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# Xerox® C410 Service Manual

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Service Manual

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# Notices, Conventions, and Safety Information

## Laser Notice

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

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

Class: IIIb (3b) AlGaAs

Nominal output power (milliwatts): 12

Wavelength (nanometers): 770-800

## Avis Relatif À L'utilisation Du Laser

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

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

Class: IIIb (3b) AlGaAs

Nominal output power (milliwatts): 12

Wavelength (nanometers): 770-800

## Aviso De Láser

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

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

Class: IIIb (3b) AlGaAs

Nominal output power (milliwatts): 12

Wavelength (nanometers): 770-800

## Laser-hinweis

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

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

Class: IIIb (3b) AlGaAs

Nominal output power (milliwatts): 12

Wavelength (nanometers): 770-800

## Conventions

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

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

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

Different types of caution statements include:

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

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

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

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

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



## 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 Xerox 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-Xerox 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 Xerox 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 Xerox 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 Xerox 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 Xerox Inline Surge Protector verwendet werden, der vorschriftsgemäß zwischen dem Drucker und dem mitgelieferten Netzkabel angeschlossen ist. Die Verwendung von nicht von Xerox 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.

# Health and Safety Incident Reporting

## I. Summary

This section defines requirements for notification of health and safety incidents involving Xerox products (equipment and materials) at customer locations.

## II. Scope

Xerox Corporation and subsidiaries worldwide.

## III. Objective

To enable prompt resolution of health and safety incidents involving Xerox products and to ensure Xerox regulatory compliance.

## IV. Definitions

Incident:

An event or condition occurring in a customer account that has resulted in injury, illness or property damage. Examples of incidents include machine fires, smoke generation, physical injury to an operator or service representative. Alleged events and product conditions are included in this definition.

## V. Requirements

Initial Report:

1. Xerox organizations shall establish a process for individuals to report product incidents to Xerox Environment Health and Safety within 24 hours of becoming aware of the event.
2. The information to be provided at the time of reporting is contained in Appendix A (Health and Safety Incident Report involving a Xerox product).
3. The initial notification may be made by the method that follows:
  - Email Xerox EH&S at: [usa.product.incident@xerox.com](mailto:usa.product.incident@xerox.com).
  - Fax Xerox EH&S at: 585-422-2249.

Responsibilities for resolution:



1. Business Groups/Product Design Teams responsible for the product involved in the incident shall:
  - a. Manage field bulletins, customer correspondence, product recalls, safety retrofits.
  - b. Fund all field retrofits.
2. Field Service Operations shall:
  - a. Preserve the Xerox product involved and the scene of the incident inclusive of any associated equipment located in the vicinity of the incident.
  - b. Return any affected equipment/part(s) to the location designated by Xerox EH&S and/or the Business Division.
  - c. Implement all safety retrofits.
3. Xerox EH&S shall:
  - a. Manage and report all incident investigation activities.
  - b. Review and approve proposed product corrective actions and retrofits, if necessary.
  - c. Manage all communications and correspondence with government agencies.
  - d. Define actions to correct confirmed incidents.

## VI. Appendices

The Health and Safety Incident Report involving a Xerox Product (Form # EH&S-700) is available in the following location:

- [GSN Library 1789](#)



# Change History

Change History

# Change History

# General Information

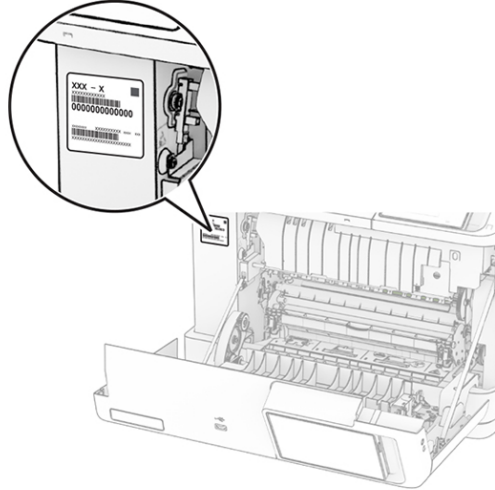
## Printer Model Configurations

The Xerox C410 SFP is color, network-capable laser printer.

Model	Configurations
C410	Color with 4.3-inch touch-screen display, duplex print, networking and hard disk support, optional tray support, wireless module support

## Finding The Printer Serial Number

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



C410S\_4249

## Selecting Paper

### Paper Guidelines

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

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

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

### Paper Characteristics

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

#### Weight

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

#### Curl

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

#### Smoothness

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

#### Moisture Content

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

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



## Grain Direction

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

## Fiber Content

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

## Unacceptable Paper

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

- Chemically treated papers that are used to make copies without carbon paper. They are also known as carbonless papers, carbonless copy paper (CCP), or no carbon required (NCR) paper
- Preprinted papers with chemicals that may contaminate the printer
- Preprinted papers that can be affected by the temperature in the printer fuser
- Preprinted papers that require a registration (the precise print location on the page) greater than  $\pm 2.3$  mm ( $\pm 0.9$  in.). For example, optical character recognition (OCR) forms

In some cases, registration can be adjusted with a software application to successfully print on these forms

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

## Storing Paper

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

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

## General Information

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

## Selecting Preprinted Forms and Letterhead

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

## Supported Paper Sizes

Paper sizes supported by the trays, manual feeder, and two-sided printing

Paper type	Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
			550-sheet tray	Multipurpose feeder		
<b>A4</b> 210 x 297 mm (8.27 x 11.7 in.)	✓	✓	✓	✓	✓	✓
<b>A5 Portrait (SEF)</b> <sup>1,2</sup> 148 x 210 mm (5.83 x 8.27 in.)	X	X	✓	X	✓	X
<b>A5 Landscape (LEF)</b> <sub>1,2</sub> 148 x 210 mm (5.83 x 8.27 in.)	✓	✓	X	X	X	X
<b>A6</b> 105 x 148 mm (4.13 x 5.83 in.)	✓	✓	X	✓	X	X
<b>1/3 A4</b>	✓	✓	X	✓	X	X

Paper type	Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
			550-sheet tray	Multipurpose feeder		
95 x 210 mm (3.7 x 8.3 in.)						
<b>JIS B5</b> 182 x 257 mm (7.17 x 10.1 in.)	✓	✓	✓	✓	✓	X
<b>Letter</b> 215.9 x 279.4 mm (8.5 x 11 in.)	✓	✓	✓	✓	✓	✓
<b>Legal</b> 215.9 x 355.6 mm (8.5 x 14 in.)	✓	✓	✓	✓	✓	✓
<b>Executive</b> 184.2 x 266.7 mm (7.25 x 10.5 in.)	✓	✓	✓	✓	✓	X
<b>Oficio (Mexico)</b> 215.9 x 340.4 mm (8.5 x 13.4 in.)	✓	✓	✓	✓	✓	✓
<b>Folio</b> 215.9 x 330.2 mm (8.5 x 13 in.)	✓	✓	✓	✓	✓	✓
<b>Statement</b> 139.7 x 215.9 mm (5.5 x 8.5 in.)	✓	✓	X	✓	X	X
<b>Hagaki</b> 100 x 148 mm (3.94 x 5.83 in.)	✓	✓	X	✓	X	X
<b>Universal</b> <sup>3,4</sup> 98.4 x 148 mm to 215.9 x 355.6 mm (3.87 x 5.83 in. to 8.5 x 14 in.)	✓	✓	X	✓	X	X
<b>Universal</b> <sup>3,4</sup> 76.2 x 127 mm to 215.9 x 355.6 mm (3 x 5 in. to 8.5 x 14 in.)	X	✓	X	✓	X	X

General Information

Paper type	Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
			550-sheet tray	Multipurpose feeder		
<b>Universal</b> <sup>3,4</sup> 148 x 210 mm to 215.9 x 355.6 mm (5.83 x 8.27 in. to 8.5 x 14 in.)	✓	✓	✓	✓	✓	X
<b>Universal</b> <sup>3,4</sup> 210 x 250 mm to 215.9 x 355.6 mm (8.27 x 9.84 in. to 8.5 x 14 in.)	✓	✓	✓	✓	✓	✓
<b>7 3/4 Envelope</b> 98.4 x 190.5 mm (3.875 x 7.5 in.)	✓	✓	X	✓	X	X
<b>9 Envelope</b> 98.4 x 225.4 mm (3.875 x 8.9 in.)	✓	✓	X	✓	X	X
<b>10 Envelope</b> 104.8 x 241.3 mm (4.12 x 9.5 in.)	✓	✓	X	✓	X	X
<b>DL Envelope</b> 110 x 220 mm (4.33 x 8.66 in.)	✓	✓	X	✓	X	X
<b>C5 Envelope</b> 162 x 229 mm (6.38 x 9.01 in.)	✓	✓	X	✓	X	X
<b>B5 Envelope</b> 176 x 250 mm (6.93 x 9.84 in.)	✓	✓	X	✓	X	X
<b>Monarch</b> 98.425 x 190.5 mm (3.875 x 7.5 in.)	X	X	X	X	X	X


Paper type	Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
			550-sheet tray	Multipurpose feeder		
<b>Other Envelope</b> <sup>5</sup> 98.4 x 162 mm to 176 x 250 mm (3.87 x 6.38 in. to 6.93 x 9.84 in.)	✓	✓	X	✓	X	X
<p><sup>1</sup> Load this paper size into the standard tray and the manual feeder with the long edge entering the printer first.</p> <p><sup>2</sup> Load this paper size into the optional trays and the multipurpose feeder with the short edge entering the printer first.</p> <p><sup>3</sup> When Universal is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the software application.</p> <p><sup>4</sup> Load narrow paper with the short edge entering the printer first.</p> <p><sup>5</sup> When Other Envelope is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the software application.</p>						

#### Paper sizes supported by the automatic document feeder

Paper size and dimension	Automatic document feeder
<b>A4</b> 210 x 297 mm (8.27 x 11.7 in.)	✓
<b>A5 Portrait (SEF)</b> 148 x 210 mm (5.83 x 8.27 in.)	✓
<b>A5 Landscape (LEF)</b> 210 x 148 mm (8.27 x 5.83 in.)	✓
<b>A6</b> 105 x 148 mm (4.13 x 5.83 in.)	✓
<b>1/3 A4</b> 95 x 210 mm (3.7 x 8.3 in.)	X
<b>JIS B5</b> 182 x 257 mm (7.17 x 10.1 in.)	✓
<b>Letter</b> 215.9 x 279.4 mm (8.5 x 11 in.)	✓
<b>Legal</b> 215.9 x 355.6 mm (8.5 x 14 in.)	✓
<b>Executive</b> 184.2 x 266.7 mm (7.25 x 10.5 in.)	✓
<b>Oficio (Mexico)</b>	✓

## General Information

Paper size and dimension	Automatic document feeder
215.9 x 340.4 mm (8.5 x 13.4 in.)	
<b>Folio</b> 215.9 x 330.2 mm (8.5 x 13 in.)	✓
<b>Statement</b> 139.7 x 215.9 mm (5.5 x 8.5 in.)	✓
<b>Hagaki</b> 100 x 148 mm (3.94 x 5.83 in.)	X
<b>Universal<sup>1,2</sup></b> 98.4 x 148 mm to 215.9 x 355.6 mm (3.87 x 5.83 in. to 8.5 x 14 in.)	X
<b>Universal<sup>1,2</sup></b> 76.2 x 127 mm to 215.9 x 355.6 mm (3 x 5 in. to 8.5 x 14 in.)	X
<b>Universal<sup>1,2</sup></b> 148 x 210 mm to 215.9 x 355.6 mm (5.83 x 8.27 in. to 8.5 x 14 in.)	✓
<b>Universal<sup>1,2</sup></b> 210 x 250 mm to 215.9 x 355.6 mm (8.27 x 9.84 in. to 8.5 x 14 in.)	✓
<b>7 3/4 Envelope</b> 98.4 x 190.5 mm (3.875 x 7.5 in.)	X
<b>9 Envelope</b> 98.4 x 225.4 mm (3.875 x 8.9 in.)	X
<b>10 Envelope</b> 104.8 x 241.3 mm (4.12 x 9.5 in.)	X
<b>DL Envelope</b> 110 x 220 mm (4.33 x 8.66 in.)	X
<b>C5 Envelope</b> 162 x 229 mm (6.38 x 9.01 in.)	X
<b>B5 Envelope</b> 176 x 250 mm (6.93 x 9.84 in.)	X
<b>Monarch</b> 98.425 x 190.5 mm (3.875 x 7.5 in.)	X
<b>Other Envelope<sup>3</sup></b> 98.4 x 162 mm to 176 x 250 mm (3.87 x 6.38 in. to 6.93 x 9.84 in.)	X
<p><sup>1</sup> When Universal is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the software application.</p> <p><sup>2</sup> Load narrow paper with the short edge entering the printer first.</p> <p><sup>3</sup> When Other Envelope is selected, the page is formatted for 215.9 x 355.6 mm (8.5 x 14 in.) unless the size is specified by the software application.</p>	

 **Note:** Your printer model may have a 650-sheet duo tray, which consists of a 550-sheet tray and an integrated 100-sheet multipurpose feeder. The 550-sheet tray of the 650-sheet duo tray supports the same paper sizes as the optional 550-sheet tray. The integrated multipurpose feeder supports different paper sizes, types, and weights.

## Supported Paper Types

Paper type	Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
			550-sheet tray	Multipurpose feeder		
Plain	✓	✓	✓	✓	✓	✓
Card stock	✓	✓	✓	✓	✓	X
Labels	✓	✓	✓	✓	✓	✓
Vinyl Labels	✓	✓	✓	✓	✓	X
Envelope	✓	✓	X	✓	X	X

 **Note:**

- Your printer model may have a 650-sheet duo tray, which consists of a 550-sheet tray and an integrated 100-sheet multipurpose feeder. The 550-sheet tray of the 650-sheet duo tray supports the same paper type as the 550-sheet tray. The integrated multipurpose feeder supports different paper sizes, types, and weights.
- Labels, envelopes, and card stock always print at reduced speed.
- Vinyl labels are supported for occasional use only and must be tested for acceptability. Some vinyl labels may feed more reliably from the multipurpose feeder.

## Supported Paper Weights

Standard 250-sheet tray	Manual feeder	Optional 650-sheet duo tray		Optional 550-sheet tray	Two-sided printing
		550-sheet tray	Multipurpose feeder		
60–200 g/m <sup>2</sup> (16–53-lb bond)	60–200 g/m <sup>2</sup> (16–53-lb bond)	60–162 g/m <sup>2</sup> (16–43-lb bond)	60–162 g/m <sup>2</sup> (16–43-lb bond)	60–162 g/m <sup>2</sup> (16–43-lb bond)	60–105 g/m <sup>2</sup> (16–28-lb bond)

 **Note:**

- Your printer model may have a 650-sheet duo tray, which consists of a 550-sheet tray and an integrated 100-sheet multipurpose feeder. The 550-sheet tray of the 650-sheet duo tray supports the same paper types as the 550-sheet tray. The integrated multipurpose feeder supports different paper sizes, types, and weights.
- For 60 to 162 g/m<sup>2</sup> (16–43-lb bond) paper, grain long fibers are recommended.

## General Information

- Paper less than 75 g/m<sup>2</sup> (20-lb bond) must be printed with Paper Type set to Light Paper. Failure to do so may cause excessive curl which can lead to feeding errors, especially in more humid environments.



## Tools Required For Service

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

# Change Tags

## Change Tag Introduction

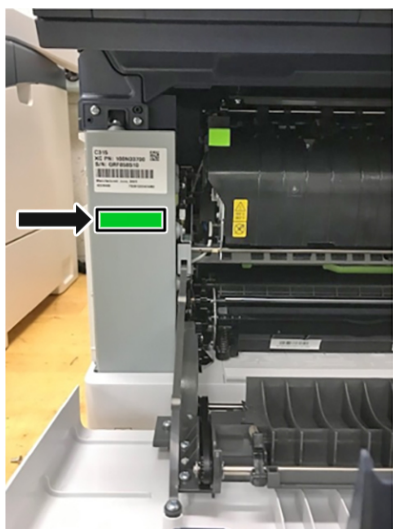
This section describes tags associated with the printer, as well as multinational applicability, classification codes, and permanent or temporary modification information. Important modifications to the printer are identified by a tag number which is recorded on a tag matrix inside the front door.

## Classification Codes

A tag number may be required to identify differences between parts that cannot be interchanged, or differences in diagnostic, repair, installation, or adjustment procedures.

A tag number may also be required to identify the presence of optional hardware, special non-volatile memory programming, or whether mandatory modifications have been installed. Each tag number is given a classification code to identify the type of change that the tag has made. The classification codes and their descriptions are listed in.

Classification Code	Description
M	Mandatory tag.
N	Tag not installed in the field.
O	Optional tag.
R	Repair tag.



C410S\_4262

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

### Power-on Reset (POR) Sequence

When you turn on the printer, it performs a POR sequence.

Check for correct POR functioning of the base printer by observing the following:

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



**Note:** The fuser takes longer to warm up from a cold start than from a warm start.

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



## Using Safe Mode

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

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

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

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

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


## Replace Cartridge, Printer Region Mismatch

To correct this problem, purchase a cartridge with the correct region that matches the printer region, or purchase a worldwide cartridge.

- The first number in the message after 42 indicates the region of the printer.
- The second number in the message after 42 indicates the region of the cartridge.

### Printer and toner cartridge regions

Region	Numeric code
Worldwide or Undefined region	0
NA	1
XE	2
DMO	4


 **Note:** To find the region settings of the printer and toner cartridge, print the print quality test pages. From the home screen, touch **Settings** > **Troubleshooting** > **Print Quality Test Pages**.

## Non-Xerox Supply

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

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

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

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

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

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

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

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

## Metered Supply Installed in Printer Configured For Sold

The printer has detected a metered supply installed in the printer configured to use sold supply.

The printers ship with worldwide neutral toner cartridges. Initial installation of these cartridges sets the printer to worldwide neutral configuration. The first toner cartridge replacement sets the geographic differentiation code and toner cartridge type in NVM to that of the replacement cartridge. To change these NVM, a supplies plan conversion code (non-PagePack) or activation code (PagePack) code is required.

See [Supplies Used To Resolve Print Quality Issues](#) for part numbers.

If an incorrect type of toner cartridge is installed, an error code is generated indicating toner incompatibility.


## Changing The Service Plan (Non-PagePack)

Contact the relevant OpCo to obtain a conversion code:

- **US:** Provide the printer Serial Number and Total Meter Read using the email template provided in community section of ProLibro. A conversion PIN code is provided within 10 minutes. For any

service plan conversion issues or special requests, phone Xerox Corporate Licensing Systems (XDSS), 1-800-890-3260.

- **Xerox Business Solutions (XBS):** All requests for service plan conversions must be approved by the XBS VP of Service. Request your field service manager to contact your XBS company VP of Service for direction. The XBS Core Company VP of Service will require authorization to convert the printer from sold to metered, and will provide a status of your request. Do not phone Field Engineering to request a conversion code.
- **US Authorized Service Provider (ASP):** Provide the printer Serial Number and Total Meter Read using the email template provided in community section of ProLibro. A conversion PIN code is provided within 10 minutes. For any service plan conversion issues or special requests, phone Xerox Corporate Licensing Systems (XDSS), 1-800-890-3260.
- **Canada:** Provide the printer Serial Number and Total Meter Read using the email template provided in community section of ProLibro. A conversion PIN code is provided within 10 minutes. For any service plan conversion issues or special requests, phone Customer Delivery Organization (CDO) field support, 1-800-647-1331.

 **Note:** The service plan conversion code must be entered within 500 Total Impression counts. If this count is exceeded, a new code is required.

### Using The Control Panel

1. From the control panel, navigate to **Settings > Supplies Plan > Plan Conversion**.
2. Record the **Total Impressions** and **Device Serial Number**.
3. Contact the relevant OpCo to obtain the conversion code.
4. After receiving the conversion code, on the control panel, navigate to **Supplies Plan > Plan Conversion > Conversion Code**.
5. Enter the conversion code provided, then select **Convert Plan**.
6. Navigate to **Supplies Plan > Plan Conversion > Current Plan** to confirm the conversion is successful.

### Using The Embedded Web Server

1. Open a web browser, and then type the printer IP address. If necessary, ask the customer to enter the Admin password.
2. From the home page, navigate to **Settings > Supplies Plan > Plan Conversion**.
3. Record the **Total Impressions** and **Device Serial Number**.
4. Contact the relevant OpCo to obtain the conversion code.
5. After receiving the conversion code, on the embedded web server, navigate to **Settings > Supplies Plan > Plan Conversion > Conversion Code**.
6. Enter the conversion code provided, then click **Convert Plan**.
7. Check the **Current Plan** status to confirm the conversion is successful.

## Changing The Service Plan (PagePack)

Contact the relevant OpCo to obtain an activation code. Provide the Sequence Number and Device Serial Number.

- **EMEA (XE):** Email office.europe.page.pack.pin@xerox.com
- **EMEA (DMO-E):** Follow your local process.
- **LATAM (Latin America):** Follow your local process.



**Note:** The service plan activation code must be entered within 1000 Total Impression counts. If this count is exceeded, a new code is required.

### Using The Control Panel

1. From the control panel, navigate to **Supplies Plan > Plan Activation**.
2. Record the **Sequence Number** and **Device Serial Number**
3. Contact the relevant OpCo to obtain the activation code.
4. After receiving the activation code, on the control panel, navigate to **Settings > Supplies Plan > Plan Activation > Activation Code**.
5. Enter the activation code provided, then select **Activate Plan**.

### Using The Embedded Web Server

1. Open a web browser, and then type the printer IP address. If necessary, ask the customer to enter the Admin password.
2. From the home page, navigate to **Settings > Supplies Plan > Plan Activation**.
3. Record the **Sequence Number** and **Device Serial Number**.
4. Contact the relevant OpCo to obtain the activation code.
5. After receiving the activation code, on the embedded web server, navigate to **Settings > Supplies Plan > Plan Activation > Activation Code**.
6. Enter the activation code provided, then click **Activate Plan**.

## Securing the printer

### Resetting The Printer Without Admin Credentials

 **Note:**

- Resetting the printer or replacing the controller board deletes all security settings.
  - Before changing the security settings, ask permission from your administrator.
1. Perform an Out of Service Erase to reset the printer to factory defaults without using admin credentials. For more information, see [Erasing Printer Memory](#).

**Warning—Potential Damage:**

This method makes the device vulnerable to hacking because it allows the creation of an admin account afterwards. By default, newer firmware versions restrict Out of Service Erase to admin users only, making the printer more secure and remembering the admin password more important.

2. If Out of Service Erase is unavailable, then use the security reset jumper to reset the printer to factory defaults. For more information, see [Using The Security Reset Jumper](#).
3. If the effect of the jumper reset is disabled, then replace the controller board. For more information, see [Controller Board Removal](#).

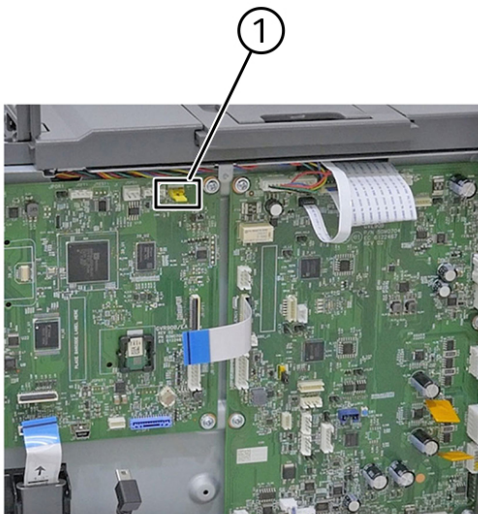
### Using The Security Reset Jumper

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

 **Note:**


- To enable the effect of the security reset jumper, from the home screen navigate to: **Security > Miscellaneous > Security Reset Jumper > Enable “Guest” Access**.
  - To disable the effect of the jumper, select **No Effect** from the Security Reset Jumper section in the Security menu. If the password is forgotten or lost, perform an Out of Service Erase or replace the controller board. See [Resetting The Printer Without Admin Credentials](#) or [Wireless Module Removal](#).
1. Turn off the printer.
  2. Remove the controller board shield.

3. Locate the security jumper (1) on the controller board.



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

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

5. Attach the controller board shield.

6. Turn on the printer.

 **Note:**

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

## Fixing print quality issues

### Initial Print Quality Check

Before troubleshooting print problems, do the following:

- Make sure that the printer is in an area that follows the recommended operating environment and power requirement specifications.
- Check the status of the supplies. Replace supplies that are low or empty.
- Load 20–21 lb bond (75–80 g/m<sup>2</sup>) plain letter or A4 paper. Make sure that the paper guides are properly set and locked. From the home screen, set the paper size and type to match the paper loaded in the tray.
- From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
- Print and keep the Menu Settings Page. The original page is used to restore the custom settings if necessary. From the home screen, touch **Settings > Reports > Menu Settings Page**.
- On the printed Menu Settings Page, check if the print resolution is set to 4800 CQ and the toner darkness is set to 4.
- Check the toner cartridge for damage, and replace if necessary.
- Make sure that the correct print driver is installed. If the wrong print driver is installed, then incorrect characters could print and the copy may not fit the page correctly.
- Make sure that the paper loaded is from a fresh package. Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you use it.

### Supplies Used To Resolve Print Quality Issues

For this family of printers, the following supplies are available to resolve print quality issues:

Supply item	Part number
Metered Cyan Toner Cartridge (10K) WW Metered	006R04694
Metered Magenta Toner Cartridge (10K) WW Metered	006R04695
Metered Yellow Toner Cartridge (10K) WW Metered	006R04696
Metered Black Toner Cartridge (15K) WW Metered	006R04693
High-Capacity Cyan Toner Cartridge (7K) NA Sold	006R04686
High-Capacity Cyan Toner Cartridge (7K) XE Sold	006R04765
High-Capacity Magenta Toner Cartridge (7K) NA Sold	006R04687

## Diagnostics and Troubleshooting

Supply item	Part number
High-Capacity Magenta Toner Cartridge (7K) XE Sold	006R04766
High-Capacity Yellow Toner Cartridge (7K) NA Sold	006R04688
High-Capacity Yellow Toner Cartridge (7K) XE Sold	006R04767
High-Capacity Black Toner Cartridge (10.5K) NA Sold	006R04685
High-Capacity Black Toner Cartridge (10.5K) XE Sold	006R04764
Standard-Capacity Cyan Toner Cartridge (2K) WW Sold <b>Note:</b> Not widely distributed. For specific accounts only.	006R04678
Standard-Capacity Magenta Toner Cartridge (2K) WW Sold <b>Note:</b> Not widely distributed. For specific accounts only.	006R04679
Standard-Capacity Yellow Toner Cartridge (2K) WW Sold <b>Note:</b> Not widely distributed. For specific accounts only.	006R04680
Standard-Capacity Black Toner Cartridge (2.4K) WW Sold <b>Note:</b> Not widely distributed. For specific accounts only.	006R04677
Regular Cyan Toner Cartridge (7K) WW Sold <b>Note:</b> Not widely distributed. For specific accounts only.	006R04698
Regular Magenta Toner Cartridge (7K) WW Sold <b>Note:</b> Not widely distributed. For specific accounts only.	006R04699
Regular Yellow Toner Cartridge (7K) WW Sold <b>Note:</b> Not widely distributed. For specific accounts only.	006R04700
Regular Black Toner Cartridge (10.5K) WW Sold	006R04697



Supply item	Part number
<b>Note:</b> Not widely distributed. For specific accounts only.	
Black Imaging Kit (125K)	013R00700
Black & Color Imaging Kit (125K)	013R00701
Waste Toner Bottle (30K)	008R13325

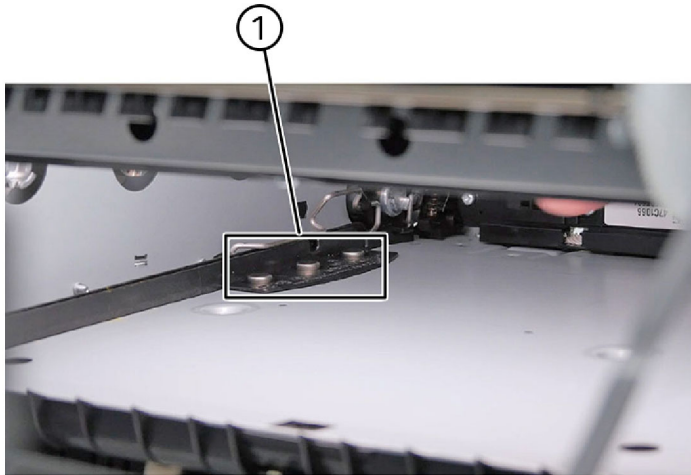
## Blurred Print



**Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
2. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
3. Make sure the printhead lenses are clean. Do the following:
  - a. Remove the imaging kit.
  - b. Clean the printhead lenses.
4. Make sure that the temperature and humidity levels in the printer and in the room are similar. Do the following:
  - a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Weather Station**.
  - b. Press **OK** or touch **Start**.
5. Perform the weather station service check.
6. Make sure that the HVPS cable is properly connected to the HVPS connector on the controller board.
7. Check the HVPS cable for discontinuity and damage.


8. Remove the transfer module. For more information, see [Transfer Module Removal](#) . Make sure that the three HVPS contacts (1) are properly positioned and can freely move up and down.



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9. Check the HVPS for damage, contamination, and improper installation. For more information, see [HVPS Removal](#).
10. Check the transfer module for damage, contamination, and improper installation. For more information, see [Transfer Module Removal](#) .
11. Check the controller board for damage, contamination, and improper installation. For more information, see [Controller Board Removal](#).


## Misaligned Color

 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Determine the color misalignment.
  - a. Enter the Diagnostics menu, and then touch **Advanced Print Quality Samples > Advanced Print Quality Test Pages**.
  - b. Check pages G and H on the test pages to determine the color misalignment.
2. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
3. Perform the auto alignment service check. For more information, see [Auto alignment service check](#) .
4. Check the printhead for damage, contamination, and improper installation. For more information, see [Printhead Removal](#).

## Toner Easily Rubs Off




 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
  - a. Make sure that the setting matches the paper loaded.
  - b. Change the setting on the printer control panel.
2. Perform the service check for any log error codes.
  - a. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Reports > Event Log**.
  - b. Check the log history for fuser error codes.
3. Check the LVPS for damage, contamination, and improper installation. For more information, see [LVPS Removal](#).

## Gray Or Solid Background



 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
2. Check for missing colors. Do the following:
  - a. Place a narrow strip of paper over the gap between the developer units.
    -  **Note:** Make sure that the paper stays in place when inserting the imaging kit to prevent the laser from discharging the photoconductor units.
  - b. From the home screen, touch **Settings > Reports > Print Quality Pages**.
  - c. Check the test pages for solid colors.
  - d. Note: If there are missing solid colors on the test pages, do the following:


- a. Make sure that the cables connecting the printhead to the controller board are properly connected.
- b. Check the printhead for damage, contamination, and improper installation. For more information, see [Printhead Removal](#).
- c. Check the controller board for damage, contamination, and improper installation. For more information, see [Controller Board Removal](#).
3. Check the HVPS cable for discontinuity, damage, contamination, and improper installation.
4. Make sure that the HVPS contacts are properly positioned and can freely move up and down.
  - a. Remove the transfer module. For more information, see [Transfer Module Removal](#).
  - b. Make sure that the three HVPS contacts are properly positioned and can freely move up and down.
  - c. Note: If the contracts are improperly positioned and stuck, do the following:
    - a. Check the HVPS for damage, contamination, and improper installation. For more information, see [HVPS Removal](#).
    - b. Check the controller board for damage, contamination, and improper installation. For more information, see [Controller Board Removal](#).

## Solid Color Or Black Image



 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
2. Check for missing colors. Do the following:
  - a. Place a narrow strip of paper over the gap between the developer units.

 **Note:** Make sure that the paper stays in place when inserting the imaging kit to prevent the laser from discharging the photoconductor units.

- b. From the home screen, touch **Settings > Reports > Print Quality Pages**.
- c. Check the test pages for solid colors.

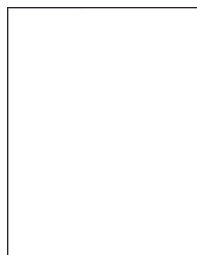
If there are missing solid colors on the test pages, do the following:

- a. Make sure that the cables connecting the printhead to the controller board are properly connected.
  - b. Check the printhead for damage, contamination, and improper installation. For more information, see [Printhead Removal](#).
  - c. Check the controller board for damage, contamination, and improper installation. For more information, see [Controller Board Removal](#).
3. Check the HVPS cable for discontinuity, damage, contamination, and improper installation.
  4. Make sure that the three HVPS contacts are properly positioned and can freely move up and down. Do the following:
    - a. Remove the transfer module. For more information, see [Transfer Module Removal](#).
    - b. Make sure that the three HVPS contacts are properly positioned and can freely move up and down.

If the contracts are improperly positioned and stuck, do the following:

    - a. Check the HVPS for damage, contamination, and improper installation. For more information, see [HVPS Removal](#).
    - b. Check the controller board for damage, contamination, and improper installation. For more information, see [Controller Board Removal](#).

## Blank Or White Pages



### Precheck procedure

1. From the home screen, navigate to **Settings > Troubleshooting > Print Quality Test Pages**.
2. Check page A to determine any missing colors.
3. If any one color or black is missing, then perform the missing color check. See [Missing Color](#).

### Service check

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
2. Make sure that the contacts between the developer units and the PCUs on the imaging kit are clean. Do the following:
  - a. Remove the imaging kit. For more information, see [Imaging Kit Removal](#).
  - b. Remove the developer units.
  - c. Check the contacts between the developer units and the PCUs on the imaging kit for damage and contamination. For more information, see [Supplies Used To Resolve Print Quality Issues](#)

3. Check the printhead cable for damage, contamination, and improper installation.
4. Check the printhead for damage, contamination, and improper installation. For more information, see [Printhead Removal](#).
5. Check the HVPS cable for discontinuity.
6. Make sure that the three HVPS contacts are properly positioned and can freely move up and down. Do the following:
  - a. Remove the transfer module. For more information, see [Transfer Module Removal](#).
  - b. Make sure that the three HVPS contacts are properly positioned and can freely move up and down.

If the contacts are improperly positioned and stuck, do the following:

- a. Check the HVPS for damage, contamination, and improper installation. For more information, see [HVPS Removal](#).
- b. Check the controller board for damage, contamination, and improper installation. For more information, see [Controller Board Removal](#).

## Horizontal White Lines




 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
  - a. Make sure that the setting matches the paper loaded.
  - b. Change the setting on the printer control panel.
2. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
3. Check the HVPS for damage, contamination, and improper installation. For more information, see [HVPS Removal](#).
4. Check the HVPS cable if it is pinched or damaged.
5. Make sure that the cables connecting the HVPS to the controller board are properly connected.

## Horizontal Colored Lines Or Banding



 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
  - a. Make sure that the setting matches the paper loaded.
  - b. Change the setting on the printer control panel.
2. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
3. Make sure that the lines appear in equal intervals. Do the following:
  - a. From the home screen, enter the Diagnostics menu, and then touch **Settings > Troubleshooting > Print Quality Test Pages**.
  - b. Check the test page.

If the lines do not appear in equal intervals, perform the repeating defects check. For more information, see [Repeating Defects](#).

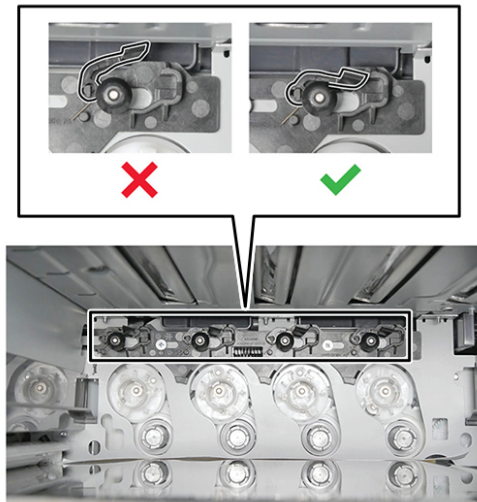
## Text or Images Cut Off



 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Make sure to adjust the paper guides in the tray to the correct position for the paper loaded.
2. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
  - a. Make sure that the setting matches the paper loaded.
  - b. Change the setting on the printer control panel.
3. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
4. Check the developer units for damage, contamination, and improper installation.


5. Check for packing material left on the imaging components.
6. Make sure that the developer unit hold downs are in their proper position and are properly operating. Do the following:
  - a. Remove the imaging kit.
  - b. Check the hold downs for improper position.



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## Mottled Print and Dots




 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Check the printer for leaked toner contamination.
2. Make sure that the settings match. Do the following:
  - a. From the home screen, touch **Settings > Paper > Tray Configuration > Paper Size/Type**.
  - b. Make sure that the paper type and paper size settings match the paper loaded.
  - c. Check the paper for a textured or rough finish.

If the paper is textured or has rough finish, replace it with plain paper.
3. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
  - a. Make sure that the setting matches the paper loaded.
  - b. Change the setting on the printer control panel.



4. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
5. To clean the printer of toner leakage, do the following:
  - a. Using a toner vacuum, clean the printer thoroughly.
  - b. Perform a print job to clear the remaining toner from the imaging components.
  - c. Replace the developer unit of the leaking color. For more information, see [Supplies Used To Resolve Print Quality Issues](#).
6. Check the photoconductor unit for damage, contamination, and improper installation. For more information, see [Supplies Used To Resolve Print Quality Issues](#).
7. Make sure that the fuser is free from contamination. Do the following:
  - a. From the home screen, touch **Settings > Reports > Menu Settings Page**.
 

 **Note:** Perform this step twice to clear any debris.
  - b. Check the fuser for toner contamination.
 

If the fuser is contaminated, replace the fuser. For more information, [Fuser Removal](#).
8. Check the transfer module for damage, contamination, and improper installation. For more information, see [Transfer Module Removal](#).

## Vertical White Lines

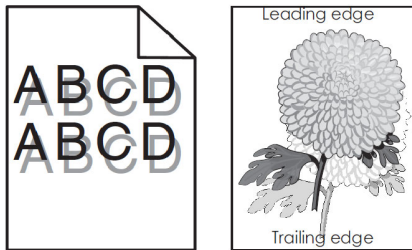



 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
  - a. Make sure that the setting matches the paper loaded.
  - b. Change the setting on the printer control panel.
2. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
3. Make sure that the printhead lenses are clean. Do the following:
  - a. Perform the waste toner bottle service check.
  - b. Remove the imaging kit.
  - c. Clean the printhead lenses.
4. Check the test pages and identify the affected color. Do the following:

- a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
  - b. Identify the developer unit of the affected color. Replace the affected developer unit.
  - c. If all colors are affected, then replace the transfer module. For more information, see [Transfer Module Removal](#).
5. Check the photoconductor unit for damage, contamination, and improper installation. For more information, see [Supplies Used To Resolve Print Quality Issues](#).
  6. Check the transfer module for damage, contamination, and improper installation. For more information, see [Transfer Module Removal](#).
  7. Check the printhead for damage, contamination, and improper installation. For more information, see [Printhead Removal](#).

## Ghost Images



 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
  - a. Make sure that the setting matches the paper loaded.
  - b. Change the setting on the printer control panel.
2. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
3. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
4. From the home screen, check the status of the black and color imaging kit.
5. Measure the distance from one point of the original image to the same point on the ghost image. If the distance is 43.9 mm, then replace the imaging kit. For more information, see [Imaging Kit Removal](#).
6. Check the developer unit for damage, contamination, and improper installation. For more information, see [Supplies Used To Resolve Print Quality Issues](#).
7. Make sure that the fuser is free from contamination. Do the following:
  - a. From the home screen, touch **Settings > Reports > Menu Settings Page**.


 **Note:** Perform this step twice to clear any debris.

- b. Check the fuser for toner contamination.

If the fuser is contaminated, replace the fuser. For more information, see [Fuser Removal](#).

## Vertical Colored Lines Or Banding



 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).


1. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.
  - a. Make sure that the setting matches the paper loaded.
  - b. Change the setting on the printer control panel.
2. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
3. Check the developer unit for damage, contamination, and improper installation. For more information, see [Supplies Used To Resolve Print Quality Issues](#).
4. Check the transfer module for damage, contamination, and improper installation. For more information, see [Transfer Module Removal](#).

 **Note:** Make sure there is no debris under the transfer module when it is removed.


5. Check the fuser for damage, contamination, and improper installation. For more information, see [Fuser Removal](#).

## Dark Print



 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

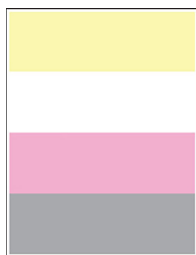
1. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
2. Depending on your operating system, reduce the toner darkness from the Printing Preferences or Print dialog.

 **Note:** You can also change the setting on the printer control panel.

3. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.

- a. Make sure that the setting matches the paper loaded.
- b. Change the setting on the printer control panel.
4. Check the paper for a textured or rough finish.  
If the paper is textured or has rough finish, replace it with plain paper.
5. Identify the color affected. Do the following:
  - a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
  - b. Check the test pages.  
If only one color is affected, do the following:
    - a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Color alignment adjust > AA adjustment row**.
    - b. Perform the toner patch sensing service check. For more information, see [Toner Patch Sensing Service Check](#).
6. Check the HVPS cable for discontinuity, damage, contamination, and improper installation.
7. Check the HVPS for damage, contamination, and improper installation. For more information, see [HVPS Removal](#).
8. Check the transfer module and its contacts for damage, contamination, and improper installation. For more information, see [Transfer Module Removal](#).

## Missing Color



 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
2. Check for packing material left in the imaging kit.
3. Make sure that the toner cartridges and developer units are properly installed.
4. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
5. Check the waste toner bottle for damage, contamination, and improper installation. For more information, see [Waste Toner Bottle Removal](#).
6. Check the printhead cable for damage, contamination, and improper installation.
7. Identify the color affected. Do the following:

a. From the home screen, touch **Settings > Troubleshooting > Quality Tests Pages**.

b. Check the test pages.

If the missing color is yellow, do the following:

a. Removing the imaging kit.

b. Make sure that the transfer module cleaning blade is in the correct position.



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8. Check the contacts on the imaging kit and the developer unit of the missing color for dust or debris.

If the contacts are not free of dust and debris, clean the contacts between the developer unit and the imaging kit.

9. Check the developer unit for damage, contamination, and improper installation.

10. Make sure that the pins in the HVPS can freely move in and out with an equal amount of spring force.

If the pins do not freely move, replace the HVPS. For more information, see [HVPS Removal](#).

11. Make sure that the motor of the affected developer unit runs. Do the following:

a. Remove the imaging kit. For more information, see [Imaging Kit Removal](#).

b. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motor tests**.

c. Go to the appropriate developer unit motor test for the missing color, and then run the test.

If the motor does not run, replace the defective EP drive. For more information, see [EP Drive Removal](#)

12. Make sure that the imaging kit couplers move. Do the following:

a. Remove the imaging kit. For more information, see [Imaging Kit Removal](#).

b. While manually turning the motors, check if the couplers that drive the imaging kit move.

If the couplers do not move, replace the EP drive. For more information, see [EP Drive Removal](#).


13. Check the Print Quality Test Pages if the black plane or the CMY plane is missing.

If the black plane or the CMY plane is missing, replace the HVPS. For more information, see [HVPS Removal](#).

14. Check the printhead for damage, contamination, and improper installation. For more information, see [Printhead Removal](#).
15. Check the controller board for damage, contamination, and improper installation. For more information, see [Controller Board Removal](#).

## Uneven Print Density




 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#).
2. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
3. Make sure that the settings match. Do the following:
  - a. Touch **Settings > Device > Preferences**.
  - b. Make sure that the paper type and size settings match the paper type and size set on the tray.  
If the settings do not match, change the paper size and type or adjust the size settings in the tray.
4. Check the paper for a textured or rough finish.  
If the paper is textured or has rough finish, replace it with plain paper.
5. Make sure to clean the printhead lenses. For more information, see [Cleaning The Printhead Lenses](#).

## Repeating Defects



 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Check the rollers along the paper path for dust or debris.  
If there is dust or debris on the rollers, clean the affected rollers.
2. Check the distance between the repeating defects. Do the following:

- a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
  - b. Measure the distance between the repeating defects on the affected color page.
3. Check the measurement against the following components. If there is a match, replace the component that matches the measurement. **Imaging kit**
    - 94.20 mm (3.71 in.)
    - 29.80 mm (1.17 in.)
    - 23.20 mm (0.91 in.)

**Developer unit**

    - 43.90 mm (1.73 in.)
    - 45.50 mm (1.79 in.)

**Transfer module**

    - 37.70 mm (1.48 in.)
    - 78.50 mm (3.09 in.)
    - 55 mm (2.17 in.)

**Fuser**

    - 79.80 mm (3.14 in.)
    - 94.30 mm (3.71 in.)
  4. In addition, refer to the following list of interval measurements with their corresponding affected components.

## Notes:

- Replace the parts one at a time in the order indicated.
- Print a test page after replacing each part to check if the problem has been solved.
- For more information on the supplies, see [Supplies Used To Resolve Print Quality Issues](#) .

**99 mm interval**

- Fuser

**94 mm interval**

- Imaging kit

**79 mm interval**

- Developer unit of the affected color

**75 mm interval**

- Fuser

**55–56 mm interval**

- Developer unit
- Transfer module
- EP drive

**44–45 mm interval**

- Developer unit

**33 mm interval**

- Developer unit
- EP drive

**28 mm, 24 mm, 16 mm, 12–14 mm, 9 mm, and 4-5 mm interval**

- EP drive

**6–7 mm interval**

- Fuser motor
- EP drive

**1–3 mm interval**

- Developer unit
- Fuser
- EP drive
- MFP redrive

**Less than 1 mm interval**

- EP drive
- Fuser motor

## Light Print



**Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

1. Adjust the color. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
2. Depending on your operating system, reduce the toner darkness from the Printing Preferences or Print dialog.
3. Check the color saver setting. Do the following:
  - a. From the home screen, touch **Settings > Print > Quality > Color Saver**.
  - b. Turn off Color Saver.
4. Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.



- a. Make sure that the setting matches the paper loaded.
  - b. Change the setting on the printer control panel.
5. Check the paper for a textured or rough finish.  
If the paper is textured or has rough finish, replace it with plain paper.
  6. Check the imaging kit for damage, contamination, and improper installation. For more information, see [Imaging Kit Removal](#)
  7. Check the developer units for damage, contamination, and improper installation. For more information, see [Developer Unit Removal](#)
  8. Make sure that the motor of the affected developer unit runs. Do the following:
    - a. From the home screen, enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motor tests**.
    - b. Select the motor of the affected color, and then run the test.  
If the motor does not run, make sure that the motor cable is properly installed.
  9. Make sure to clean the printhead lenses. For more information, see [Cleaning The Printhead Lenses](#).
  10. Check the HVPS cable for discontinuity, damage, contamination, and improper installation.
  11. Make sure that the HVPS contacts are visible and can freely move up and down:
    - a. Remove the transfer module. For more information, see [Transfer Module Removal](#)
    - b. Make sure that the three HVPS contacts are visible and can freely move up and down.  
If the contacts are not visible and they cannot freely move, replace the imaging kit. For more information, see [HVPS Removal](#)
  12. Check the transfer module for damage, contamination, and improper installation. For more information, see [Transfer Module Removal](#).
  13. Check the HVPS for damage, contamination, and improper installation. For more information, see [HVPS Removal](#).

## Skewed Print




 **Note:** Before doing this print quality check, see [Initial Print Quality Check](#).

## Diagnostics and Troubleshooting

1. Adjust the paper guides in the tray to the correct position for the paper loaded.

 **Note:** Make sure that the paper stack is below the maximum paper fill line.

2. Load paper from a fresh package.

 **Note:** Make sure that the paper loaded is supported by the printer. For more information, see [Selecting paper](#).

3. Check the transfer module for damage, contamination, and improper installation.
4. Perform printhead adjustment. For more information, see [Registration Adjustment](#).
5. Check the pick rollers for dust or debris.
6. If the paper in tray 1 are straight but the paper in the other tray/s is skewed, then do the following:
  - a. Make sure that the paper guides in the tray/s are free to move and properly adjusted.
  - b. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Registration adjust**.
  - c. Select **Duplex Skew** or **Option Skew**.


Notes:

- Duplex Skew affects the duplex side of the paper.
- Option Skew affects the paper in tray 2, tray 3, and MPF.
- Raising the value of the skew setting rotates the horizontal lines clockwise while the vertical lines remain vertical.

- d. Print a test page.

