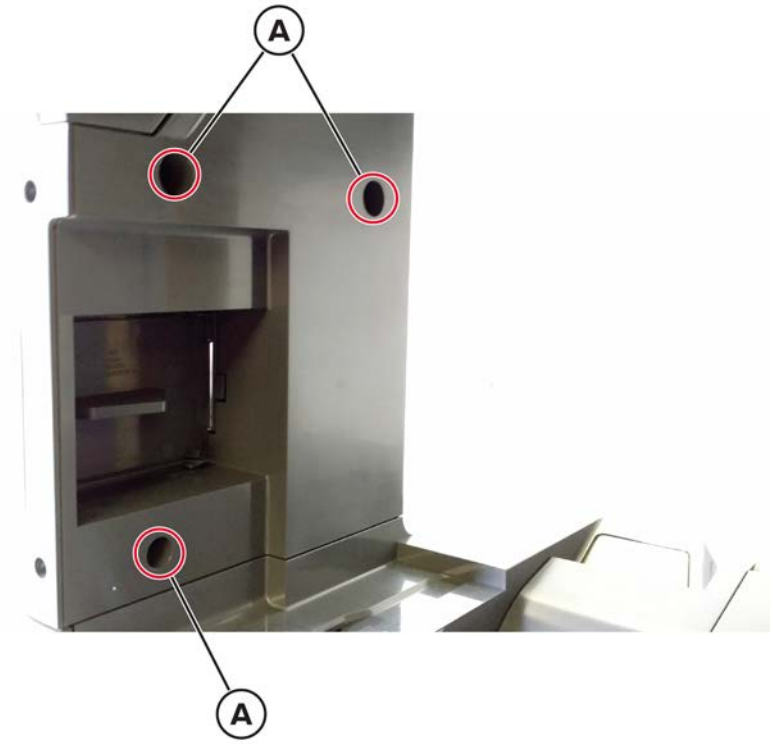
1 Release the cover at the point shown.



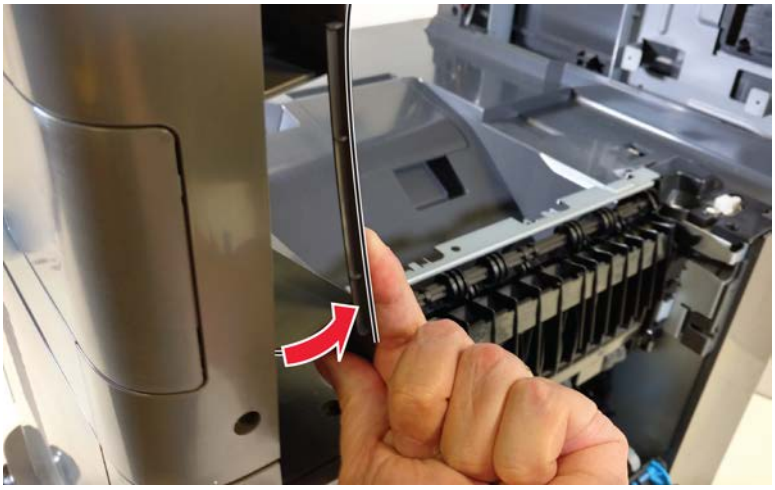
2 Carefully pull the cover, and then remove it.

Right inner column cover removal

1 From the inner right side, remove the three screws (A).



2 Release the rear side of the cover.



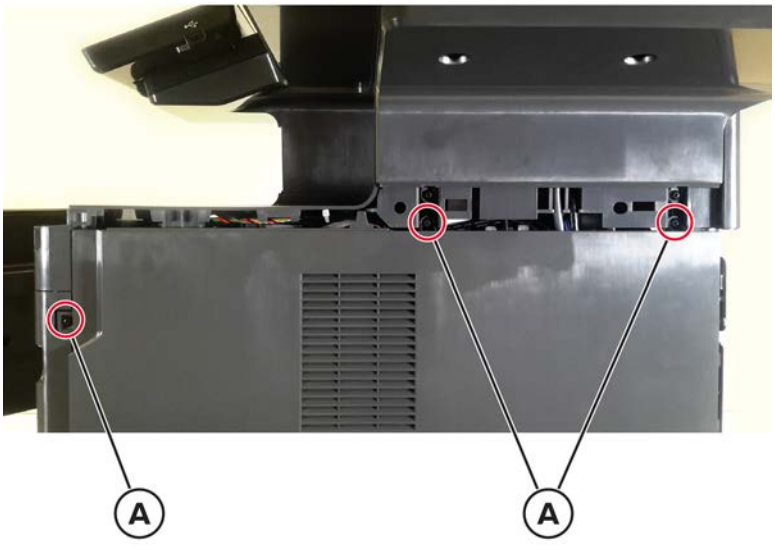
3 Release the front side of the cover.

Right cover removal

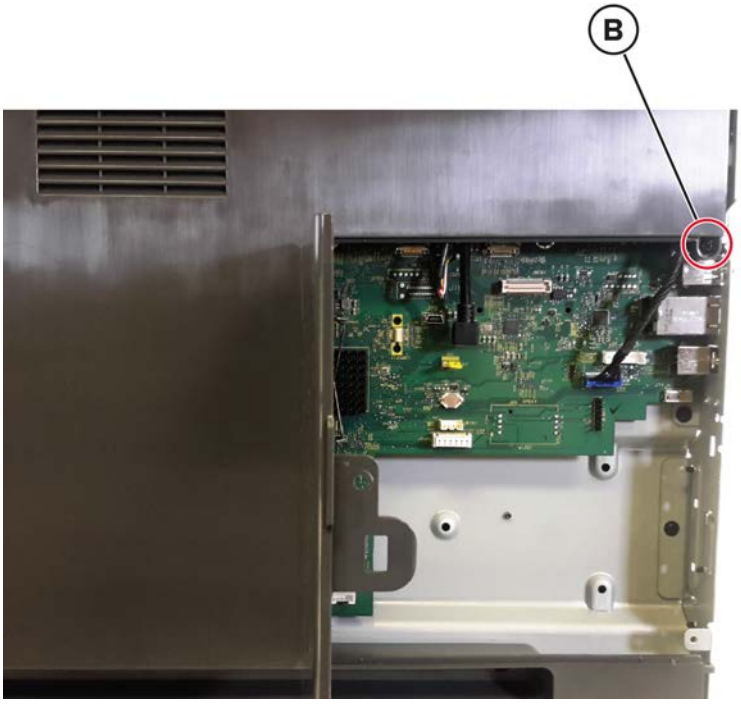
MX72x right cover

1 Remove the right trim cover. See **"Right trim cover removal" on page 473**.

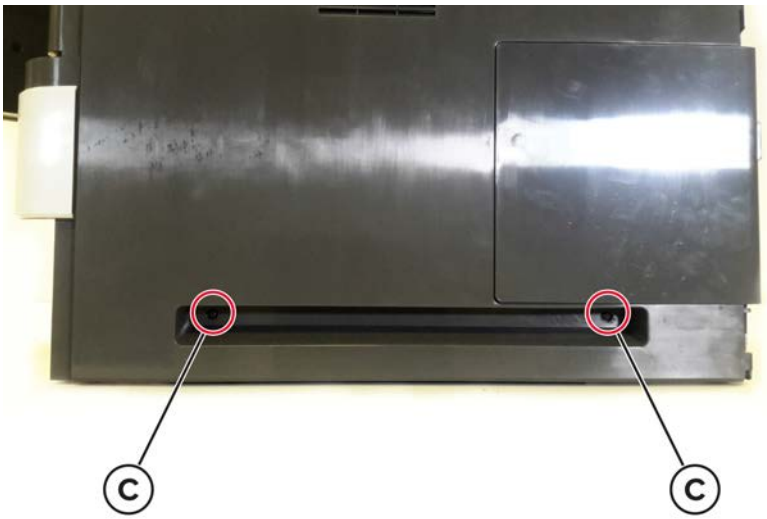
2 Remove the three upper screws (A).



3 Open the controller board access door, and then remove the screw (B).

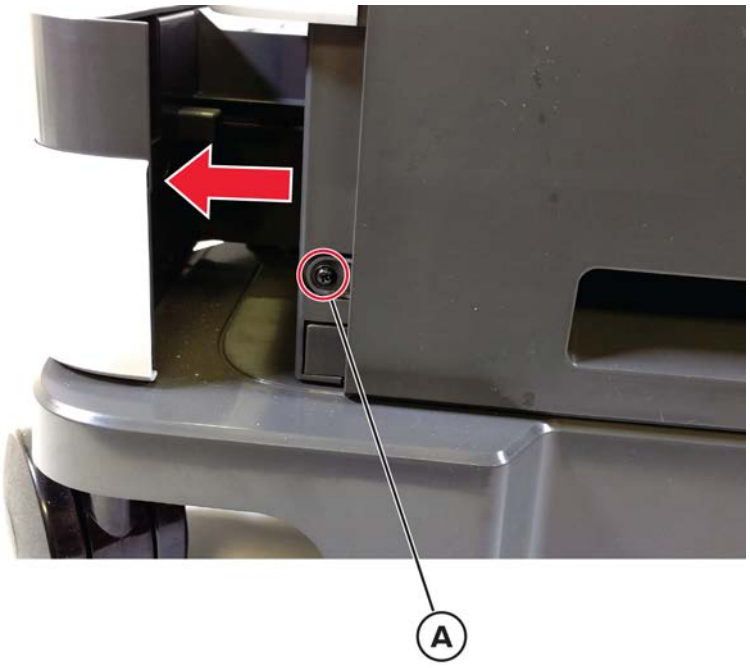


4 Remove the two lower screws (C), and then remove the cover.

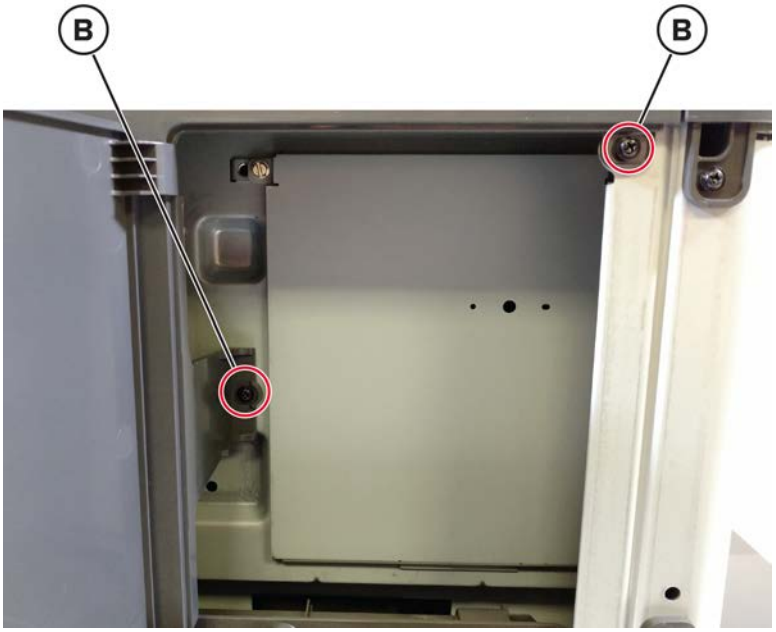


MX82x right cover

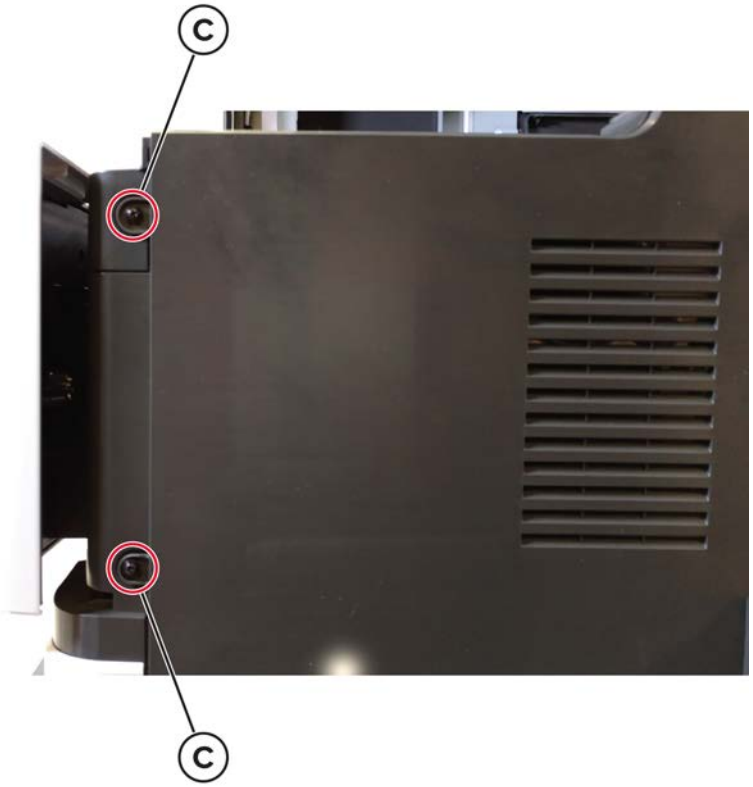
1 Pull out tray 1, and then remove the screw (A).



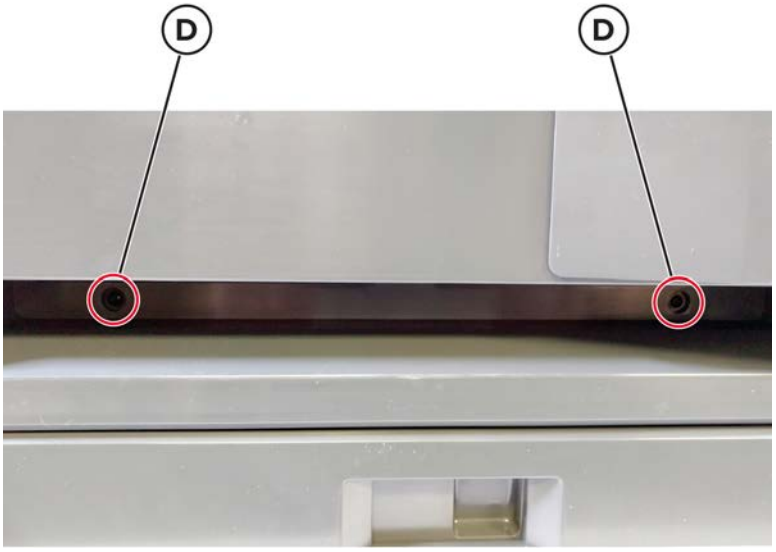
2 Open the controller board access door, and then remove the two screws (B).



3 Open the front door, and then remove the two screws (C).



4 Remove the two bottom screws (D).



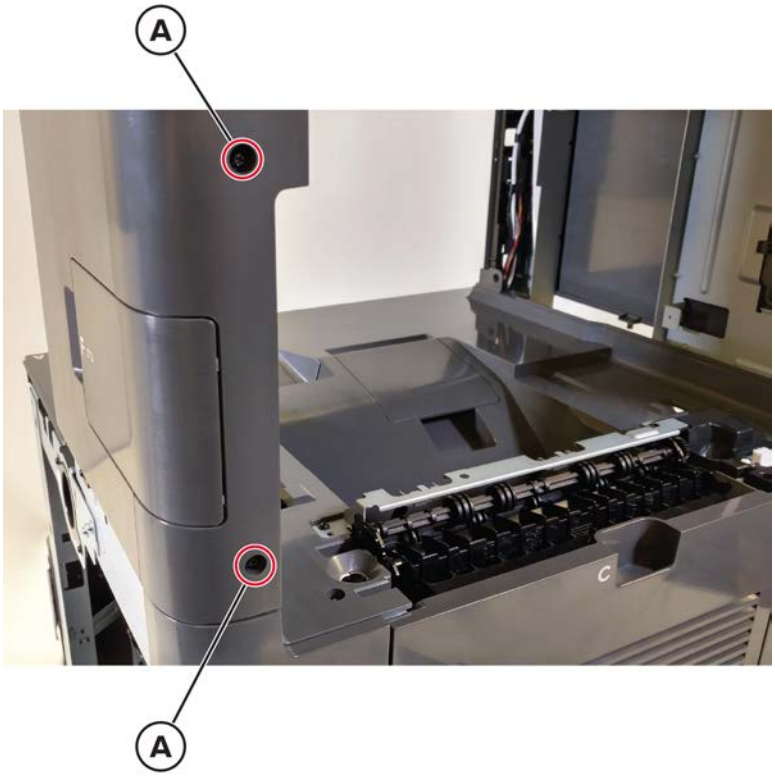
5 Release the front side of the cover.

6 Remove the cover.

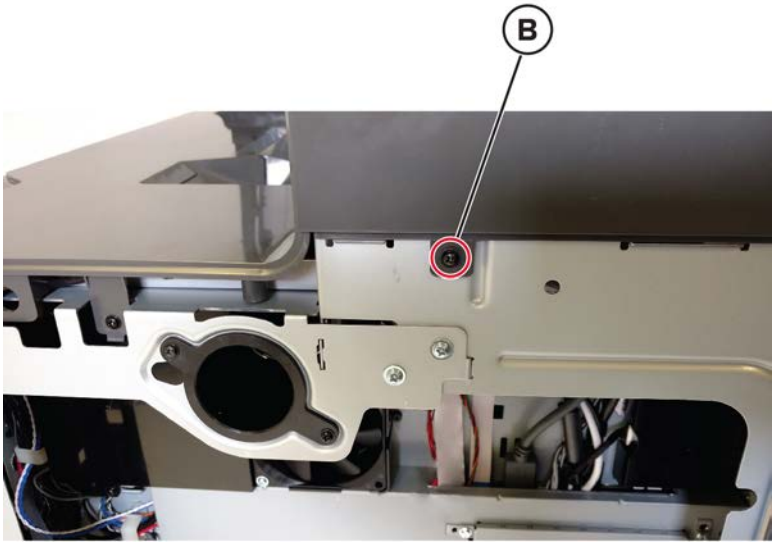
Right outer column cover removal

1 Remove the right cover. See **"Right cover removal" on page 475**.

2 Remove the two screws (A).



3 Remove the screw (B).



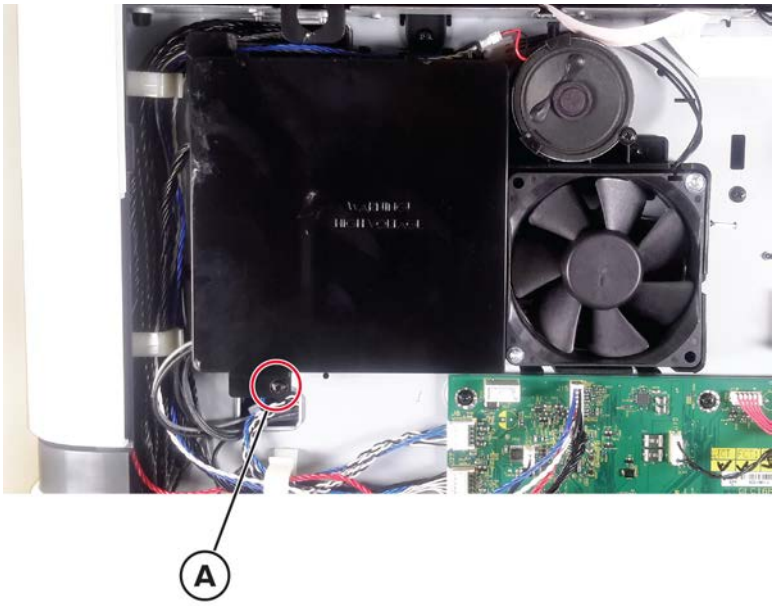
4 Remove the cover.

HVPS removal

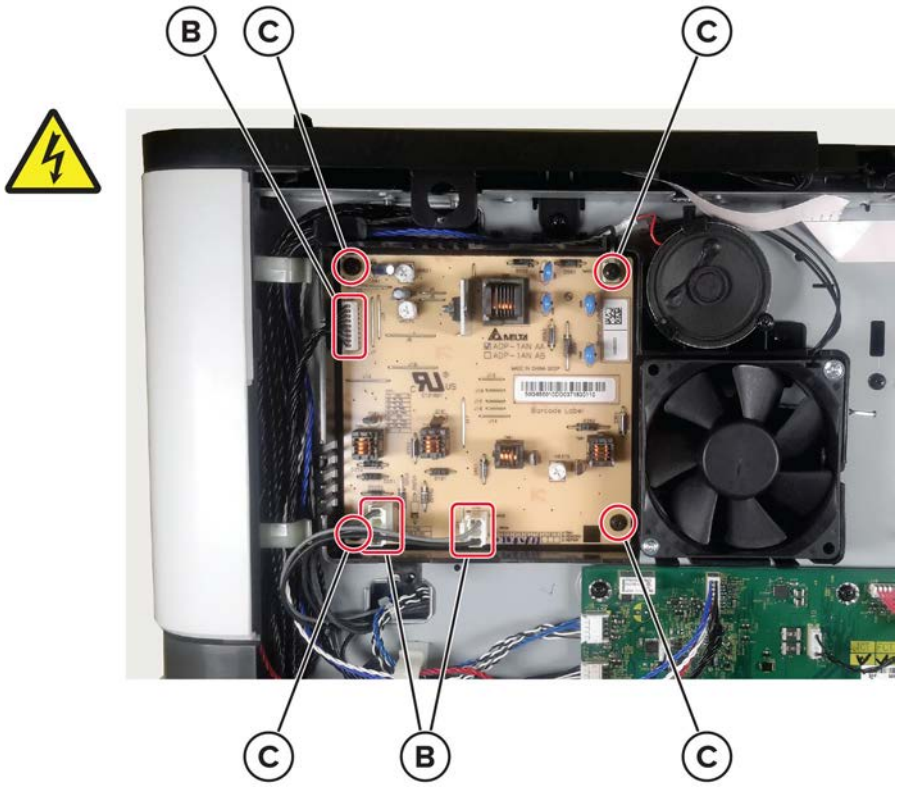
1 Turn off the printer, and then unplug the power cord from the electrical outlet.

2 Remove the right cover. See **“Right cover removal” on page 475**.

3 Remove the screw (A), and then remove the HVPS shield.



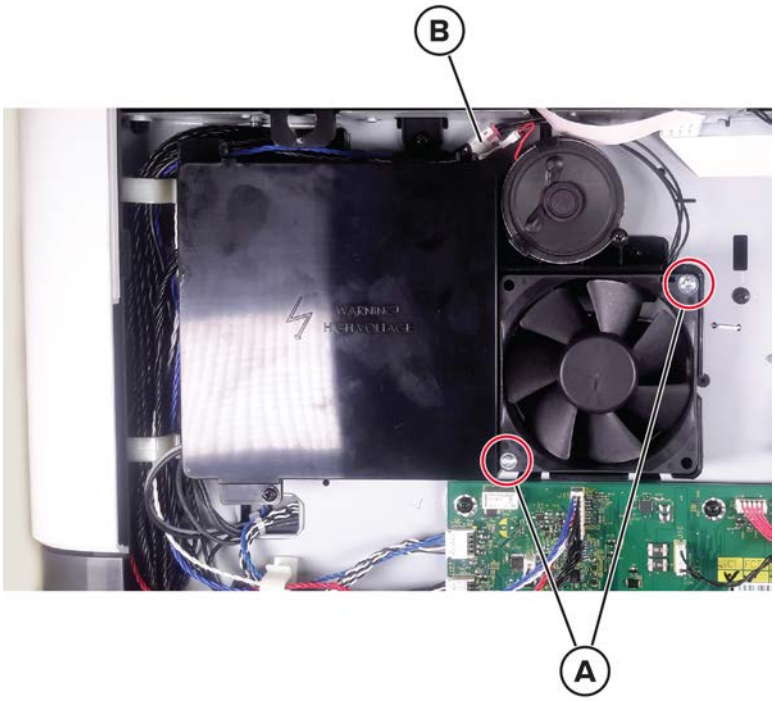
4 Disconnect the three cables (B), remove the four screws (C), and then remove the HVPS.



Cartridge fan removal

1 Remove the right cover. See **“Right cover removal” on page 475**.

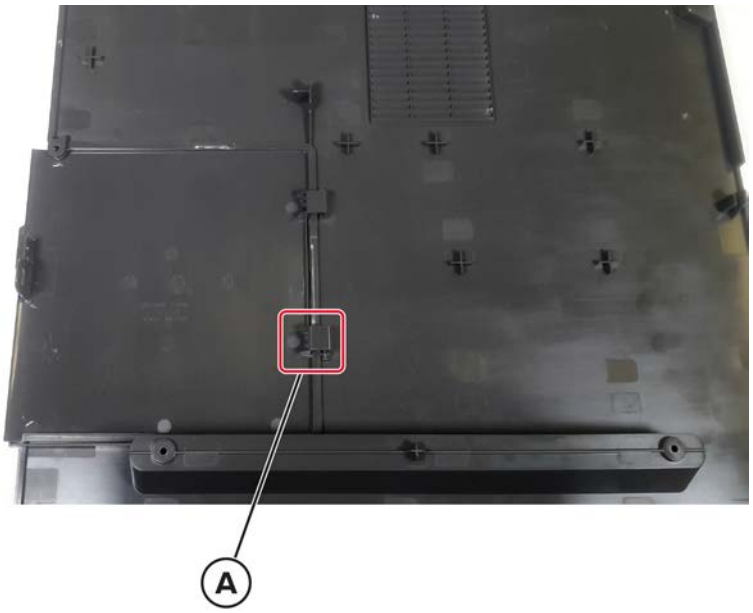
2 Remove the two screws (A), and then disconnect the cable (B).



3 Remove the fan.

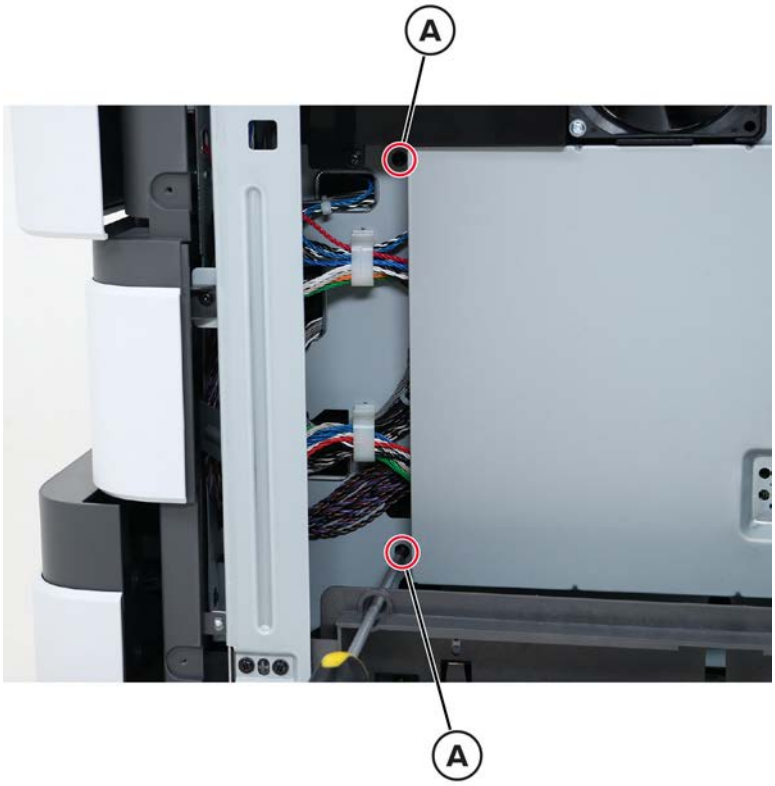
Controller board access door removal

1. Remove the right cover. See **“Right cover removal” on page 475**.
2. Release the hinge pivot (A), and then remove the door.



Controller board housing removal

1. Remove the right cover. See **“Right cover removal” on page 475**.
2. Remove the two screws (A).



3 Remove the two screws (B).

4 Remove the board housing.

Controller board removal

Critical information for controller board or control panel replacement

Warning—Potential Damage: Replace only one of the following components at a time:

- Control panel
- Controller board

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

1 Replace the affected component.

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

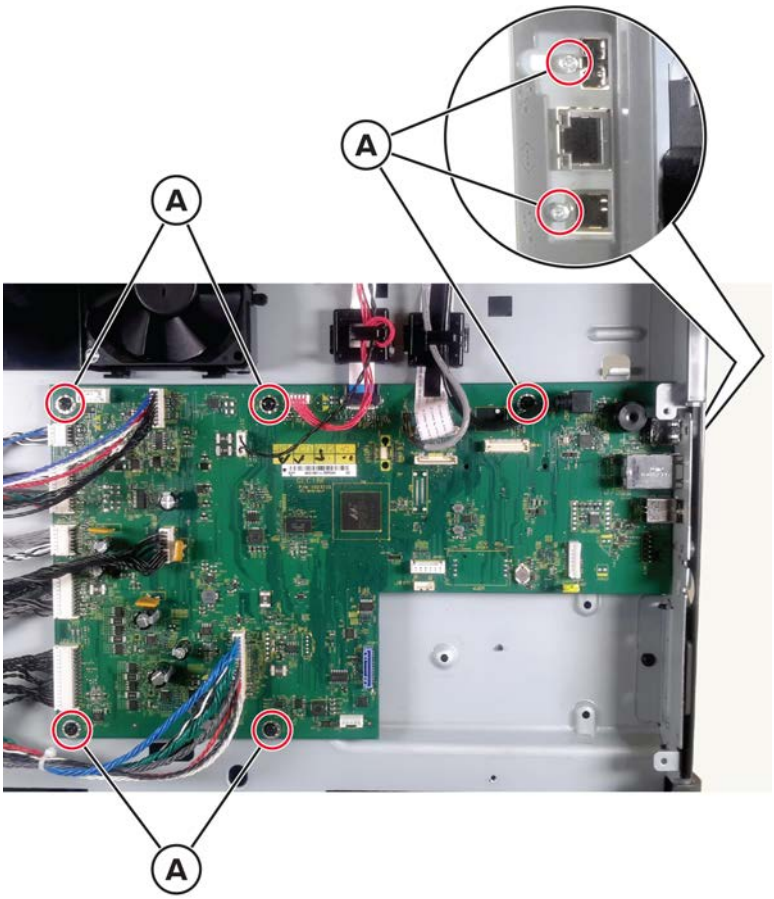
3 Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.
- If the problem is not resolved—Turn off the printer, and then reinstall the old part.
- If the problem is resolved—Perform a POR.

Removal procedure

1 Remove the right cover. See **"Right cover removal" on page 475**.

Note: For MX82x printers, also remove the controller board housing. See **"Controller board housing removal" on page 485**.

2 Disconnect all the cables from the controller board, and then remove the seven screws (A).



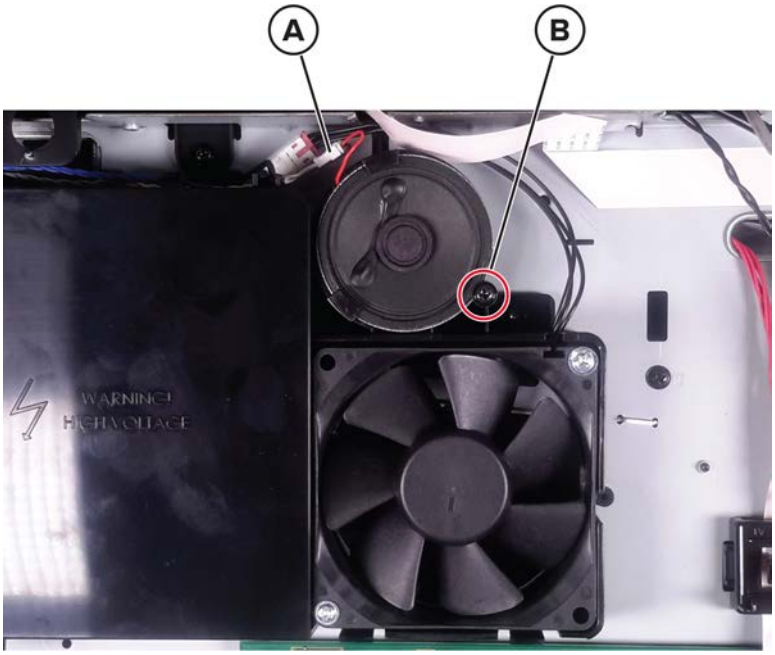
3 Remove the board.

Installation note: Make sure that all the cables are connected and properly routed.

Speaker removal

1 Remove the right cover. See **“Right cover removal” on page 475**.

2 Disconnect the cable (A), and then remove the screw (B).



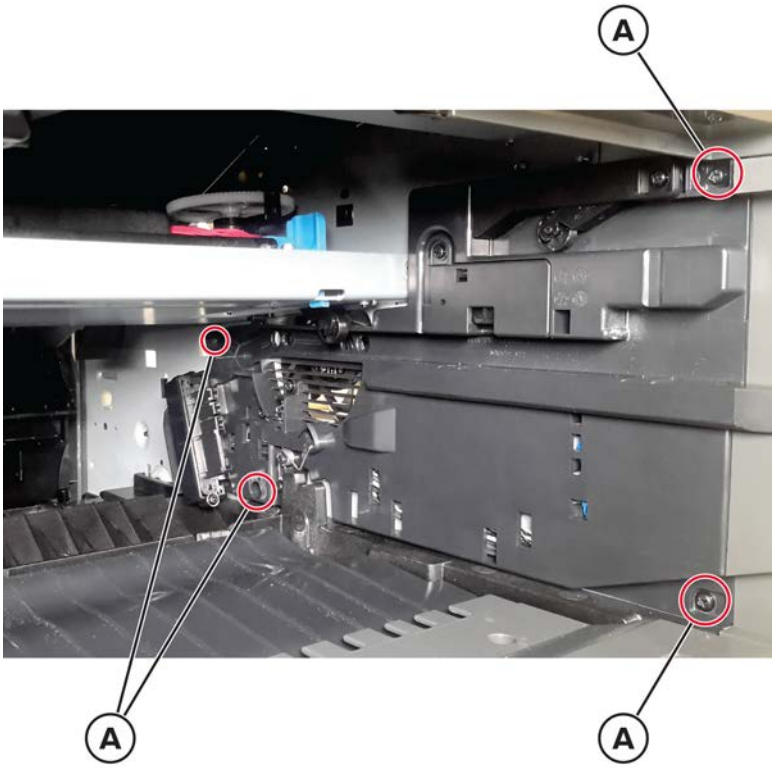
3 Remove the speaker.

High voltage contacts guide removal

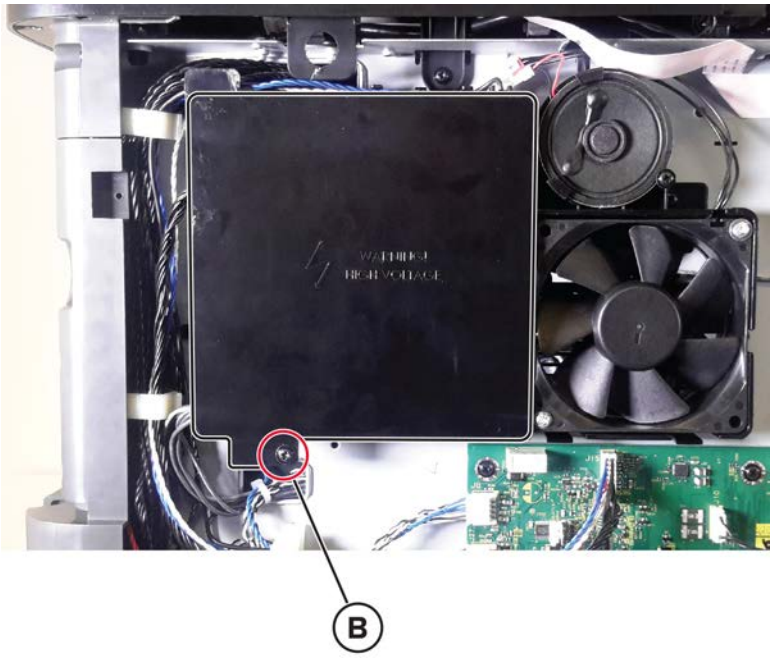
1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the right cover. See **“Right cover removal” on page 475**.

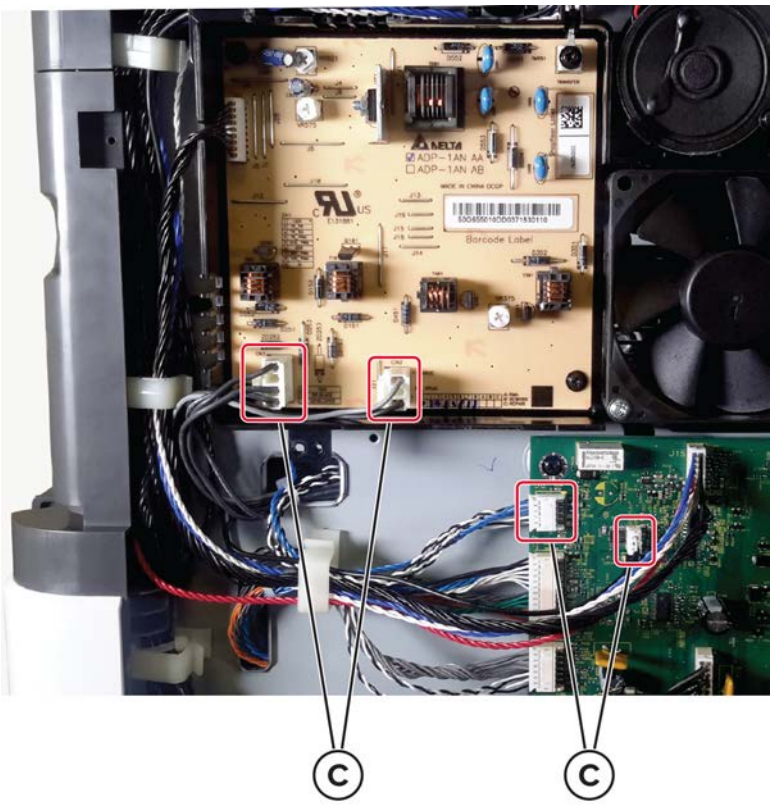
3 Remove the four screws (A).



4 Remove the screw (B), and then remove the HVPS shield.



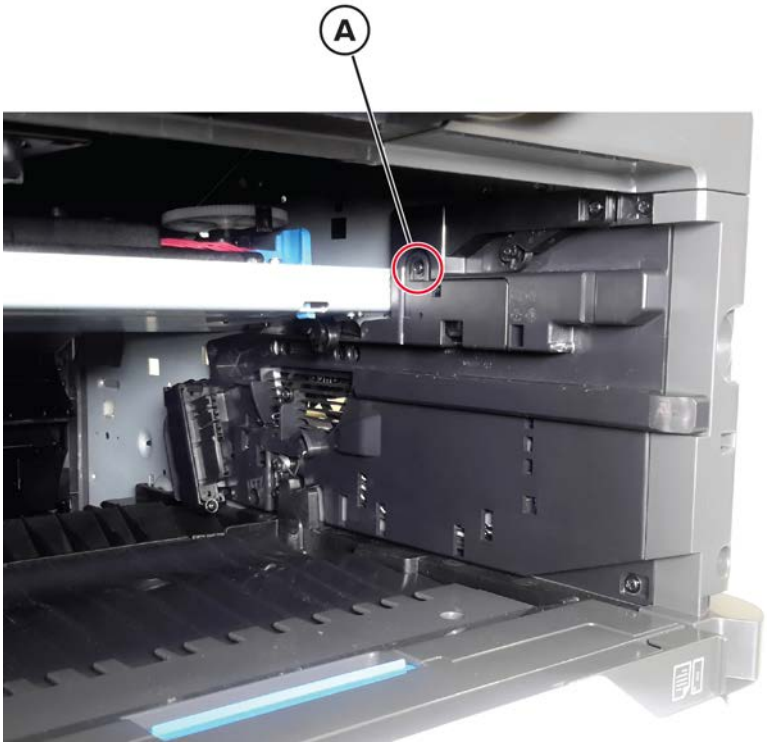
5 Disconnect the four cables (C), and then remove the imaging unit contact guide.



Toner cartridge shutter actuator removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the screw (A), and then remove the actuator.

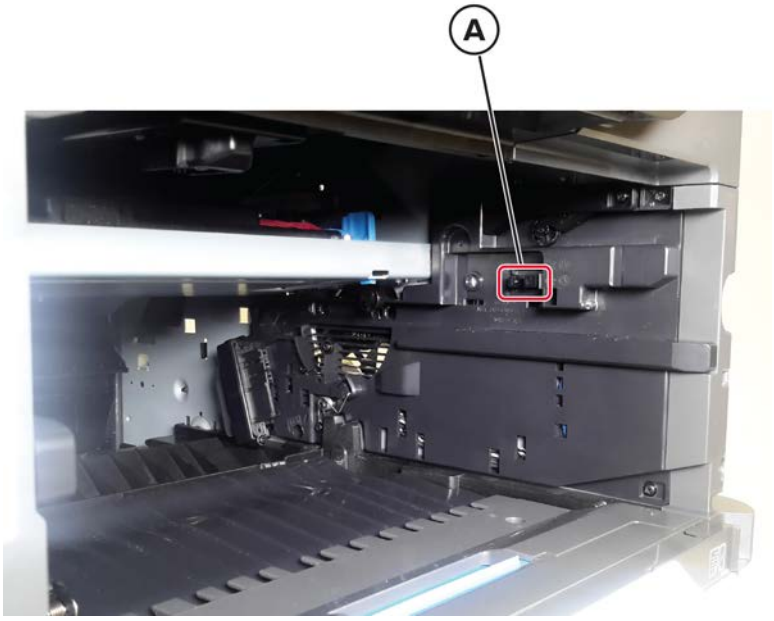


Sensor (toner cartridge shutter) removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the toner cartridge shutter actuator. See **“Toner cartridge shutter actuator removal” on page 491**.

3 Release the sensor (A) from the inner side, and then disconnect its cable.



4 Remove the sensor.

Fax card removal

Note: This topic is only applicable for some printer models.

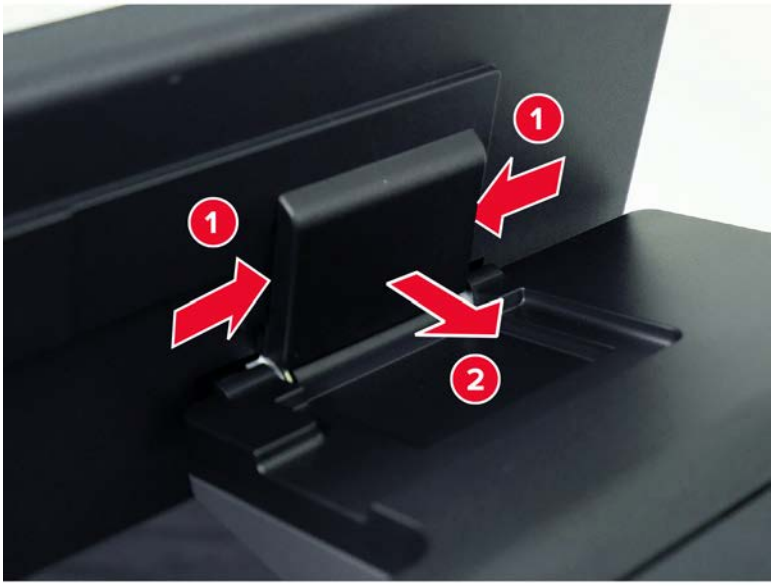
1. Remove the right cover. See **"Right cover removal" on page 475**.
2. Remove the two screws (A).

3 Disconnect the cable (B), and then remove the fax card.

Front side removals

Upper hinge cover removal

Behind the control panel, remove the cover.



Control panel cover removal

1 Remove the control panel bezel.

2 Remove the cover.

Control panel board removal

Critical information for controller board or control panel board replacement

Warning—Potential Damage: Replace only one of the following components at a time:

- Control panel 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 POR (Power-On Reset) until the problem is resolved. If a POR is performed at this point, 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, the replacement part can no longer be used in another printer and must be returned to the manufacturer.

3 Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.

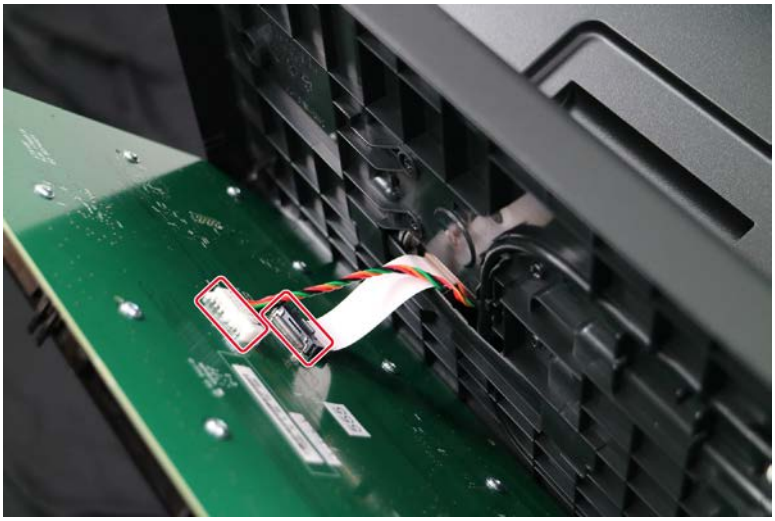
- If the problem is not resolved—Turn off the printer, and then reinstall the old part.
- If the problem is resolved—Perform a POR.

Removal procedure

1. Remove the control panel bezel and cover. See **"Control panel cover removal" on page 495**.
2. Remove the six screws.

3. Behind the board, disconnect the cables.

   Warning—Potential Damage: Do not yank the ribbon cable. See **"Disconnecting ribbon cables" on page 445**.

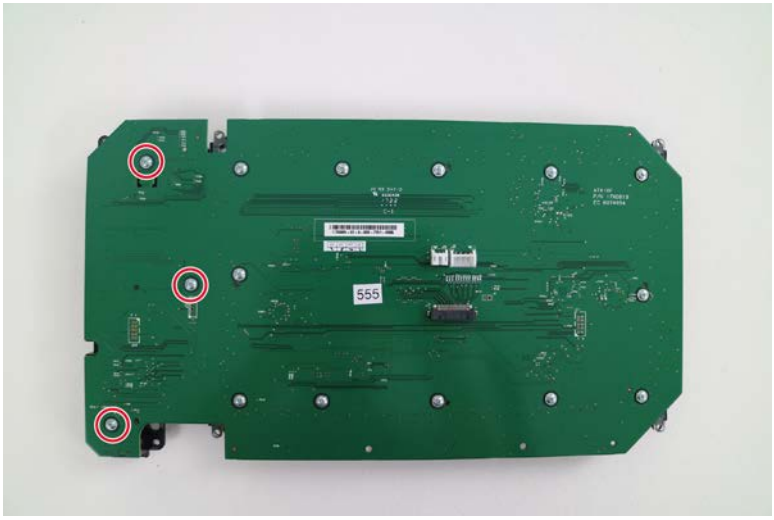


4. Remove the board.

Control panel button kit removal

1. Remove the control panel bezel and cover. See **"Control panel cover removal" on page 495**.
2. Remove the control panel board. See **"Control panel board removal" on page 496**.

3 Behind the board, remove the three screws.

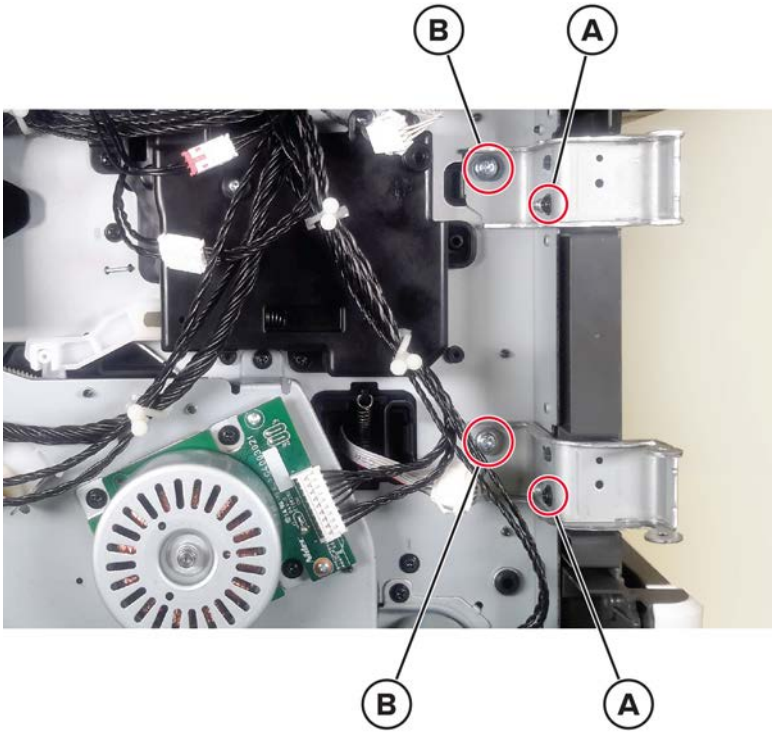


4 Remove the button kit.

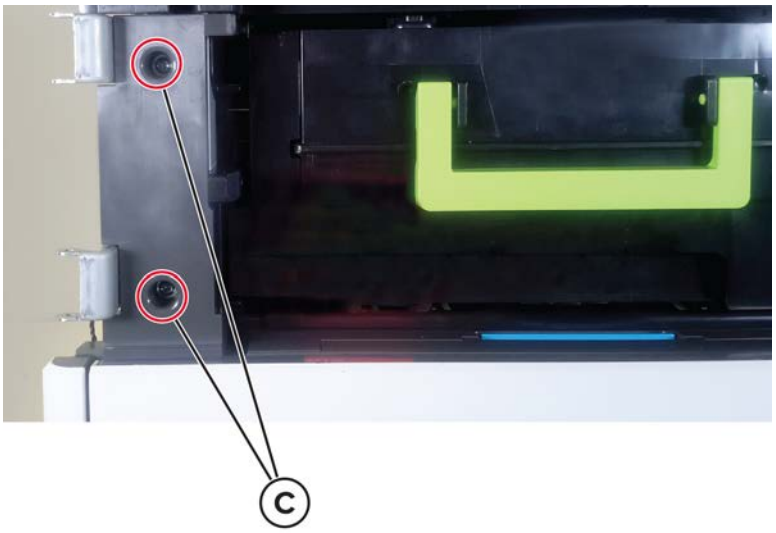
Front door bracket removal

1 Remove the left cover. See **"Left cover removal" on page 458**.

2 Loosen the two screws (A), and then remove the two screws (B).



3 Remove the two screws (C).



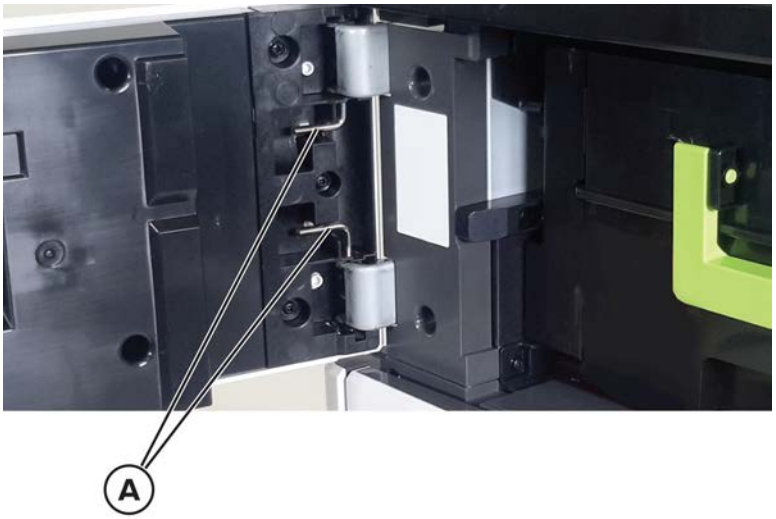
4 Remove the bracket.

Installation warning: Make sure that the screws are not overtightened.

Front door removal

1 Open the front door.

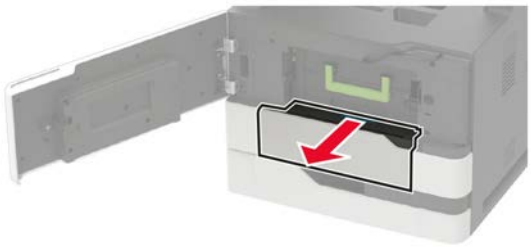
2 Swing the front door pins (A) inward to release, and then remove them.



3 Remove the door.

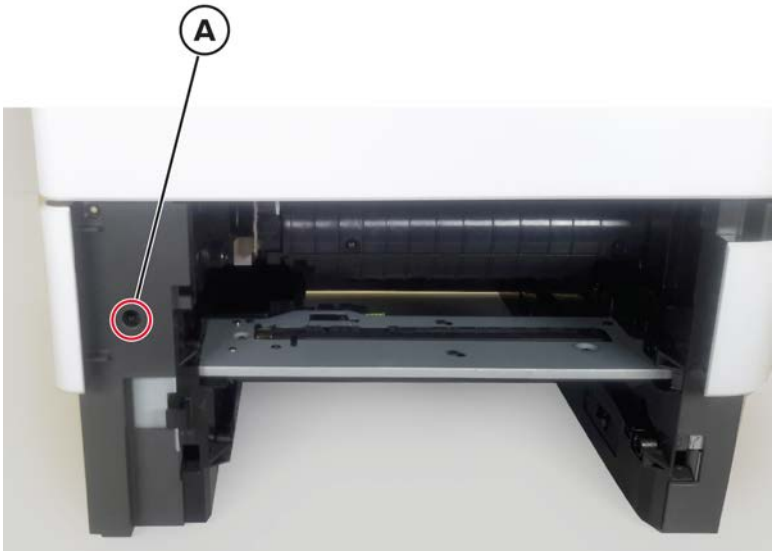
Duplex/MPF tray removal

1. Open the front door.
2. Press the handle, and then pull out the duplex/MPF tray.

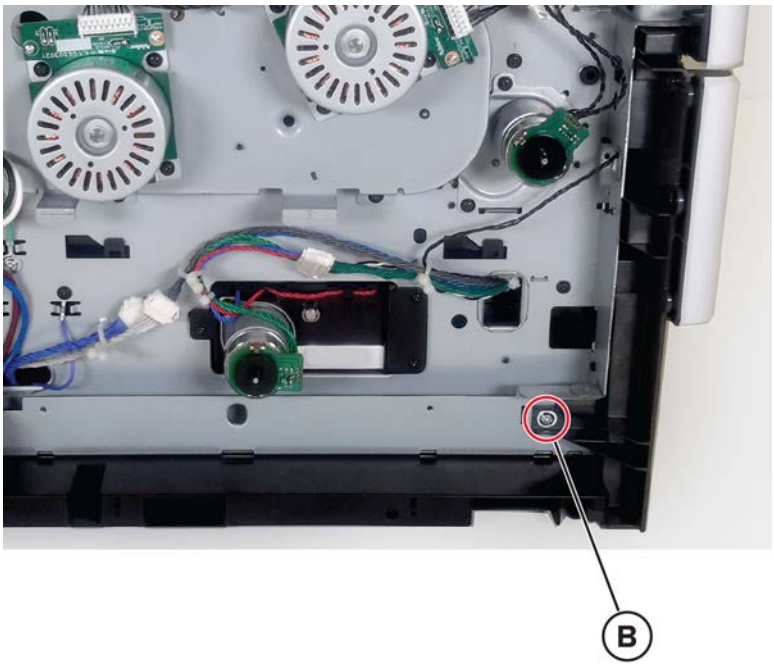


Inner left cover removal

1. Remove tray 1.
2. Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**.
3. Remove the left cover. See **"Left cover removal" on page 458**.
4. Remove the screw (A).



5 From the left side, remove the screw (B), and then remove the cover.

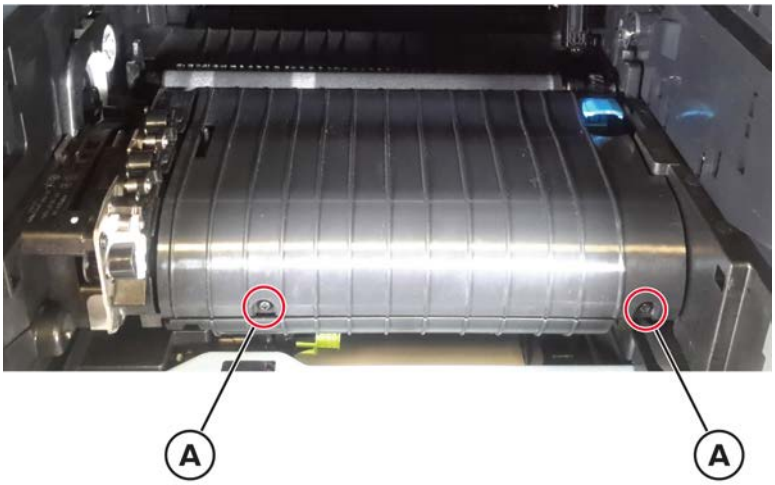


Inner guide deflector removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**.

3 Remove the two screws (A), and then remove the deflector.



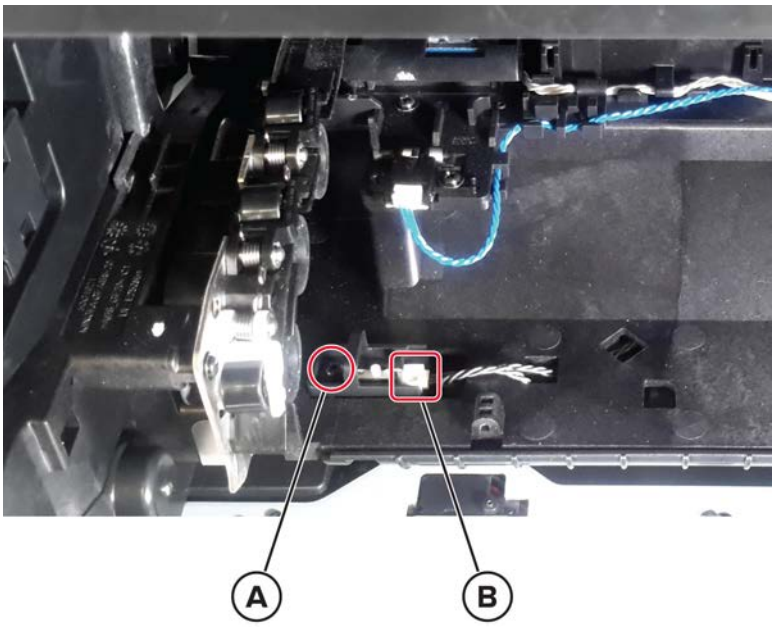
Sensor (duplex interlock) removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**.

3 Remove the inner guide deflector. See **"Inner guide deflector removal" on page 501**.

4 Remove the screw (A), and then disconnect the sensor cable (B).



5 Remove the sensor.

Aligner removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

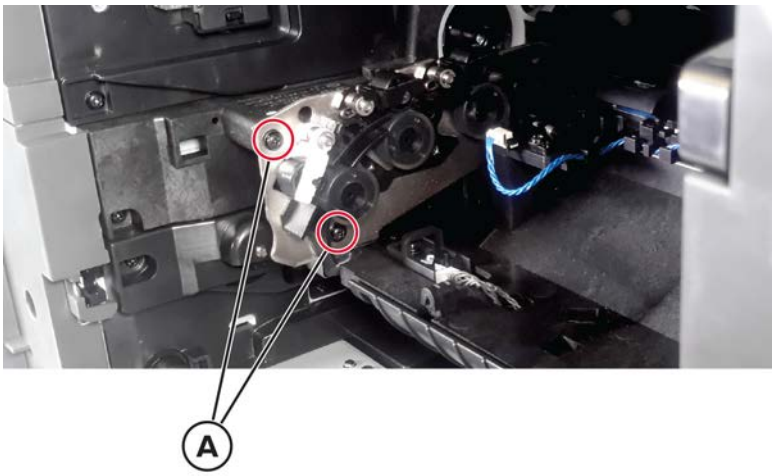
2 Remove tray 1.

3 Remove the left cover. See **"Left cover removal" on page 458**.

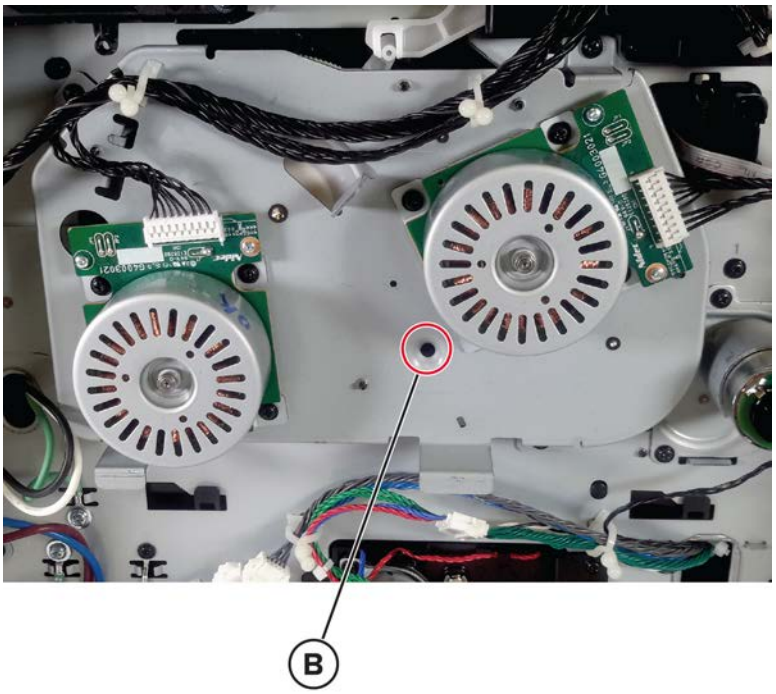
4 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**.

5 Remove the inner guide deflector. See **"Inner guide deflector removal" on page 501**.

6 Remove the two screws (A).



7 Remove the aligner screw (B).



8 Remove the aligner.

Installation note: Make sure that the aligner roller adjustment is performed to avoid paper skews. See **"Aligner roller adjustment" on page 447**.

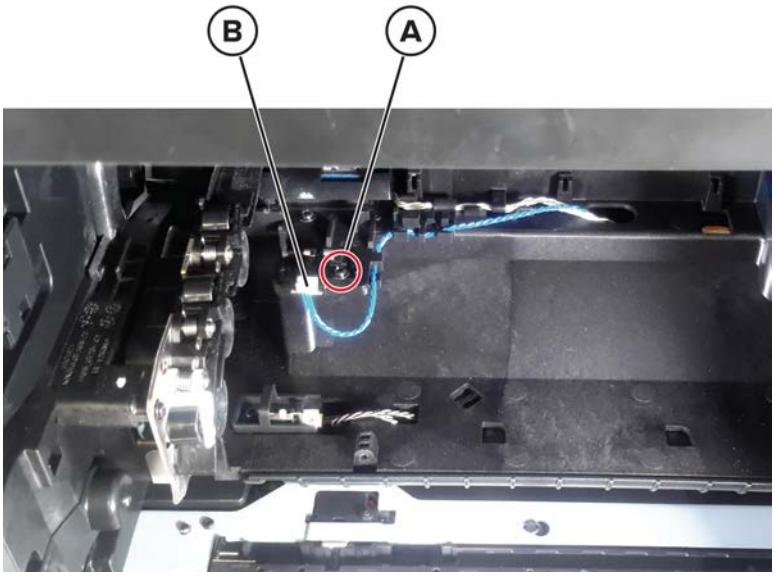
Sensor (input) removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**.

3 Remove the inner guide deflector. See **"Inner guide deflector removal" on page 501**.

4 Remove the screw (A), and then disconnect the sensor cable (B).



5 Remove the sensor.

MPF pick roller removal

1 Open the MPF door.

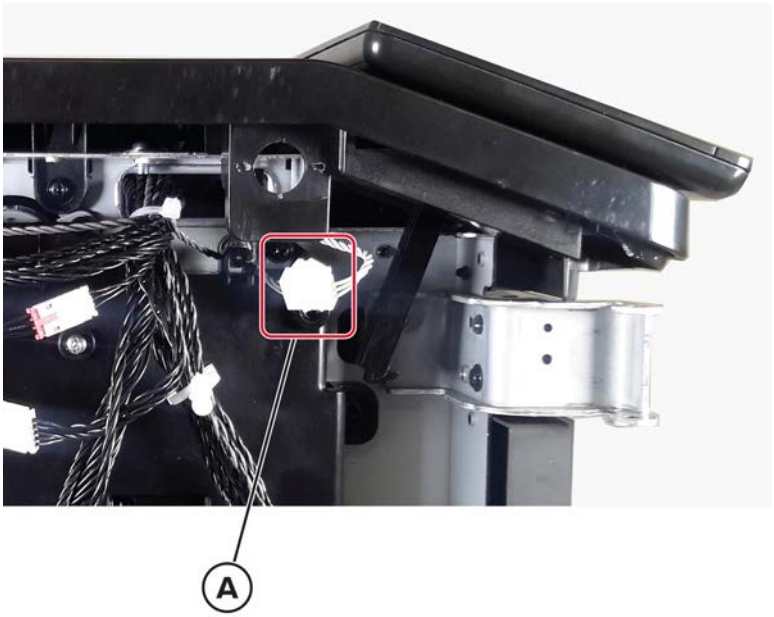
2 Press the latch to release, and then remove the pick roller.

Sensor (toner low) removal

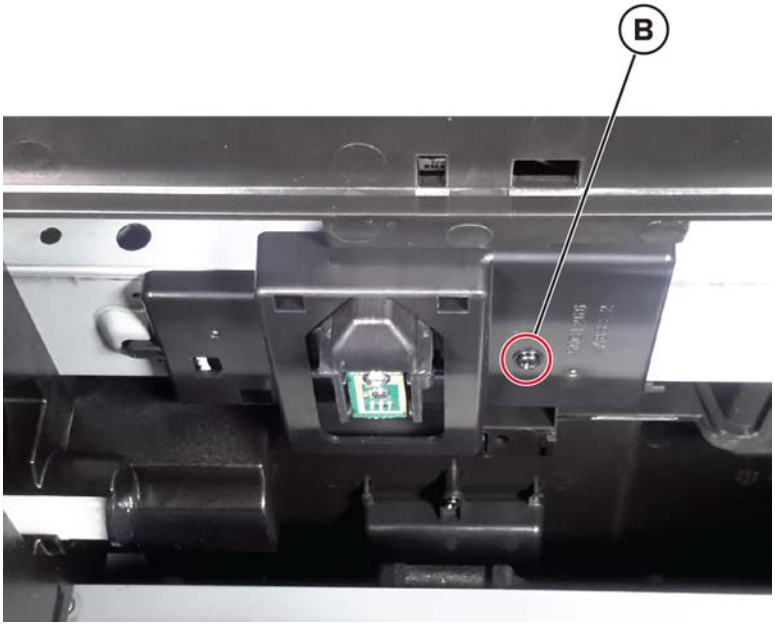
1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the left cover. See **“Left cover removal” on page 458**.

3 Disconnect the sensor cable (A).



4 Inside the printer from the front side, remove the screw (B).



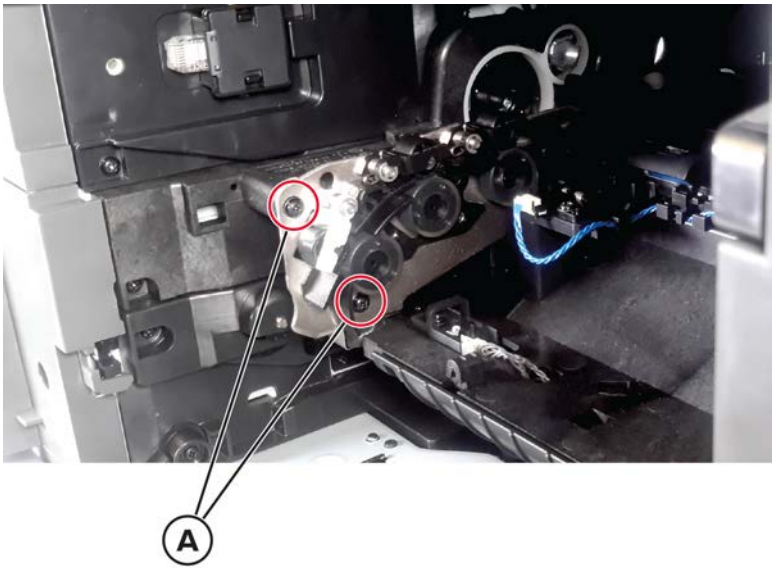
5 Remove the sensor.

Transfer roller removal

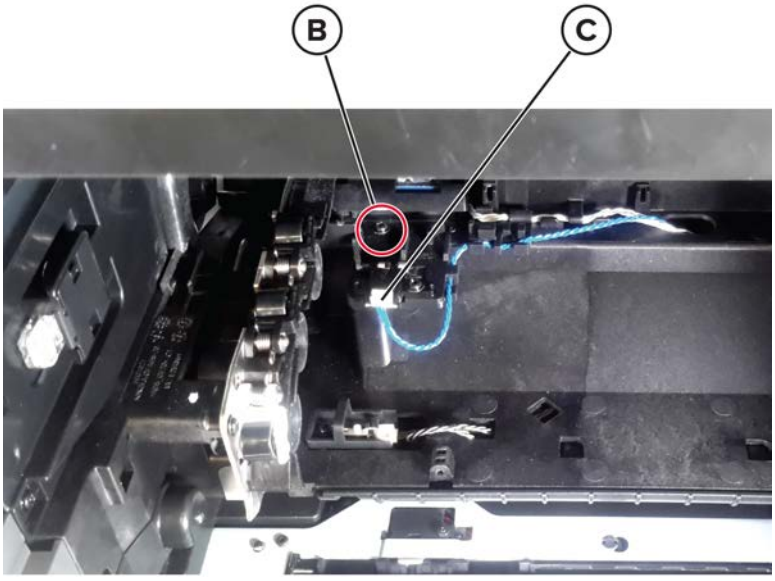
1. Open the front door, and then remove the toner cartridge and imaging unit.
2. Release the latch, and then remove the transfer roller.

Sensor (toner density) removal

1. Open the front door, and then remove the toner cartridge and imaging unit.
2. Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**.
3. Remove the inner guide deflector. See **"Inner guide deflector removal" on page 501**.
4. Loosen the two aligner screws (A) to allow space for the sensor removal.



5 Remove the screw (B), and then disconnect the sensor cable (C).



6 Remove the sensor.

Installation note: Make sure that the aligner screws are properly screwed back.

Rear side removals

Scanner support rear cover removal

1 Remove the left trim cover. See **"Left trim cover removal" on page 456**.

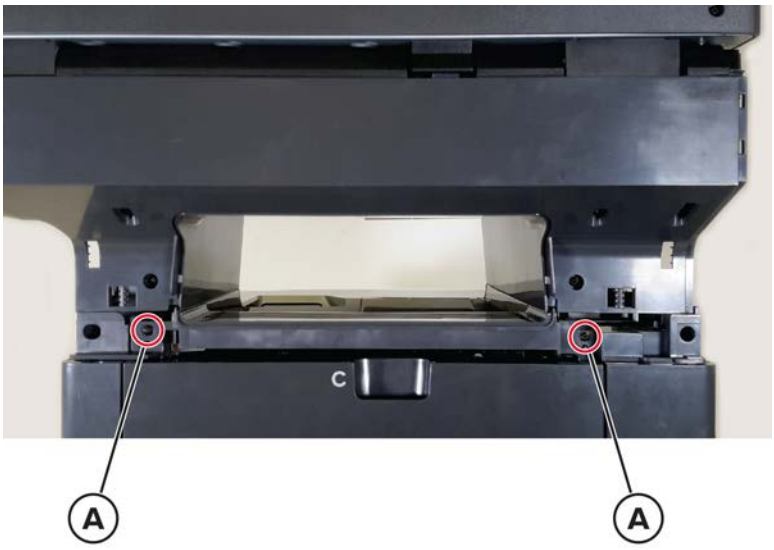
2 Remove the right trim cover. See **"Right trim cover removal" on page 473**.

3 Release the cover at the points shown.

4 Carefully pull the cover, and then remove it.

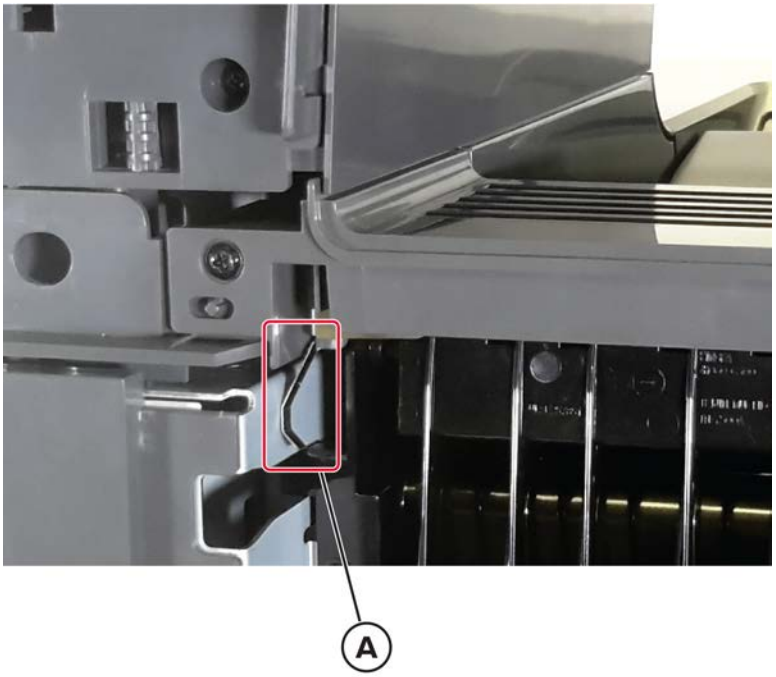
Redrive cover removal

1. Remove the left trim cover. See **"Left trim cover removal" on page 456**.
2. Remove the right trim cover. See **"Right trim cover removal" on page 473**.
3. Remove the scanner support rear cover. See **"Scanner support rear cover removal" on page 507**.
4. Remove the two screws (A), and then remove the cover.



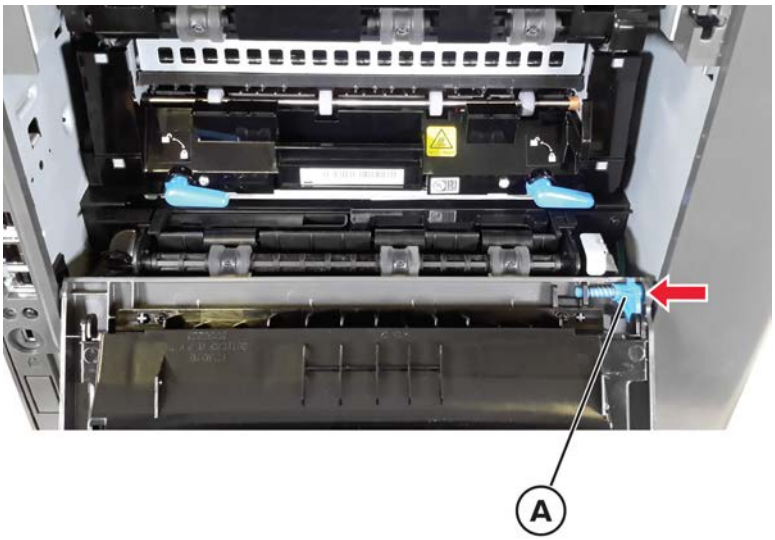
Installation warning: Be careful when removing or installing the cover. If the ground plate (A) is pushed too hard against the bracket, damage may occur.

Installation note: Make sure that the ground plate (A) is properly installed and in contact with the printer frame.



Rear door removal

1. Open the rear door.
2. Press the latch (A) to release the hinge, and then remove the door.

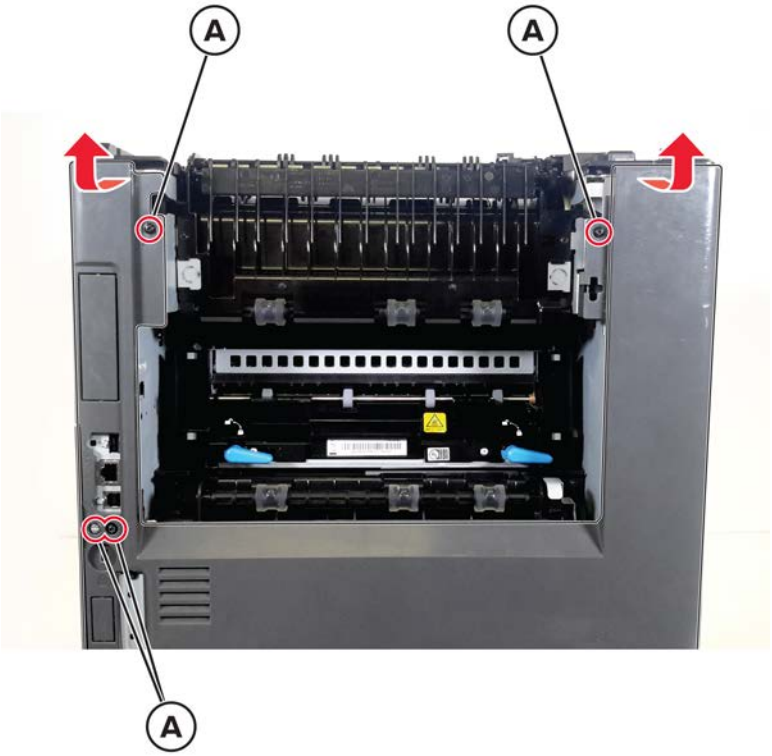


Rear cover removal

MX72x rear cover

1 Remove the rear door. See **“Rear door removal” on page 509**.

2 Remove the four screws (A).



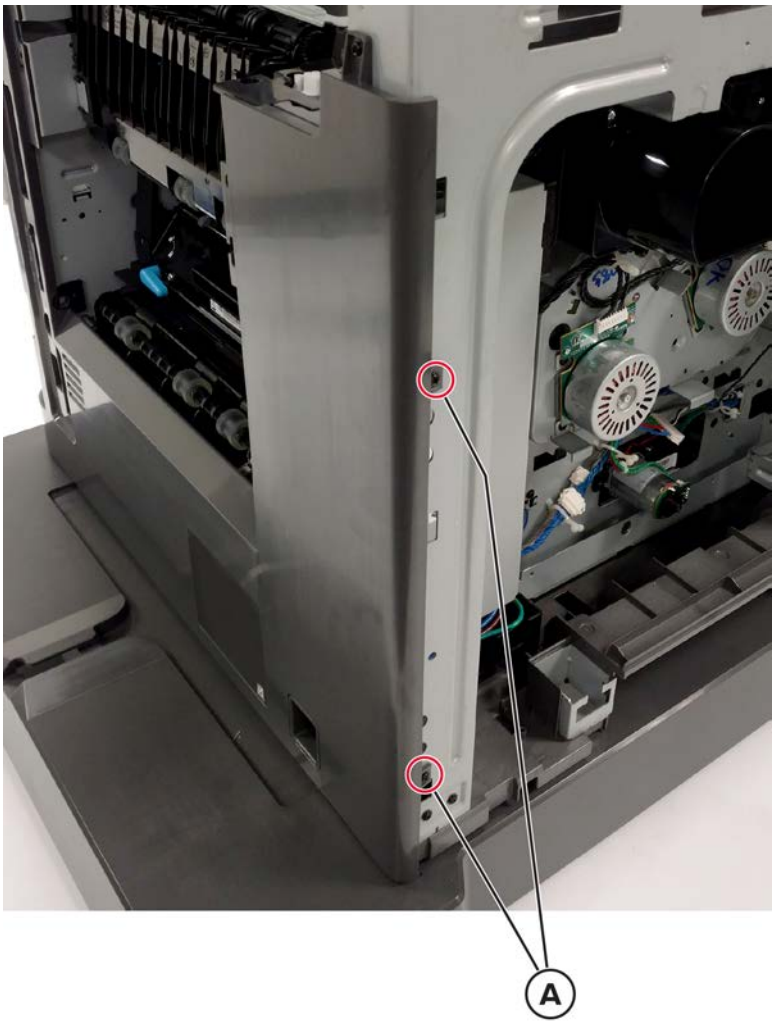
3 Gently pull the top and middle section of the cover to release, and then remove the cover.

MX82x rear cover

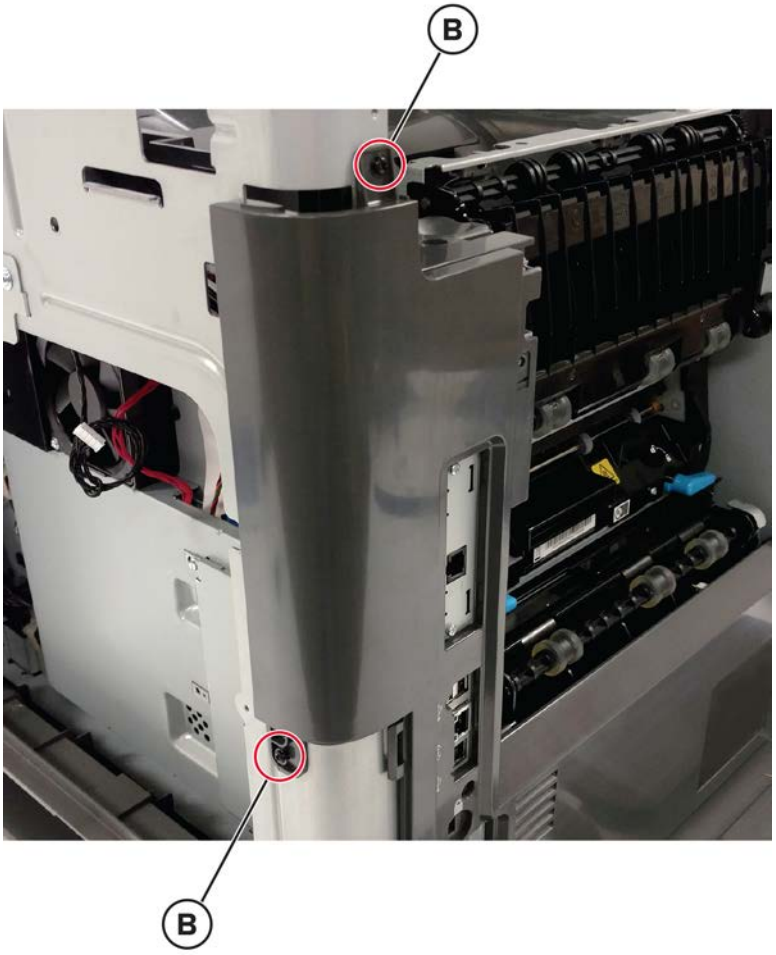
1 Remove the rear door. See **“Rear door removal” on page 509**.

2 Remove the left cover. See **“Left cover removal” on page 458**.

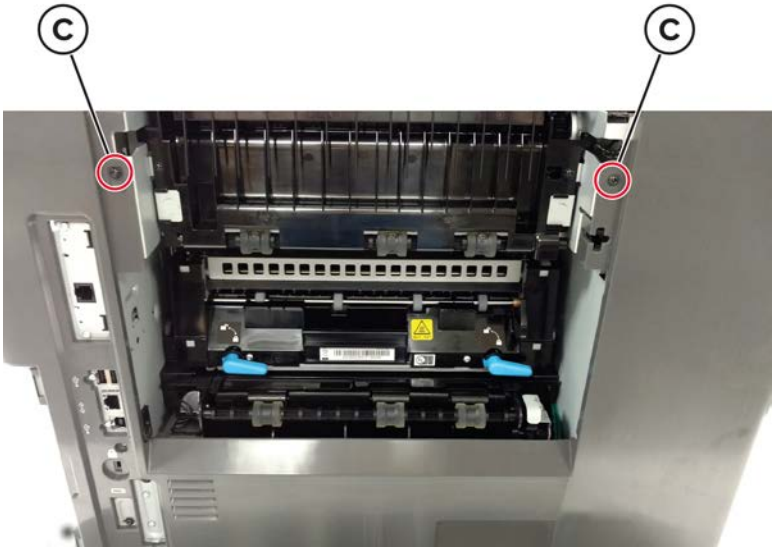
3 Remove the two screws (A).



4 Remove the two screws (B).



5 Remove the two screws (C).



6 Release the bottom side of the cover.

7 Remove the cover.

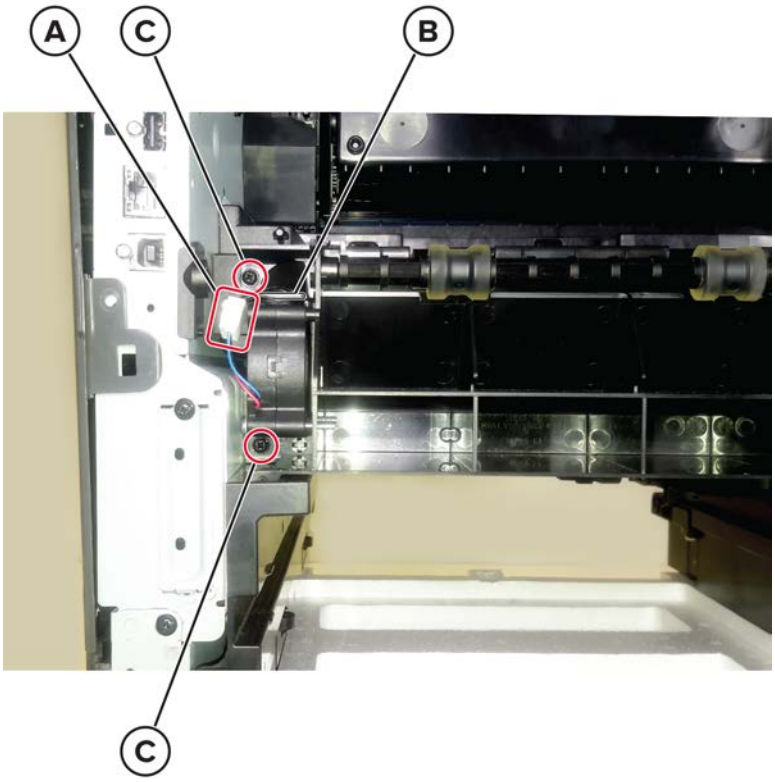
Motor (duplex) removal

1 Remove the rear door. See **"Rear door removal" on page 509**.

2 Remove the rear cover. See **"Rear cover removal" on page 510**.

3 Disconnect the cable (A), and then release it from its holder (B).

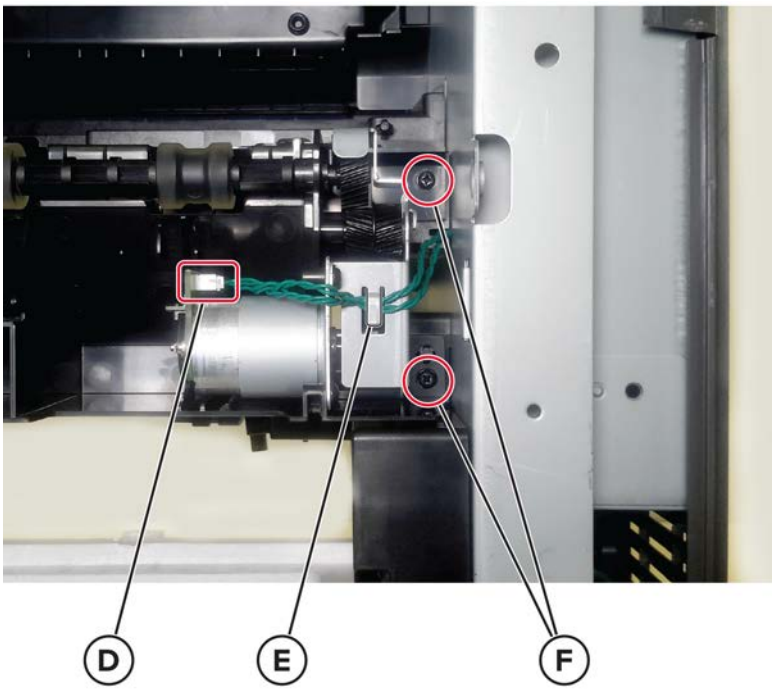
4 Remove the two screws (C).



5 Disconnect the cable (D), and then release it from its guide (E).

6 Remove the two screws (F), and then remove the motor.

Warning—Potential Damage: Make sure that the motor cables are disconnected before removing the motor.

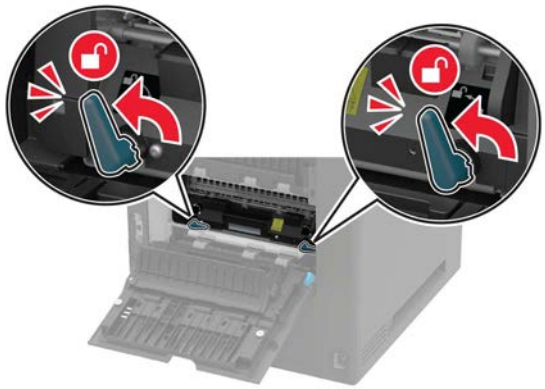


Fuser removal

1 For models using a hot roll type of fuser, remove the printhead access cover. See **"Printhead removal" on page 518**.

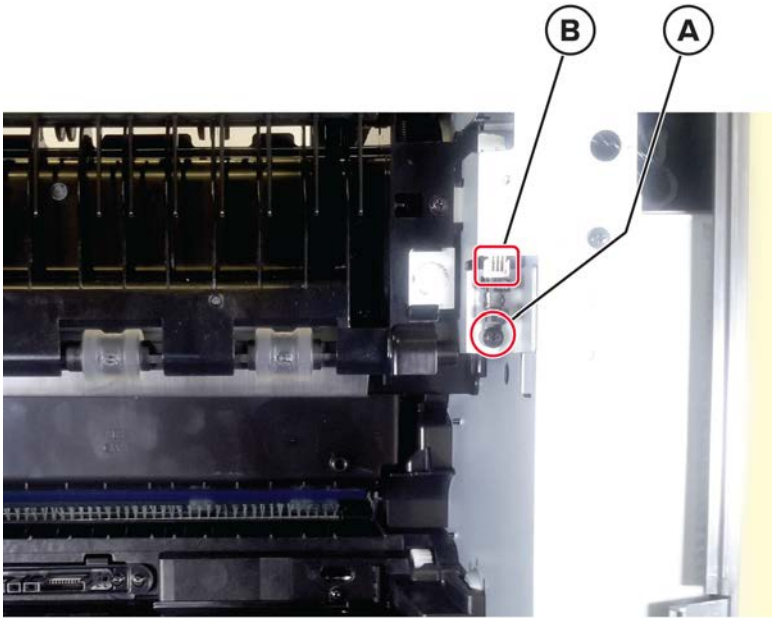
2 Open the rear door.

3 Rotate the latches to release, and then remove the fuser.



Sensor (rear door interlock) removal

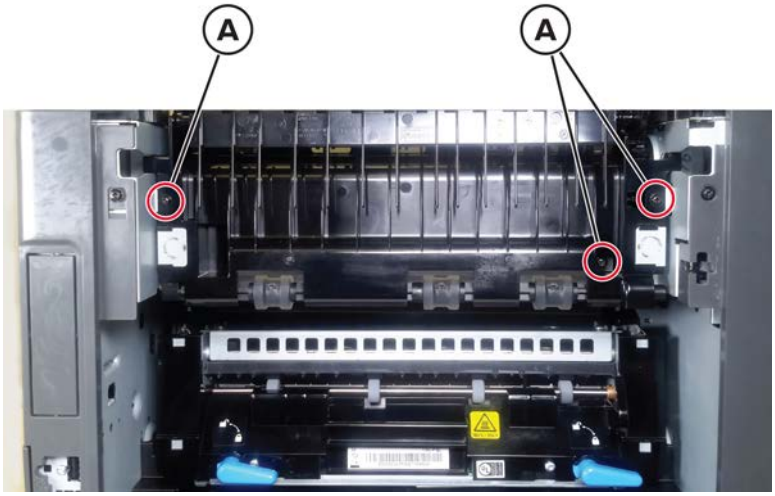
1. Remove the rear door. See **"Rear door removal" on page 509**.
2. Remove the rear cover. See **"Rear cover removal" on page 510**.
3. Remove the screw, and then disconnect the sensor cable (B).



4. Remove the sensor.

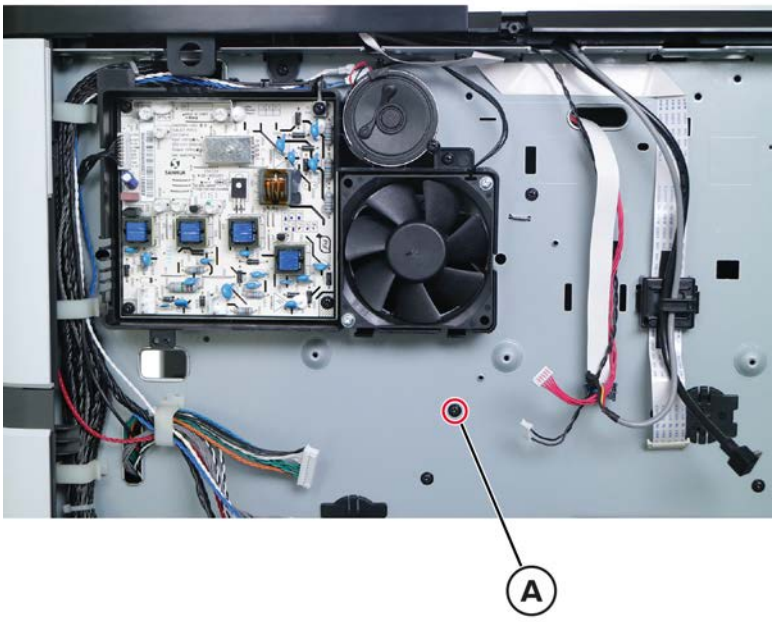
Upper redrive removal

1. Open the rear door.
2. Remove the three screws (A), and then remove the redrive.

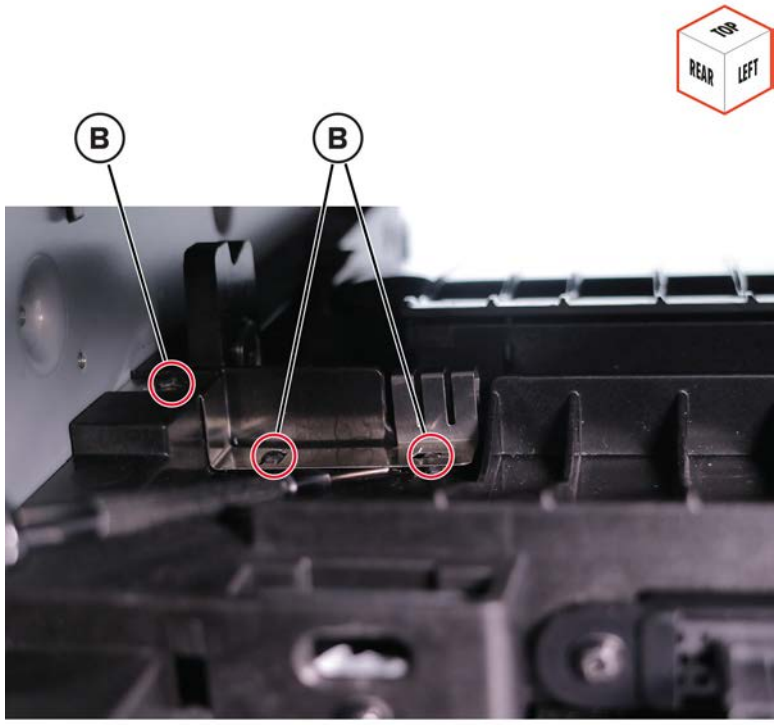


Transfer roller contact removal

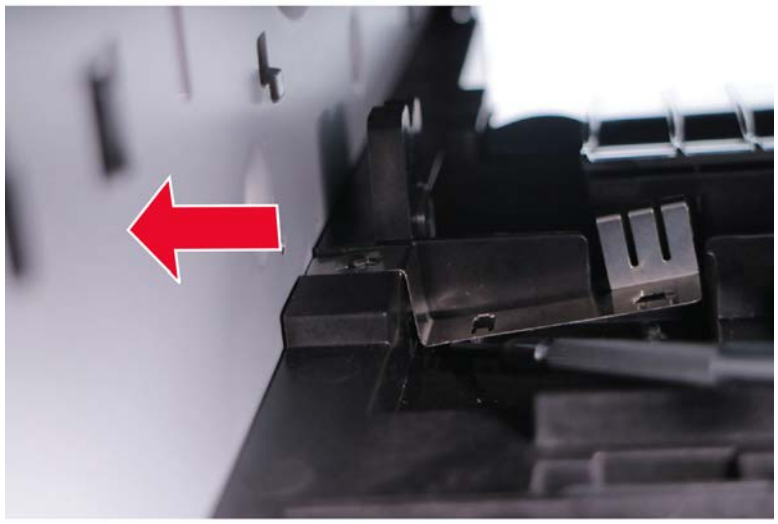
1. Open the front door, and then remove the toner cartridge and imaging unit.
2. Remove the transfer roller. See **“Transfer roller removal” on page 506**.
3. Remove the right cover. See **“Right cover removal” on page 475**.
4. Remove the fuser. See **“Fuser removal” on page 514**.
5. Remove the high voltage contacts guide. See **“High voltage contacts guide removal” on page 488**.
6. Remove the controller board. See **“Controller board removal” on page 486**.
7. Remove screw 5 (A) from the right side frame.



8 Inside the printer, release the contact from its posts (B) using a prying tool.



Note: If necessary, push the frame to loosen the contact.



Installation note: Make sure that the contact is properly engaged with its posts.

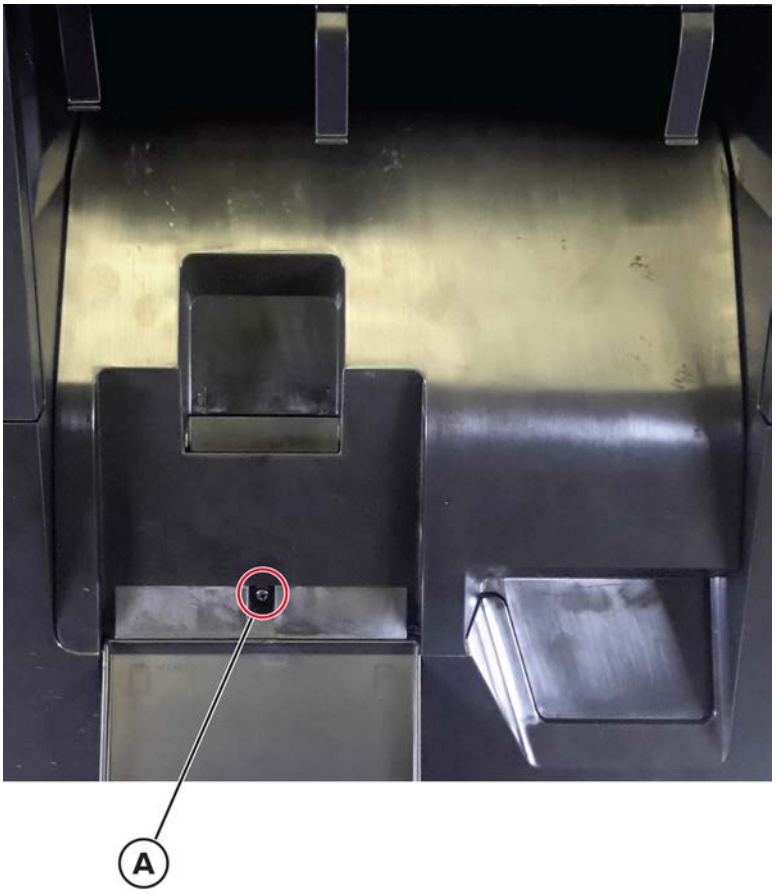
Top side removals

Printhead removal

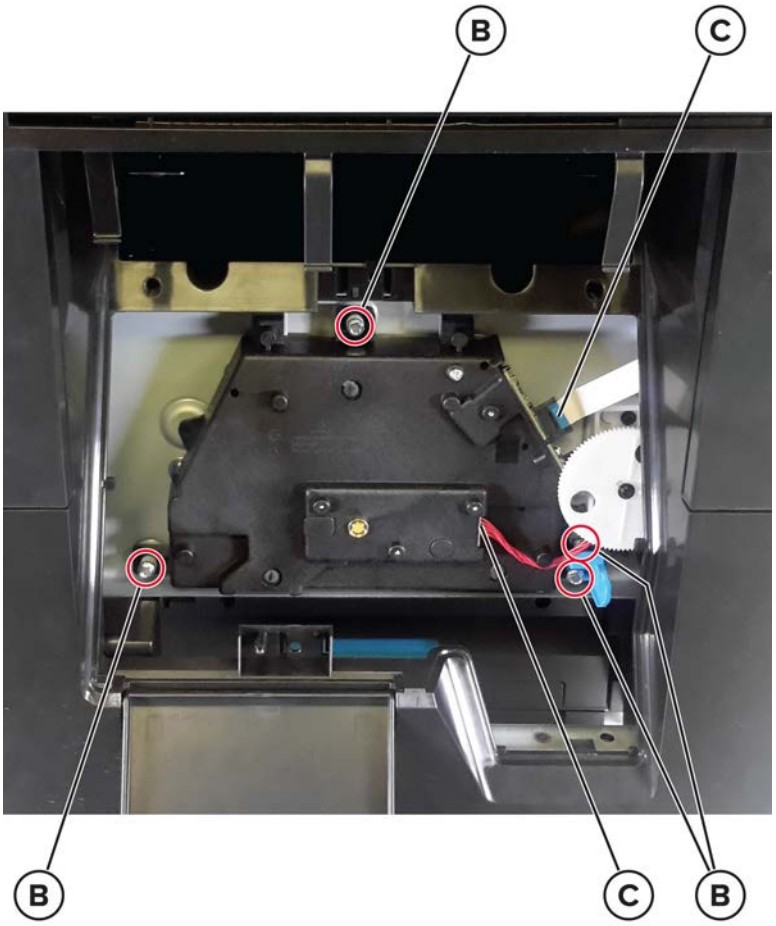
1 Remove the right cover. See **“Right cover removal” on page 475**.

2 Remove the screw (A) under the bin extender, and then remove the printhead access cover.

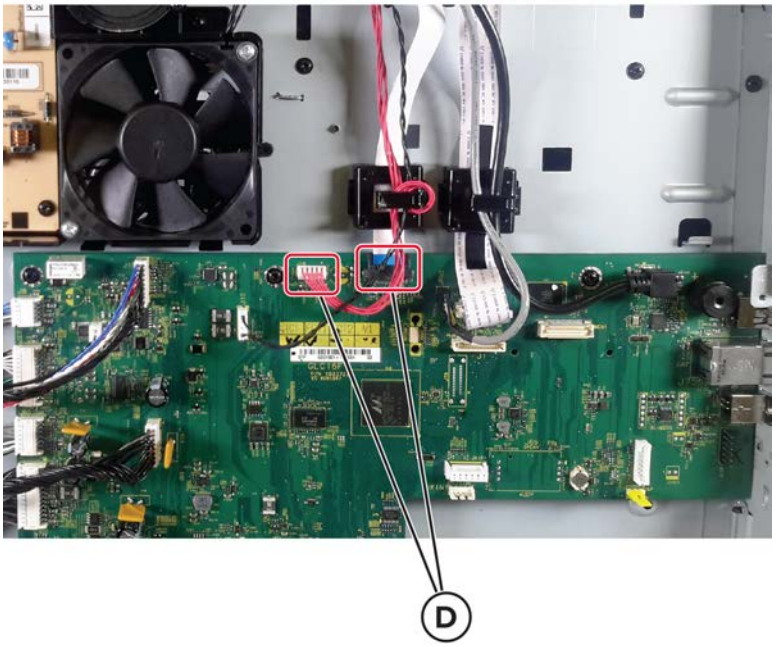
Note: For models using a hot roll type of fuser, the cover can be removed immediately (no screw to be removed) by lifting it.



3 Remove the four screws (B), and then disconnect the two cables (C).



4 Disconnect the two cables (D) from the controller board.

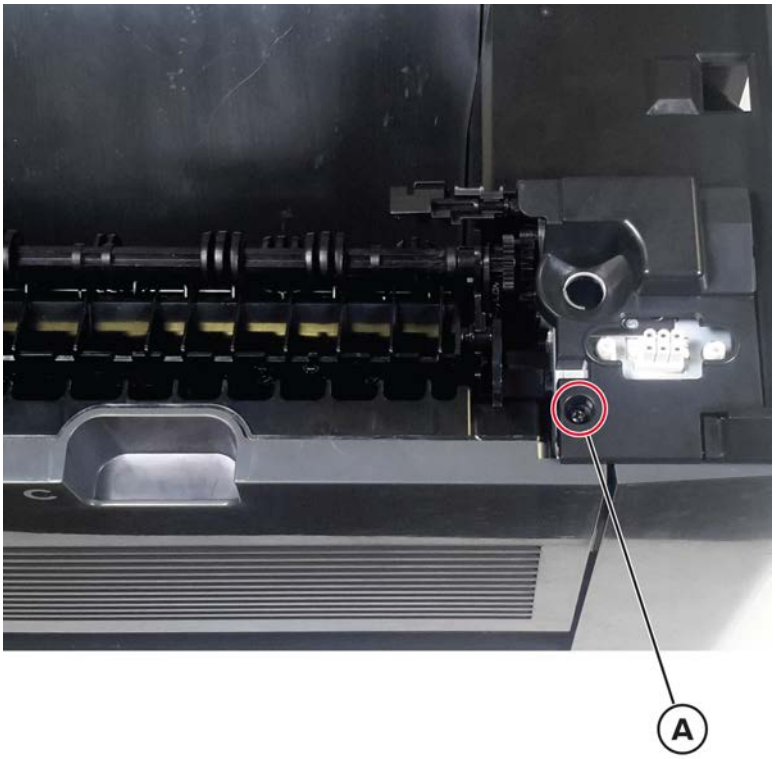


5 Remove the printhead.

Installation note: Make sure that the printhead is aligned first before tightening the screws. See **"Polygon printhead mechanical registration adjustment" on page 450**.

Bin full sensor cover removal

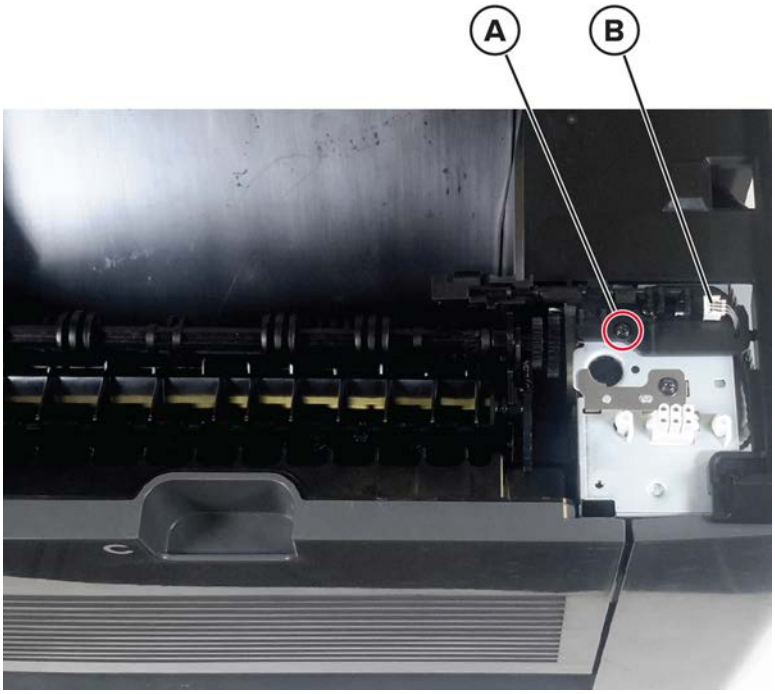
1 Remove the screw (A).



2 Remove the cover.

Sensor (standard bin full) removal

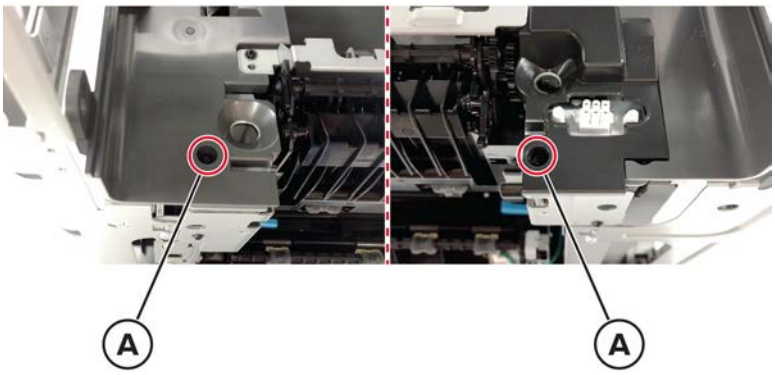
1. Remove the bin full sensor cover. See **“Bin full sensor cover removal” on page 521**.
2. Remove the screw (A), and then disconnect the sensor cable (B).



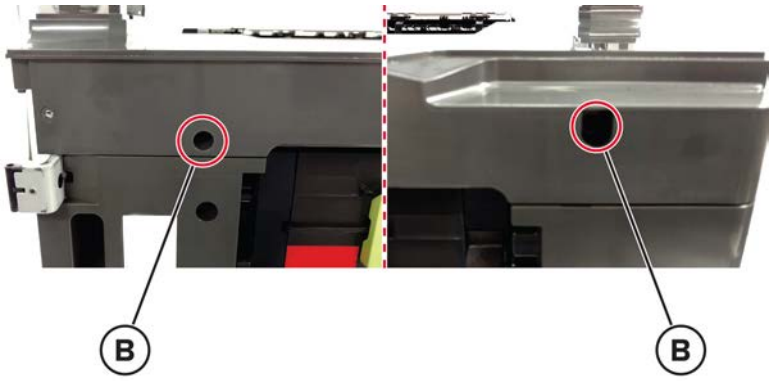
3. Remove the sensor.

Bin cover removal

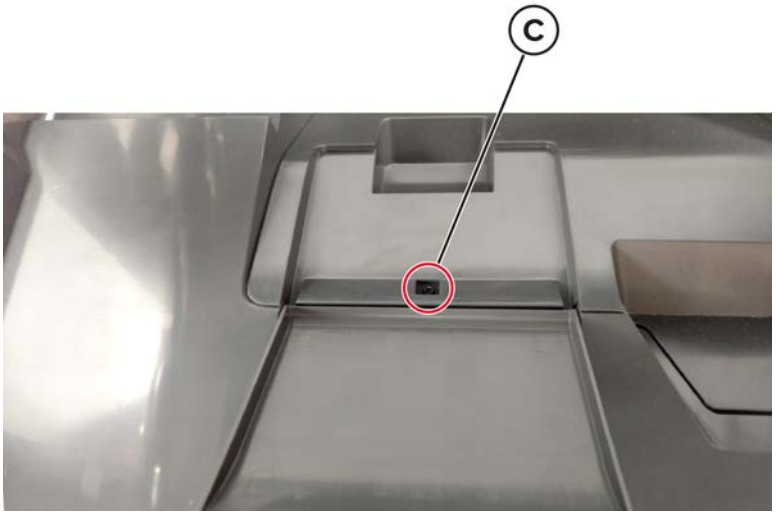
1. Remove the left inner column cover. See **“Left inner column cover removal” on page 457**.
2. Remove the right inner column cover. See **“Right inner column cover removal” on page 474**.
3. Remove the right cover. See **“Right cover removal” on page 475**.
4. Remove the left cover. See **“Left cover removal” on page 458**.
5. Remove the two rear screws (A).



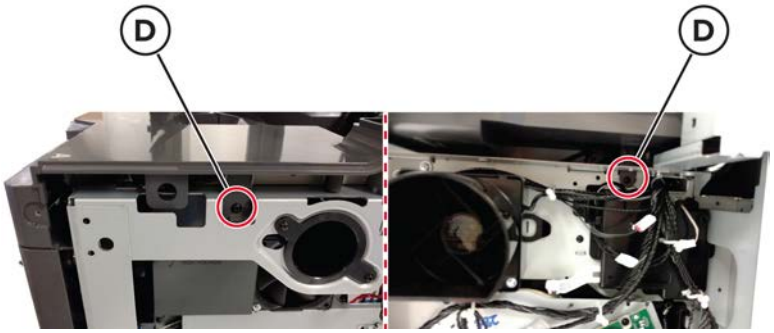
6 Remove the two front screws (B).



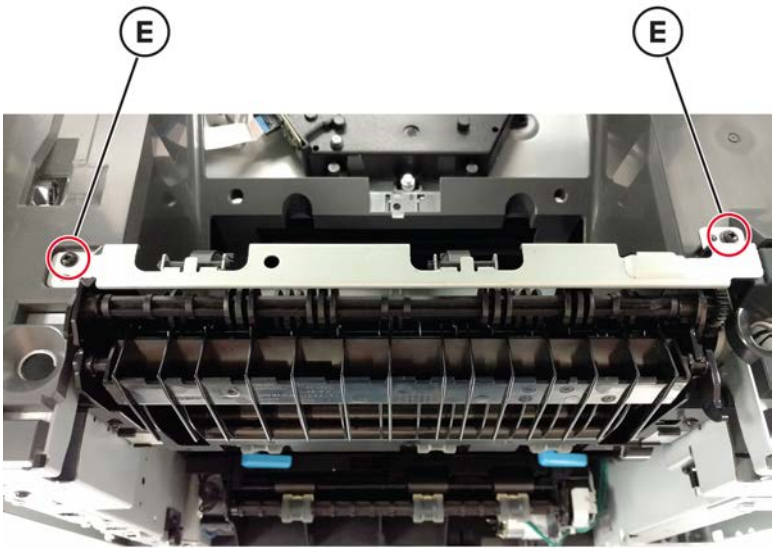
7 Remove the screw (C) under the bin extender.



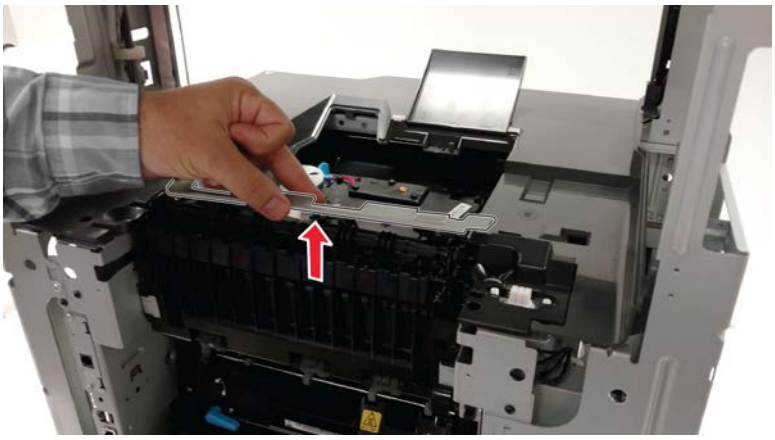
8 Remove the two right screws (D).



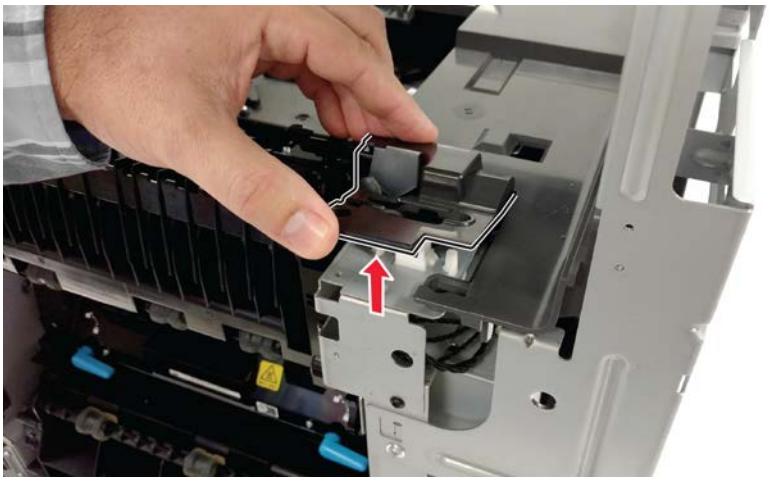
9 From the rear side, remove the two screws (E).



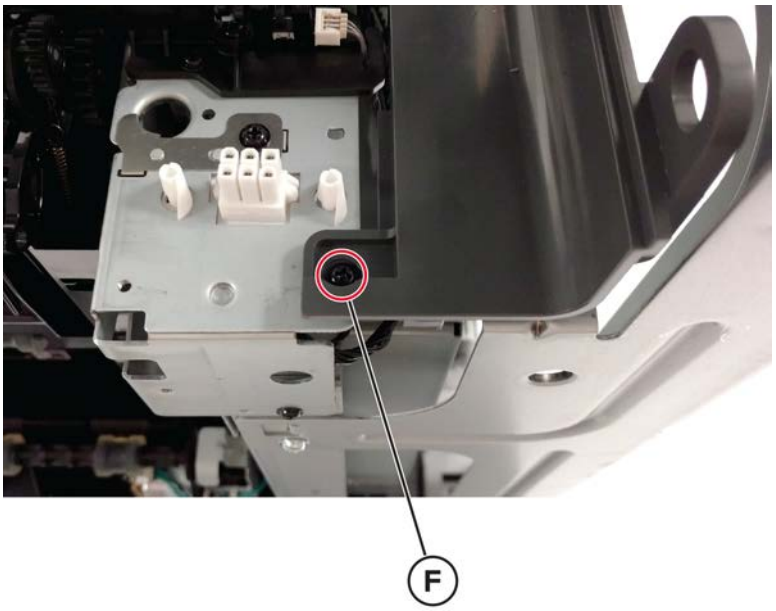
10 Remove the bracket.



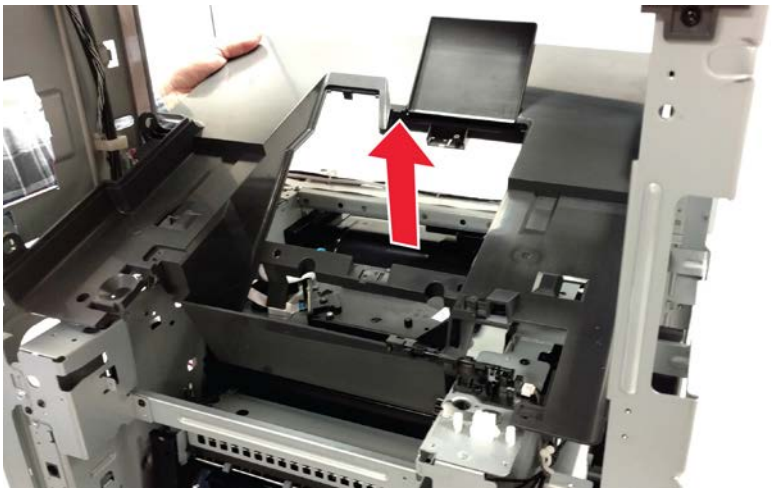
11 Remove the option connector cover.



12 Remove the screw (F).



13 Lift the front side, and then remove the cover.



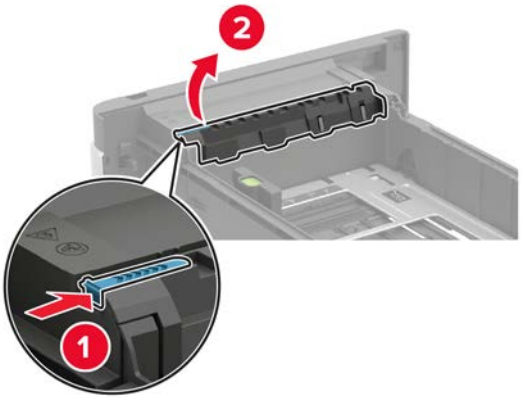
Bottom side removals

Tray insert removal

Pull out, and then remove the tray.

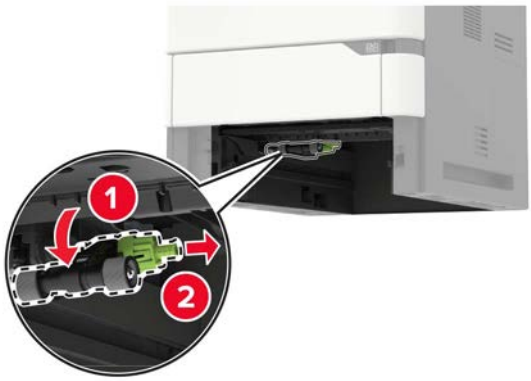
Separator pad removal

1. Remove the tray insert. See **"Tray insert removal" on page 526**.
2. Release, and then remove the separator pad.



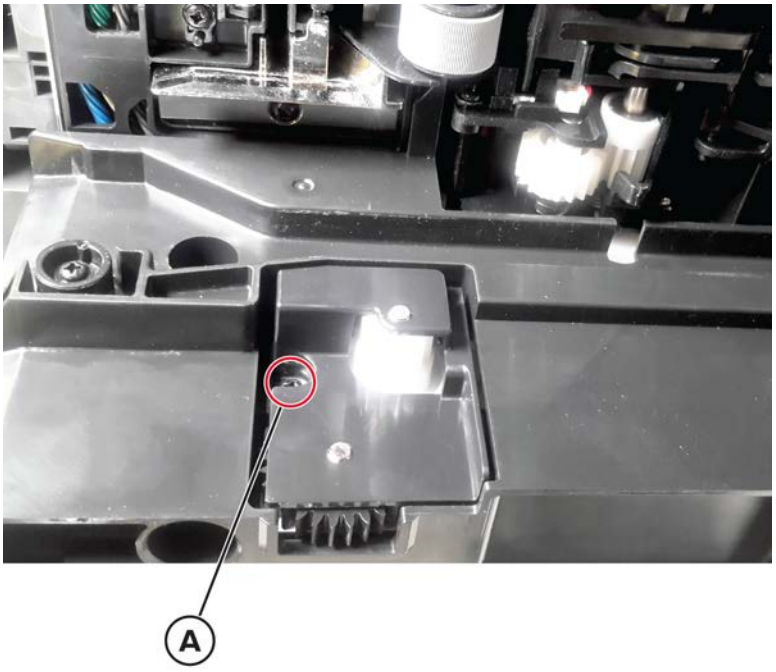
Pick roller removal

1. Remove tray 1.
2. Remove the pick roller.



Optional tray drive gear removal

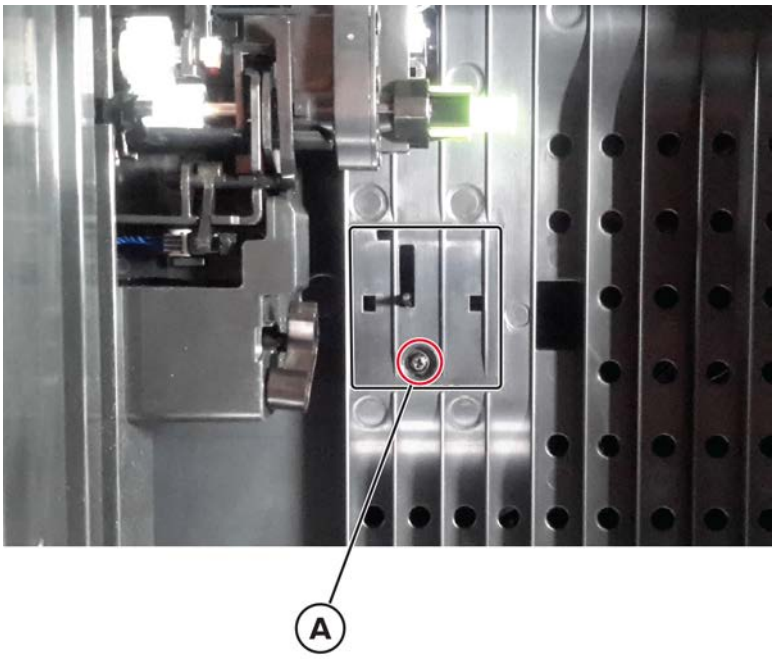
1. Remove tray 1.
2. Remove the screw (A), and then remove the drive gear and cover.



3. Remove the gears from the gear cover.

Sensor (duplex path) with cover removal

1. Remove all optional trays from the printer.
2. Remove tray 1.
3. Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 500**.
4. To access the bottom, lay the printer on its back on a sturdy surface.
5. Remove the screw (A), and then disconnect the sensor cable.



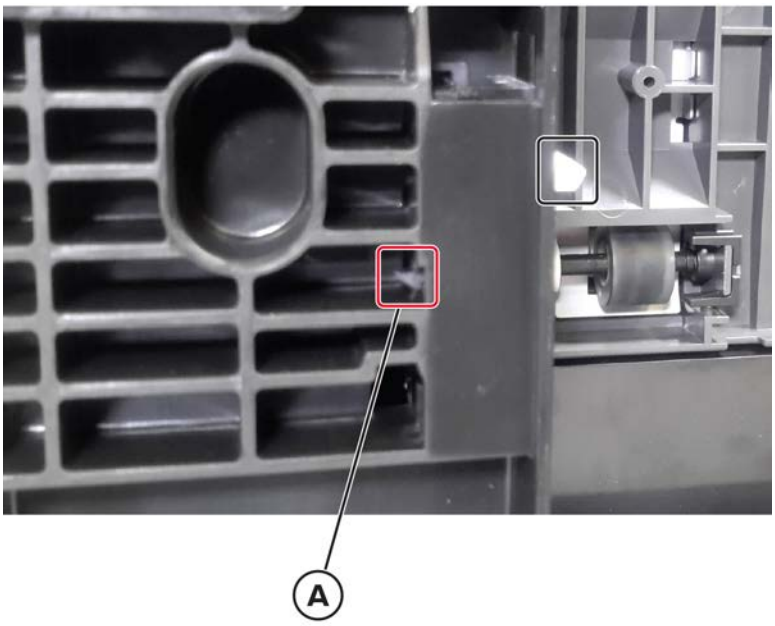
6. Remove the sensor and cover.

Sensor (paper size) removal

1. Remove all optional trays from the printer.
2. Remove tray 1.
3. To access the bottom, lay the printer on its back on a sturdy surface.

4 Release the paper size sensor cover using a flat screwdriver, and then remove it.

5 Release the sensor latch (A), and then release the sensor from the frame.



6 Disconnect the sensor cable, and then remove the sensor.

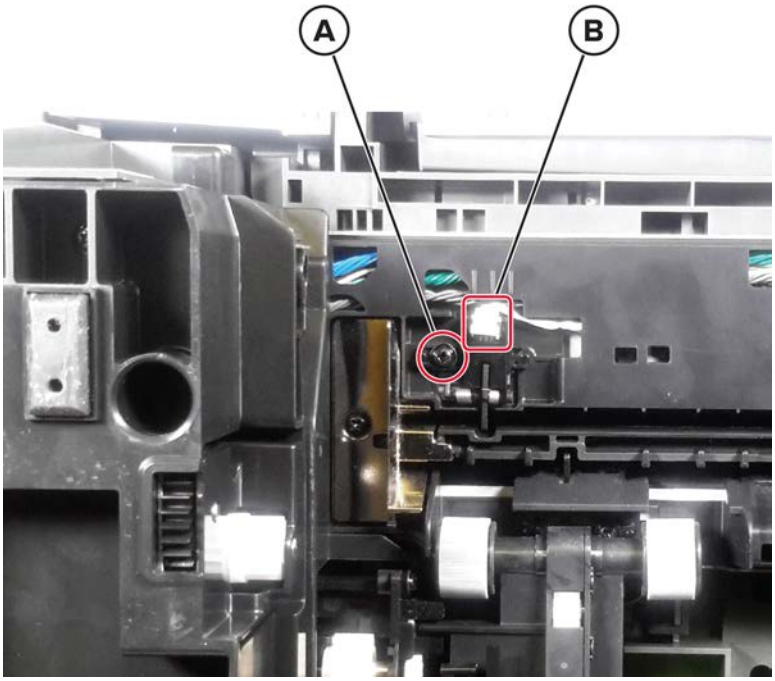
Sensor (tray 1 pass-through) removal

1 Remove all optional trays from the printer.

2 Remove tray 1.

3 To access the bottom, lay the printer on its back on a sturdy surface.

4 Remove the screw (A), and then disconnect the sensor cable (B).



5 Remove the sensor.

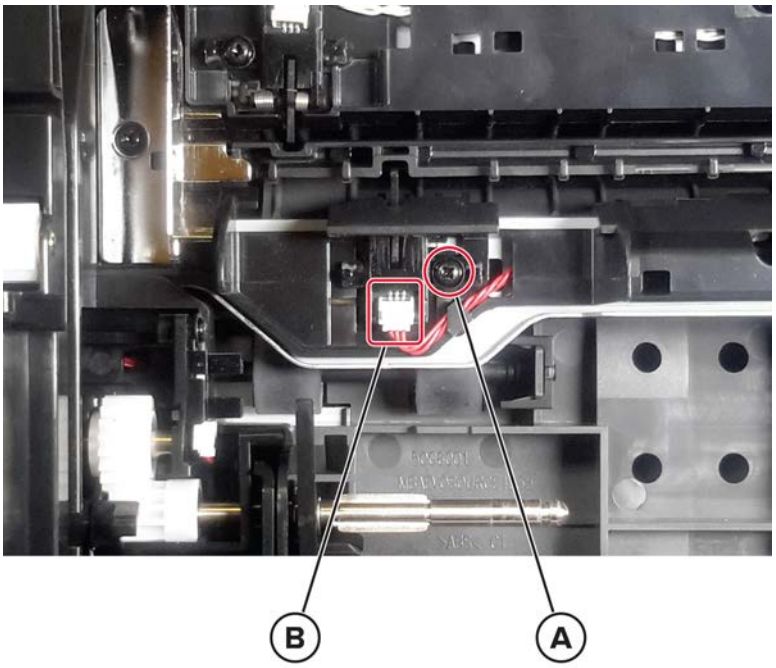
Sensor (tray 1 pick) removal

1 Remove all optional trays from the printer.

2 Remove tray 1.

3 To access the bottom, lay the printer on its back on a sturdy surface.

4 Remove the screw (A), and then disconnect the sensor cable (B).



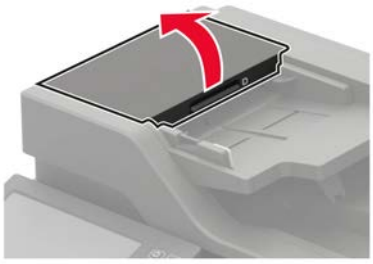
5 Remove the sensor.

ADF and flatbed scanner removals

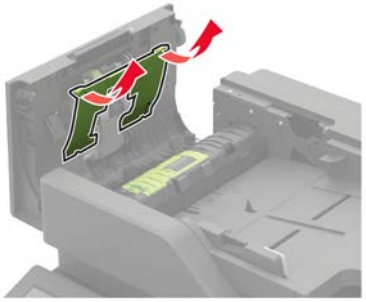
ADF pick roller cover removal

Warning—Potential Damage: Some parts of the printer are easily damaged by static electricity. Before touching any parts or components in an area marked with the static-sensitive symbol, touch a metal surface in an area away from the symbol.

1 Open door D.



2 Release the latches, and then remove the cover.



ADF roller kit removal

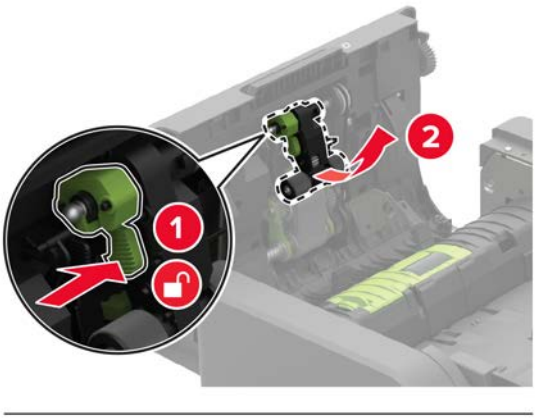
Warning—Potential Damage: Replace the ADF pick roller, ADF feed belt, and ADF separator roller at the same time. If the life of these parts don't match, feed issues may occur.

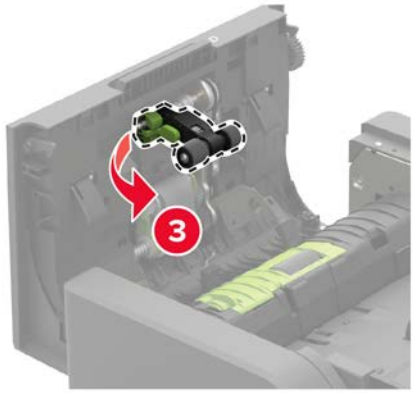
ADF pick roller removal

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 ADF.

1 Remove the ADF pick roller cover. See **"ADF pick roller cover removal" on page 531**.

2 Remove the pick roller.



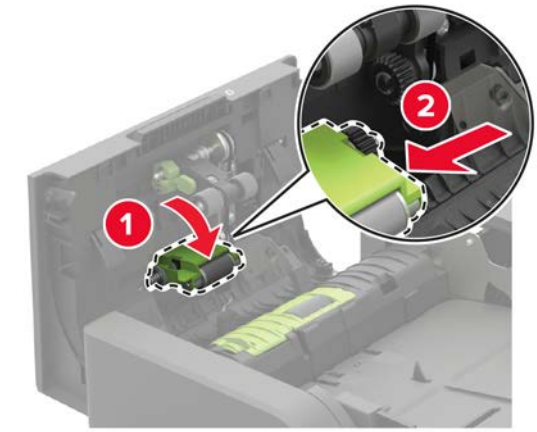


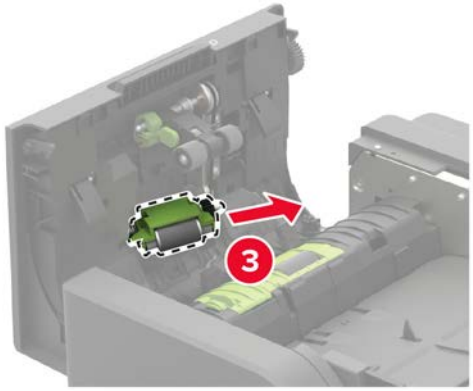
ADF feed belt removal

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 ADF.

1 Remove the ADF pick roller cover. See **"ADF pick roller cover removal" on page 531**.

2 Remove the feed belt.

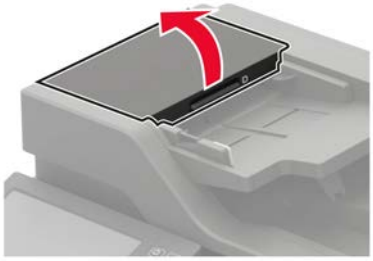




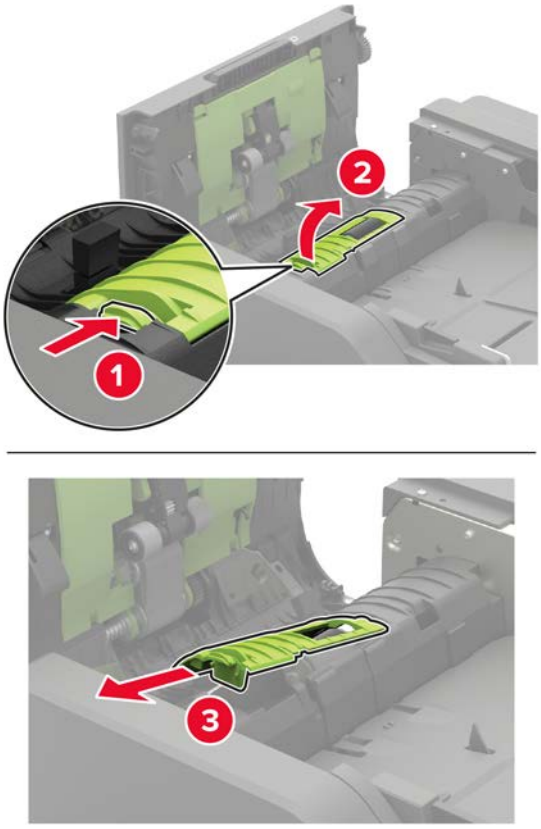
ADF separator roller removal

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 ADF.

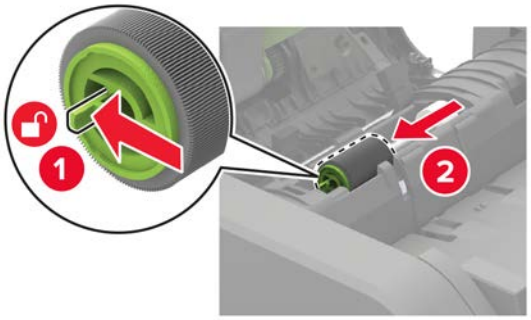
1 Open door D.



2 Remove the ADF separator roller cover.



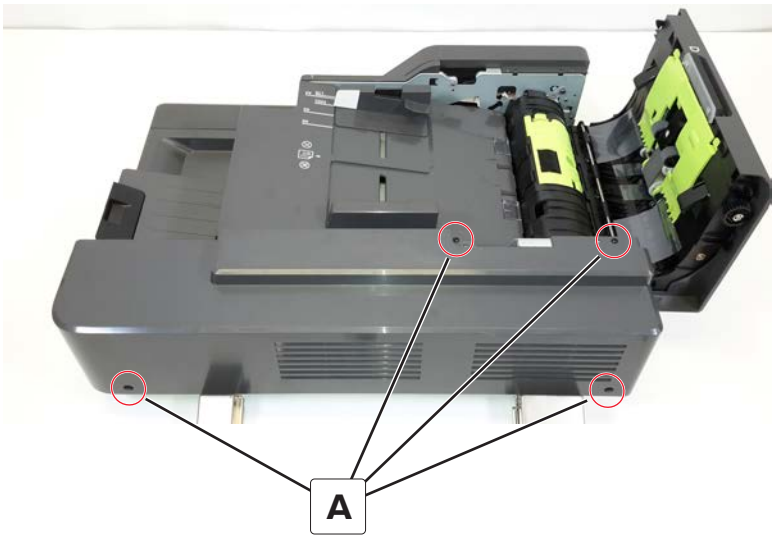
3 Remove the separator roller.



ADF rear cover removal

1 Open the ADF top door.

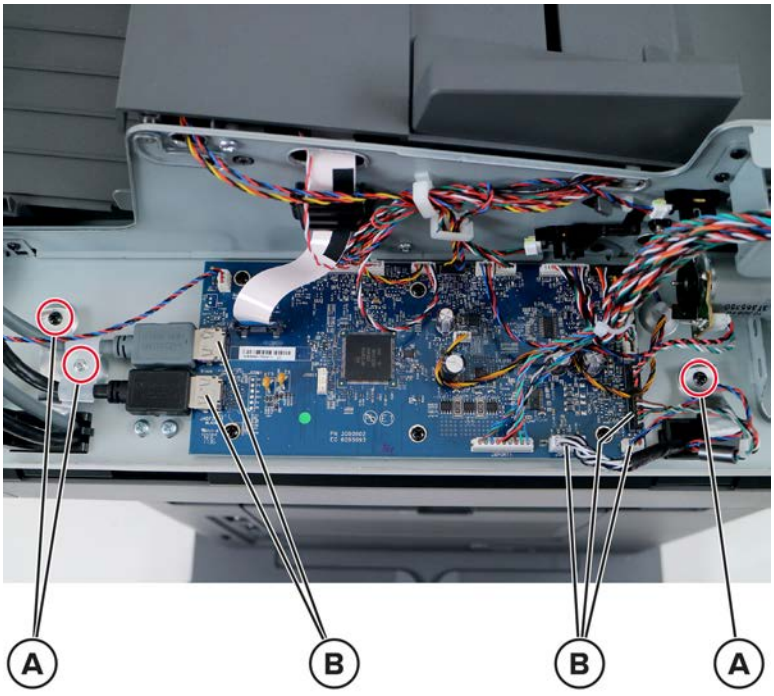
2 Remove the four screws (A), and then remove the cover.



ADF removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.

2 Remove the three screws (A), and then disconnect the five cables (B).



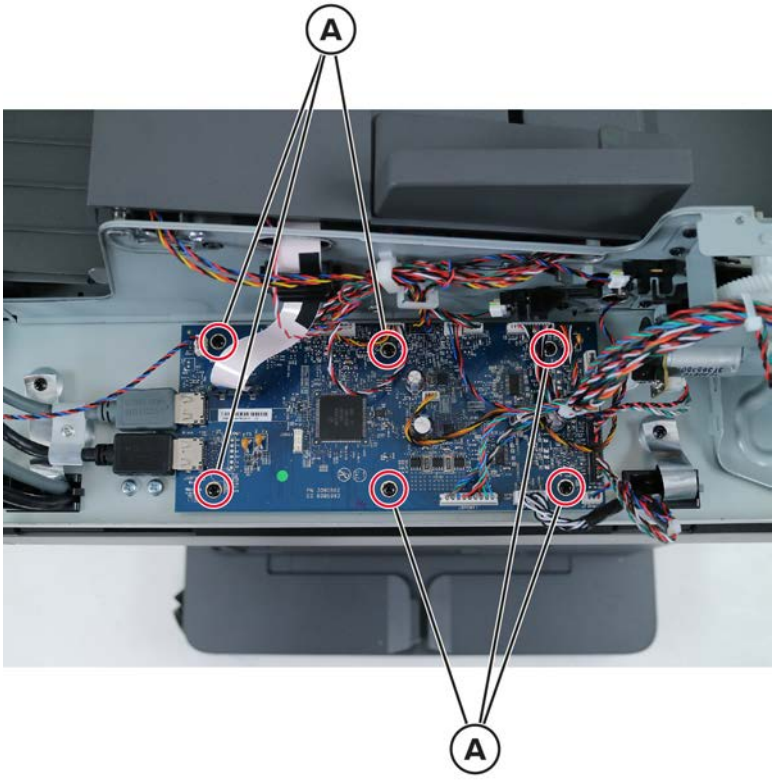
3 Gently lift the ADF, and then release the cables from the ADF.

ADF controller board removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.

2 Disconnect all the cables from the controller board, and then remove the six screws (A).

Warning—Potential Damage: Do not yank the ribbon cable. See **"Disconnecting ribbon cables" on page 445**.



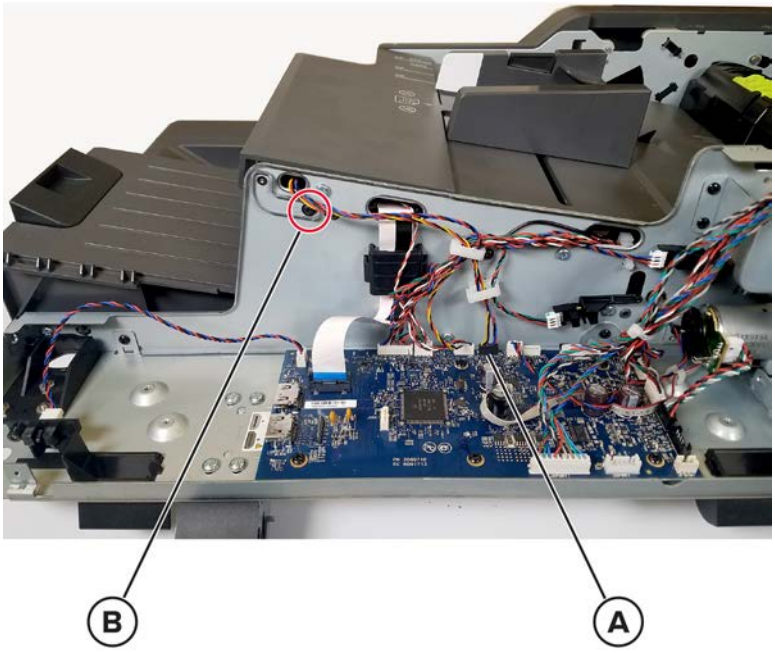
3 Remove the board.

ADF tray removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.

2 Disconnect the cable (A), and then release it from its clamps.

3 Remove the screw (B), and then remove the hinge bracket.

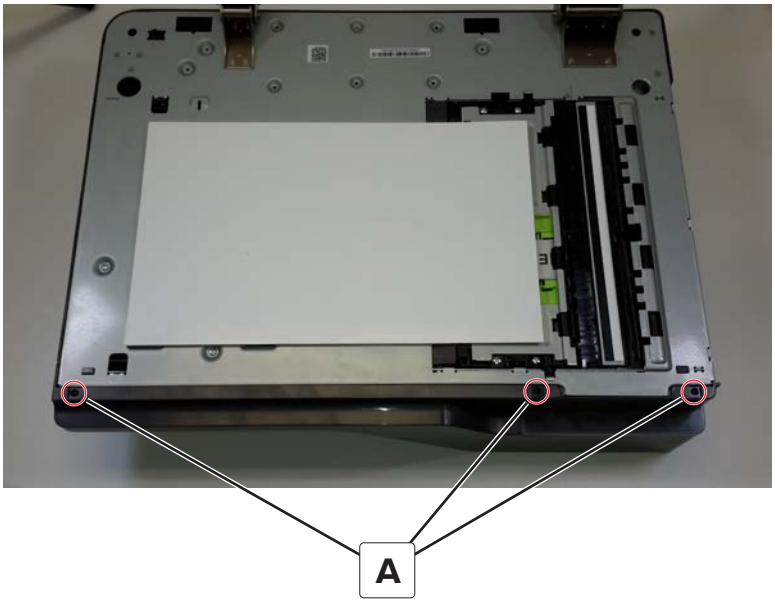


4 Carefully remove the tray and cable from the ADF frame.

ADF front cover removal

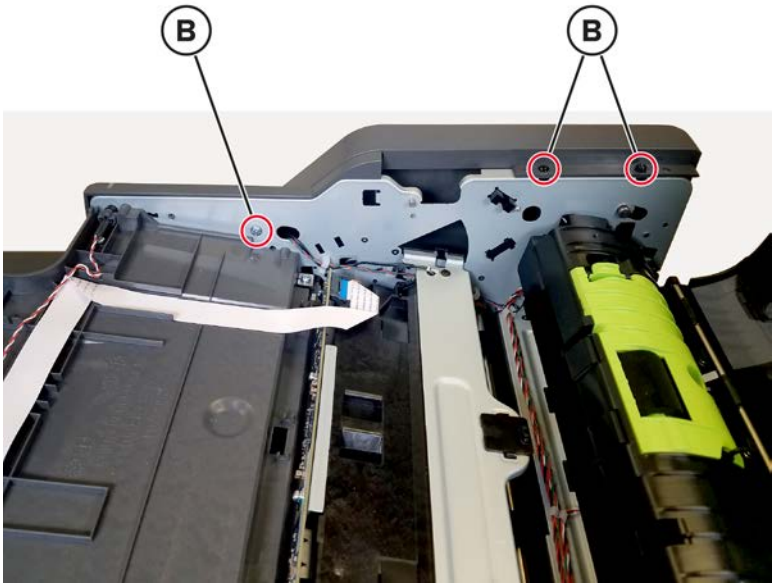
1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.

2 Remove the three screws (A) under the ADF.



3 Lift the ADF tray.

4 Remove the three screws (B) behind the front cover.



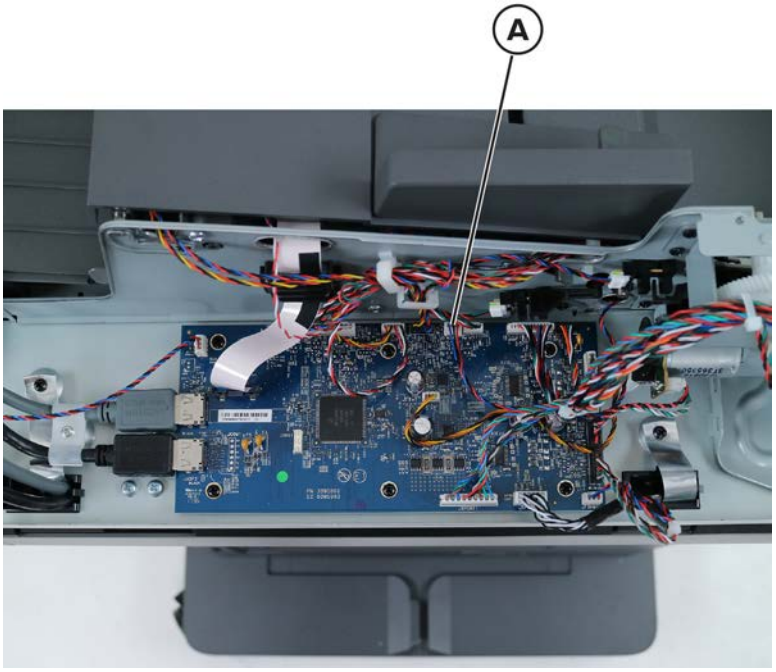
5 Remove the cover.

ADF bottom door removal

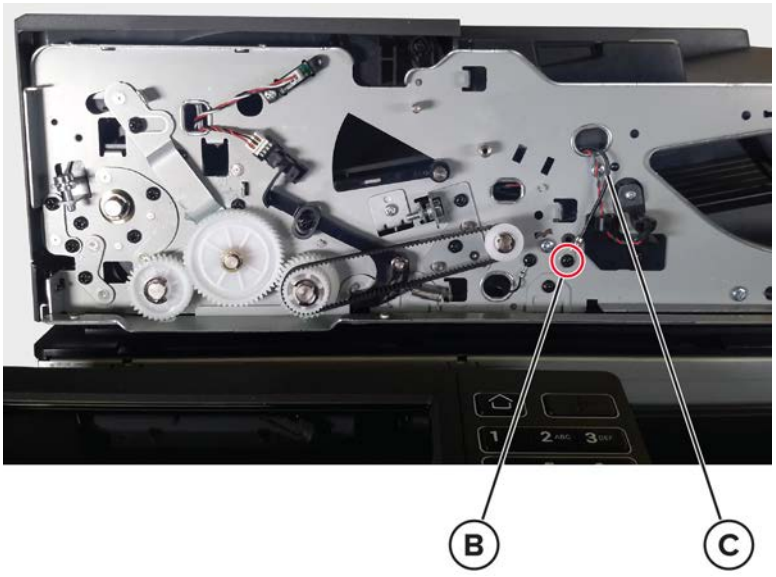
1 Remove the ADF front cover. See **“ADF front cover removal” on page 537**.

2 Remove the ADF rear cover. See **“ADF rear cover removal” on page 535**.

3 Disconnect the cable JCSH1 (A) from the ADF controller board.

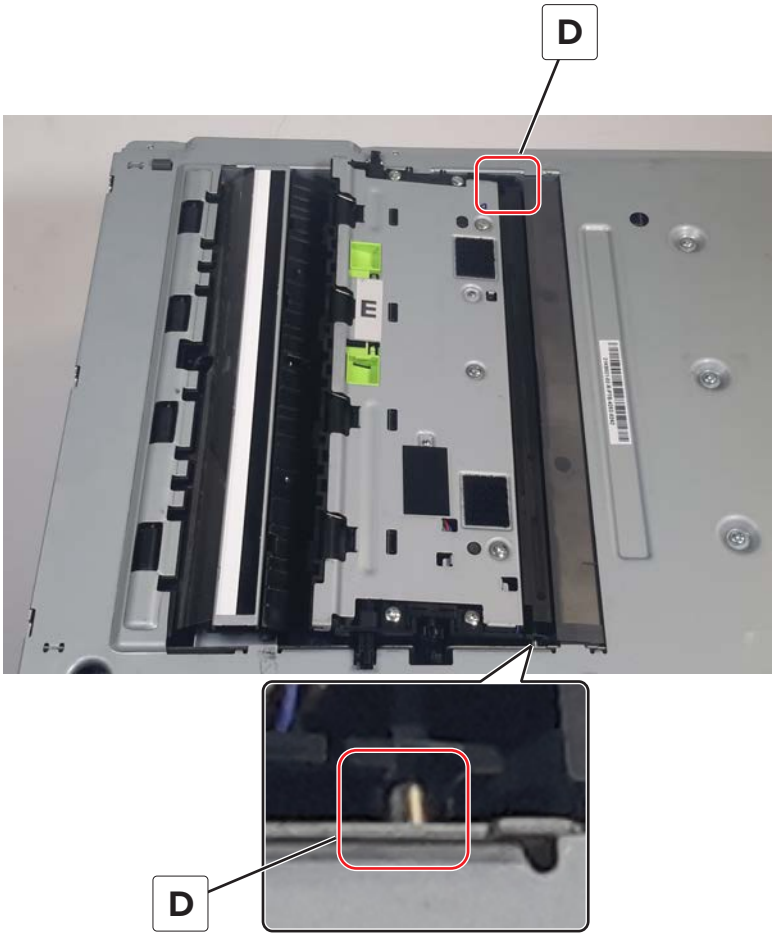


4 Remove the screw (B) to release the ground wire (C).



5 Open the ADF bottom door.

6 Gently flex the hinges (D) to release, and then remove the door.



Installation note: When installing the bottom door, make sure to reconnect the ground wire.

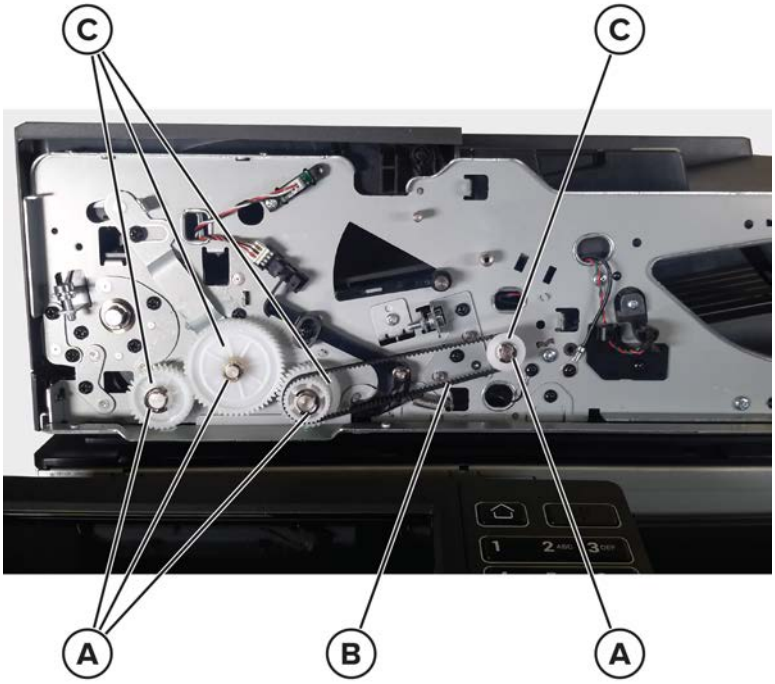
ADF front drive train removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.

2 Remove the ADF front cover. See **"ADF front cover removal" on page 537**.

3 Remove the four E-clips (A).

4 Remove the belt (B) and the four gears (C).



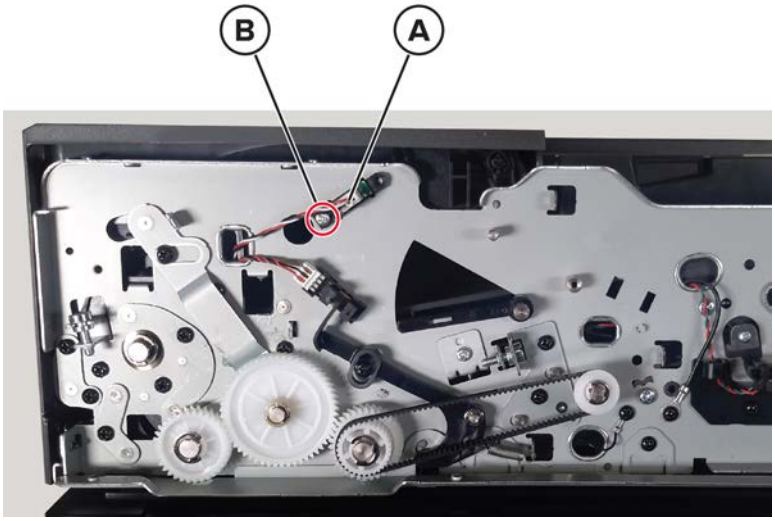
Sensor (ADF top door interlock) removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.

2 Remove the ADF tray. See **"ADF tray removal" on page 536**.

3 Remove the ADF front cover. See **"ADF front cover removal" on page 537**.

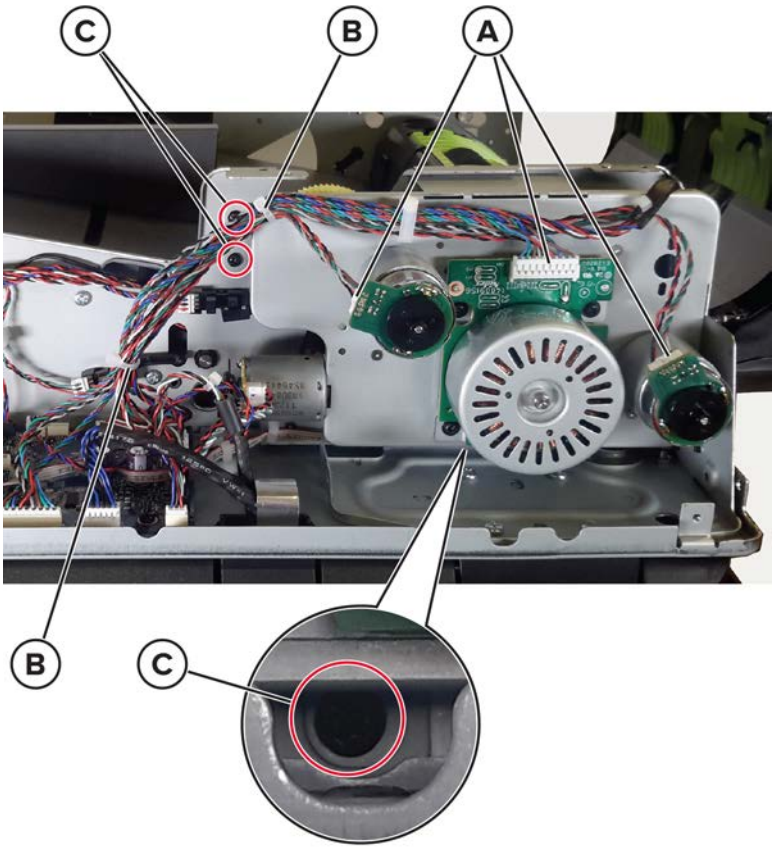
4 Disconnect the cable (A), and then remove the screw (B).



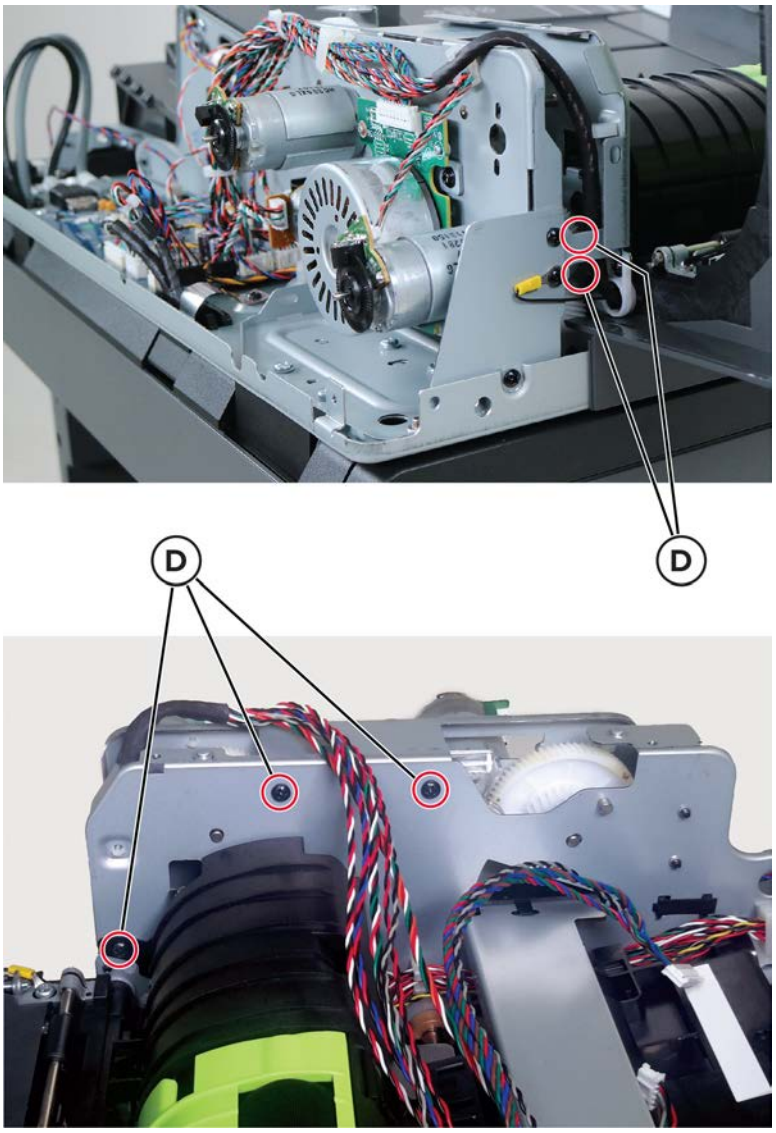
5 Remove the sensor.

Motor (ADF) removal

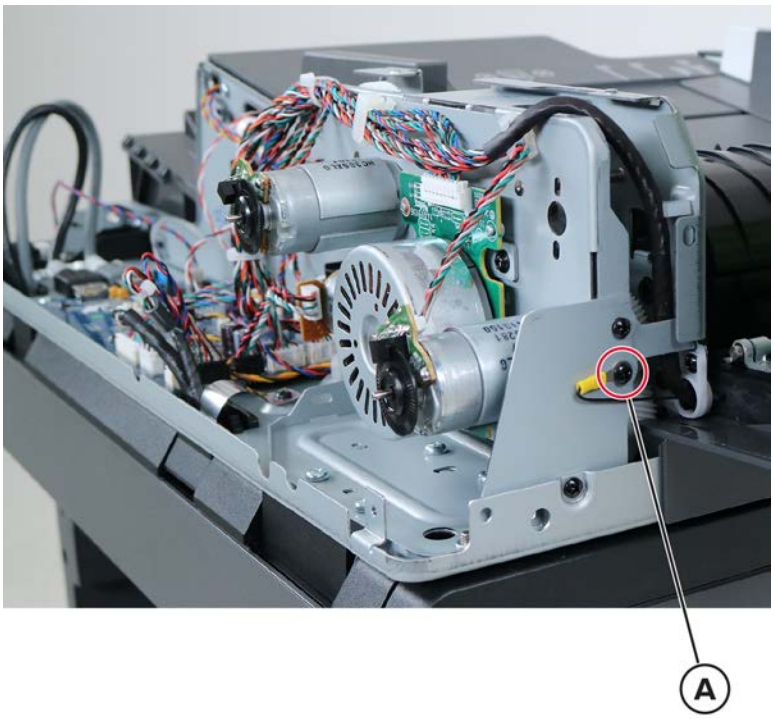
1. Remove the ADF rear cover. See **“ADF rear cover removal” on page 535**.
2. Remove the ADF controller board. See **“ADF controller board removal” on page 536**.
3. Disconnect the three cables (A).
4. Release the cables from the cable ties (B), and then remove the three screws (C).



5 Remove the five screws (D), and then remove the motor.

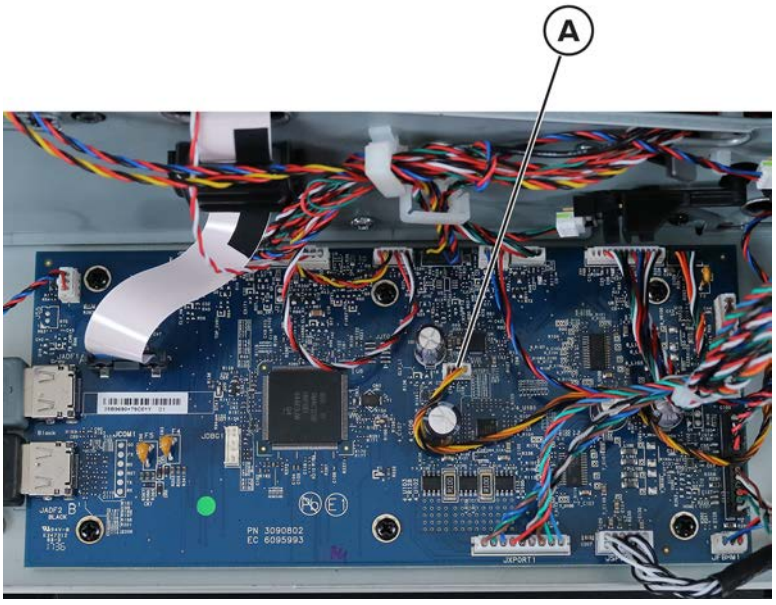


Installation note: Make sure to reconnect the ground cable (A).

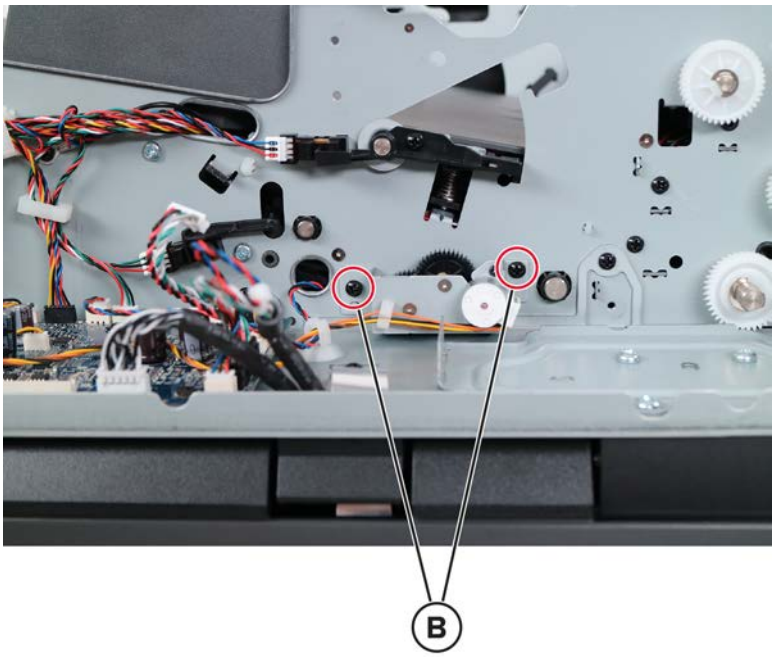


Motor (ADF calibration roller) removal

1. Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.
2. Remove the motor (ADF). See **"Motor (ADF) removal" on page 542**.
3. Disconnect the cable JSTEP1 (A) from the ADF controller board.



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

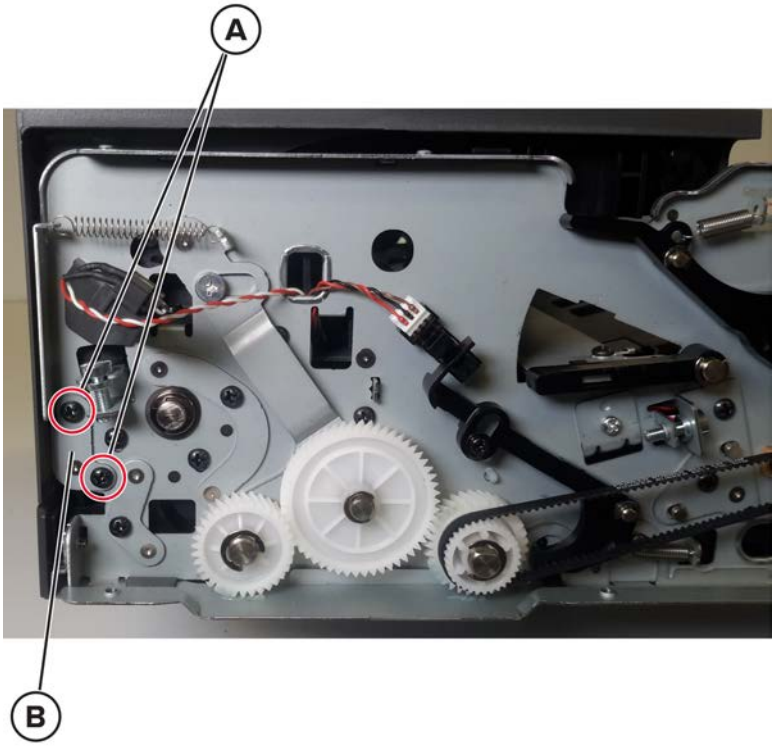


ADF top door removal

1 Remove the ADF rear cover. See **“ADF rear cover removal” on page 535**.

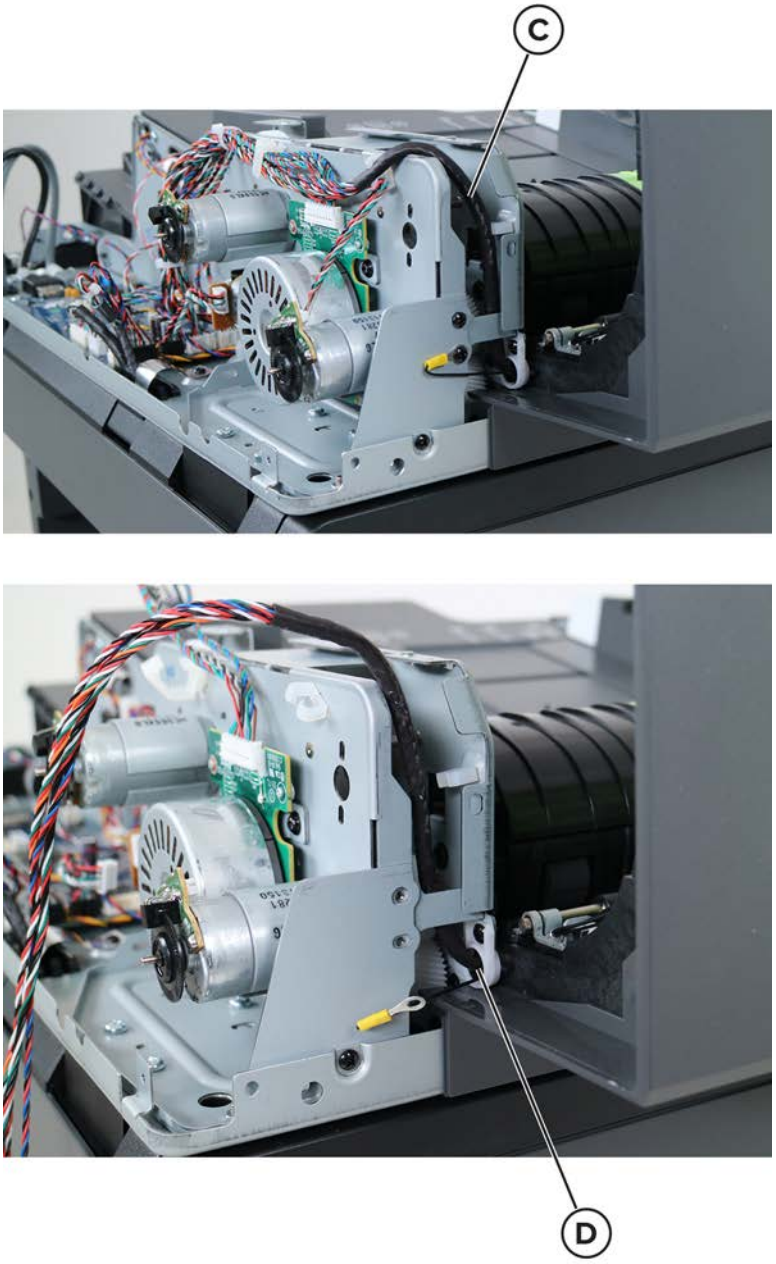
2 Remove the ADF front cover. See **“ADF front cover removal” on page 537**.

3 From the front side, remove the two screws (A), and then remove the bracket (B).



4 Disconnect, and then release the cable (C) from the ADF.

5 Gently remove the door while threading the cable out of the hole (D).

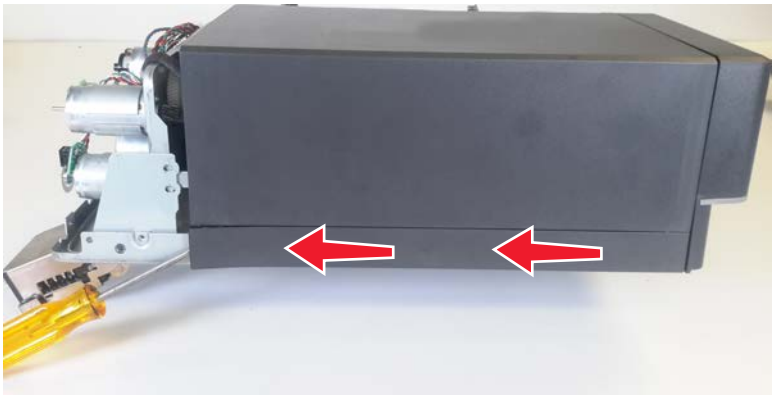


ADF top door cover removal

1 Remove the ADF rear cover. See **“ADF rear cover removal” on page 535**.

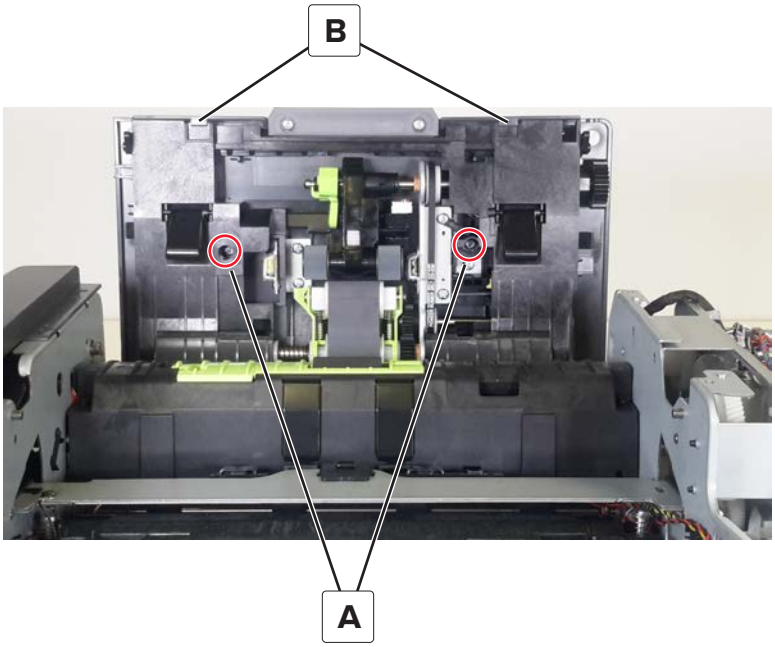
2 Remove the ADF pick roller cover. See **“ADF pick roller cover removal” on page 531**.

3 Carefully pry the ADF left lower cover, and then remove it.



4 Remove the two screws (A).

5 Release the two latches (B).



6 Close the top door, and then gently remove the cover.

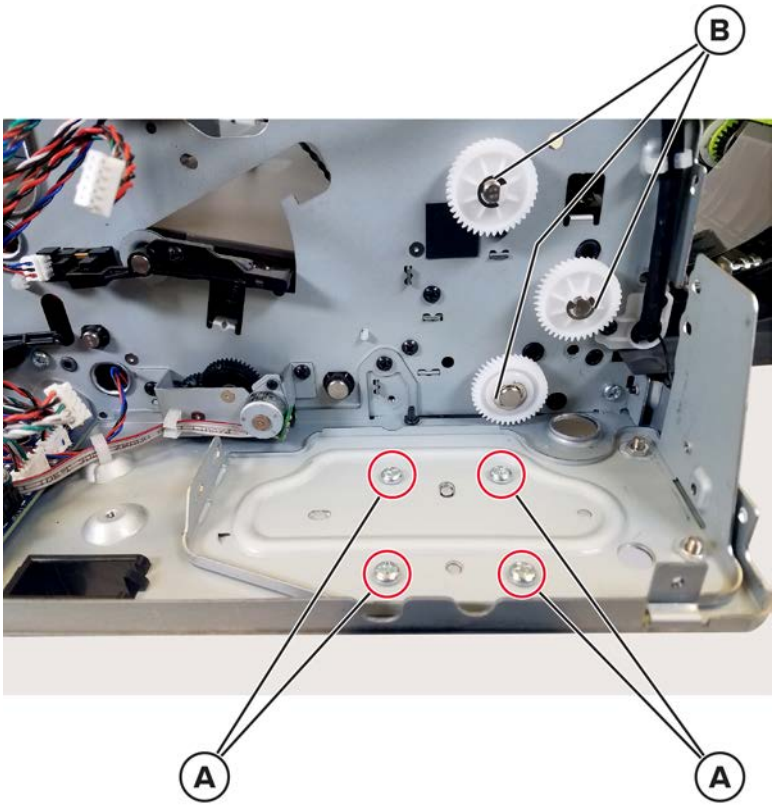
ADF rear drive gears removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.

2 Remove the motor (ADF). See **"Motor (ADF) removal" on page 542**.

3 Remove the four screws (A), and then remove the bracket.

4 Remove the three E-clips (B), and then remove the gears.

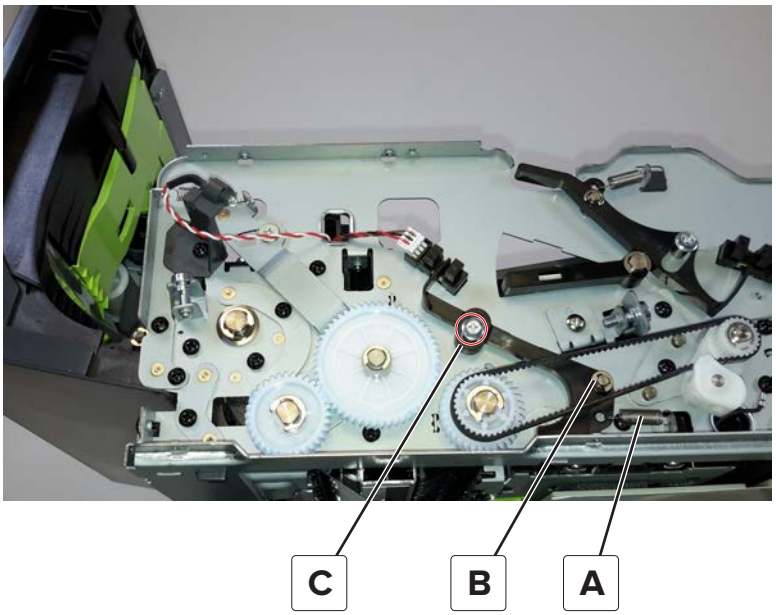


ADF bottom interlock actuator removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.

2 Remove the ADF front cover. See **"ADF front cover removal" on page 537**.

3 Remove the spring (A), E-clip (B), and screw (C).

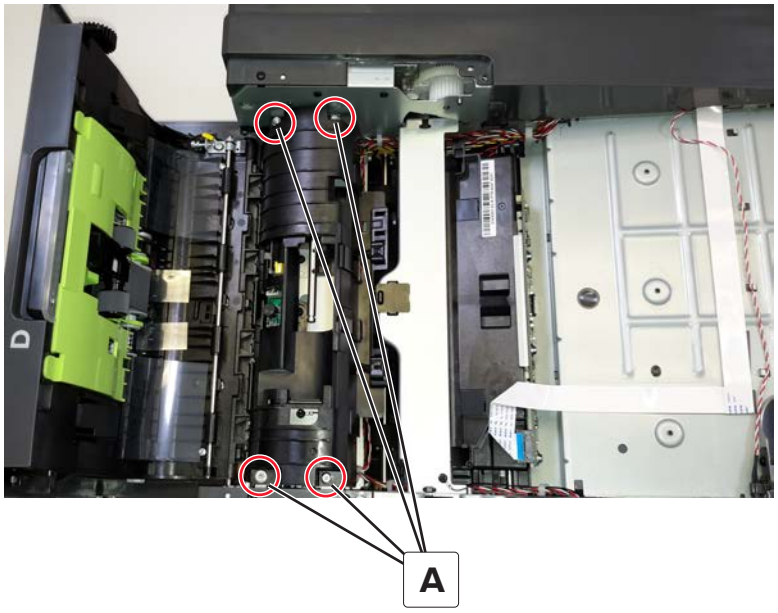


4 Remove the actuator.

ADF input guide removal

1 Remove the ADF separator roller. See **"ADF roller kit removal" on page 532**.

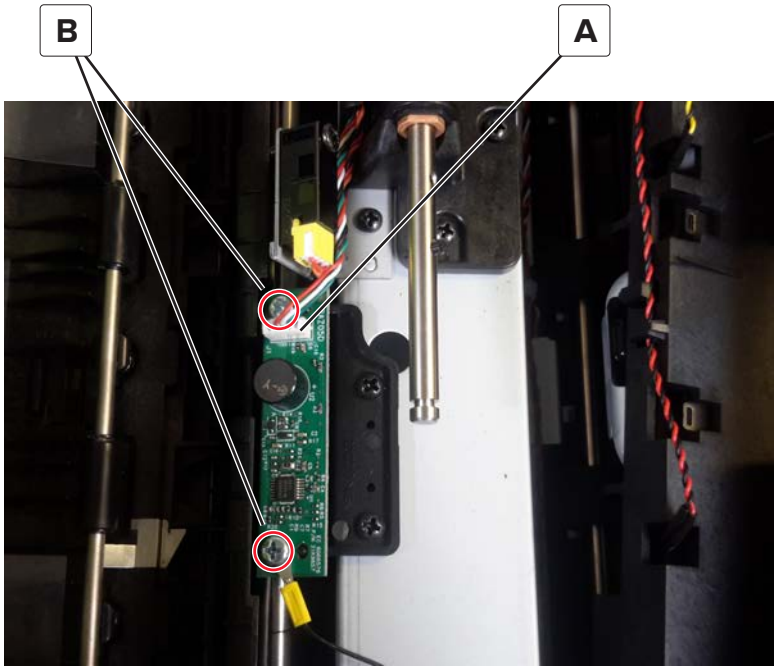
2 Remove the four screws (A), and then remove the guide.



Sensor (ADF multifeed receiver) removal

1 Remove the input guide. See **"ADF input guide removal" on page 550**.

2 Disconnect the cable (A), and then remove the two screws (B).



3 Remove the sensor.

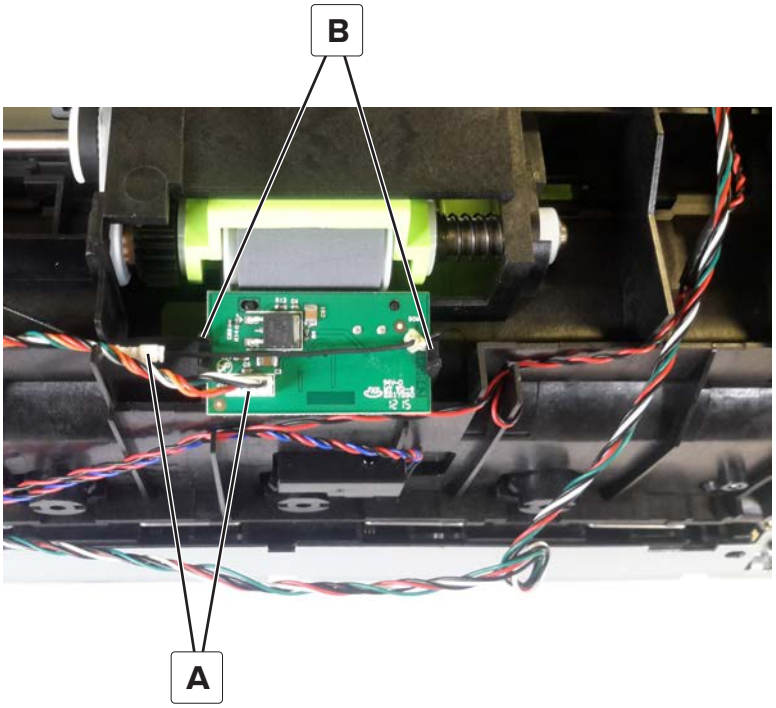
Installation note: Perform Multifeed calibration on the new sensor. See **"Sensor (ADF multifeed) calibration" on page 455**.

Sensor (ADF multifeed transmitter) removal

1 Remove the ADF top door cover. See **"ADF top door cover removal" on page 547**.

2 Disconnect the two cables (A).

3 Gently release the latches (B) to remove the sensor.



Installation note: Perform Multifeed calibration on the new sensor. See **"Sensor (ADF multifeed) calibration" on page 455**.

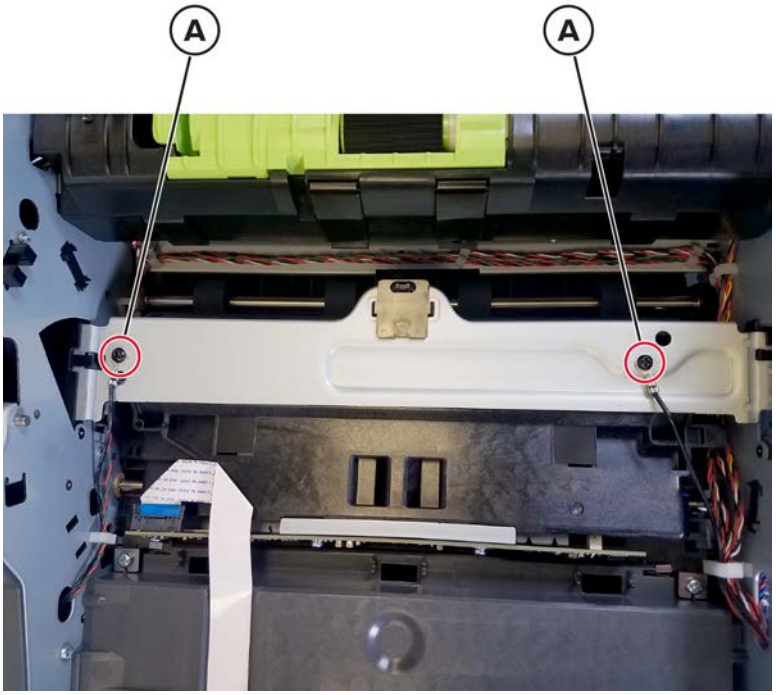
ADF scanner CCD removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.

2 Remove the ADF front cover. See **"ADF front cover removal" on page 537**.

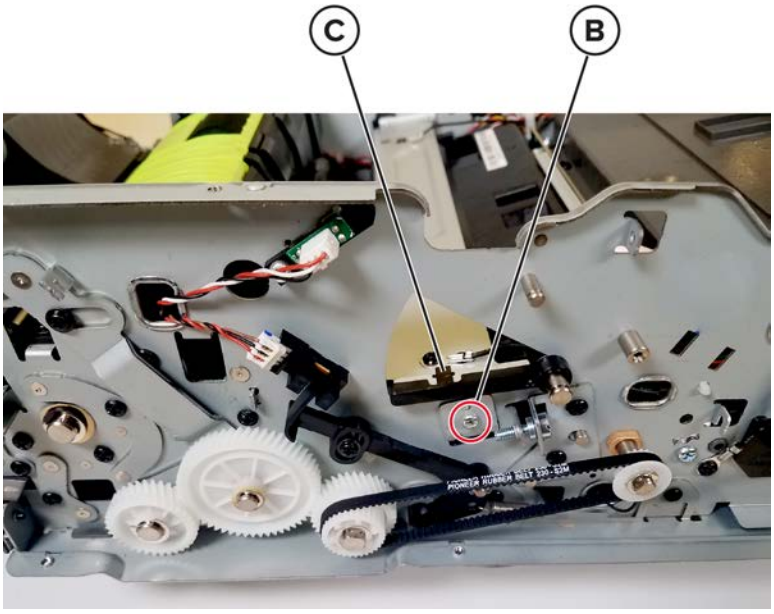
3 Lift the ADF tray.

4 Remove the ground cable screws (A).

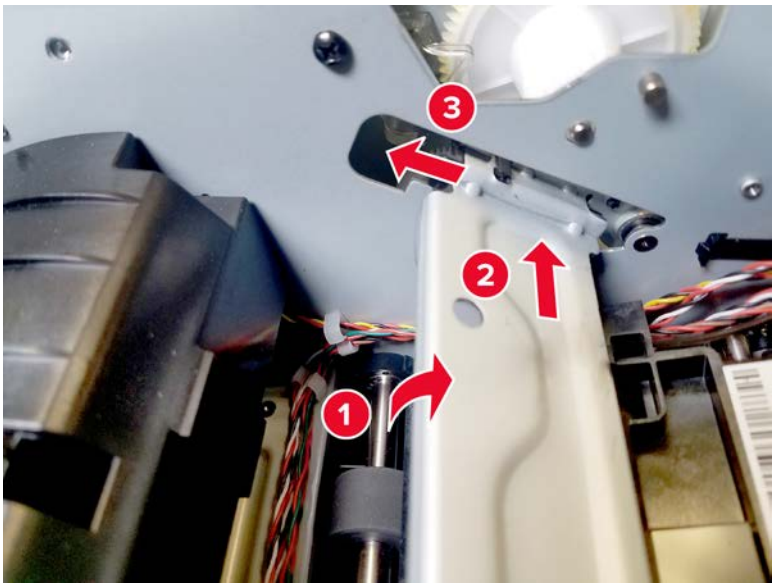


5 Remove the screw (B), and then remove the bracket.

6 Release the latch (C), and then remove the hinge retainer.

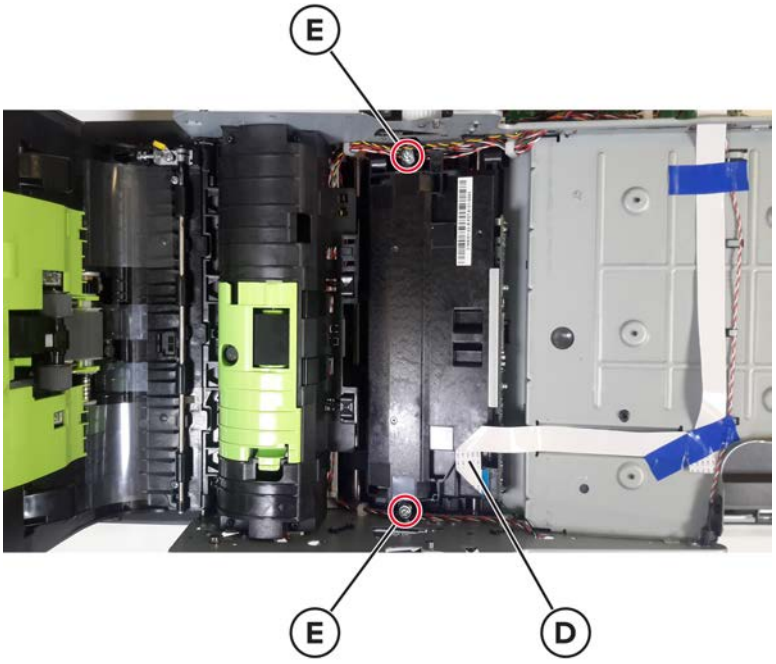


7 Remove the lift plate.



8 Disconnect the cable (D), and then remove the two screws (E).

Warning—Potential Damage: Do not yank the ribbon cables. See **"Disconnecting ribbon cables" on page 445**.



9 Remove the scanner CCD.

Note: When installing or replacing the ADF scanner CCD, make sure to reconnect the ground wire, and then perform test scans to ensure that image skew does not occur. If image skew occurs, then see **"ADF skew adjustment (back side)" on page 453**.

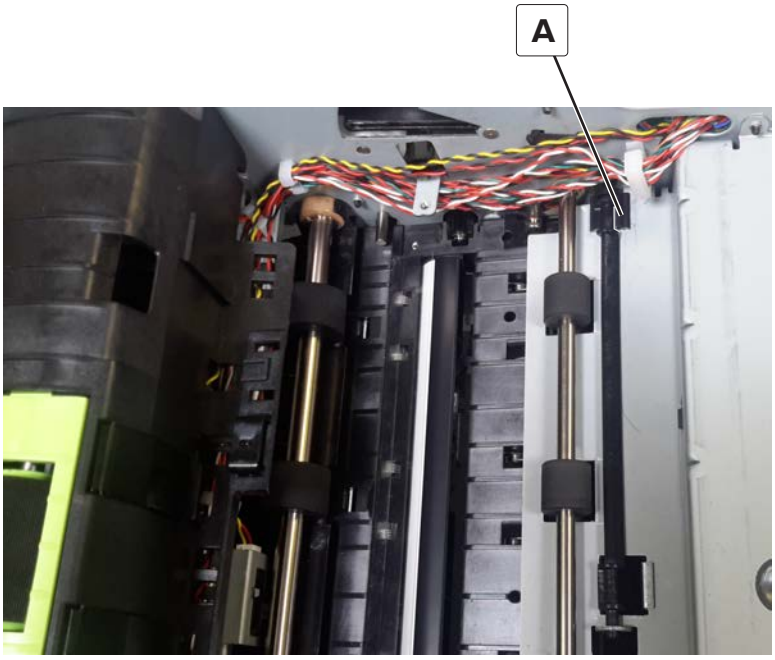
ADF paper exit actuator removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 535**.

2 Remove the ADF front cover. See **"ADF front cover removal" on page 537**.

3 Remove the ADF scanner CCD. See **"ADF scanner CCD removal" on page 552**.

4 Carefully remove the retainer (A).



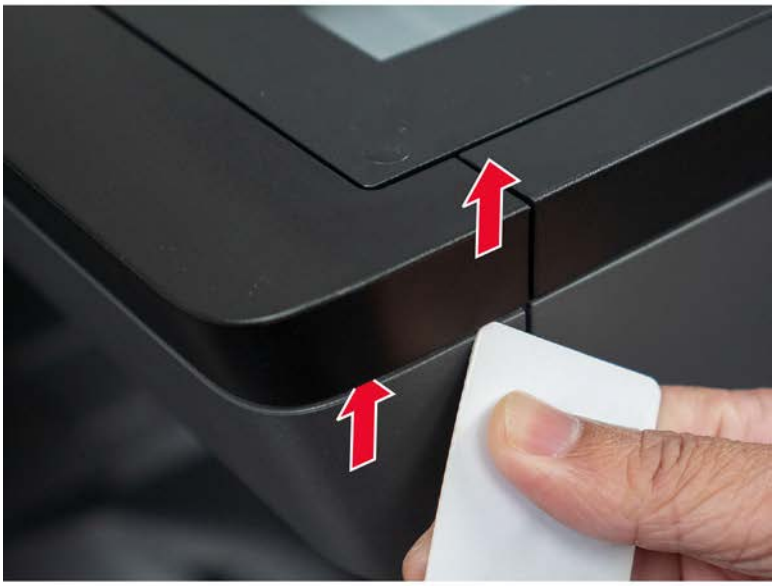
5 Remove the actuator.

Scanner front upper cover removal

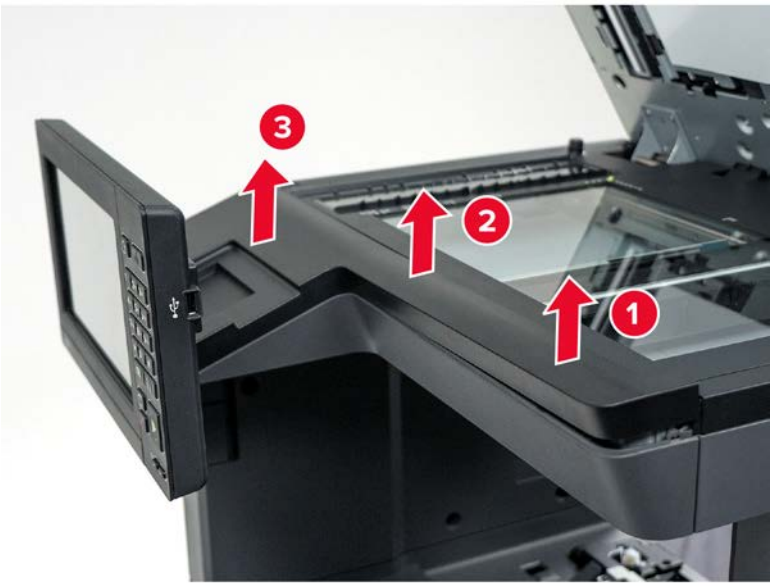
1 Remove the upper hinge cover. See **"Upper hinge cover removal" on page 495**.

2 Release the latch.

Warning—Potential Damage: Use a plastic card to avoid breaking the latch.



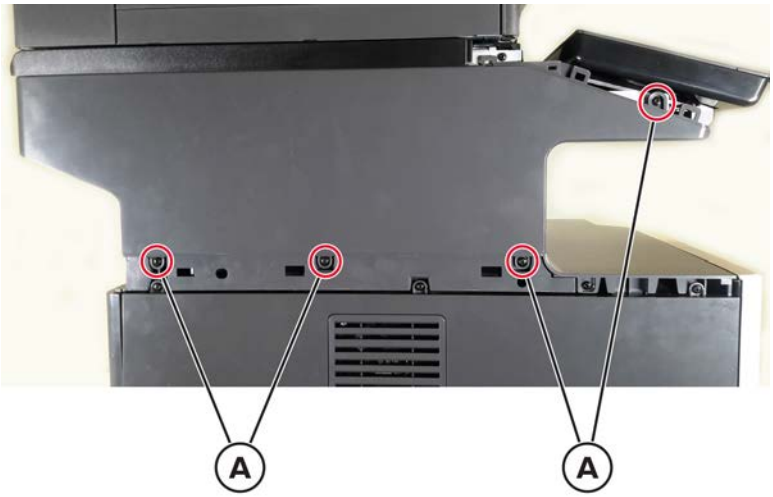
3 Remove the cover.



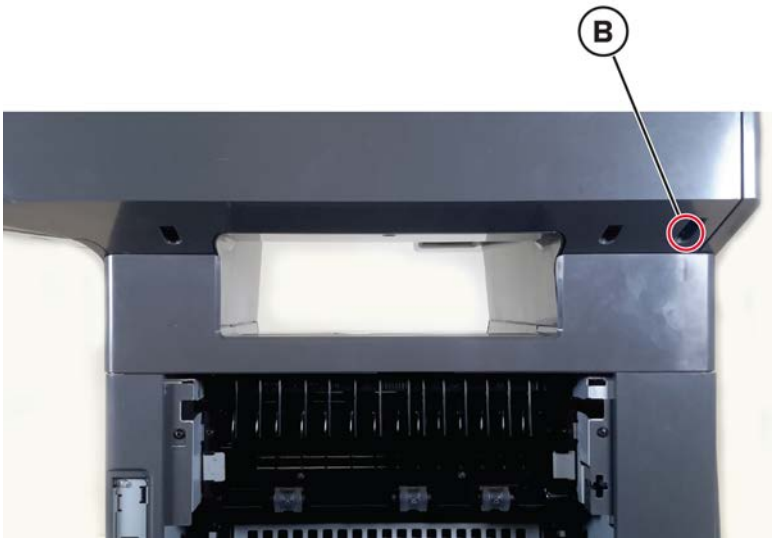
Scanner support left cover removal

1 Remove the left trim cover. See **"Left trim cover removal" on page 456**.

2 Remove the four screws (A).



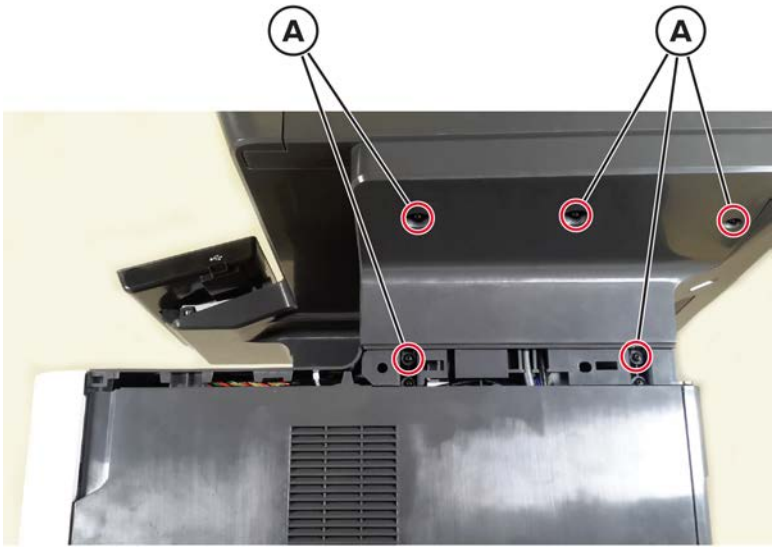
3 Remove the screw (B) from the rear side, and then remove the cover.



Scanner support right cover removal

1 Remove the right trim cover. See **"Right trim cover removal" on page 473**.

2 Remove the five screws (A), and then remove the cover.



Flatbed scanner removals

Flatbed scanner removal

1 Remove the ADF. See **"ADF removal" on page 535**.

2 Remove the right cover. See **"Right cover removal" on page 475**.

3 Remove the left trim cover. See **"Left trim cover removal" on page 456**.

4 Remove the right trim cover. See **"Right trim cover removal" on page 473**.

5 Remove the scanner front upper cover. See **"Scanner front upper cover removal" on page 555**.

6 Remove the following scanner support covers:

For MX72x models only

a Remove the scanner support left cover. See **"Scanner support left cover removal" on page 557**.

b Remove the scanner support right cover. See **"Scanner support right cover removal" on page 558**.

For MX82x models only

a Remove the left outer column cover. See **"Left outer column cover removal" on page 463**.

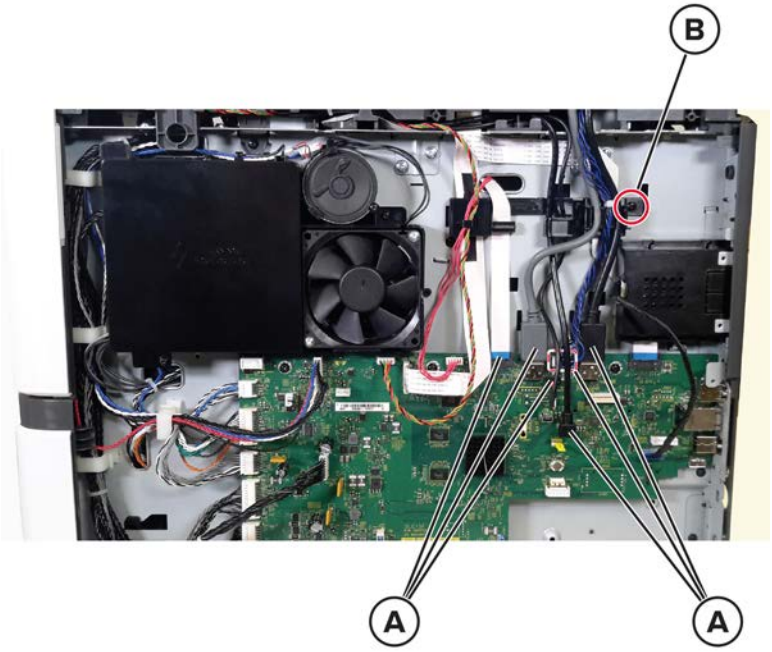
b Remove the right outer column cover. See **"Right outer column cover removal" on page 480**.

7 Remove the scanner rear cover.

8 If available, loosen or remove the fax card.

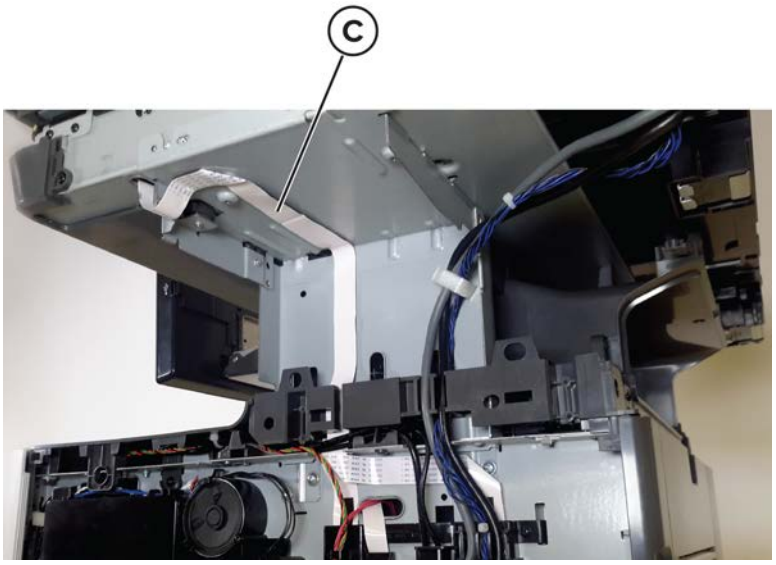
9 Disconnect the six cables (A) from the controller board.

10 Remove the screw (B), and then remove the cable holder.

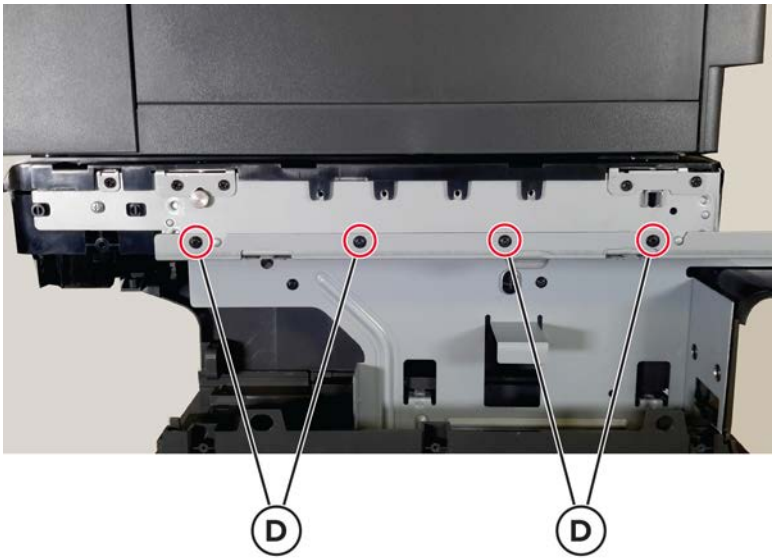


11 Carefully release the scanner cables from the printer.

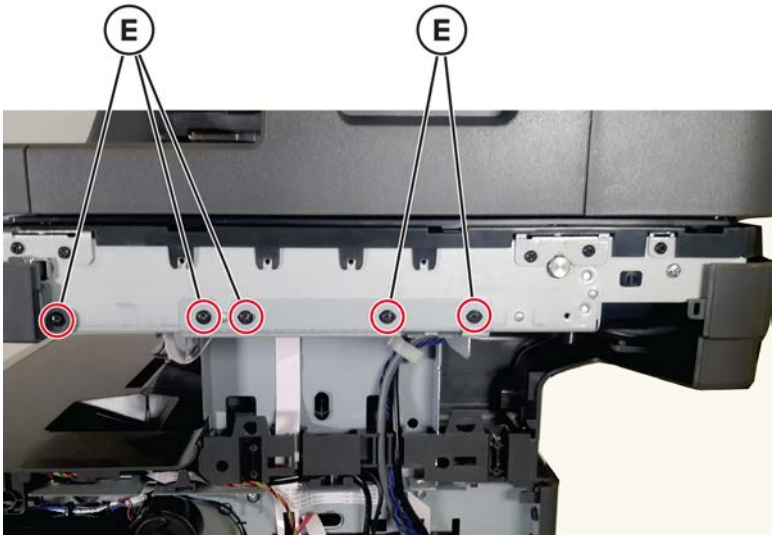
Note: Ribbon cables (C) are taped to parts of the printer.



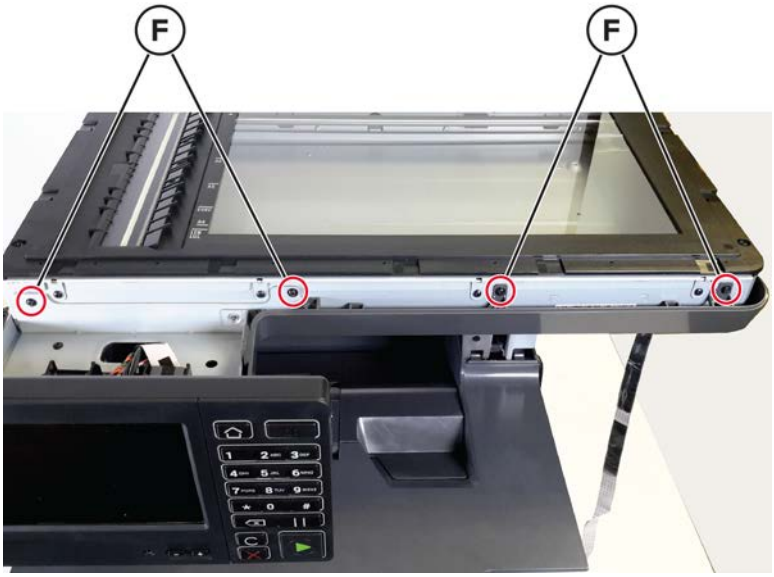
12 From the left side, remove the four screws (D).



13 From the right side, remove the five screws (E).



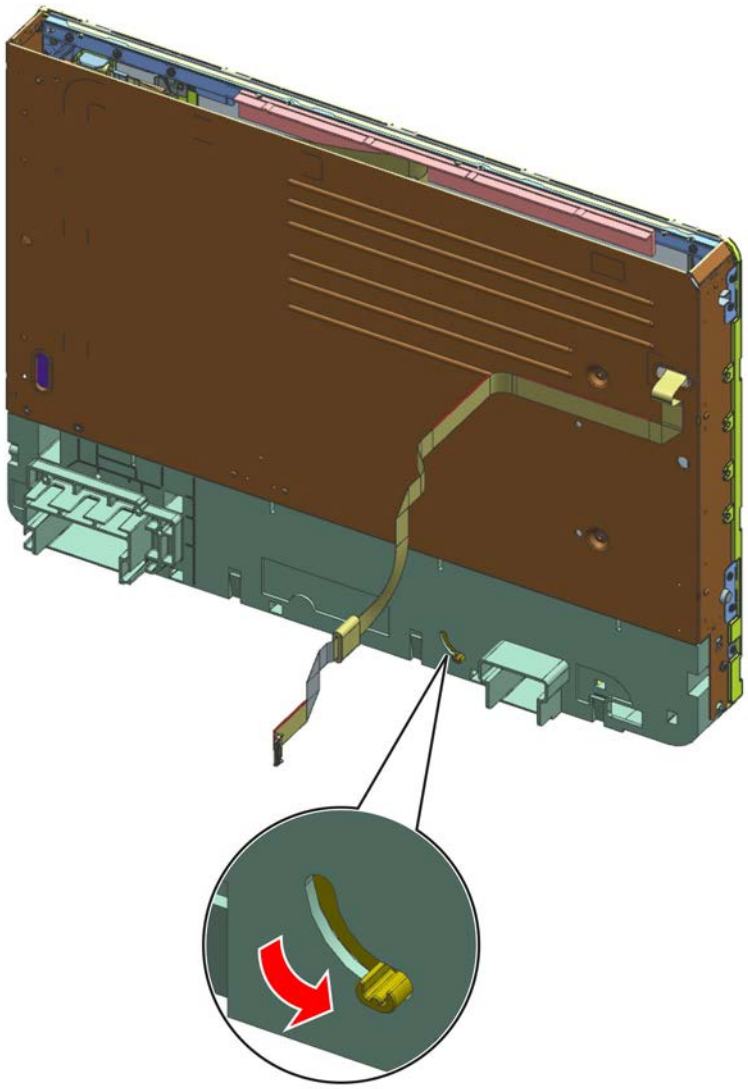
14 From the front side, remove the four screws (F).



15 Carefully remove the flatbed scanner.

Warning—Potential Damage: Make sure that all flatbed scanner cables are released from the printer before pulling the flatbed scanner.

Installation warning: Make sure that the flatbed scanner CCDM is unlocked. A locked flatbed scanner CCDM does not move properly and causes an 843 error.

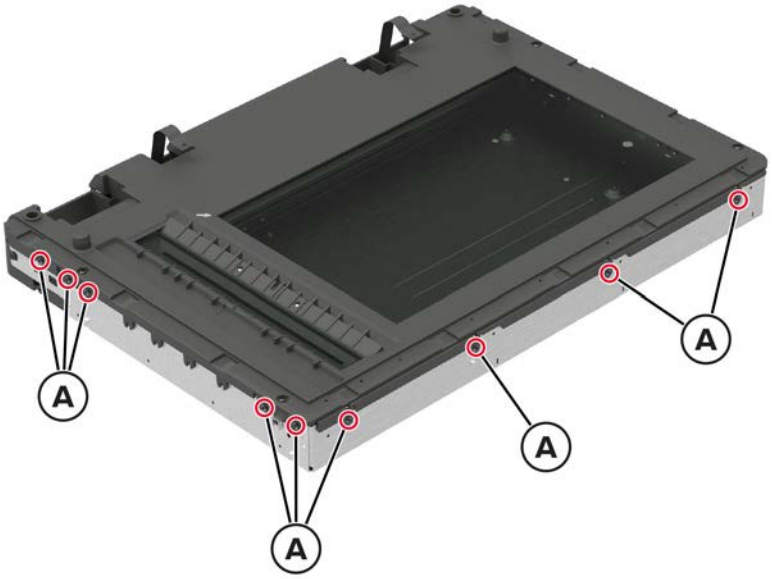


Flatbed scanner top cover removal

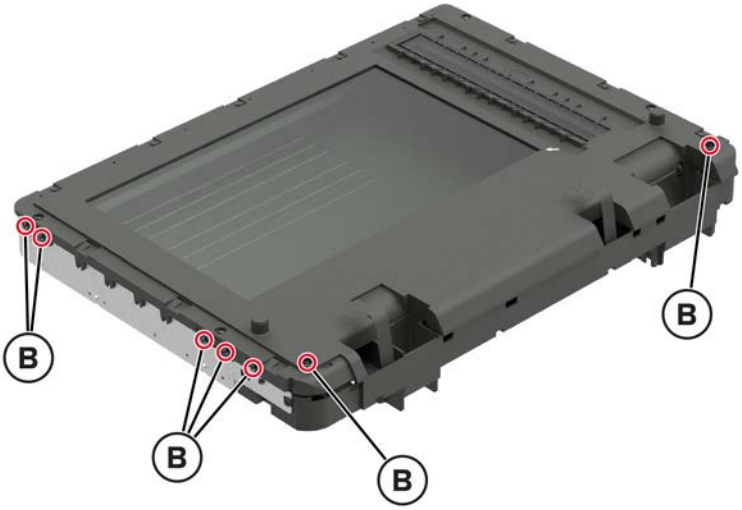
1 Remove the flatbed scanner. See **“Flatbed scanner removal” on page 558**.

2 Remove the nine screws (A).

Note: The ADF is not shown to improve clarity.



3 Remove the seven screws (B).



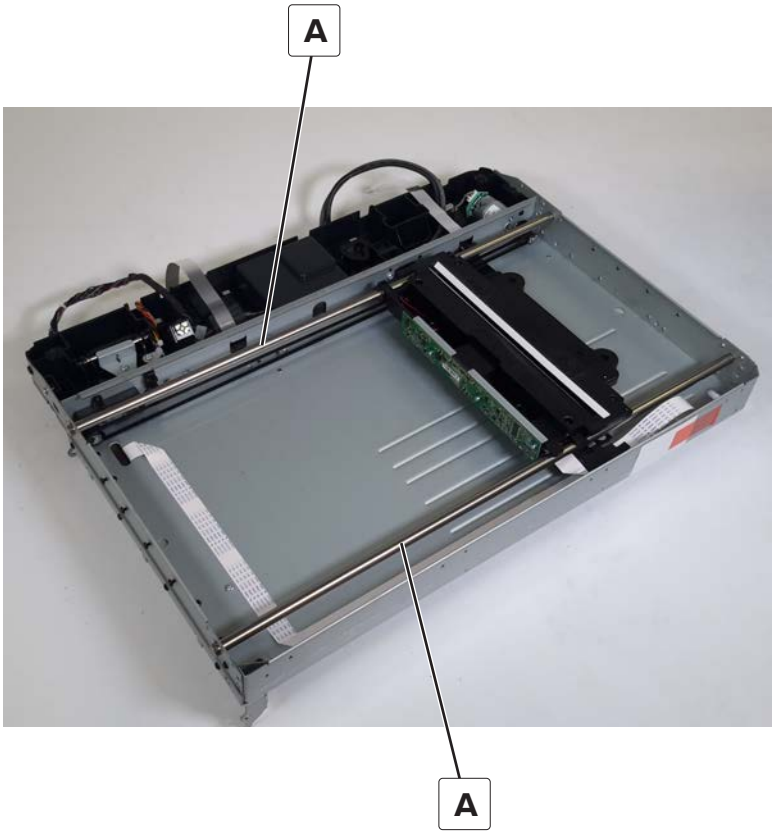
4 Remove the cover.

Flatbed scanner CCDM removal

1 Remove the flatbed scanner. See **“Flatbed scanner removal” on page 558**.

2 Remove the flatbed scanner top cover. See **“Flatbed scanner top cover removal” on page 562**.

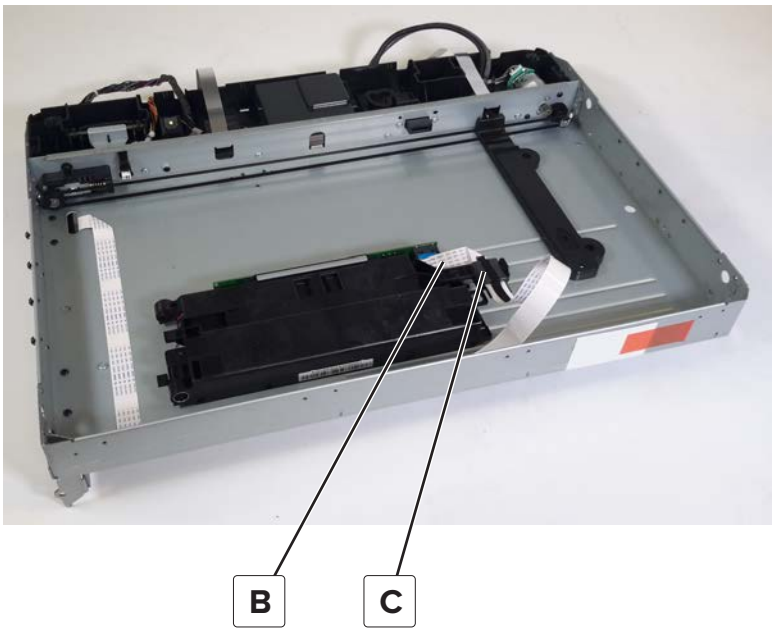
3 Lift, and then slide the rods (A) out the left side of the frame.



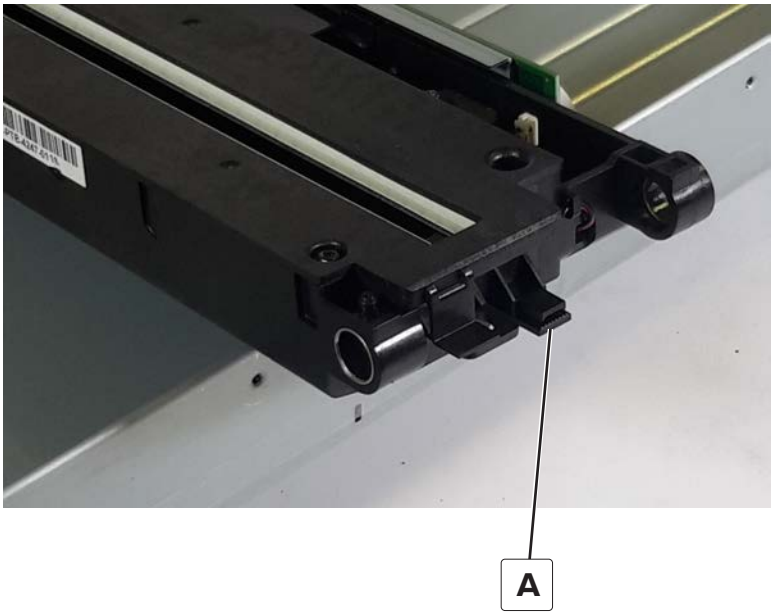
4 Detach the CCDM from the belt.

5 Release the cable (B) and the toroid (C) from the CCDM.

Warning—Potential Damage: Do not yank the ribbon cables. See **"Disconnecting ribbon cables" on page 445**.



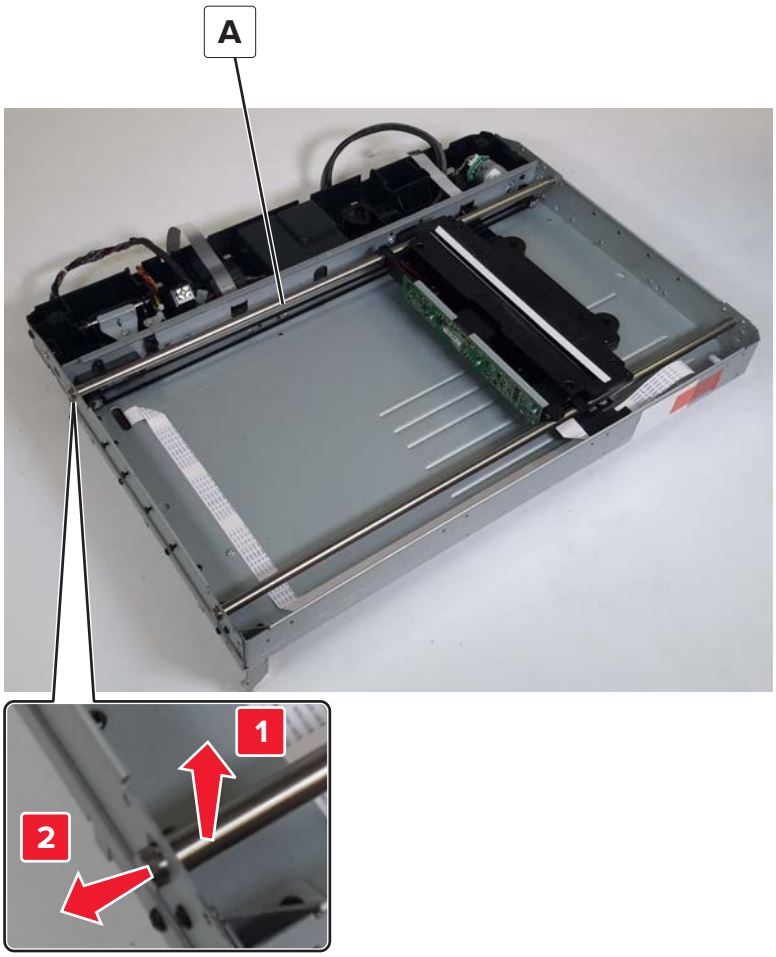
Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.



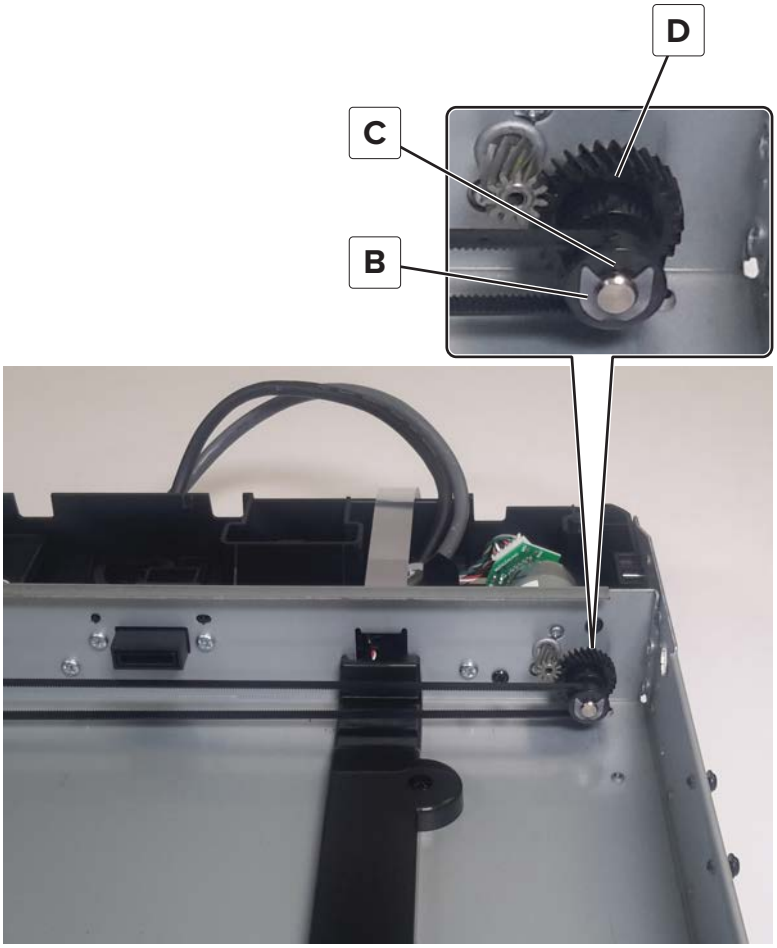
Flatbed scanner gear removal

1. Remove the flatbed scanner. See **“Flatbed scanner removal” on page 558**.
2. Remove the flatbed scanner top cover. See **“Flatbed scanner top cover removal” on page 562**.

3 Lift, and then slide the rear rod (A) out of the left side of the frame.



4 Remove the retainer clip (B), flange, and then the scanner gear (D).

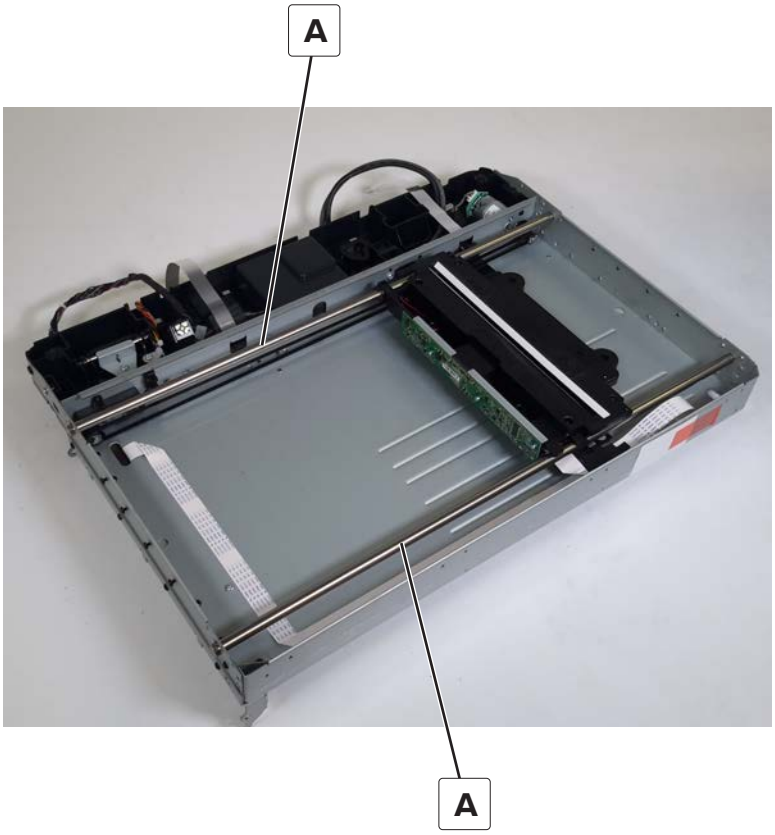


Motor (flatbed scanner) removal

1 Remove the flatbed scanner. See **“Flatbed scanner removal” on page 558**.

2 Remove the flatbed scanner top cover. See **“Flatbed scanner top cover removal” on page 562**.

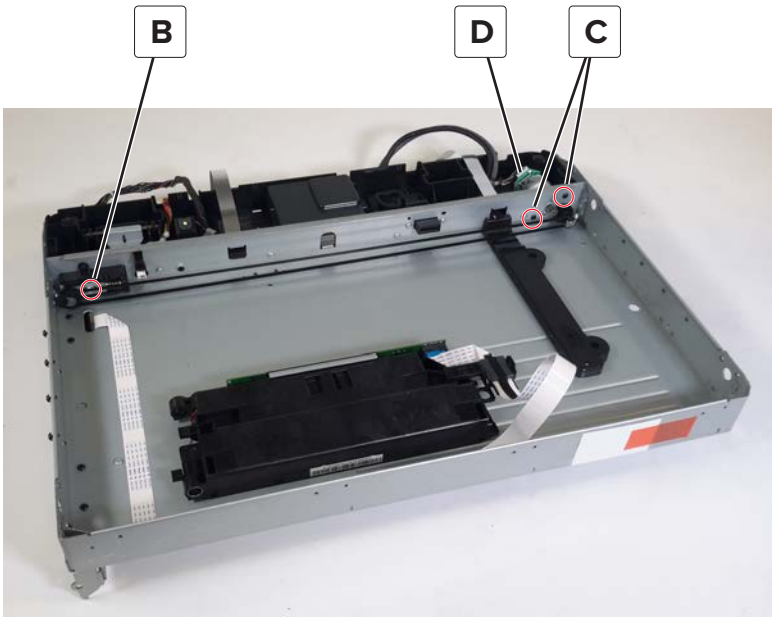
3 Lift, and then slide the rods (A) out the left side of the frame.



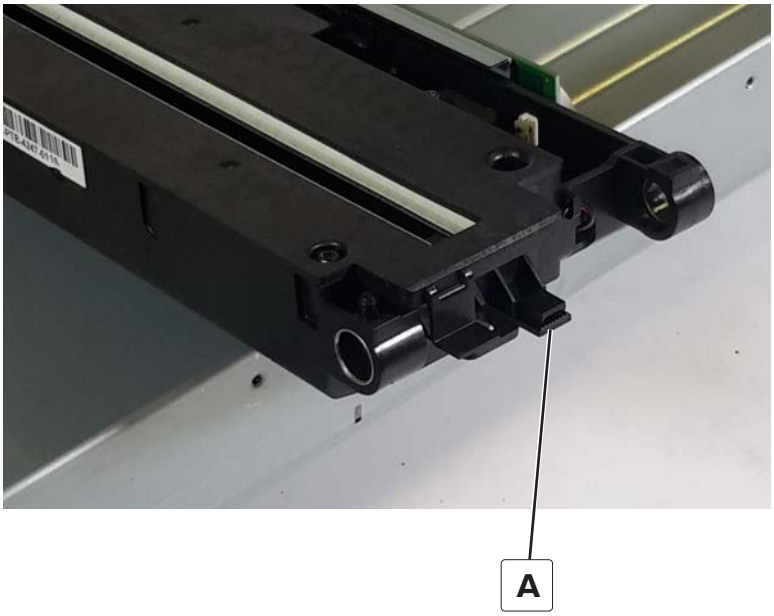
4 Detach the CCDM from the belt, and then carefully lay it out of the way, but do not detach the connectors.

5 Loosen the tension adjusting screw (B), and then remove the two screws (C) securing the motor.

6 Disconnect the cable (D), and the remove the motor.



Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.

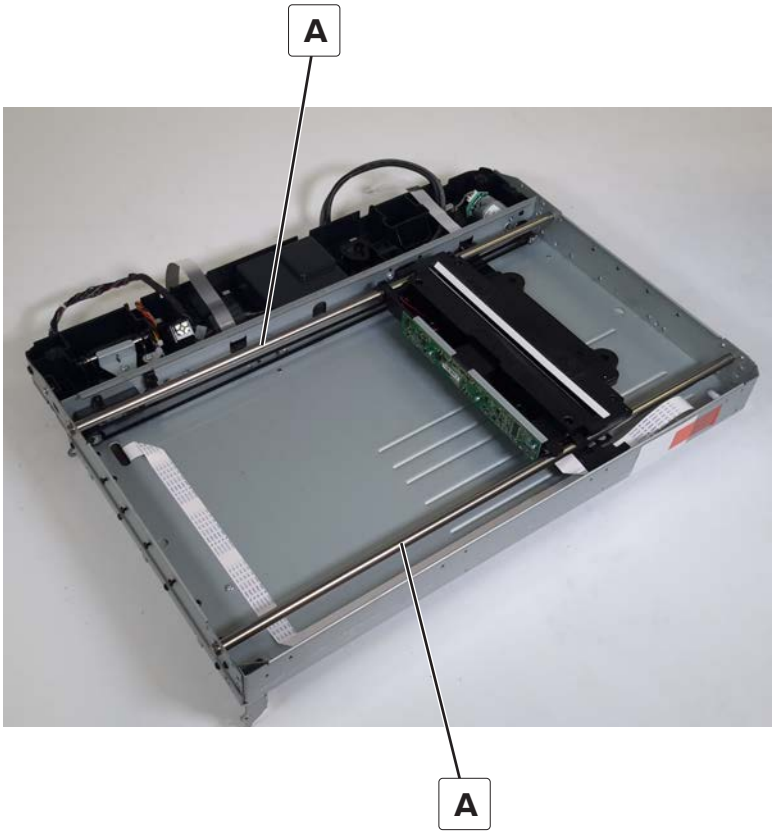


Installation warning: Tighten only the tension adjusting screw after the belt is reattached.

Sensor (FB CCDM) removal

1. Remove the flatbed scanner. See **“Flatbed scanner removal” on page 558**.
2. Remove the flatbed scanner top cover. See **“Flatbed scanner top cover removal” on page 562**.

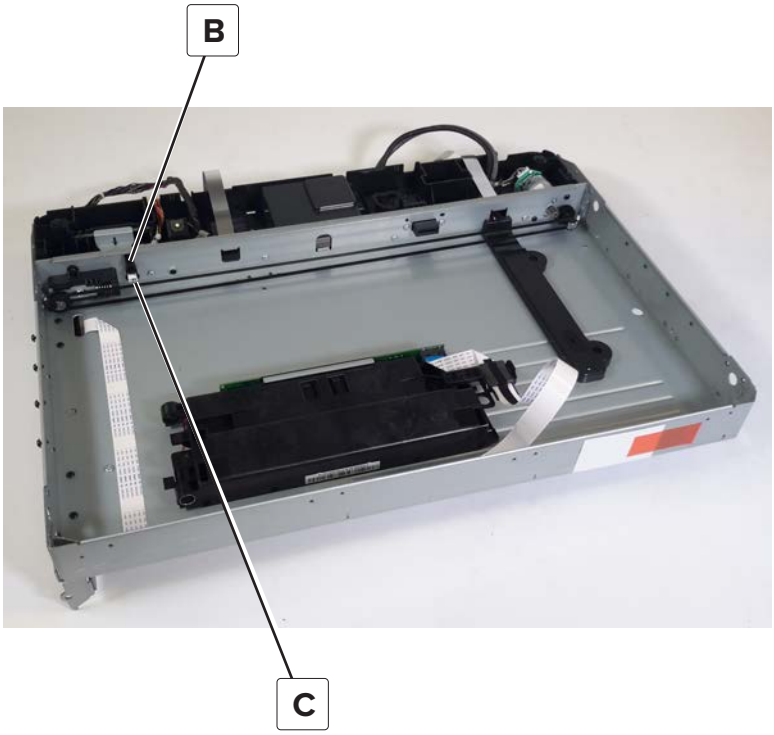
3 Lift, and then slide the rods (A) out the left side of the frame.



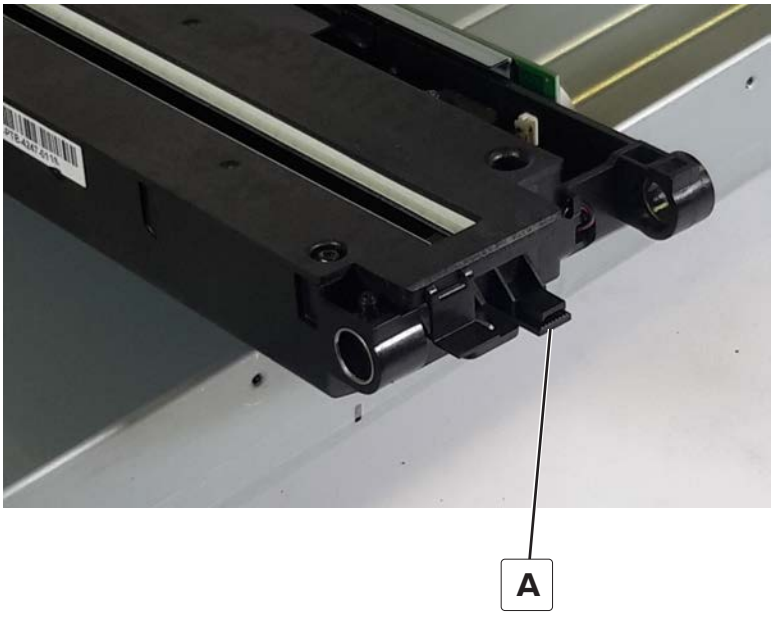
4 Detach the CCDM from the belt, and then carefully lay it out of the way, but do not detach the connectors.

5 Release the hooks attaching the sensor (B).

6 Disconnect the cable (C), and then remove the sensor.



Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.

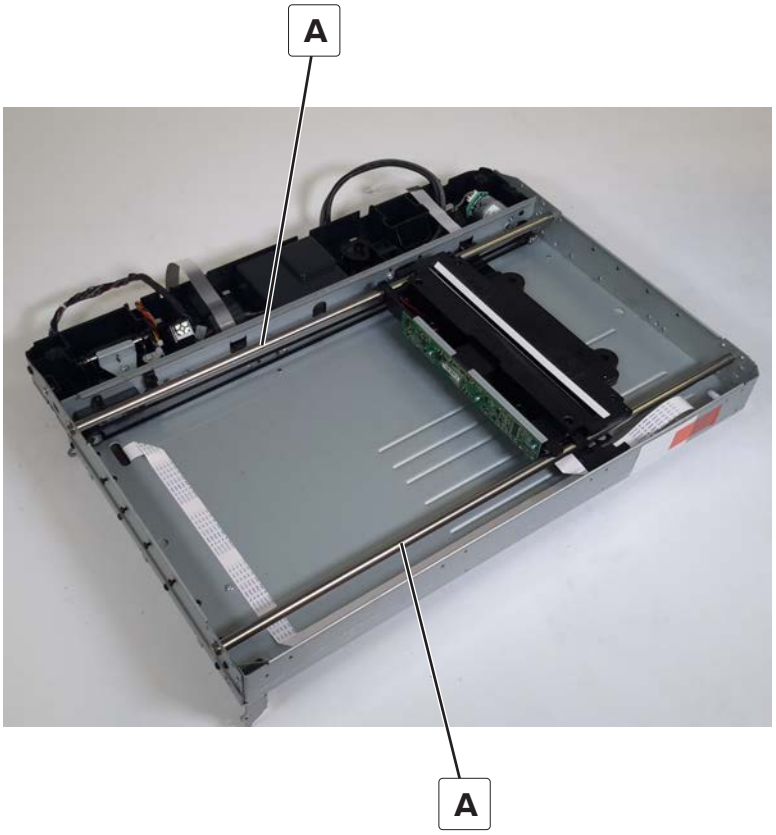


Flatbed scanner tensioner pulley removal

1 Remove the flatbed scanner. See **"Flatbed scanner removal" on page 558**.

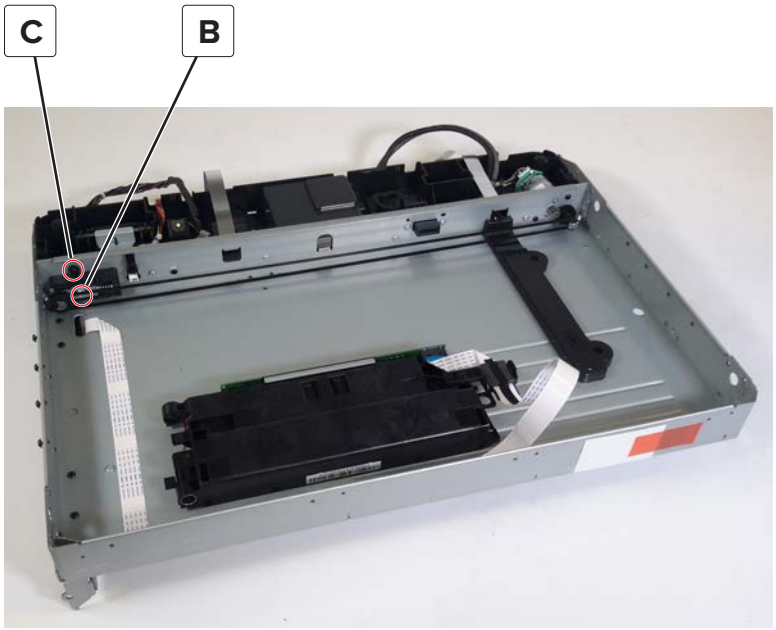
2 Remove the flatbed scanner top cover. See **"Flatbed scanner top cover removal" on page 562**.

3 Lift, and then slide the rods (A) out the left side of the frame.



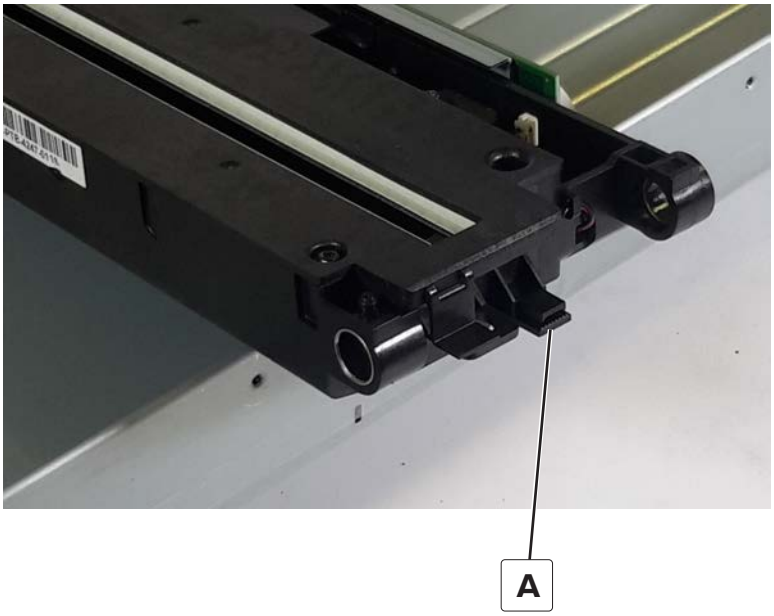
4 Detach the CCDM from the belt, and then carefully lay it out of the way, but do not detach the connectors.

5 Loosen the tension adjusting screw (B), and then remove the screw (C) securing the tensioner pulley.



6 Remove the pulley.

Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.

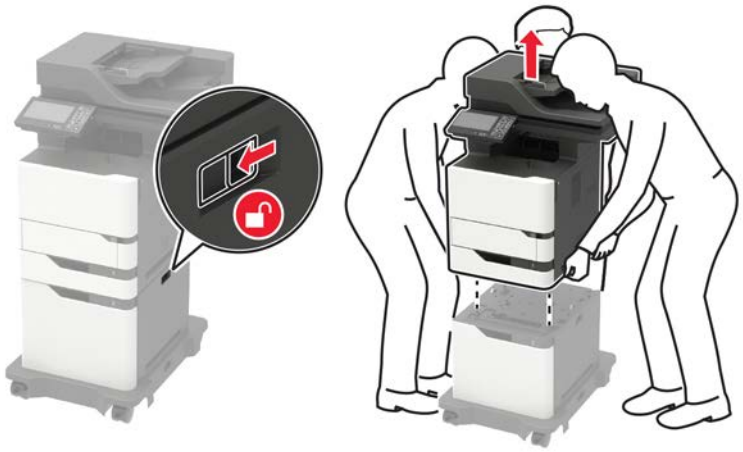


Installation warning: Tighten only the tension adjusting screw after the belt is reattached.

Optional 2100-sheet tray removals

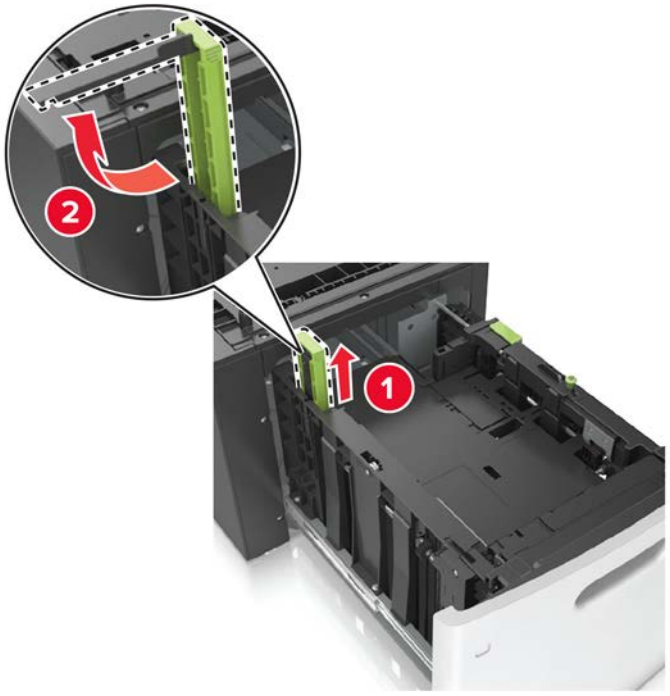
Optional 2100-sheet tray removal

1. Press the latch to unlock.
2. Lift the printer or optional tray above the 2100-sheet tray, and then separate the 2100-sheet tray.



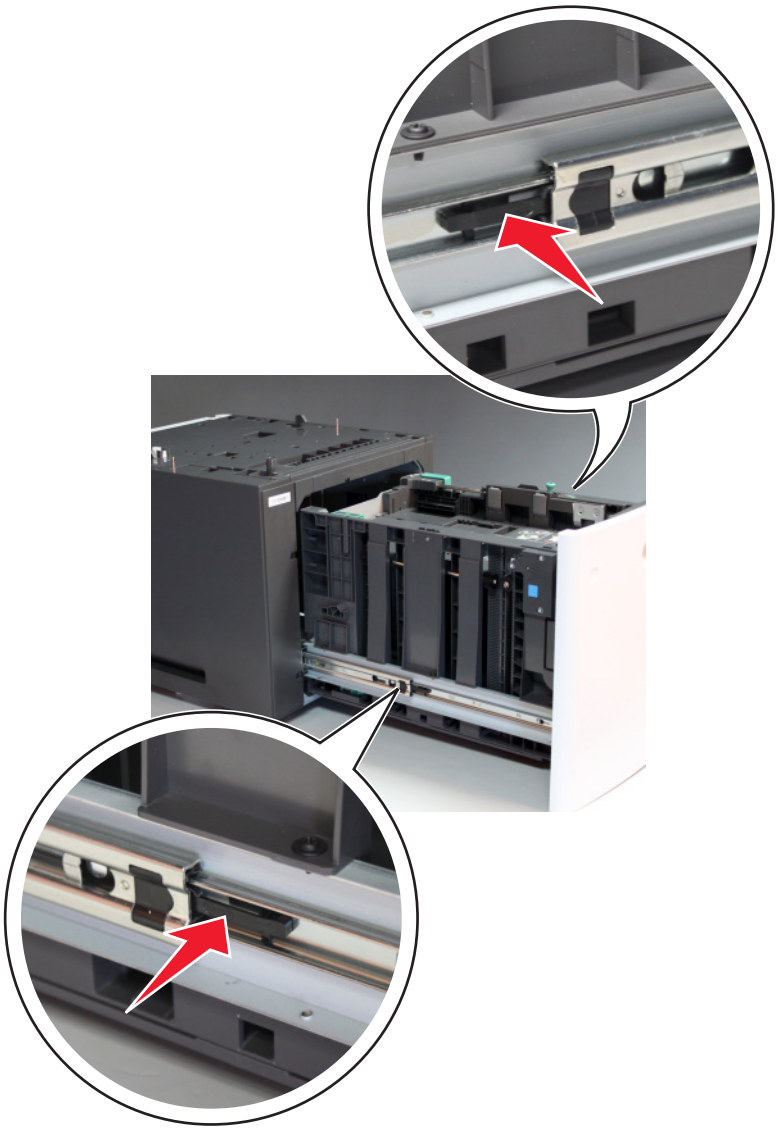
A5 length guide removal

1. Pull the guide out of the tray.
2. Remove the guide.



2100-sheet tray insert removal

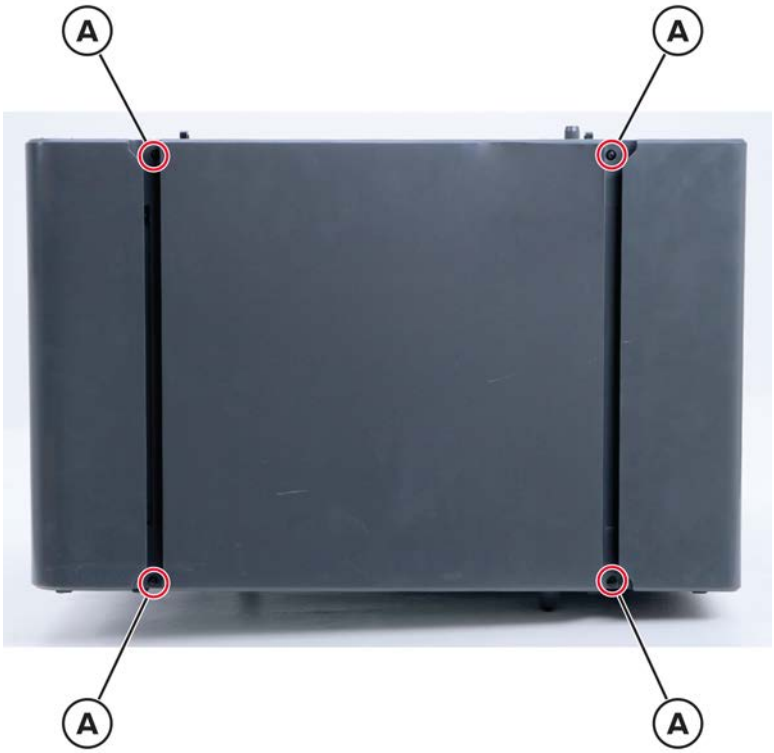
1 Fully extend the tray, and then press the left and right latches to release it.



2 Remove the tray insert.

2100-sheet tray rear cover removal

1 Remove the four screws (A).



2 Remove the cover.

2100-sheet tray left cover removal

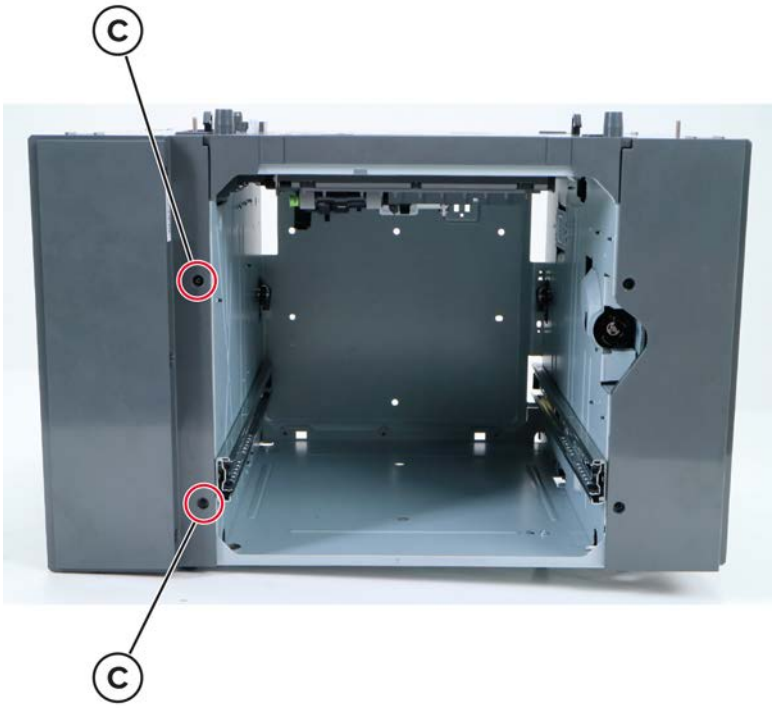
1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

2 Remove the 2100-sheet tray rear cover. See **“2100-sheet tray rear cover removal” on page 577**.

3 From the rear side, remove the two screws (A).

4 From the top side, remove the two screws (B).

5 From the front side, remove the two screws (C).



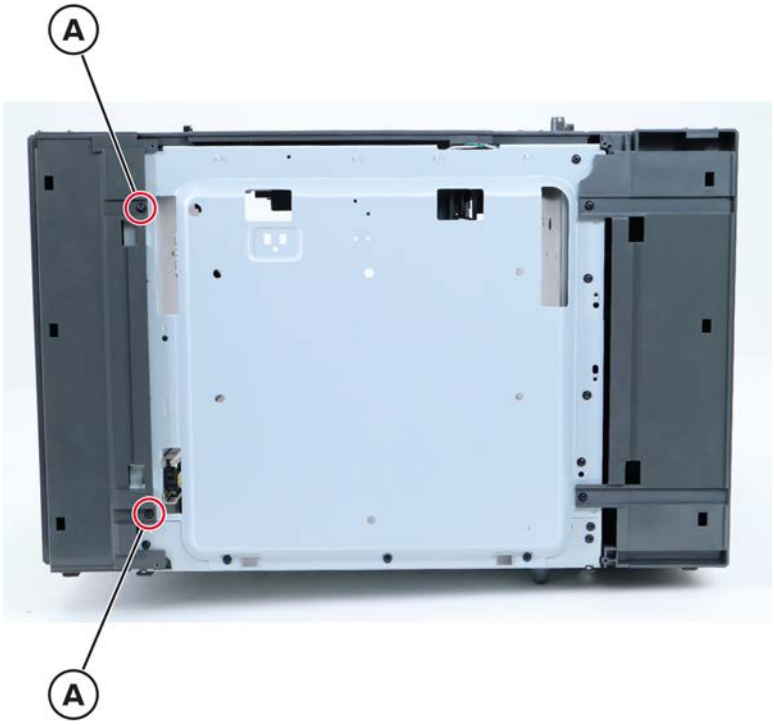
6 Remove the cover.

2100-sheet tray right cover removal

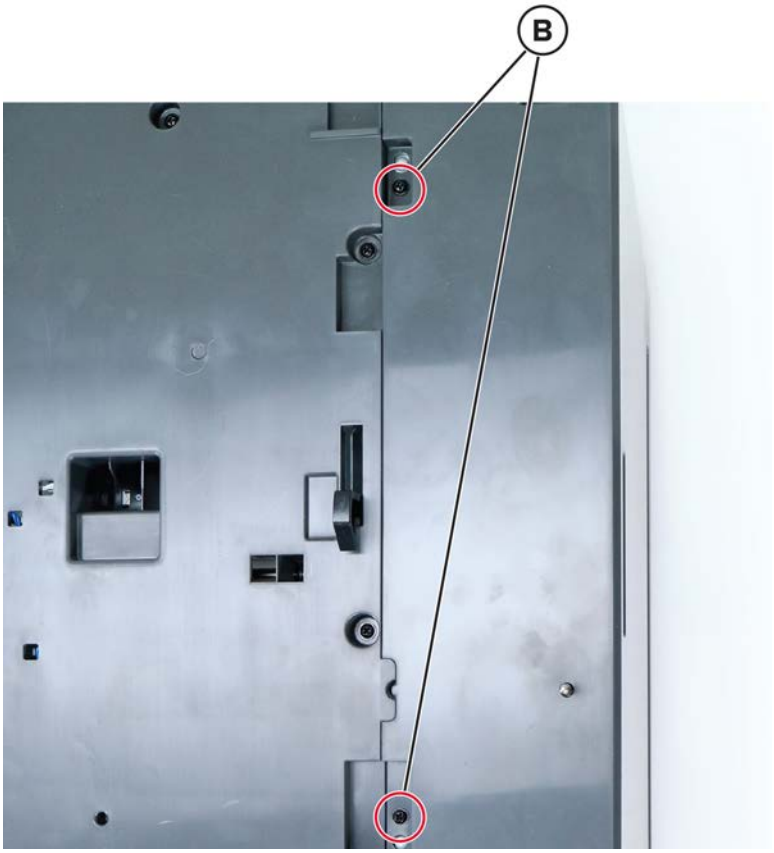
1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

2 Remove the 2100-sheet tray rear cover. See **“2100-sheet tray rear cover removal” on page 577**.

3 From the rear side, remove the two screws (A).



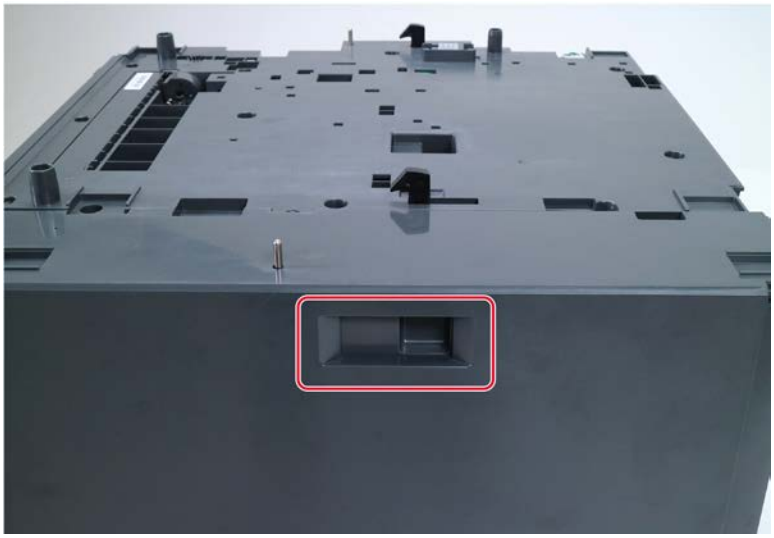
4 From the top side, remove the two screws (B).



5 From the front side, remove the two screws (C).

6 Remove the cover.

Installation note: When installing the right cover, make sure that the latch is positioned as shown.



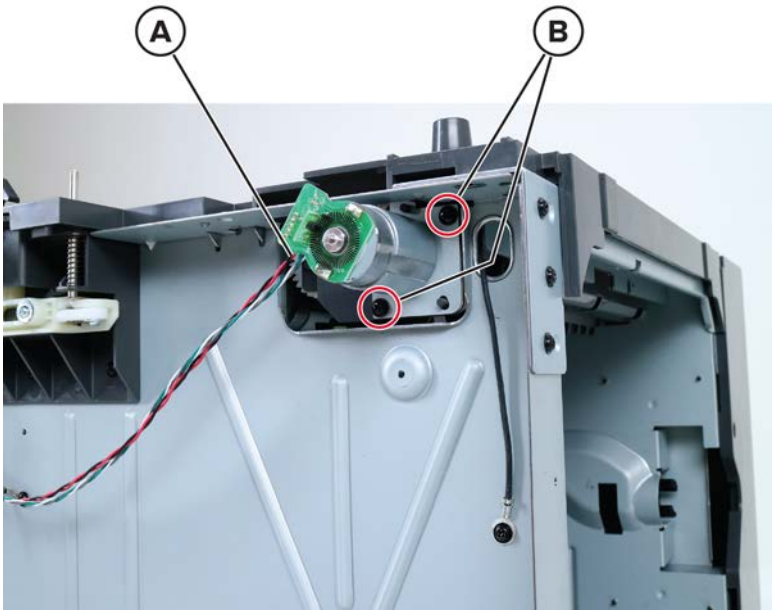
Motor (2100-sheet tray transport) removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 576**.

2 Remove the 2100-sheet tray rear cover. See **"2100-sheet tray rear cover removal" on page 577**.

3 Remove the 2100-sheet tray left cover. See **"2100-sheet tray left cover removal" on page 577**.

4 Disconnect the cable (A), and then remove the two screws (B).



5 Remove the motor.

2100-sheet tray top cover removal

1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

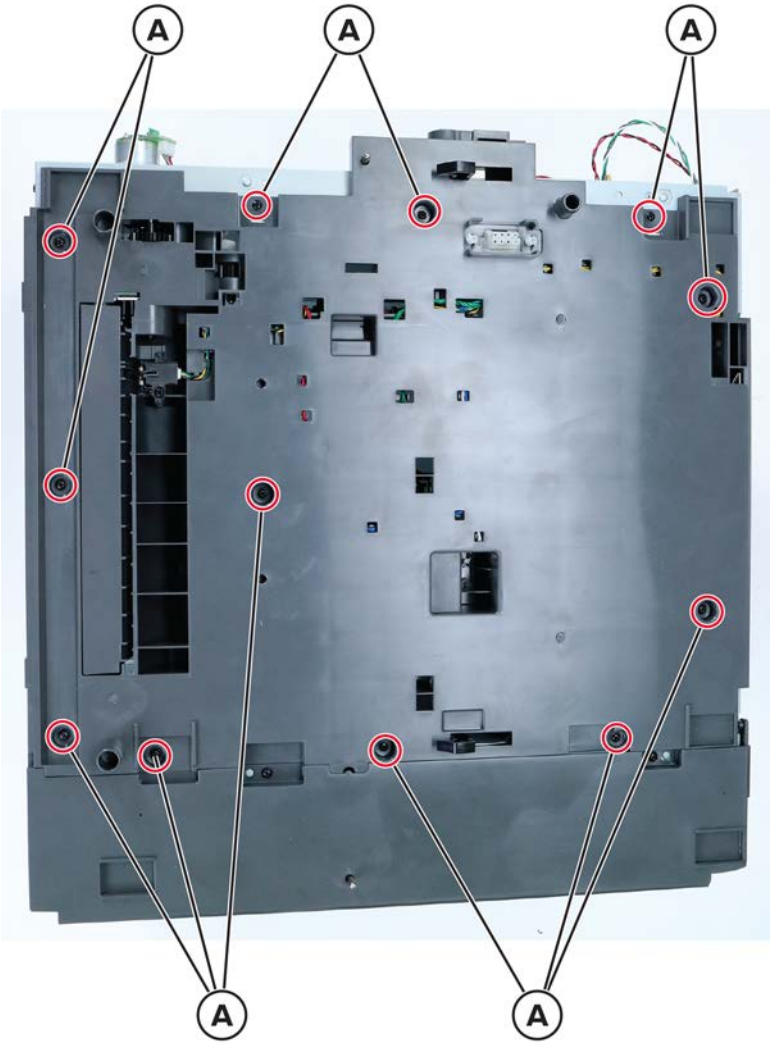
2 Remove the 2100-sheet tray rear cover. See **“2100-sheet tray rear cover removal” on page 577**.

3 Remove the 2100-sheet tray left cover. See **“2100-sheet tray left cover removal” on page 577**.

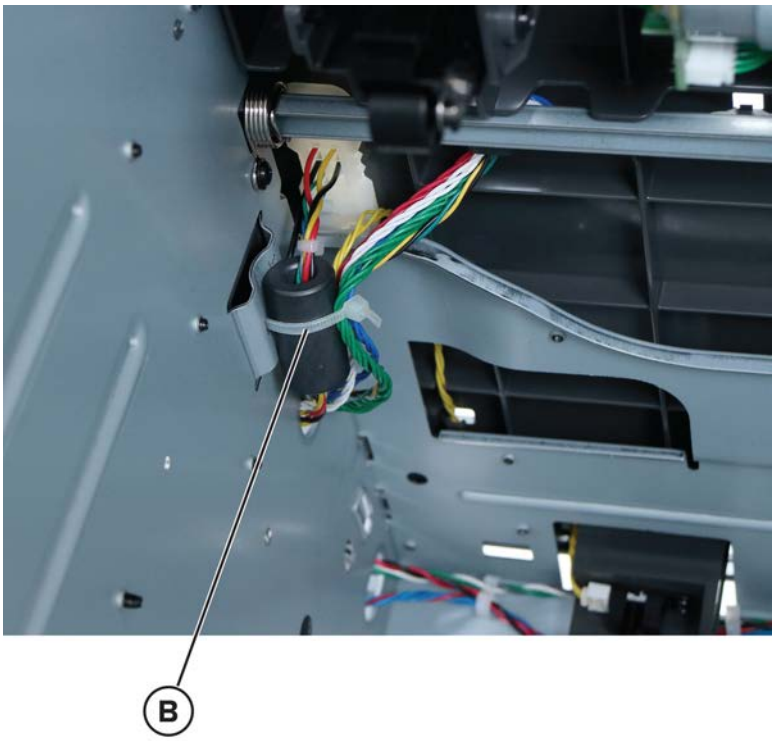
4 Remove the 2100-sheet tray right cover. See **“2100-sheet tray right cover removal” on page 580**.

5 Remove the motor (2100-sheet tray transport). See **“Motor (2100-sheet tray transport) removal” on page 582**.

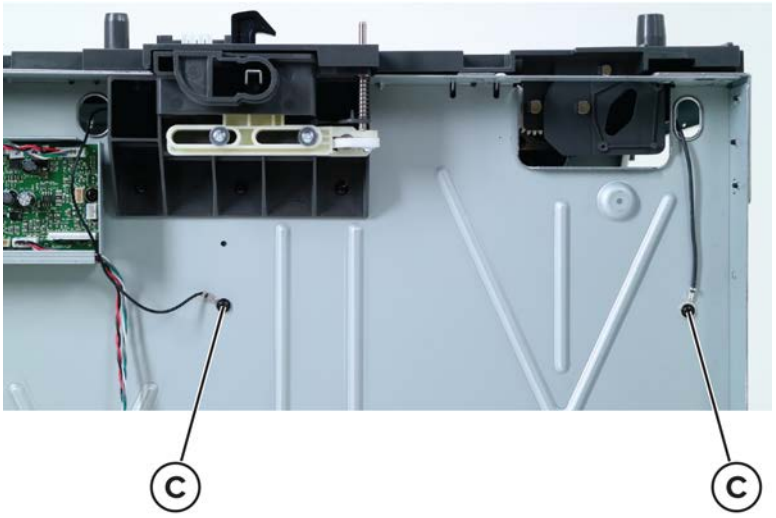
6 Remove the 12 screws (A).



7 Cut the cable tie, and then disconnect the motor cables from the controller board.



8 Remove the two screws (C) from the ground cables.

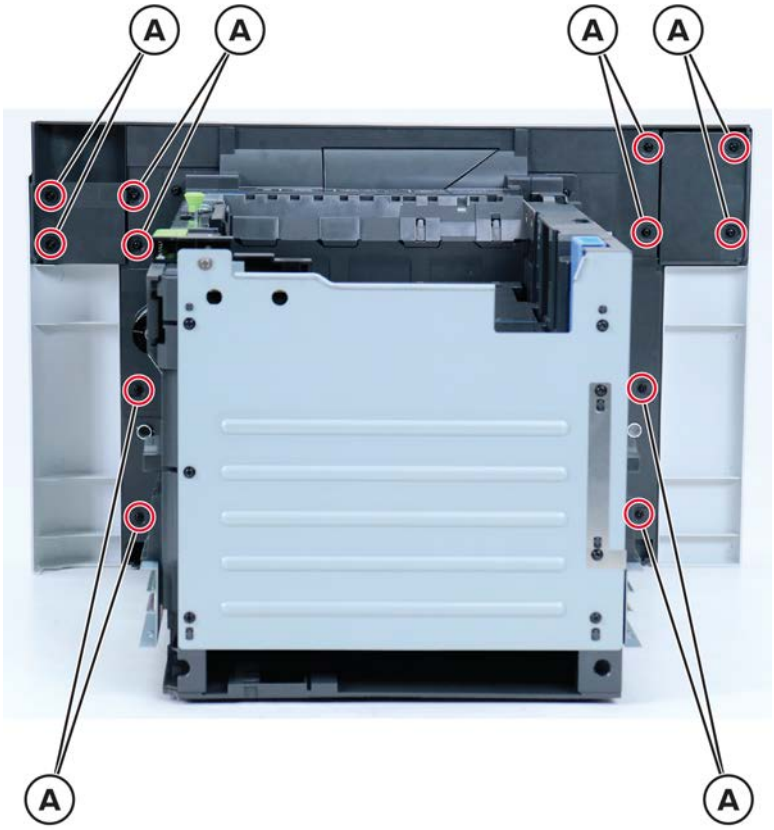


9 Remove the cover.

2100-sheet tray front cover removal

1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

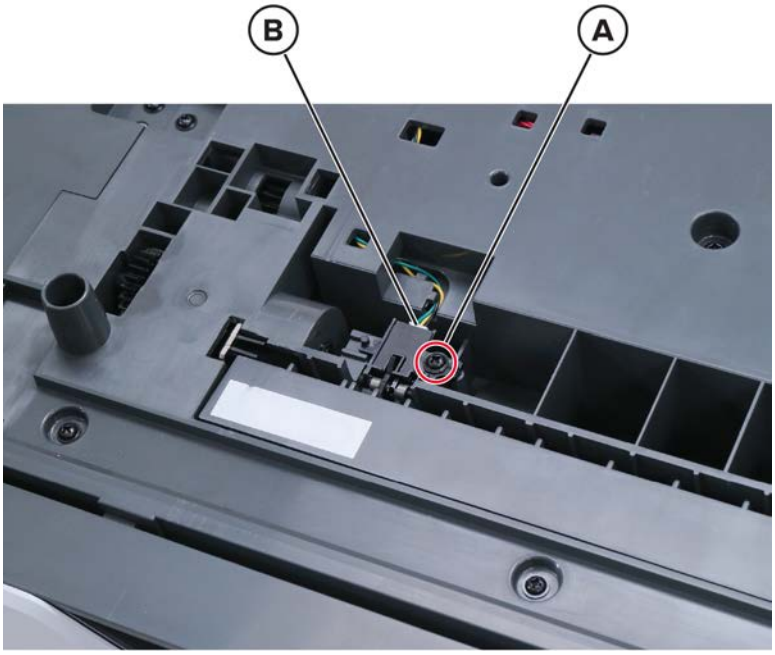
2 Behind the front cover, remove the 12 screws (A).



3 Remove the cover.

Sensor (2100-sheet tray pick) removal

1 Remove the screw (A), and then disconnect the cable (B).



2 Remove the sensor.

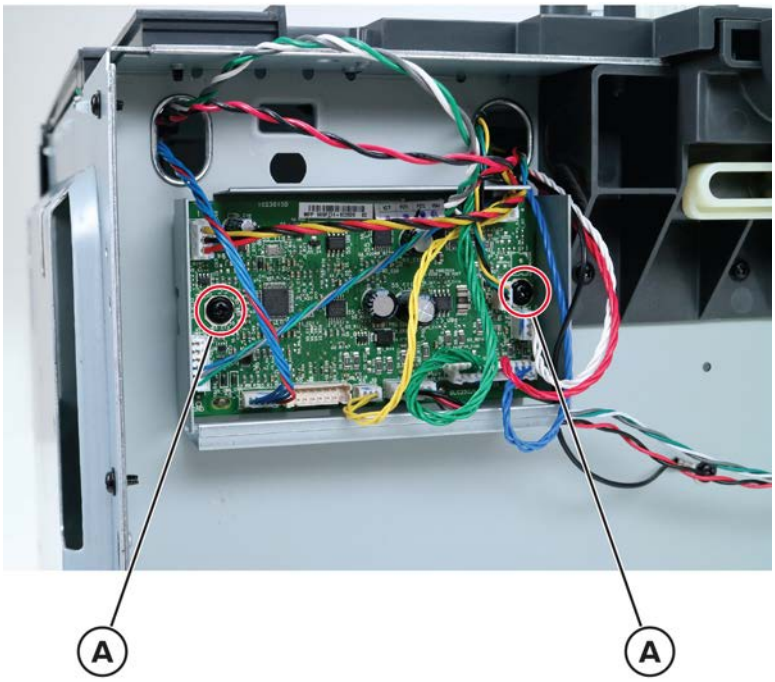
2100-sheet tray controller board removal

1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

2 Remove the 2100-sheet tray rear cover. See **“2100-sheet tray rear cover removal” on page 577**.

3 Remove the 2100-sheet tray left cover. See **“2100-sheet tray left cover removal” on page 577**.

4 Disconnect all the board cables, and then remove the two screws (A).



5 Remove the board.

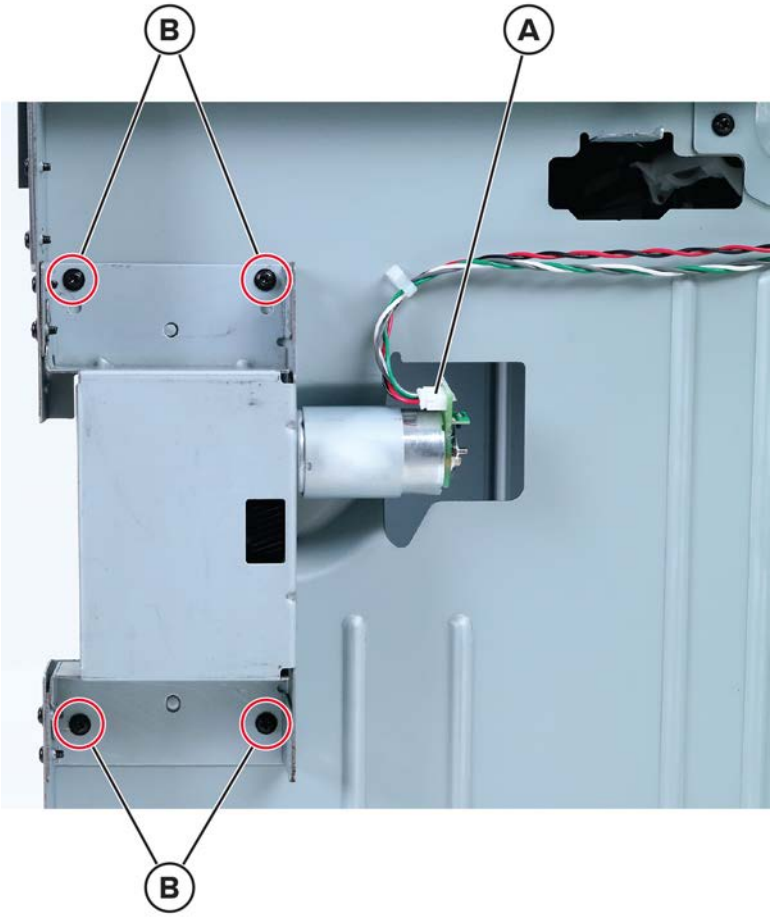
2100-sheet tray elevator drive removal

1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

2 Remove the 2100-sheet tray rear cover. See **“2100-sheet tray rear cover removal” on page 577**.

3 Remove the 2100-sheet tray right cover. See **“2100-sheet tray right cover removal” on page 580**.

4 Disconnect the cable (A), and then remove the four screws (B).



5 Remove the elevator drive.

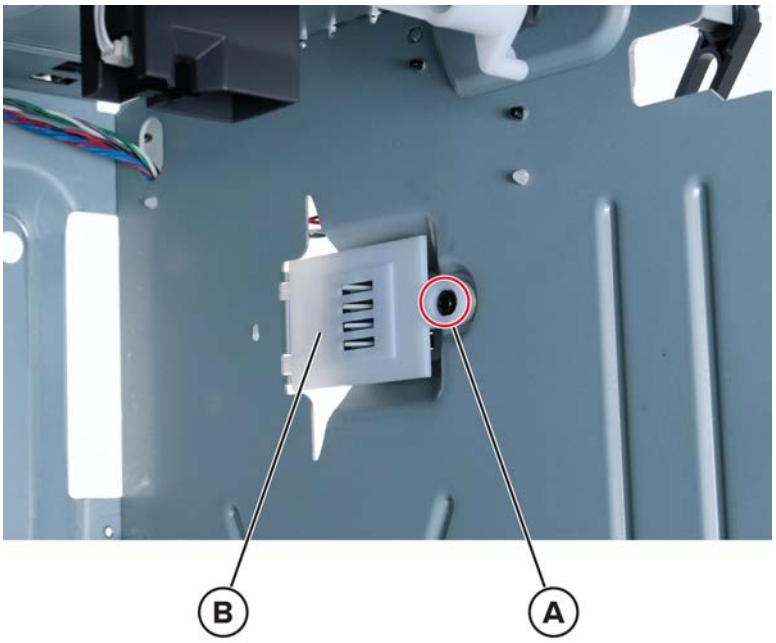
Sensor (2100-sheet tray paper size) removal

1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

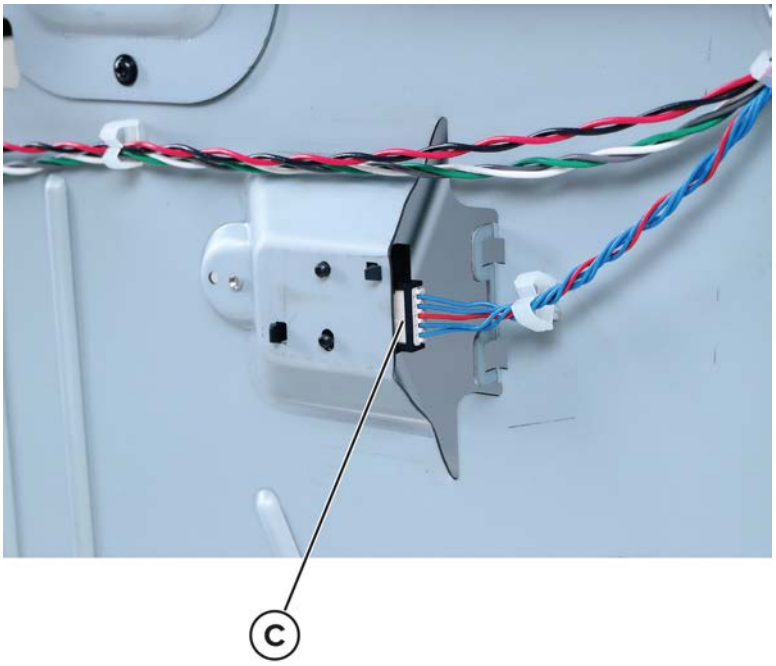
2 Remove the 2100-sheet tray rear cover. See **“2100-sheet tray rear cover removal” on page 577**.

3 Remove the 2100-sheet tray right cover. See **“2100-sheet tray right cover removal” on page 580**.

4 Remove the screw (A), and then remove the cover (B).



5 Disconnect the sensor cable (C), and then remove the sensor.



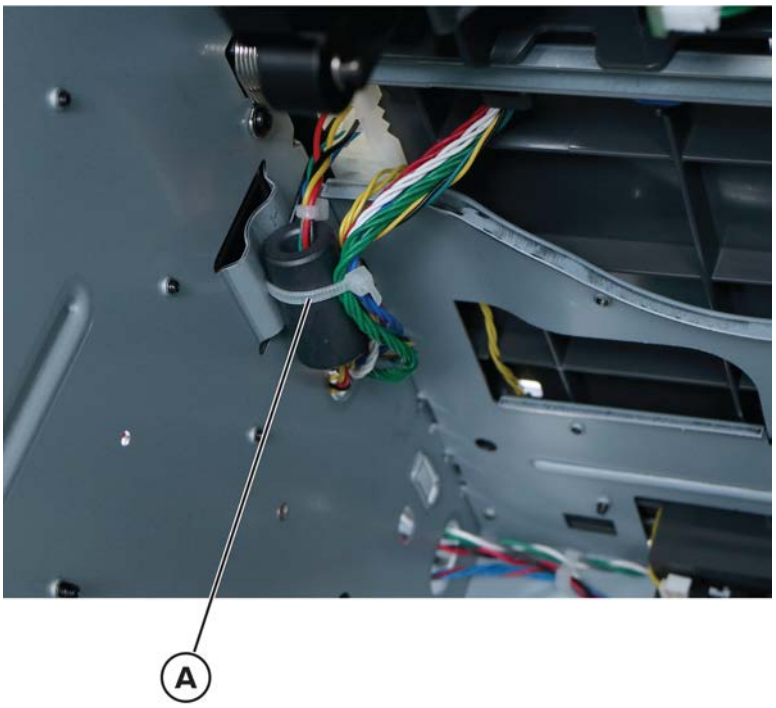
2100-sheet tray interface cable removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 576**.

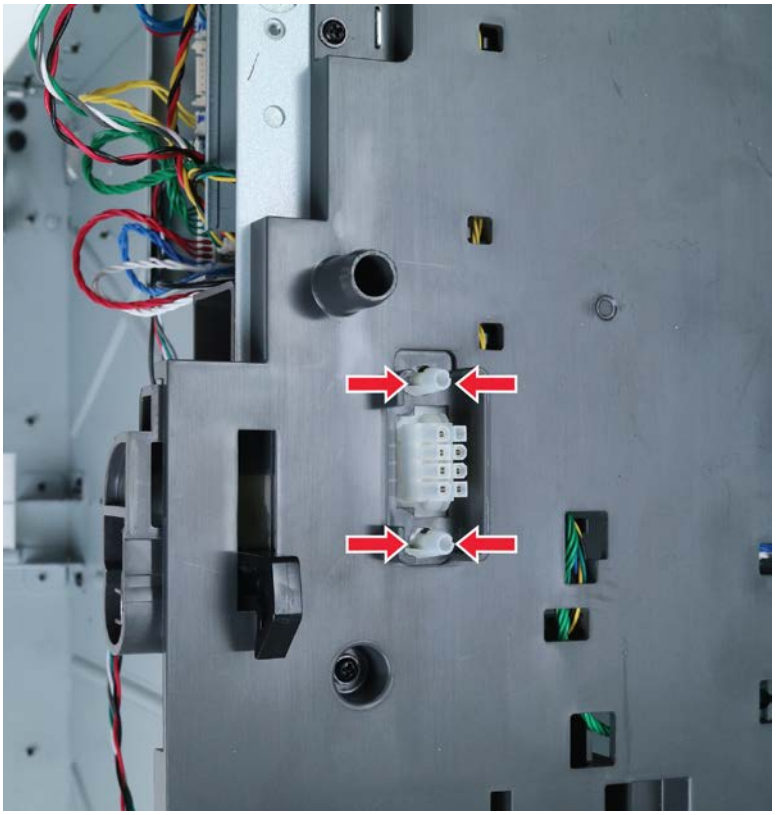
2 Remove the 2100-sheet tray rear cover. See **"2100-sheet tray rear cover removal" on page 577**.

3 Remove the 2100-sheet tray left cover. See **"2100-sheet tray left cover removal" on page 577**.

4 Cut the cable tie, and then disconnect the interface cable from the controller board.



5 Release, and then dislodge the connector from the cover.

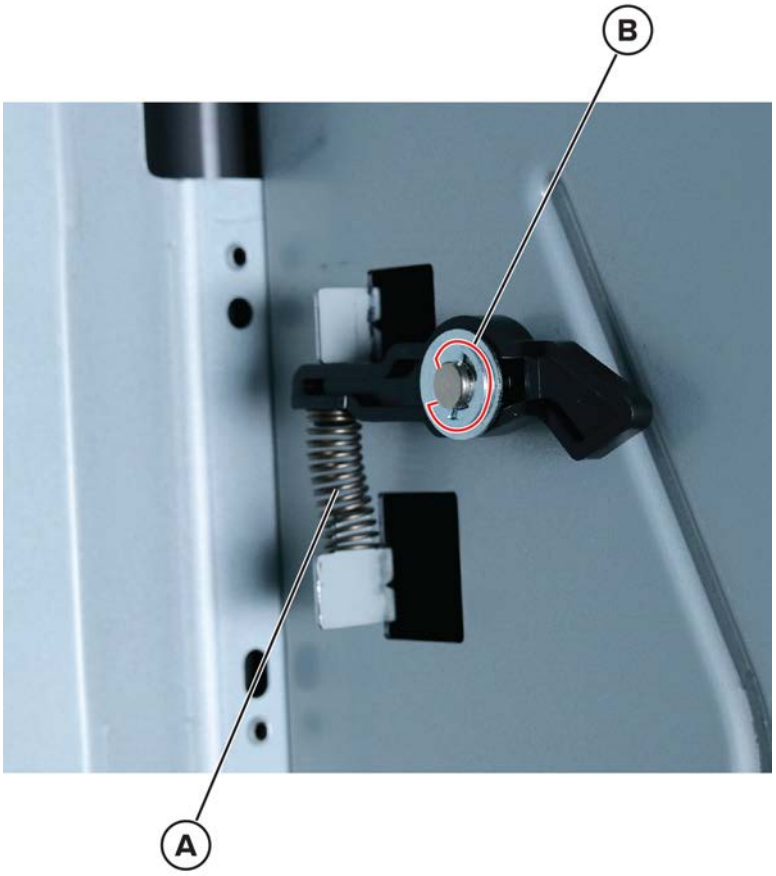


6 Remove the cable.

2100-sheet tray bellcrank removal

1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

2 Remove the spring (A), and then remove the E-clip (B).

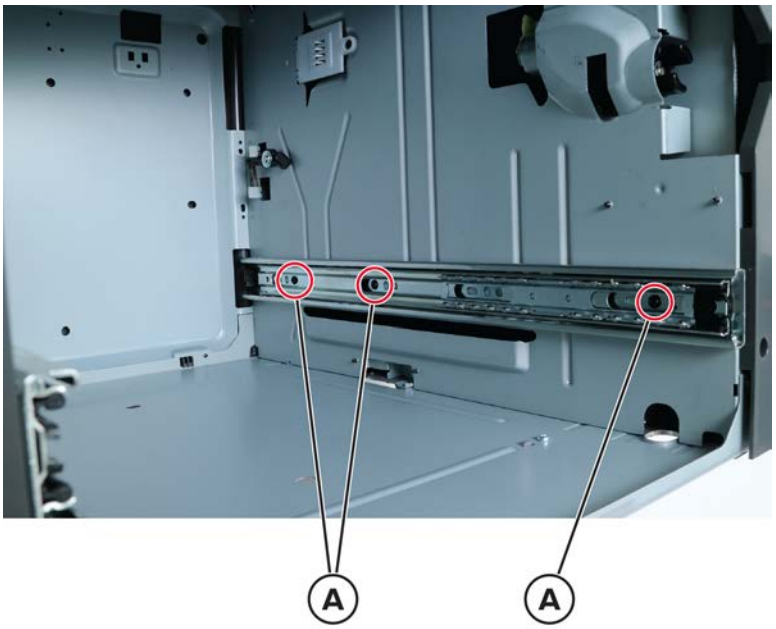


3 Remove the bellcrank.

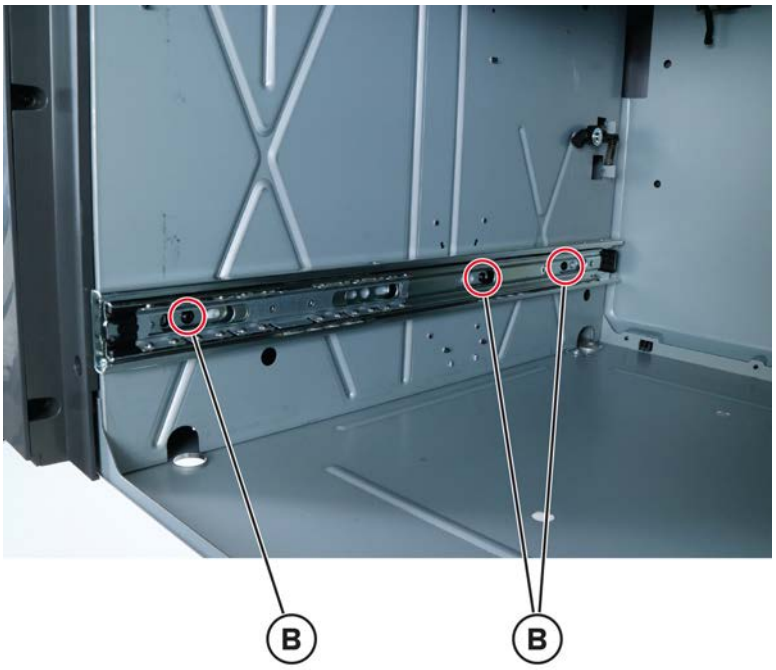
2100-sheet tray rails removal

1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

2 Remove the three screws (A) from the inner right side of the tray.



3 Remove the three screws (B) from the inner left side of the tray.

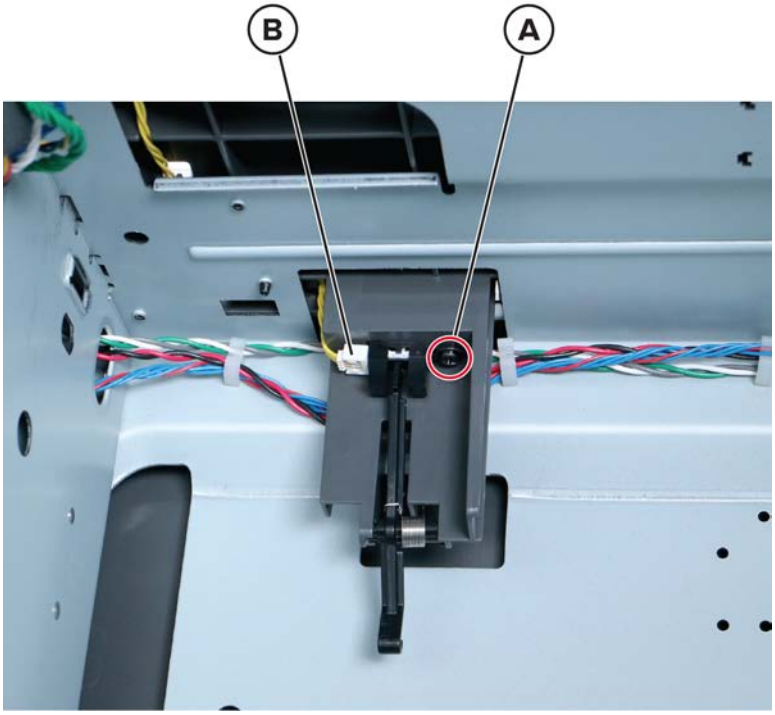


4 Remove the rails.

Sensor (2100-sheet tray near empty) removal

1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

2 Remove the screw (A), and then disconnect the sensor cable (B).

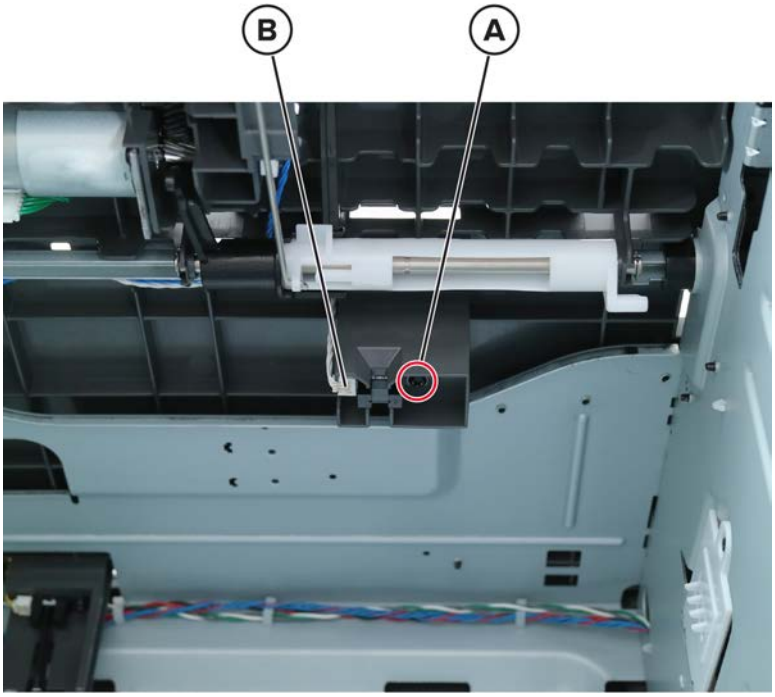


3 Remove the sensor.

Sensor (2100-sheet tray A5 length guide) removal

1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

2 Remove the screw (A), and then disconnect the sensor cable (B).



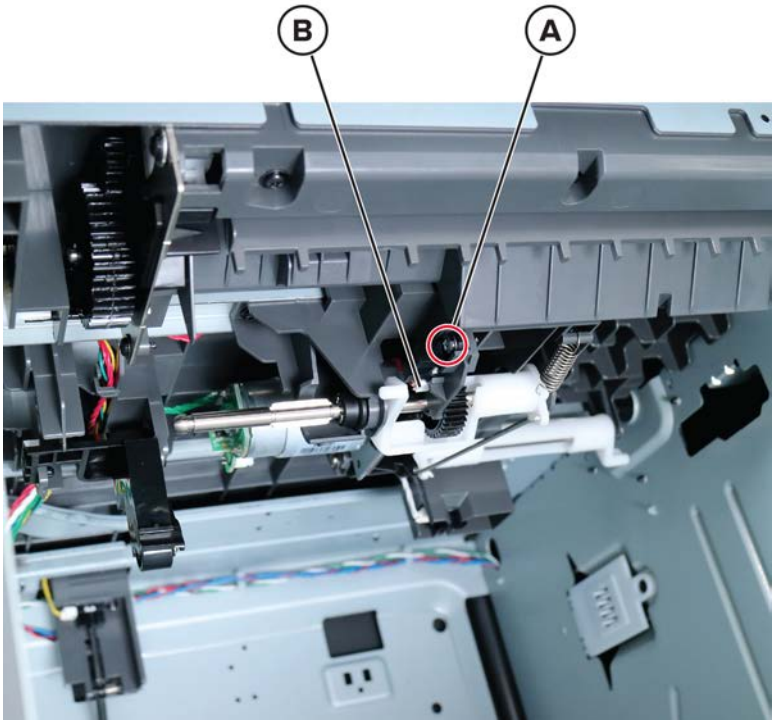
3 Remove the sensor.

Sensor (2100-sheet tray pick roller index) removal

1 Remove the 2100-sheet tray insert. See **“2100-sheet tray insert removal” on page 576**.

2 Remove the 2100-sheet tray pick roller.

3 Remove the screw (A), and then disconnect the sensor cable (B).

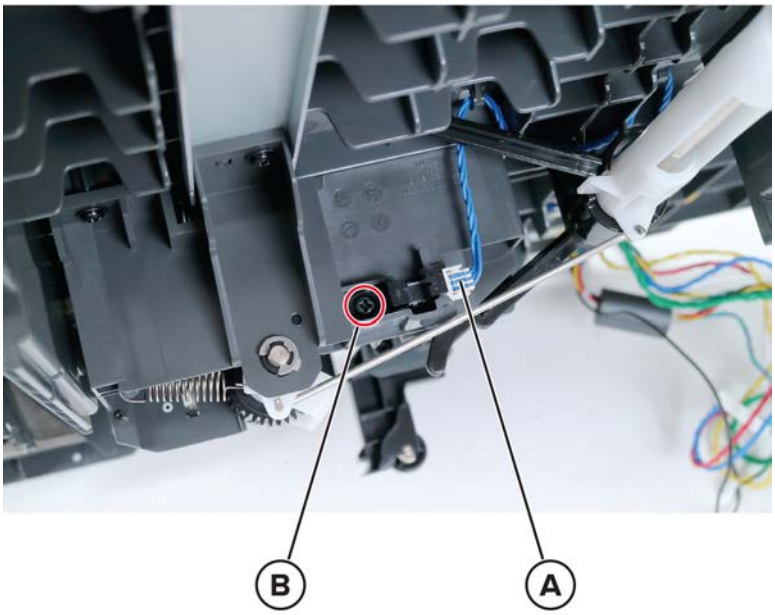


4 Remove the sensor.

Sensor (2100-sheet tray paper present) removal

1 Remove the top cover. See **"2100-sheet tray top cover removal" on page 583**.

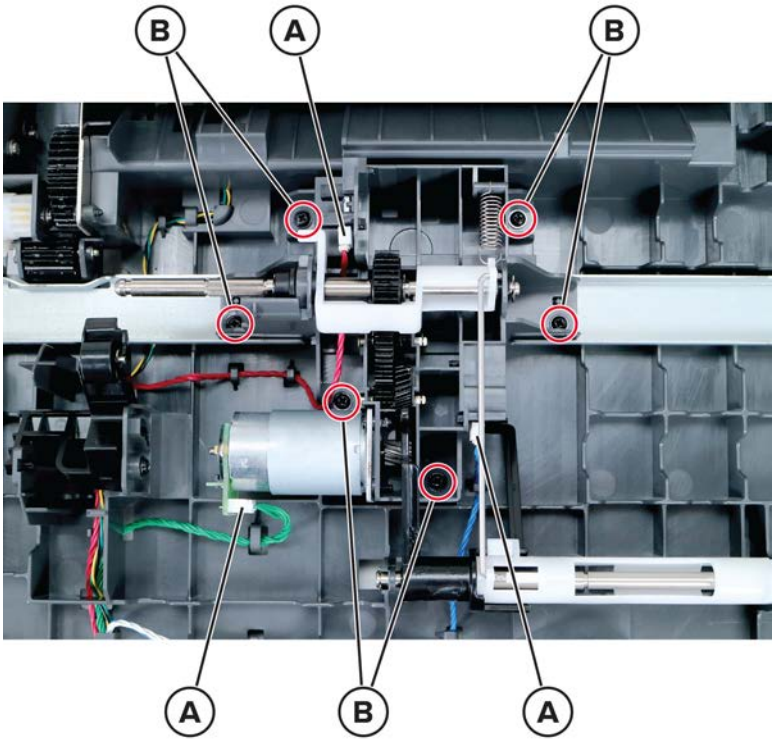
2 Disconnect the sensor cable (A), and then remove the screw (B).



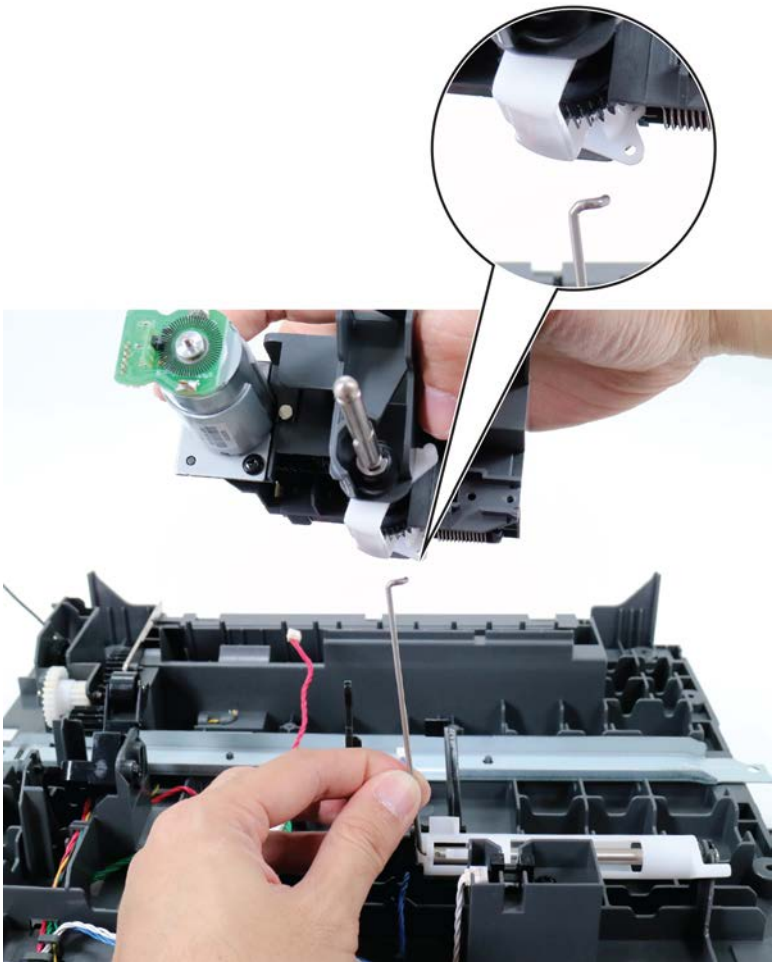
3 Remove the sensor.

2100-sheet tray paper feeder removal

1. Remove the 2100-sheet tray top cover. See **“2100-sheet tray top cover removal” on page 583**.
2. Remove the 2100-sheet tray pick roller.
3. Disconnect the cables (A), and then remove the six screws (B).



4 Release the rod.

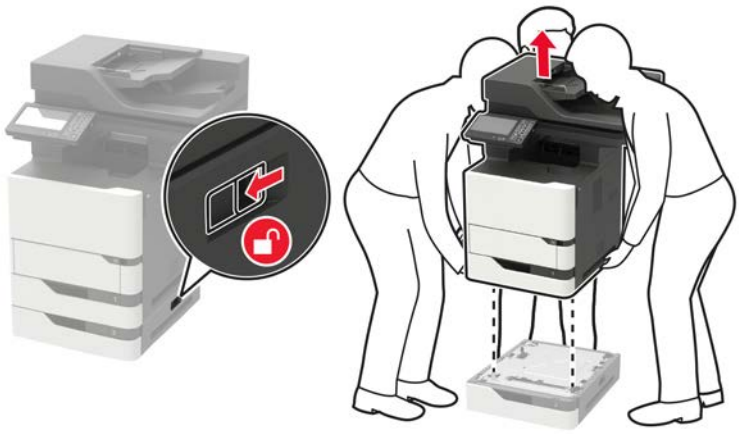


5 Remove the paper feeder.

Optional 250- and 550-sheet tray removals

Optional 250- and 550-sheet tray removal

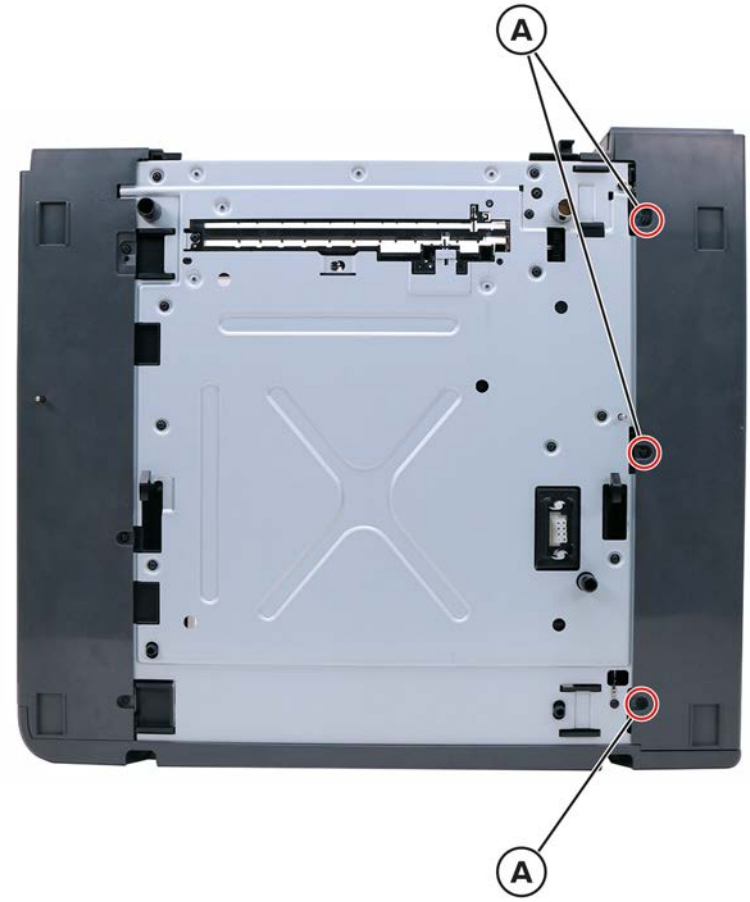
1. Press the latch to unlock.
2. Lift the printer or optional tray above the 250- or 550-sheet tray, and then separate the 250- or 550-sheet tray.



250- and 550-sheet tray left cover removal

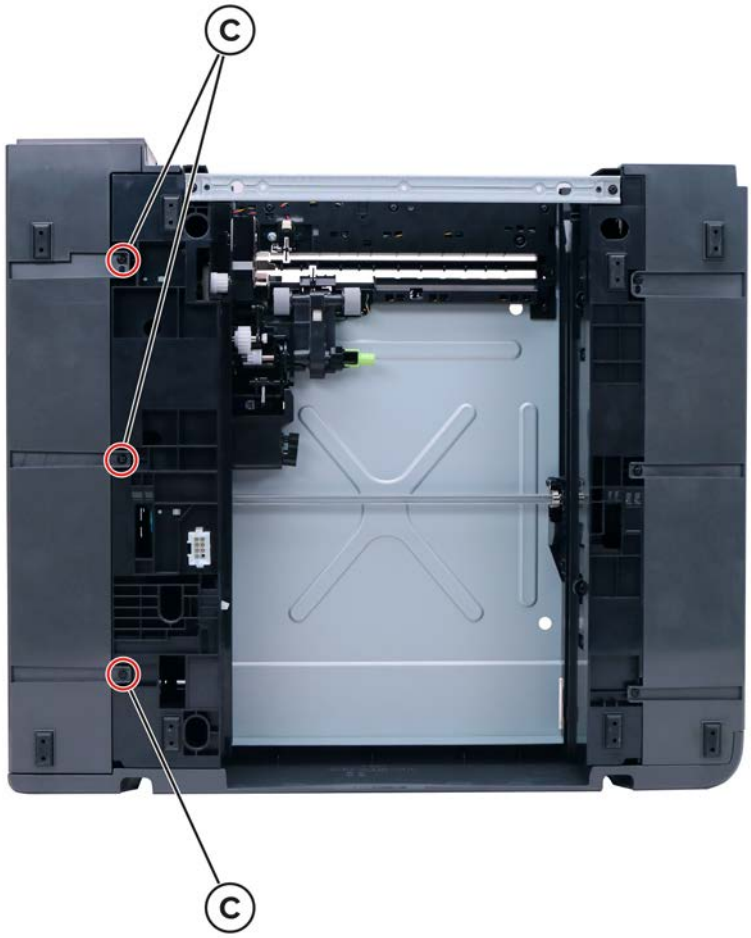
1 Remove the tray insert.

2 From the top side, remove the three screws (A).



3 From the front side, remove the two screws (B).

4 From the bottom side, remove the three screws (C).



5 Slightly pull the rear cover to release, and then remove the left cover.

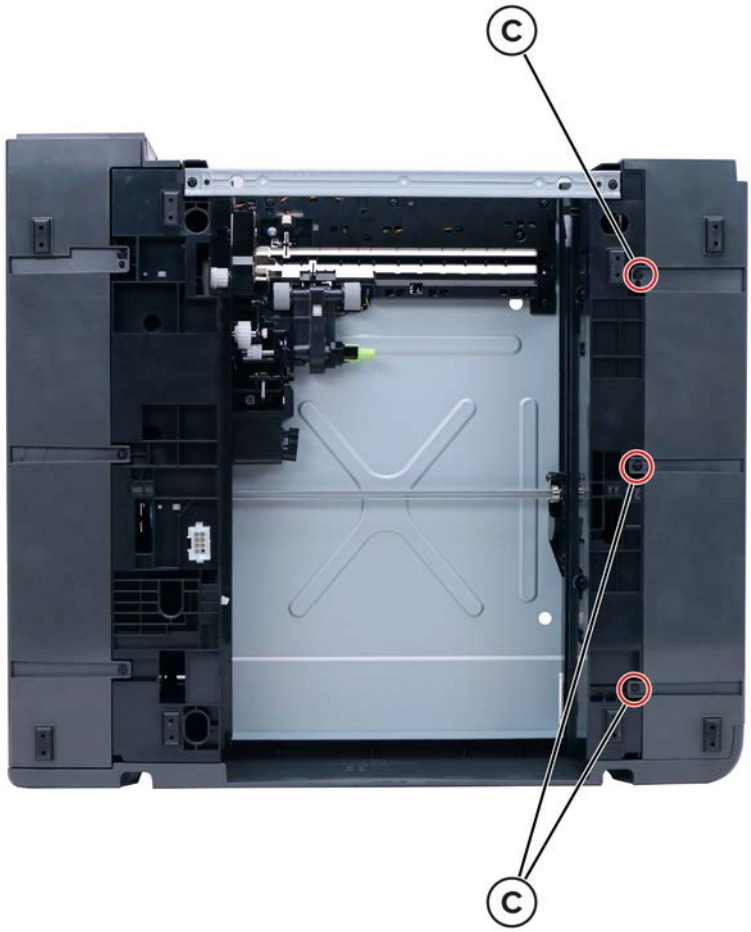
250- and 550-sheet tray right cover removal

1 Remove the tray insert.

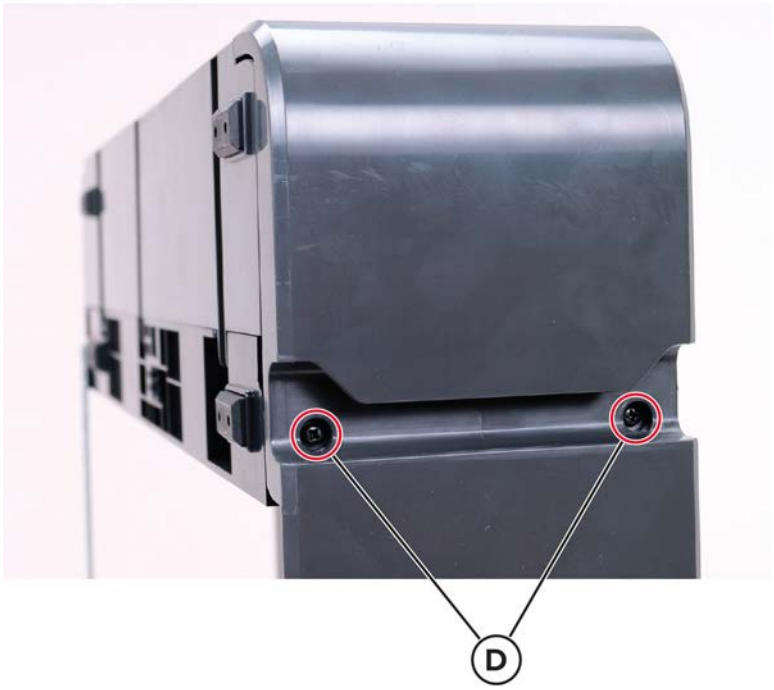
2 From the top side, remove the three screws (A).

3 From the front side, remove the two screws (B).

4 From the bottom side, remove the three screws (C).



5 From the rear side, remove the two screws (D).



6 Pry the top and bottom tabs to release the cover.

7 Slightly pull the rear cover to release, and then remove the right cover.

Installation note: When installing the right cover, make sure that the latch is positioned as shown. After installation, make sure that the latch is working.

250- and 550-sheet tray rear cover removal

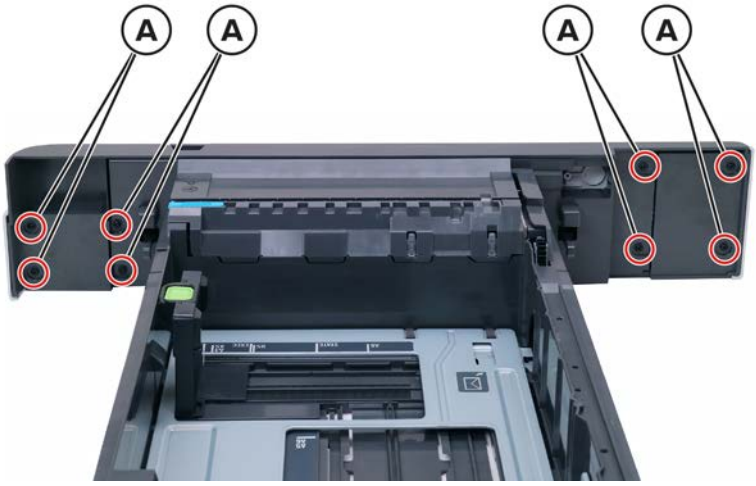
1 Remove the tray insert.

2 Remove the four screws (A), and then remove the cover.

250- and 550-sheet tray insert front cover removal

1 Remove the tray insert.

2 Behind the cover, remove the eight screws (A).

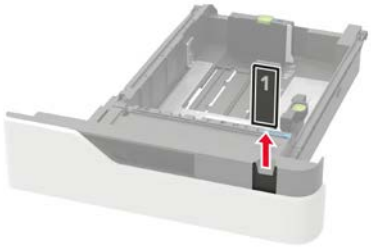


3 Remove the cover.

Tray level indicator removal

1 Pull out the tray.

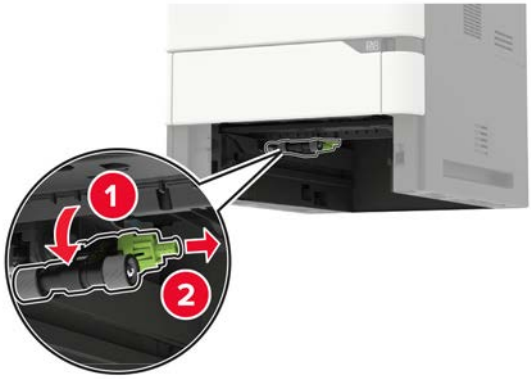
2 Remove the indicator.



Pick roller removal

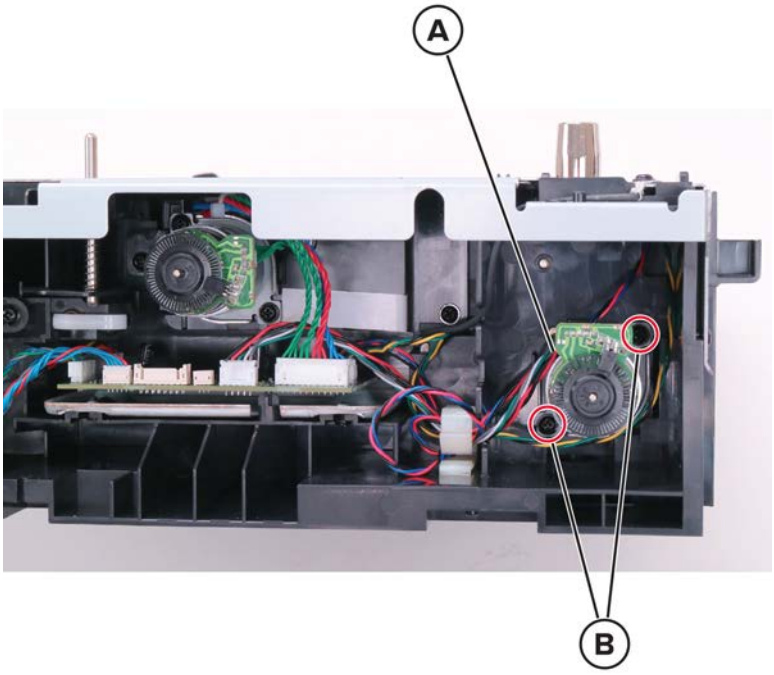
1 Remove the tray insert.

2 Remove the pick roller.



Motor (250- and 550-sheet tray transport) removal

1. Remove the 250- and 550-sheet tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**.
2. Disconnect the cable (A), and then remove the two screws (B).

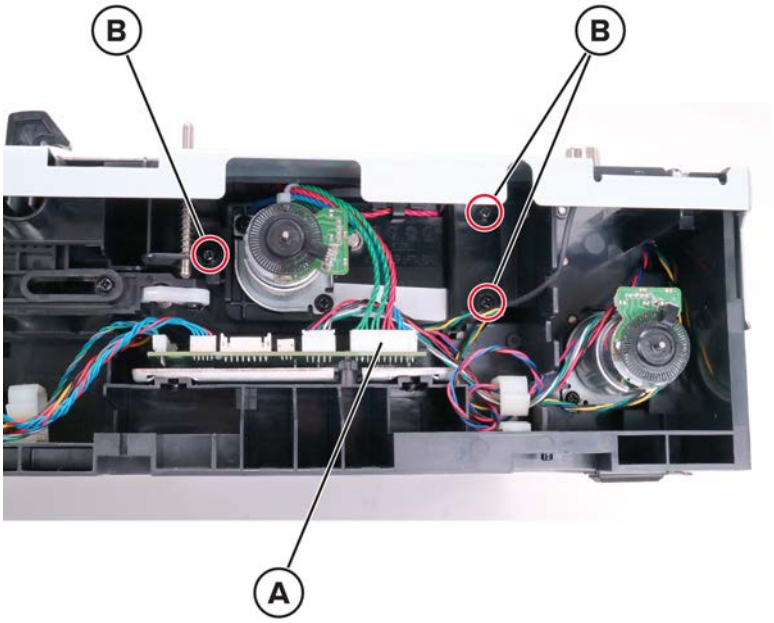


3. Remove the motor.

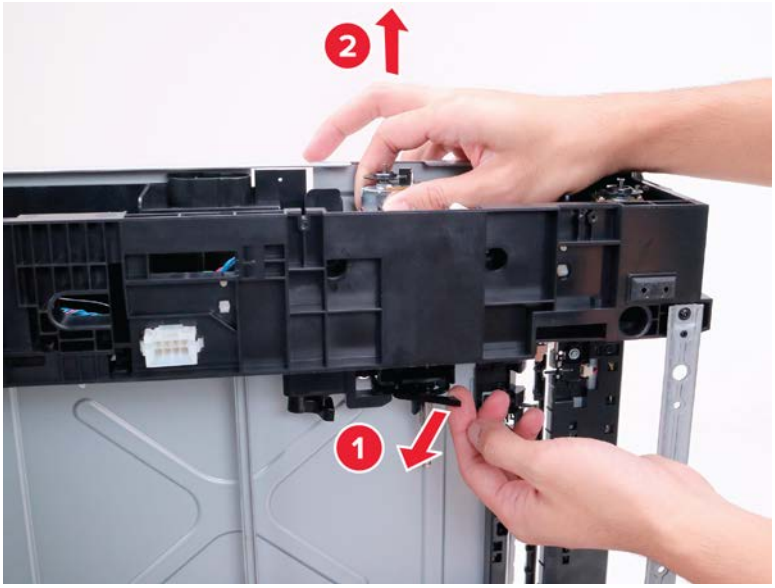
250- and 550-sheet tray paper feeder removal

1. Remove the 250- and 550-sheet tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**.
2. Remove the pick roller. See **"Pick roller removal" on page 607**.