## Toner Patch Sensing Service Check

### Precheck procedure


 **Note:** Perform this procedure before performing the service check.

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

 **Note:**

- This triggers the auto align routine which performs the color alignment error corrections (0.42 mm, 0.84 mm, and 3 mm range).
- If the AA adjustment is successful, an **AA adjustment passed** message appears on the screen. If an **AA adjustment passed** message does not appear, skip the next pre-check step, and then go directly to step 4 in the service check.

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

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


### Service check

1. Check if the CalSet values are equal to 0. Do the following:
  - a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
  - b. On the Device Information section of the test page, check the CalSet values of the following:
    - C developer unit operating point
    - C laser operating point
    - C linearization stat
    - M developer unit operating point
    - M laser operating point
    - M linearization stat
    - Y developer unit operating point
    - Y laser operating point
    - Y linearization stat
    - K developer unit operating point
    - K laser operating point
    - K linearization stat
2. Perform the blank or white pages service check. For more information, see [Blank Or White Pages](#).  
If there is an issue found and resolved, perform the auto alignment service check. For more information, see [Auto alignment service check](#) .
3. Make sure that the results of the following tests approximately match the expected values and fall within the requirements:


- a. Enter the Diagnostics menu, and then touch **Printer setup > EP setup > Toner patch sensor adjust**.
  - b. On the sensor gain characterization, touch **Start**.
  - c. On the sensor gain verification, touch **Start**.
  - d. On the sensor gain verification section of the test page, check the average signal values of the patch number.  
  
If the results do not match with the expected value and do not fall within the requirements, perform the auto alignment service check. For more information, see [Auto alignment service check](#).
4. Make sure that the JTPS\_C1 connector on the engine board is properly connected to the sensor (toner patch)..
  5. Make sure that the results of the following tests approximately match the expected values and fall within the requirements:
    - a. Replace the sensors (toner patch). For more information, see “[Sensor \(Toner Patch\) Removal](#)”
    - b. Enter the Diagnostics menu, and then touch **Printer setup > EP setup > Toner patch sensor adjust**.
    - c. On the sensor gain characterization, touch **Start**.
    - d. On the sensor gain verification, touch **Start**.
    - e. On the sensor gain verification section of the test page, check the average signal values of the patch number.

## Auto Alignment Service Check


### Pre check procedure

 **Note:** Perform this procedure before performing the service check.

1. Enter the Diagnostics menu, and then navigate to:  
**Printer Setup > EP setup> Toner patch sensor adjust > Full calibration**
2. Navigate to **Advanced Print Quality Samples >Advanced Print Quality Test Pages**.
3. Check pages G and H on the test pages to determine the color misalignment.
4. If colors are misaligned, then navigate to **Printer diagnostics & adjustments > Color alignment adjust > Auto align**.
5. Find AA adjustment, and then press **OK** or touch **Start**.

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

6. Navigate to **Advanced Print Quality Samples >Advanced Print Quality Test Pages**.
7. Check pages G and H on the test pages to determine the color misalignment.
8. If colors are still misaligned, then navigate to **Printer diagnostics & adjustments > Color alignment adjust > Auto align**.

 **Note:** Ignore the AA adjustment performed earlier.

**Service check**

1. Check if the color alignment stat value is equal to 0. Do the following:
  - a. From the home screen, touch **Settings > Troubleshooting > Print Quality Test Pages**.
  - b. On the CalSet section of the test page, check the color alignment stat value.
2. Perform the Blank or white pages check or Missing color check. For more information, see [Blank Or White Pages](#) or [Missing Color](#).
3. Make sure that the results of the following tests approximately match the expected values and fall within the requirements:
  - a. Enter the Diagnostics menu, and then touch **Printer setup > EP setup > Toner patch sensor adjust**.
  - b. Find Sensor gain characterization, and then press **OK** or touch **Start**.
  - c. Find Sensor gain verification, and then press **OK** or touch **Start**.
  - d. On the TPS Sensor Characterization and Verification Information Page section of the print out, check the values of the following:
    - The PaperLeft-NDS Volts and PaperRight-DS Volts in the PatchAverage from the TPS Verification Page section.
    - The Left-NDS Volts and Right-DS Volts in the High Gain Bare Belt Characterization Results section.
    - The mV value in the Amplifier Offset Characterization Result section.

If the results do not match with the expected value and do not fall within the requirements, check the sensor (toner patch) cables on the controller board for improper connection.

4. Check the transfer module for damage, contamination, and improper installation. For more information, see [Transfer Module Removal](#).
5. Make sure that the sensors (toner patch) are free of dust or debris.
6. Replace the sensors (toner patch). For more information, see [Sensor \(Toner Patch\) Removal](#).
7. Make sure that the results of the following tests approximately match the expected values and fall within the requirements:
  - a. Enter the Diagnostics menu, and then touch **Printer setup > EP setup > Toner patch sensor adjust**.
  - b. Find Sensor gain characterization, and then press **OK** or touch **Start**.
  - c. Find Sensor gain verification, and then press **OK** or touch **Start**.
  - d. On the TPS Sensor Characterization and Verification Information Page section of the print out, check the values of the following:
    - The PaperLeft-NDS Volts and PaperRight-DS Volts in the Patch Average from the TPS Verification Page section.
    - The Left-NDS Volts and Right-DS Volts in the High Gain Bare Belt Characterization Results section.
    - The mV value in the Amplifier Offset Characterization Result section.

**Post-check procedure (as necessary)**

## Diagnostics and Troubleshooting



**Note:** Perform this procedure only if the sensors (toner patch) were replaced during the service check.

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

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

2. Find AA adjustment, and then press **OK** or touch **Start**.



**Note:** This action triggers the auto align routine which performs the color alignment error corrections for the 0.42 mm, 0.84 mm, and 3 mm ranges.

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

**Printer Setup > EP setup> Toner patch sensor adjust > Full calibration**



**Note:** This action triggers the auto align routine which performs the color alignment error corrections for the 0.42 mm range only.

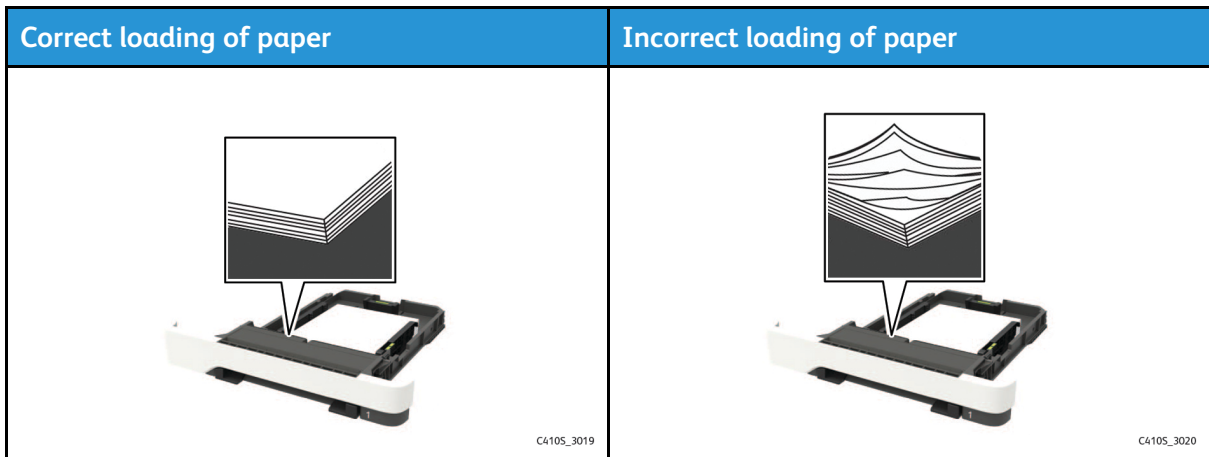
4. From the home screen, navigate to **Settings > Troubleshooting > Print Quality Test Pages**.
5. On the CalSet section of the test page, check if the color alignment stat value is equal to 0. If the value is 0, then contact the next level of support.

# Paper jams

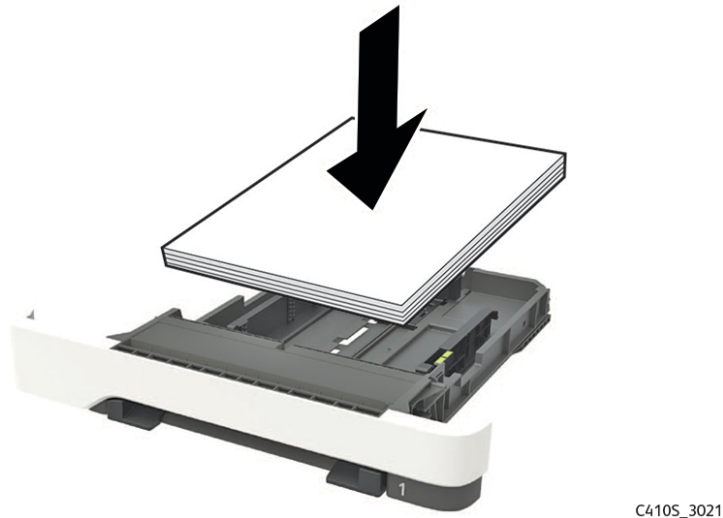
## Avoiding Jams

### Load paper properly

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



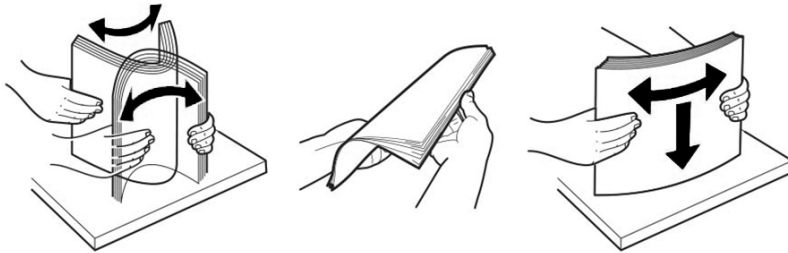
- Do not load or remove a tray while the printer is printing.
- Do not load too much paper. Make sure that the stack height is below the maximum paper fill indicator.
- Do not slide paper into the tray. Load paper as shown in the illustration.



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

## Use recommended paper

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



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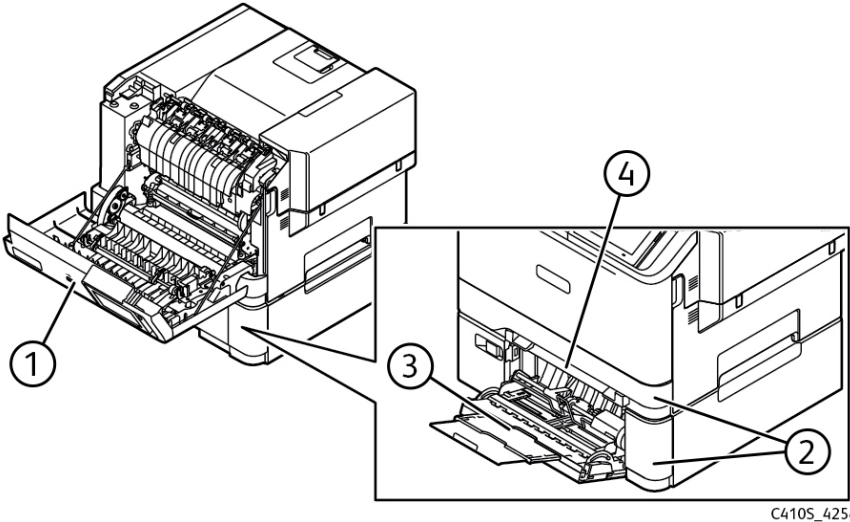
- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure that the paper size and type are set correctly on the computer or printer control panel.
- Store paper according to manufacturer recommendations.

## 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	Door A
2	Trays
3	Multipurpose feeder
4	Manual feeder

## 200 paper jams

### 200 Paper Jam Messages

Error code	Description	Action
200.02	Paper fed from the MPF or manual feeder arrived at the sensor (input) earlier than expected.	See <a href="#">Sensor (Input): Paper Failed To Clear From Optional Tray Jam Service Check</a> .
200.03	Paper fed from the MPF was detected later than expected or was never detected at the sensor (input).	See <a href="#">Sensor (Input): Paper Arrived Too Early From Optional Tray Jam Service Check</a>
200.04	Paper fed from the MPF cleared the sensor (input) earlier than expected.	See <a href="#">Sensor (Input): Paper Failed To Arrive From Optional Tray Jam Service Check</a>
200.05	Paper fed from the MPF never cleared the sensor (input).	See <a href="#">Sensor (Input): Paper Failed to Clear from The MPF Jam Service Check</a>
200.06	Paper fed from the MPF was detected later than expected or was never detected at the sensor (input).	See <a href="#">Sensor (Input): Paper Failed To Arrive From The MPF Jam Service Check</a>
200.12	Paper fed from tray 1 was detected earlier than expected at the sensor (input).	See <a href="#">Sensor (input): Paper arrived too early or failed to arrive jam service check</a>
200.13	Paper fed from tray 1 was detected later than expected or was never detected at the sensor (input).	
200.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected.	See <a href="#">Sensor (input): Paper cleared too early jam service check</a>
200.15	Paper fed from tray 1 never cleared the sensor (input).	See <a href="#">Sensor (input): Paper failed to clear jam service check</a>
200.16	Paper fed from tray 1 was picked but it never reached the sensor (input).	See <a href="#">Tray 1 pick error service check</a>
200.22	Paper fed from tray 2 was detected earlier than expected at the sensor (input).	See <a href="#">Sensor (input): Paper arrived too early from optional tray jam service check</a>
200.23	Paper fed from tray 2 was detected later than expected or was never detected at the sensor (input).	See <a href="#">Sensor (input): Paper failed to arrive from optional tray jam service check</a>

Error code	Description	Action
200.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected.	See <a href="#">Sensor (input): Paper cleared too early from optional tray jam service check</a>
200.25	Paper fed from tray 2 never cleared the sensor (input).	See <a href="#">Sensor (input): Paper failed to clear from optional tray jam service check</a>
200.32	Paper fed from tray 3 was detected earlier than expected at the sensor (input).	See <a href="#">Sensor (input): Paper arrived too early from optional tray jam service check</a>
200.33	Paper fed from tray 3 was detected later than expected or was never detected at the sensor (input).	See <a href="#">Sensor (input): Paper failed to arrive from optional tray jam service check</a>
200.34	Paper fed from tray 3 cleared the sensor (input) earlier than expected.	See <a href="#">Sensor (input): Paper cleared too early from optional tray jam service check</a>
200.35	Paper fed from tray 3 never cleared the sensor (input).	See <a href="#">Sensor (input): Paper failed to clear from optional tray jam service check</a>
200.42	Paper fed from tray 4 was detected earlier than expected at the sensor (input).	See <a href="#">Sensor (input): Paper arrived too early from optional tray jam service check</a>
200.43	Paper fed from tray 4 was never detected at the sensor (input).	See <a href="#">Sensor (input): Paper failed to arrive from optional tray jam service check</a>
200.44	Paper fed from tray 4 cleared the sensor (input) earlier than expected.	See <a href="#">Sensor (input): Paper cleared too early from optional tray jam service check</a>
200.45	Paper fed from tray 4 never cleared the sensor (input).	See <a href="#">Sensor (input): Paper failed to clear from optional tray jam service check</a>
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See <a href="#">Sensor (input): Static jam service check</a>
200.95	An unexpected page showed up when flushing the paper path.	
200.99	The sensor (toner patch) detected a lack or an excess of toner patches on the printed image.	See <a href="#">Toner patch sensing service check</a> .

## Sensor (Input): Tray 1 Manual Feeder Jam Service Check

1. Make sure that the paper being used is supported and loaded properly in tray 1. See [Avoiding Jams](#)
2. Make sure that the paper path is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using trays other than tray 1.
5. If the jam occurs only in the manual feeder, check the tray 1 and the manual feeder for improper operation and damage.
6. Do the following when a paper jam occurs, regardless of the source tray:
  - a. Check the input sensor actuator for damage and improper installation.
  - b. Make sure that the sensor (duplex and input) is functional. Do the following:
    - i. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
    - ii. Find the sensor (duplex and input).
  - c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
  - d. Check the sensor (duplex and input) for damage and improper installation. For more information, see [Tray 1 Media Feeder Removal](#) .

## Tray 1 Pick Error Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#)
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using tray 1, then do the following:
  - a. Check the pick roller for wear, damage, contamination, and improper installation.
  - b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
6. Check the pick arm and pick roller for damage and improper installation. For more information, see [Tray 1 Media Feeder Removal](#) .

## Sensor (Input): Paper Failed To Arrive From The MPF Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.

4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using the MPF, then do the following:
  - a. Check the MPF pick roller and separator roller for wear, damage, and contamination.
  - b. Check the MPF gearbox for wear, damage, and improper mesh.
6. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Identify the location of the leading edge of the paper.
  - b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
  - c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. For more information, see [Fuser Removal](#).

## Sensor (Input): Paper Cleared Too Early From The MPF Jam Service Check

1. Set the paper size in the Paper menu to match the paper loaded. From the home screen, touch **Settings > Paper**.
2. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
3. Make sure that the paper is free of debris and obstructions.
4. Perform a POR.
5. Check if the paper jam error occurs when using other trays.
6. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Check the input sensor actuator for damage, and improper installation.
  - b. Make sure that the sensor (duplex and input) is functional. Do the following:
    1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
    2. Find the sensor (duplex and input).
  - c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
  - d. Check the sensor (duplex and input) for damage and improper installation. For more information, see [Sensor \(Duplex\) Removal](#).

## Sensor (Input): Paper Failed to Clear from The MPF Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using the MPF, then do the following:

- a. Check the MPF pick roller and separator roller for wear, damage, and contamination.
- b. Check the MPF gearbox for wear, damage, and improper mesh.
6. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Identify the location of the leading edge of the paper.
  - b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
  - c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. For more information, see [Fuser Removal](#).

## Sensor (Input): Paper Failed to Arrive from The MPF Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using the MPF, then do the following:
  - a. Check the MPF pick roller and separator roller for wear, damage, and contamination.
  - b. Check the MPF gearbox for wear, damage, and improper mesh.
6. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Identify the location of the leading edge of the paper.
  - b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
  - c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. For more information, see [Fuser Removal](#).

## Sensor (Input): Paper Arrived Too Early or Failed To Arrive Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.

## Sensor (Input): Paper Cleared Too Early Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.

4. Check if the paper jam error occurs when using other trays.
5. Check the pick roller for wear, damage, contamination, and improper installation.
6. Check the redrive assembly for wear, damage, and improper mesh.

## Sensor (Input): Paper Failed To Clear Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using tray 1, then do the following:
  - a. Check the pick roller for wear, damage, contamination, and improper installation.
  - b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
6. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Check the input sensor actuator for damage, and improper installation.
  - b. Make sure that the sensor (duplex and input) is functional. Do the following:
    1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
    2. Find the sensor (duplex and input).
  - c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
  - d. Check the sensor (duplex and input) for damage and improper installation. For more information, see [Sensor \(Duplex\) Removal](#).
7. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Identify the location of the leading edge of the paper.
  - b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
  - c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. For more information, see [Fuser Removal](#).

## Sensor (Input): Paper Arrived Too Early From Optional Tray Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.

5. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Check the input sensor actuator for damage, and improper installation.
  - b. Make sure that the sensor (duplex and input) is functional. Do the following:
    1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
    2. Find the sensor (duplex and input).
  - c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
  - d. Check the sensor (duplex and input) for damage and improper installation. For more information, see [Sensor \(Duplex\) Removal](#).
6. Check the pick arm and pick roller for damage and improper installation.

## Sensor (Input): Paper Failed To Arrive From Optional Tray Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:
  - a. Check the pick roller for wear, damage, contamination, and improper installation.
  - b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
  - c. Check the paper path above the tray for debris and foreign object.
6. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Check the input sensor actuator for damage, and improper installation.
  - b. Make sure that the sensor (duplex and input) is functional. Do the following:
    1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
    2. Find the sensor (duplex and input).
  - c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
  - d. Check the sensor (duplex and input) for damage and improper installation. For more information, see [Sensor \(Duplex\) Removal](#).
7. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Identify the location of the leading edge of the paper.
  - b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.



- c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. For more information, see [Fuser Removal](#).

## Sensor (Input): Paper Cleared Too Early From Optional Tray Jam Service Check

1. Set the paper size in the Paper menu to match the paper loaded. From the home screen, touch **Settings > Paper**.
2. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
3. Make sure that the paper is free of debris and obstructions.
4. Perform a POR.
5. Check if the paper jam error occurs when using other trays.
6. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:
  - a. Check the pick roller for wear, damage, contamination, and improper installation.
  - b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
  - c. Check the paper path above the tray for debris and foreign object.

## Sensor (Input): Paper Failed To Clear From Optional Tray Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:
  - a. Check the pick roller for wear, damage, contamination, and improper installation.
  - b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
  - c. Check the paper path above the tray for debris and foreign object.
6. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Check the input sensor actuator for damage, and improper installation.
  - b. Make sure that the sensor (duplex and input) is functional. Do the following:
    1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
    2. Find the sensor (duplex and input).
  - c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.

- d. Check the sensor (duplex and input) for damage and improper installation. For more information, see [Sensor \(Duplex\) Removal](#).
7. If the paper jam error occurs regardless of the source tray, then do the following:
  - Identify the location of the leading edge of the paper.
  - If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
  - If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. For more information, see [Fuser Removal](#).

## Sensor (Input): Static Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Check the input sensor actuator for damage, and improper installation.
  - b. Make sure that the sensor (duplex and input) is functional. Do the following:
    1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
    2. Find the sensor (duplex and input).
  - c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
  - d. Check the sensor (duplex and input) for damage and improper installation. For more information, see [Sensor \(Duplex\) Removal](#).

## 202 paper jams

### 202 Paper Jam Messages

Error code	Description	Action
202.03	The paper fed from the MPF or manual feeder never arrived at the sensor (fuser exit).	See <a href="#">Sensor (fuser exit): Paper failed to arrive from MPF jam service check</a>
202.04	The paper fed from the MPF or manual feeder cleared the sensor (fuser exit) earlier than expected.	N/A
202.05	The paper fed from the MPF or manual feeder never cleared the sensor (fuser exit).	See <a href="#">Sensor (fuser exit): Paper failed to clear jam service check</a>
202.13	The paper fed from tray 1 never arrived at the sensor (fuser exit).	See <a href="#">Sensor (fuser exit): Paper failed to arrive jam service check</a>
202.14	The paper fed from tray 1 cleared the sensor (fuser exit) earlier than expected.	N/A
202.15	The paper fed from tray 1 never cleared the sensor (fuser exit).	See <a href="#">Sensor (fuser exit): Paper failed to clear jam service check</a>
202.23	The paper fed from tray 2 never arrived at the sensor (fuser exit).	See <a href="#">Sensor (fuser exit): Paper failed to arrive from optional tray jam service check</a>
202.24	The paper fed from tray 2 cleared the sensor (fuser exit) earlier than expected.	N/A
202.25	The paper fed from tray 2 never cleared the sensor (fuser exit).	See <a href="#">Sensor (fuser exit): Paper failed to clear from optional tray jam service check</a>
202.33	The paper fed from tray 3 never arrived at the sensor (fuser exit).	See <a href="#">Sensor (fuser exit): Paper failed to arrive from optional tray jam service check</a>
202.34	The paper fed from tray 3 cleared the sensor (fuser exit) earlier than expected.	N/A
202.35	The paper fed from tray 3 never cleared the sensor (fuser exit).	See <a href="#">Sensor (fuser exit): Paper failed to clear from optional tray jam service check</a>
202.43	Paper fed from tray 4 never reached the sensor (fuser exit).	See <a href="#">Sensor (fuser exit): Paper failed to arrive from optional tray jam service check</a>

Error code	Description	Action
202.44	Paper fed from tray 4 cleared the sensor (fuser exit) earlier than expected.	N/A
202.45	Paper fed from tray 4 never cleared the sensor (fuser exit).	See <a href="#">Sensor (fuser exit): Paper failed to clear from optional tray jam service check</a>
202.91	The paper remains on the sensor (fuser exit) during the warm up sequence.	See <a href="#">Sensor (fuser exit): Static jam service check</a>

## Sensor (Fuser Exit): Paper Failed To Arrive From Mpf Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using the MPF, then do the following:
  - a. Check the MPF pick roller and separator roller for wear, damage, and contamination.
  - b. Check the MPF gearbox for wear, damage, and improper mesh.
6. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Identify the location of the leading edge of the paper.
  - b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
  - c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. For more information, see [Fuser Removal](#).

## Sensor (Fuser Exit): Paper Failed To Arrive Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs only when using the tray 1, then do the following:
  - a. Check the pick roller for wear, damage, contamination, and improper installation.
  - b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.

6. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Identify the location of the leading edge of the paper.
  - b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
  - c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. For more information, see [Fuser Removal](#).

## Sensor (Fuser Exit): Paper Failed To Clear Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Make sure that the fuser is functional. Do the following:
    1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
    2. Find the sensor (fuser).
  - b. Make sure that the connections between the fuser and the controller board are properly connected.
  - c. Check the fuser for wear, damage, and improper installation. For more information, see [Fuser Removal](#).
  - d. Check the fuser actuator for wear, damage, and improper installation.
  - e. Check the redrive assembly for wear, damage, and improper mesh.

## Sensor (Fuser Exit): Paper Failed To Arrive From Optional Tray Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:
  - a. Check the pick roller for wear, damage, contamination, and improper installation.
  - b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
  - c. Check the paper path above the tray for debris and foreign object.
6. If the paper jam error occurs regardless of the source tray, then do the following:

- a. Check the input sensor actuator for damage, and improper installation.
  - b. Make sure that the sensor (duplex and input) is functional. Do the following:
    1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
    2. Find the sensor (duplex and input).
  - c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
  - d. Check the sensor (duplex and input) for damage and improper installation. For more information, see [Sensor \(Duplex\) Removal](#).
7. If the paper jam error occurs regardless of the source tray, then do the following:
- a. Identify the location of the leading edge of the paper.
  - b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
  - c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. For more information, see [Fuser Removal](#).

## Sensor (Fuser Exit): Paper Failed To Clear From Optional Tray Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. If the paper jam error occurs when using optional trays (tray 2 to tray 4), then do the following:
  - a. Check the pick roller for wear, damage, contamination, and improper installation.
  - b. Check the separator pad or separator roller for wear, damage, contamination, and improper installation.
  - c. Check the paper path above the tray for debris and foreign object.
6. If the paper jam error occurs regardless of the source tray, then do the following:
  - a. Check the input sensor actuator for damage, and improper installation.
  - b. Make sure that the sensor (duplex and input) is functional. Do the following:
    1. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Sensor tests**.
    2. Find the sensor (duplex and input).
  - c. Make sure that the connections between the sensor (duplex and input) and the controller board are properly connected.
  - d. Check the sensor (duplex and input) for damage and improper installation. For more information, see [Sensor \(Duplex\) Removal](#).
7. If the paper jam error occurs regardless of the source tray, then do the following:

- a. Identify the location of the leading edge of the paper.
- b. If the leading edge of the paper did not reach the fuser, then check the imaging unit and transfer roller for damage and improper installation.
- c. If the leading edge of the paper reached the fuser, then check the fuser for wear, damage, and improper installation. For more information, see [Fuser Removal](#).

## Sensor (Fuser Exit): Static Jam Service Check

1. Turn off the printer.
  2. Check the optional tray for improper installation.
  3. Remove the optional tray, and then check the connectors on the printer and optional tray for damage and improper connection.
  4. Reinstall the optional tray, and then turn on the printer.
  5. Remove the tray insert.
  6. Check the tray insert and its lift plate gears for damage and improper operation.
  7. Make sure that the following motors are functional:
    - Motor (pick (tray (x)))
    - Motor (pass-through (tray(x)))
- Do the following:
- a. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics > Motors tests**.
  - b. Select **Pick (tray [x])** and **Pass-through (tray [x])**.
8. Make sure that the connections between the motors and the controller board are properly connected.
  9. Check the motors for damage, and improper installation.

## 231 paper jams

### 231 Paper Jam Messages

Error code	Description	Action
231.03	Paper fed from the MPF or manual feeder did not reach the sensor (redrive/duplex path 1) during a duplex print job.	N/A
231.05	Paper fed from the MPF or manual feeder never cleared the sensor (redrive/duplex path 1) during a duplex print job..	
231.13	Paper fed from tray 1 did not reach the sensor (redrive/duplex path 1) during a print job.	
231.15	Paper fed from tray 1 never cleared the sensor (redrive/duplex path 1) during a duplex print job.	
231.23	Paper fed from tray 2 did not reach the sensor (redrive/duplex path 1) during a print job.	
231.25	Paper fed from tray 2 never cleared the sensor (redrive/duplex path 1) during a duplex print job.	
231.33	Paper fed from tray 3 did not reach the sensor (redrive/duplex path 1) during a print job.	
231.35	Paper fed from tray 3 never cleared the sensor (redrive/duplex path 1) during a duplex print job.	
231.43	Paper fed from tray 4 did not reach the sensor (redrive/duplex path 1) during a print job.	
231.45	Paper fed from tray 4 never cleared the sensor (redrive/duplex path 1) during a duplex print job.	



## 232 paper jams

### 232 Paper Jam Messages

Error code	Description	Action
232.02	Paper fed from the MPF or manual feeder arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
232.03	Paper fed from the MPF was detected later than expected or was never detected at the sensor (input) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to arrive jam service check</a>
232.05	Paper fed from the MPF never cleared the sensor (input) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to arrive jam service check</a>
232.12	Paper fed from tray 1 arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
232.13	Paper fed from tray 1 was detected later than expected or was never detected at the sensor (input) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to arrive jam service check</a>
232.15	Paper fed from tray 1 never cleared the sensor (input) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to clear jam service check</a>
232.22	Paper fed from tray 2 arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
232.23	Paper fed from tray 2 was detected later than expected or was never detected at the sensor (input) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to arrive jam service check</a>
232.25	Paper fed from tray 2 never cleared the sensor (input) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to clear jam service check</a>
232.32	Paper fed from tray 3 arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
232.33	Paper fed from tray 3 never reached the sensor (input) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to arrive jam service check</a>
232.35	Paper fed from tray 3 never cleared the sensor (input) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to clear jam service check</a>

Error code	Description	Action
232.42	Paper fed from tray 4 arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
232.43	Paper fed from tray 4 never reached the sensor (pass-through) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to arrive jam service check</a>
232.45	Paper fed from tray 4 never cleared the sensor (pass-through) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to clear jam service check</a>
232.92	Paper fed from tray 5 arrived at the sensor (input) earlier than expected during a duplex print job.	N/A
232.93	Paper fed from an unknown tray was detected later than expected or was never detected at the sensor (input) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to arrive jam service check</a>
232.95	Paper fed from an unknown tray never cleared the sensor (input) during a duplex print job.	See <a href="#">Sensor (input): Paper (duplex job) failed to clear jam service check</a>

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

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. Check the printed page count.
  - a. Enter the Diagnostics menu, and then touch **Printer Setup**.
  - b. If the page count is near 400K, then replace the duplex.
6. Check the duplex paper path for jammed paper, debris, and obstructions.
7. Check the duplex rollers for debris, wear, damage, contamination, and improper installation.
8. Check the duplex linkage and belt for damage and improper installation.

## Sensor (Input): Paper (Duplex Job) Failed To Clear Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Make sure that the paper is free of debris and obstructions.

3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. Check the printed page count.
  - a. Enter the Diagnostics menu, and then touch **Printer Setup**.
  - b. If the page count is near 400K, then replace the duplex.
6. Check the duplex paper path for jammed paper, debris, and obstructions.
7. Check the duplex rollers for debris, wear, damage, contamination, and improper installation.
8. Check the duplex linkage and belt for damage and improper installation.
9. Check the isolation roller for wear, damage, and contamination.

## 241 paper jams

### 241 Paper Jam Messages

Error code	Description	Action
241.05	Paper fed from the manual feeder cleared the sensor (input) later than expected.	See <a href="#">Motor (Tray 1 Pick) Jam Service Check</a> .
241.82	The motor (tray 1 pick) has stalled or did not reach the expected speed.	
241.83		
241.84		
241.91	Paper remains detected at the sensor (input) after the printer is turned on.	See <a href="#">Sensor (Input): Static Jam Service Check</a> .

### Motor (Tray 1 Pick) Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#)
2. Make sure that the paper is free of debris and obstructions.
3. Perform a POR.
4. Check if the paper jam error occurs when using other trays.
5. Check the pick arm and pick roller for damage and improper installation.

## 242-244 paper jams

### 242 Paper Jam Messages

Error code	Description	Action
242.05	Paper fed from the MPF arrived at the sensor (input) later than expected.	N/A
242.06	Paper fed from the MPF was not picked. The paper did not reach the sensor (tray 2 pass through).	N/A
242.21	Paper fed from tray 2 remains detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) after the printer is turned on.	See <a href="#">Optional Tray Sensors Jam Service Check</a>
242.22	Paper fed from tray 2 was detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) earlier than expected.	
242.25	Paper fed from tray 2 cleared the sensor (tray 2 pass-through) later than expected.	
242.26	Paper fed from tray 2 was picked but it never reached the sensor (input).	
242.31	Paper fed from tray 3 remains detected at the sensor (tray 2 pass-through) or sensor (tray 2 trailing edge) after the printer is turned on.	
242.32	Paper fed from tray 3 arrived too early at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge).	
242.33	Paper fed from tray 3 never reached the sensor (tray 2 pass-through).	
242.35	Paper fed from tray 3 cleared the sensor (tray 2 pass-through) later than expected.	
242.36	Paper fed from tray 3 was picked but it did not reach the sensor (tray 2 pass-through).	

## Diagnostics and Troubleshooting

Error code	Description	Action
242.41	Paper fed from tray 4 remains detected at the sensor (tray 2 pass-through) or sensor (tray 2 trailing edge) after the printer is turned on.	
242.42	Paper fed from tray 4 was detected at the sensor (tray 2 pass-through) or at the sensor (tray 2 trailing edge) earlier than expected.	
242.43	Paper fed from tray 4 never reached the sensor (tray 2 pass-through).	
242.45	Paper fed from tray 4 cleared the sensor (tray 2 pass-through) or sensor (tray 2 trailing edge) later than expected.	
242.47	Paper fed from tray 4 never cleared the sensor (tray 2 pass-through).	
242.70	The motor (tray 2 transport) does not turn on.	See <a href="#">Optional Tray Motors Jam Service Check</a>
242.71	The motor (tray 2 transport) does not turn off.	
242.72	The motor (550-sheet tray 2 transport) speed did not ramp up to expected level.	
242.73	The motor (550-sheet tray 2 transport) stalled.	
242.74	The motor (tray 2 transport) ran too slow.	
242.75	The motor (tray 2 transport) ran too fast.	
242.76	The motor (550-sheet tray 2 transport) ran too long.	
242.80	The motor (tray 2) did not turn on.	
242.81	The motor (tray 2) did not turn off.	
242.82	The motor (tray 2) speed did not ramp up to the expected level.	
242.83	The motor (tray 2) has stalled.	
242.84	The motor (tray 2) ran too slow.	

Error code	Description	Action
242.85	The motor (tray 2) ran too fast.	See <a href="#">Optional Tray Sensors Jam Service Check</a>
242.86	The motor (tray 2) ran too long.	
242.91	Paper remains detected at the sensor (tray 2 pass-through) after the printer is turned on.	
242.92	Paper fed from an unknown tray was detected at the sensor (tray 2 pass-through) or at the sensor tray 2 trailing edge) earlier than expected.	
242.93	Paper fed from an unknown tray never arrived at the sensor (tray 2 pass-through).	
242.95	Paper fed from an unknown tray cleared the sensor (tray 2 pass-through) or sensor (tray 2 trailing edge) later than expected.	
242.96	Paper fed from an unknown tray was picked but it never arrived at the sensor (input).	

## 243 Paper Jam Messages

Error code	Description	Action
243.31	Paper fed from tray 3 remains detected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge) after the printer is turned on.	See <a href="#">Optional Tray Sensors Jam Service Check</a>
243.32	Paper fed from tray 3 was detected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge) earlier than expected.	
243.35	Paper fed from tray 3 cleared the sensor (tray 3 pass-through) later than expected.	
243.36	Paper fed from tray 3 was picked but it never arrived at the sensor (tray 2 pass-through).	
243.41	Paper fed from tray 4 remains detected at the sensor (tray 3 pass-through) or sensor (tray 3	

## Diagnostics and Troubleshooting

Error code	Description	Action
	trailing edge) after the printer is turned on.	
243.42	Paper fed from tray 4 was detected at the sensor (tray 3 pass-through) or at the sensor (tray 3 trailing edge) earlier than expected.	
243.43	Paper fed from tray 4 never reached the sensor (tray 3 pass-through).	
243.45	Paper fed from tray 4 cleared the sensor (tray 3 pass-through) or sensor (tray 3 trailing edge) later than expected.	
243.47	Paper fed from tray 4 never cleared the sensor (tray 3 pass-through).	
243.70	The motor (550-sheet tray 3 transport) does not turn on.	See <a href="#">Optional Tray Motors Jam Service Check</a>
243.71	The motor (550-sheet tray 3 transport) does not turn off.	
243.72	The motor (550-sheet tray 3 transport) speed did not ramp up to expected level.	
243.73	The motor (550-sheet tray 3 transport) has stalled.	
243.74	The motor (tray 3 transport) ran too slow.	
243.75	The motor (tray 3 transport) ran too fast.	
243.76	The motor (550-sheet tray 3 transport) ran too long.	
243.80	The motor (550-sheet tray 3 pick/lift) does not turn on.	
243.81	The motor (550-sheet tray 3 pick/lift) does not turn on.	
243.82	The motor (550-sheet tray 3 pick/lift) does not turn off.	
243.83	The motor (550-sheet tray 3 pick/lift) has stalled.	
243.84	The motor (550-sheet tray 3 pick/lift) ran too slow.	



Error code	Description	Action
242.85	The motor (550-sheet tray 3 pick/lift) ran too fast.	
242.86	The motor (550-sheet 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.	
243.92	Paper fed from an unknown tray was detected earlier than expected at the sensor (tray 3 pass-through) or sensor (tray 3 trailing edge).	
243.93	Paper fed from an unknown tray never reached the sensor (tray 2 pass-through).	
243.95	Paper fed from an unknown tray cleared the sensor (tray 3 pass-through) or sensor (tray 3 trailing edge) later than expected.	
243.96	Paper fed from an unknown tray was picked but it never reached the sensor (tray 3 pass-through).	
243.97	Paper fed from an unknown tray never cleared the sensor (tray 3 pass-through).	

## 244 Paper Jam Messages

Error code	Description	Action
244.41	Paper fed from tray 4 remains detected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge) after the printer is turned on.	See <a href="#">Optional Tray Sensors Jam Service Check</a>
244.42	Paper fed from tray 4 was detected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge) earlier than expected.	
244.45	Paper fed from tray 4 cleared the sensor (tray 4 pass-through) or the sensor (tray 4 trailing edge) later than expected.	

## Diagnosics and Troubleshooting

Error code	Description	Action
244.46	Paper fed from tray 4 was picked but it never reached the sensor (tray 4 trailing edge).	
244.70	The motor (550-sheet tray 4 transport) does not turn on.	See <a href="#">Optional Tray Motors Jam Service Check</a>
244.71	The motor (550-sheet tray 4 transport) does not turn off.	
244.72	The motor (550-sheet tray 4 transport) speed did not ramp up to expected level.	
244.73	The motor (550-sheet tray 4 transport) has stalled.	
244.74	The motor (550-sheet tray 4 transport) ran too slow.	
244.75	The motor (550-sheet tray 4 transport) ran too fast.	
244.76	The motor (550-sheet tray 4 transport) ran too long.	
244.80	The motor (550-sheet tray 4 pick/lift) does not turn on.	
244.81	The motor (550-sheet tray 4 pick/lift) does not turn off.	
244.82	The motor (550-sheet tray 4 pick/lift) speed did not ramp up to expected level.	
244.83	The motor (550-sheet tray 4 pick/lift) has stalled.	
244.84	The motor (550-sheet tray 4 pick/lift) ran too slow.	
244.85	The motor (550-sheet tray 4 pick/lift) ran too fast.	
244.86	The motor (550-sheet tray 4 pick/lift) ran too long.	
244.91	Paper remains detected at the sensor (tray 4 pass-through) or sensor (tray 4 trailing edge) after the printer is turned on.	See <a href="#">Optional Tray Sensors Jam Service Check</a>
244.92	Paper fed from an unknown tray was detected at the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge) earlier than expected.	

Error code	Description	Action
244.93	Paper fed from tray 4 did not reach the sensor (tray 4 pass-through).	
244.95	Paper fed from an unknown tray cleared the sensor (tray 4 pass-through) or the sensor (tray 4 trailing edge) later than expected.	
244.96	Paper fed from an unknown tray was picked but it did not reach the sensor (tray 4 pass-through).	
244.97	Paper fed from an unknown tray never cleared the sensor (tray 4 pass-through) or at the sensor (tray 4 trailing edge).	

## Optional Tray Sensors Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).
2. Perform a POR.
3. Identify the tray that causes the paper jam error. Place the affected tray insert at the bottom. For example, If tray 2 is causing the paper jam error in a 4-tray configuration, then swap tray 2 and tray 4.
4. Make sure the following sensors are functional:
  - Sensor (pass-through)
  - Sensor (index)
  - Sensor (trailing edge)
  - Sensor (media present)
    - a. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics > Sensor tests**.
    - b. Find the listed sensors.
5. Make sure that the connections between the listed sensors and the controller board are properly connected.
6. Check the sensors and its actuators for damage and improper installation.
7. Check the tray insert for damage and improper installation.
8. Check the tray guides for damage and improper operation.
9. Check the lift plate for damage and improper operation.

## Optional Tray Motors Jam Service Check

1. Make sure that paper is supported and loaded properly. See [Avoiding Jams](#).

## Diagnostics and Troubleshooting

2. Perform a POR.
3. Identify the tray that causes the paper jam error. Place the affected tray insert at the bottom. For example, If tray 2 is causing the paper jam error in a 4-tray configuration, then swap tray 2 and tray 4.
4. Remove the tray insert.
5. Check the tray insert and its lift plate gears for damage and improper operation.
6. Make sure that the following motors are functional:
  - Motor (pick (tray (x)))
  - Motor (pass-through (tray(x)))

Do the following:

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


# User attendance messages

## 0y user attendance errors

### 2-9 User Attendance Messages

Error code	Description	Action
2.01	A supply is needed for a job.	N/A
8.00	A door was detected as open.	See, <a href="#">Undetected Door Service Check</a>
8.01	Door A was detected as open.	
8.02	Door B was detected as open.	
9.00	A problem caused the printer to restart automatically.	See, <a href="#">Auto reboot error service check</a>

### Undetected door service check

1. Check the doors for the following:
  - a. Obstructions
  - b. Damage
  - c. Improper operation
2. Close the doors properly.
  -  **Note:** Make sure that there is no gap between the door and the printer.
3. Make sure that the door links and hinges are properly interlocked and the sensor actuator is not damaged.
4. Press the power button to turn off the printer, and then disconnect the power cord from the electrical outlet.
5. Wait for 30 seconds to make sure that all electrical charges have dissipated from the printer.
6. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer.
7. Wait for the printer to completely boot up and initialize all its components before sending the print job again.
8. Check the sensor (door interlock) actuator for damage and improper installation.
9. Make sure that the sensor (door interlock) is functional, do the following:
  - a. Enter the Diagnostics menu, and then touch **Printer diagnostics and adjustments > Sensor tests**.
  - b. Find the sensor (door interlock).

10. Make sure that the connections between the controller board and sensor (door interlock) are properly connected.

## Auto reboot error service check

1. Clear the intervention message, and then send the print job again.
2. Press the power button to turn off the printer, and then disconnect the power cord from the electrical outlet.
3. Wait for 30 seconds to make sure that all electrical charges have dissipated from the printer.
4. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer.
5. Wait for the printer to completely boot up and initialize all its components before sending the print job again.

# 1y user attendance errors

## 11–12 User Attendance Messages

Error code	Description	Action
11.11	A wrong paper type or size was detected on tray 1.	See, <a href="#">Mismatched paper size and paper printer setting error service check</a> .
11.12	A wrong paper type, size, or orientation was detected on tray 1.	
11.21	A wrong paper type or size was detected on tray 2.	
11.22	A wrong paper type, size, or orientation was detected on tray 2.	
11.31	A wrong paper type or size was detected on tray 3.	
11.32	A wrong paper type, size, or orientation was detected on tray 3.	
11.41	A wrong paper type or size was detected on tray 4.	
11.42	A wrong paper type, size, or orientation was detected on tray 4.	
11.51	A wrong paper type or size was detected on tray 5.	

Error code	Description	Action
11.52	A wrong paper type, size, or orientation was detected on tray 5.	
11.71	An unsupported orientation was detected for an envelope loaded.	
11.81	A wrong paper type or size was detected on the MPF.	
11.82	A wrong paper type, size, or orientation was detected on the MPF.	
11.91	A wrong paper type or size was detected on the MPF.	
11.92	A wrong paper type, size, or orientation was detected on the MPF.	
12.11	A wrong setting for paper type or size was detected on tray 1.	
12.12	A wrong setting for paper type, size, or orientation was detected on tray 1.	
12.21	A wrong setting for paper type or size was detected on tray 2.	
12.22	A wrong setting for paper type, size, or orientation was detected on tray 2.	
12.31	A wrong setting for paper type or size was detected on tray 3.	
12.32	A wrong setting for paper type, size, or orientation was detected on tray 3.	
12.41	A wrong setting for paper type or size was detected on tray 4.	
12.42	A wrong setting for paper type, size, or orientation was detected on tray 4.	
12.51	A wrong setting for paper type or size was detected on tray 5.	
12.52	A wrong setting for paper type, size, or orientation was detected on tray 5.	
12.81	A wrong setting for paper type or size was detected on the MPF.	

Error code	Description	Action
12.82	A wrong setting for paper type, size, or orientation was detected on the MPF.	
12.91	A wrong setting for paper type or size was detected on the MPF.	
12.92	A wrong setting for paper type, size, or orientation was detected on the MPF.	

## Mismatched paper size and paper printer setting error service check

1. Set the paper size in the Paper menu to match the paper loaded. From the home screen, touch **Settings > Paper > Tray Configuration**.
2. Adjust the paper guides in the tray to correct position for the paper loaded. Make sure that the guides fit snugly against the paper.
3. Replace with correct paper type or size.

## 2y user attendance errors

### 24-29 User Attendance Messages

Error code	Description	Action
24.04	Printer tried to print a duplex job with paper that was too narrow/short or too heavy.	See, <a href="#">Paper size mismatch (duplex print) service check</a>
29.00	Packing material present on supplies.	See, <a href="#">Removing the packing material from the supplies</a>
29.08		

## Paper Size Mismatch (Duplex Print) Service Check

1. Make sure that the paper size is supported for duplex printing.

 **Note:**

- Narrow or short paper may not be supported for duplex printing.
- Heavy paper may not be supported for duplex printing.

For more information, see [Selecting paper](#).

## Removing the packing material from the supplies

1. Make sure to remove all packing materials such as tape, foam, or plastic.



2. Check all areas of the printer for packing materials.
3. Remove all supplies, and then check for any packing material left.