3 Disconnect the cable (A), and then remove the three screws (B).



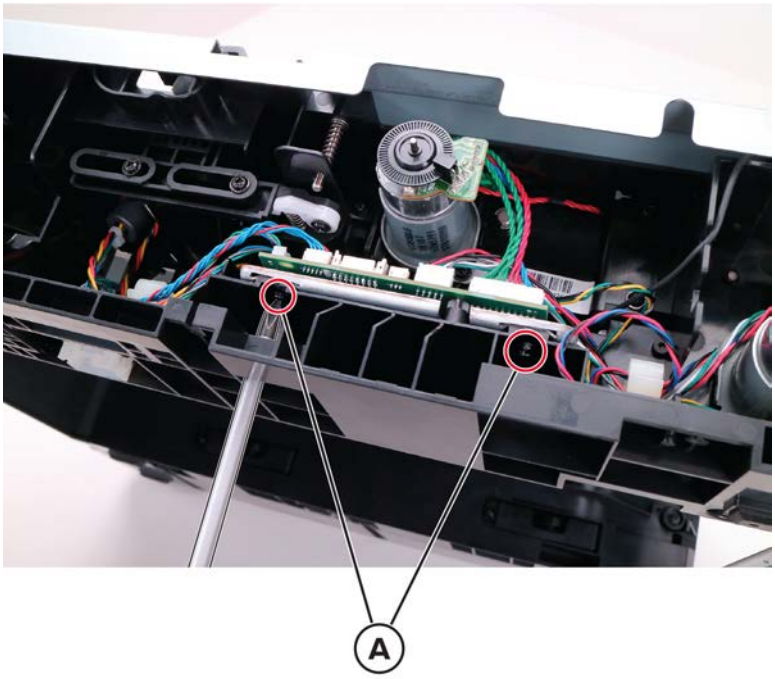
4 Slightly pull the flag to release, and then remove the paper feeder.



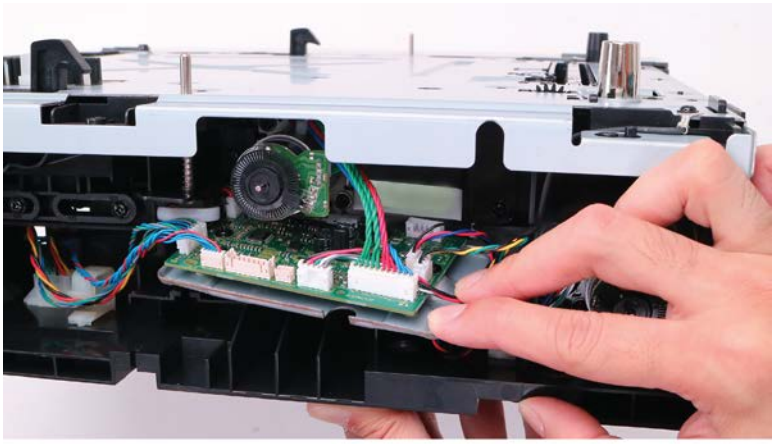
250- and 550-sheet tray controller board removal

1 Remove the 250- and 550-sheet tray left cover. See **“250- and 550-sheet tray left cover removal” on page 600**.

2 Remove the two screws (A), and then release the controller board bracket.



3 Disconnect all the cables from the controller board.

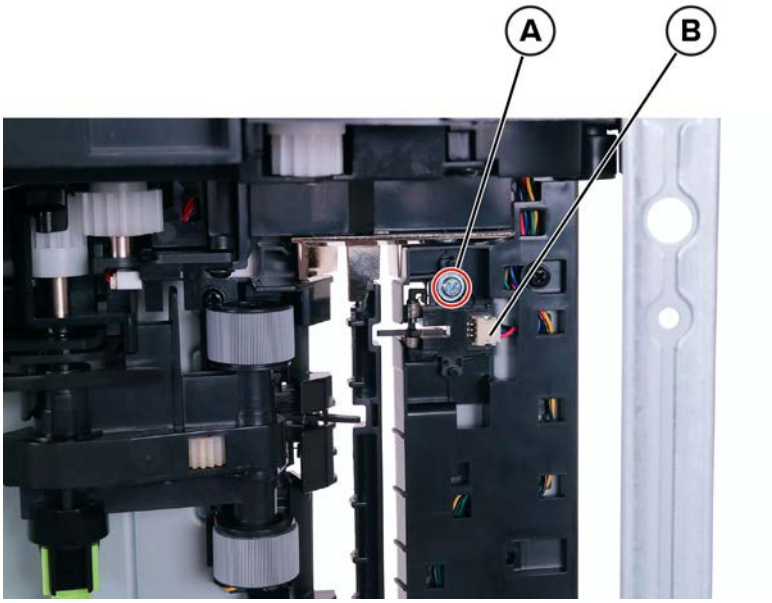


4 Remove the two screws (B), and then remove the controller board.

Sensor (250- and 550-sheet tray pass-through) removal

1 Remove the tray insert.

2 Remove the screw (A), and then disconnect the sensor cable (B).



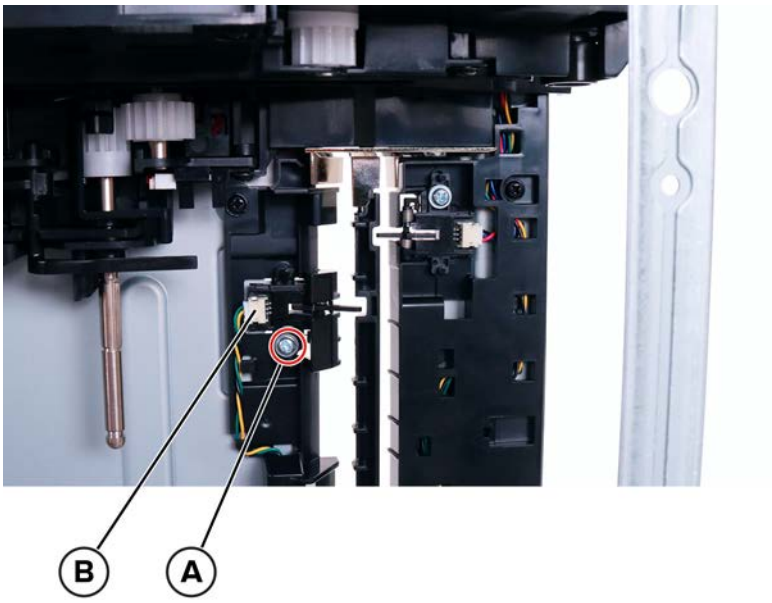
3 Remove the sensor.

Sensor (250- and 550-sheet tray pick) removal

1 Remove the tray insert.

2 Remove the pick roller. See **“Pick roller removal” on page 607**.

3 Remove the screw (A), and then disconnect the sensor cable (B).



4 Remove the sensor.

Sensor (250- and 550-sheet tray pick roller index) removal

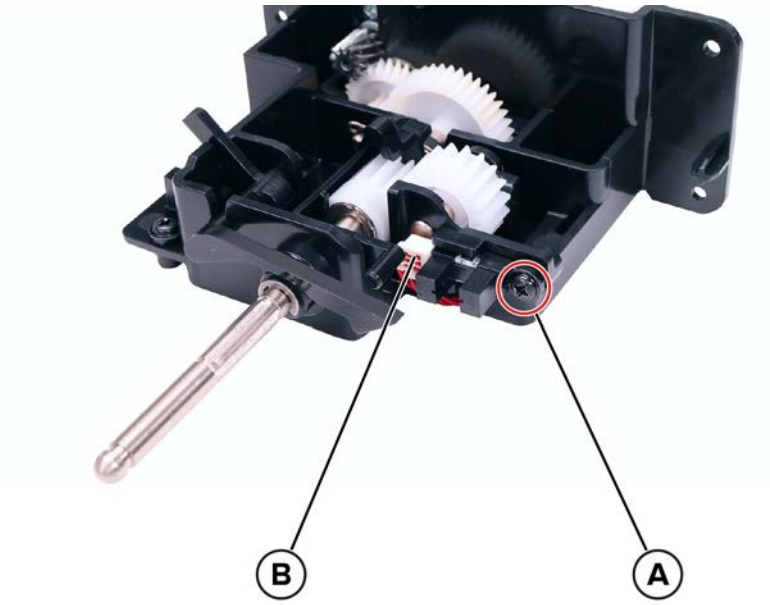
1 Remove the tray insert.

2 Remove the 250- and 550-sheet tray left cover. See **“250- and 550-sheet tray left cover removal” on page 600**.

3 Remove the pick roller. See **“Pick roller removal” on page 607**.

4 Remove the 250- and 550-sheet tray paper feeder. See **“250- and 550-sheet tray paper feeder removal” on page 608**.

5 Remove the screw (A), and then disconnect the sensor cable (B).



6 Remove the sensor.

Sensor (250- and 550-sheet tray paper present) removal

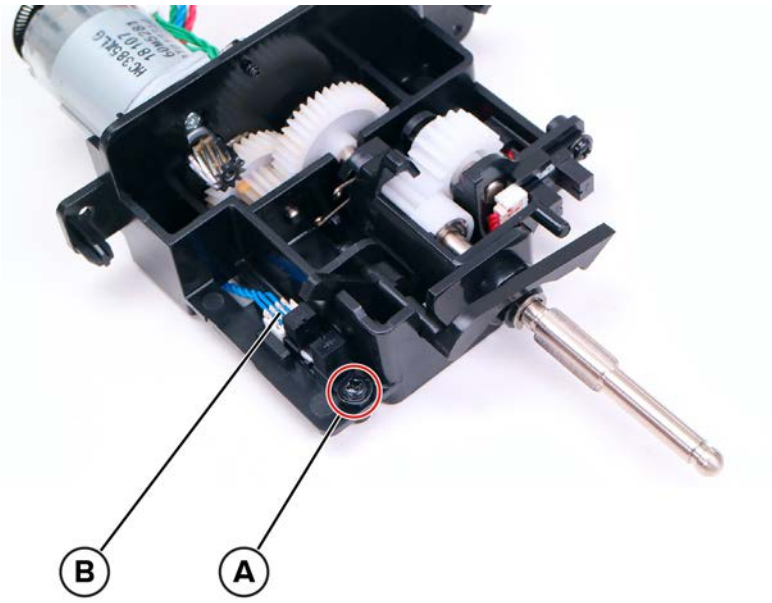
1 Remove the tray insert.

2 Remove the 250- and 550-sheet tray left cover. See **“250- and 550-sheet tray left cover removal” on page 600**.

3 Remove the pick roller. See **“Pick roller removal” on page 607**.

4 Remove the 250- and 550-sheet tray paper feeder. See **“250- and 550-sheet tray paper feeder removal” on page 608**.

5 Remove the screw (A), and then disconnect the sensor cable (B).



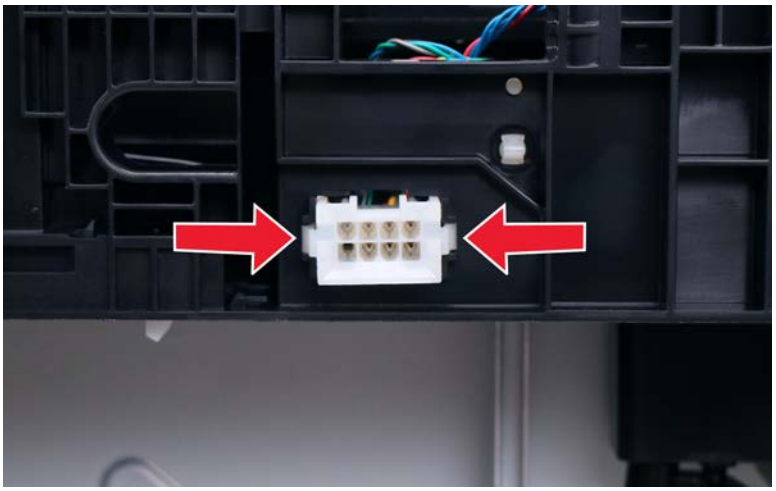
6 Remove the sensor.

250- and 550-sheet tray interface cable removal

1 Remove the 250- and 550-sheet tray left cover. See **"250- and 550-sheet tray left cover removal" on page 600**.

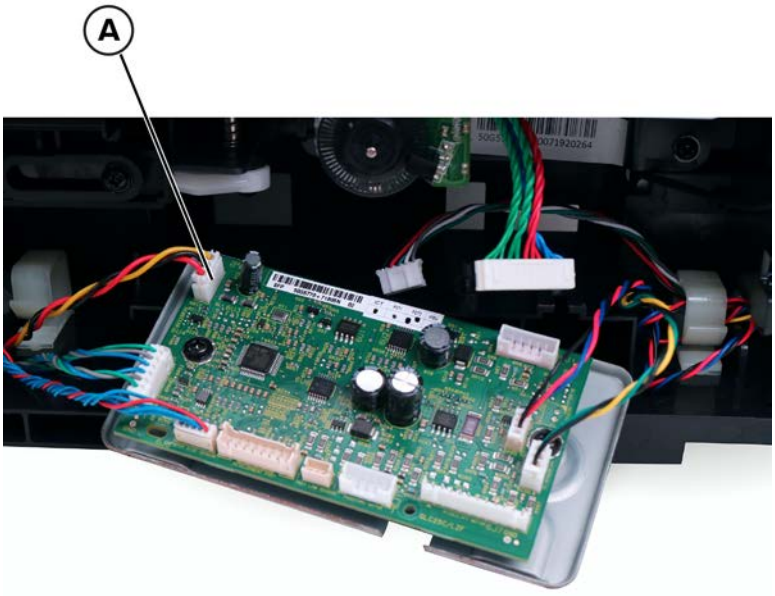
2 Release the controller board bracket. See **"250- and 550-sheet tray controller board removal" on page 610**.

3 Press the latches to release, and then dislodge the connector from the bottom side.



4 Pinch the latches to release, and then dislodge the connector from the top side.

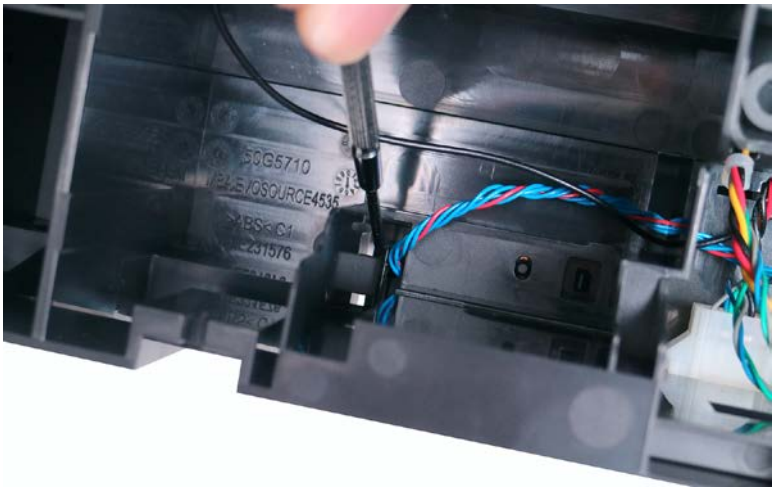
5 Disconnect the cable (A), and then remove it.



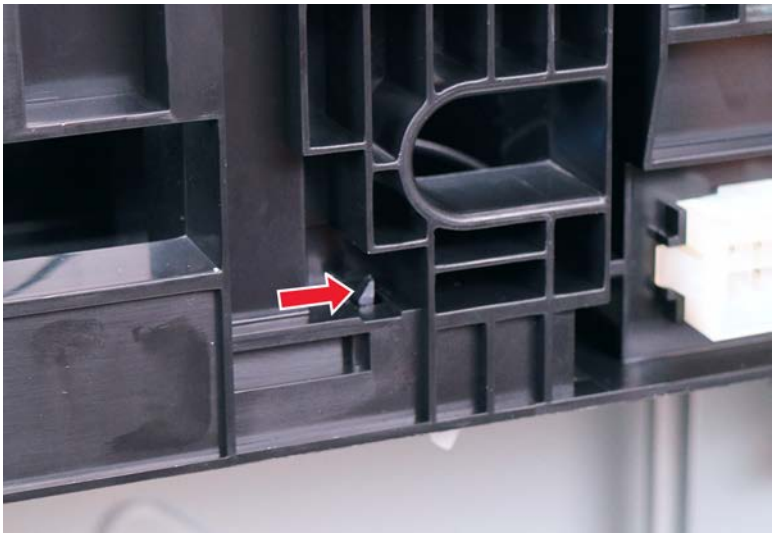
Sensor (250- and 550-sheet tray paper size) removal

1 Remove the 250- and 550-sheet tray left cover. See **“250- and 550-sheet tray left cover removal” on page 600**.

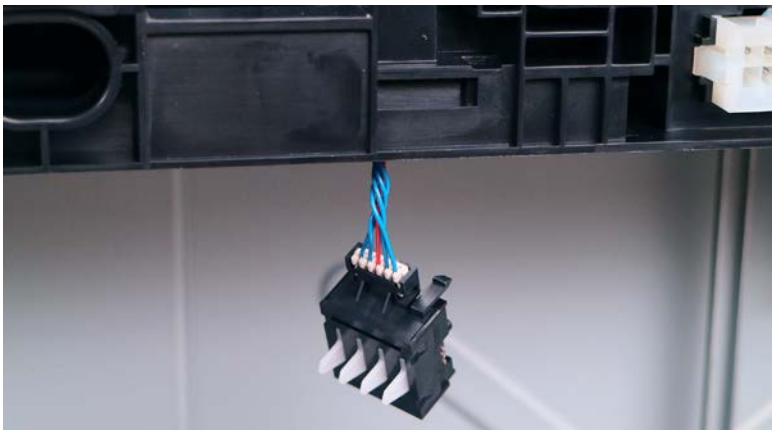
2 From the left side, pry the latch to release the sensor cover.



3 From the bottom side, press the latch to release the sensor.



4 Disconnect the cable, and then remove the sensor.



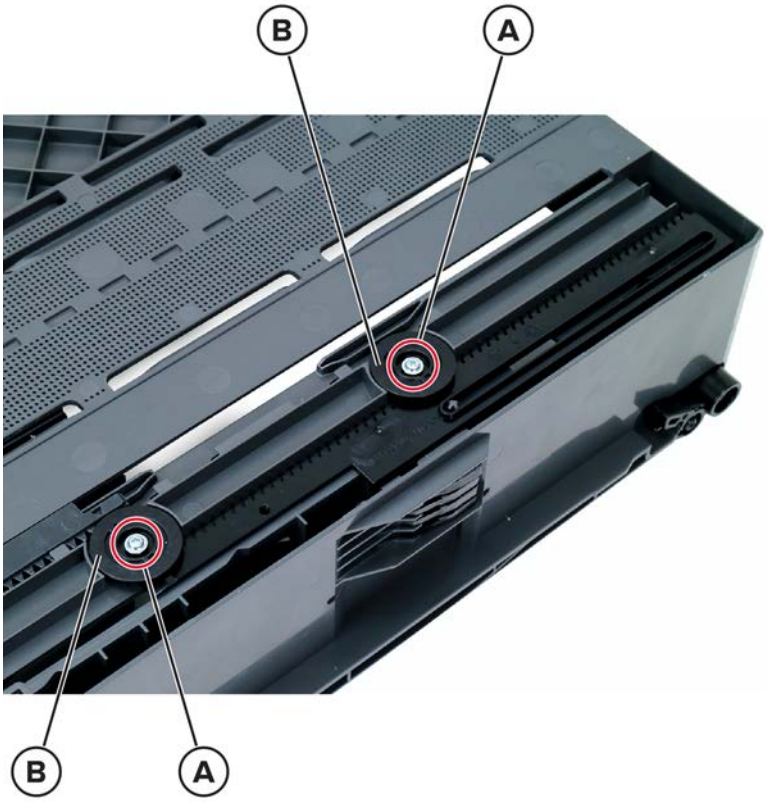
250- and 550-sheet tray paper size sensor actuator removal

1 Remove the tray insert.

2 On the tray insert, move the paper guide to the front side.

3 Under the tray insert, position the racks and pinions as shown.

Remove the two screws (A), and then remove the two pinions (B).

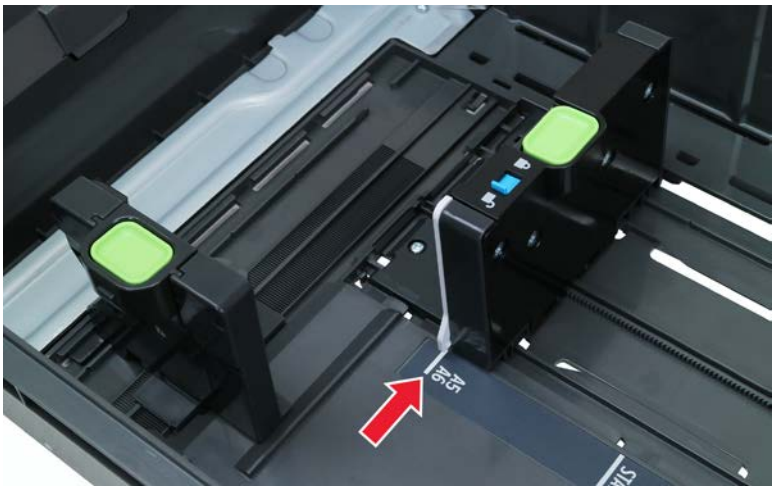


4 Slightly pull the left cover to release, and then pry the rack to release.

5 Remove the rack.

Installation notes:

a Make sure that the white indicator on the paper guide is aligned with the A5 and A6 label.



b Move the paper guide all the way to the front side of the tray to match the positions of the racks and pinions shown. Align the triangle and square icons on the pinions to the corresponding triangle and square icons on the racks.

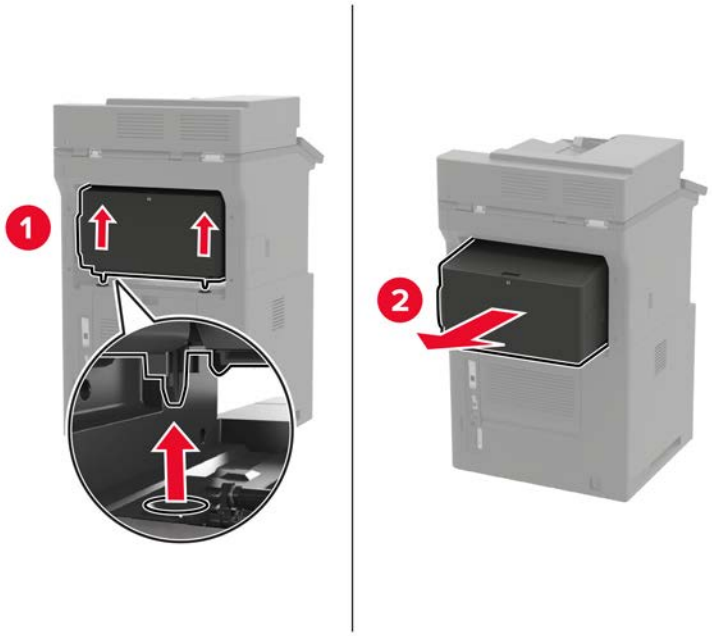
c Make sure that the screws are not too tight so that the gears can still move.

6 Release the latch, and then remove the actuator.

Optional staple finisher/offset stacker removals

Optional staple finisher/offset stacker removal

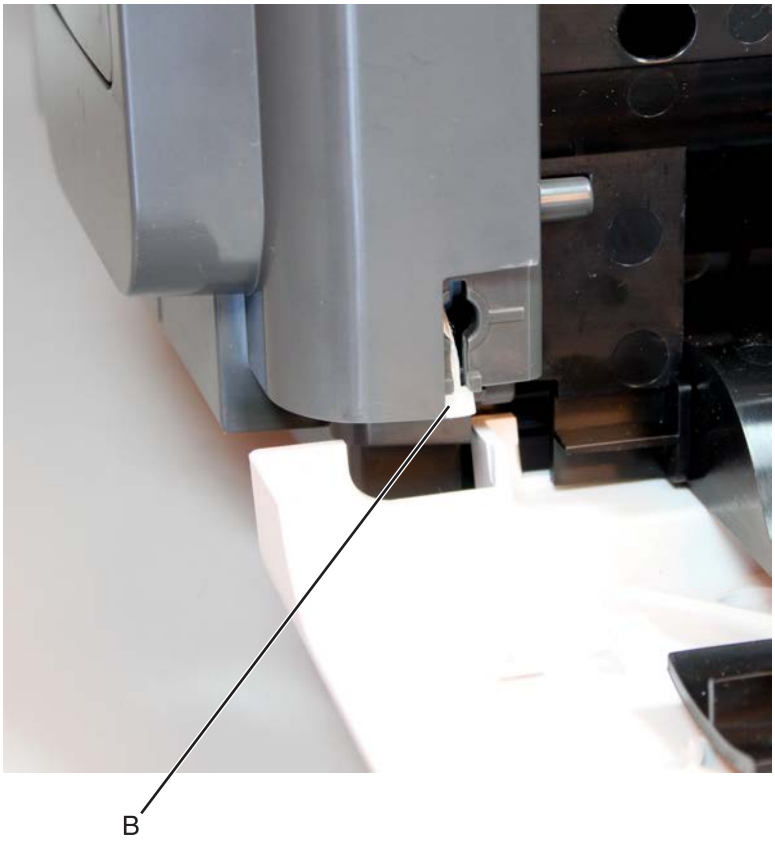
Lift the optional bin to release, and then remove it.



Staple finisher/offset stacker rear door removal

1 Open the rear door, and detach the string (A) from the door.

Note: Fasten the string end (B) to the rear side to prevent it from recoiling into the interior of the staple finisher/offset stacker.



2 Position the door at an angle approximately 90 degrees from the staple finisher/offset stacker. Release the right hinge of the door first (1), then move the door to the right (2) to release the left hinge.

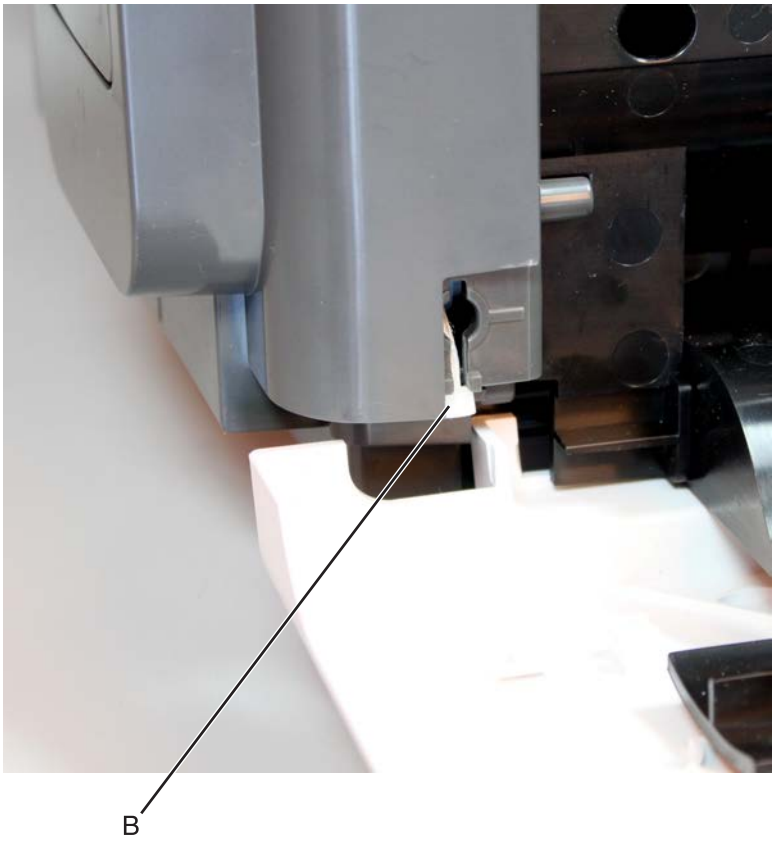
3 Remove the rear door assembly.

Staple finisher/offset stacker left cover removal

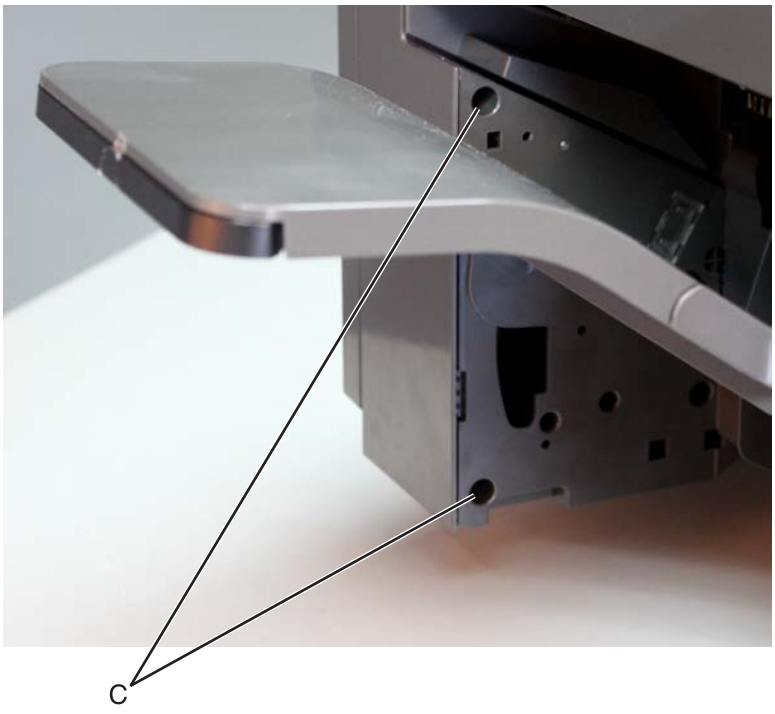
Note: This part is not a FRU.

1 Open the rear door, and then detach the string (A) from the rear door.

Note: Fasten the string end (B) to the rear side to prevent it from recoiling into the interior of the staple finisher/offset stacker.

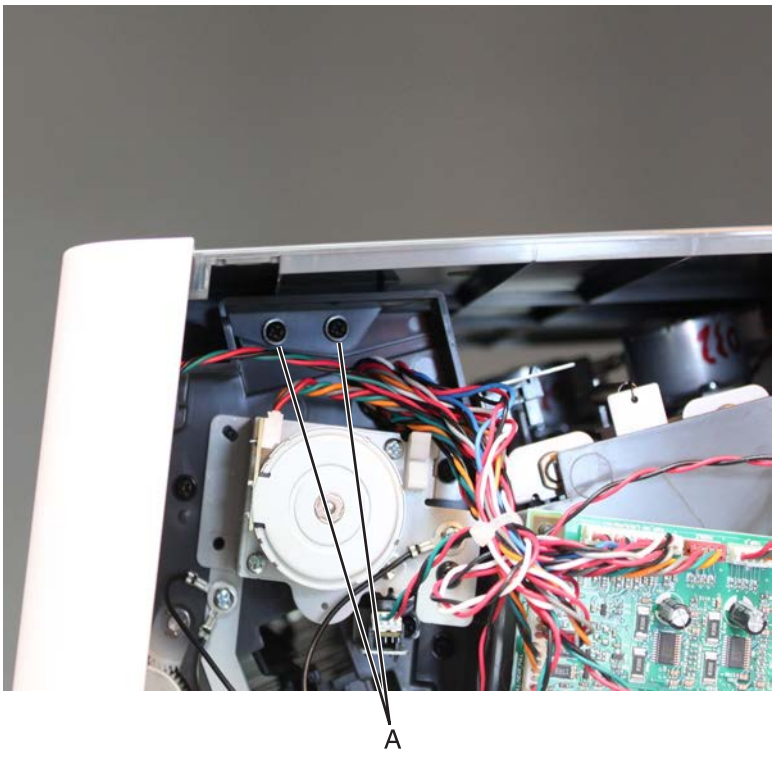


2 Remove the two screws (C), and then remove the cover.

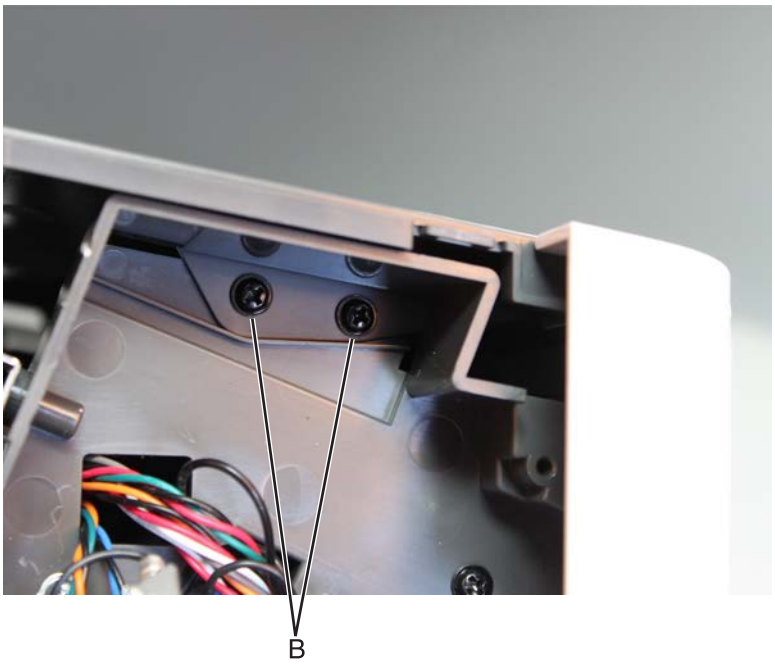


Staple finisher/offset stacker top cover removal

1. Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.
2. Remove the right cover. See **“Stapler right cover removal” on page 681**.
3. Remove the two screws (A) from the left side.



4 Remove the two screws (B) from the right side.

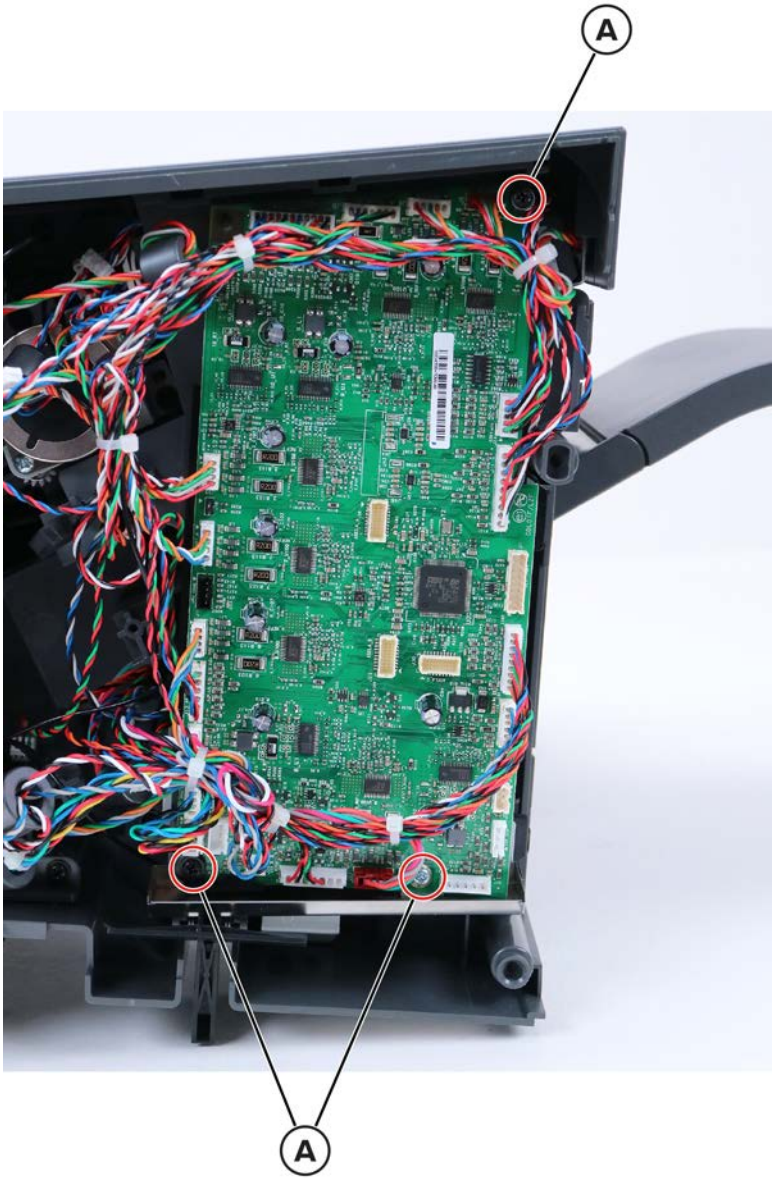


5 Remove the top cover.

Staple finisher/offset stacker controller board removal

1 Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.

2 Disconnect all the cables from the controller board, and then remove the three screws (A).

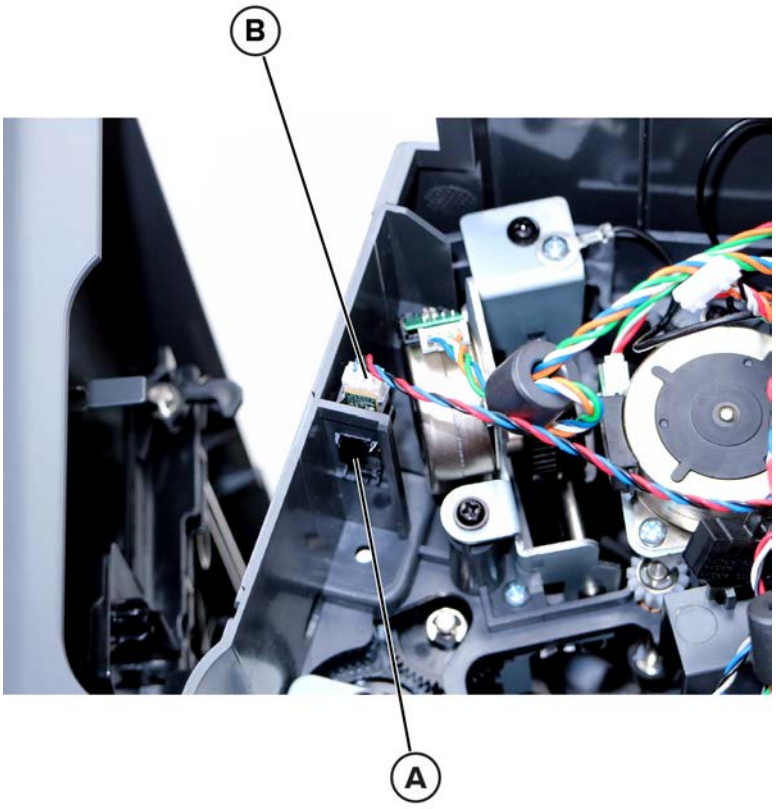


3 Remove the board.

Sensor (staple finisher/offset stacker door) removal

1 Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.

2 Remove the sensor retainer (A), and then disconnect the cable (B).

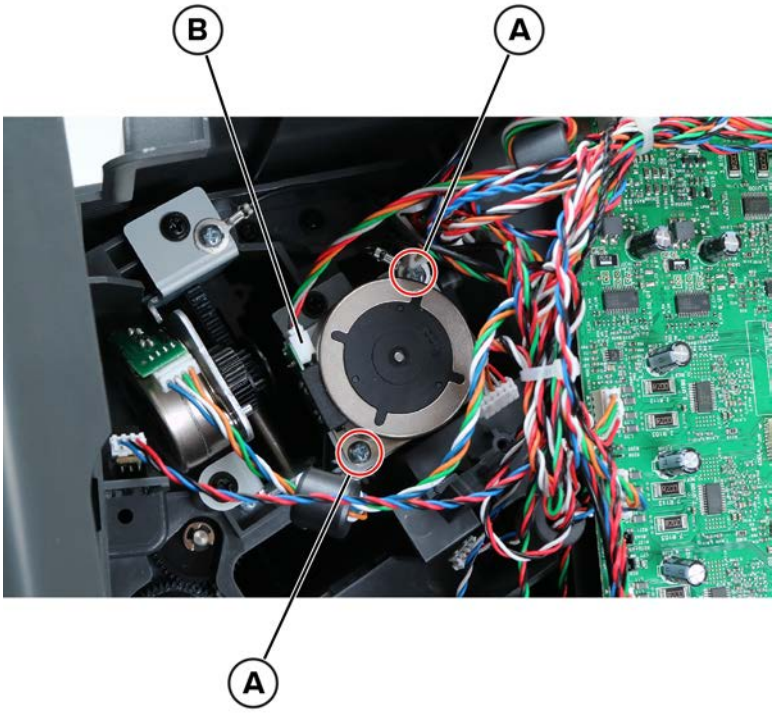


3 Remove the sensor.

Motor (staple finisher/offset stacker paddle) removal

1 Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

2 Remove the two screws (A), and then disconnect the cable (B).



Installation note: Make sure that the two ground cables are reinstalled.

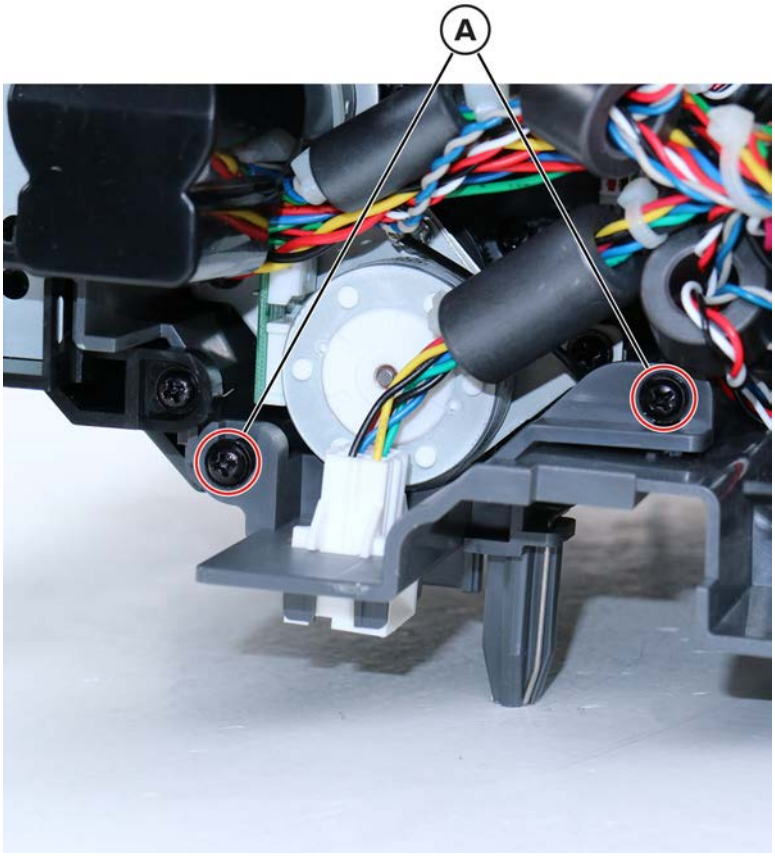
3 Remove the motor.

Staple finisher/offset stacker interface cable removal

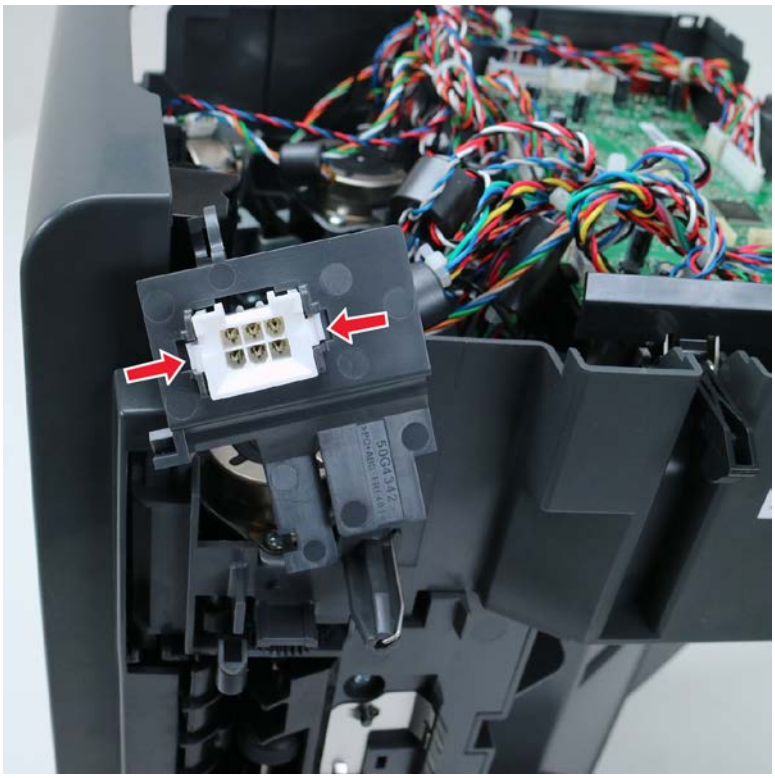
1 Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

2 Remove the staple unit. See **"Staple unit removal" on page 683**.

3 Remove the two screws (A), and then release the connector bracket.



4 Press the latches to release, and then dislodge the connector.

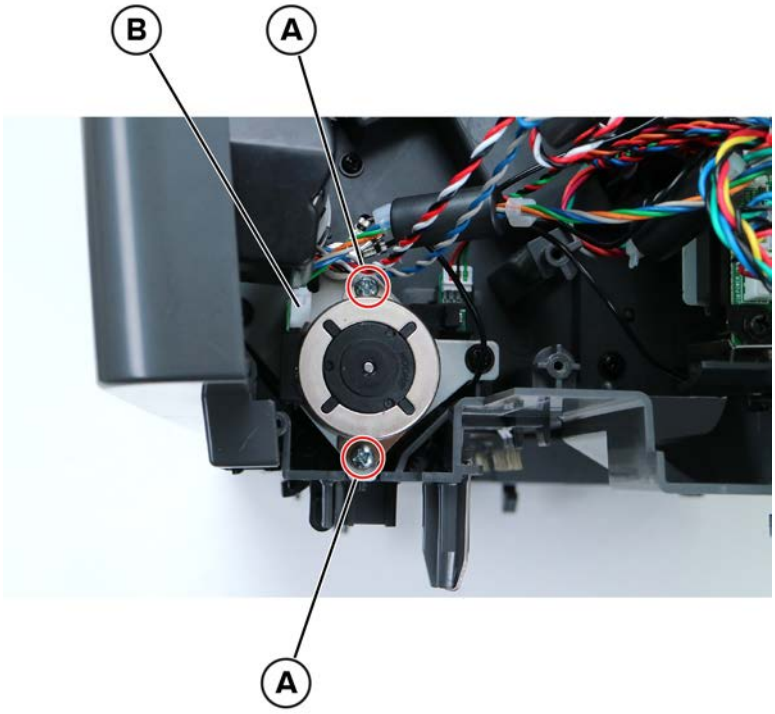


5 Disconnect the interface cable from the controller board, and then remove it.

Motor (staple finisher/offset stacker diverter) removal

1 Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.

2 Remove the two screws (A), and then disconnect the cable (B).

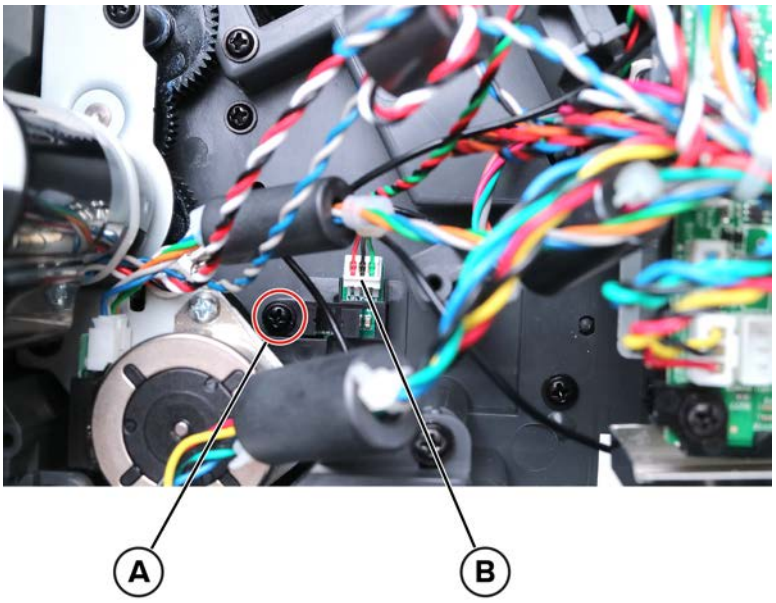


3 Remove the motor.

Sensor (staple finisher/offset stacker diverter plunger) removal

1 Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

2 Remove the screw (A), and then disconnect the cable (B).



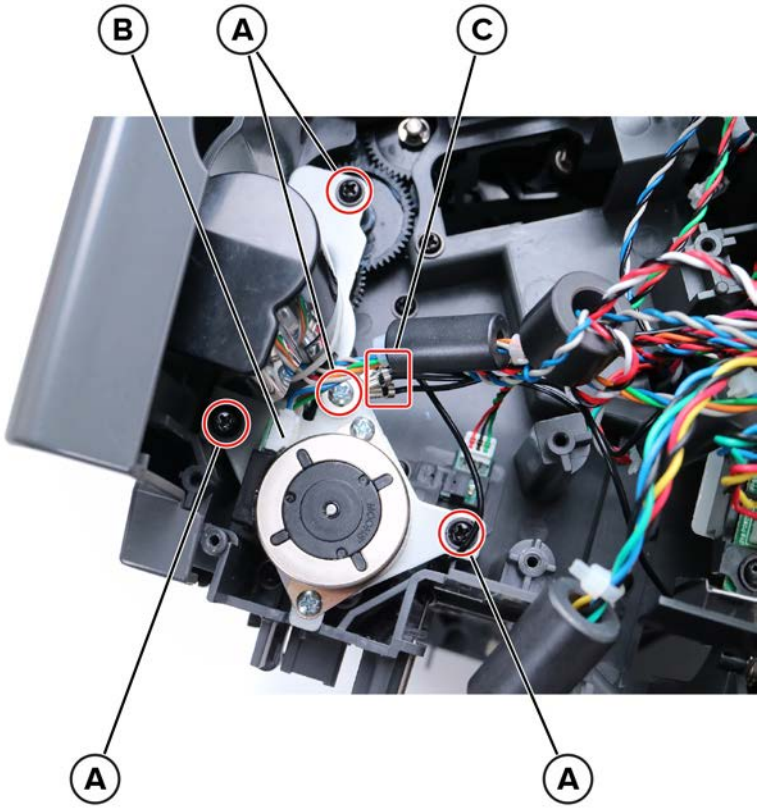
3 Remove the sensor.

Motor (staple finisher/offset stacker transport) removal

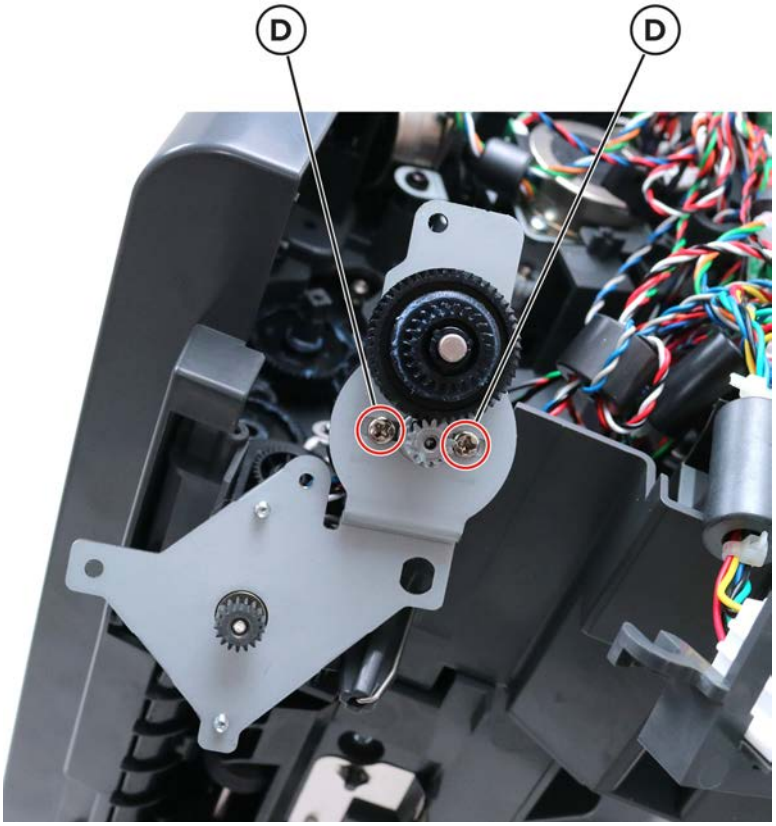
1 Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

2 Remove the interface cable. See **"Staple finisher/offset stacker interface cable removal" on page 629**.

3 Remove the four screws (A), and then disconnect the cable (B) and the three ground cables (C).

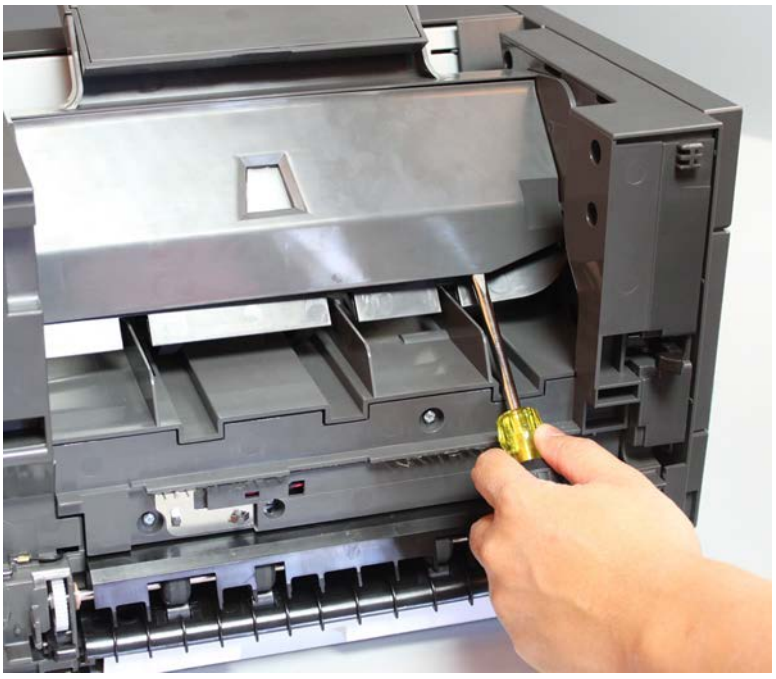


4 Remove the two screws (D), and then remove the motor.

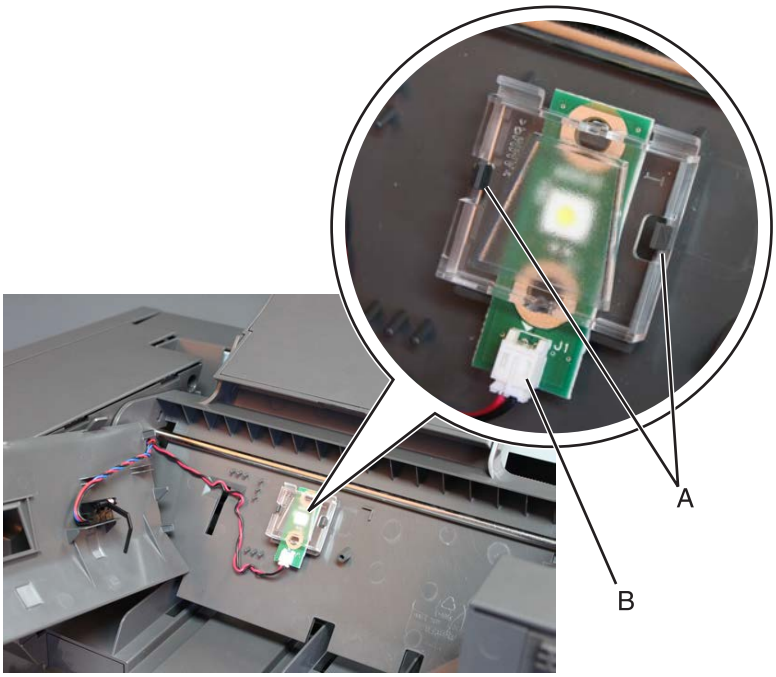


Standard bin LED removal

1 With a prying tool, open the LED cover.



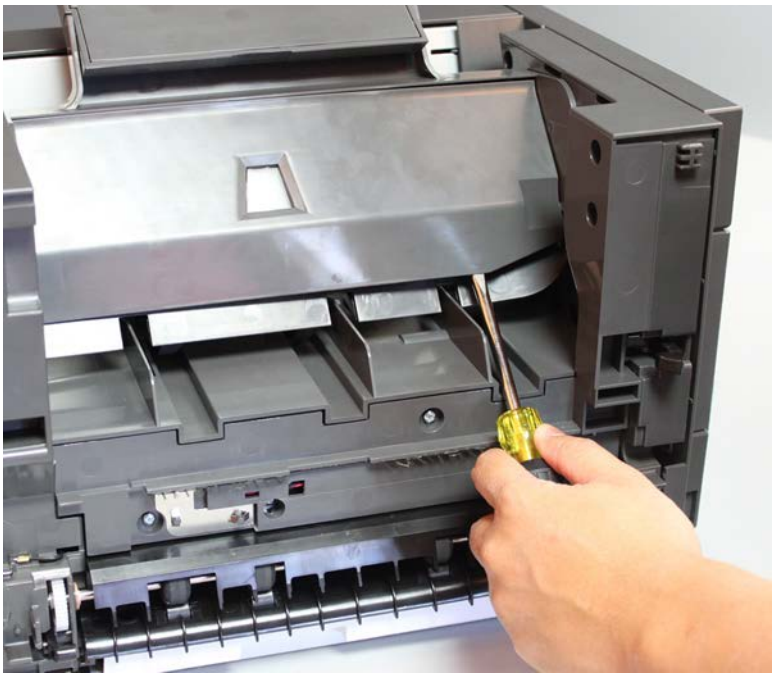
2 Release the latches (A), and then remove the LED lens. Disconnect the cable (B), and then remove the LED.



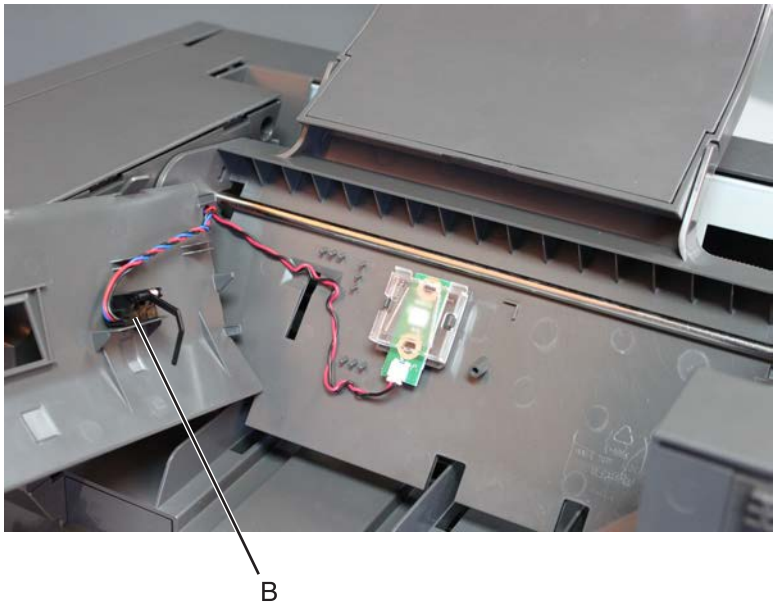
Sensor (staple finisher/offset stacker bin paper present) removal

1 Remove the staple finisher left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

2 With a prying tool, open the LED cover.



3 Release the sensor (B) from the cover.



4 Disconnect the sensor cable from the controller board, and then remove the sensor.

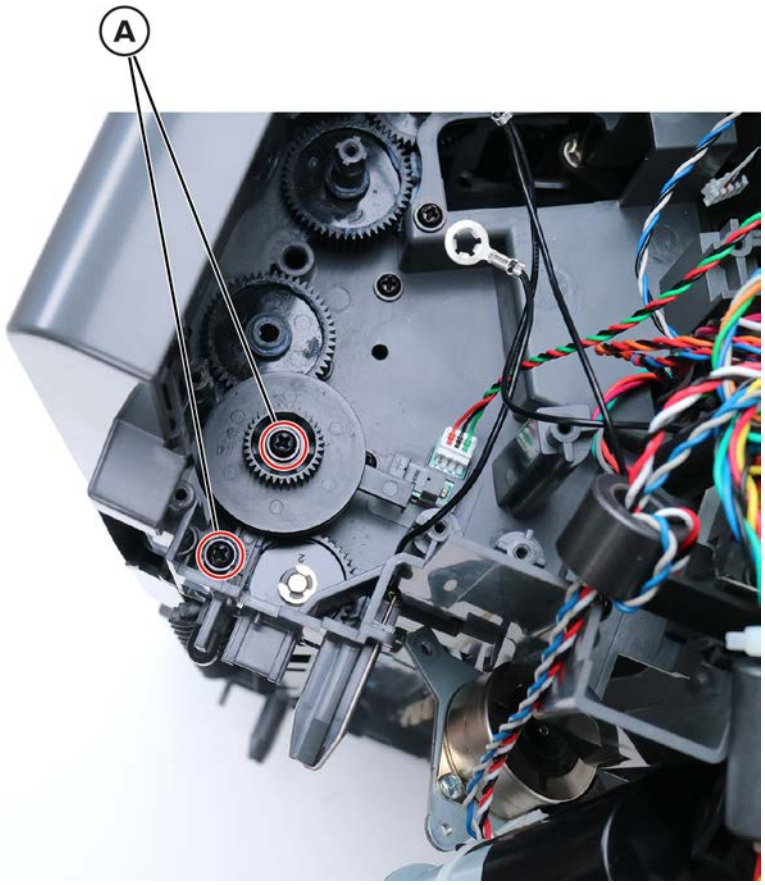
Staple finisher/offset stacker diverter plunger assembly removal

1 Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.

2 Remove the interface cable. See **“Staple finisher/offset stacker interface cable removal” on page 629**.

3 Release the motor bracket. See **“Motor (staple finisher/offset stacker transport) removal” on page 633**.

4 Remove the two screws (A).



5 Remove the plunger.

Staple finisher/offset stacker drive gear assembly removal

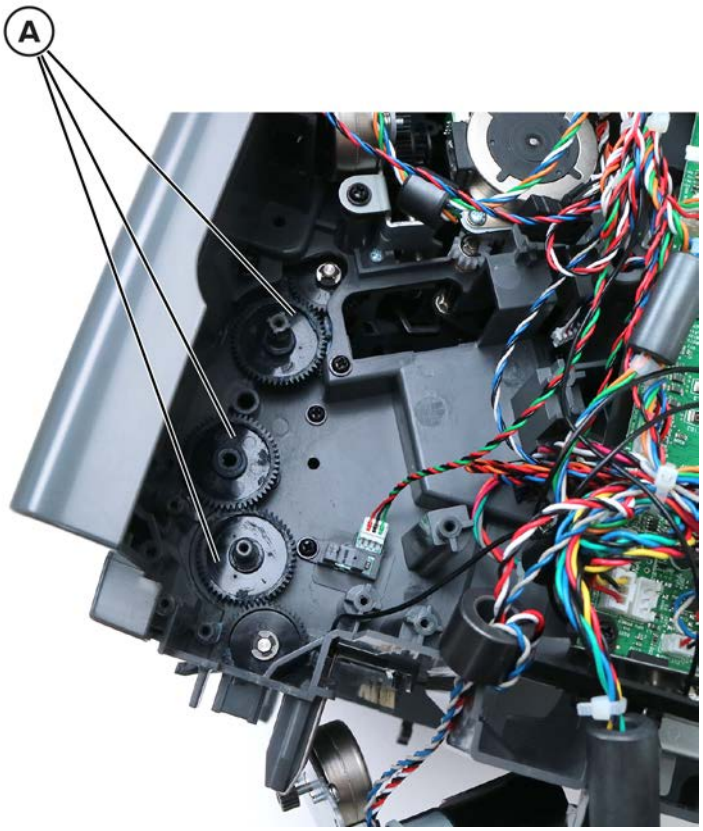
1 Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.

2 Remove the interface cable. See **“Staple finisher/offset stacker interface cable removal” on page 629**.

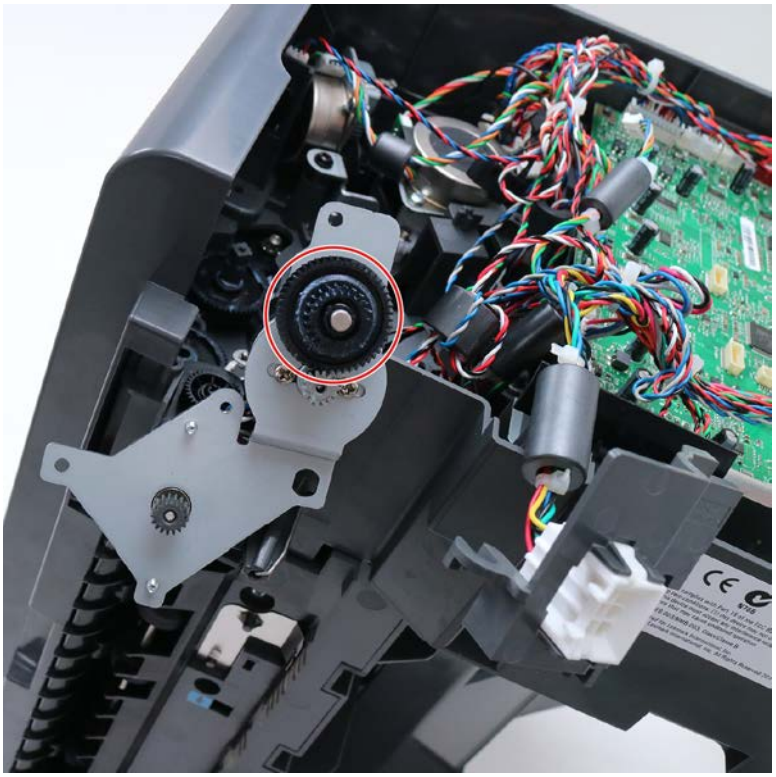
3 Release the motor bracket. See **“Motor (staple finisher/offset stacker transport) removal” on page 633**.

4 Remove the diverter plunger assembly. See **“Staple finisher/offset stacker diverter plunger assembly removal” on page 637**.

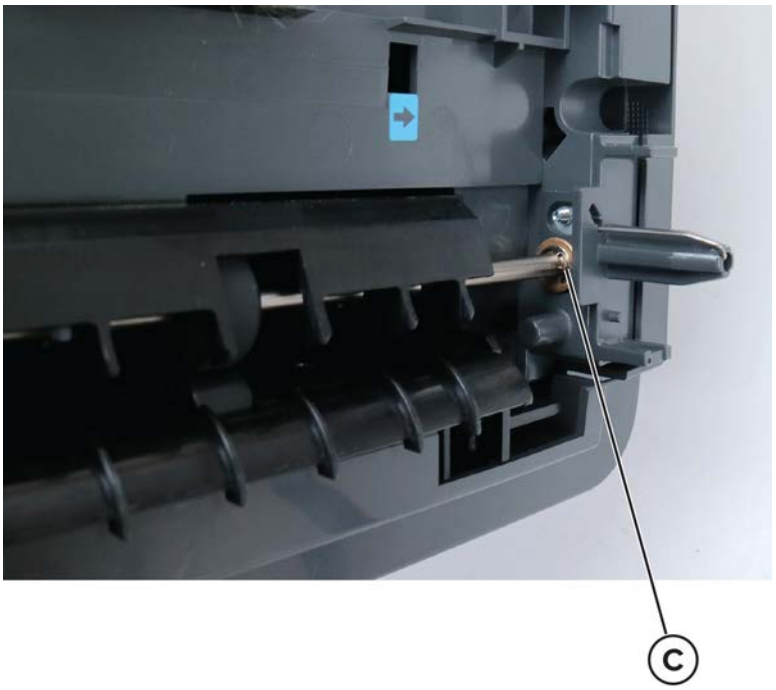
5 Remove the three gears (A).



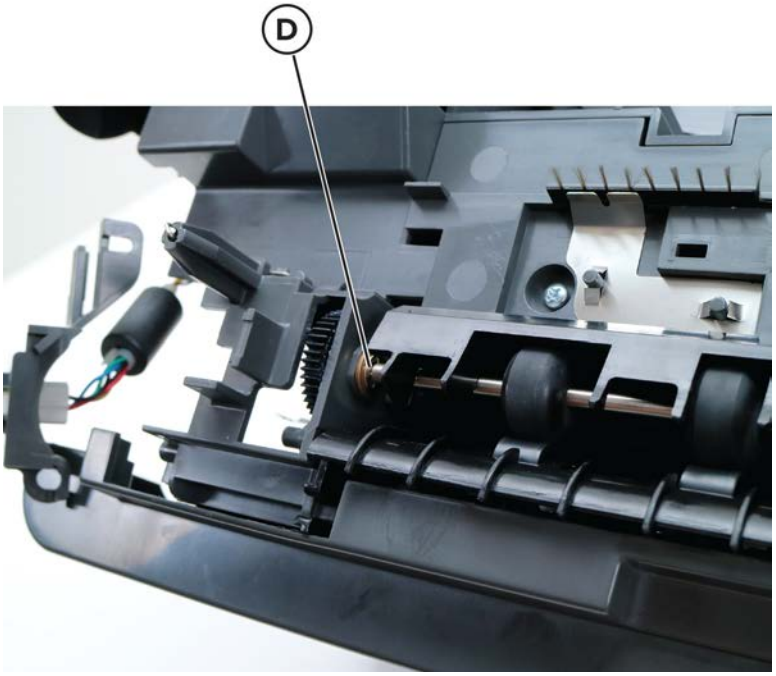
6 Remove the gear behind the motor bracket.



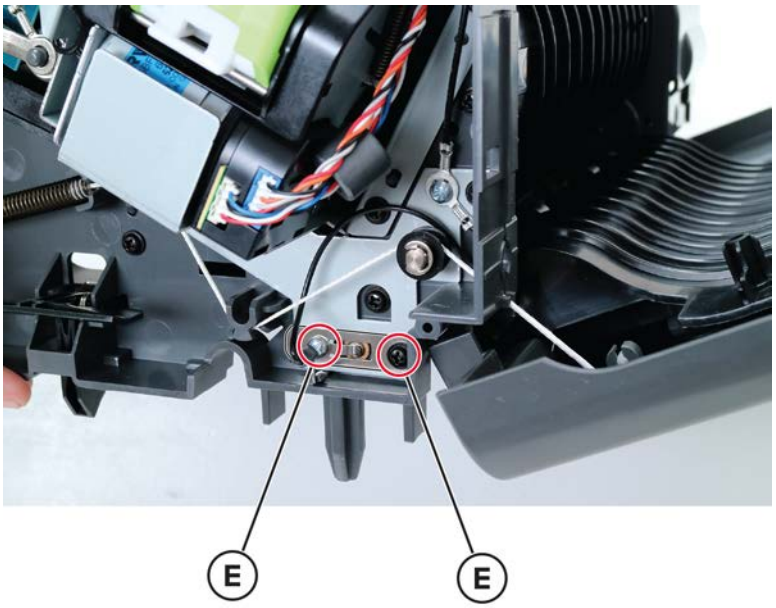
7 Remove the E-clip (C).



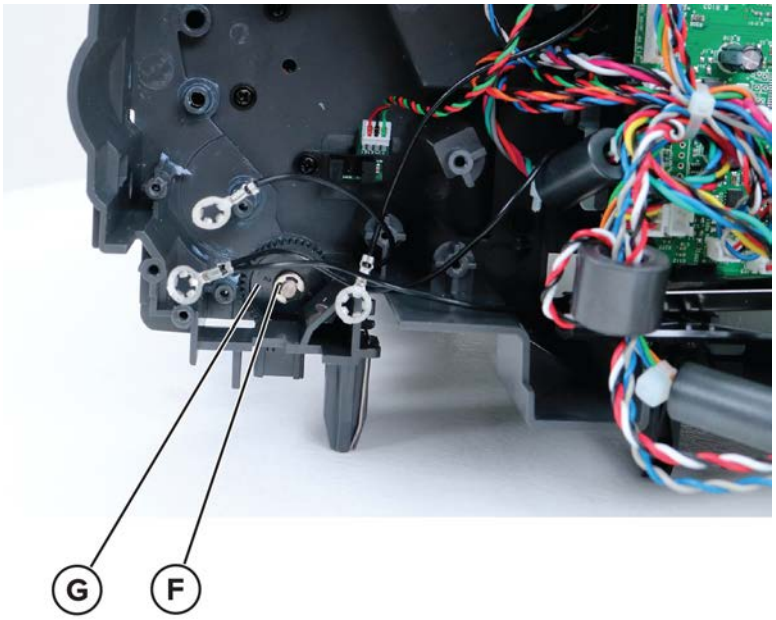
8 Remove the E-clip (D).



9 Remove the two screws (E), and then remove the plate.

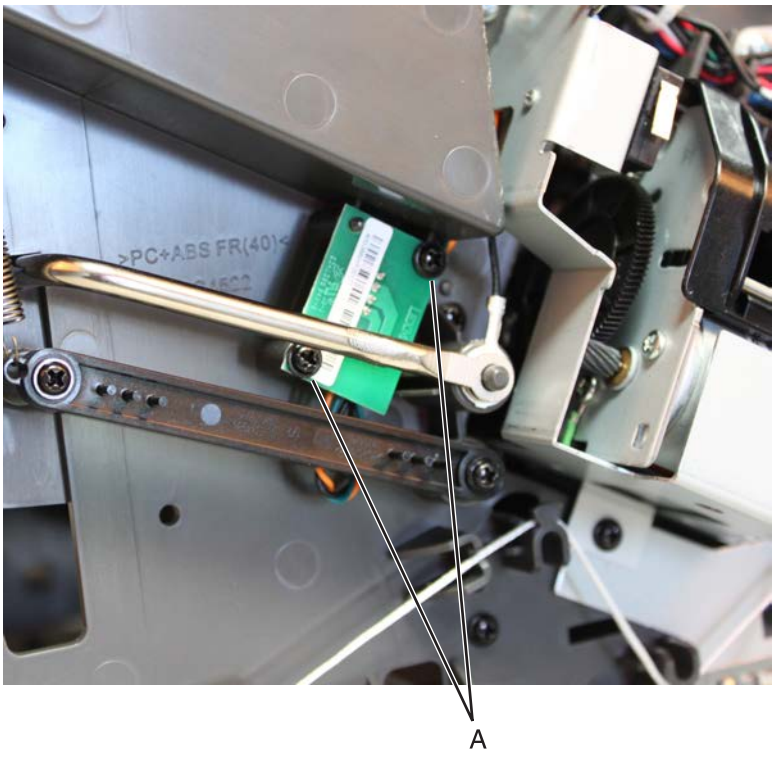


10 Remove the E-clip (F), and then remove the gear (G).



Sensor (staple finisher/offset stacker bin full send) removal

1. Remove the right cover. See **"Stapler right cover removal" on page 681**.
2. Remove the two screws (A), and then release the sensor.



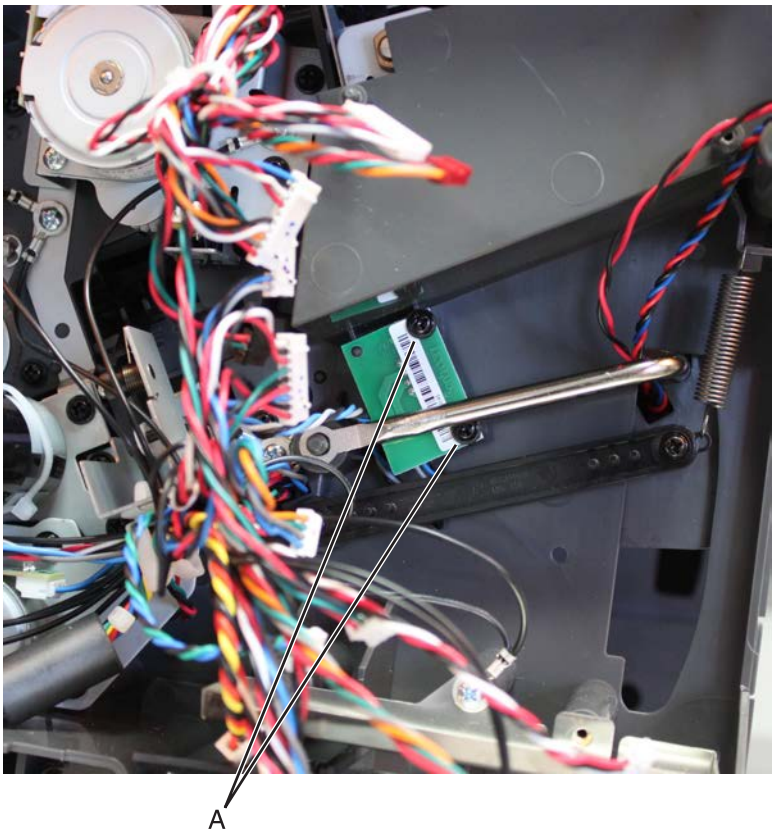
3 Disconnect the cable (B), and then remove the sensor.

Sensor (staple finisher/offset stacker bin full receive) removal

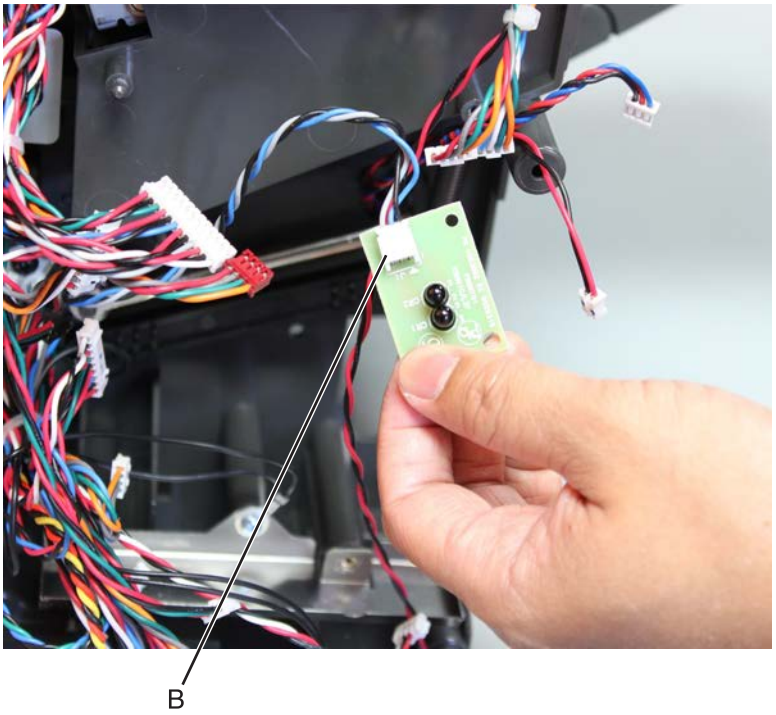
1 Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

2 Remove the controller board. See **"Staple finisher/offset stacker controller board removal" on page 627**.

3 Remove the two screws (A), and then release the sensor.

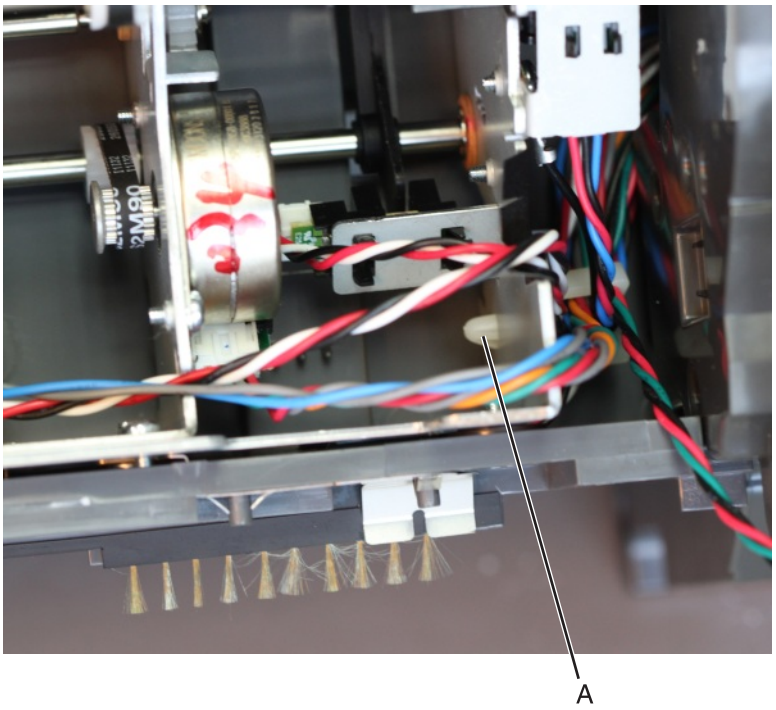


4 Disconnect the cable (B), and then remove the sensor.

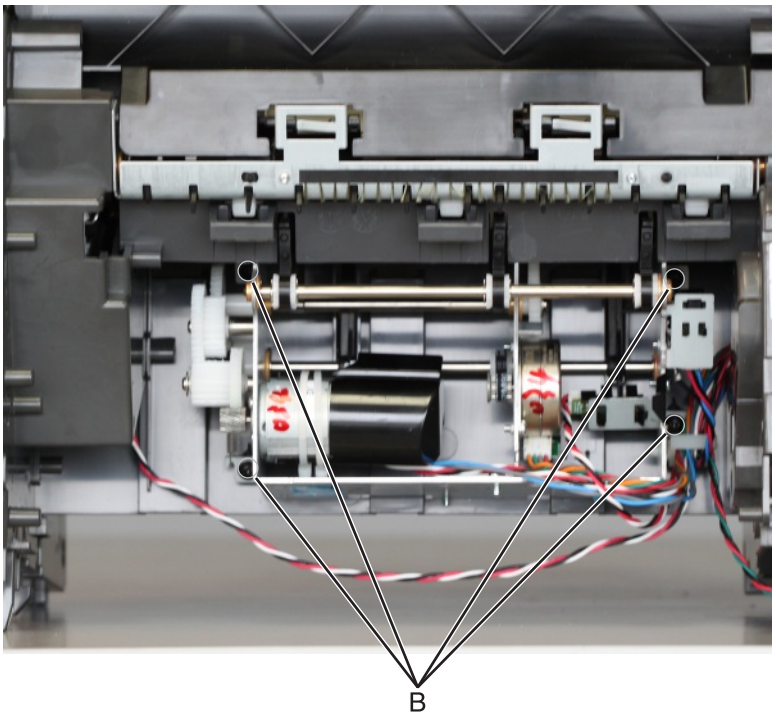


Sensor (staple finisher/offset stacker bin clamp) removal

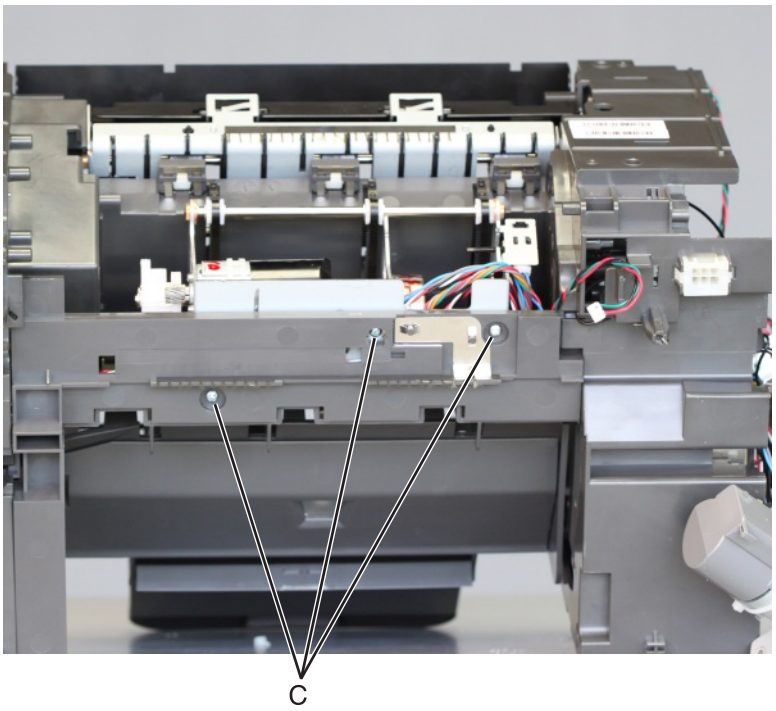
1. Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.
2. Remove the right cover. See **“Stapler right cover removal” on page 681**.
3. Remove the diverter plunger assembly. See **“Staple finisher/offset stacker diverter plunger assembly removal” on page 637**.
4. Remove the drive gear assembly. See **“Staple finisher/offset stacker drive gear assembly removal” on page 638**.
5. Remove the entrance roller. See **“Staple finisher/offset stacker entrance roller removal” on page 669**.
6. Remove the chute assembly. See **“Staple finisher/offset stacker chute assembly removal” on page 671**.
7. Remove the cable holder (A) from the frame.



8 Remove the four screws (B).



9 From the bottom side, remove the three screws (C).

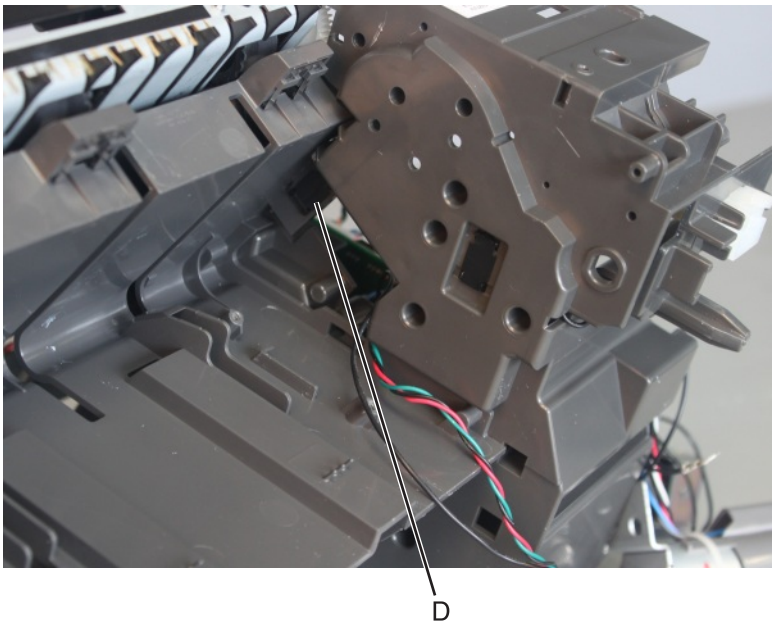


10 Release the cables off their guides.

Note: Pay attention to the original route of the cables.

11 Pull the motor assembly away from the machine.

12 Remove the sensor retainer (D), and then release the sensor latches.



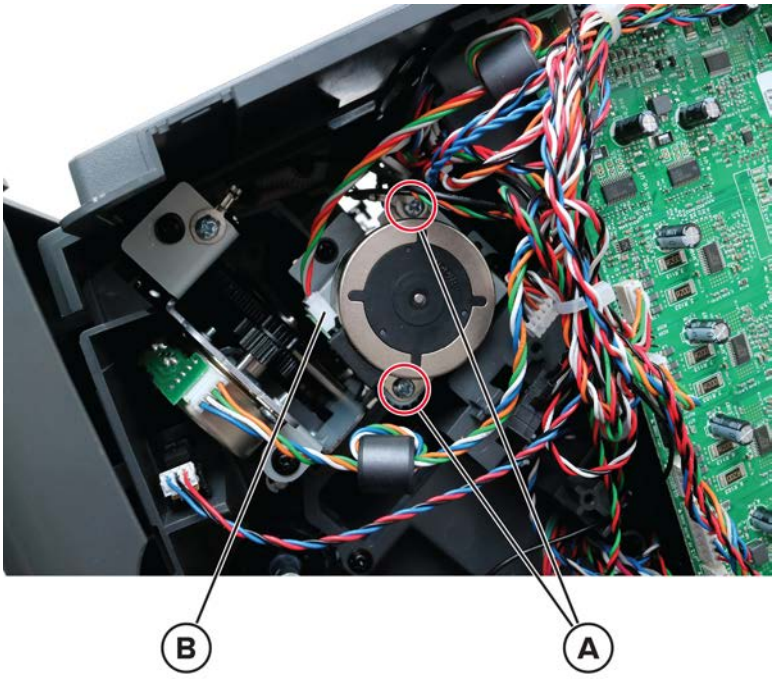
13 From the other side of the frame, disconnect the sensor cable, and then remove the sensor.

Staple finisher/offset stacker paddle gear removal

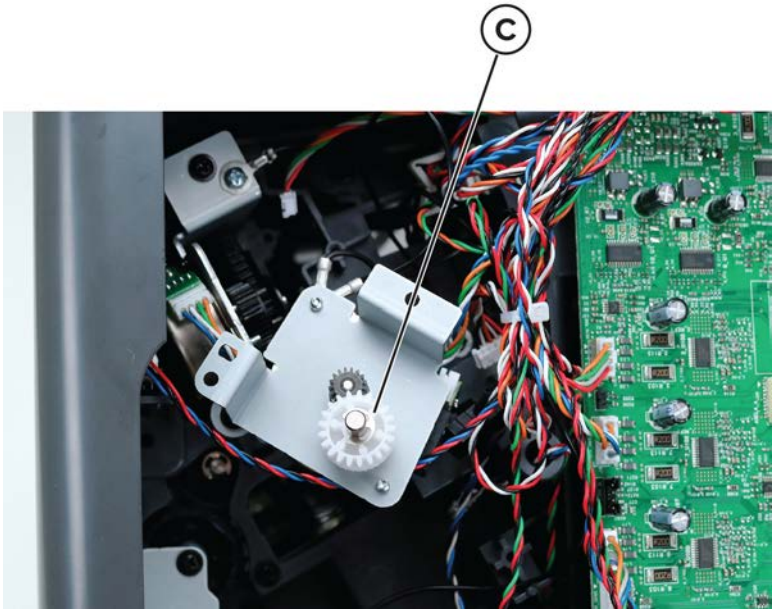
1 Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

2 Remove the interface cable. See **"Staple finisher/offset stacker interface cable removal" on page 629**.

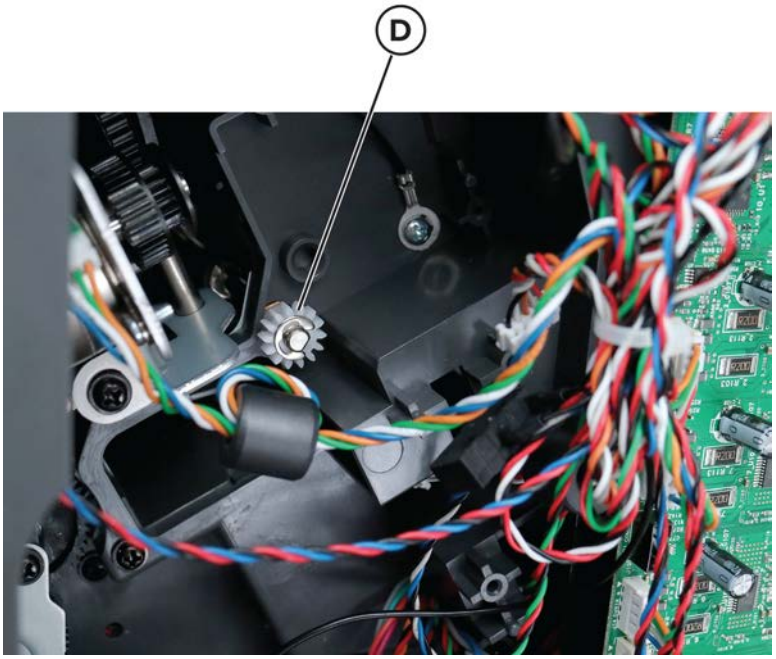
3 Remove the two screws (A), disconnect the cable (B), and then release the motor bracket.



4 Behind the motor bracket, remove the gear (C).

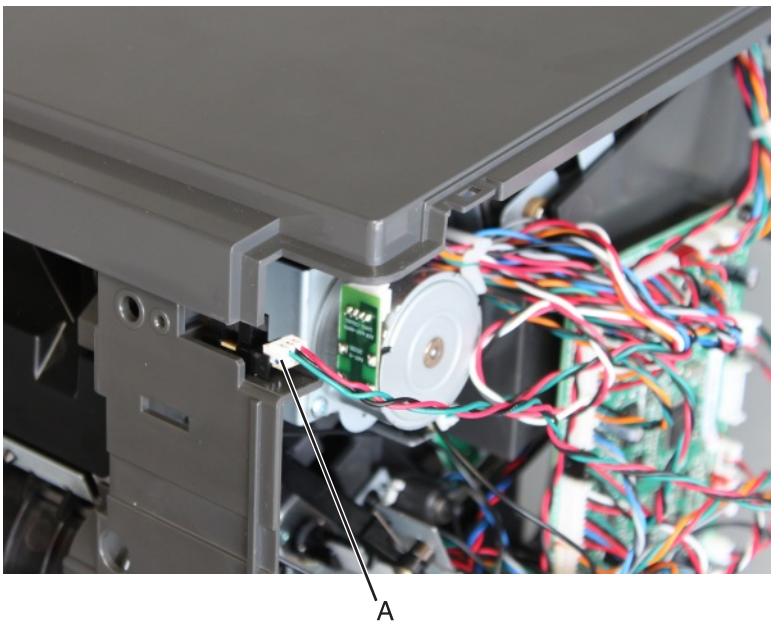


5 Remove the gear (D).



Sensor (staple finisher/offset stacker rear door interlock) removal

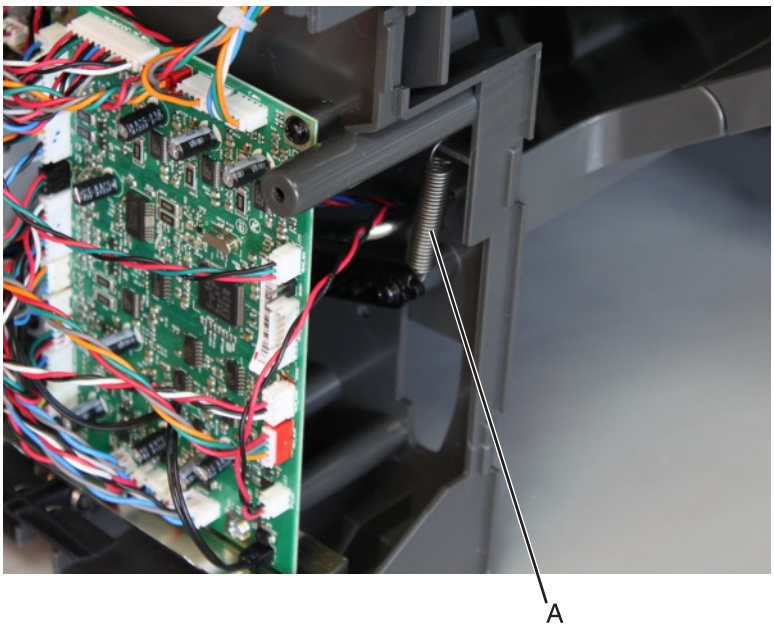
1. Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.
2. Disconnect the sensor cable (A).

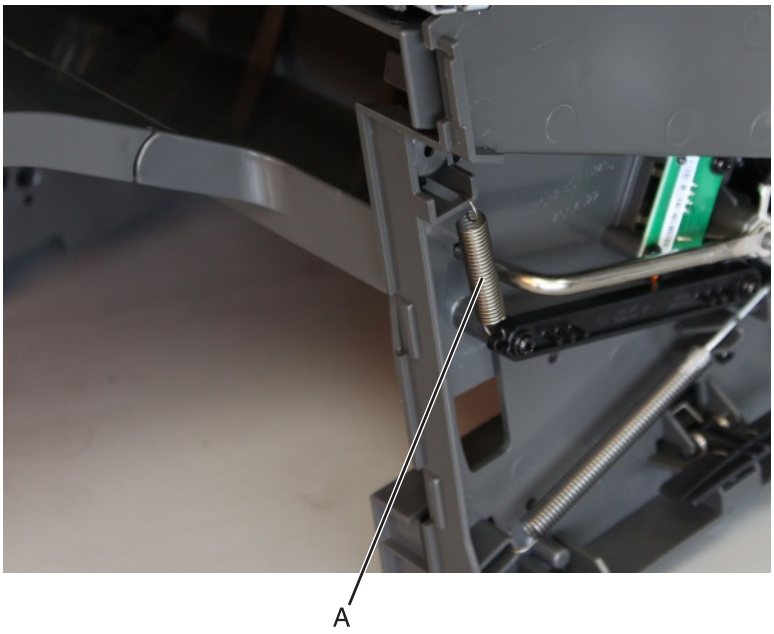


3. Release the latches, and then remove the sensor.

Staple finisher/offset stacker bin spring removal

1. Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.
2. Remove the right cover. See **"Stapler right cover removal" on page 681**.
3. Unhook the spring (A), and then remove it.

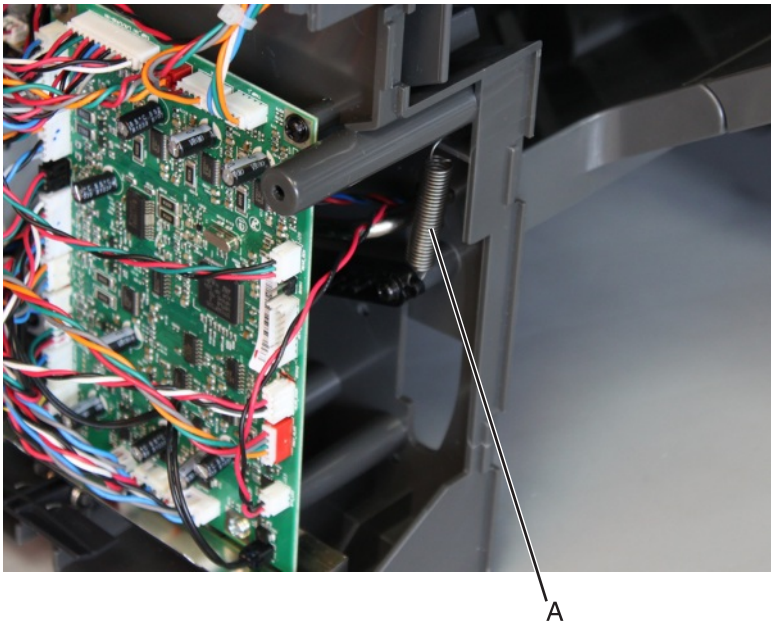




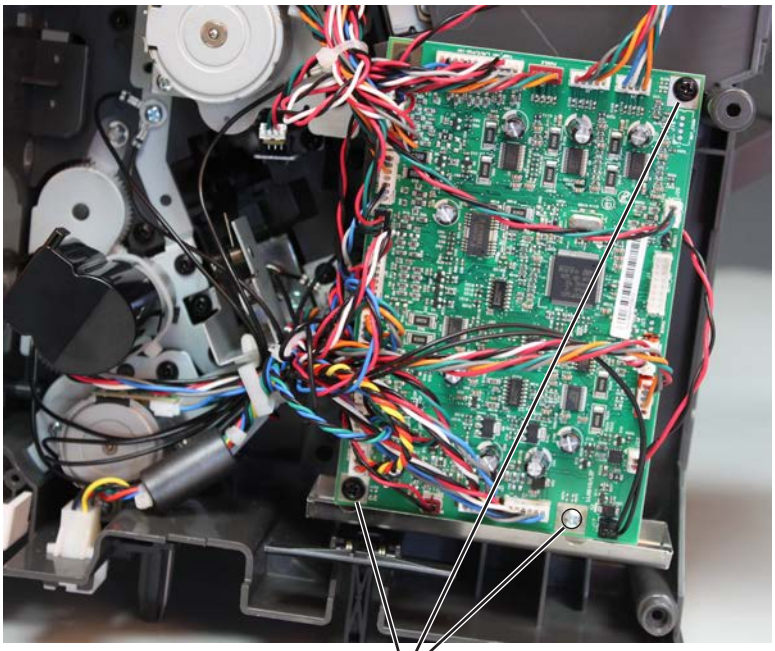
Staple finisher/offset stacker bin link assembly removal

Left link removal

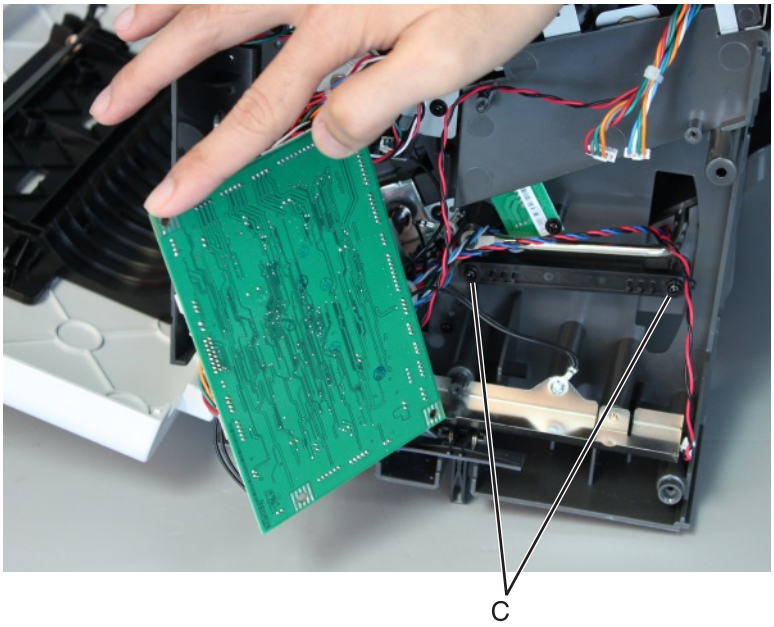
1. Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.
2. Unhook the spring (A), and then release the link.



3 Remove the three screws (B), and then release the controller board. Move the board to access the link behind it.



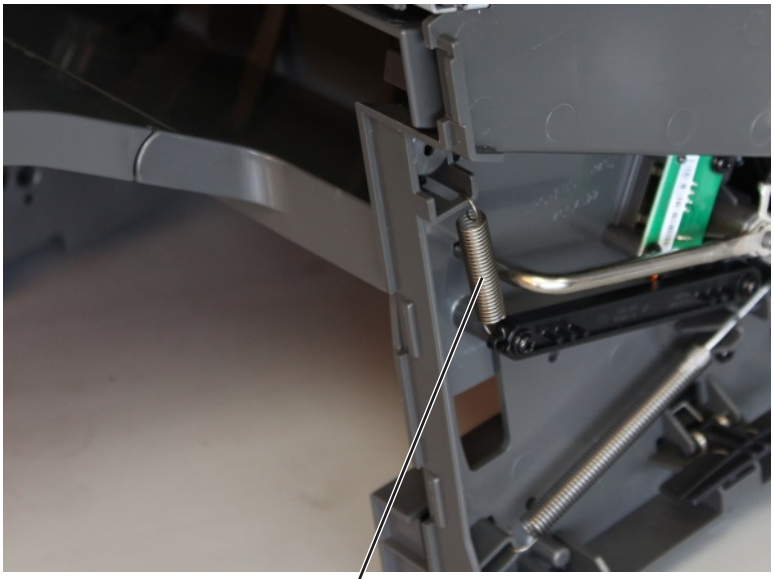
4 Remove the two screws (C), and then remove the link.



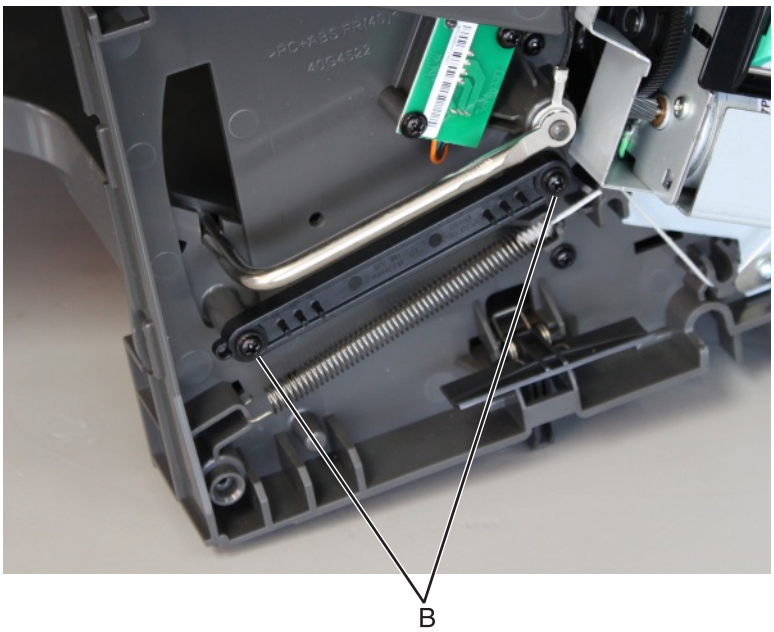
Right link removal

1 Remove the right cover. See **“Stapler right cover removal” on page 681**.

2 Unhook the spring (A), and then release the link.

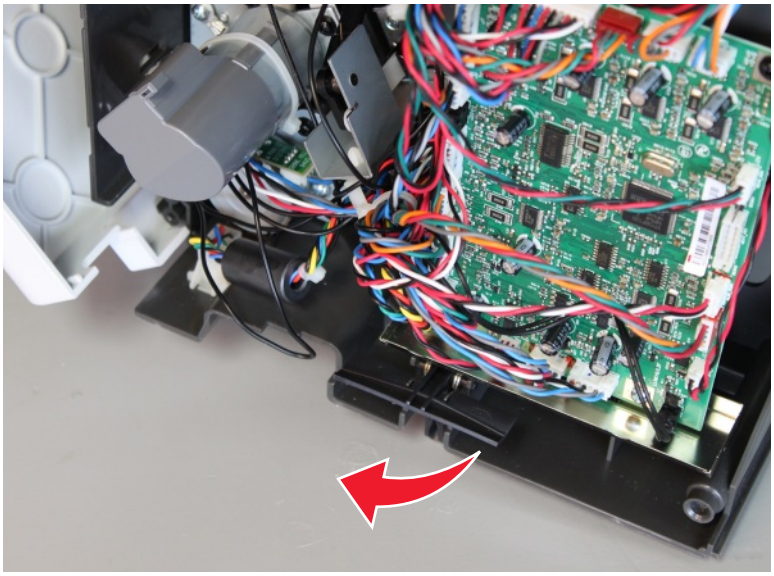


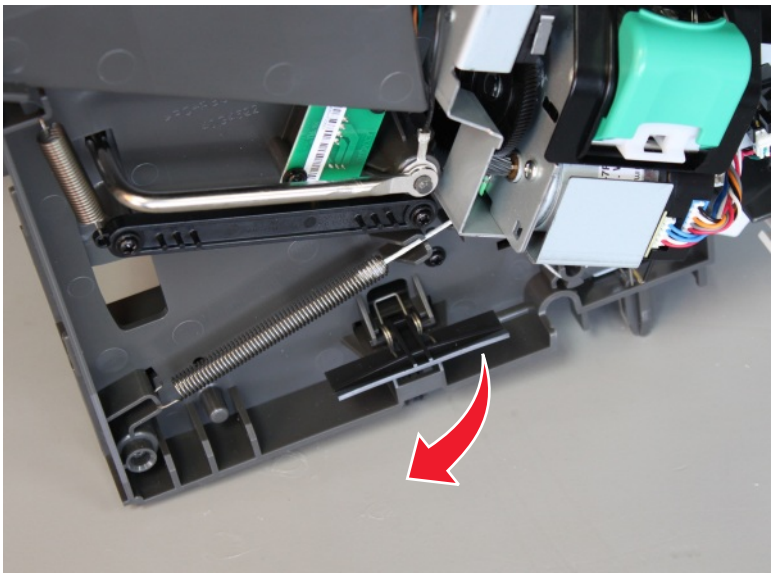
3 Remove the two screws (B), and then remove the link.



Staple finisher/offset stacker latch removal

1. Remove the left cover or right cover. See **"Staple finisher/offset stacker left cover removal" on page 623** or **"Stapler right cover removal" on page 681**.
2. Pull the latch off the machine.





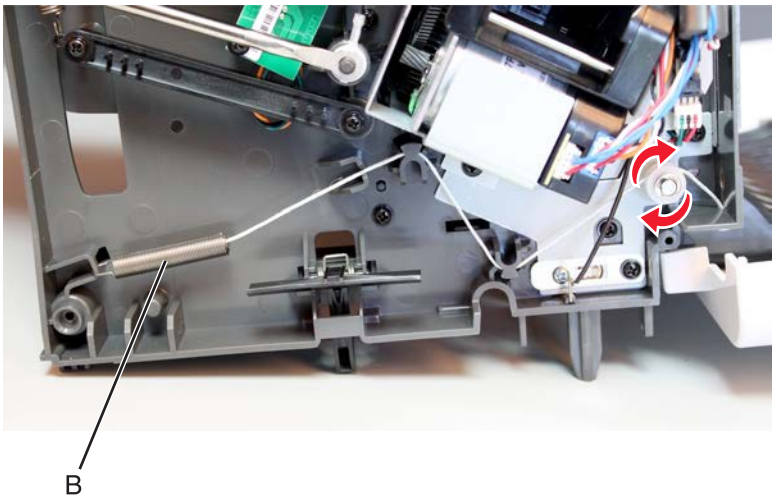
Staple finisher/offset stacker spring with string removal

1 Open the rear door, and detach the string (A).

2 Remove the right cover. See **"Stapler right cover removal" on page 681**.

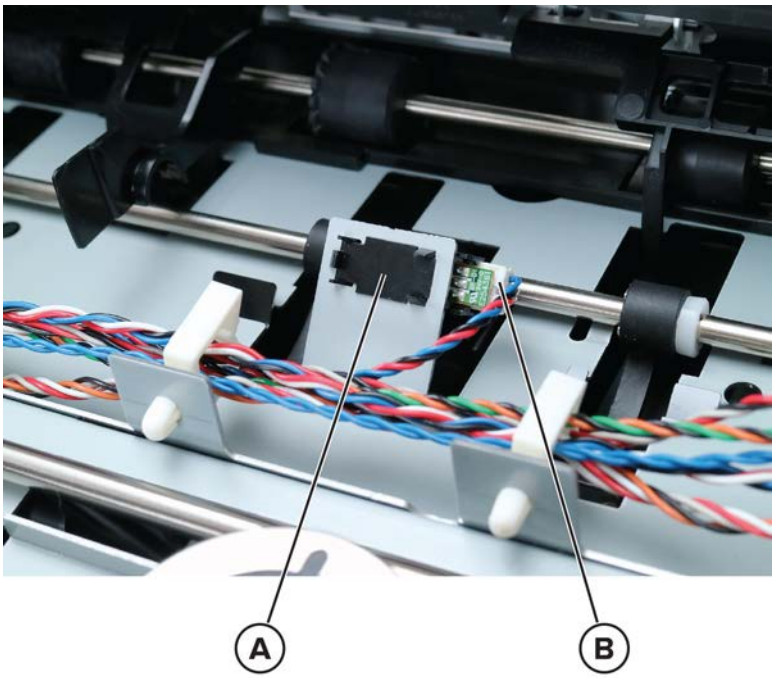
3 Remove the spring (B) with string.

Installation note: Pay attention to the original position of the string. The string on the pulley is wound clockwise.



Sensor (staple finisher/offset stacker paddle) removal

1. Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.
2. Remove the right cover. See **"Stapler right cover removal" on page 681**.
3. Remove the top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**.
4. Remove the sensor retainer (A), and then disconnect the cable (B).

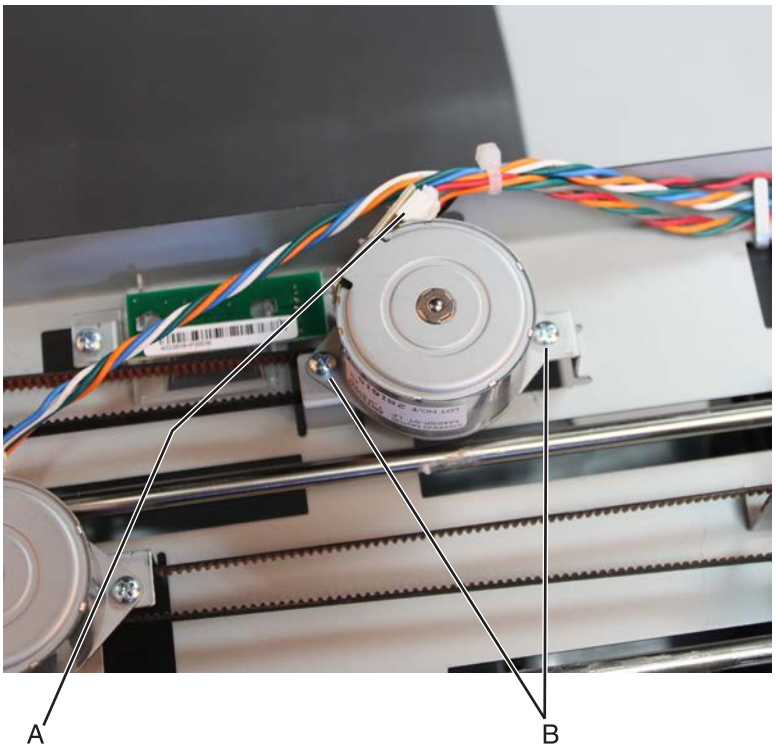


5. Remove the sensor.

Motor (staple finisher/offset stacker right tamper) removal

1. Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.
2. Remove the right cover. See **"Stapler right cover removal" on page 681**.
3. Remove the top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**.

4 Disconnect the cable (A), and then remove the two screws (B).



5 Remove the motor.

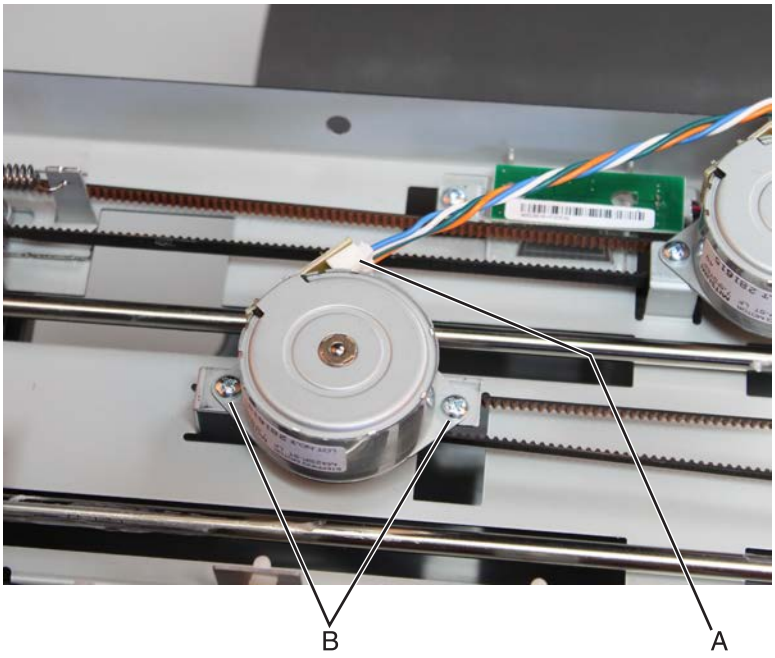
Motor (staple finisher/offset stacker left tamper) removal

1 Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.

2 Remove the right cover. See **“Stapler right cover removal” on page 681**.

3 Remove the top cover. See **“Staple finisher/offset stacker top cover removal” on page 625**.

4 Disconnect the cable (A), and then remove the two screws (B).



5 Remove the motor.

Staple finisher/Offset stacker tamper drive belt removal

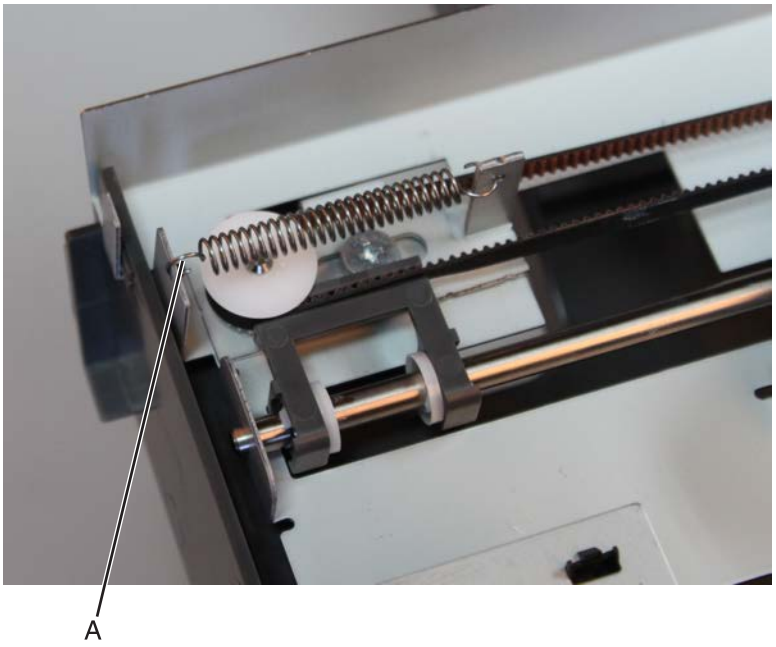
1 Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

2 Remove the right cover. See **"Stapler right cover removal" on page 681**.

3 Remove the top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**.

4 Remove the motor engaged to the belt. See **"Motor (staple finisher/offset stacker right tamper) removal" on page 655** or **"Motor (staple finisher/offset stacker left tamper) removal" on page 656**.

5 Unhook the spring (A) to loosen and release the belt.



6 Remove the belt.

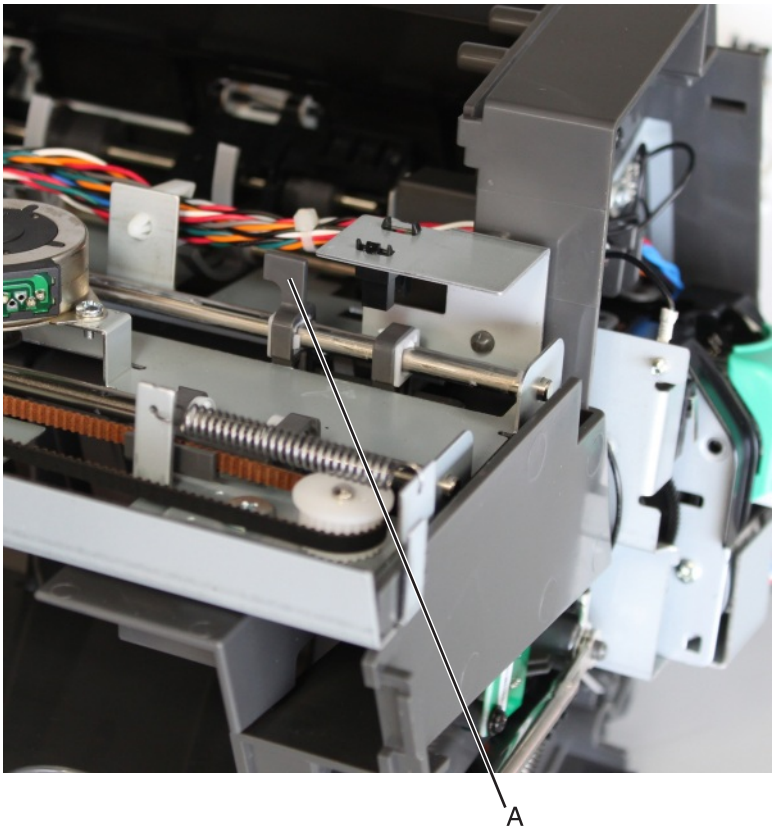
Sensor (staple finisher/offset stacker right tamper) removal

1 Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

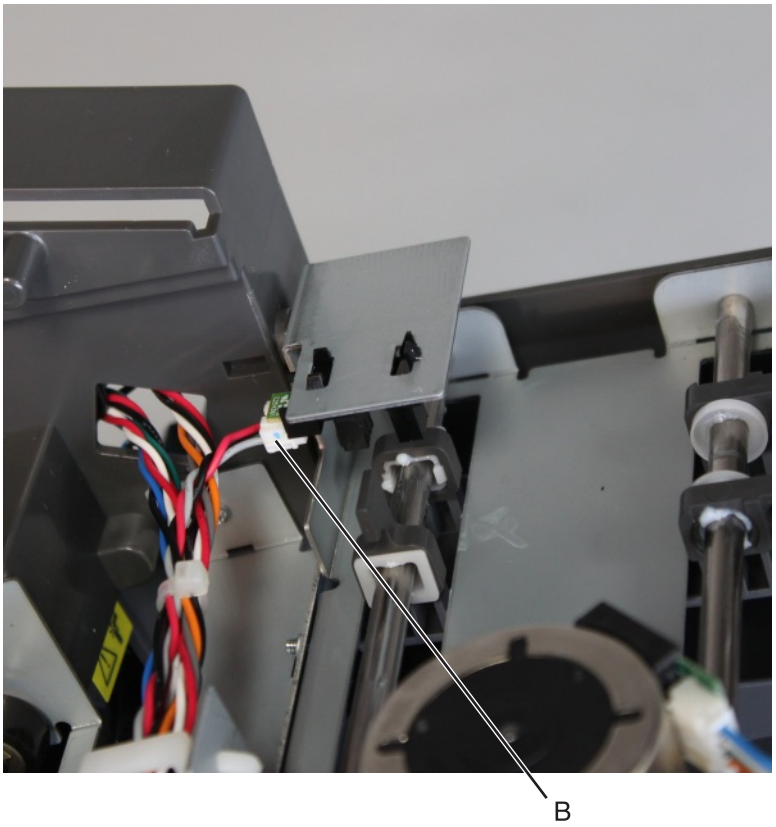
2 Remove the right cover. See **"Stapler right cover removal" on page 681**.

3 Remove the top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**.

4 Slightly move the right tamper to clear the sensor flag (A) from the sensor.



5 Disconnect the sensor cable (B), and then remove the sensor.



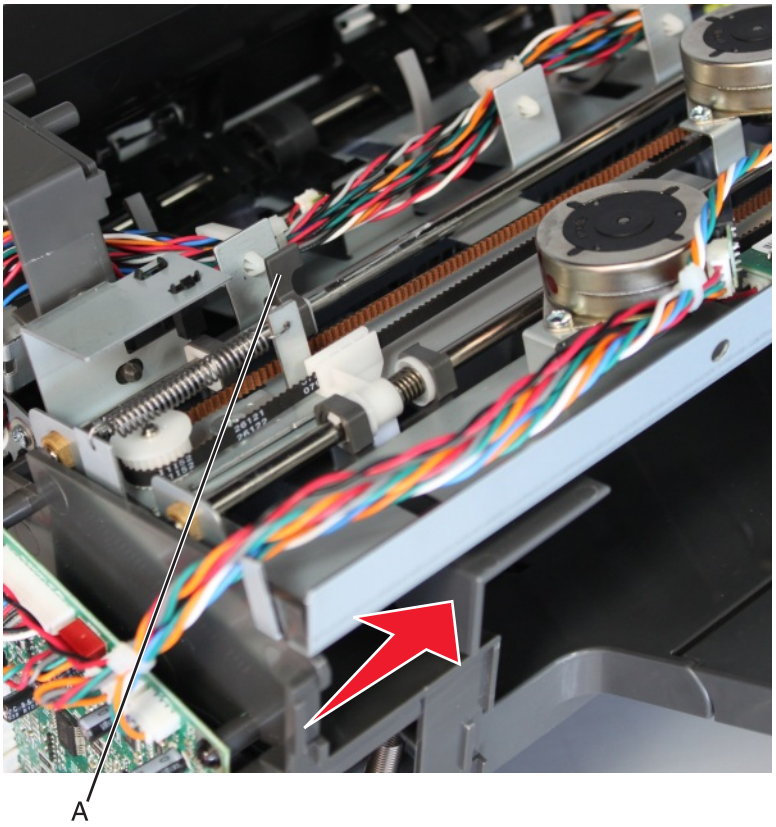
Sensor (staple finisher/offset stacker left tamper) removal

1 Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

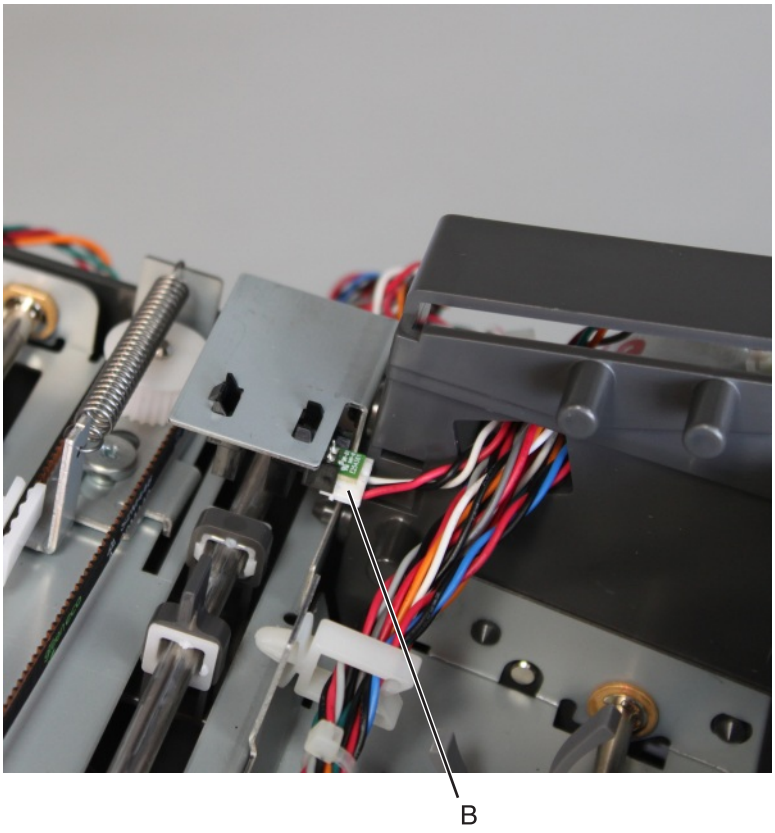
2 Remove the right cover. See **"Stapler right cover removal" on page 681**.

3 Remove the top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**.

4 Move the left tamper to clear the sensor flag (A) from the sensor.



5 Disconnect the sensor cable (B), and then remove the sensor.



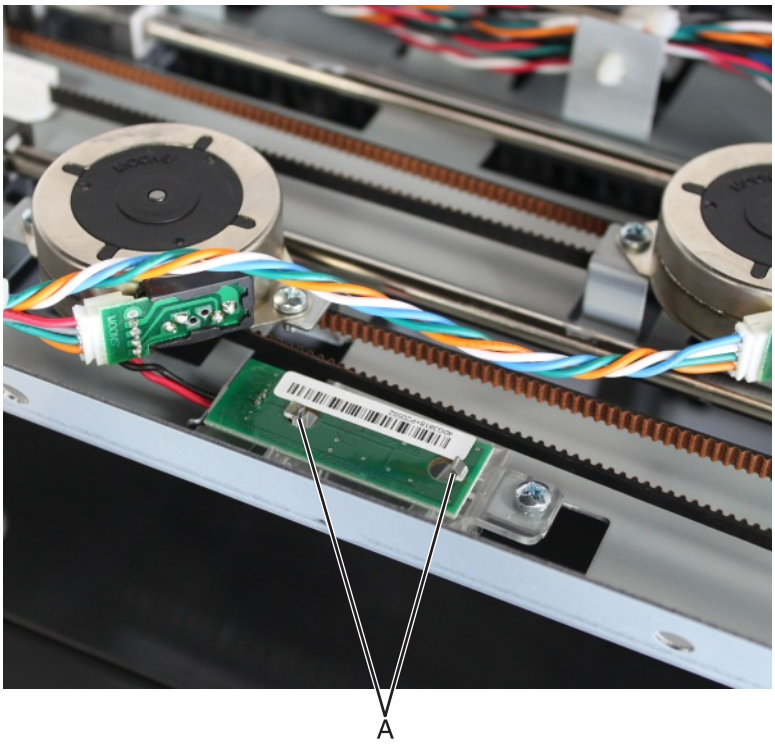
Staple finisher/offset stacker bin LED removal

1 Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

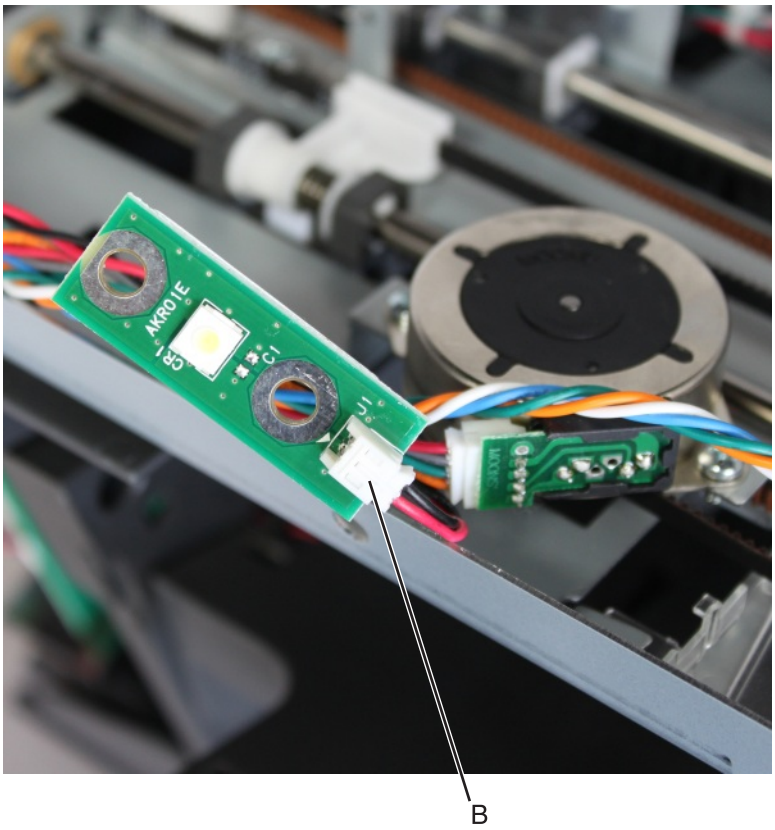
2 Remove the right cover. See **"Stapler right cover removal" on page 681**.

3 Remove the top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**.

4 Release the latches (A), and then release the LED.

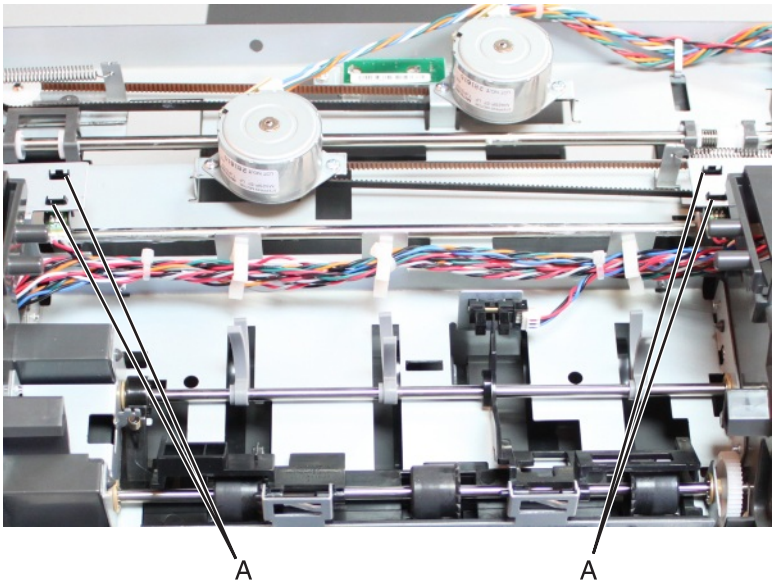


5 Disconnect the cable (B), and then remove the LED.



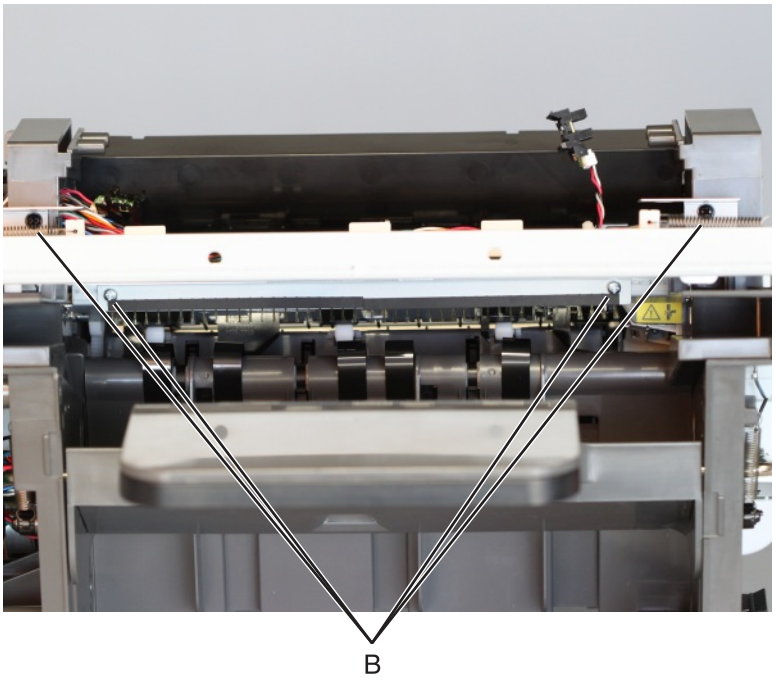
Staple finisher/offset stacker tamper aligner removal

1. Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.
2. Remove the right cover. See **“Stapler right cover removal” on page 681**.
3. Remove the top cover. See **“Staple finisher/offset stacker top cover removal” on page 625**.
4. Disconnect the tamper cables J2, J4, and J6 from the controller board.
5. Release the latches (A), and then release the sensors.

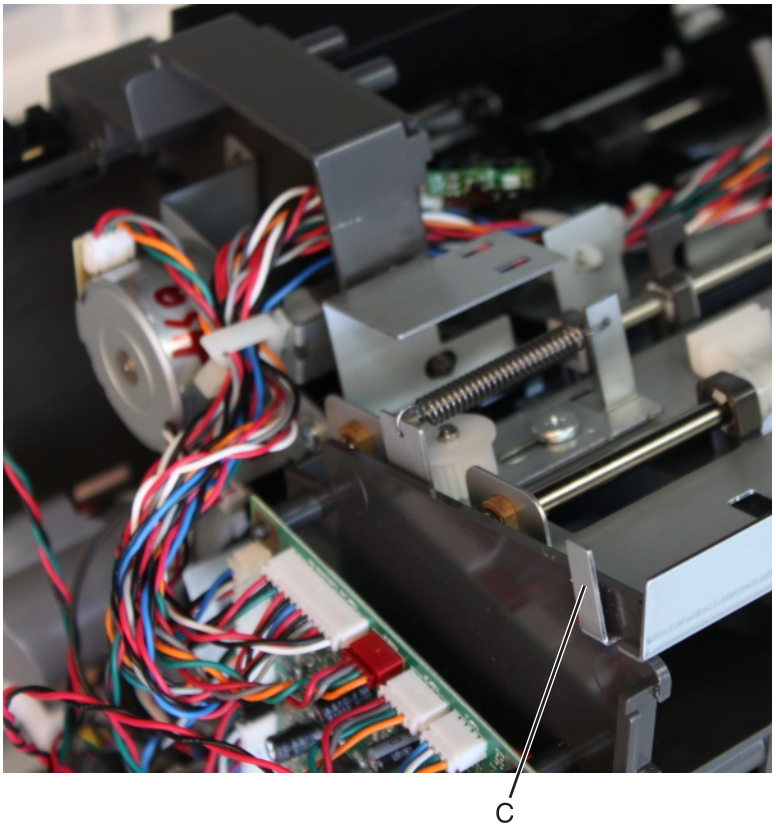


6. Remove the bin LED. See **“Staple finisher/offset stacker bin LED removal” on page 662**.
7. Remove the tamper motors. See **“Motor (staple finisher/offset stacker left tamper) removal” on page 656** and **“Motor (staple finisher/offset stacker right tamper) removal” on page 655**.
8. Remove the tamper drive belts. See **“Staple finisher/Offset stacker tamper drive belt removal” on page 657**.

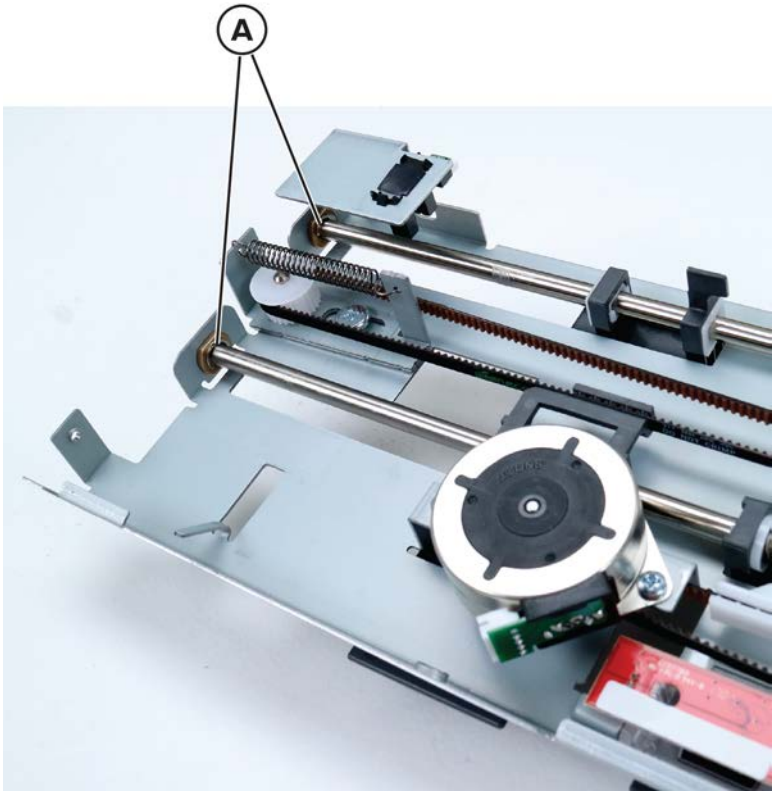
9 Remove the four screws (B), and then remove the tamper assembly.



Installation note: Make sure that the tab (C) is correctly inserted into its designated slot.



10 Release the tamper belts, remove the two E-clips (A), and then release the shafts.



11 Slide the tamper aligner off its shaft.

Staple finisher/offset stacker stack height assembly removal

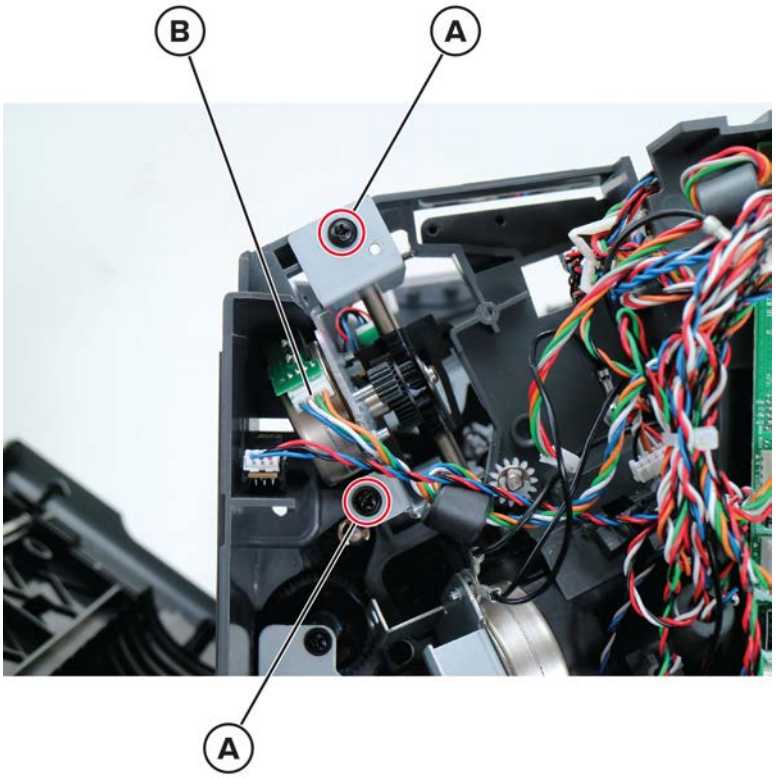
1 Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.

2 Remove the right cover. See **“Stapler right cover removal” on page 681**.

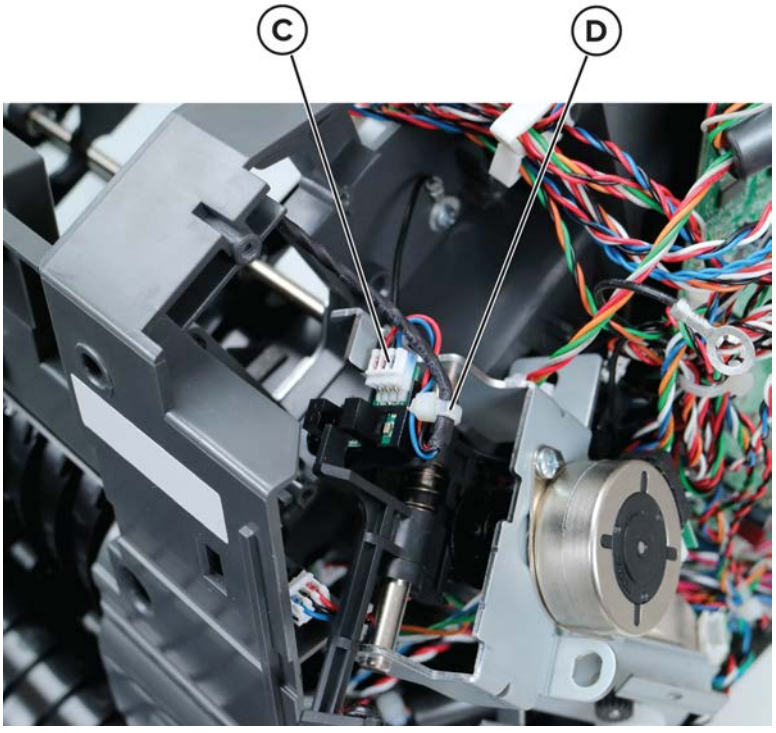
3 Remove the top cover. See **“Staple finisher/offset stacker top cover removal” on page 625**.

4 Release the motor bracket. See **“Staple finisher/offset stacker paddle gear removal” on page 647**.

5 Remove the two screws (A), disconnect the cable (B), and then release the assembly bracket.

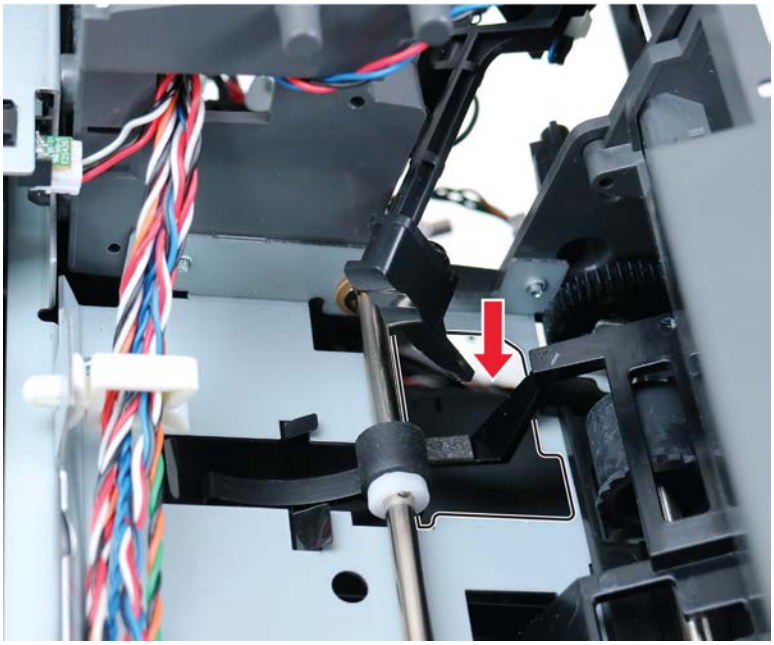


6 Disconnect the cable (C), and then cut the cable tie (D).



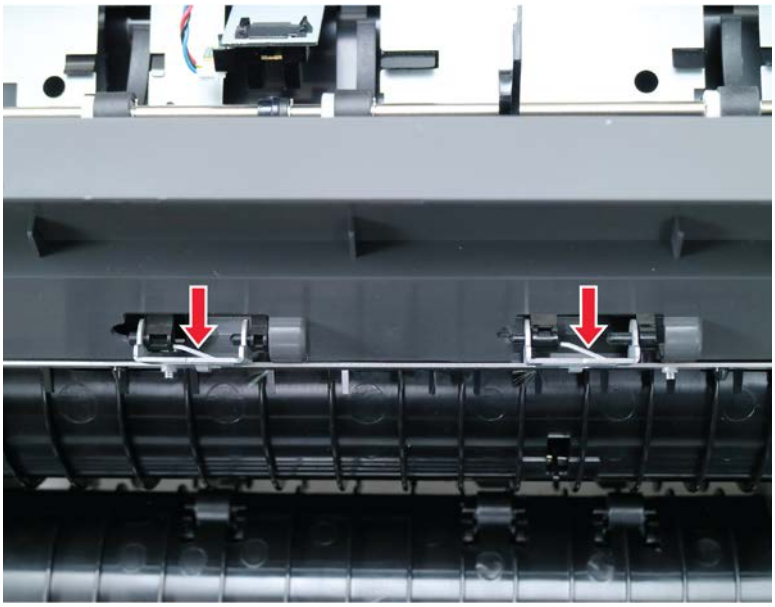
7 Remove the stack height assembly.

Installation note: Make sure that the stack height actuator is inserted properly.



Staple finisher/offset stacker paper stack flap removal

1. Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.
2. Remove the right cover. See **"Stapler right cover removal" on page 681**.
3. Remove the top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**.
4. Press the two locks to release the flap hinges.

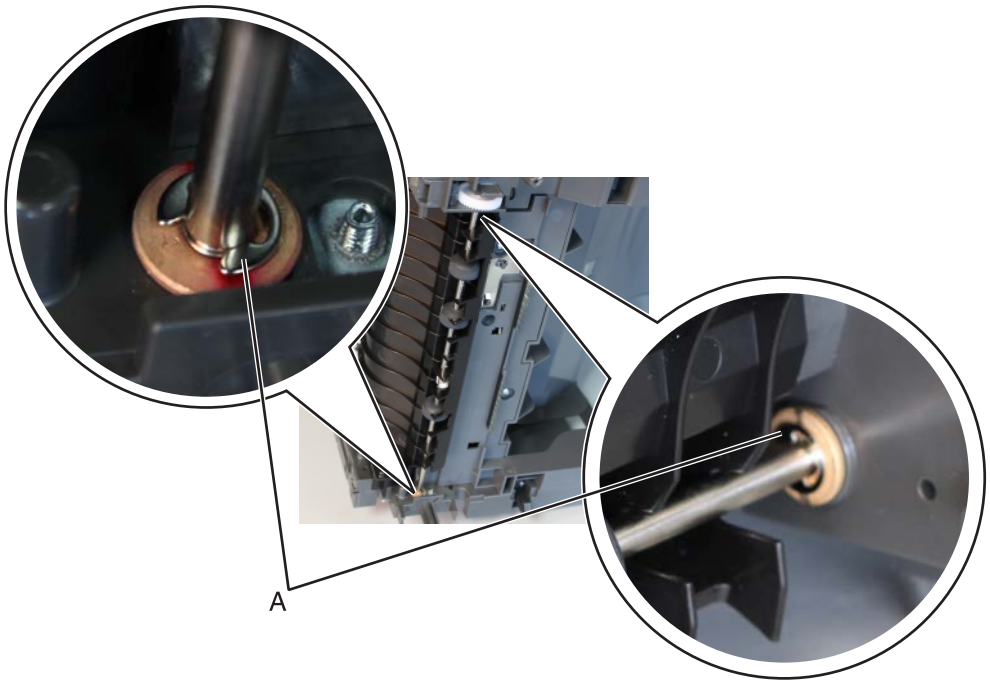


5. Remove the flap.

Staple finisher/offset stacker entrance roller removal

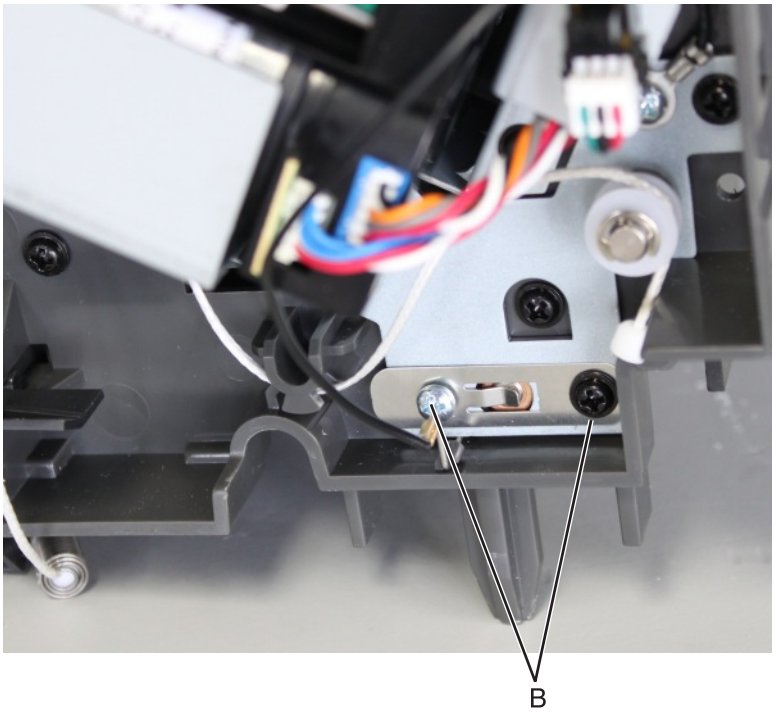
Note: This part is not a FRU.

1. Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.
2. Remove the right cover. See **"Stapler right cover removal" on page 681**.
3. Remove the diverter plunger assembly. See **"Staple finisher/offset stacker diverter plunger assembly removal" on page 637**.
4. Remove the drive gear assembly. See **"Staple finisher/offset stacker drive gear assembly removal" on page 638**.
5. Remove the two E-clips (A).

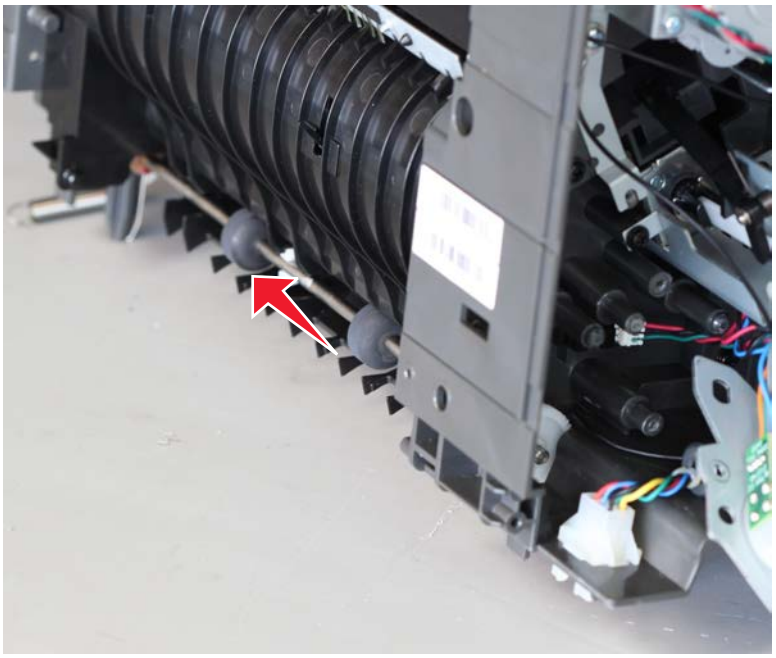


Warning—Potential Damage: Be careful not to lose the E-clips and spacers.

6 Remove the two screws (B), and then remove the grounding plate.

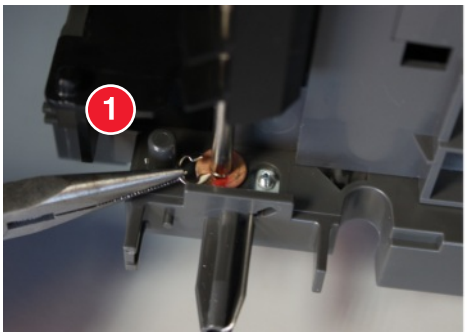


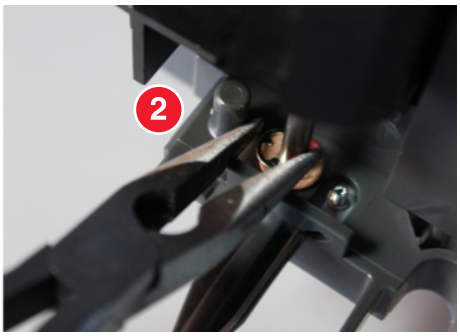
7 Slightly move the shaft to release, and then remove it.



Warning—Potential Damage: Be careful not to lose the bushing and spacers that hold the shaft.

Installation note: To make it less difficult to reinstall the E-clip, use a pair of long-nose pliers to position it onto the shaft, and then lock it in place.

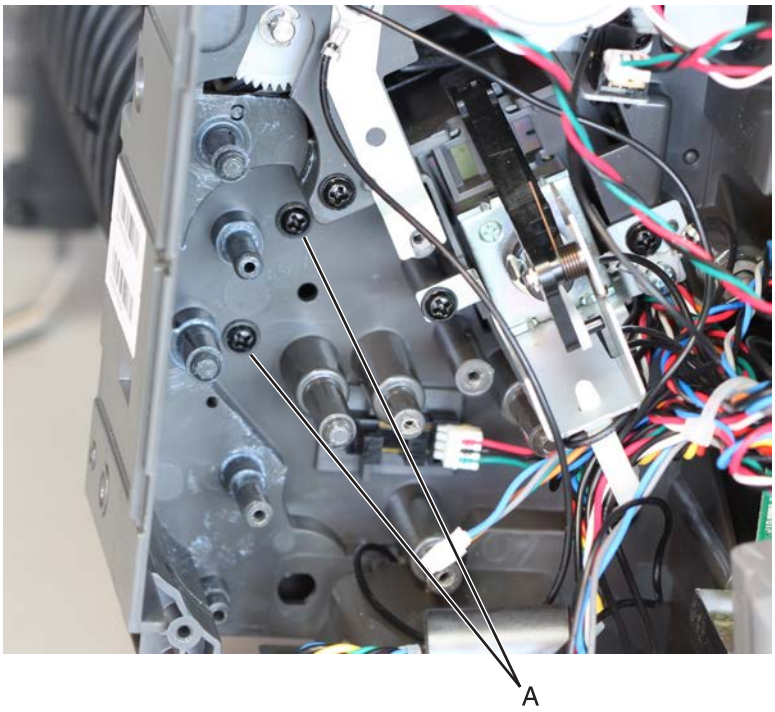




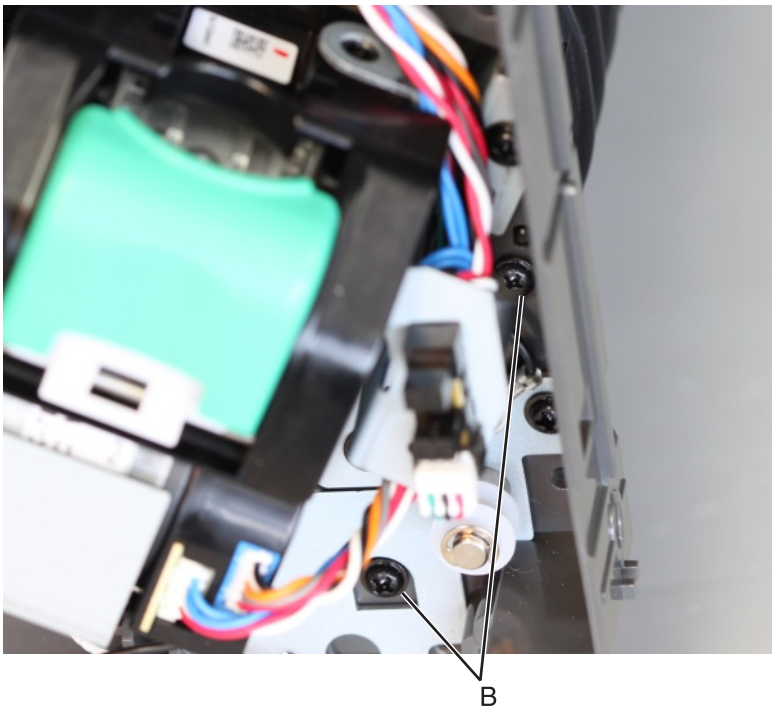
Staple finisher/offset stacker chute assembly removal

Note: This part is not a FRU.

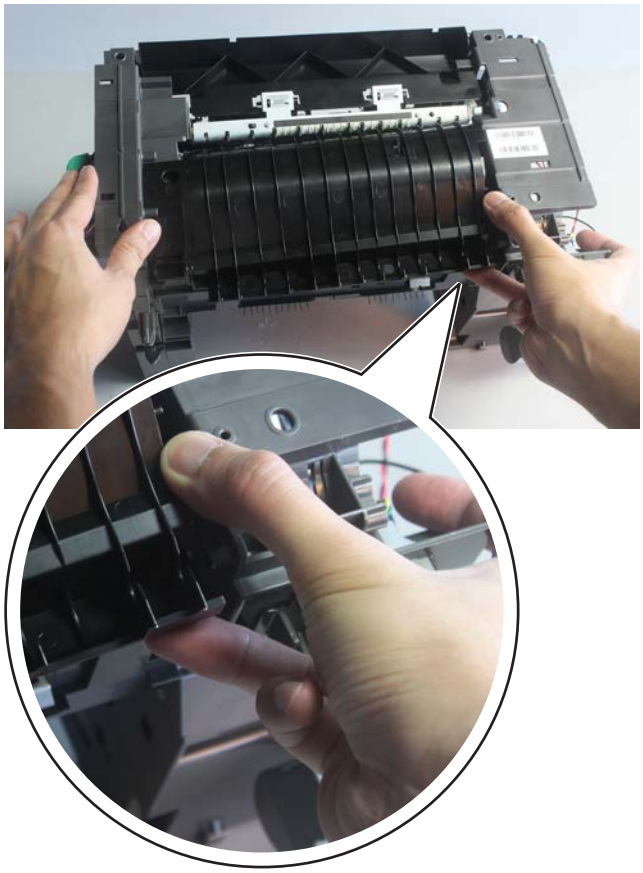
1. Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.
2. Remove the right cover. See **"Stapler right cover removal" on page 681**.
3. Remove the diverter plunger assembly. See **"Staple finisher/offset stacker diverter plunger assembly removal" on page 637**.
4. Remove the drive gear assembly. See **"Staple finisher/offset stacker drive gear assembly removal" on page 638**.
5. Remove the entrance roller. See **"Staple finisher/offset stacker entrance roller removal" on page 669**.
6. From the left side, remove the two screws (A).



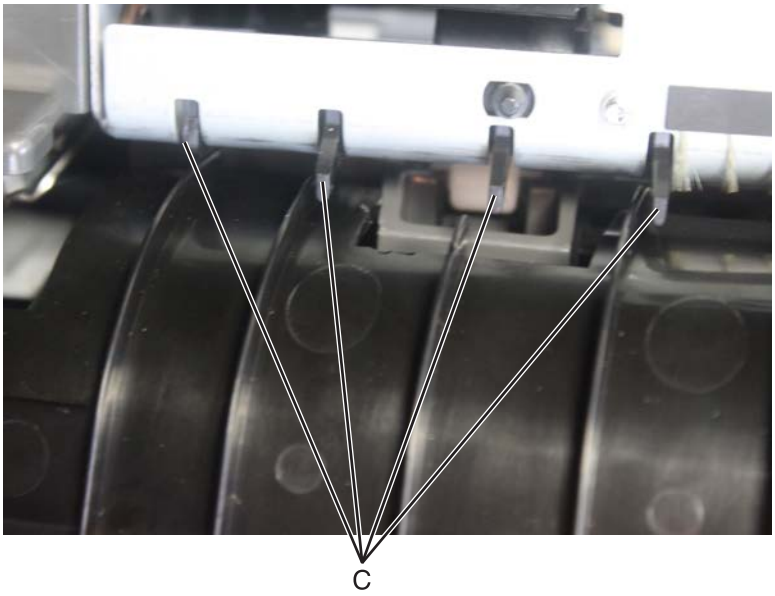
7 From the right side, remove the two screws (B).



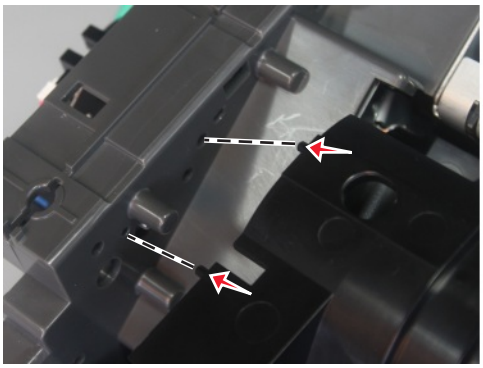
8 Slightly push away the right frame to release the left part of the chute, while lifting the chute to dislodge it from its frame.



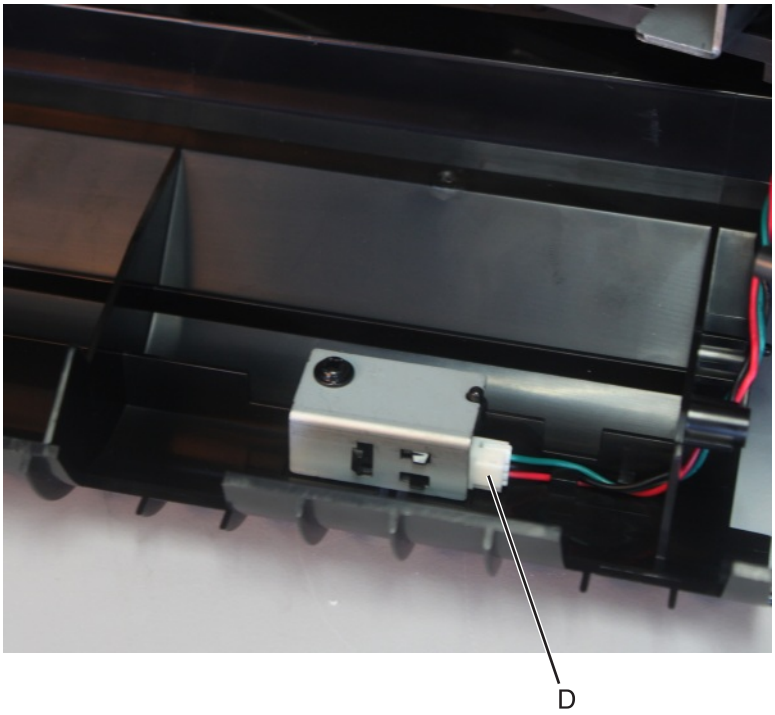
9 Obstacles (C) may cause difficulty in removing the chute. Ease the chute out of obstacles (C), and release it from the bin.



Installation note: Insert the tabs to their corresponding slots.



10 Disconnect the cable (D), and then remove the chute assembly.



Staple finisher/offset stacker ejector assembly removal

1 Remove the left cover. See **"Staple finisher/offset stacker left cover removal" on page 623**.

2 Remove the right cover. See **"Stapler right cover removal" on page 681**.

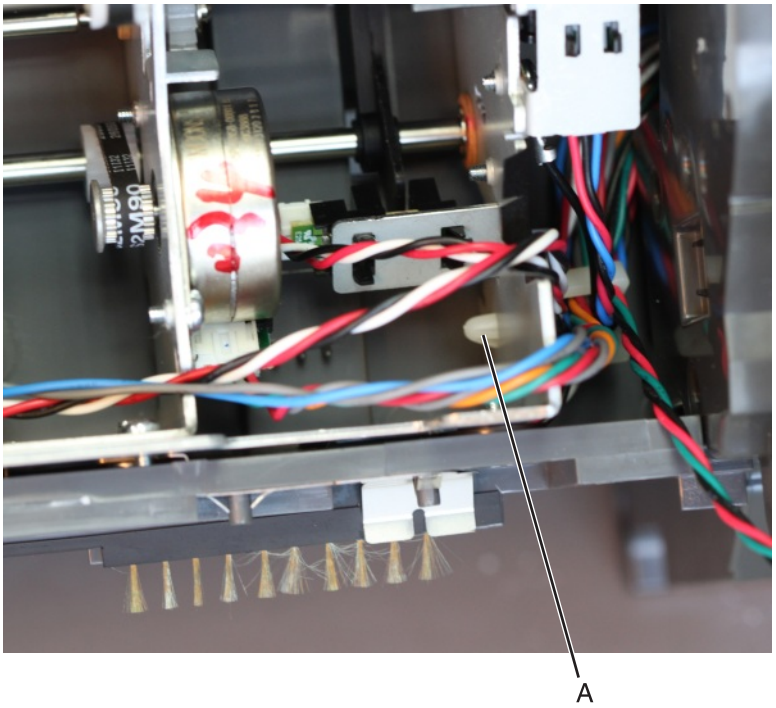
3 Remove the diverter plunger assembly. See **"Staple finisher/offset stacker diverter plunger assembly removal" on page 637**.

4 Remove the drive gear assembly. See **"Staple finisher/offset stacker drive gear assembly removal" on page 638**.

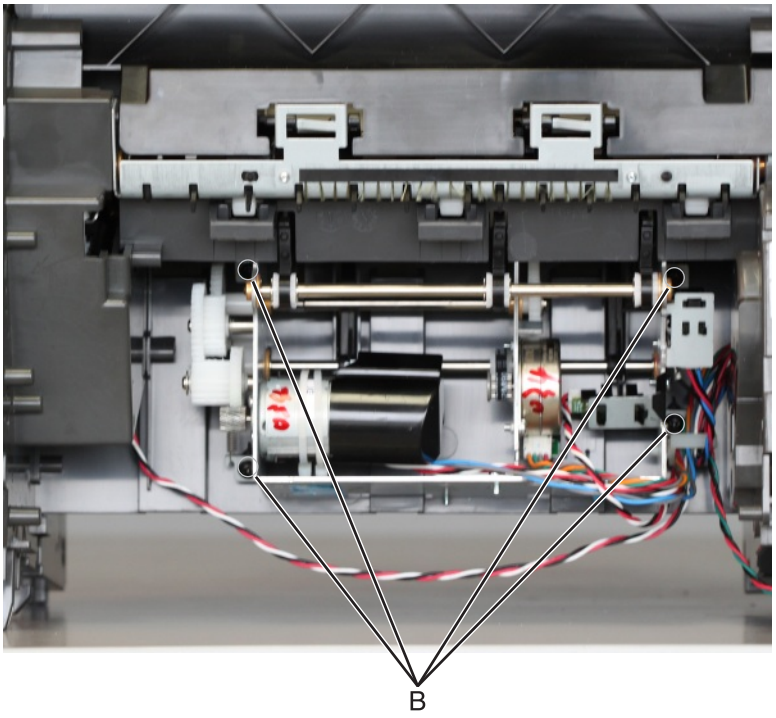
5 Remove the entrance roller. See **"Staple finisher/offset stacker entrance roller removal" on page 669**.

6 Remove the chute assembly. See **"Staple finisher/offset stacker chute assembly removal" on page 671**.

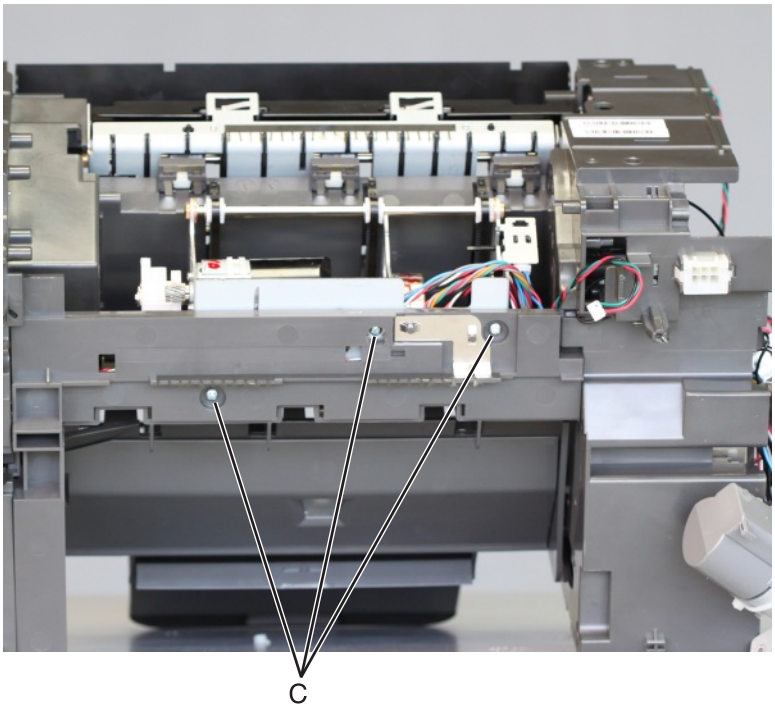
7 Release the cable holder (A) from the frame, and then remove it.



8 Remove the four screws (B).



9 From the bottom side, remove the three screws (C).

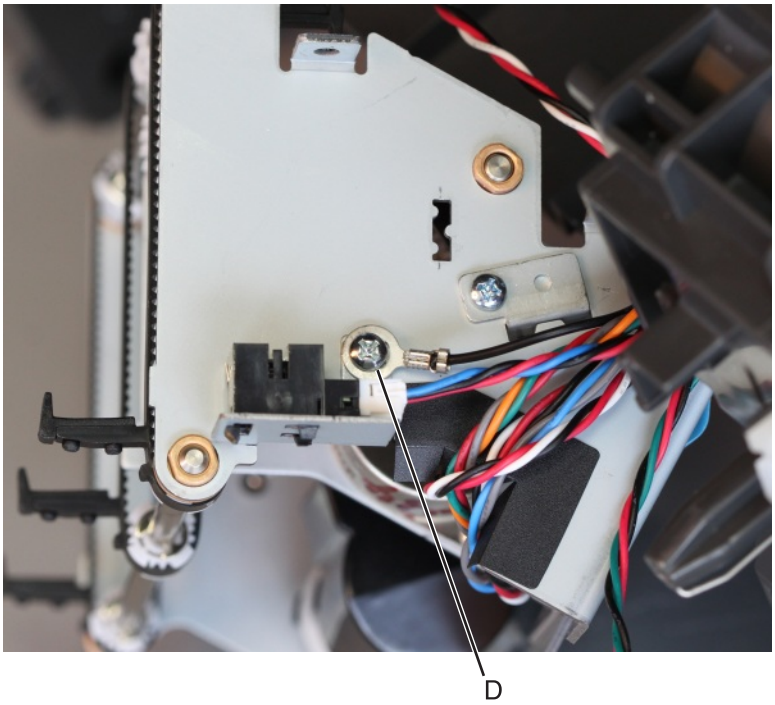


10 Release the cables from their guides.

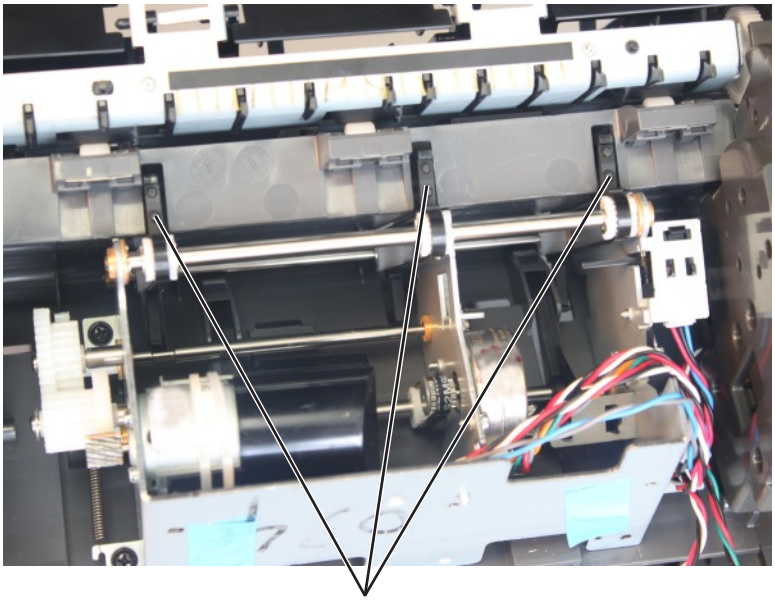
Note: Pay attention to the original route of the cables.

11 Pull the ejector assembly away from the machine.

12 Remove the screw (D), and then release the sensor bracket from the assembly.



Installation note: Make sure that the paddles (E) align and fit properly.

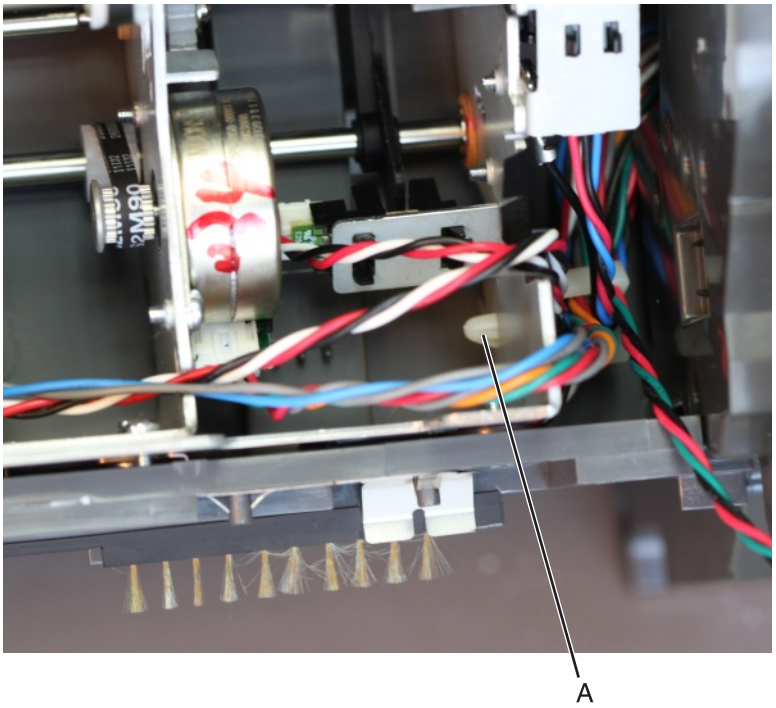


Installation note: Make sure that the cables do not get in the way of moving parts.

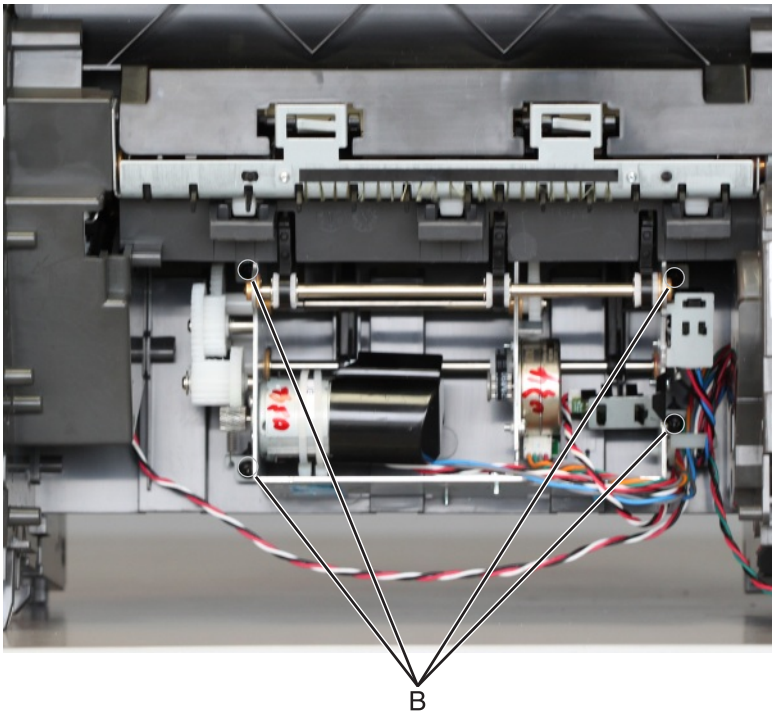
Sensor (staple finisher/offset stacker ejector) removal

1. Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.
2. Remove the right cover. See **“Stapler right cover removal” on page 681**.
3. Remove the diverter plunger assembly. See **“Staple finisher/offset stacker diverter plunger assembly removal” on page 637**.
4. Remove the drive gear assembly. See **“Staple finisher/offset stacker drive gear assembly removal” on page 638**.
5. Remove the entrance roller. See **“Staple finisher/offset stacker entrance roller removal” on page 669**.
6. Remove the chute assembly. See **“Staple finisher/offset stacker chute assembly removal” on page 671**.

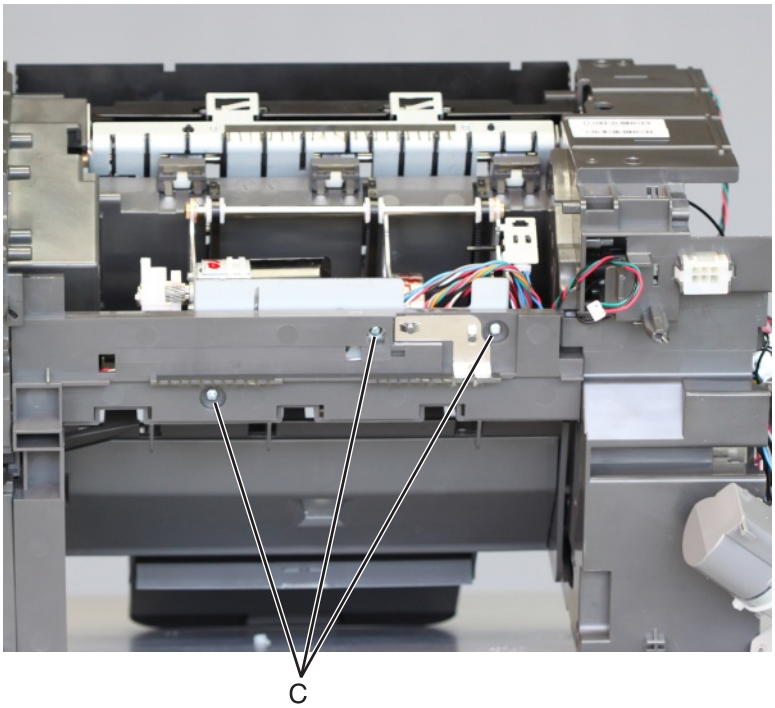
7 Release the cable holder (A) from the frame, and then remove it.



8 Remove the four screws (B).



9 From the bottom side, remove the three screws (C).

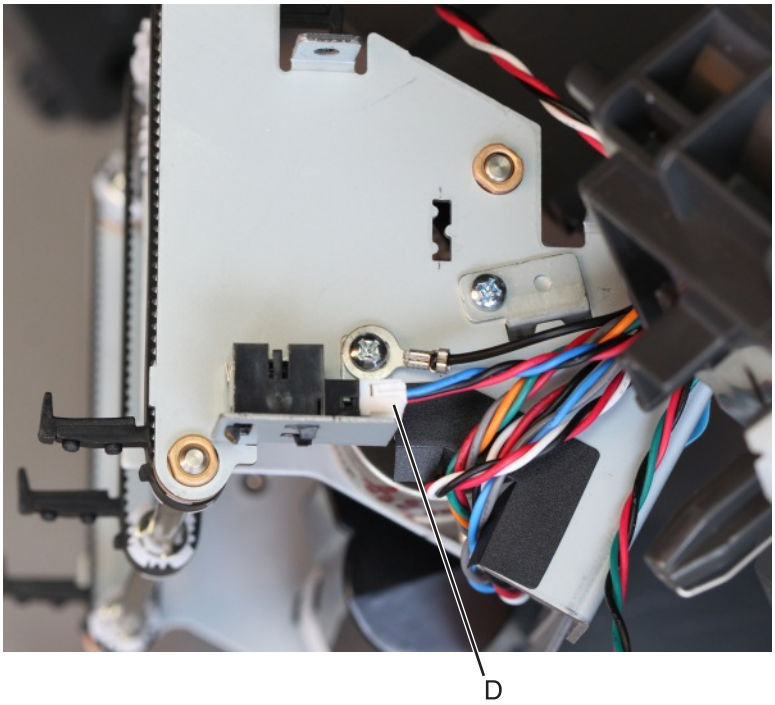


10 Release the cables from their guides.

Note: Pay attention to the original route of the cables.

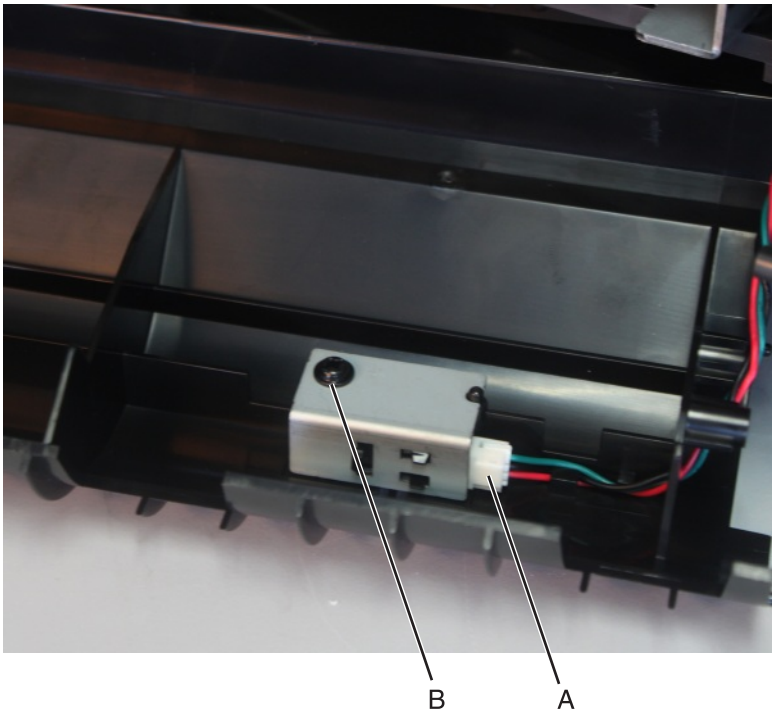
11 Pull the ejector assembly away from the bin.

12 Disconnect the sensor cable (D), and then remove the sensor.



Sensor (staple finisher/offset stacker pass-through) removal

1. Remove the left cover. See **“Staple finisher/offset stacker left cover removal” on page 623**.
2. Remove the right cover. See **“Stapler right cover removal” on page 681**.
3. Remove the diverter plunger assembly. See **“Staple finisher/offset stacker diverter plunger assembly removal” on page 637**.
4. Remove the drive gear assembly. See **“Staple finisher/offset stacker drive gear assembly removal” on page 638**.
5. Remove the entrance roller. See **“Staple finisher/offset stacker entrance roller removal” on page 669**.
6. Remove the chute assembly. See **“Staple finisher/offset stacker chute assembly removal” on page 671**.
7. Disconnect the cable (A), remove the screw (B), and then remove the sensor bracket.



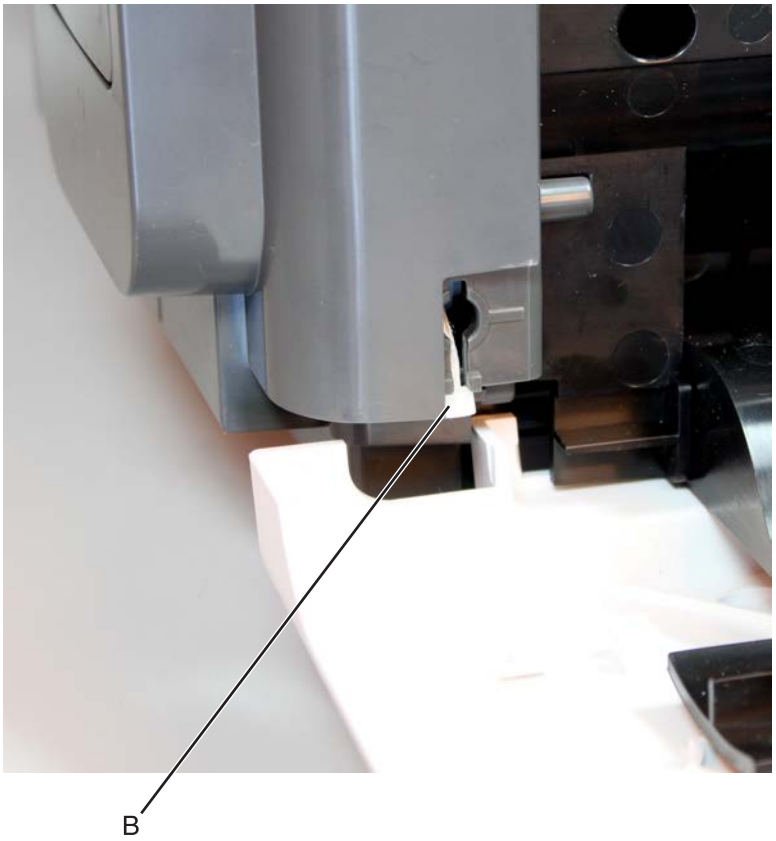
8. Remove the sensor from its bracket.

Stapler-unique FRU removals

Stapler right cover removal

1 Open the rear door, then detach the string from the rear door.

Note: Fasten the string end (B) to the rear side to prevent it from recoiling into the interior of the finisher.



2 Remove the two screws (C), then remove the right cover.

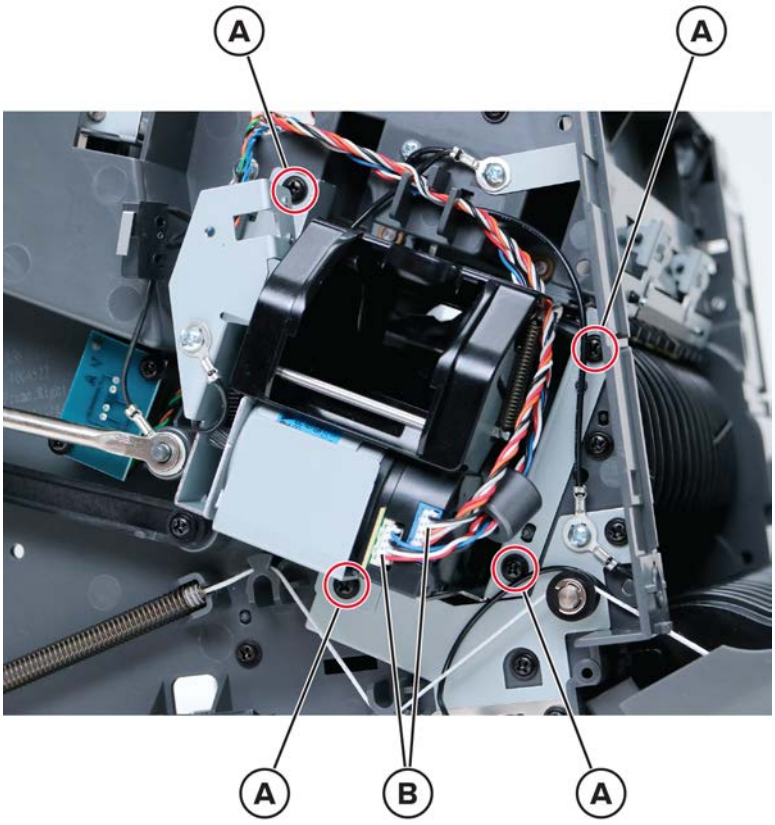
Staple cartridge access door removal

Open the access door (A), and then pull it off the cover.

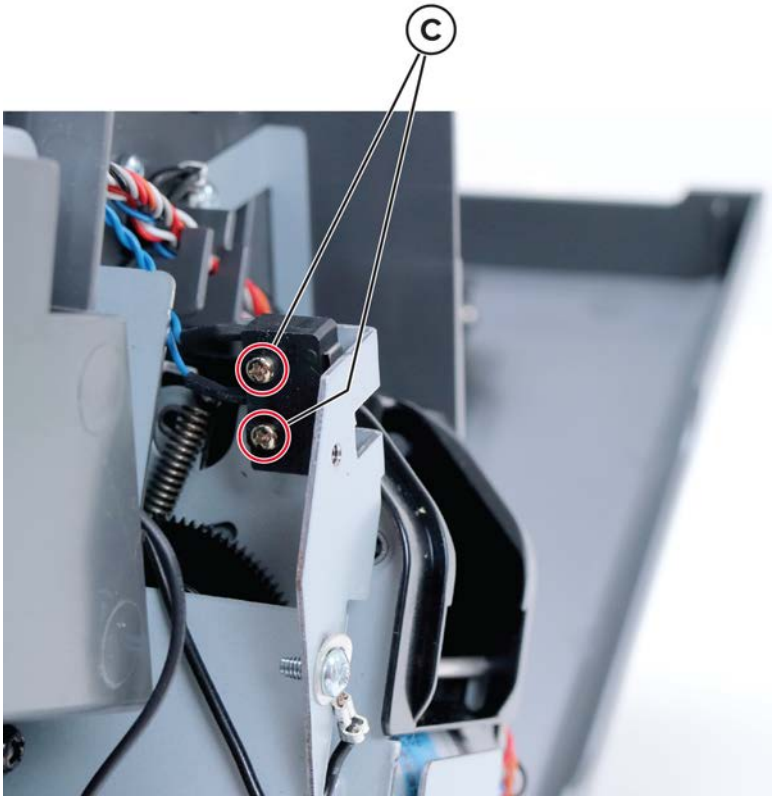
Staple unit removal

1. Remove the right cover. See **"Stapler right cover removal" on page 681**.
2. Remove the top cover. See **"Staple finisher/offset stacker top cover removal" on page 625**.

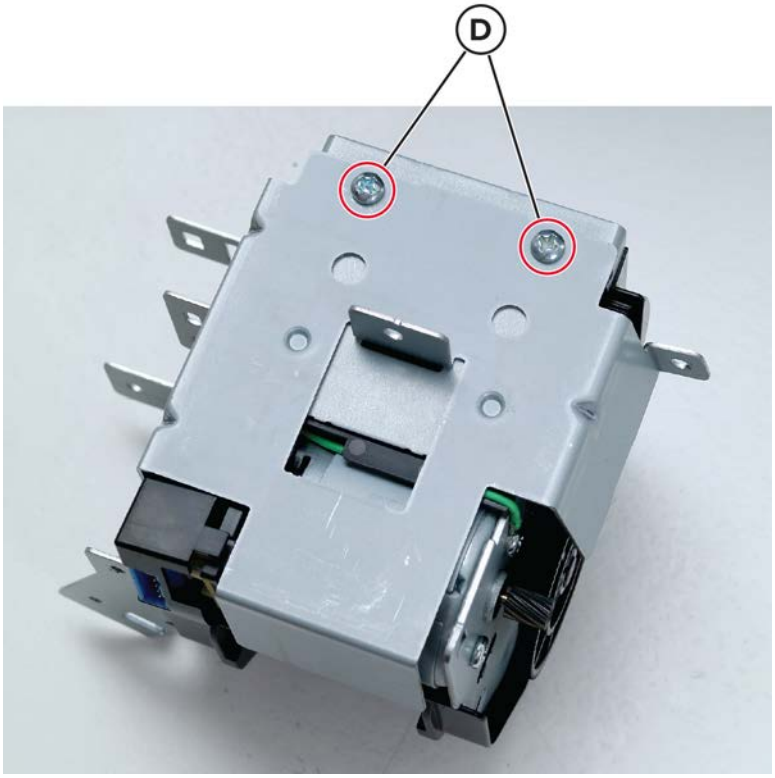
3 Remove the four screws (A), and then disconnect the two cables (B).



4 Remove the two screws (C), and then release the switch.

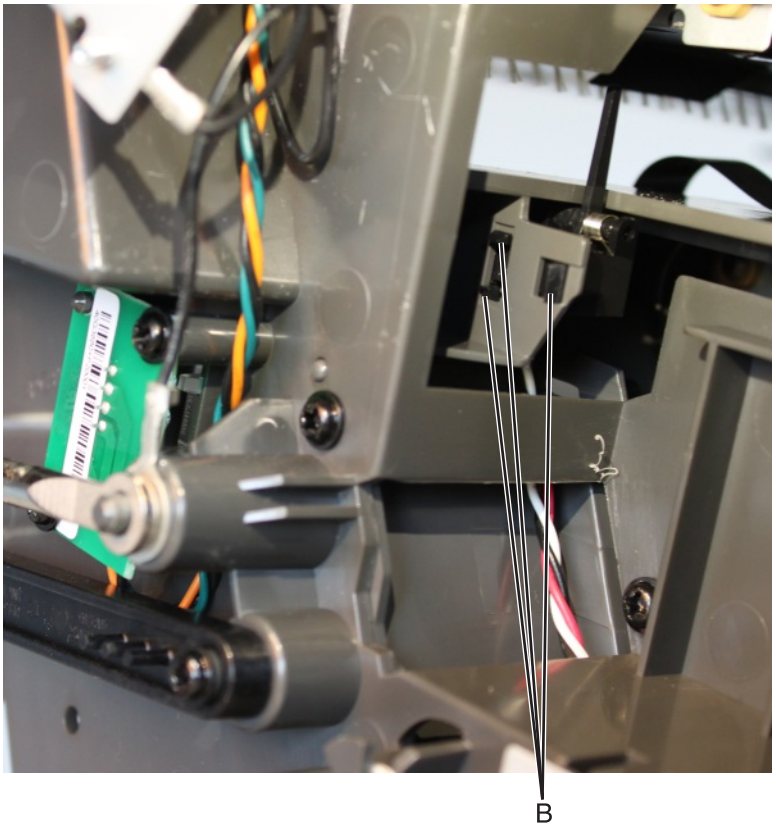


5 Remove the staple unit carriage, and then remove the two screws (D).

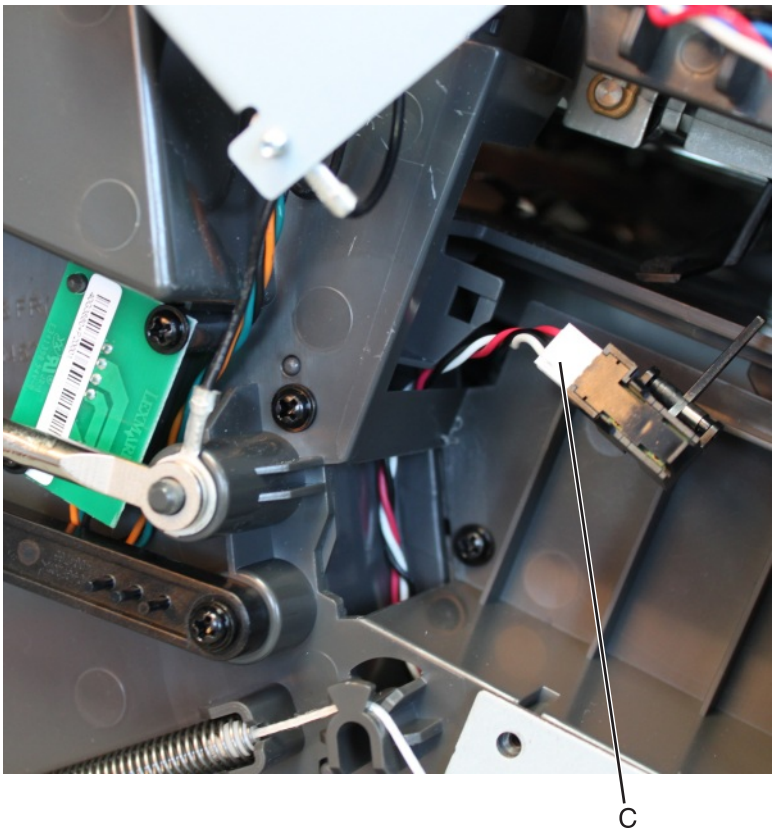


Sensor (staple throat paper present) removal

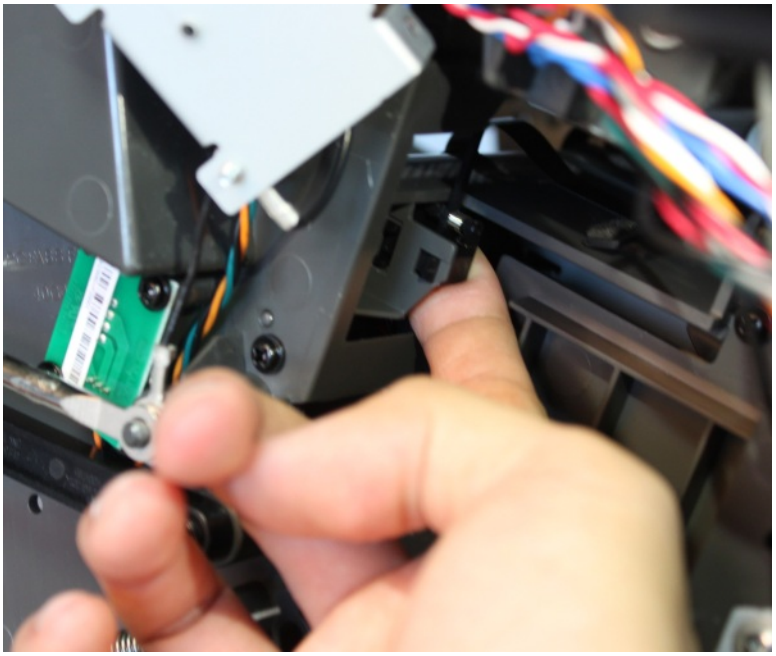
1. Remove the right cover. See **“Stapler right cover removal” on page 681**.
2. Remove the top cover. See **“Staple finisher/offset stacker top cover removal” on page 625**.
3. Remove the staple unit carriage. See **“Staple unit removal” on page 683**.
4. Release the latches (B), and then release the sensor from its bracket.



5 Disconnect the cable (C), and then remove the sensor.

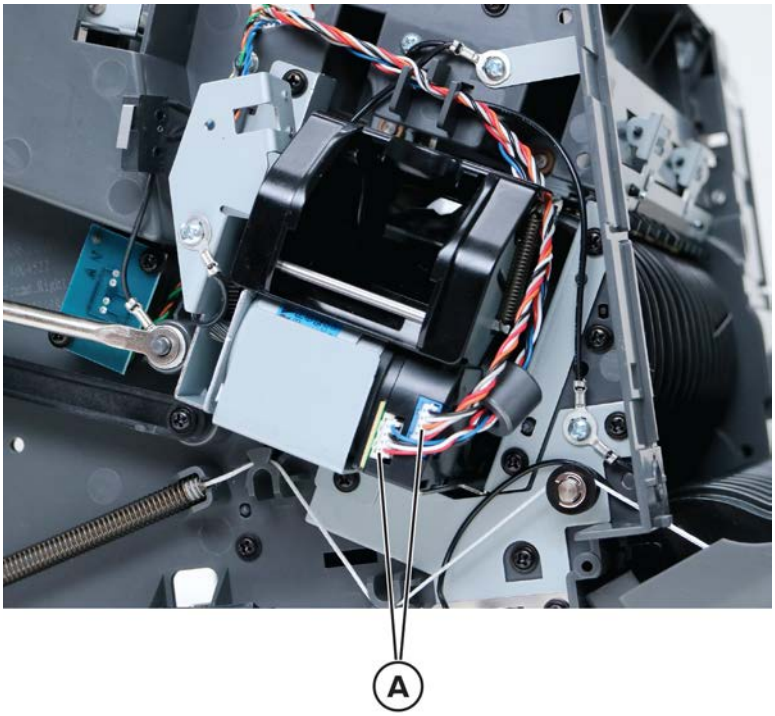


Installation note: Make sure that the sensor is properly installed. Push the sensor to its bracket until it is securely latched onto the frame.

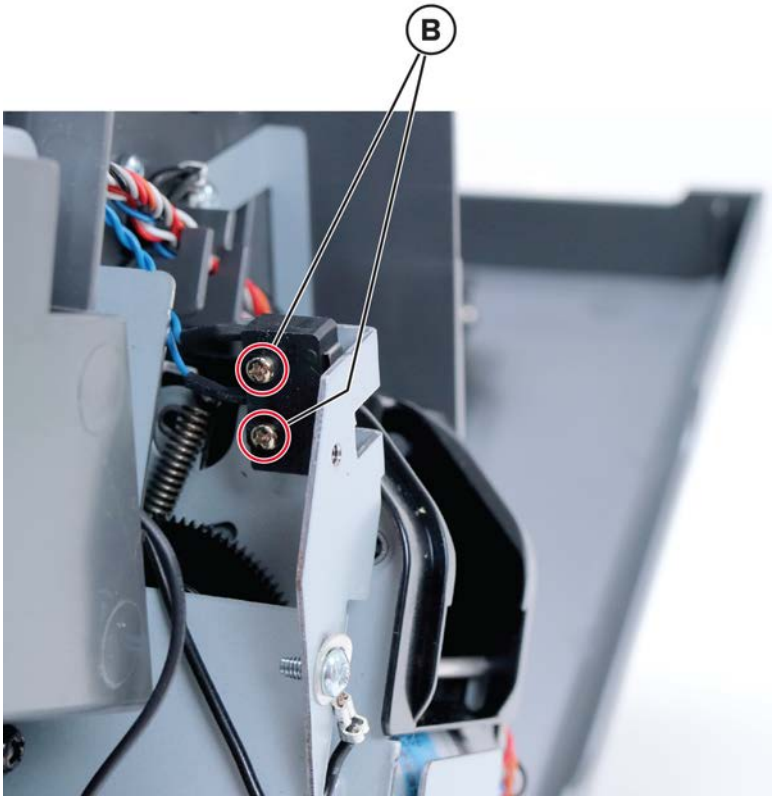


Staple cartridge door close limit switch removal

1. Remove the right cover. See **“Stapler right cover removal” on page 681**.
2. Remove the top cover. See **“Staple finisher/offset stacker top cover removal” on page 625**.
3. Disconnect the two cables (A).



4 Remove the two screws (B), and then release the limit switch.



5 Disconnect the limit switch cable from the controller board.

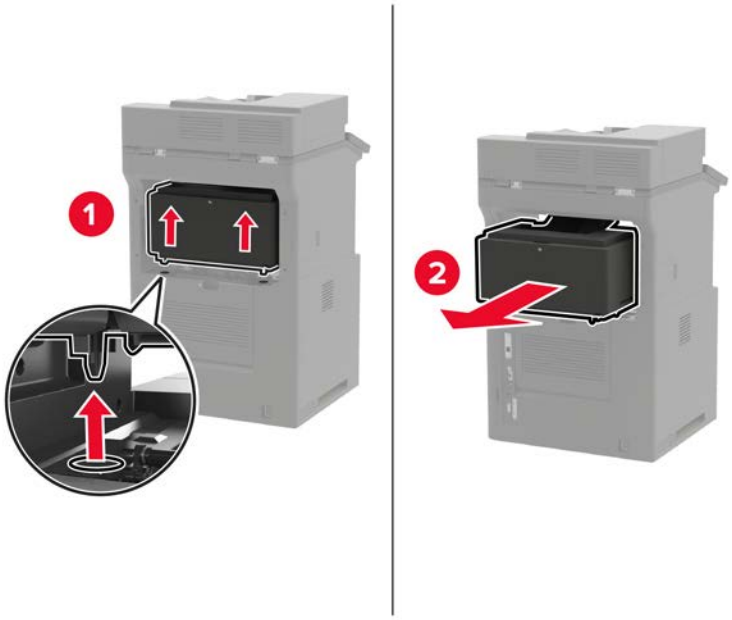
6 Release, and then remove the limit switch.

Note: Pay attention to the original route of the cables.

Optional 4-bin mailbox removals

Optional 4-bin mailbox removal

Lift the mailbox to release, and then remove it.



Mailbox top cover removal

1. Lift the top cover.
2. Remove the top cover from the mailbox.

Mailbox rear door removal

1 Open the rear door, and detach the string (A) from the door.

Note: Fasten the string end (B) to the rear side to prevent it from recoiling into the interior of the mailbox.

2 Position the rear door at the angle shown, and pull the door off the mailbox.

Mailbox right cover removal

1 Open the rear door, and then detach the string (A) from the door.

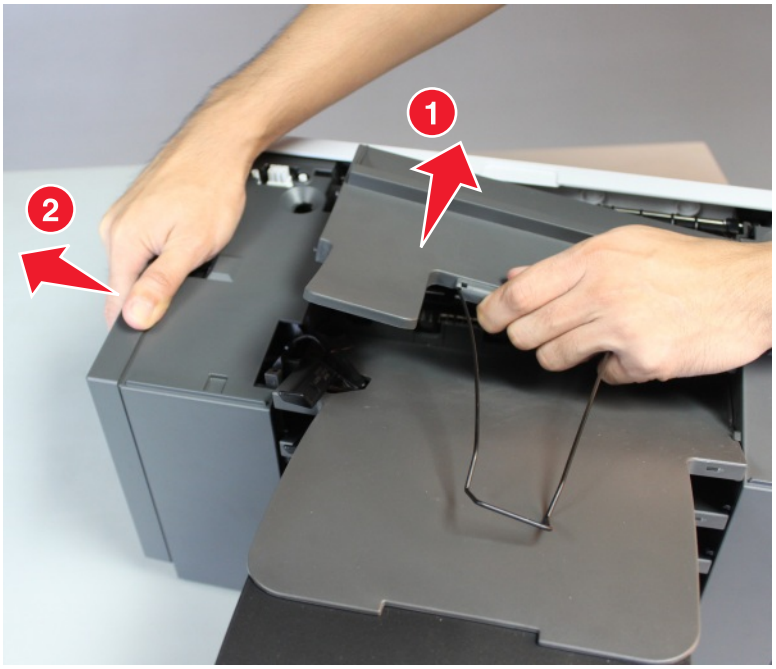
Note: Fasten the string to the rear side to prevent it from recoiling into the interior of the mailbox.

2 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 690**.

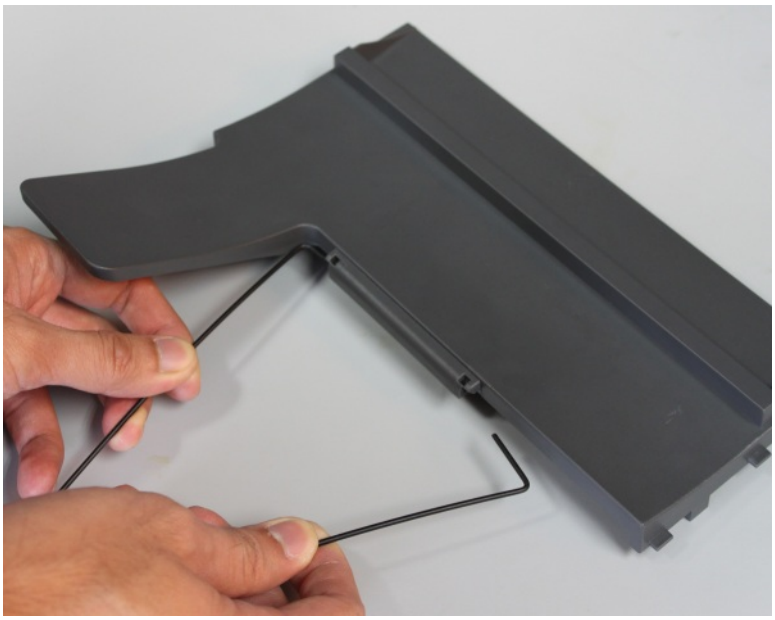
3 Remove the two screws (B) from the mailbox, and then remove the cover.

Mailbox top bin cover with bail removal

1 Slightly push the inner frame of the mailbox to the left to release the bin cover, and then lift the bin cover.



2 Release the mud bail flap from the bin cover, and then remove.



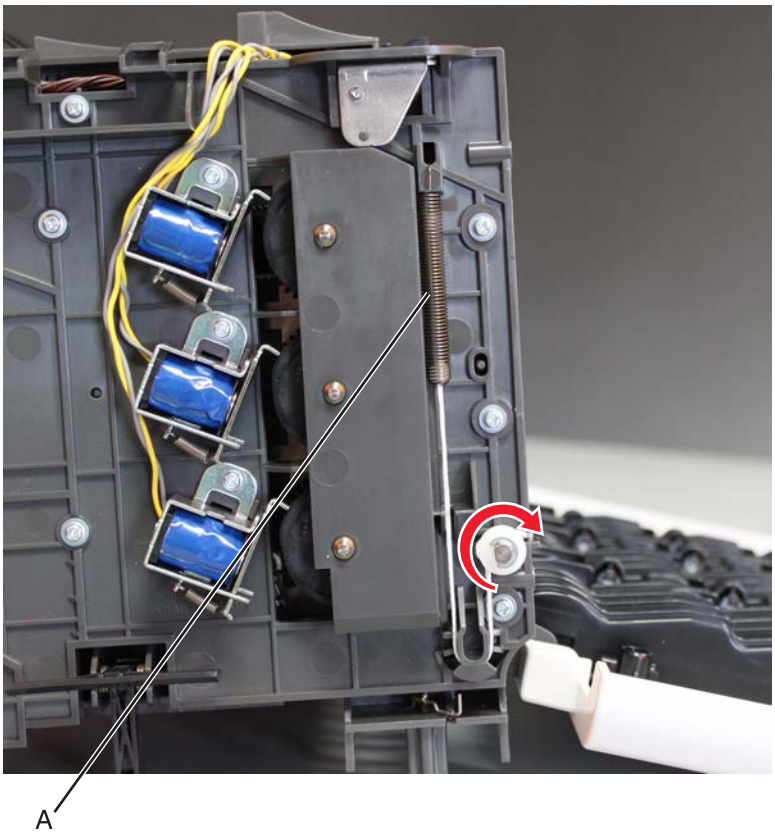
Mailbox spring with string removal

1 Remove the mailbox top cover. See **“Mailbox top cover removal” on page 690**.

2 Remove the mailbox right cover. See **“Mailbox right cover removal” on page 693**.

3 Remove the spring (A) with string.

Note: Pay attention to the original position of the string. The string on the pulley is wound clockwise.

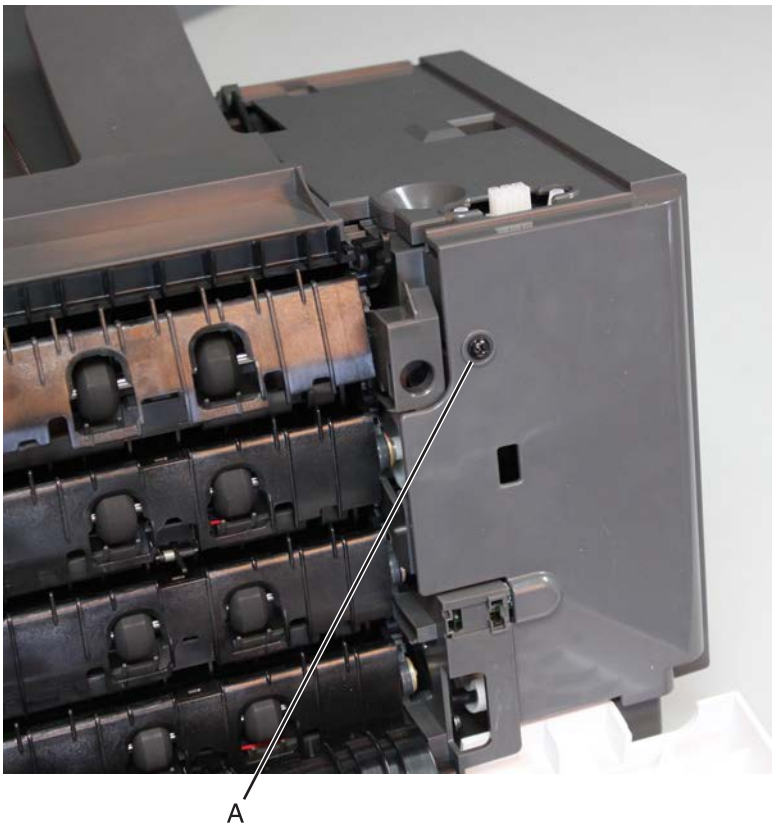


Mailbox left cover removal

1 Open the rear door.

2 Remove the mailbox top cover. See **“Mailbox top cover removal” on page 690**.

3 Remove the screw from the mailbox (A), then remove the left cover.



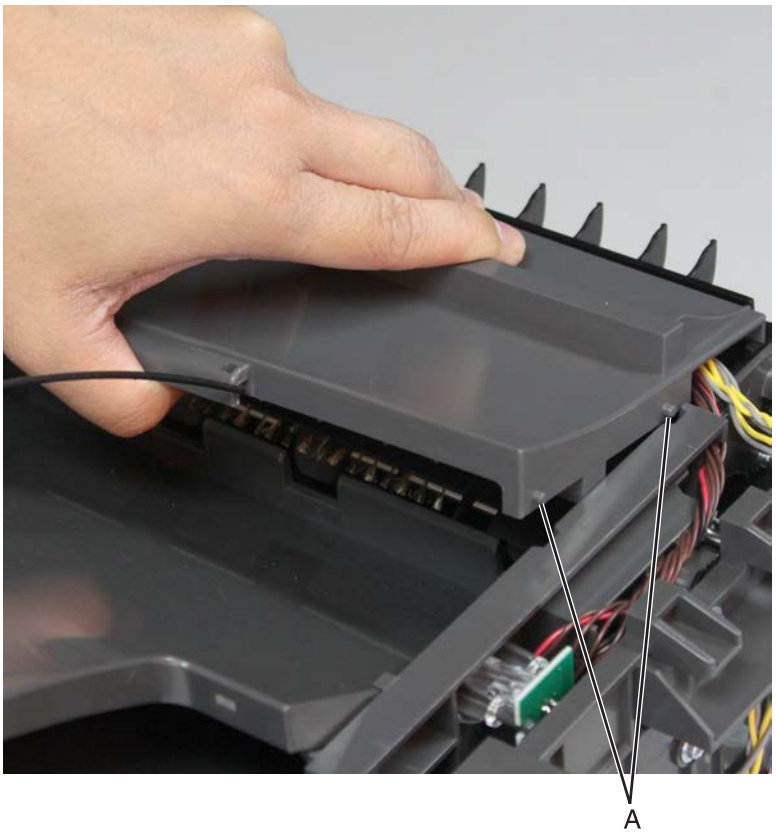
Mailbox solenoid removal

1 Remove the mailbox top cover. See **“Mailbox top cover removal” on page 690**.

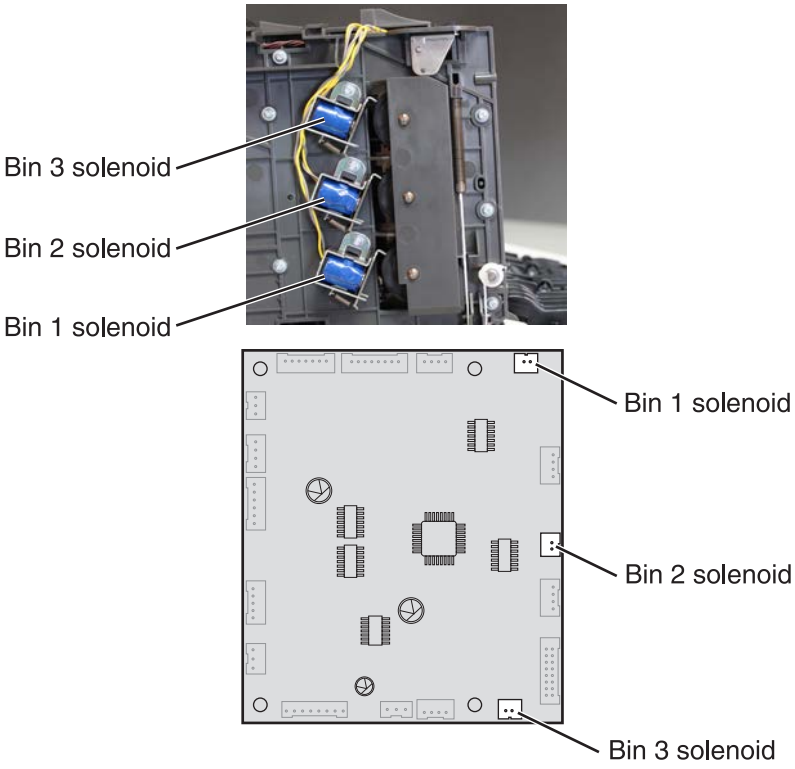
2 Remove the mailbox right cover. See **“Mailbox right cover removal” on page 693**.

3 Remove the mailbox left cover. See **“Mailbox left cover removal” on page 696**.

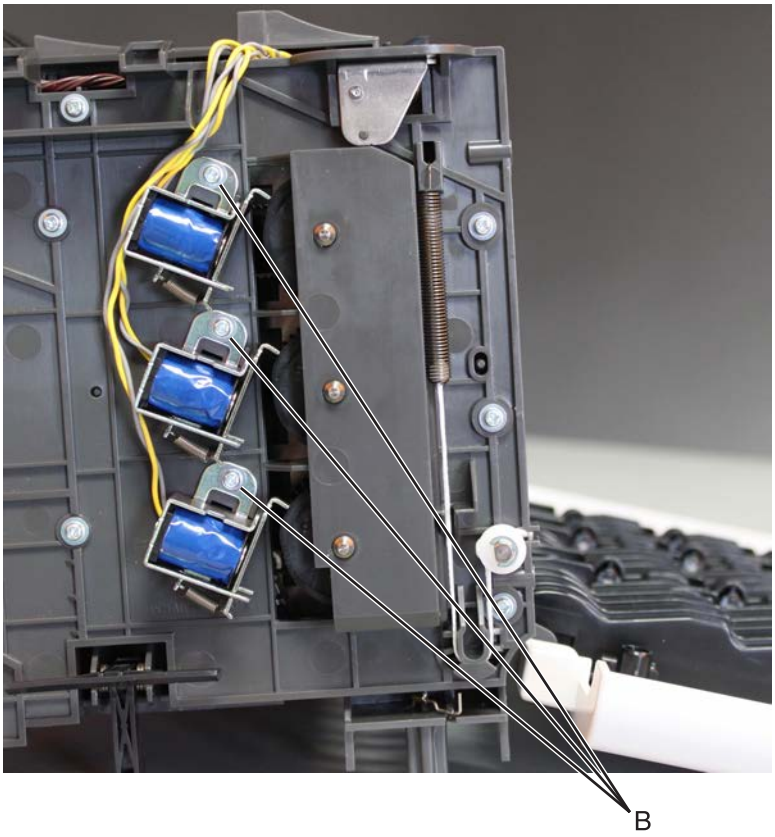
4 Lift the middle portion of the cover to release the tabs (A), then remove the cover.



5 Disconnect the solenoid cable (J2A, J2B, or J2C) from the controller board.



6 Remove the screw (B) securing the solenoid.

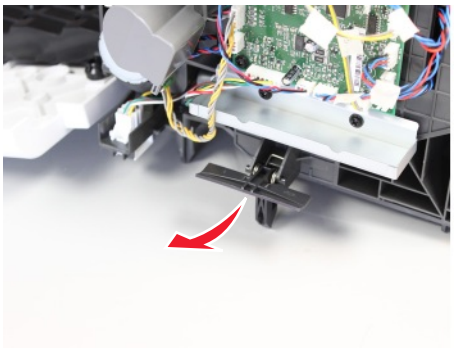


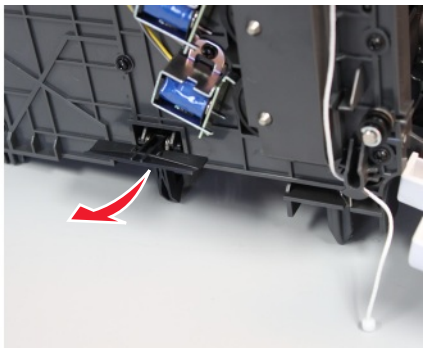
7 Route the cable off the mailbox, then remove the solenoid.

Mailbox latch removal

1 Remove the mailbox left cover or right cover. See **“Mailbox left cover removal” on page 696** or **“Mailbox right cover removal” on page 693**.

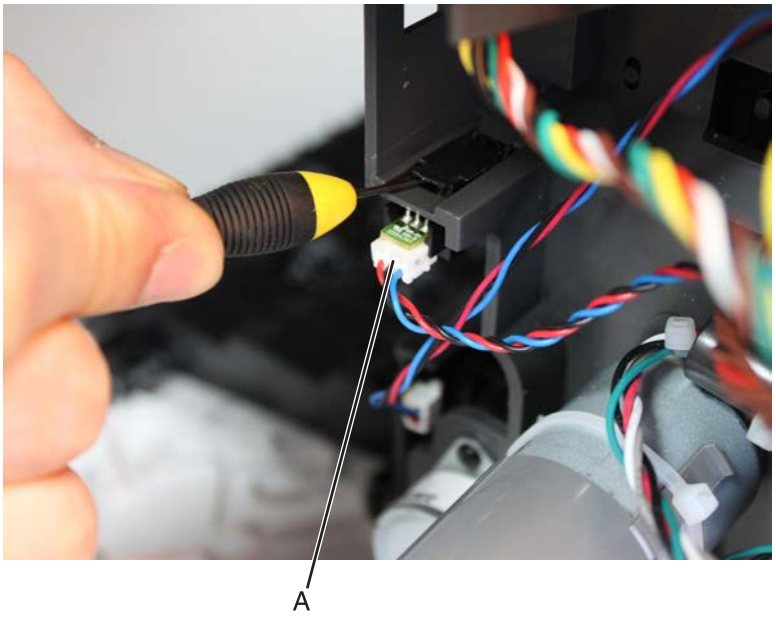
2 Pull the latches off the mailbox, and then remove.





Sensor (mailbox rear door interlock) removal

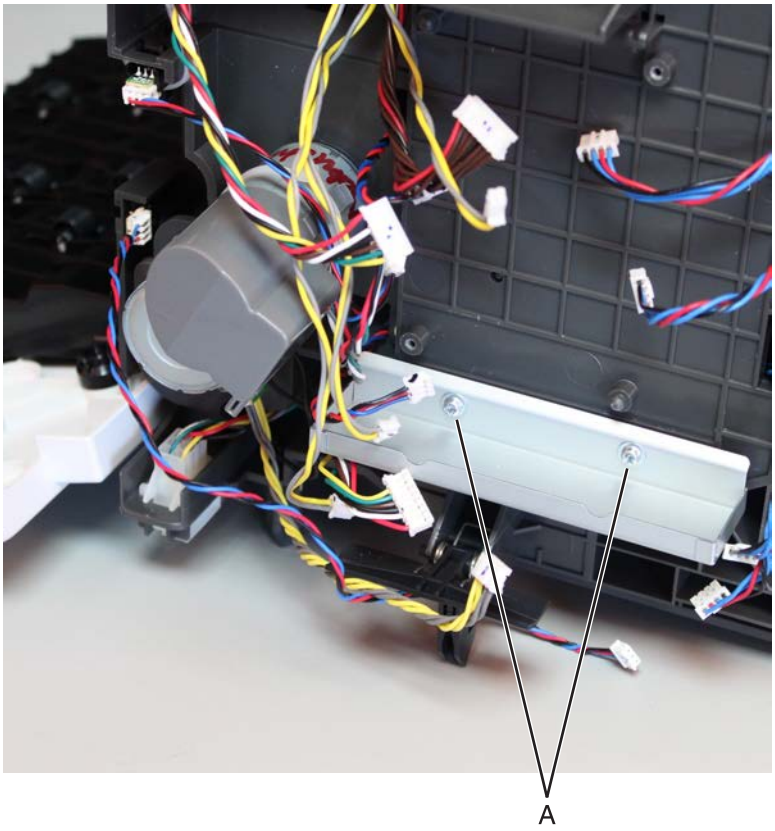
1. Remove the mailbox left cover. See **“Mailbox left cover removal” on page 696**.
2. Pry the mylar cover off the sensor latches.
3. Disconnect the cable (A), and then release the latches to remove the sensor.



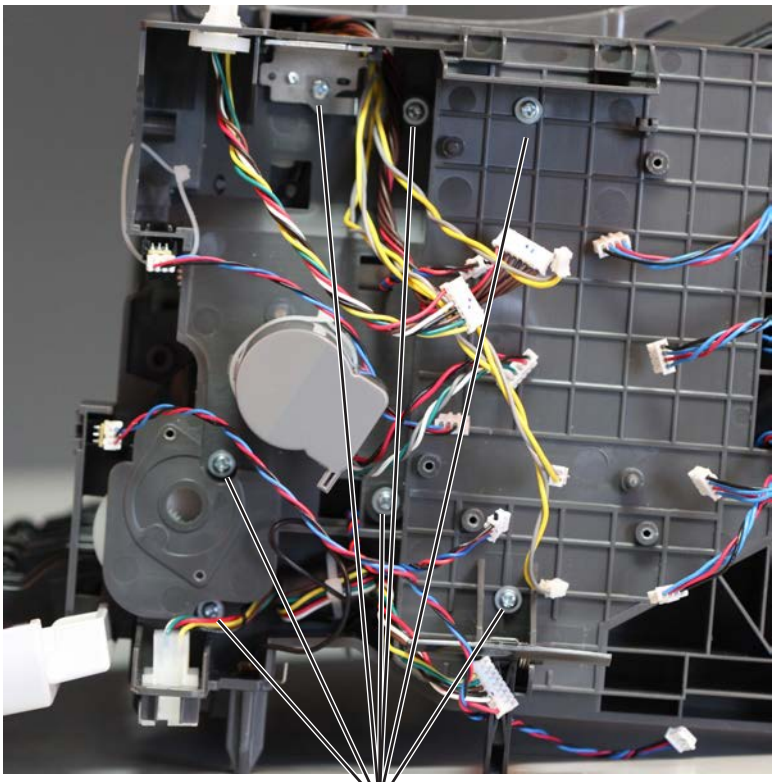
Mailbox transport drive gear removal

1. Remove the mailbox left cover. See **“Mailbox left cover removal” on page 696**.
2. Remove the mailbox rear door. See **“Mailbox rear door removal” on page 691**.

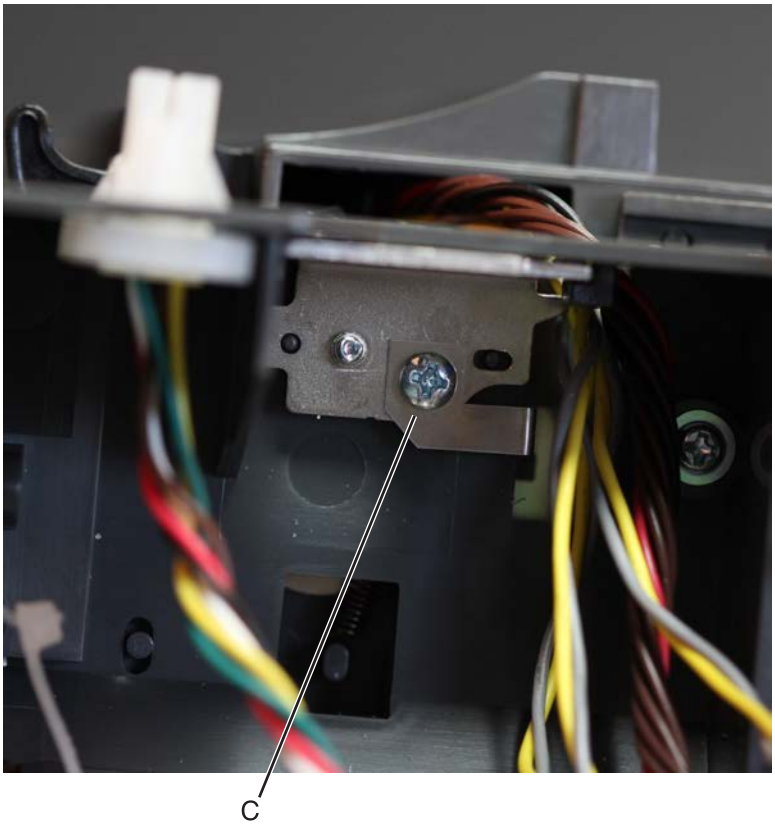
3 Remove the two screws (A), and then remove the shield.



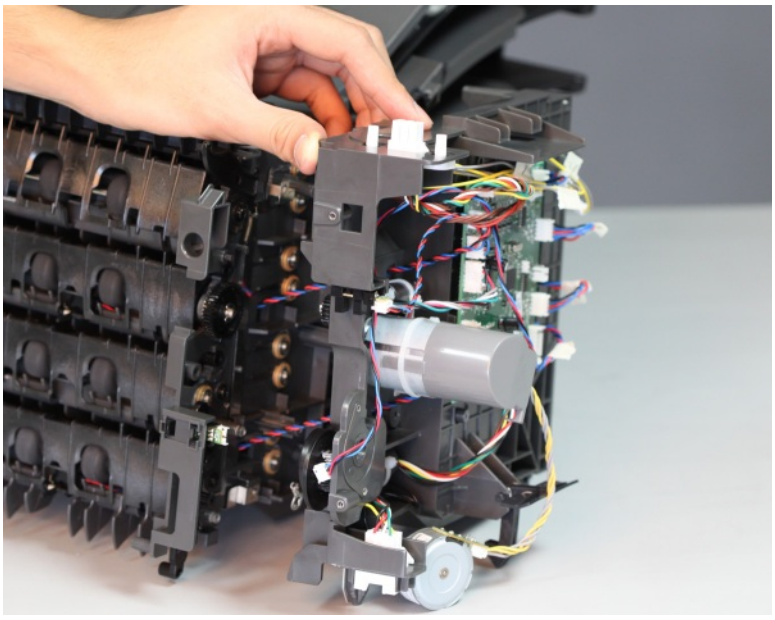
4 Remove the seven screws (B) from the inner left frame.



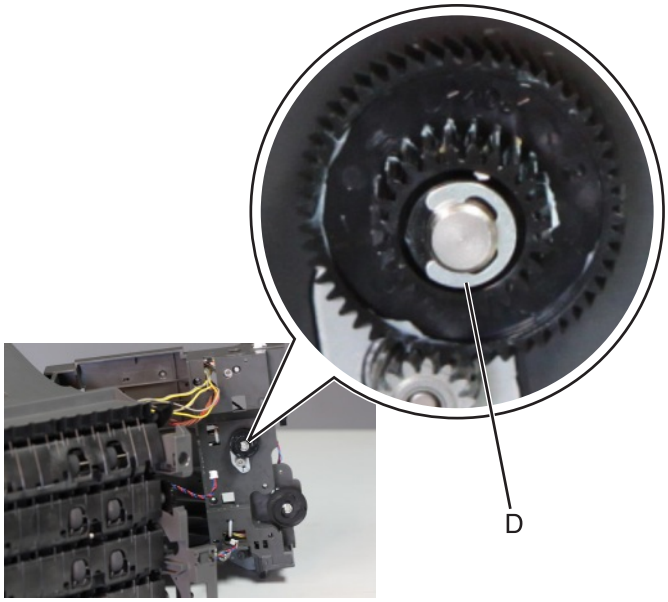
Note: Pay attention to the original position of the grounding plate (C).



5 Move away the left inner frame to access the parts underneath it.



6 Remove the E-clip (D), and then remove the gear.



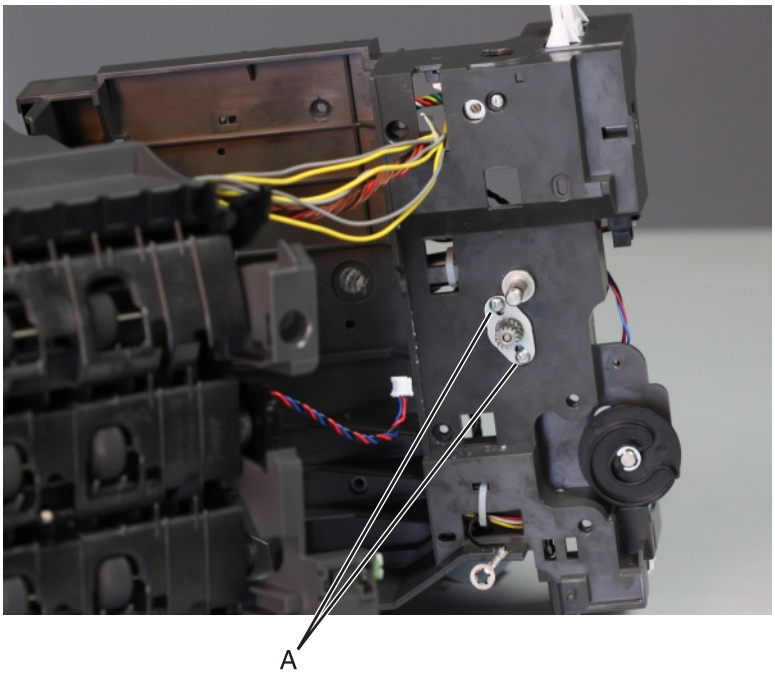
Motor (mailbox transport) removal

1 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**.

2 Remove the mailbox rear door. See **"Mailbox rear door removal" on page 691**.

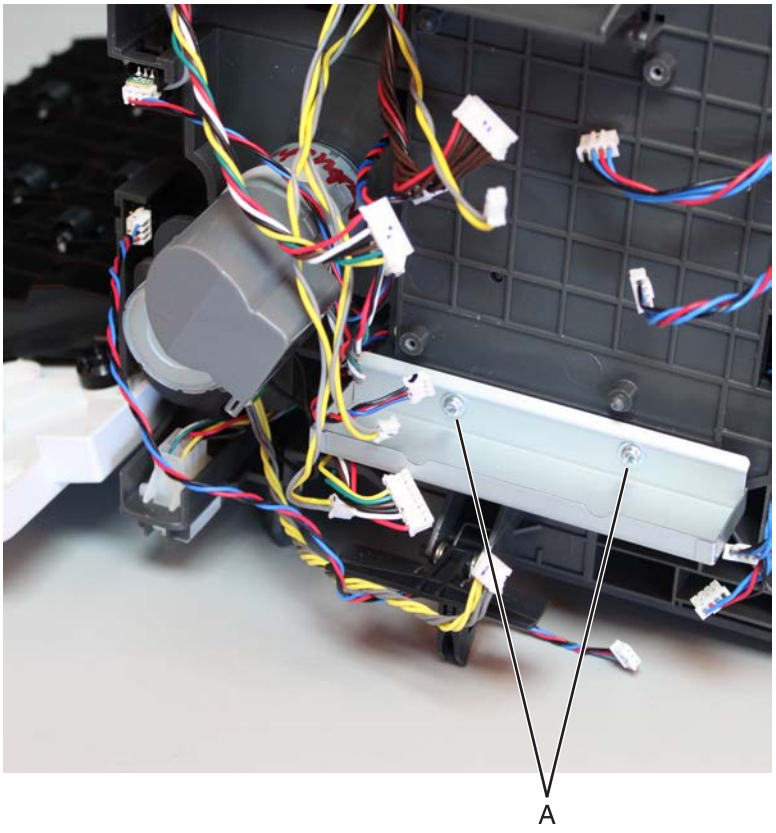
3 Remove the mailbox main drive gear. See **"Mailbox transport drive gear removal" on page 700**.

4 Remove the two screws (A) behind the left frame, and then remove the motor.

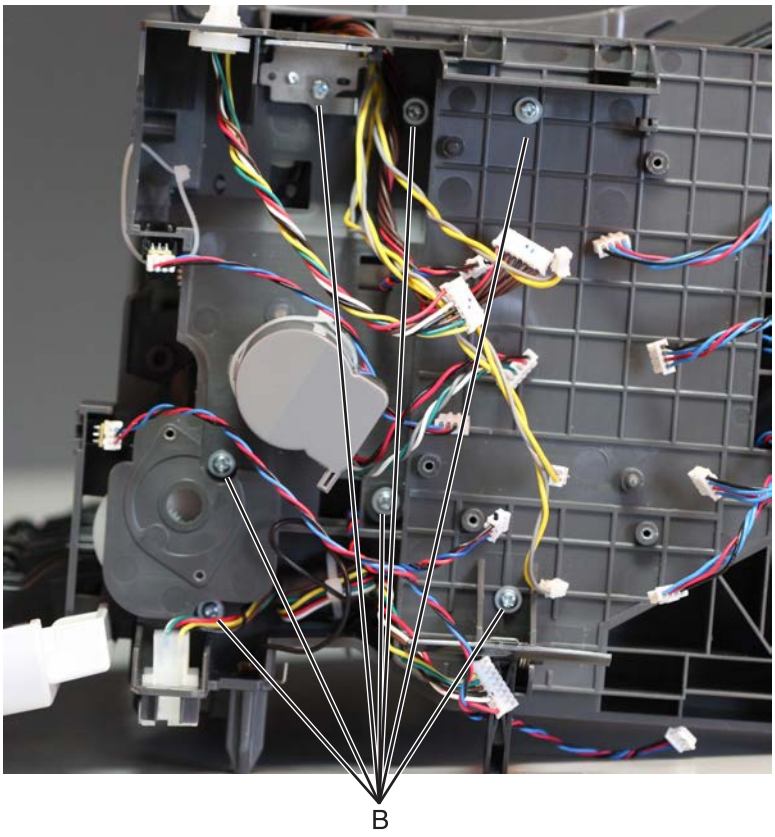


Mailbox diverter plunger assembly removal

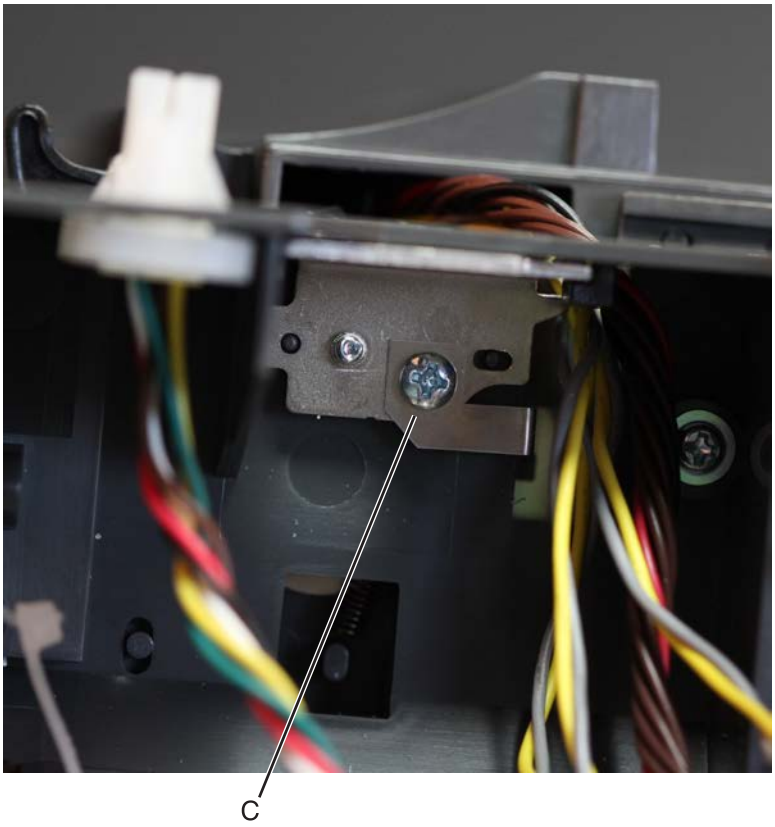
1. Remove the mailbox left cover. See **“Mailbox left cover removal” on page 696**.
2. Remove the mailbox rear door. See **“Mailbox rear door removal” on page 691**.
3. Remove the two screws (A), and then remove the shield.



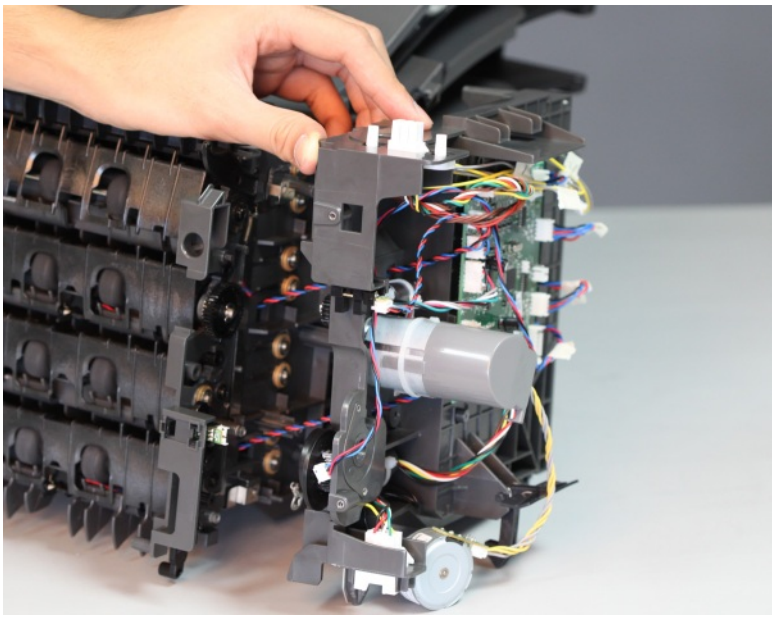
4 Remove the seven screws (B) from the inner left frame.



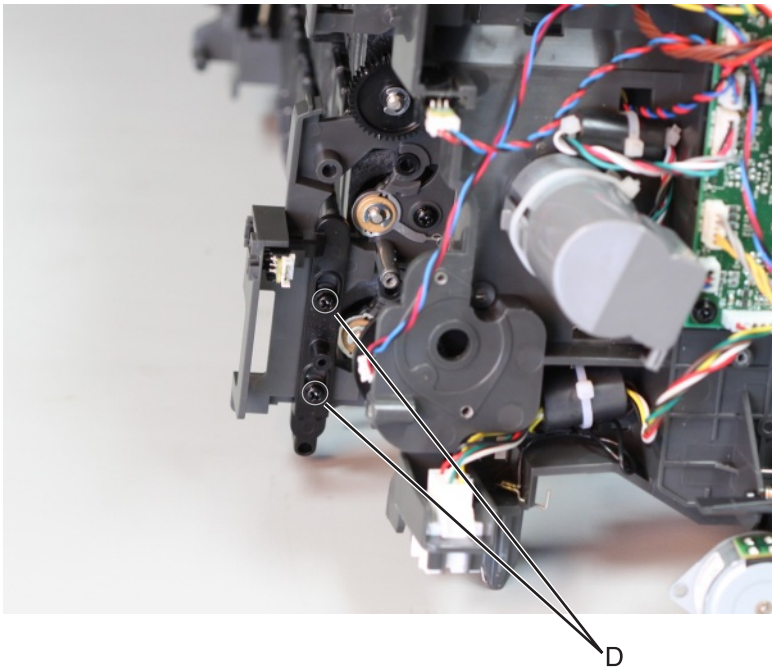
Note: Pay attention to the original position of the grounding plate (C).



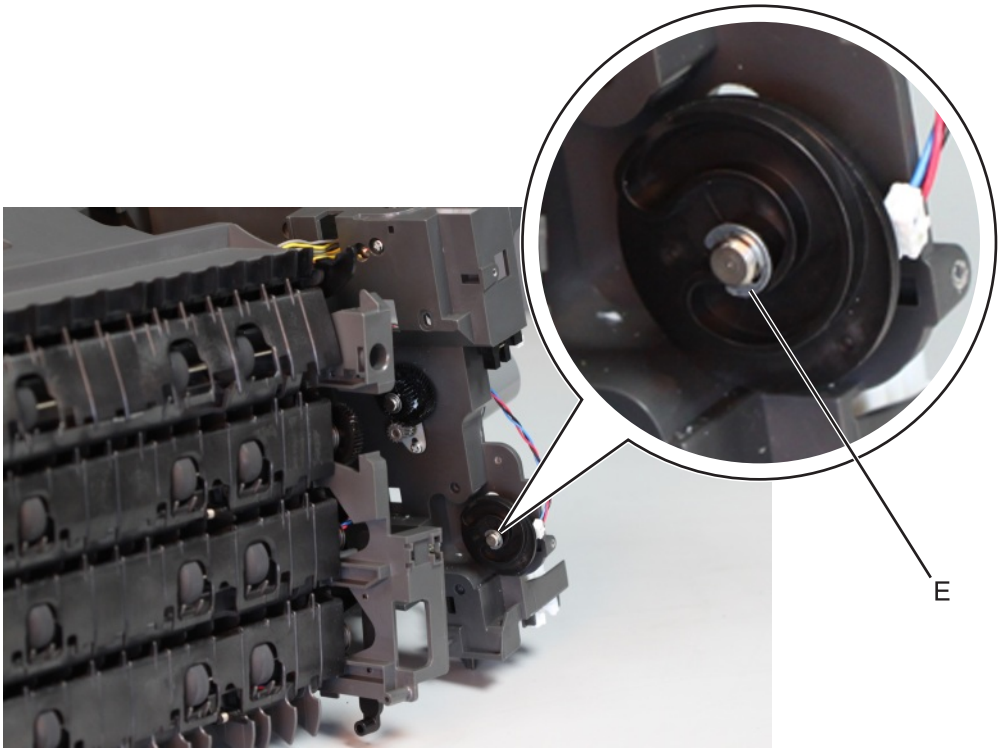
5 Move away the left inner frame to access the parts underneath.



6 Remove the two screws (D), and then remove the diverter plunger.

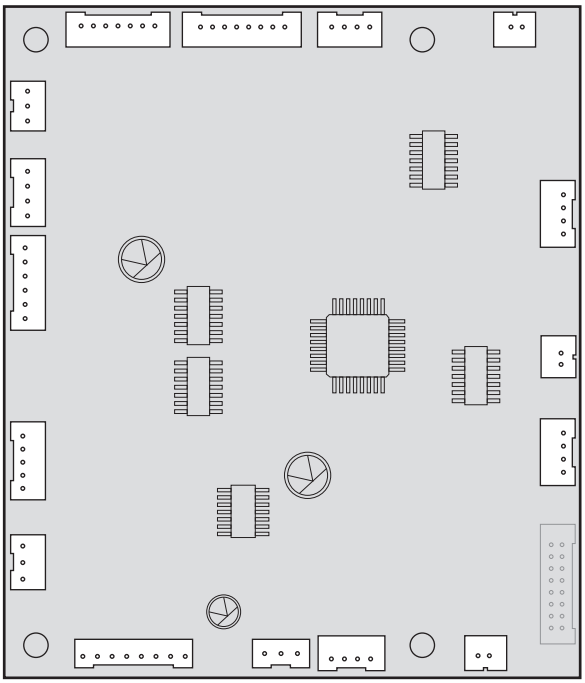


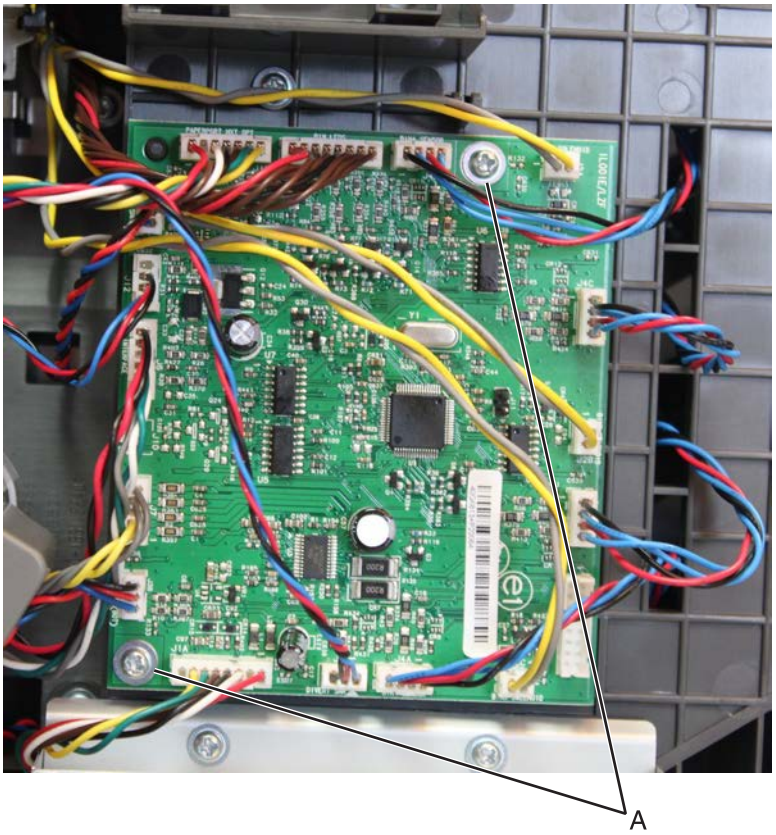
7 Remove the E-clip (E) to release the cam, and then remove the diverter cam.



Mailbox controller board removal

1. Remove the mailbox top cover. See **“Mailbox top cover removal” on page 690**.
2. Remove the mailbox left cover. See **“Mailbox left cover removal” on page 696**.
3. Disconnect all cables (J1B, J5, J4D, J2A, J4C, J2B, J4B, J2C, J4A, J8, J1A, J3B, J7, J6, J12, and J3T), and then remove the two screws (A) from the controller board.





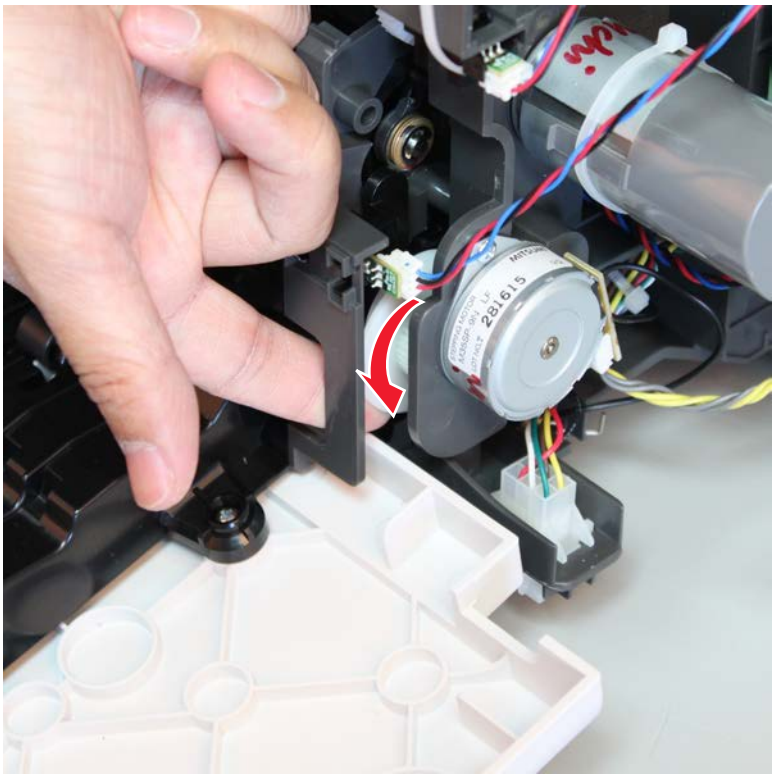
4 Remove the controller board.

Sensor (mailbox diverter plunger) removal

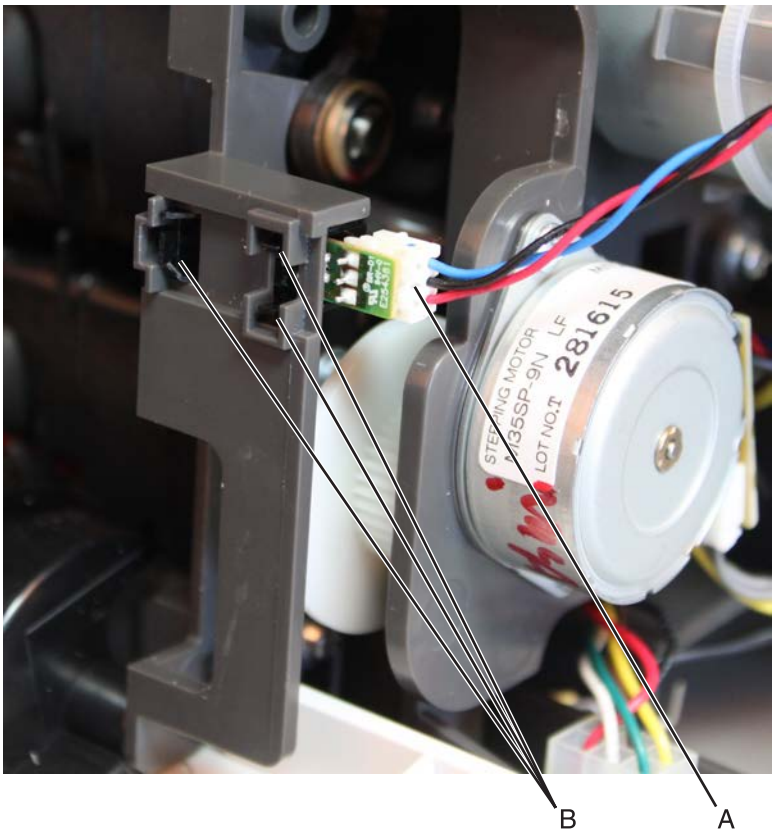
1 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 690**.

2 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**.

3 Rotate the cam to clear the sensor.



4 Disconnect the cable (A), and then release the sensor latches (B).



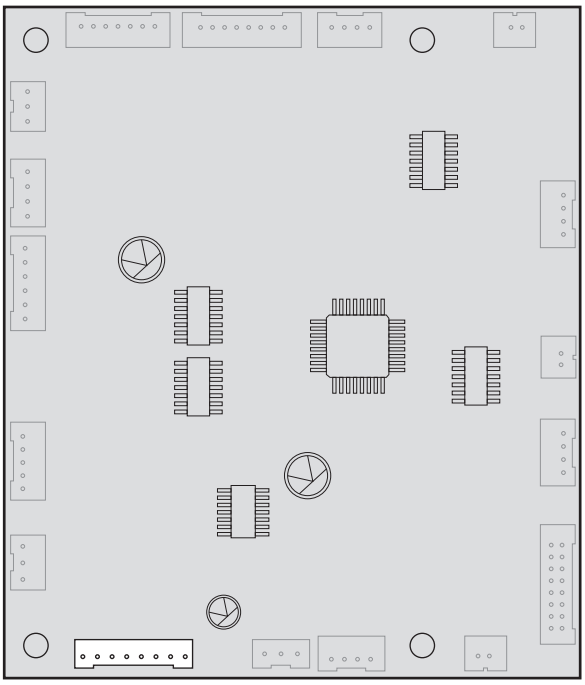
5 Remove the sensor.

Mailbox lower interface cable removal

1 Remove the mailbox top cover. See **“Mailbox top cover removal” on page 690**.

2 Remove the mailbox left cover. See **“Mailbox left cover removal” on page 696**.

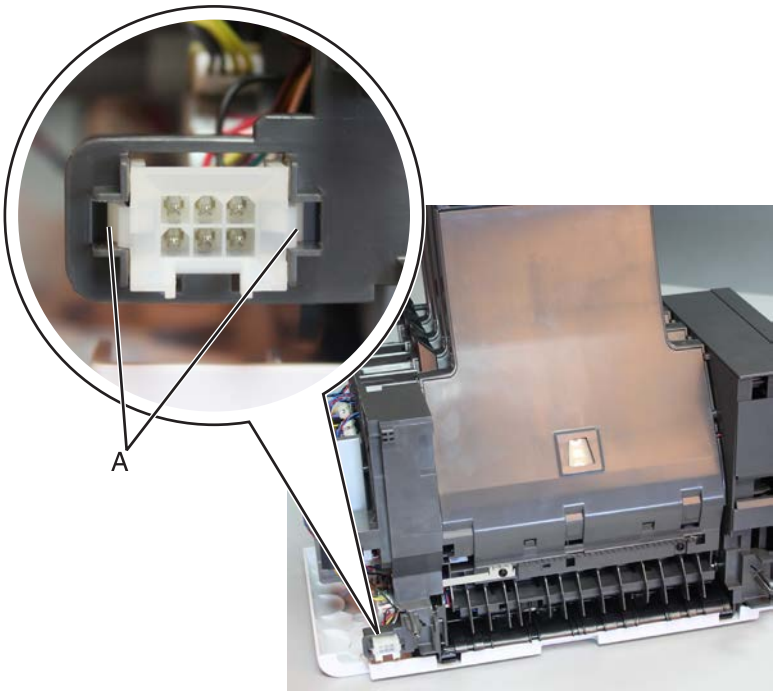
3 Disconnect the lower interface cable J1A from the controller board.



4 Cut the cable tie holding the lower interface cable.

Installation note: Make sure the cables don't get in the way of moving parts.

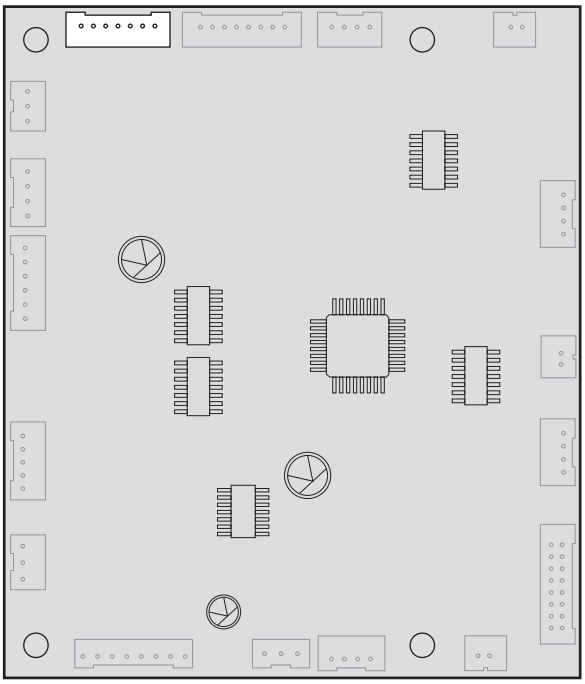
5 Push inward to release the latches (A), then push the connector off its slot.



6 Remove the lower interface cable.

Mailbox upper interface cable removal

1. Remove the mailbox top cover. See **“Mailbox top cover removal” on page 690**,
2. Remove the mailbox left cover. See **“Mailbox left cover removal” on page 696**.
3. Disconnect the upper interface cable J1B from the controller board.

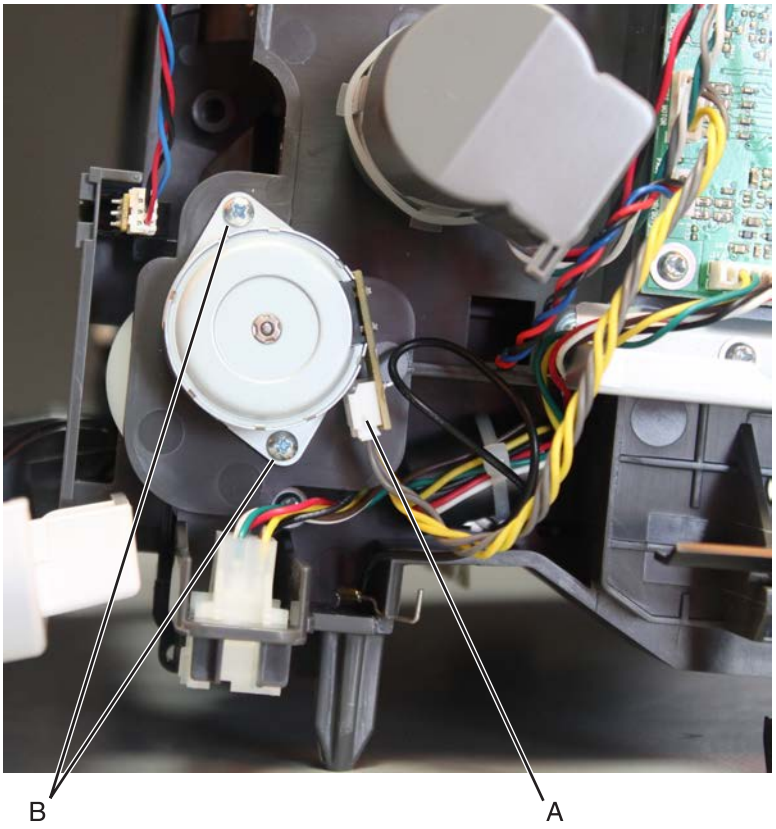


4. Crimp both connector pins, using pliers to make them fit the pin holes. Push the connector off its slot.
5. Remove the upper interface cable.

Motor (mailbox diverter) removal

1. Remove the mailbox top cover. See **“Mailbox top cover removal” on page 690**.
2. Remove the mailbox left cover. See **“Mailbox left cover removal” on page 696**.

3 Disconnect the cable (A), and then remove the two screws (B) using a #1 Phillips screwdriver.



4 Remove the motor.

Mailbox bin full flag removal

1 Pull the flag to release the flag hinge.

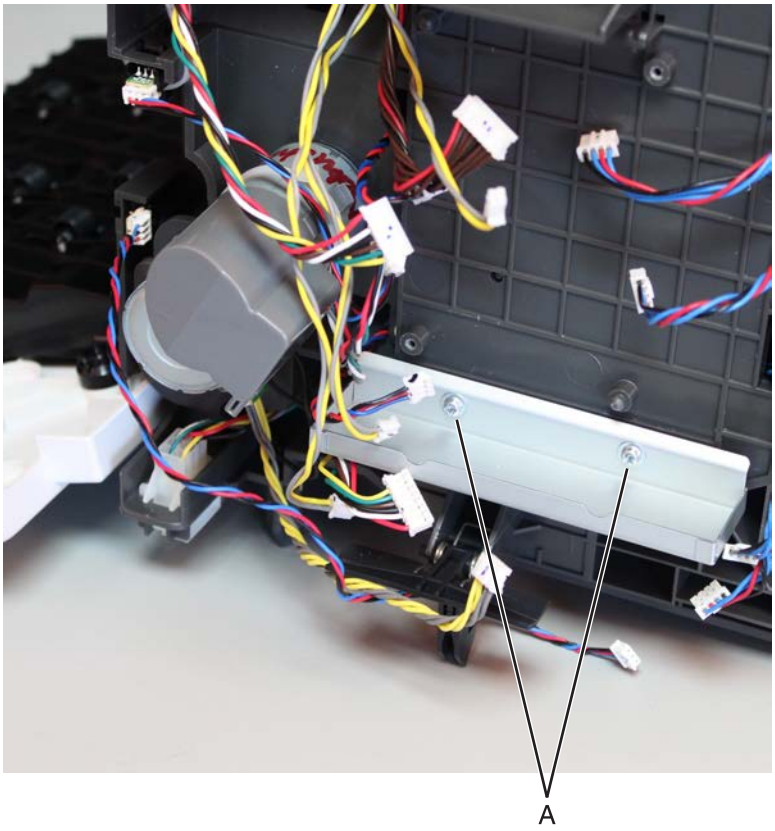
2 Release the flag from the mailbox, and then remove it.

Installation note: Make sure that the flag hinge pins are inserted into their corresponding slots.

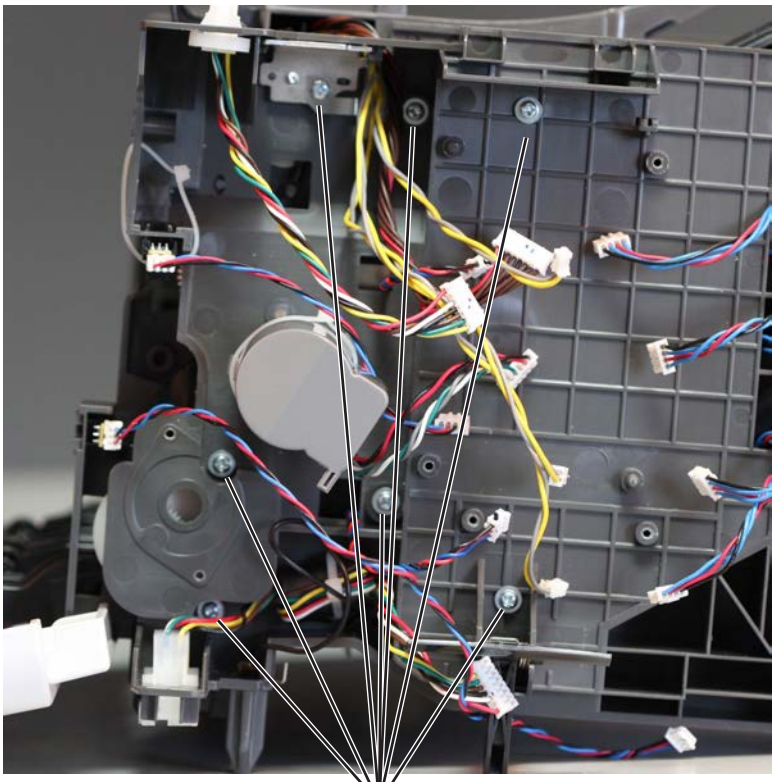
Sensor (mailbox bin full) removal

1. Remove the mailbox top cover. See **“Mailbox top cover removal” on page 690**.
2. Remove the mailbox left cover. See **“Mailbox left cover removal” on page 696**.
3. Remove the motor (mailbox diverter). See **“Motor (mailbox diverter) removal” on page 714**.
4. Remove the mailbox controller board. See **“Mailbox controller board removal” on page 709**.

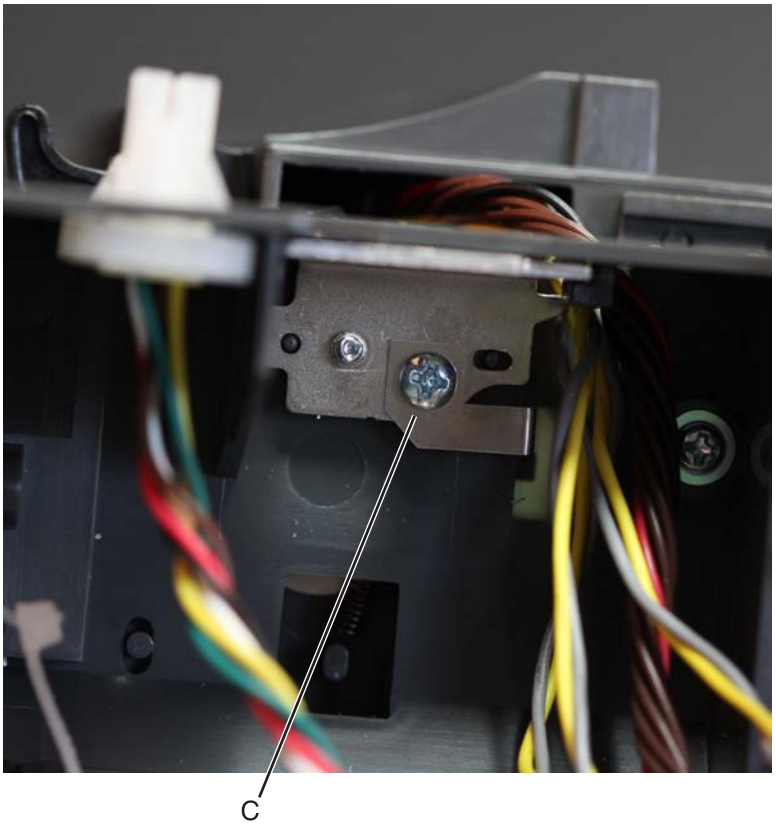
5 Remove the two screws (A), and then remove the shield.



6 Remove the seven screws (B), and then release the left frame.

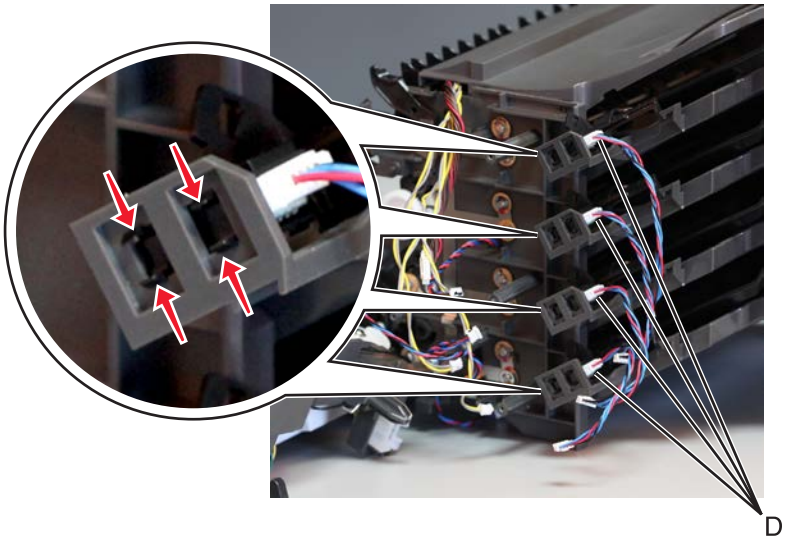


Installation note: Pay attention to the original position of the grounding plate (C).



7 Slightly pull the left frame to access the sensors behind it.

8 Disconnect the sensor cable (D), and then remove the sensor.

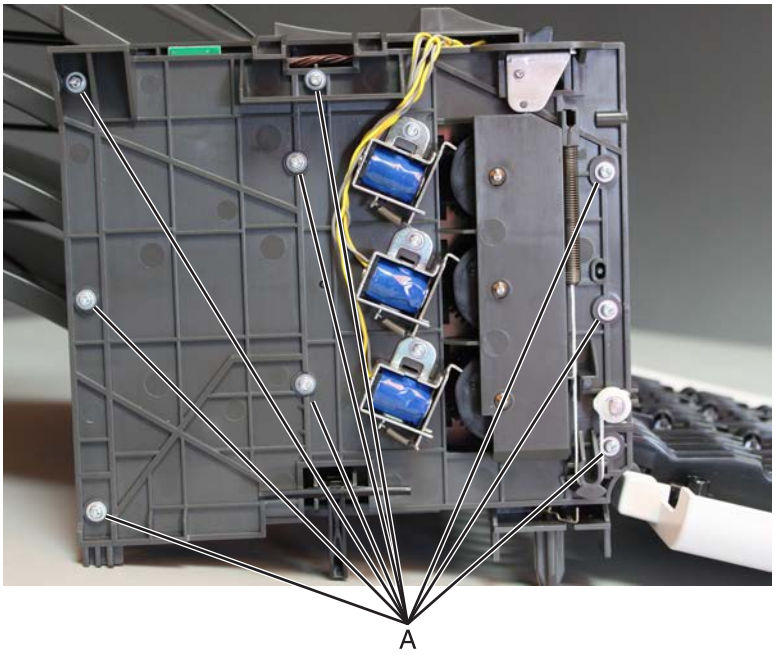


Mailbox belt removal

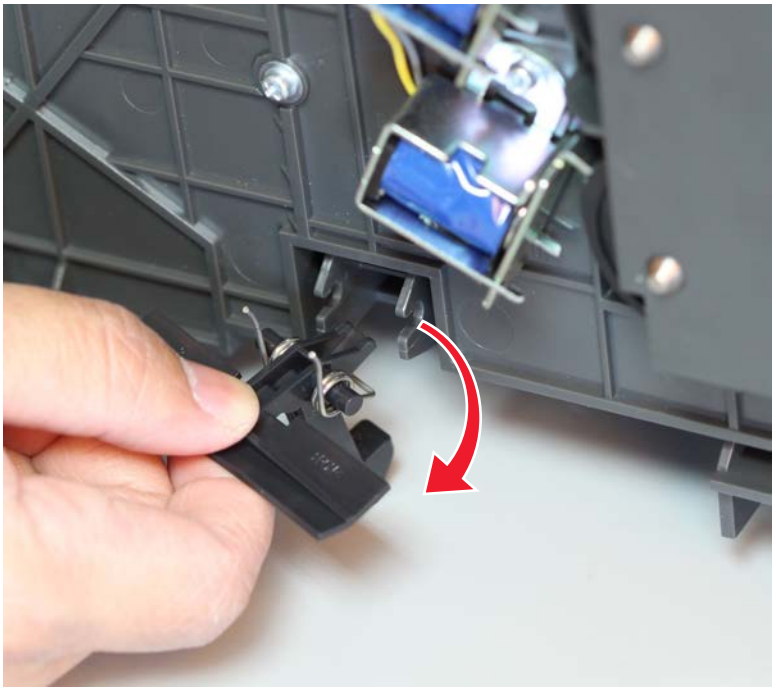
1 Remove the mailbox top cover. See **“Mailbox top cover removal” on page 690**.

2 Remove the mailbox right cover. See **“Mailbox right cover removal” on page 693**.

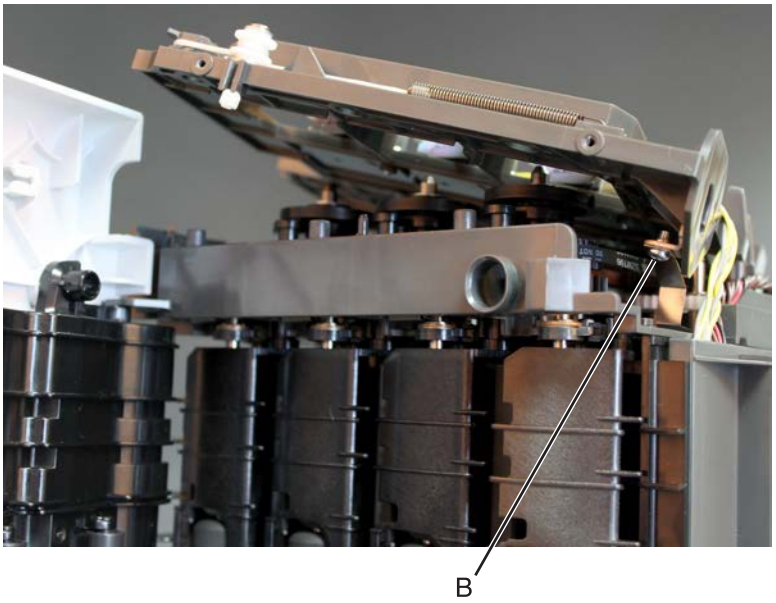
3 Remove the nine screws (A) from the inner right frame.



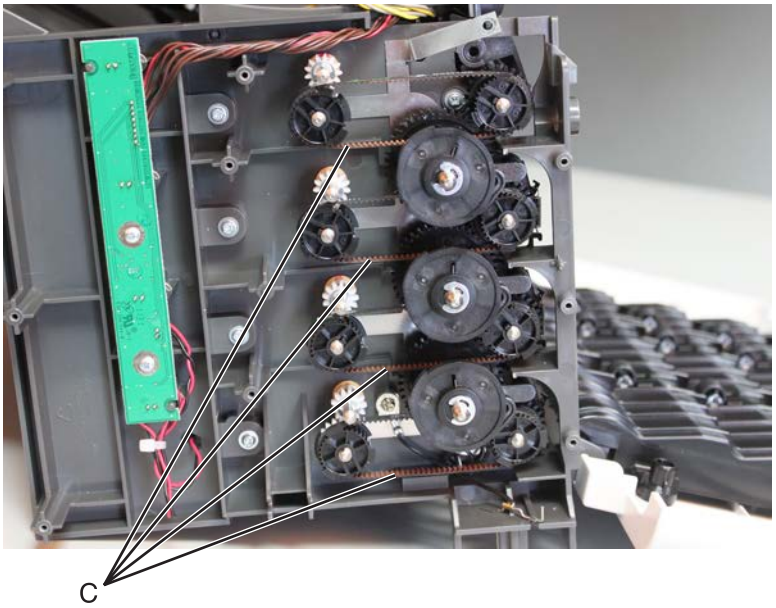
4 Pull the latch to release, then remove.



5 Carefully lift the inner right frame, then remove the ground screw (B).



6 Swing away the inner right frame to access the belt (C).



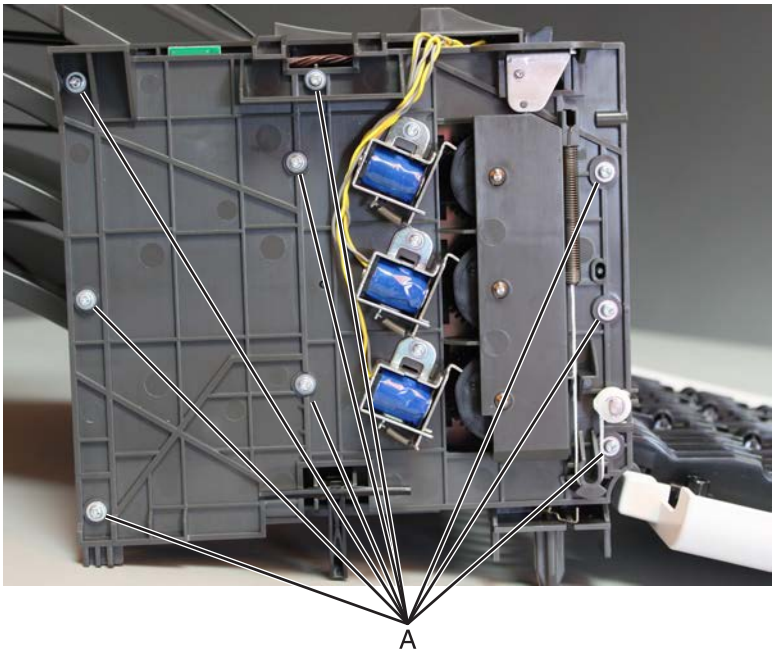
7 Remove the belt.

Mailbox bin LED assembly removal

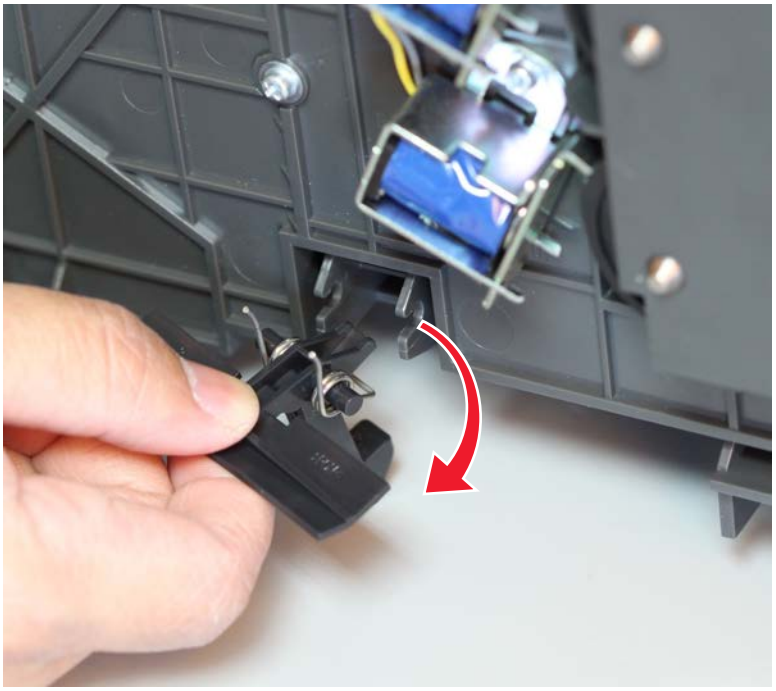
1 Remove the mailbox top cover. See **“Mailbox top cover removal” on page 690**.

2 Remove the mailbox right cover. See **“Mailbox right cover removal” on page 693**.

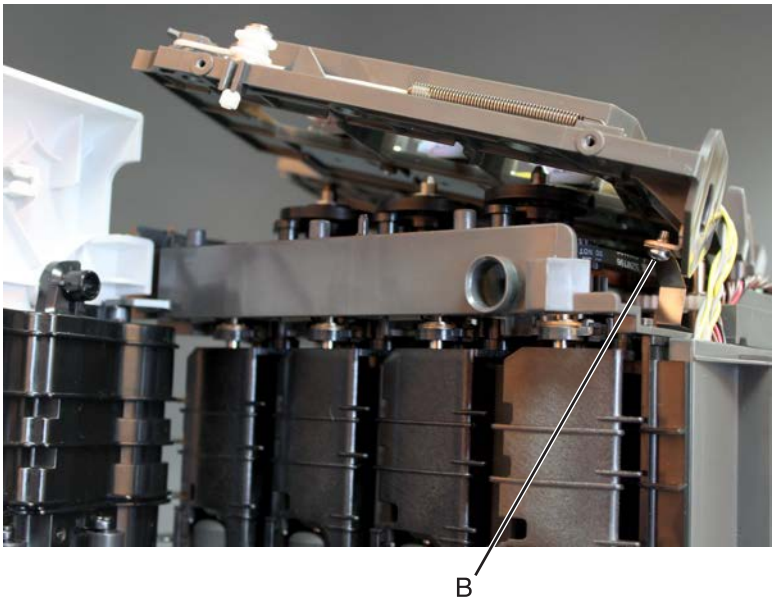
3 Remove the nine screws (A).



4 Pull the latch to release, and then remove it.

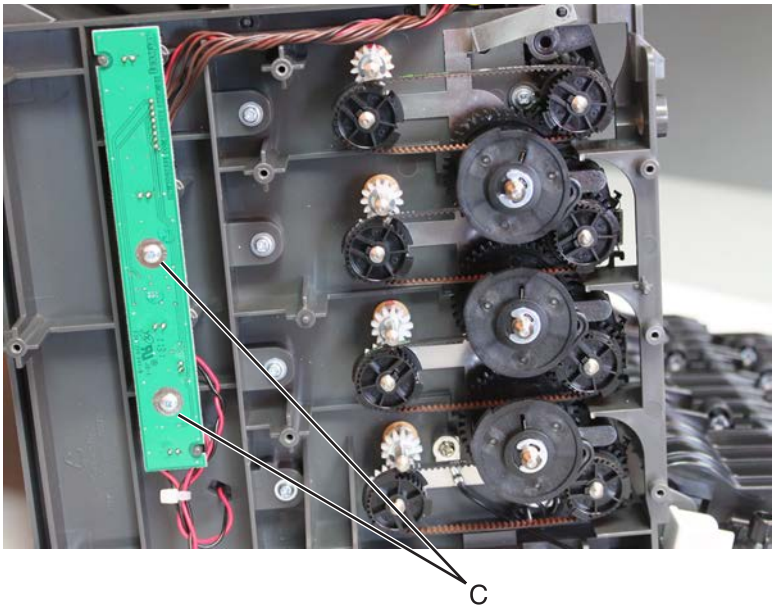


5 Carefully pull the inner right frame, and then remove the ground screw (B).

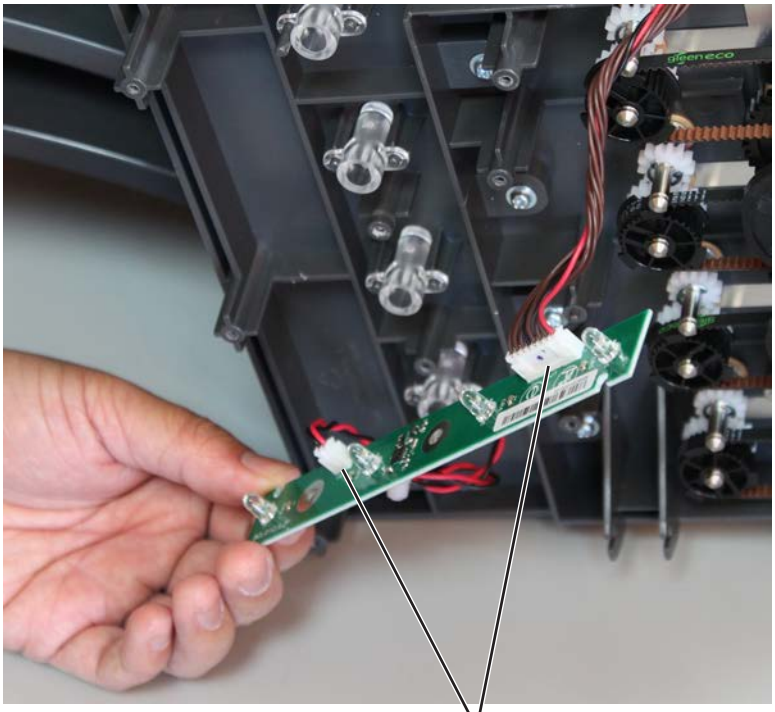


6 Move away the inner right frame to access the LED assembly behind it.

7 Remove the two screws (C) Using a #1 Phillips screwdriver, and then release the LED assembly.



8 Disconnect the two cables (D), and then remove the bin LED assembly.



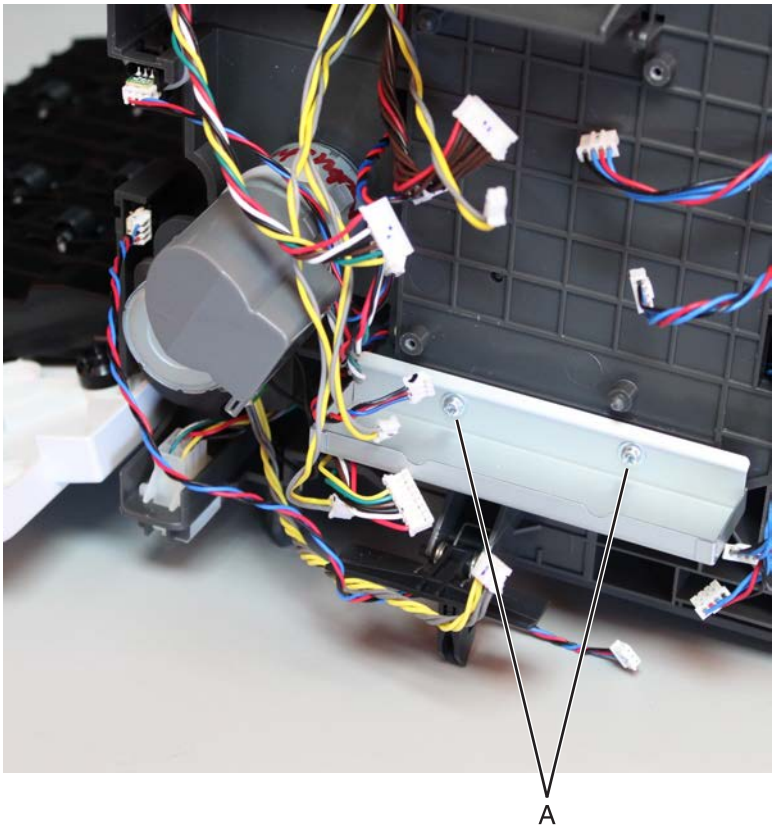
Mailbox top diverter removal

1 Remove the mailbox left cover. See **“Mailbox left cover removal” on page 696**.

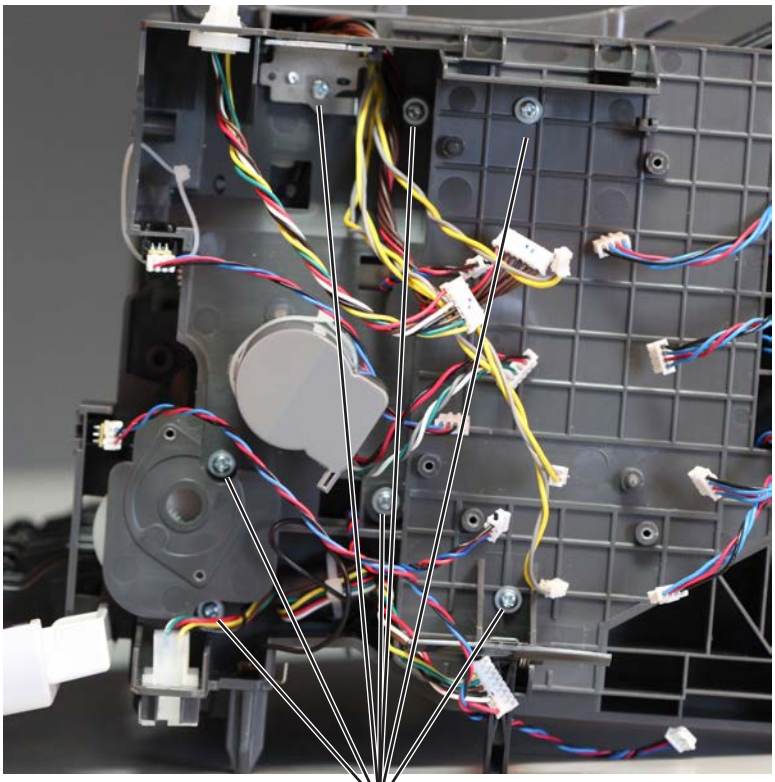
2 Remove the mailbox rear door. See **“Mailbox rear door removal” on page 691**.

3 Remove the mailbox controller board. See **“Mailbox controller board removal” on page 709**.

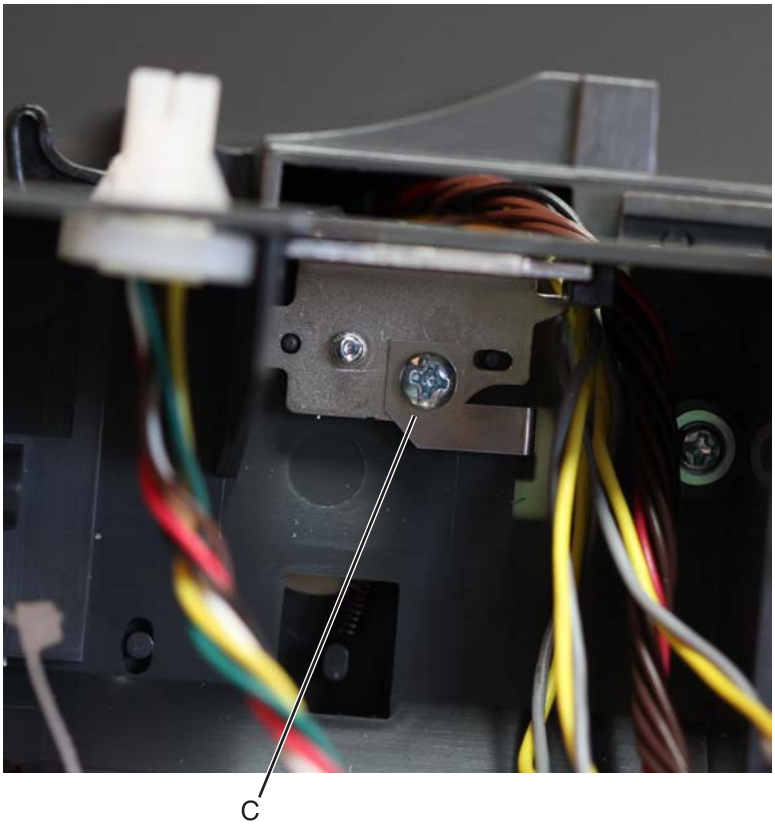
4 Remove the two screws (A), and then remove the shield.



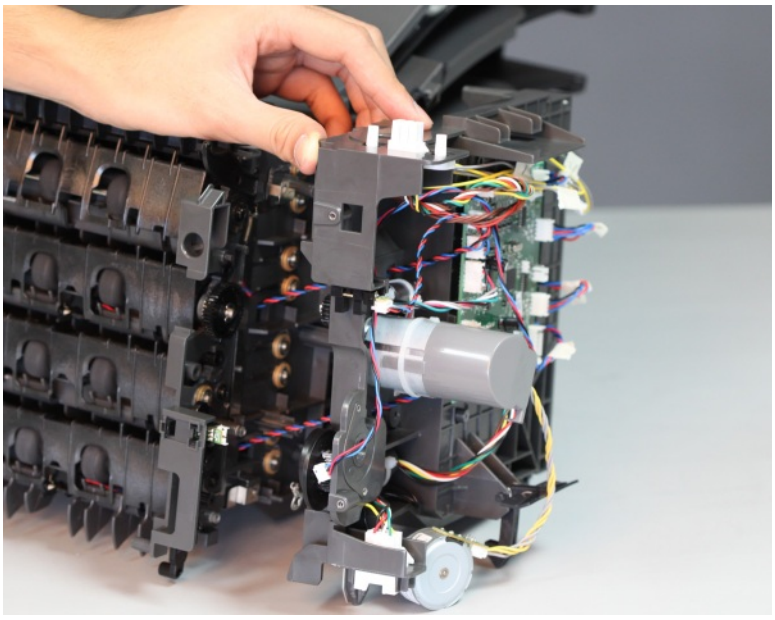
5 Remove the seven screws (B), and then release the inner left frame.



Note: Pay attention to the original position of the grounding plate (C).

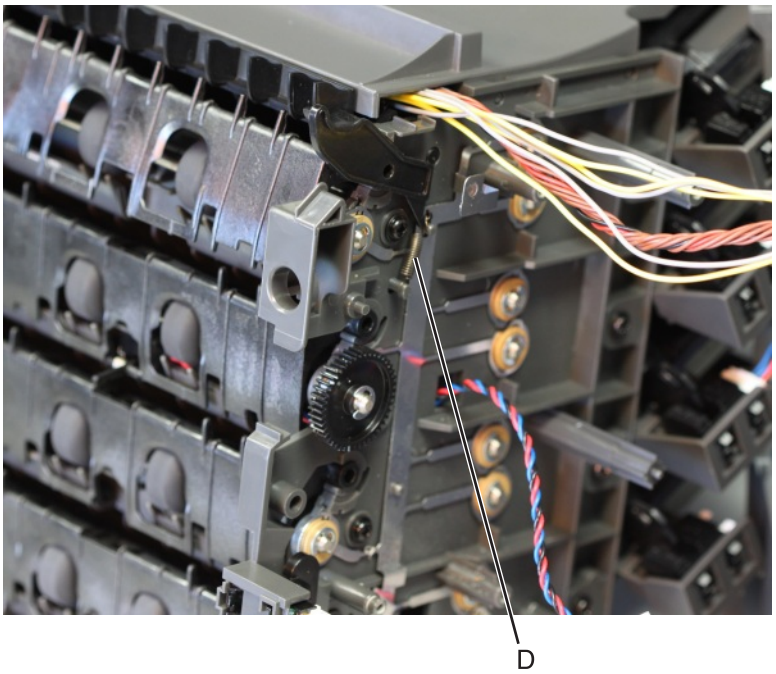


6 Move away the left inner frame to access the parts underneath it.

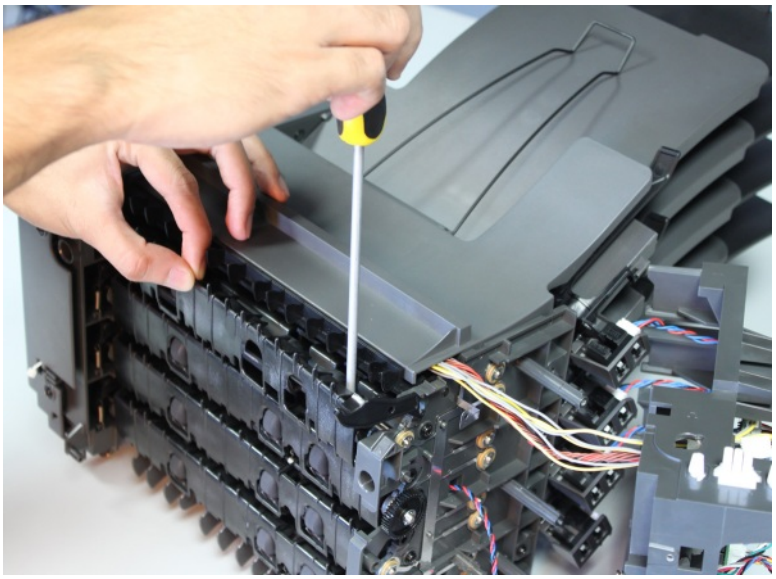


7 Unhook the diverter spring (D) to release the diverter.

Note: Be careful not to lose the diverter spring.

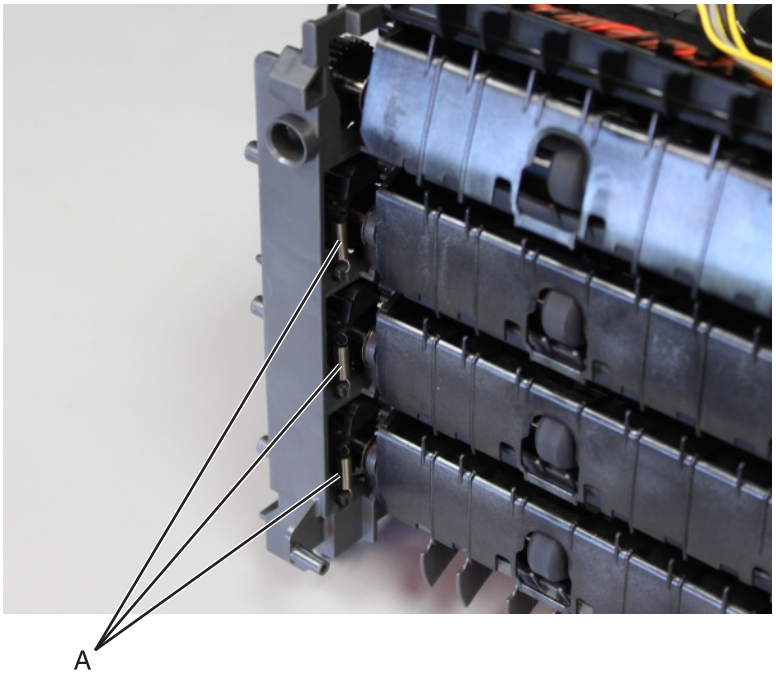


8 Pry the diverter off its hinge. Dislodge also the other end of the diverter, and then remove the diverter.

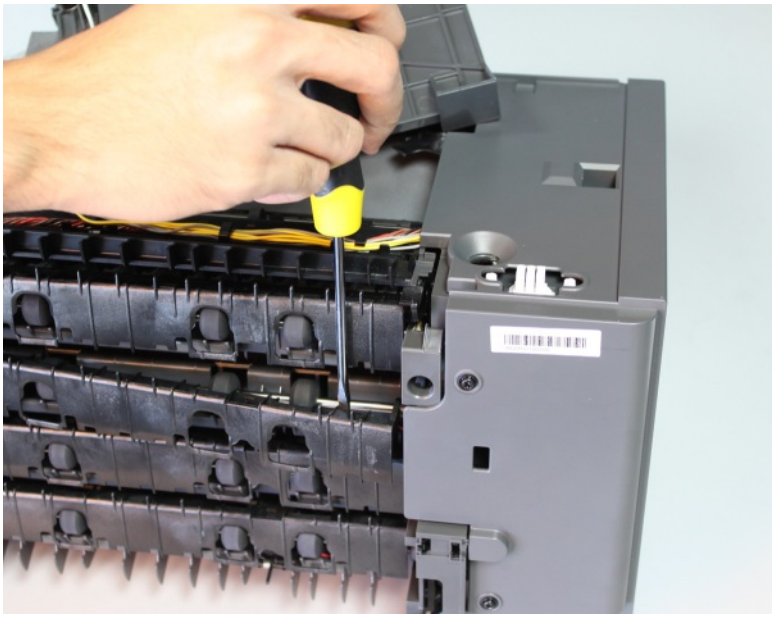


Mailbox middle diverter removal

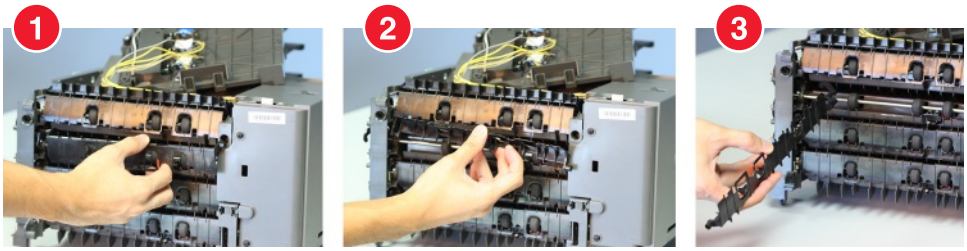
1. Remove the mailbox rear door. See **“Mailbox rear door removal” on page 691**.
2. Release the spring (A) from the diverter.



3. Pry the right end of the diverter until it is released.

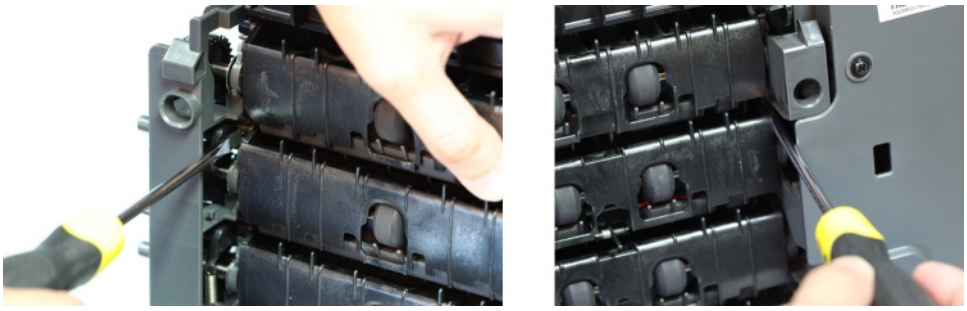


4 Carefully twist until the left end is also released.



5 Remove the diverter.

Installation note: Use a flat-head screwdriver to push the left and right ends of the diverter in place.



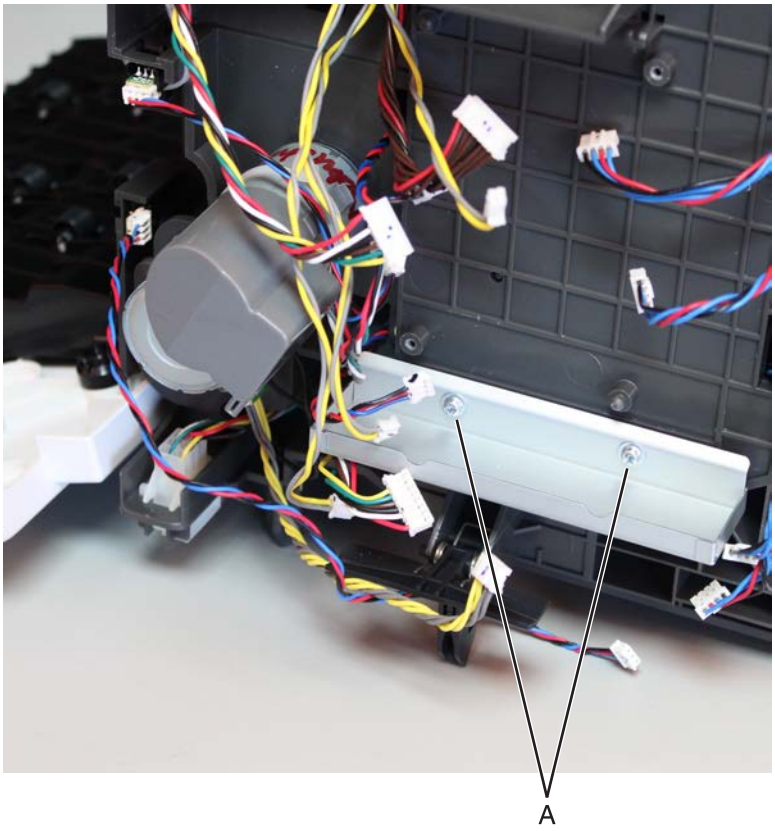
Mailbox top diverter spring removal

1 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 696**.

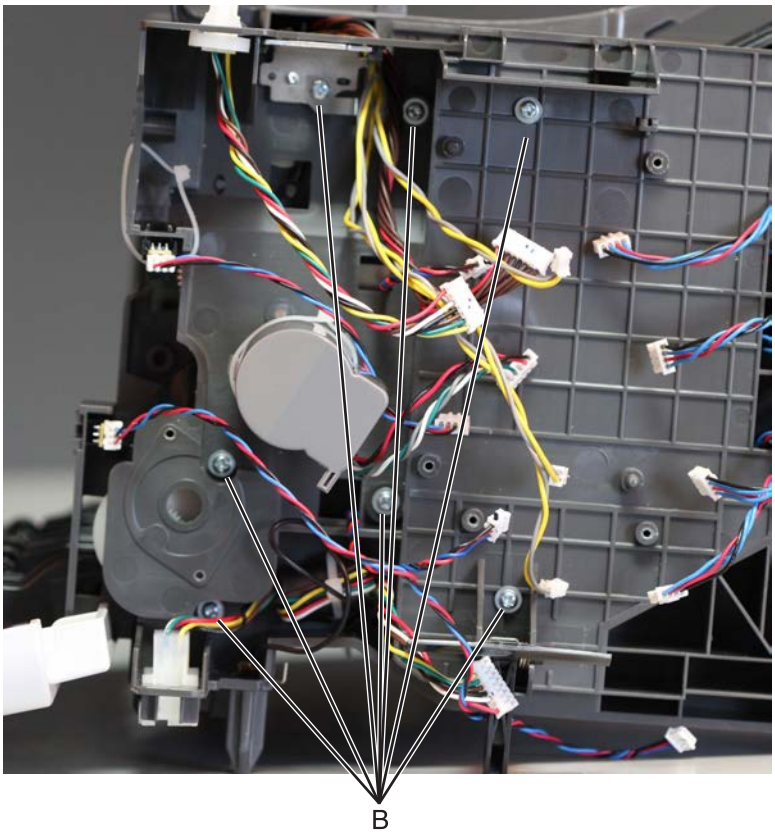
2 Remove the mailbox rear door. See **"Mailbox rear door removal" on page 691**.

3 Remove the mailbox controller board. See **"Mailbox controller board removal" on page 709**.

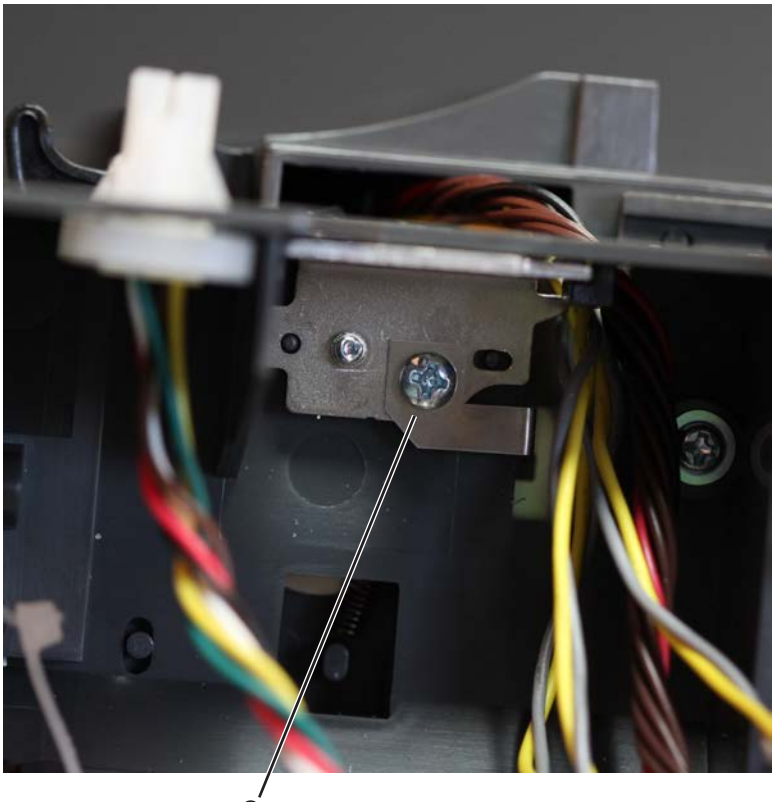
4 Remove the two screws (A), and then remove the shield.



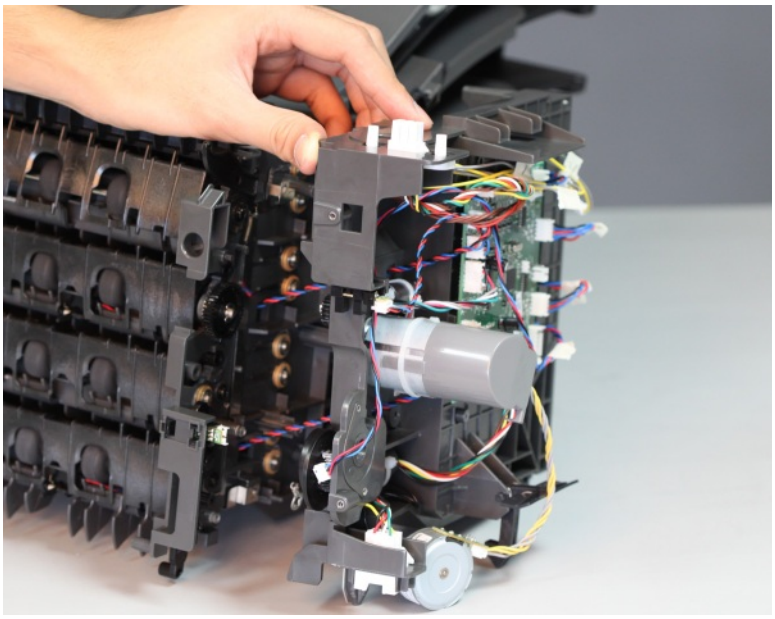
5 Remove the seven screws (B), and then release the inner left frame.



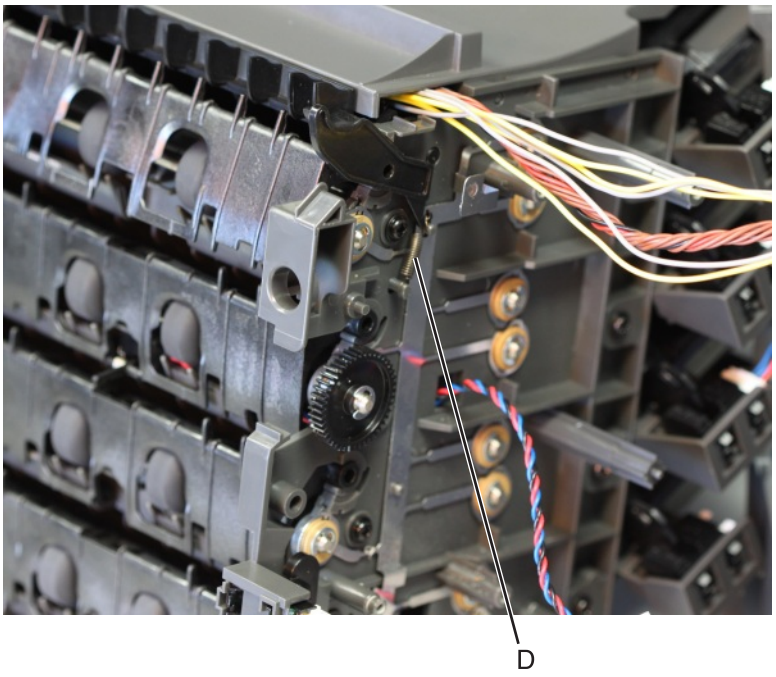
Note: Pay attention to the original position of the grounding plate (C).



6 Move away the left inner frame to access the parts underneath it.



7 Unhook, and then remove the diverter spring (D).



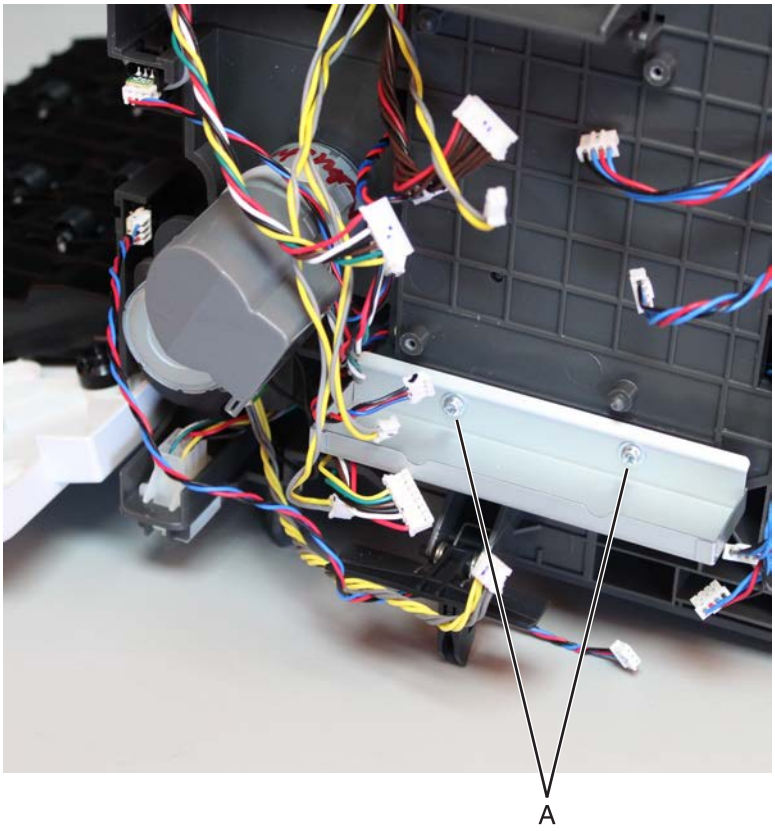
Sensor (mailbox pass-through) removal

1 Remove the mailbox left cover. See **“Mailbox left cover removal” on page 696**.

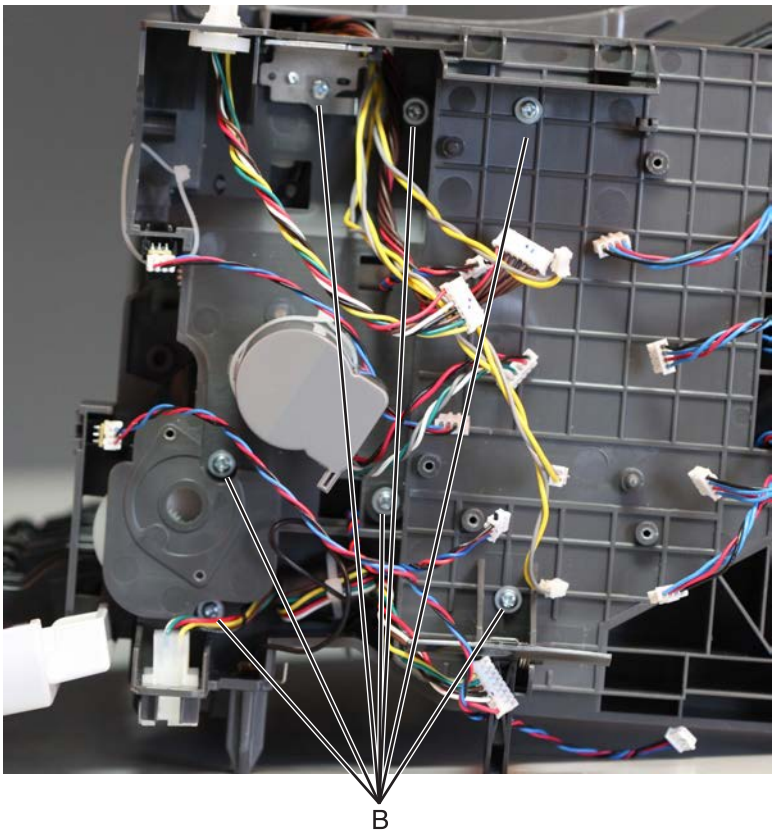
2 Remove the mailbox rear door. See **“Mailbox rear door removal” on page 691**.