## 3y user attendance errors

### 31 User Attendance Error Messages

Error code	Description	Action
31.00	An MICR print cartridge is required.	See <a href="#">MICR supplies service check</a>
31.35	Waste toner bottle smart chip or sensor communication problem.	See <a href="#">Waste toner bottle error service check</a>
31.40	The toner cartridge is missing or unresponsive.	See <a href="#">Toner cartridge (K) error service check</a>
31.40A	A black toner cartridge smart chip or sensor communication error was detected.	
31.40AN		
31.40B		
31.40C		
31.40CN		
31.40D		
31.40E		
31.40F		
31.40FN		
31.40G		
31.40GN		
31.40H		
31.40K		
31.40R		
31.40Y		
31.41	A cyan toner cartridge smart chip or sensor communication error was detected.	See <a href="#">Toner cartridge (CMY) error service check</a>
31.41A		
31.41B		
31.41C		
31.41CN	A non-Xerox cyan toner cartridge was detected.	
31.41D	A cyan toner cartridge smart chip or sensor communication error was detected.	
31.41E		

## Diagnostics and Troubleshooting

Error code	Description	Action
31.41F		
31.41FN	A non-Xerox cyan toner cartridge was detected.	
31.41G	A cyan toner cartridge smart chip or sensor communication error was detected.	
31.41H		
31.41K		
31.42	A magenta toner cartridge smart chip or sensor communication error was detected.	
31.42A		
31.42B		
31.42C		
31.42CN	A non-Xerox magenta toner cartridge was detected.	
31.42D	A magenta toner cartridge smart chip or sensor communication error was detected.	
31.42E		
31.42F		
31.42FN	A non-Xerox magenta toner cartridge was detected.	
31.42G	A magenta toner cartridge smart chip or sensor communication error was detected.	
31.42GN	A non-Xerox magenta toner cartridge was detected.	
31.42K	A magenta toner cartridge smart chip or sensor communication error was detected.	
31.43	A yellow toner cartridge smart chip or sensor communication error was detected.	
31.43A		
31.43B		
31.43C		
31.43CN	A non-Xerox yellow toner cartridge was detected.	
31.43D	A yellow toner cartridge smart chip or sensor communication error was detected.	
31.43E		
31.43F		
31.43FN	A non-Xerox yellow toner cartridge was detected.	
31.43G	A yellow toner cartridge smart chip or sensor communication error was detected.	
31.43H		

Error code	Description	Action
31.43K		
31.60H	The imaging unit is missing or unresponsive.	See <a href="#">Imaging unit (K) error service check</a>
31.60A	A black imaging unit smart chip or sensor communication error was detected.	
31.60AN	A non-Xerox black imaging unit was detected.	
31.60B	A black imaging unit smart chip or sensor communication error was detected.	
31.60C	A black imaging unit smart chip or sensor communication error was detected.	
31.60CN	A non-Xerox black imaging unit was detected.	
31.60D	A black imaging unit smart chip or sensor communication error was detected.	
31.60E		
31.60F		
31.60G		
31.60H		
31.65		
31.65A		
31.65B	See <a href="#">Imaging unit (CMY) error service check</a>	
31.65C		
31.65CN		A non-Xerox black and color imaging kit was detected.
31.65D		A black imaging unit smart chip or sensor communication error was detected.
31.65E		
31.65F		
31.65G		
31.65H		
31.65T		
31.65TN	A non-Xerox black and color imaging kit was detected.	


## 32 User Attendance Error Messages

Error code	Description	Action
32.40	The black toner cartridge is unsupported.	See <a href="#">Toner cartridge (K) error service check</a>

Error code	Description	Action
32.40A	The black toner cartridge is unsupported—Unsupported memory map version in the smart chip.	
32.40B	The black toner cartridge is unsupported—Failed capacity class/model compatibility check.	
32.40C	The black toner cartridge is unsupported—Failed OEM check.	
32.40D	The black toner cartridge is unsupported—Failed SWE marriage check.	
32.40E	The black toner cartridge is unsupported—The supply is on the revoked list.	
32.40F	The black toner cartridge is unsupported—The print cartridge is MICR, and the release does not support MICR.	
32.40G	The black toner cartridge is unsupported.	
32.40H		
32.40I		
32.40J		
32.40K		
32.40L		
32.40M		
32.41	Cyan toner cartridge unsupported error.	See <a href="#">Toner cartridge (CMY) error service check</a>
32.41A		
32.41B		
32.41C		
32.41D		
32.41E		
32.41EN	A non-Xerox cyan toner cartridge was detected.	
32.41G	Cyan toner cartridge unsupported error.	
32.41H		
32.41I		
32.41J		
32.41K		
32.41L		
32.41M		
32.42	Magenta toner cartridge unsupported error.	See <a href="#">Toner cartridge (CMY) error service check</a>

Error code	Description	Action
32.42A		
32.42B		
32.42C		
32.42D		
32.42E		
32.42G		
32.42H		
32.42I		
32.42J		
32.42K		
32.42L		
32.42M		
32.43		
32.43A		
32.43B		
32.43C		
32.43D		
32.43E		
32.43G		
32.43H		
32.43I		
32.43J		
32.43K		
32.43L		
32.43M		
32.65	Black and color imaging kit or photoconductor unit unsupported error.	See <a href="#">Toner cartridge (CMY) error service check</a>
32.65A		
32.65B		
32.65C		
32.65D		
32.65E		
32.65F		

## 33–34 User Attendance Error Messages

 **Note:** For more information, see [Non-Xerox Supply](#).

Error code	Description	Action	
33.40	A non-Xerox black toner cartridge was detected.	See <a href="#">Toner cartridge (K) error service check</a>	
33.40A			
33.40AN			
33.40BN			
33.41	A non-Xerox cyan toner cartridge was detected.	See <a href="#">Toner cartridge (CMY) error service check</a>	
33.41AN			
33.41B			An inauthentic cyan toner cartridge was detected.
33.41BN	A non-Xerox cyan toner cartridge was detected.		
33.42	A non-Xerox magenta toner cartridge was detected.	See <a href="#">Toner cartridge (CMY) error service check</a>	
33.42AN			
33.43	A non-Xerox yellow toner cartridge was detected.		
33.43A	An inauthentic yellow toner cartridge was detected.		
33.43AN	A non-Xerox yellow toner cartridge was detected.		
33.65	An inauthentic black and color (CMY) toner cartridge was detected.		
33.65A			
33.65AN	A non-Xerox black and color (CMY) imaging kit was detected.		
33.65B	An inauthentic black and color (CMY) toner cartridge was detected.		
33.65BN	A non-Xerox black and color (CMY) imaging kit was detected.		
34.04	The printer tried to do a duplex print job on a sheet that was too short or too narrow for the duplex path.		See <a href="#">Narrow/short paper duplex print error service check</a>
34.04A			


## 37–39 User Attendance Messages

Error code	Description	Action
37.01	The memory is insufficient to collate the job.	See <a href="#">Insufficient memory service check</a>
37.03		
38.01	The memory is full.	
39.01	The page is too complex to print. The printer memory is not enough for the details on the page.	
39.02		


### MICR supplies service check

1. Make sure that the toner cartridge and imaging unit are not damaged, not leaking, genuine, and support MICR supplies.
2. Make sure that the imaging unit or imaging kit and the toner cartridge are free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
3. Press the power button to turn off the printer, and then disconnect the power cord from the electrical outlet.
4. Wait for 30 seconds to make sure that all electrical charges have dissipated from the printer.
5. Connect the power cord to the electrical outlet, and then press the power button to turn on the printer.
6. Wait for the printer to completely boot up and initialize all its components before sending the print job again.

### Waste Toner Bottle Error Service Check

1. Make sure that the waste toner bottle is properly installed and not full.
2. Clean the sensor (waste toner bottle) with a cloth, and then print a test page.
  -  **Note:** Sensor contamination can cause communication errors.
3. Clean the waste toner bottle contacts for any toner contamination.
4. Check the waste toner bottle contacts for damage.
5. Make sure that the connections between the controller board and the waste toner bottle are properly connected.

### Toner cartridge (K) error service check

1. Check if the printer is using a genuine and supported Xerox toner cartridge.
  -  **Note:** If the printer is using a third-party toner cartridge, then refer the users to the supplier.
2. Make sure that the cartridge region matches the printer region.

3. Make sure that the toner cartridge is not damaged and not leaking.
4. Make sure that the toner cartridge is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
5. When installing a genuine after market supply for the first time and a supplies message error occurs, install the latest firmware version available for your printer.
6. Clean the toner cartridge contacts for any toner contamination.
7. Check the toner cartridge contacts for damage.
8. Make sure that the connections between the controller board and the toner cartridge are properly connected.

### Toner Cartridge (CMY) Error Service Check

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



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

2. Make sure that the cartridge region matches the printer region.
3. Make sure that the toner cartridge is not damaged and not leaking.
4. Make sure that the toner cartridge is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
5. When installing a genuine after market supply for the first time and a supplies message error occurs, install the latest firmware version available for your printer.
6. Clean the waste toner bottle contacts for any toner contamination.

### Imaging unit (K) error service check

1. Check if the printer is using a genuine and supported Xerox imaging unit or imaging kit.




**Note:** If the printer is using a third-party imaging unit or imaging kit, then refer the users to the supplier.


2. Check the imaging unit or imaging kit for damage.
3. Make sure that the imaging unit or imaging kit is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
4. When installing a genuine after market supply for the first time and a supplies message error occurs, install the latest firmware version available for your printer.
5. Clean the toner cartridge contacts for any toner contamination.
6. Check the toner cartridge contacts for damage.
7. Make sure that the connections between the controller board and the toner cartridge are properly connected.



## Imaging Unit (CMY) Error Service Check

1. Check if the printer is using a genuine and supported Xerox imaging unit or imaging kit.
  -  **Note:** If the printer is using a third-party imaging unit or imaging kit, then refer the users to the supplier.
2. Check the imaging unit or imaging kit for damage.
3. Make sure that the imaging unit or imaging kit is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
4. When installing a genuine after market supply for the first time and a supplies message error occurs, install the latest firmware version available for your printer.
5. Clean the waste toner bottle contacts for any toner contamination.
6. Check the waste toner bottle contacts for damage.
7. Make sure that the connections between the controller board and the waste toner bottle are properly connected.

## Narrow/Short Paper Duplex Print Error Service Check

1. Make sure that the printer is on a flat, level surface.
2. Make sure that the paper size is supported for duplex printing.
  -  **Note:**
    - Paper narrower than A4 (210 mm / 8.27 in.) and shorter than 250 mm / 9.84 in. is not supported for duplex printing.
    - Paper over 28-lb bond. (105 GSM) is not supported for duplex printing.
3. Make sure that the connections between the controller board and sensor (door interlock) are properly connected.

## Insufficient memory service check

1. Erase the printer memory. Do the following:
  - a. Turn off the printer, and then disconnect the power cord from the electrical outlet.
  - b. Wait for a few minutes, connect the power cord to the electrical outlet, and then turn on the printer.
2. Reduce the complexity of the print job. Do any of the following:
  - a. Lower the print quality.
  - b. Reduce the number of pages being printed at once.
3. If the file format is causing the issue, then convert the file to a different format that is more efficient in printing such as PDF.
4. Use a different driver, such as PostScript driver, to handle the print job more efficiently. Some printer drivers may be more efficient at handling large or complex print jobs than others.
5. Upgrade the printer memory by adding additional RAM.

## 4y user attendance errors

### 42 User Attendance Messages

Error code	Description	Action
42.xyz	Printer region mismatch	See <a href="#">Mismatched supplies service check</a>

The following are the meaning of the xyz codes:

- X y z— X is the printer region (error values 1 to 9, and 0 always matches)
- x Y z— Y is the cartridge region (values 1 to 9, and 0 always matches)
- x y Z— Z is the cartridge color (CMY or K)
- 0 0 z— Region 0: Worldwide. Supports any printer or cartridge. Should never post as an error.
- 1 1 z— Region 1: NA Sold
- 2 2 z— Region 2: XE Sold
- 3 3 z— Not used
- 4 4 z— Region 4: DMO Sold
- 5 5 z— Not used
- 6 6 z— Not used
- 7 7 z— Not used
- 8 8 z— Not used
- 9 9 z— Not used

Examples:

- 42.12K— Printer is NA region. Black cartridge is XE region.
- 42.41C— Printer is DMO region. Cyan cartridge is NA region.

Error code	Description	Action
42.01	The toner cartridge and printer regions are mismatched.	See <a href="#">Mismatched supplies service check</a>
42.02		
42.03		
42.04		
42.05		
42.09		
42.10		
42.10K		
42.12	Printer region mismatch.	
42.12C		

Error code	Description	Action	
42.12K	The toner cartridge and printer regions are mismatched.		
42.12M	Printer region mismatch.		
42.12Y			
42.13	The toner cartridge and printer regions are mismatched.		
42.13C	Printer region mismatch.		
42.13K	The toner cartridge and printer regions are mismatched.		
42.13M	Printer region mismatch.		
42.13Y			
42.14	The toner cartridge and printer regions are mismatched.		
42.14C	Printer region mismatch.		
41.14K	The toner cartridge and printer regions are mismatched.		
42.14M	Printer region mismatch.		See <a href="#">Mismatched supplies service check</a>
42.14Y			
42.15	The toner cartridge and printer regions are mismatched.		
42.19			
42.20			
42.21	Printer region mismatch.		
42.21C			
42.21K			
42.23	The toner cartridge and printer regions are mismatched.		
42.23C	Printer region mismatch.		
42.23K	The toner cartridge and printer regions are mismatched.		
42.23M	Printer region mismatch.		
42.23Y			
42.24	The toner cartridge and printer regions are mismatched.		
42.25			
42.25K			
24.26K			

## Diagnostics and Troubleshooting

Error code	Description	Action
42.29		
42.30		
42.31		
42.32		See <a href="#">Mismatched supplies service check</a>
42.34		
42.34K		
42.35		
42.39		
42.40		
42.40K		
42.41		
42.41K		
42.42		
42.43		
42.43C	Printer region mismatch.	
42.43K	The toner cartridge and printer regions are mismatched.	
42.43M	Printer region mismatch.	
42.43Y		
42.45	The toner cartridge and printer regions are mismatched.	See <a href="#">Mismatched supplies service check</a>
42.46		
42.46K		
42.49		
42.50		
42.51		
42.52		
42.52K	The black toner cartridge and printer regions are mismatched.	
42.53	The toner cartridge and printer regions are mismatched.	
42.54		
42.59		
42.60		
42.60K		


Error code	Description	Action
42.61		
42.61K		
42.62		
42.62K		
42.63		
42.63K		
42.64		
42.64K		
42.90		
42.91		
42.92		
42.93		
42.94		
42.94K		
42.95		

### 43 User Attendance Error Messages

Error code	Description	Action
43.40	A toner cartridge sensor error was detected.	See <a href="#">Toner meter card error service check</a>
43.40Y	A black toner cartridge toner meter cycle error was detected.	
43.40Z		
43.41	A cyan toner cartridge toner meter cycle error was detected.	
43.41Y		
43.41Z		
43.42	A magenta toner cartridge toner meter cycle error was detected.	
43.42Y		
43.42Z		
43.43	A yellow toner cartridge toner meter cycle error was detected.	
43.43Y		
43.43Z		

## Mismatched supplies service check

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

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

2. Make sure that the cartridge region matches the printer region.
3. Make sure that the toner cartridge is not damaged and not leaking.
4. Make sure that the toner cartridge is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
5. When installing a genuine after market supply for the first time and a supplies message error occurs, install the latest firmware version available for your printer.

## Toner meter card error service check

1. Make sure that the toner meter card is properly installed.
2. Check the sensor (toner meter) for contamination.
3. Make sure that the printer is free of toner buildup. Using an approved toner vacuum cleaner, completely clean the supplies.
4. Make sure that the sensor (toner meter) is functional. Do the following:
  - a. Enter the Diagnostics menu, and then touch **Printer diagnostics and adjustments > Sensor tests**.
  - b. Find the sensor (toner meter).

# 5y user attendance errors

## 55–59 User Attendance Error Messages

Error code	Description	Action
55.1	An unsupported USB device was detected.	Remove the flash drive to continue.
55.2	An unsupported USB hub was detected.	Remove the USB hub to continue.
58.00	Too many optional trays and finishers were detected.	Remove excess optional trays or finishers.
58.00A	Too many optional trays were detected.	<ol style="list-style-type: none"> <li>1 Turn off the printer.</li> <li>2 Unplug the power cord from the electrical outlet, and then from the printer.</li> <li>3 Remove one or more trays.</li> <li>4 Connect the power cord to the electrical outlet, and then turn on the printer.</li> </ol>
58.00B	Too many optional trays were detected.	
58.00C	Too many optional trays were detected.	
58.00D	Too many optional trays were detected.	

Error code	Description	Action
		<p><b>CAUTION— POTENTIAL INJURY:</b></p> <p>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.</p>
59.00	An unsupported option was detected. The option software version is not supported by the engine.	<ol style="list-style-type: none"> <li>1 Turn off the printer.</li> <li>2 Unplug the power cord from the electrical outlet, and then from the printer.</li> </ol>
59.00C	An unsupported option was detected.	<ol style="list-style-type: none"> <li>3 Remove the indicated tray.</li> <li>4 Connect the power cord to the electrical outlet, and then turn on the printer.</li> </ol>
59.00D	An unsupported option was detected.	<p><b>CAUTION— POTENTIAL INJURY:</b></p> <p>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.</p>

## 6y user attendance errors

### 61–66 User Attendance Error Messages

Error code	Description	Action
61.00	The hard disk is defective.	Replace the defective storage drive.
62.00	The hard disk is full.	Try one or more of the following: <ul style="list-style-type: none"> <li>• Touch <b>Continue</b> to clear the message.</li> <li>• Delete fonts, macros, and other data.</li> </ul>
63.00	The hard disk is not formatted.	Formatting now wipes all information from the storage drive.  To format the disk, do the following: <ol style="list-style-type: none"> <li>1 From the home screen, touch <b>Settings &gt; Device &gt; Maintenance &gt; Out of Service Erase</b>.</li> <li>2 Touch <b>Sanitize all information on hard disk</b>, and then touch <b>ERASE</b>.</li> </ol>
64.00	The hard disk format is unsupported.	N/A
66.00	The hard disk needs to be formatted.	N/A

## 8y user attendance errors

### 80 User Attendance Error Messages

Error code	Description	Action
80.11	The maintenance kit is low. The backup roll or fuser page count threshold has been reached.	Touch <b>Continue</b> to clear the message.
80.21	The maintenance kit is very low. The backup roll or fuser page count threshold has been reached.	
80.31	Replace the maintenance kit. The backup roll or fuser page count threshold has been reached. The fuser may continue to function beyond end of life.	



Error code	Description	Action
80.41	The maintenance kit is beyond end-of-life.	

## 82 User Attendance Error Messages

Error code	Description	Action
82.00	The waste toner bottle is nearly low.	Replace the waste toner bottle.
82.02		
82.09		
82.12	The waste toner bottle is low.	
82.13		
82.19		
82.20	The waste toner bottle is very low.	
82.22		
82.23		
82.29		
82.30	The waste toner bottle is empty.	
82.32		
82.33		
82.39		
82.40	The waste toner bottle is at end-of-life.	
82.42		
82.49		

## 84 User Attendance Error Messages

Error code	Description	Action
84.00	The black imaging unit is nearly low.	Touch <b>Continue</b> to clear the message.
84.01		
84.09	The black imaging unit is nearly low. The userselected EWS set point has been reached.	
84.11	The black imaging unit is low.	
84.19	The black imaging unit is low. The user-selected EWS set point has been reached.	

Error code	Description	Action
84.21	The black imaging unit is very low.	
84.23	The black imaging unit is very low. The side count set point has been reached.	
84.29	The black imaging unit or CMY imaging kit is very low. The user-selected EWS set point has been reached.	
84.31	The black imaging unit has reached end-of-life.	Replace the black or color imaging kit.
84.33		
84.41	The black imaging unit has reached beyond end-of-life.	
84.43		
84.48		

## 88 User Attendance Error Messages

Error code	Description	Action
88.00	The black toner cartridge is nearly low.	Touch <b>Continue</b> to clear the message.
88.07	The black toner cartridge was detected as empty.	
88.08	A black toner cartridge quanta error has occurred.	
88.09	The black toner cartridge is nearly low. The user-selected EWS set point has been reached.	
88.10	The black toner cartridge is low.	
88.17	The black toner cartridge was detected as empty.	
88.18	The black toner cartridge is low.	
88.19	The black toner cartridge is low. The user-selected EWS set point has been reached.	
88.20	The black toner cartridge is very low.	
88.27	The black toner cartridge was detected as empty.	
88.28	The black toner cartridge is very low.	

Error code	Description	Action
88.29	The black toner cartridge is very low. The user-selected EWS set point has been reached.	
88.30	The black toner cartridge is at end-of-life.	Replace the cartridge.
88.37		
88.38	A black toner cartridge quanta error has occurred.	
88.40	The black toner cartridge is beyond end-of-life.	
88.47		
88.48		

## Printer hardware errors

### 100 errors

#### 100 Error Messages

Error code	Description	Action
100.01	The weather station data is invalid.	N/A
100.04	The printhead temperature is out of range.	See <a href="#">Printhead Error Service Check</a>
100.04D		
100.25	The sensor (toner patch) temperature is out of range.	See <a href="#">Toner Patch Sensing Service Check</a>

### 110 errors

#### 110 Error Messages

Error code	Description	Action
110.20	A printhead error (mirror motor lock) was detected before the motor was turned on.	See <a href="#">Printhead Error Service Check</a>
110.21	A printhead power was off when the laser servo started.	
110.31	A printhead error (no first HSYNC) was detected.	
110.32	A printhead error (lost HSYNC) was detected.	
110.33	A printhead error (lost first HSYNC) was detected during servo.	
110.34	A printhead error (mirror motor lost lock) was detected.	
110.35	A printhead error (mirror motor never got first lock) was detected.	
110.36	A printhead error (mirror motor never stabilized) was detected.	
110.37	A printhead error (undetermined printhead type) was detected.	
110.41	A printhead NVRAM read failure occurred.	

Error code	Description	Action
110.70	A printhead NVRAM values are incorrect.	
110.92	A printhead NVRAM checksum mismatch occurred.	

## Printhead Error Service Check

1. Perform a POR.
2. Make sure that the connections between the controller board and the printhead are properly connected.
3. Check the printhead for damage, contamination, and improper installation. For more information, see [Printhead Removal](#).

## 120 errors

### 120 Error Messages

Error code	Description	Action
120.80	The motor (fuser) does not turn on.	See <a href="#">Motor (fuser) error service check</a> .
120.81	The motor (fuser) does not turn off.	
120.82	The motor (fuser) failed to achieve the expected speed.	
120.83	The motor (fuser) stalled.	
120.84	The motor (fuser) is ran too slow (under-speeding).	
120.85	The motor (fuser) is ran too fast (overspeeding).	
120.86	The motor (fuser) ran too long.	

## Motor (Fuser) Error Service Check

1. Perform a POR.
2. Make sure that the motor (fuser) is functional. Do the following:
  - a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motor tests**.
  - b. Select **Motor (fuser)**.

3. Make sure that the connections between the motor (main) and the controller board are properly connected.
4. Check the motor (fuser) for wear, damage, and improper mesh connection. For more information, see [Motor \(Fuser\) Removal](#).
5. Make sure that the correct voltage is supplied to the fuser from the power supply.
6. Make sure that the connections between the controller board and the fuser are properly connected.
7. Check the fuser for damage, contamination, and improper installation. For more information, see [Fuser Removal](#).

## 121 errors

### 121 Error Messages

Error code	Description	Action
121.00	The fuser did not reach the required temperature.	See <a href="#">Fuser Error Service Check</a>
121.01	During an attempt to heat up, the fuser was not detected.	N/A
121.02	The fuser went over the required temperature (during EWC/line voltage detection).	See <a href="#">Fuser Error Service Check</a>
121.03	The fuser hardware and driver mismatch.	N/A
121.04	Attempting to heat the fuser but the fuser relay is open, and The fuser PIC microcontroller is not reporting an error or is not responding.	See <a href="#">Fuser Error Service Check</a>
121.05	Attempting to heat the fuser but the fuser relay is open, and the fuser PIC microcontroller is reporting an error condition.	See <a href="#">Fuser Error Service Check</a>
121.09	The fuser fell below the minimum required temperature for motors.	N/A
121.10	The fuser did not reach the required temperature (during start of EWC/line voltage detection).	See <a href="#">Fuser Error Service Check</a>
121.11	The fuser reached the required temperature too late (during final EWC/line voltage detection).	
121.12	The fuser did not reach the required temperature (during final EWC/line voltage detection).	

Error code	Description	Action
121.13	The fuser reached the required temperature too fast (during final EWC/line voltage detection).	
121.22	Open fuser relay was detected.	
121.32	The fuser did not reach the required temperature at 100% power.	
121.33	The fuser did not reach the required temperature while the page is in the fuser.	
121.34	The fuser did not reach the required temperature during steady state control.	
121.36	An open fuser relay was detected with very cold, or unknown ambient temperature.	N/A
121.50	The fuser went over the required temperature during global over-temp check.	See <a href="#">Fuser Error Service Check</a>
121.52	The main thermistor temperature is out of range.	
121.53	The main thermistor temperature change rate is out of range.	
121.71	The fuser main heater thermistor was detected open.	
121.81	The fuser backup roll thermistor was detected open.	N/A
121.86	Backup thermistor temperature is out of range.	
121.87	Backup thermistor temperature change rate is out of range.	

## Fuser Error Service Check

1. Make sure that the printer is placed in a location with the following temperature and humidity:
  - 60°F to 90°F temperature range
  - 8% to 80% relative humidity
2. If the printer needs to be placed in a below freezing environment, then do the following:
  - a. Remove the fuser, and then allow it to slowly warm above freezing temperature.
  - b. Reinstall the fuser, and then turn on the printer.

- c. Disable the Sleep mode setting. From the home screen, touch **Settings > Device >Power Management > Timeouts> Sleep Mode** .
3. Make sure that the printer is plugged into an appropriately rated and properly grounded electrical outlet.
4. Perform a POR.
5. Make sure that the cooling fan is functional. Do the following:
  - a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests** .
  - b. Select **Fan (main)** .
6. Make sure that the connections between the cooling fan and the controller board are properly connected.
7. Check the cooling fan for damage, contamination, and improper installation. For more information, see [Fan Removal](#) .
8. Make sure that the correct voltage is supplied to the fuser from the power supply.
9. Make sure that the connections between the controller board and the fuser are properly connected.
10. Check the fuser for damage, contamination, and improper installation. For more information, see [Fuser Removal](#).

## 126 errors


### 126 Error Messages

Error code	Description	Action
126.01	Line frequency has gone outside the operating range.	See <a href="#">LVPS Error Service Check</a> .
126.05	The LVPS power dropped but the printer was not in sleep mode.	
126.06	LVPS 25 V line error was detected.	
126.07	LVPS 5 V rail was down during power-on.	
126.10	No line frequency was detected.	
126.11	Line frequency has exceeded the operating range.	
126.12	LVPS mismatch was detected.	
126.13	LVPS mismatch was detected.	
126.14	LVPS relay is stuck or closed.	



## LVPS Error Service Check

1. Make sure that the printer is plugged into an appropriately rated and properly grounded electrical outlet.
2. Perform a POR.
3. Make sure that the connections between the controller board and the LVPS are properly connected.
4. Make sure that the printer is plugged into an outlet.
5. Make sure that voltage output of the electrical outlet matches the voltage rating of the printer.

 **Note:** A poor power source may trigger a false fuser error.

## 142 errors

### 142 Error Messages

Error code	Description	Action
142.80	The motor (CMY) does not turn on.	See <a href="#">Motor (CMY) Drive Failure Service Check</a> .
142.81	The motor (CMY) does not turn off.	
142.82	The motor (CMY) failed to achieve the expected speed.	
142.83	The motor (CMY) stalled.	
142.84	The motor (CMY) is running too slow (under-speeding).	
142.85	The motor (CMY) is running too fast (overspeeding).	
142.86	The motor (CMY) ran too long.	

### Motor (CMY) Drive Failure Service Check

1. Perform a POR.
2. Make sure that the motor (CMY developer) is functional. Do the following:
  - a. Remove the imaging kit.
  - b. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motor tests**.
  - c. Select **Motor (CMY developer)**.
3. Make sure that the connections between the motor (CMY developer) and the controller board are properly connected.
4. Check the EP drive assembly for damage, contamination, and improper installation. For more information, see [EP Drive Removal](#).

5. Check the transfer rollers and belt for contamination, wear, damage, and improper installation.
6. Check the transfer module for improper operation. Manually turn the gear, and then make sure it is not stuck.

## 151 errors

### 151 Error Messages

Error code	Description	Action
151.80	The motor (K) does not turn on.	See <a href="#">Motor (CMY) Drive Failure Service Check</a>
151.81	The motor (K) does not turn off.	
151.82	The motor (K) failed to achieve the expected speed.	
151.83	The motor (K) stalled.	
151.84	The motor (K) is running too slow (under-speeding).	
151.85	The motor (K) is running too fast (over speeding).	
151.86	The motor (K) ran too long.	

### Motor (Black) Drive Failure Service Check

1. Perform a POR.
2. Make sure that the motor (K developer-transfer) is functional. Do the following:
  - a. Remove the imaging kit.
  - b. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motor tests**.
  - c. Select **Motor (K developer-transfer)**.
3. Make sure that the connections between the motor (K developer-transfer) and the controller board are properly connected.
4. Check the EP drive assembly for damage, contamination, and improper installation. For more information, see [EP Drive Removal](#).
5. Check the transfer rollers and belt for contamination, wear, damage, and improper installation.
6. Check the transfer module for improper operation. Manually turn the gear, and then make sure it is not stuck.

# 16y errors

## 161 Error Messages

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

## 162–164 Error Messages

Error code	Description	Action
162.80	The motor (tray 2 pick) does not turn on.	See <a href="#">Optional Tray Pick Drive Error Service Check</a> .
162.81	The motor (tray 2 pick) does not turn off.	
162.82	The motor (tray 2 pick) speed did not ramp up to the required level.	
162.83	The motor (tray 2 pick) stalled.	
162.84	The motor (tray 2 pick) ran too slow.	
162.85	The motor (tray 2 pick) ran too fast.	
162.86	The motor (tray 2 pick) ran too long.	
163.80	The motor (tray 3 pick) does not turn on.	See <a href="#">Optional Tray Motor Error Service Check</a> .
163.81	The motor (tray 3 pick) does not turn off.	

Error code	Description	Action
163.82	The motor (tray 3 pick) speed did not ramp up to the required level.	
163.83	The motor (tray 3 pick) stalled.	
163.84	The motor (tray 3 pick) ran too slow.	
163.85	The motor (tray 3 pick) ran too fast.	
163.86	The motor (tray 3 pick) ran too long.	
164.80	The motor (tray 4 pick) does not turn on.	
164.81	The motor (tray 4 pick) does not turn off.	
164.82	The motor (tray 4 pick) speed did not ramp up to the required level.	
164.83	The motor (tray 4 pick) stalled.	
164.84	The motor (tray 4 pick) ran too slow.	
164.85	The motor (tray 4 pick) ran too fast.	
164.86	The motor (tray 4 pick) ran too long.	

## 166–168 Error Messages

Error code	Description	Action
166.80	The motor (tray 2 transport) does not turn on.	See <a href="#">Optional Tray Motor Error Service Check</a> .
166.81	The motor (tray 2 transport) does not turn off.	
166.82	The motor (tray 2 transport) speed did not ramp up to the required level.	
166.83	The motor (tray 2 transport) stalled.	
166.84	The motor (tray 2 transport) ran too slow.	
166.85	The motor (tray 2 transport) ran too fast.	

Error code	Description	Action
166.86	The motor (tray 2 transport) ran too long.	
167.80	The motor (tray 3 transport) does not turn on.	
167.81	The motor (tray 3 transport) does not turn off.	
167.82	The motor (tray 3 transport) speed did not ramp up to the required level.	
167.83	The motor (tray 3 transport) stalled.	
167.84	The motor (tray 3 transport) ran too slow.	
167.85	The motor (tray 3 transport) ran too fast.	
167.86	The motor (tray 3 transport) ran too long.	
168.80	The motor (tray 4 transport) does not turn on.	
168.81	The motor (tray 4 transport) does not turn off.	
168.82	The motor (tray 4 transport) speed did not ramp up to the required level.	
168.83	The motor (tray 4 transport) stalled.	
168.84	The motor (tray 4 transport) ran too slow.	
168.85	The motor (tray 4 transport) ran too fast.	
168.86	The motor (tray 4 transport) ran too long.	

### Motor (Tray 1 Pick) Lifting Error Service Check

1. Check the tray insert (non-lift) for damage and improper installation.
2. Check the tray guides for improper operation and damage.
3. Perform a POR.
4. Make sure that the motor (tray 1 pick) is functional. Do the following:
  - a. Remove the imaging kit.

- b. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motor tests**.
- c. Select **Motor (tray 1 pick)**.
5. Make sure that the connections between the motor (tray 1 pick) and the controller board are properly connected.
6. Check the media feeder for damage, contamination, and improper installation. For more information, see [Tray 1 Media Feeder Removal](#)

### Optional Tray Motor Error Service Check

1. Make sure that the printer is placed in a location with the recommend airflow, ventilation, and clearance around the printer. For more information, see [Selecting A Location For The Printer](#) .
2. Make sure that the cooling fan is functional. Do the following:
  - a. Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments > Motors tests** .
  - b. Select **Fan (main)** .
3. Make sure that the connections between the cooling fan and the controller board are properly connected.
4. Check the cooling fan for damage, contamination, and improper installation. For more information, see [Fan Removal](#) .

### Optional Tray Pick Drive Error Service Check

1. Turn off the printer.
2. Check the optional tray for improper installation.
3. Remove the optional tray, and then check the connectors on the printer and optional tray for damage and improper connection.
4. Reinstall the optional tray, and then turn on the printer.
5. Remove the tray insert.
6. Check the tray insert and its lift plate gears for damage and improper operation.
7. Make sure that the following motors are functional:
  - Motor (pick (tray (x)))
  - Motor (pass-through (tray(x)))

Do the following:

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

# 171 errors

## 171 Error Messages

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

# 6yy errors

## 600–680 Error Messages

Error code	Description	Action
600.95	The RIP intentionally declared a jam error, usually to prevent a kiosk user from printing free pages.	Resend the print job. If the problem remains, then contact the next level of support.
602.18	The tray 1 timed out while waiting for the ILN command.	N/A
602.19	The tray 1 failed to become the input source ready for picking.	N/A
602.28	The tray 2 timed out while waiting for the ILN command.	N/A
602.29	The tray 2 failed to become the input source ready for picking.	N/A
602.38	The tray 3 timed out while waiting for the ILN command.	N/A
602.39	The tray 3 failed to become the input source ready for picking.	N/A
602.48	The tray 4 timed out while waiting for the ILN command.	N/A
602.49	The tray 4 failed to become the input source ready for picking.	N/A
602.58	The tray 5 timed out while waiting for the ILN command.	
602.59	The tray 5 failed to become the input source ready for picking.	

## Diagnostics and Troubleshooting

Error code	Description	Action
611.32	Lost Hsync errors were detected. The laser safety interlock system may be the cause.	See <a href="#">Printhead Error Service Check</a>
611.34	A mirror motor lock error was detected.	See <a href="#">Printhead Error Service Check</a>
620.80	The motor (fuser) does not turn on.	See <a href="#">Motor (Fuser) Error Service Check</a>
620.81	The motor (fuser) does not turn off.	
620.82	The motor (fuser) failed to achieve the expected speed.	
620.83	The motor (fuser) stalled.	
620.84	The motor (fuser) is running too slow (under-speeding).	
620.85	The motor (fuser) is running too fast (overspeeding).	
620.86	The motor (fuser) ran too long.	
621.01	The fuser heater was too cold when paper entered the fuser nip.	See <a href="#">Fuser Error Service Check</a>
662.80	The motor (tray 2 pick) does not turn on.	See <a href="#">Optional Tray Motors Jam Service Check</a>
662.81	The motor (tray 2 pick) does not turn off.	
662.82	The motor (tray 2 pick) speed did not ramp up to the required level.	
662.83	The motor (tray 2 pick) has stalled.	
662.84	The motor (tray 2 pick) ran too slow (under-speeding).	
662.85	The motor (tray 2 pick) ran too fast (overspeeding).	
662.86	The motor (tray 2 pick) ran too long.	
663.80	The motor (tray 3 pick) does not turn on.	See <a href="#">Optional Tray Motors Jam Service Check</a>
663.81	The motor (tray 3 pick) does not turn off.	
663.82	The motor (tray 3 pick) speed did not ramp up to the required level.	
663.83	The motor (tray 3 pick) has stalled.	



Error code	Description	Action	
663.84	The motor (tray 3 pick) ran too slow under-speeding).		
663.85	The motor (tray 3 pick) ran too fast (overspeeding).		
663.86	The motor (tray 3 pick) ran too long.		
666.80	The motor (tray 2 pass-through) did not turn on.		
666.81	The motor (tray 2 pass-through) did not turn off.		
666.82	The motor (tray 2 pass-through) speed did not ramp up to the required level.		
666.83	The motor (tray 2 pass-through) has stalled.		
666.84	The motor (tray 2 pass-through) ran too slow under-speeding).		
666.85	The motor (tray 2 pass-through) ran too fast overspeeding).		
666.86	The motor (tray 2 pass-through) ran too long.		
667.80	The motor (tray 3 pass-through) did not turn on.		
667.81	The motor (tray 3 pass-through) did not turn off.		
667.82	The motor (tray 3 pass-through) speed did not ramp up to the required level.		
667.83	The motor (tray 3 pass-through) has stalled.		
667.84	The motor (tray 3 pass-through) ran too slow under-speeding).		
667.85	The motor (tray 3 pass-through) ran too fast overspeeding).		
667.86	The motor (tray 3 pass-through) ran too long.		
680.50	An imagepip error/prohibited image error has been detected.		N/A


## Procedure before Starting the 9yy Service Checks

Retrieve certain information that helps your next level of support in diagnosing the problem before replacing the controller board.


### Potential Damage:

Do not replace the controller board unless instructed by your next level of support.

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

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

## A. Collecting The History Information From The Se Menu

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

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

## B. Collecting The Firmware Logs (Fwdebug and logs.tar.gz) From The Se Menu


Notes:

- Make sure that your printer is connected to a network or to a print server.
- Some printers are designed to restart automatically after a 9yy error. On these printers, you can retrieve the secondary crash code information using the SE menu.


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

 **Note:** A logs.tar.gz file is saved to the Downloads folder. The file may take several minutes to save. You may rename the file if a logs.tar.gz already exists in the Downloads folder.

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

 **Note:** To download the FWdebug log to a flash drive, see [General SE Menu](#) .

## 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 [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**

## D. Collecting Information From The User

Ask the user for information about the following:

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

## 900-901 errors

### 900–901 Error Messages

Error code	Description	Action
900.00	Unrecoverable RIP software error/ illegal trap.	See <a href="#">900 Error Service Check</a> .
900.70		
901.01	A RIP firmware error has occurred.	
901.02		

### 900 Error Service Check

1. Clear all jobs in the printer and computer print queue.
2. Perform a POR.
3. Turn off the printer.
4. Disconnect the USB cable, and network cable from the printer.
5. Turn on the printer.
6. If the error does not occur, then install each cable one at a time and perform a POR after each cable installation.

7. Make sure that the printer is running the latest firmware version.

If the printer cannot connect to the network due to a 900 error, then do the following:

- Enter Recovery mode. For more information, see [Entering Recovery mode](#)
  - Flash the firmware code through a USB cable that is directly connected to a computer.
8. Turn off the printer.
  9. Remove all electronic options (hard disk, wireless module, and memory options).
  10. Turn on the printer.
  11. If the error does not occur, then install the electronic options one at a time and perform a POR after each electronic option installation.
  12. Replace the electronic option that causes the error.
  13. Make sure that the connections between the engine board and the controller board are properly connected.
  14. Check the controller board for the following:
    - Foreign debris (dust, dirt, or any accumulated material)
    - Circuit board expansion due to heat and humidity
    - Damaged pins, burnt-out components, and signs of overheating and bulging
    - Missing components and solder joint connection issues
    - Contamination issues (corrosion, degradation, metallization, and chemical leakage)
    - Incorrect input or output voltages. See the wiring diagram.

For more information, see [Controller Board Removal](#).

## 912 errors

### 912 Error Messages

Error code	Description	Action
912.00	An engine software error occurred.	See <a href="#">900 Error Service Check</a>
912.05	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.08	An engine error occurred.	
912.09	An engine error occurred.	
912.15	An engine error occurred.	
912.16	An engine error occurred.	
912.17	An engine error occurred.	
912.18	An engine error occurred.	
612.19	An engine error occurred.	

Error code	Description	Action
912.28	An engine error occurred.	
912.32	An engine error occurred.	
912.33	An engine error occurred.	
912.35	An engine error occurred.	
912.38	An engine error occurred.	See <a href="#">900 Error Service Check</a>
912.40	An engine error occurred.	
912.42	An engine error occurred.	
912.44	An engine error occurred.	
912.45	An engine error occurred.	
912.46	An engine error occurred.	
912.48	An engine error occurred.	
912.49	An engine error occurred.	See <a href="#">900 Error Service Check</a>
912.50	An engine error occurred.	
912.52	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.58	An engine error occurred.	
912.60	An engine error occurred.	
912.61	An engine error occurred.	
912.66	An engine error occurred.	
912.69	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.70	An engine error occurred.	
912.72	An engine error occurred.	
912.74	An engine error occurred.	
912.76	An engine error occurred.	See <a href="#">900 Error Service Check</a>
912.77	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.79	An engine error occurred.	See <a href="#">900 Error Service Check</a>
912.80	An engine error occurred.	N/A
912.82	An engine error occurred.	N/A
912.85	An engine error occurred.	See <a href="#">900 Error Service Check</a>

Error code	Description	Action
912.86	An engine error occurred.	Resend the print job. If the problem remains, then contact the next level of support.
912.88	An engine error occurred.	See <a href="#">900 Error Service Check</a>
912.99	RIP command interface issue to the engine.	

## 938-958 errors

### 938–958 Error Messages

Error code	Description	Action
938.01	An unknown card type was detected by the thick engine code.	See <a href="#">900 Error Service Check</a> .
938.04	The supplies security is disabled.	Restart the printer. If the problem remains, then contact the next level of support.
940.00	Controller to engine communication error has occurred.	See <a href="#">900 Error Service Check</a> .
941.03	An engine communication error has occurred.	
950.10	An NVRAM mismatch error occurred—Non-generic FRU installed.	
953.99	An NVRAM chip failure with mirror part.	
958.99	A controller board NAND error has occurred..	

## 980-992 errors

### 980–992 Error Messages

Error code	Description	Action
980.01	An option communication error has occurred.	See <a href="#">900 Error Service Check</a> .
980.02	An option communication error has occurred.	
980.03	An option communication error has occurred.	

Error code	Description	Action
980.04	An option communication error has occurred.	
980.05	An option communication error has occurred.	
980.11	An option communication error has occurred.	
980.13	An option communication error has occurred.	
980.14	An option communication error has occurred.	
980.15	An option communication error has occurred.	
981.91	An invalid paper port protocol error has occurred.	
982.92	A paper port error occurred.	
982.93	A paper port error occurred.	
982.94	A paper port error occurred.	
982.95	A paper port error occurred.	
982.96	A paper port error occurred.	
982.97	A paper port error occurred.	
983.98	An unsupported paper port command error has occurred.	
984.99	An invalid paper port parameter error has occurred.	
992.00	An option device software error has occurred.	
992.01	An option device software error has occurred.	

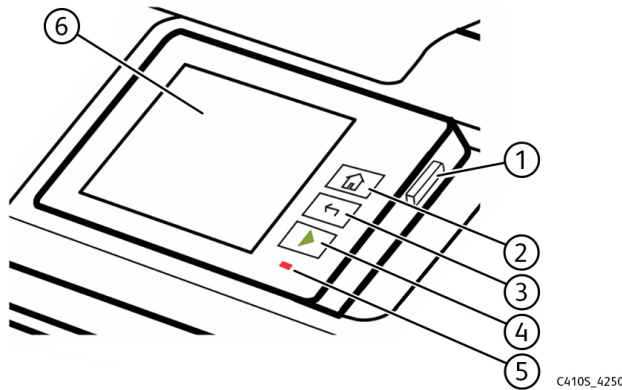





# Service Menus

# Understanding the Printer Control Panel

## Using The Control Panel



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

## Understanding the Status of the Indicator Light

Indicator light	Printer status
Off	The printer is off.
Solid blue	The printer is ready.
Blinking blue	The printer is printing or processing data.
Blinking red	The printer requires user intervention.
Solid amber	The printer is in Sleep mode.
Blinking amber	The printer is in Deep Sleep or Hibernate mode.

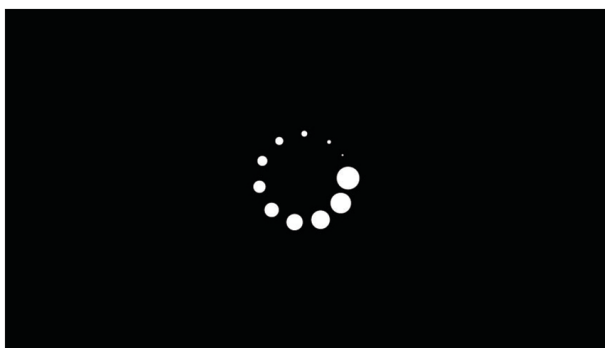
# Diagnostics Menu

## Entering the Diagnostics Menu

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

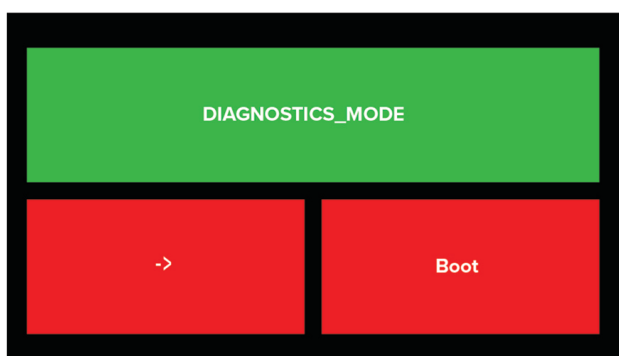
- To access the menu from POST, do the following:
  1. Unplug the power cord from the electrical outlet.
  2. Open tray 1.
  3. Connect the power cord to the electrical outlet.
  4. Turn on the printer.

When the display shows the following icon, close tray 1.



C4105\_4005

5. From the menu that appears on the display, select **DIAGNOSTICS\_MODE**.



C4105\_4006

Notes:

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

6. Select **Boot**.

## Service Menus

- Enter the Diagnostics menu from home screen.

1. From the home screen, touch.



2. Touch **\*\*36**, and then touch **OK**.

# Reports

## Device

This report lists all the current printer settings.

Enter the Diagnostics menu, and then navigate to:

**Reports > Device**

## Licenses

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

Enter the Diagnostics menu, and then navigate to:

**Reports > Licenses**

# Advanced Print Quality Samples

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

Enter the Diagnostics menu, and then navigate to:

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

# Printer Setup

## Printed Page Count (Mono)

This setting displays the amount of pages printed in mono.

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

## Printed Page Count (Color)

This setting displays the amount of pages printed in color.

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

## Permanent Page Count

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

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

## Processor ID

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

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

## Serial Number

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

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

## Model Name

This setting displays the model name of the printer.

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

## Engine Setting [x]

### Warning—Potential Damage:

Do not change this setting without specific instructions from the next level of support.

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

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

## EP Setup

### Warning—Potential Damage:

Do not change this setting without specific instructions from the next level of support.

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

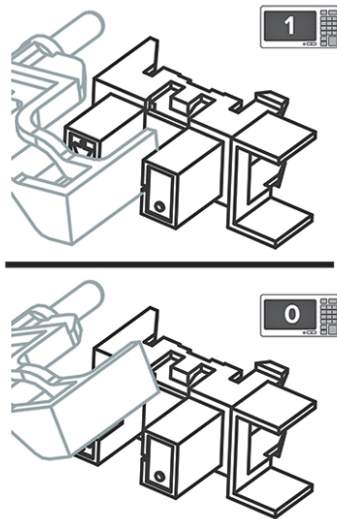
## Service Menus

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

# Printer Diagnostics and Adjustments

## Sensor Tests

1. Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Sensor tests.**
2. Select a sensor, and then touch **Start**.
3. Find, and then manually toggle the sensor.



C410S\_4007



### Note:

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

## List Of Sensor Tests

Tests
Tray 1 pick
Input
Redrive/Duplex path 1
Output bin/Narrow media

Tests
Fuser exit
Door interlock
K Toner meter
C Toner meter
M Toner meter
Y Toner meter
Tray present
TPS L and R
Waste Toner Bottle

## Motor Tests

1. Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Motor tests.**
2. Select a motor, and then touch **Start**.

### Note:

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

## List Of Motor Tests

Test
Pick (tray 1) / Duplex
Fuser
CMY developer
K developer-transfer
Fan (main)

## Registration Adjust

This setting lets you adjust the skew, margins, or perform a Quick Test. For more information, see [Registration Adjustment](#).

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

## Color Alignment Adjust

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

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

## Supply Reset

The setting resets the transfer module counter values to zero.

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

## Weather Station

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

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

## Universal Override

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

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

## Out Of Service Erase

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

1. Enter the Diagnostics menu, and then navigate to: **Out of Service Erase**.
2. Touch **Start**.



# Event Log

## Display Log

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

Enter the Diagnostics menu, and then navigate to:

**Event Log > Display Log.**

## Print Log

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

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

**Event Log > Print Log**

2. Touch **Start**.



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

## Print Log Summary

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

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

**Event Log > Print Log Summary**

2. Touch **Start**.



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

## Mark Log

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

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

**Event Log > Mark Log.**

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

# Input Tray Quick Print

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

1. Enter the Diagnostics menu, and then touch **Input tray quick print**.

2. Select where you want to print the pages from.

3. Select whether to print a single or continuous test page, and then touch **Start**.

# Additional Input Trays Adjustments/Tests

## Sensor Tests

1. Enter the Diagnostics menu, and then navigate to:  
**Additional input trays adjustments/tests > Sensor tests**
2. Select a sensor, and then touch **Start**.
3. Find, and then manually toggle the sensor.