3 Remove the mailbox controller board. See **“Mailbox controller board removal” on page 709**.

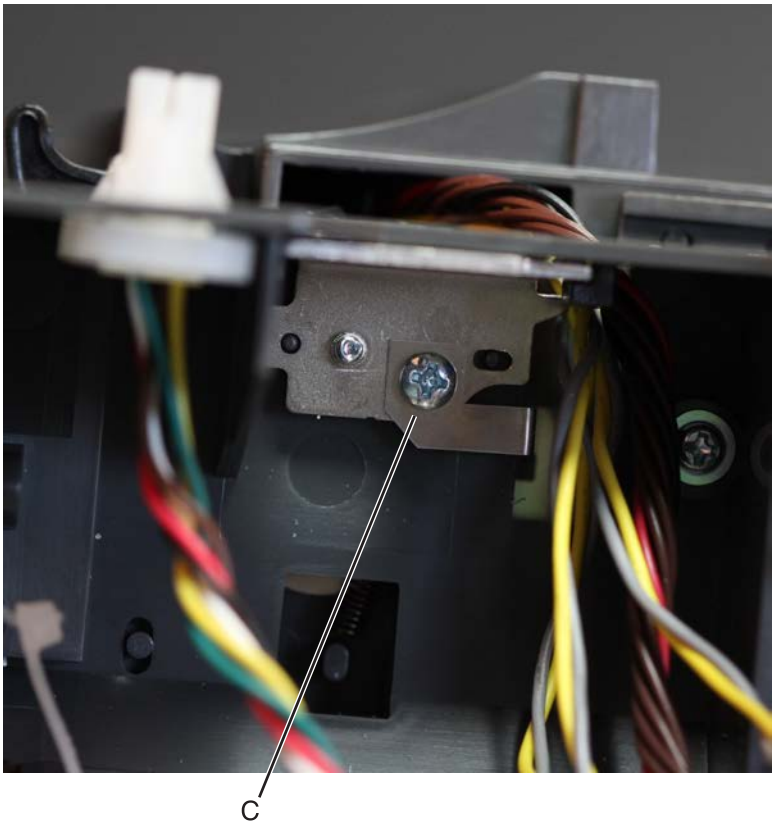
4 Remove the two screws (A), and then remove the shield.



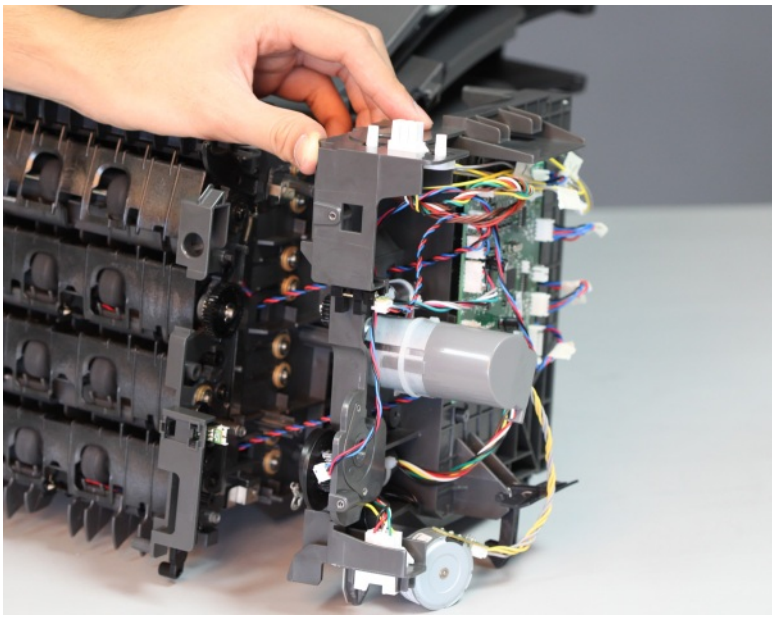
5 Remove the seven screws (B), and then release the inner left frame.



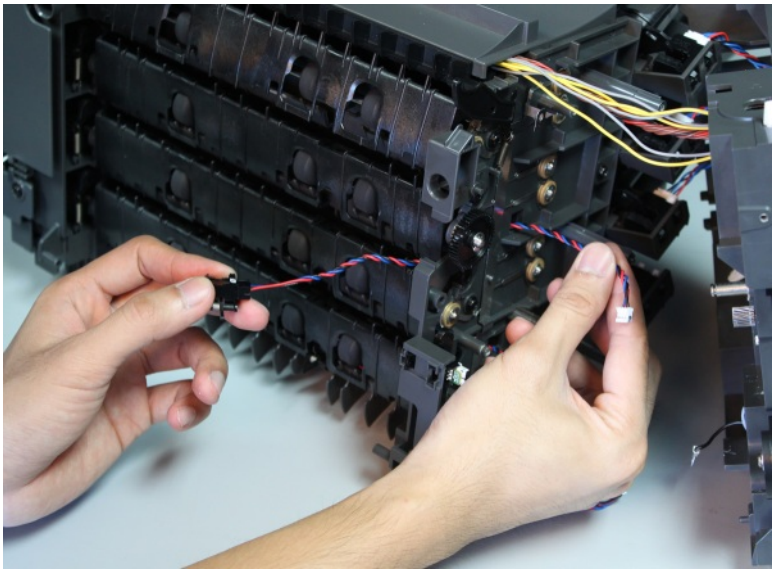
Note: Pay attention to the original position of the grounding plate (C).



6 Move away the inner left frame to access the parts underneath it.



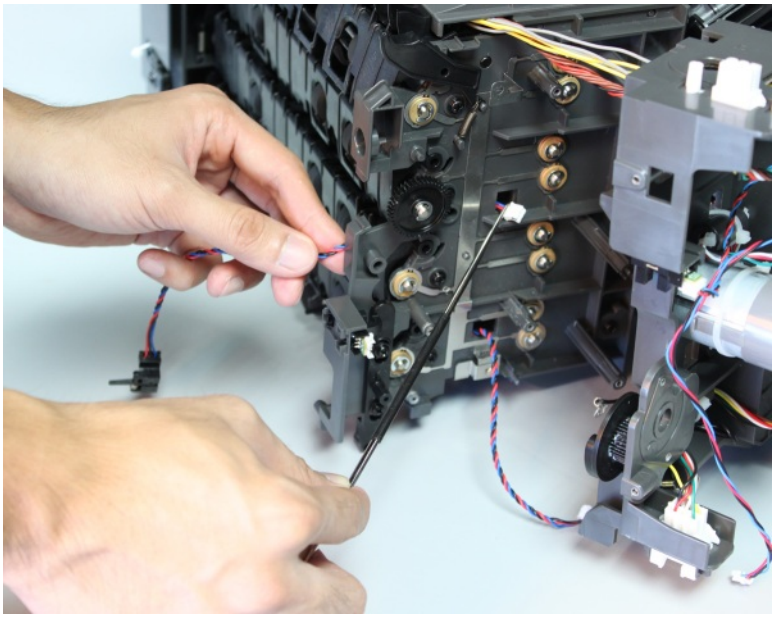
7 Pull the sensor off its slot, and then carefully release the cable from its cable guides.



8 Thread the sensor cable through the hole until it is removed.

Note: Pay attention to the original route of the sensor cable.

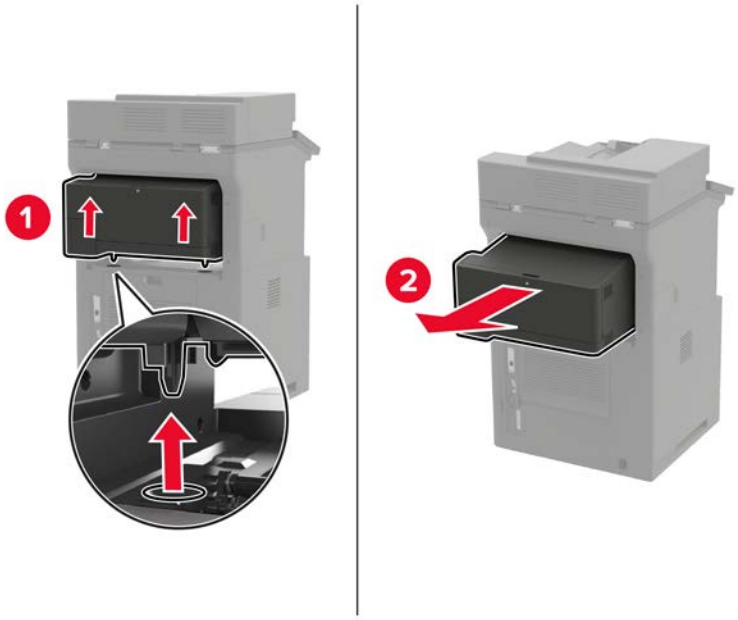
Installation note: There will be some difficulty inserting the connector through the hole. Use a spring hook to thread the connector through the hole.



Optional staple, hole punch finisher removals

Optional staple, hole punch finisher removal

Lift the optional bin to release, and then remove it.



Left staple cartridge access door removal

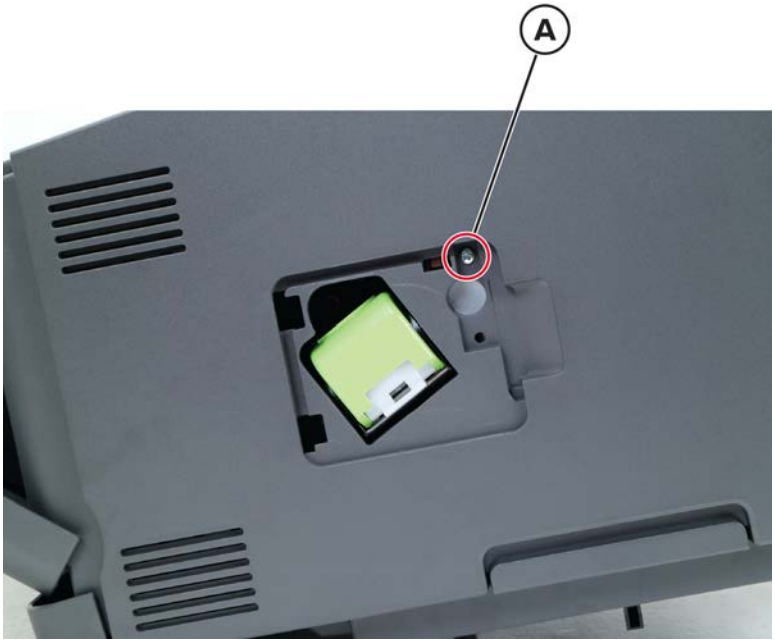
1 Open the access door.

2 Pull, and then remove the door.

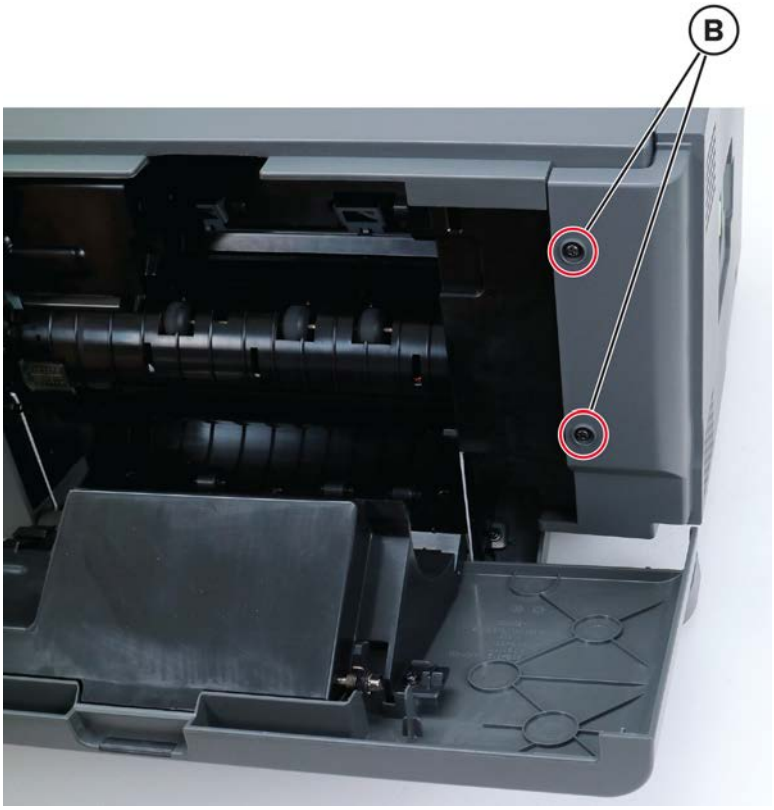
Staple, hole punch finisher left cover removal

1 Remove the left staple cartridge access door. See **"Left staple cartridge access door removal" on page 741**.

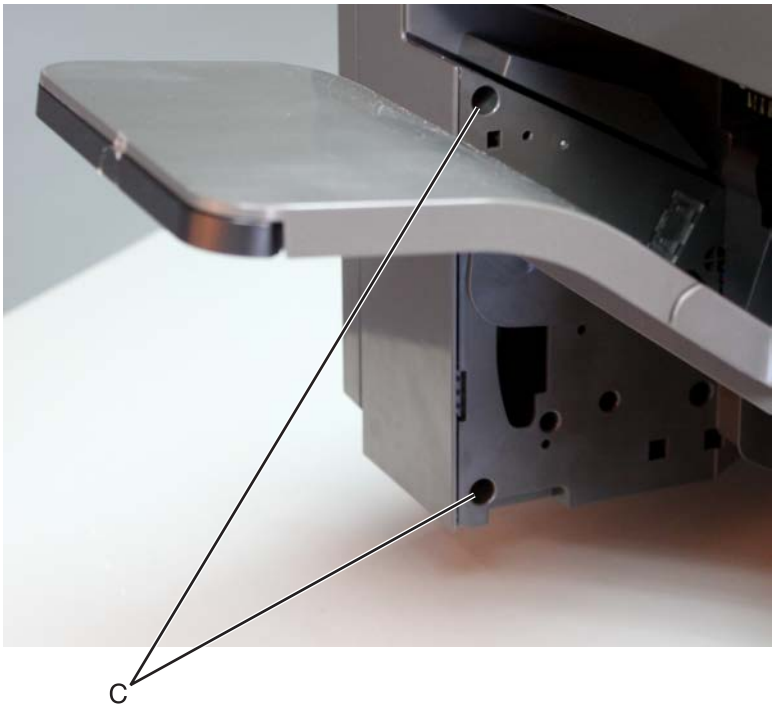
2 Remove the screw (A).



3 Open the rear door, and then remove the two screws (B).



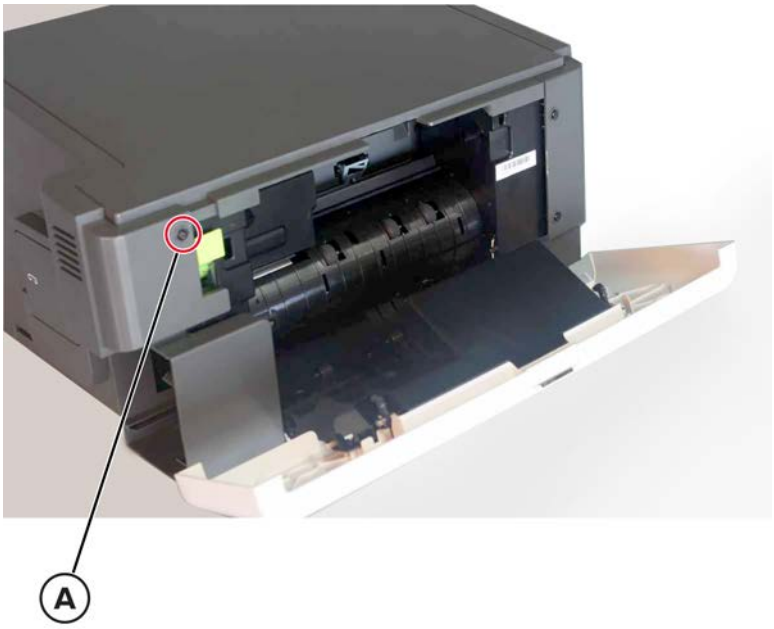
4 From the front, remove the two screws (C).



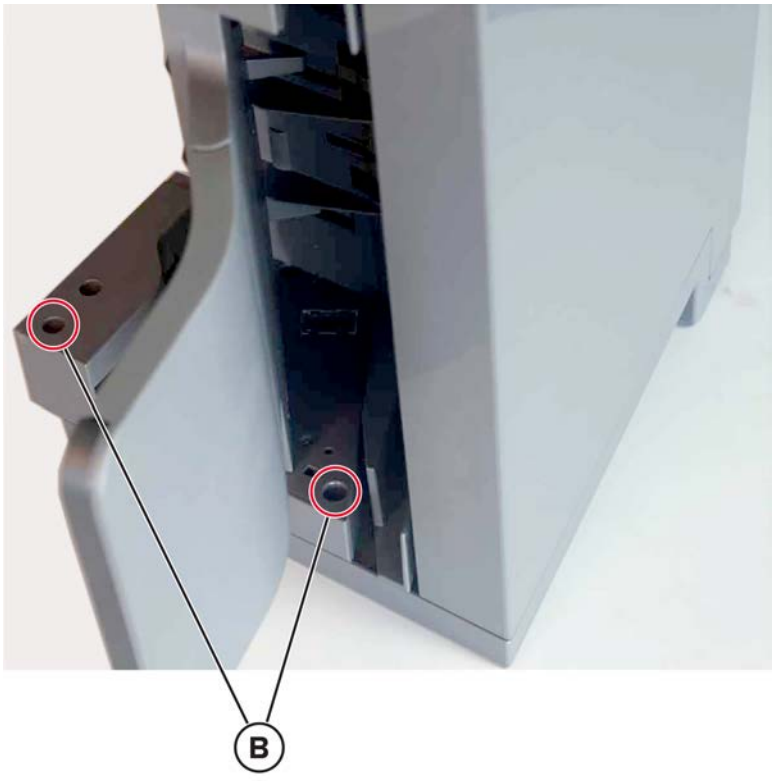
5 Remove the cover.

Staple, hole punch finisher right cover removal

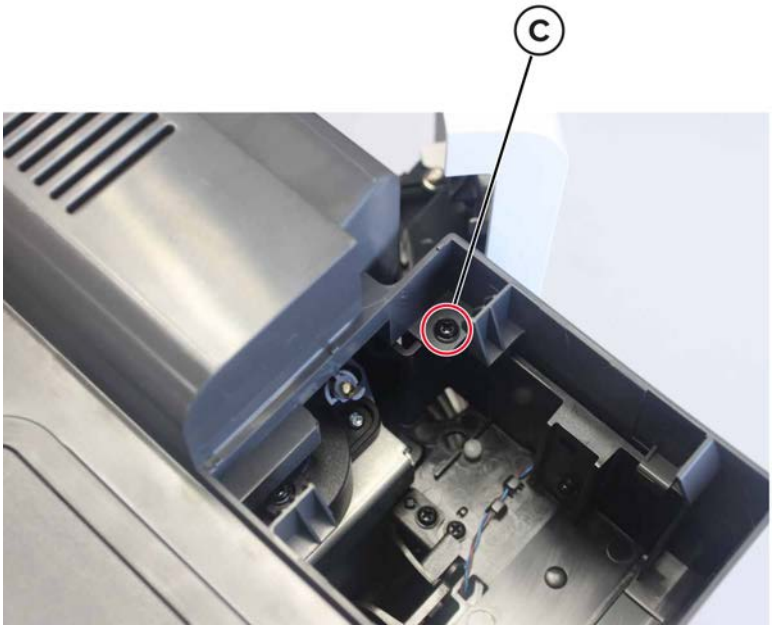
1 Open the rear door, and then remove the screw (A).



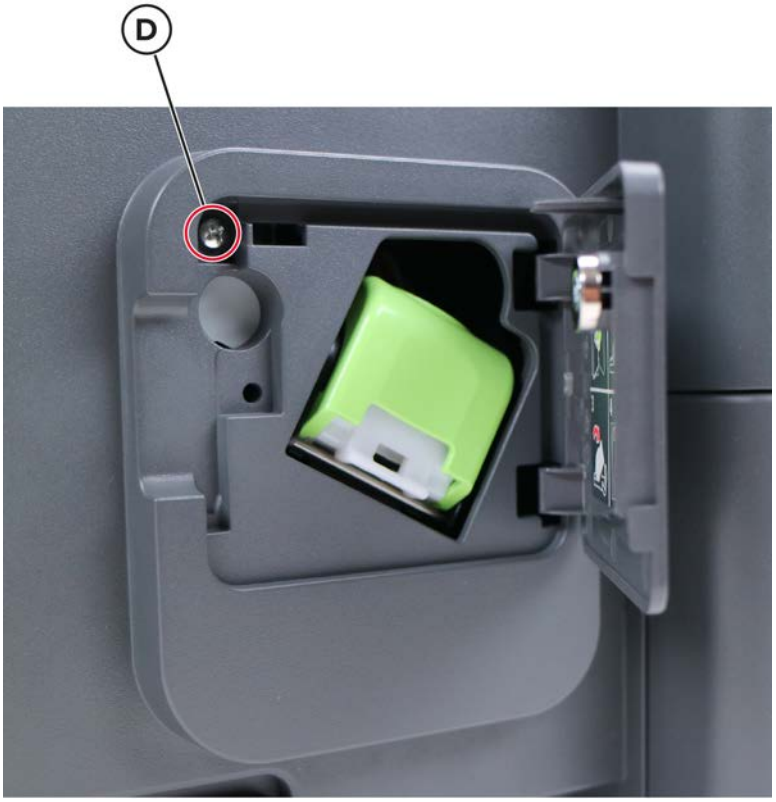
2 From the front, remove the two screws (B).



3 Remove the hole punch box, and then remove the screw (C).



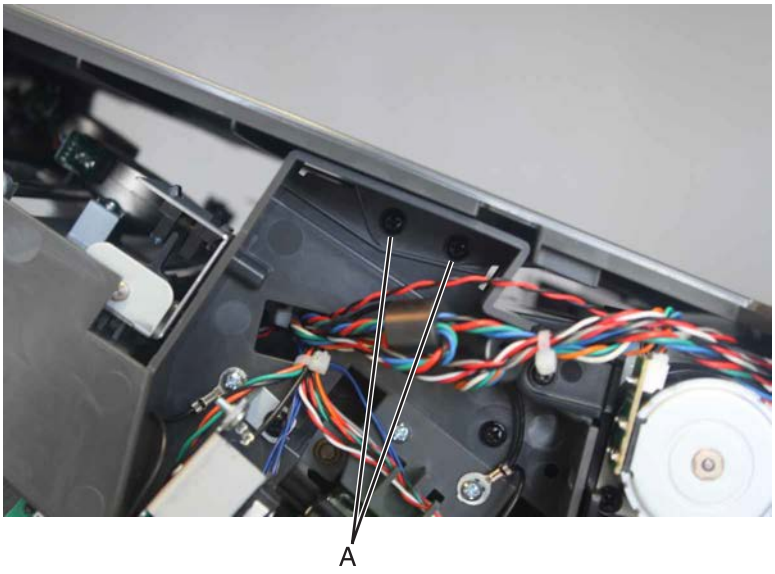
4 Open door F, and then remove the screw (D).



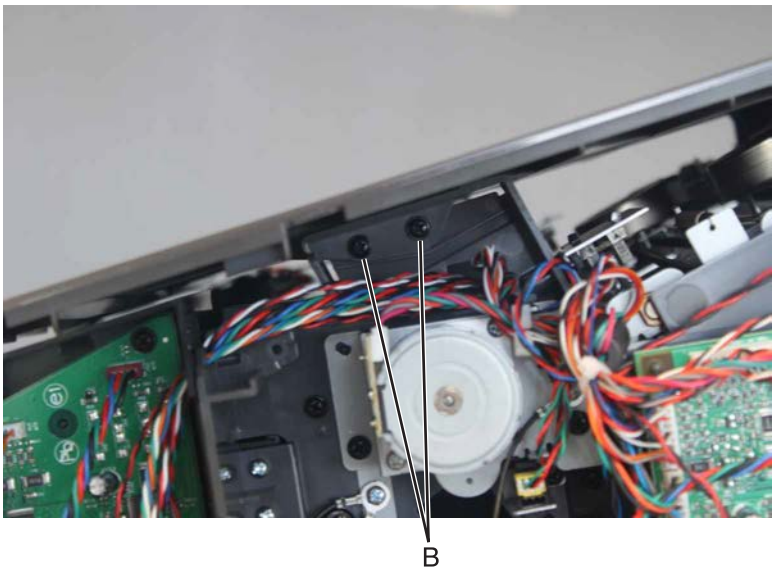
5 Remove the cover.

Staple, hole punch finisher top cover removal

1. Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 741**.
2. Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 743**.
3. From the right side, remove the two screws (A).



4. From the left side, remove the two screws (B).

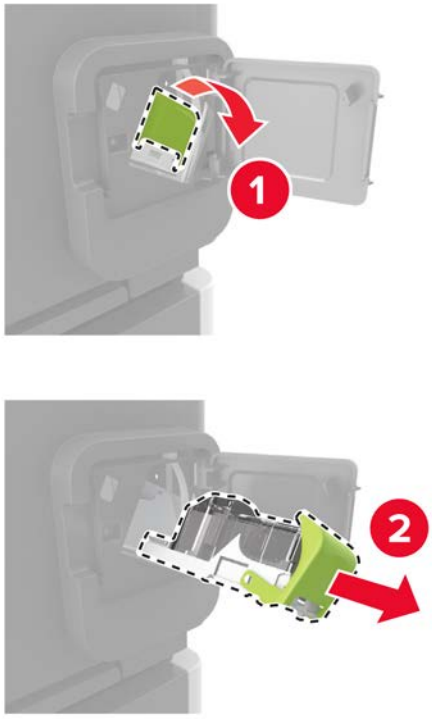


5. Remove the cover.

Staple cartridge holder removal

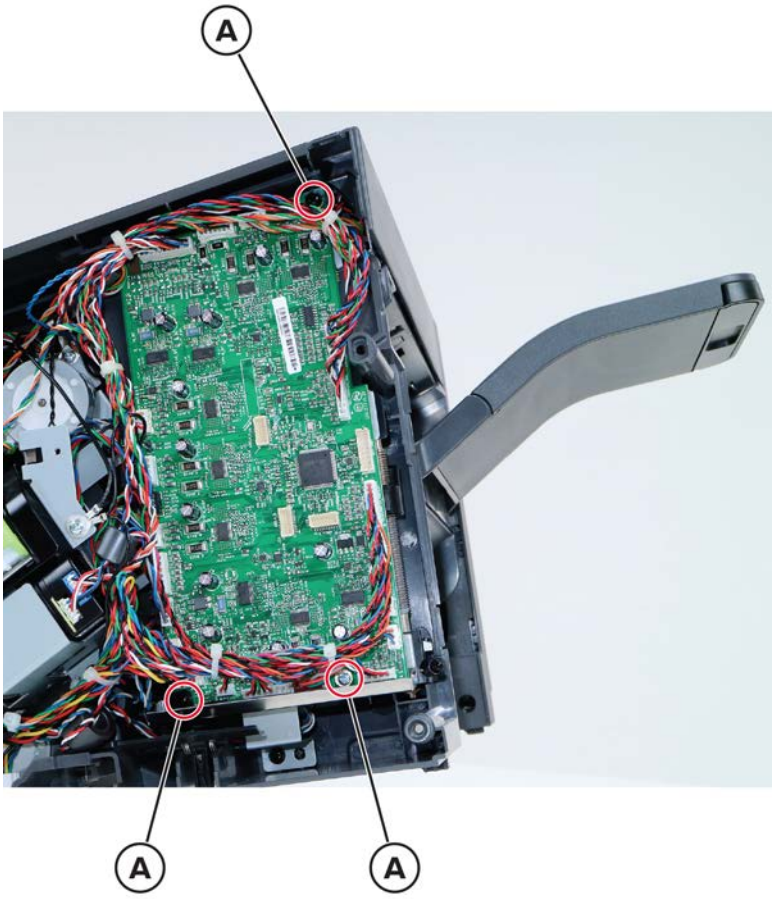
1 Open the staple cartridge access door.

2 Remove the cartridge holder.



Staple, hole punch finisher controller board removal

1. Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.
2. Disconnect all the cables from the controller board, and then remove the three screws (A).

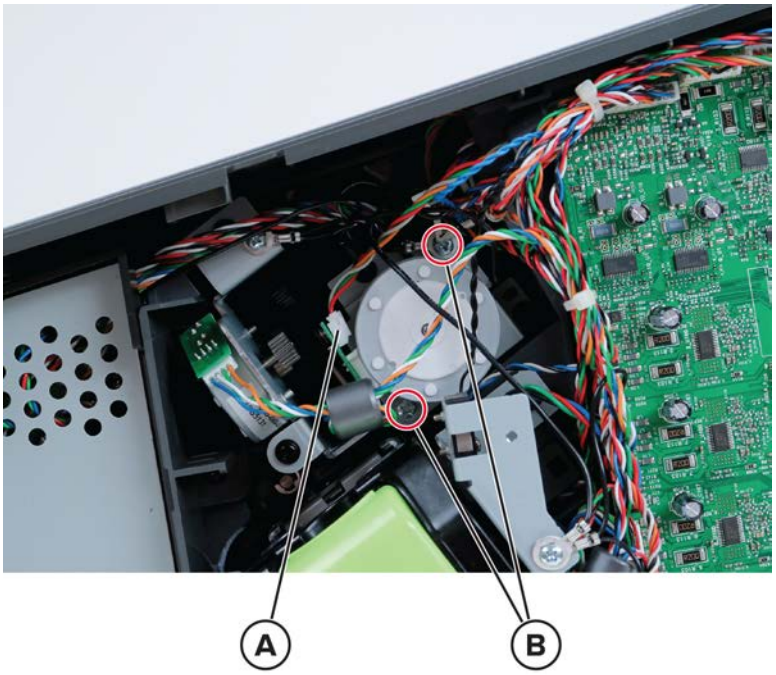


3. Remove the board.

Motor (SHPF paddle) removal

1 Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.

2 Disconnect the cable (A), and then remove the two screws (B).



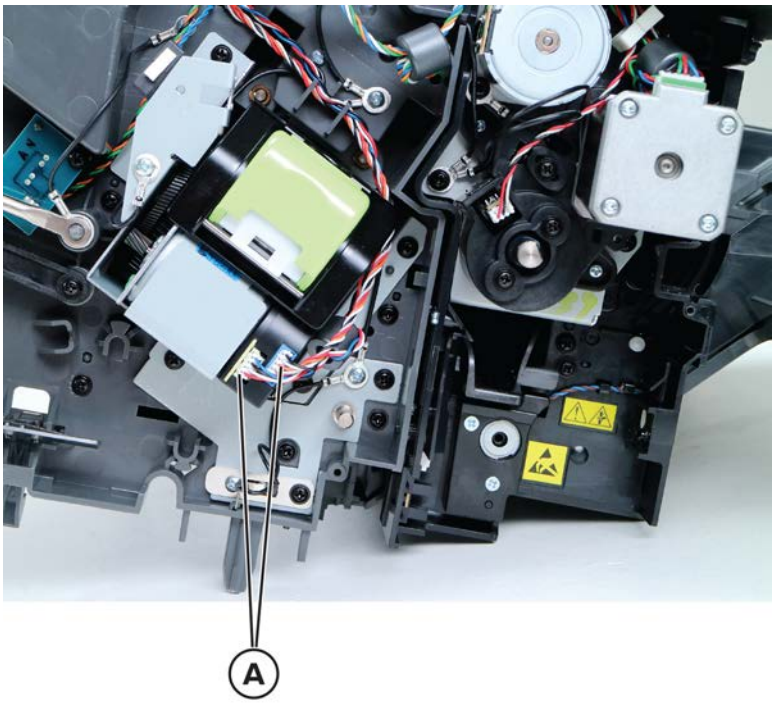
3 Remove the motor.

SHPF staple cartridge door close limit switch removal

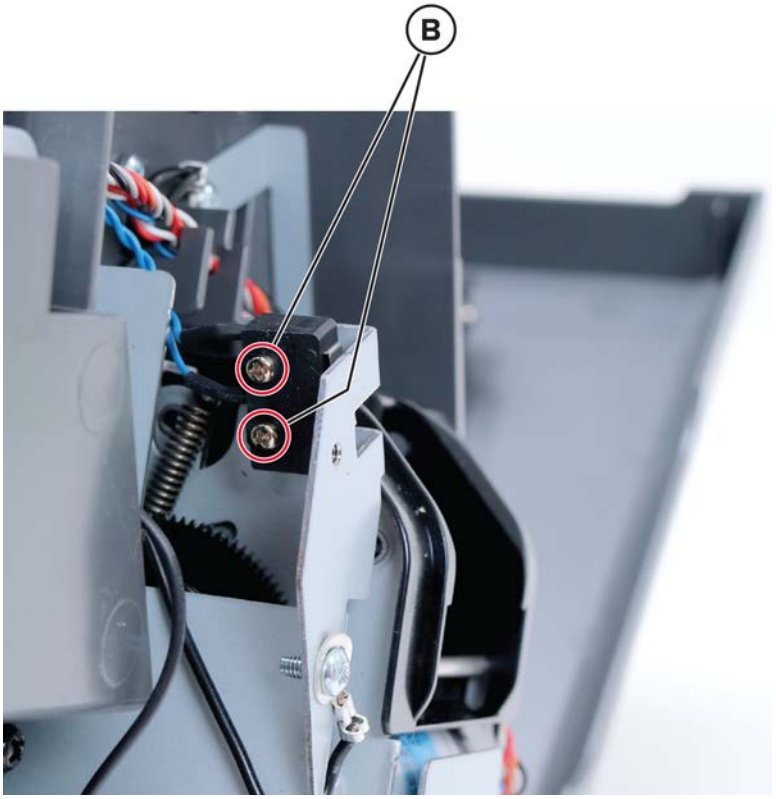
1 Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.

2 Remove the staple, hole punch finisher right cover. See **“Staple, hole punch finisher right cover removal” on page 743**.

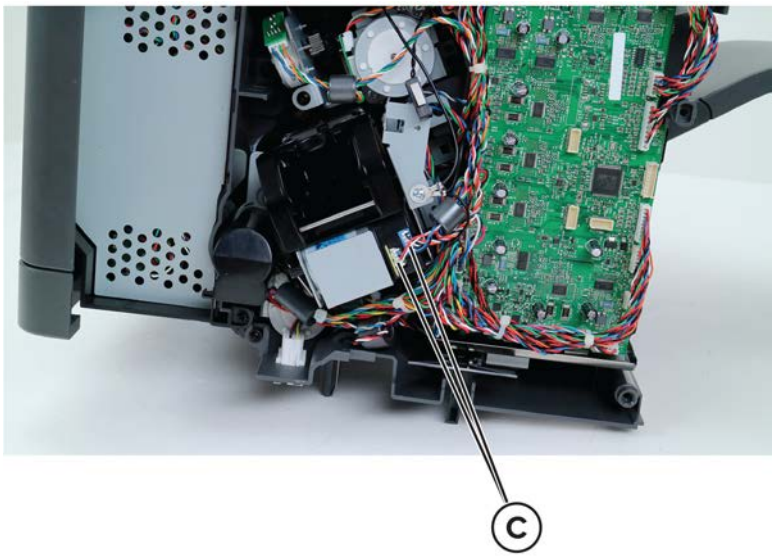
3 From the right side, disconnect the two cables (A).



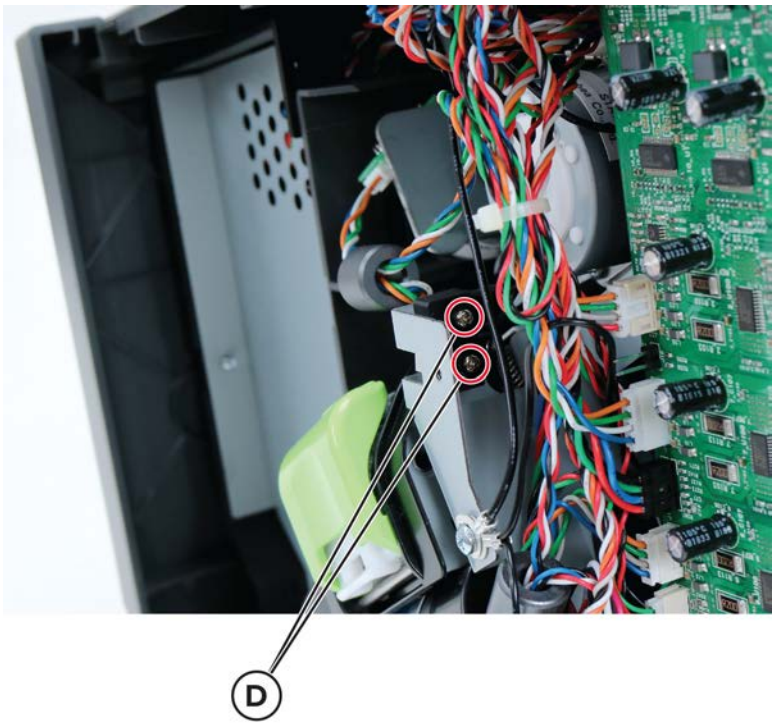
4 Remove the screws (B), and then release the right limit switch.



5 From the left side, disconnect the two cables (C)



6 Remove the two screws (D), and then release the left limit switch.



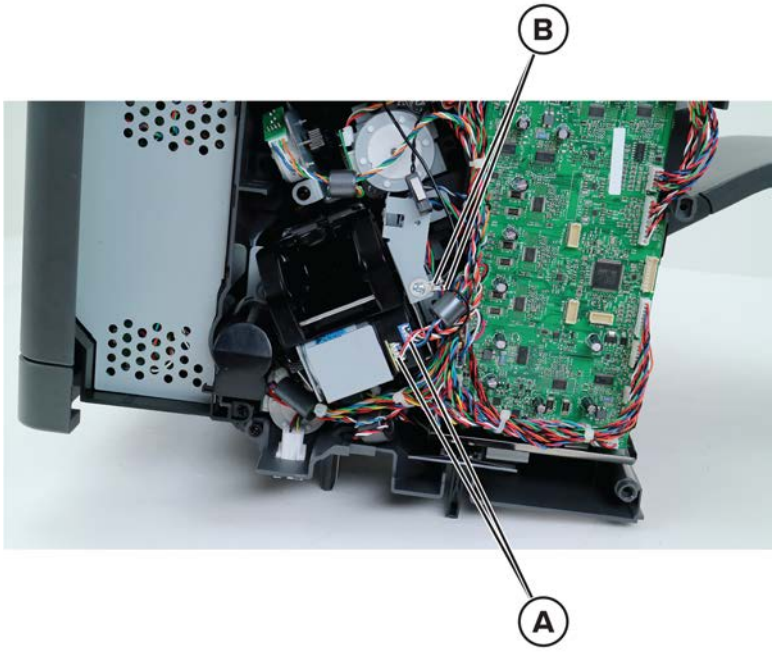
7 Disconnect the limit switch cable from the controller board.

8 Release, and then remove the limit switch.

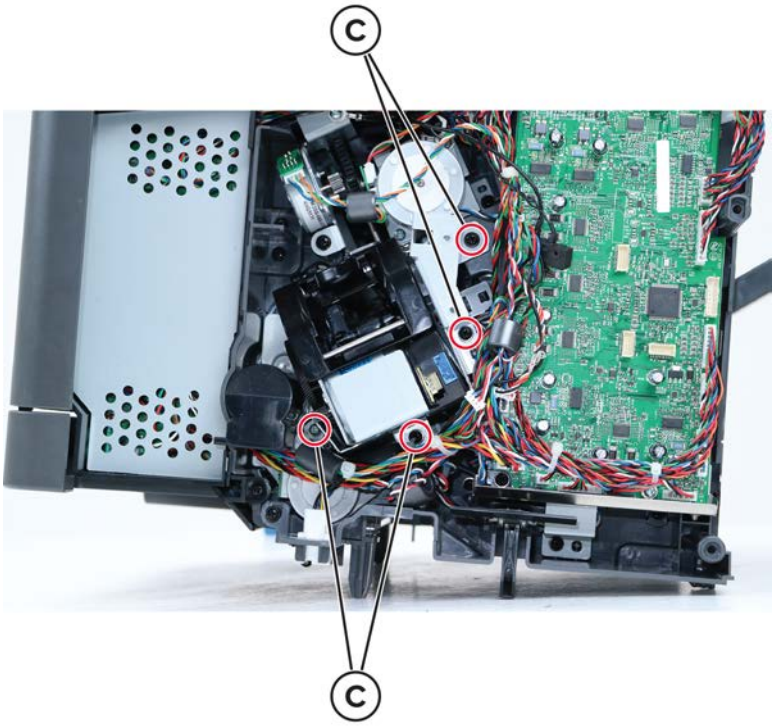
Note: Pay attention to the original route of the cables.

Left staple unit removal

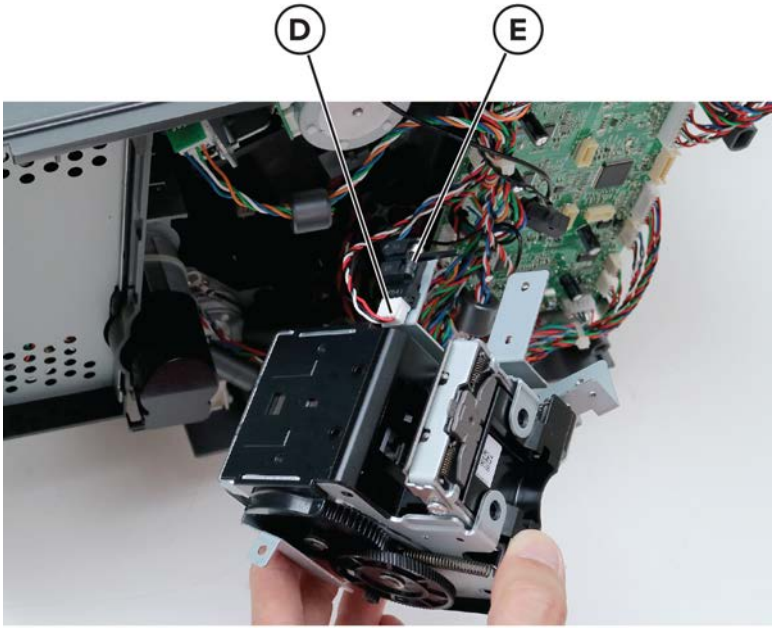
1. Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.
2. Disconnect the cables (A) and the two ground cables (B).



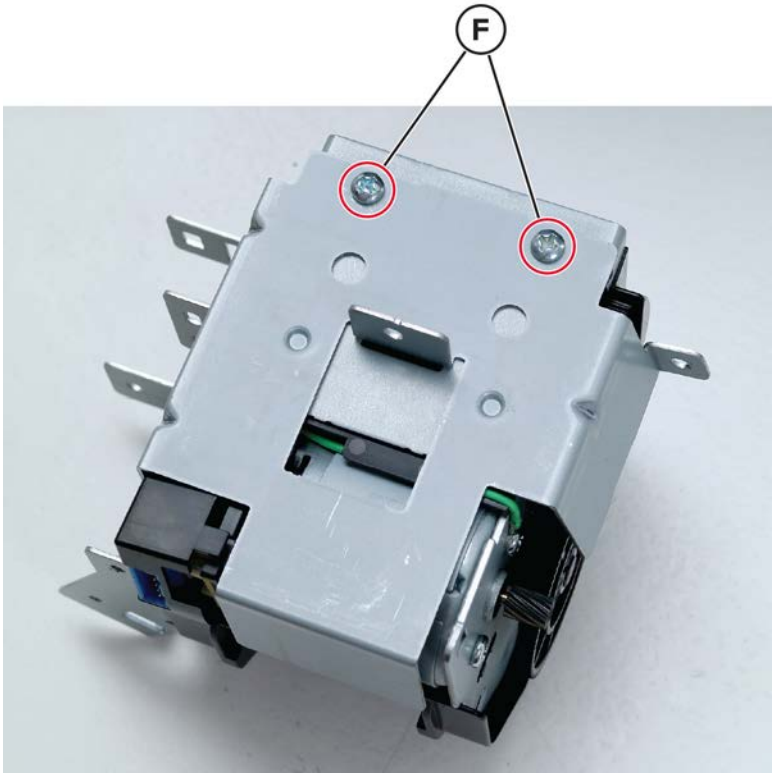
3. Remove the four screws (C), and then release the bracket.



4 Disconnect the cable connector (D), and then remove the sensor (SHPF staple throat paper present) (E).



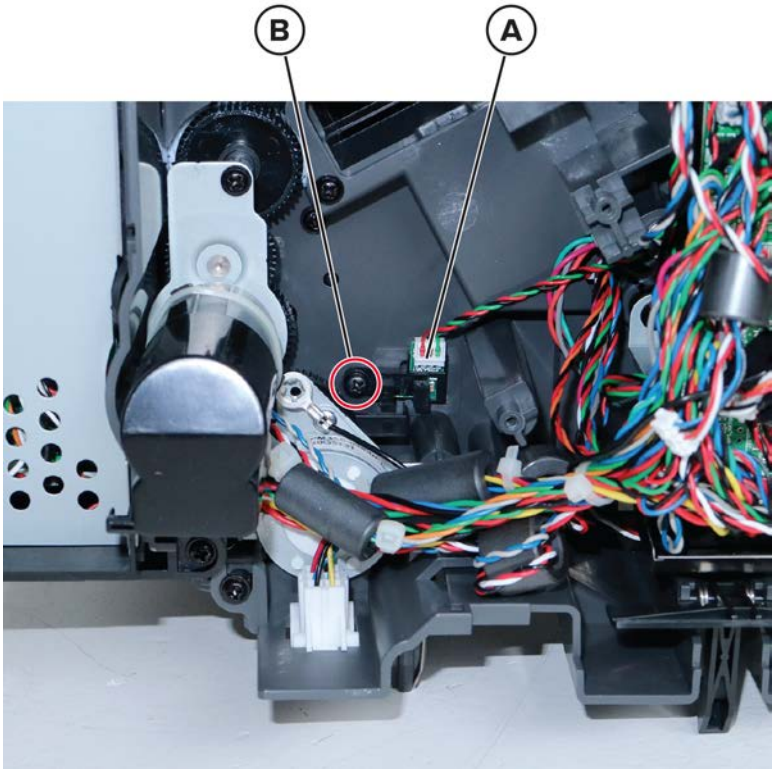
5 Remove the two screws (F).



6 Remove the staple unit from the bracket.

Sensor (SHPF diverter plunger) removal

1. Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.
2. Remove the left staple unit. See **“Left staple unit removal” on page 751**.
3. Disconnect the cable (A), and then remove the screw (B).

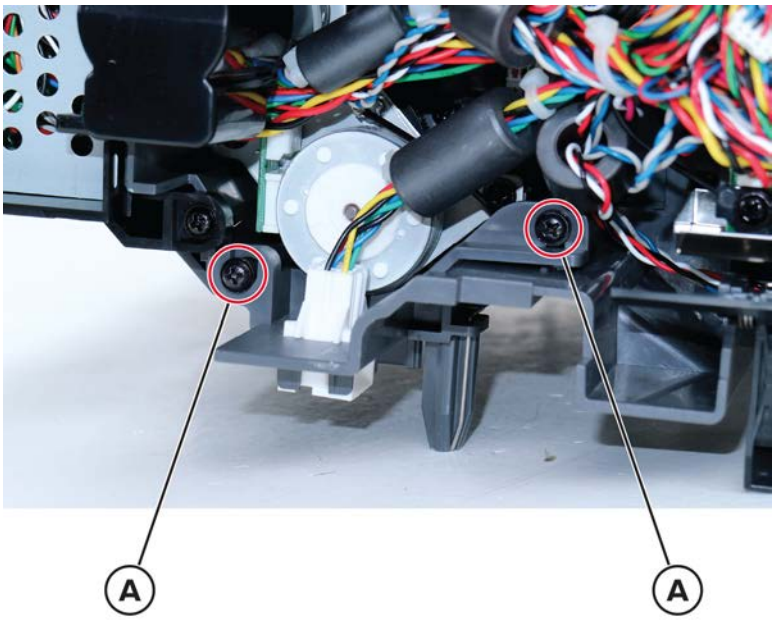


4. Remove the sensor.

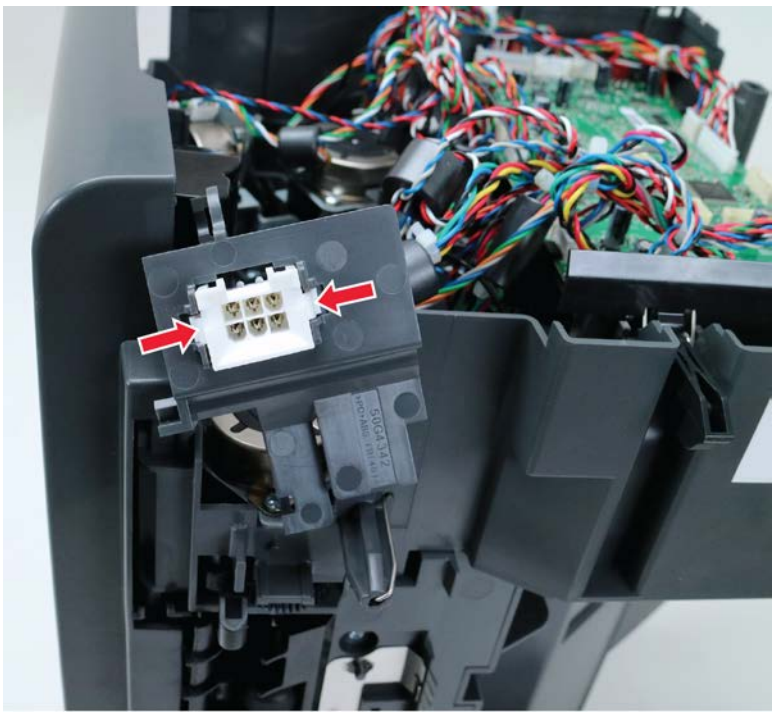
Staple, hole punch finisher interface cable removal

1. Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.
2. Remove the left staple unit. See **“Left staple unit removal” on page 751**.

3 Remove the two screws (A), and then release the connector bracket.



4 Press the latches to release, and then dislodge the connector.



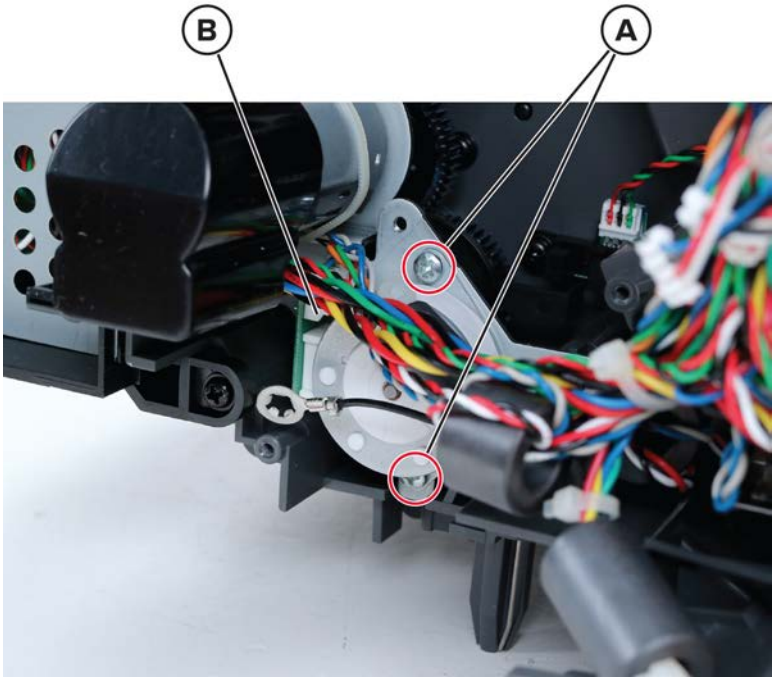
5 Disconnect the interface cable from the controller board, and then remove it.

Motor (SHPF diverter plunger) removal

1 Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.

2 Remove the left staple unit. See **“Left staple unit removal” on page 751**.

3 Remove the two screws (A), and then disconnect the cable (B).



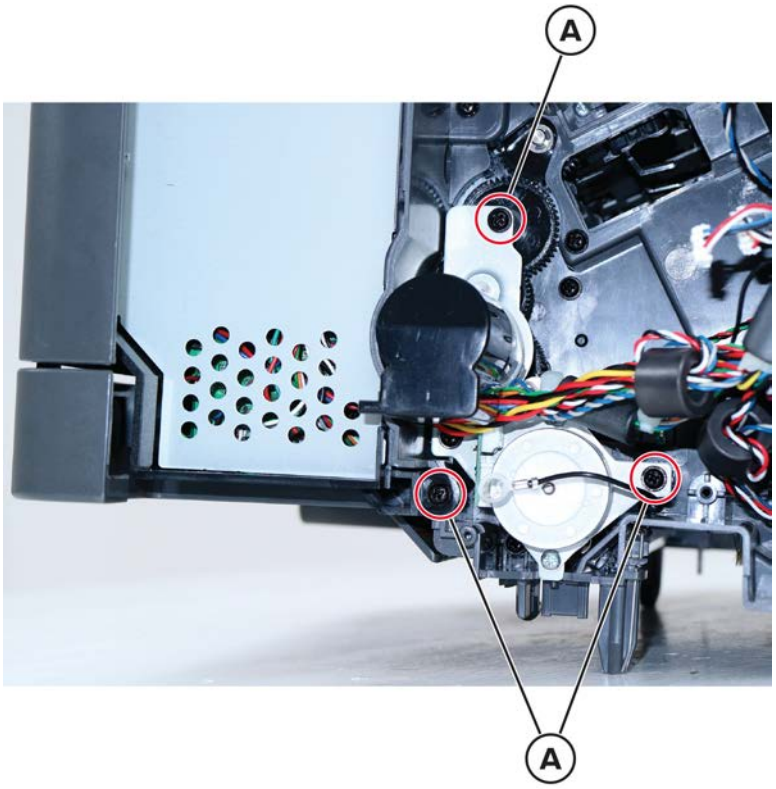
4 Remove the motor.

Motor (SHPF transport) removal

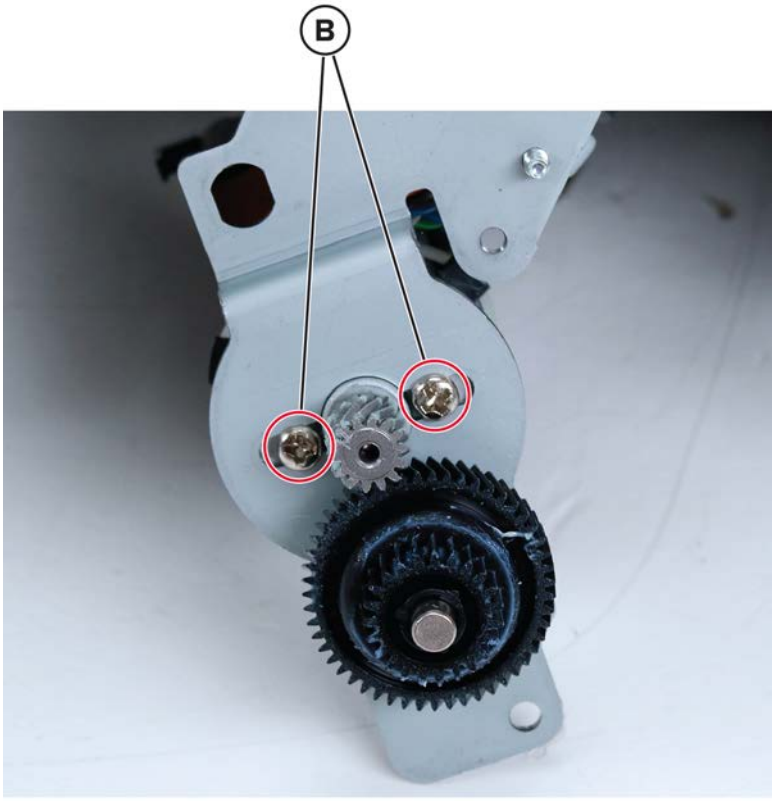
1 Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.

2 Remove the left staple unit. See **“Left staple unit removal” on page 751**.

3 Remove the three screws (A), and then disconnect all the cables from the motor bracket.



4 Behind the motor bracket, remove the two screws (B).



5 Remove the motor.

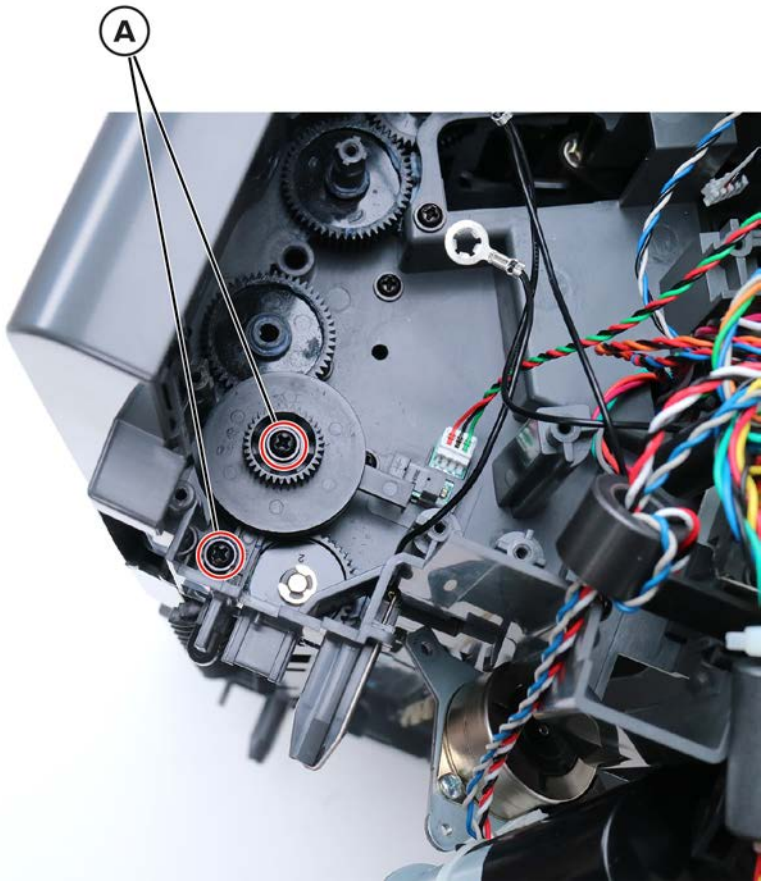
SHPF diverter plunger assembly removal

1 Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.

2 Remove the staple, hole punch finisher interface cable. See **“Staple, hole punch finisher interface cable removal” on page 753**.

3 Release the motor bracket. See **“Motor (SHPF transport) removal” on page 755**.

4 Remove the two screws (A).



5 Remove the diverter plunger assembly.

SHPF drive gear assembly removal

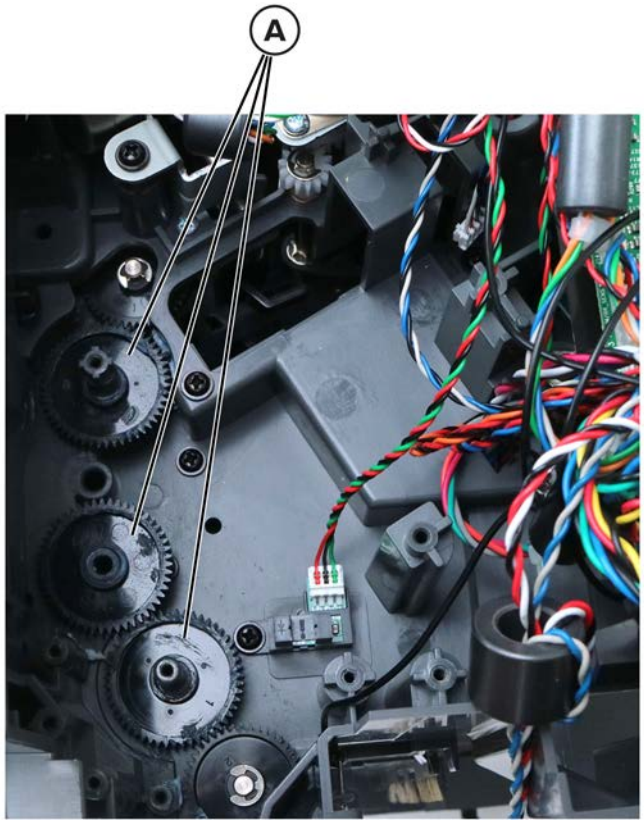
1 Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.

2 Remove the staple, hole punch finisher interface cable. See **“Staple, hole punch finisher interface cable removal” on page 753**.

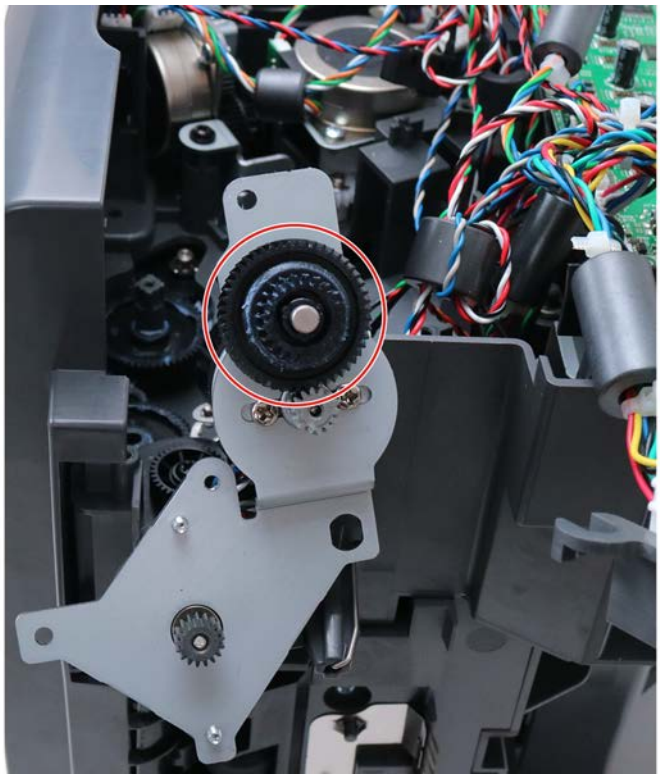
3 Release the motor bracket. See **“Motor (SHPF transport) removal” on page 755**.

4 Remove the staple, hole punch finisher diverter plunger assembly. See **“SHPF diverter plunger assembly removal” on page 757**.

5 Remove the three gears (A).

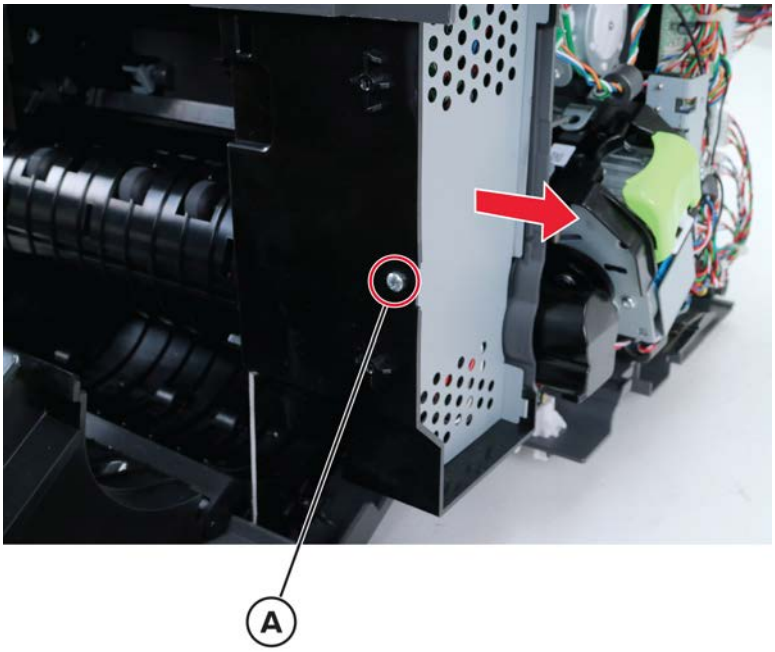


6 Remove the gear behind the motor bracket.

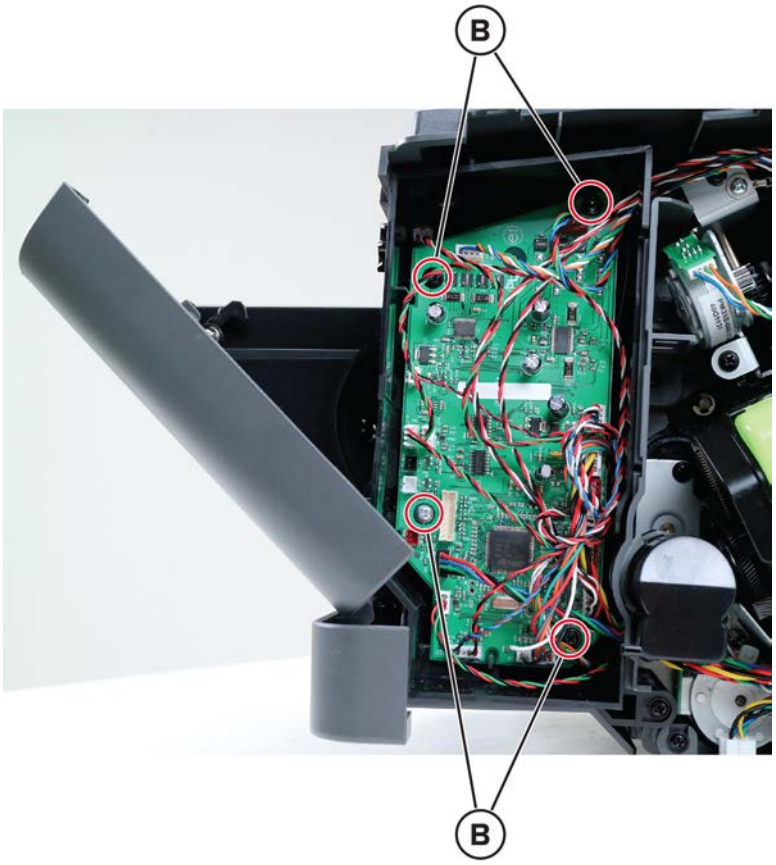


Sensor (SHPF rear door interlock) removal

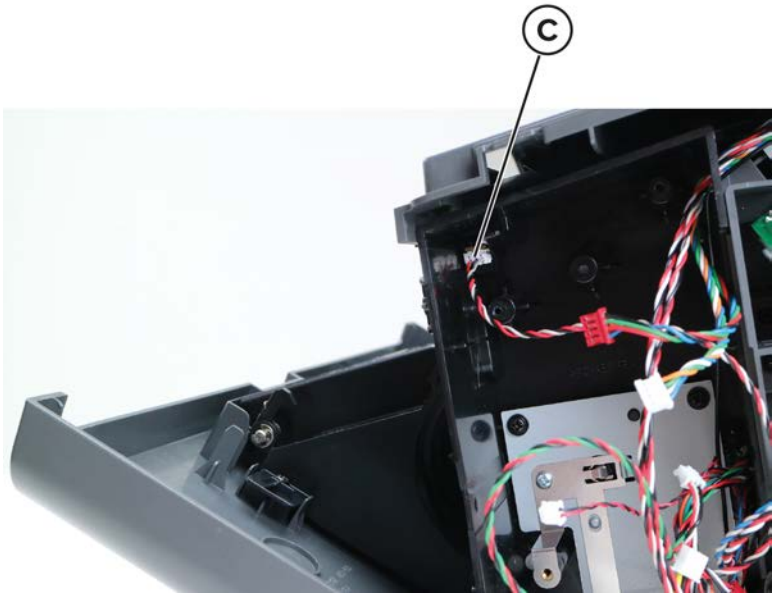
1. Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.
2. Open the rear door.
3. Remove the screw (A), and then remove the plate.



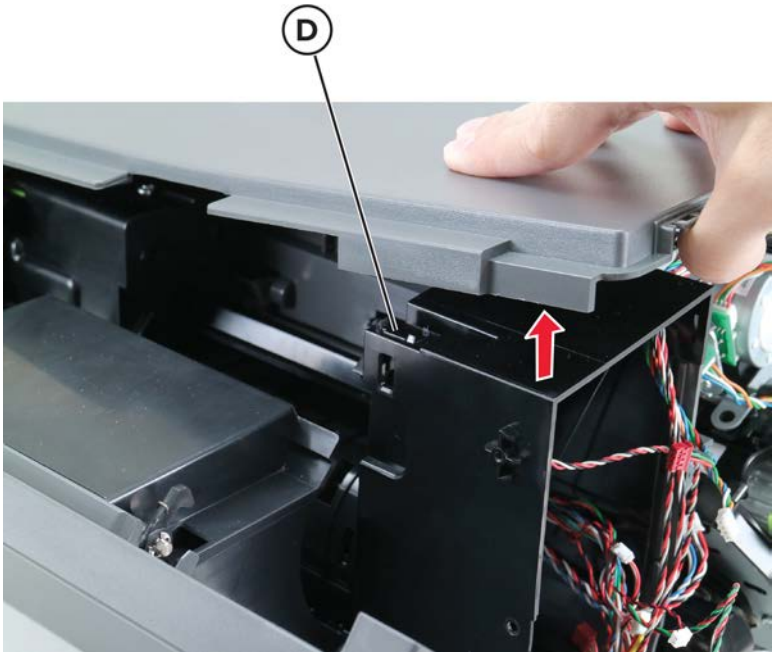
4 Disconnect all the HPU controller board cables, remove the four screws (B), and then remove the board.



5 Disconnect the sensor cable (C).



6 Slightly lift the top cover, and then remove the sensor retainer (D).



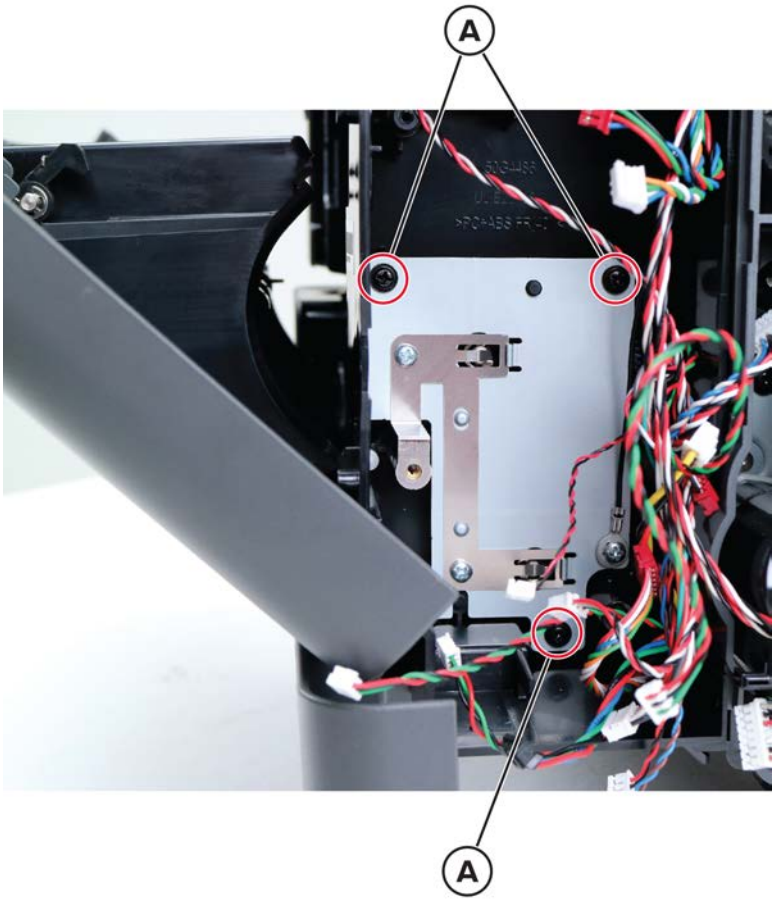
7 Remove the sensor.

Punch drive gears removal

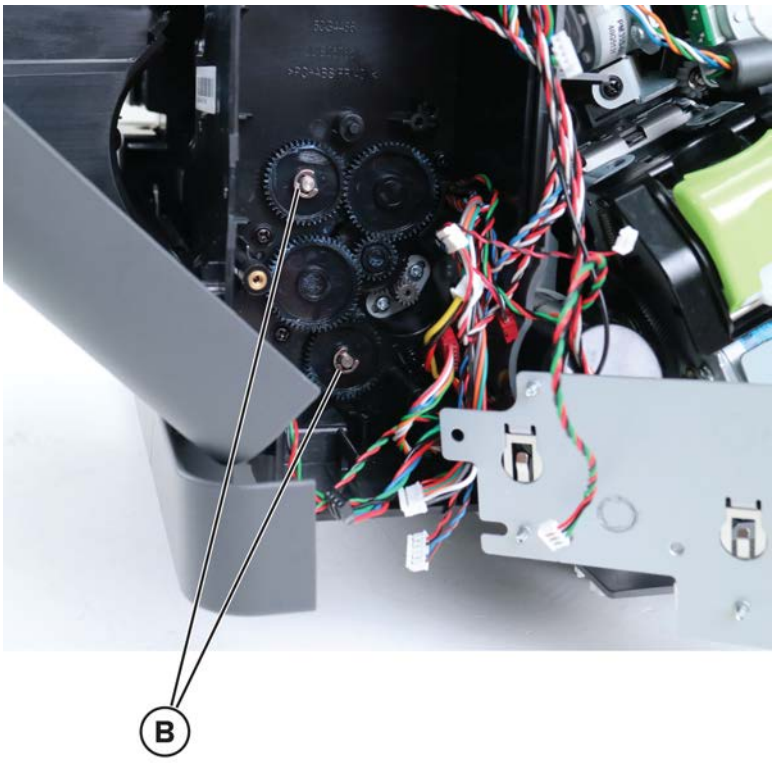
1 Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.

2 Remove the HPU controller board. See **“Sensor (SHPF rear door interlock) removal” on page 760**.

3 Remove the three screws (A), and then remove the plate.



4 Remove the two E-clips (B), and then remove the gears.

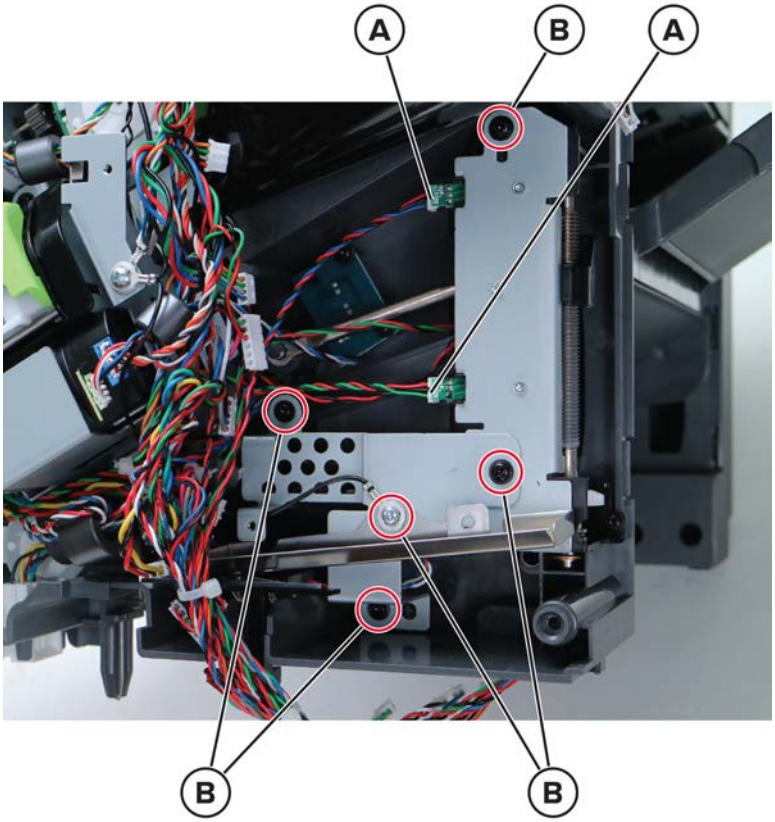


Staple, hole punch finisher elevator drive removal

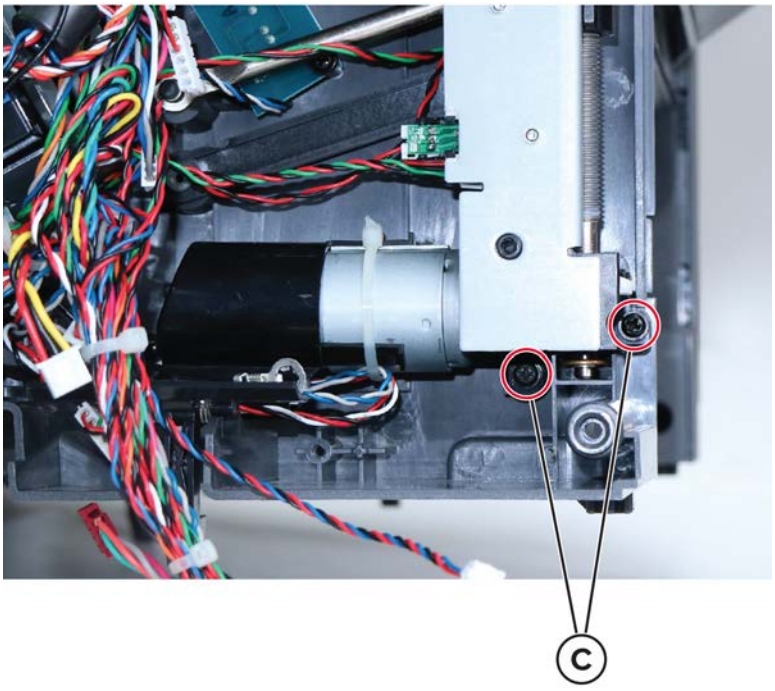
1 Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.

2 Remove the controller board. See **“Staple, hole punch finisher controller board removal” on page 747**.

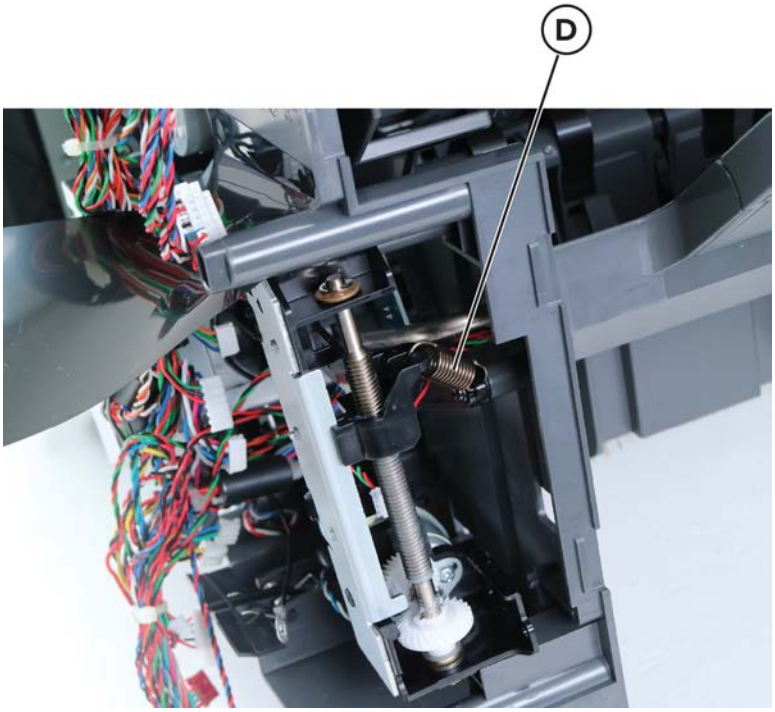
3 Disconnect the two cables (A), and then remove the five screws (B).



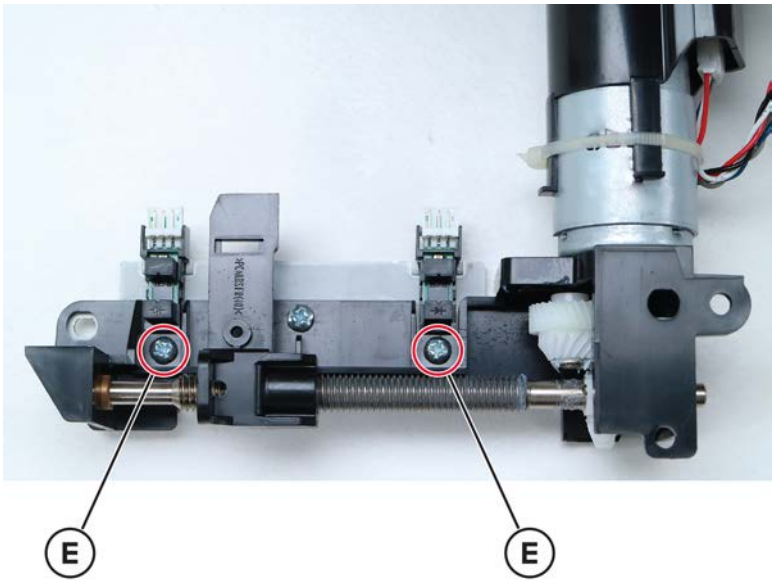
4 Remove the two screws (C).



5 Release the spring (D), and then remove the elevator drive.



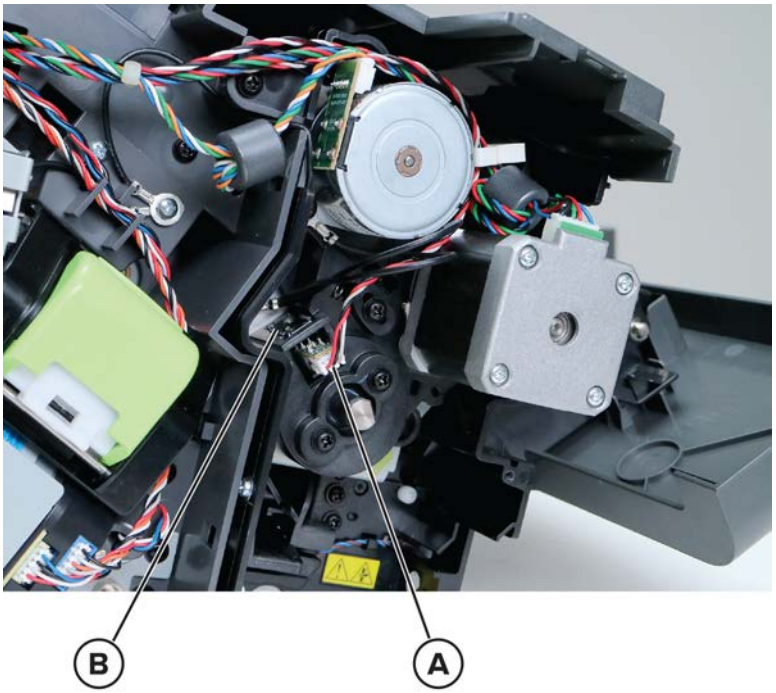
6 Remove the two screws (E), and then remove the two sensors from the elevator drive.



Sensor (hole punch) removal

1 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher controller board removal" on page 747**.

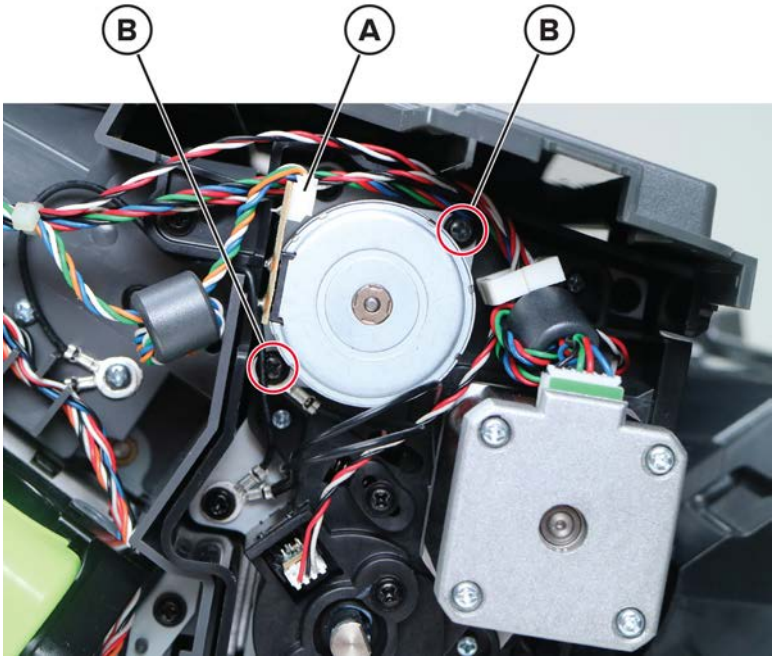
2 Disconnect the cable (A), and then remove the sensor retainer (B).



3 Remove the sensor.

Motor (HPU carriage) removal

1. Remove the staple, hole punch finisher right cover. See **“Staple, hole punch finisher right cover removal” on page 743**.
2. Disconnect the cable (A), and then remove the two screws (B).

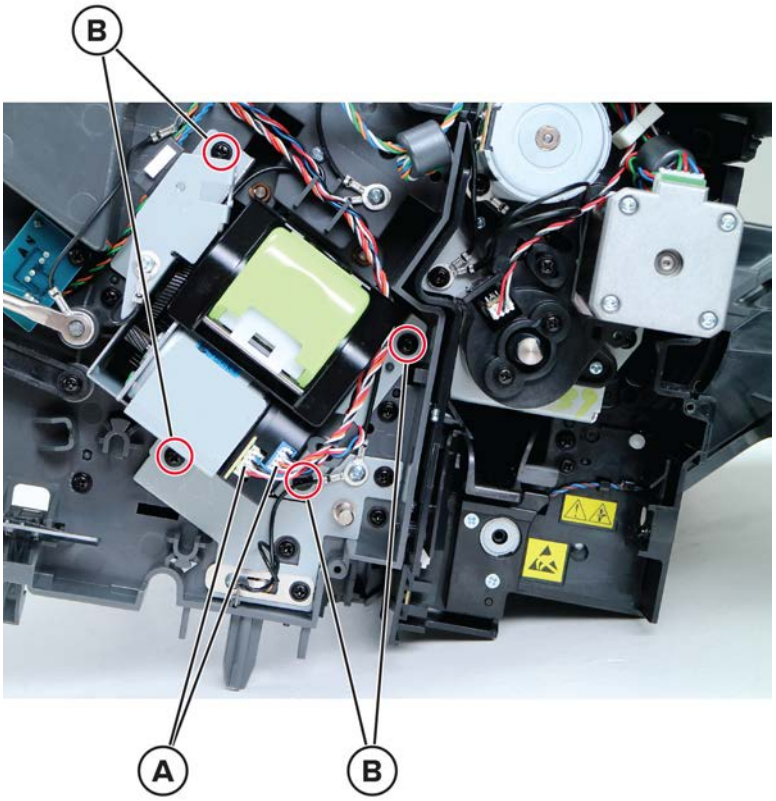


3. Remove the motor.

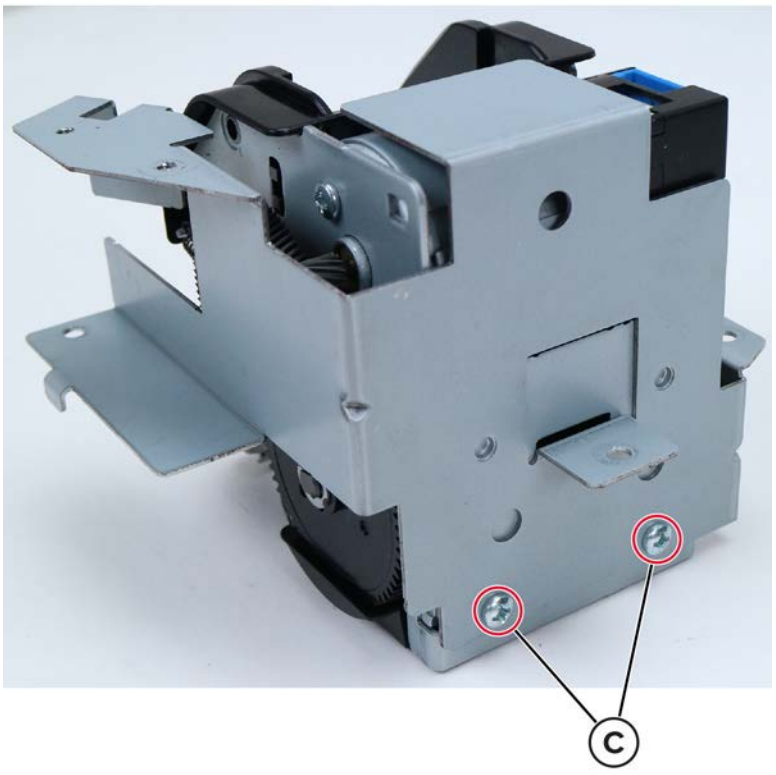
Right staple unit removal

1. Remove the staple, hole punch finisher right cover. See **“Staple, hole punch finisher right cover removal” on page 743**.
2. Release the right stapler door close limit switch. See **“SHPF staple cartridge door close limit switch removal” on page 748**.

3 Disconnect the two cables (A), remove the four screws (B), and then remove the bracket.

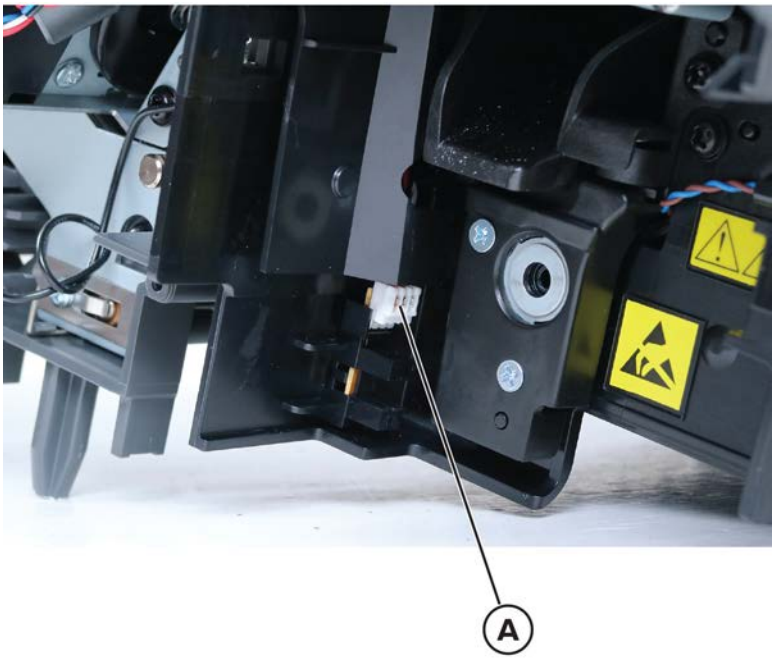


4 Remove the two screws (C), and then remove the staple unit.



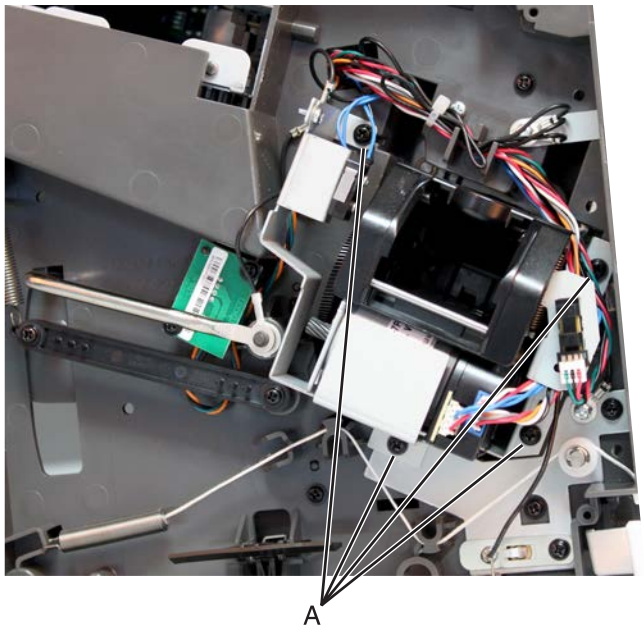
Sensor (hole punch box present) removal

1. Remove the staple, hole punch finisher right cover. See **“Staple, hole punch finisher right cover removal” on page 743**.
2. Disconnect the sensor cable (A), and then remove the sensor.

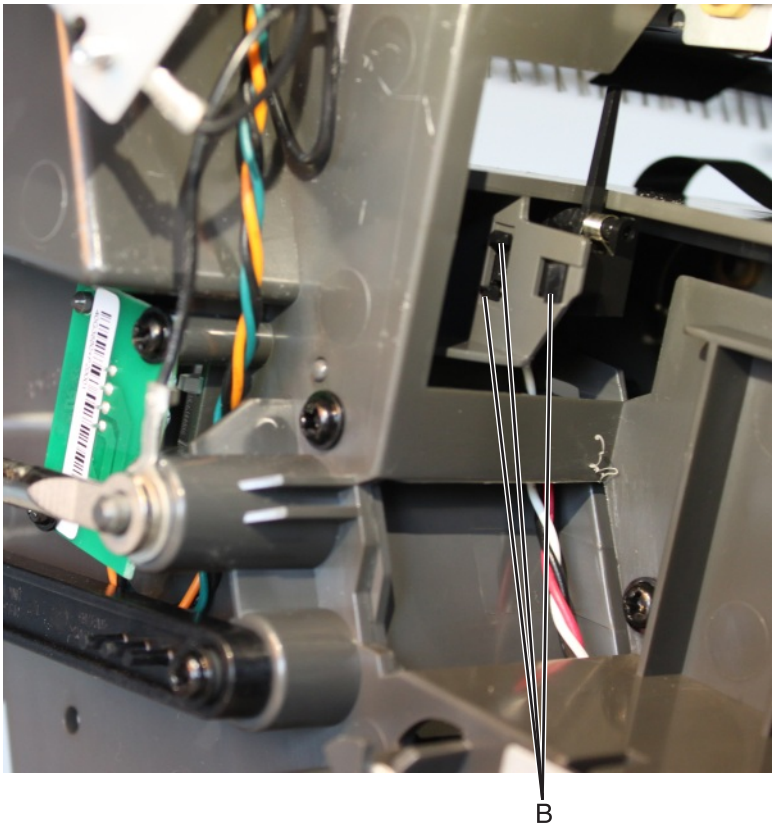


Sensor (SHPF staple throat paper present) removal

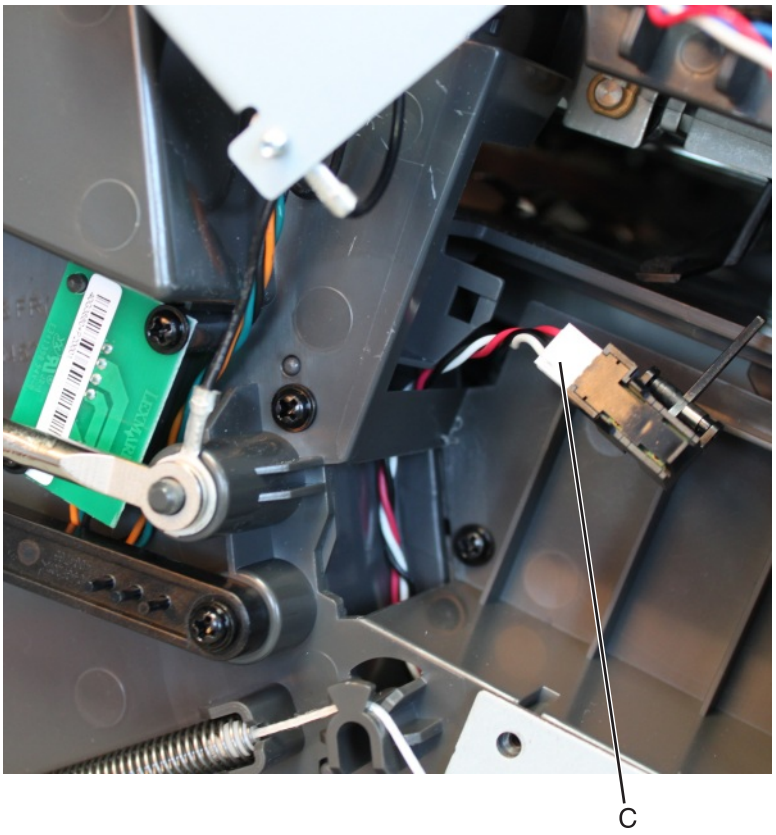
1. Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 743**.
2. Remove the four screws (A), and then release the bracket.



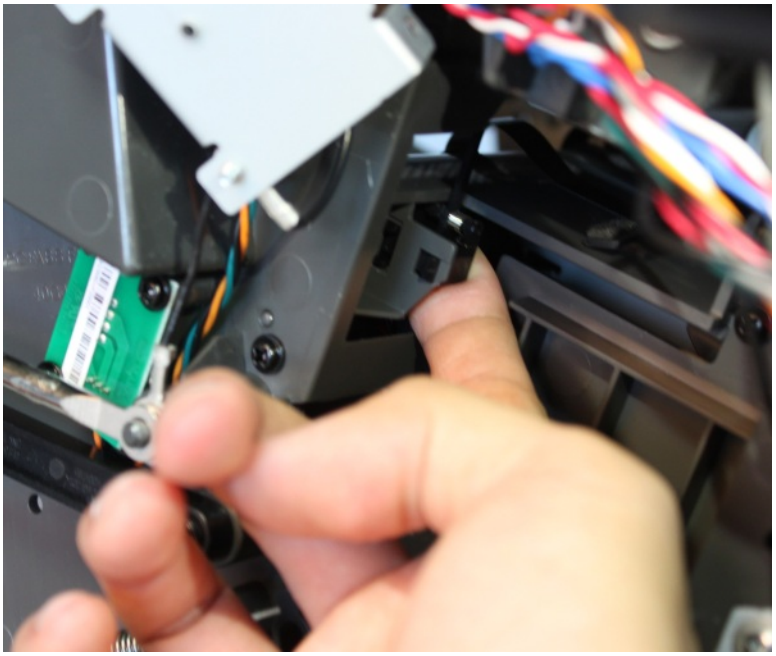
3. Release the sensor latches (B), and then release the sensor from its bracket.



4 Disconnect the cable (C), and then remove the sensor.

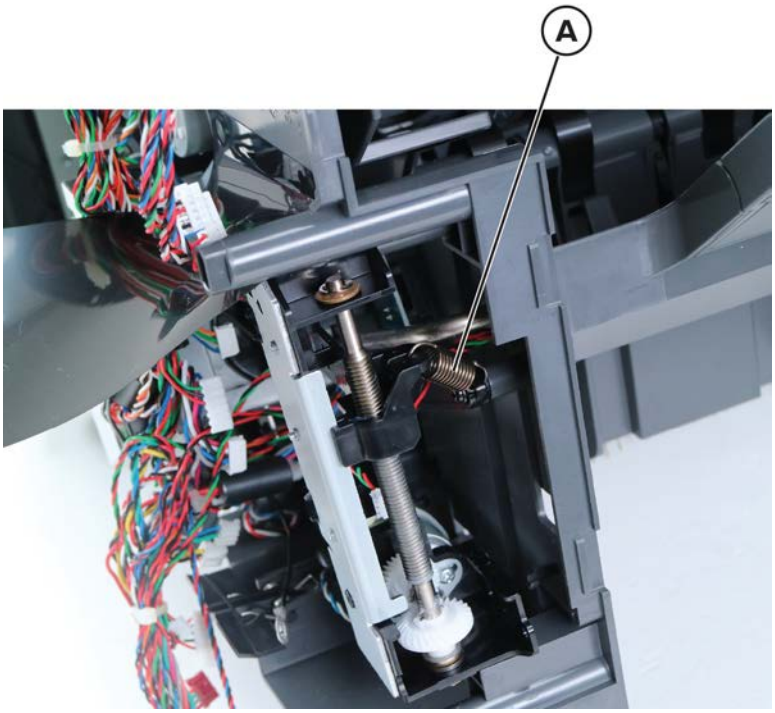


Installation note: Make sure that the sensor is properly installed. Push the sensor to its bracket until it is securely latched onto the frame.

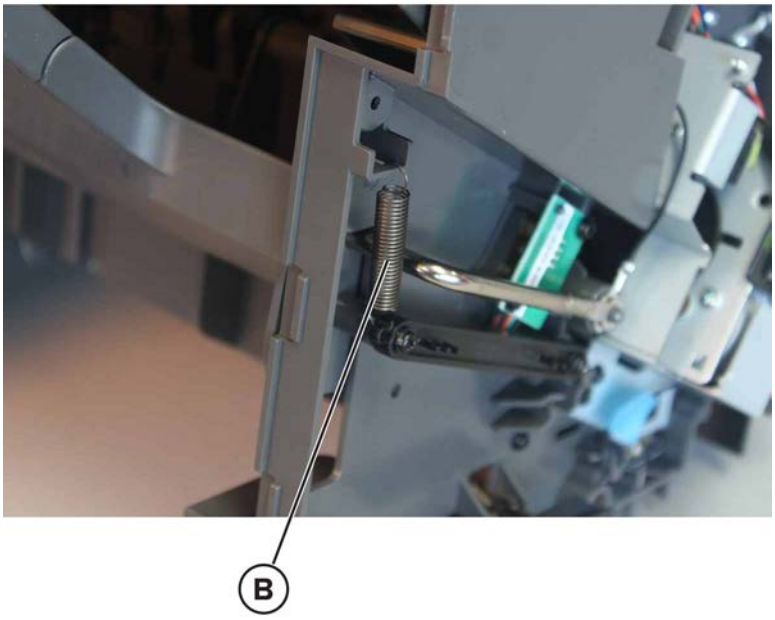


SHPF bin link tension spring removal

1. Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.
2. Remove the staple, hole punch finisher right cover. See **“Staple, hole punch finisher right cover removal” on page 743**.
3. Unhook the tension spring (A) from the left side, and then remove it.

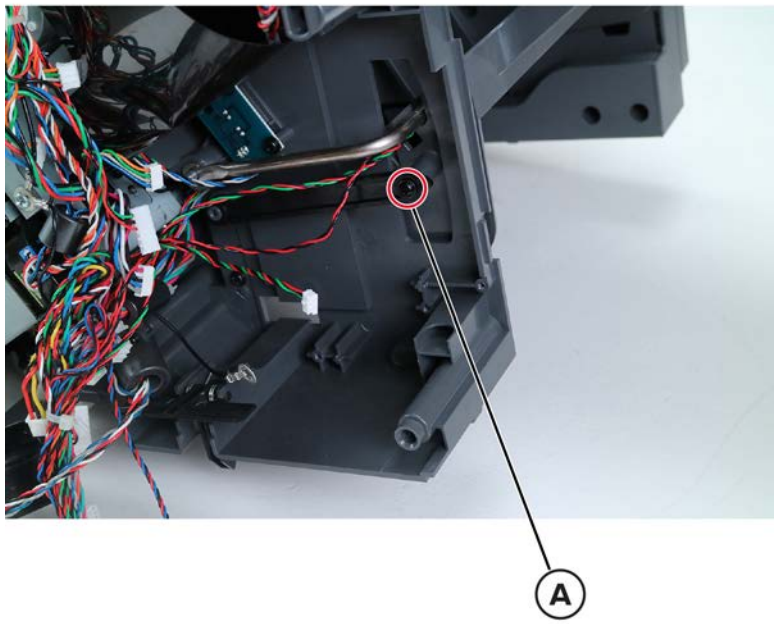


4. Unhook the tension spring (B) from the right side, and then remove it.

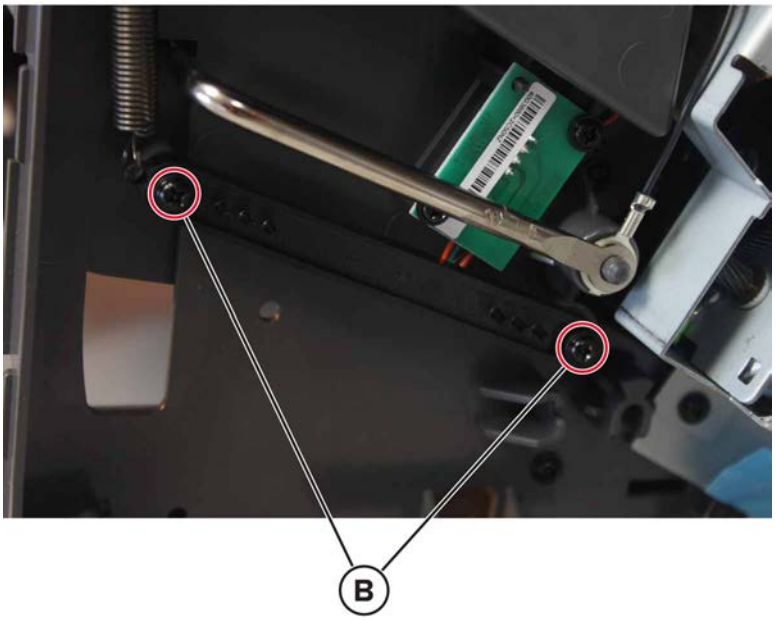


SHPF bin link assembly removal

1. Remove the staple, hole punch finisher left cover. See **“Staple, hole punch finisher left cover removal” on page 741**.
2. Remove the staple, hole punch finisher right cover. See **“Staple, hole punch finisher right cover removal” on page 743**.
3. Remove the staple, hole punch finisher controller board. See **“Staple, hole punch finisher controller board removal” on page 747**.
4. Remove the staple, hole punch finisher elevator drive. See **“Staple, hole punch finisher elevator drive removal” on page 764**.
5. Remove the screw (A), and then remove the left tray link.



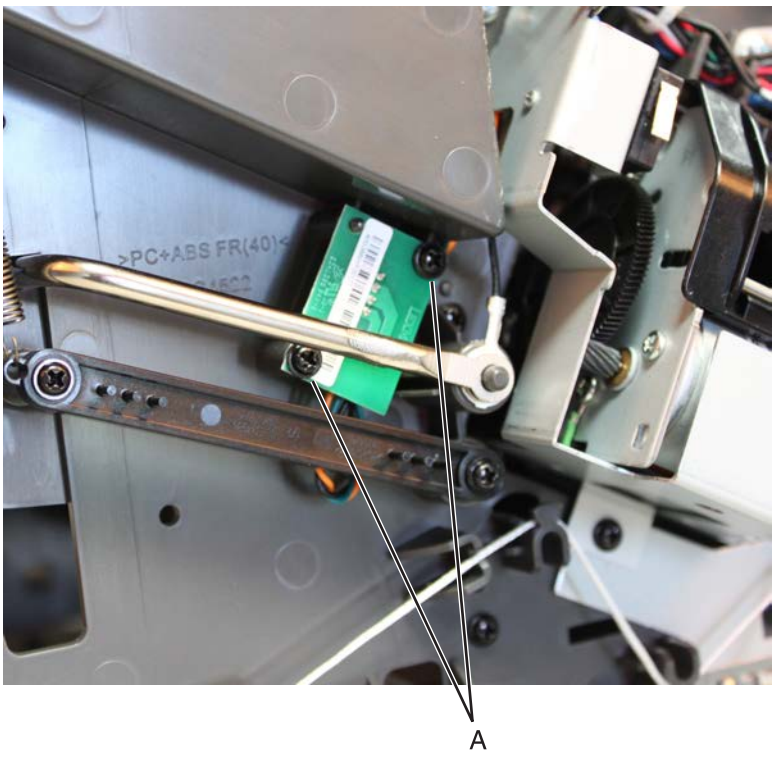
6 Remove the two screws (B), and then remove the right tray link.



Sensor (SHPF bin full send) removal

1 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 743**.

2 Remove the two screws (A), and then release the sensor.



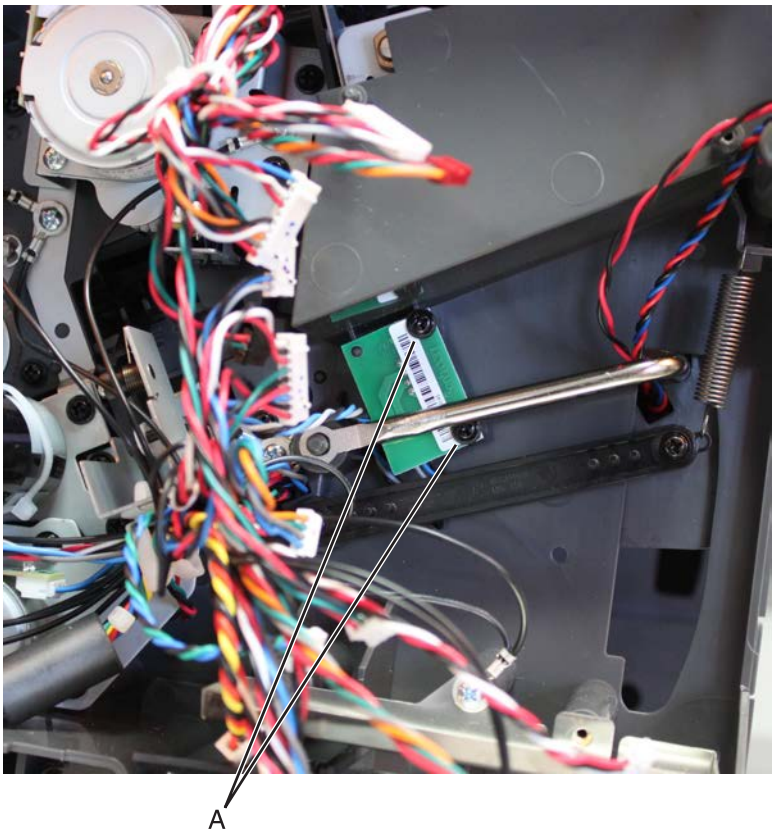
3 Disconnect the cable (B), and remove the sensor.

Sensor (SHPF bin full receive) removal

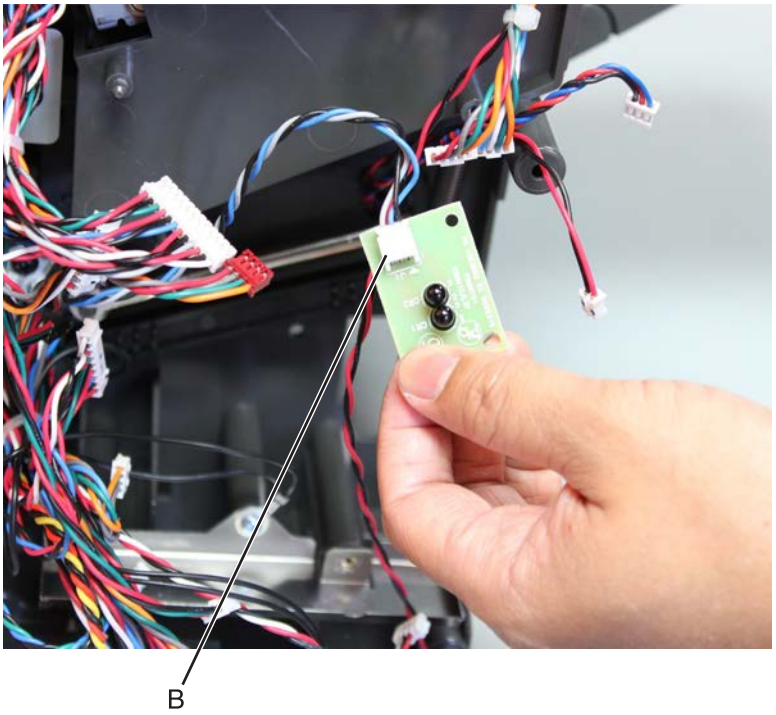
1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 741**.

2 Remove the staple, hole punch finisher controller board. See **"Staple, hole punch finisher controller board removal" on page 747**.

3 Remove the two screws (A), and then release the sensor.



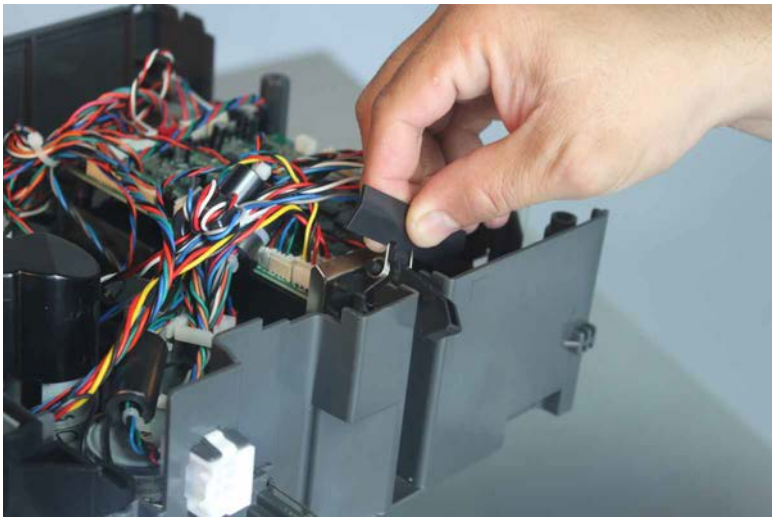
4 Disconnect the cable (B), and then remove the sensor.



Staple, hole punch finisher latch removal

1. Remove the staple, hole punch finisher left cover or right cover. See **"Staple, hole punch finisher left cover removal" on page 741** or **"Staple, hole punch finisher right cover removal" on page 743**.
2. Pull the latch off the finisher.

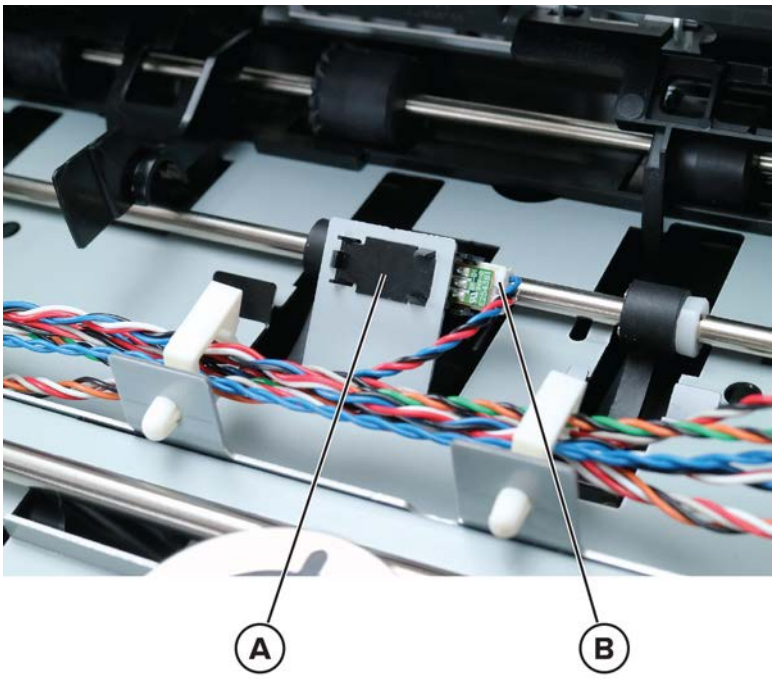
   Note: The latch on the right side can be removed using the same method shown.



Sensor (SHPF paddle) removal

1. Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 741**.
2. Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 743**.
3. Remove the staple, hole punch finisher top cover. See **"Staple, hole punch finisher top cover removal" on page 745**.

4 Remove the sensor retainer (A), and then disconnect the cable (B).



5 Remove the sensor.

Component locations

Printer configurations

You can configure your printer by adding optional 250-, 550-, or 2100-sheet trays.

Basic model (MX72x)

1	Automatic document feeder (ADF) tray
2	ADF bin
3	Standard bin
4	Multipurpose feeder
5	Standard 550-sheet tray
6	Control panel
7	ADF

Configured model (MX72x)

1	Optional 2100-sheet tray
2	Caster base
3	Optional 250- or 550-sheet trays

When using optional trays:

- Always use a caster base when the printer is configured with a 2100-sheet tray.
- The 2100-sheet tray must always be at the bottom of a configuration and may be paired with only one optional 250- or 550-sheet tray.
- You may combine three optional 250- or 550-sheet trays and install them in any order.

Basic model (MX82x)

1	Automatic document feeder (ADF) tray
2	ADF bin
3	Standard bin
4	Multipurpose feeder
5	Standard 550-sheet tray
6	Control panel
7	ADF

Configured model (MX82x)

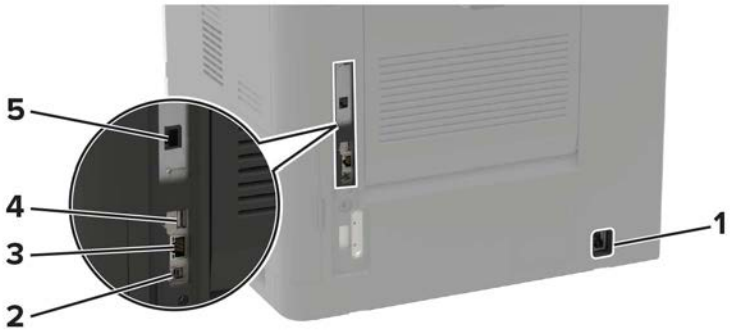
	Hardware option	Alternative hardware option
1	4-bin mailbox	• Offset stacker • Staple finisher • Staple, hole punch finisher
2	2100-sheet tray	550-sheet trays
3	Caster base	Caster base
4	550-sheet trays	2100-sheet tray
5	Staple finisher	• 4-bin mailbox • Staple, hole punch finisher • Offset stacker

When using optional trays:

- Always use a caster base when the printer is configured with a 2100-sheet tray.
- The 2100-sheet tray must always be at the bottom of a configuration.
- If the 2100-sheet tray is installed, then you cannot use an optional 550-sheet tray.
- A maximum of two optional trays may be configured with the printer.
- The printer supports only one finisher at a time.

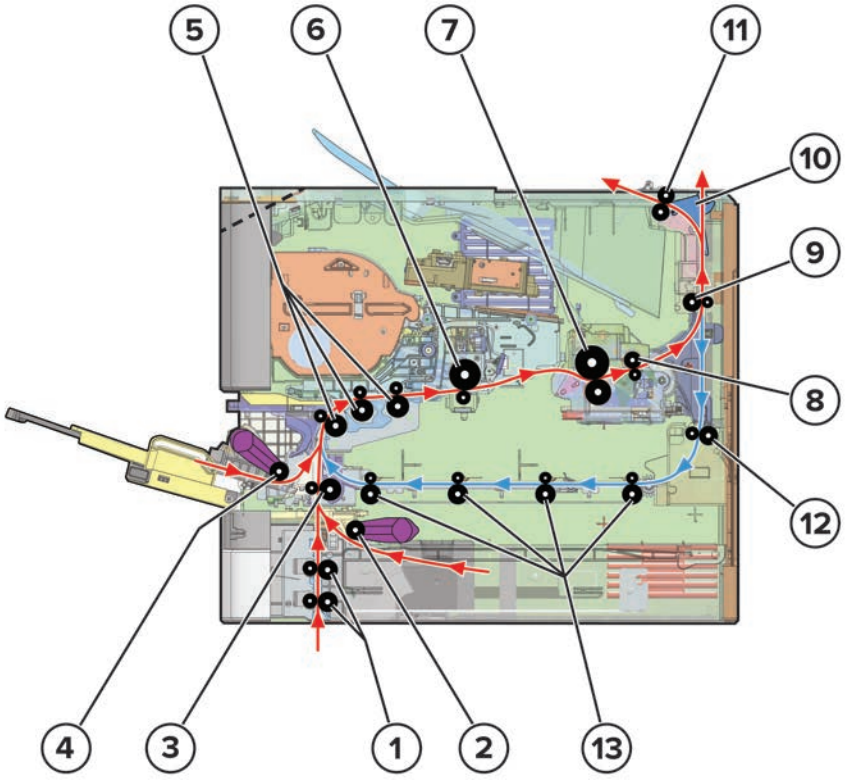
Port locations

Warning—Potential Damage: To avoid loss of data or printer malfunction, do not touch the USB cable, any wireless network adapter, or the printer in the areas shown while actively printing.



	Use the	To
1	Power cord socket	Connect the printer to a properly grounded electrical outlet.
2	USB printer port	Connect the printer to a computer.
3	Ethernet port	Connect the printer to a network.
4	USB port	Attach a keyboard or any compatible option. **Note:** This port is available only in some printer models.
5	LINE port	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.

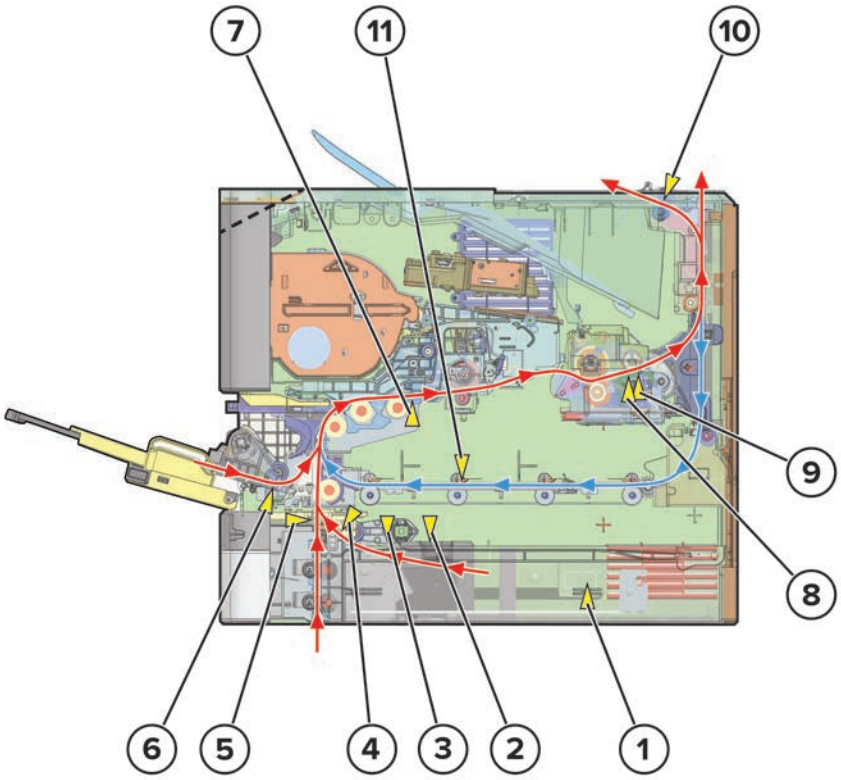
Printer roller locations



Component locations

1	Transport rollers
2	Tray 1 pick roller
3	Lower aligner roller
4	MPF pick roller
5	Upper aligner rollers
6	Photoconductor drum
7	Fuser roller/belt
8	Fuser exit roller
9	Lower redrive roller
10	Diverter
11	Upper redrive roller
12	Duplex entry roller
13	Duplex aligner rollers

Printer sensor locations



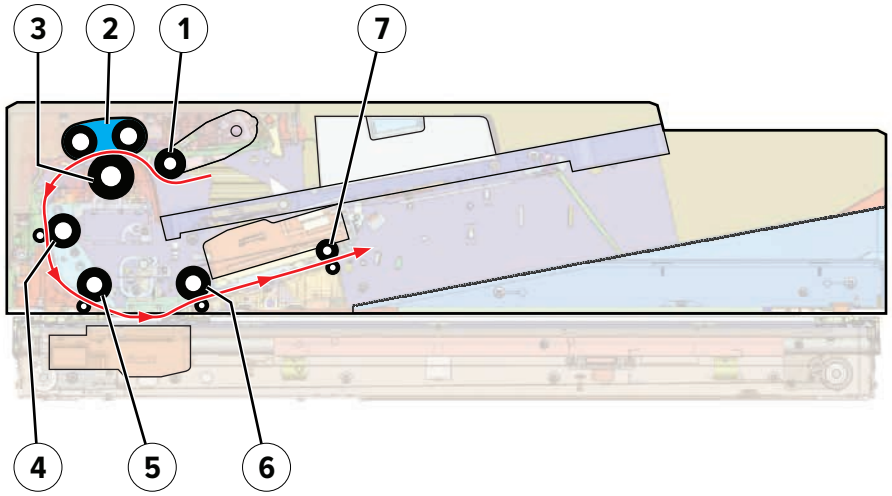
1	Sensor (paper size)
2	Sensor (tray 1 paper present)
3	Sensor (pick position)

Component locations

4	Sensor (pick)
5	Sensor (tray 1 pass-through)
6	Sensor (MPF paper present)
7	Sensor (input)
8	Sensor (fuser exit)
9	Sensor (narrow media) **Note:** This part is found in hot roll fusers only.
10	Sensor (exit)
11	Sensor (duplex path)

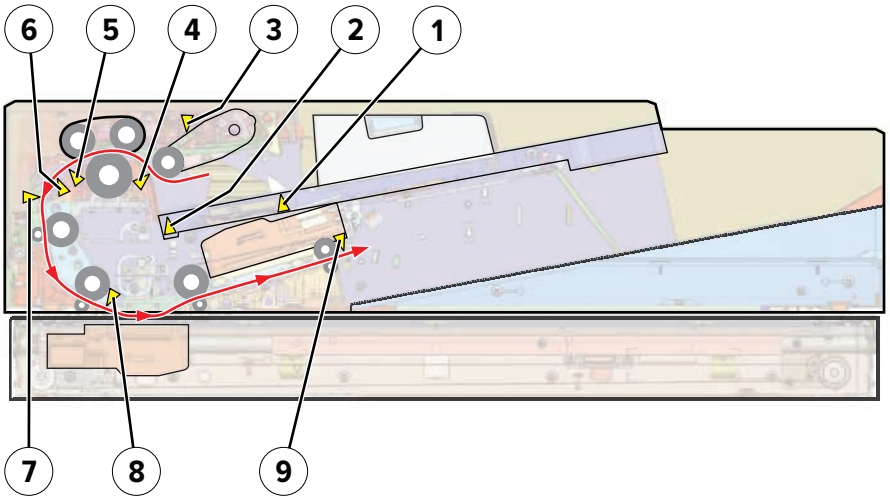
ADF locations

ADF rollers



1	ADF pick roller
2	ADF feed belt
3	ADF separator roller
4	Deskew roller
5	1st scan roller
6	2nd scan roller
7	Exit roller

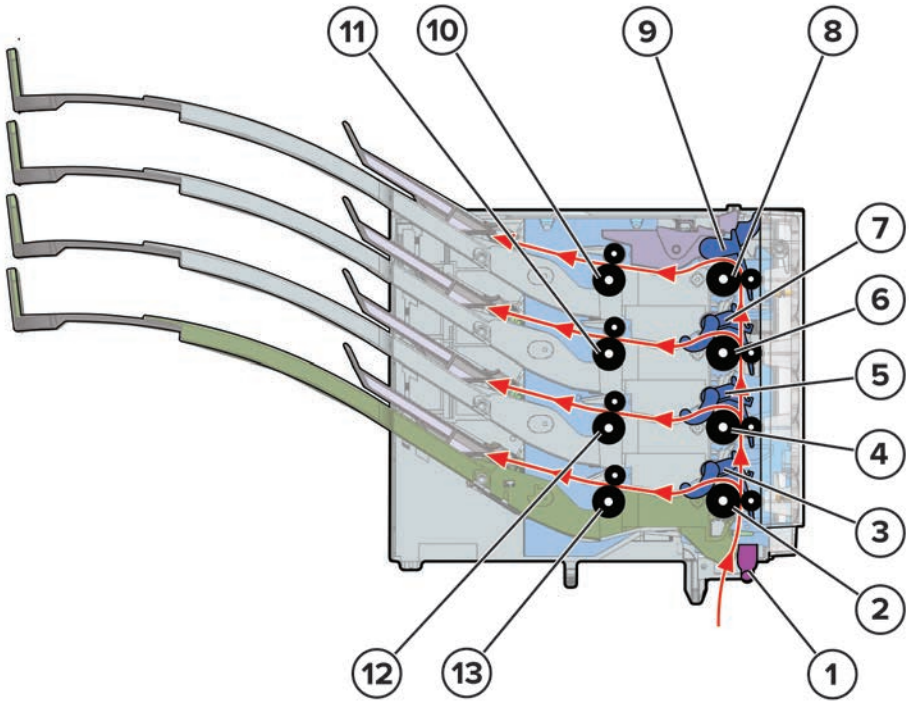
ADF sensors



1	Sensor (ADF paper present 1)
2	Sensor (ADF paper present 2)
3	Sensor (ADF pick roller index) **Note:** The sensor (ADF pick roller index) consists of two sensors to detect the high and low positions of the pick roller.
4	Sensor (ADF gap detect)
5	Sensor (ADF pick)
6	Sensor (ADF multifeed)
7	Sensor (ADF deskew)
8	Sensor (ADF 1st scan)
9	Sensor (ADF exit)

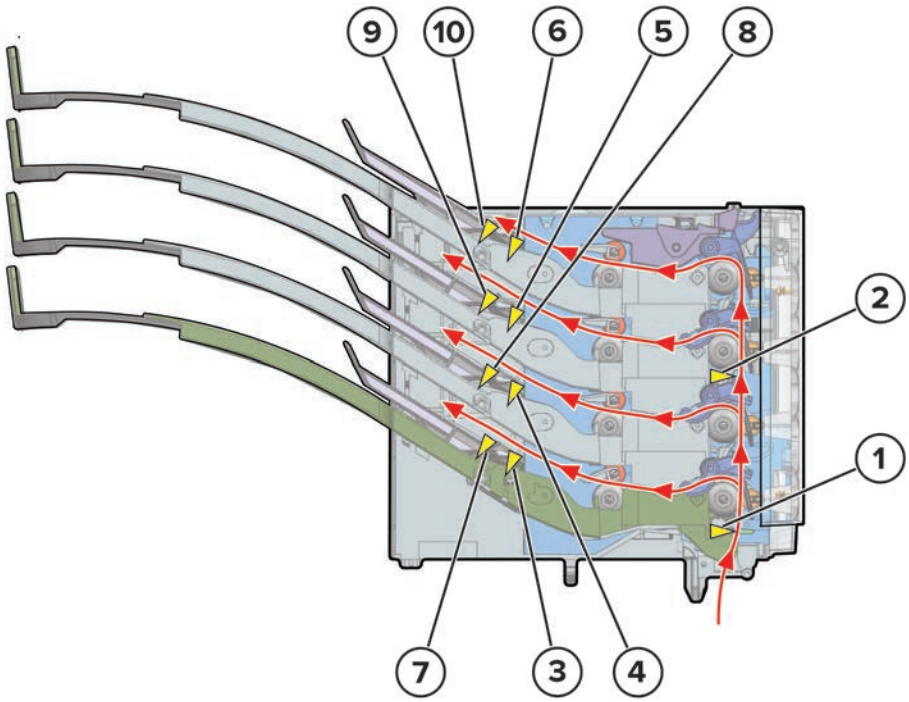
Mailbox locations

Mailbox rollers



1	Diverter plunger
2	Mailbox transport roller 1
3	Diverter 1
4	Mailbox transport roller 2
5	Diverter 2
6	Mailbox transport roller 3
7	Diverter 3
8	Mailbox transport roller 4
9	Diverter 4
10	Exit roller 4
11	Exit roller 3
12	Exit roller 2
13	Exit roller 1

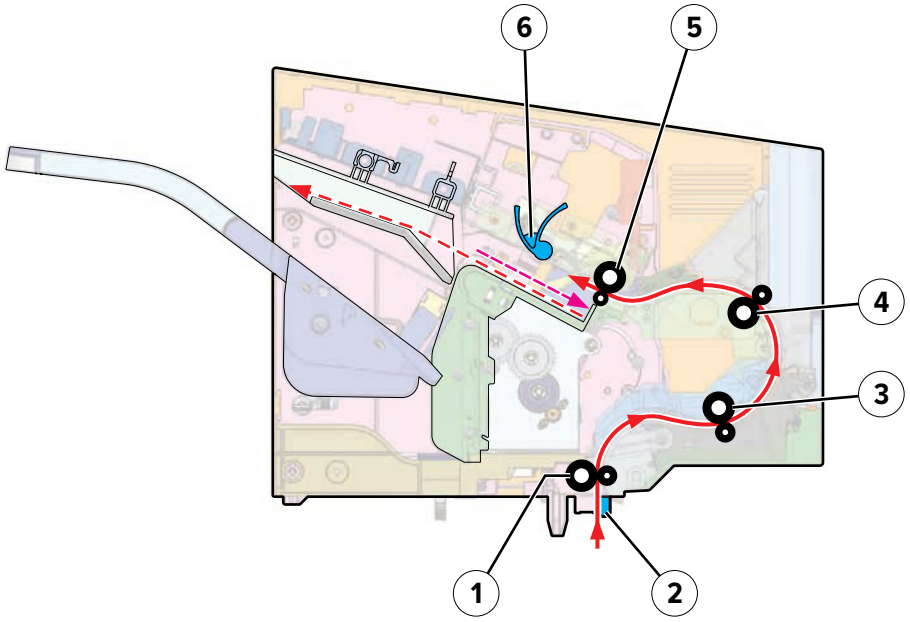
Mailbox sensors



1	Sensor (mailbox pass-through 1)
2	Sensor (mailbox pass-through 2)
3	Sensor (mailbox bin 1 paper present)
4	Sensor (mailbox bin 2 paper present)
5	Sensor (mailbox bin 3 paper present)
6	Sensor (mailbox bin 4 paper present)
7	Sensor (mailbox bin 1 full)
8	Sensor (mailbox bin 2 full)
9	Sensor (mailbox bin 3 full)
10	Sensor (mailbox bin 4 full)

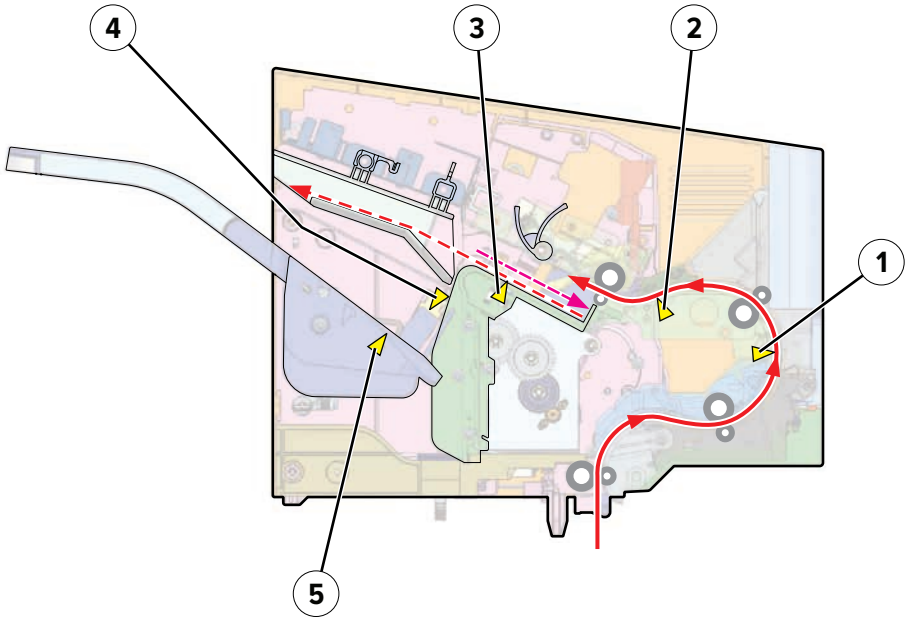
Staple, hole punch finisher locations

SHPF rollers



1	SHPF entrance roller
2	Diverter plunger
3	SHPF transport roller 1
4	SHPF transport roller 2
5	SHPF exit roller
6	SHPF paddle roller

SHPF sensors



1	Sensor (SHPF transport 1)
2	Sensor (SHPF transport 2)
3	Sensor (SHPF tamper paper present)
4	Sensor (SHPF bin full)
5	Sensor (SHPF bin paper present)

Printer controller board connectors

Connector	Connects to	Pin no.	Signal
J8	Imaging unit, CTLS, Sensor (toner cartridge shutter)	1	Toner Port Signal
		2	Smart Chip Data
		3	GND
		4	+3.3V Supply Voltage
		5	Toner Port LED
		6	Smart Chip Clock
		7	not used
		8	GND
		9	25V Interlock to IU
		10	25V Interlock - RETURN

Connector	Connects to	Pin no.	Signal
JCTLS1	CTLS, Imaging unit	1	CTLS_Signal
		2	Signal Guard
		3	not used
J27	Duplex fan, Sensor (toner density), Sensor (input), Motor (duplex), Sensor (duplex interlock), Sensor (duplex path)	1	not used
		2	Duplex fan—Fan Encoder Feedback
		3	Sensor (toner density)—Ambient Temp Signal
		4	Duplex fan—GND
		5	Sensor (toner density)—TDS PWM Signal
		6	Duplex fan—Fan Supply Voltage
		7	Sensor (toner density)—TDS Feedback Signal
		8	Sensor (input)—Sensor Feedback Signal
		9	Sensor (toner density)—GND
		10	Sensor (input)—GND
J27	Duplex fan, Sensor (toner density), Sensor (input), Motor (duplex), Sensor (duplex path)	11	Sensor (toner density)—TDS 5V Supply
		12	Sensor (input)—Sensor Supply Voltage
		13	Motor (duplex)—Motor Encoder LED supply V
		14	Sensor (duplex interlock)—Sensor Feedback Signal
		15	Motor (duplex)—Motor Encoder Signal Feedback
		16	Sensor (duplex interlock)—GND
		17	Motor (duplex)—GND
		18	Sensor (duplex interlock)—Sensor Supply Voltage
		19	Motor (duplex)—Motor -V supply
		20	Sensor (duplex path)—Sensor Feedback Signal
		21	Motor (duplex)—Motor +V supply
		22	Sensor (duplex path)—GND
		23	not used
		24	Sensor (duplex path)—Sensor Supply Voltage

Connector	Connects to	Pin no.	Signal
J60	Fuser, Sensor (fuser exit), Sensor (narrow media)	1	Paper Sensor - Narrow Media
		2	GND
		3	Main Thermistor Signal
		4	Belt Fuser ID Signal
		5	Edge Thermistor Signal
		6	+5V Supply Voltage
		7	Back-up Roll Thermistor Signal
		8	Paper Sensor - Fuser Exit
		9	+3.3V Supply Voltage
		10	Smart Chip Clock Signal
		11	Smart Chip Data
		12	Fuser Present Signal
		13	GND
		14	not used
J66	Optional bin, Sensor (toner smart chip), Sensor (toner low), Motor (redrive), Sensor (rear door interlock), Sensor (standard bin full)	1	Motor (redrive)—Motor Encoder LED supply V
		2	Optional bin—+25V Supply Voltage
		3	Motor (redrive)—Motor Encoder Signal Feedback
		4	Optional bin—GND
		5	Motor (redrive)—GND
		6	Optional bin—
		7	Motor (redrive)—Motor -V supply
		8	Optional bin—Option Comm. Receive Signal
		9	Motor (redrive)—Motor +V supply
		10	Optional bin—Option Comm. Transmit Signal

Connector	Connects to	Pin no.	Signal
J66	Optional bin, Sensor (toner smart chip), Sensor (toner low), Motor (redrive), Sensor (rear door interlock), Sensor (standard bin full)	11	Sensor (rear door interlock)—Sensor Feedback Signal
		12	Optional bin—+5V Supply Voltage
		13	Sensor (rear door interlock)—GND
		14	Sensor (standard bin full)—Sensor Feedback Signal
		15	Sensor (rear door interlock)—Sensor Supply Voltage
		16	Sensor (standard bin full)—GND
		17	Sensor (toner smart chip)—Smart Chip Data
		18	Sensor (standard bin full)—Sensor Supply Voltage
		19	Sensor (toner smart chip)—+3.3V Supply Voltage
		20	Sensor (toner low)—Sensor Assembly Feedback
		21	Sensor (toner smart chip)—Smart Chip Clock Signal
		22	Sensor (toner low)—GND
		23	Sensor (toner smart chip)—GND
		24	Sensor (toner low)—+5V Supply Voltage
		25	Sensor (toner smart chip)—+25V Interlock "Return"
		26	--
J71	Motor (fuser), Motor (toner cartridge), Motor (main), Motor (MPF), Main fan	1	Motor (fuser)—V Winding Hall Feedback
		2	Motor (fuser)—U Winding Hall Feedback
		3	Motor (fuser)—FG Signal Feedback
		4	Motor (fuser)—W Winding Hall Feedback
		5	Motor (fuser)—+5V Supply Voltage
		6	Motor (fuser)—GND
		7	Motor (fuser)—U Winding Power
		8	Motor (toner cartridge)—Motor Encoder LED supply V
		9	Motor (fuser)—V Winding Power
		10	Motor (toner cartridge)—Motor Encoder Signal Feedback

Connector	Connects to	Pin no.	Signal
J71	Motor (fuser), Motor (toner cartridge), Motor (main), Motor (MPF), Main fan	11	Motor (fuser)—W Winding Power
		12	Motor (toner cartridge)—GND
		13	not used
		14	Motor (toner cartridge)—Motor -V supply
		15	Motor (toner cartridge)—U Winding Hall Feedback
		16	Motor (toner cartridge)—Motor +V supply
		17	Motor (toner cartridge)—V Winding Hall Feedback
		18	Motor (MPF)—Motor Encoder LED supply V
		19	Motor (toner cartridge)—W Winding Hall Feedback
		20	Motor (MPF)—Motor Encoder Signal Feedback
J71	Motor (fuser), Motor (toner cartridge), Motor (main), Motor (MPF), Main fan	21	Motor (toner cartridge)—FG Signal Feedback
		22	Motor (MPF)—GND
		23	Motor (toner cartridge)—GND
		24	Motor (MPF)—Motor -V supply
		25	Motor (toner cartridge)—+5V Supply Voltage
		26	Motor (MPF)—Motor +V supply
		27	Motor (toner cartridge)—U Winding Power
		28	Main fan—Fan Supply Voltage
		29	Motor (toner cartridge)—V Winding Power
		30	Main fan—GND
		31	Motor (toner cartridge)—W Winding Power
		32	Main fan—Fan Encoder Feedback

Connector	Connects to	Pin no.	Signal
J15	HVPS, Right frame fan, Sensor (front door interlock), Speaker	1	Supply Voltage (+25V)
		2	Supply Voltage
		3	HVPS_SRVO
		4	GND
		5	Transfer Enable
		6	Encoder Feedback Signal
		7	Transfer PWM
		8	Signal Feedback
		9	Charge Roll PWM
		10	GND
		11	GND
		12	LED Supply Voltage
		13	Developer PWM
		14	Speaker +
		15	Toner Adder Roll PWM
		16	Speaker -
		17	HVPS Vendor ID
		18	not used
J62	LVPS	1	+25V Enable Signal
		2	Heat "ON" Signal
		3	Zero Crossing Signal
		4	Relay "ON" signal
		5	GND
		6	+25V Supply
		7	GND
		8	+25V Supply
		9	GND
		10	+25V Supply
		11	GND
		12	+6.5V Supply
		13	GND
		14	+6.5V Supply
		15	GND
		16	+6.5V Supply

Connector	Connects to	Pin no.	Signal
J73	Motor (pick), Sensor (paper present), Sensor (pick position), Sensor (pick), Sensor (tray 1 pass-through), Sensor (MPF paper present), Optional tray, Sensor (paper size)	1	Optional tray—+25V Supply Voltage
		2	Motor (pick)—Motor Encoder LED supply V
		3	Optional tray—GND
		4	Motor (pick)—Motor Encoder Signal Feedback
		5	Optional tray—Option Comm. Receive Signal
		6	Motor (pick)—GND
		7	Optional tray—GND
		8	Motor (pick)—Motor -V supply
		9	Optional tray—Option Comm. Transmit Signal
		10	Motor (pick)—Motor +V supply
J73	Motor (pick), Sensor (paper present), Sensor (pick position), Sensor (pick), Sensor (tray 1 pass-through), Sensor (MPF paper present), Optional tray, Sensor (paper size)	11	Optional tray—+5V Supply Voltage
		12	Sensor (pick position)—Sensor Feedback Signal
		13	Sensor (paper size)—Sensor Feedback Signal - 0
		14	Sensor (pick position)—GND
		15	Sensor (paper size)—GND
		16	Sensor (pick position)—Sensor Supply Voltage
		17	Sensor (paper size)—Sensor Feedback Signal - 1
		18	Sensor (paper present)—Sensor Feedback Signal
		19	Sensor (paper size)—Sensor Feedback Signal - 2
		20	Sensor (paper present)—GND

Connector	Connects to	Pin no.	Signal
J73	Motor (pick), Sensor (paper present), Sensor (pick position), Sensor (pick), Sensor (tray 1 pass-through), Sensor (MPF paper present), Optional tray, Sensor (paper size)	21	Sensor (paper size)—Sensor Feedback Signal - 3
		22	Sensor (paper present)—Sensor Supply Voltage
		23	Sensor (pick)—Sensor Feedback Signal
		24	Sensor (MPF paper present)—Sensor Feedback Signal
		25	Sensor (pick)—GND
		26	Sensor (MPF paper present)—GND
		27	Sensor (pick)—Sensor Supply Voltage
		28	Sensor (MPF paper present)—Sensor Supply Voltage
		29	Sensor (tray 1 pass-through)—Sensor Feedback Signal
		30	not used
		31	Sensor (tray 1 pass-through)—GND
		32	not used
		33	Sensor (tray 1 pass-through)—Sensor Supply Voltage
		34	not used
J19	Printhead	1	Mirror Motor Clock
		2	Mirror Motor LOCK Signal
		3	Mirror Motor START Signal
		4	GND
		5	+25V Supply Voltage
J6	Printhead FFC	--	not measurable
JISP1	ISP cable	--	not measurable
J18	4.3-inch Control panel FFC	--	not measurable
J1	2.4-inch Control panel FFC	--	not measurable

ADF controller board connectors

Connector	Connects to	Pin no.	Signal
JADF2	HDMI B (black) scanner	1	TI_DBG_TXD
		2	GND
		3	MDC_GPIO1
		4	TI_DBG_RXD
		5	GND
		6	SCAN_FB_SNSR
		7	TI_UART_TXD
		8	GND
		9	MDC_GPIO3
		10	TI_UART_RXD
JADF2	HDMI B (black) scanner	11	GND
		12	TESTER_5V_CTL
		13	SCAN_PP_SNSR
		14	ADF_AFE_SH
		15	ADF_TOP
		16	FB_TOP
		17	GND
		18	TESTER_25V_CTL
		19	MDC_RESET_R
JADF1	HDMI A (gray) scanner	1	ADF_RXIN0-
		2	GND
		3	ADF_RXIN0+
		4	ADF_RXIN1-
		5	GND
		6	ADF_RXIN1+
		7	ADF_RXIN2-
		8	GND
		9	ADF_RXIN2+
		10	ADF_RX_CLK-

Connector	Connects to	Pin no.	Signal
JADF1	HDMI A (gray) scanner	11	GND
		12	ADF_RX_CLK+
		13	ADF_SEN
		14	ADF_MCLK-
		15	ADF_SCLK
		16	ADF_SDIO
		17	GND
		18	ADF_DAC_SEN
		19	ADF_MCLK+
JCCDM1	ADF CCDM	1	GND
		2	AFE_RESET
		3	5V
		4	SDIO
		5	5V
		6	GND
		7	SEN
		8	5V
		9	SCLK
		10	GND
JCCDM1	ADF CCDM	11	TX_OUT0-
		12	TX_OUT0+
		13	GND
		14	TX_OUT1-
		15	TX_OUT1+
		16	GND
		17	TX_OUT2-
		18	TX_OUT2+
		19	GND
		20	TX_CLK-

Connector	Connects to	Pin no.	Signal
JCCDM1	ADF CCDM	21	TX_CLK+
		22	GND
		23	IN_CLK-
		24	IN_CLK+
		25	GND
		26	24V
		27	24V
		28	24V
		29	24V
		30	GND
		31	LAMP_CTL
		32	GND
J56	Sensor (ADF closed)	1	5V
		2	COVER_CLOSING
		3	GND
JPATH1	Sensor (ADF lift plate home), Sensor (ADF media exit), Sensor (ADF top door interlock), Sensor (ADF bottom door interlock)	1	ELEV_HOME
		2	GND
		3	5V
		4	TOP_COVER
		5	GND
		6	5V_TOP_COVER
		7	EXIT
		8	GND
		9	5V_EXIT
		10	BD_SW
		11	GND
		12	5V_BD_SW
JTRAY1	Paper present LED, Output bin LED	1	5V
		2	CAVE_PWM
		3	5V
		4	INDICATOR_PWM

Connector	Connects to	Pin no.	Signal
JPATH2	Sensor (ADF 1st scan), Sensor (ADF pick)	1	5V
		2	INTERVAL
		3	GND
		4	5V
		5	FIRST_SCAN
		6	GND
JPPS1	Sensor (ADF paper present 1), Sensor (ADF paper present 2)	1	PP1
		2	GND
		3	5V
		4	PP2
		5	5V
		6	GND
JCSH1	Sensor (ADF calibration)	1	SIGNAL
		2	GND
		3	5V
JMFRC1	Sensor (ADF multifeed receiver)	1	5V
		2	MF_RCV_OUT
		3	MF_PRESENT_N
		4	GND
		5	NC
JHINGE1	Sensor (ADF pick roller index), Sensor (ADF gap detect), Sensor (ADF deskew)	1	NC
		2	NC
		3	5V
		4	ELEVATOR_LOW
		5	ELEVATOR_HIGH
		6	GND
		7	GND
		8	5V_DESKEW
		9	DESKEW
		10	GND
		11	GND
		12	GAP
		13	5V_GAP

Connector	Connects to	Pin no.	Signal
JMFDR1	Sensor (ADF multifeed transmitter)	1	24V
		2	5V
		3	MF_PWM
		4	MF_ENABLE
		5	GND
JPIC1	Motor (ADF pick/feed)	1	PICK_ECHX
		2	GND
		3	3.3V
		4	V_PICK_OUT1
		5	V_PICK_OUT2
JDSKW1	Motor (ADF deskew)	1	PICK_ECHX
		2	PICK_ECHY
		3	GND
		4	3.3V
		5	V_PICK_OUT1
		6	V_PICK_OUT2
JELV1	Motor (ADF tray lift)	1	ENC_LED
		2	ELV_MOT_ENC
		3	GND
		4	ELV_MOT_-
		5	ELV_MOT_+
JFBHM1	Sensor (FB CCD home)	1	HOME
		2	GND
		3	5V
JFBMOT1	Motor (flatbed scanner)	1	PICK_ECHX
		2	PICK_ECHY
		3	GMD
		4	3.3V
		5	V_PICK_OUT1
		6	V_PICK_OUT2

Connector	Connects to	Pin no.	Signal
JSPWR1	Scanner power (from controller board)	1	25V_ADF_A
		2	25V_ADF_A
		3	GND
		4	GND
		5	5V_SCAN
		6	5V_SCAN
		7	GND
		8	5V_SLEEP
		9	GND
		10	GND
		11	25V_ADF_B
		12	25V_ADF_B
JXPORT1	Motor (ADF transport)	1	BLDC_HALL_0
		2	BLDC_HALL_1
		3	BLDC_HALL_2
		4	BLDC_FG
		5	GND
		6	5V_SW
		7	V_C2_0
		8	V_C2_1
		9	V_C2_2
JSTEP1	Motor (ADF calibration)	1	STP_A-
		2	STP_A+
		3	STP_B+
		4	STP_B-

Maintenance

Inspection guide

The purpose of this inspection guide is to aid you in identifying the intervals, based on page count, at which parts must be inspected (for visible physical damage), cleaned, or replaced.

If any unsafe conditions exist, find out how serious the hazard could be and if you can continue before you correct the hazard.

As you service the machine, check for the following:

- Damaged, missing, or altered parts, especially in the area of the On/Off switch and the power supply
- Damaged, missing, or altered covers, especially in the area of the top cover and the power supply cover
- Possible safety exposure from any non-Lexmark attachments
- Printer and options are sitting flat (for example, not sitting on cables or hanging over a ledge)
- Printer is properly set on any options

Use the following table to determine when specified parts should be inspected:

MX725 Inspection guide table

PART/ITEM	EVERY SERVICE CALL	EVERY 200K	NOTES
Tray insert • Width paper guide • Length paper guide	Inspect	Replace	Check for correct positioning.
Separator pad	Inspect, clean if needed	Replace	Clean with a damp cloth.
Tray pick roller	Inspect, clean	Replace	Clean with a damp cloth.
MPF pick roller	Inspect, clean	Inspect, clean	Clean with a damp cloth.
Transfer roller	Inspect	Replace	Ensure correct installation.
Fuser	Inspect	Replace	Ensure correct installation.
Fuser wiper	Inspect	Replace	Ensure correct installation.
Rear door	Inspect	Inspect	Ensure correct operation and closure.
Duplex paper path	Inspect	Inspect	Check for paper fragments and obstructions.
Toner spillage	Clean	Clean	Remove all toner spillage from the printer.

MX721, MX722, and MX82x Inspection guide table

PART/ITEM	EVERY SERVICE CALL	EVERY 225K	NOTES
Tray insert • Width paper guide • Length paper guide	Inspect	Replace	Check for correct positioning.
Separator pad	Inspect, clean if needed	Replace	Clean with a damp cloth.
Tray pick roller	Inspect, clean	Replace	Clean with a damp cloth.
MPF pick roller	Inspect, clean	Inspect, clean	Clean with a damp cloth.
Rear door	Inspect	Inspect	Ensure correct operation and closure.
Duplex paper path	Inspect	Inspect	Check for paper fragments and obstructions.
Toner spillage	Clean	Clean	Remove all toner spillage from the printer.

Scheduled maintenance

The operator panel displays the message *80* or *Scheduled Maintenance* when it reaches certain page counts. It is necessary to replace the appropriate maintenance kit at certain intervals to maintain the print quality and reliability of the printer. If needed, reset the maintenance counter after performing scheduled maintenance.

Fuser maintenance kits

The printer may stop printing when the fuser rated life is reached. At rated fuser life, a Fuser maintenance kit is required. The correct Fuser maintenance kit must be installed for the type of fuser that is installed in the printer. See **"Identifying the type of fuser used in the printer" on page 810**.

Code levels prior to Base code of LW20.DN4.P231-0 and Engine code of FDN.DN.E410-0 set the 80.3x error as a non-continuable stop. To change the 80.3x error code to a continuable stop, please see technical bulletin TE523 by visiting **www.lexmark.com**. A continuable stop is an error code that will allow the user to continue using the printer once the error is acknowledged using the control panel.

There are multiple warnings to indicate that the fuser is nearing end of life and that a maintenance kit is required.

Maintenance kit nearly low [80.0x]

1. Replace the maintenance kit. For more information, see the instruction sheet that came with the replacement parts.
2. From the printer control panel, select **Continue** to clear the message and continue printing. For non-touch-screen printer models, press OK to confirm.

3 If you do not have a maintenance kit, then see **"Maintenance kits" on page 810**, or see the *Ordering a maintenance kit* section of the *User's Guide*, or visit **www.lexmark.com**.

Maintenance kit low [80.1x]

1 Replace the maintenance kit. For more information, see the instruction sheet that came with the replacement parts.

2 From the printer control panel, select **Continue** to clear the message and continue printing. For non-touch-screen printer models, press OK to confirm.

3 If you do not have a maintenance kit, then see **"Maintenance kits" on page 810**, or see the *Ordering a maintenance kit* section of the *User's Guide*, or visit **www.lexmark.com**.

Maintenance kit very low, 2000 estimated pages remain [80.2x]

1 Replace the maintenance kit. For more information, see the instruction sheet that came with the replacement parts.

2 From the printer control panel, select **Continue** to clear the message and continue printing. For non-touch-screen printer models, press OK to confirm.

3 If you do not have a maintenance kit, then see **"Maintenance kits" on page 810**, or see the *Ordering a maintenance kit* section of the *User's Guide*, or visit **www.lexmark.com**.

Maintenance kit low, 0 estimated pages remain [80.3x]

1 Replace the maintenance kit. For more information, see the instruction sheet that came with the replacement parts.

2 If you do not have a maintenance kit, then see **"Maintenance kits" on page 810**, or see the *Ordering a maintenance kit* section of the *User's Guide*, or visit **www.lexmark.com**.

Note: The printer is not intended to continue past this point [80.3x]. If a maintenance kit cannot be installed at this time, contact the Lexmark help desk for procedures to allow the printer to continue printing for a limited number of additional pages. For the contact information, visit **http://support.lexmark.com**.

Maintenance kit very low, 0 estimated pages remain [80.4x]

1 Replace the maintenance kit. For more information, see the instruction sheet that came with the replacement parts.

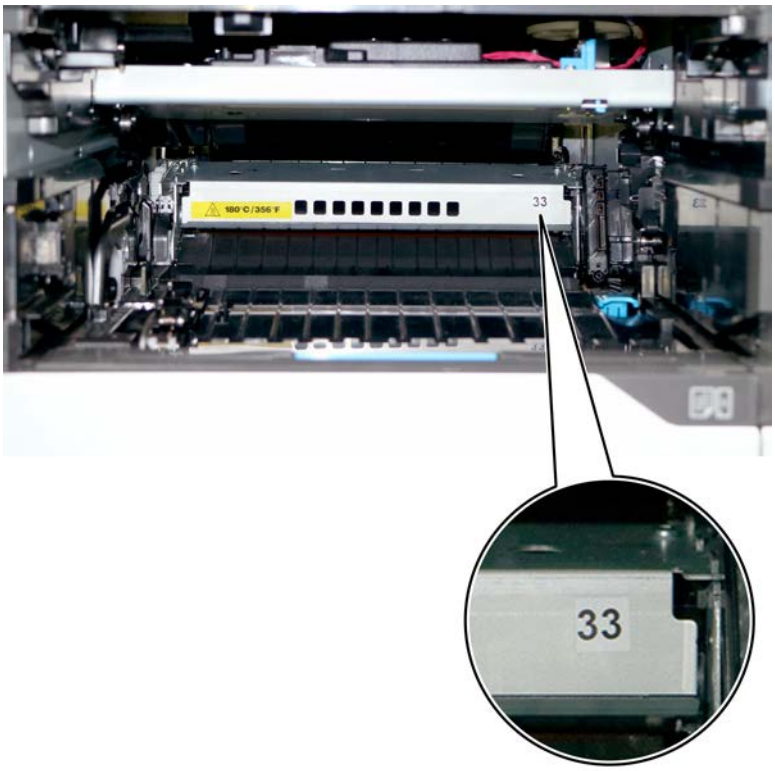
2 If you do not have a maintenance kit, then see **"Maintenance kits" on page 810**, or see the *Ordering a maintenance kit* section of the *User's Guide*, or visit **www.lexmark.com**.

Note: The printer is not intended to continue past this point [80.4x]. There are no additional procedures that will allow the printer to print without installing a maintenance kit.

Identifying the type of fuser used in the printer

From the front of the printer:

1. Open the front door, and then remove the toner cartridge and imaging unit.
2. Find the two-digit number to identify the fuser type.



From the rear of the printer:

1. Open the rear door.
2. Find the barcode sticker on the fuser.

   The two-digit number for identifying the fuser type can be found on the sticker.