 **Note:**

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

### List of sensor tests

Pass-through (tray x)
Media out (tray x)
Media level (tray x)
Tray present (tray x)
MPF media present

## Motor Tests

1. Enter the Diagnostics menu, and then navigate to:  
**Additional input trays adjustments/tests > Motor tests.**
2. Select a motor, and then touch **Start**.

 **Note:**

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

**List Of Motor Tests**

Pick (tray x)
Pass-through (tray x)

## Configuration Menu



### Entering The Configuration Menu


1. From the control panel, navigate to:


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

### Configuration Menu

Menu item	Description
<b>USB Configuration</b> USB PnP 1* 2	Change the USB driver mode of the printer to improve its compatibility with a personal computer.
<b>USB Configuration</b> USB Speed Full Auto*	Set the USB port to run at full speed and disable its high-speed capabilities.
<b>Tray Configuration</b> Size Sensing Tray [x] Sensing (On*)	Set the tray to sense automatically the paper size loaded into it.
<b>Tray Configuration</b> Tray Linking Automatic* Off	Set the printer to link the trays that have the same paper type and paper size settings.
<b>Tray Configuration</b> Show Tray Insert Message Off Only for unknown sizes* Always	Display a message that lets the user change the paper size and paper type settings after inserting the tray.
<b>Tray Configuration</b> A5 Loading Short Edge Long Edge*	Determine the default loading orientation for the A5 size paper in all paper sources.
<b>Tray Configuration</b> Paper Prompts	Set the paper source that the user fills when a prompt to load paper appears.

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

Menu item	Description
<p><b>Printer Emulations</b>                      PPDS Emulation                      Off*                      On</p>	<p>Set the printer to recognize and use the PPDS data stream.</p>
<p><b>Printer Emulations</b>                      PS Emulation                      Off                      On*</p>	<p>Set the printer to recognize and use the PS data stream.</p>
<p><b>Printer Emulations</b>                      Enable Formsmerge                      Off*                      On</p>	<p>Activate Formsmerge to store the forms into the hard disk.</p> <p> <b>Note:</b> A hard disk must be installed.</p>
<p><b>Printer Emulations</b>                      Enable Prescribe                      Off*                      On</p>	<p>Enable Prescribe emulation.</p>
<p>Emulator Security  <b>Printer Emulations</b>                      Page Timeout (60 minutes*)                      Reset Emulator After Job (Off*)                      Disable Printer Message Access (On*)</p>	<p>Configure the security settings of the printer during emulation mode.</p>
<p><b>Print Configuration</b>                      Black Only Mode                      Off*                      On</p>	<p>Set the printer to print always color content in grayscale .</p>
<p><b>Print Configuration</b>                      Color Trapping                      Off                      1                      2*                      3                      4                      5</p>	<p>Enhance the printed output to compensate for misregistration in the printer.</p>

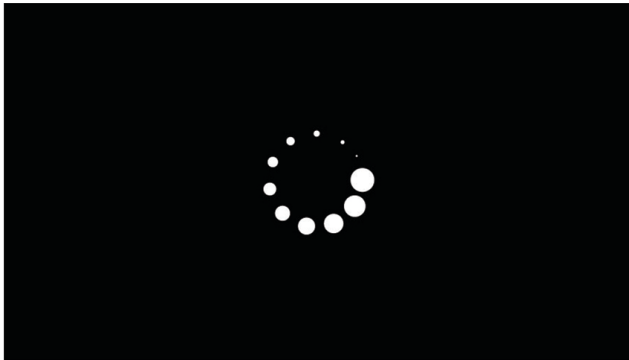
Menu item	Description
<b>Print Configuration</b> Font Sharpening 0–150 (24*)	Set a text point-size value below which the high-frequency screens are used when printing font data.  For example, if the value is 24, then all fonts sized 24 points or less use the high-frequency screens.
<b>Device Operations</b> Quiet Mode Off* On	Change the amount of noise that the printer produces.   <b>Note:</b> Enabling this setting slows down the overall performance of the printer.
<b>Device Operations</b> Panel Menus Off On*	Enable access to the printer menus from the control panel.
<b>Device Operations</b> Safe Mode Off* On	Set the printer to operate in a special mode, in which it attempts to continue offering as much functionality as possible, despite known issues.  For example, when set to On, and the duplex motor is nonfunctional, the printer performs one-sided printing of the documents even if the job is two-sided printing.
<b>Device Operations</b> Clear Custom Status	Erase user-defined strings for the Default or Alternate custom messages.
<b>Device Operations</b> Clear all remotely-installed messages	Erase messages that were remotely installed.
<b>Device Operations</b> Automatically Display Error Screens Off On*	Show existing error messages on the display after the printer remains inactive on the home screen for a length of time.
<b>App Configuration</b> LES Applications Off On*	Enable Xerox Embedded Solutions (LES) applications.
Note: An asterisk (*) next to a value indicates the factory default setting.	

## Entering Invalid Engine Mode

This mode allows the printer to load the correct firmware code. For more information, see [Updating the Printer Firmware](#).

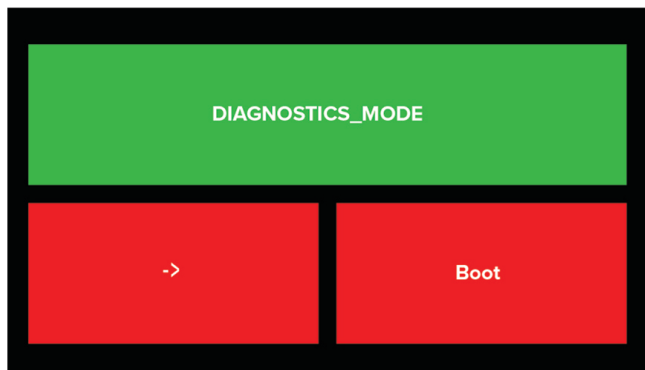
1. Unplug the power cord from the electrical outlet.
2. Pull tray 1.
3. Connect the power cord to the electrical outlet.
4. Turn on the printer.

When the display shows the following icon, close tray 1.



C4105\_4005

5. Touch -> to navigate the menu that appears on the display, and then select **ENGINE\_FLASH**.



C4105\_4006

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

6. Touch **Boot**.




## Entering Recovery Mode


This mode allows the printer to boot from a secondary set of instructions and flash firmware code.

Depending on your printer model, do any of the following:

1. Turn off the printer.
2. Open tray 1.

 **Note:** Make sure that paper is loaded in the tray.

3. Turn on the printer.
4. When an ellipses appears on the upper-left corner of the display, close tray 1.

 **Note:** If tray 1 is not closed, then the printer boots normally.

# Service Engineer Menu

## Service Engineer Menu

### Entering the SE Menu

1. From the home screen, touch the on-screen keypad.
2. Touch **\*\*411**.
3. Touch **OK**.

## General SE Menu


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

The following settings are available:


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

## Network SE Menu

Enter the Service Engineer (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	<ul style="list-style-type: none"> <li>• Print History</li> <li>• Mark History</li> </ul>
MAC	<ul style="list-style-type: none"> <li>• Set Card Speed</li> <li>• LAA</li> <li>• Keep Alive</li> </ul>
NPAP	Print Alerts
TCP/IP	<ul style="list-style-type: none"> <li>• DHCP Request options</li> <li>• netstat</li> <li>• arp</li> <li>• Allow SNMP Set</li> <li>• MTU</li> <li>• Meditech Mode</li> <li>• RAW LPR Mode</li> <li>• Garp Interval</li> </ul>

Top level menu	Intermediate menu
Wireless settings  <b>Note:</b> This setting is only available if a wireless module is installed.	<ul style="list-style-type: none"> <li>• Wireless Performance Enhancement</li> <li>• Unset Wireless Region</li> <li>• Disable Wireless 11n</li> <li>• Disable PMF</li> </ul>
Ping Test	<ul style="list-style-type: none"> <li>• Ping Address</li> <li>• Attempts</li> <li>• Packet Size</li> <li>• Ping</li> </ul>
Other Actions	<ul style="list-style-type: none"> <li>• ifconfig</li> <li>• IPtables [Firewall Dump]</li> <li>• IP6tables [Firewall Dump]</li> <li>• IPsec Dump</li> </ul>
Enable DHCPD Debugging	N/A
Enable wpa-supPLICANT Debugging	N/A
Enable Ethernet Gigabit	N/A
Enable BLE	N/A
Netconfig Debug Level	N/A
IPP ICONS	<ul style="list-style-type: none"> <li>• Delete intermediate icons</li> <li>• Delete current icons</li> </ul>

## Service Menus

# 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 an electronic power switch. It does not physically disconnect the input AC voltage. To avoid the risk of electrical shock, always remove the power cord from the printer when removal of the input AC voltage is required.

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

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

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

## Précautions De Retrait

**ATTENTION—RISQUE D'ELECTROCUTION** : Une tension résiduelle peut être présente dans le bloc d'alimentation basse tension (LVPS) et le bloc d'alimentation haute tension (HVPS). Pour éviter tout risque d'électrocution, ne touchez pas les composants du circuit ou le côté soudure de la carte. Tenezles uniquement par leurs extrémités ou le boîtier en métal.

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

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

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

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

## Precauciones Durante La Extracción

**PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS:** La fuente de alimentación de bajo voltaje (LVPS) y la fuente de alimentación de alto voltaje (HVPS) pueden presentar voltaje residual. Para evitar el riesgo de descarga eléctrica, no toque los componentes del circuito ni el lateral soldado de la placa. Manipule solo los bordes exteriores o la carcasa metálica.

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

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

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

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



## Vorsichtsmaßnahmen Bei Der Demontage

**VORSICHT – STROMSCHLAGGEFAHR:** Im Niederspannungsnetzteil (LVPS) und Hochspannungsnetzteil (HVPS) liegt unter Umständen Restspannung vor. Um das Risiko eines elektrischen Schlags zu vermeiden, berühren Sie keine umliegenden Bauteile oder die Lötseite der Platine. Fassen Sie sie nur an den Außenkanten oder am Metallgehäuse an.

**VORSICHT – STROMSCHLAGGEFAHR:** Dieses Produkt verwendet einen elektronischen Leistungsschalter. Er trennt die Eingangswchselspannung nicht physikalisch. Um das Risiko eines elektrischen Schlags zu vermeiden, ziehen Sie stets das Netzkabel vom Drucker ab, wenn eine Abtrennung der Eingangswchselspannung erforderlich ist.

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

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

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


## 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, 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:

- Engine board
- Controller board
- Optional hard disks

 **Note:** The engine board 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 Xerox 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

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

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

## Critical Information for Controller Board or Engine Board Replacement

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

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

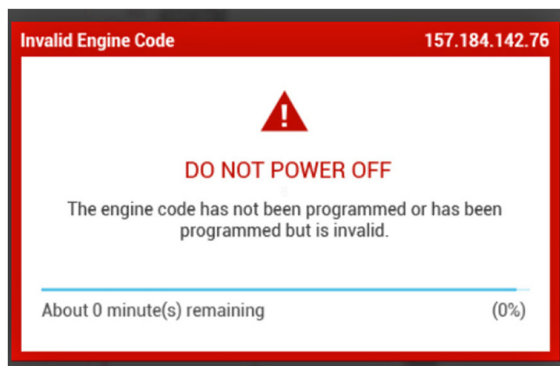
**PRECAUCIÓN: POSIBLES DAÑOSPERSONALES:**La batería de litio de este producto no debe reemplazarse. Existe riesgo de explosión si se sustituye incorrectamente una batería de litio. No recargue, desmonte ni incinere una batería de litio. Deseche las baterías de litio según las instrucciones del fabricante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

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

Read the following instructions carefully before performing them. Practice accessing **DIAGNOSTICS\_** **MODE** first before replacing the part. See [Entering The Diagnostics Menu](#).

### Warning—Potential Damage:

An invalid engine code error occurs if the controller board and engine board are not on the same firmware level. Resolve the error shown with firmware updates. For more information, see [Entering Invalid Engine Mode](#) and [Updating The Printer Firmware](#).



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### Warning—Potential Damage:

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

- Engine board
- Controller board

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

## Parts Removal

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 using POST entry method](#). Entering the Diagnostics Menu using POST entry method allows you to temporarily use the replacement part without permanently syncing the board to the device.  
**Warning—Potential Damage:** Printers will perform a POR automatically if the Diagnostics Menu using POST entry method 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 as an unserviceable part.
3. Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.
  - If the problem is not resolved—Turn off the printer, and then reinstall the old part.
  - If the problem is resolved—Perform a POR.

## Restoring The Printer Configuration

Restore the printer to its correct configuration. Contact your Hardware Support Line to obtain the applicable zip file. Flash the printer settings and embedded solutions.

Extract the contents of the zip file.

1. Perform the install instructions on the Readme file in the exact order shown. Restart the printer only if the file says so.
2. For more information on how to flash the downloaded files, see [Updating The Printer Firmware](#).
3. To load the zip file, see [Restoring Solutions, Licenses, and Configuration Settings](#).

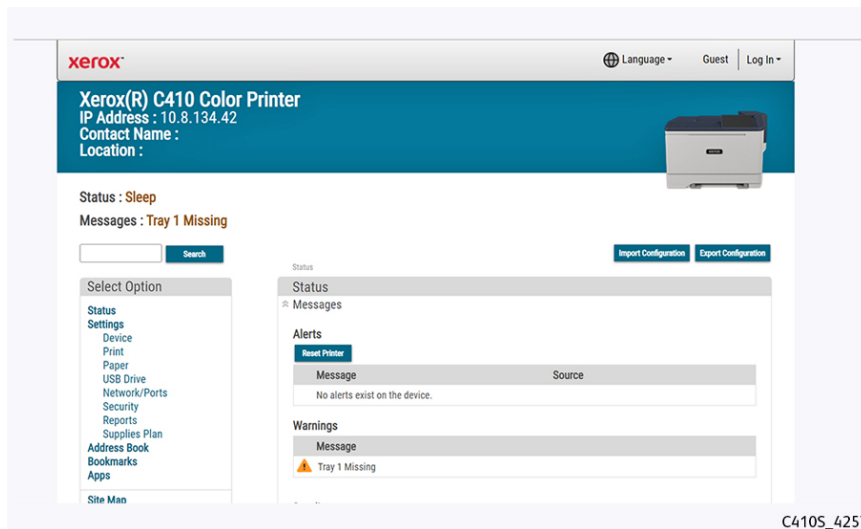
After performing the installation instructions in the Readme file, confirm that the printer is restored.

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

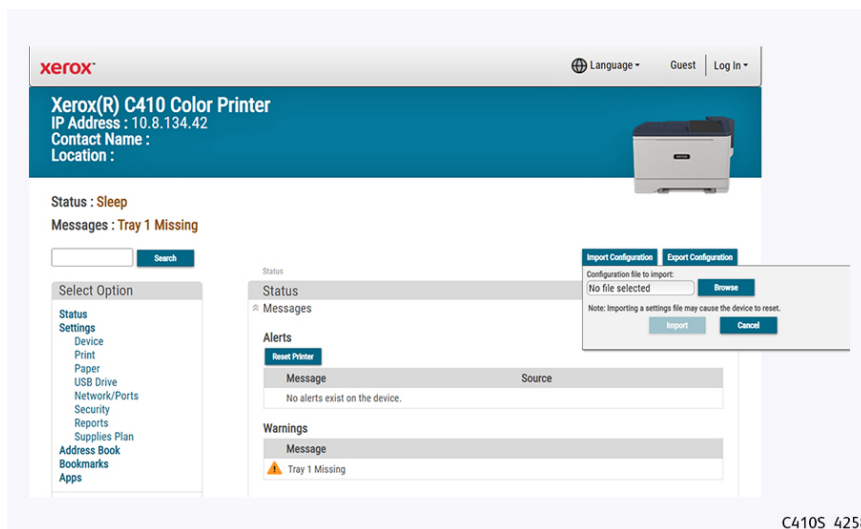
# Restoring Solutions, Licenses, and Configuration Settings

To load the zip files that you have received from Hardware Support, do the following:

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

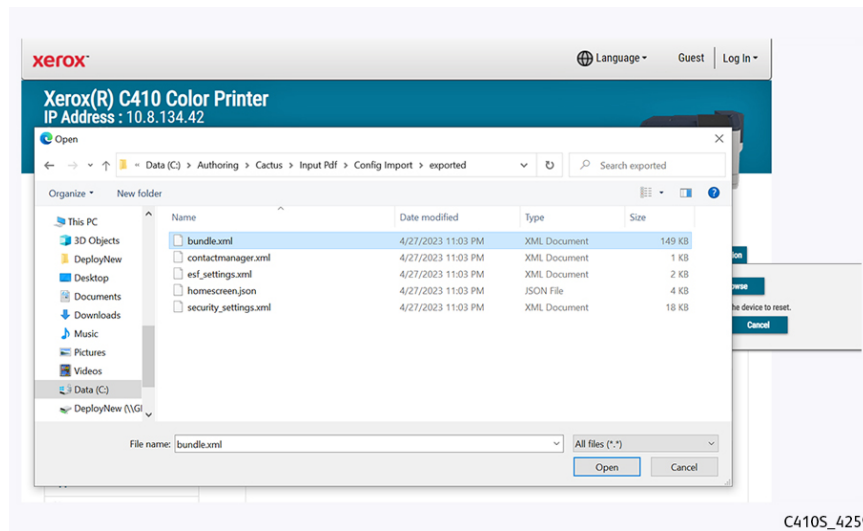


2. Click **Import Configuration**, and then click **Browse**.





3. Navigate to the folder containing the extracted the zip files from Hardware Support.




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.xerox.com](http://support.xerox.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.xerox.com](http://support.xerox.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](#)
2. Open a web browser, and then type the printer IP address.

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

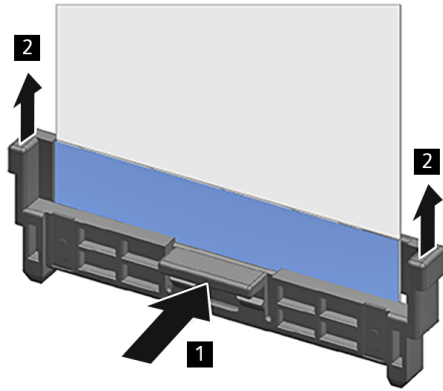
3. Click **Apps**, click **Export Configuration**, and then select one of the options in the dropdown menu.
4. Click **Export**.

 **Note:** The size limit of the export file is 128 KB.

## 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.



C410S\_4018

## Ribbon cable connectors

### Zero Insertion Force (ZIF) Connectors

Zero Insertion Force (ZIF) connectors are used on the boards and cards used in this printer. Before inserting or removing a cable from these connectors, observe the following precautions.

**Warning—Potential Damage:**

- Do not insert the cable so that the contacts are facing the locking actuator. The contacts always face away from the actuator.
- Do not insert the cable diagonally into the ZIF socket. This action can cause damage to the contacts on the cable.
- Avoid using a fingernail, or sharp object to open the locking mechanism. This could damage the cable.
- Avoid pressing against the cable when opening the locking mechanism. This action can also damage the cable.

These are the types of ZIF connectors used in this printer:

- Horizontal top contact connector
- Horizontal bottom contact connector
- Vertical mount contact connector
- Horizontal sliding connector

### Horizontal Top Contact Connector

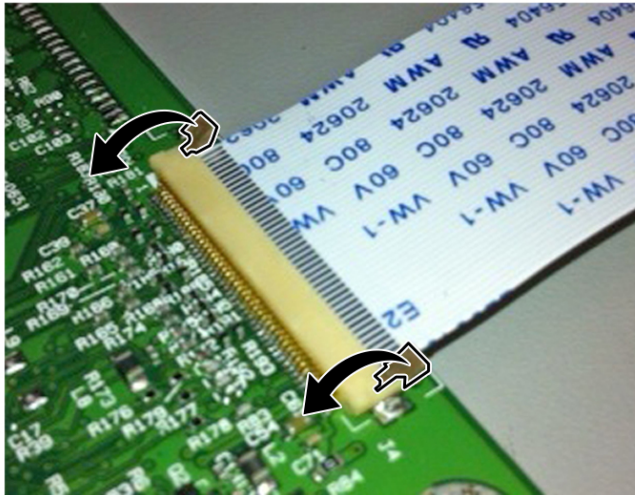
The horizontal top contact connector uses a back flip locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The cable is inserted horizontally into the connector.

**Warning—Potential Damage:**

When opening or closing this type of actuator, gently lift or close the two tabs located on each end of the actuator. The two tabs should be moved simultaneously. Do not close the actuator from the center of the actuator.

## Removing a Cable from the Horizontal Top Contact Connector

1. Place a finger at each end of the locking actuator, and then gently lift the actuator to the unlocked position.

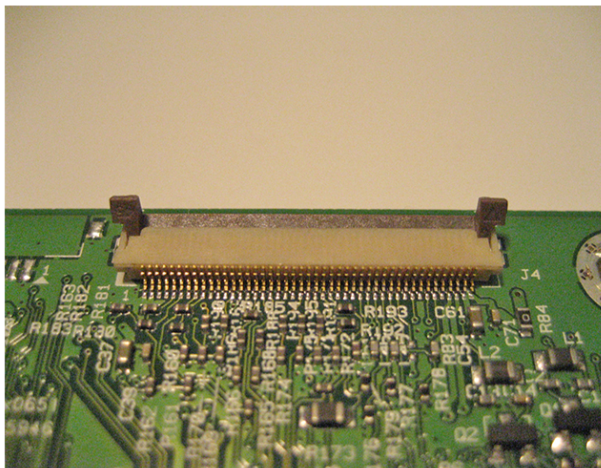


C410S\_4019

2. Slide the cable out of the connector.

## Inserting a Cable into the Horizontal Top Contact Connector


1. When installing the cable, check the locking actuator to ensure it is in the unlocked position. The tabs on the ends of the actuator are vertical when the actuator is unlocked.



C410S\_4020



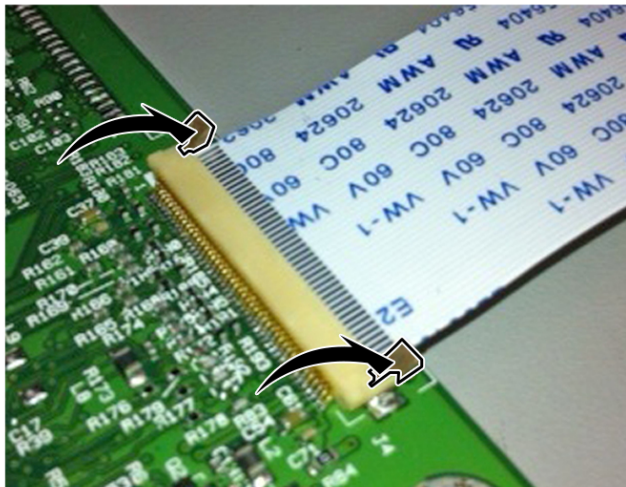
2. Insert the cable with the contacts on the cable facing up. Insert the cable on top of the actuator.

 **Note:** Verify that the cable is installed squarely into the connector. If the cable is not squarely installed, then intermittent failures could occur.



C4105\_4021

3. Rotate the locking actuator to the locked position. The cable must not move while this step is performed. If the cable moves, open the actuator, reposition the cable, and then close the actuator to the down position.



C4105\_4022

## Horizontal Bottom Contact Connector

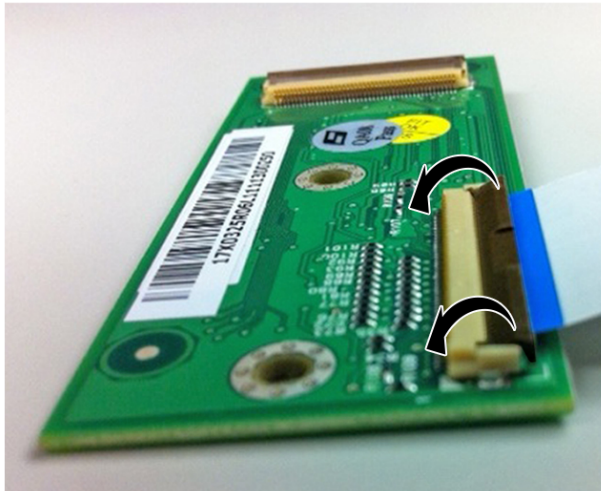
The horizontal bottom contact connector uses a flip locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The cable is inserted horizontally into the connector.

### Warning—Potential Damage:

When opening or closing this type of actuator, gently push or pull the two tabs located on each end of the actuator. Do not close the actuator from the center of the actuator. Do not use a screwdriver to open or close the actuator. Damage to the cable or connector could occur.

## Removing a Cable from the Horizontal Bottom Contact Connector

1. Place two fingers towards each end of the locking actuator, and then gently lift the actuator to the unlocked position.



C4105\_4023

2. Slide the cable out of the connector.


## Inserting a Cable into the Horizontal Bottom Contact Connector

1. Check the actuator to verify that it is in the open position.



C4105\_4024

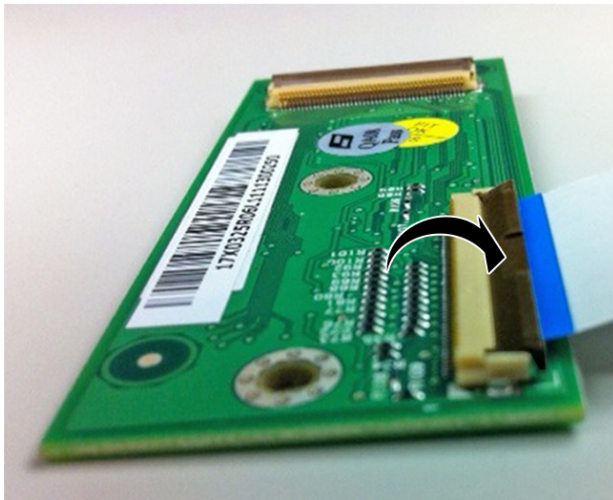
2. Insert the cable into the ZIF connector with the contacts facing downward and away from the locking actuator. Insert the cable below the actuator.

 **Note:** Verify that the cable is installed squarely into the connector. If the cable is not squarely installed, then intermittent failures could occur.



C4105\_4025

3. Place your finger in the middle of the actuator, and then rotate the locking actuator to the locked position.



C4105\_4026

## Vertical Mount Contact Connector

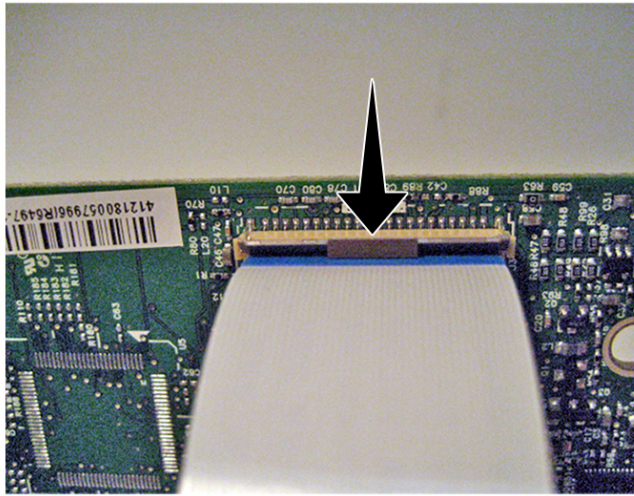
The vertical mount contact connector uses a back flip locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The cable is inserted vertically into the connector.

### Warning—Potential Damage:

When opening or closing this type of actuator, gently lift the center of the actuator using your finger. Do not use a fingernail or screwdriver to open the actuator. This could damage the ribbon cable. Do not close the actuator from the ends of the actuator.

## Removing a Cable from the Vertical Mount Contact Connector

1. Gently rotate the locking actuator from the center of the actuator to the unlocked position.



C410S\_4027

2. Slide the cable out of the connector.


## Inserting a Cable into the Vertical Mount Contact Connector

1. When installing the cable, check the locking actuator to verify it is in the open position.



C410S\_4028

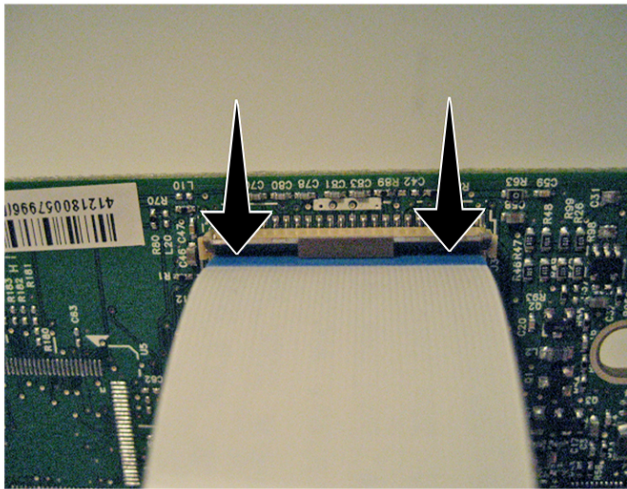
2. Insert the cable with the contacts on the cable away from the locking actuator. Insert the cable on the top of the actuator.

 **Note:** Verify that the cable is installed squarely into the connector. If the cable is not squarely installed, then intermittent failures could occur.



C4105\_4029

3. Rotate the locking actuator to the locked position by pressing down on both ends of the actuator. The cable should not move when this step is performed. If the cable moves, open the actuator, reposition the cable, and then close the actuator to the down position.



C4105\_4030

## Horizontal Sliding Contact Connector

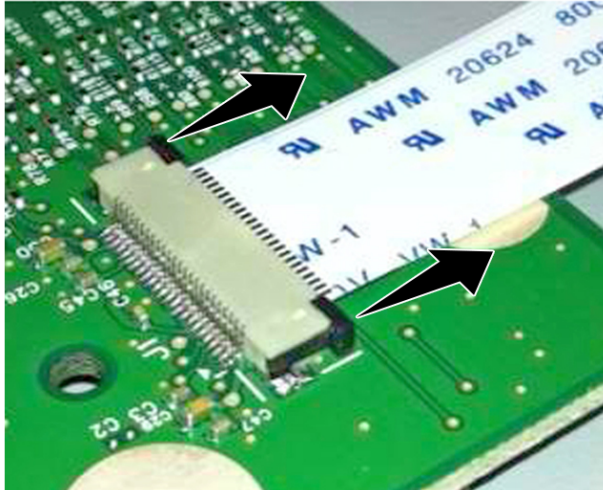
The horizontal sliding contact connector uses a slide locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The cable is inserted horizontally into the connector.

**Warning—Potential Damage:**

When opening or closing this type of actuator, gently push or pull the two tabs located on each end of the actuator. Do not close the actuator from the center of the actuator. Do not use a screwdriver to open or close the actuator. Damage to the cable or connector could occur.

## Removing a Cable from the Horizontal Sliding Contact Connector

1. Simultaneously slide the two tabs located on the ends of the locking actuator away from the connector.

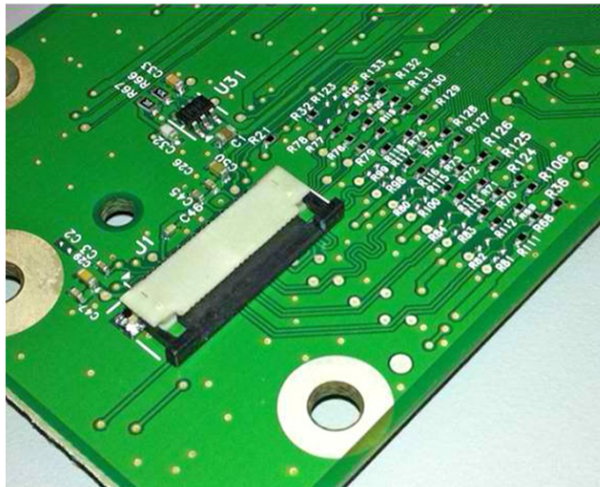


C410S\_4031

2. Slide the cable out of the connector.

## Inserting a Cable into the Horizontal Sliding Contact Connector

1. When installing the cable, check the locking actuator to verify it is in the open position. If you are opening the connector, pull back on both end tabs using equal force to avoid breaking the connector.



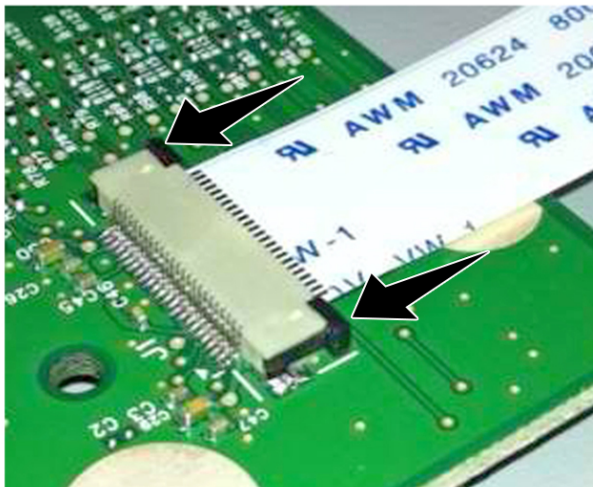
C410S\_4032

2. Insert the cable with the contacts on the cable facing away from the locking actuator. Insert the cable on top of the actuator.



C4105\_4033

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



C4105\_4034

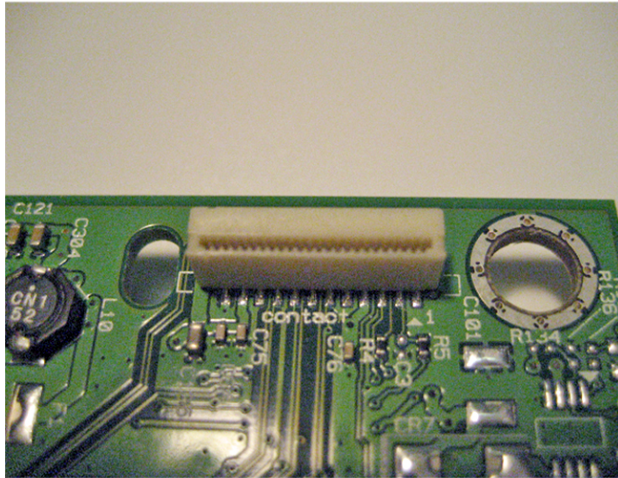
## Low Insertion Force (LIF) Connector

### Warning—Potential Damage:

When installing a cable into the LIF connector, make sure to avoid bending the edges of the cables and damaging the contacts on the cables.


## Inserting a Cable into the LIF Connector

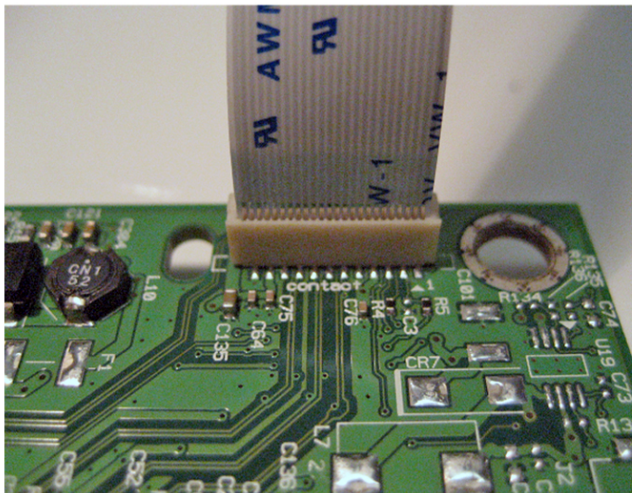
1. Looking at the connector, take note on which side the contacts are located. Many boards will have the word “contacts” stamped on them to indicate which side of the LIF has the contacts. When looking at the board, take note that the contacts from the board to the connector are located on the side of the connector with the contacts.



C4105\_4035

2. Insert the cable squarely into the connector.

 **Note:** Verify that the cable is installed straight into the connector. If the cable is not installed properly, then intermittent failures could occur.



C4105\_4036



# Adjustments

## Registration Adjustment

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

### Note:


- You cannot perform mechanical registration or skew adjustments on the printhead.
- Before performing the procedures, make sure that the tray guides are properly set and the paper settings on the printer match the size of the paper loaded in the tray.

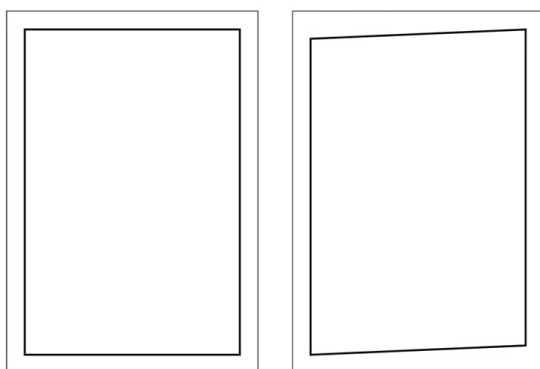
## Adjusting the Skew

The skew adjustment changes the angle of the horizontal lines so that the lines are aligned with the leading edge of the page. As the skew setting is changed, the top line on the test page stays in place at the left end, while its right end tilts up or down. All horizontal lines on the page tilt at that same angle while the vertical lines remain at the same angle.


Changing the skew setting moves the right edge of the page up or down, and changes the angle of the top and bottom lines. If the skew is properly adjusted, the horizontal line at the top of the page is parallel to the leading edge of the page.

To check for skew:

1. Enter the Diagnostics menu.
  - a. From the home screen, touch .
  - b. Touch **\*\*36**, and then touch **OK**.
2. Navigate to:  
**Printer diagnostics & adjustments > Registration adjust**
3. Select **Quick Test**, and then touch **Start**.  
The printer prints a test page.





C410S\_4037

 **Note:** If there is no skew on the page, then go to Adjusting the margins. See [Adjusting The Top And Bottom Margins](#).

## Parts Removal

To adjust the skew:

1. Enter the Diagnostics menu.
  - a. From the home screen, touch .
  - b. Touch **\*\*36**, and then touch **OK**.
2. Navigate to:  
**Printer diagnostics & adjustments > Registration adjust> Top skew.**
3. Specify the value. The value range is from -100 to 100.

 **Note:**

  - Raising the value of the skew rotates the horizontal lines clockwise. The left end of the line remains in the same place and the right end moves downward.
  - Decreasing the value of the skew rotates the horizontal lines counterclockwise. The left end of the line remains in the same place and the right end moves upward.
4. Touch **OK**.
5. Print a Quick test page to verify the change.
6. Repeat step 1 through step 4 until the horizontal line is properly aligned with the leading edge of the page.
7. Check for proper margin alignment. See [Adjusting The Top And Bottom Margins](#).

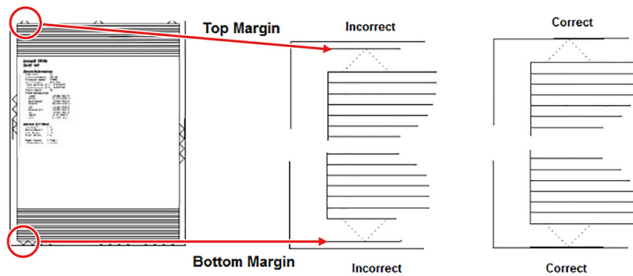
## Adjusting the Top and Bottom Margins

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

6. Check the top and bottom margins of the test page for correct alignment.

 **Note:**

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



C4105\_4038


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

 **Note:**

- The value range is from -80 to 80.
  - Increasing the value of the top margin pushes the top edge of the image downward. Increasing the value of the bottom margin pushes the bottom edge of the image upward.
- c. Touch **Start**.
8. Print a test page to verify the changes.
  9. Repeat step 7 through step 8 as needed.
  10. Check for proper color alignment. See [Adjusting the Color Alignment](#)

## Adjusting the Color Alignment

The Color alignment procedure is performed on the cyan, magenta, and yellow colors only.

1. Enter the Diagnostics menu.
  - a. From the home screen, touch .
  - b. Touch **\*\*36**, and then touch **OK**.
2. Navigate to:
 

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


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

3. Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Color alignment adjust> Cyan > Quick test**  
Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.
4. Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Color alignment adjust> Yellow > Quick test**  
Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.
5. Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Color alignment adjust> Magenta > Quick test**  
Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.
6. If color misalignment still occurs, then repeat step 1 through step 4.

## Entering the TPS Characterization Data


After installing the new left or right TPS, access the Diagnostics menu to enter the 40-character string for the left or right sensor.

Enter the Diagnostics menu:

- From the home screen, touch .
  - Touch **\*\*36** , and then touch **OK**.
1. Enter the Diagnostics menu, navigate to: **Printer setup > EP setup > Toner patch sensor adjust**.
  2. Touch **Right TPS calibration data** or **Left TPS calibration data**.
  3. Enter the 40-character string for the sensor, and then touch **OK**.

### Installation notes:

- After entering the data, perform a POR.
- Enter Diagnostics menu, and then navigate to: **Printer setup > EP setup > Toner patch sensor adjust**.
- Perform the **Sensor gain characterization**.
- Perform the **Sensor gain verification**.

 **Note:** Make sure that there are no red errors on the page.

- Perform a POR, and then perform the **Full calibration**. For more information, see the Service menus chapter.

## Removal Procedures

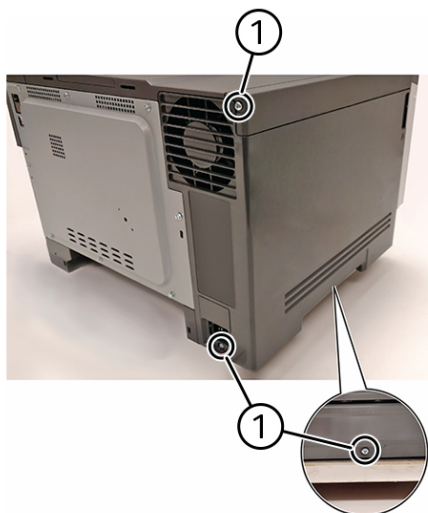
Keep the following tips in mind as you replace parts:

- 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

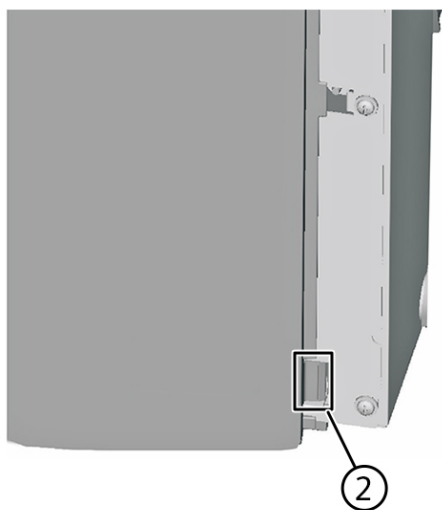
### Left Cover Removal

1. Remove the tray insert.
2. Position the printer with the left side hanging over the edge of the table.
3. Remove the three screws (1).



C410S\_4039


4. Flex the cover slightly to unlatch the front bottom corner tab (2), and then remove the cover.



C410S\_4040

**Installation note:** When replacing the left cover, slightly flex the cover to engage the tab.

### EP Drive Removal

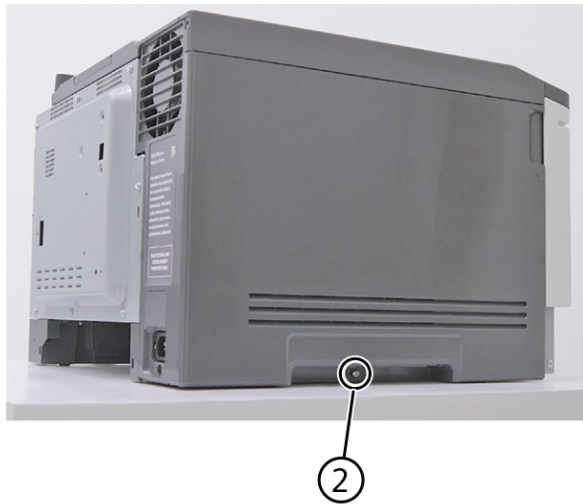
 **Note:** For a video demonstration, see [EP Drive Removal](#).

1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the two screws (1) at the back.



C410S\_4041

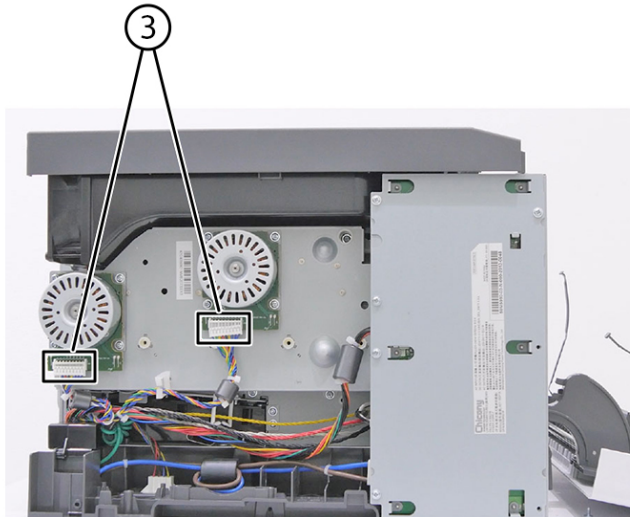
7. Remove the screw (2) on the left side, and then remove the left cover.



C410S\_4042

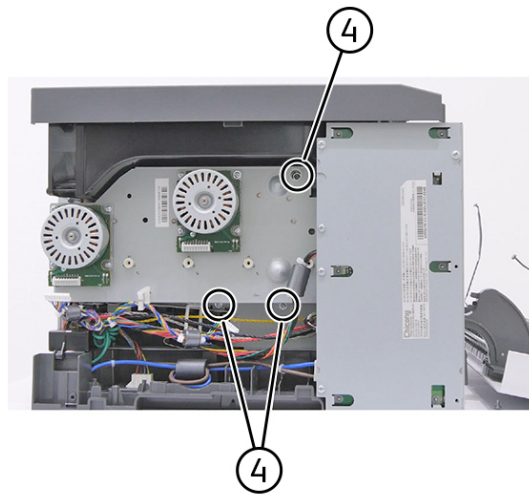
## Parts Removal

8. Disconnect the connectors (3) from the EP drive.



C410S\_4043

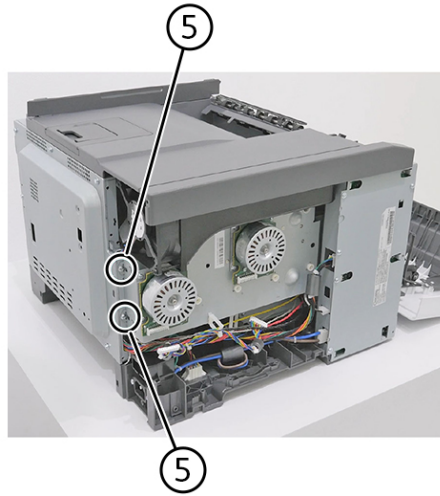
9. Remove the three screws (4).



C410S\_4044




10. Remove the two screws (5).



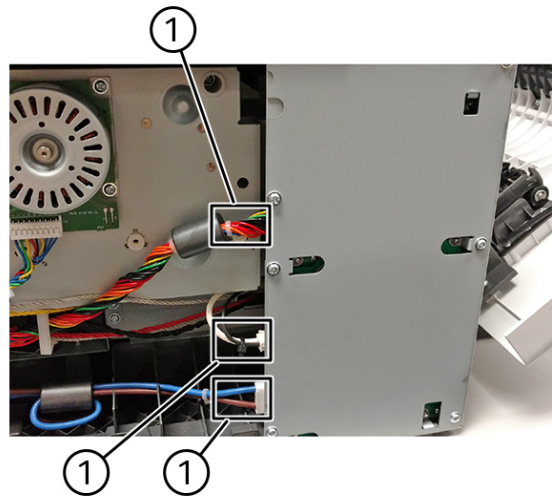
C410S\_4045

11. Remove the EP drive.

## LVPS Removal

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

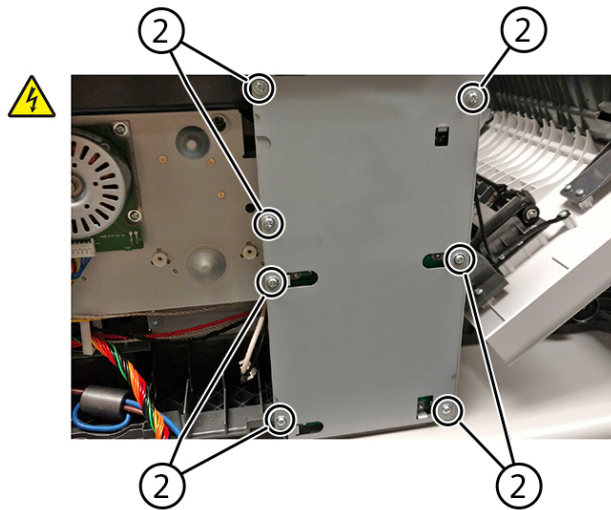
1. Turn off the printer, and then unplug the power cord.
2. Remove the left cover. See [Left Cover Removal](#)
3. Disconnect the three cables (1).



C410S\_4047

## Parts Removal

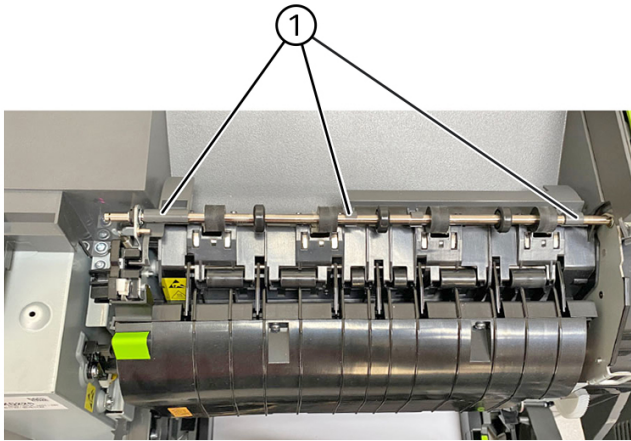
4. Remove the seven screws (2), and then remove the LVPS.



C410S\_4048

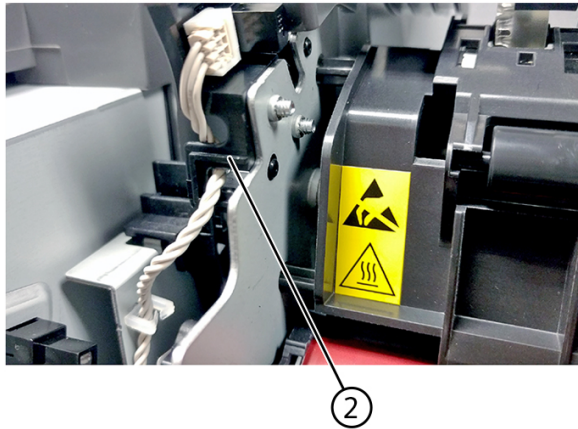
## Sensor (Fuser Exit) Removal

1. Remove the left cover. See [Left Cover Removal](#).
2. Press to release the tabs (1), and then rotate the deflector to remove.



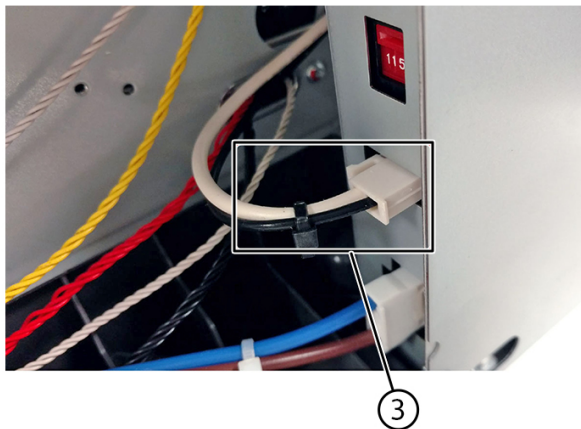
C410S\_4253

3. Remove the cable from its retainer (2).



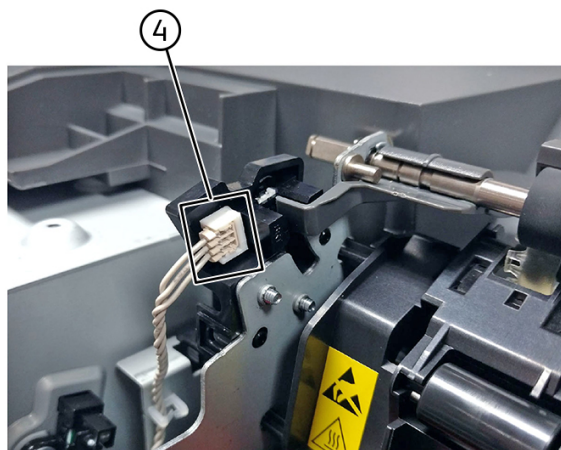
C410S\_4051

4. Disconnect the cable (3).



C410S\_4052

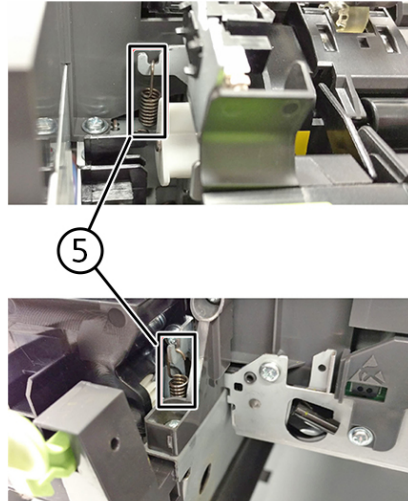
5. Disconnect the cable (4).



C410S\_4053

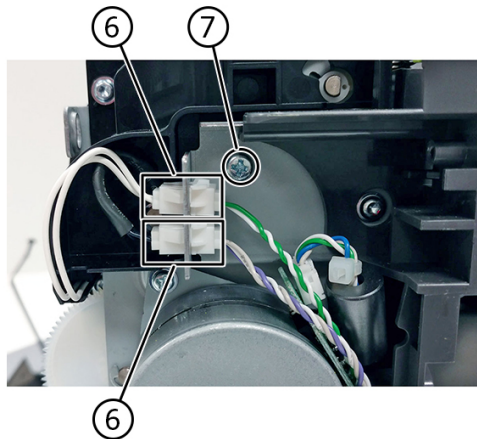
## Parts Removal

6. Unhook the two springs (5) from both sides of the fuser.



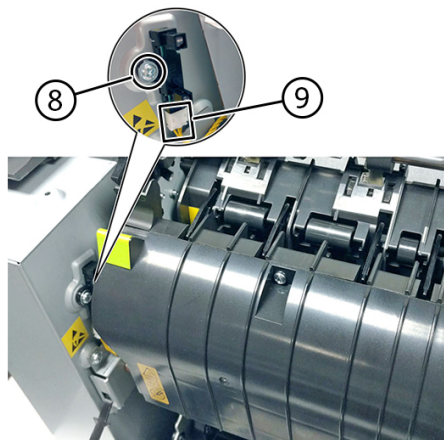
C410S\_4054

7. Disconnect the two thermistor cables (6), and then remove the screw (7).



C410S\_4055

8. Rotate the fuser toward the front, disconnect the cable (8), and then remove the screw (9).



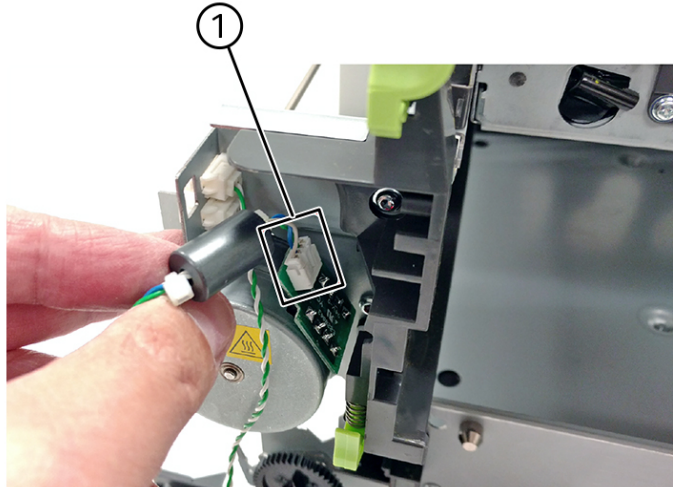
C410S\_4057

9. Using a flat-head screwdriver, remove the lower end of the sensor, and then gently pull the sensor from the frame.

## Right Side Removals

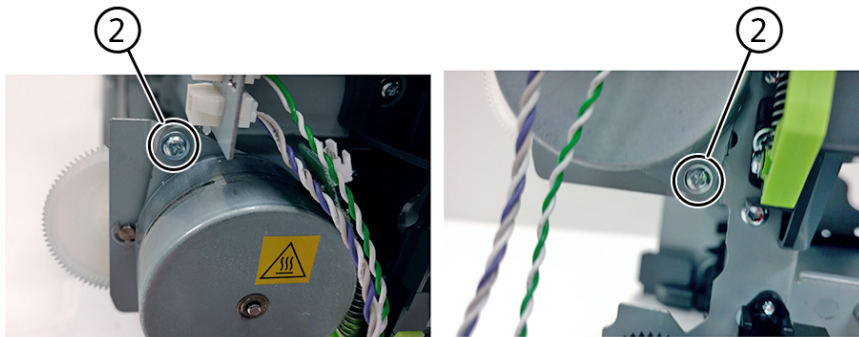
### Motor (Fuser) Removal

1. Remove the right cover.
2. Disconnect the cable (1).



C4105\_4058

3. Remove the two screws (2), and then remove the motor.




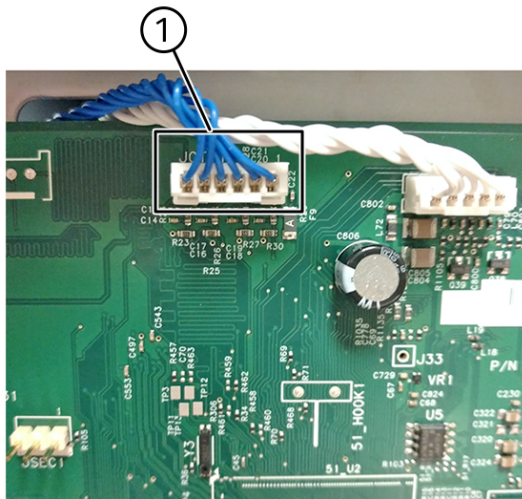
C4105\_4059

### Toner Meter Card Removal

1. Remove the imaging kit. See [Imaging Kit Removal](#)
2. Remove the rear cover.

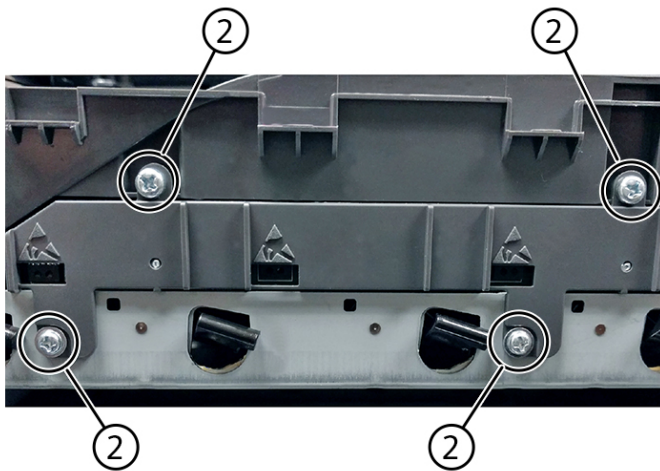
3. Disconnect the cable (1), and then push the TMC card cable through the frame opening.

 **Note:** Pay attention to the cable routing.



C410S\_4060

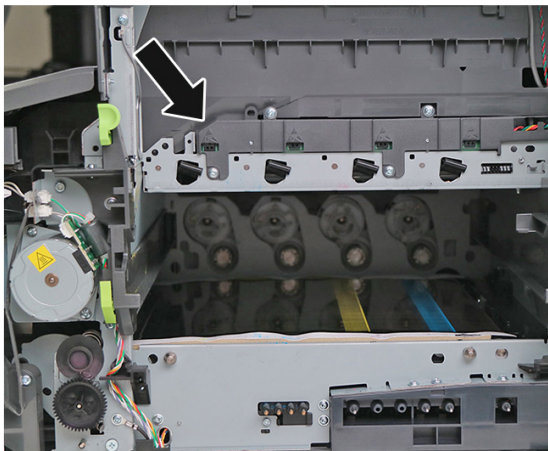
4. Remove the four screws (2).



C410S\_4061

## Parts Removal

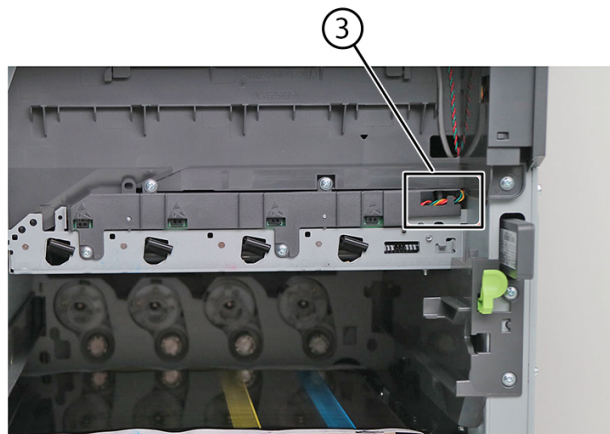
5. Insert a flat-head screwdriver into the left side of the frame, and then pry the card loose to remove it.



C410S\_4062

### Installation notes:


- Make sure to run the cable (3) through the retainer.



C410S\_4063

- The TMC card is a tight fit. Insert the bottom edge inside the frame first, and then push down on the top edge to clear the top cover.

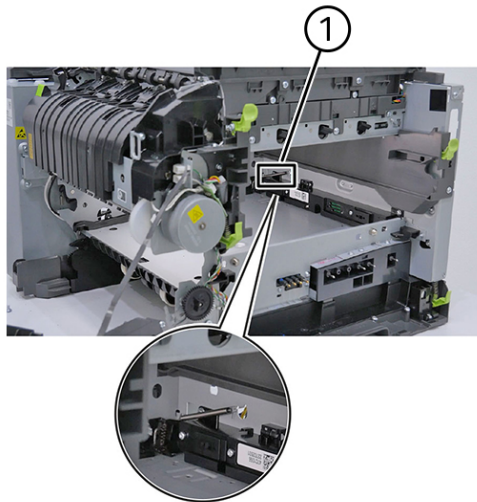
## Sensor (Toner Patch) Removal

 **Note:** For a video demonstration, see [Sensor \(toner patch\) removal](#).

1. Remove the transfer module. See [Transfer Module Removal](#)

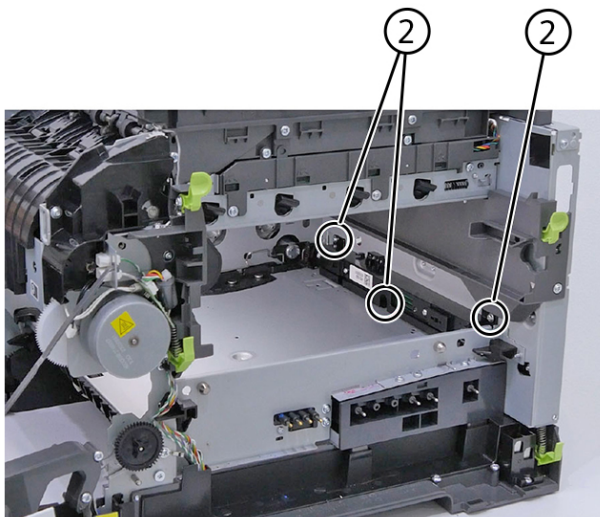


2. Remove the spring (1).



C410S\_4064

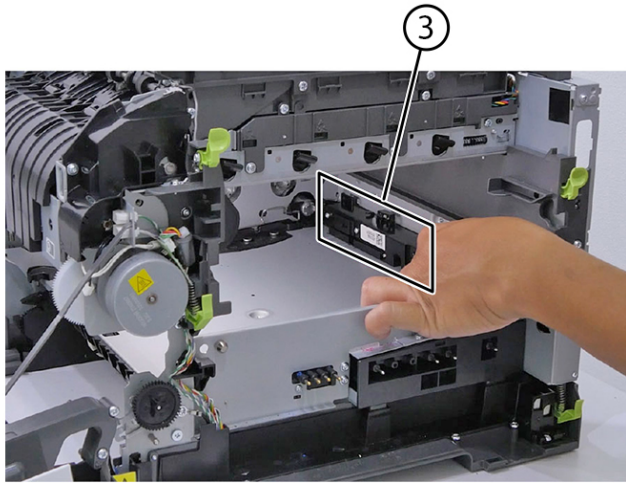
3. Remove the three screws (2).



C410S\_4065

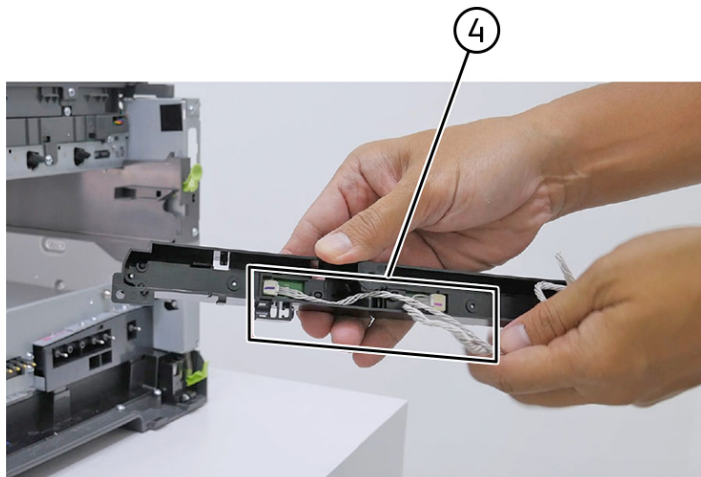
## Parts Removal

4. Remove the sensor (toner patch) (3).



C410S\_4066

5. Disconnect the connector, and then unroute the cable (4).



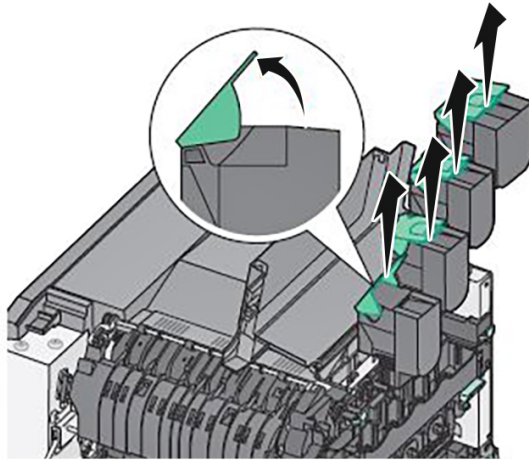
C410S\_4067

## Developer Unit Removal

 **Note:** The developer units are not FRUs.

1. Open the toner access door.

2. Remove the toner cartridges.



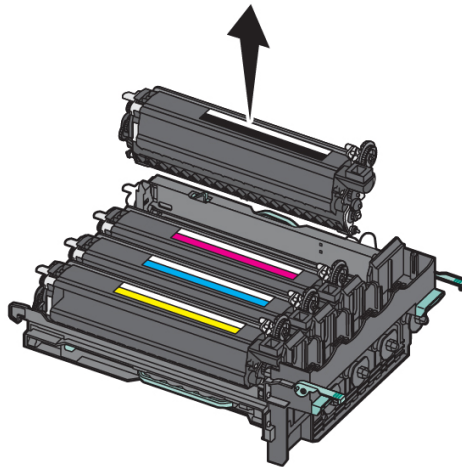
C410S\_4255

3. Remove the imaging kit. See [Imaging Kit Removal](#).

**Warning—Potential Damage:**


Do not touch the underside of the imaging kit.

4. Remove the developer unit.



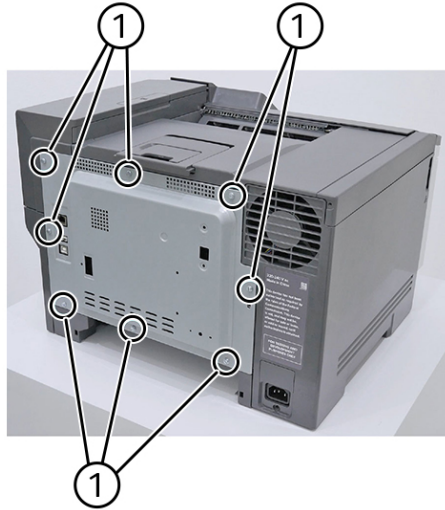
C410S\_4265

## HVPS Removal

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

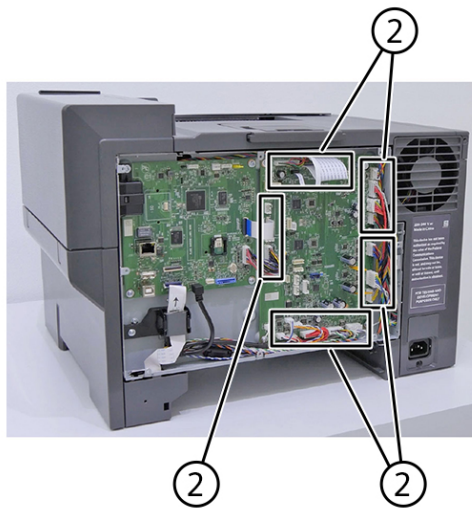
## Parts Removal

1. Remove the eight screws (1), and then remove the rear cover.



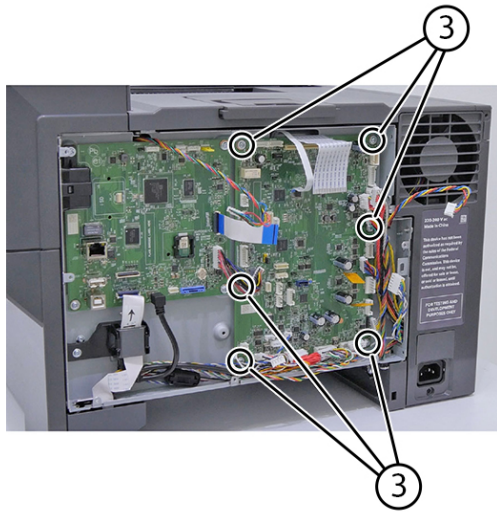
C410S\_4068

2. Disconnect all the connectors (2).



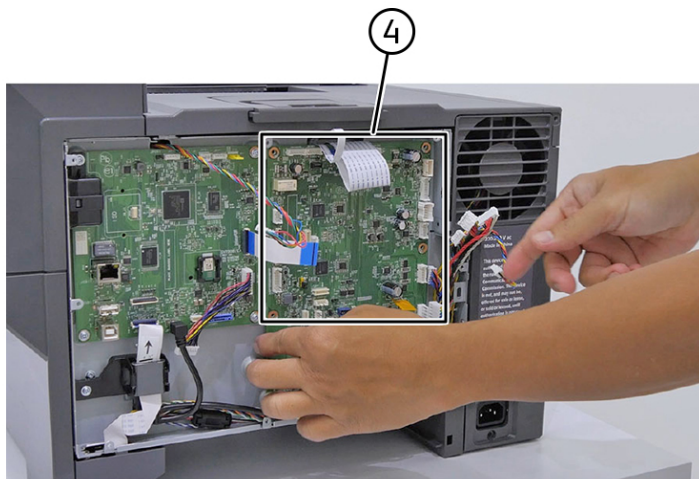
C410S\_4069

3. Remove the six screws (3).



C410S\_4070

4. Remove the engine board (4).

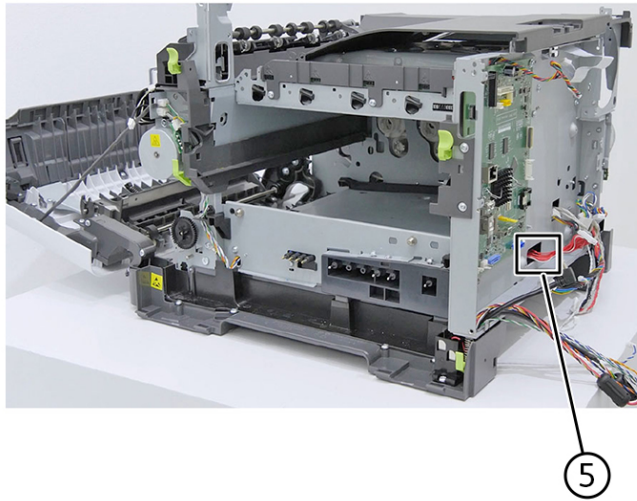


C410S\_4071

5. Remove the transfer module. See [Transfer Module Removal](#) .

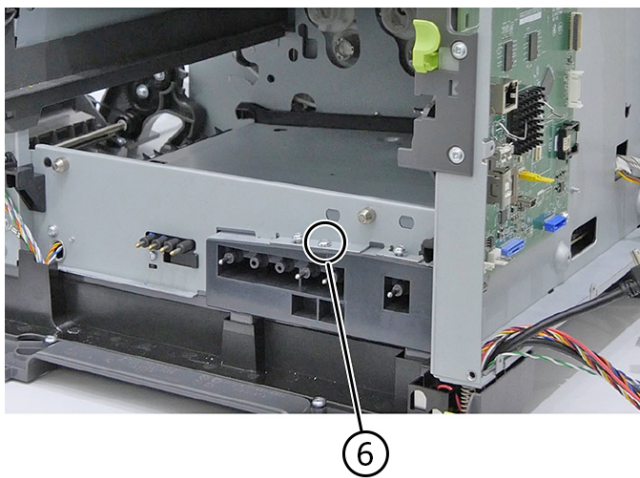
## Parts Removal

6. Disconnect the connector (5).



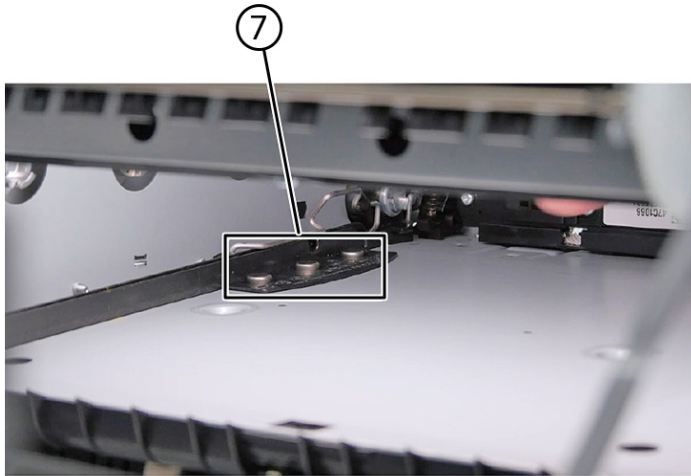
C410S\_4072

7. Remove the screw (6).



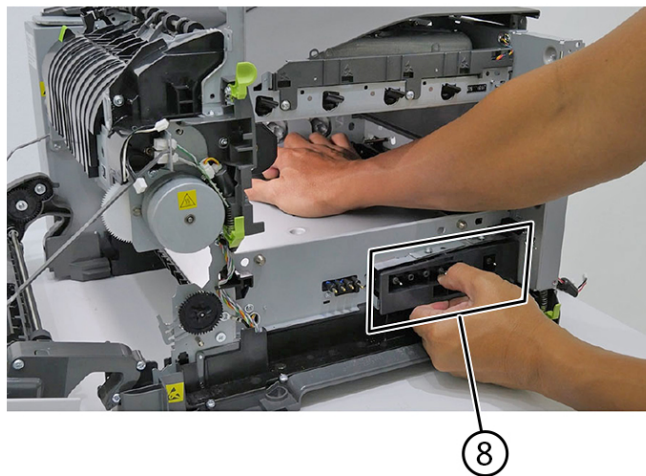
C410S\_4073

8. Press and hold the three transfer module contacts (7).



C410S\_4074

9. While pressing on the contacts, carefully pull out the HVPS (8).



C410S\_4075

**Installation Note:** To avoid breaking the HVPS, slowly insert it during installation.

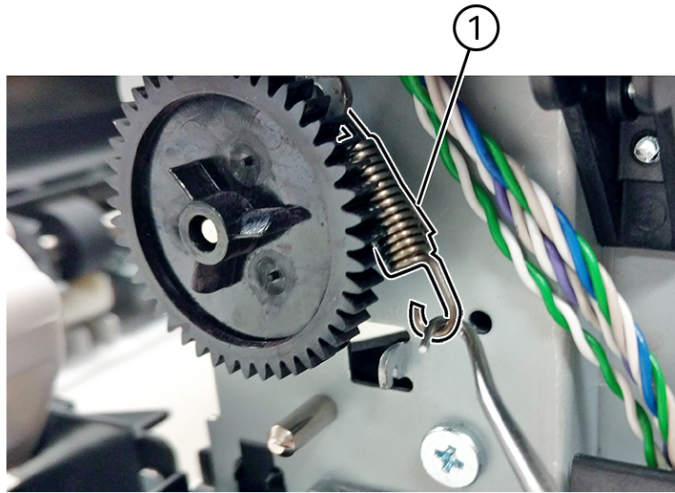
## Transfer Module Removal

 **Note:** For a video demonstration, see [Transfer Module Removal](#).

1. Remove the right cover.
2. Remove the waste toner bottle.
3. Remove the imaging kit. See [Imaging Kit Removal](#).

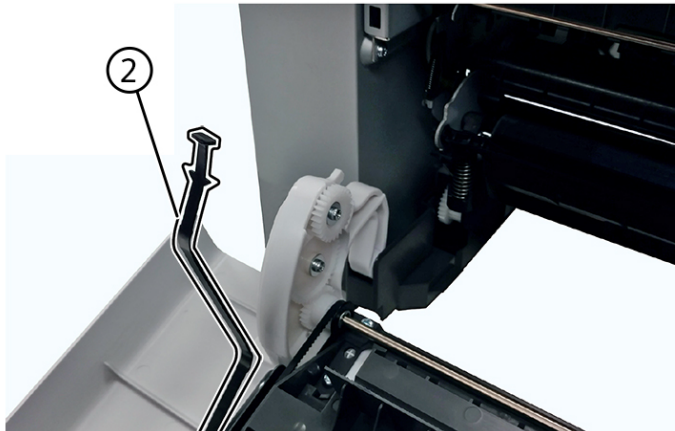
## Parts Removal

4. Disconnect the spring (1) on the right side.



C410S\_4076

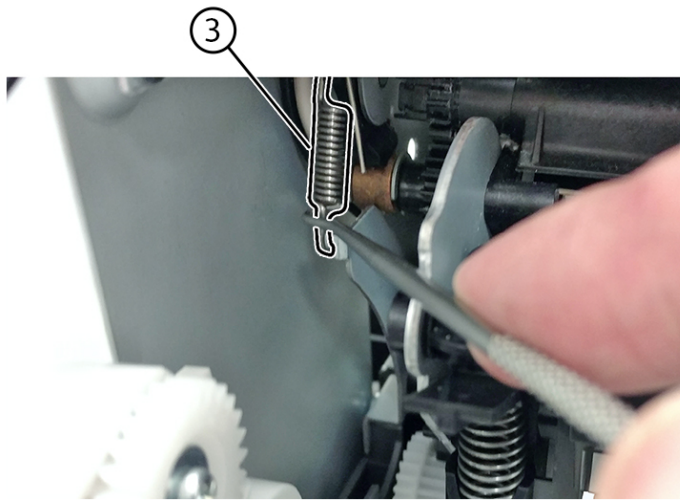
5. Release the left and right door straps (2).



C410S\_4077

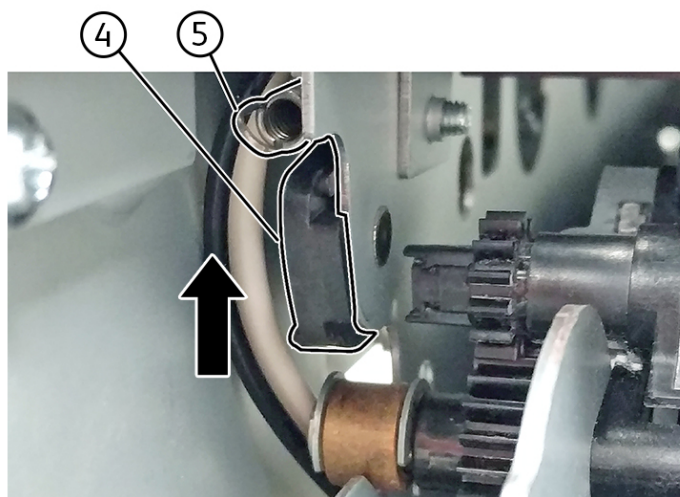


6. Disconnect the spring (3).



C410S\_4078

7. Raise the cam (4) and spring (5).



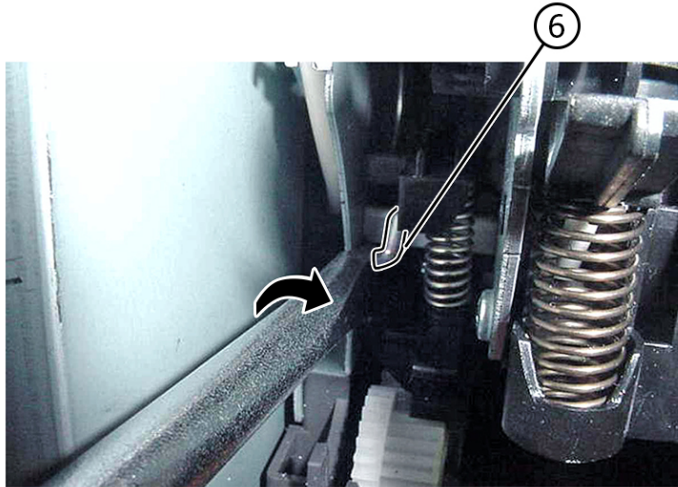
C410S\_4079

## Parts Removal

- Place the tip of a flat-head screwdriver in between the release lever (6) and the frame, and then rotate the screwdriver to rotate the release lever and decouple the transfer module while pulling it toward the front.

**Warning—Potential Damage:**

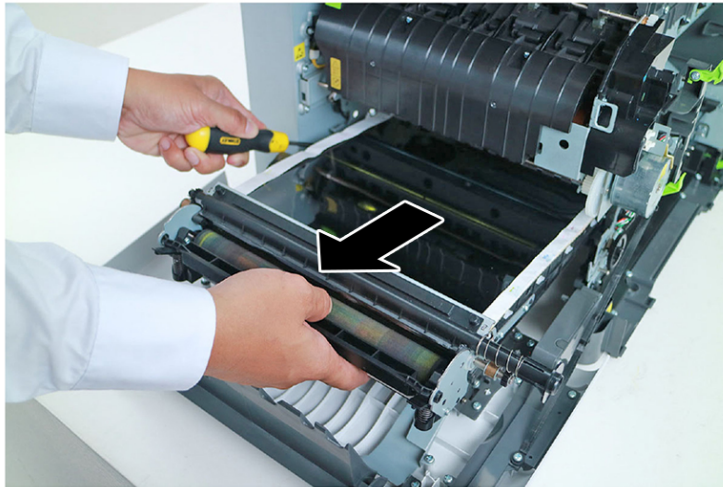
Make sure that the lever is in the fully released position before removing the transfer module.



C410S\_4080

- Hold the release lever as you pull out the transfer module for the first four inches (100 mm). A quick and firm pull should overcome the latch at this point.

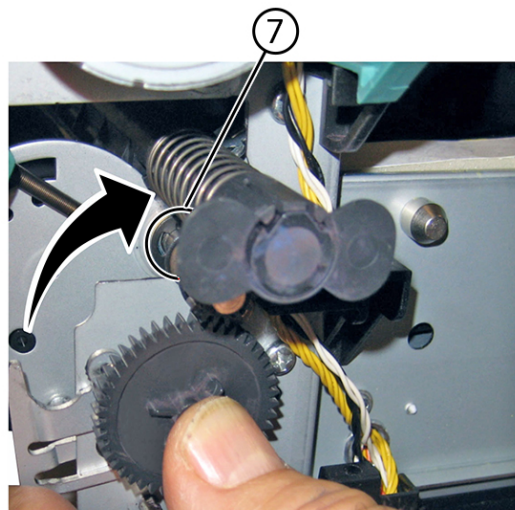
10. Remove the transfer module.



C410S\_4081

#### Installation notes:


1. Do not rotate the release lever again to install the new transfer module. Doing so may cause the incorrect seating of the transfer module. The coupler is rotated out of the way as the transfer module slides in.
2. Rotate the right side spring clamp (G) and left side cam back to their original positions, and then rehook the springs.



C410S\_4082

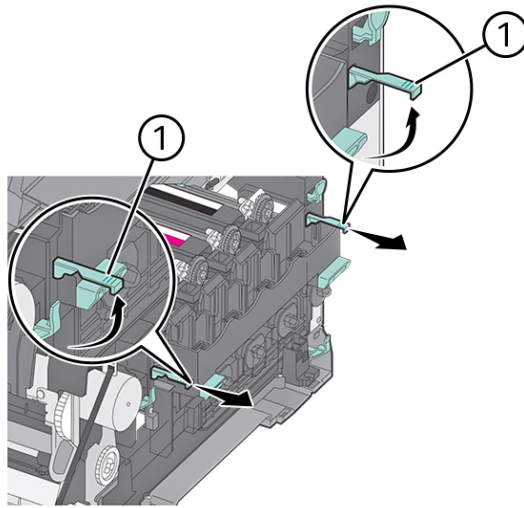
3. Make sure to reset the ITM counter after installing the new transfer module.  
Enter the Diagnostics menu, and then navigate to:  
**Printer diagnostics & adjustments > Supply reset > ITM reset**

# Imaging Kit Removal

 **Note:** This is not a FRU

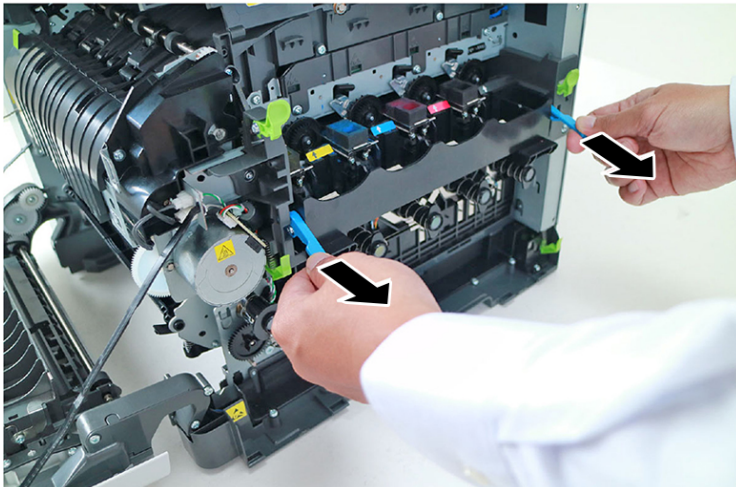
**Installation note:** The imaging kit contains the photoconductor unit and developer units. When you replace the imaging kit, you are replacing the photoconductor unit and developer units.

1. Remove the waste toner bottle. See [Waste Toner Bottle Removal](#)
2. Remove the toner cartridges.
3. Lift the two latches (1) to unlock the imaging kit.




C410S\_4083

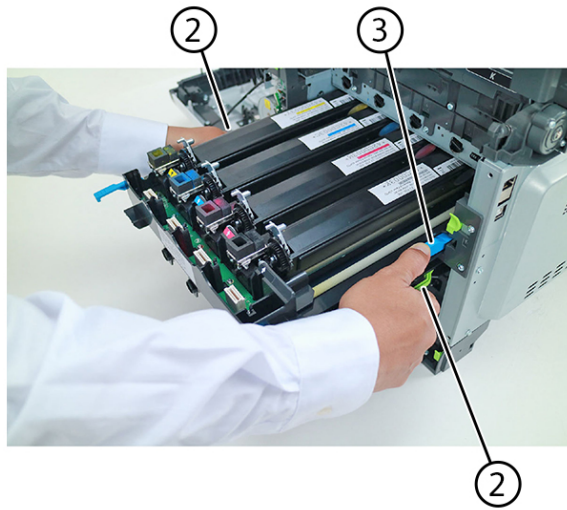
4. Pull the two latches.



C410S\_4084

- Press and hold the two handles (2) and the latch (3), and then pull the imaging kit to remove.


 **Note:** Do not touch the underside of the imaging kit.



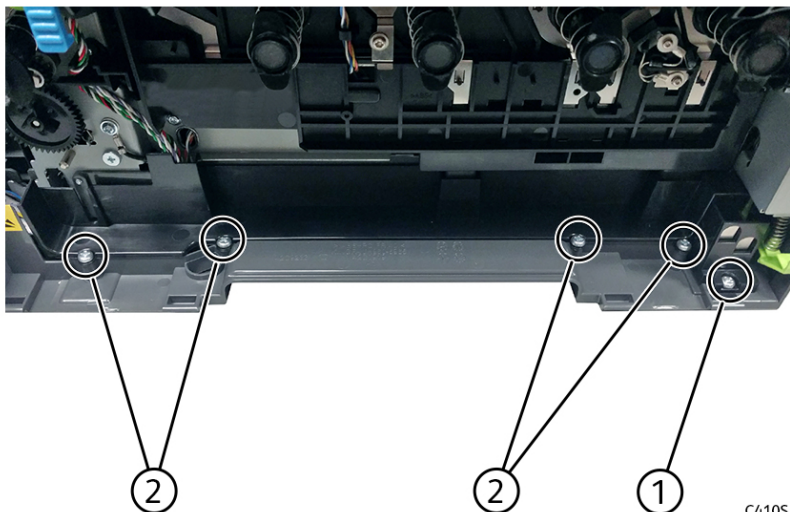
C410S\_4085

## Toner Cartridge Contacts Removal

- Remove the right cover.
- Remove the waste toner bottle. See [Waste Toner Bottle Removal](#)
- Remove the imaging kit. See [Imaging Kit Removal](#)
- Remove the rear cover.
- Remove the screw (1) to allow access to the cable cover.

 **Note:** Do not remove the waste toner bottle contact block.

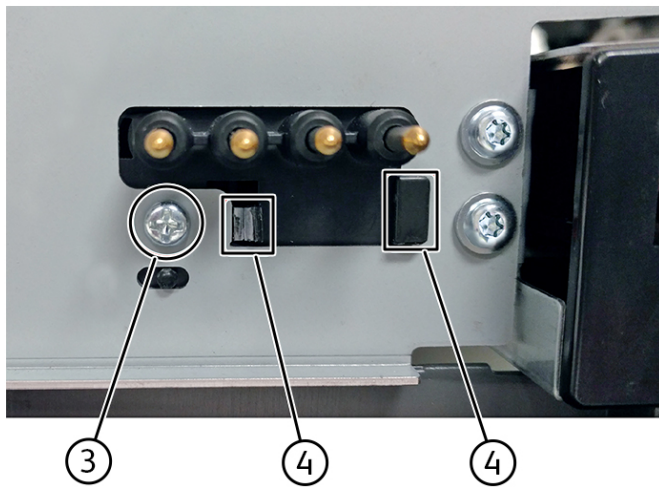
- Remove the four screws (2), and then remove the cable cover.



C410S\_4087

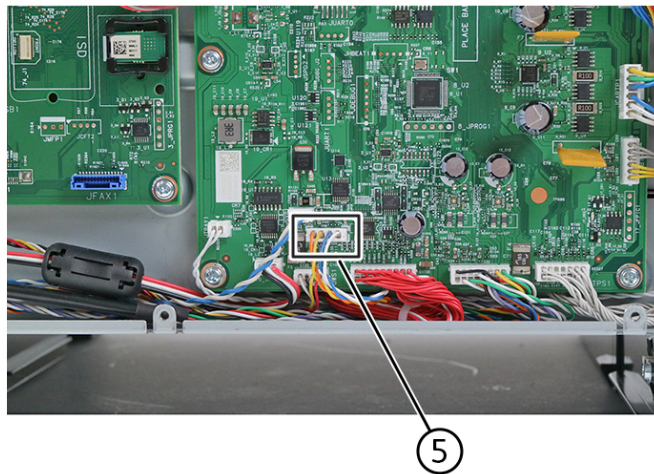
## Parts Removal

7. Place the printer on its left side.
8. Remove the screw (3), and then release the two tabs (4).



C410S\_4088


9. Slide the toner cartridge contacts to the left to remove it.
10. Disconnect the cable (5) from the controller board.




C410S\_4266

**Installation note:** If used, pay attention to the assembly of the cable and toroid.

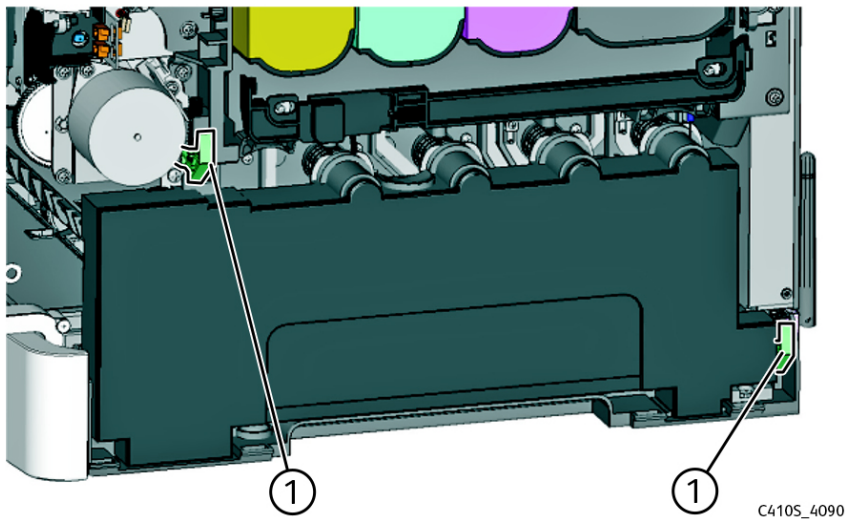
11. Remove the cable from its retainer at the bottom of the printer.
12. Extract the cable through the frame, and then remove the cable with the spring contacts.

 **Note:** If the cable has a toroid, unwrap the cable from the toroid, and then make sure to use the same number of wraps on the new cable.

## Waste Toner Bottle Removal

 **Note:** This is not a FRU.

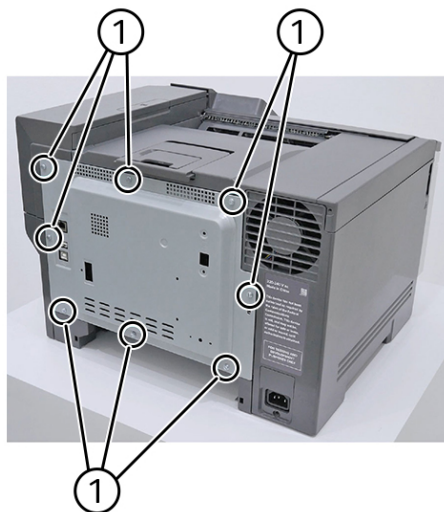
1. Remove the right cover.
2. Press the two tabs (1) to release the waste toner bottle.



## Waste Toner Bottle Contact Block Removal

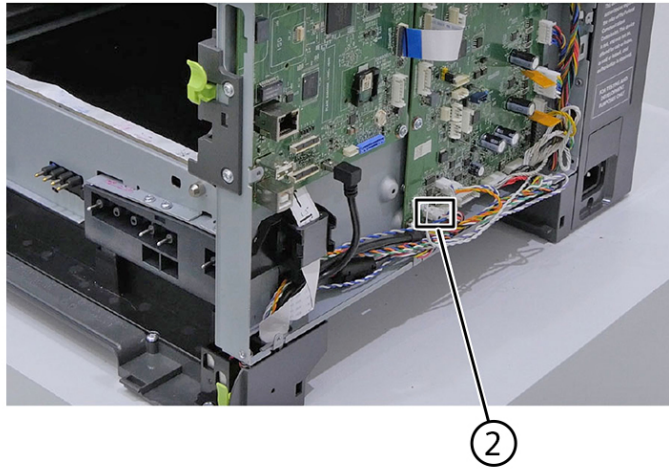
 **Note:** For a video demonstration, see [Waste toner bottle contact block removal](#).

1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the eight screws (1), and then remove the rear cover.