Maintenance kits

The control panel displays an 80.xx error or 86.xx error at required maintenance intervals. It is necessary to install the appropriate maintenance kit to maintain the print quality and reliability of the printer and ADF. The following maintenance kits are available:

Part number and kit	Contents
41X2242—200K Maintenance kit, Hot roll fuser (115 V Contact Detack LRP, Type 11) **Note:** This fuser is not applicable to MX721, MX722, MX82x, XM5365, and XM73xx printer models.	• 41X2147—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller

Part number and kit	Contents
41X2243—200K Maintenance kit, Hot roll fuser (220 V Contact Detack LRP, Type 13) **Note:** This fuser is not applicable to MX721, MX722, MX82x, XM5365, and XM73xx printer models.	• 41X2148—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2244—200K Maintenance kit, Hot roll fuser (115 V NLRP Contact Detack ASM, Type 17) **Note:** This fuser is not applicable to MX721, MX722, MX82x, XM5365, and XM73xx printer models.	• 41X2149—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2245—200K Maintenance kit, Hot roll fuser (220 V NLRP Contact Detack ASM, Type 19) **Note:** This fuser is not applicable to MX721, MX722, MX82x, XM5365, and XM73xx printer models.	• 41X2150—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2233—225K Maintenance kit, Belt SY fuser (115 V LTR LRP, Type 00) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X1115—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2234—225K Maintenance kit, Belt SY fuser (230 V A4 LRP, Type 01) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X1116—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2235—225K Maintenance kit, Belt SY fuser (100 V A4 LRP, Type 02) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X1117—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2236—225K Maintenance kit, Belt SY fuser (115 V A4 LRP, Type 03) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X2141—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2237—225K Maintenance kit, Belt SY fuser (230 V LTR LRP, Type 04) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X2142—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2238—225K Maintenance kit, Belt SY fuser (115 V LTR NLRP, Type 05) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X2143—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller

Part number and kit	Contents
41X2239—225K Maintenance kit, Belt SY fuser (230 V A4 NLRP, Type 06) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X2144—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2240—225K Maintenance kit, Belt SY fuser (100 V A4 NLRP, Type 07) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X2145—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2241—225K Maintenance kit, Belt SY fuser (115 V A4 NLRP, Type 08) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X2146—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2901—300K Maintenance kit, ADF	• ADF separator roller • ADF pick roller • ADF feed belt
41X2352—400K Maintenance kit, Printer rollers	• 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2250—400K Maintenance kit, Belt HY fuser (115 V LTR LRP, Type 32) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X2155—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2251—400K Maintenance kit, Belt HY fuser (230 V A4 LRP, Type 33) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X2156—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2252—400K Maintenance kit, Belt HY fuser (115 V A4 LRP, Type 35) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X2157—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller
41X2253—400K Maintenance kit, Belt HY fuser (230 V LTR LRP, Type 36) **Note:** This fuser is not applicable to MX725 and XM5370 printer models.	• 41X2158—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller

After replacing the maintenance kit, the maintenance count will automatically be reset to zero to clear the 80.xx error. For 86.xx errors, the ADF maintenance count must be manually reset.

Resetting the ADF maintenance counter

Reset the maintenance counter after installing the new ADF pick roller, ADF feed belt, and ADF separator roller that are included in the kit.

1. From the control panel, navigate to:

   Settings > **Device** > **Maintenance** > **Configuration menu** > **Scanner Configuration** > **Reset Maintenance Counter**

2. Touch **Start**.

Preventive maintenance

Between scheduled maintenance intervals, paper feed, paper transport, and image quality problems can occur. Some preventive maintenance procedures can help prevent issues like these.

Device-specific preventive maintenance

An ADF feed roller cleaning can be performed to improve paper feed reliability. ADF feed roller cleaning cloths are provided with a new scanner, stored in the compartment beneath the exit tray. Additional cleaning cloths are available.

To clean the display, keypad, flatbed scanner glass, and upper and lower ADF scanner glass, use the LCD cleaning cloth. A single two-step LCD cleaning cloth is provided with a new scanner, stored in the compartment beneath the exit tray. Additional cleaning cloths are available.

The following table lists the parts needed to perform preventive maintenance:

Part number	Description	Maintenance interval
16J0900	ADF feed roller cleaning kit	As needed
40X0392	LCD cleaning kit	As needed

Lubrication specification

There are no lubrication requirements for this printer.

Cleaning printer parts

Cleaning the printer

CAUTION—SHOCK HAZARD: To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

ATTENTION—RISQUE D'ELECTROCUTION : pour éviter tout risque d'électrocution lors du nettoyage de l'extérieur de l'imprimante, débranchez le cordon d'alimentation électrique de la prise et déconnectez tous les câbles de l'imprimante avant de continuer.

PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS: Para evitar el riesgo de descarga eléctrica al limpiar el exterior de la impresora, desconecte el cable de alimentación de la toma eléctrica y desconecte todos los cables de la impresora antes de realizar la operación.

VORSICHT – STROMSCHLAGGEFAHR: Um das Risiko eines elektrischen Schlags beim Reinigen des Druckergehäuses zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose, und ziehen Sie alle Kabel vom Drucker ab, bevor Sie fortfahren.

Notes:

- Perform this task after every few months.
- Damage to the printer caused by improper handling is not covered by the printer warranty.

1. Turn off the printer, and then unplug the power cord from the electrical outlet.
2. Remove paper from the standard bin and manual feeder.
3. Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.
4. Wipe the outside of the printer with a damp, soft, lint-free cloth.

   Notes:

   - Do not use household cleaners or detergents, as they may damage the finish of the printer.
   - Make sure that all areas of the printer are dry after cleaning.
5. Connect the power cord to the electrical outlet, and then turn on the printer.

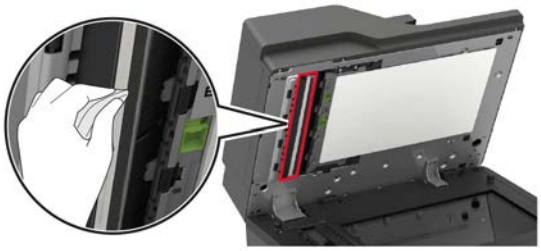
Cleaning the scanner

1. Open the scanner cover.

2 Using a damp, soft, lint-free cloth, wipe the following areas:

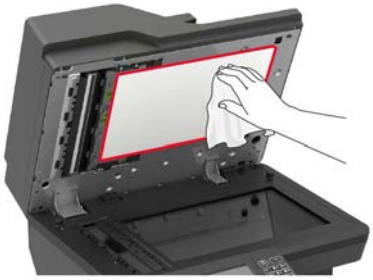
- ADF glass

- ADF glass pad

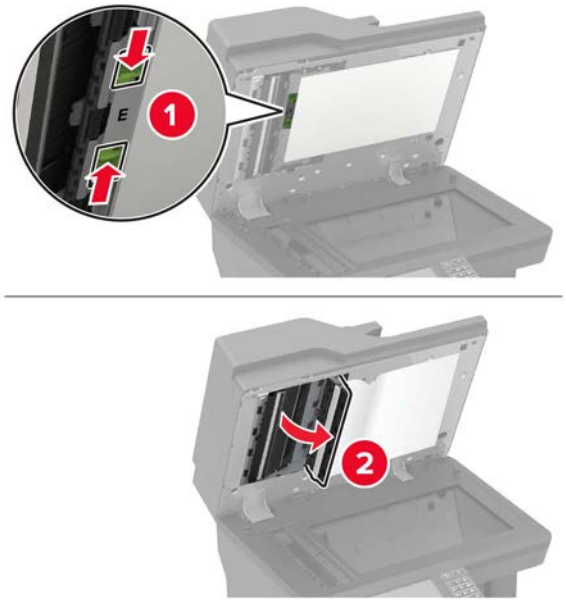


- Scanner glass

- Scanner glass pad

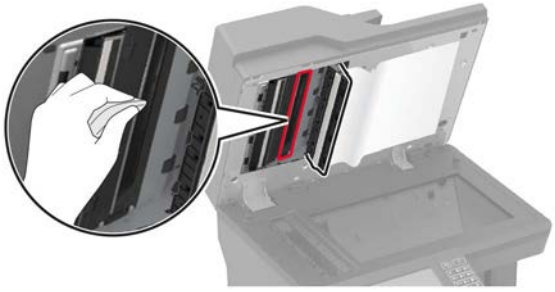


3 Open door E.

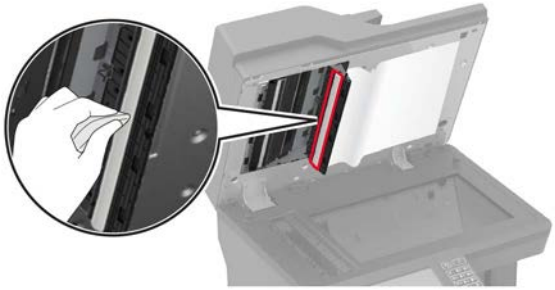


4 Using a damp, soft, lint-free cloth, wipe the following areas:

- ADF glass pad in door E



- ADF glass in door E

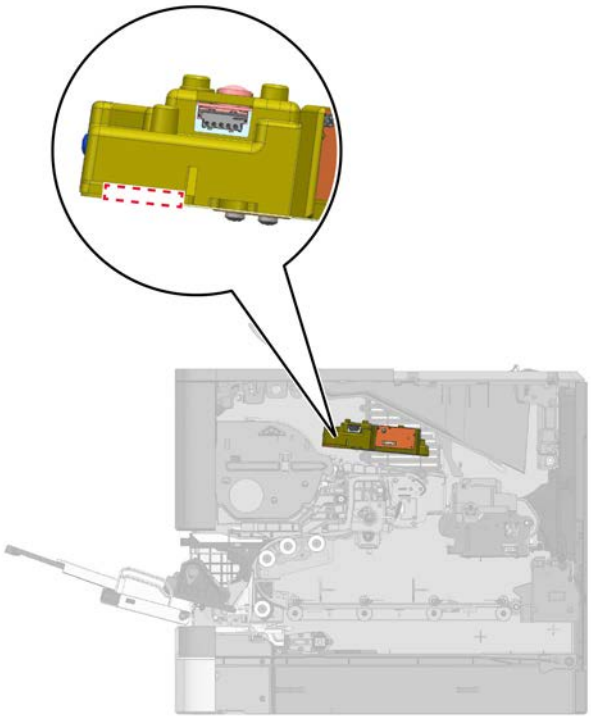


5 Close door E, and then close the scanner cover.

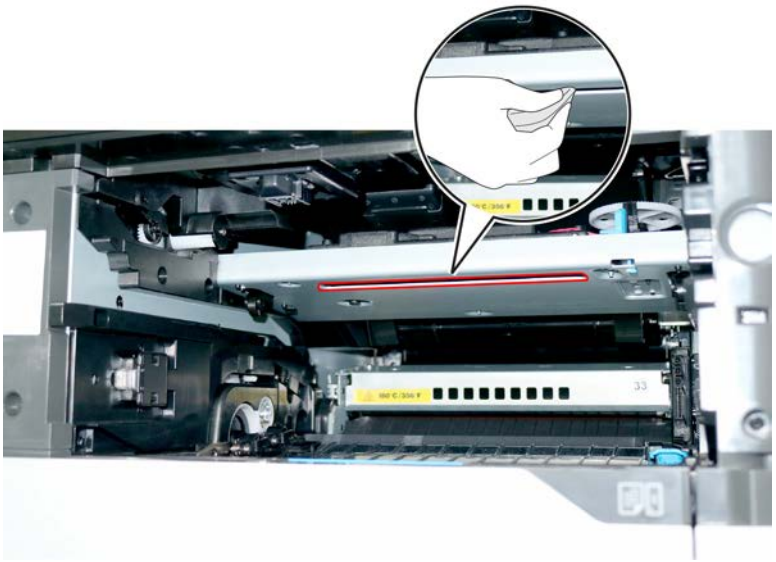
Cleaning the printhead glass

1 Remove the toner cartridge and imaging unit.

2 Locate the exit glass under the printhead.



3 Wipe the exit glass using a lint-free cloth.



Parts catalog

Legend

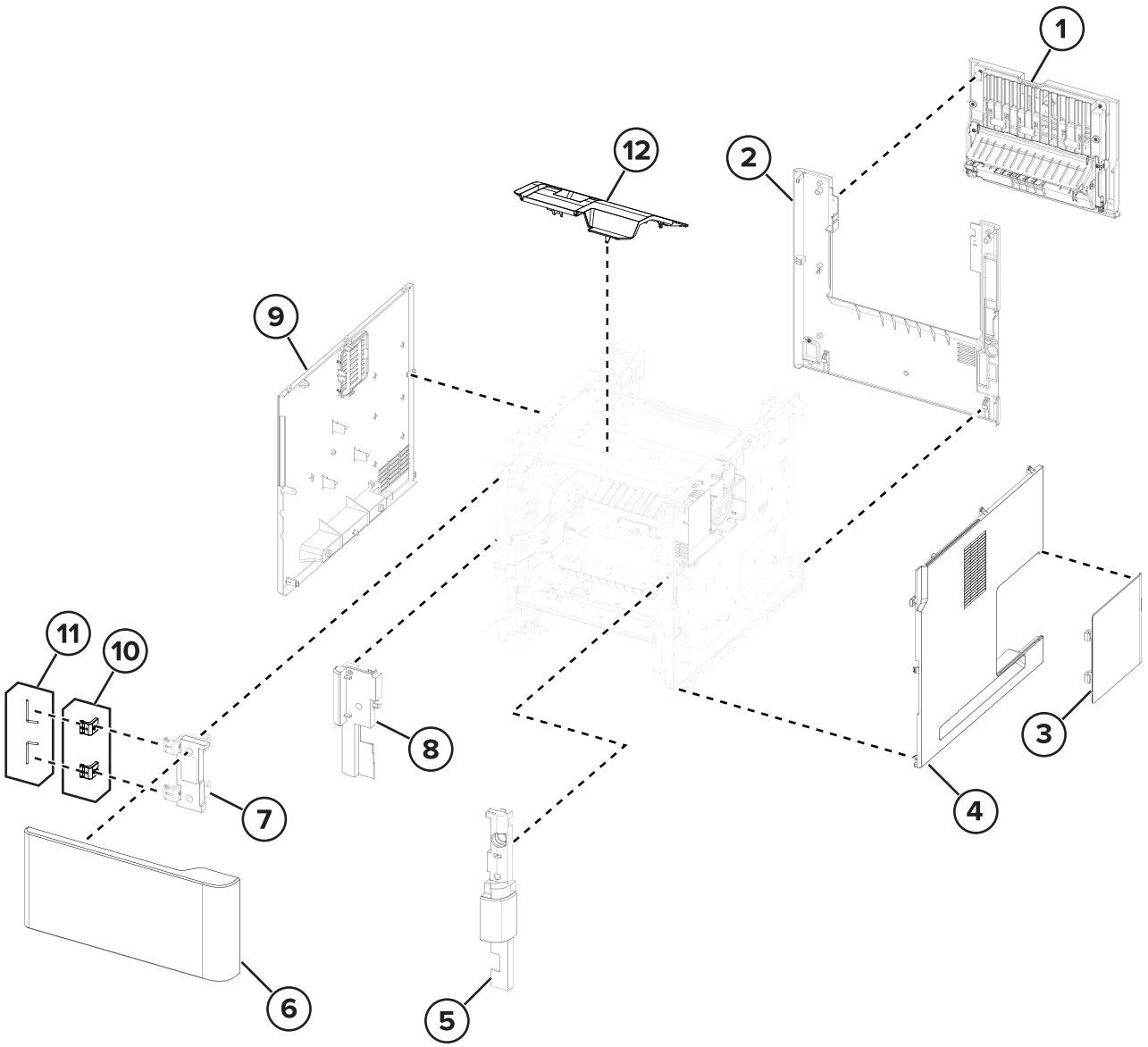
The following column headings are used in the parts catalog:

- **Asm-index**—Identifies the item in the illustration
- **P/N**—Identifies the part number of a FRU
- **Units/mach**—Refers to the number of units in a printer
- **Units/opt**—Refers to the number of units in an option
- **Units/FRU**—Refers to the number of units in a FRU
- **Description**—A brief description of the part

The following abbreviations are used in the parts catalog:

- **NS** (not shown) in the Asm-index column indicates that the part is procurable but is not shown in the illustration.
- **PP** (parts packet) in the Description column indicates that the part is contained in a parts packet.

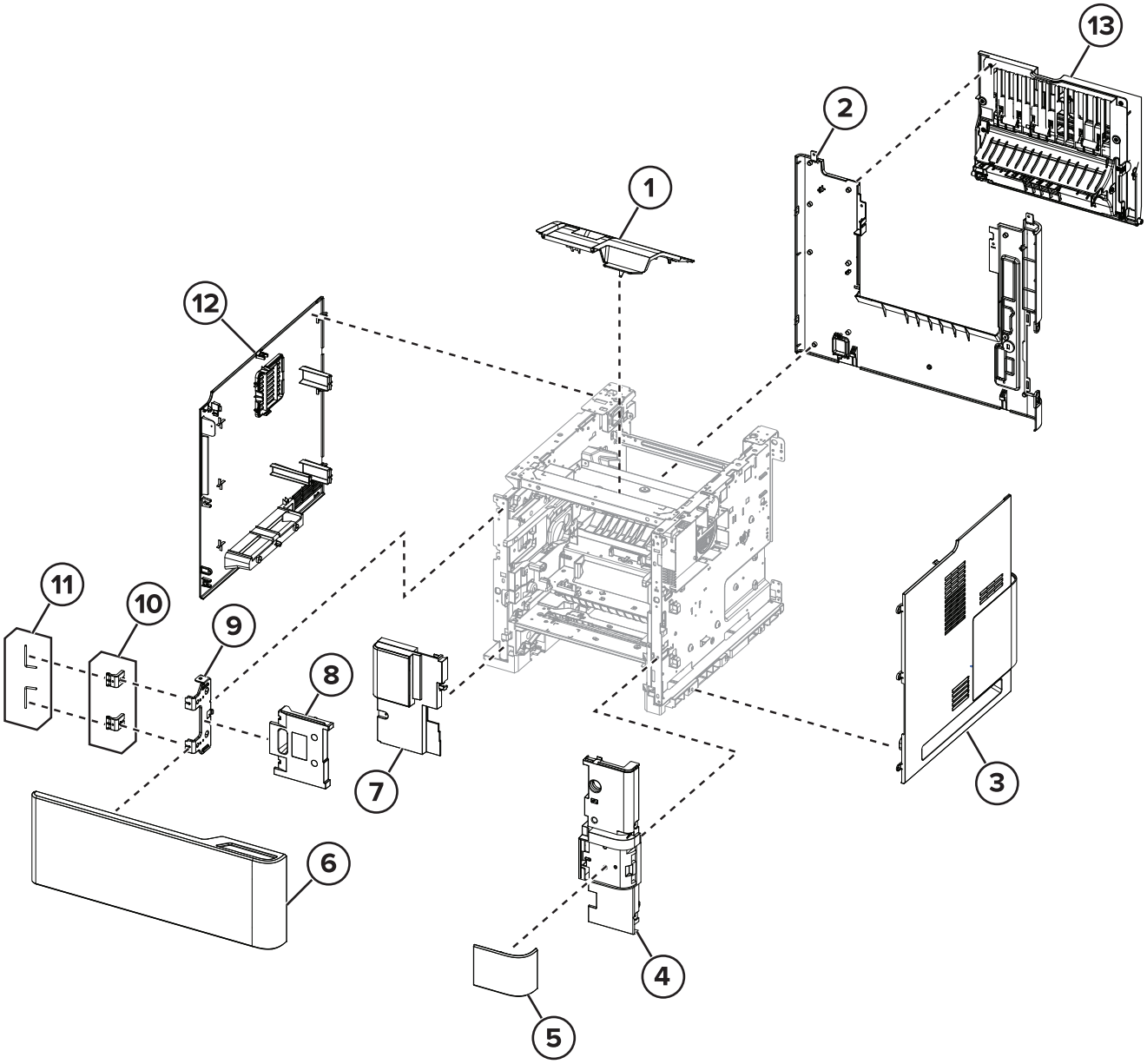
Assembly 1: Covers (MX72x, MB2770, XM53xx)



Assembly 1: Covers (MX72x, MB2770, XM53xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1126	1	1	Rear door	“Rear door removal” on page 509
2	41X1065	1	1	Rear cover (MX72x, MB2770, XM53xx)	“Rear cover removal” on page 510
3	41X1128	1	1	Controller board access door	“Controller board access door removal” on page 484
4	41X1066	1	1	Right cover (MX72x, MB2770, XM53xx)	“Right cover removal” on page 475
5	41X1064	1	1	Inner right cover (MX72x, MB2770, XM53xx)	--
6	41X1129	1	1	Front door (MX72x, MB2770, XM53xx)	“Front door removal” on page 499
7	41X1069	1	1	Front door bracket (MX72x, MB2770, XM53xx)	“Front door bracket removal” on page 498
8	41X1068	1	1	Inner left cover (MX72x, MB2770, XM53xx)	--
9	41X1134	1	1	Left cover (MX72x, MB2770, XM53xx)	“Left cover removal” on page 458
10	41X1643	2	2	Front door pivot	--
11	41X1154	2	2	Front door pins	“Front door removal” on page 499
12	41X1130	1	1	Printhead access cover (MX72x, MB2770, XM53xx)	“Printhead removal” on page 518

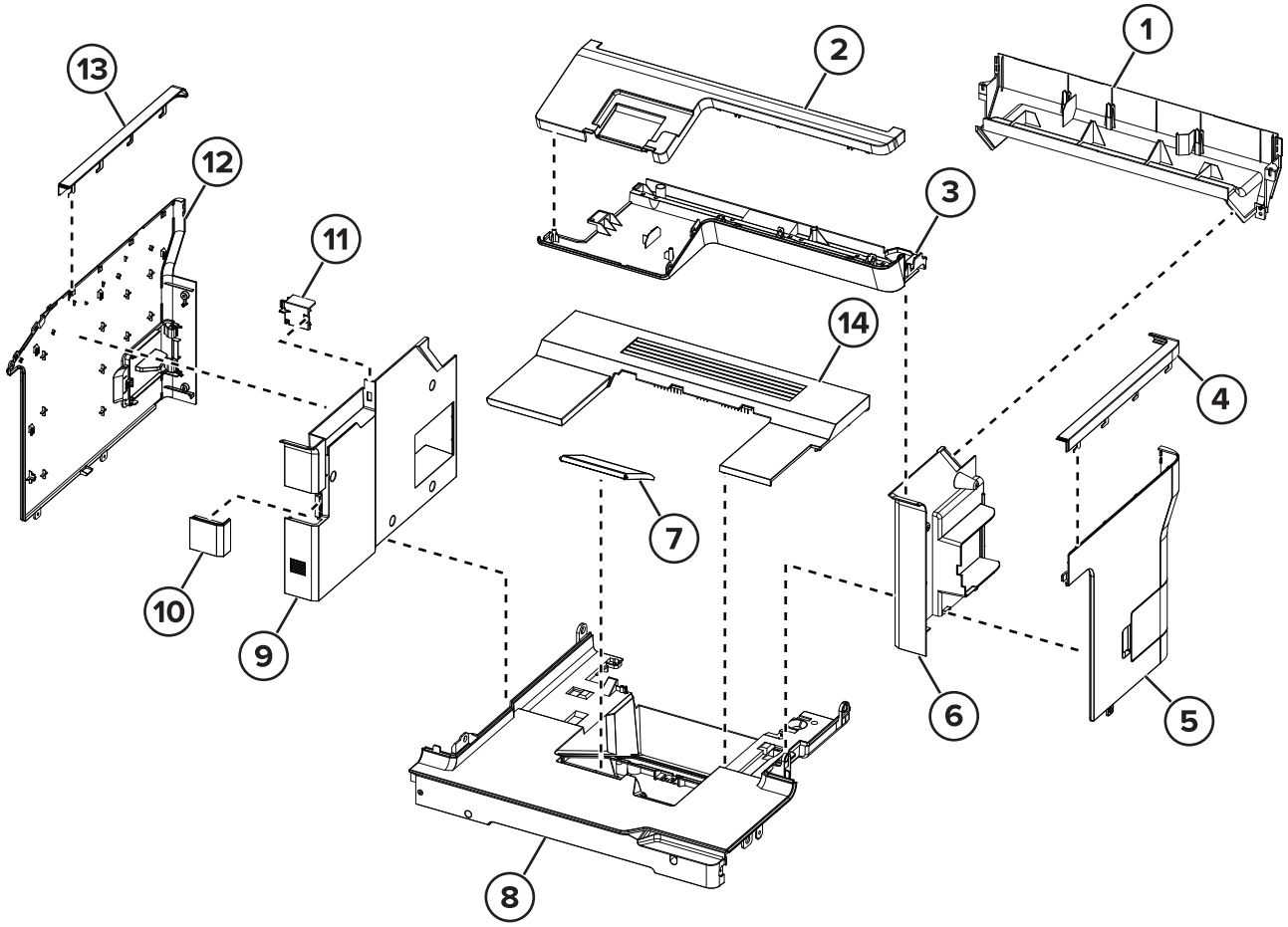
Assembly 2: Covers 1 (MX82x, XM73xx)



Assembly 2: Covers 1 (MX82x, XM73xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1130	1	1	Printhead access cover (MX82x, XM73xx)	“Printhead removal” on page 518
2	41X1259	1	1	Rear cover (MX82x, XM73xx)	“Rear cover removal” on page 510
3	41X1270	1	1	Right cover (MX82x, XM73xx)	“Right cover removal” on page 475
4	41X1728	1	1	Inner right cover (MX82x, XM73xx)	--
5	41X1729	1	1	Front right snap cover	--
6	41X1267	1	1	Front door	“Front door removal” on page 499
7	41X1266	1	1	Left inner lower cover	--
8	41X1265	1	1	Left inner upper cover	--
9	41X1642	1	1	Front door bracket (MX82x, XM73xx)	--
10	41X1643	2	2	Front door pivot	--
11	41X1154	2	2	Front door pins	“Front door removal” on page 499
12	41X1268	1	1	Left cover (MX82x, XM73xx)	“Left cover removal” on page 458
13	41x1126	1	1	Rear door (MX82x, XM73xx)	“Rear door removal” on page 509

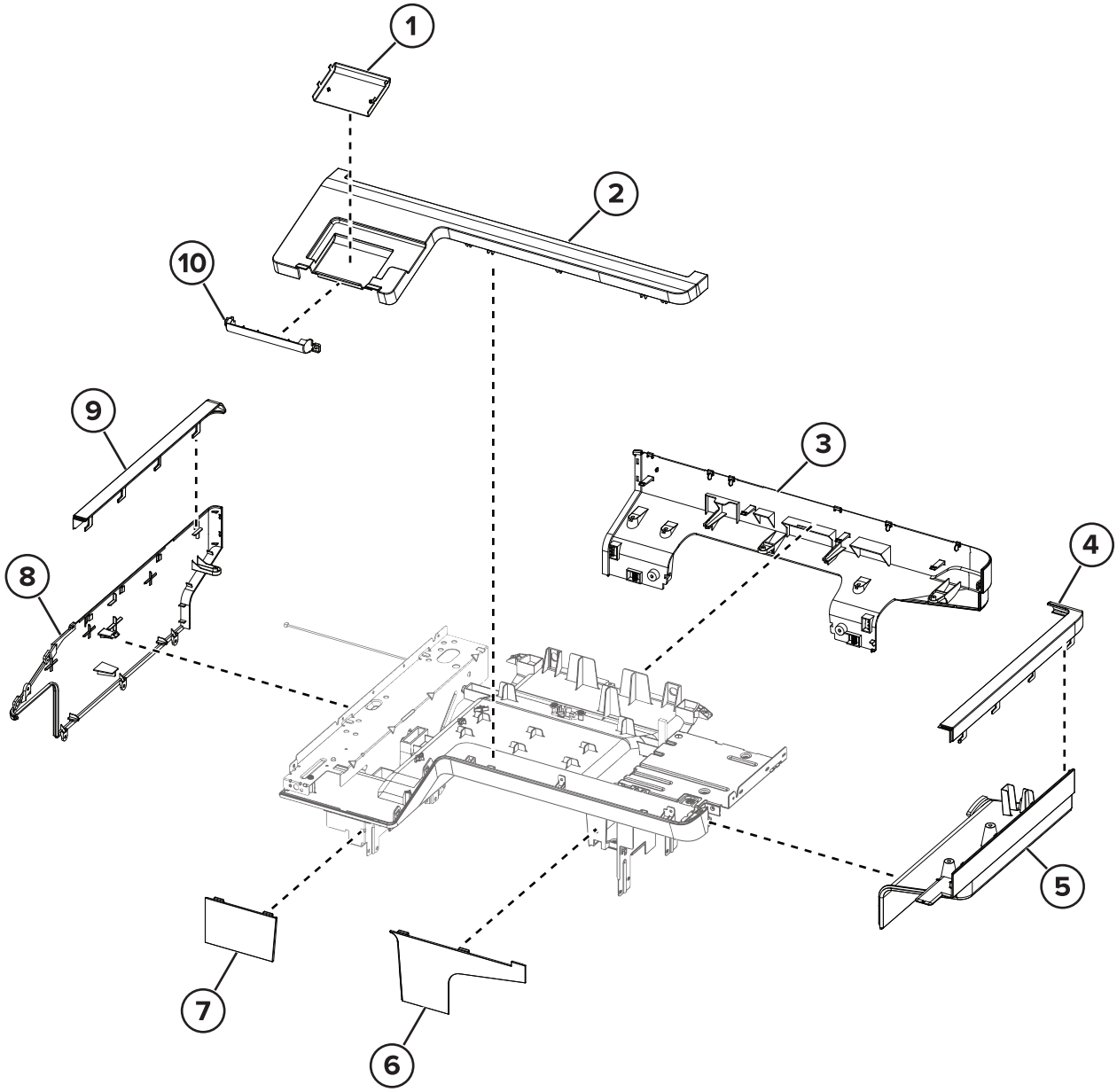
Assembly 3: Covers 2 (MX82x, XM73xx)



Assembly 3: Covers 2 (MX82x, XM73xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1260	1	1	Scanner rear cover	--
2	41X1272	1	1	Scanner front upper cover	**"Scanner front upper cover removal" on page 555**
3	41X1255	1	1	Scanner lower cover	--
4	41X0234	1	1	Scanner right upper cover	--
5	41X1263	1	1	Right outer column cover	**"Right outer column cover removal" on page 480**
6	41X1258	1	1	Right inner column cover	**"Right inner column cover removal" on page 474**
7	41X2314	1	1	Bin extender (MX82x, XM73xx)	--
8	41X1254	1	1	Bin cover	**"Bin cover removal" on page 522**
9	41X1257	1	1	Left inner column cover	**"Left inner column cover removal" on page 457**
10	41X1262	1	1	Keyboard option cover	**"Left inner column cover removal" on page 457**
11	41X1274	1	1	USB socket cover	--
12	41X1261	1	1	Left outer column cover	**"Left outer column cover removal" on page 463**
13	41X0233	1	1	Scanner left upper cover	--
14	41X2862	1	1	Top cover with static brush **Note:** The top cover can be installed only if there are no optional bins on the printer.	--

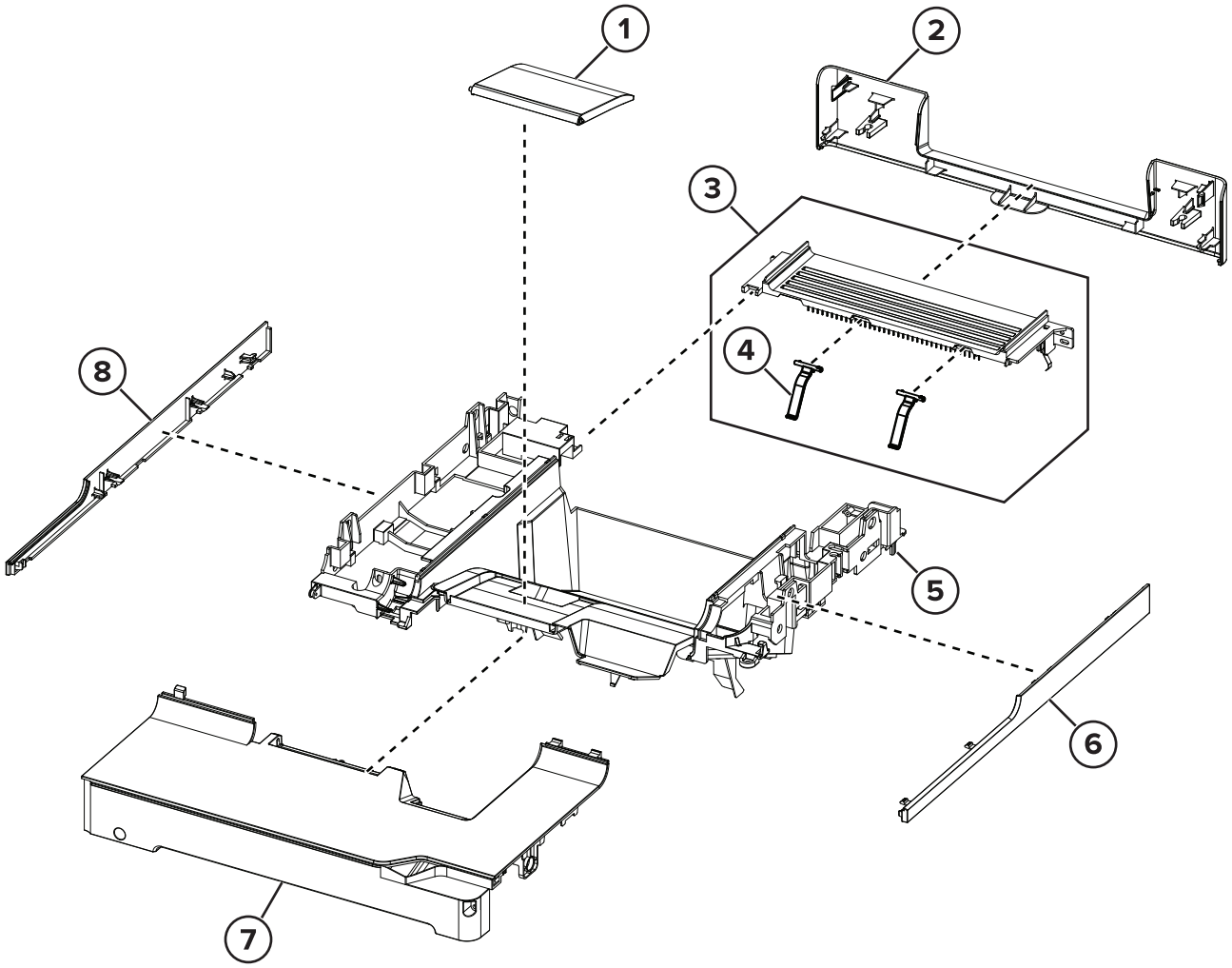
Assembly 4: Flatbed covers 1 (MX72x, MB2770, XM53xx)



Assembly 4: Flatbed covers 1 (MX72x, MB2770, XM53xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1141	1	1	Upper hinge cover	--
2	41X1144	1	1	Scanner front upper cover	--
3	41X1137	1	1	Scanner rear cover	--
4	41X0234	1	1	Scanner right upper cover	--
5	41X1138	1	1	Scanner support right cover	**“Scanner support right cover removal” on page 558**
6	41X1133	1	1	Column right front cover	--
7	41X1132	1	1	Column left front cover	--
8	41X1135	1	1	Scanner support left cover	--
9	41X0233	1	1	Scanner left upper cover	--
10	41X1136	1	1	Lower hinge cover	--

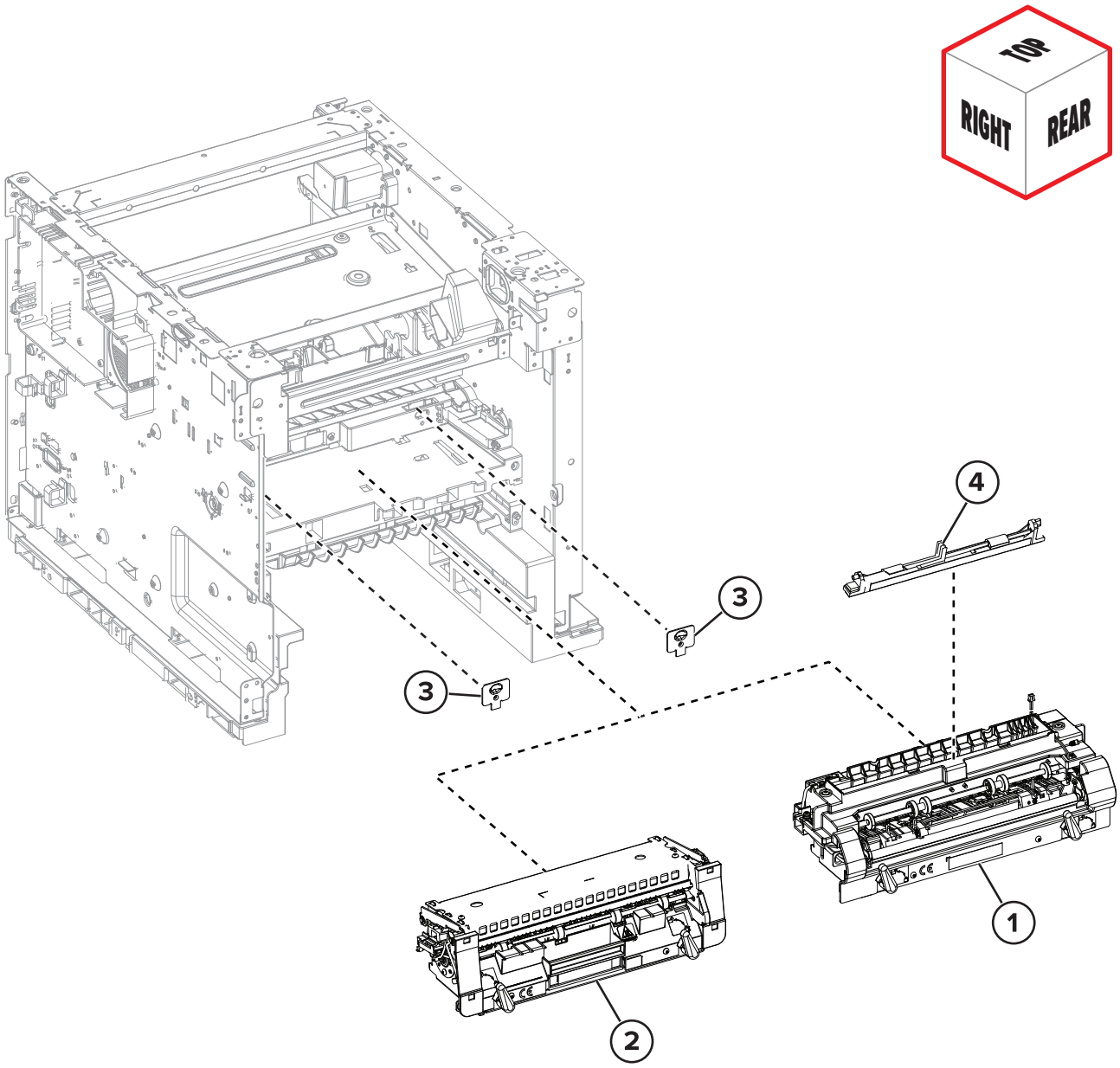
Assembly 5: Flatbed covers 2 (MX72x, MB2770, XM53xx)



Assembly 5: Flatbed covers 2 (MX72x, MB2770, XM53xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2313	1	1	Bin extender (MX72x, MB2770, XM53xx)	--
2	41X1139	1	1	Scanner support rear cover	**“Scanner support rear cover removal” on page 507**
3	41X1145	1	1	Redrive cover	--
4	41X1055	2	1	Paper stacking bail	--
5	41X1131	1	1	Bin support	--
6	41X1143	1	1	Right trim cover	**“Right trim cover removal” on page 473**
7	41X1140	1	1	Top cover	--
8	41X1142	1	1	Left trim cover	**“Left trim cover removal” on page 456**

Assembly 6: Fuser

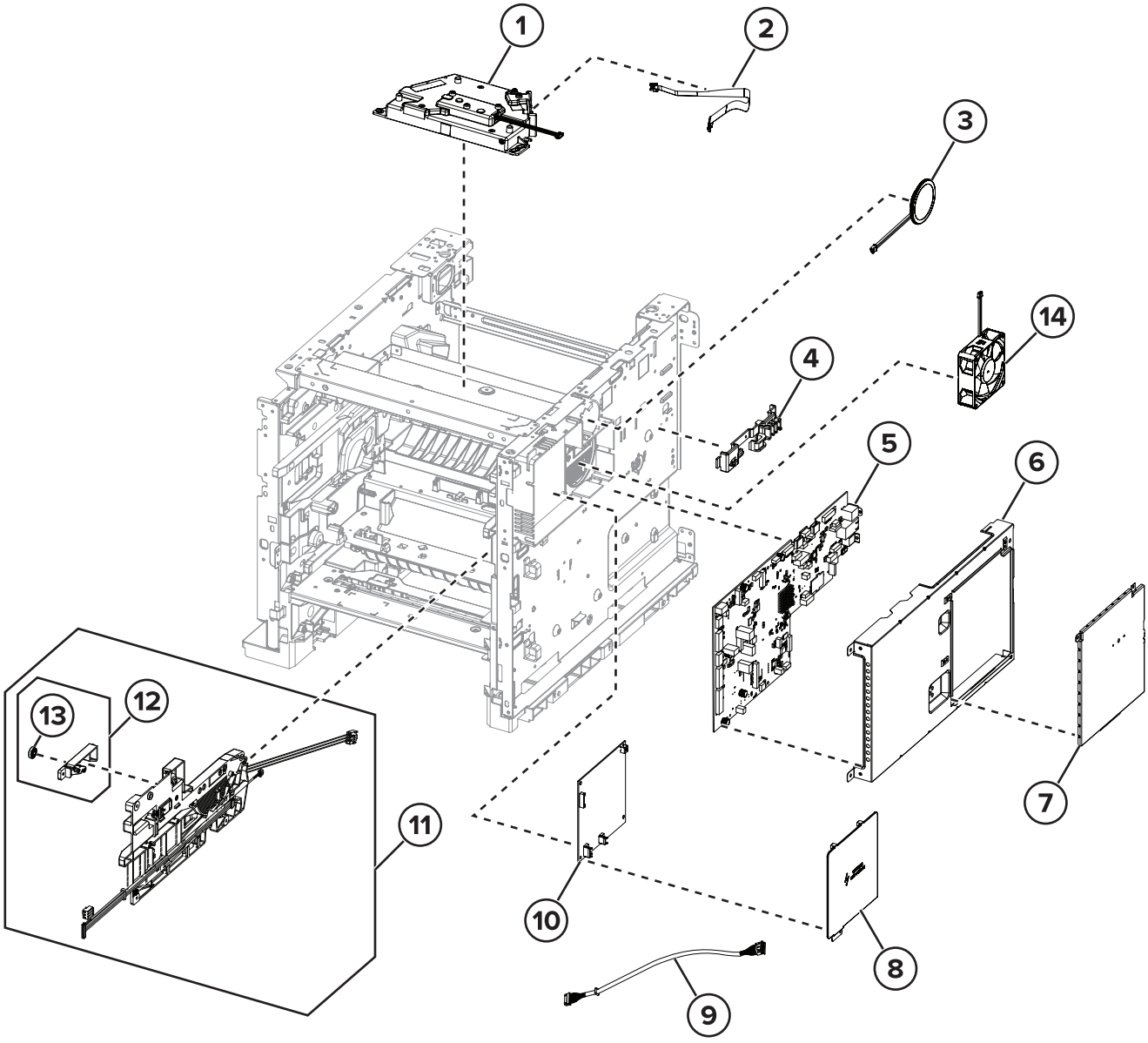


Assembly 6: Fuser

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2147	1	1	HR fuser, 115V Contact Detack LRP TYPE 11 **Note:** This fuser is not applicable to MX721, MX722, MS82x, MX82x, B2865, MB2770, M52xx, XM5365, XM5370, and XM73xx printer models.	"Fuser removal" on page 514
1	41X2148	1	1	HR fuser, 220V Contact Detack LRP TYPE 13 **Note:** This fuser is not applicable to MX721, MX722, MS82x, MX82x, B2865, MB2770, M52xx, XM5365, XM5370, and XM73xx printer models.	"Fuser removal" on page 514
1	41X2149	1	1	HR fuser, 115V Contact Detack NLRP TYPE 17 **Note:** This fuser is not applicable to MX721, MX722, MS82x, MX82x, B2865, MB2770, M52xx, XM5365, XM5370, and XM73xx printer models.	"Fuser removal" on page 514
1	41X2150	1	1	HR fuser, 220V Contact Detack NLRP TYPE 19 **Note:** This fuser is not applicable to MX721, MX722, MS82x, MX82x, B2865, MB2770, M52xx, XM5365, XM5370, and XM73xx printer models.	"Fuser removal" on page 514
2	41X1115	1	1	Belt SY fuser, 115V LTR LRP TYPE 00 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	"Fuser removal" on page 514
2	41X1116	1	1	Belt SY fuser, 230V A4 LRP TYPE 01 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	"Fuser removal" on page 514
2	41X1117	1	1	Belt SY fuser, 100V A4 LRP TYPE 02 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	"Fuser removal" on page 514
2	41X2141	1	1	Belt SY fuser, 115V A4 LRP TYPE 03 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	"Fuser removal" on page 514
2	41X2142	1	1	Belt SY fuser, 230V LTR LRP TYPE 04 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	"Fuser removal" on page 514

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
2	41X2143	1	1	Belt SY fuser, 115V LTR NLRP TYPE 05 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	**"Fuser removal" on page 514**
2	41X2144	1	1	Belt SY fuser, 230V A4 NLRP TYPE 06 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	**"Fuser removal" on page 514**
2	41X2145	1	1	Belt SY fuser, 100V A4 NLRP TYPE 07 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	**"Fuser removal" on page 514**
2	41X2146	1	1	Belt SY fuser, 115V A4 NLRP TYPE 08 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	**"Fuser removal" on page 514**
2	41X2155	1	1	Belt HY fuser, 115V LTR LRP TYPE 32 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	**"Fuser removal" on page 514**
2	41X2156	1	1	Belt HY fuser, 230V A4 LRP TYPE 33 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	**"Fuser removal" on page 514**
2	41X2157	1	1	Belt HY fuser, 115V A4 LRP TYPE 35 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	**"Fuser removal" on page 514**
2	41X2158	1	1	Belt HY fuser, 230V LTR LRP TYPE 36 **Note:** This fuser is not applicable to MS725 and MX725 printer models.	**"Fuser removal" on page 514**
3	41X1075	2	1	Fuser attach bracket	--
4	40X8581	1	1	Wax wiper (hot roller)	--
4	40X8579	1	1	Oil wiper (hot roller)	--

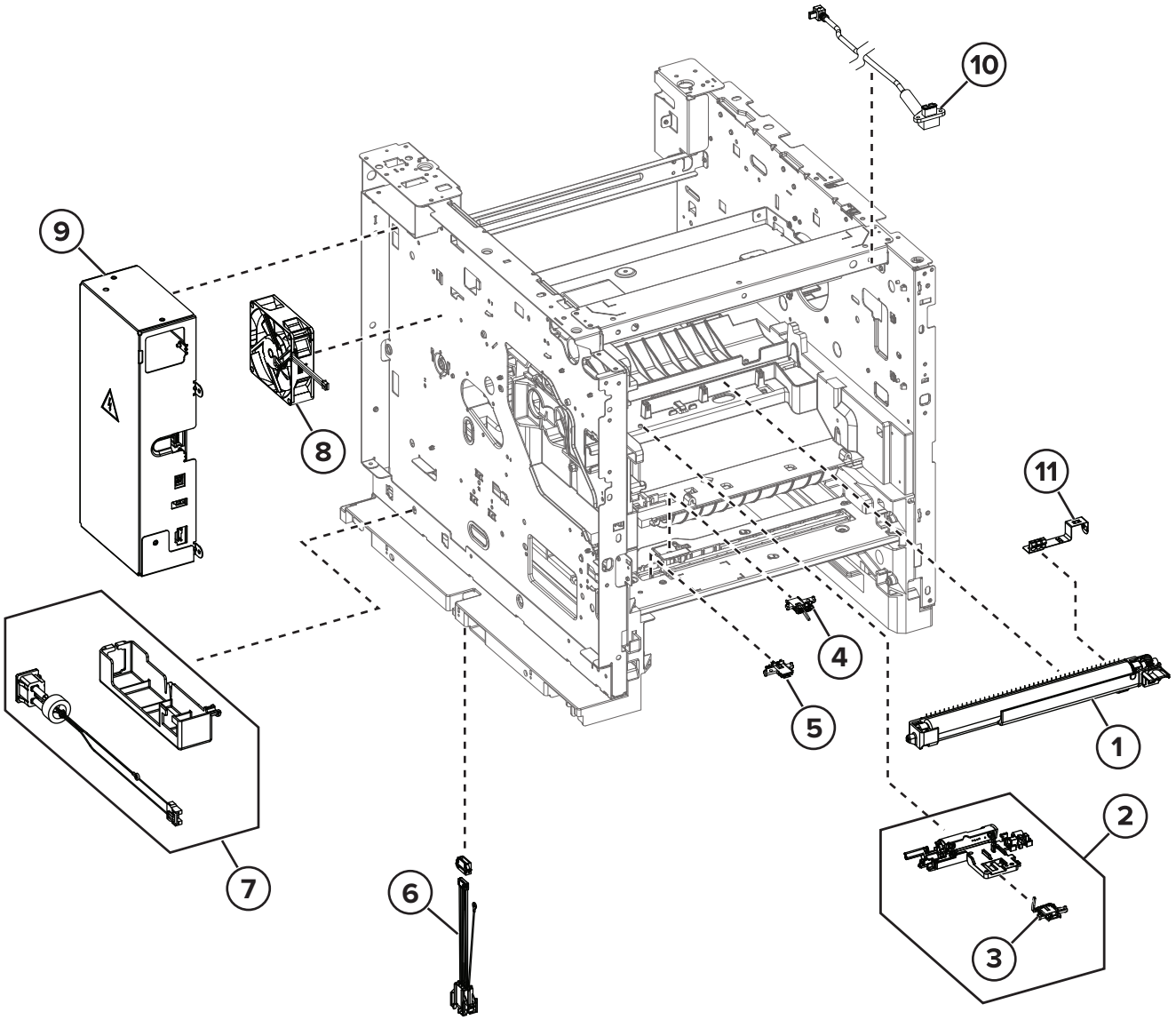
Assembly 7: Electronics 1



Assembly 7: Electronics 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1106	1	1	Printhead	“Printhead removal” on page 518
2	41X1111	1	1	Printhead video cable	--
3	40X9079	1	1	Speaker	“Speaker removal” on page 488
4	41X1269	1	1	Cable holder	--
5	41X1147	1	1	Controller board	“Controller board removal” on page 486
6	41X1052	1	1	Controller board housing	--
7	41X1053	1	1	Controller board shield	--
8	41X1622	1	1	HVPS shield	--
9	41X2320	1	1	LVPS cable	--
10	41X1099	1	1	HVPS	“HVPS removal” on page 481
11	41X1087	1	1	High voltage contacts guide	“High voltage contacts guide removal” on page 488
12	41X1088	1	1	Toner cartridge bias roller	--
13	41X2610	1	4	Guide roller	--
14	41X1177	1	1	Fan, 80 mm	“Cartridge fan removal” on page 483

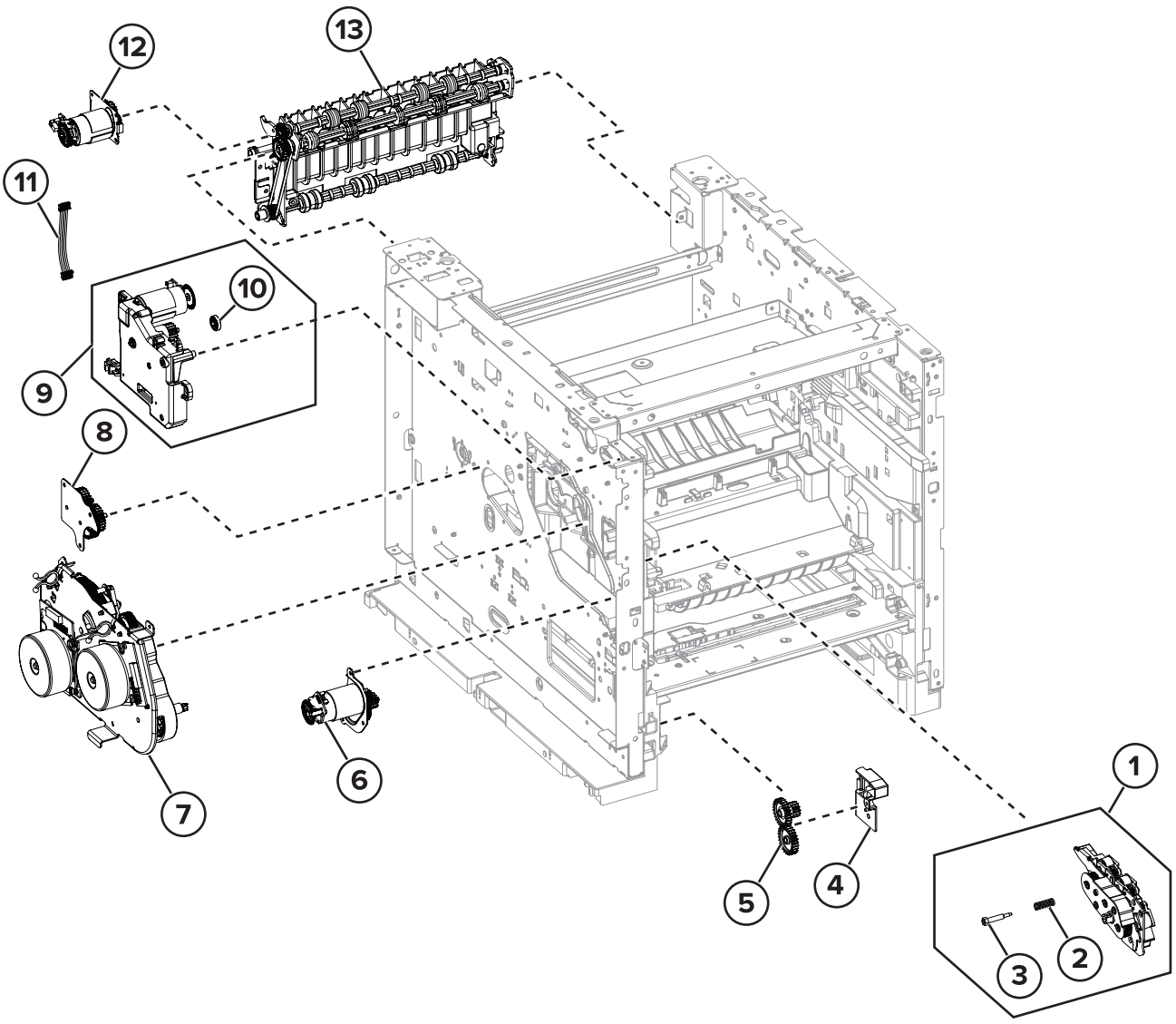
Assembly 8: Electronics 2



Assembly 8: Electronics 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1076	1	1	Transfer roller	“Transfer roller removal” on page 506
2	41X1077	1	1	Sensor (toner density)	“Sensor (toner density) removal” on page 506
3	41X1095	1	1	Sensor (input)	“Sensor (input) removal” on page 503
4	41X1093	1	1	Sensor (tray 1 pick)	“Sensor (tray 1 pick) removal” on page 530
5	41X1094	1	1	Sensor (pass-through)	“Sensor (tray 1 pass-through) removal” on page 529
6	41X1086	1	1	Optional tray interface cable	--
7	41X1097	1	1	AC power socket	“AC power socket removal” on page 464
8	41X1177	1	1	Fan, 80 mm	“Main fan removal” on page 467
9	41X1112	1	1	LVPS	“LVPS removal” on page 468
10	41X2356	1	1	USB host cable	--
11	41X2673	1	1	Transfer roller contact	“Transfer roller contact removal” on page 516

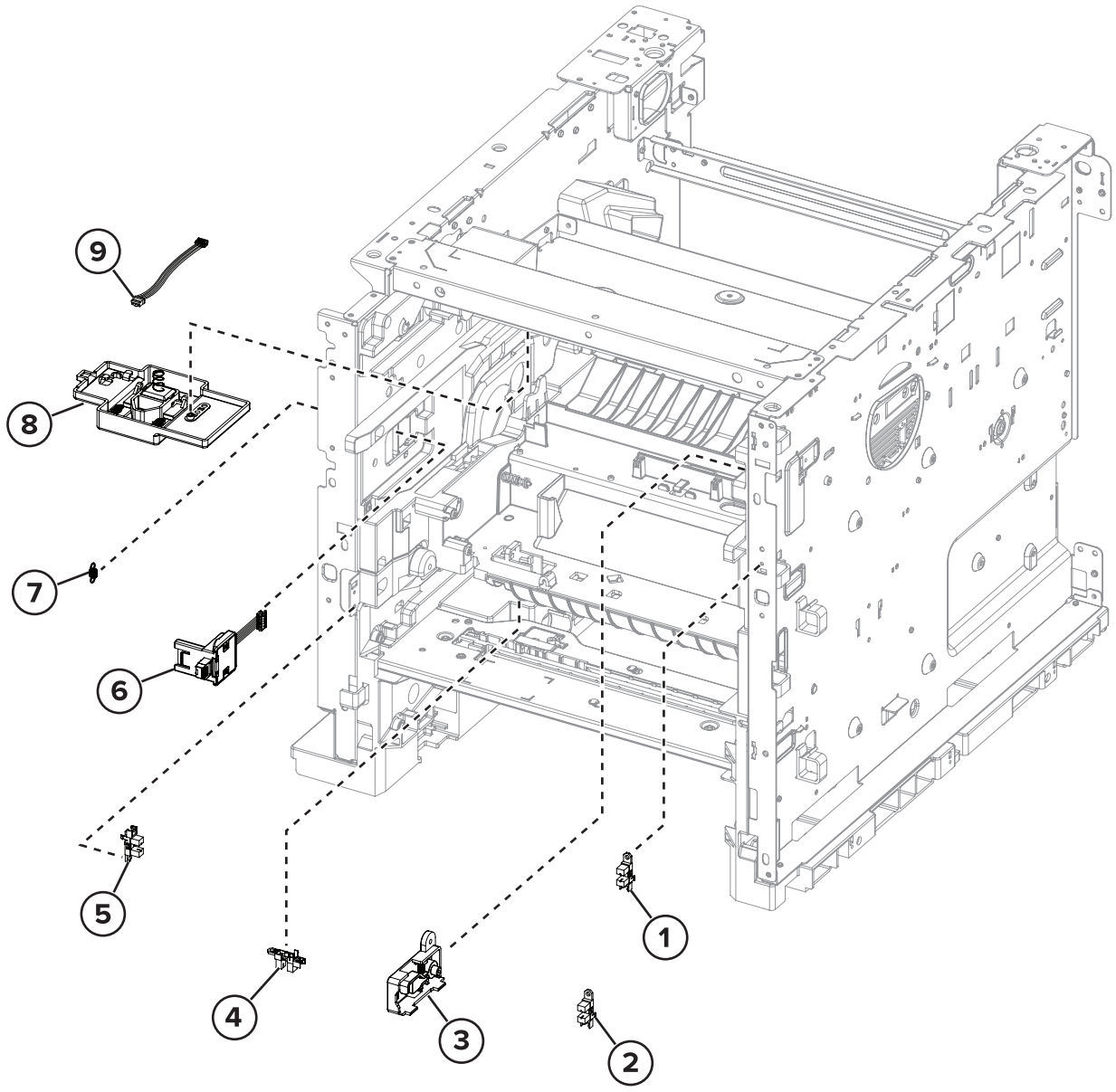
Assembly 9: Motors



Assembly 9: Motors

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1079	1	1	Aligner	“Aligner removal” on page 502
2	41X2135	1	1	Aligner spring	--
3	41X1081	1	1	Aligner screw	--
4	41X2123	1	1	Gear cover	“Optional tray drive gear removal” on page 527
5	41X1615	1	1	Optional tray drive gear	“Optional tray drive gear removal” on page 527
6	41X1105	1	1	Motor (MPF)	“Motor (MPF) removal” on page 468
7	41X1102	1	1	Main motor drive	“Main motor drive removal” on page 465
8	41X1104	1	1	Fuser drive gears	“Fuser drive gear removal” on page 466
9	41X1103	1	1	Toner cartridge drive	--
10	41X2610	1	4	Guide roller	--
11	41X2355	1	1	Toner cartridge motor cable	--
12	41X1096	1	1	Motor (redrive)	“Motor (redrive) removal” on page 471
13	41X1109	1	1	Upper redrive	“Upper redrive removal” on page 515

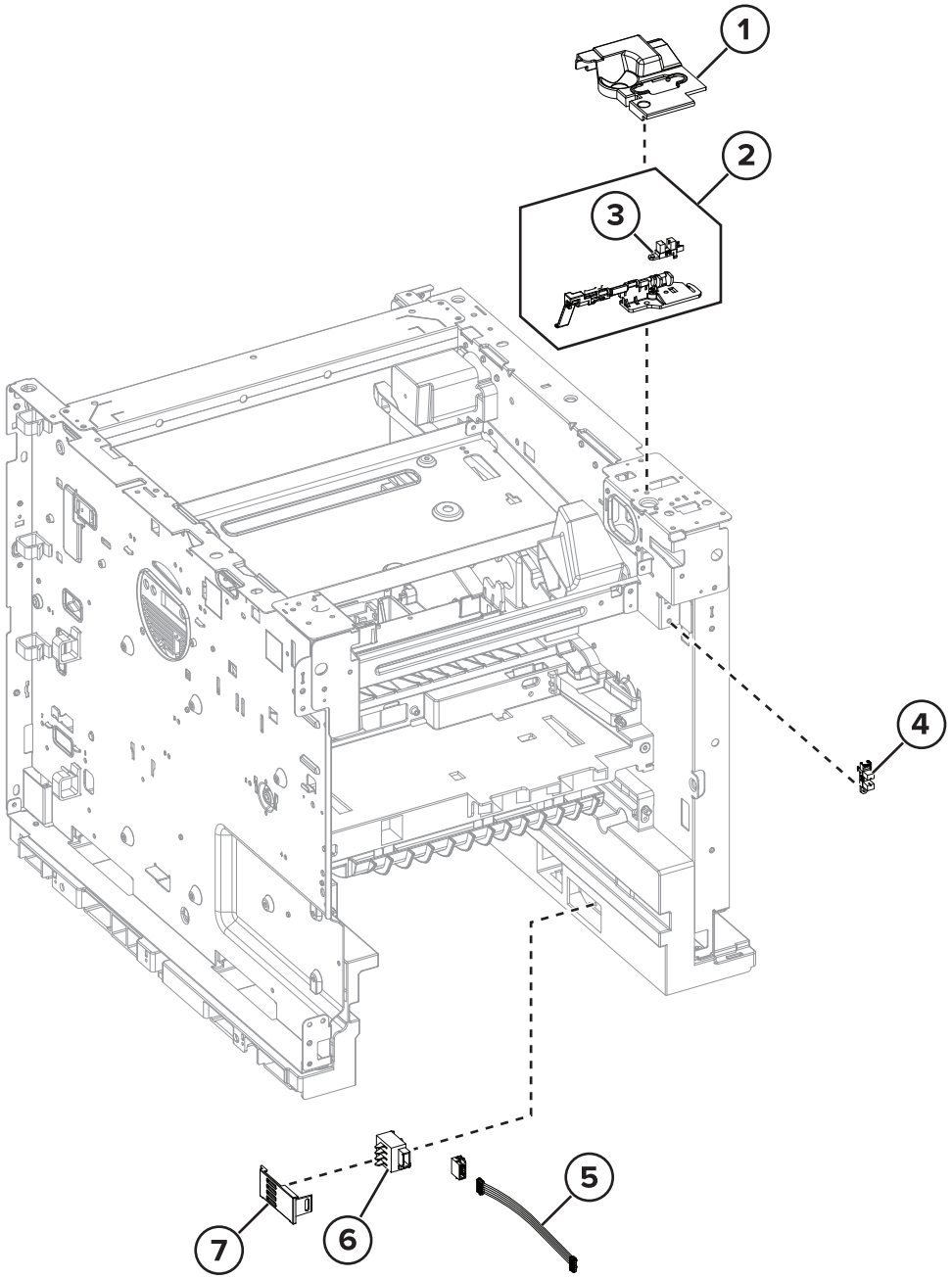
Assembly 10: Sensors 1



Assembly 10: Sensors 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1083	1	1	Sensor (front door interlock)	--
2	41X1083	1	1	Sensor (toner cartridge shutter)	**“Sensor (toner cartridge shutter) removal” on page 491**
3	41X1089	1	1	Toner cartridge shutter actuator	**“Toner cartridge shutter actuator removal” on page 491**
4	41X1083	1	1	Sensor (duplex interlock)	**“Sensor (duplex interlock) removal” on page 501**
5	41X1083	1	1	Sensor (MPF paper present)	--
6	41X1084	1	1	Sensor (toner smart chip)	**“Sensor (toner smart chip) removal” on page 472**
7	41X2124	1	1	Toner smart chip spring	**“Sensor (toner smart chip) removal” on page 472**
8	41X1072	1	1	Sensor (toner low)	**“Sensor (toner low) removal” on page 505**
9	41X2353	1	1	Toner low sensor cable	--

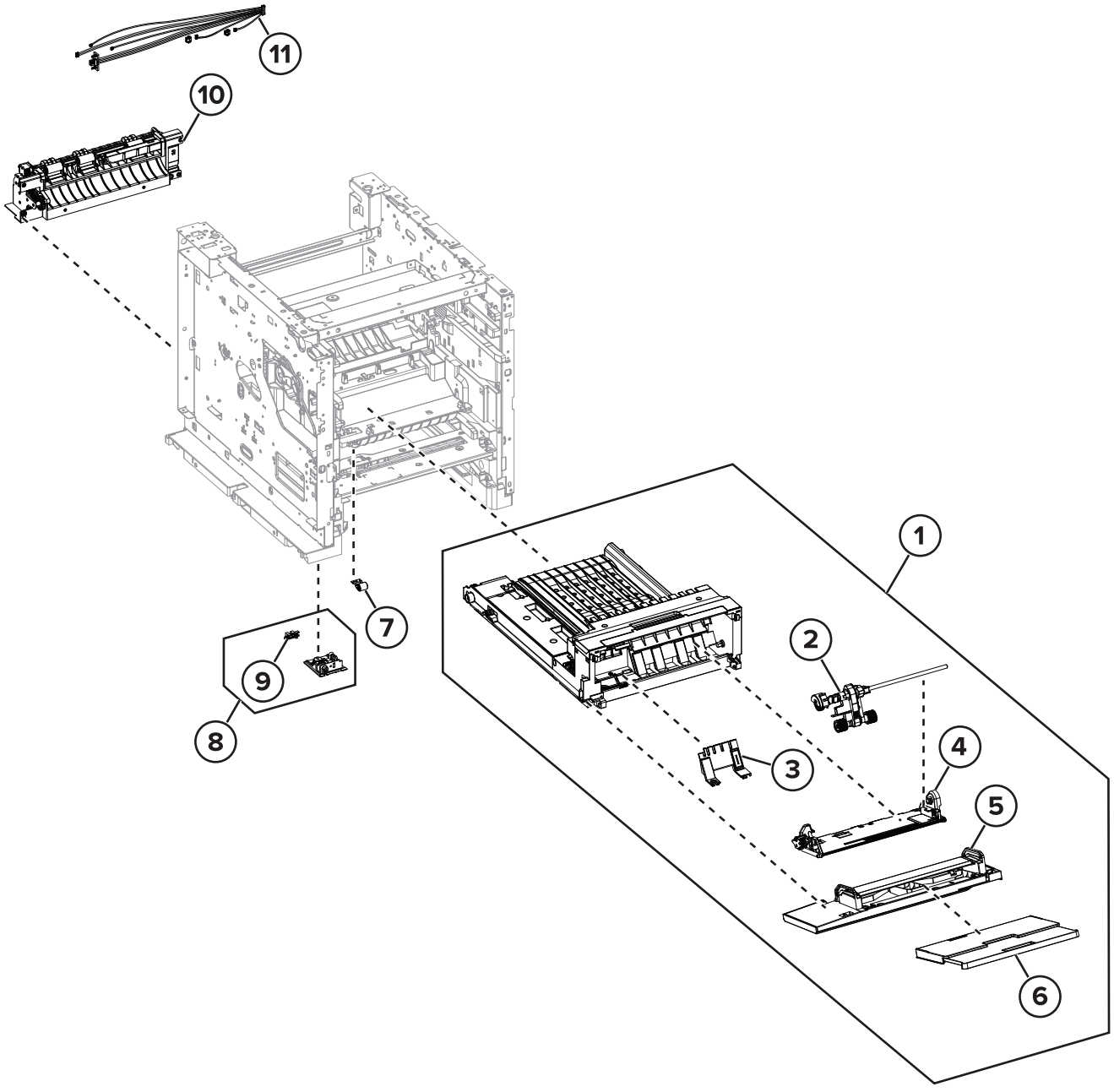
Assembly 11: Sensors 2



Assembly 11: Sensors 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1056	1	1	Bin full sensor cover	“Bin full sensor cover removal” on page 521
2	41X1110	1	1	Sensor (standard bin full) with actuator	--
3	41X1083	1	1	Sensor (standard bin full)	“Sensor (standard bin full) removal” on page 522
4	41X1083	1	1	Sensor (rear door interlock)	“Sensor (rear door interlock) removal” on page 515
5	41X2354	1	1	Paper size sensor cable	--
6	40X7911	1	1	Sensor (paper size)	“Sensor (paper size) removal” on page 528
7	41X1085	1	1	Paper size sensor cover	“Sensor (paper size) removal” on page 528

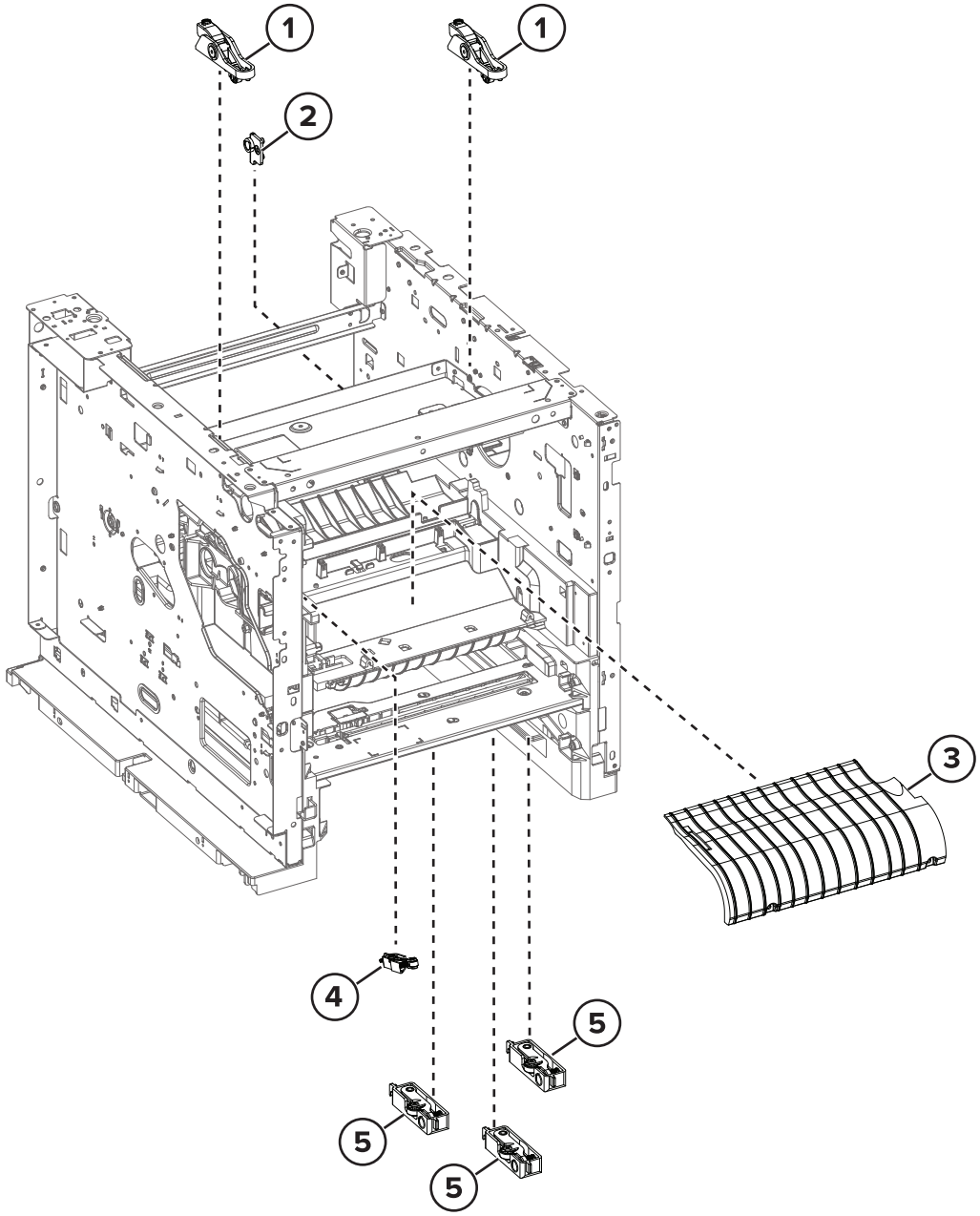
Assembly 12: Duplex



Assembly 12: Duplex

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1122	1	1	Duplex/MPF tray	“Duplex/MPF tray removal” on page 500
2	41X1123	1	1	MPF pick roller	“MPF pick roller removal” on page 504
3	41X1638	1	1	MPF tray separator pad	--
4	41X1635	1	1	MPF tray drive/support	--
5	41X1636	1	1	MPF front door	--
6	41X1124	1	1	MPF tray extension	--
7	41X1631	1	1	Duplex pinch roller	--
8	41X1078	1	1	Sensor (duplex path) with cover	“Sensor (duplex path) with cover removal” on page 528
9	41X1083	1	1	Sensor (duplex path)	“Sensor (duplex path) with cover removal” on page 528
10	41X1050	1	1	Motor (duplex)	“Motor (duplex) removal” on page 513
11	41X2318	1	1	Sensor/redrive motor cable	--

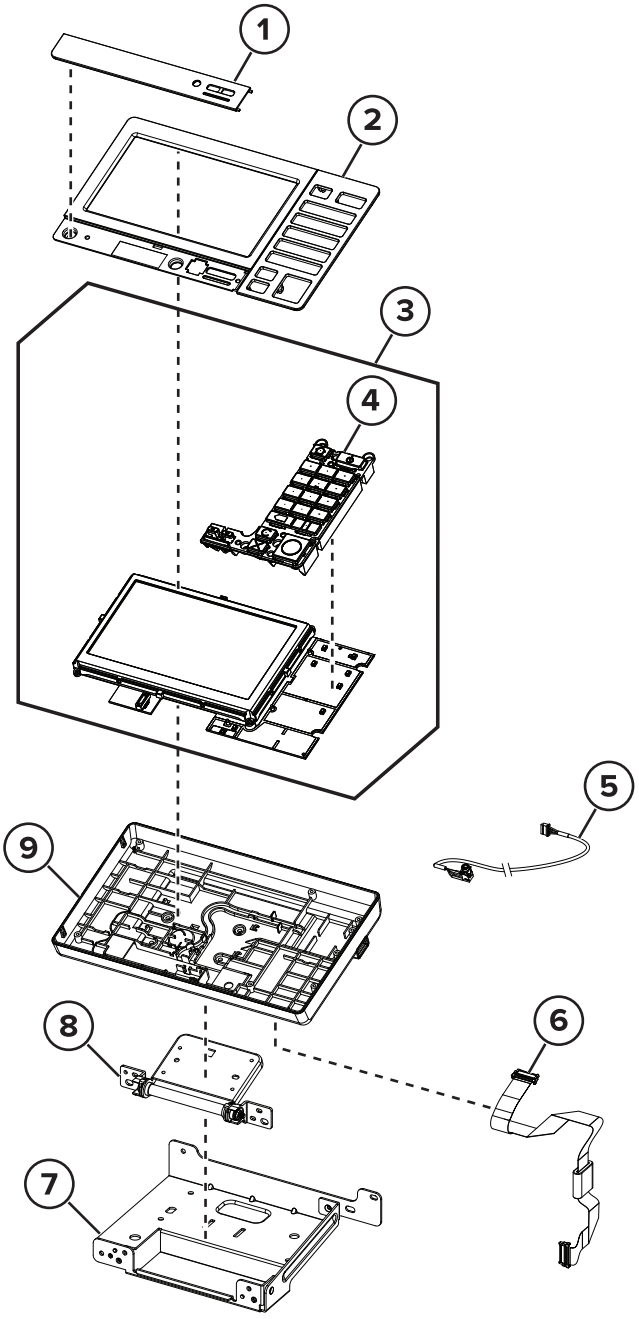
Assembly 13: Frames



Assembly 13: Frames

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1073	2	1	Imaging unit clamp	--
2	41X1092	1	1	Rear door right pivot	--
3	41X1080	1	1	Inner guide deflector	**“Inner guide deflector removal” on page 501**
4	41X1618	1	1	Imaging unit side bias roller	--
5	41X1091	3	1	Tray bias roller, front	--
5	41X1091	3	1	Tray bias roller, top	--
5	41X1091	3	1	Tray bias roller, rear	--

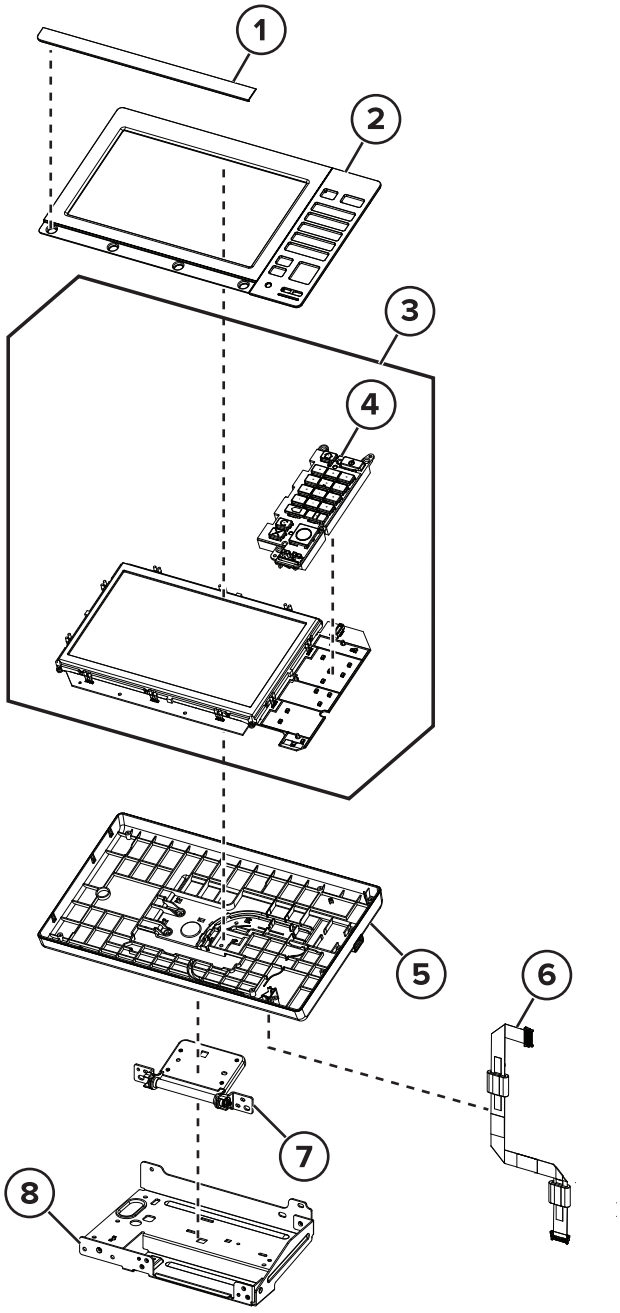
Assembly 14: Control panel (MX72x, MB2770, XM53xx)



Assembly 14: Control panel (MX72x, MB2770, XM53xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2389	1	1	Bezel, control panel (MX721)	--
1	41X2390	1	1	Bezel, control panel (MX722)	--
1	41X2378	1	1	Bezel, control panel (MX725)	--
1	41X2379	1	1	Bezel, control panel (XM5365)	--
1	41X2380	1	1	Bezel, control panel (XM5370)	--
2	41X0543	1	1	Control panel (7-inch) cover	--
3	41X1150	1	1	Control panel (7-inch) board	--
4	41X0207	1	1	Button kit, Control panel (7-inch)	--
5	41X2357	1	1	Headphone jack cable	--
6	41X2315	1	1	Control panel cable	--
7	41X2324	1	1	Control panel bracket	--
8	41X1256	1	1	Control panel hinge	--
9	41X1152	1	1	Control panel housing (small)	--

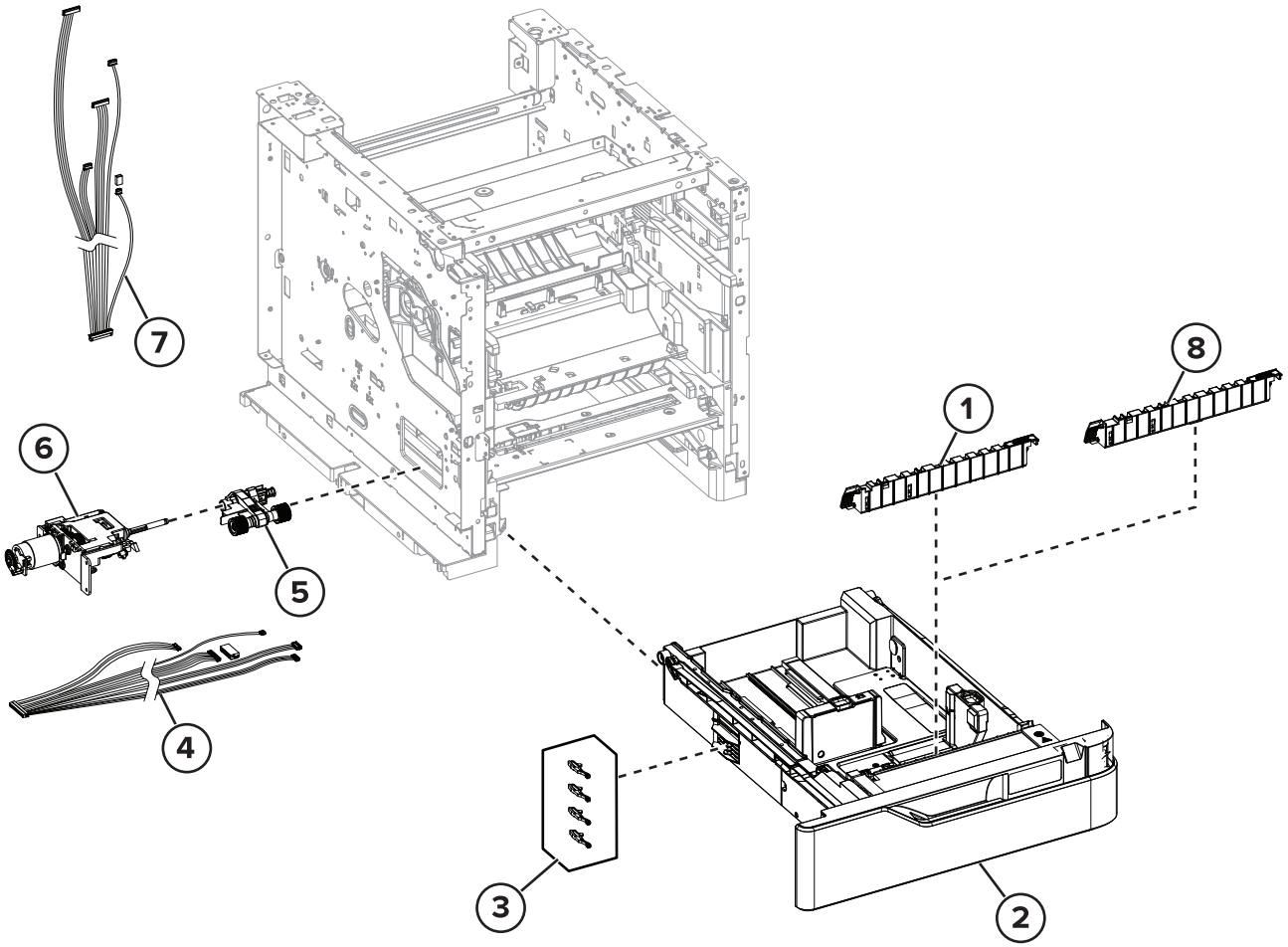
Assembly 15: Control panel (MX82x, XM73xx)



Assembly 15: Control panel (MX82x, XM73xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2384	1	1	Bezel, control panel (MX826)	“Control panel cover removal” on page 495
1	41X2385	1	1	Bezel, control panel (XM7355)	“Control panel cover removal” on page 495
1	41X2386	1	1	Bezel, control panel (XM7365)	“Control panel cover removal” on page 495
1	41X2387	1	1	Bezel, control panel (XM7370)	“Control panel cover removal” on page 495
1	41X2388	1	1	Bezel, control panel (MX822)	“Control panel cover removal” on page 495
2	41X0544	1	1	Cover, control panel (10.1-inch)	“Control panel cover removal” on page 495
3	41X1149	1	1	Control panel (10.1-inch) board	“Control panel board removal” on page 496
4	41X0224	1	1	Button kit, Control panel (10.1-inch)	“Control panel button kit removal” on page 497
5	41X1151	1	1	Control panel housing (large)	--
6	41X2309	1	1	Control panel cable	--
7	41X1256	1	1	Control panel hinge	--
8	41X2325	1	1	Control panel bracket	--

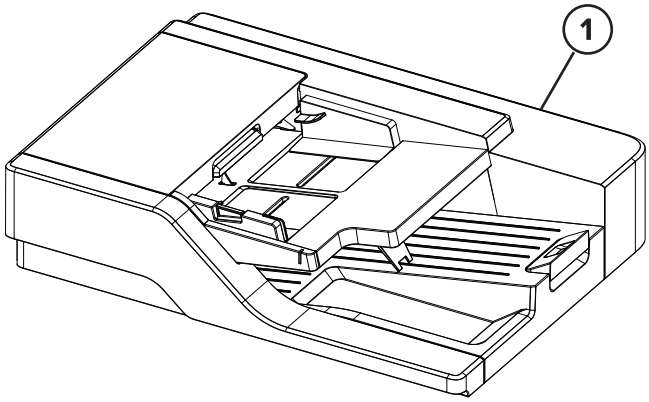
Assembly 16: Tray/feed



Assembly 16: Tray/feed

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1119	1	1	Separator pad	“Separator pad removal” on page 526
2	41X1118	1	1	Tray insert (MX72x, MB2770, XM53xx)	“Tray insert removal” on page 526
2	41X1646	1	1	Tray insert (MX82x, XM73xx)	“Tray insert removal” on page 526
3	41X1120	1	4	Paper size sensor actuator	--
4	41X2317	1	1	Feeder/paper path cable	--
5	41X1108	1	1	Tray 1 pick roller	“Pick roller removal” on page 527
6	41X1107	1	1	Paper feeder	“Paper feeder removal” on page 471
7	41X2319	1	4	Feeder/paper path cable	--
8	41X2865	1	1	Special media separator pad	“Separator pad removal” on page 526

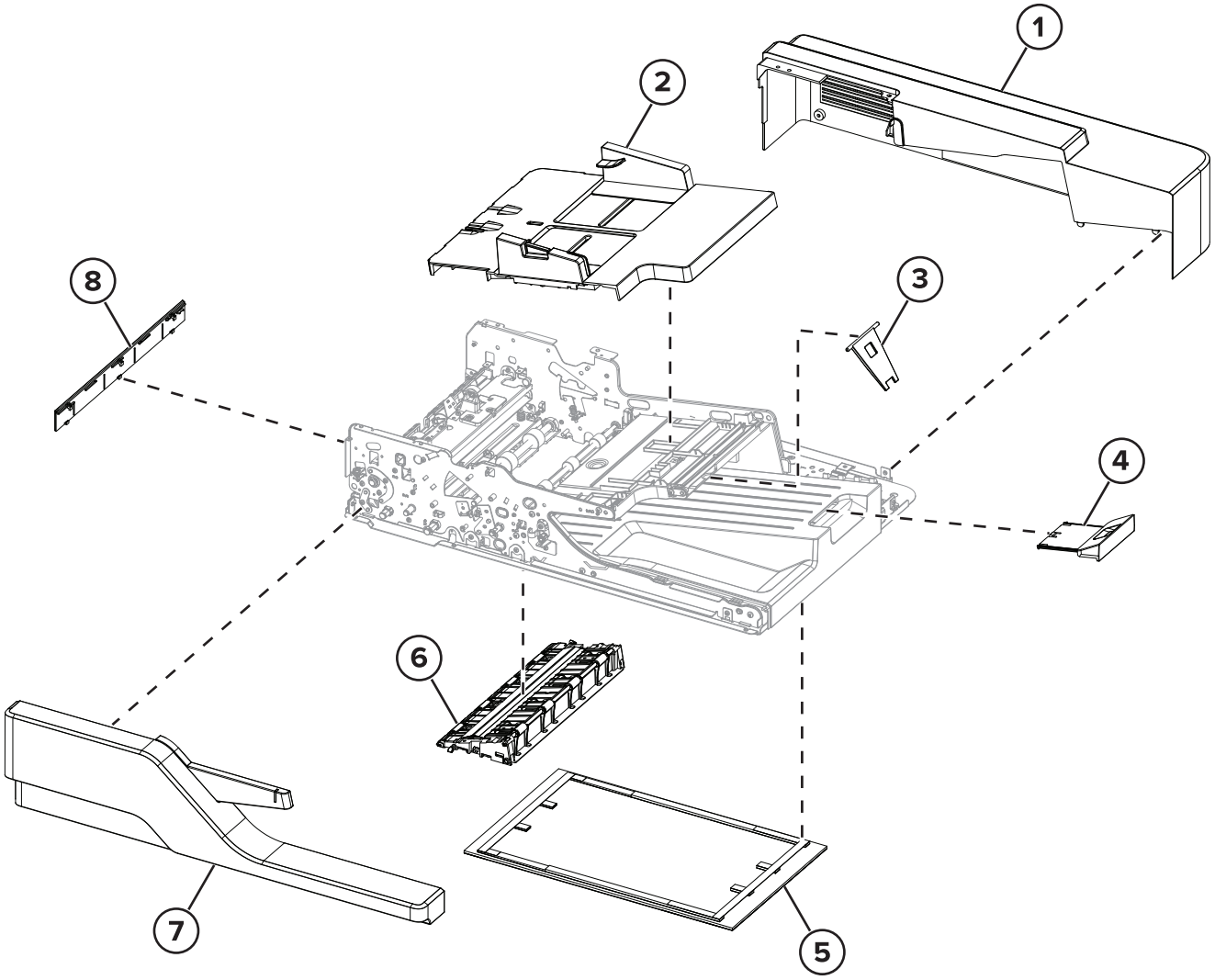
Assembly 17: ADF 1



Assembly 17: ADF 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1894	1	1	ADF (MX721, XM5365)	“ADF removal” on page 535
1	41X1895	1	1	ADF (MX722, MX725, MX82x, MB2770, XM5370, XM73xx)	“ADF removal” on page 535

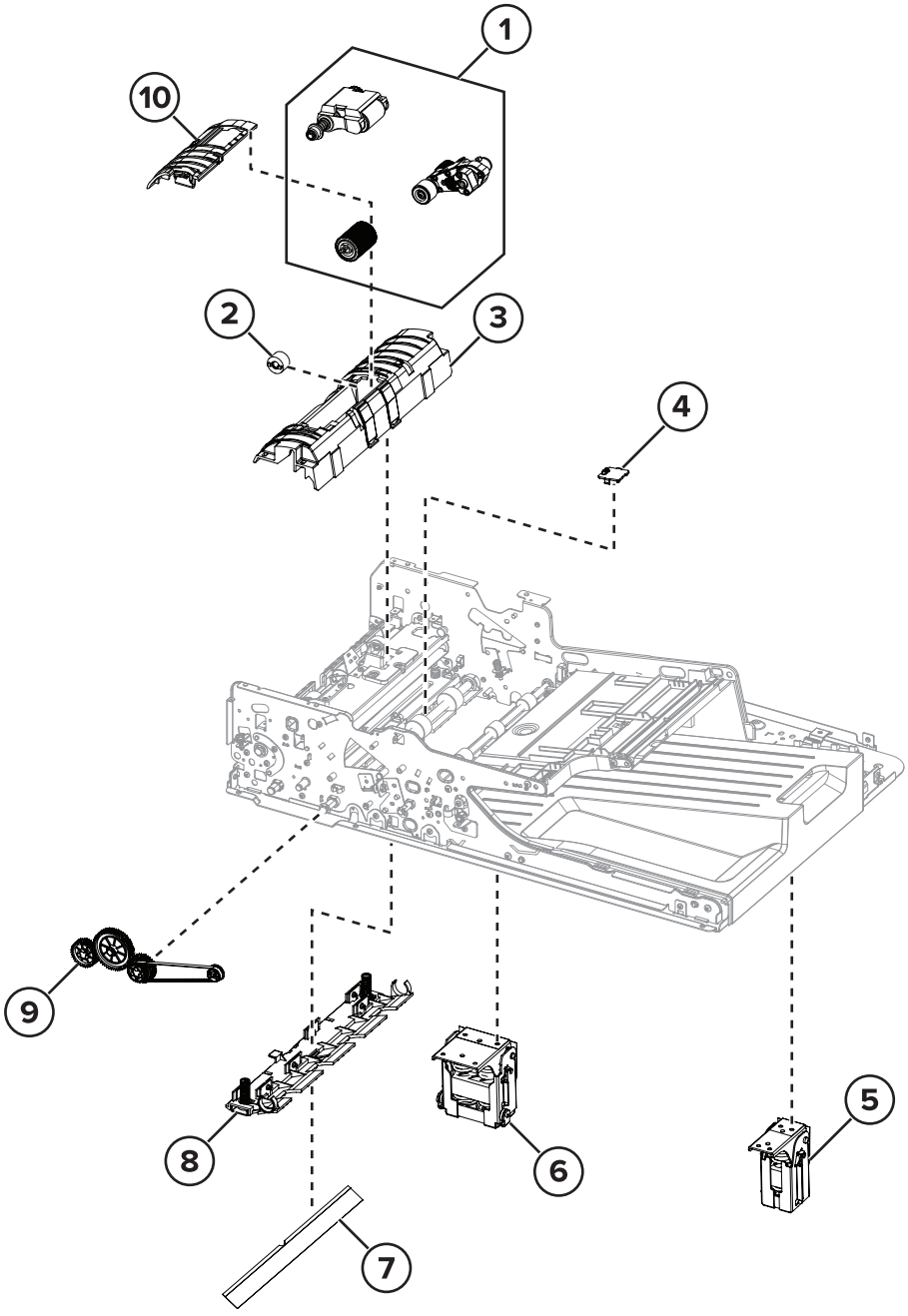
Assembly 18: ADF 2



Assembly 18: ADF 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1886	1	1	ADF rear cover	“ADF rear cover removal” on page 535
2	41X1884	1	1	ADF tray	“ADF tray removal” on page 536
3	41X0295	1	1	Paper bail	--
4	41X0304	1	1	ADF bin extender	--
5	41X1891	1	1	Scanner glass pad	--
6	41X1905	1	1	ADF bottom door	“ADF bottom door removal” on page 538
7	41X0297	1	1	ADF front cover	“ADF front cover removal” on page 537
8	41X0277	1	1	ADF left lower cover	“ADF top door cover removal” on page 547

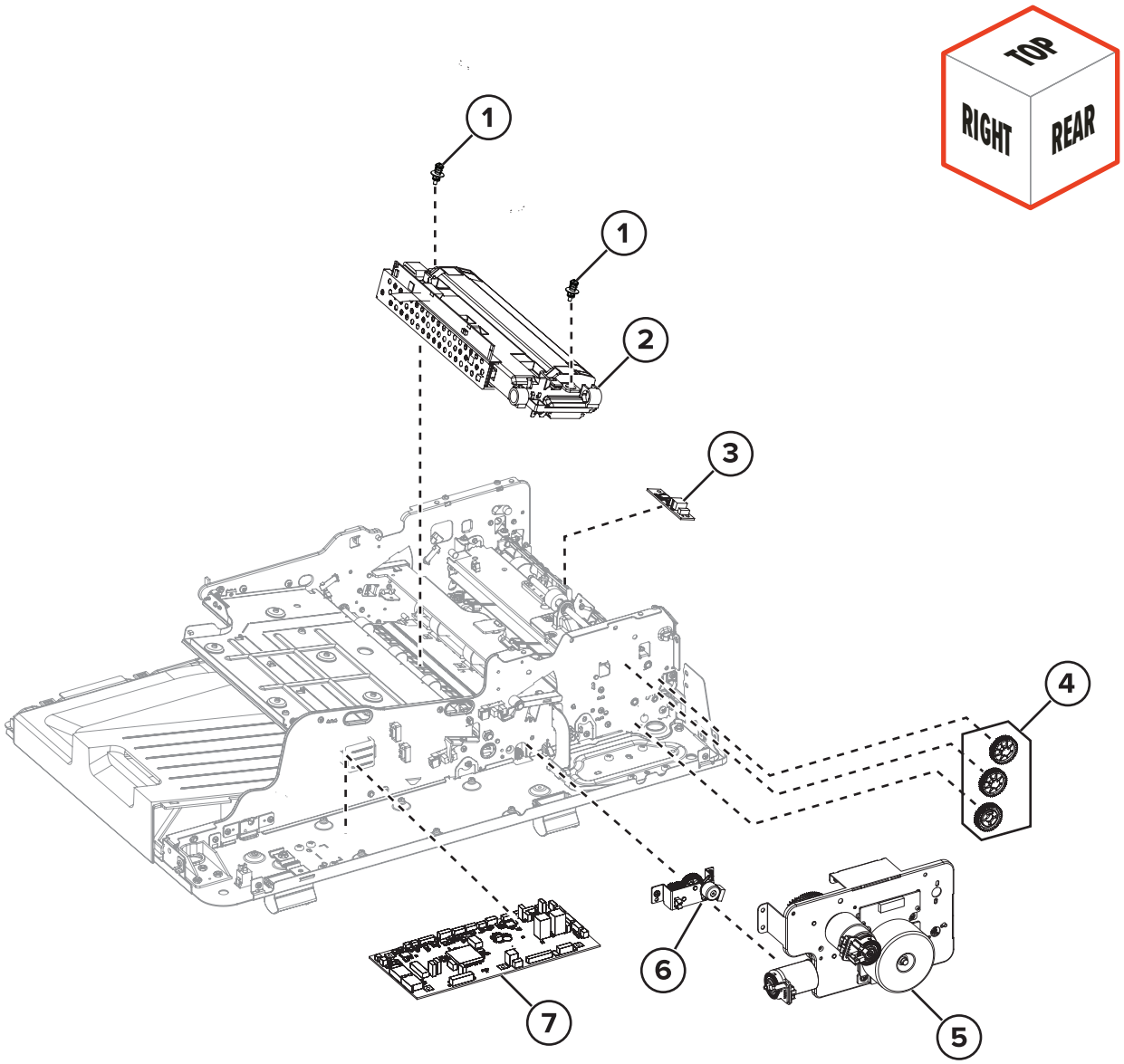
Assembly 19: ADF 3



Assembly 19: ADF 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2901	1	1	ADF maintenance kit **Warning—Potential Damage:** If the following parts are not replaced at the same time, feed issues may occur. • ADF pick roller • ADF feed belt • ADF separator roller	**"ADF roller kit removal" on page 532**
2	41X1897	1	1	Torque limiter	--
3	41X0306	1	1	ADF input guide	--
4	41X1032	1	1	ADF lift plate shim	--
5	41X2217	1	1	ADF right hinge	--
6	41X2216	1	1	ADF left hinge	--
7	41X0305	1	1	Float plate guide	--
8	41X0319	1	1	Float plate	--
9	41X0317	1	1	ADF front drive train	**"ADF front drive train removal" on page 540**
10	41X2697	1	1	Separator roller cover	**"ADF roller kit removal" on page 532**

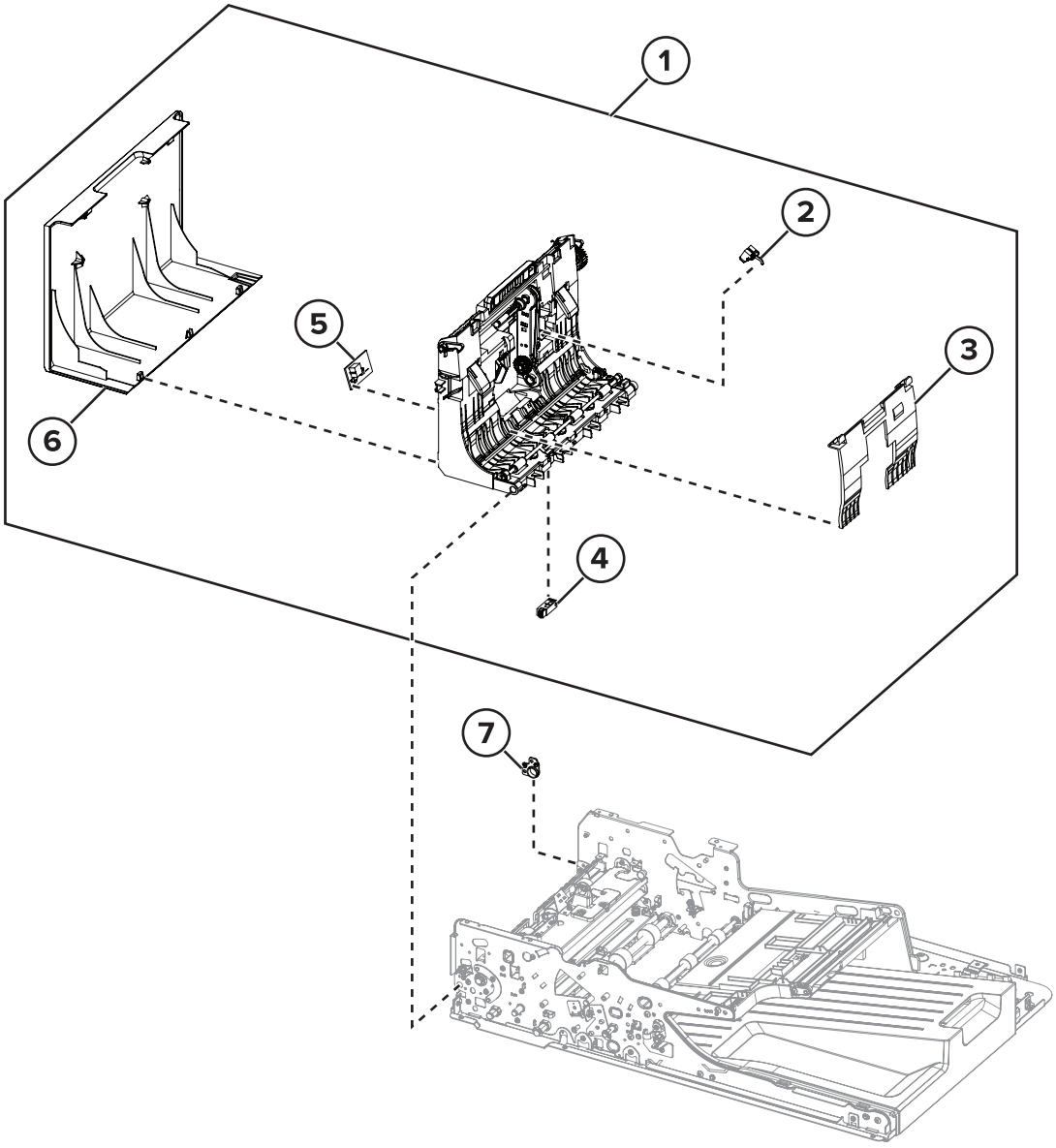
Assembly 20: ADF 4



Assembly 20: ADF 4

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1901	2	1	CCDM hold down screw	--
2	41X1900	1	1	ADF scanner CCD	**“ADF scanner CCD removal” on page 552**
3	41X0322	1	1	Sensor (ADF multifeed receiver)	**“Sensor (ADF multifeed receiver) removal” on page 551**
4	41X0316	1	1	ADF rear drive gears	**“ADF rear drive gears removal” on page 548**
5	41X1888	1	1	Motor (ADF)	**“Motor (ADF) removal” on page 542**
6	41X0313	1	1	Motor (ADF calibration roller)	**“Motor (ADF calibration roller) removal” on page 544**
7	41X1896	1	1	ADF controller board	**“ADF controller board removal” on page 536**
NS	41X2792	1	3	ADF cable kit (MX72x, MB2770, XM53xx)	--
NS	41X2793	1	3	ADF cable kit (MX82x, XM73xx)	--

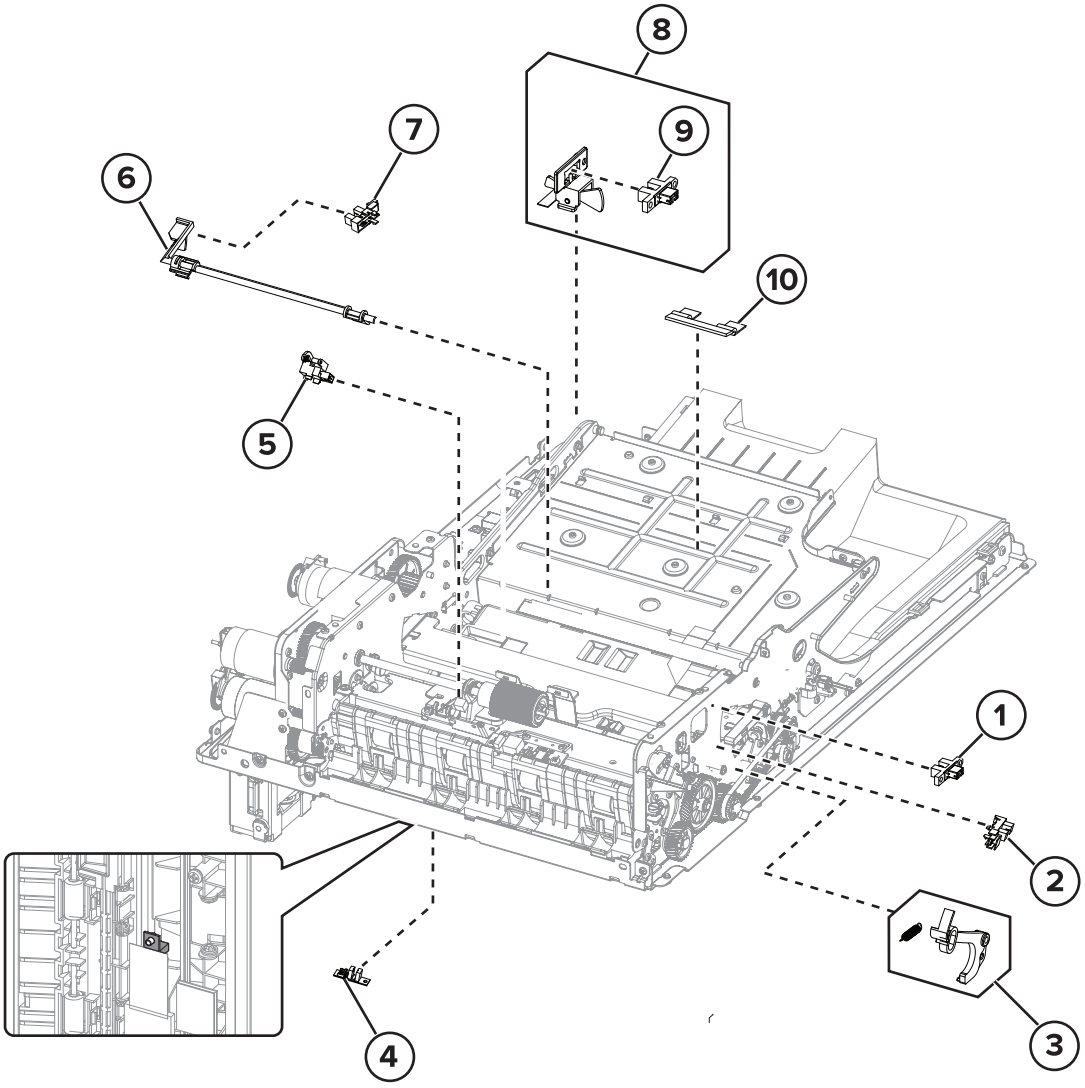
Assembly 21: ADF 5



Assembly 21: ADF 5

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1902	1	1	ADF top door	“ADF top door removal” on page 545
2	41X1898	1	1	Sensor (ADF gap detect)	--
3	41X1883	1	1	ADF pick roller cover	“ADF pick roller cover removal” on page 531
4	40X7779	1	1	Sensor (ADF deskew)	--
5	41X0574	1	1	Sensor (ADF multifeed transmitter)	“Sensor (ADF multifeed transmitter) removal” on page 551
6	41X0579	1	1	ADF top door cover	“ADF top door cover removal” on page 547
7	41X0310	1	1	ADF top door hinge bushing	--

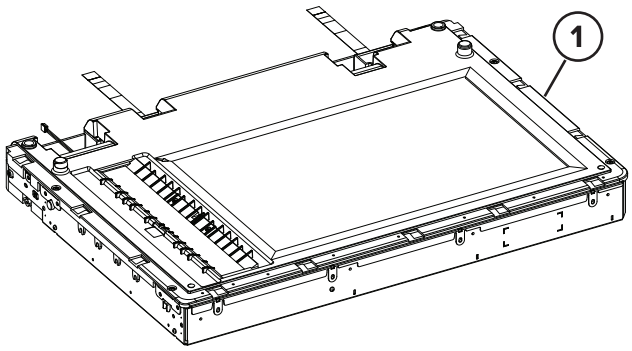
Assembly 22: ADF 6



Assembly 22: ADF 6

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1882	1	1	Sensor (ADF top door interlock)	“Sensor (ADF top door interlock) removal” on page 541
2	40X7592	1	1	Sensor (ADF bottom door interlock)	--
3	41X0294	1	1	ADF bottom interlock actuator	“ADF bottom interlock actuator removal” on page 549
4	41X0576	1	1	Sensor (ADF 1st scan)	--
5	41X0915	1	1	Sensor (ADF pick)	--
6	41X1889	1	1	ADF paper exit actuator	“ADF paper exit actuator removal” on page 555
7	40X7592	1	1	Sensor (ADF paper exit)	--
8	41X1881	1	1	Sensor (ADF closed) with actuator	--
9	40X7592	1	1	Sensor (ADF closed)	--
10	41X2791	1	1	Exit bail retainer	--

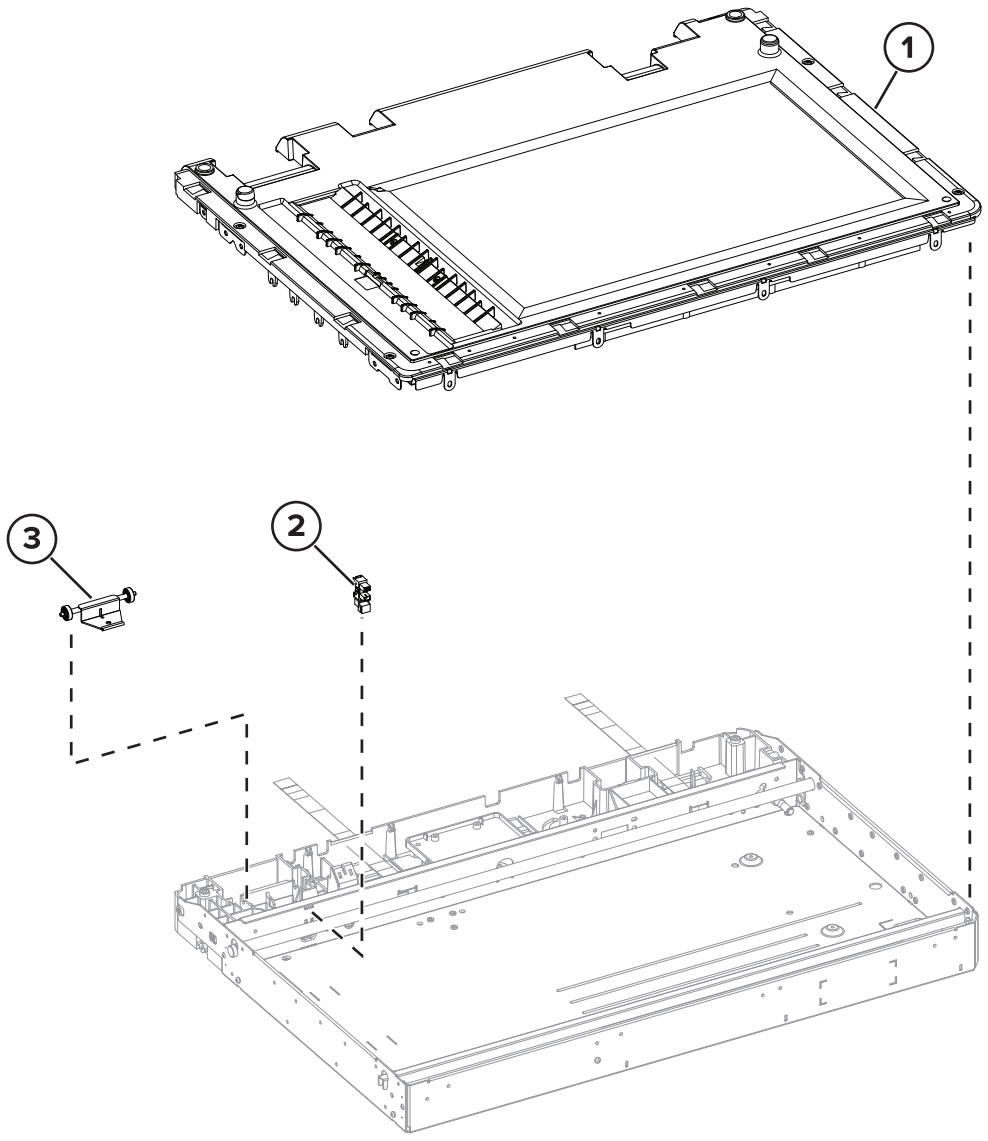
Assembly 23: Flatbed scanner 1



Assembly 23: Flatbed scanner 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1892	1	1	Flatbed scanner (MX72x, MB2770, XM53xx)	**“Flatbed scanner removal” on page 558**
1	41X1893	1	1	Flatbed scanner (MX82x, XM73xx)	**“Flatbed scanner removal” on page 558**

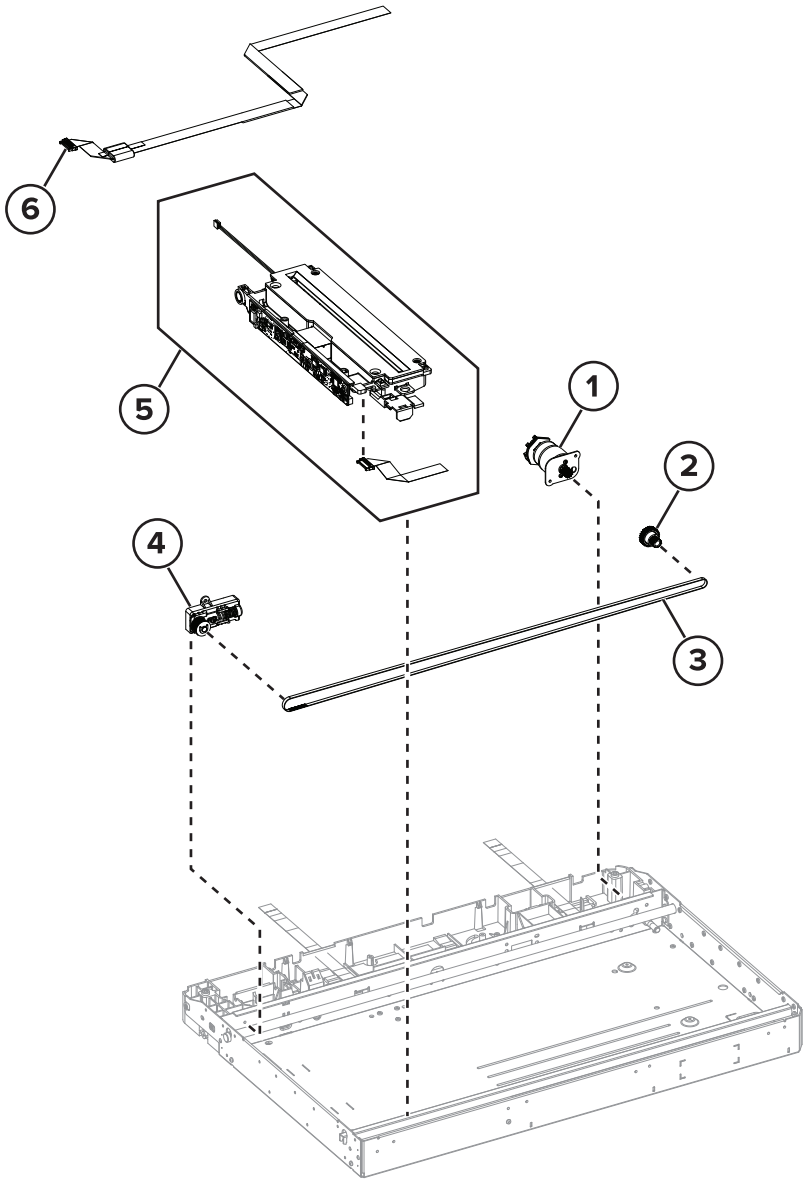
Assembly 24: Flatbed scanner 2



Assembly 24: Flatbed scanner 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0275	1	1	Flatbed scanner top cover	**“Flatbed scanner top cover removal” on page 562**
2	41X1882	1	1	Sensor (FB CCDM)	**“Sensor (FB CCDM) removal” on page 569**
3	41X0286	1	1	Hinge roller	--

Assembly 25: Flatbed scanner 3



Assembly 25: Flatbed scanner 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2136	1	1	Motor (flatbed scanner)	**“Motor (flatbed scanner) removal” on page 567**
2	41X0279	1	1	Flatbed scanner gear	**“Flatbed scanner gear removal” on page 565**
3	41X0273	1	1	Flatbed scanner belt	--
4	41X0284	1	1	Flatbed scanner tensioner pulley	**“Flatbed scanner tensioner pulley removal” on page 571**
5	41X1899	1	1	Flatbed scanner CCDM	**“Flatbed scanner CCDM removal” on page 563**
6	41X2361	1	1	Flatbed CCDM FFC (MX72x, MB2770, XM53xx)	--
6	41X2362	1	1	Flatbed CCDM FFC (MX82x, XM73xx)	--

Assembly 26: Miscellaneous

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	40X8671	1	1	Cover, Removable HDD kit	--
NS	40X9934	1	1	Hard disk drive, SATA	--
NS	41X1373	1	1	Hard disk drive, SATA with FIPS	--
NS	41X2033	1	1	RAM card, PCIe 8GB x32 DDP	--
NS	41X1010	1	1	User flash memory, 256MB	--
NS	41X1372	1	1	Wireless network card, N8370 with cable	--
NS	41X1374	1	1	Fax card, 1 port right angle	**"Fax card removal" on page 493**
NS	40X4819	1	1	RS-232C serial interface card	--
NS	40X4826	1	1	MarkNet N8120 GigaBit Ethernet	--
NS	40X4823	1	1	Parallel 1284-B interface card	--
NS	40X9652	1	1	Adapter, Fiber gigabit ISP	--
NS	41X1011	1	1	Font card, Hebrew	--
NS	41X1012	1	1	Font card, Arabic	--
NS	41X1013	1	1	Font card, Simplified Chinese	--
NS	41X1014	1	1	Font card, Traditional Chinese **Note:** This part is obsolete.	--
NS	41X1015	1	1	Font card, Korean	--
NS	41X1016	1	1	Font card, Japanese	--
NS	41X1002	1	1	Forms and bar code card	--
NS	41X1006	1	1	PRESCRIBE card	--
NS	41X1004	1	1	IPDS card	--
NS	41X2055	1	1	Smart card	--
NS	40X8737	1	1	Authentication device, RFID	--
NS	41X0997	1	1	Authentication device, Contact front	--
NS	41X0998	1	1	Authentication device, Contactless front	--
NS	41X0040	1	1	Keyboard kit, English	--
NS	41X0041	1	1	Keyboard kit, French	--
NS	41X0043	1	1	Keyboard kit, German	--
NS	41X0044	1	1	Keyboard kit, Spanish	--
NS	41X0045	1	1	Keyboard, English	--
NS	41X0046	1	1	Keyboard, French	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0048	1	1	Keyboard, German	--
NS	41X0049	1	1	Keyboard, Spanish	--
NS	41X2302	1	1	Braille label kit	--
NS	41X0357	1	1	Surge protective device, 110–120V	--
NS	41X0370	1	1	Surge protective device, 220–240V	--
NS	3086579	1	1	Software CD **Note:** The part number is for internal use only and is not orderable.	--
NS	41X2181	1	1	Spacer **Note:** This part is not compatible with MX82x printers.	--
NS	41X2345	1	1	Caster wheel	--

Assembly 27: Power cords

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	40X0269	1	1	Power cord (straight, 2.5 m)—USA, Canada	--
NS	40X0288	1	1	Power cord (high-voltage)—Argentina	--
NS	40X1766	1	1	Power cord (high-voltage)—Bolivia, Peru	--
NS	40X4596	1	1	Power cord (low-voltage)—Brazil PPB kits	--
NS	40X0273	1	1	Power cord (high-voltage)—Chile, Uruguay	--
NS	40X7104	1	1	Power cord (low-voltage, 8 feet)—USA, Canada	--
NS	40X0301	1	1	Power cord (high-voltage)—Australia, New Zealand	--
NS	40X0270	1	1	Power cord (100 V)—Japan	--
NS	40X0303	1	1	Power cord (high-voltage)—PRC	--
NS	40X1791	1	1	Power cord (low-voltage)—Taiwan	--
NS	40X1792	1	1	Power cord (high-voltage)—Korea	--
NS	40X7229	1	1	Power cord—India	--
NS	40X0271	1	1	Power cord (high-voltage)—United Kingdom, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam, Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka, Tibet, Hong Kong	--
NS	40X0278	1	1	Power cord (high-voltage)—Austria	--
NS	40X1774	1	1	Power cord (high-voltage)—Denmark, Finland, Norway, Sweden, Iceland	--
NS	40X1773	1	1	Power cord (high-voltage)—South Africa, Namibia, Lesotho, Botswana, Pakistan	--
NS	40X1772	1	1	Power cord (high-voltage)—Switzerland	--
NS	40X0275	1	1	Power cord (high-voltage)—Israel	--
NS	40X1767	1	1	Power cord (high-voltage, 8 feet)—Europe	--

Assembly 28: Maintenance kits

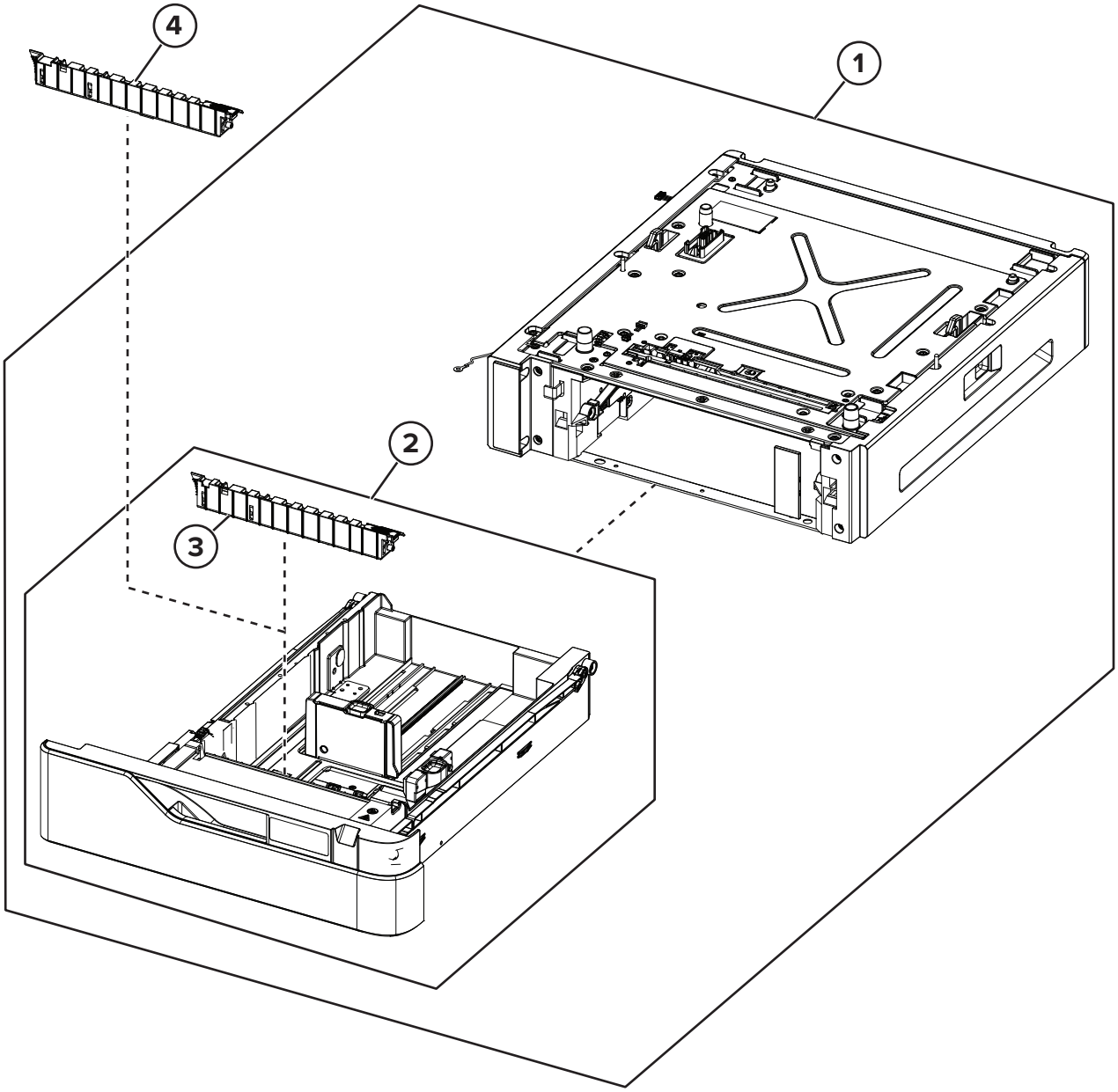
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X2242	1	1	200K Maintenance kit, Hot roll fuser (115 V Contact Detack LRP, Type 11) **Note:** This fuser is not applicable to MX721, MX722, MX82x, XM5365, and XM73xx printer models. • 41X2147—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2243	1	1	200K Maintenance kit, Hot roll fuser (220 V Contact Detack LRP, Type 13) **Note:** This fuser is not applicable to MX721, MX722, MX82x, XM5365, and XM73xx printer models. • 41X2148—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2244	1	1	200K Maintenance kit, Hot roll fuser (115 V NLRP Contact Detack ASM, Type 17) **Note:** This fuser is not applicable to MX721, MX722, MX82x, XM5365, and XM73xx printer models. • 41X2149—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2245	1	1	200K Maintenance kit, Hot roll fuser (220 V NLRP Contact Detack ASM, Type 19) **Note:** This fuser is not applicable to MX721, MX722, MX82x, XM5365, and XM73xx printer models. • 41X2150—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X2233	1	1	225K Maintenance kit, Belt SY fuser (115 V LTR LRP, Type 00) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X1115—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2234	1	1	225K Maintenance kit, Belt SY fuser (230 V A4 LRP, Type 01) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X1116—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2235	1	1	225K Maintenance kit, Belt SY fuser (100 V A4 LRP, Type 02) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X1117—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2236	1	1	225K Maintenance kit, Belt SY fuser (115 V A4 LRP, Type 03) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X2141—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2237	1	1	225K Maintenance kit, Belt SY fuser (230 V LTR LRP, Type 04) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X2142—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X2238	1	1	225K Maintenance kit, Belt SY fuser (115 V LTR NLRP, Type 05) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X2143—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2239	1	1	225K Maintenance kit, Belt SY fuser (230 V A4 NLRP, Type 06) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X2144—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2240	1	1	225K Maintenance kit, Belt SY fuser (100 V A4 NLRP, Type 07) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X2145—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2241	1	1	225K Maintenance kit, Belt SY fuser (115 V A4 NLRP, Type 08) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X2146—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2901	1	1	300K Maintenance kit, ADF • ADF separator roller • ADF pick roller • ADF feed belt	N/A
NS	41X2352	1	1	400K Maintenance kit, Printer rollers • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X2250	1	1	400K Maintenance kit, Belt HY fuser (115 V LTR LRP, Type 32) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X2155—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2251	1	1	400K Maintenance kit, Belt HY fuser (230 V A4 LRP, Type 33) • 41X2156—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2252	1	1	400K Maintenance kit, Belt HY fuser (115 V A4 LRP, Type 35) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X2157—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A
NS	41X2253	1	1	400K Maintenance kit, Belt HY fuser (230 V LTR LRP, Type 36) **Note:** This fuser is not applicable to MX725 and XM5370 printer models. • 41X2158—Fuser • 41X1108—3 Pick rollers • 41X1119—3 Tray separators • 41X1076—Transfer roller	N/A

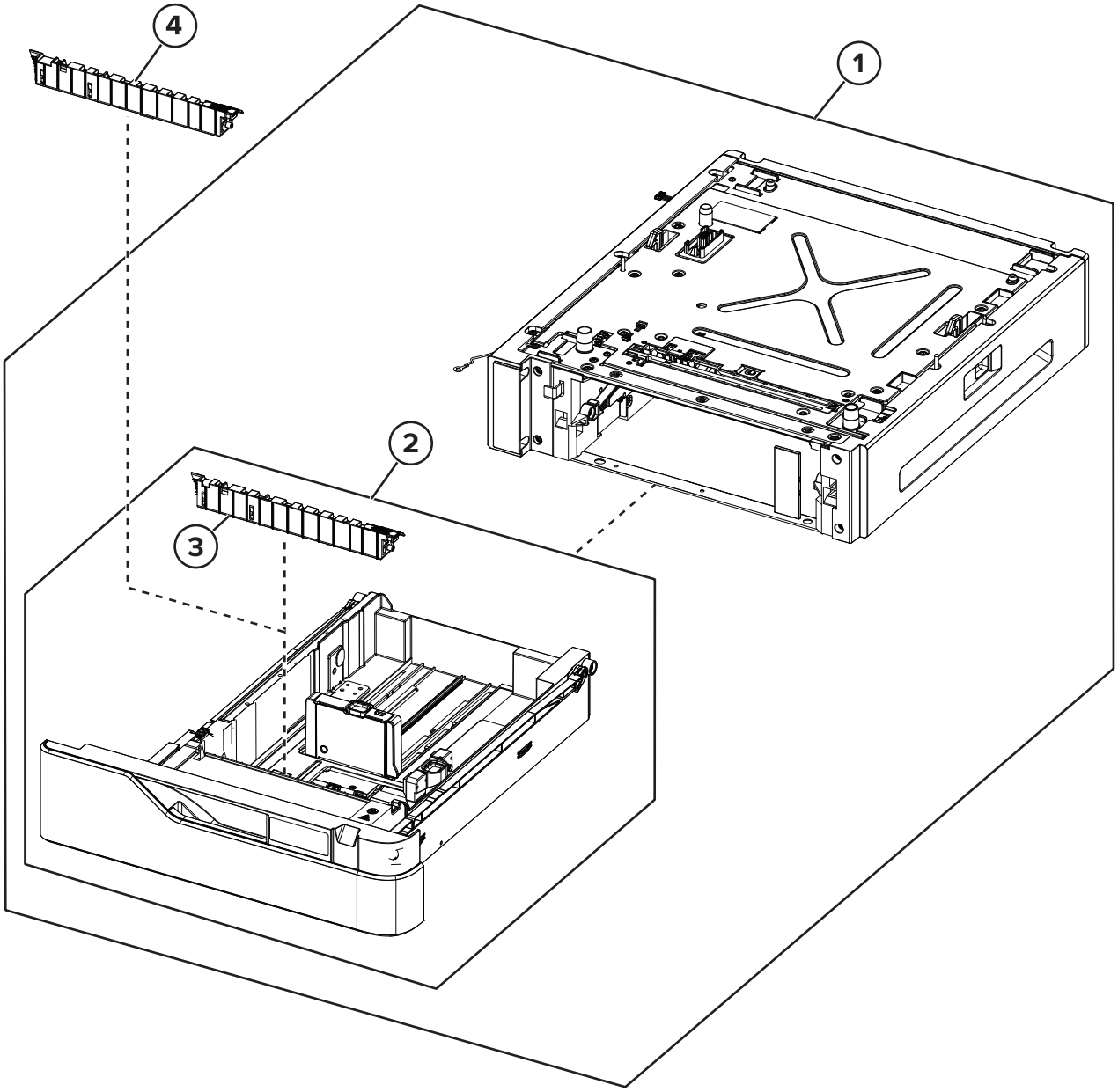
Assembly 29: 250- and 550-sheet tray option 1 (MX72x, MB2770, and XM53xx)



Assembly 29: 250- and 550-sheet tray option 1 (MX72x, MB2770, and XM53xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1649	1	1	Optional 250-sheet tray	“Optional 250- and 550-sheet tray removal” on page 599
1	41X1658	1	1	Optional 550-sheet tray	“Optional 250- and 550-sheet tray removal” on page 599
1	41X2177	1	1	Optional 250-sheet tray, lockable	“Optional 250- and 550-sheet tray removal” on page 599
1	41X2179	1	1	Optional 550-sheet tray, lockable	“Optional 250- and 550-sheet tray removal” on page 599
2	41X1650	1	1	250-sheet tray insert	“Tray insert removal” on page 526
2	41X1118	1	1	550-sheet tray insert	“Tray insert removal” on page 526
3	41X1119	1	1	Separator pad	“Separator pad removal” on page 526
4	41X2865	1	1	Special media separator pad	--
NS	41X2208	1	1	Tray level indicator	“Tray level indicator removal” on page 607

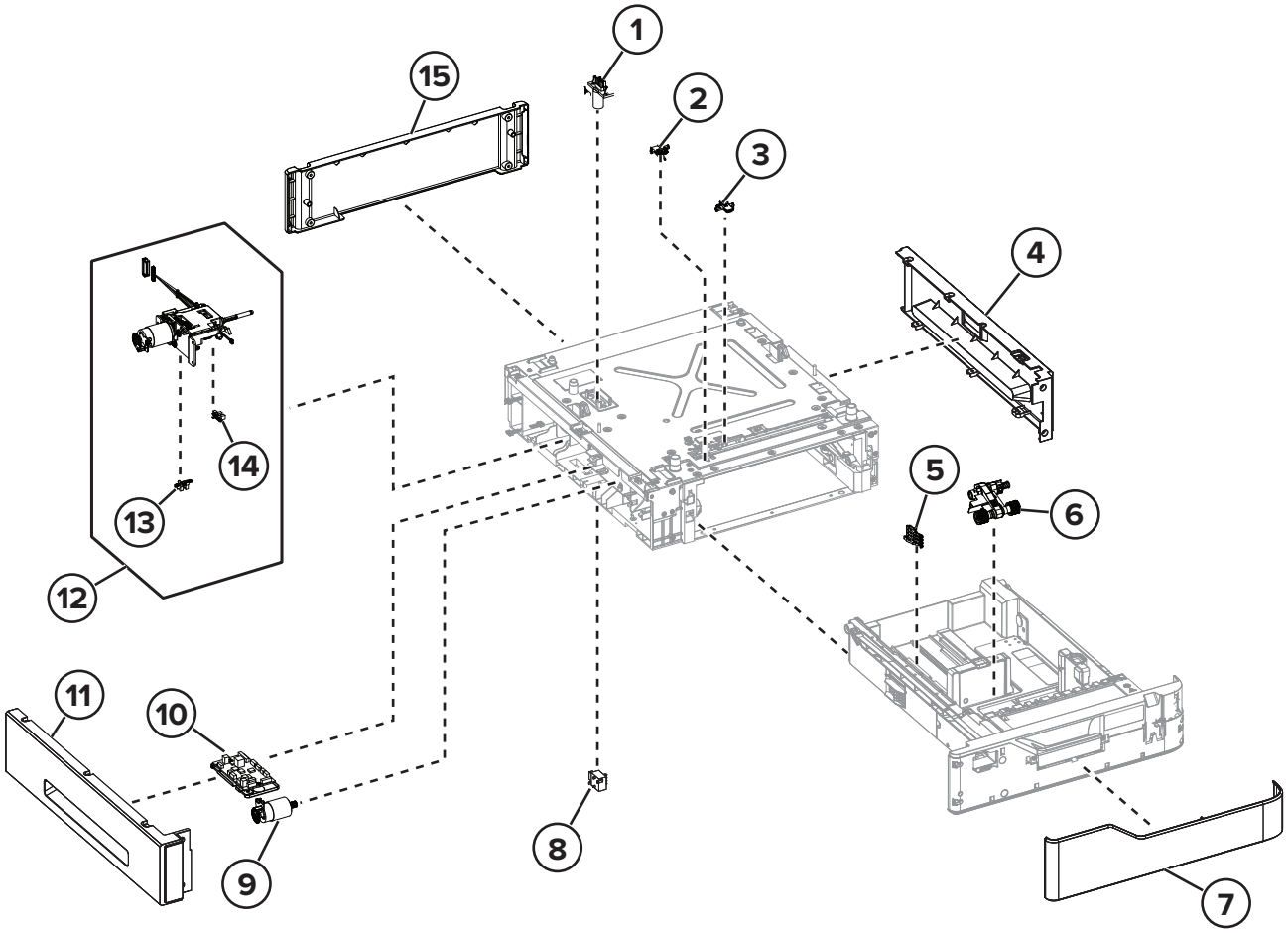
Assembly 30: 250- and 550-sheet tray option 1 (MX82x and XM73xx)



Assembly 30: 250- and 550-sheet tray option 1 (MX82x and XM73xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1663	1	1	Optional 550-sheet tray	“Optional 250- and 550-sheet tray removal” on page 599
2	41X1646	1	1	550-sheet tray insert	“Tray insert removal” on page 526
3	41X1119	1	1	Separator pad	“Separator pad removal” on page 526
4	41X2865	1	1	Special media separator pad	--
NS	41X2208	1	1	Tray level indicator	“Tray level indicator removal” on page 607

Assembly 31: 250- and 550-sheet tray option 2 (MX72x, MB2770, and XM53xx)

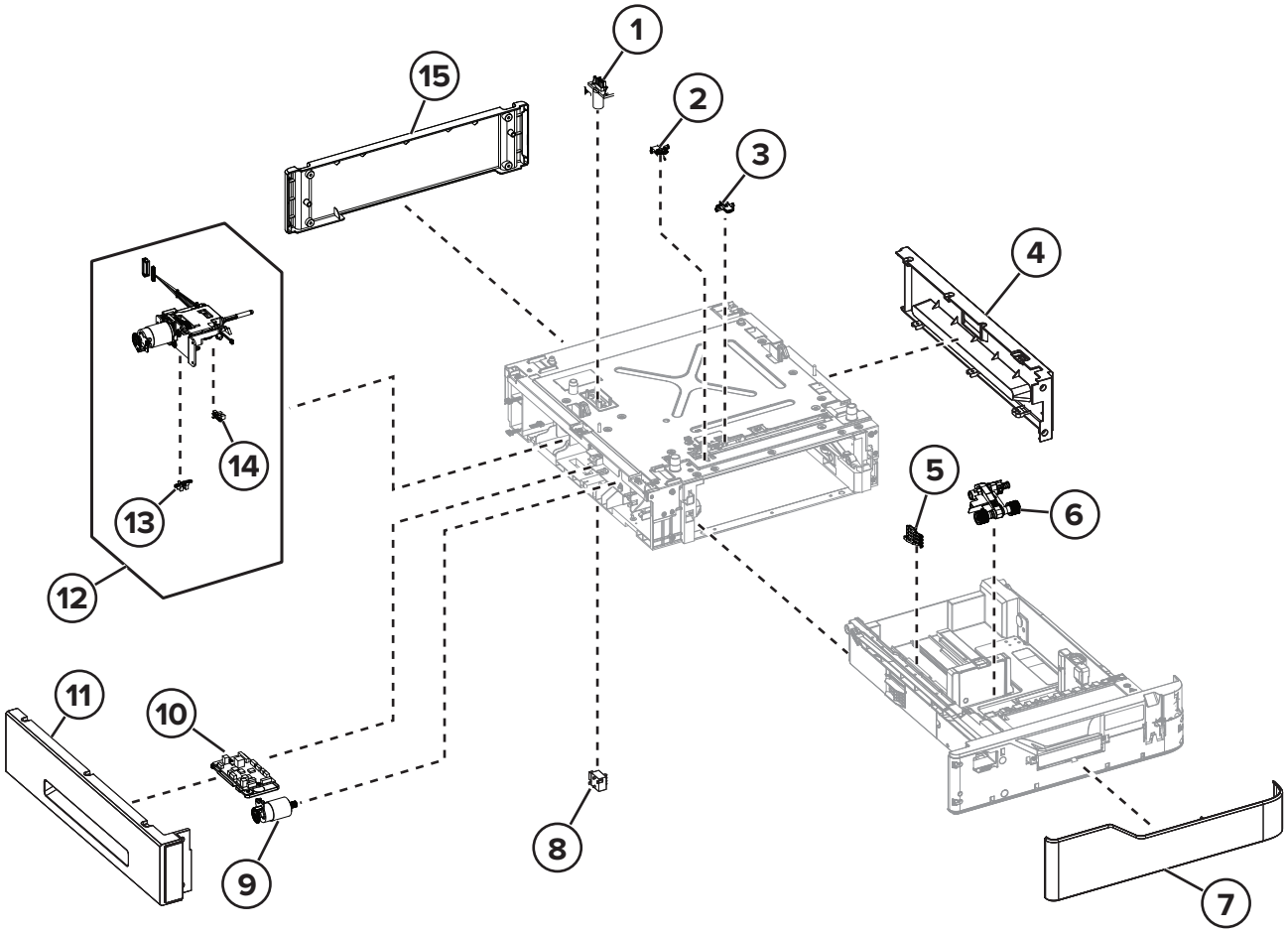


Assembly 31: 250- and 550-sheet tray option 2 (MX72x, MB2770, and XM53xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1655	1	1	Interface cable	“250- and 550-sheet tray interface cable removal” on page 614
2	41X1093	1	1	Sensor (pick)	“Sensor (250- and 550-sheet tray pick) removal” on page 611
3	41X1094	1	1	Sensor (pass-through)	“Sensor (250- and 550-sheet tray pass-through) removal” on page 611
4	41X1653	1	1	Right cover (optional 250-sheet tray)	“250- and 550-sheet tray right cover removal” on page 602
4	41X1661	1	1	Right cover (optional 550-sheet tray)	“250- and 550-sheet tray right cover removal” on page 602
5	41X1120	1	1	Paper size sensor actuator	“250- and 550-sheet tray paper size sensor actuator removal” on page 617
6	41X1108	1	1	Pick roller	“Pick roller removal” on page 607
7	41X1651	1	1	Front cover (250-sheet tray insert)	“250- and 550-sheet tray insert front cover removal” on page 606
7	41X2304	1	1	Front cover (550-sheet tray insert)	“250- and 550-sheet tray insert front cover removal” on page 606
8	40X7911	1	1	Sensor (paper size)	“Sensor (250- and 550-sheet tray paper size) removal” on page 616
9	41X1656	1	1	Motor (transport)	“Motor (250- and 550-sheet tray transport) removal” on page 608
10	41X1657	1	1	Controller board (optional 250-sheet tray)	“250- and 550-sheet tray controller board removal” on page 610
10	41X2194	1	1	Controller board (optional 550-sheet tray)	“250- and 550-sheet tray controller board removal” on page 610
11	41X1652	1	1	Left cover (optional 250-sheet tray)	“250- and 550-sheet tray left cover removal” on page 600
11	41X1660	1	1	Left cover (optional 550-sheet tray)	“250- and 550-sheet tray left cover removal” on page 600
12	41X1107	1	1	Paper feeder	“250- and 550-sheet tray paper feeder removal” on page 608
13	41X1083	1	1	Sensor (paper present)	“Sensor (250- and 550-sheet tray paper present) removal” on page 613
14	41X1083	1	1	Sensor (pick roller index)	“Sensor (250- and 550-sheet tray pick roller index) removal” on page 612

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
15	41X1654	1	1	Rear cover (optional 250-sheet tray)	**“250- and 550-sheet tray rear cover removal” on page 605**
15	41X1662	1	1	Rear cover (optional 550-sheet tray)	**“250- and 550-sheet tray rear cover removal” on page 605**

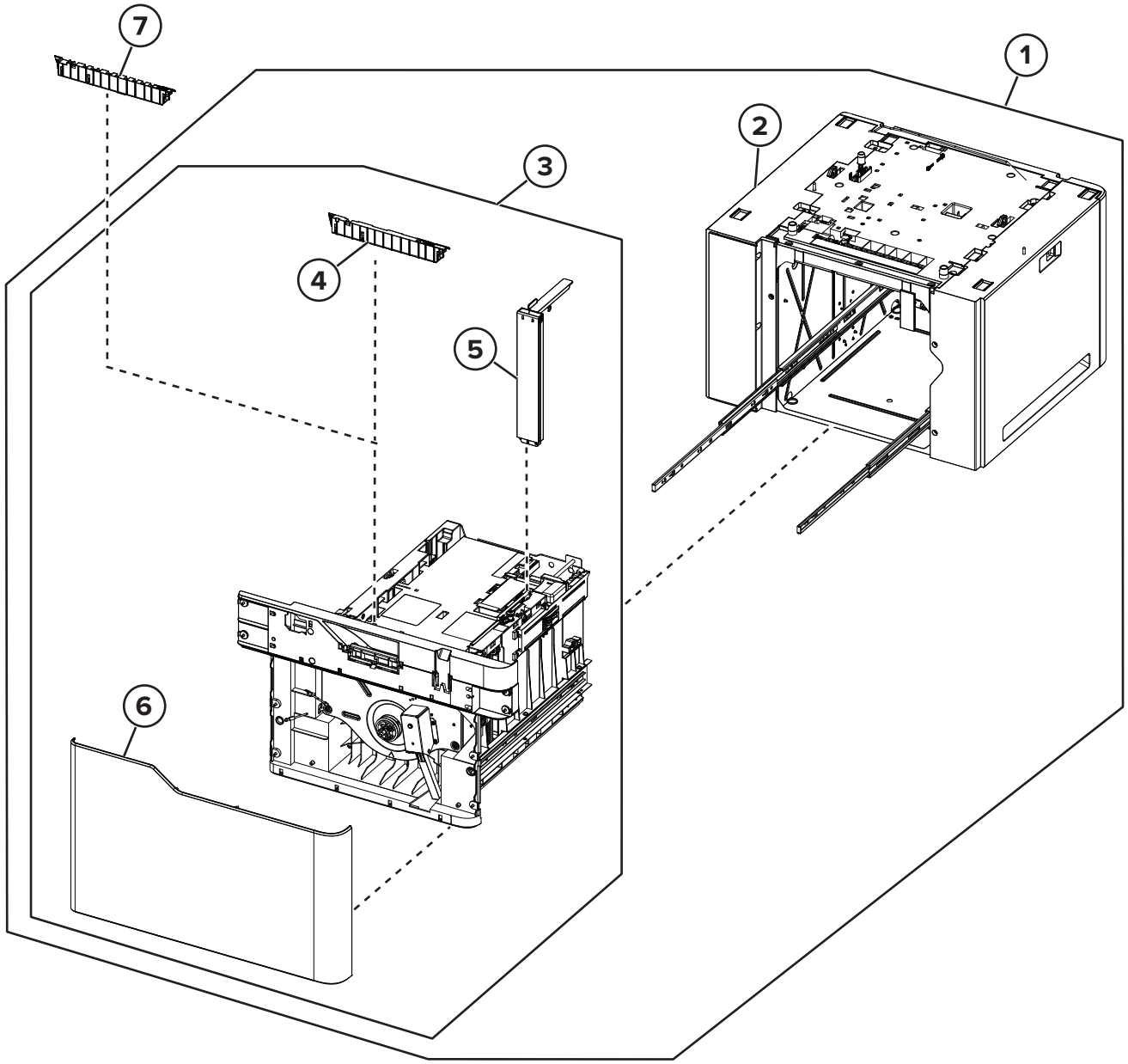
Assembly 32: 250- and 550-sheet tray option 2 (MX82x and XM73xx)



Assembly 32: 250- and 550-sheet tray option 2 (MX82x and XM73xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1655	1	1	Interface cable	“250- and 550-sheet tray interface cable removal” on page 614
2	41X1093	1	1	Sensor (pick)	“Sensor (250- and 550-sheet tray pick) removal” on page 611
3	41X1094	1	1	Sensor (pass-through)	“Sensor (250- and 550-sheet tray pass-through) removal” on page 611
4	41X1667	1	1	Right cover (optional 550-sheet tray)	“250- and 550-sheet tray right cover removal” on page 602
5	41X1120	1	1	Paper size sensor actuator	“250- and 550-sheet tray paper size sensor actuator removal” on page 617
6	41X1108	1	1	Pick roller	“Pick roller removal” on page 607
7	41X1665	1	1	Front cover (optional 550-sheet tray)	“250- and 550-sheet tray insert front cover removal” on page 606
8	40X7911	1	1	Sensor (paper size)	“Sensor (250- and 550-sheet tray paper size) removal” on page 616
9	41X1656	1	1	Motor (transport)	“Motor (250- and 550-sheet tray transport) removal” on page 608
10	41X2194	1	1	Controller board (optional 550-sheet tray)	“250- and 550-sheet tray controller board removal” on page 610
11	41X1666	1	1	Left cover (optional 550-sheet tray)	“250- and 550-sheet tray left cover removal” on page 600
12	41X1107	1	1	Paper feeder	“250- and 550-sheet tray paper feeder removal” on page 608
13	41X1083	1	1	Sensor (paper present)	“Sensor (250- and 550-sheet tray paper present) removal” on page 613
14	41X1083	1	1	Sensor (pick roller index)	“Sensor (250- and 550-sheet tray pick roller index) removal” on page 612
15	41X1668	1	1	Rear cover (optional 550-sheet tray)	“250- and 550-sheet tray rear cover removal” on page 605

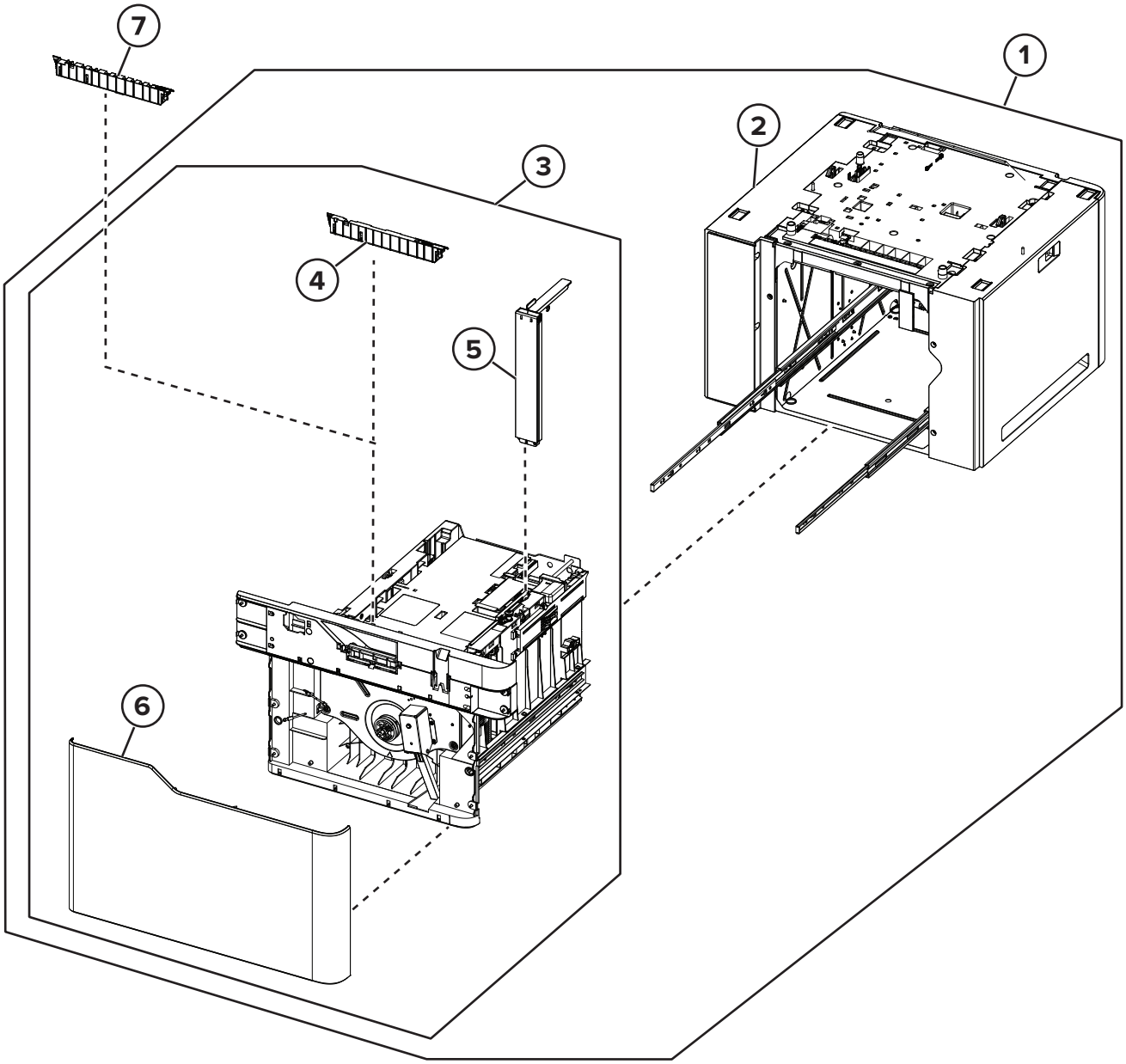
Assembly 33: 2100-sheet tray option 1 (MX72x, MB2770, and XM53xx)



Assembly 33: 2100-sheet tray option 1 (MX72x, MB2770, and XM53xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1669	1	1	Optional 2100-sheet tray	**"Optional 2100-sheet tray removal" on page 574**
2	41X1673	1	1	2100-sheet tray base	**"2100-sheet tray insert removal" on page 576**
3	41X1670	1	1	2100-sheet tray insert	**"2100-sheet tray insert removal" on page 576**
4	41X1119	1	1	Separator pad	**"Separator pad removal" on page 526**
5	40X8176	1	1	A5 length guide	**"A5 length guide removal" on page 575**
6	41X1675	1	1	2100-sheet tray front cover	**"2100-sheet tray front cover removal" on page 586**
7	41X2865	1	1	Special media separator pad	--
NS	41X2208	1	1	Tray level indicator	--

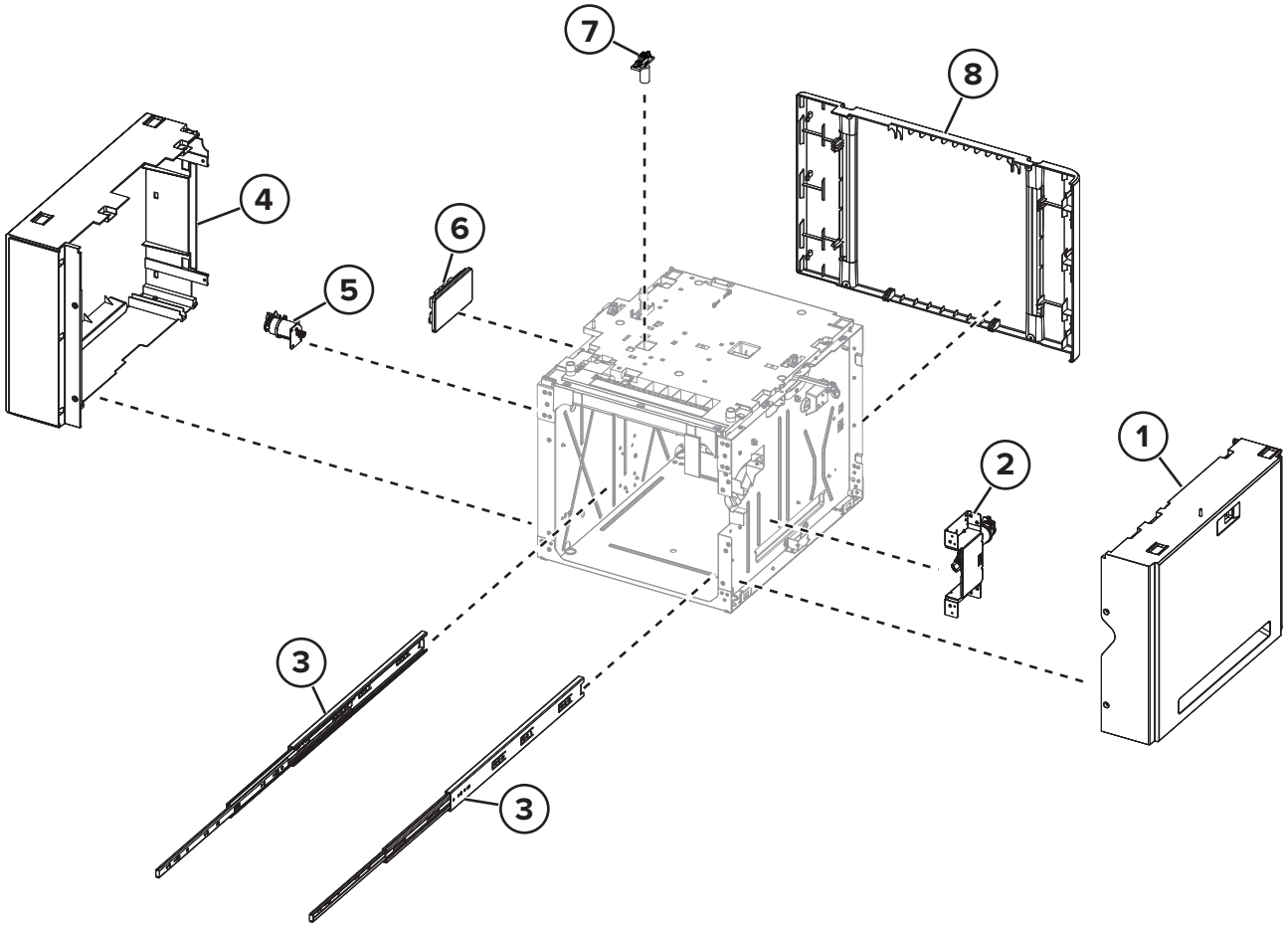
Assembly 34: 2100-sheet tray option 1 (MX82x and XM73xx)