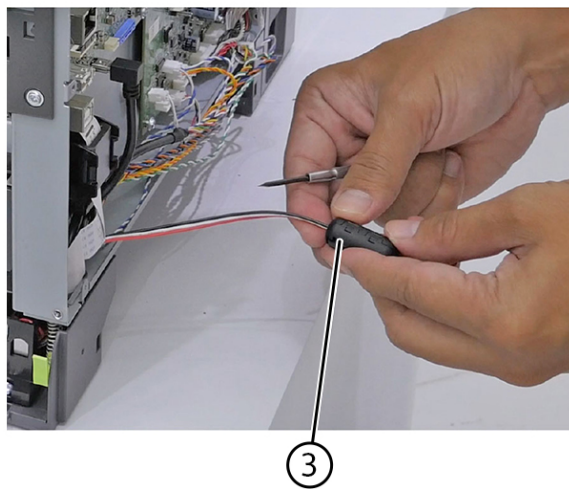
## Parts Removal

7. Disconnect the connector (2) from the engine board.



C410S\_4091

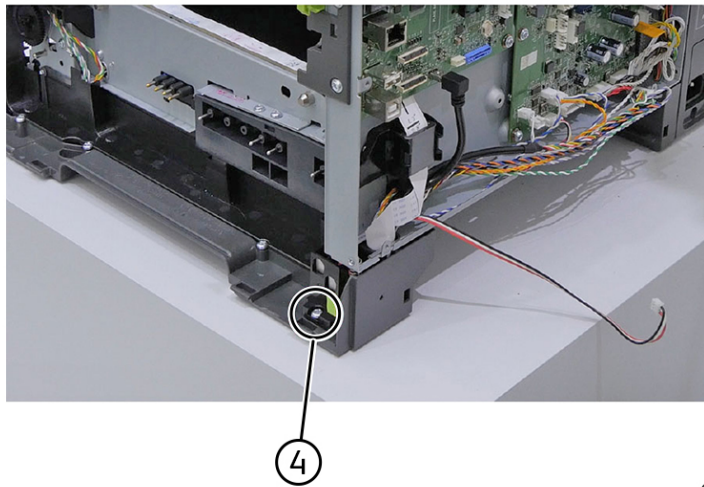
8. Unroute the cable, and then remove the toroid (3) from the cable.



C410S\_4092

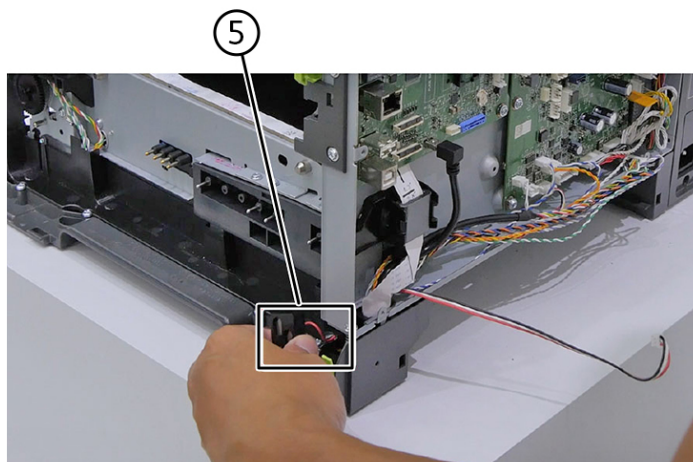


9. Remove the screw (4).



C410S\_4093

10. Remove the waste toner bottle contact block (5).



C410S\_4094

## Front removals

### Front Door Removal

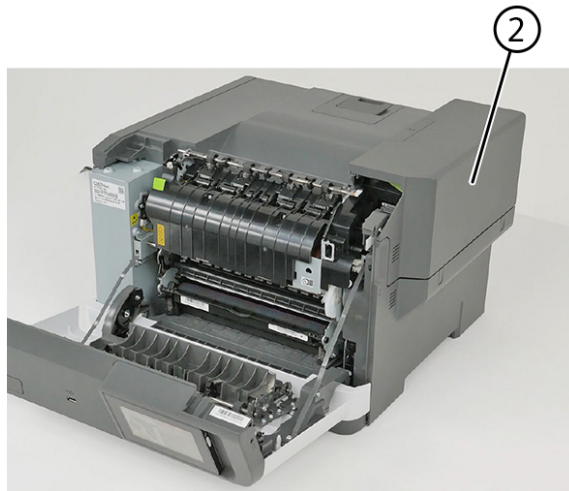
 **Note:** For a video demonstration, see [Front door removal](#).

1. Open the front door (1).



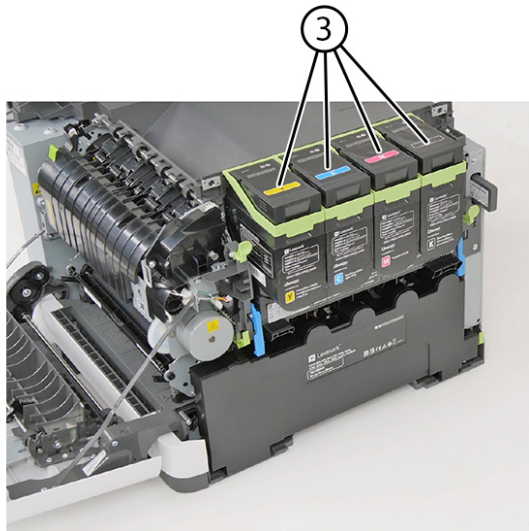
C410S\_4095

2. Remove the right cover (2).



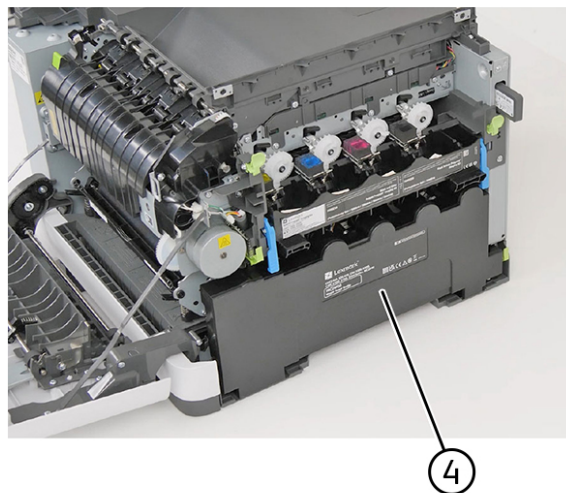
C410S\_4096

3. Remove the toner cartridges (3).



C410S\_4097

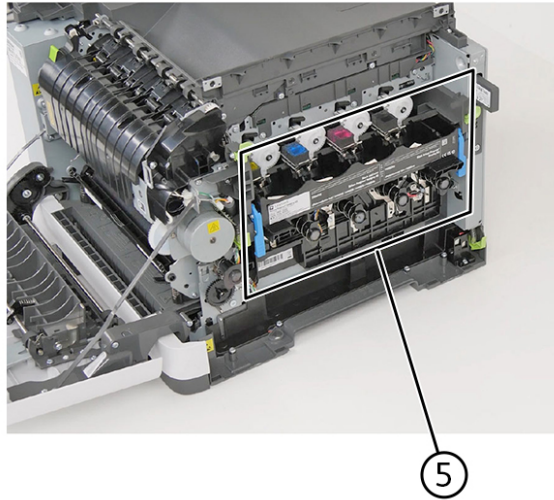
4. Remove the waste toner bottle (4).



C410S\_4098

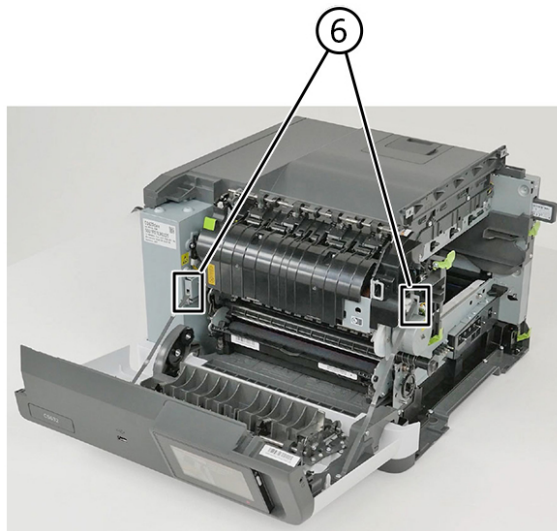
## Parts Removal

5. Remove the imaging kit (5).



C410S\_4099


6. Release the left and right door straps (6).



C410S\_4101

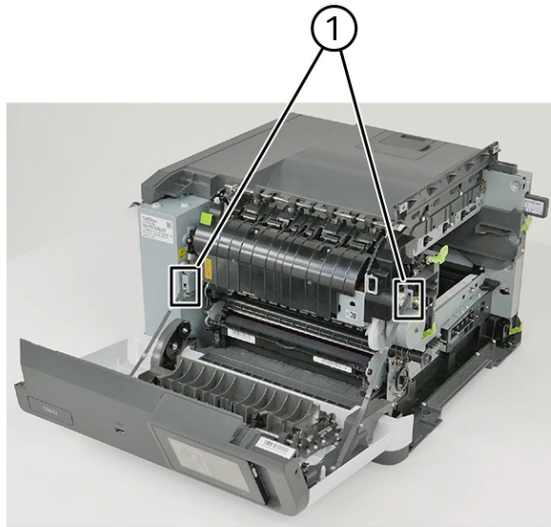
7. Remove the front door.

## Sensor (front door) Removal

 **Note:** For a video demonstration, see [Sensor \(front door\) Removal](#).

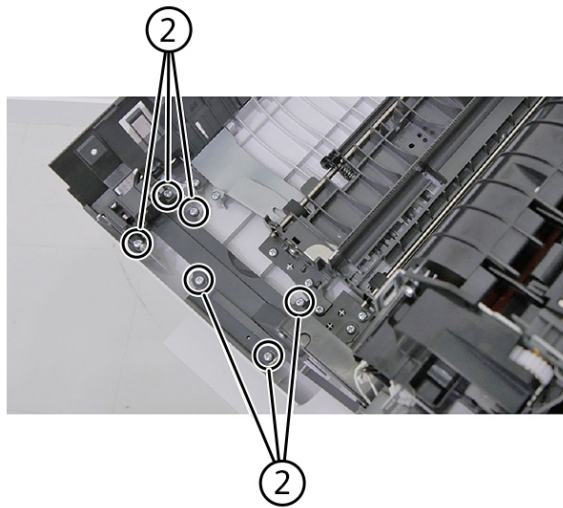
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.

6. Release the left and right door straps (1).



C410S\_4100

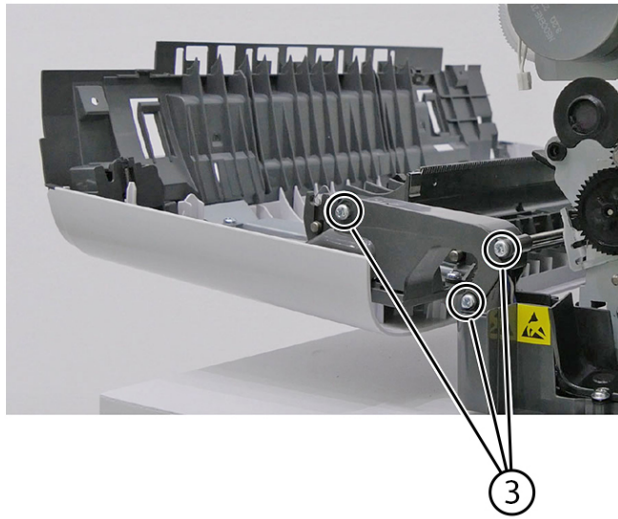
7. Remove the six screws (2).



C410S\_4102

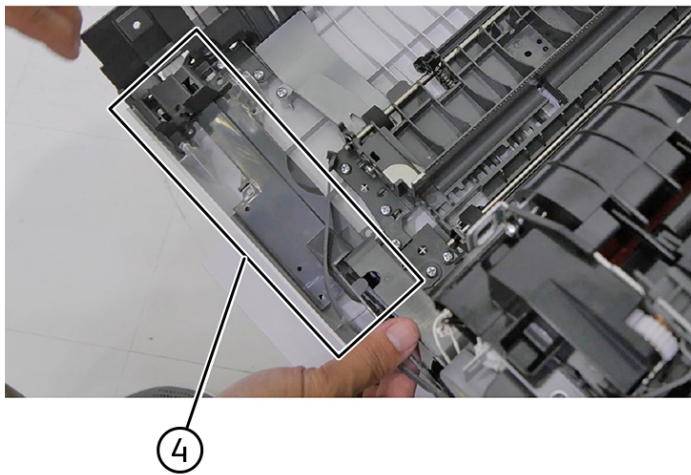
## Parts Removal

8. Remove the three screws (3).



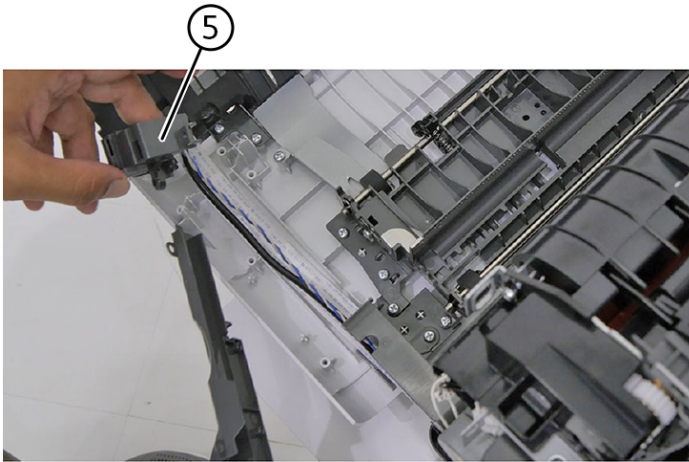
C410S\_4103

9. Remove the cable cover (4).



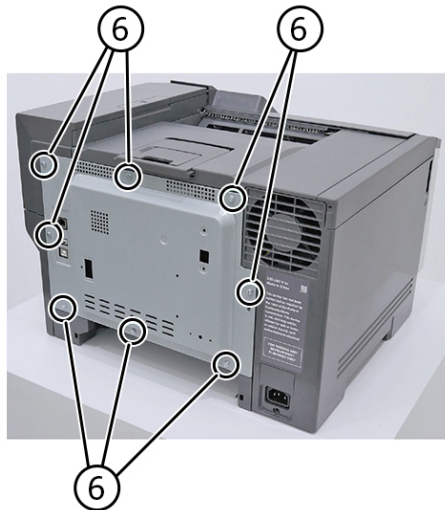
C410S\_4104

10. Unroute the interlock switch (5) cover away from the door.



C410S\_4105

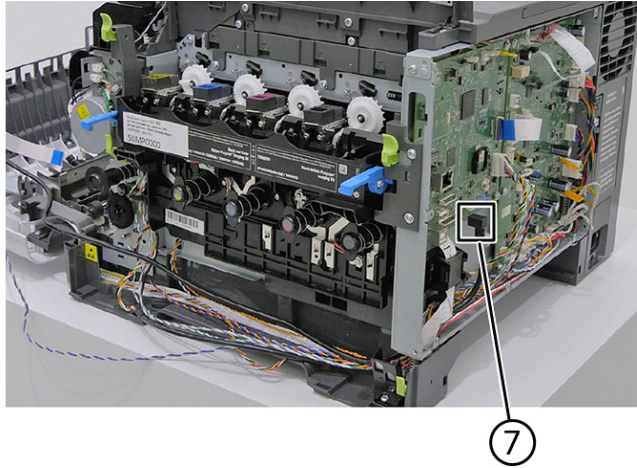
11. Remove the eight screws (6), and then remove the rear cover.



C410S\_4106

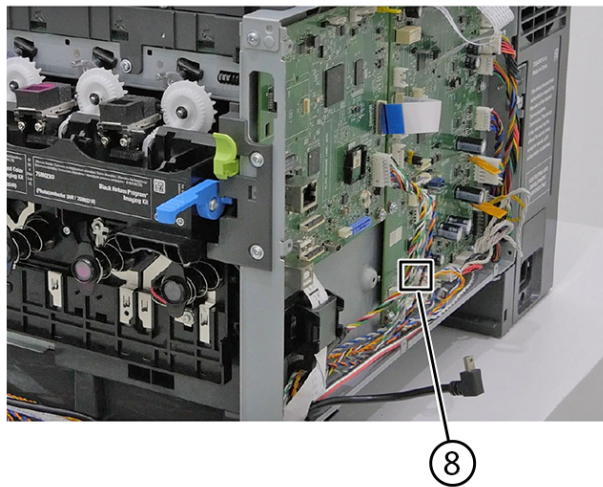
## Parts Removal

12. Disconnect the connector (7) from the controller board.



C410S\_4107

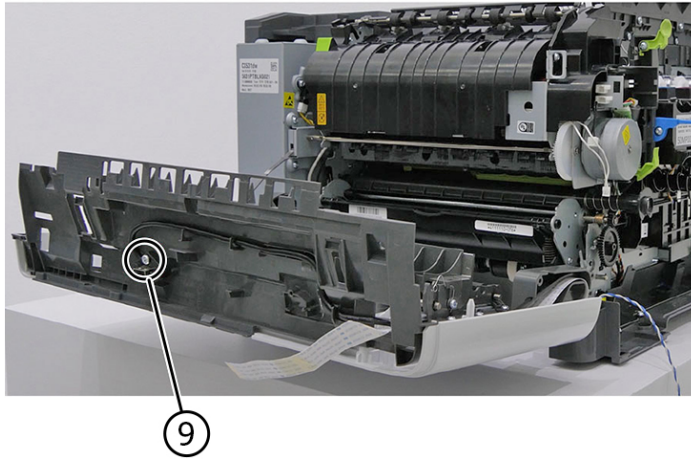
13. Disconnect the connector (8) from the engine board.



C410S\_4108

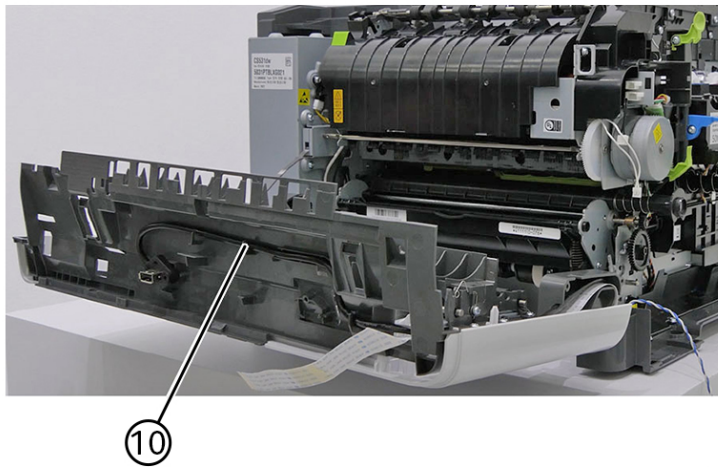


14. Remove the screw (9).



C410S\_4109

15. Remove the sensor, and then unrout the cable (10).



C410S\_4110

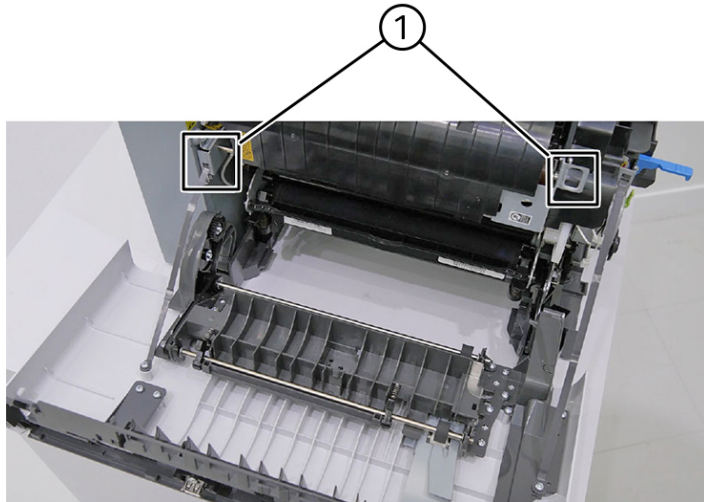
## Front Door Inner Paper Feed Guide Removal

 **Note:** For a video demonstration, see [Front Door Inner Paper Feed Guide Removal](#).

1. Open the front door.

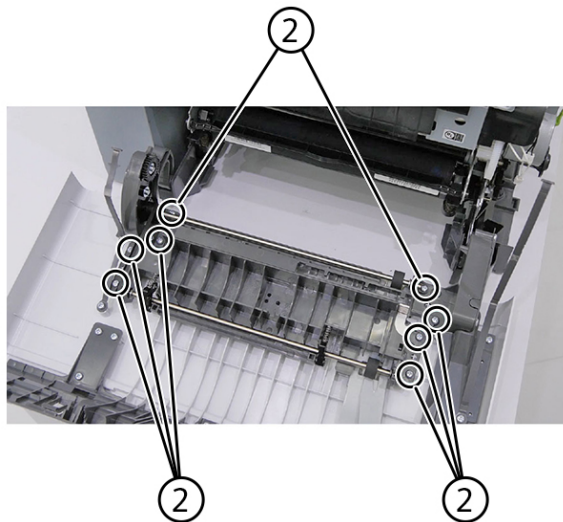
## Parts Removal

2. Release the left and right door straps (1).



C410S\_4111

3. Remove the eight screws (2).



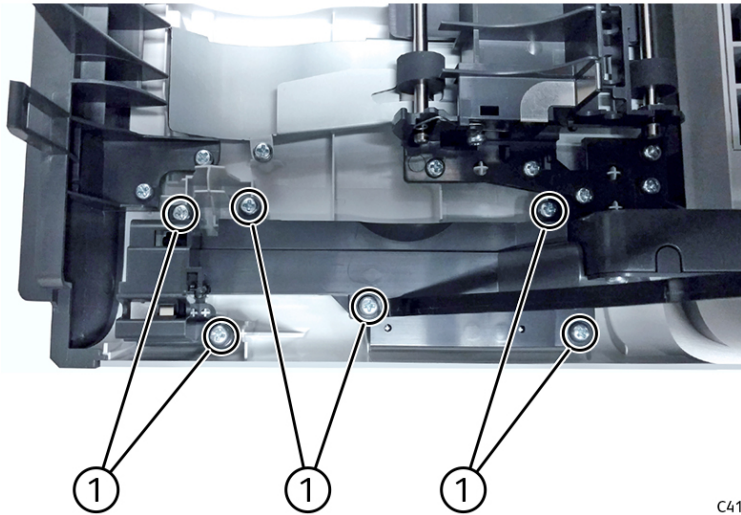
C410S\_4112

4. Remove the paper feed guide.

## Interlock Switch Cover Removal

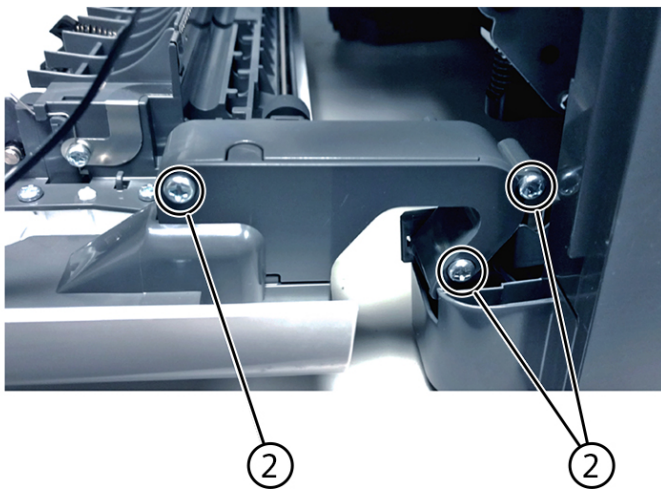
1. Remove the tray insert.
2. Open the front door.

3. Remove the six screws (1).



C410S\_4113

4. Remove the three screws (2).

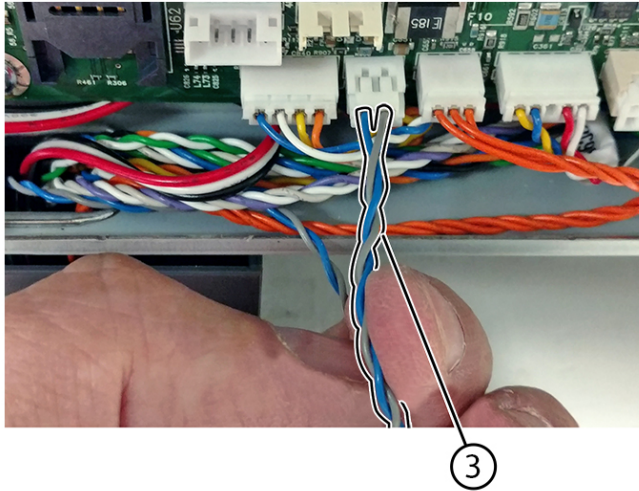


C410S\_4114

5. Remove the right cover.
6. Remove the waste toner bottle. See [Waste Toner Bottle Removal](#)
7. Remove the rear cover.
8. Remove the waste toner bottle contact block. See [Waste Toner Bottle Contact Block Removal](#)
9. Remove the cable cover.

## Parts Removal


10. Disconnect the cable (3).



C410S\_4115

11. Route the interlock switch cover assembly out of the frame.

## Fuser Removal

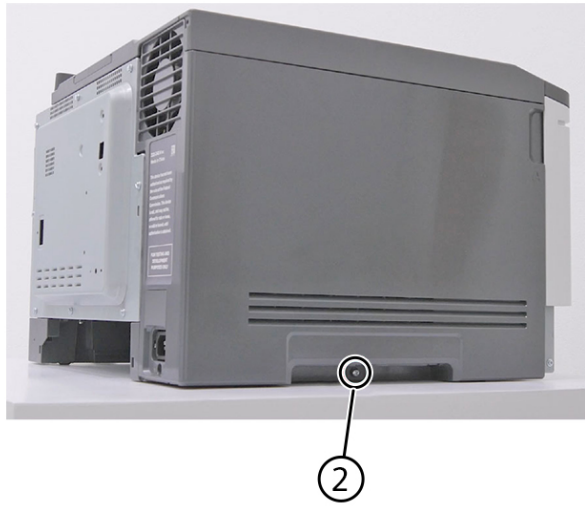
 **Note:** For a video demonstration, see [Fuser Removal](#).

1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the two screws (1) at the back.



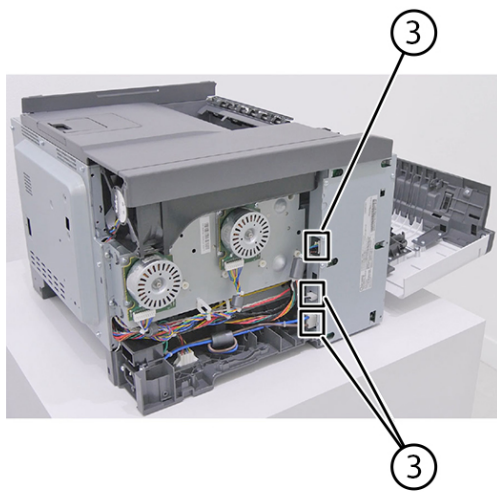
C410S\_4041

7. Remove the screw (2) on the left side, and then remove the left cover.



C410S\_4042

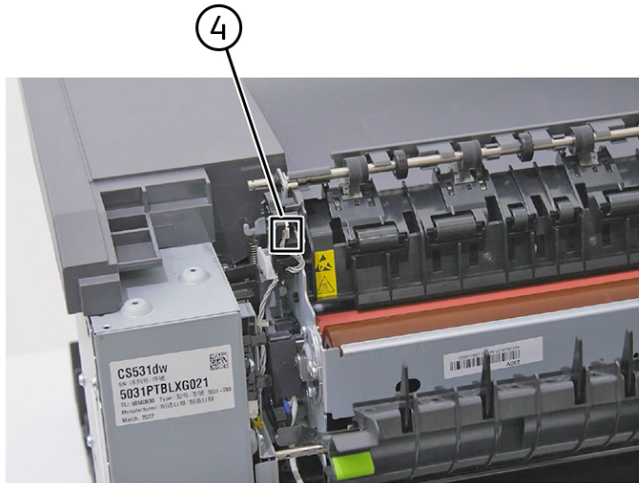
8. Disconnect the connectors (3) from the power supply.



C410S\_4116

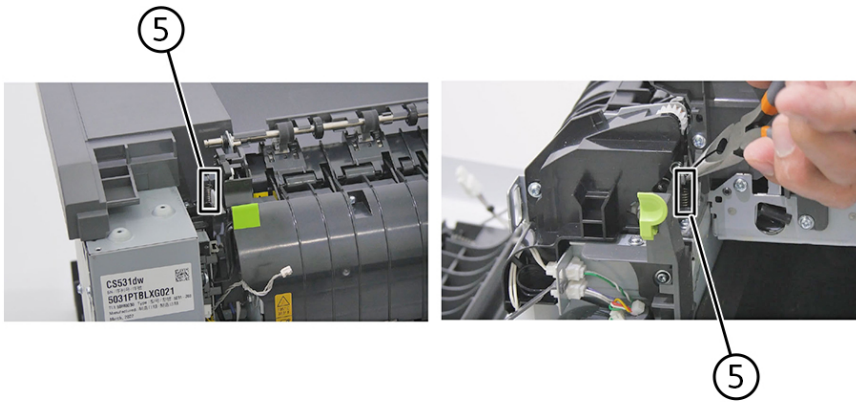
## Parts Removal

9. Disconnect the connector (4) from the narrow media/bin full flag, and then unrout the cable from its retainer.



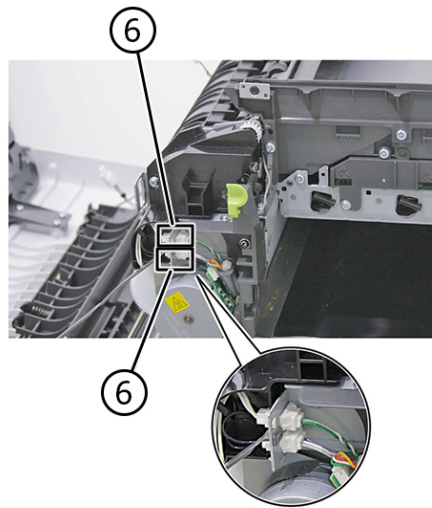
C4105\_4117

10. Disconnect the springs (5) from both sides of the fuser.



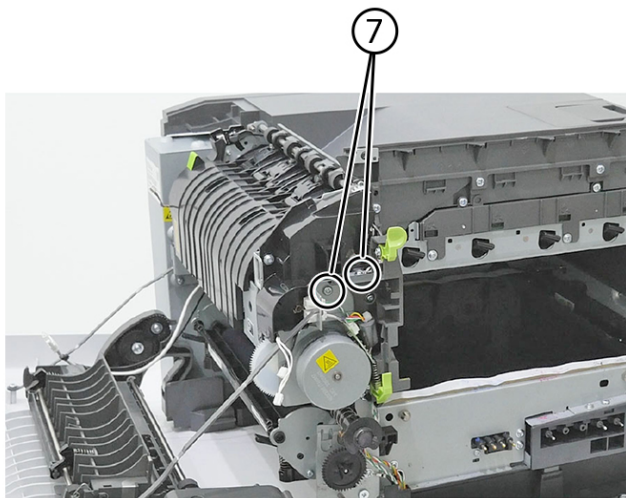
C4105\_4118

11. Disconnect the thermistor connectors (6).



C410S\_4119

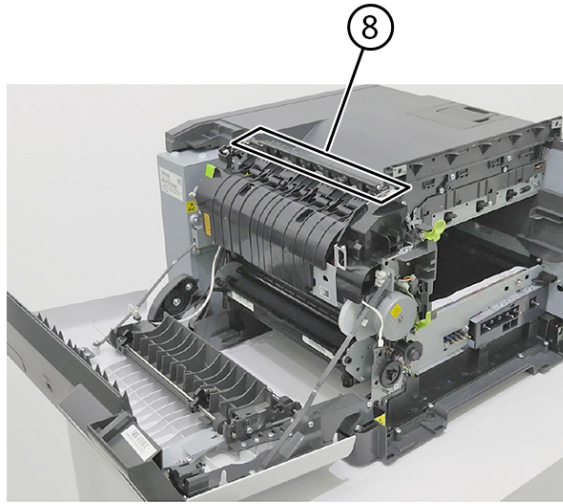
12. Remove the two screws (7).



C410S\_4120

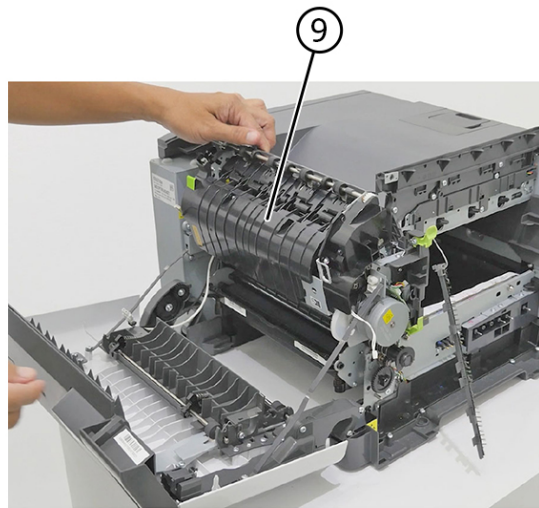
## Parts Removal

13. Remove the static brush holder (8).



C410S\_4121

14. Remove the fuser (9).



C410S\_4122


15. Make sure to reset the Fuser counter after installing the new fuser.  
Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments > Supply reset > Fuser reset.**

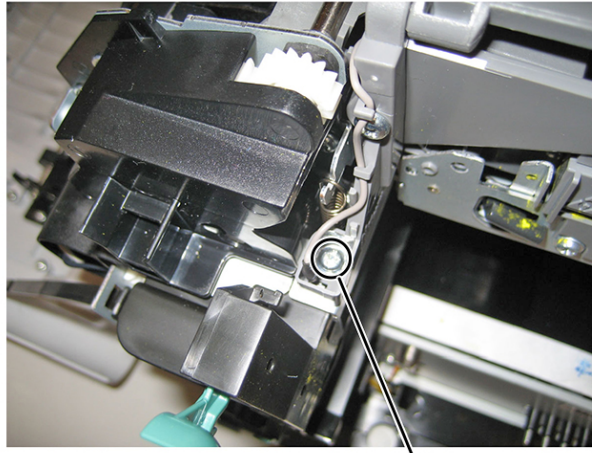
## Exit Deflector Removal

1. Open the front door.
2. Remove the yellow toner cartridge.



3. Remove the exit deflector ground screw (1), and then remove the cable from its retainers.

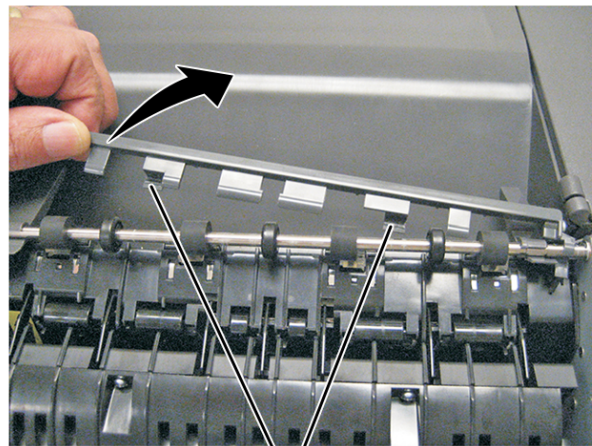
 **Note:** Be sure to pay close attention to the routing of the cables through the retainers for reinstallation.



1

C410S\_4123

4. Press to release the tabs (2), and then rotate the deflector to remove.



1

C410S\_4124

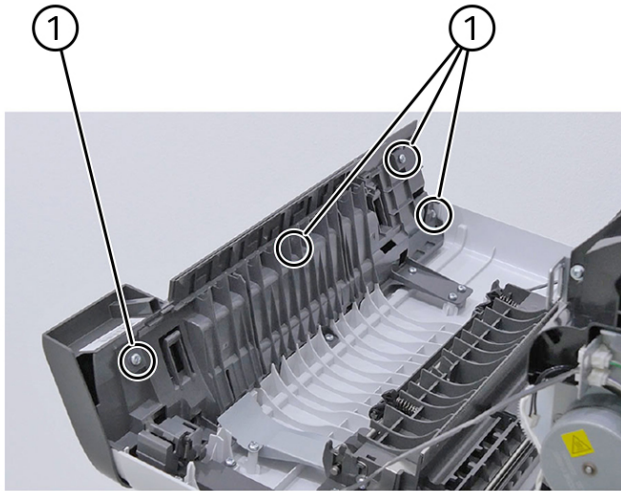
## Control Panel Removal

 **Note:** For a video demonstration, see [Control Panel Removal](#).

1. Open the front door.

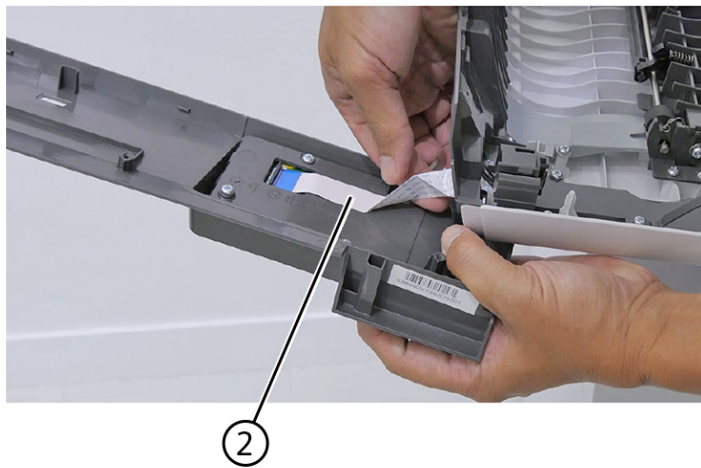
## Parts Removal

2. Remove the four screws (1).



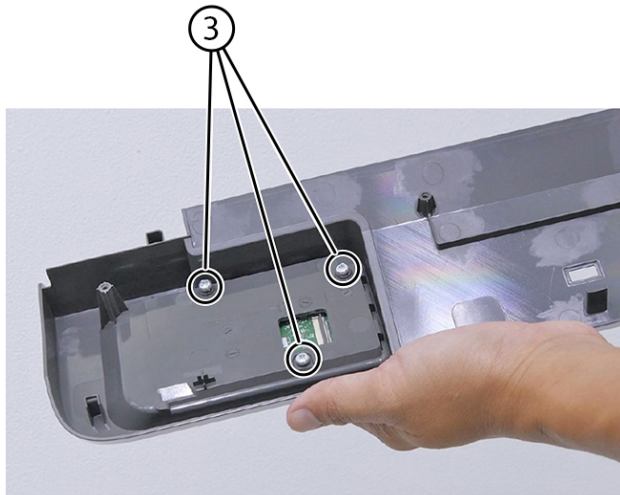
C410S\_4125

3. Disconnect the connector (2), and then remove the top front cover.



C410S\_4126

4. Remove the three screws (3).



C410S\_4127

5. Remove the control panel.

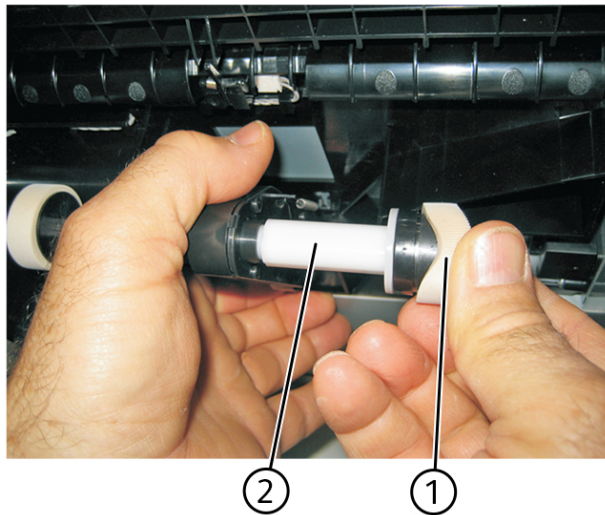
## Bottom Removals

### Pick Tires Removal

**Potential Damage:**

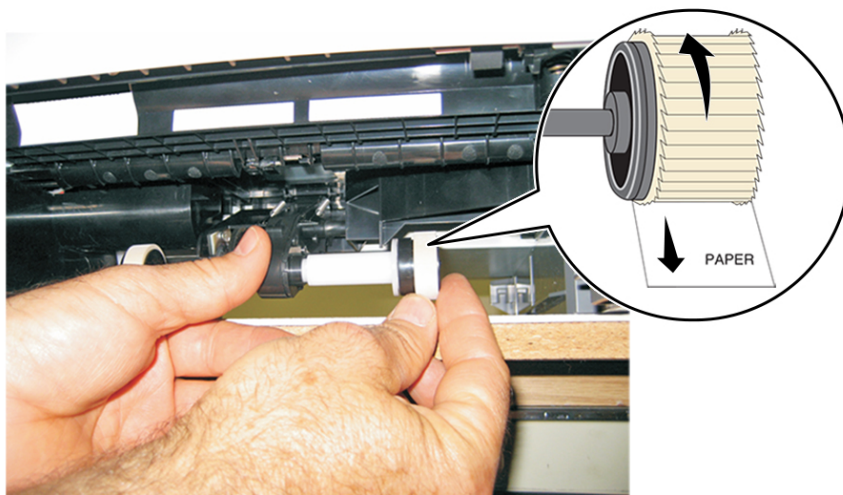
Remove only the rubber tires and not the paper pick tire assembly to avoid losing small parts.

1. Lower the paper pick motor drive assembly.
2. Remove the rubber tire (1) from the pick roll assembly (2). Repeat for the other tire.




C410S\_4128

**Installation note:** Install the new rubber tires with the surface texture turning in the direction as shown in the following:

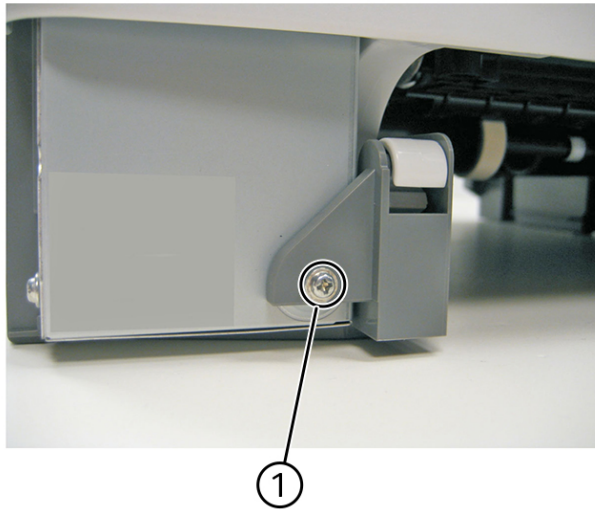


C410S\_4129

 **Note:** Feel each rubber surface to verify that it turns in the proper direction. The smoother surface pushes the paper toward the front of the printer.

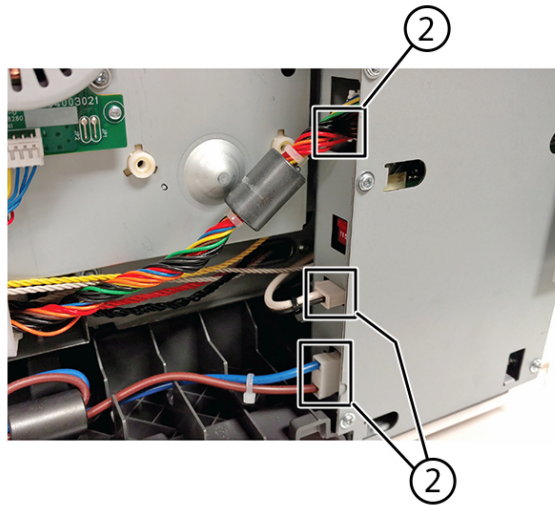
## Lower Left Frame Removal

1. Remove the media tray, and remove the screw (1) from the front.



C410S\_4130

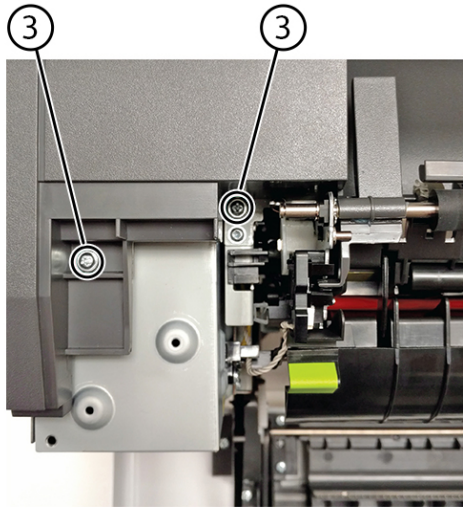
2. Remove the waste toner bottle. See [Waste Toner Bottle Removal](#)
3. Remove the imaging kit. See [Imaging Kit Removal](#)
4. Remove the left cover. See [Left Cover Removal](#)
5. Disconnect the three cables (2) from the LVPS.



C410S\_4046

## Parts Removal

6. Remove the two screws (3).

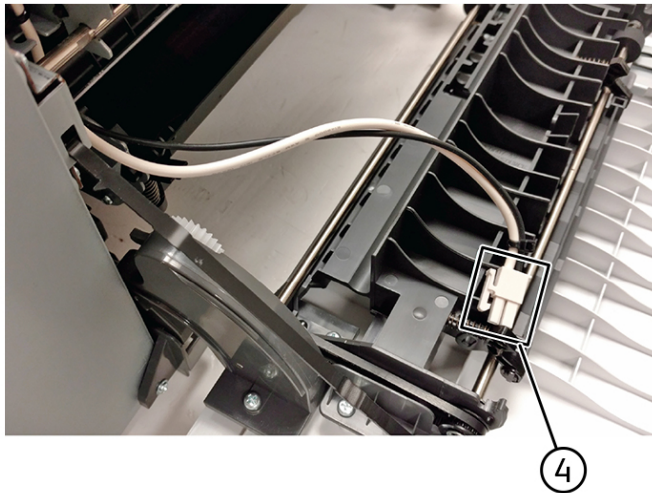


C410S\_4131

7. Position the fuser cable (4) so that it can be pulled through from the front of the printer, and then guide the cable through the front.

### Potential Damage:

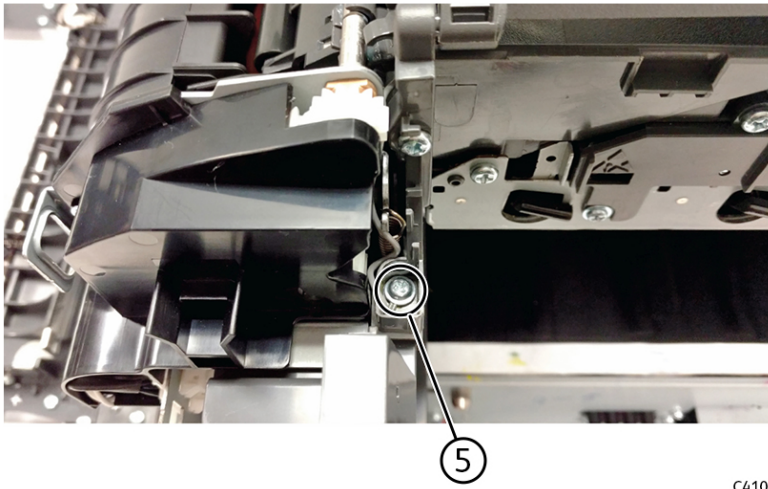
Do not to damage the cable by pulling too hard or cutting the cable insulation.



C410S\_4132

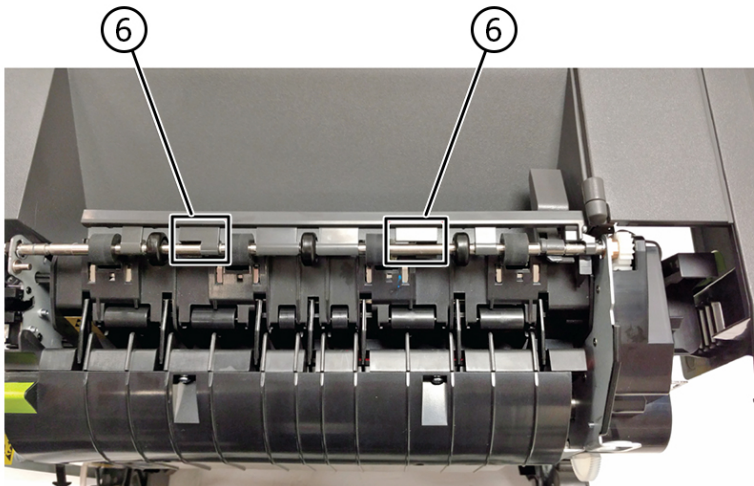
8. Remove the narrow media/exit sensor flag. See [Narrow Media/Bin Full Sensor Flag Removal](#)

9. Disconnect the ground wire (5) from the front toner cover bracket, and then route it to the front of the printer.



C410S\_4133

10. Release the tabs (6), and then rotate the exit deflector to remove.

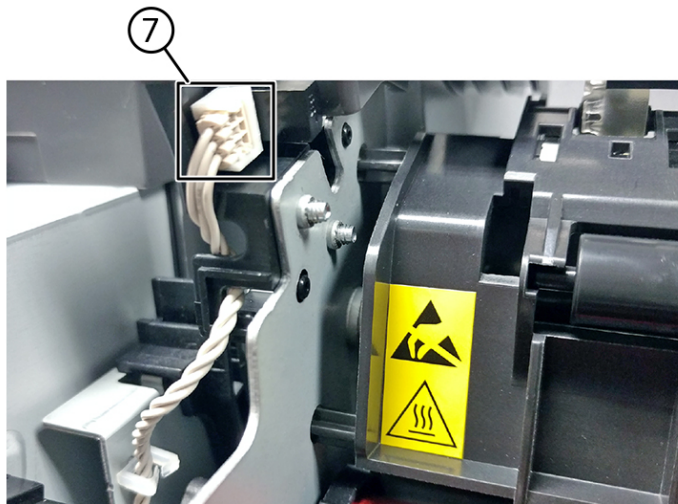


C410S\_4134

11. Remove the right out put bin deflector. See [Right Output Bin Deflector Removal](#)

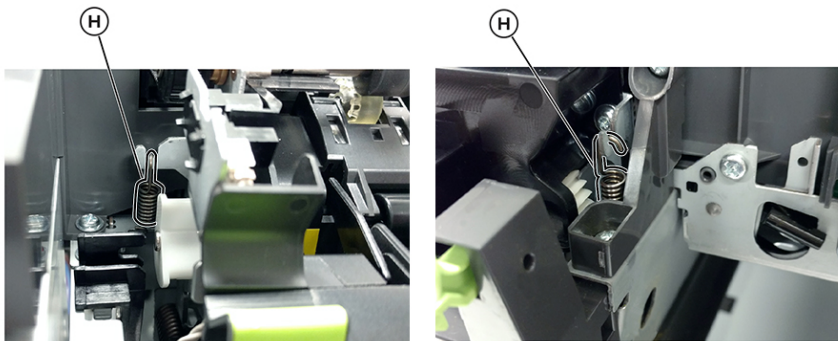
## Parts Removal

12. Disconnect the cable (7) from the bin-full/narrow media sensor, and then remove the cable from its retainer.



C4105\_4135

13. Unhook the two springs (8) from both sides of the fuser.

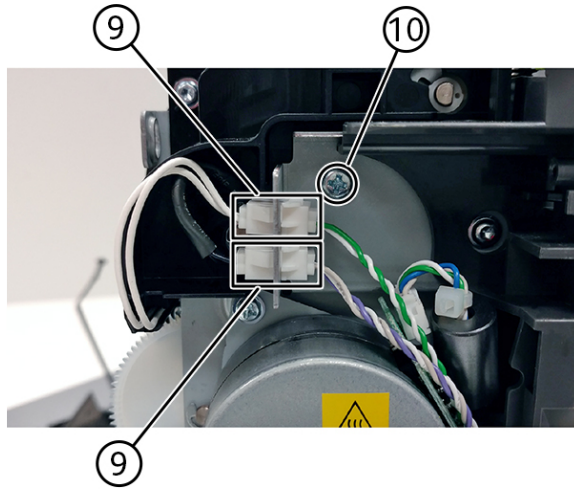


C4105\_4136

14. Disconnect the two cables (9), and then pull them over the retainer.

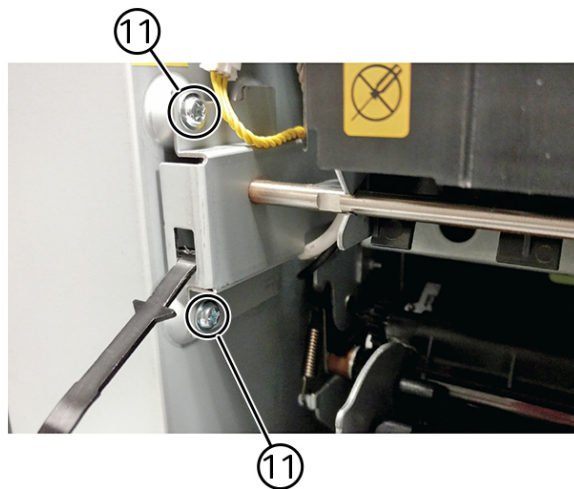


15. Remove the screw (10).



C410S\_4137

16. Remove the two screws (11).

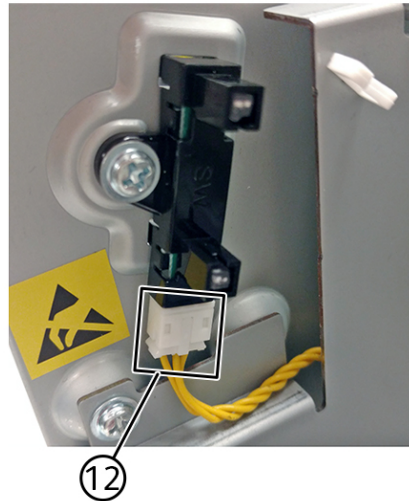


C410S\_4138

17. Rotate the top of the fuser toward the front, and then slide the fuser to the left to align the fuser side frames with the flat area of the shaft.

## Parts Removal

18. Disconnect the fuser exit sensor cable (12).

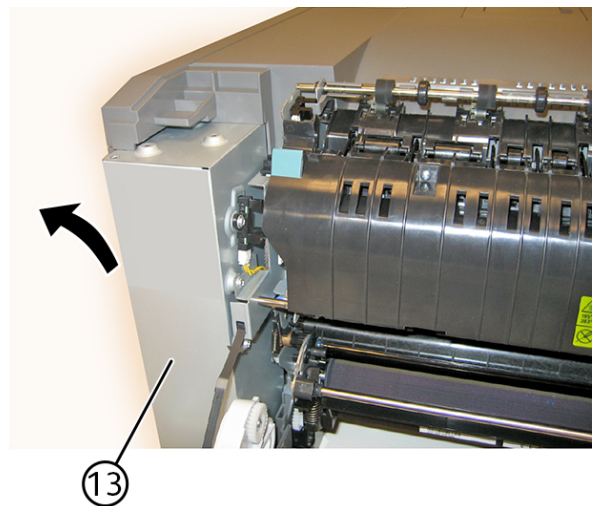


C410S\_4139

19. Lift the front left corner of the top cover, and then tilt the LVPS cage (13) to remove the cage.

### Notes:

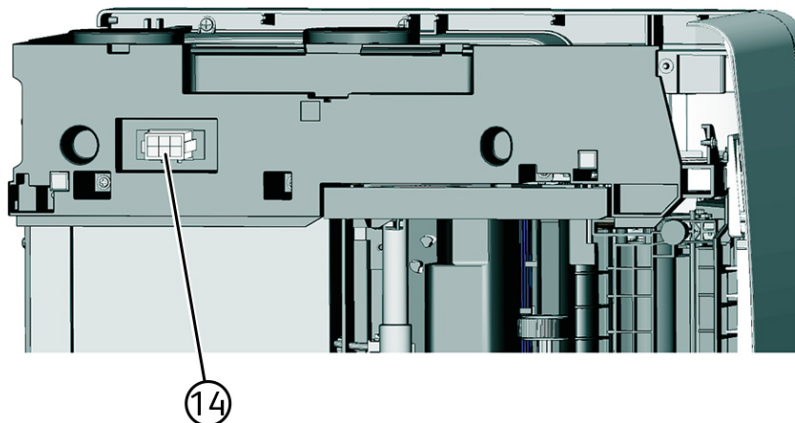
- There are two posts at the bottom of the cage on the left side that need to be disengaged.
- Pay attention to the sensor (fuser exit) which remains with the cage.



C410S\_4140

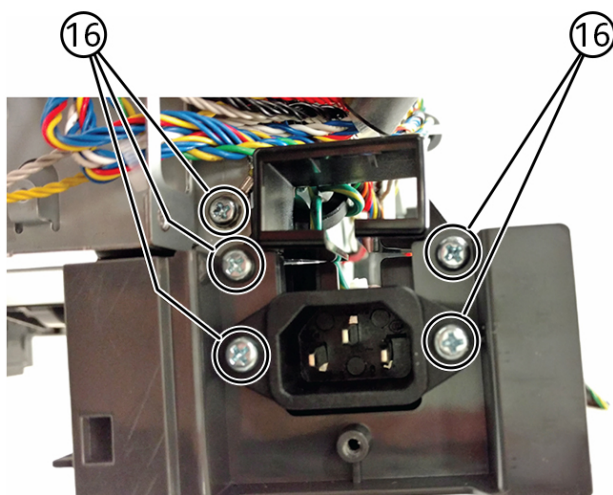
20. Place the printer on its right side.

21. Remove the connector (14).



C410S\_4141

22. At the rear of the printer, remove the five screws (16).

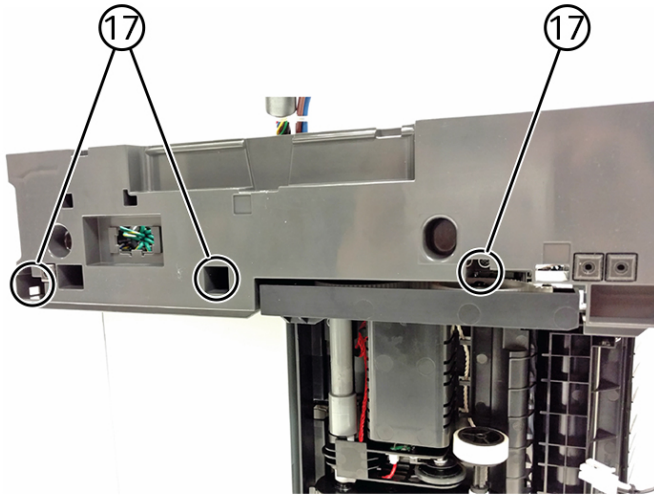


C410S\_4142

23. Remove the AC receptacle from the left lower frame.

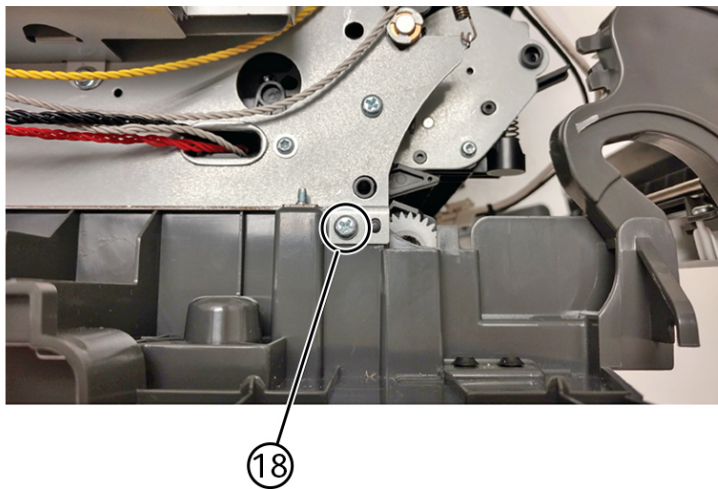
## Parts Removal

24. Remove the three screws (17).



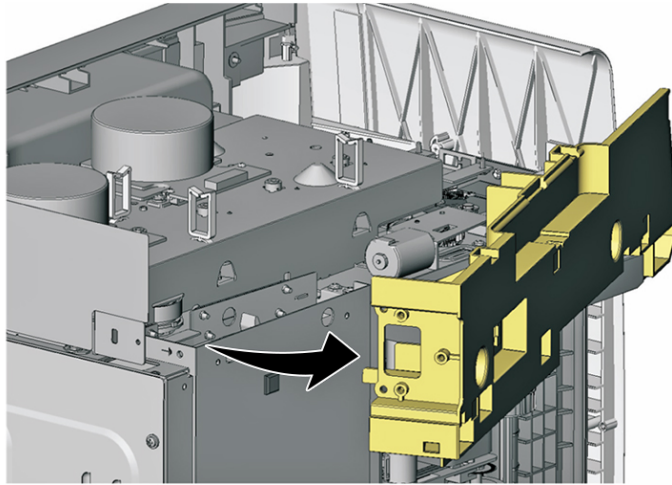
C410S\_4143

25. Tilt the front door down, disconnect the left and right door straps, and then separate the door from the frame.
26. Remove the screw (18).




C410S\_4144

- Swing the left lower frame away from the printer to remove.

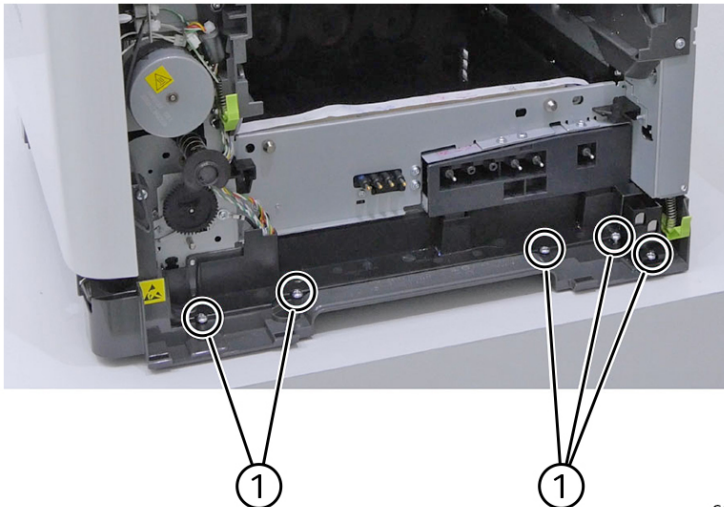


C410S\_4145

## Lower Right Frame Removal

 **Note:** For a video demonstration, see [Lower Right Frame Removal](#).

- Open the front door.
- Remove the right cover.
- Remove the toner cartridges.
- Remove the waste toner bottle.
- Remove the imaging kit.
- Remove the five screws (1).

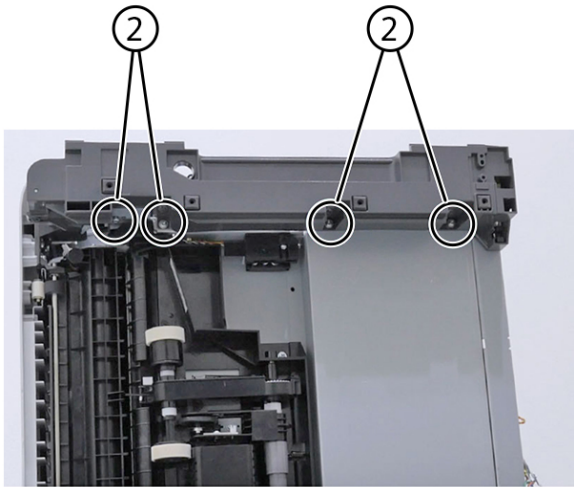


C410S\_4086

- Place the printer on its left side.

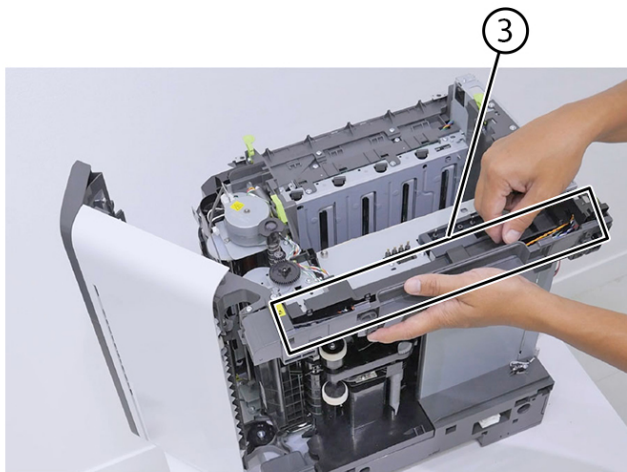
## Parts Removal

8. Remove the four screws (2).



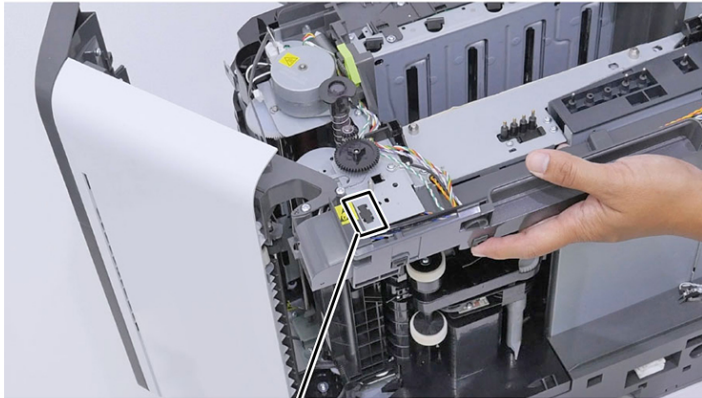
C410S\_4146

9. Remove the cable cover (3).



C410S\_4147

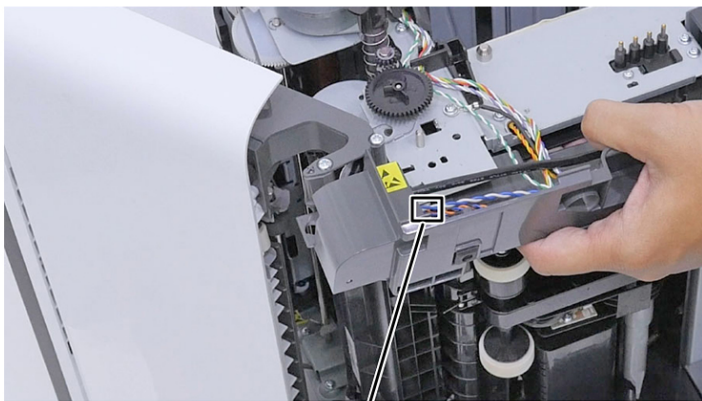
10. Remove the sensor retainer plate (4).



4

C410S\_4148

11. Disconnect the connector (5).

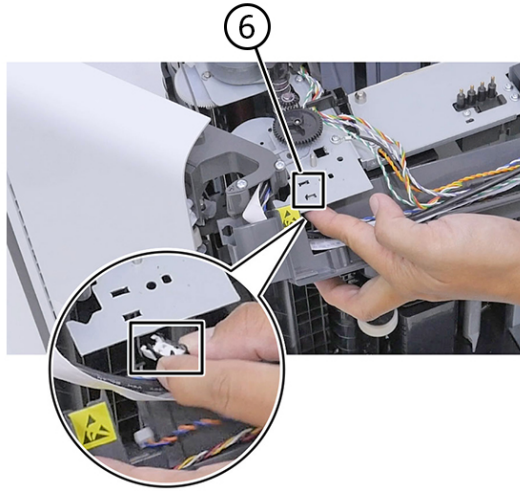


5

C410S\_4149

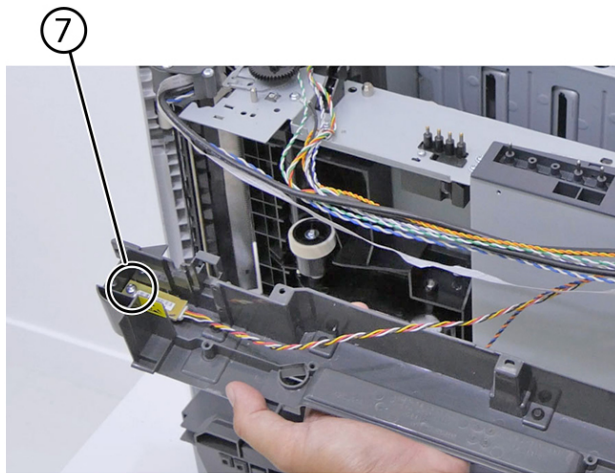
## Parts Removal

12. Remove the sensor (6).



C410S\_4150

13. Remove the screw (7), and then remove the lower right frame.



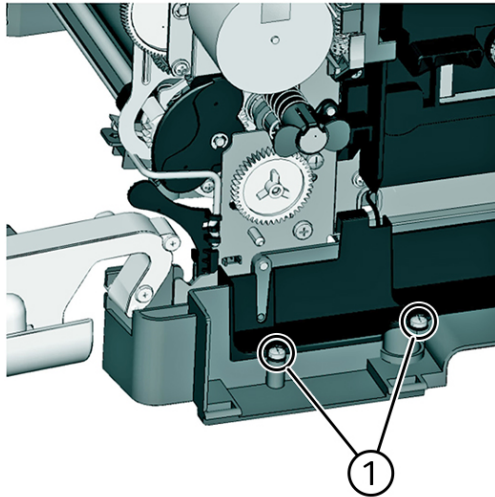
C410S\_4151

## Sensor (duplex) Removal

1. Remove the imaging kit. See [Imaging Kit Removal](#)

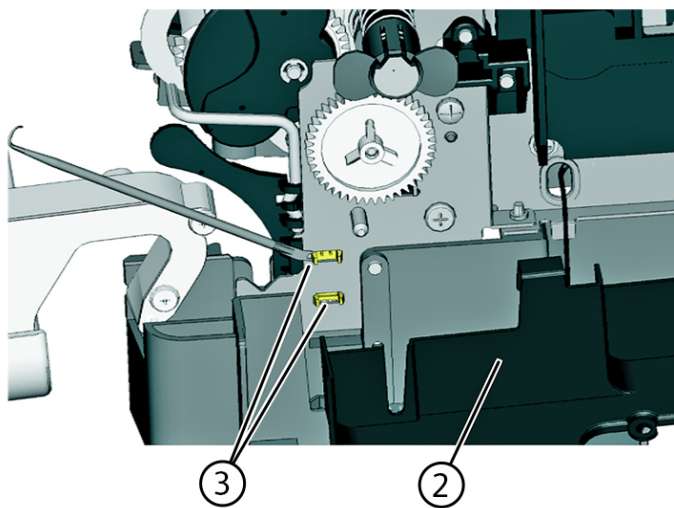


2. Remove the two screws (1).



C410S\_4152

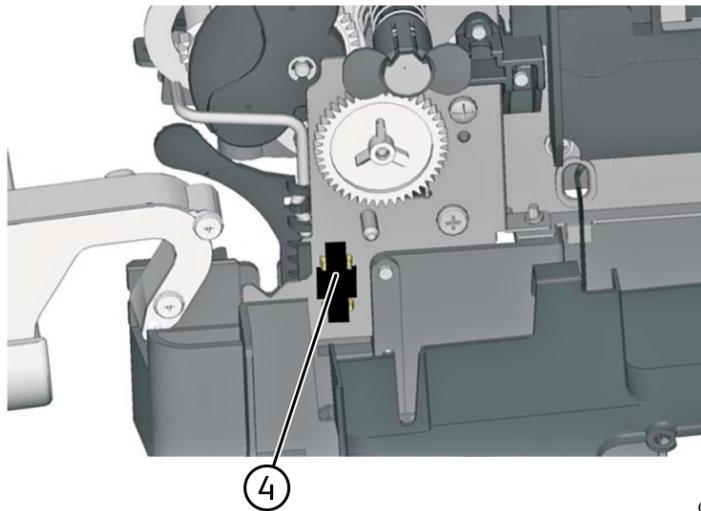
3. Pull the corner of the cable cover (2) away from the right side to access the two sensor posts (3).



C410S\_4153

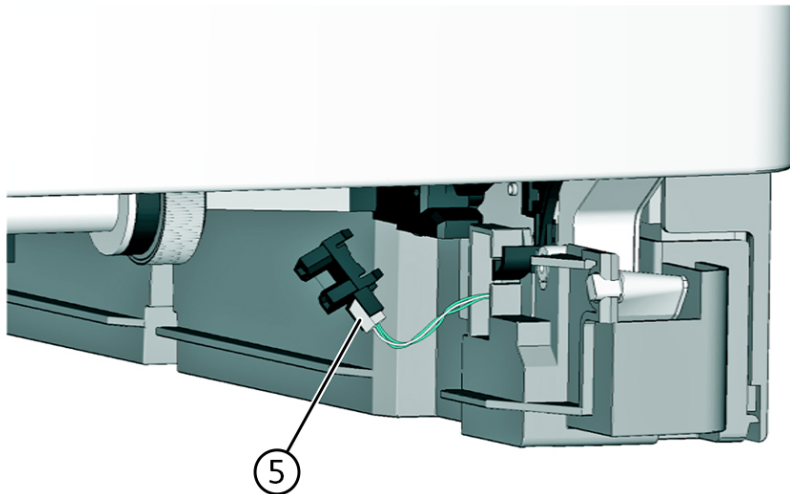
## Parts Removal

4. Remove the sensor plate (4).




C410S\_4154

5. Press on the latches to detach the sensor from the printer frame.
6. Disconnect the cable (5).



C410S\_4155

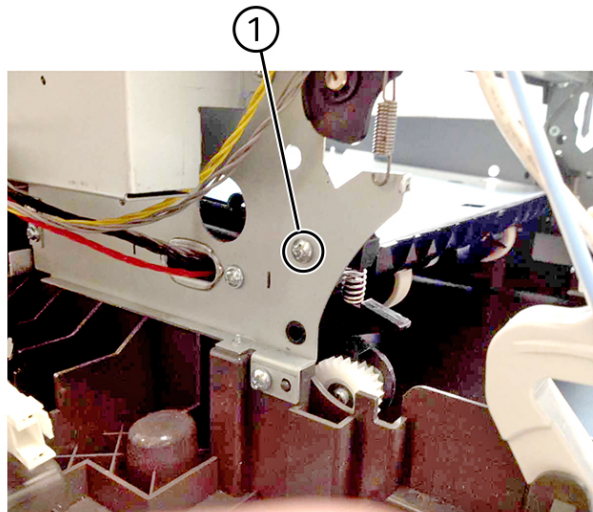
### Installation notes:

- Clean the contact surface where the sensor retaining plate was removed before installing the new sensor.
  -  **Note:** Make sure that the clamps on the sensor legs are securely attached to the printer frame.
- Remove the backing from the new sensor retaining plate, and then place the plate on the surface between the sensor mounting latches.

## Transfer Module Guide Removal


1. Remove the tray insert.

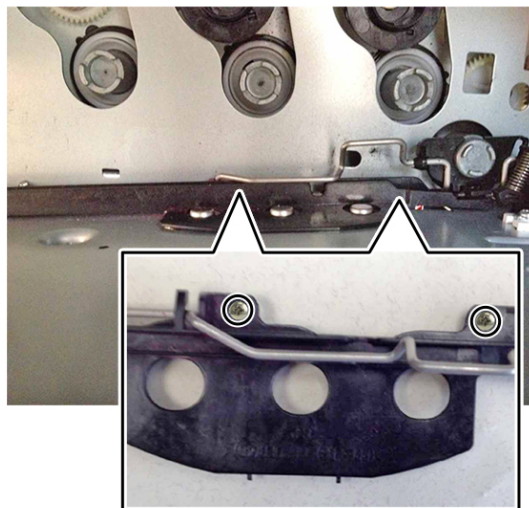
2. Remove the right cover.
3. Remove the waste toner bottle. See [Waste Toner Bottle Removal](#)
4. Remove the imaging kit. See [Imaging Kit Removal](#)
5. Remove the transfer module. See [Transfer Module Removal](#)
6. Remove the fuser. See [Fuser Removal](#)
7. Remove the left cover. See [Left Cover Removal](#)
8. Remove the LVPS. See [LVPS Removal](#)
9. Remove the lower right frame. See [Lower Right Frame Removal](#)
10. Remove the screw (1).



C410S\_4156

11. Remove the two screws securing the transfer module guide to the frame.


 **Note:** Use either a short #2 Phillips or a right angle screwdriver.

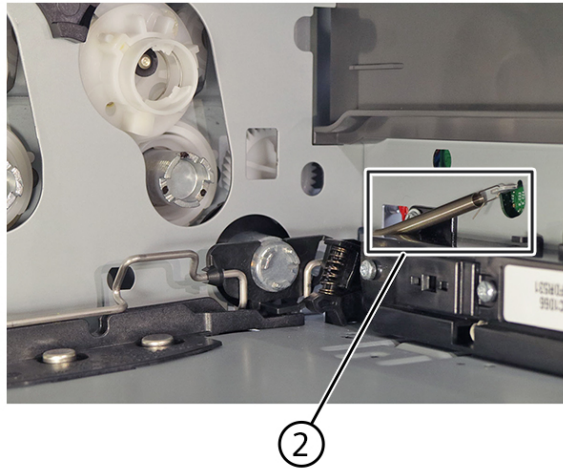


C410S\_4157

## Parts Removal

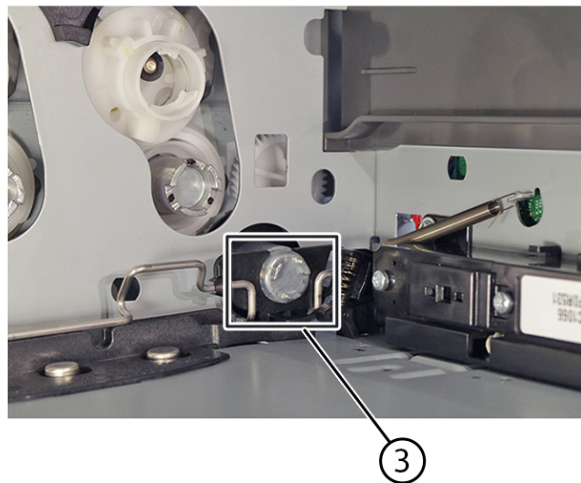
12. Remove the spring (2).

 **Note:** Pay attention to how the spring is attached to the bail.



C410S\_4263


13. Using a spring hook or screwdriver, press and hold the transfer module drive coupling (3), and then tilt the guide up from the side with the screw holes to remove it.



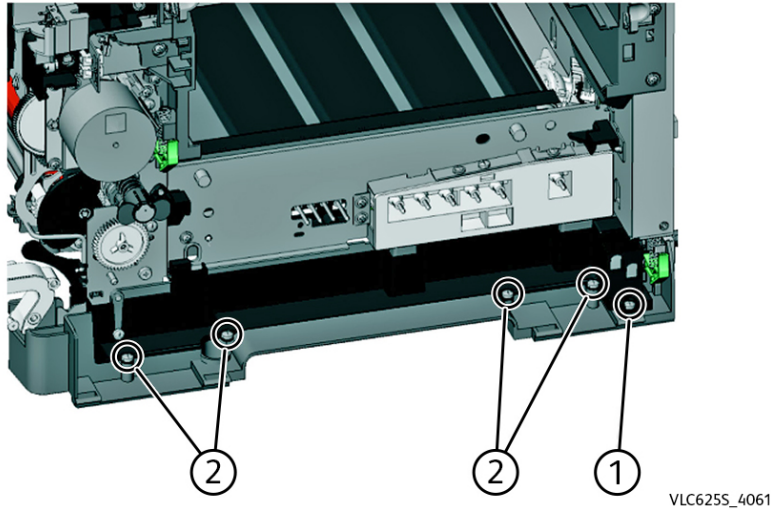
C410S\_4264

## Sensor (Tray Present) Removal

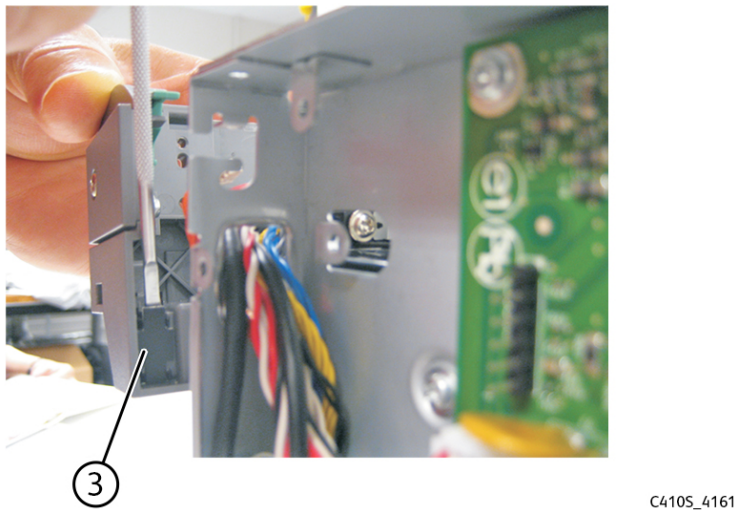
1. Remove the imaging kit. See [Imaging Kit Removal](#)
2. Remove the screw (1) securing the waste toner bottle sensor contact to access the cable cover.

 **Note:** Do not unplug the sensor contact.

- Remove the four screws (2), and then remove the cable cover.



- Remove the lower right frame. See [Lower Right Frame Removal](#)
- Remove the sensor retaining plate (3), and then press on the latches together to remove the sensor.



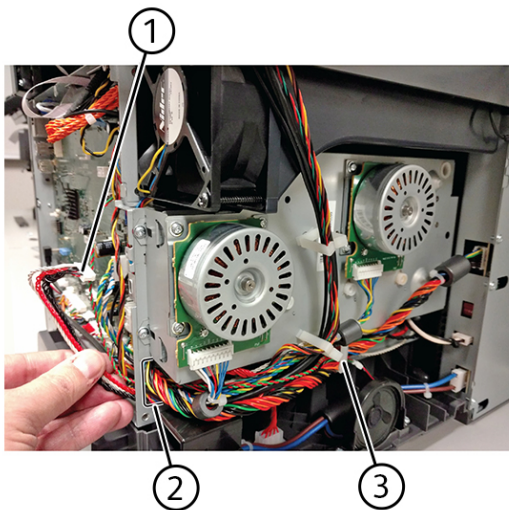
- Disconnect the sensor cable.

**Installation notes:**

- Clean the contact surface where the sensor retaining plate was removed before installing the new sensor.
- Remove the backing from the new sensor retaining plate, and then place the plate on the surface between the sensor mounting latches.
- Connect the cable to the sensor.
- Replace the spring.

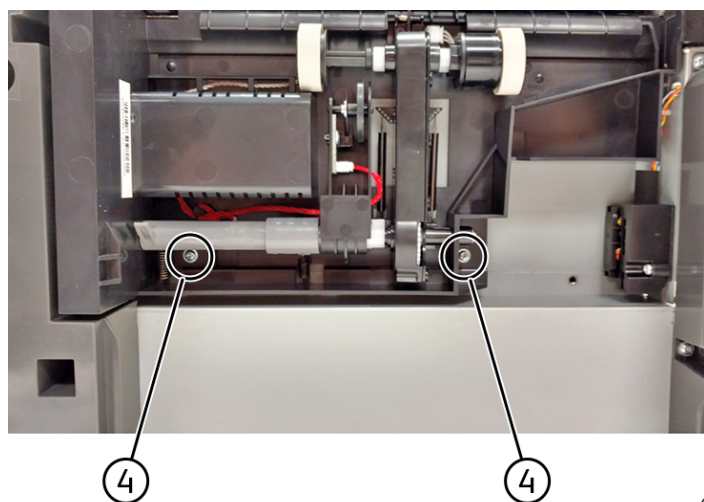
## Tray 1 Media Feeder Removal

1. Remove the waste toner bottle. See [Waste Toner Bottle Removal](#)
2. Remove the imaging kit. See [Imaging Kit Removal](#)
3. Remove the left cover. See [Left Cover Removal](#)
4. Remove the rear cover.
5. Disconnect the cable (1) from the JSP1 connector on the controller board.
6. Route the cable through the opening (2), and then remove the cable from its retainer (3).



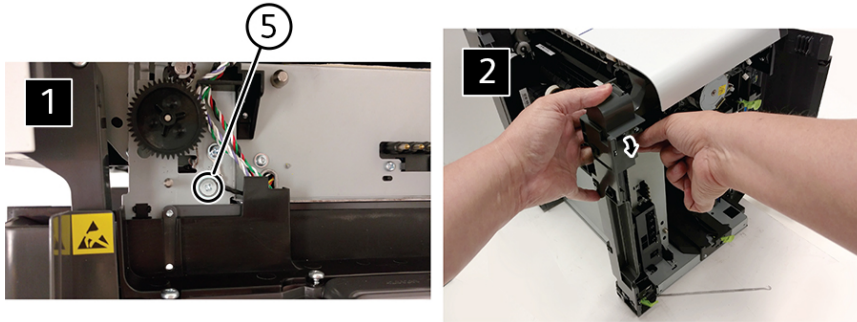
C410S\_4162

7. Partially reinstall the rear cover to protect the controller board.
8. Place the printer on its rear, and then remove the two screws (4).




C410S\_4163

9. On the right side, loosen the screw (5) with a screwdriver, and then remove it while holding the paper feed roller assembly.



C410S\_4164

10. Move the right side of the paper feed roller assembly out to free the shaft from the opening in the frame.

 **Note:** Pay attention to the location of the shaft and the opening in the frame.

11. Remove the paper feed roller assembly.

**Installation notes:**

- a. Place the left side of the paper feed roller assembly in the printer. Make sure that the shaft on the left side aligns with the hole in the frame.
- b. Reinstall the three screws holding the paper feed roller assembly to the printer.
- c. Place the printer on the upright position.
- d. Reroute the cable, and then make sure to secure the cable in its retainer on the left side.
- e. Remove the rear cover, and then reconnect the cable on the controller board.
- f. Replace the rear cover.

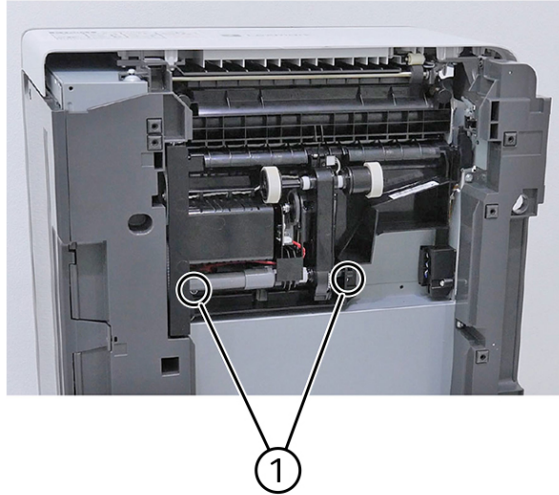
## Pick Roller Removal

 **Note:** For a video demonstration, see [Pick roller removal](#).

1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.

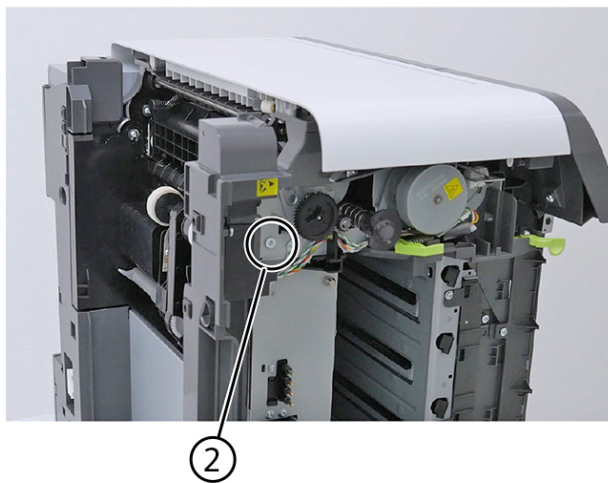
## Parts Removal

6. Place the printer on its rear side, and then remove the two screws (1).



C410S\_4165

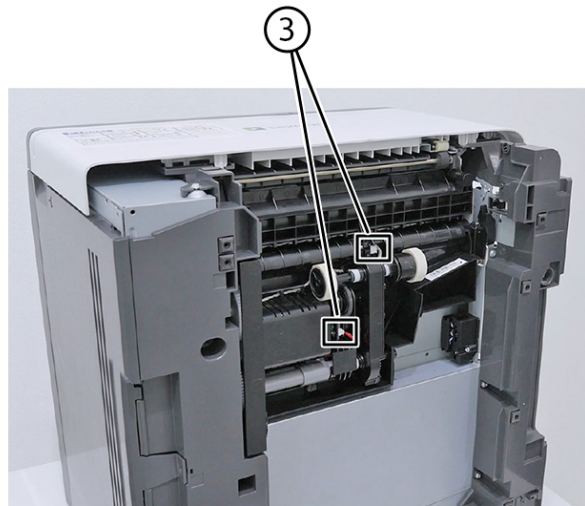
7. On the right side, loosen the screw (2).



C410S\_4166

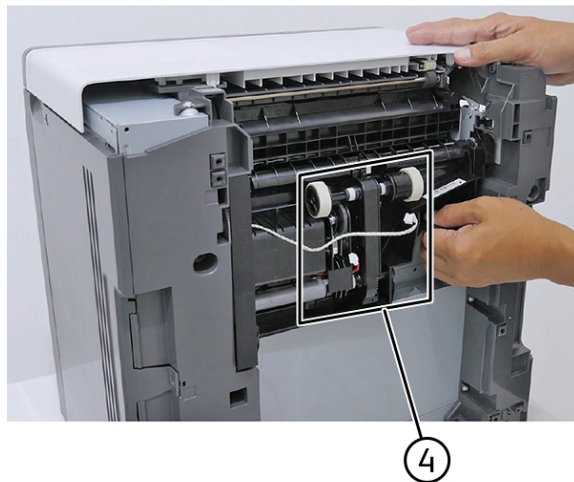


8. Disconnect the connectors, and then unrout the two cables (3).



C410S\_4167


9. Remove the pick roller (4).  
Disconnect the connectors before fully removing the pick roller.



C410S\_4168

## Rear Side Removals

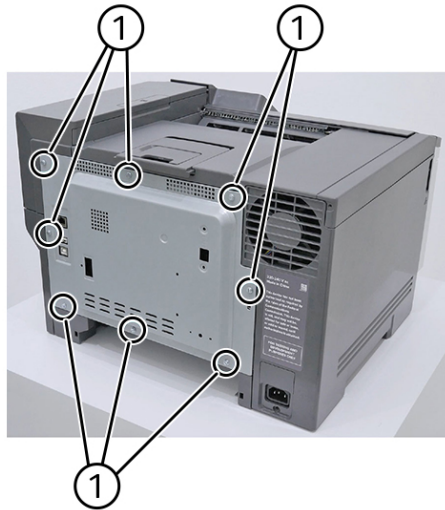
### Engine Board Removal

 **Note:** For a video demonstration, see [Engine board removal](#).

**Potential Damage:**

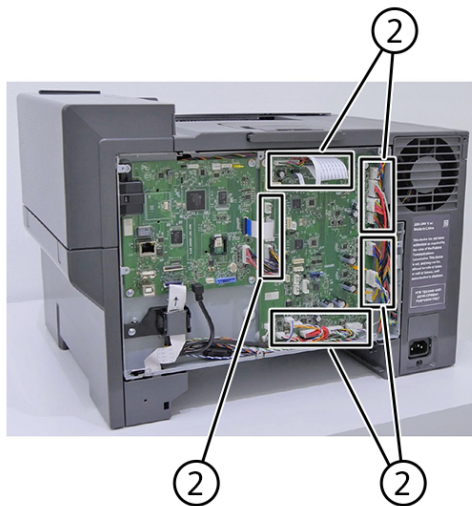
To avoid NVRAM mismatch issues, replace the engine board and controller board one at a time.

1. Remove the eight screws (1), and then remove the rear cover.



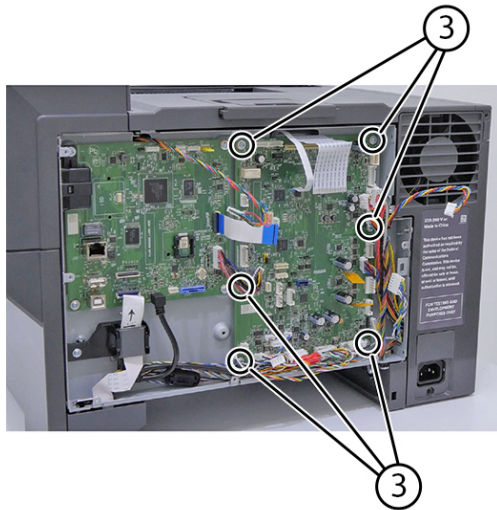
C410S\_4068

2. Disconnect all the connectors (2).



C410S\_4069

3. Remove the six screws (3).

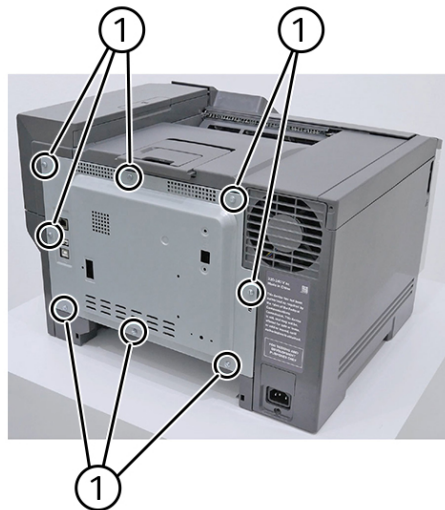


C410S\_4070

4. Remove the engine board.

## Rear Cover Removal


1. Remove the eight screws (1).



C410S\_4068

2. Remove the rear cover.

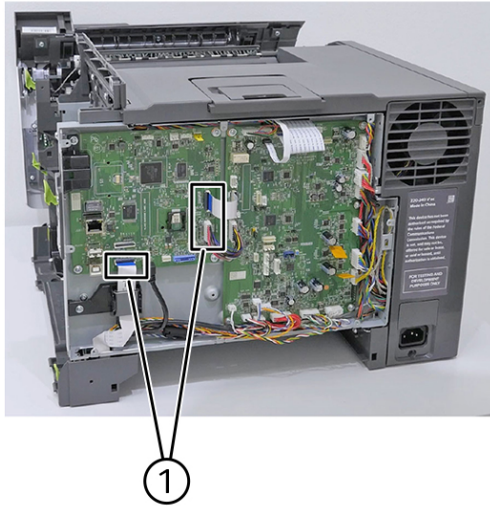
## Controller Board Removal

 **Note:** For a video demonstration, see [Controller Board Removal](#)

1. Remove the wireless module. See [Wireless Module Removal](#)


## Parts Removal

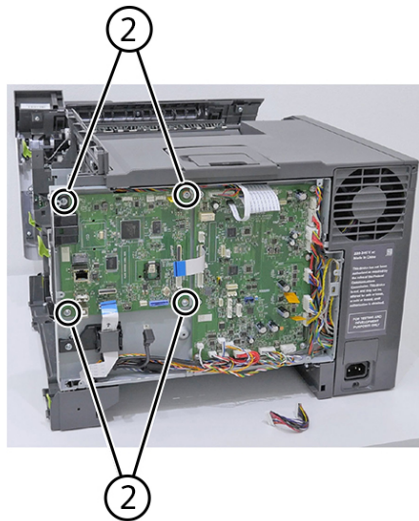
2. Disconnect the two connectors (1).



C410S\_4170

3. Remove the four screws (2).

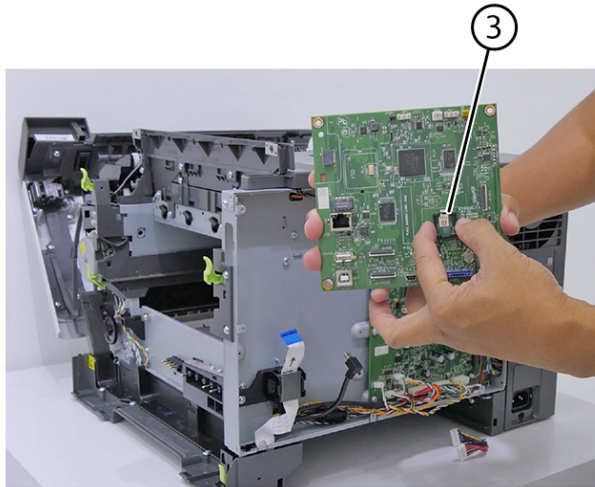
 **Note:** Before removing the last screw, remove the wireless module first.