Assembly 34: 2100-sheet tray option 1 (MX82x and XM73xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1671	1	1	Optional 2100-sheet tray	**“Optional 2100-sheet tray removal” on page 574**
2	41X1674	1	1	2100-sheet tray base	**“A5 length guide removal” on page 575**
3	41X1672	1	1	2100-sheet tray insert	**“2100-sheet tray insert removal” on page 576**
4	41X1119	1	1	Separator pad	**“Separator pad removal” on page 526**
5	40X8176	1	1	A5 length guide	**“A5 length guide removal” on page 575**
6	41X1679	1	1	2100-sheet tray front cover	**“2100-sheet tray front cover removal” on page 586**
7	41X2865	1	1	Special media separator pad	--
NS	41X2208	1	1	Tray level indicator	**“Tray level indicator removal” on page 607**

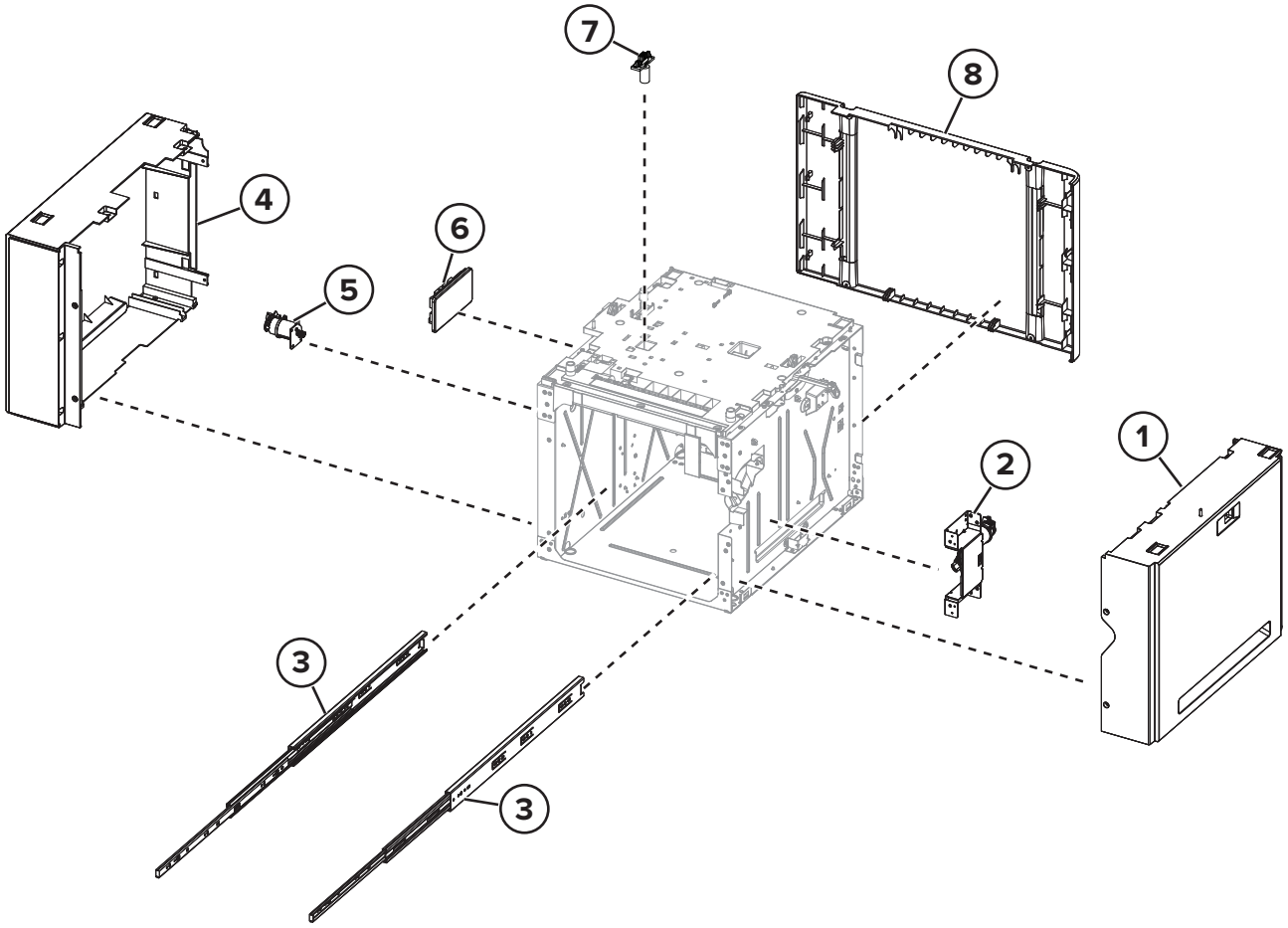
Assembly 35: 2100-sheet tray option 2 (MX72x, MB2770, and XM53xx)



Assembly 35: 2100-sheet tray option 2 (MX72x, MB2770, and XM53xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1677	1	1	2100-sheet tray right cover	“2100-sheet tray right cover removal” on page 580
2	41X1687	1	1	2100-sheet tray elevator drive	“2100-sheet tray elevator drive removal” on page 588
3	40X4593	2	1	2100-sheet tray rails	“2100-sheet tray rails removal” on page 593
4	41X1676	1	1	2100-sheet tray left cover	“2100-sheet tray left cover removal” on page 577
5	41X1686	1	1	Motor (2100-sheet tray transport)	“Motor (2100-sheet tray transport) removal” on page 582
6	41X1684	1	1	2100-sheet tray controller board	“2100-sheet tray controller board removal” on page 587
7	41X1685	1	1	2100-sheet tray interface cable	“2100-sheet tray interface cable removal” on page 590
8	41X1678	1	1	2100-sheet tray rear cover	“2100-sheet tray rear cover removal” on page 577

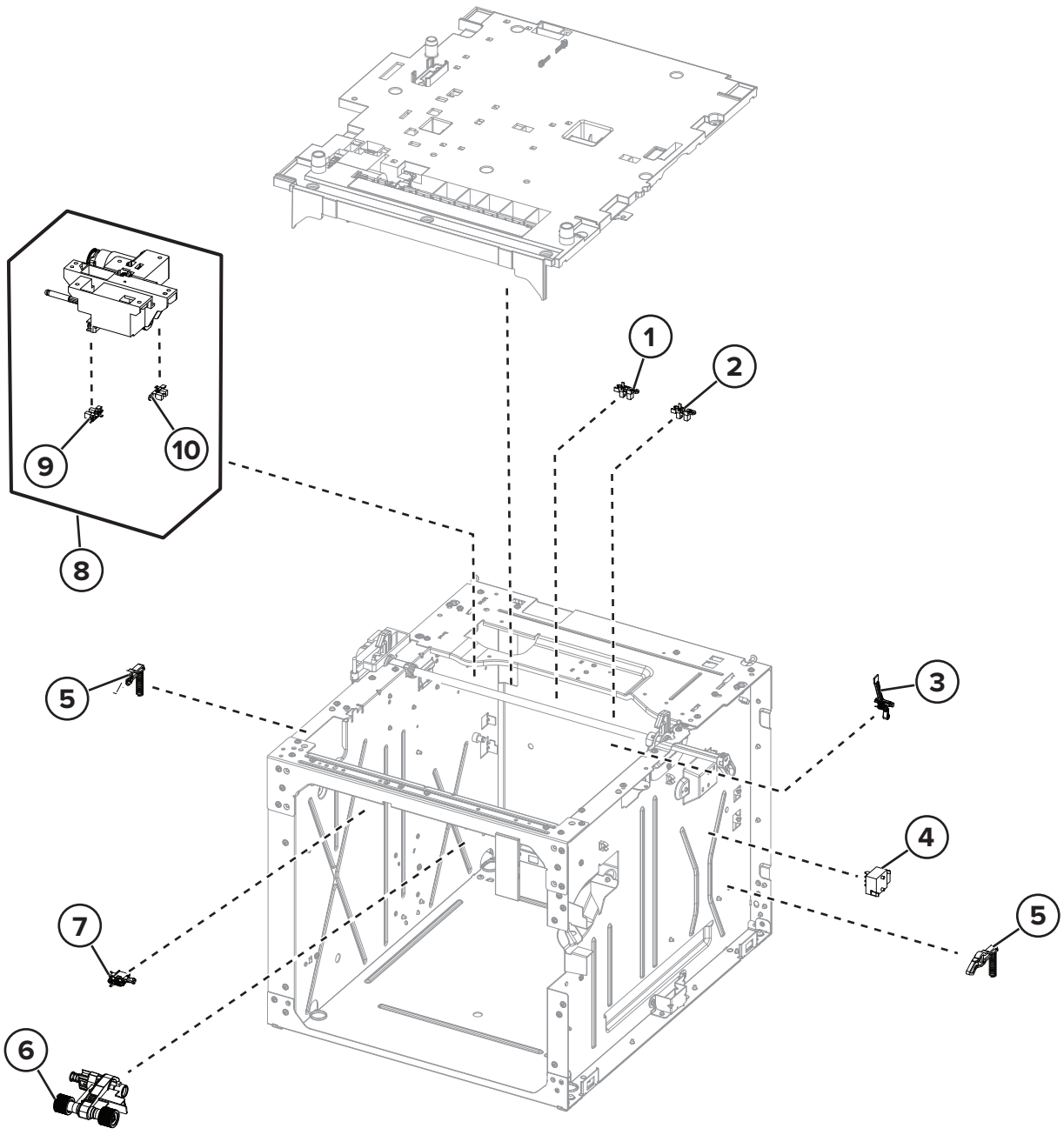
Assembly 36: 2100-sheet tray option 2 (MX82x and XM73xx)



Assembly 36: 2100-sheet tray option 2 (MX82x and XM73xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1681	1	1	2100-sheet tray right cover	“2100-sheet tray right cover removal” on page 580
2	41X1687	1	1	2100-sheet tray elevator drive	“2100-sheet tray elevator drive removal” on page 588
3	40X4593	2	1	2100-sheet tray rails	“2100-sheet tray rails removal” on page 593
4	41X1680	1	1	2100-sheet tray left cover	“2100-sheet tray left cover removal” on page 577
5	41X1686	1	1	Motor (2100-sheet tray transport)	“Motor (2100-sheet tray transport) removal” on page 582
6	41X1684	1	1	2100-sheet tray controller board	“2100-sheet tray controller board removal” on page 587
7	41X1685	1	1	2100-sheet tray interface cable	“2100-sheet tray interface cable removal” on page 590
8	41X1682	1	1	2100-sheet tray rear cover	“2100-sheet tray rear cover removal” on page 577

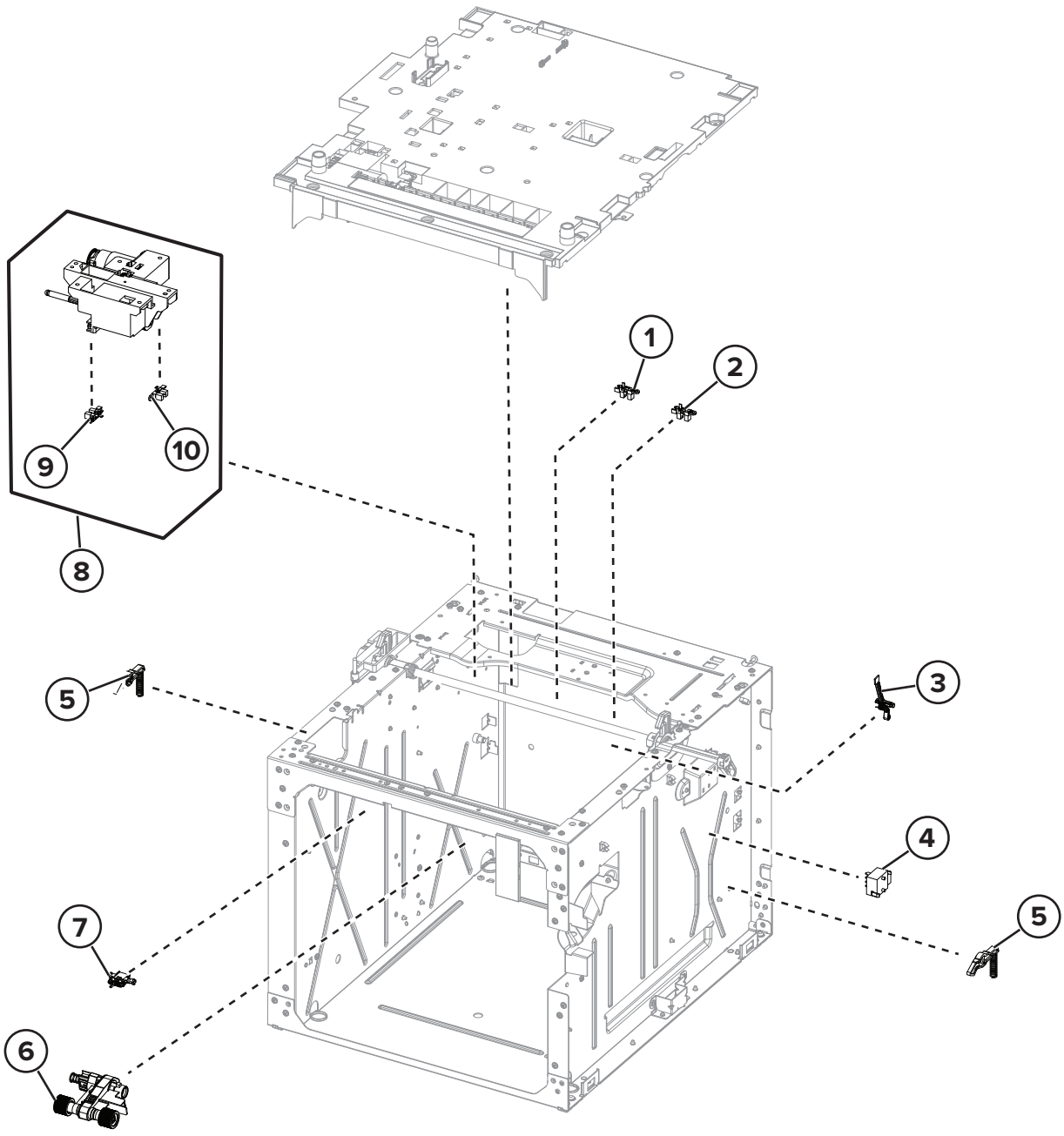
Assembly 37: 2100-sheet tray option 3 (MX72x, MB2770, and XM53xx)



Assembly 37: 2100-sheet tray option 3 (MX72x, MB2770, and XM53xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1083	1	1	Sensor (2100-sheet tray near empty)	“Sensor (2100-sheet tray near empty) removal” on page 594
2	41X1083	1	1	Sensor (2100-sheet tray A5 length guide)	“Sensor (2100-sheet tray A5 length guide) removal” on page 595
3	40X8177	1	1	2100-sheet tray elevator sensor actuator	--
4	40X7911	1	1	Sensor (2100-sheet tray paper size)	“Sensor (2100-sheet tray paper size) removal” on page 589
5	40X4585	2	1	2100-sheet tray bellcrank	“2100-sheet tray bellcrank removal” on page 592
6	41X1108	1	1	2100-sheet tray pick roller	--
7	41X1094	1	1	Sensor (2100-sheet tray pick)	“Sensor (2100-sheet tray pick) removal” on page 587
8	41X1683	1	1	2100-sheet tray paper feeder	“2100-sheet tray paper feeder removal” on page 597
9	41X1083	1	1	Sensor (2100-sheet tray pick roller index)	“Sensor (2100-sheet tray pick roller index) removal” on page 595
10	41X1083	1	1	Sensor (2100-sheet tray paper present)	“Sensor (2100-sheet tray paper present) removal” on page 596

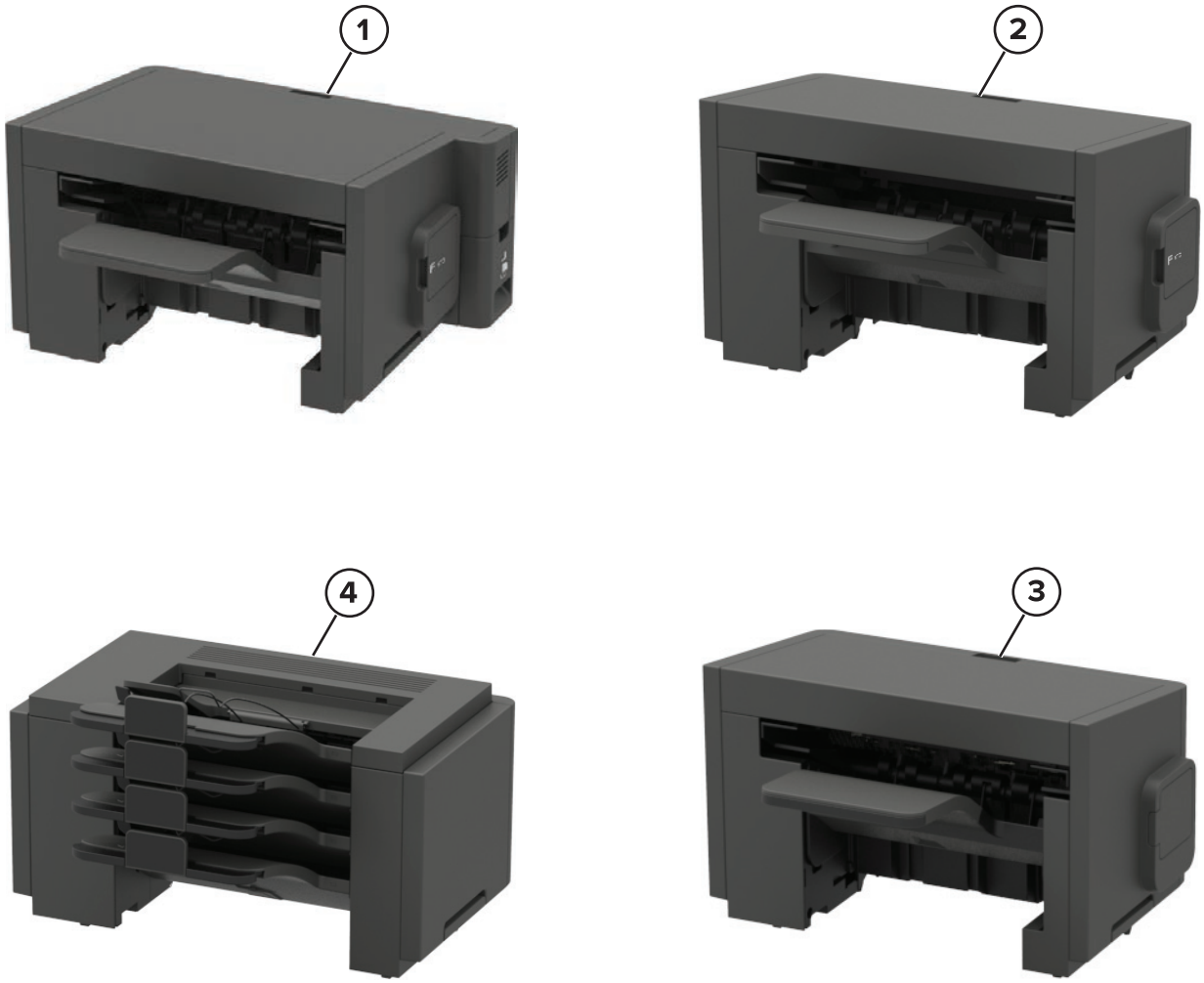
Assembly 38: 2100-sheet tray option 3 (MX82x and XM73xx)



Assembly 38: 2100-sheet tray option 3 (MX82x and XM73xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1083	1	1	Sensor (2100-sheet tray near empty)	“Sensor (2100-sheet tray near empty) removal” on page 594
2	41X1083	1	1	Sensor (2100-sheet tray A5 length guide)	“Sensor (2100-sheet tray A5 length guide) removal” on page 595
3	40X8177	1	1	2100-sheet tray elevator sensor actuator	--
4	40X7911	1	1	Sensor (2100-sheet tray paper size)	“Sensor (2100-sheet tray paper size) removal” on page 589
5	40X4585	2	1	2100-sheet tray bellcrank	“2100-sheet tray bellcrank removal” on page 592
6	41X1108	1	1	2100-sheet tray pick roller	--
7	41X1094	1	1	Sensor (2100-sheet tray pick)	“Sensor (2100-sheet tray pick) removal” on page 587
8	41X1683	1	1	2100-sheet tray paper feeder	“2100-sheet tray paper feeder removal” on page 597
9	41X1083	1	1	Sensor (2100-sheet tray pick roller index)	“Sensor (2100-sheet tray pick roller index) removal” on page 595
10	41X1083	1	1	Sensor (2100-sheet tray paper present)	“Sensor (2100-sheet tray paper present) removal” on page 596

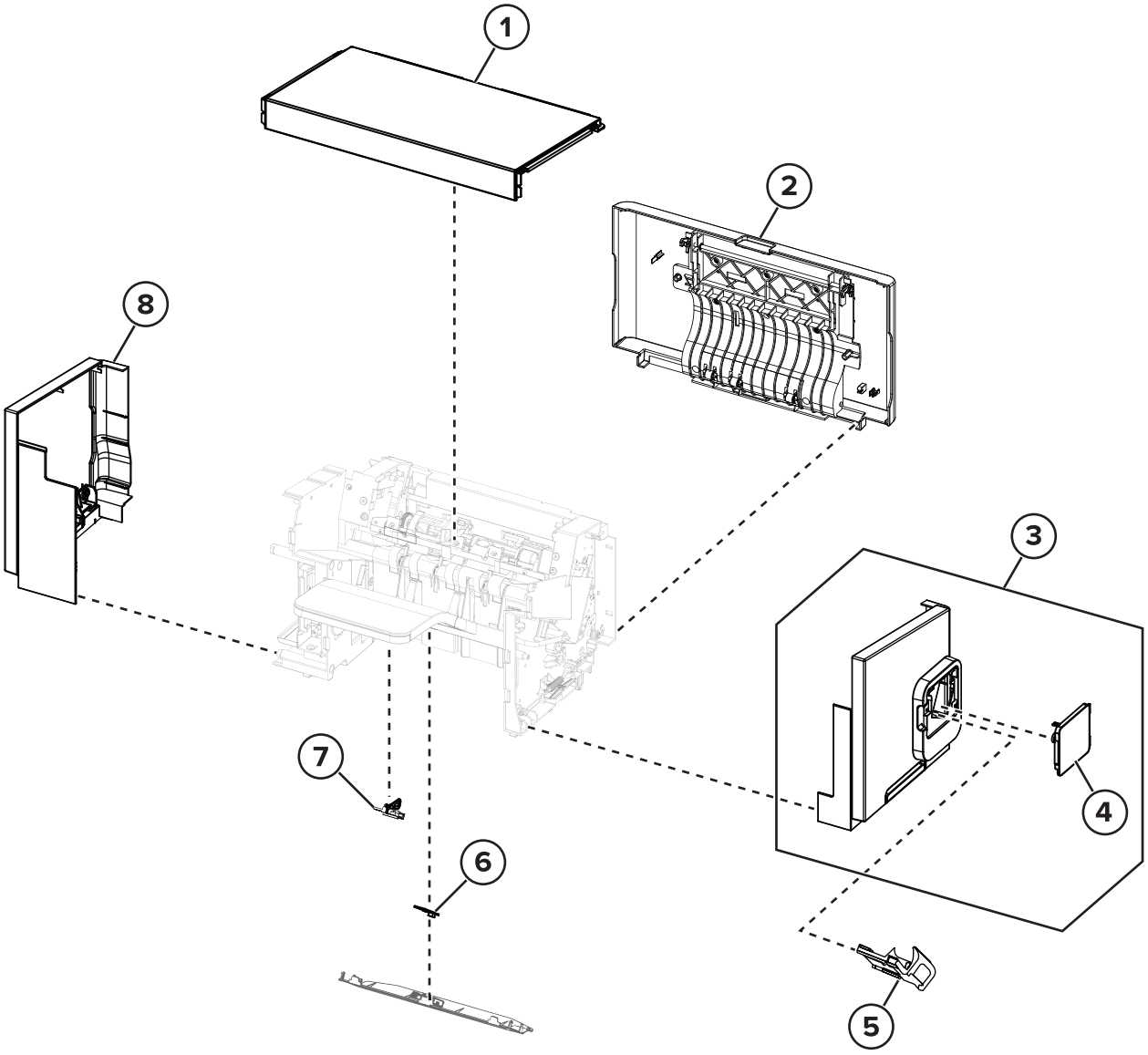
Assembly 39: Optional bins (MX82x and XM73xx)



Assembly 39: Optional bins (MX82x and XM73xx)

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1693	1	1	Optional staple, hole punch finisher	“Optional staple, hole punch finisher removal” on page 740
2	41X1691	1	1	Optional staple finisher	“Optional staple finisher/offset stacker removal” on page 620
3	41X1692	1	1	Optional offset stacker	“Optional staple finisher/offset stacker removal” on page 620
4	41X1694	1	1	Optional 4-bin mailbox	“Optional 4-bin mailbox removal” on page 690

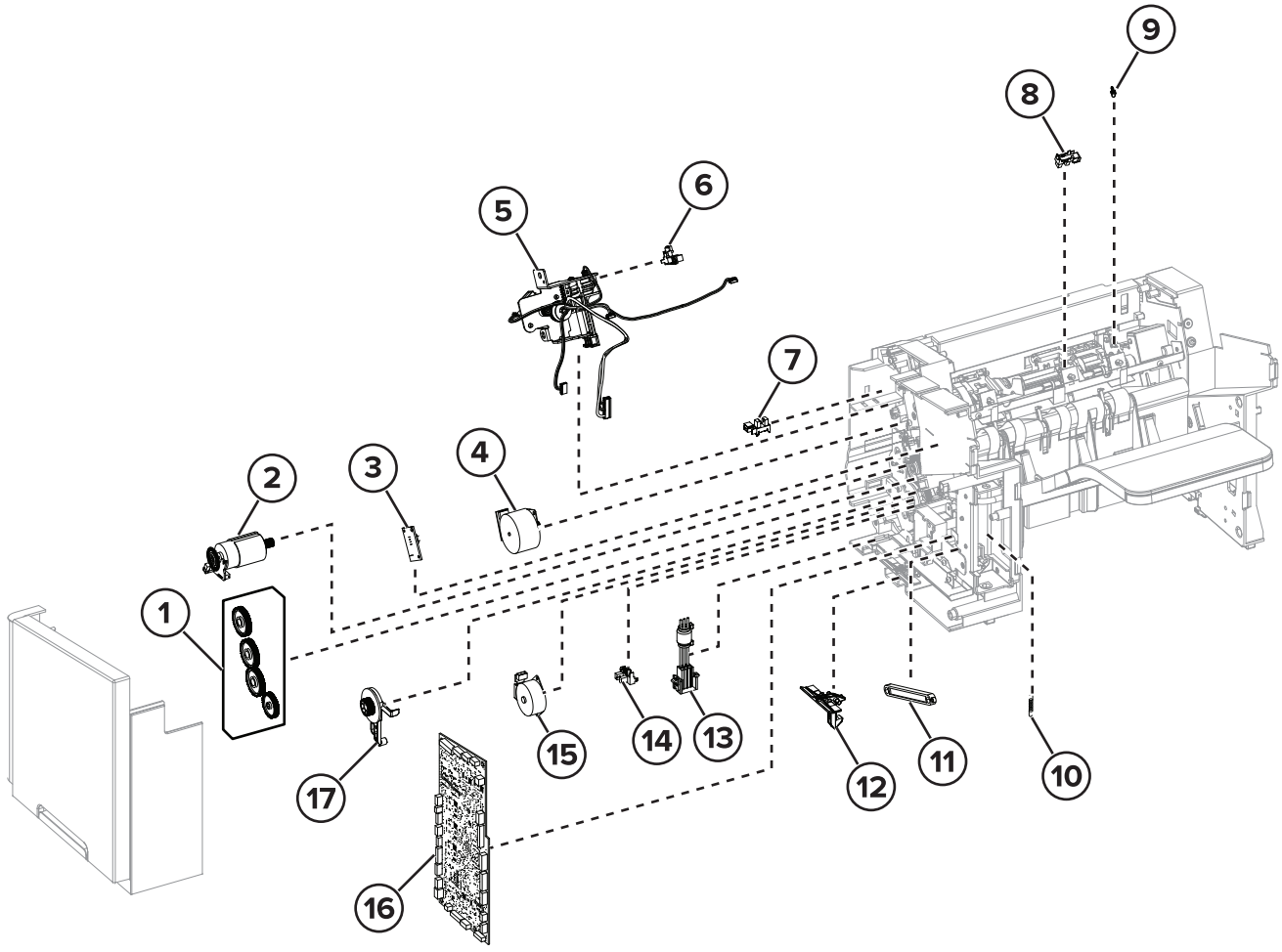
Assembly 40: Staple finisher 1



Assembly 40: Staple finisher 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8222	1	1	Staple finisher top cover	“Staple finisher/offset stacker top cover removal” on page 625
2	41X2169	1	1	Staple finisher rear door	“Staple finisher/offset stacker rear door removal” on page 621
3	41X1698	1	1	Staple finisher right cover	“Stapler right cover removal” on page 681
4	41X1701	1	1	Staple cartridge access door	“Staple cartridge access door removal” on page 683
5	40X7466	1	1	Staple cartridge holder	“Staple cartridge holder removal” on page 746
6	41X1704	1	1	Standard bin LED	“Standard bin LED removal” on page 635
7	41X1238	1	1	Sensor (finisher bin paper present)	“Sensor (staple finisher/offset stacker bin paper present) removal” on page 636
8	41X1715	1	1	Staple finisher left cover	“Staple finisher/offset stacker left cover removal” on page 623

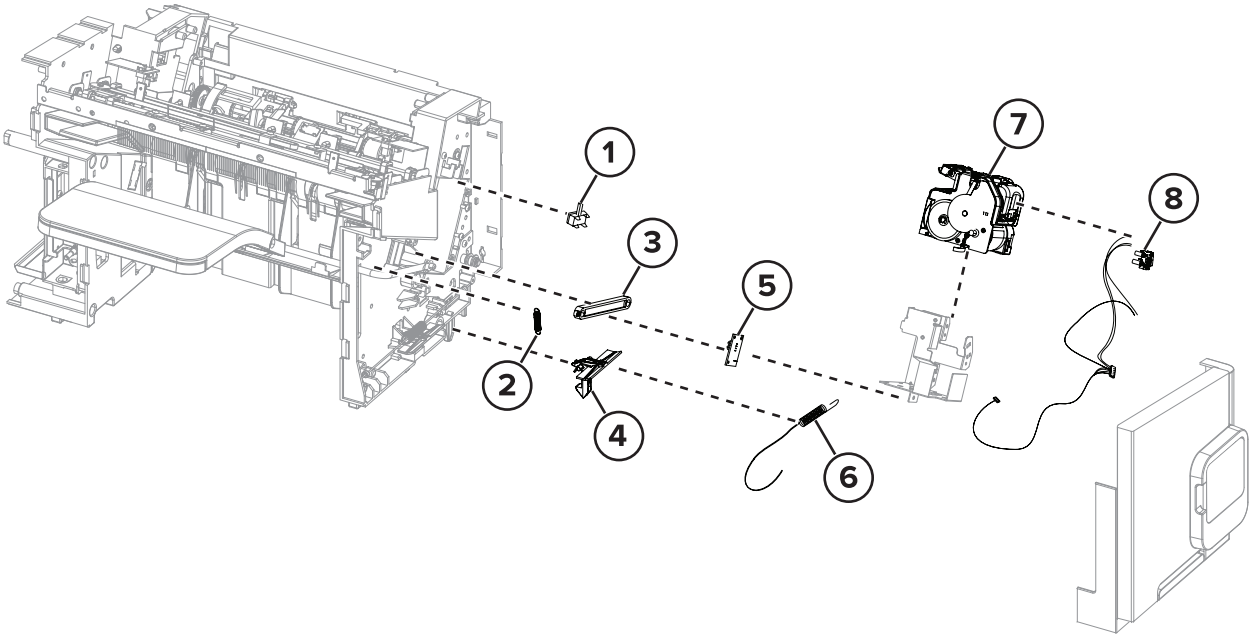
Assembly 41: Staple finisher 2



Assembly 41: Staple finisher 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2175	1	1	Staple finisher drive gear assembly	“Staple finisher/offset stacker drive gear assembly removal” on page 638
2	41X0529	1	1	Motor (staple finisher transport)	“Motor (staple finisher/offset stacker transport) removal” on page 633
3	41X0802	1	1	Sensor (staple finisher bin full)	“Sensor (staple finisher/offset stacker bin full send) removal” on page 642 and “Sensor (staple finisher/offset stacker bin full receive) removal” on page 643
4	40X8213	1	1	Motor (staple finisher paddle)	“Motor (staple finisher/offset stacker paddle) removal” on page 629
5	41X2187	1	1	Staple finisher stack height assembly	“Staple finisher/offset stacker stack height assembly removal” on page 666
6	41X0798	1	1	Sensor (staple finisher stack height)	--
7	41X1238	1	1	Sensor (staple finisher rear door interlock)	“Sensor (staple finisher/offset stacker rear door interlock) removal” on page 649
8	41X1238	1	1	Sensor (staple finisher paddle)	“Sensor (staple finisher/offset stacker paddle) removal” on page 655
9	41X2192	1	1	Paddle spring	--
10	40X8742	2	1	Staple finisher bin spring	“Staple finisher/offset stacker bin spring removal” on page 649
11	40X8744	2	1	Staple finisher bin link assembly	“Staple finisher/offset stacker bin link assembly removal” on page 650
12	40X8721	2	1	Staple finisher latch	“Staple finisher/offset stacker latch removal” on page 653
13	40X8224	1	1	Staple finisher interface cable	“Staple finisher/offset stacker interface cable removal” on page 629
14	41X0798	1	1	Sensor (staple finisher diverter plunger)	“Sensor (staple finisher/offset stacker diverter plunger) removal” on page 633
15	40X8256	1	1	Motor (staple finisher diverter)	“Motor (staple finisher/offset stacker diverter) removal” on page 632
16	41X2279	1	1	Staple finisher controller board	“Staple finisher/offset stacker controller board removal” on page 627
17	40X8722	1	1	Staple finisher diverter plunger assembly	“Staple finisher/offset stacker diverter plunger assembly removal” on page 637

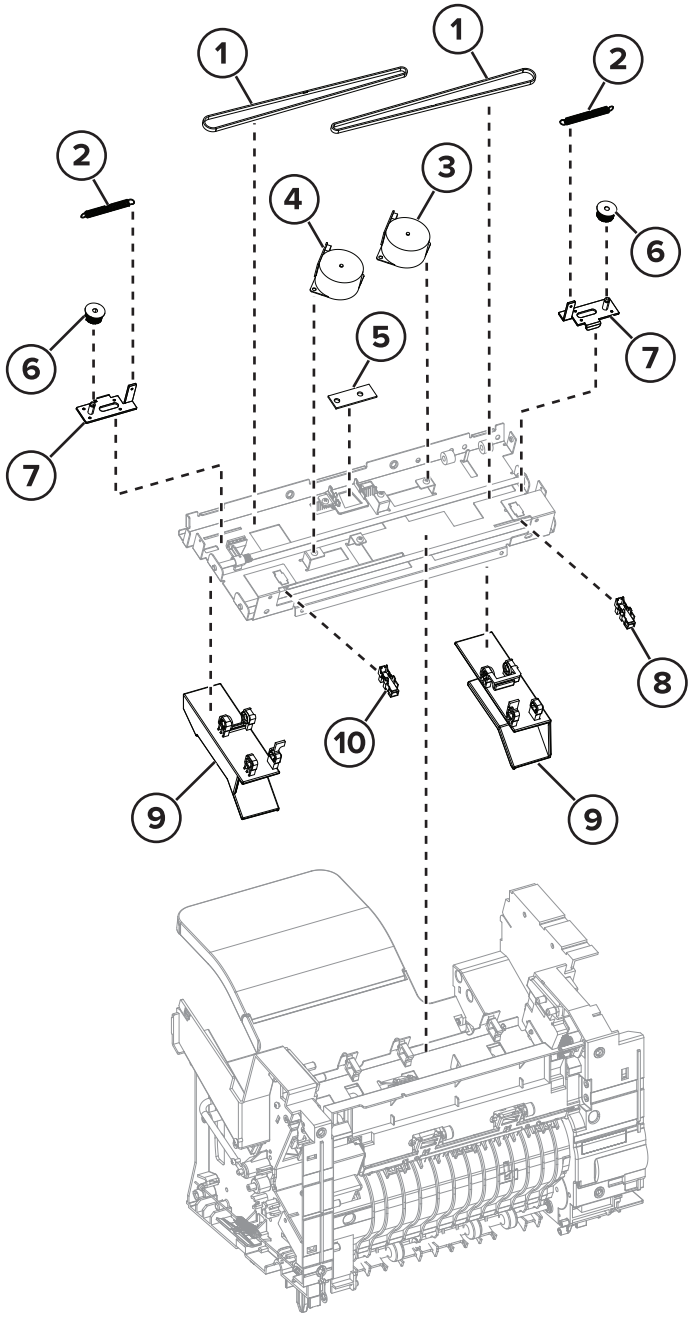
Assembly 42: Staple finisher 3



Assembly 42: Staple finisher 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8745	1	1	Sensor (staple throat paper present)	“Sensor (staple throat paper present) removal” on page 686
2	40X8742	2	1	Staple finisher bin spring	“Staple finisher/offset stacker bin spring removal” on page 649
3	40X8744	2	1	Staple finisher bin link assembly	“Staple finisher/offset stacker bin link assembly removal” on page 650
4	40X8721	2	1	Staple finisher latch	“Staple finisher/offset stacker latch removal” on page 653
5	41X0802	1	1	Sensor (staple finisher bin full send)	“Sensor (staple finisher/offset stacker bin full send) removal” on page 642
6	40X8226	1	1	Staple finisher spring with string	“Staple finisher/offset stacker spring with string removal” on page 654
7	41X0654	1	1	Staple unit	“Staple unit removal” on page 683
8	41X2198	1	1	Staple cartridge door close limit switch	“Staple cartridge door close limit switch removal” on page 688

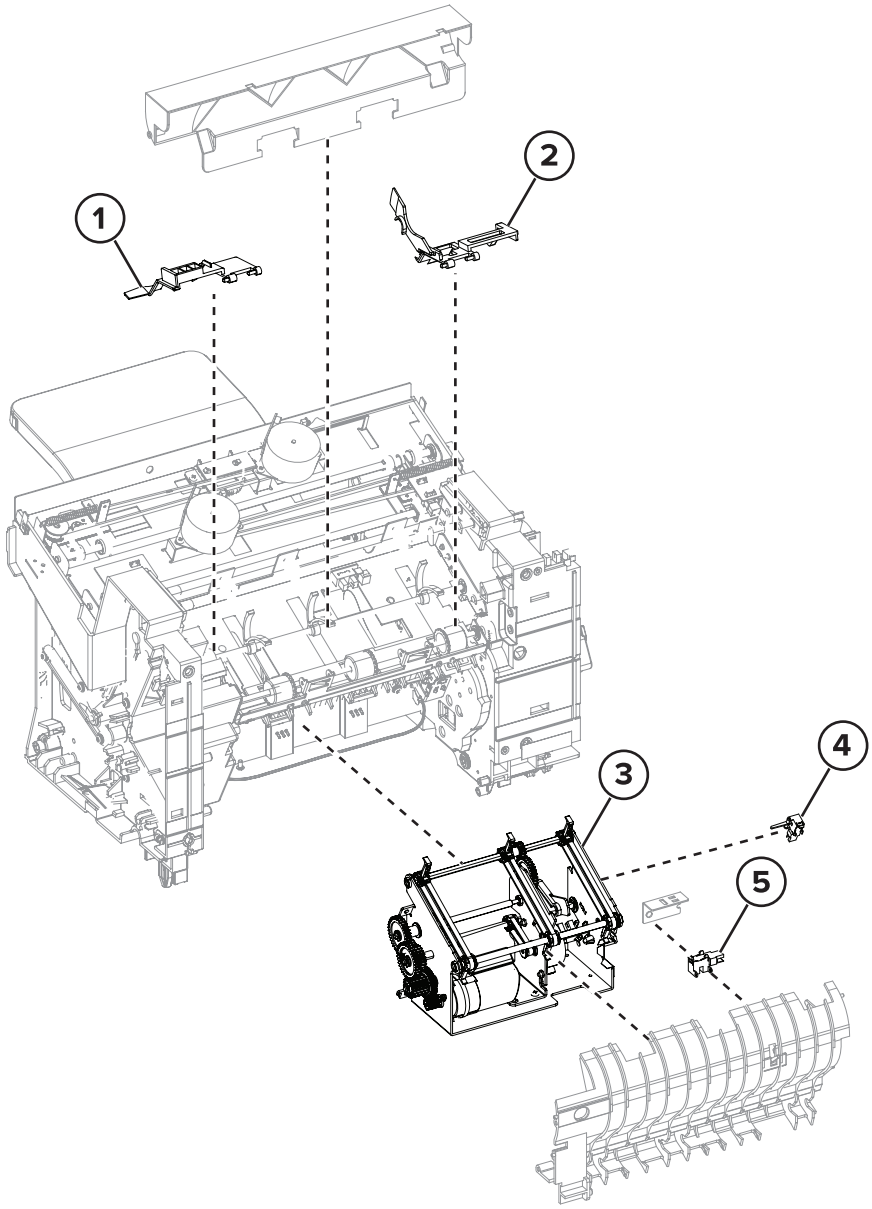
Assembly 43: Staple finisher 4



Assembly 43: Staple finisher 4

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8212	2	1	Tamper drive belt	“Staple finisher/Offset stacker tamper drive belt removal” on page 657
2	41X1705	2	1	Tamper spring	“Staple finisher/Offset stacker tamper drive belt removal” on page 657
3	40X8211	1	1	Motor (staple finisher right tamper)	“Motor (staple finisher/offset stacker right tamper) removal” on page 655
4	40X8211	1	1	Motor (staple finisher left tamper)	“Motor (staple finisher/offset stacker left tamper) removal” on page 656
5	41X1704	1	1	Staple finisher bin LED	“Staple finisher/offset stacker bin LED removal” on page 662
6	41X0664	2	1	Tamper gear	“Staple finisher/Offset stacker tamper drive belt removal” on page 657
7	41X2196	2	1	Tamper bracket	--
8	41X1238	1	1	Sensor (staple finisher left tamper)	“Sensor (staple finisher/offset stacker left tamper) removal” on page 660
9	41X2160	1	1	Tamper aligner	“Staple finisher/offset stacker tamper aligner removal” on page 664
10	41X1238	1	1	Sensor (staple finisher right tamper)	“Sensor (staple finisher/offset stacker right tamper) removal” on page 658

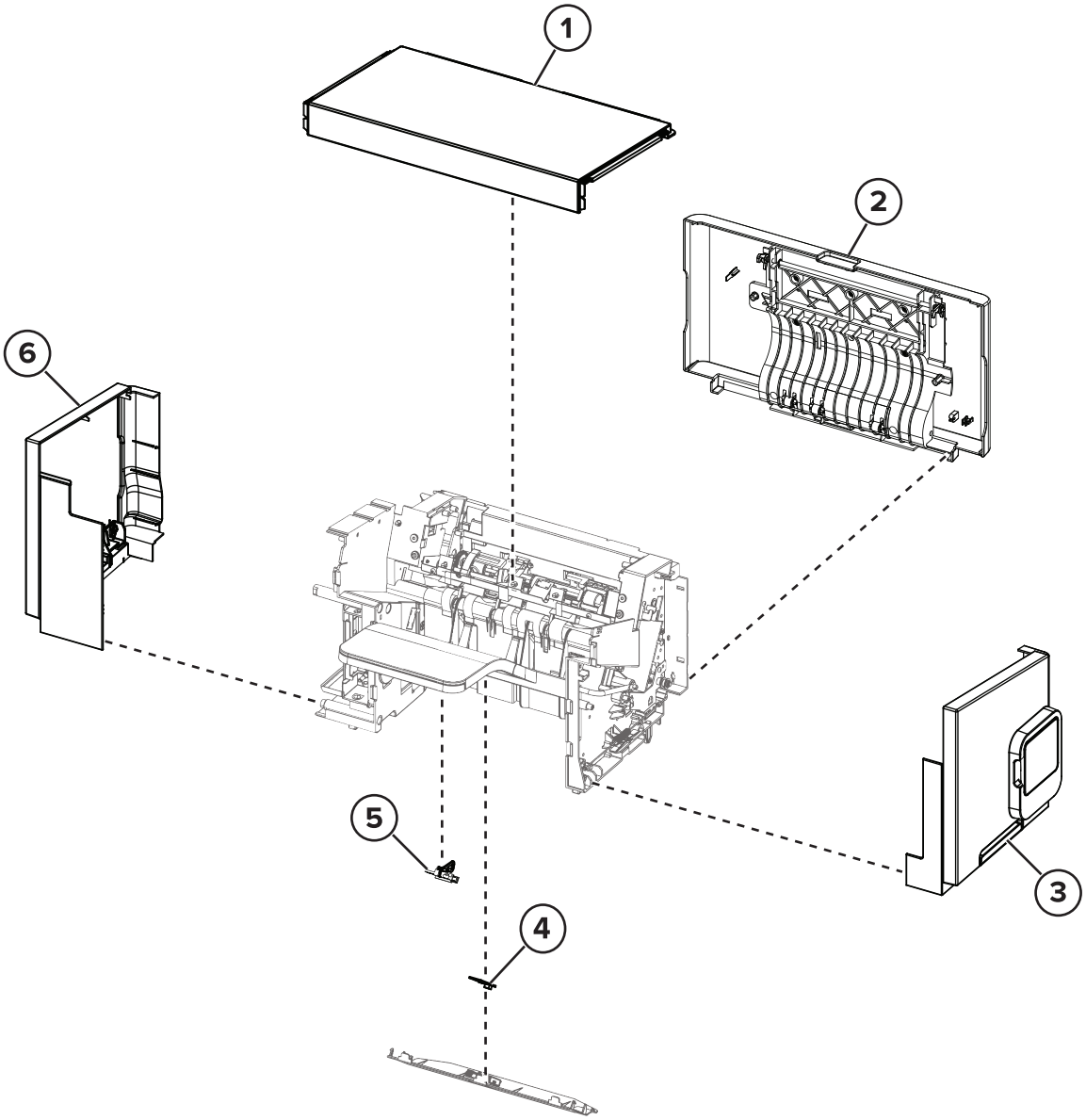
Assembly 44: Staple finisher 5



Assembly 44: Staple finisher 5

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2199	1	1	Staple finisher paper stack flap (right)	“Staple finisher/offset stacker paper stack flap removal” on page 668
2	40X8210	1	1	Staple finisher paper stack flap (left)	“Staple finisher/offset stacker paper stack flap removal” on page 668
3	41X2167	1	1	Staple finisher ejector assembly	“Staple finisher/offset stacker ejector assembly removal” on page 674
4	40X8745	1	1	Sensor (staple finisher ejector)	“Sensor (staple finisher/offset stacker ejector) removal” on page 677
5	40X8134	1	1	Sensor (staple finisher pass-through)	“Sensor (staple finisher/offset stacker pass-through) removal” on page 680

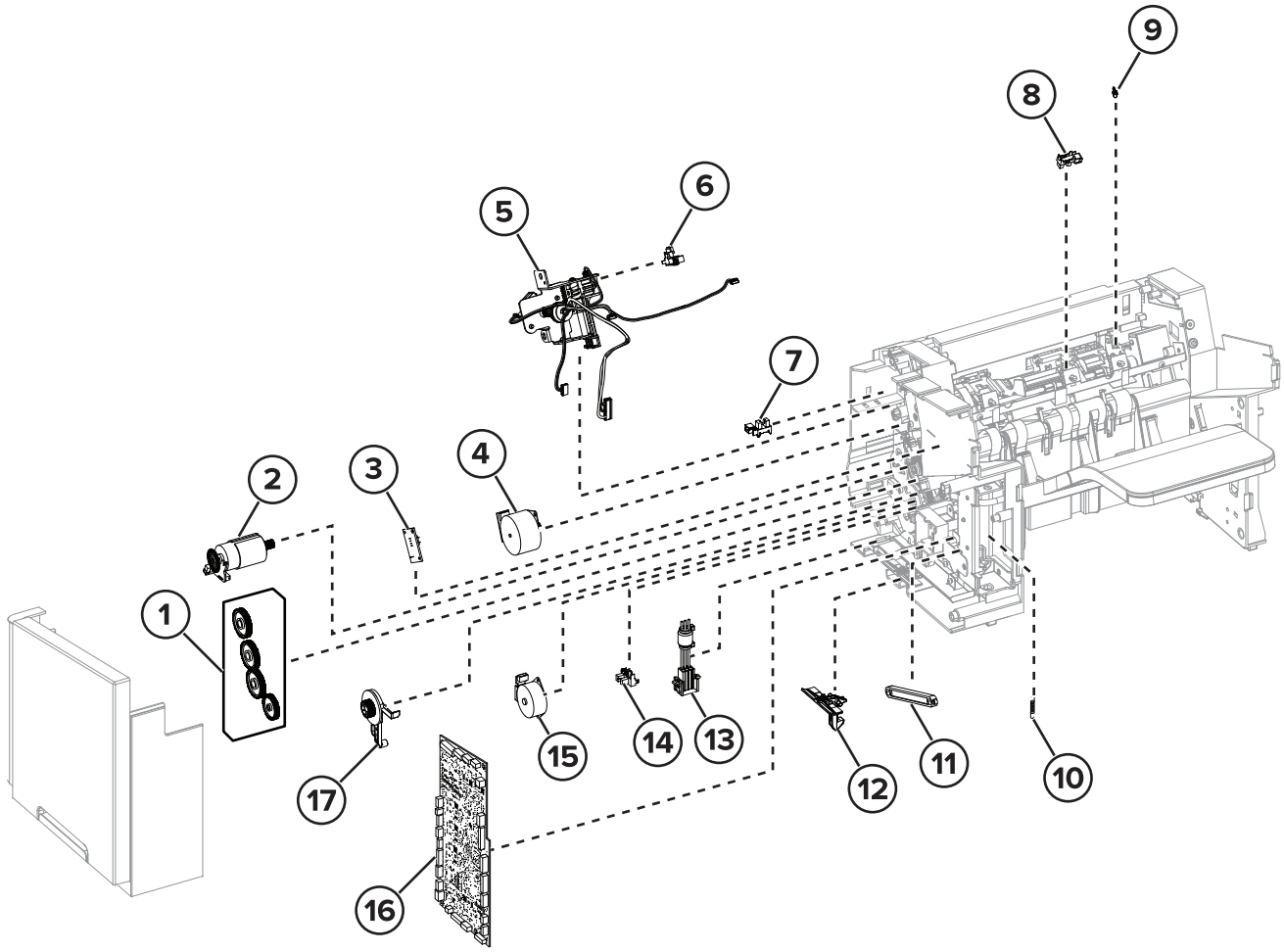
Assembly 45: Offset stacker 1



Assembly 45: Offset stacker 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8222	1	1	Offset stacker top cover	“Staple finisher/offset stacker top cover removal” on page 625
2	41X2169	1	1	Offset stacker rear door	“Staple finisher/offset stacker rear door removal” on page 621
3	41X1716	1	1	Offset stacker right cover	“Stapler right cover removal” on page 681
4	41X1704	1	1	Standard bin LED	“Standard bin LED removal” on page 635
5	41X1238	1	1	Sensor (offset stacker bin paper present)	“Sensor (staple finisher/offset stacker bin paper present) removal” on page 636
6	41X1715	1	1	Offset stacker left cover	“Staple finisher/offset stacker left cover removal” on page 623

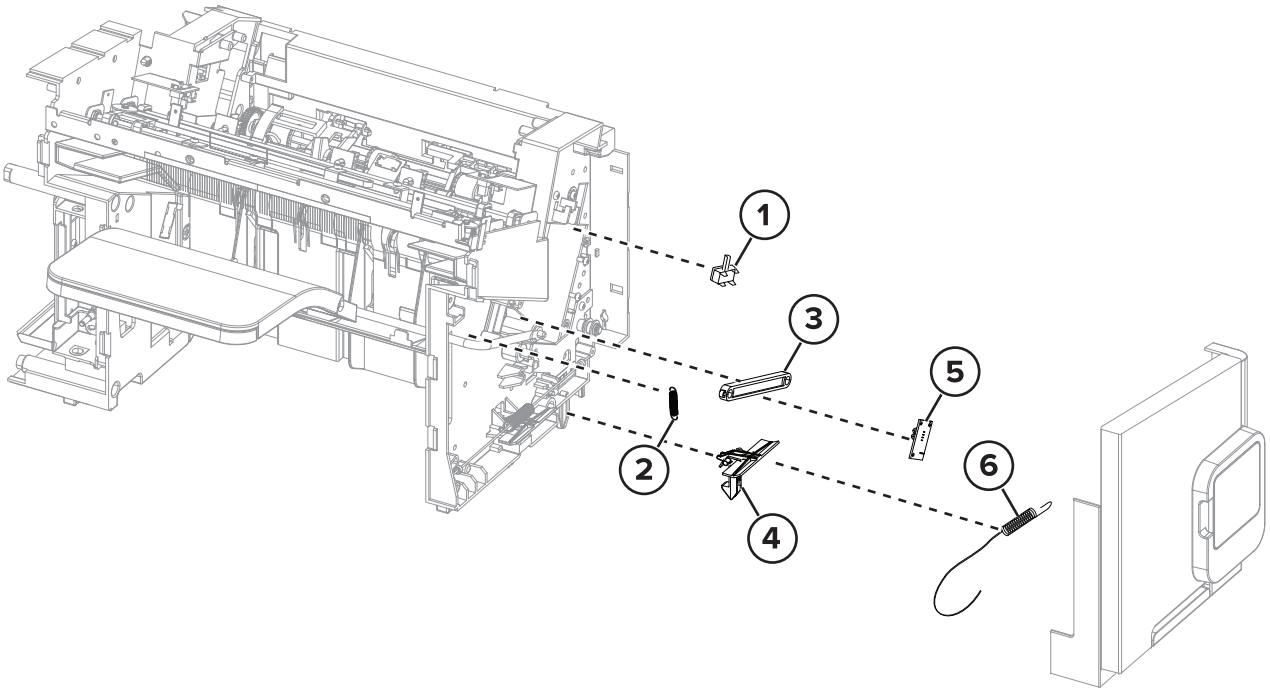
Assembly 46: Offset stacker 2



Assembly 46: Offset stacker 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2175	1	1	Offset stacker drive gear assembly	“Staple finisher/offset stacker drive gear assembly removal” on page 638
2	41X0529	1	1	Motor (offset stacker transport)	“Motor (staple finisher/offset stacker transport) removal” on page 633
3	41X0802	1	1	Sensor (offset stacker bin full)	“Sensor (staple finisher/offset stacker bin full send) removal” on page 642 and “Sensor (staple finisher/offset stacker bin full receive) removal” on page 643
4	40X8213	1	1	Motor (offset stacker paddle)	“Motor (staple finisher/offset stacker paddle) removal” on page 629
5	41X2187	1	1	Offset stacker stack height assembly	“Staple finisher/offset stacker stack height assembly removal” on page 666
6	41X0798	1	1	Sensor (offset stacker stack height)	--
7	41X1238	1	1	Sensor (offset stacker rear door interlock)	“Sensor (staple finisher/offset stacker rear door interlock) removal” on page 649
8	41X1238	1	1	Sensor (offset stacker paddle)	“Sensor (staple finisher/offset stacker paddle) removal” on page 655
9	41X2192	1	1	Paddle spring	--
10	40X8742	2	1	Offset stacker bin spring	“Staple finisher/offset stacker bin spring removal” on page 649
11	40X8744	2	1	Offset stacker bin link assembly	“Staple finisher/offset stacker bin link assembly removal” on page 650
12	40X8721	2	1	Offset stacker latch	“Staple finisher/offset stacker latch removal” on page 653
13	40X8224	1	1	Offset stacker interface cable	“Staple finisher/offset stacker interface cable removal” on page 629
14	41X0798	1	1	Sensor (offset stacker diverter plunger)	“Sensor (staple finisher/offset stacker diverter plunger) removal” on page 633
15	40X8256	1	1	Motor (offset stacker diverter)	“Motor (staple finisher/offset stacker diverter) removal” on page 632
16	41X2279	1	1	Offset stacker controller board	“Staple finisher/offset stacker controller board removal” on page 627
17	40X8722	1	1	Offset stacker diverter plunger assembly	“Staple finisher/offset stacker diverter plunger assembly removal” on page 637

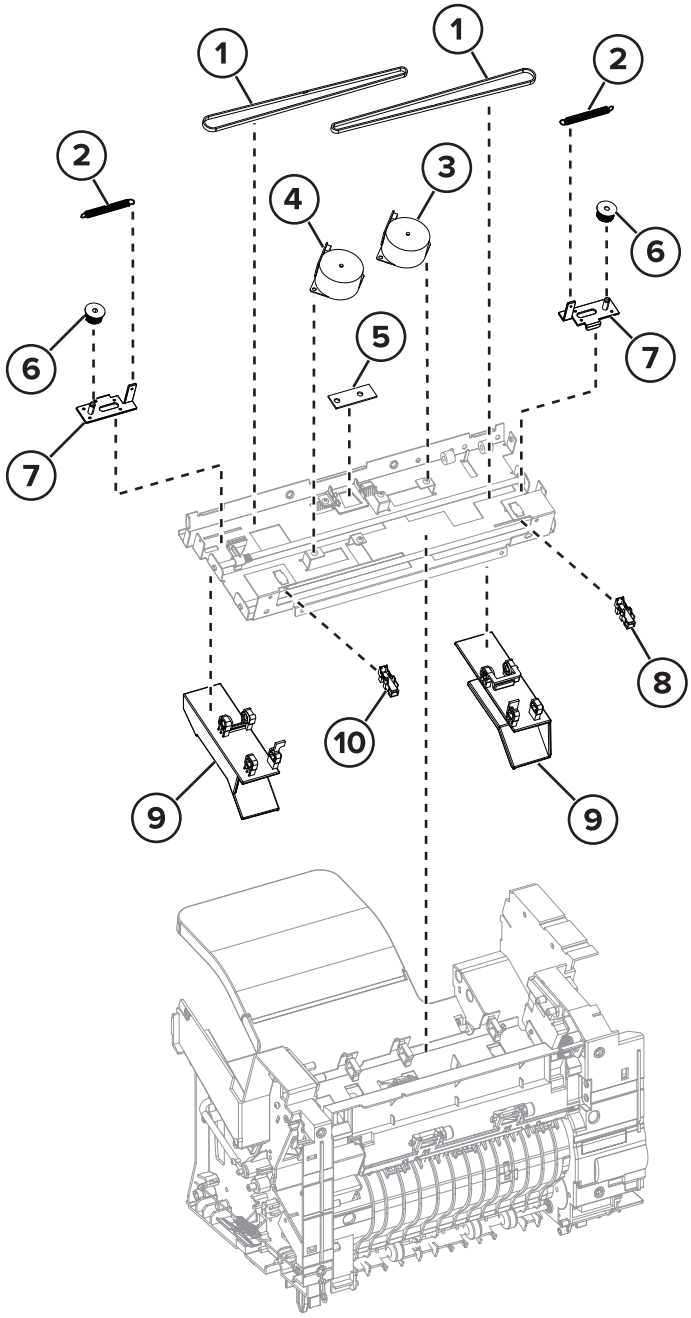
Assembly 47: Offset stacker 3



Assembly 47: Offset stacker 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8745	1	1	Sensor (staple throat paper present)	“Sensor (staple throat paper present) removal” on page 686
2	40X8742	2	1	Offset stacker bin spring	“Staple finisher/offset stacker bin spring removal” on page 649
3	40X8744	2	1	Offset stacker bin link assembly	“Staple finisher/offset stacker bin link assembly removal” on page 650
4	40X8721	2	1	Offset stacker latch	“Staple finisher/offset stacker latch removal” on page 653
5	41X0802	1	1	Sensor (offset stacker bin full send)	“Sensor (staple finisher/offset stacker bin full send) removal” on page 642
6	40X8226	1	1	Offset stacker spring with string	“Staple finisher/offset stacker spring with string removal” on page 654

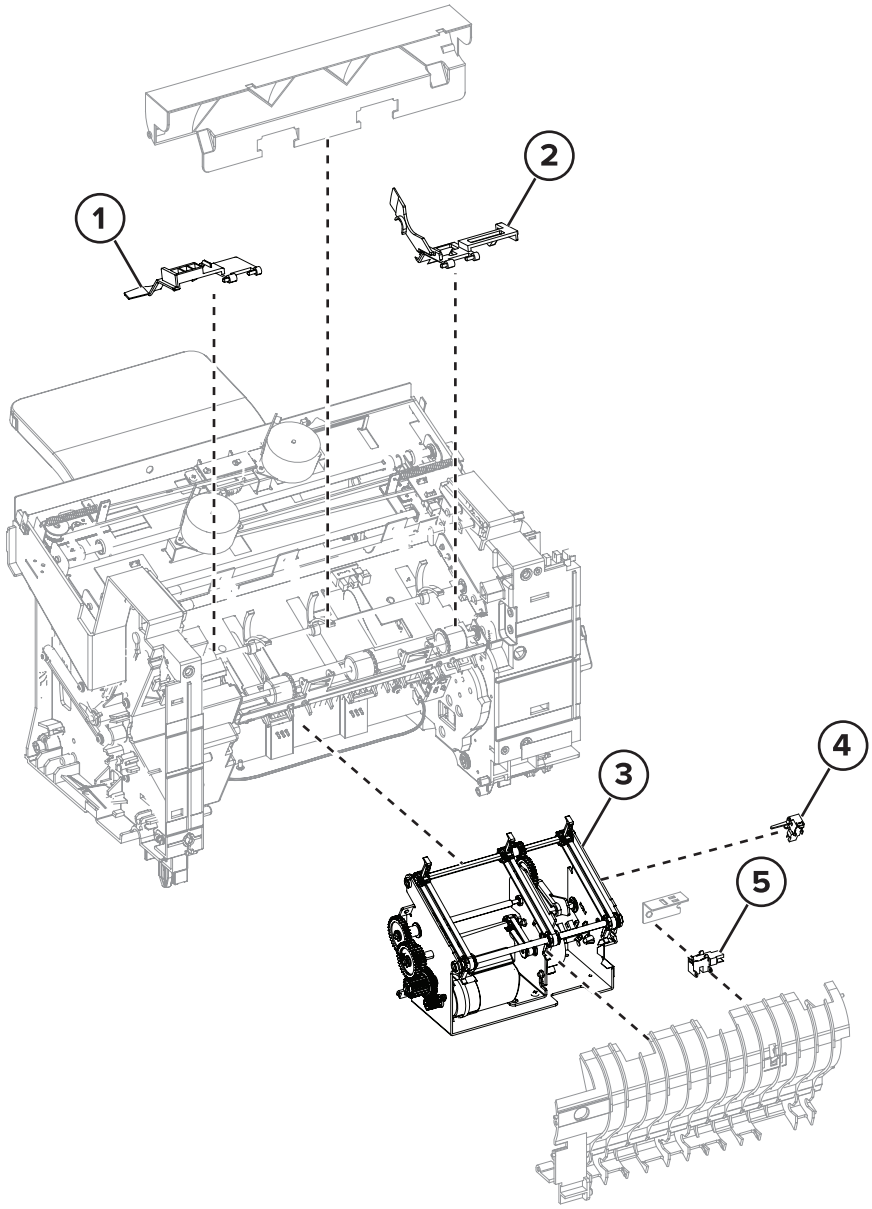
Assembly 48: Offset stacker 4



Assembly 48: Offset stacker 4

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8212	1	1	Offset stacker tamper drive belt	“Staple finisher/Offset stacker tamper drive belt removal” on page 657
2	41X1705	1	1	Offset stacker tamper spring	“Staple finisher/Offset stacker tamper drive belt removal” on page 657
3	40X8211	1	1	Motor (offset stacker right tamper)	“Motor (staple finisher/offset stacker right tamper) removal” on page 655
4	40X8211	1	1	Motor (offset stacker left tamper)	“Motor (staple finisher/offset stacker left tamper) removal” on page 656
5	41X1704	1	1	Offset stacker bin LED	“Staple finisher/offset stacker bin LED removal” on page 662
6	41X0664	1	1	Offset stacker tamper gear	“Staple finisher/Offset stacker tamper drive belt removal” on page 657
7	41X2196	1	1	Offset stacker tamper bracket	“Staple finisher/Offset stacker tamper drive belt removal” on page 657
8	41X1238	1	1	Sensor (offset stacker left tamper)	“Sensor (staple finisher/offset stacker left tamper) removal” on page 660
9	41X2160	1	1	Offset stacker tamper aligner	“Staple finisher/offset stacker tamper aligner removal” on page 664
10	41X1238	1	1	Sensor (offset stacker right tamper)	“Sensor (staple finisher/offset stacker right tamper) removal” on page 658

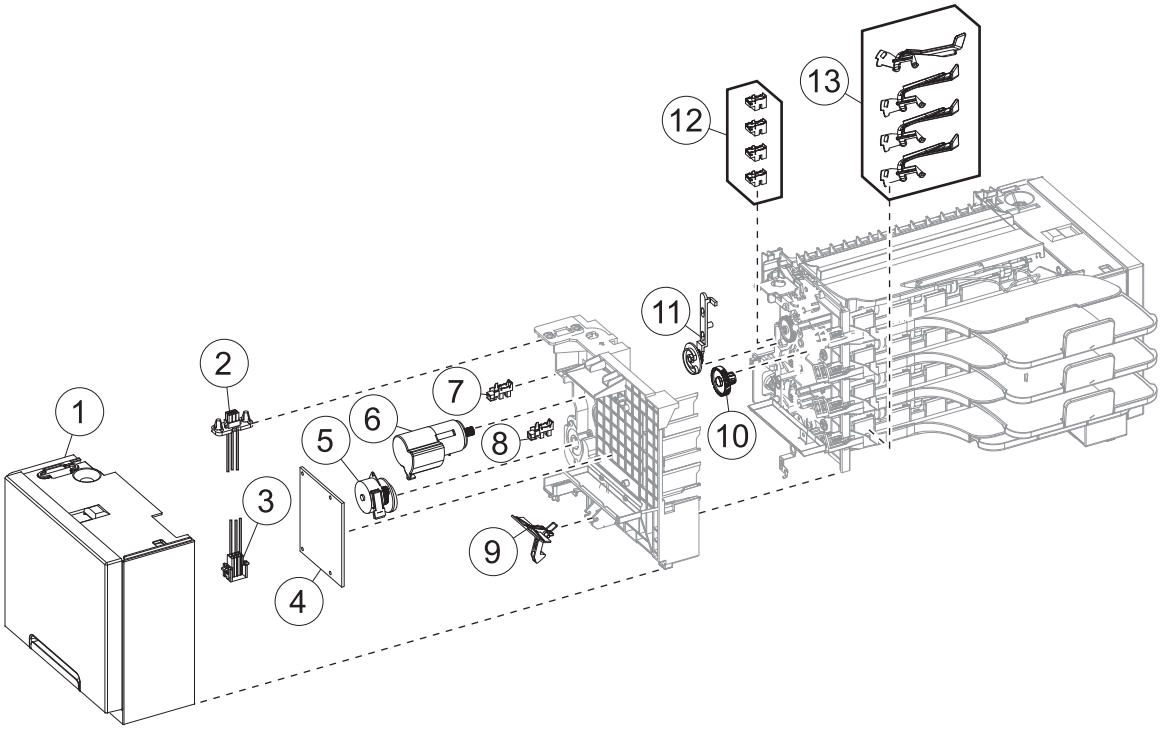
Assembly 49: Offset stacker 5



Assembly 49: Offset stacker 5

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2199	1	1	Offset stacker paper stack flap (right)	“Staple finisher/offset stacker paper stack flap removal” on page 668
2	40X8210	1	1	Offset stacker paper stack flap (left)	“Staple finisher/offset stacker paper stack flap removal” on page 668
3	41X2167	1	1	Offset stacker ejector assembly	“Staple finisher/offset stacker ejector assembly removal” on page 674
4	40X8745	1	1	Sensor (offset stacker ejector)	“Sensor (staple finisher/offset stacker ejector) removal” on page 677
5	40X8134	1	1	Sensor (offset stacker pass-through)	“Sensor (staple finisher/offset stacker pass-through) removal” on page 680

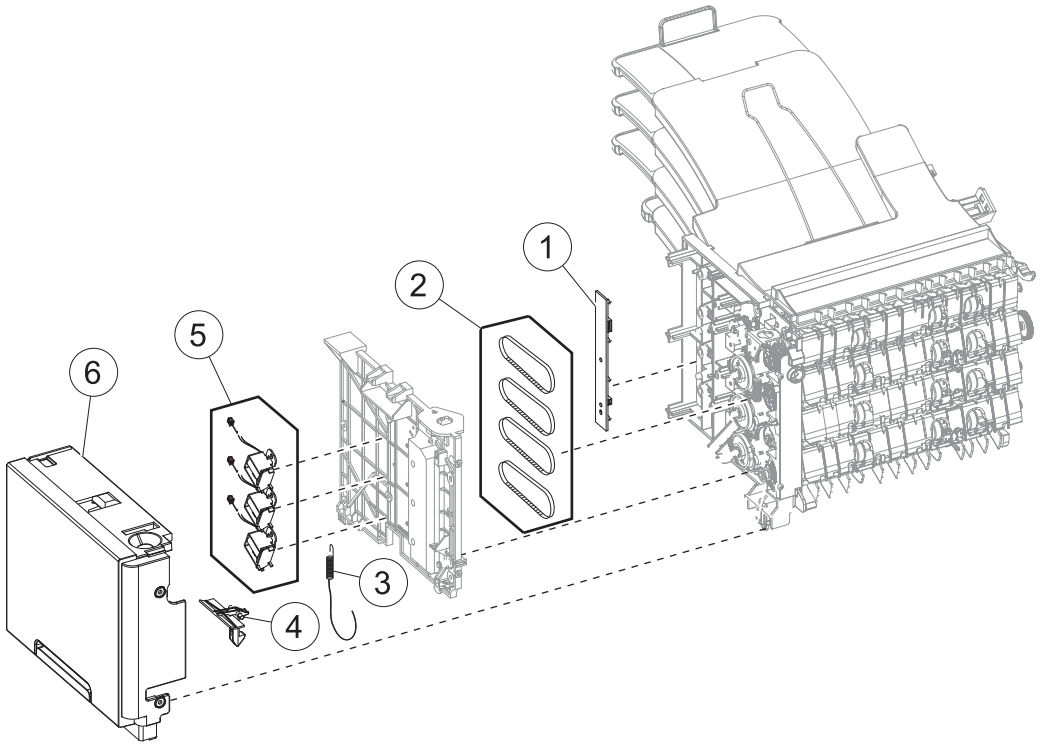
Assembly 50: Mailbox 1



Assembly 50: Mailbox 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8246	1	1	Mailbox left cover	“Mailbox left cover removal” on page 696
2	40X8254	1	1	Mailbox upper interface cable	“Mailbox upper interface cable removal” on page 714
3	40X8253	1	1	Mailbox lower interface cable	“Mailbox lower interface cable removal” on page 712
4	40X8244	1	1	Mailbox controller board	“Mailbox controller board removal” on page 709
5	40X8256	1	1	Motor (mailbox diverter)	“Motor (mailbox diverter) removal” on page 714
6	41X0529	1	1	Motor (mailbox transport)	“Motor (mailbox transport) removal” on page 704
7	40X7592	1	1	Sensor (mailbox rear door interlock)	“Sensor (mailbox rear door interlock) removal” on page 700
8	40X7592	1	1	Sensor (mailbox diverter plunger)	“Sensor (mailbox diverter plunger) removal” on page 710
9	40X8721	2	1	Mailbox latch	“Mailbox latch removal” on page 699
10	40X8726	1	1	Mailbox transport drive gear	“Mailbox transport drive gear removal” on page 700
11	40X8722	1	1	Mailbox diverter plunger assembly	“Mailbox diverter plunger assembly removal” on page 705
12	41X0701	4	1	Sensor (mailbox bin full)	“Sensor (mailbox bin full) removal” on page 717
13	40X8247	4	1	Mailbox bin full flag	“Mailbox bin full flag removal” on page 716
NS	40X8500	1	1	Optional bin guide bar	--

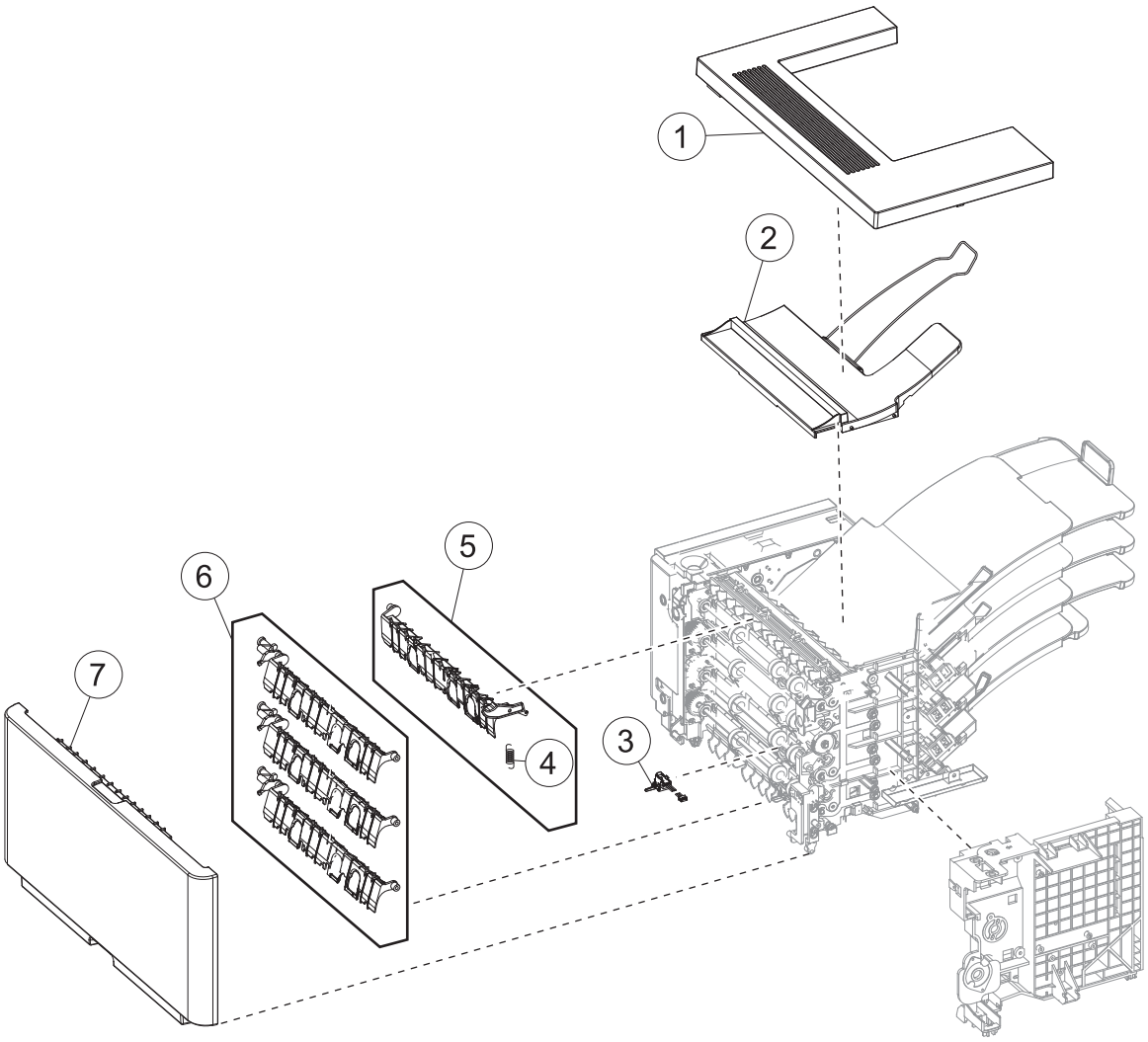
Assembly 51: Mailbox 2



Assembly 51: Mailbox 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8250	1	1	Mailbox bin LED assembly	“Mailbox bin LED assembly removal” on page 722
2	40X8249	4	1	Mailbox belt	“Mailbox belt removal” on page 720
3	40X8252	1	1	Mailbox spring with string	“Mailbox spring with string removal” on page 695
4	40X8721	2	1	Mailbox latch	“Mailbox latch removal” on page 699
5	40X8251	3	1	Mailbox solenoid	“Mailbox solenoid removal” on page 697
6	40X8243	1	1	Mailbox right cover	“Mailbox right cover removal” on page 693

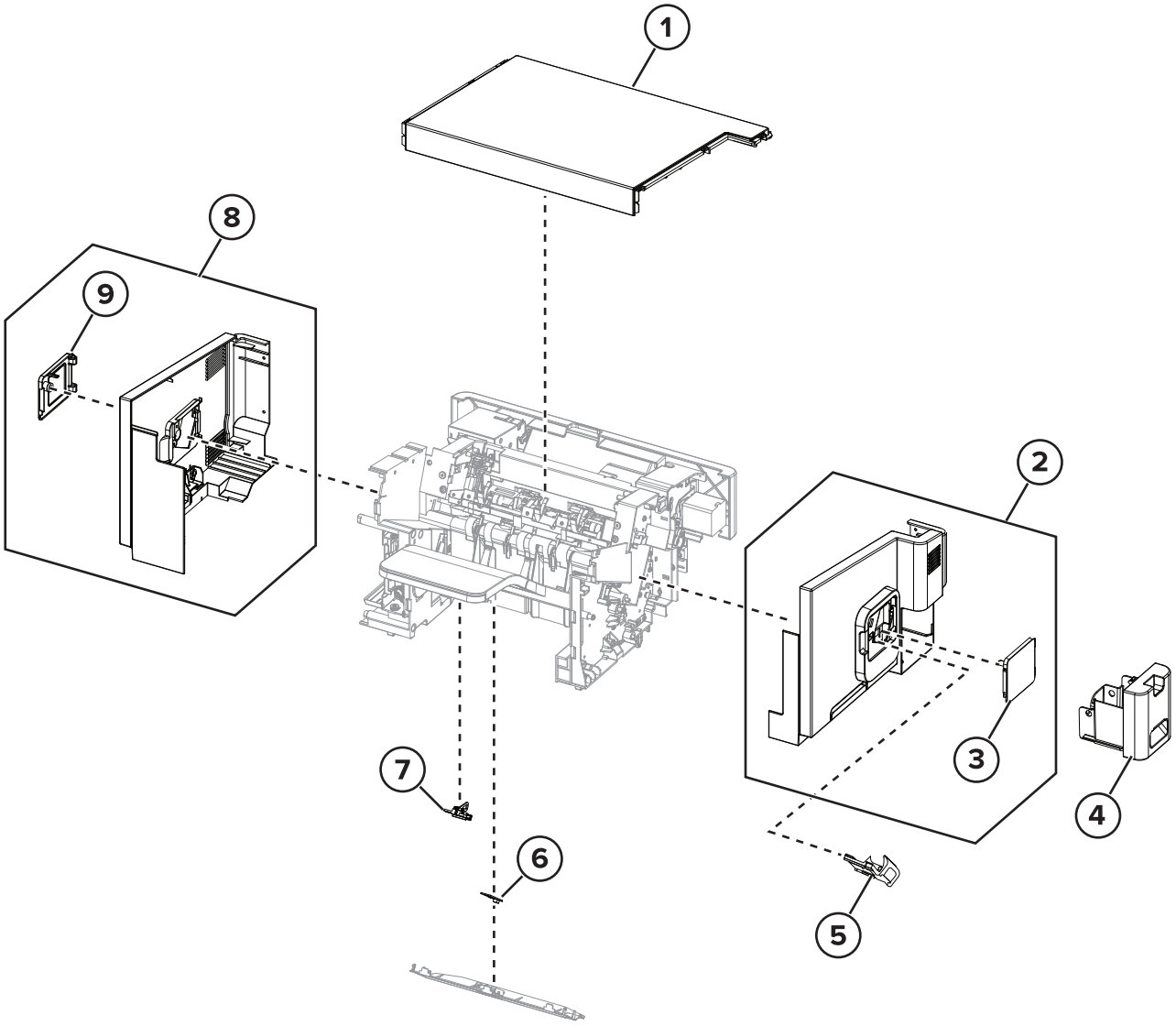
Assembly 52: Mailbox 3



Assembly 52: Mailbox 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8196	1	1	Mailbox top cover	“Mailbox top cover removal” on page 690
2	40X8720	1	1	Mailbox top bin cover with bail	“Mailbox top bin cover with bail removal” on page 694
3	40X8719	1	1	Sensor (mailbox pass-through)	“Sensor (mailbox pass-through) removal” on page 735
4	40X8725	1	1	Mailbox top diverter spring	“Mailbox top diverter spring removal” on page 731
5	40X8723	1	1	Mailbox top diverter	“Mailbox top diverter removal” on page 725
6	40X8724	3	1	Mailbox middle diverter	“Mailbox middle diverter removal” on page 730
7	41X1870	1	1	Mailbox rear door	“Mailbox rear door removal” on page 691

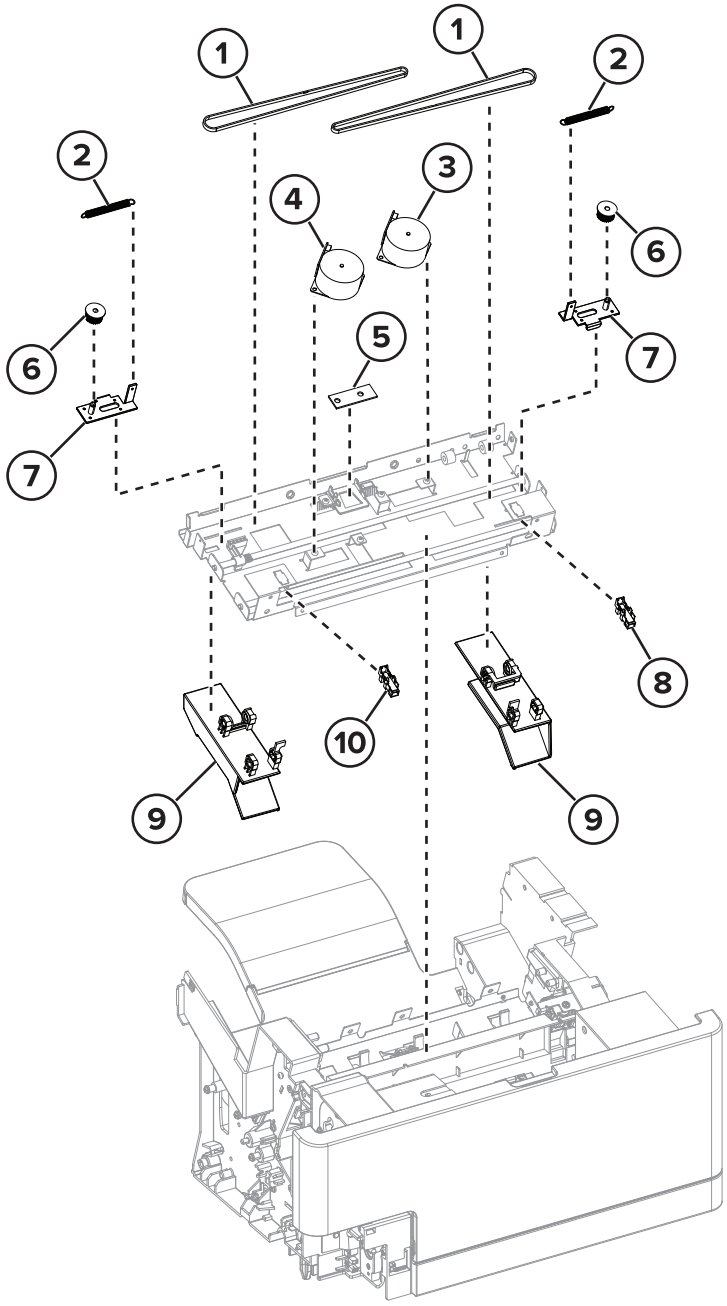
Assembly 53: Staple, hole punch finisher 1



Assembly 53: Staple, hole punch finisher 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8547	1	1	Staple, hole punch finisher top cover	“Staple, hole punch finisher top cover removal” on page 745
2	41X1719	1	1	Staple, hole punch finisher right cover	“Staple, hole punch finisher right cover removal” on page 743
3	41X1701	1	1	Staple cartridge access door	“Staple cartridge access door removal” on page 683
4	41X2202	1	1	Hole punch box	--
5	40X7466	1	1	Staple cartridge holder	“Staple cartridge holder removal” on page 746
6	41X1704	1	1	Standard bin LED	--
7	41X0724	1	1	Sensor (SHPF bin paper present)	--
8	41X1718	1	1	Staple, hole punch finisher left cover	“Staple, hole punch finisher left cover removal” on page 741
9	41X2166	1	1	Left staple cartridge access door	“Left staple cartridge access door removal” on page 741

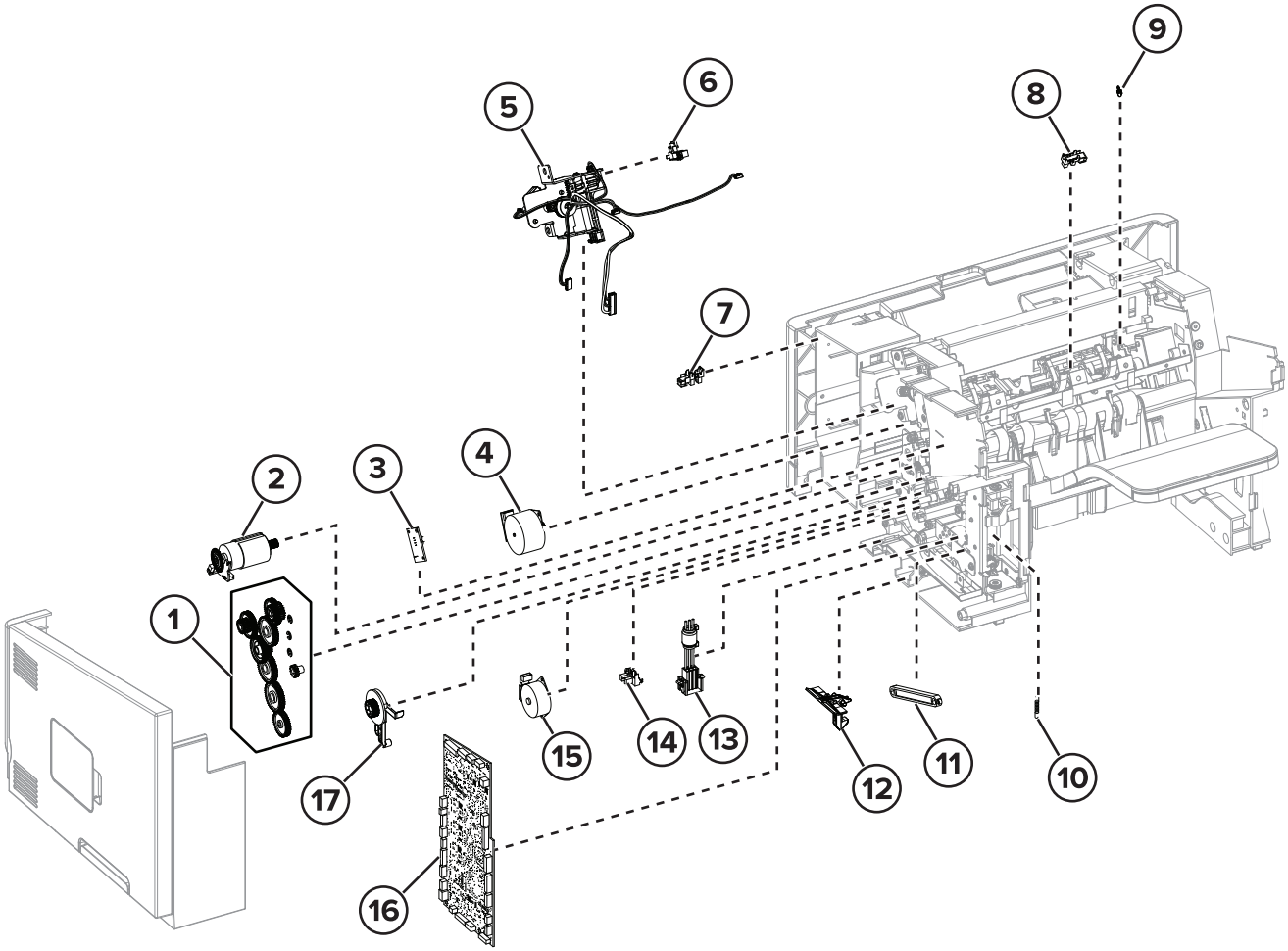
Assembly 54: Staple, hole punch finisher 2



Assembly 54: Staple, hole punch finisher 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8212	2	1	Tamper drive belt	--
2	41X1705	2	1	Tamper spring	--
3	40X8211	1	1	Motor (SHPF right tamper)	--
4	40X8211	1	1	Motor (SHPF left tamper)	--
5	41X1704	1	1	Staple, hole punch finisher bin LED	--
6	41X0664	2	1	Tamper gear	--
7	41X2196	2	1	Tamper bracket	--
8	41X1238	1	1	Sensor (SHPF left tamper)	--
9	41X2160	1	1	Tamper aligner	--
10	41X1238	1	1	Sensor (SHPF right tamper)	--

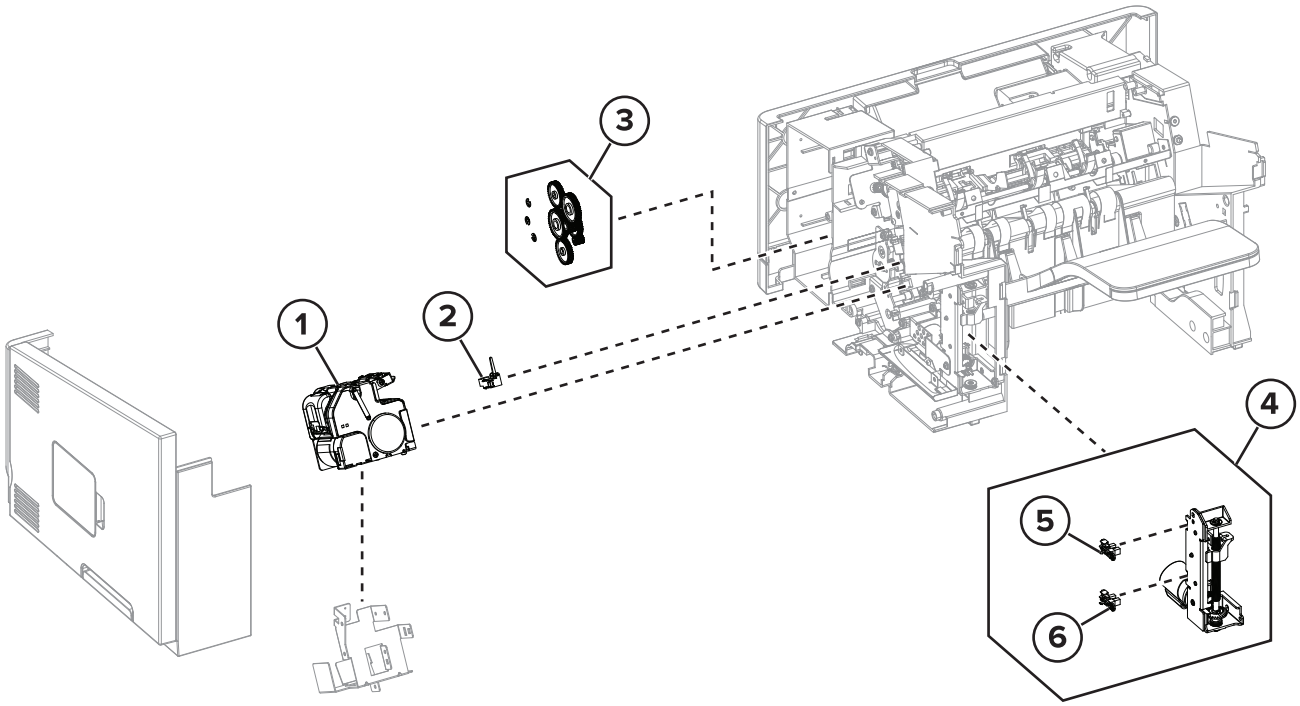
Assembly 55: Staple, hole punch finisher 3



Assembly 55: Staple, hole punch finisher 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2175	1	1	SHPF drive gear assembly	“SHPF drive gear assembly removal” on page 758
2	41X0529	1	1	Motor (SHPF transport)	“Motor (SHPF transport) removal” on page 755
3	41X0802	1	1	Sensor (SHPF bin full)	“Sensor (SHPF bin full send) removal” on page 775 and “Sensor (SHPF bin full receive) removal” on page 776
4	40X8213	1	1	Motor (SHPF paddle)	“Motor (SHPF paddle) removal” on page 748
5	41X2187	1	1	SHPF stack height assembly	--
6	41X0798	1	1	Sensor (SHPF stack height)	--
7	41X1238	1	1	Sensor (SHPF rear door interlock)	“Sensor (SHPF rear door interlock) removal” on page 760
8	41X1238	1	1	Sensor (SHPF paddle)	“Sensor (SHPF paddle) removal” on page 778
9	41X2192	1	1	Paddle spring	--
10	41X1710	2	1	SHPF bin link tension spring	“SHPF bin link tension spring removal” on page 773
11	40X8744	2	1	SHPF bin link assembly	“SHPF bin link assembly removal” on page 774
12	40X8721	2	1	Staple, hole punch finisher latch	“Staple, hole punch finisher latch removal” on page 778
13	40X8224	1	1	Staple, hole punch finisher interface cable	“Staple, hole punch finisher interface cable removal” on page 753
14	41X0798	1	1	Sensor (SHPF diverter plunger)	--
15	40x8256	1	1	Motor (SHPF diverter plunger)	“Motor (SHPF diverter plunger) removal” on page 754
16	41X1708	1	1	Staple, hole punch finisher controller board	“Staple, hole punch finisher controller board removal” on page 747
17	40X8722	1	1	SHPF diverter plunger assembly	“SHPF diverter plunger assembly removal” on page 757

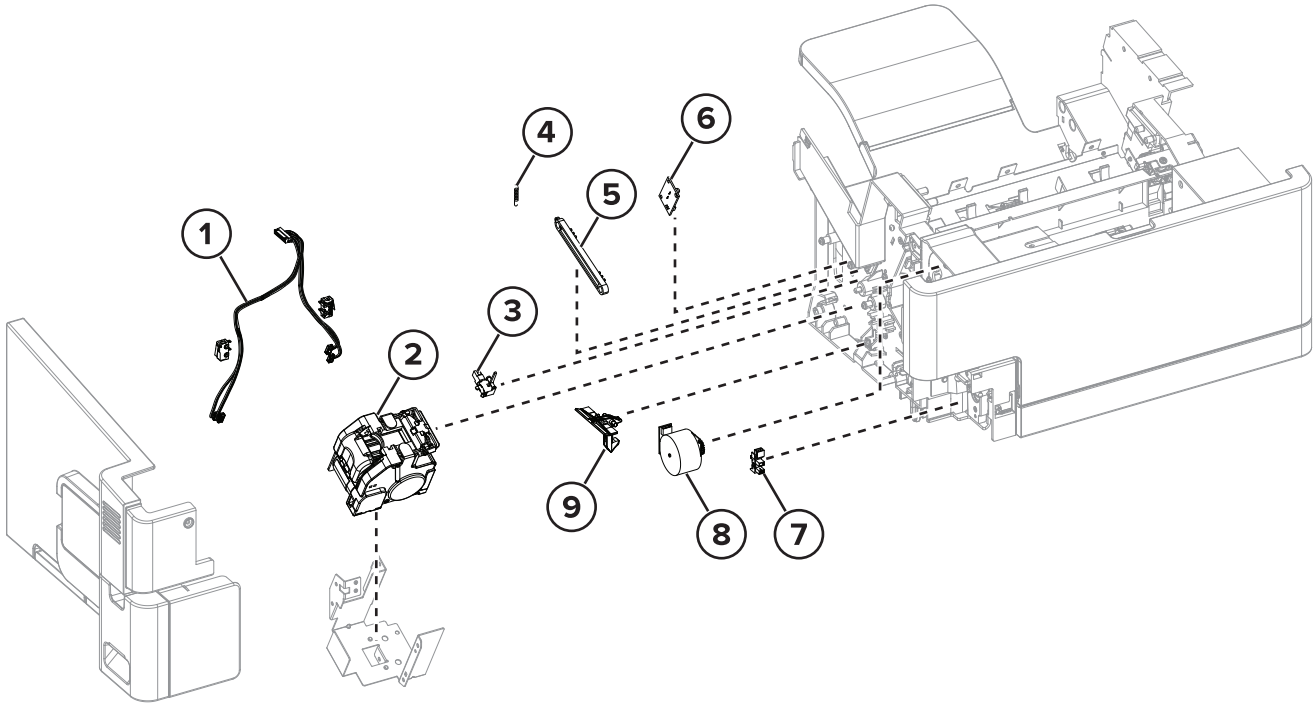
Assembly 56: Staple, hole punch finisher 4



Assembly 56: Staple, hole punch finisher 4

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0654	1	1	Left staple unit	“Left staple unit removal” on page 751
2	40X8745	2	1	Sensor (SHPF staple throat paper present)	“Left staple unit removal” on page 751
3	41X2175	1	1	SHPF drive gear assembly	“Punch drive gears removal” on page 762
4	41X1709	1	1	Staple, hole punch finisher elevator drive	“Staple, hole punch finisher elevator drive removal” on page 764
5	41X0709	1	1	Sensor (SHPF elevator, top)	“Staple, hole punch finisher elevator drive removal” on page 764
6	41X0709	1	1	Sensor (SHPF elevator, bottom)	“Staple, hole punch finisher elevator drive removal” on page 764

Assembly 57: Staple, hole punch finisher 5



Assembly 57: Staple, hole punch finisher 5

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1702	1	1	SHPF staple cartridge door close limit switch	**“SHPF staple cartridge door close limit switch removal” on page 748**
2	41X0654	1	1	Right staple unit	**“Right staple unit removal” on page 768**
3	40X8745	2	1	Sensor (SHPF staple throat paper present)	**“Sensor (SHPF staple throat paper present) removal” on page 771**
4	40X8742	2	1	SHPF bin link tension spring	**“SHPF bin link tension spring removal” on page 773**
5	40X8744	2	1	SHPF bin link assembly	**“SHPF bin link assembly removal” on page 774**
6	41X0802	1	1	Sensor (bin full)	**“Sensor (SHPF bin full send) removal” on page 775** and **“Sensor (SHPF bin full receive) removal” on page 776**
7	41X1238	1	1	Sensor (hole punch box present)	**“Sensor (hole punch box present) removal” on page 770**
8	41X2178	1	1	Motor (HPU carriage)	**“Motor (HPU carriage) removal” on page 768**
9	40X8721	2	1	Staple, hole punch finisher latch	**“Staple, hole punch finisher latch removal” on page 778**

Printer specifications

Power consumption

Product power consumption

The following table documents the power consumption characteristics of the product.

Note: Some modes may not apply to your product.

Mode	Description	Power consumption (Watts)
Printing	The product is generating hard-copy output from electronic inputs.	825 (MX721, MX722, MB2770, XM53xx); 925 (MX725); 760 (MX822, XM7355); 960 (MX826, XM7370)
Copy	The product is generating hard-copy output from hard-copy original documents.	860 (MX721, MX722, MB2770, XM53xx); 960 (MX725); 820 (MX822, XM7355); 1020 (MX826, XM7370)
Scan	The product is scanning hard-copy documents.	130 (MX72x, MB2770, XM53xx); 140 (MX82x, XM73xx)
Ready	The product is waiting for a print job.	Higher power usage: 110 (MX72x, MB2770, XM53xx), 120 (MX82x, XM73xx); Lower power usage: 55 (MX72x, MB2770, XM53xx), 70 (MX82x, XM73xx)
Sleep Mode	The product is in a high-level energy-saving mode.	14 (MX721, MX722, MB2770, XM53xx); 15 (MX725); 16 (MX82x, XM73xx)
Hibernate	The product is in a low-level energy-saving mode.	0.7 (MX72x, MB2770, XM53xx); 0.3 (MX82x, XM73xx)
Off	The product is plugged into an electrical outlet, but the power switch is turned off.	0.2

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average.

Values are subject to change. See **www.lexmark.com** for current values.

Sleep Mode

This product is designed with an energy-saving mode called *Sleep Mode*. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the *Sleep Mode Timeout*.

Factory default Sleep Mode Timeout for this product (in minutes):	15

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes. Setting the Sleep Mode Timeout to a low value reduces energy consumption, but may increase the response time of the product. Setting the Sleep Mode Timeout to a high value maintains a fast response, but uses more energy.

Hibernate Mode

This product is designed with an ultra-low power operating mode called *Hibernate mode*. When operating in Hibernate Mode, all other systems and devices are powered down safely.

The Hibernate mode can be entered in any of the following methods:

- Using the Hibernate Timeout
- Using the Schedule Power modes

Factory default Hibernate Timeout for this product in all countries or regions	3 days

The amount of time the printer waits after a job is printed before it enters Hibernate mode can be modified between one hour and one month.

Off mode

If this product has an off mode which still consumes a small amount of power, then to completely stop product power consumption, disconnect the power supply cord from the electrical outlet.

Total energy usage

It is sometimes helpful to calculate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum of each mode's energy usage.

Selecting a location for the printer

- 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 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	-40 to 43.3°C (-40 to 110°F)

- Allow the following recommended amount of space around the printer for proper ventilation:

1	Top	152 mm (6 in.)
2	Rear	152 mm (6 in.)
3	Right side	152 mm (6 in.)
4	Front	406 mm (16 in.)
5	Left side	152 mm (6 in.)

Noise emission levels

The following measurements were made in accordance with ISO 7779 and reported in conformance with ISO 9296.

Note: Some modes may not apply to your product.

1-meter average sound pressure, dBA	
Printing	58 (MX72x, MB2770, XM53xx); 55 (MX822, XM7355); 56 (MX826, XM7370)
Scanning	57
Copying	58 (MX72x, MB2770, XM53xx); 55 (MX822, XM7355); 56 (MX826, XM7370)
Ready	33 (MX72x, MB2770, XM53xx); 30 (MX822, XM7355); 31 (MX826, XM7370)

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 15.3 to 32.2°C (60 to 90°F) and 8 to 15% RH Maximum wet bulb temperature: 22.8°C (73°F)
Printer / cartridge / imaging unit long-term storage[1]	
Printer / cartridge / imaging unit short-term shipping	-40 to 43.3°C (-40 to 110°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.

Enabling the security reset jumper

The security reset jumper can reset a printer that is locked due to a forgotten password or lost network connectivity.

Notes:

- Resetting the printer deletes all security settings.
- Before changing the security settings, ask for permission from your administrator.

1. Turn off the printer.
2. Access the controller board.
3. Move the jumper to cover the middle and exposed prongs.

   Note: The small yellow jumper is located beside a lock icon on the controller board.
4. Turn on the printer.

Invalidating the effects of a jumper reset

1. From the Embedded Web Server, click **Settings** > **Security** > **Miscellaneous Security Settings**.
2. From the Security Reset Jumper menu, select **No Effect**.

   Warning: This setting disables access to the security menus of a locked printer. To regain access to the menus, replace the controller board.
3. Click **Submit**.

Notes:

- Use a cable lock to secure the controller board and prevent a malicious reset.
- For multifunction products, when the controller board is replaced, the security settings are lost and the LDAP configuration and Copy function are no longer protected.

Printer skew specifications

Abnormal skew printer correction

1. The repair operator should evaluate the left edge of the paper to determine if the aligner is properly set. If the left vertical line is with the defined limit, parallel to the edge of the paper, the aligner is correct and properly set. If the left edge vertical line is not within the defined limit spec the repair operator can adjust the aligner at the repair station.
2. The repair operator should evaluate the horizontal line at the top edge of the page for potential LSU induced skew. If the horizontal line does not fall within the defined limit or spec, then it is considered skewed and the printhead must be adjusted. See **"Polygon printhead mechanical registration adjustment" on page 450**.

	Side 1	Side 2
Print sequence through printer	2nd	1st
16 lb-to-24 lb	+/-0.007 mm/mm	+/-0.005 mm/mm
All Other Papers	+/-0.010 mm/mm	+/-0.005 mm/mm
Card Stock	+/-0.007 mm/mm	+/-0.007 mm/mm
Paper, dual-Web paper labels	+/-0.010 mm/mm	+/-0.010 mm/mm
Vinyl, Polyester labels (less than or equal 92# liner)	+/-0.010 mm/mm	+/-0.010 mm/mm

Print registration

Initial adjustment (adjustable in increments of T=0.3mm, B-0.5mm, R and L=0.2mm):

- Left print position accuracy (scanning direction): +/-0.5mm - start on scan
- Top print position accuracy (feeding direction): +/-0.5 mm - start on scan
- Horizontal page width accuracy: +/-0.5mm - mirror motor
- Vertical page length accuracy: +/-0.5mm - drive motor

Print position error

The print position error can be measured at any point in the printable area using core media papers:

- Vertical (process): +/-0.7mm
- Horizontal (magnification): +/-0.7mm

Options and features

Available internal options

- Flash memory
- Font cards
- Firmware cards
  - Forms and Bar Code
  - PRESCRIBE
  - IPDS
- Printer hard disk
- Internal solutions port
  - Parallel 1284-B Interface Card
  - RS-232C Serial Interface Card
  - Fiber Interface Card
  - N8350 802.11b/g/n Wireless Print Server Interface Card

Optional trays supported

- 550-sheet tray
- 550-sheet lockable tray
- 250-sheet tray (for MX72x machines only)
- 250-sheet lockable tray (for MX72x machines only)
- 2100-sheet tray

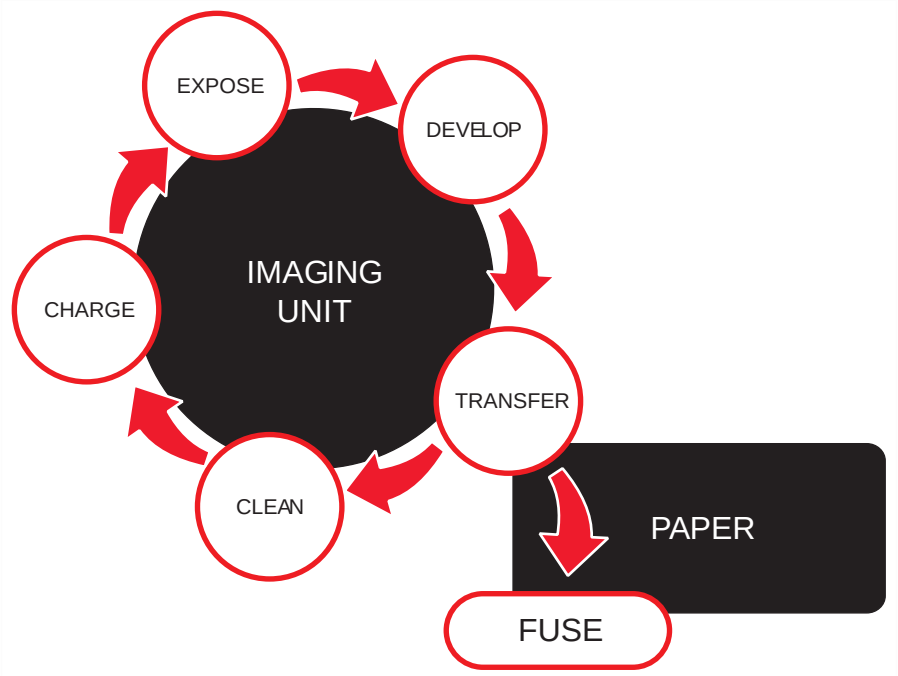
Optional bins supported

- 4-bin mailbox
- Staple finisher
- Staple, hole punch finisher
- Offset stacker

Theory of operation

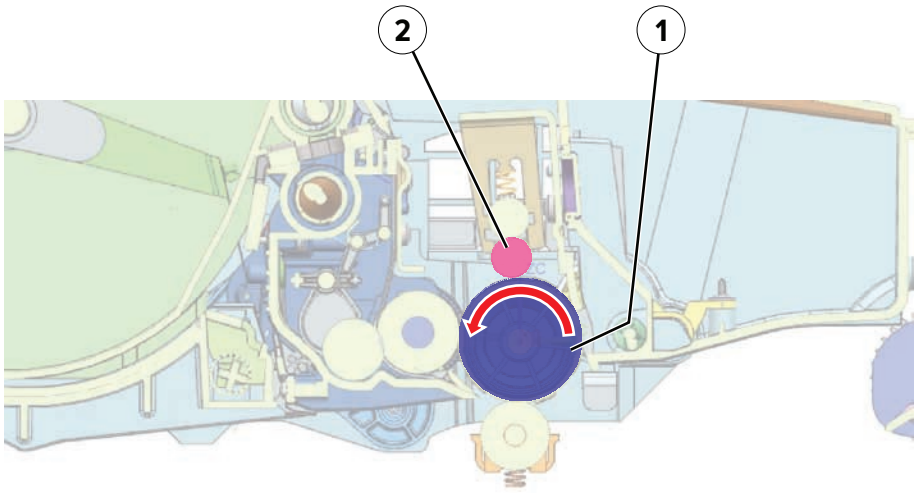
Print cycle operation

Flowchart



Electrophotographic (EP) process

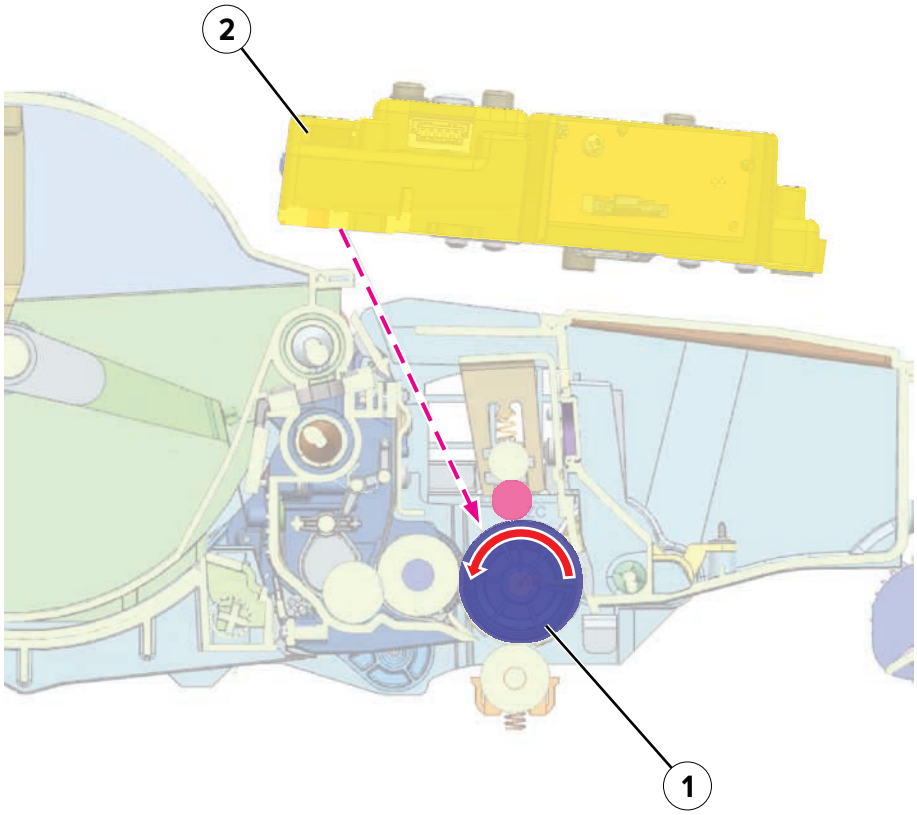
Charge



1	Photoconductor drum
2	Charge roller

A uniform negative electrical charge is applied by the charge roller to the surface of the photoconductor drum. The photoconductive properties of the surface material allow it to hold the charge as long as it is not exposed to light.

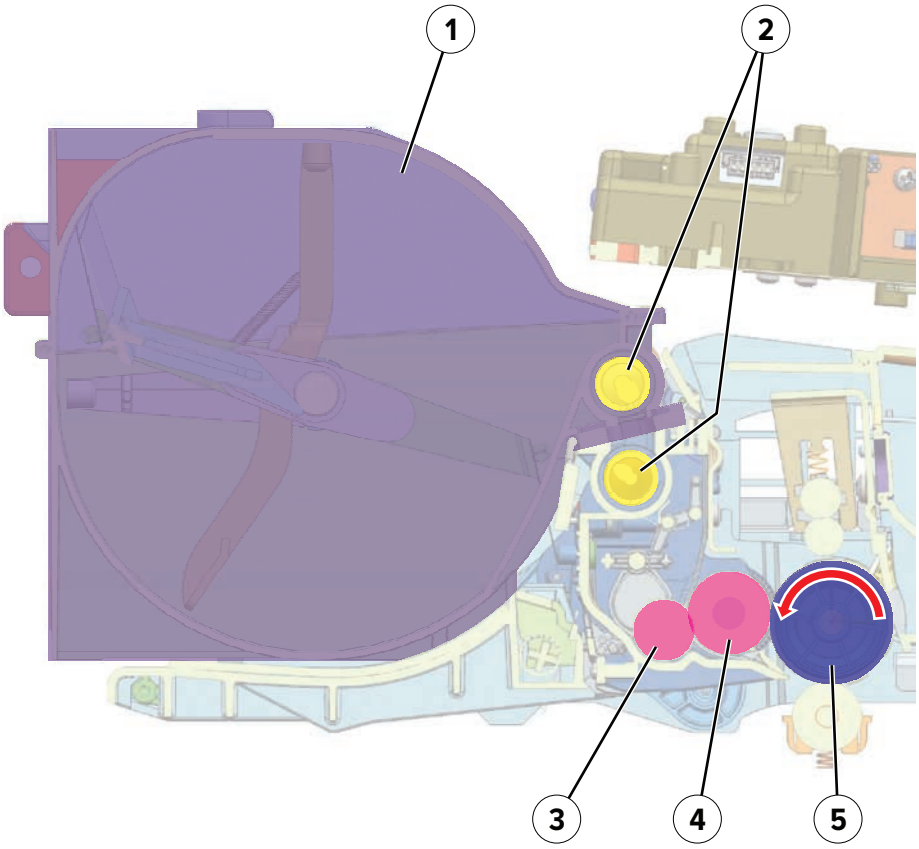
Expose



1	Photoconductor drum
2	Printhead

The printhead emits the light that contacts the surface of the photoconductor drum. The light turns on or off coinciding with the digital latent image. The light causes areas of the photoconductor drum surface to lose charge, resulting in a relative opposite polarity.

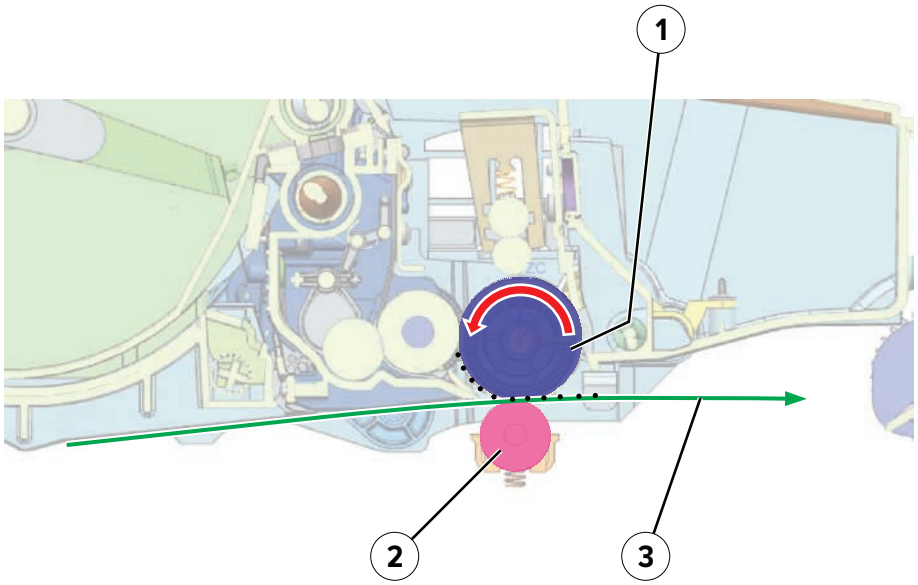
Develop



1	Toner cartridge
2	Augers
3	Toner add roller
4	Developer roller
5	Photoconductor drum

The developer roller applies the toner from the toner cartridge to the photoconductor drum. The difference in charge cause the toner particles to attract to the photoconductor drum areas which were exposed to light.

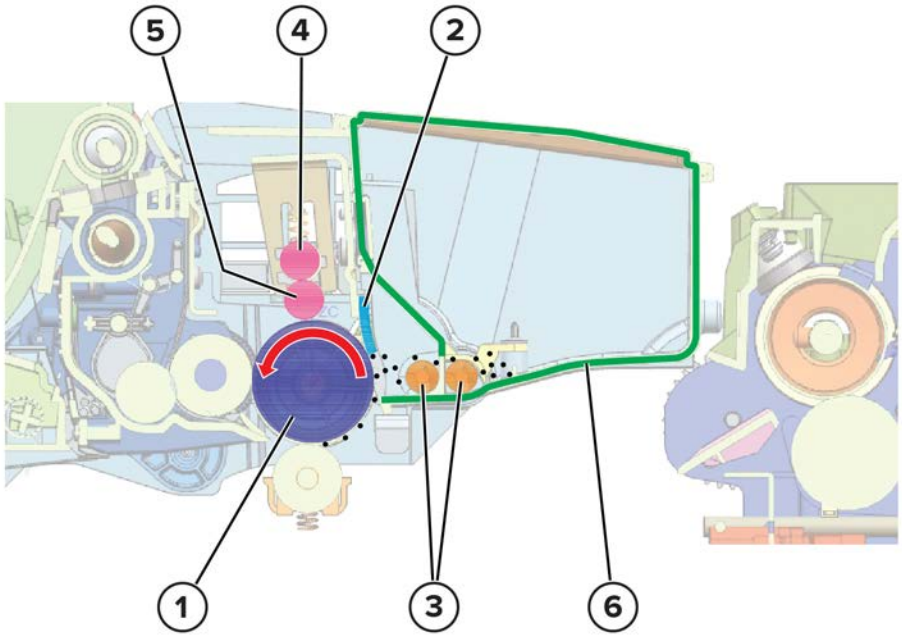
Transfer



1	Photoconductor drum
2	Transfer roller
3	Paper

The developed image transfers from the photoconductor drum to the paper. The polarity of the transfer roller attracts the toner to the paper surface.

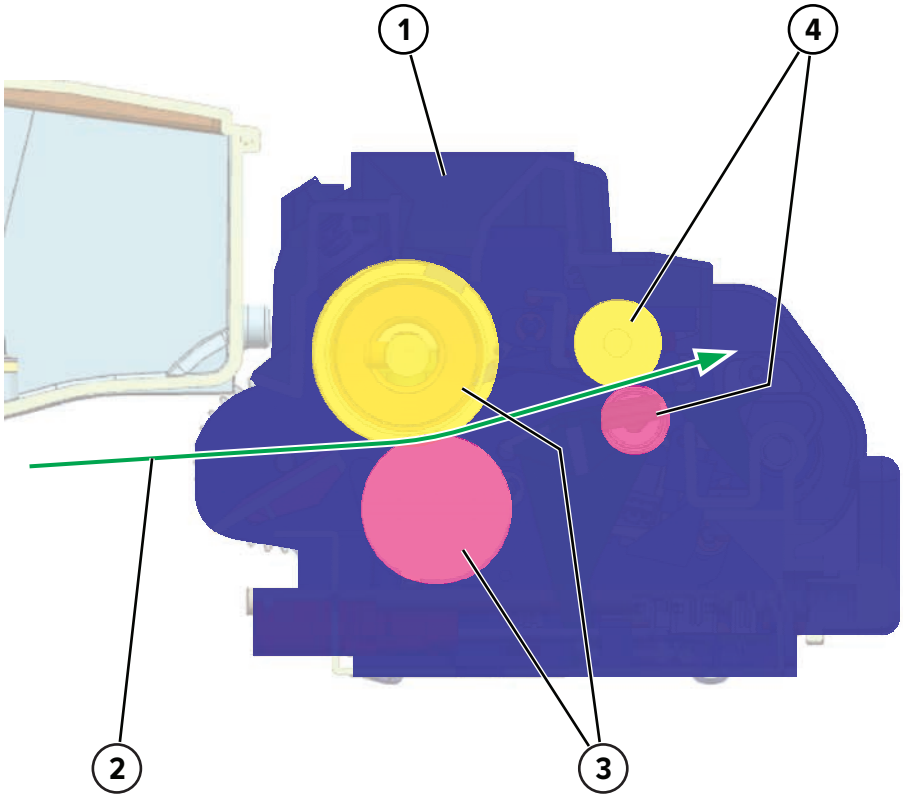
Clean



1	Photoconductor drum
2	Cleaning blade
3	Augers
4	Cleaning roller
5	Charge roller
6	Waste toner chamber

The cleaning blade removes the toner residue from the photoconductor drum. The cleaning roller removes the toner residue from the charge roller. The cycle (charge, expose, develop, transfer, clean) repeats until the whole image is transferred to the paper.

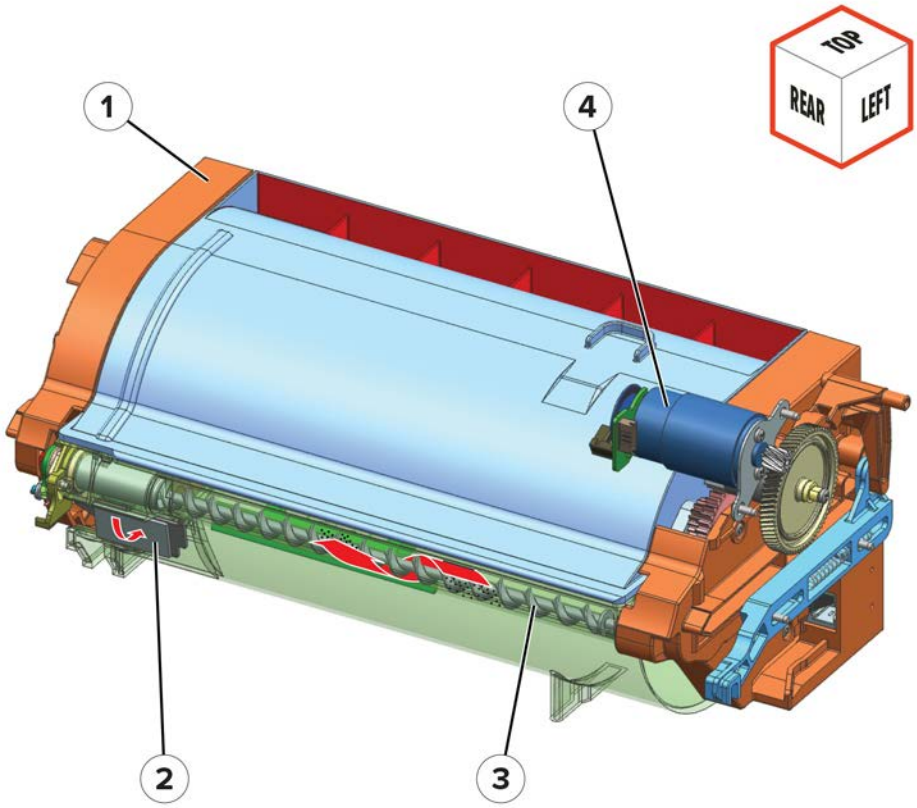
Fuse



1	Fuser unit
2	Paper
3	Fuser rollers
4	Fuser exit rollers

Even if the toner image is already on the paper, the toner particles are not yet permanently bonded to the surface. For the final part of printing, the paper is transported 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.

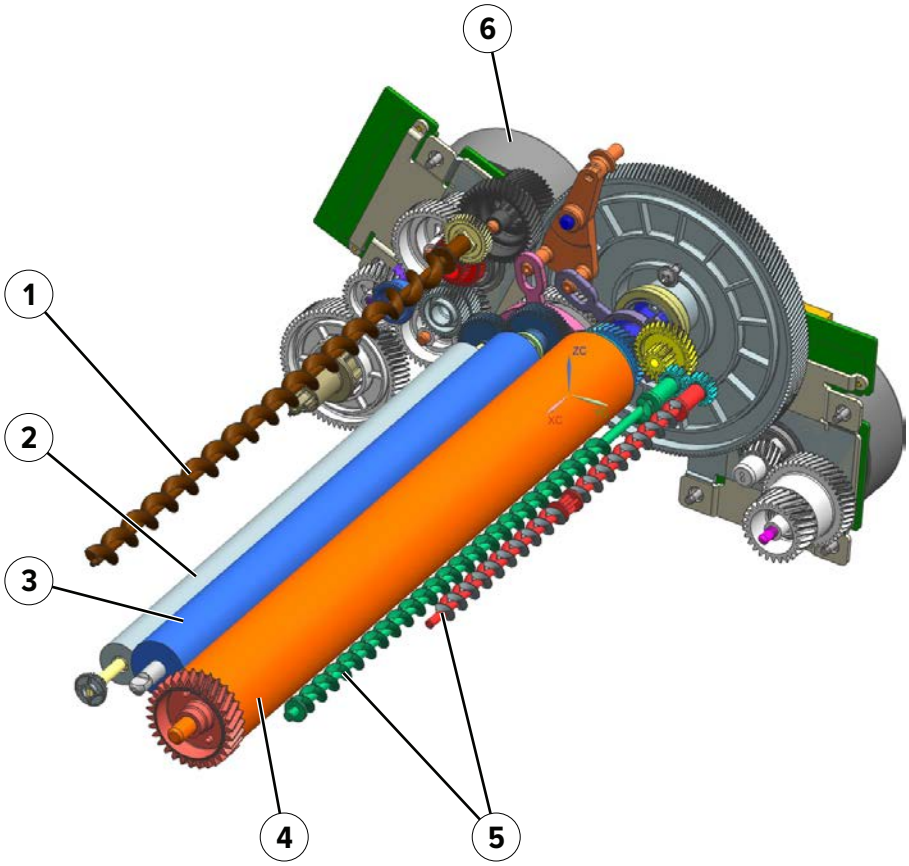
Fresh toner delivery drive



1	Toner cartridge
2	Shutter
3	Auger
4	Motor (toner cartridge)

The toner cartridge supplies fresh toner to the imaging unit. When the cartridge is installed, the shutter opens to enable toner delivery. Inside the cartridge, paddles agitate the toner to ensure proper circulation. The auger directs the toner particles toward the toner outlet. The paddles and auger are driven by the motor (toner cartridge).

Main drive

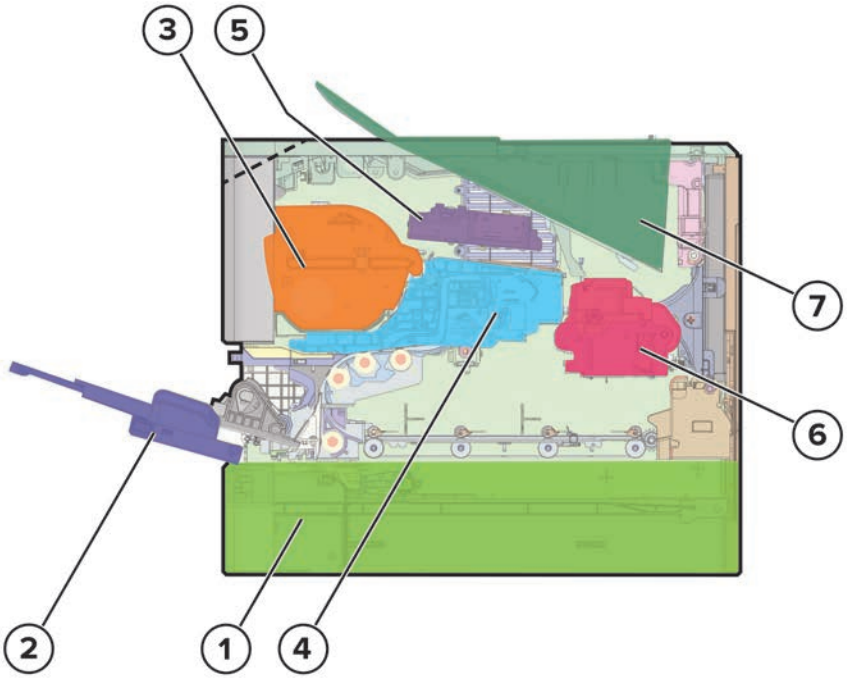


1	Developer auger
2	Toner add roller
3	Developer roller
4	Photoconductor drum
5	Waste toner augers
6	Motor (main)

Inside the imaging unit, the developer roller applies the toner to the photoconductor drum surface. The developer auger and toner add roller ensure that the proper amount of toner is supplied. Inside the waste toner chamber, waste toner augers collect the waste toner. These augers also maximize the waste toner container capacity. The augers, rollers, and photoconductor drum are driven by the motor (main).

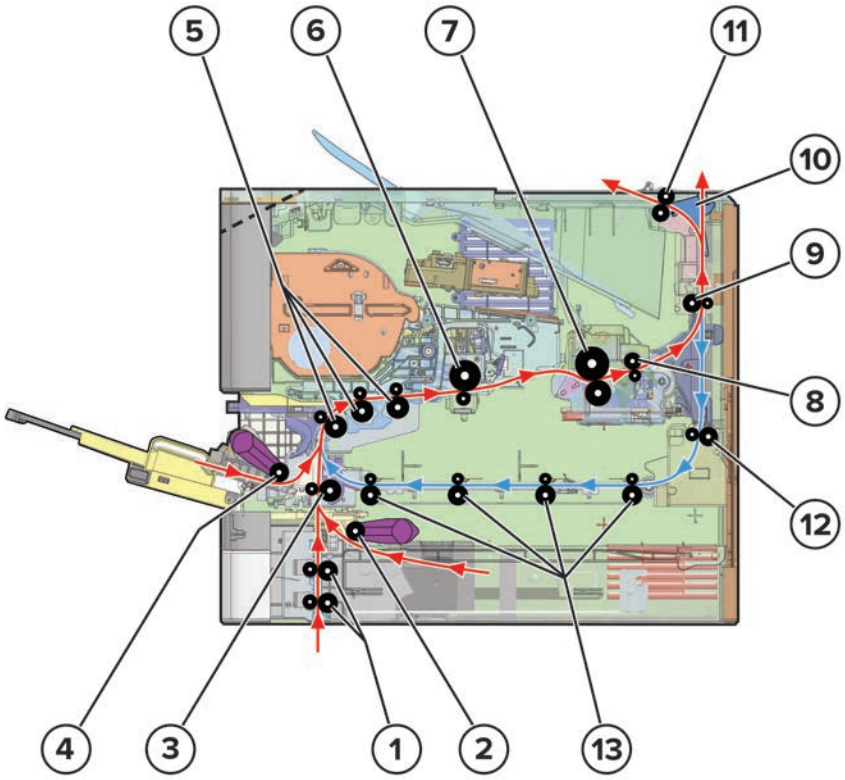
Printer operation

Printer sections



1	Tray 1
2	MPF
3	Toner cartridge
4	Imaging unit
5	Printhead
6	Fuser
7	Bin

Printer paper path rollers



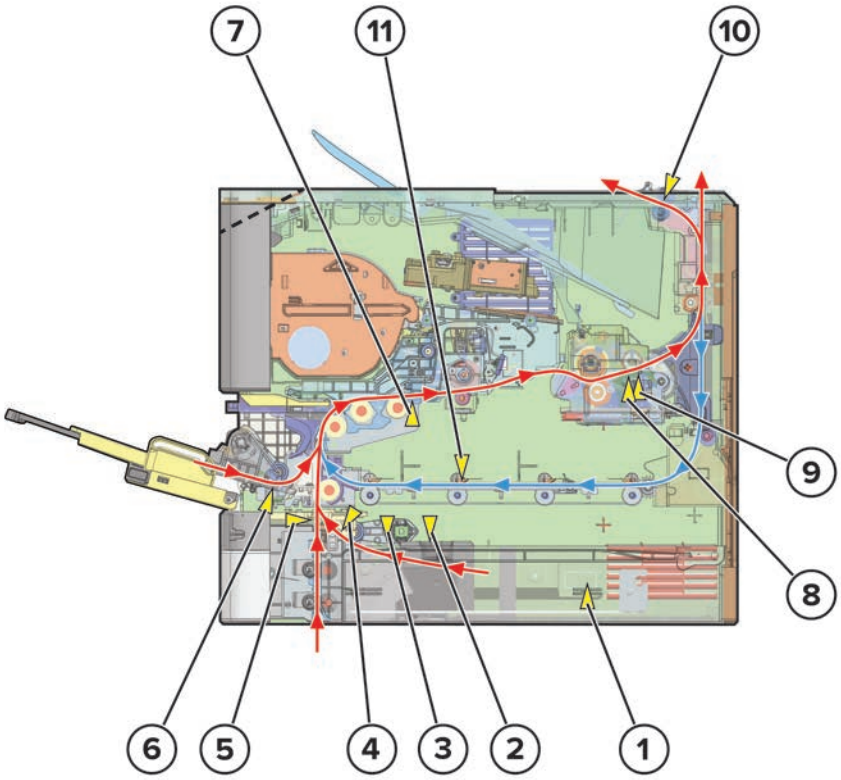
1	Transport rollers
2	Tray 1 pick roller
3	Lower aligner roller
4	MPF pick roller
5	Upper aligner rollers
6	Photoconductor drum
7	Fuser roller/belt
8	Fuser exit roller
9	Lower redrive roller
10	Diverter
11	Upper redrive roller
12	Duplex entry roller
13	Duplex aligner rollers

Paper is fed from tray 1, MPF, or optional trays.

By default, paper will travel along the standard paper path (in red). For print jobs on the opposite page of the paper, paper will reenter the printer following the duplex paper path (in blue).

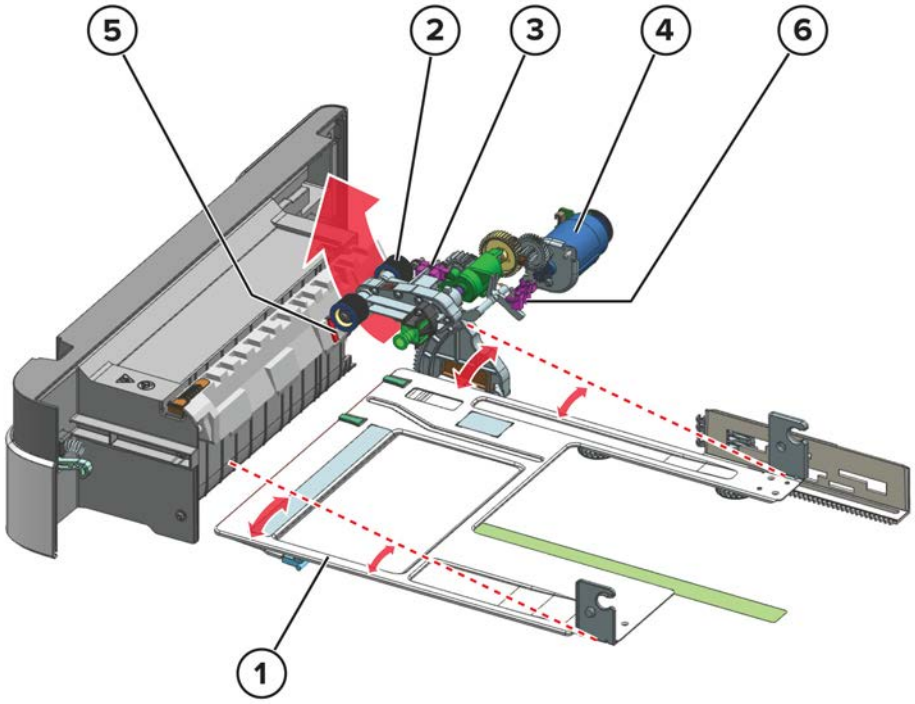
When the print job is done, paper exits the printer into the bin or goes up to the next optional bin.

Printer paper path sensors



#	Sensor	Functions
1	Sensor (paper size)	Detects the position of paper guides for determining size.
2	Sensor (tray 1 paper present)	Detects the presence or absence of paper on the tray.
3	Sensor (pick position)	Detects if the pick roller is in position to pick.
4	Sensor (pick)	Detects the paper as it is picked and fed to the printer.
5	Sensor (tray 1 pass-through)	Detects the paper fed from optional trays as it enters the printer.
6	Sensor (MPF paper present)	Detects the presence or absence of paper on the MPF tray.
7	Sensor (input)	Detects the paper as it passes the transfer roller.
8	Sensor (fuser exit)	Detects the paper as it passes the fuser.
9	Sensor (narrow media) **Note:** This part is found in hot roll fusers only.	Detects if the paper width is narrow.
10	Sensor (exit)	Detects the paper as it exits onto the bin.
11	Sensor (duplex path)	Detects the paper as it travels the duplex paper path.

Tray pick and lift drive



1	Lift plate
2	Pick roller
3	Sensor (pick position)
4	Motor (pick/lift)
5	Separator pad
6	Sensor (paper present)

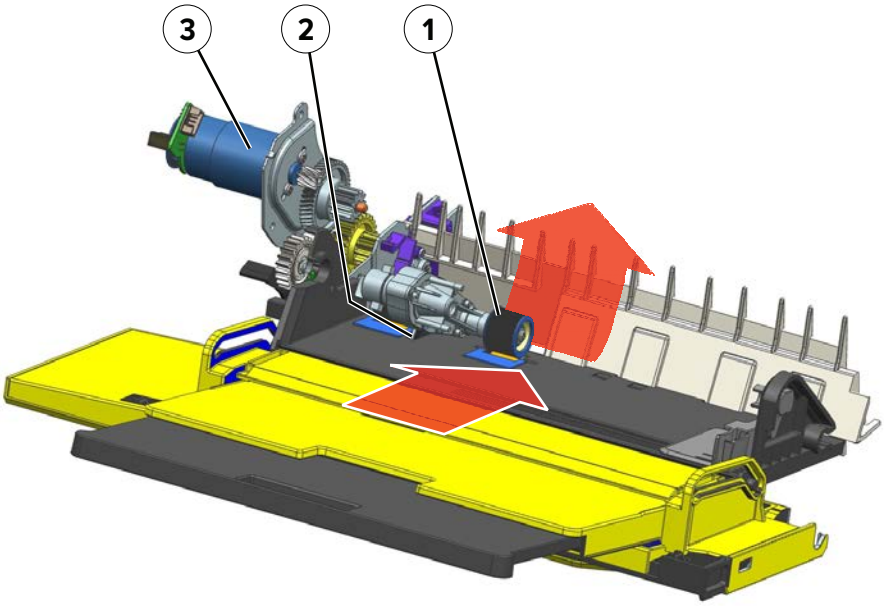
Paper is lifted by the lift plate until the sensor (pick position) is triggered. The motor (pick/lift) starts, and then enables the pick roller to feed the paper into the printer.

Note: The motor (pick/lift) also drives the lift plate when rotating in reverse.

To avoid multi-sheet picking, the friction from the separator pad prevents the extra paper from entering the printer.

The sensor (paper present) detects if the tray is empty.

MPF pick drive

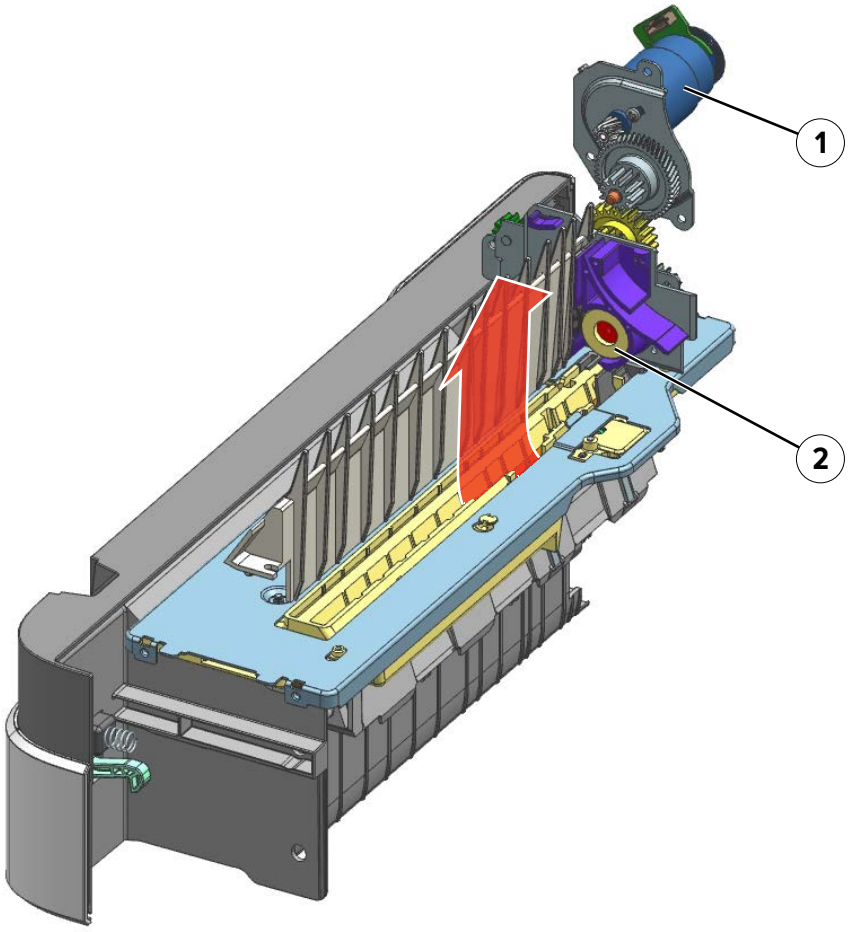


1	Pick roller
2	Sensor (MPF paper present)
3	Motor (MPF)

The MPF pick roller feeds the paper into the printer.

The motor (MPF) controls the pick roller. The sensor (MPF paper present) detects if the MPF tray is empty.

Lower transport drive

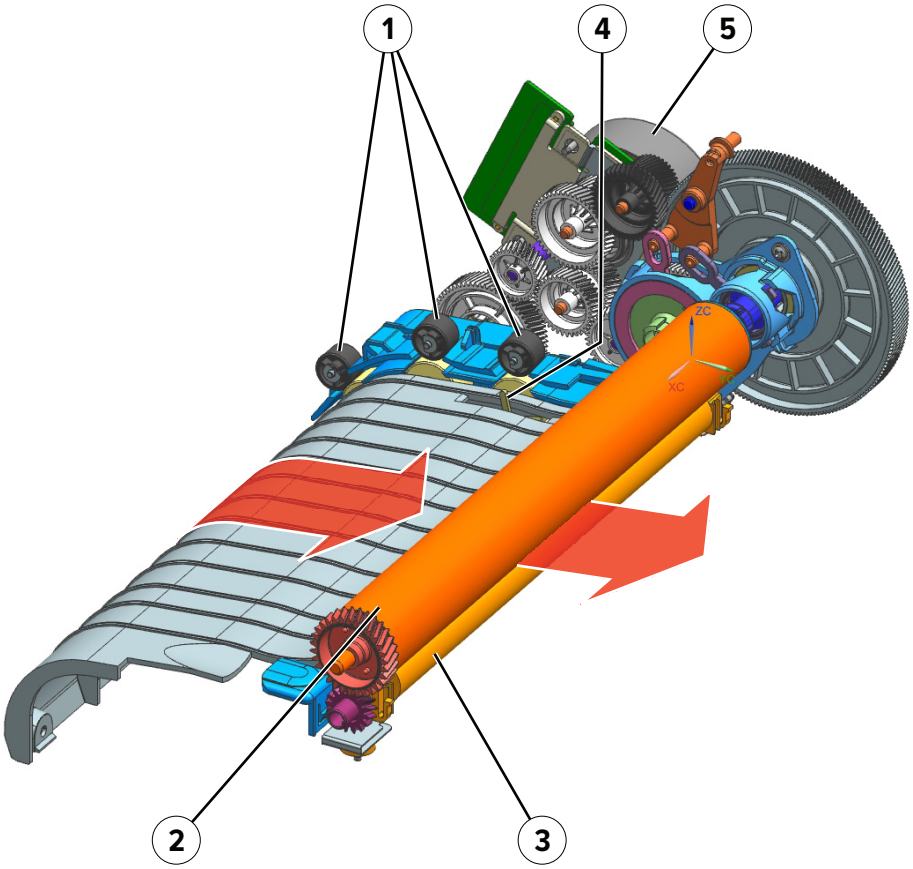


1	Motor (MPF)
2	Lower aligner roller

The motor (MPF) also drives the lower aligner roller.

The roller receives the paper fed from the standard tray or the optional trays.

Main drive

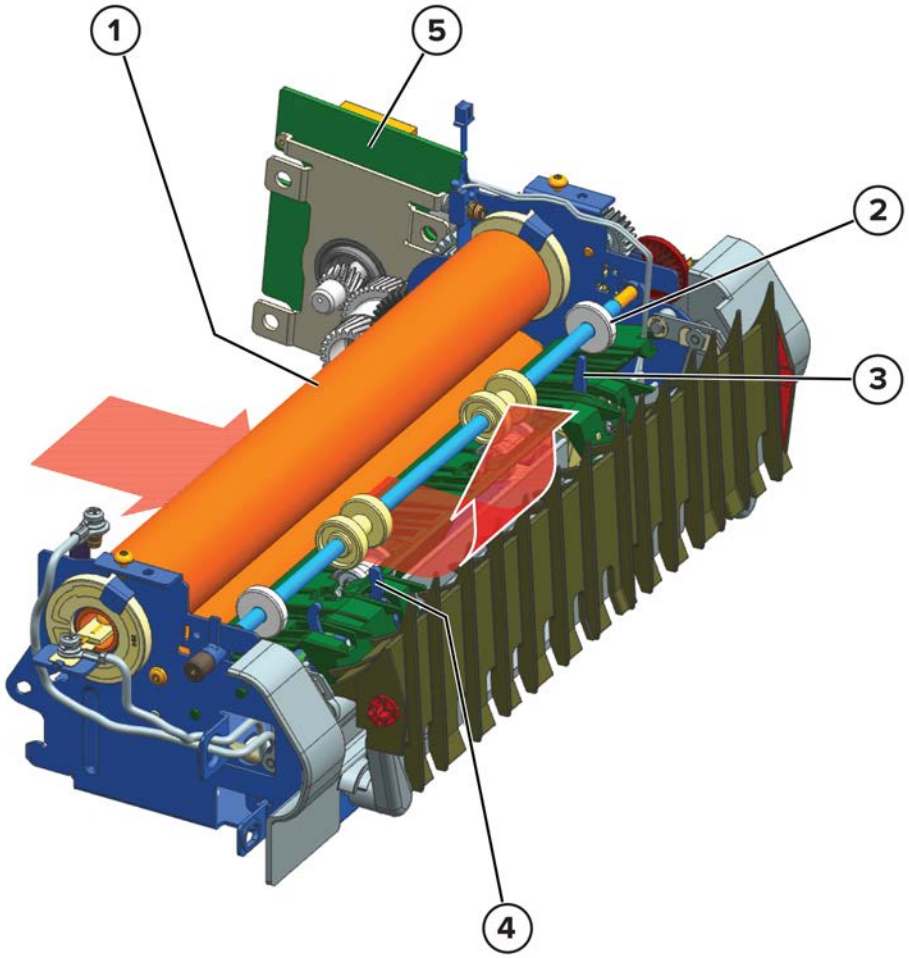


1	Upper aligner rollers
2	Photoconductor drum
3	Transfer roller
4	Sensor (input)
5	Motor (main)

The paper is aligned to its reference edge by the aligner rollers. As the paper is transported by the aligner rollers to the transfer roller, it is detected by the sensor (input).

The upper aligner roller, photoconductor drum, and transfer roller are driven by the motor (main).

Fuser drive



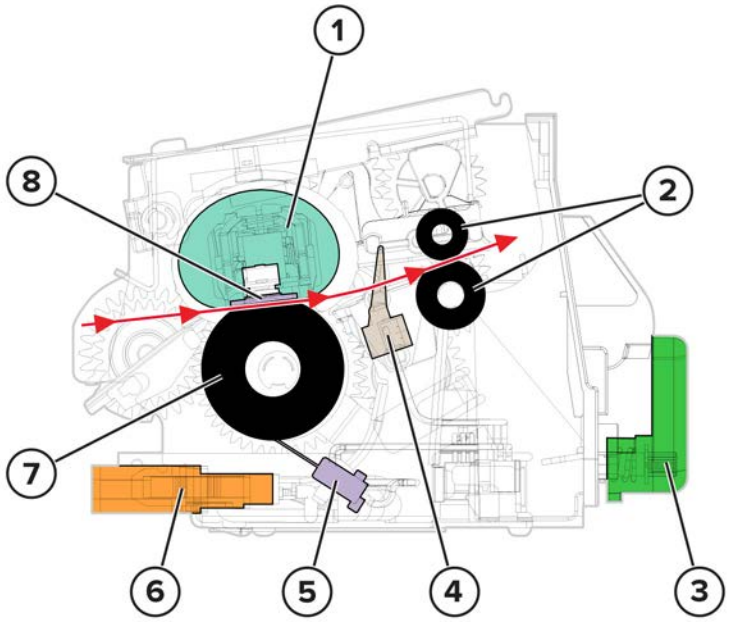
1	Fuser roller/belt
2	Fuser exit roller
3	Sensor (fuser exit)
4	Sensor (narrow media) **Note:** This parts is found in hot roll fusers only.
5	Motor (fuser)

As the paper passes the fuser roller, heat and pressure are applied to permanently bond the toner to the paper.

The fuser exit roller transports the paper to the exit path. The sensor (fuser exit) detects the paper. The sensor (narrow media) is triggered if the paper is narrow.

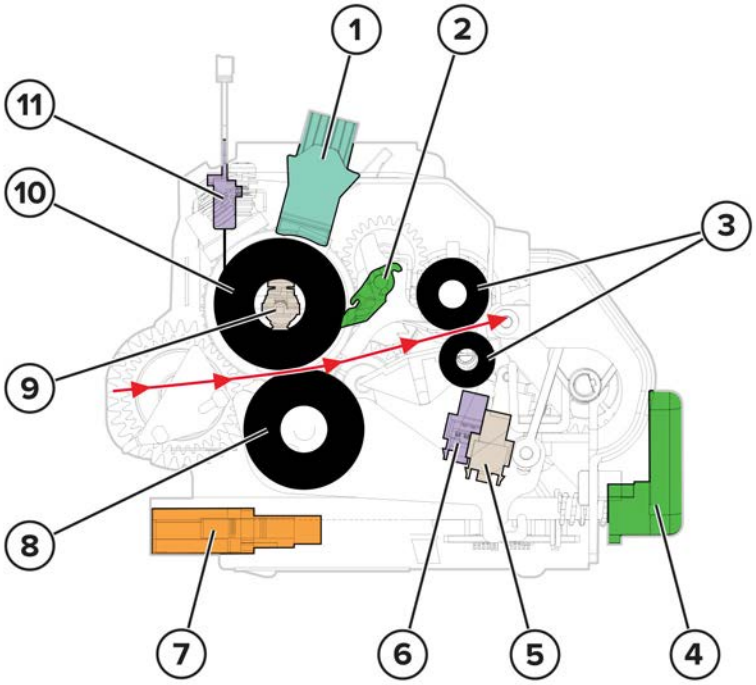
The motor (fuser) drives the fuser roller and fuser exit roller.

Fuser components



Belt fuser components

#	Part	Function
1	Hot belt	Applies heat to the paper.
2	Fuser exit rollers	Transports the paper out of the fuser.
3	Knob	Locks or unlocks the fuser.
4	Sensor (fuser exit)	Detects the paper passing the fuser.
5	Thermistor	Detects the temperature of the fuser.
6	Connector	Automatically connects the fuser to the printer when inserting the fuser.
7	Pressure roller	Applies pressure to the paper.
8	Heater bar	Supplies heat to the fusing process.

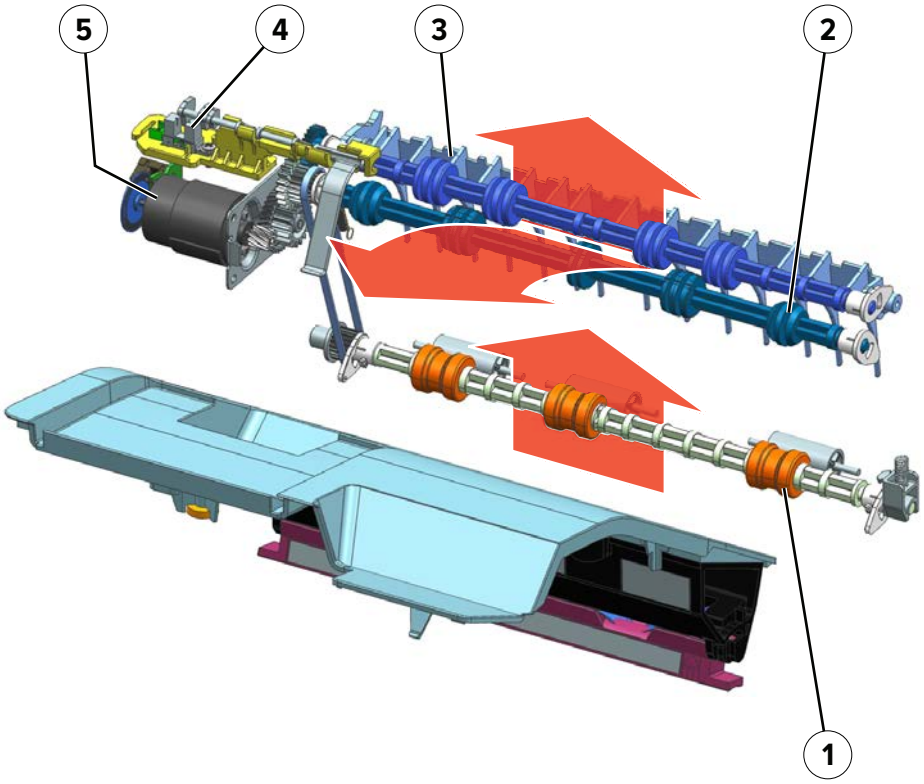


Hot roll fuser components

#	Part	Function
1	Fuser wiper	Cleans the roller.
2	Detack finger	Separates the paper from the roller.
3	Fuser exit rollers	Transports the paper out of the fuser.
4	Knob	Locks or unlocks the fuser.
5	Sensor (narrow media)	Detects paper with narrow width.
6	Sensor (fuser exit)	Detects the paper passing the fuser.
7	Connector	Automatically connects the fuser to the printer after inserting the fuser.
8	Pressure roller	Applies pressure to the paper.
9	Heater lamp	Supplies heat to the fusing process.
10	Hot roller	Applies heat to the paper.
11	Thermistor	Detects the temperature of the fuser.

Upper redrive drive

Exit path

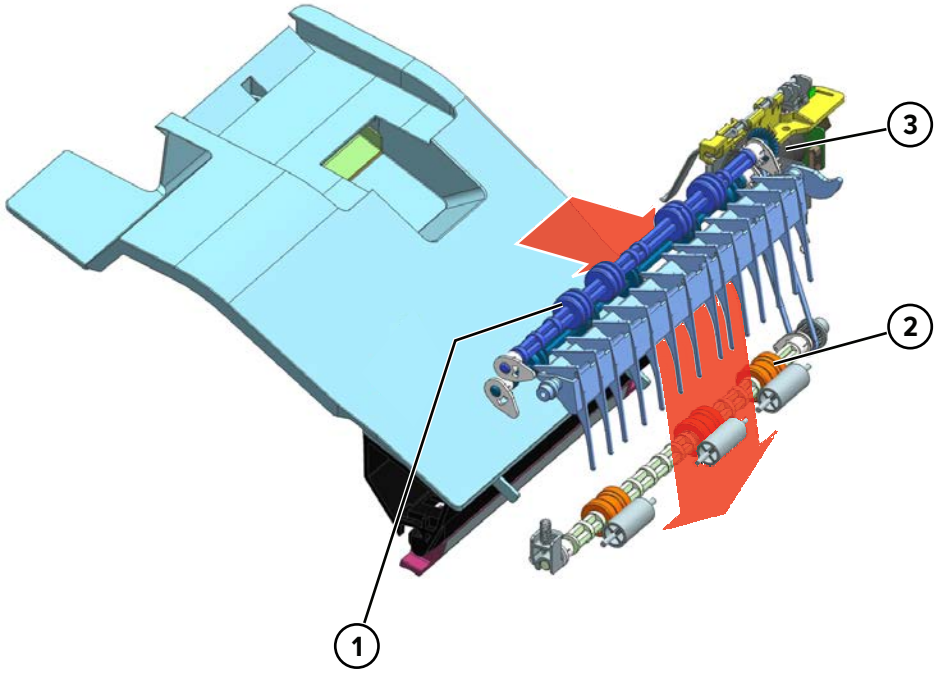


1	Lower redrive roller
2	Upper redrive roller
3	Diverter
4	Sensor (bin full)
5	Motor (redrive)

Paper is ejected by the upper redrive rollers to the bin. By default, the diverter will direct the paper toward the bin. If a plunger changes the position of the diverter, then the paper will move upwards to the optional bin.

The redrive rollers are controlled by the motor (redrive). The sensor (bin full) senses if the bin is already full.

Duplex path

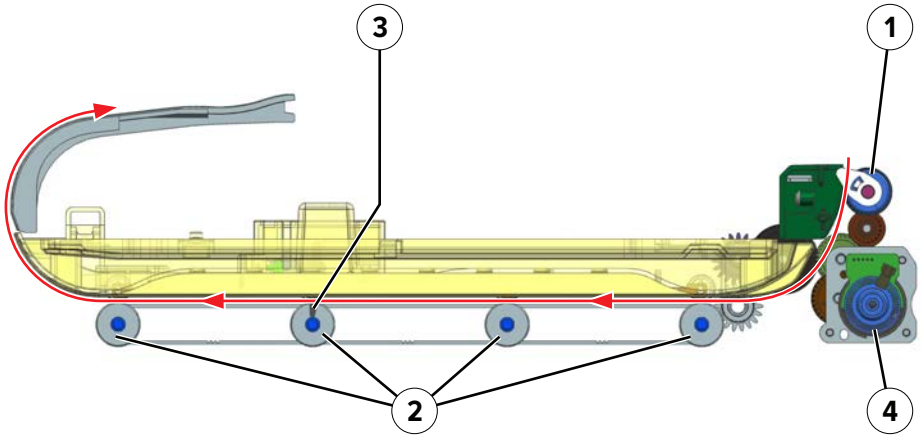


1	Upper redrive roller
2	Lower redrive roller
3	Motor (redrive)

For duplex print jobs, the redrive rollers reverse their rotations to feed the paper back to the printer following the duplex paper path.

The motor (redrive) controls the redrive rollers.

Duplex transport drive



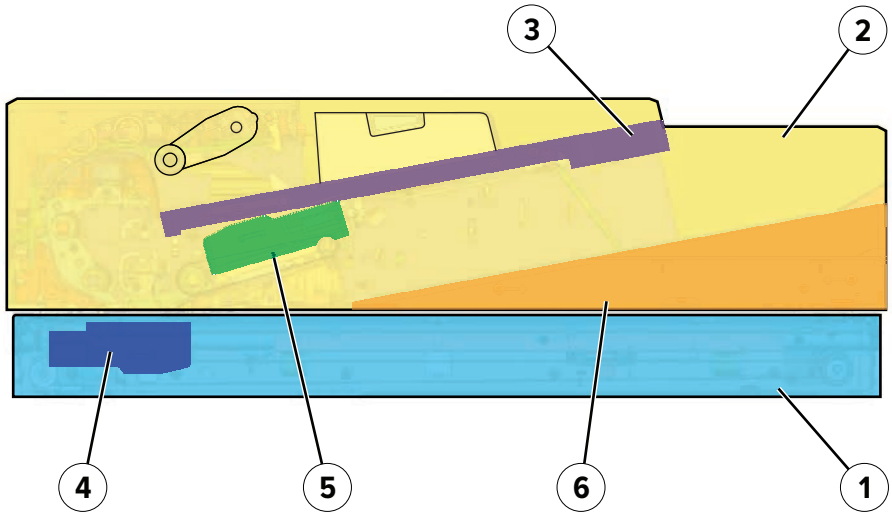
1	Duplex entry roller
2	Duplex aligner rollers
3	Sensor (duplex path)
4	Motor (duplex)

For duplex print jobs, paper from the redrive rollers enters the duplex entry roller. Aligner rollers along the duplex paper path feed the paper back to the standard paper path (see **"Main drive" on page 961**). The aligner rollers also align the paper along the reference edge.

The sensor (duplex path) detects the paper as it travels along the duplex path. The motor (duplex) drives the duplex rollers.

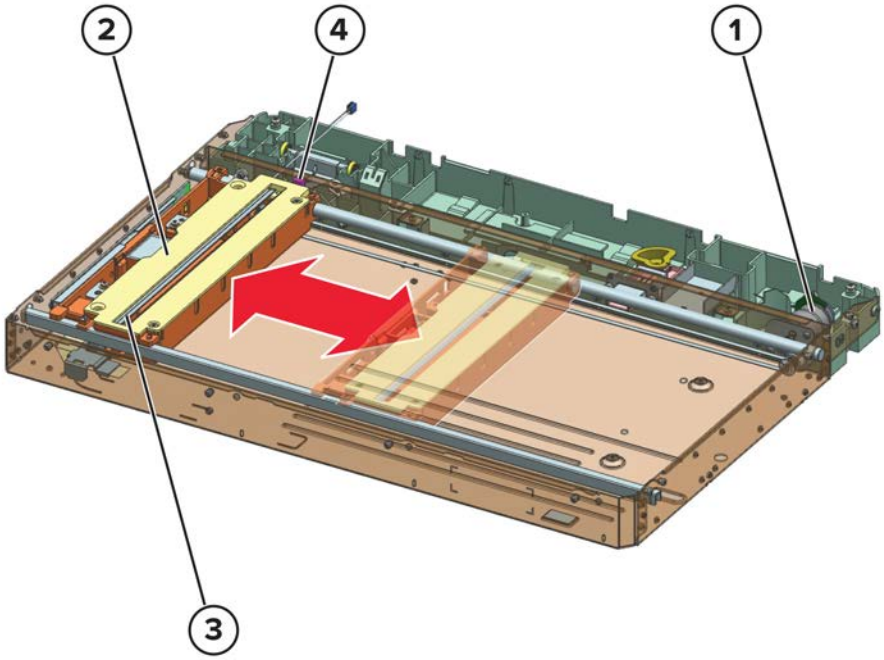
ADF and flatbed scanner operation

ADF and flatbed scanner layout



1	Flatbed
2	ADF
3	ADF tray
4	Flatbed scanner
5	ADF scanner
6	ADF bin

Flatbed scanner drive



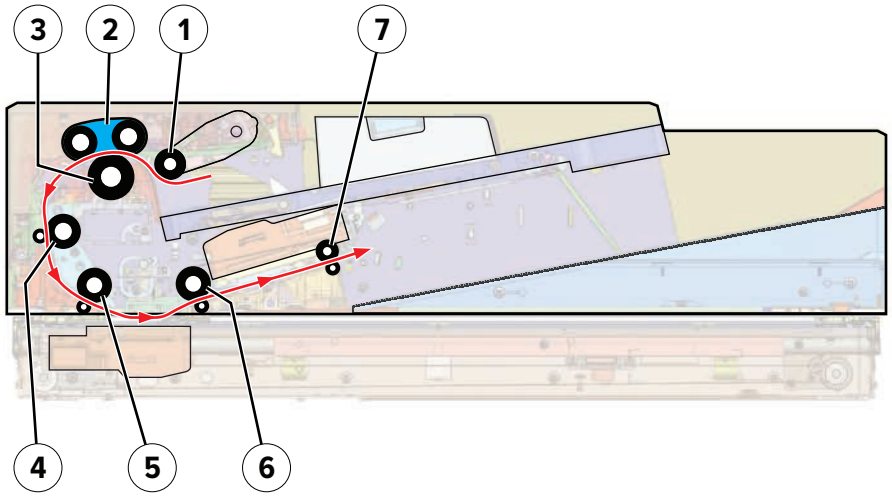
1	Motor (flatbed scanner)
2	Flatbed scanner
3	Scanner lamp
4	Sensor (FB CCD home)

The flatbed scanner has a scanner lamp that is used to illuminate the surface of the document. The reflections produced are processed to create the scan image.

For flatbed scan jobs, the flatbed scanner moves across the scanner glass area to scan the front side of the document (facedown). The motor (FB scanner) controls the scanner position. The scanner is detected at its home position by the sensor (FB CCD home).

For ADF scan jobs, the flatbed scanner stays at the left side to do the first scan (front side of the document).

ADF paper path rollers



1	ADF pick roller
2	ADF feed belt
3	ADF separator roller
4	Deskew roller
5	1st scan roller
6	2nd scan roller
7	Exit roller

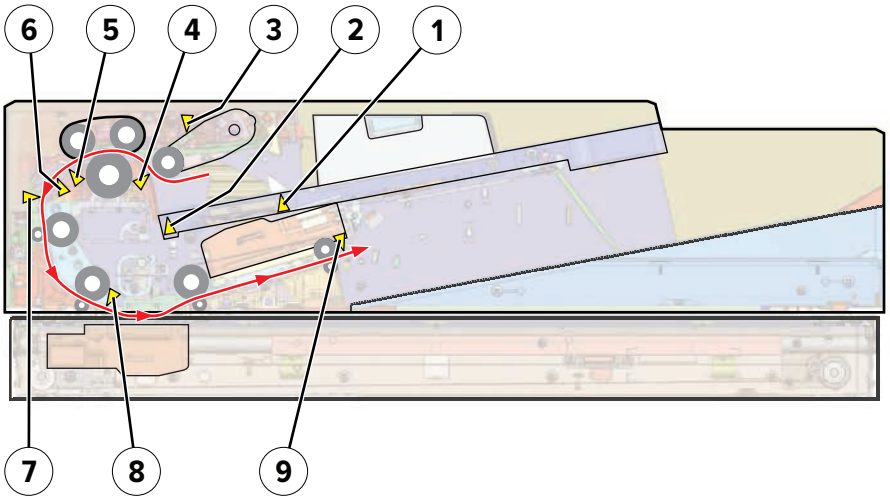
Paper from the ADF tray enters the ADF through the pick roller, feed belt, and separator roller.

After the paper is fed, it travels to the deskew roller where skew correction is performed.

The front side of the document is scanned after the paper enters the 1st scan roller. The back side of the document is scanned after the paper enters the 2nd scan roller.

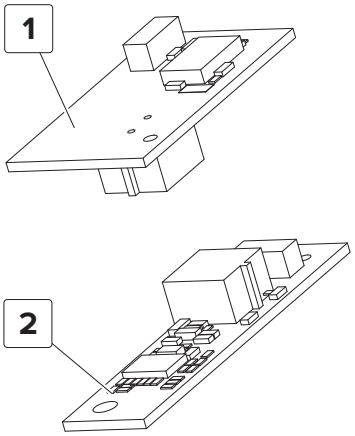
After the paper is scanned, it is ejected by the exit roller to the ADF bin.

ADF paper path sensors



#	Sensor	Function
1	Sensor (ADF paper present 1)	Detects if paper is in the tray.
2	Sensor (ADF paper present 2)	
3	Sensor (ADF pick roller index) **Note:** The sensor (ADF pick roller index) consists of two sensors to detect the high and low positions of the pick roller.	Detects if the pick roller is at the correct height to pick paper
4	Sensor (ADF gap detect)	Detects the gap between fed pages. If no paper is detected, the next page is fed to maximize page output.
5	Sensor (ADF pick)	Detects the paper to ensure proper picking
6	Sensor (ADF multifeed)	Detects the air gaps between sheets to detect double feeds
7	Sensor (ADF deskew)	Detects the paper entering the deskew roller
8	Sensor (ADF 1st scan)	Detects the paper about to be scanned at its front side
9	Sensor (ADF exit)	Detects the paper exiting to the bin

ADF double-feed detection

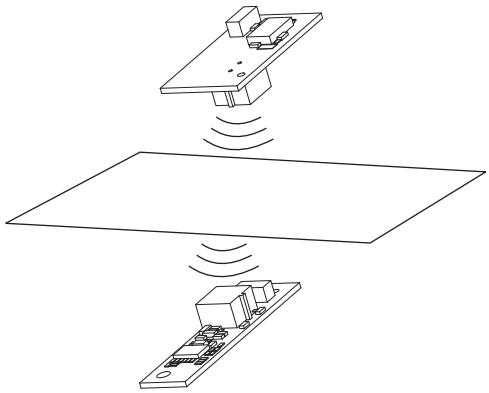


Sensor (ADF multi-feed detect) components

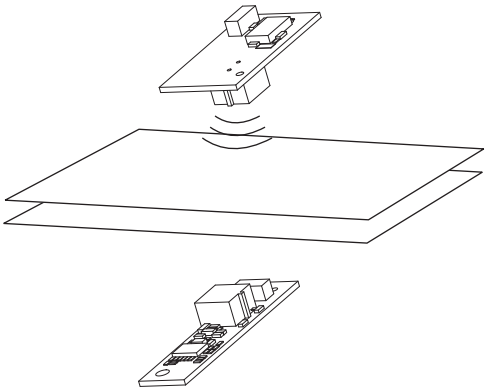
1	Transmitter
2	Receiver

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 will drop to nearly nothing when there are multiple sheets in the path.

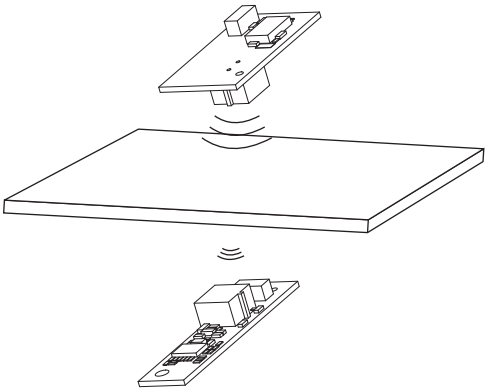
Single sheet (normal)



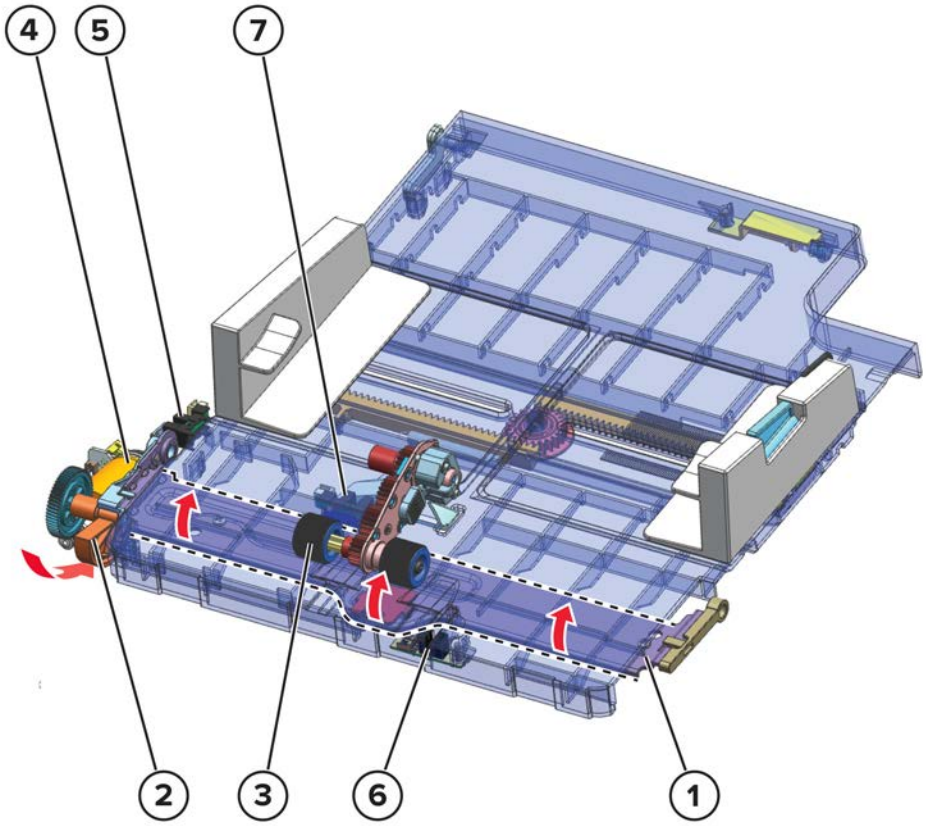
Multiple sheets



Single sheet (thick)



ADF tray lift drive



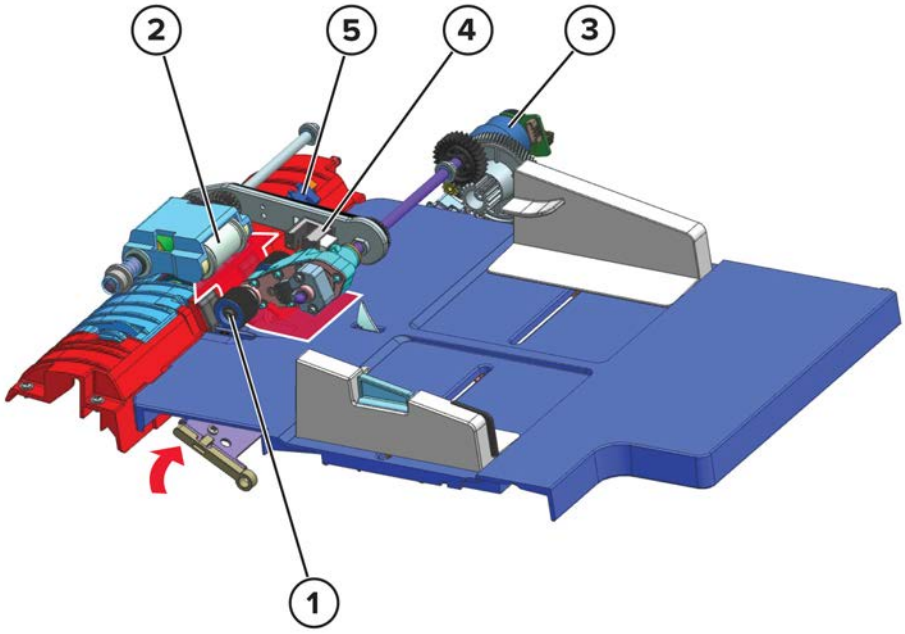
1	Lift plate
2	Lift cam
3	Pick roller
4	Motor (ADF tray lift)
5	Sensor (ADF lift plate home)
6	Sensor (ADF paper present 2)
7	Sensor (ADF paper present 1)

In preparation for feeding, the lift plate raises the ADF tray to push the paper against the pick roller. The ADF tray stops raising at the point where the pick roller is at the proper height for picking.

The motor (ADF tray lift) drives the lift cam which controls the movement of the ADF tray.

The lift plate is detected at its home position by the sensor (ADF lift plate home).

ADF tray pick and feed drive

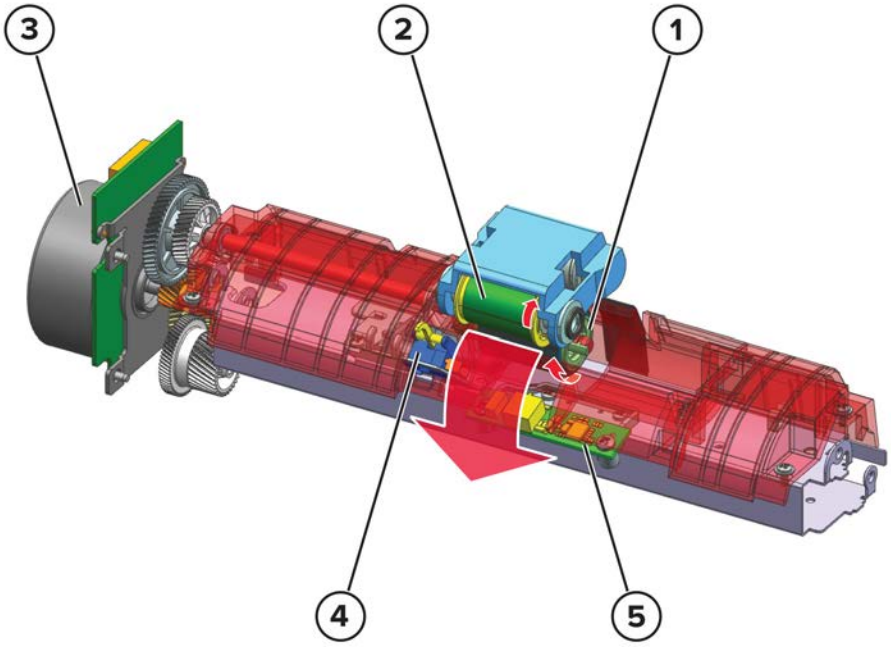


1	ADF pick roller
2	ADF feed belt
3	Motor (ADF pick/feed)
4	Sensor (ADF pick roller index) **Note:** The sensor (ADF pick roller index) consists of two sensors to detect the high and low positions of the pick roller.
5	Sensor (ADF gap detect)

The pick roller and feed belt rotate in the same direction to feed the topmost paper to the ADF.

The motor (ADF pick/feed) drives both the pick roller and feed belt. The sensor (ADF pick roller index) detects if the pick roller is at the proper height to pick paper from the tray.

ADF separator drive

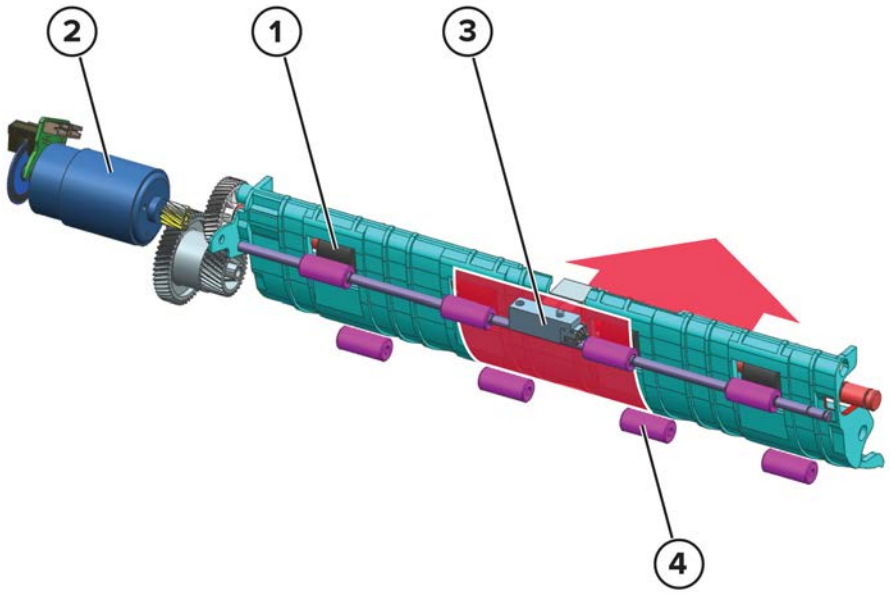


1	ADF separator roller
2	ADF feed belt
3	Motor (ADF transport)
4	Sensor (interval)
5	Sensor (ADF multifeed) receiver

The separator roller rotates against the feed belt direction to allow only one sheet to be fed at a time.

The motor (ADF transport) drives the separator roller.

ADF deskew drive

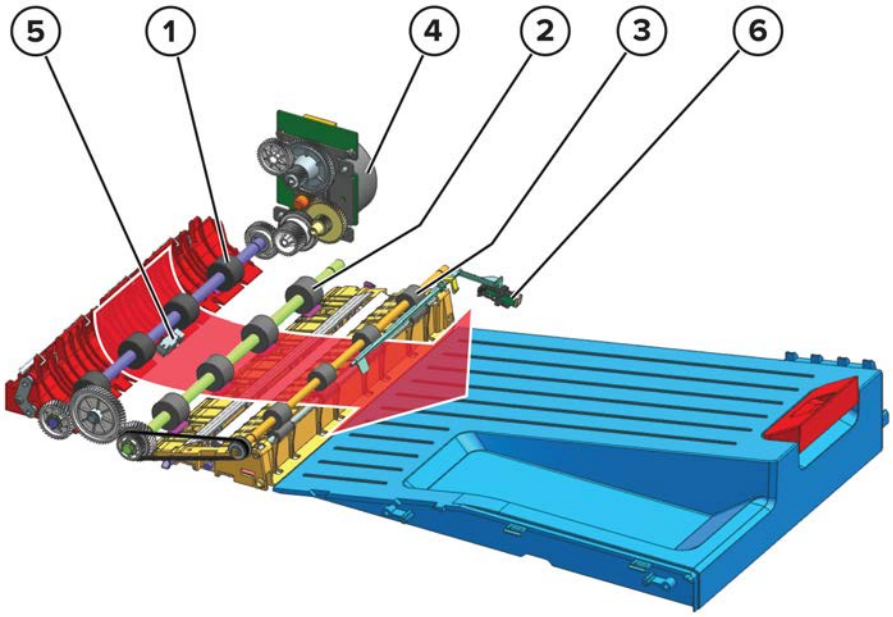


1	Deskew roller
2	Motor (ADF deskew)
3	Sensor (ADF deskew)
4	1st scan backup roller

The paper stops at the deskew roller to undergo skew correction. The deskew roller counterrotates to align the leading edge of the paper against the rollers. After the skew is corrected, the deskew roller rotates to pass the paper to the 1st scan roller.

The motor (ADF deskew) drives the deskew roller. The sensor (ADF deskew) detects the paper entering the deskew roller.

ADF scan and exit drive

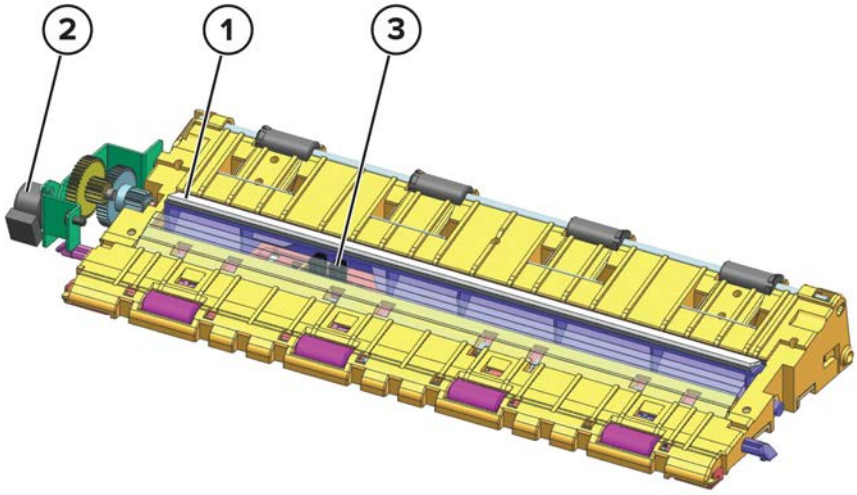


1	1st scan roller
2	2nd scan roller
3	Exit roller
4	Motor (ADF transport)
5	Sensor (ADF 1st scan)
6	Sensor (ADF exit)

The paper is fed to the 1st scan roller to scan its front side. The flatbed scanner does the first scan. When the paper passes the 2nd scan roller, its back side is also scanned. The ADF scanner does the second scan. The exit roller ejects the scanned document to the ADF bin.

The motor (ADF transport) drives the scan and exit rollers. The sensor (ADF 1st scan) detects the paper entering the 1st scan roller. The sensor (ADF exit) detects the paper exiting to the bin.

ADF calibration drive



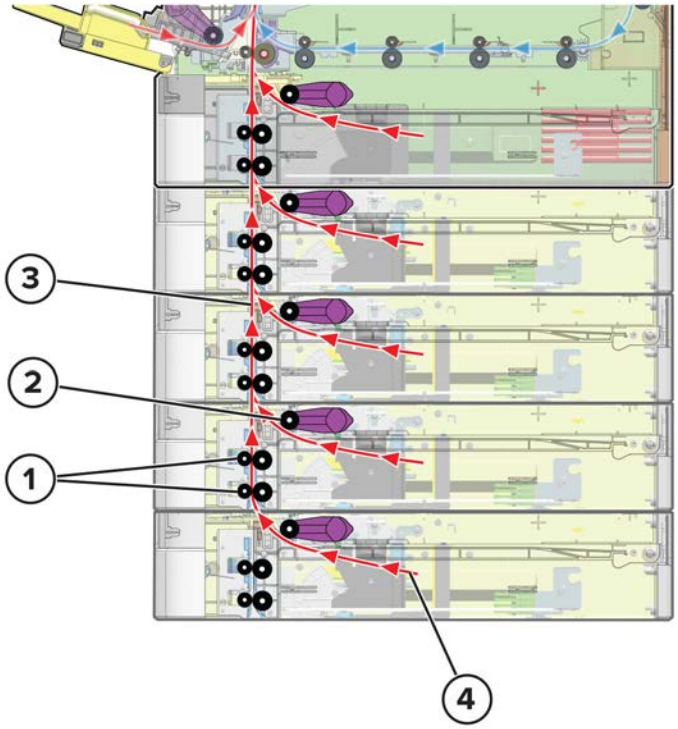
1	ADF calibration roller
2	Motor (ADF calibration)
3	Sensor (ADF calibration)

For rear side scanning, the ADF calibration roller has a black and white reference strips. The white strip is for calibrating white levels. By default, the white strip is used as the background for scan jobs. The black strip is for jobs that involve image editing or cropping.

The roller rotates until the appropriate strip is facing the ADF scanner. The motor (ADF calibration) controls the roller position. The ADF calibration roller position is detected by the sensor (ADF calibration).

Optional 250- and 550-sheet tray operation

250- and 550-sheet tray paper path rollers

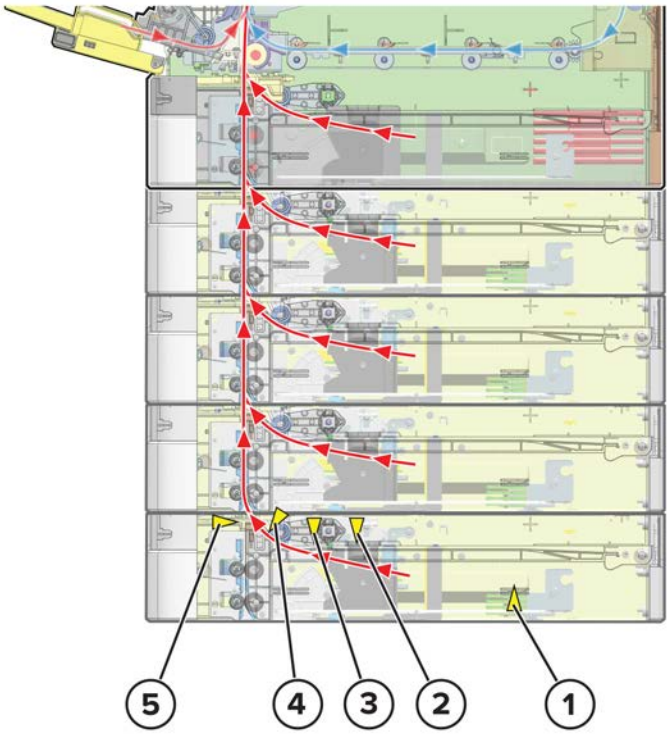


1	Transport rollers
2	Pick roller
3	Pass-through path
4	Feed path

Paper from the optional trays is fed into the printer through the pick rollers.

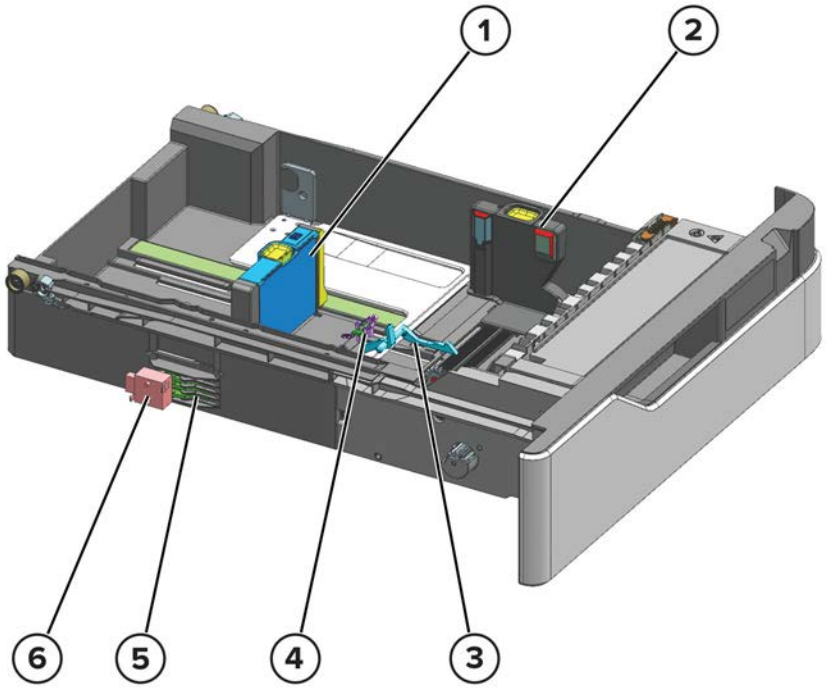
Multiple optional trays use the transport rollers to receive paper from the lower trays.

250- and 550-sheet tray paper path sensors



#	Sensor	Functions
1	Sensor (paper size)	Detects the position of the paper guides
2	Sensor (paper present)	Detects paper presence in the tray
3	Sensor (pick roller index)	Detects the position of the pick roller
4	Sensor (pick)	Detects paper as it is picked and fed to the printer
5	Sensor (pass-through)	Detects paper that is fed from the lower trays as it enters the printer

Paper presence and size detection



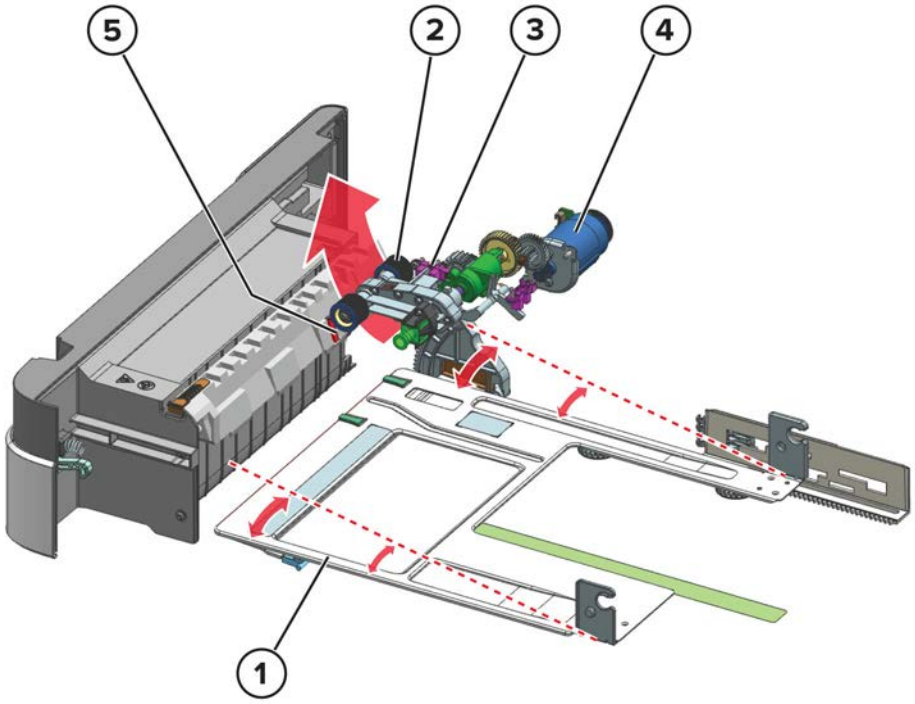
1	Paper length guide
2	Paper width guide
3	Paper presence sensor actuator
4	Sensor (paper present)
5	Paper size sensor actuator
6	Sensor (paper size)

The paper size is detected based on the length guide position. The width guide prevents deskewing.

The fingers of the paper size sensor actuator move according to the position of the paper length guide. The sensor (paper size) detects the formation of the actuator and determines the dimensions of the paper.

When the tray is empty, the paper presence sensor actuator triggers the sensor (paper present).

Tray pick and lift drive



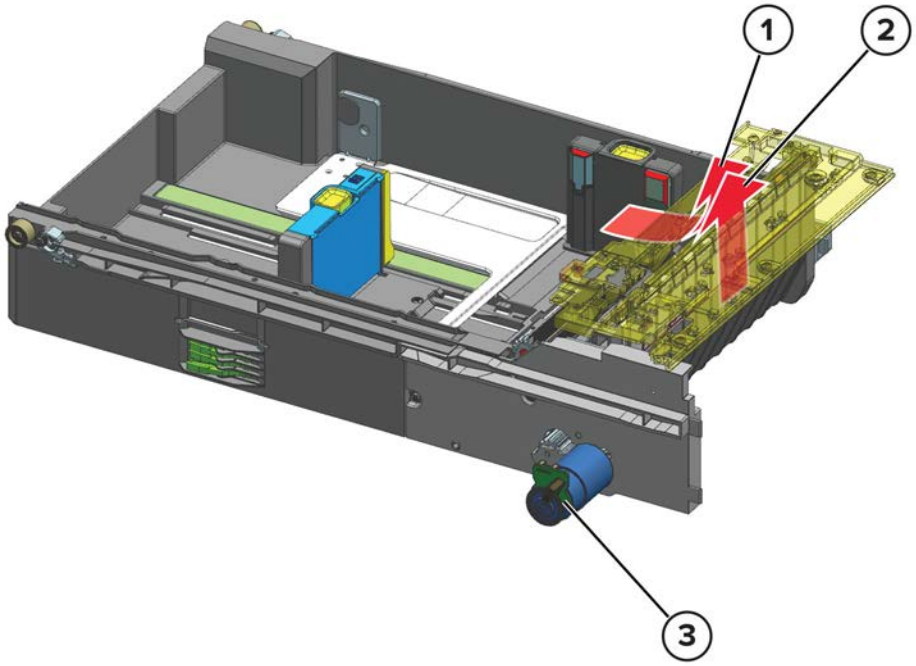
1	Lift plate
2	Pick roller
3	Sensor (pick roller index)
4	Motor (pick/lift)
5	Separator pad

The lift plate lifts the paper until the sensor (pick roller index) is triggered. The motor (pick/lift) starts, and then enables the pick roller to feed the paper into the printer or upper trays.

Note: 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.

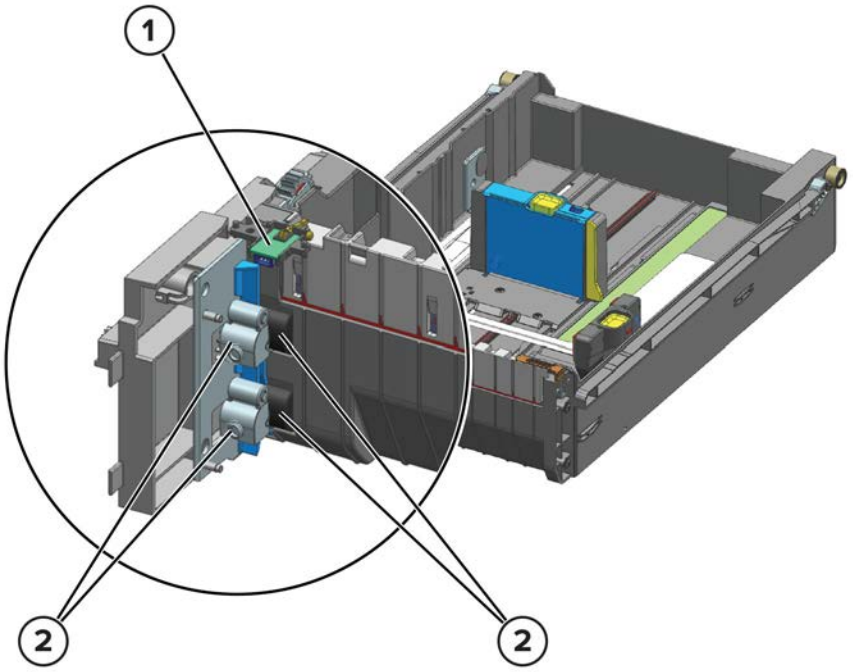
Transport drive



1	Feed path
2	Pass-through path
3	Motor (transport)

The pass-through path is where paper that is fed from lower trays passes over to the upper trays and into the printer. The motor (transport) drives the transport rollers that move the papers in this path.

The feed path is where paper from the source tray passes over to the pass-through path of the upper tray.



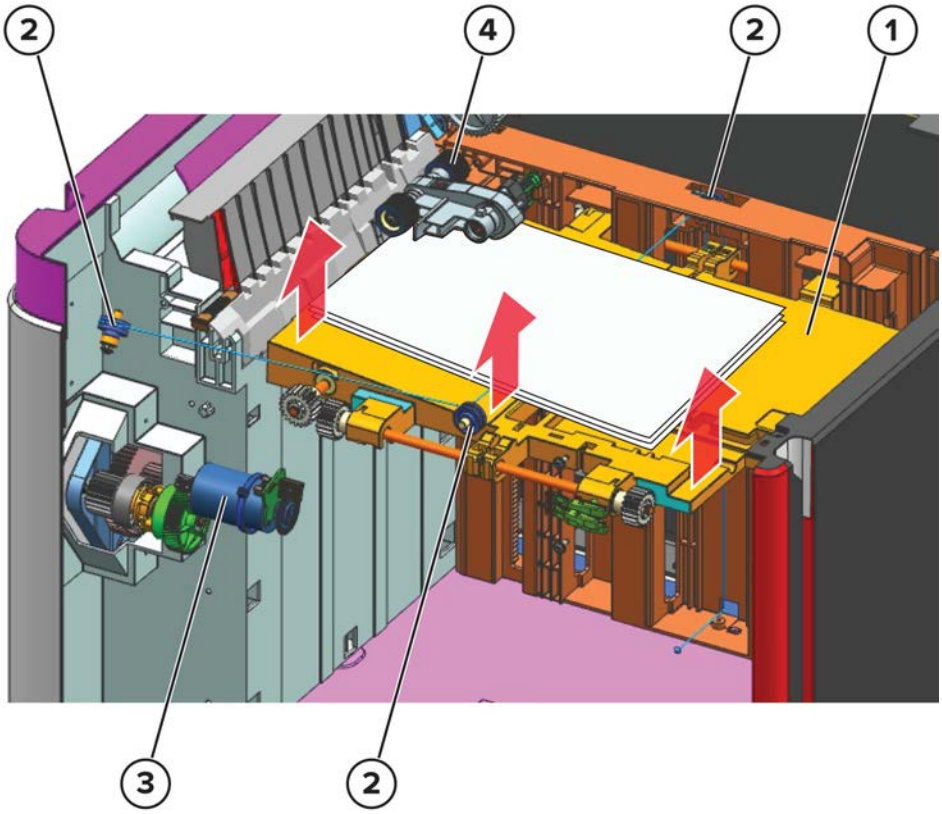
1	Sensor (pass-through)
2	Transport rollers

Paper from the lower trays continue on the pass-through path using the transport rollers of the source tray.

The sensor (pass-through) detects if paper is transported from the lower trays.

Optional 2100-sheet tray operation

2100-sheet tray elevator drive

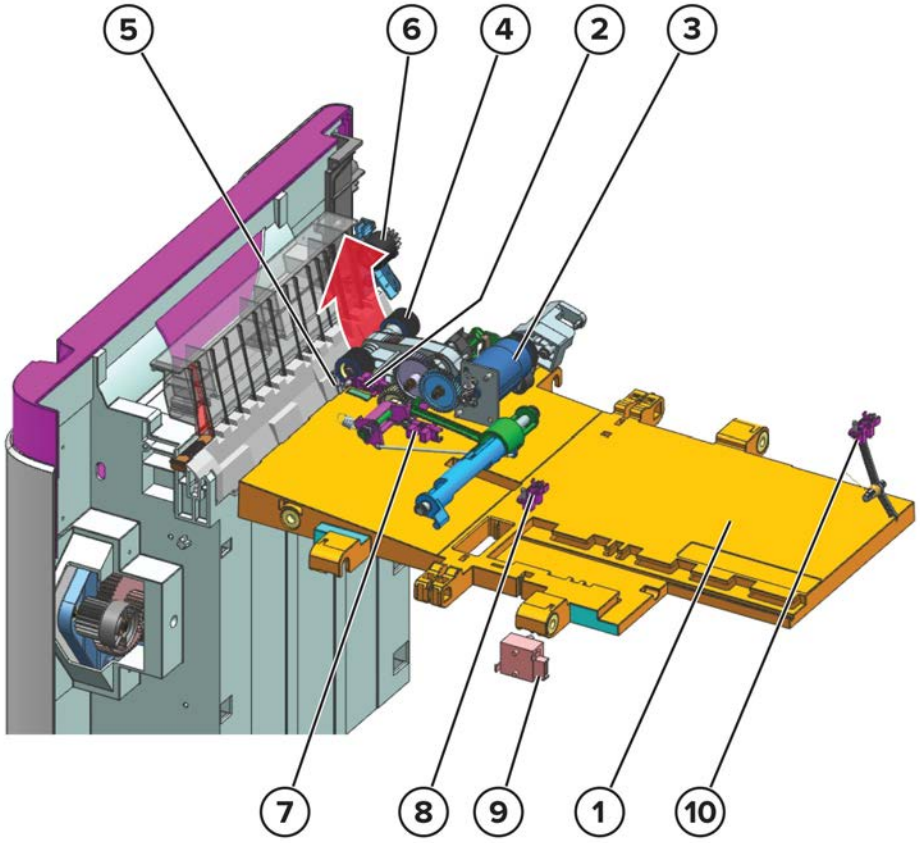


1	Elevator plate
2	Cable pulleys
3	Motor (elevator)
4	Pick roller

In preparation for picking, the elevator plate raises to push the paper against the pick roller.

The motor (elevator) drives a network of cables and pulleys to control the movement of the elevator plate.

2100-sheet tray pick drive



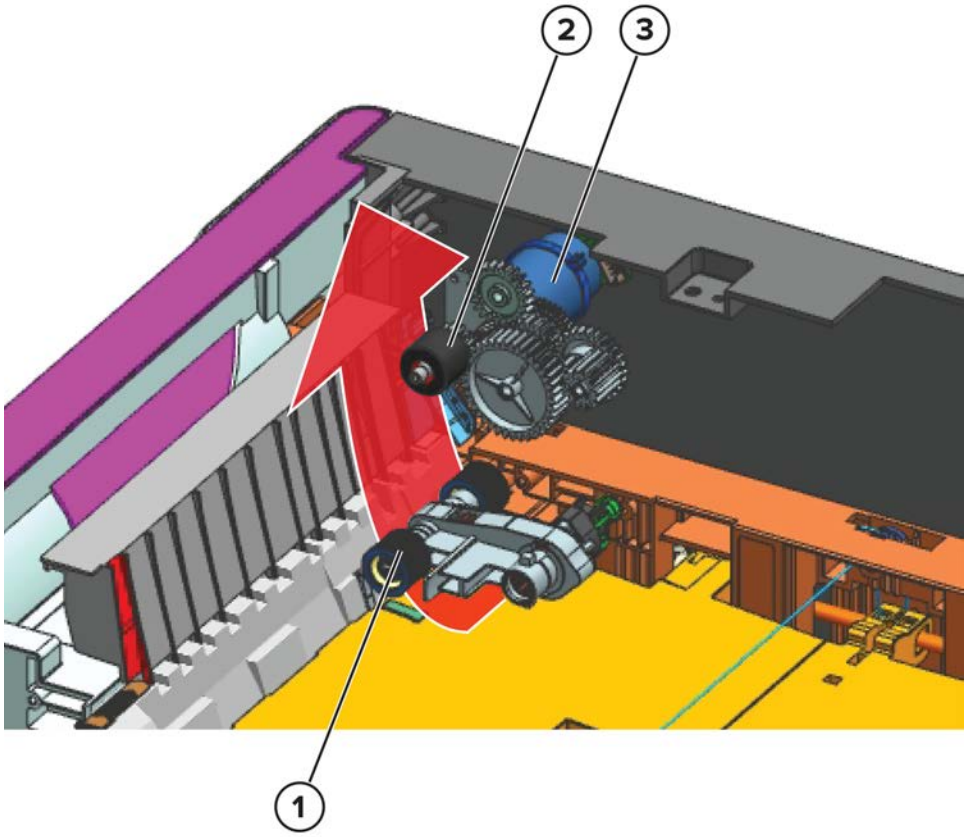
1	Elevator plate
2	Sensor (pick roller index)
3	Motor (pick)
4	Pick roller
5	Separator pad
6	Aligner roller
7	Sensor (paper present)
8	Sensor (A5 length guide)
9	Sensor (paper size)
10	Sensor (tray near empty)

The pick roller is lifted by the elevator plate until it triggers the sensor (pick roller index). At the pick position, the pick roller rotates to pick the topmost paper. The motor (pick) drives the pick roller.

To avoid multi-sheet picking, the friction from the separator pad prevents the extra paper from entering the printer.

The sensor (paper present) detects if the tray is empty. Paper guide positions are also detected by sensors to determine paper size.

2100-sheet tray transport drive

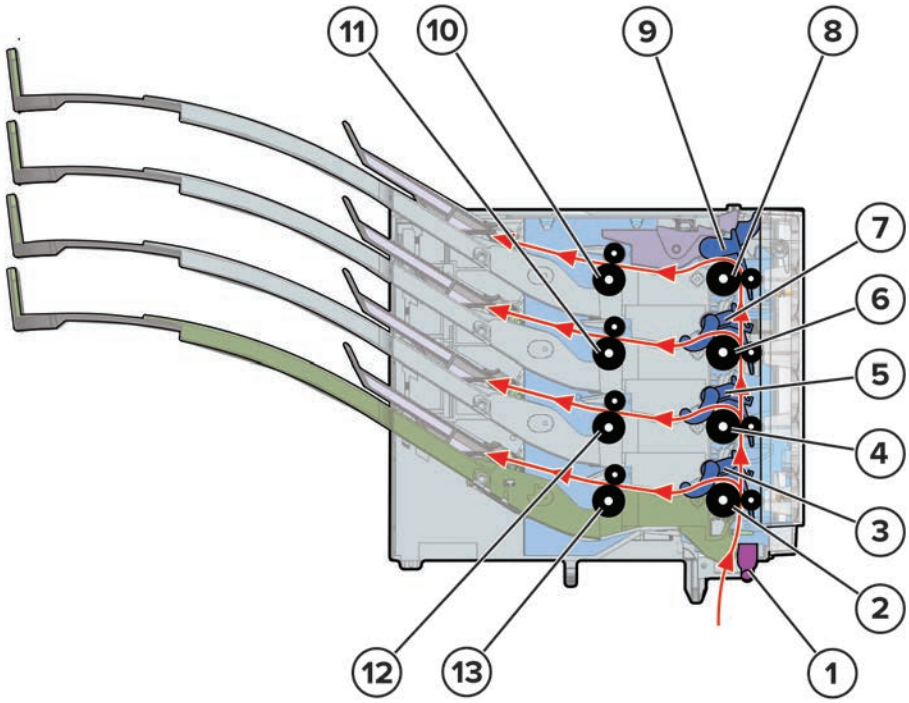


1	Pick roller
2	Aligner roller
3	Motor (transport)

Paper that is picked is received by the aligner roller, and then passed on to the transport roller of the standard tray or optional tray (see **“Lower transport drive” on page 960**). The motor (transport) drives the aligner roller.

Optional mailbox operation

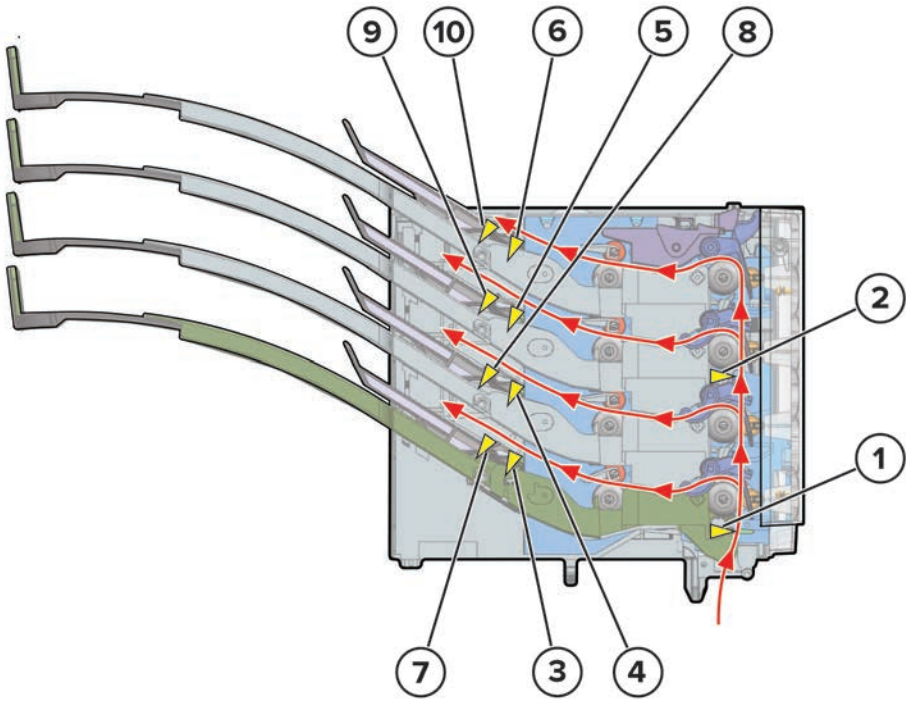
Mailbox paper path rollers



1	Diverter plunger
2	Mailbox transport roller 1
3	Diverter 1
4	Mailbox transport roller 2
5	Diverter 2
6	Mailbox transport roller 3
7	Diverter 3
8	Mailbox transport roller 4
9	Diverter 4
10	Exit roller 4
11	Exit roller 3
12	Exit roller 2
13	Exit roller 1

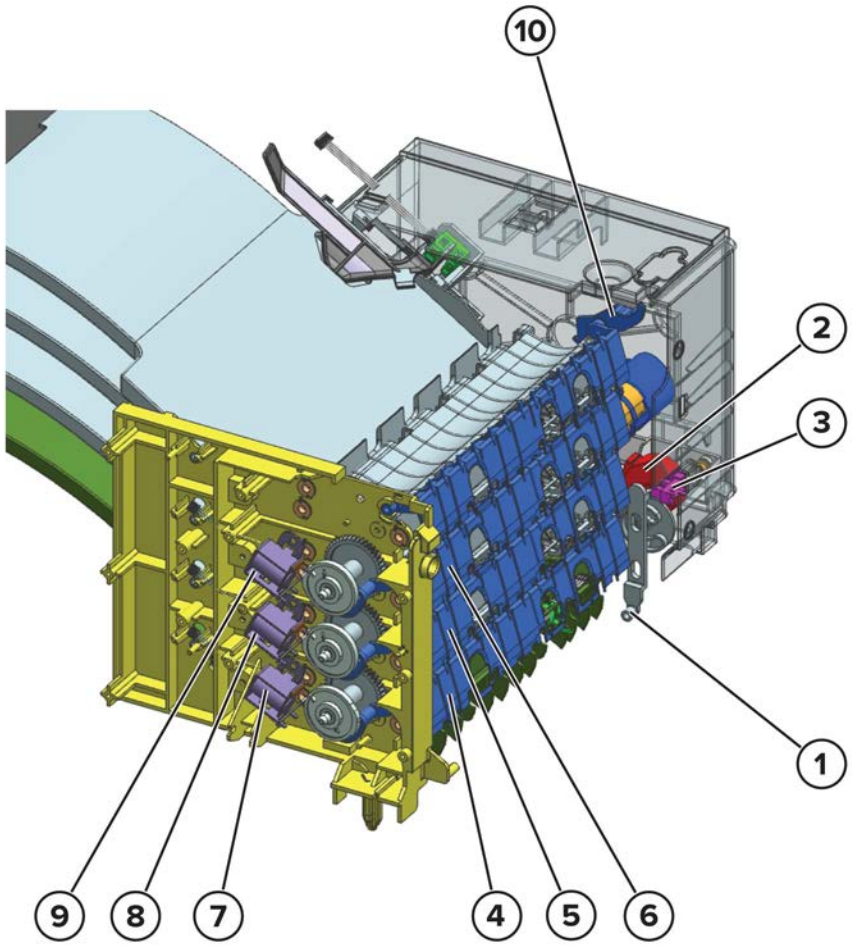
The mailbox delivers print jobs to multiple bin destinations and allows the user to segregate the printed output to an assigned bin. Rollers along the paper path control the movement of the paper depending on the destination bin.

Mailbox paper path sensors



#	Sensor	Function
1	Sensor (mailbox pass-through 1)	Detects the paper position along the mailbox entrance.
2	Sensor (mailbox pass-through 2)	Detects the paper position along the middle rear door area.
3	Sensor (mailbox bin 1 paper present)	Detects if paper is on bin 1.
4	Sensor (mailbox bin 2 paper present)	Detects if paper is on bin 2.
5	Sensor (mailbox bin 3 paper present)	Detects if paper is on bin 3.
6	Sensor (mailbox bin 4 paper present)	Detects if paper is on bin 4.
7	Sensor (mailbox bin 1 full)	Detects if bin 1 is full.
8	Sensor (mailbox bin 2 full)	Detects if bin 2 is full.
9	Sensor (mailbox bin 3 full)	Detects if bin 3 is full.
10	Sensor (mailbox bin 4 full)	Detects if bin 4 is full.

Mailbox diverter drive



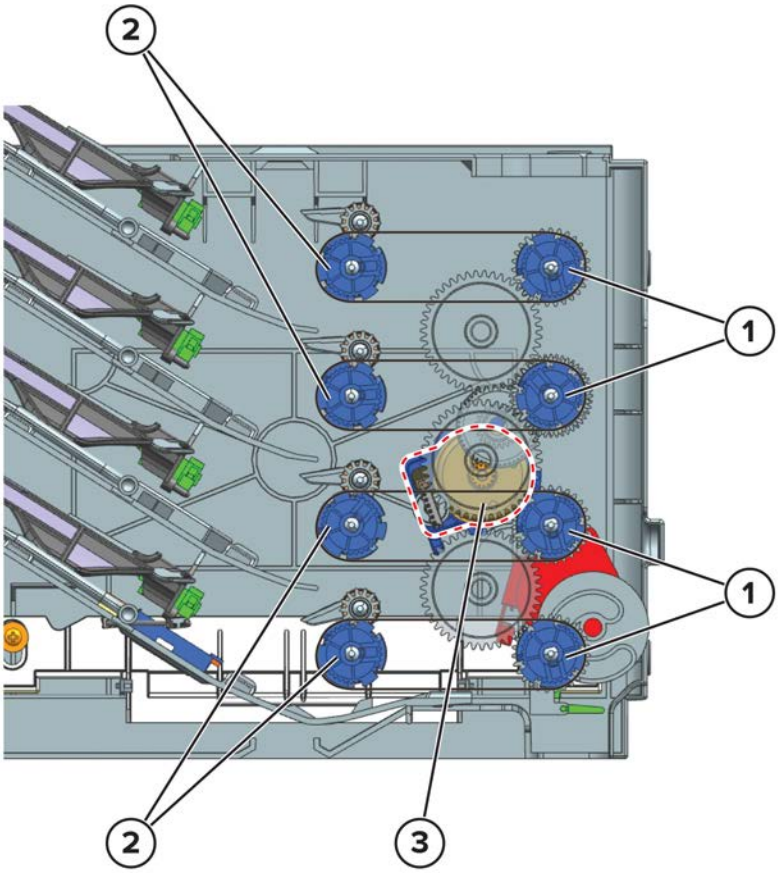
1	Diverter plunger
2	Motor (diverter)
3	Sensor (diverter plunger)
4	Diverter 1
5	Diverter 2
6	Diverter 3
7	Diverter 1 solenoid
8	Diverter 2 solenoid
9	Diverter 3 solenoid
10	Mailbox top diverter

The diverter (from the printer or optional bin) under the mailbox switches to open up the paper path of the mailbox. The diverter plunger controls the position of the diverter below it. The motor (diverter) drives the movement of the plunger. The sensor (diverter plunger) detects the position of the plunger.

By default, diverters 1 to 3 are positioned so that the paper goes straight up. Depending on the destination bin, diverters along the paper path may redirect the paper to the assigned bin. Solenoids control diverters 1 to 3.

On the other hand, the mailbox top diverter is positioned so that the paper exits by default to bin 4. Paper will only go straight up if an optional bin on top of the mailbox is the destination bin of the print job.

Mailbox transport and exit drive



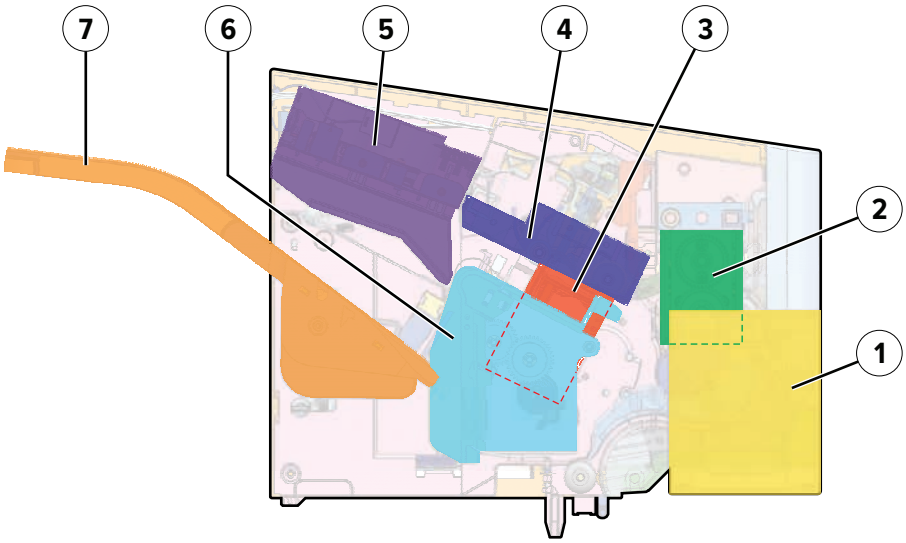
1	Transport rollers
2	Exit rollers
3	Motor (transport)

Transport rollers and exit rollers along the paper path move the paper to the destination bin assigned for the print job.

The motor (transport) drives both the transport and exit rollers.

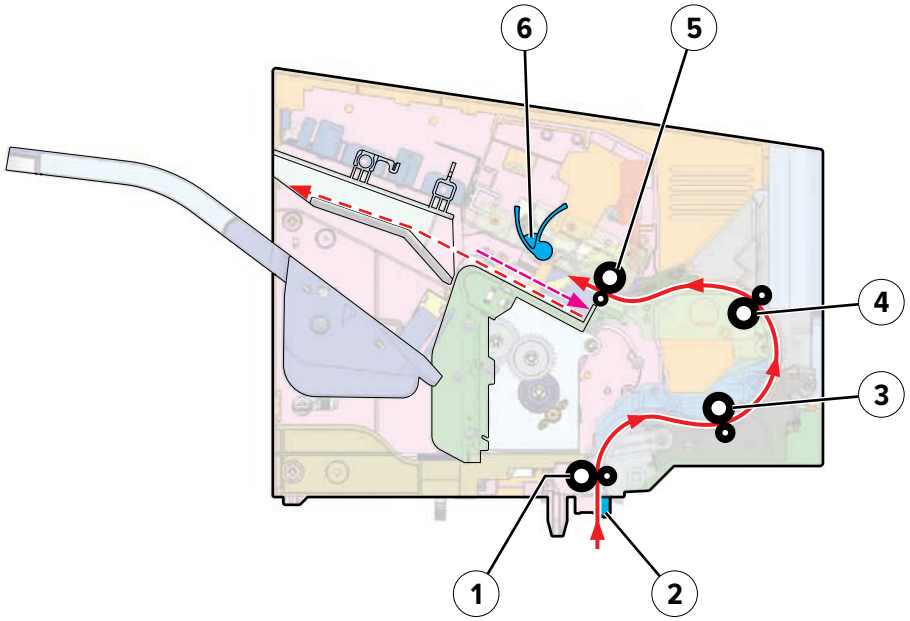
Optional staple, hole punch finisher operation

Staple, hole punch finisher (SHPF) layout



1	Hole punch box
2	Hole punch unit
3	Staple unit
4	Paddle and exit
5	Tamper
6	Ejector
7	Bin

SHPF paper path rollers



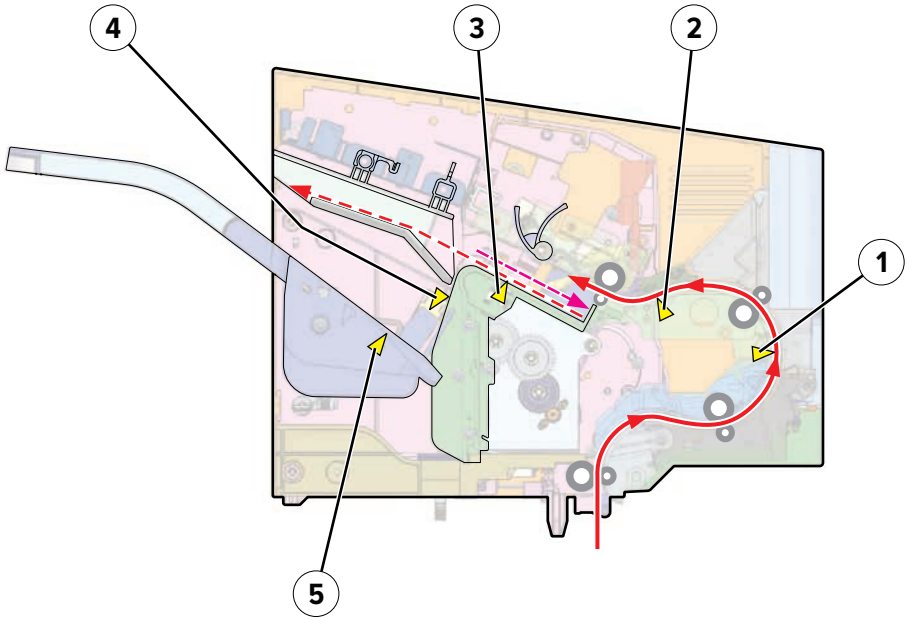
1	SHPF entrance roller
2	Diverter plunger
3	SHPF transport roller 1
4	SHPF transport roller 2
5	SHPF exit roller
6	SHPF paddle roller

For staple or hole punch jobs, the paper path is redirected to the finisher.

Rollers along the paper path control the movement of the paper depending on the type of staple or hole punch job. Before stapling occurs, paper will be stacked on top of each other and aligned along its edges.

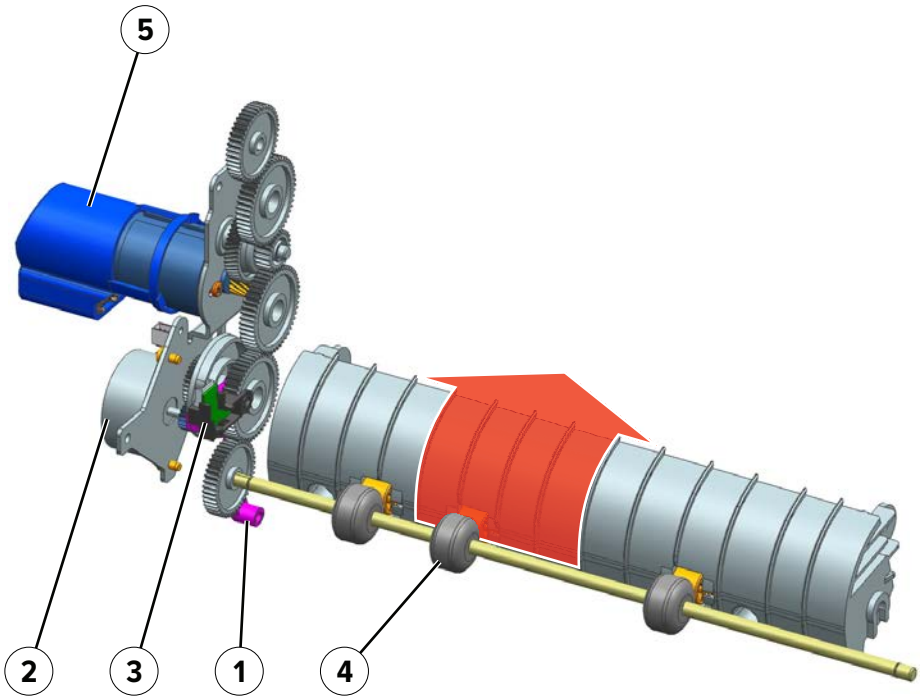
When the staple or hole punch job is done, the paper is ejected to the bin.

SHPF paper path sensors



#	Sensor	Function
1	Sensor (HPU leading edge)	Detects the paper position along the rear door path.
2	Sensor (HPU trailing edge)	Detects the paper position along the hole punch area.
3	Sensor (SHPF staple throat paper present)	Detects if paper is in the staple unit area.
4	Sensor (SHPF bin full)	Detects if the bin is already full.
5	Sensor (SHPF bin paper present)	Detects if paper is in the bin.

SHPF entrance drive

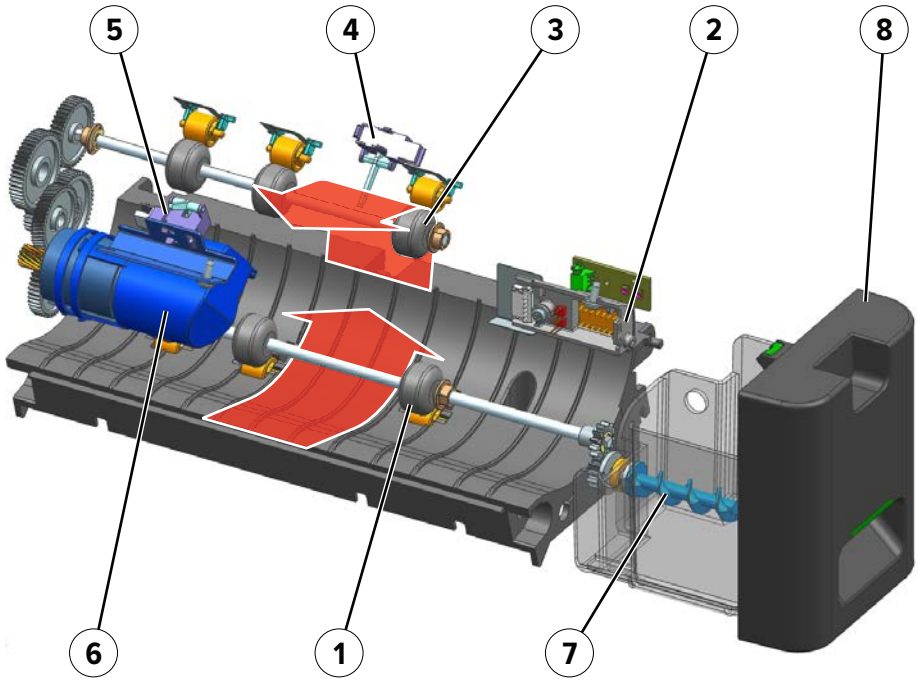


1	Diverter plunger
2	Motor (diverter)
3	Sensor (diverter plunger)
4	Entrance roller
5	Motor (SHPF transport)

For staple or hole punch jobs, the diverter (from the printer or optional bin) under the finisher switches to open up the paper path of the finisher. The diverter plunger controls the position of the diverter below it. The motor (diverter) drives the movement of the plunger. The sensor (diverter plunger) detects the position of the plunger.

Paper enters the finisher through the entrance roller. The motor (SHPF transport) drives the entrance roller.

SHPF HPU transport drive

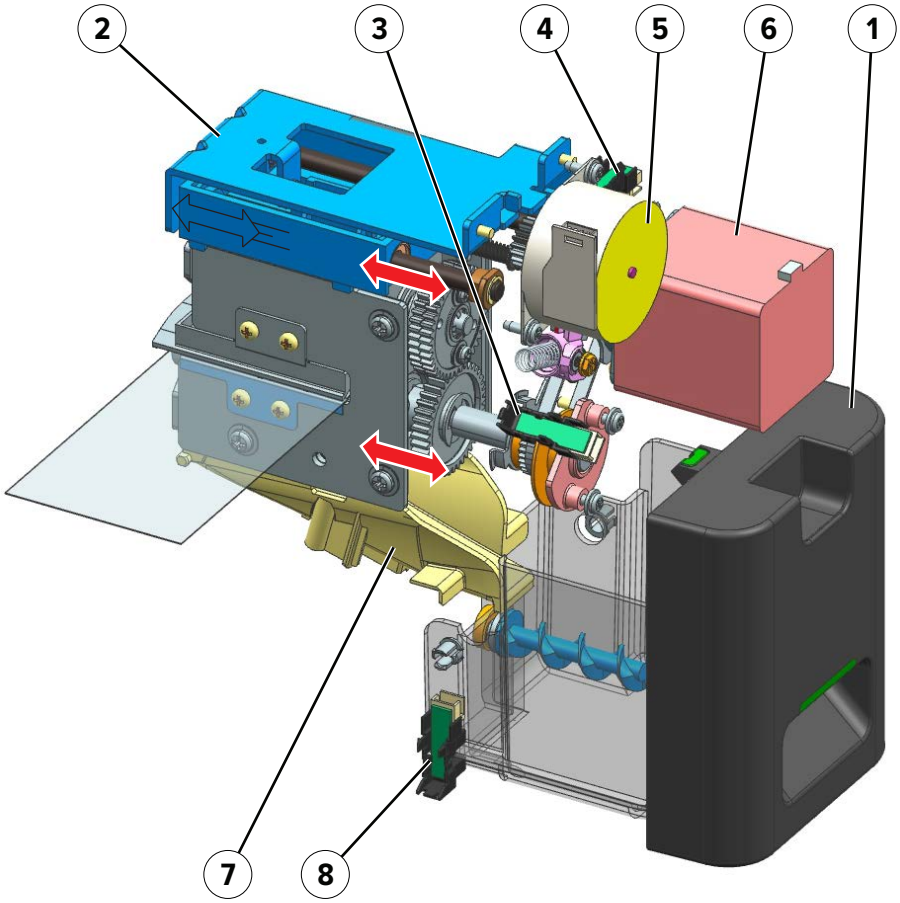


1	Transport roller 1
2	Sensor (light array)
3	Transport roller 2
4	Sensor (HPU leading edge)
5	Sensor (HPU trailing edge)
6	Motor (HPU transport)
7	Hole punch box auger

Transport rollers receive the paper entering the finisher, and then move the paper in the positions where hole punching may be required. The paper is detected by the sensor (HPU leading edge) as it passes between the two transport rollers. Before the paper is fed out by the exit rollers, it is detected by the sensor (HPU trailing edge). The sensor (light array) also detects the paper to ensure proper hole punching.

The motor (HPU transport) not only drives the transport rollers, but the auger in the hole punch box as well. When the hole punch box auger rotates, the chad inside the box is more evenly distributed to maximize the container capacity.

SHPF hole punch drive



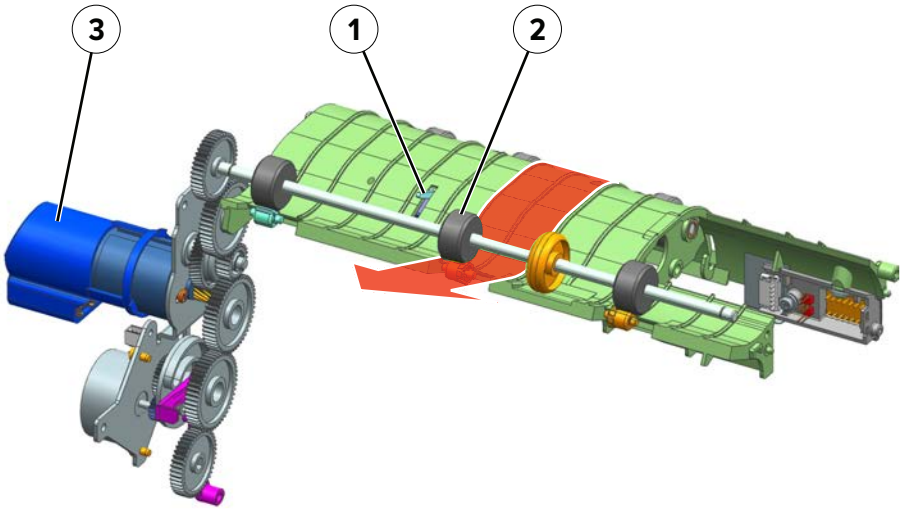
1	Hole punch box
2	HPU carriage
3	Sensor (hole punch)
4	Sensor (HPU carriage position)
5	Motor (HPU carriage)
6	Motor (hole punch)
7	Hopper
8	Sensor (hole punch box present)

During a hole punch job, the HPU carriage position may move to ensure that holes are properly punched at the appropriate positions. The motor (HPU carriage) controls the movement of the carriage. The sensor (HPU carriage position) detects the HPU carriage position.

The blade that punches the paper to create the holes is controlled by the motor (hole punch). The position of the blade is determined by the sensor (hole punch).

After hole punching, the paper chad is collected by a vibrating hopper and poured to the hole punch box.

SHPF exit drive



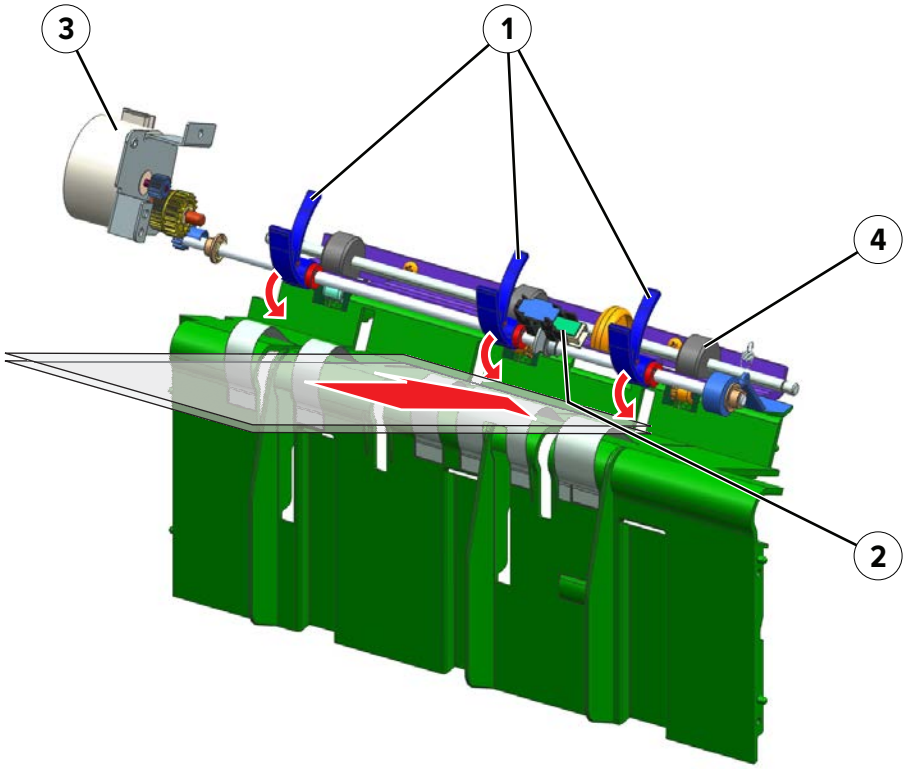
1	Sensor (HPU trailing edge)
2	Exit roller
3	Motor (SHPF transport)

The exit roller receives the paper from the transport rollers, and then ejects the paper to the tamper tray. Paper is stacked on the tamper tray in preparation for stapling.

The motor (SHPF transport) drives both the exit and entrance rollers (see **“SHPF entrance drive” on page 996**).

Paper stack edge alignment drives

Short edge alignment

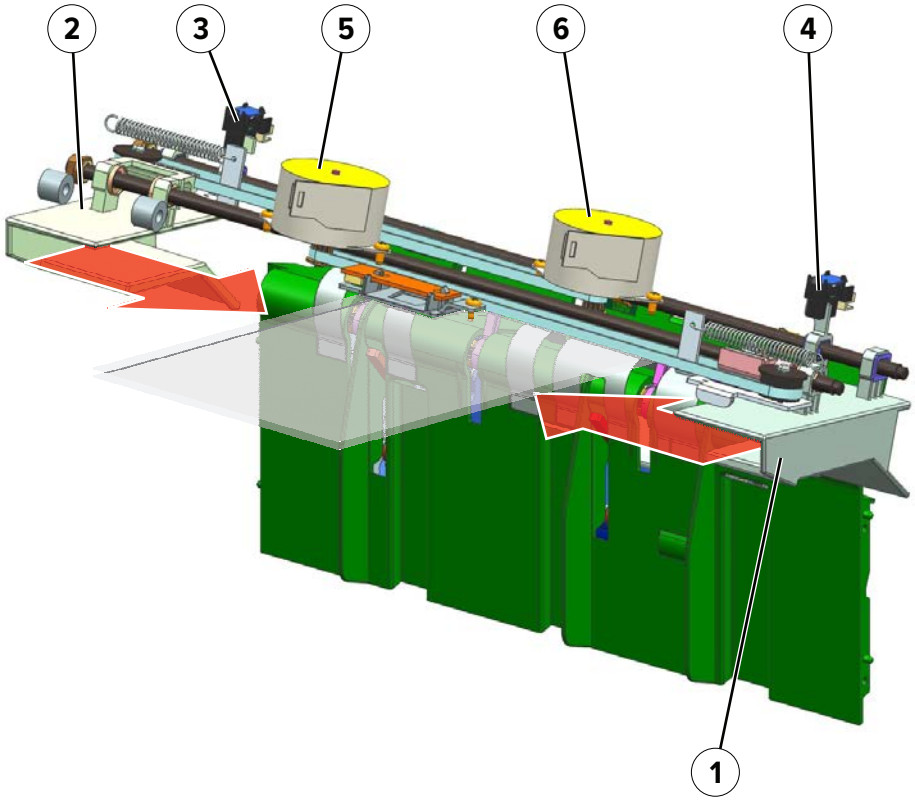


1	Paddles
2	Sensor (paddle)
3	Motor (paddle)
4	Exit roller

Each sheet that is added to the paper stack is aligned along its short edges. The paddles push the paper against a wall to align the trailing edge.

The motor (paddle) drives the paddles. The sensor (paddle) detects the position of the paddle.

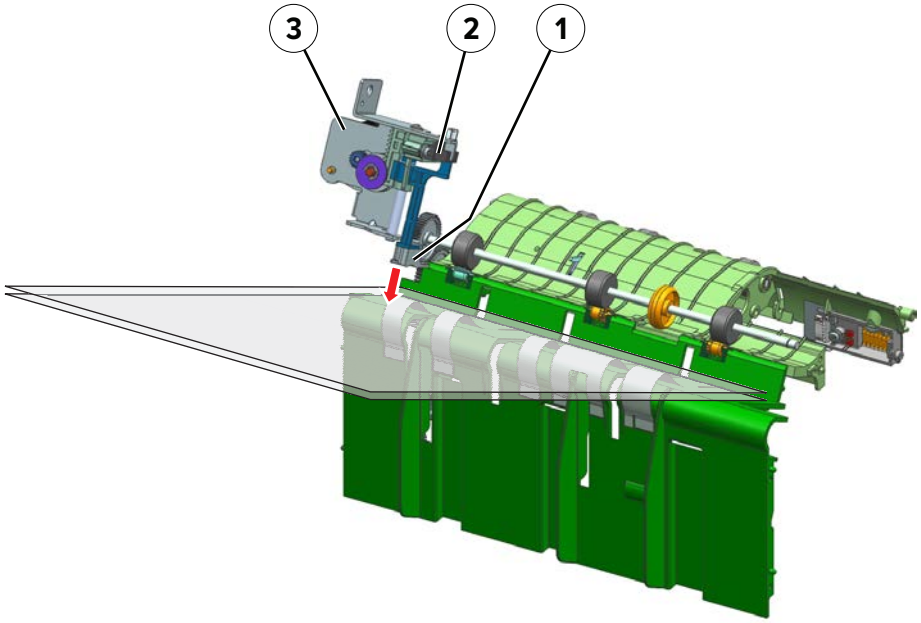
Long edge alignments



1	Right tamper
2	Left tamper
3	Sensor (left tamper)
4	Sensor (right tamper)
5	Motor (right tamper)
6	Motor (left tamper)

On the tamper tray, each sheet that is added to the paper stack is aligned by tampers. The tampers push inward to align the long edges of the paper stack. Two motors control the position and movement of the tampers. Each tamper is detected by its sensor at its home position.

Paper stack height detection



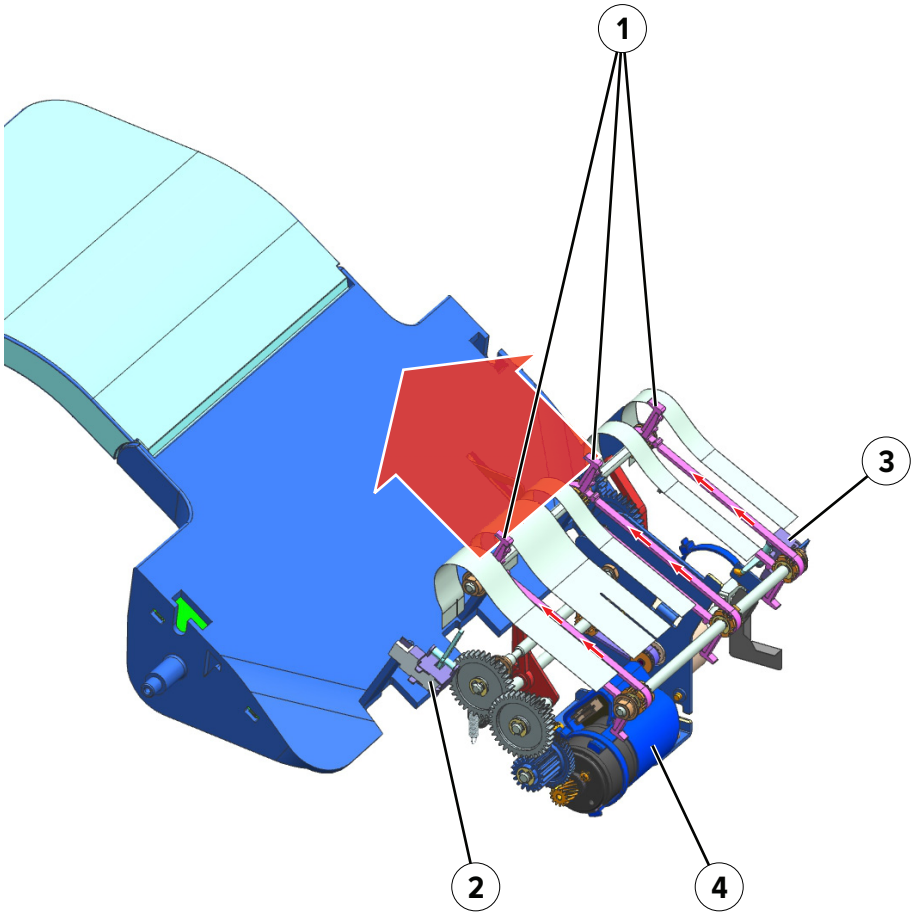
1	Stack height actuator
2	Sensor (stack height)
3	Motor (stack height)

Stack height detection is done each time a sheet is added to the paper stack.

The stack height actuator presses on top of the paper stack. The sensor (stack height) detects if the stack thickness has reached the limit. Limiting the thickness of the stack prevents damage to the staple unit.

The motor (stack height) drives the actuator.

SHPF ejector drive

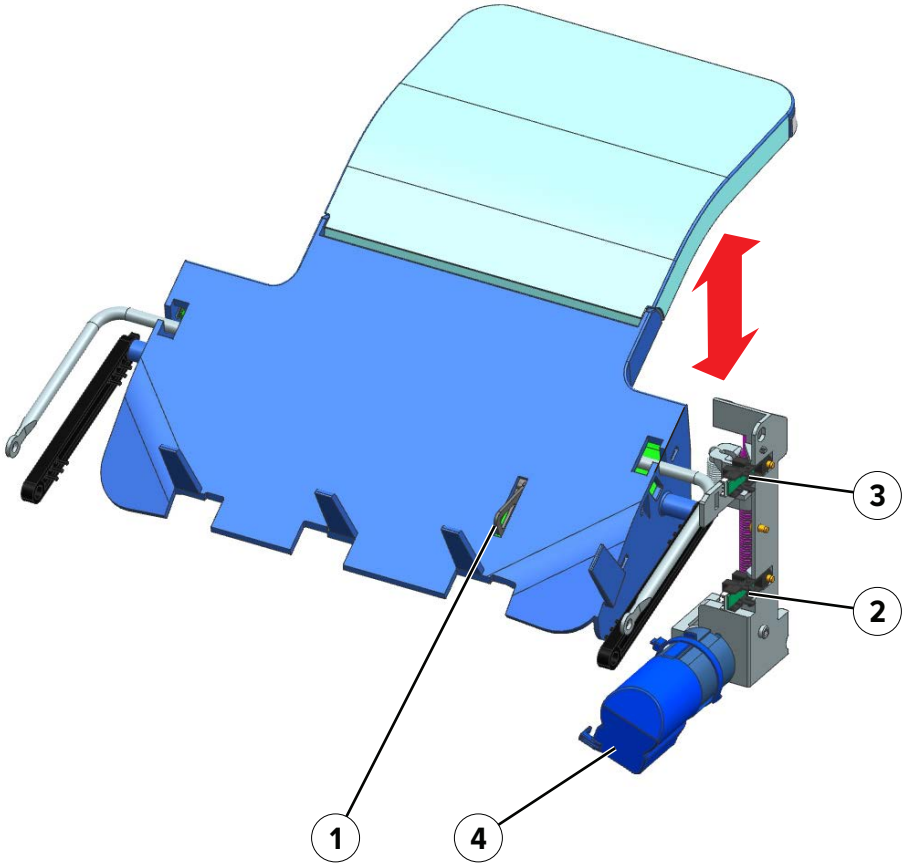


1	Ejector paddles
2	Sensor (staple throat paper present)
3	Sensor (ejector)
4	Motor (ejector)

After the paper stack is stapled, the ejector paddles connected to a belt push the stack toward the bin.

The motor (ejector) drives the ejector belt. The ejector belt is detected at its home position by the sensor (ejector).

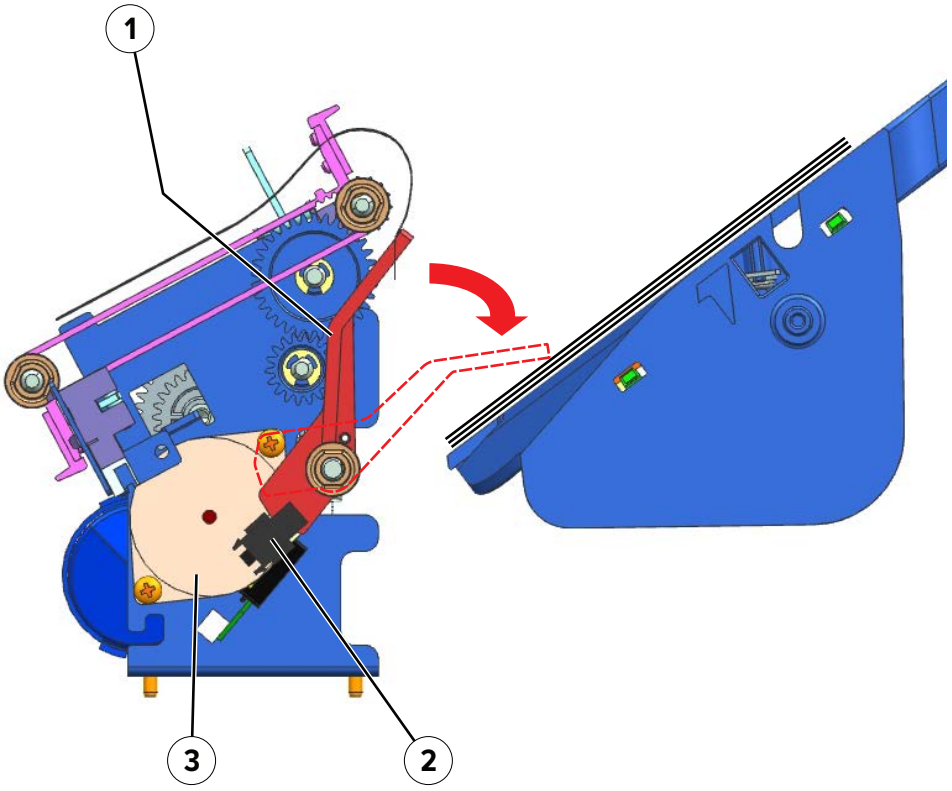
SHPF elevator drive



1	Sensor (bin paper present)
2	Sensor (elevator, bottom)
3	Sensor (elevator, top)
4	Motor (elevator)

For each sheet that is ejected, the elevator bin lowers as the height of the bin stack increases. The movement of the bin is controlled by the motor (elevator). The bin is detected at its upper and lower positions by sensors.

SHPF bin clamp drive



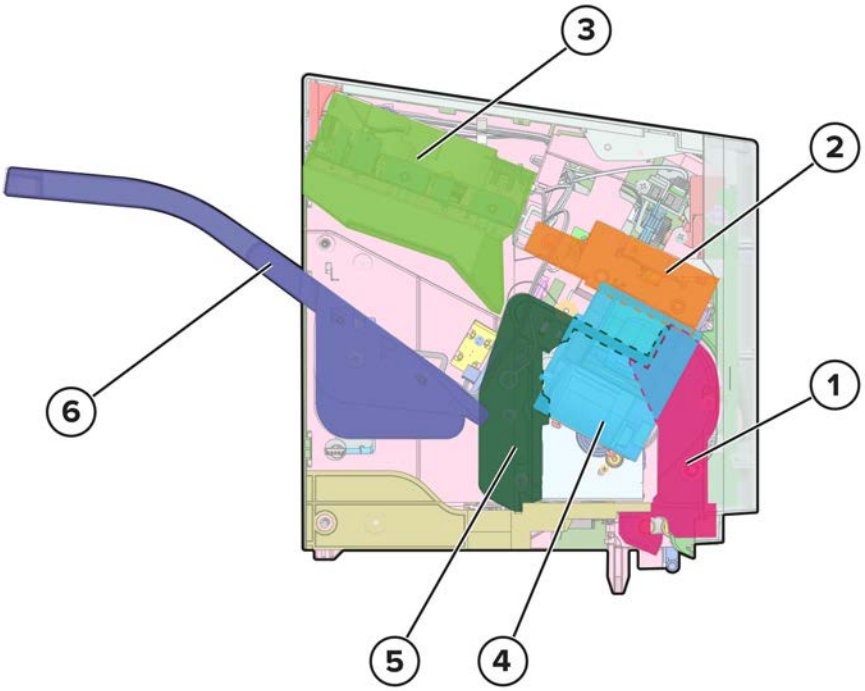
1	Bin clamp
2	Sensor (bin clamp)
3	Motor (bin clamp)

For each sheet that is ejected to the bin, the bin clamp lowers and holds the paper stack. If the level of the paper stack on the bin reaches the sensor (bin full), then the elevator bin will lower to accommodate more sheets.

The motor (bin clamp) controls the bin clamp. The clamp is detected at its home position by the sensor (bin clamp).

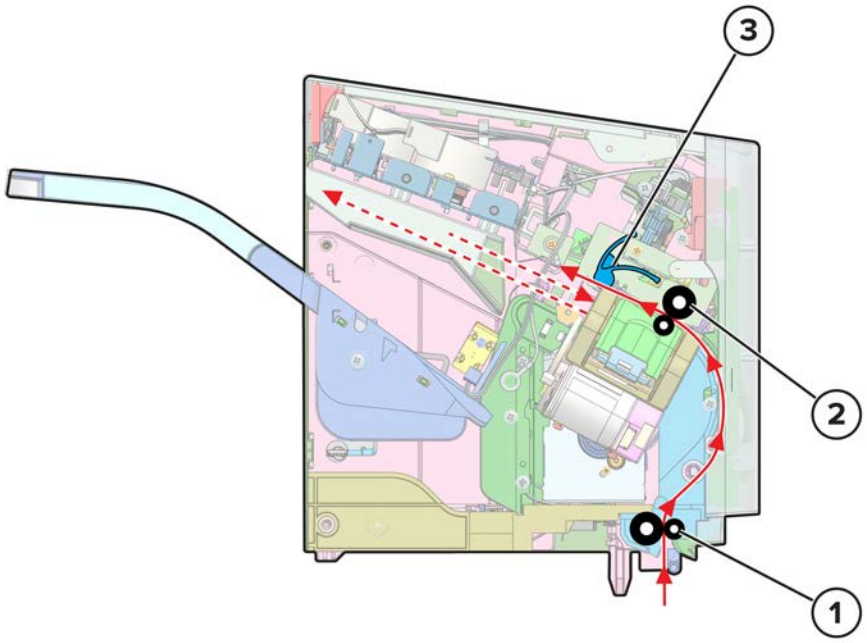
Optional staple finisher operation

Staple finisher (SF) layout



1	Feed section
2	Exit section
3	Tamper
4	Staple unit
5	Ejector
6	Bin

SF paper path rollers



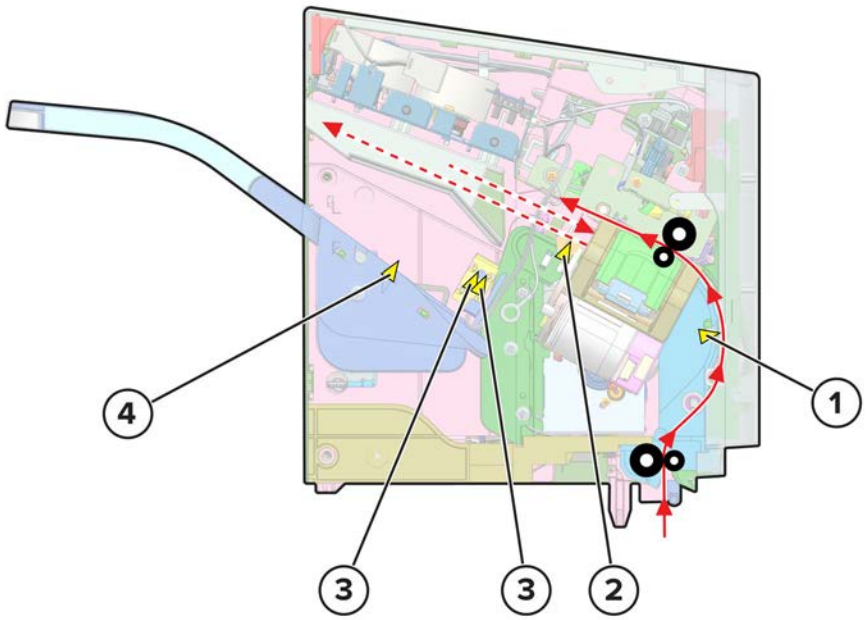
1	Staple finisher entrance rollers
2	Staple finisher exit rollers
3	Staple finisher paddle rollers

For staple jobs, the paper path is redirected to the finisher.

Before stapling occurs, paper is stacked on top of each other and aligned along its edges.

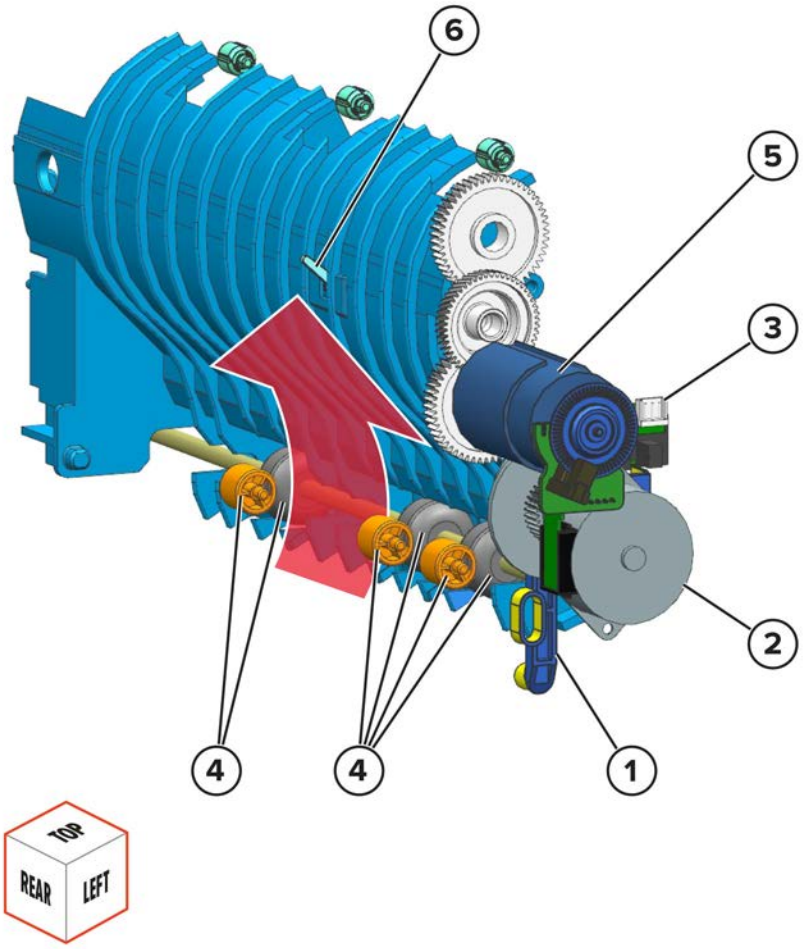
When the staple job is done, the paper is ejected to the bin.

SF paper path sensors



#	Sensor	Function
1	Sensor (staple finisher pass-through)	Detects paper position along the rear door path
2	Sensor (staple throat paper present)	Detects paper presence in the staple unit area
3	Sensors (staple finisher bin full)	Detects the bin status
4	Sensor (finisher bin paper present)	Detects paper presence in the bin

SF feed section

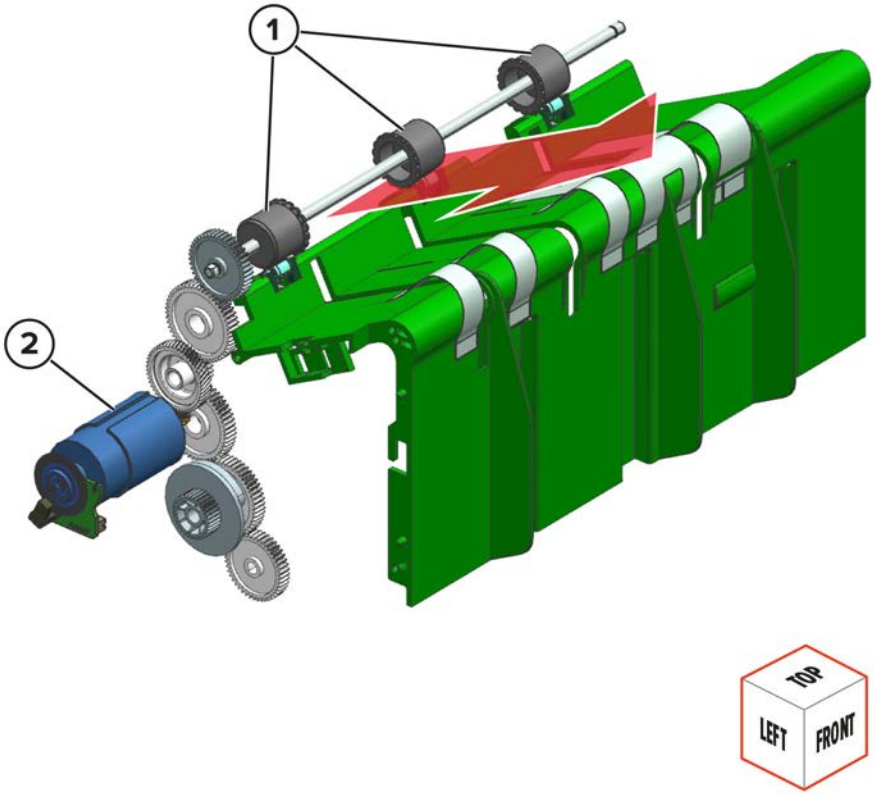


1	Diverter plunger
2	Motor (staple finisher diverter)
3	Sensor (staple finisher diverter plunger)
4	Entrance rollers
5	Motor (staple finisher transport)
6	Sensor (staple finisher pass-through)

The feed section receives paper from the printer. The diverter plunger controls the movement of the diverter. The diverter under the finisher switches to open up the paper path of the finisher. The motor (SF diverter) drives the movement of the plunger. The sensor (SF diverter plunger) detects the position of the plunger.

The entrance rollers transport paper to the compiler section. The motor (SF transport) drives the entrance rollers. The sensor (SF pass-through) detects paper position along the rear door path.

SF exit section



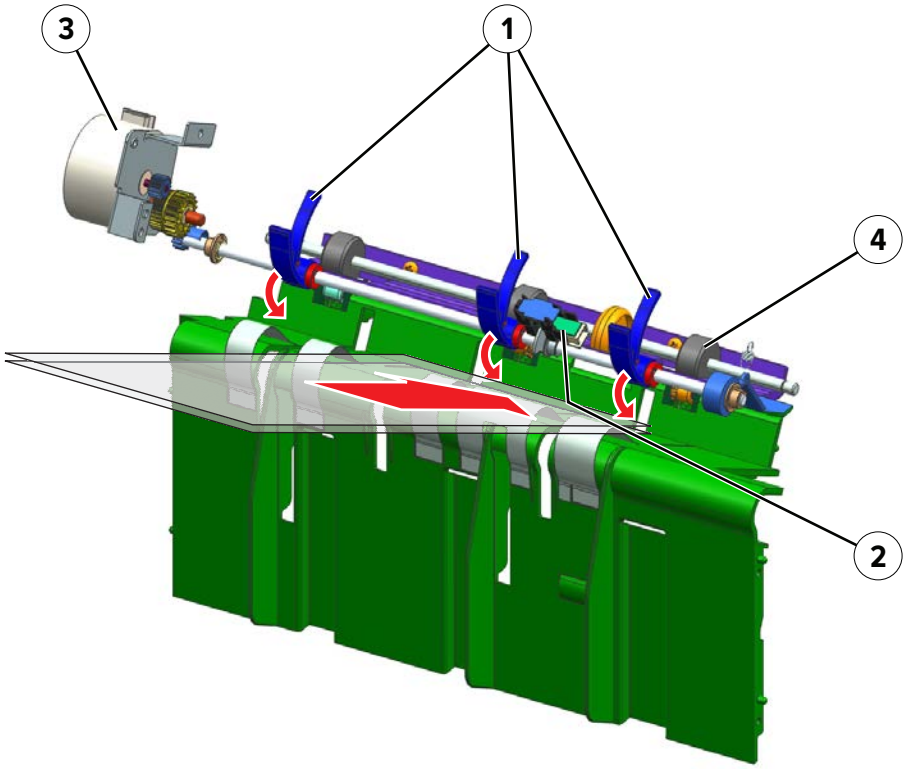
1	Exit rollers
2	Motor (staple finisher transport)

The exit rollers receive the paper from the entrance rollers, and then eject the paper to the compiler section. Paper is stacked on the tamper tray in preparation for stapling.

The motor (SF transport) drives both exit and entrance rollers. See **“SF feed section” on page 1009**.

SF paper stack edge alignment drives

Short edge alignment

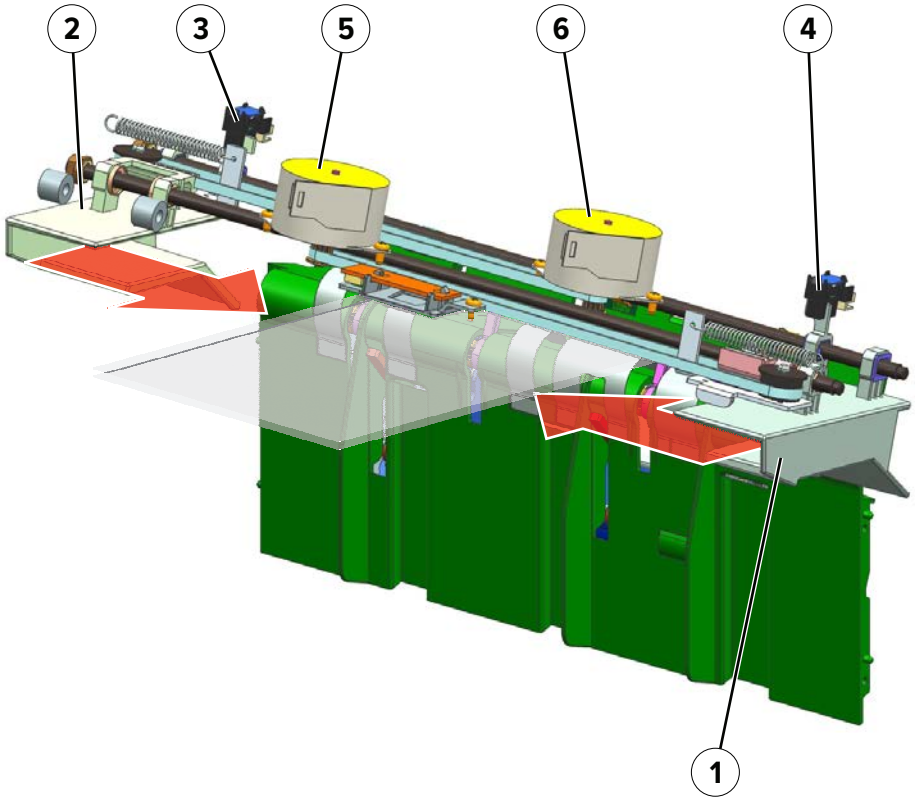


1	Paddles
2	Sensor (staple finisher paddle)
3	Motor (staple finisher paddle)
4	Exit roller

Each sheet that is added to the paper stack is aligned along its short edges. The paddles push the paper against a wall to align the trailing edge.

The motor (SF paddle) drives the paddles. The sensor (SF paddle) detects the position of the paddle.

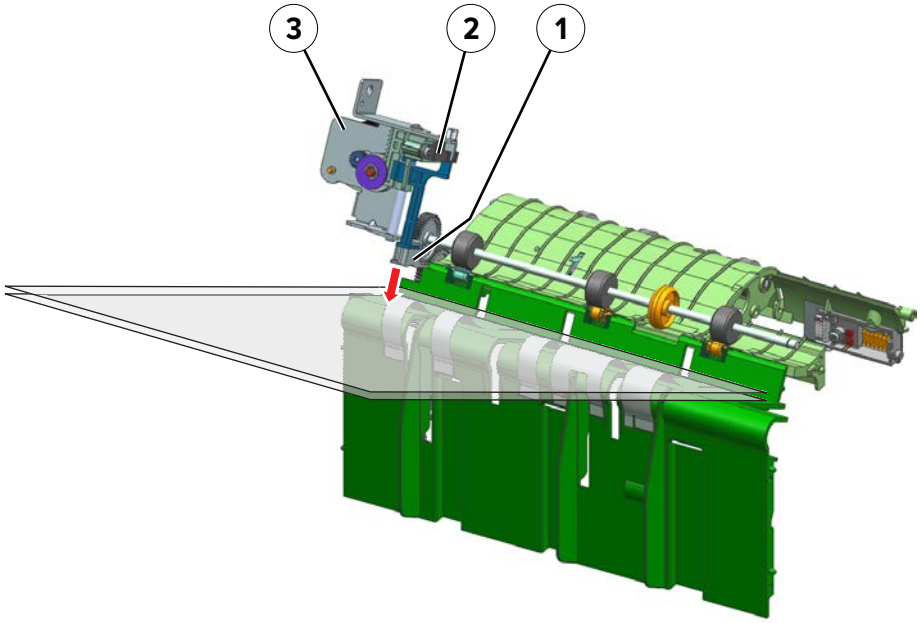
Long edge alignments



1	Right tamper
2	Left tamper
3	Sensor (staple finisher left tamper)
4	Sensor (staple finisher right tamper)
5	Motor (staple finisher right tamper)
6	Motor (staple finisher left tamper)

On the tamper tray, each sheet that is added to the paper stack is aligned by the tampers. The tampers push inward to align the long edges of the paper stack. Two motors control the position and movement of the tampers. The sensors detect each tamper at its home position.

SF paper stack height detection



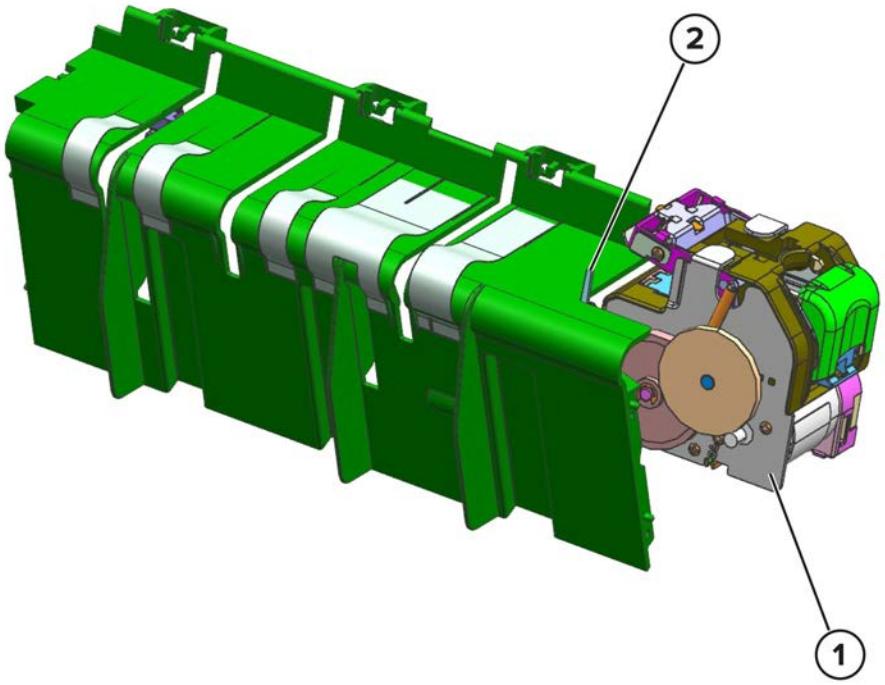
1	Stack height actuator
2	Sensor (staple finisher stack height)
3	Motor (staple finisher stack height)

Stack height detection is done each time a sheet is added to the paper stack.

The stack height actuator presses on top of the paper stack. The sensor (SF stack height) detects if the stack thickness has reached the limit. Limiting the thickness of the stack prevents damage to the staple unit.

The motor (SF stack height) drives the actuator.

SF staple operation



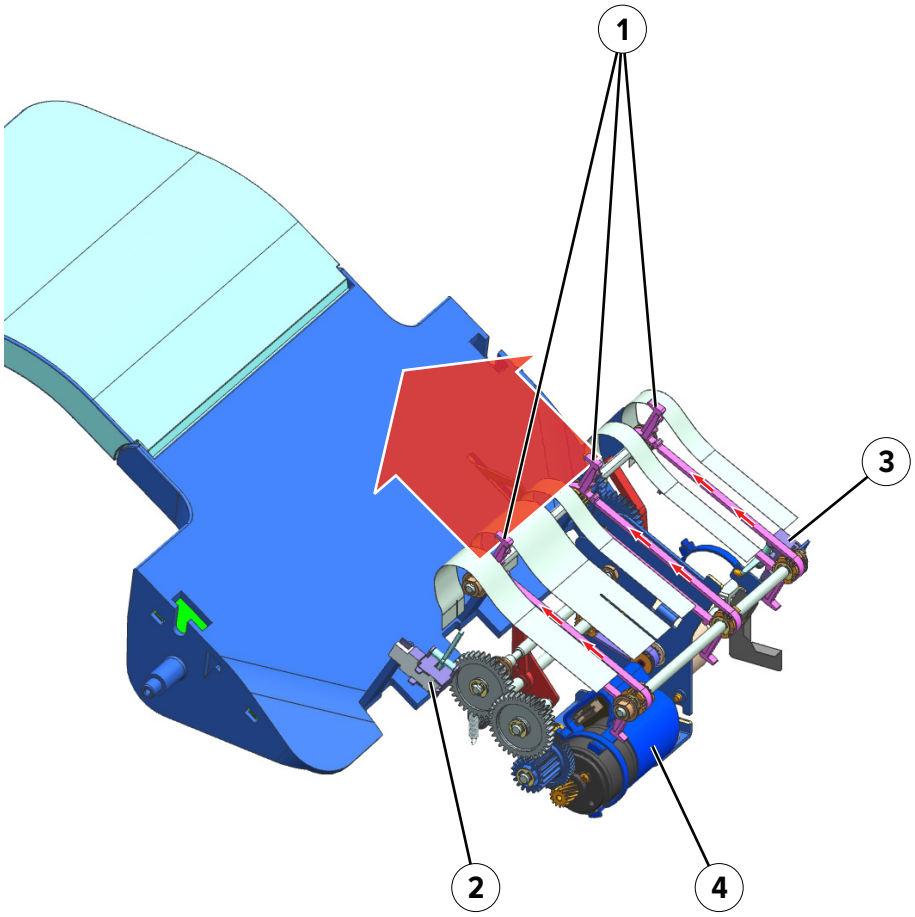
1	Staple unit
2	Sensor (staple throat paper present)

For staple jobs, the paddles push the paper stack to the rear of the finisher.

The sensor (staple throat paper present) detects the paper stack. The staple unit holds down and staples the paper stack.

SF bin section

Ejector drive

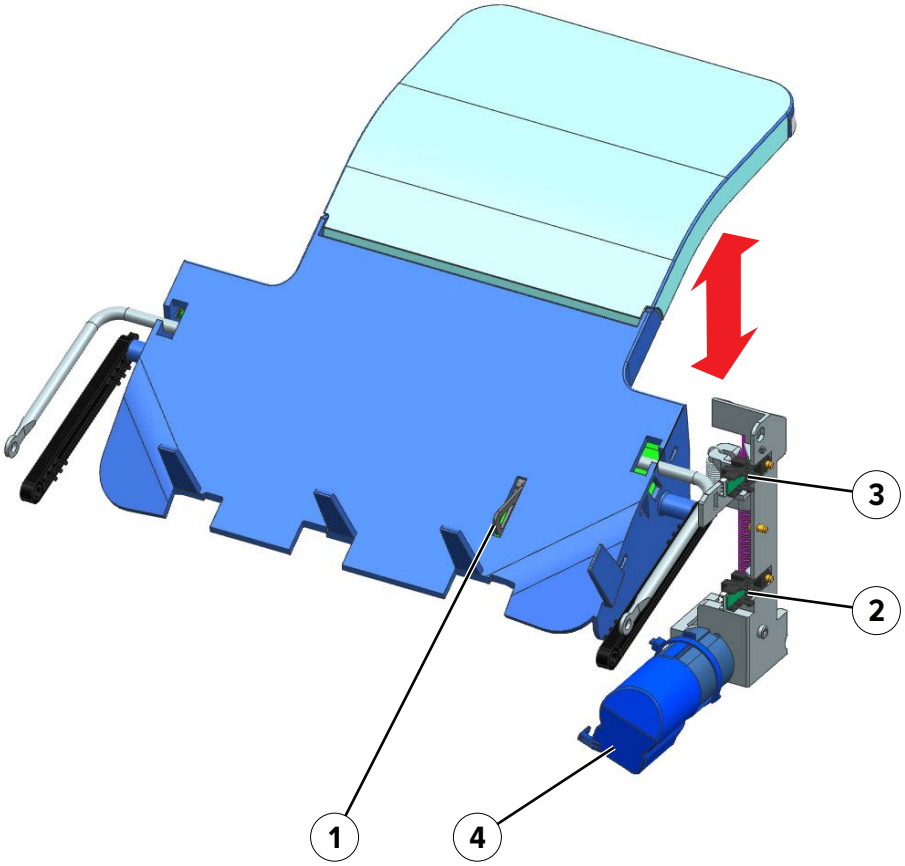


1	Ejector paddles
2	Sensor (staple throat paper present)
3	Sensor (staple finisher ejector)
4	Motor (staple finisher ejector)

After the paper stack is stapled, the ejector paddles that are connected to a belt push the stack toward the bin.

The motor (SF ejector) drives the ejector belt. The sensor (SF ejector) detects the ejector belt at its home position.

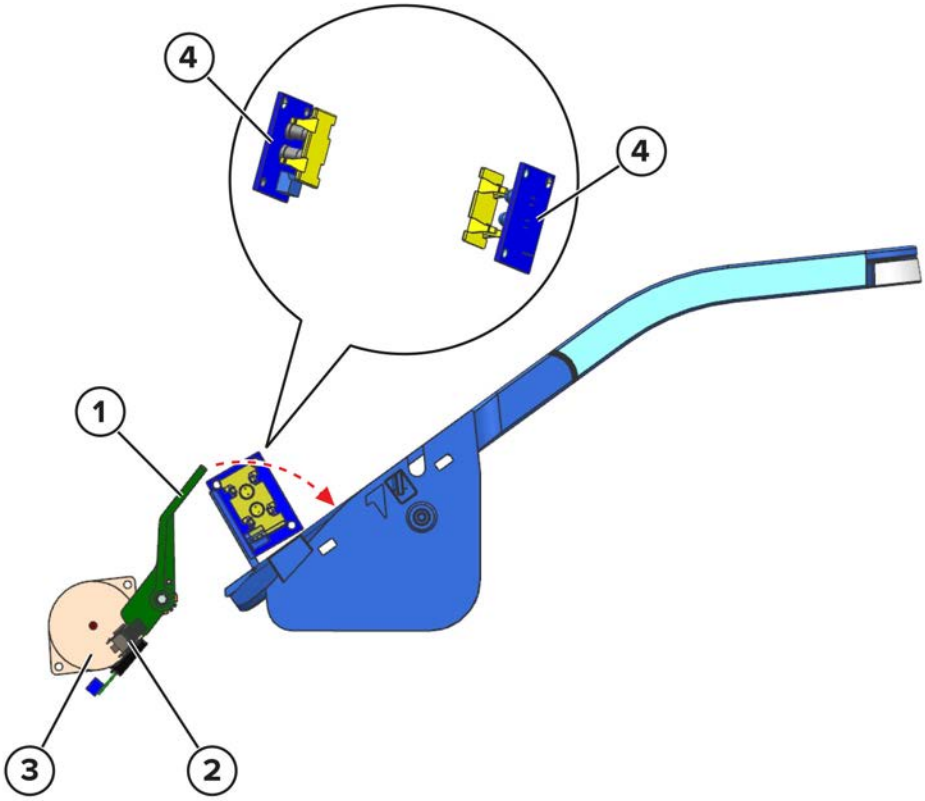
Elevator drive



1	Sensor (bin paper present)
2	Sensor (elevator, bottom)
3	Sensor (elevator, top)
4	Motor (elevator)

For each sheet that is ejected, the elevator bin lowers as the height of the bin stack increases. The motor (elevator) controls the movement of the bin. The sensors (elevator) detects the bin at its upper and lower positions.

Clamp drive



1	Bin clamps
2	Sensor (bin clamp)
3	Motor (bin clamp)
4	Sensors (bin full)

For each sheet that is ejected to the bin, the bin clamps lower and hold the paper stack. If the level of the paper stack on the bin reaches the sensors (bin full), then the elevator bin lowers to accommodate more sheets.

If the level of the paper stack exceeds the sensors (bin full), then the bin reaches full capacity.

The motor (bin clamp) controls the movement of the bin clamp. The sensor (bin clamp) detects the clamps at their home position.

Acronyms

Acronyms

ASIC	Application-Specific Integrated Circuit
BLDC	Brushless DC Motor
BOR	Black Only Retract
C	Cyan
CCD	Charge Coupled Device
CCP	Carbonless Copy Paper
CIS	Contact Image Sensors
CRC	Cyclic Redundancy Check
CSU	Customer Setup
CTLS	Capacitance Toner Level Sensing
DIMM	Dual Inline Memory Module
DRAM	Dynamic Random Access Memory
EDO	Enhanced Data Out
EP	Electrophotographic Process
EPROM	Erasable Programmable Read-Only Memory
ESD	Electrostatic Discharge
FRU	Field Replaceable Unit
GB	Gigabyte
HCF	High-Capacity Feeder
HCIT	High-Capacity Input Tray
HCOF	High-Capacity Output Finisher
HVPS	High Voltage Power Supply
K	Black
LCD	Liquid Crystal Display
LDAP	Lightweight Directory Access Protocol
LED	Light-Emitting Diode
LVPS	Low Voltage Power Supply
M	Magenta
MB	Megabyte
MFP	Multifunction Printer
MPF	Multipurpose Feeder
MROM	Masked Read Only Memory

MS	Microswitch
NVM	Non-volatile Memory
NVRAM	Non-volatile Random Access Memory
OEM	Original Equipment Manufacturer
OPT	Optical Sensor
PC	Photoconductor
pel, pixel	Picture element
POR	Power-On Reset
POST	Power-On Self Test
PSD	Position Sensing Device
PWM	Pulse Width Modulation
RIP	Raster Imaging Processor
ROM	Read Only Memory
SDRAM	Synchronous Dual Random Access Memory
SIMM	Single Inline Memory Module
SRAM	Static Random Access Memory
TPS	Toner Patch Sensing
UICC	User Interface Controller Card
UPR	Used Parts Return
V ac	Volts alternating current
V dc	Volts direct current
VTB	Vacuum Transport Belt
Y	Yellow

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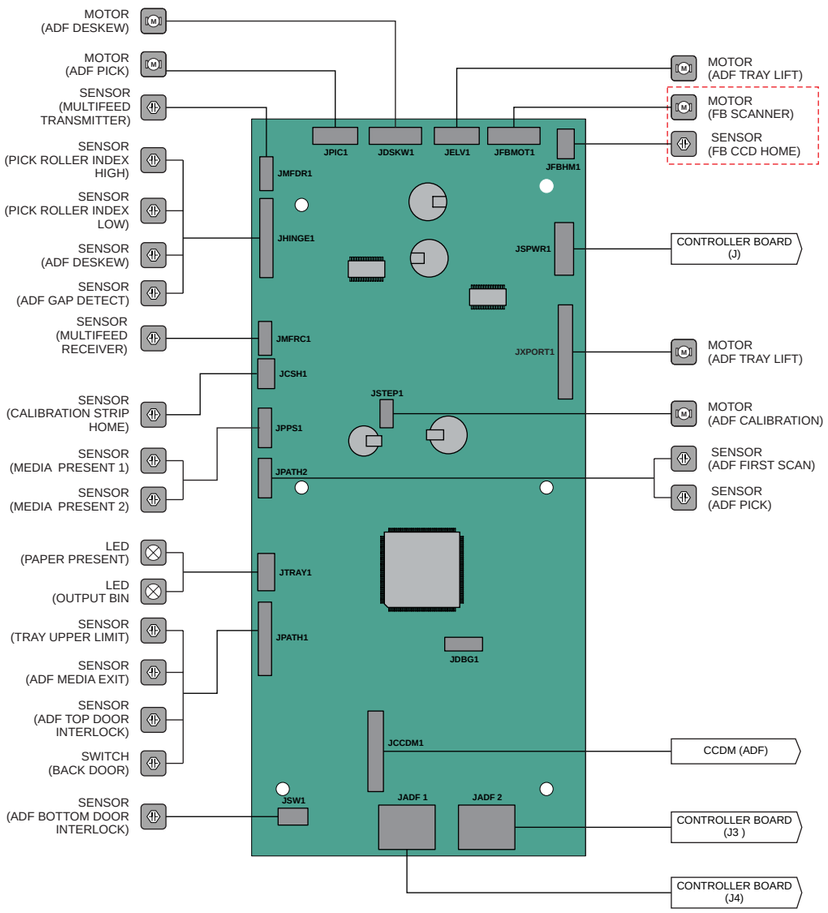
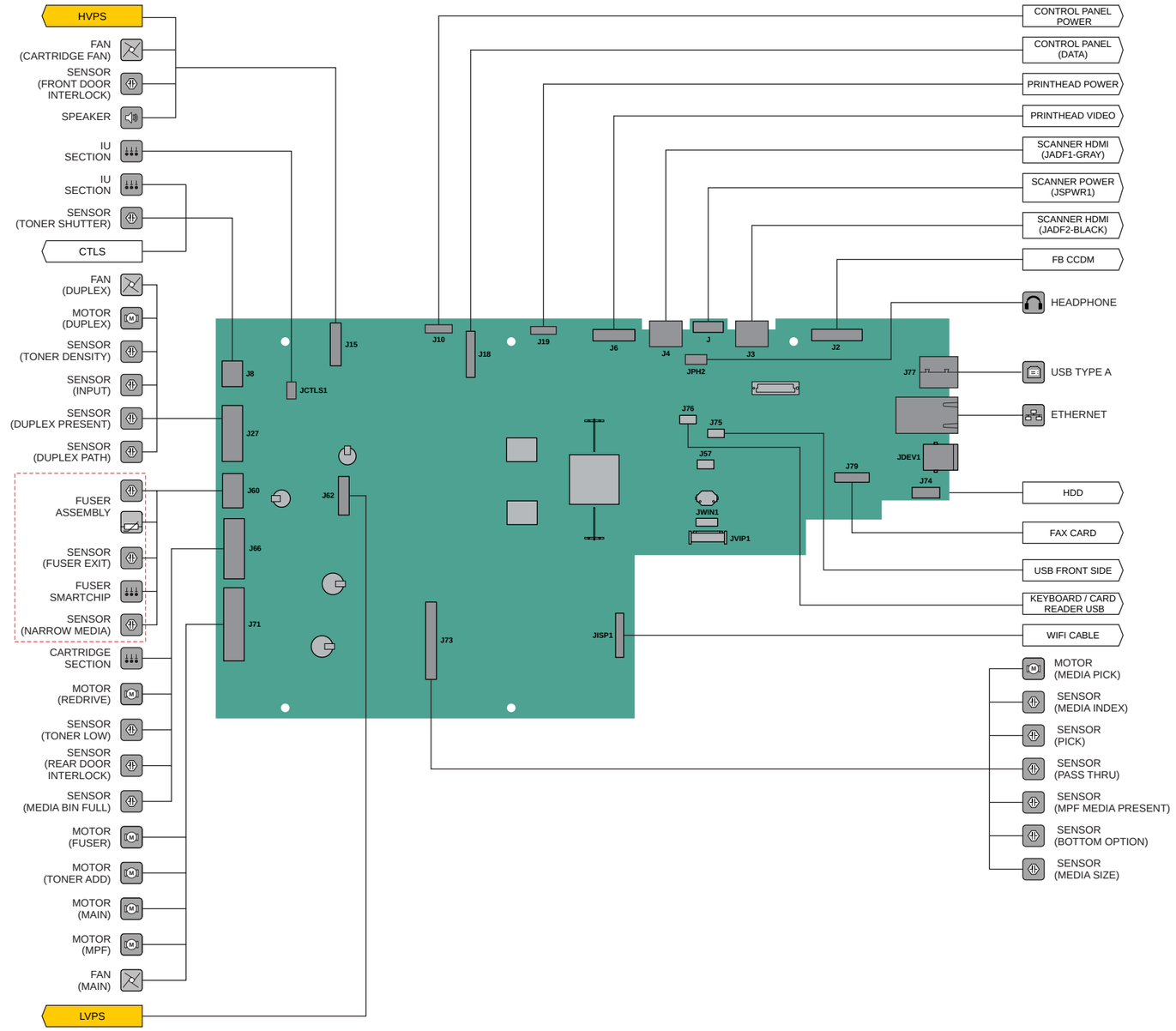
MX72x, MB2770, XM53xx, MX82x, XM73xx
WIRING DIAGRAM

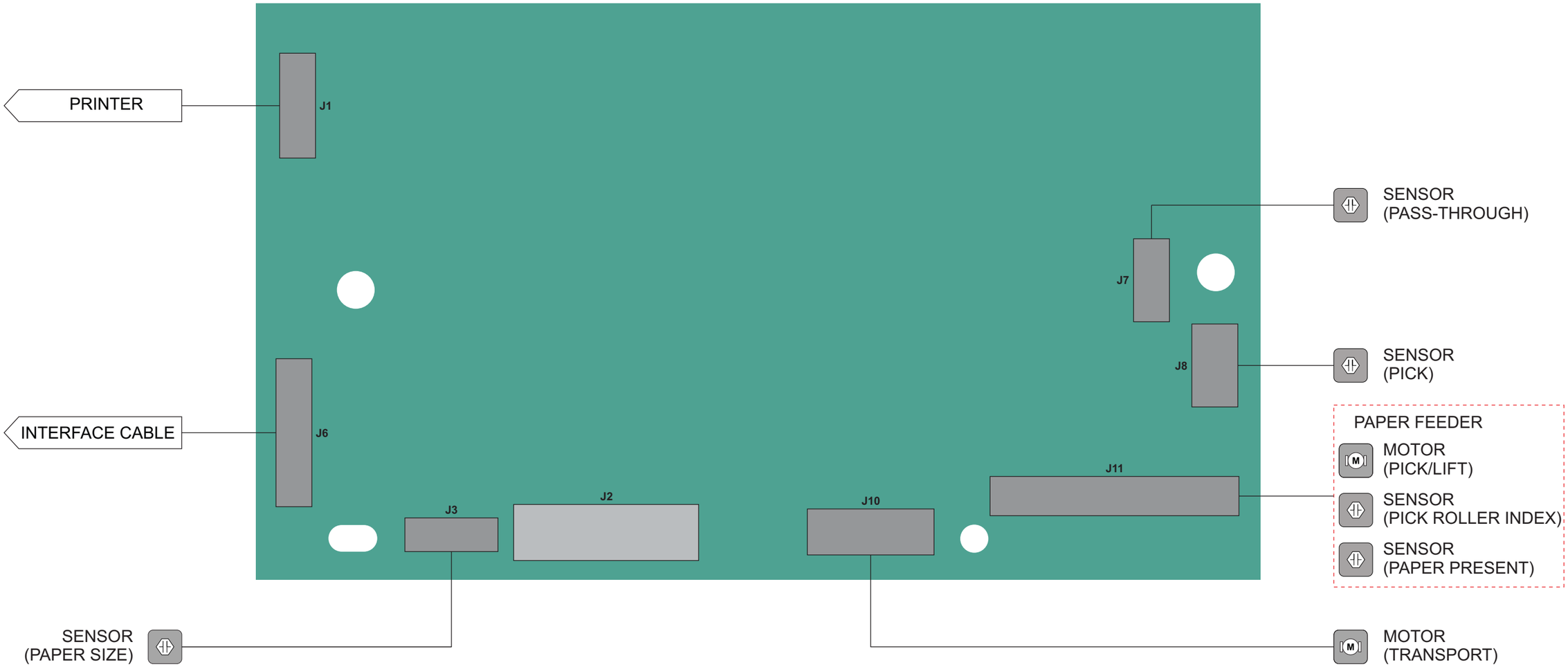
SCANNER BOARD



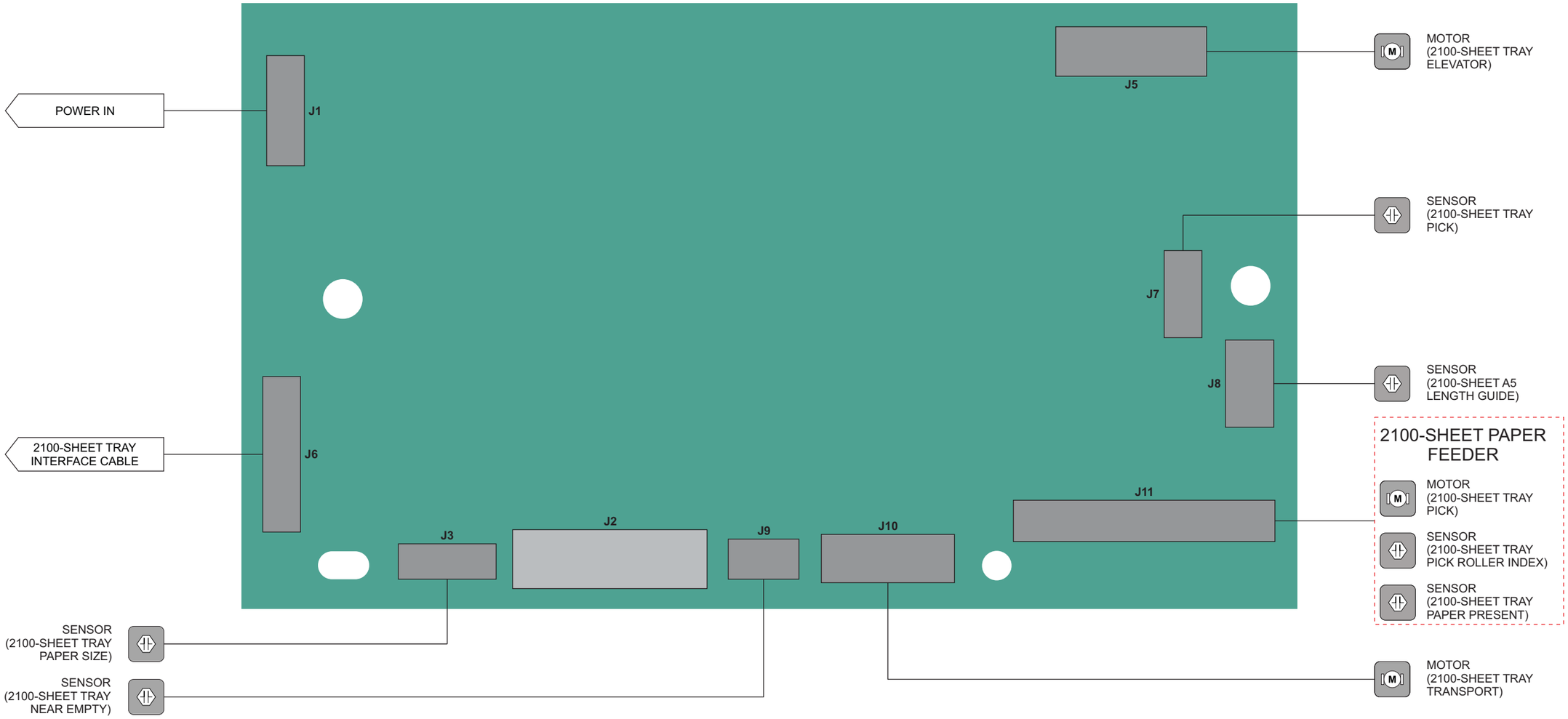
CONTROLLER BOARD



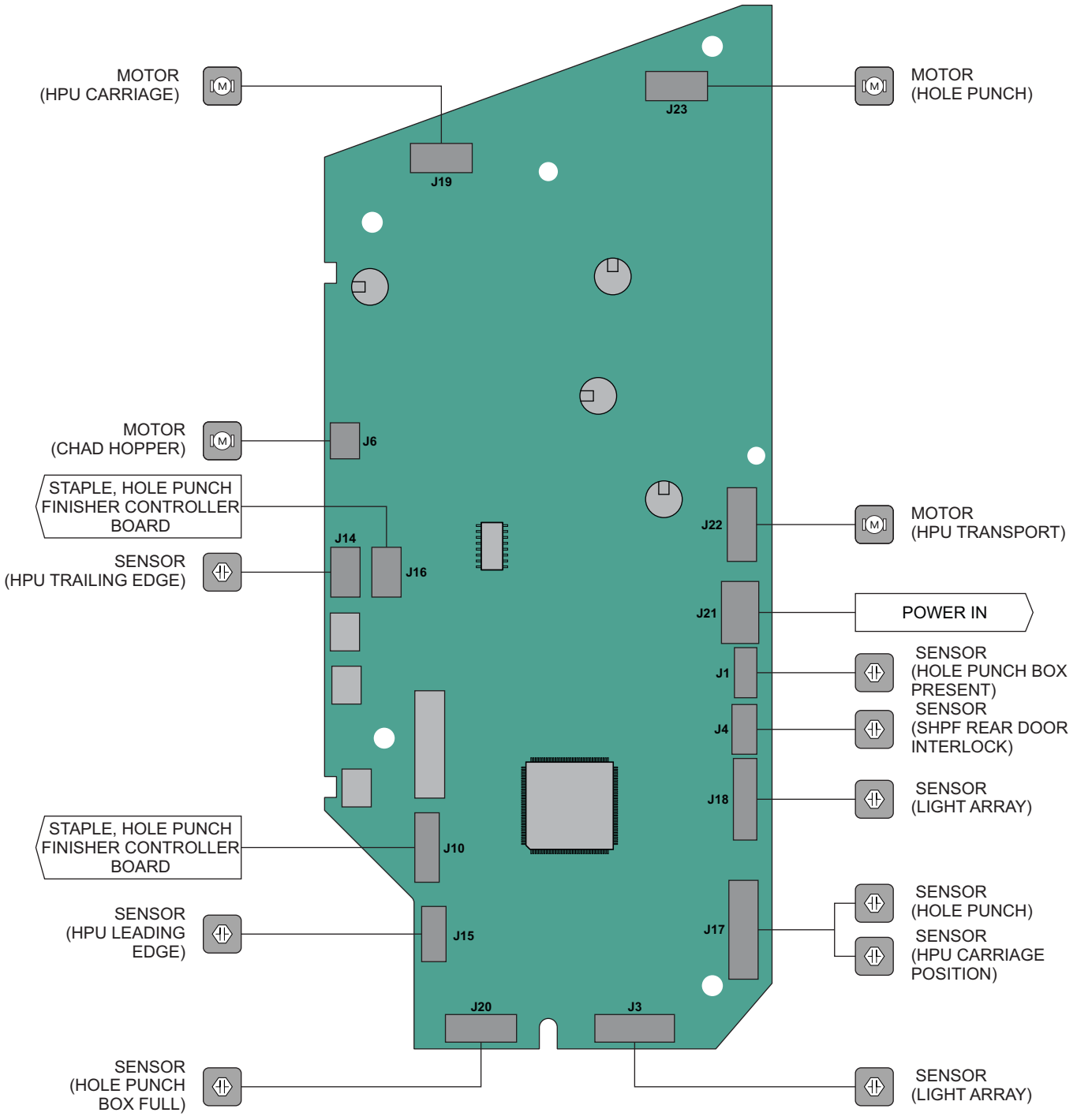
250/550-SHEET TRAY
WIRING DIAGRAM



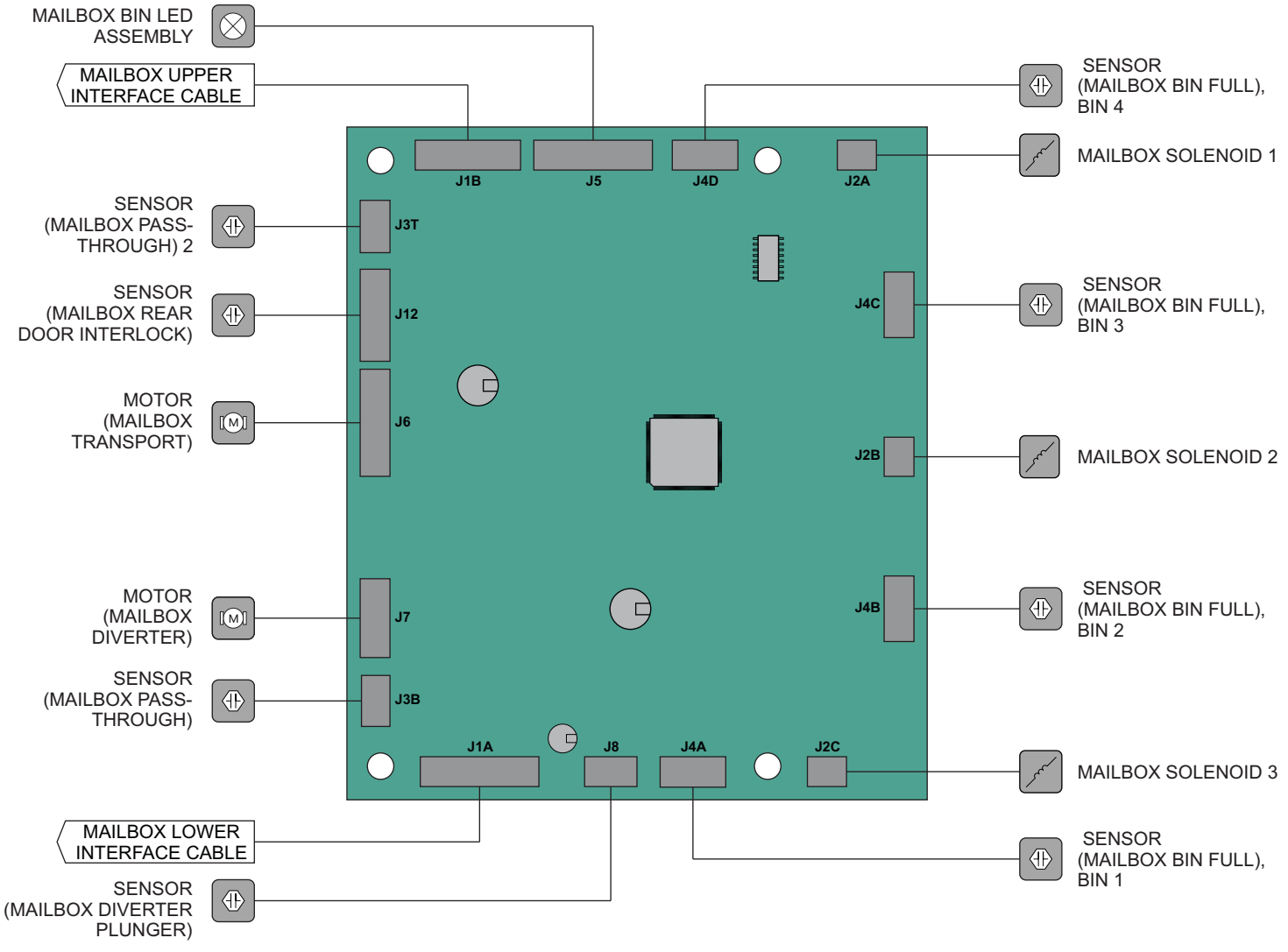
2100-SHEET TRAY
WIRING DIAGRAM

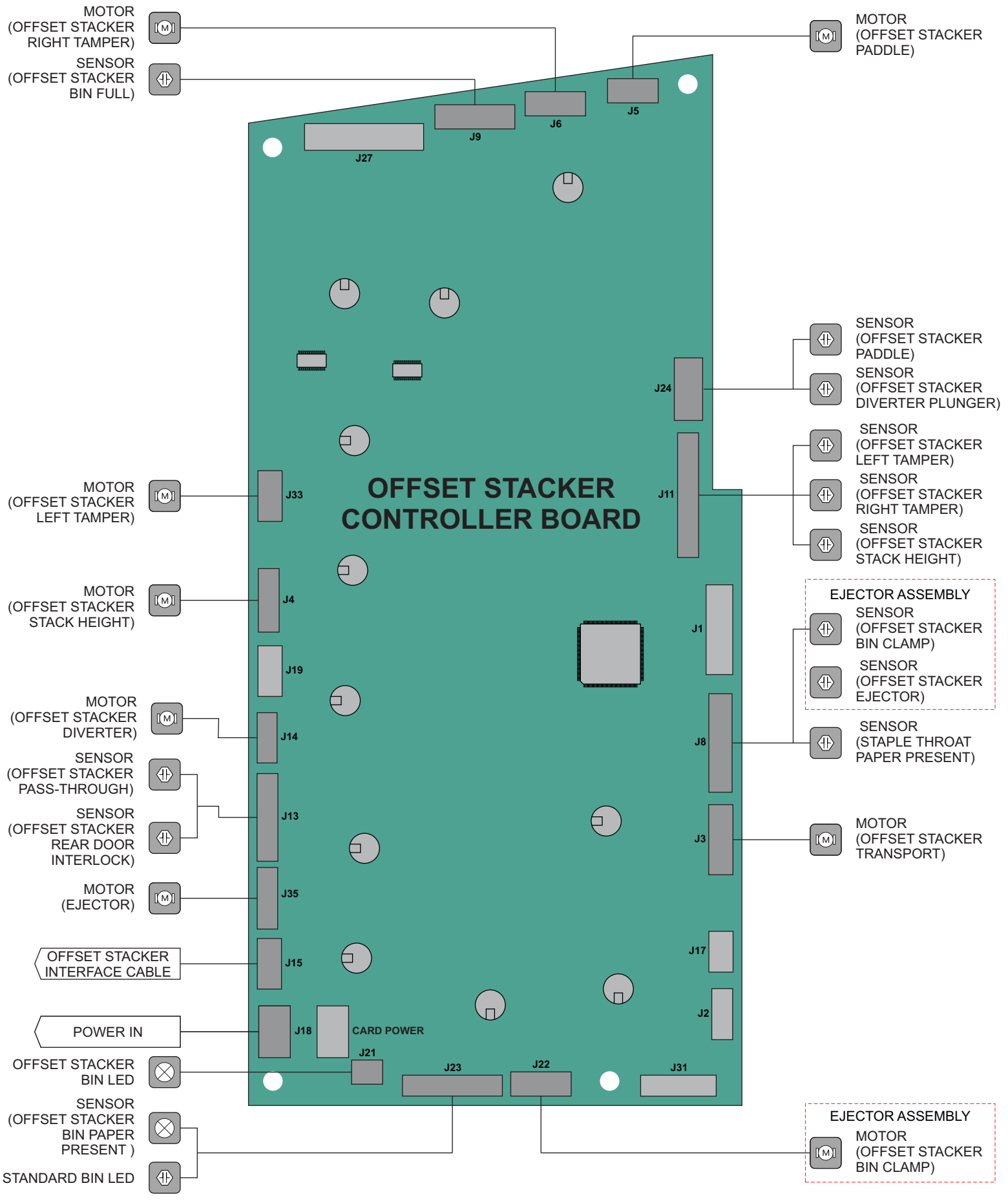


HPU CONTROLLER BOARD



MAILBOX CONTROLLER BOARD




MOTOR (OFFSET STACKER RIGHT TAMPER)
SENSOR (OFFSET STACKER BIN FULL)
MOTOR (OFFSET STACKER PADDLE)
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OFFSET STACKER CONTROLLER BOARD
SENSOR (OFFSET STACKER PADDLE)
SENSOR (OFFSET STACKER DIVERTER PLUNGER)
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SENSOR (OFFSET STACKER STACK HEIGHT)
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SENSOR (OFFSET STACKER PASS-THROUGH)
SENSOR (OFFSET STACKER REAR DOOR INTERLOCK)
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OFFSET STACKER INTERFACE CABLE
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OFFSET STACKER BIN LED
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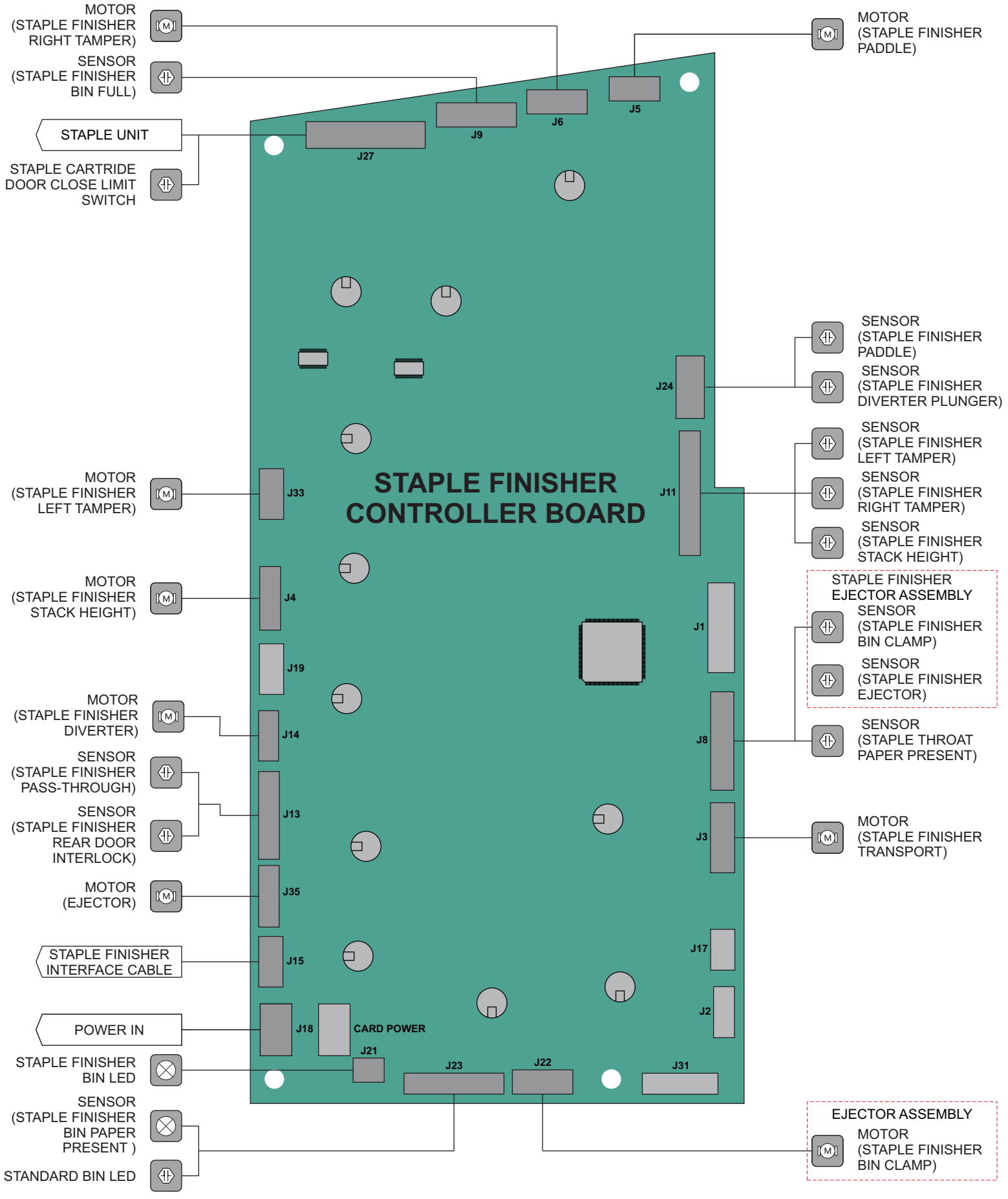
J22
J31
SENSOR (OFFSET STACKER BIN PAPER PRESENT)
STANDARD BIN LED
EJECTOR ASSEMBLY
MOTOR (OFFSET STACKER BIN CLAMP)


MOTOR (STAPLE FINISHER RIGHT TAMPER)
SENSOR (STAPLE FINISHER BIN FULL)
STAPLE UNIT
STAPLE CARTRIDE DOOR CLOSE LIMIT SWITCH
MOTOR (STAPLE FINISHER PADDLE)
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STAPLE FINISHER CONTROLLER BOARD
SENSOR (STAPLE FINISHER PADDLE)
SENSOR (STAPLE FINISHER DIVERTER PLUNGER)
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SENSOR (STAPLE FINISHER LEFT TAMPER)
SENSOR (STAPLE FINISHER RIGHT TAMPER)
SENSOR (STAPLE FINISHER STACK HEIGHT)
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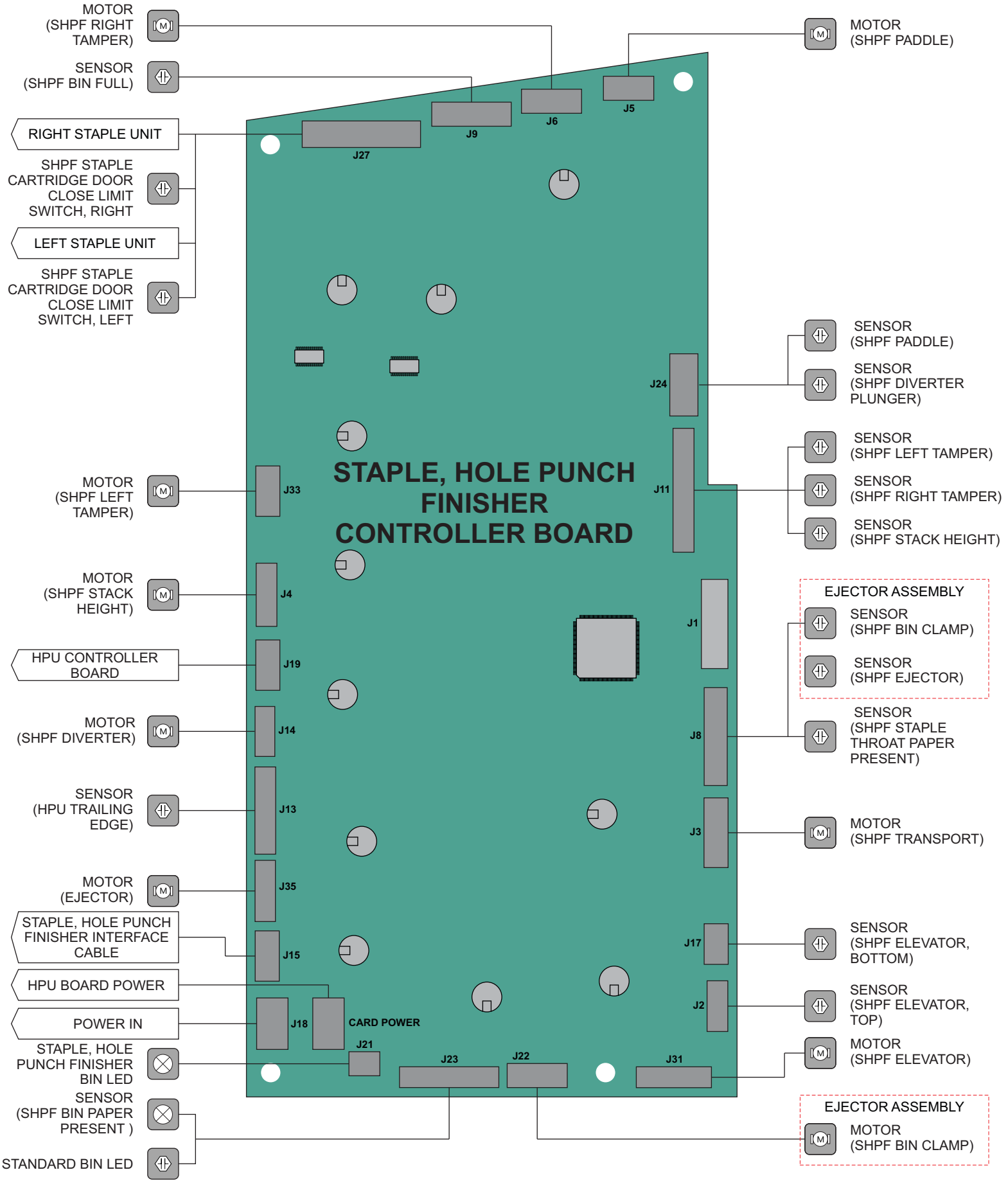
SENSOR (STAPLE FINISHER BIN PAPER PRESENT)
STANDARD BIN LED
EJECTOR ASSEMBLY
MOTOR (STAPLE FINISHER BIN CLAMP)


MOTOR (SHPF RIGHT TAMPER)
SENSOR (SHPF BIN FULL)
RIGHT STAPLE UNIT
SHPF STAPLE CARTRIDGE DOOR CLOSE LIMIT SWITCH, RIGHT
LEFT STAPLE UNIT
SHPF STAPLE CARTRIDGE DOOR CLOSE LIMIT SWITCH, LEFT
MOTOR (SHPF LEFT TAMPER)
MOTOR (SHPF STACK HEIGHT)
HPU CONTROLLER BOARD
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MOTOR (EJECTOR)
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SENSOR (SHPF STAPLE THROAT PAPER PRESENT)
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MOTOR (SHPF ELEVATOR)
EJECTOR ASSEMBLY
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