C410S\_4171

4. Remove the controller board.


5. Remove the TPM (Trusted Platform Module) (3) to be installed on the new controller board.



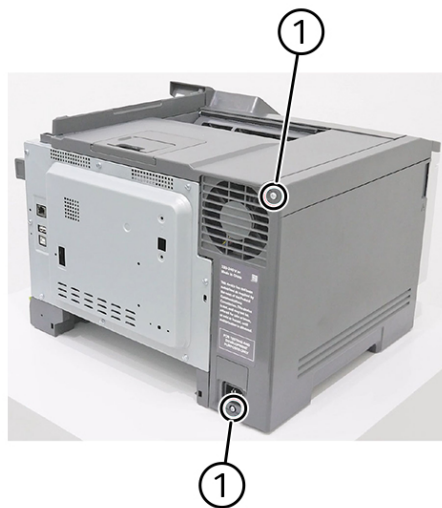
C410S\_4172

**Installation Note:** Reinstall the TPM back to the new controller board.

## Fan Removal

 **Note:** For a video demonstration, see [Fan removal](#).

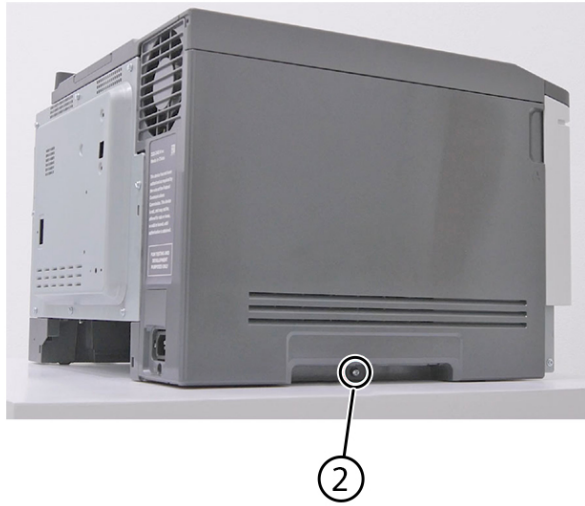
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.
6. Remove the two screws (1) at the back.



C410S\_4041

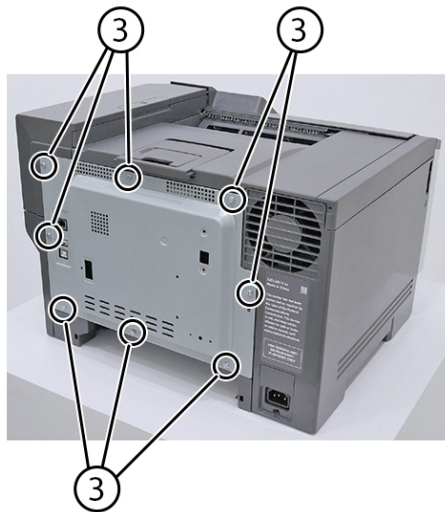
## Parts Removal

7. Remove the screw (2) on the left side.



C410S\_4042

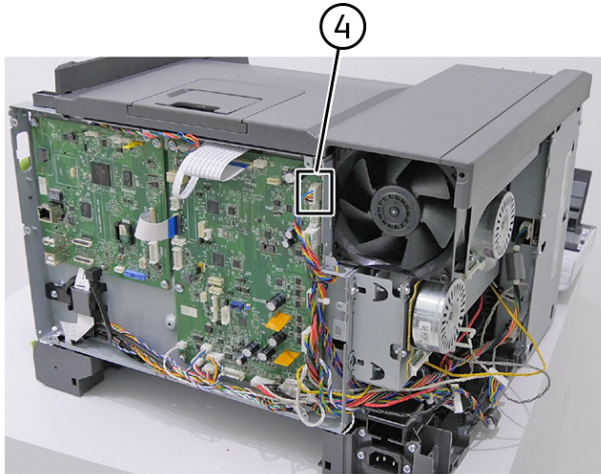
8. Remove the eight screws (3), and then remove the rear cover.



C410S\_4173

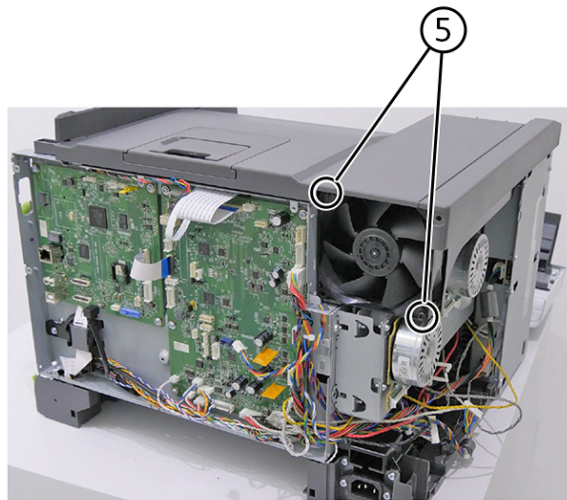
9. Remove the left cover.

10. Disconnect the connector (4) from the engine board.



C410S\_4174

11. Remove the two screws (5) from the fan.




C410S\_4175

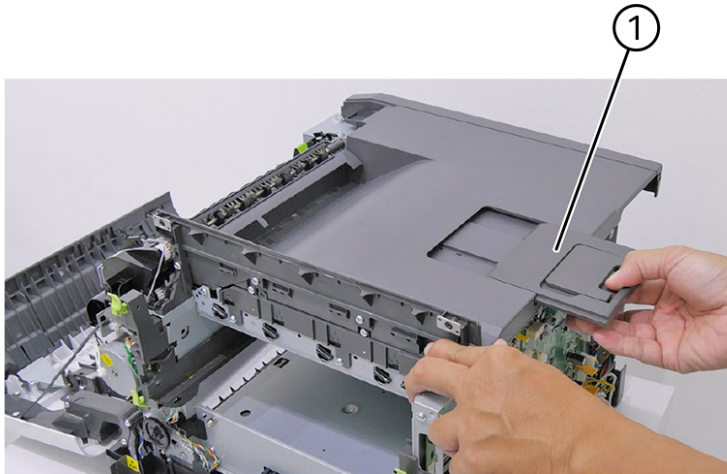
12. Remove the fan.

## Top Side Removals

### Top Cover Removal

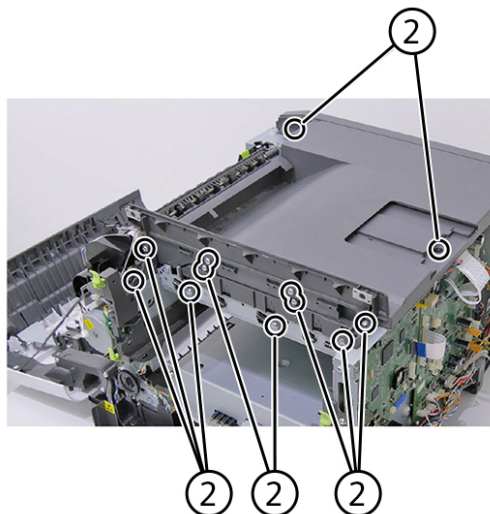
 **Note:** For a video demonstration, see [Top cover removal](#).

1. Remove the fan. See [Fan Removal](#).
2. Remove the bin extender (1).



C410S\_4176

3. Remove the 12 screws (2).



C410S\_4177

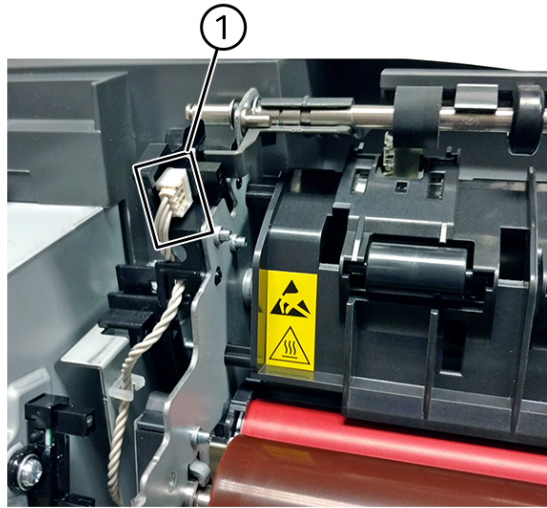
4. Remove the top cover.

### Sensor (Narrow Media/Output Bin Full) Removal

1. Open the front door.

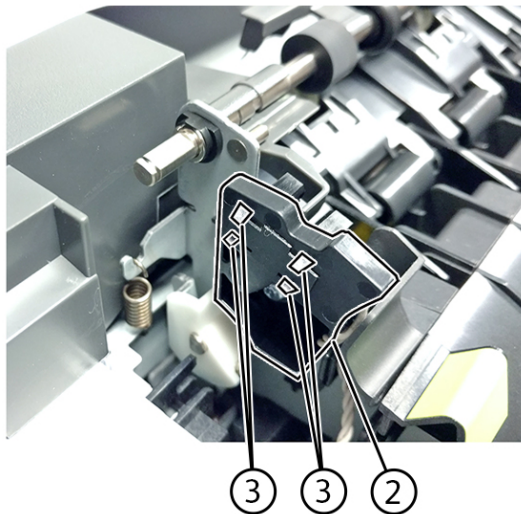


- Remove the cable (1) from its retainer, and then disconnect it.  
**Installation note:** Pay attention to the cable routing.



C410S\_4178

- Remove the sensor retaining plate (2), and then pinch the four latches (3) to remove the sensor.



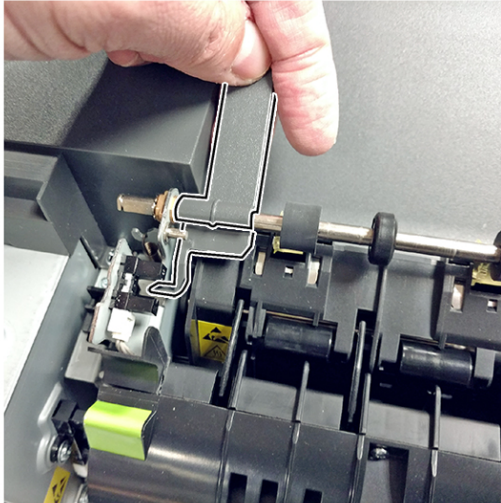
C410S\_4179

#### Installation Notes:


- Clean the contact surface where the sensor retaining plate was removed before installing the new sensor.
- Guide the latches that hold the sensor to the bracket.
- Squeeze the latches together until they latch to the frame.
- Remove the backing from the new sensor retaining plate, and then place the plate on the surface between the sensor mounting legs.
- Reconnect the cable, and then guide the cable through its retainer.

## Narrow Media/bin Full Sensor Flag Removal

1. Open the front door.
2. Push up on the tab to release the flag, and then remove it.



C410S\_4180

 **Note:** Be careful not to dislodge the sensor. The flag must be installed on the fuser while the fuser is out.

## Printhead Removal

 **Note:** For a video demonstration, see [Printhead removal](#).

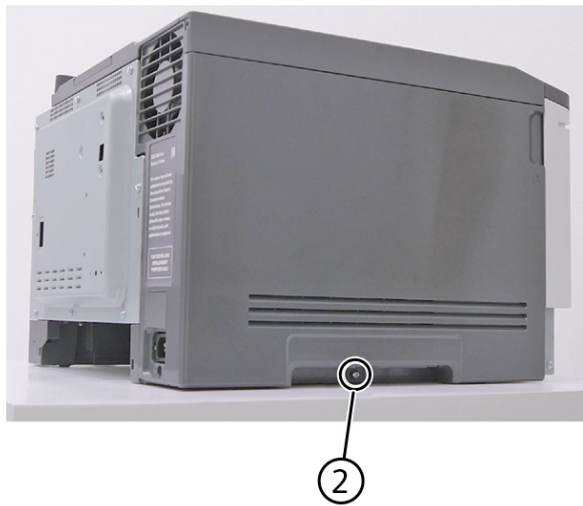
1. Open the front door.
2. Remove the right cover.
3. Remove the toner cartridges.
4. Remove the waste toner bottle.
5. Remove the imaging kit.

6. Remove the two screws (1) at the back.



C410S\_4041

7. Remove the screw (2) on the left side.



C410S\_4042

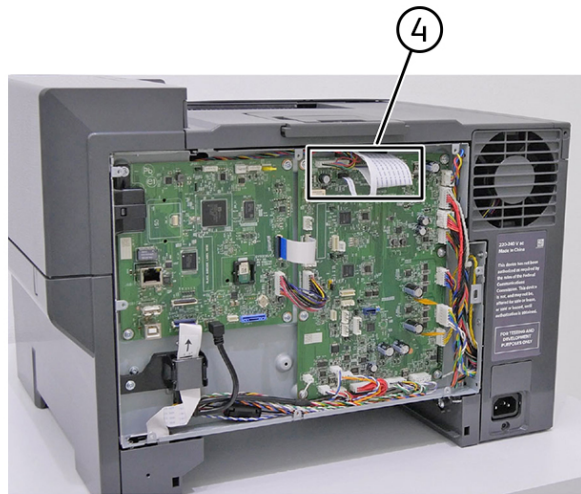
## Parts Removal

8. Remove the eight screws (3), and then remove the rear cover.



C410S\_4173

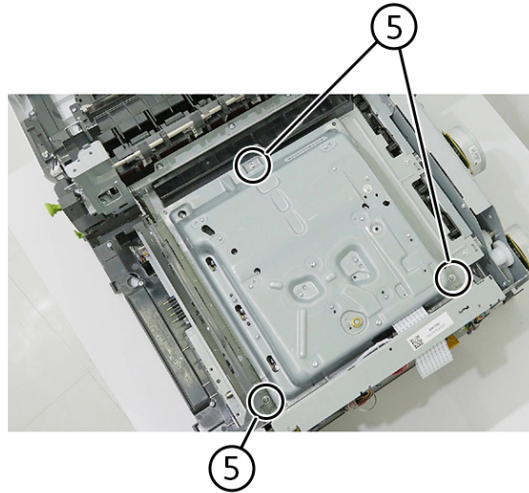
9. Disconnect the three connectors (4) from the engine board.



C410S\_4181

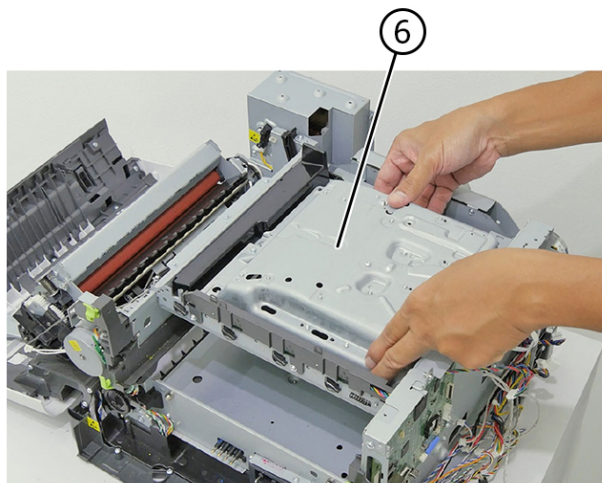
10. Remove the left cover.
11. Remove the fan. See [Fan Removal](#)
12. Remove the top cover. See [Top Cover Removal](#)

13. Remove the three screws (5).



C410S\_4182

14. Remove the printhead (6).



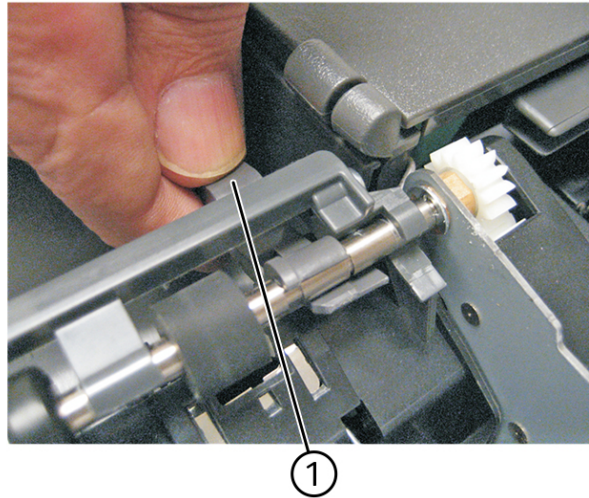
C410S\_4183

## Right Output Bin Deflector Removal

1. Open the front door.

## Parts Removal

2. Remove the deflector (1).

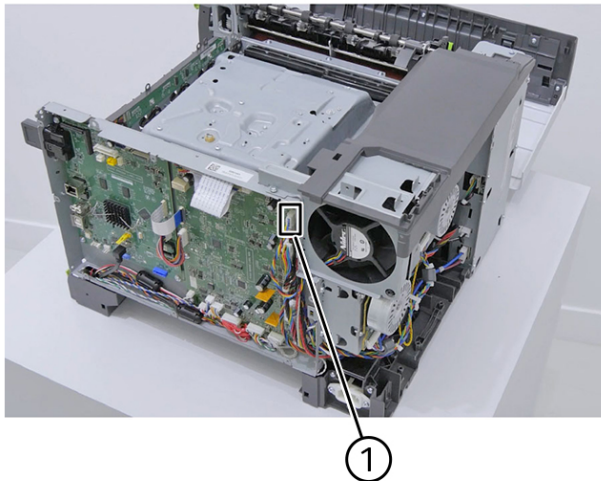


C410S\_4184

## Top Left Cover Removal

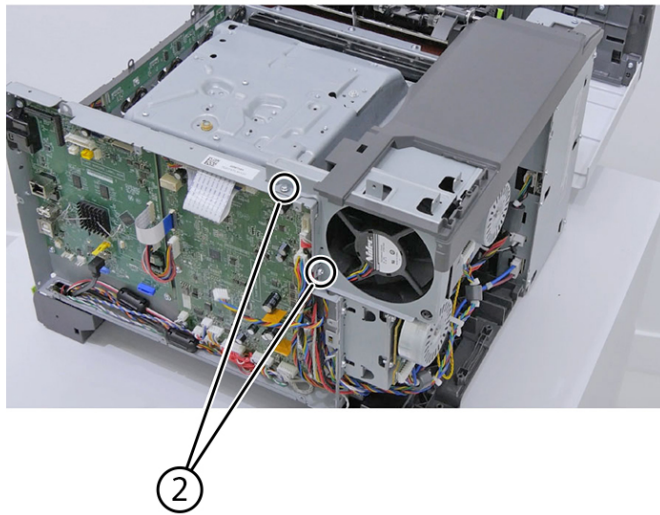
 **Note:** For a video demonstration, see [Top left cover removal](#).

1. Remove the top cover. See [Top Cover Removal](#)
2. Disconnect the connector (1).



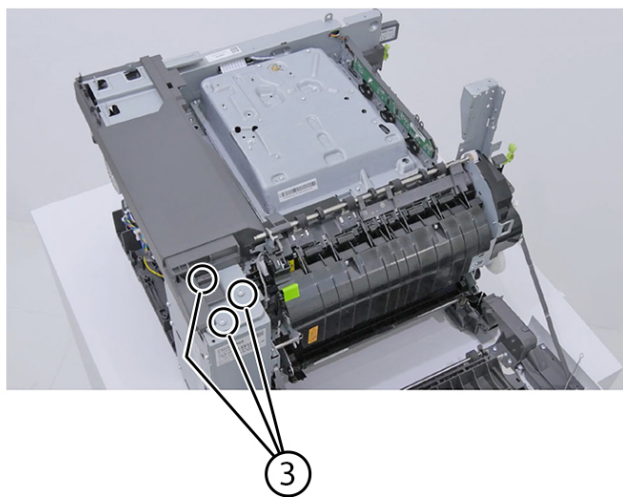
C410S\_4185

3. Remove the two screws (2).



C410S\_4186

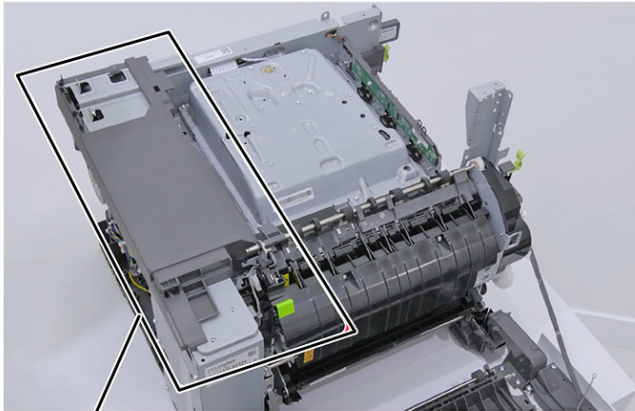
4. Remove the three screws (3).



C410S\_4187

## Parts Removal

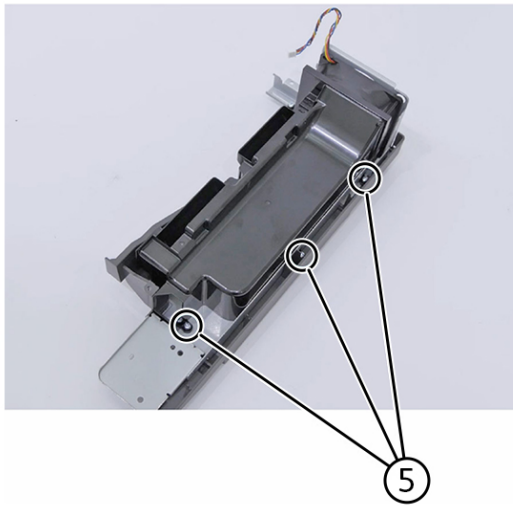
5. Remove the top left cover (4).



4

C410S\_4188

6. Remove the three screws (5).

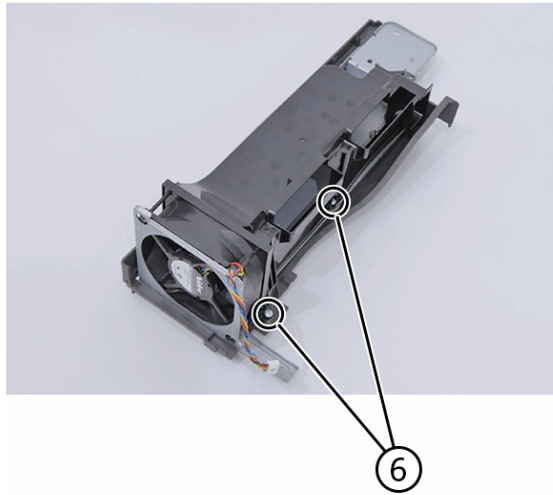


5

C410S\_4189

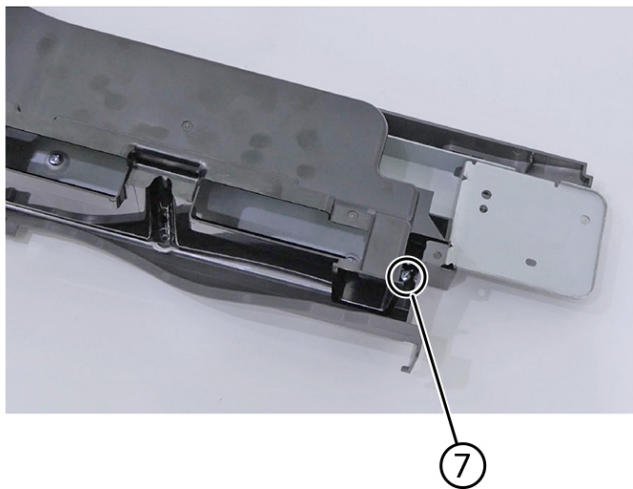


7. Remove the two screws (6).



C410S\_4190

8. Remove the screw (7).



C410S\_4191

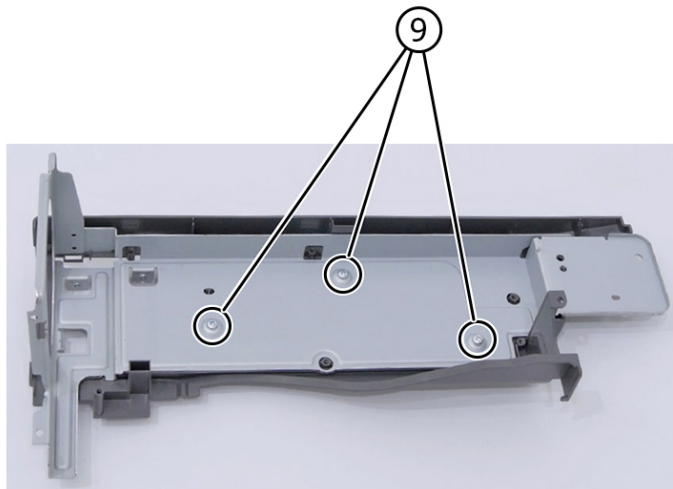
## Parts Removal

9. Remove the fan duct (8).



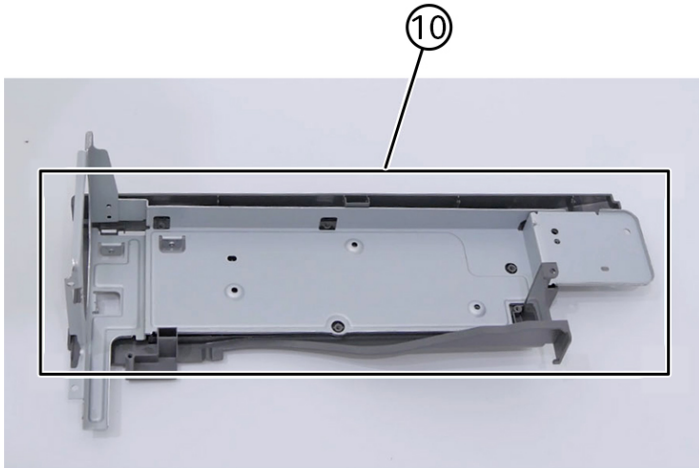
C410S\_4192

10. Remove the three screws (9).



C410S\_4193

11. Remove the frame (10).



C410S\_4194

## Options Removals

### 650-Sheet Duo Tray Insert Removal

Pull out to remove the tray insert.



C410S\_4195

### 650-Sheet Duo Tray Removal

**Potential Damage:**

Make sure that the printer is turned off before removing the tray.

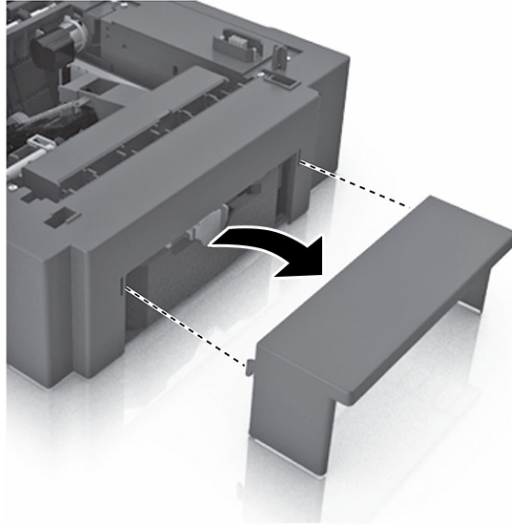
1. Carefully lift the printer, and set it aside on a flat surface.
2. Remove the tray.



C410S\_4196

## Dust Cover Removal

1. Slightly raise the dust cover.
2. Pull the dust cover to remove.

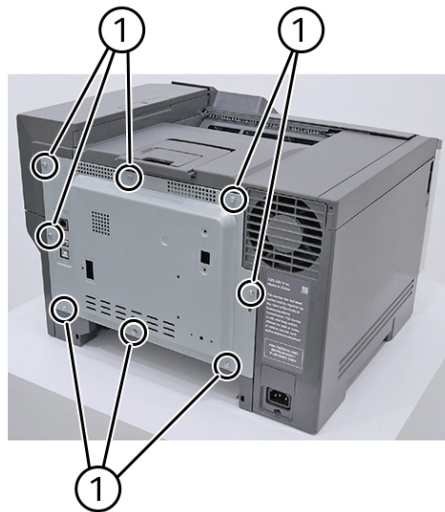


C410S\_4197

## Wireless Module Removal

 **Note:** For a video demonstration, see [Wireless module removal](#).

1. Remove the eight screws (1), and then remove the rear cover.

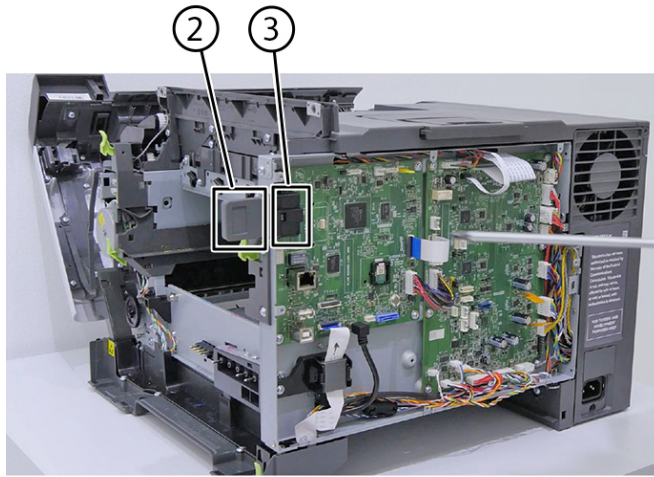


C410S\_4068

2. Open the front door.
3. Remove the right cover.
4. Remove the toner cartridges.

## Parts Removal

5. Remove the wireless module cover (2) and the wireless module (3).

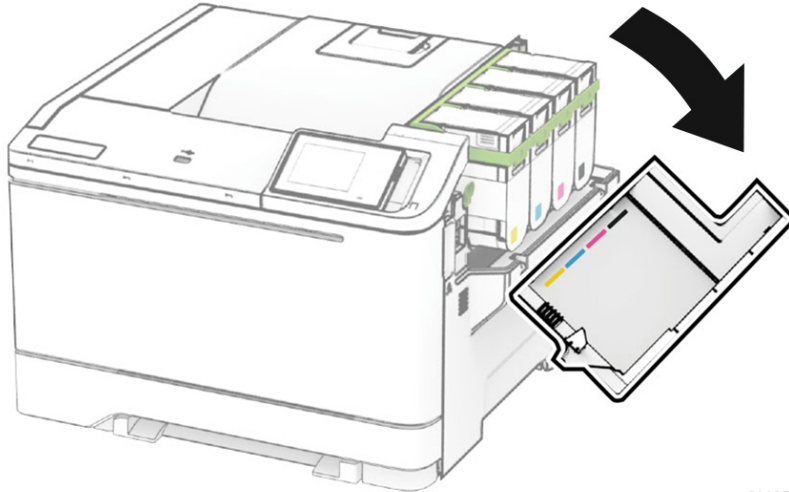


C410S\_4169

# Replacing Parts and Supplies

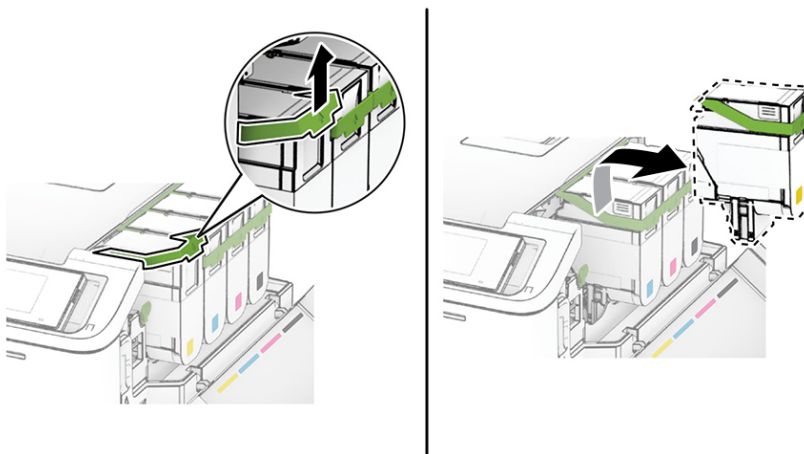
## Replacing a Toner Cartridge

1. Open door B.



C410S\_4256

2. Remove the used toner cartridge.

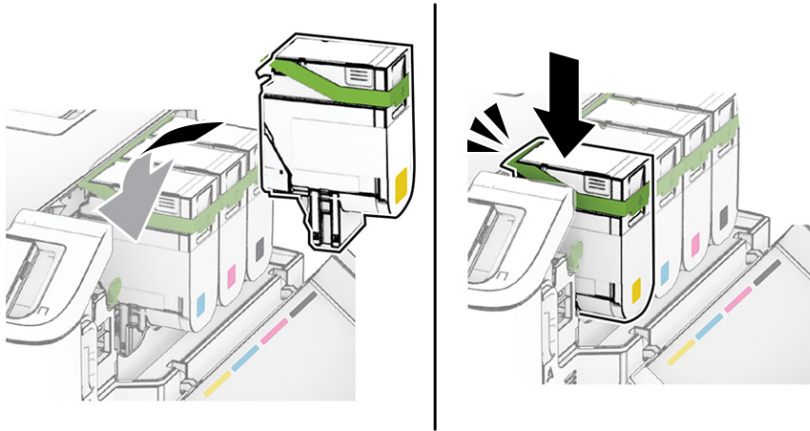


C410S\_4202

3. Unpack the new toner cartridge.

## Parts Removal

4. Insert the new toner cartridge until it clicks into place.

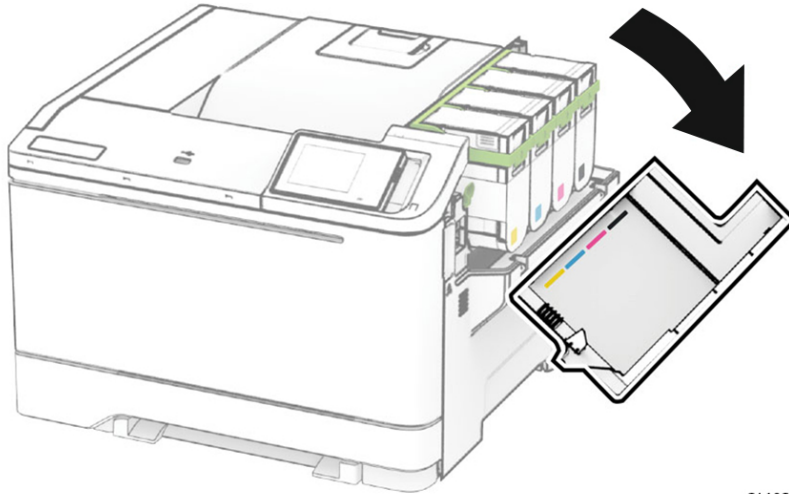


C410S\_4203

5. Close the door.

## Replacing an Imaging Kit

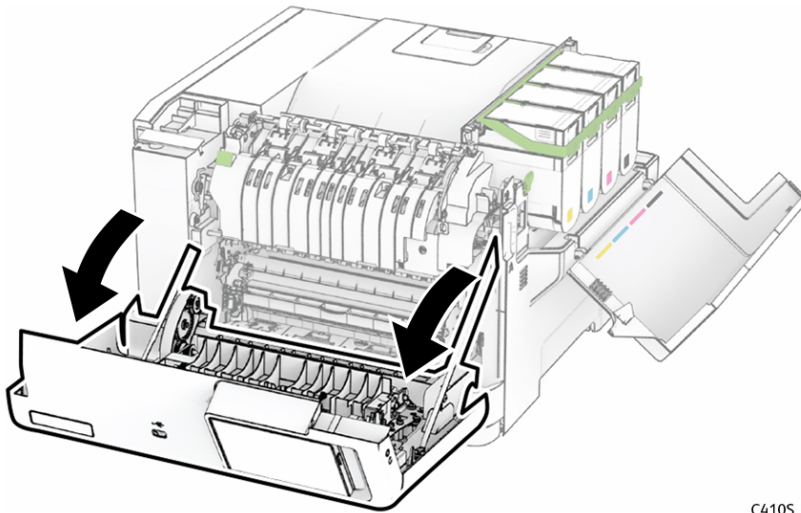
1. Open door B.



C410S\_4256

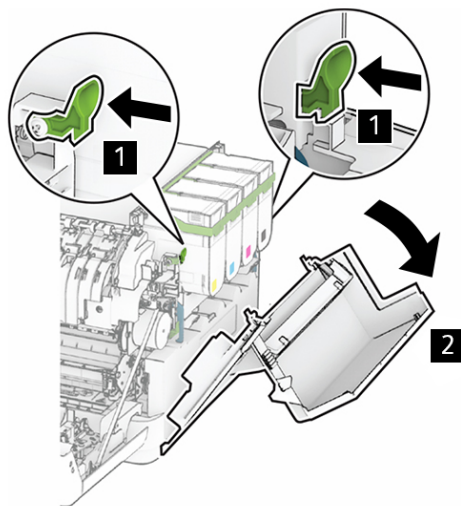


2. Open door A.



C410S\_4204

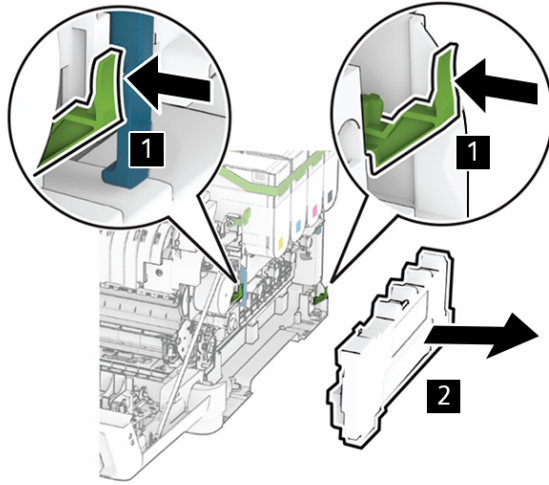
3. Remove the right cover.



C410S\_4206

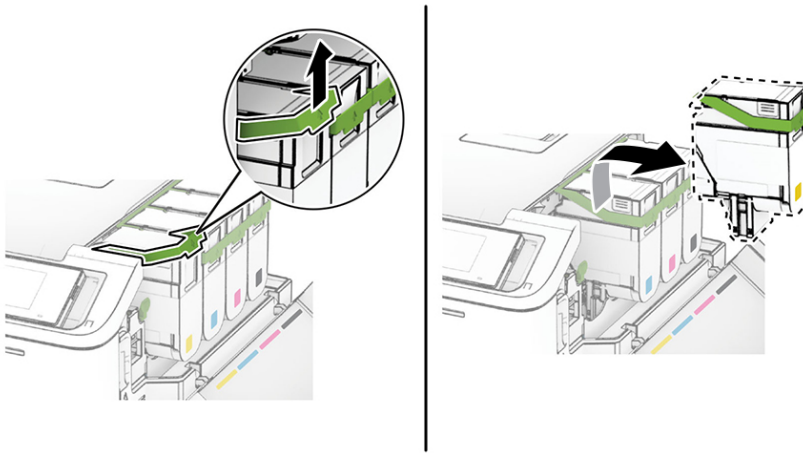
## Parts Removal

4. Remove the waste toner bottle.



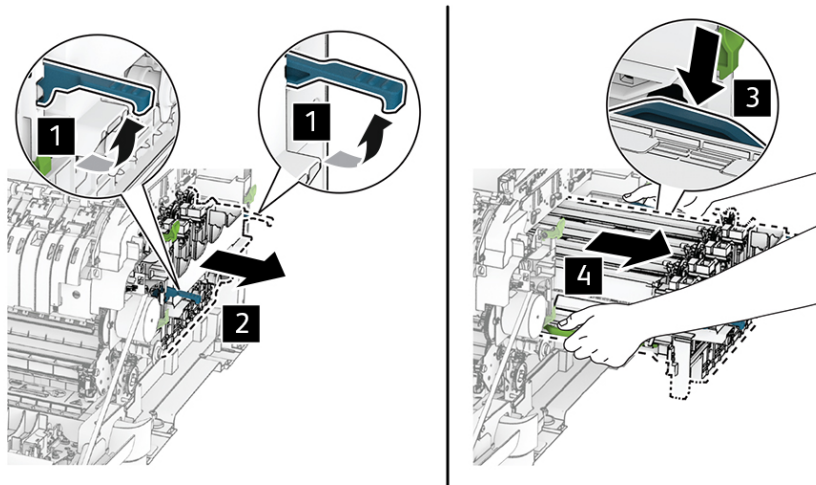
C410S\_4205

5. Remove the toner cartridges.



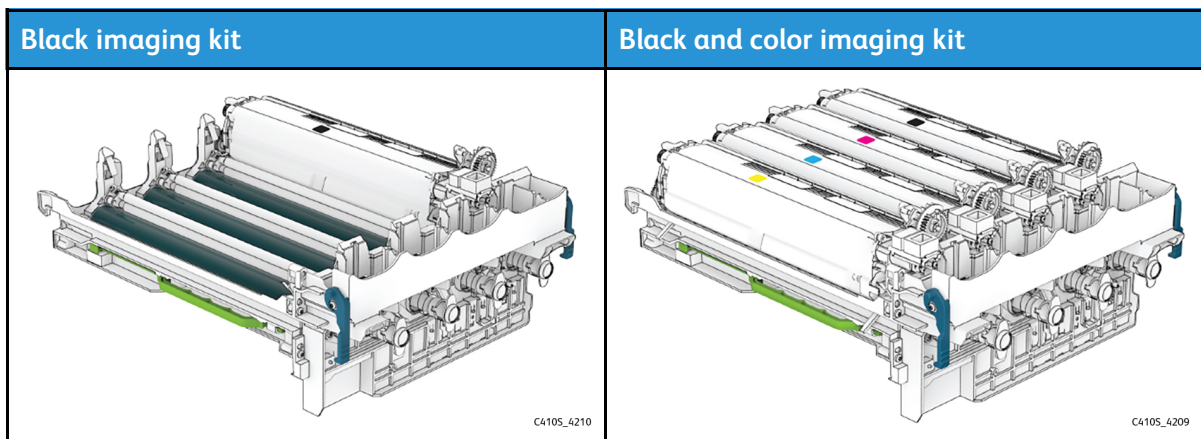
C410S\_4202

6. Remove the used imaging kit.



C4105\_4207

7. Unpack the new imaging kit.

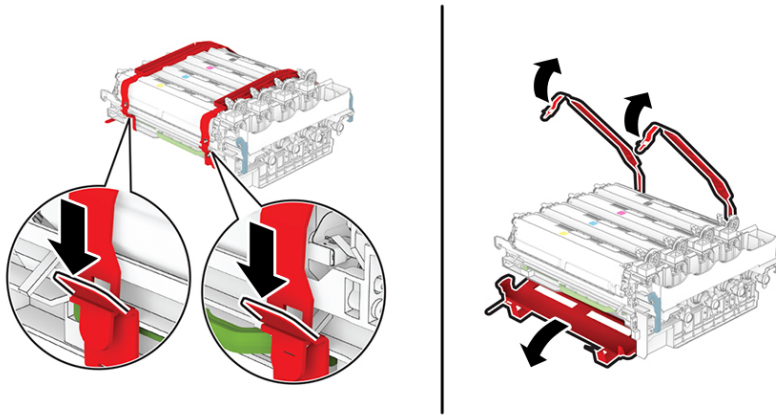


Notes:


- The black imaging kit includes the imaging kit and the black developer unit.
- The black and color imaging kit includes the imaging kit and the black, cyan, magenta, and yellow developer units.
- When replacing the black imaging kit, save the cyan, magenta, and yellow developer units from the used imaging kit.

## Parts Removal

8. Remove the packing material.



C410S\_4211

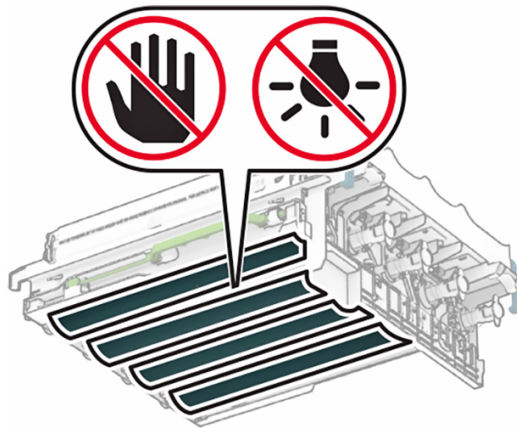
 **Note:** If you are replacing the black imaging kit, then insert the magenta, cyan, and yellow developer units into the new imaging kit.

### Potential Damage:

Do not expose the imaging kit to direct light. Extended exposure to light may cause print quality problems.

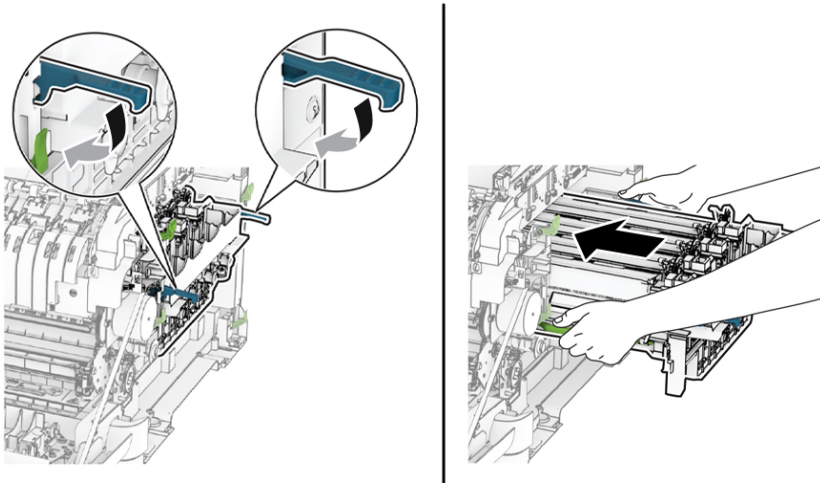
### Potential Damage:

Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.



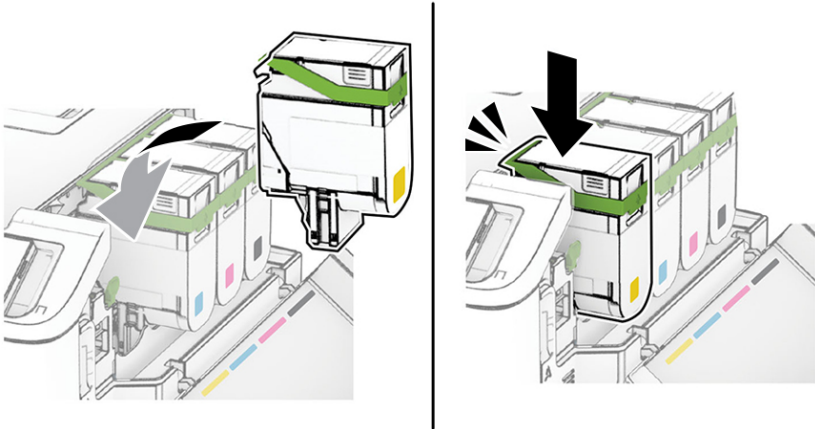
C410S\_4212

9. Insert the new imaging kit until it is fully seated.



C410S\_4208

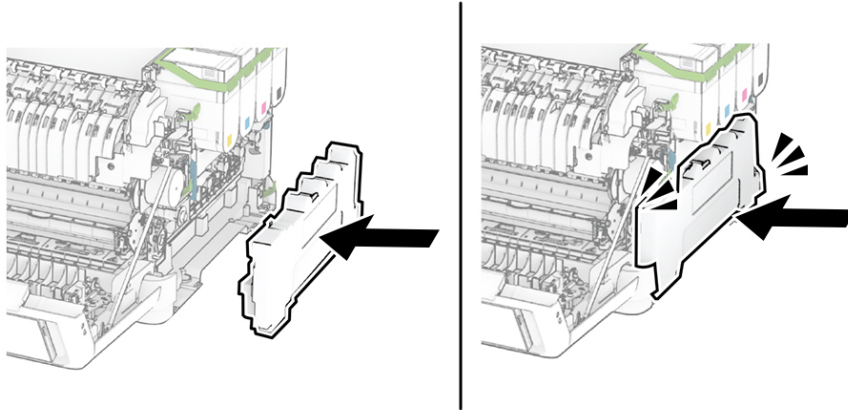
10. Insert the toner cartridges until they click into place.



C410S\_4203

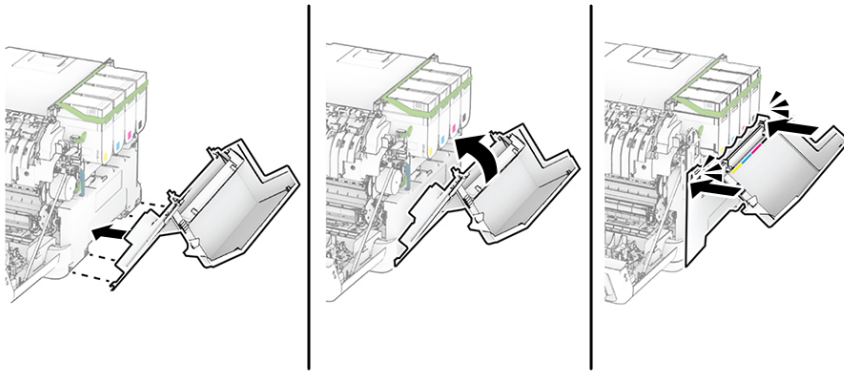
## Parts Removal

11. Insert the waste toner bottle until it clicks into place.



C410S\_4213

12. Attach the right cover until it clicks into place.

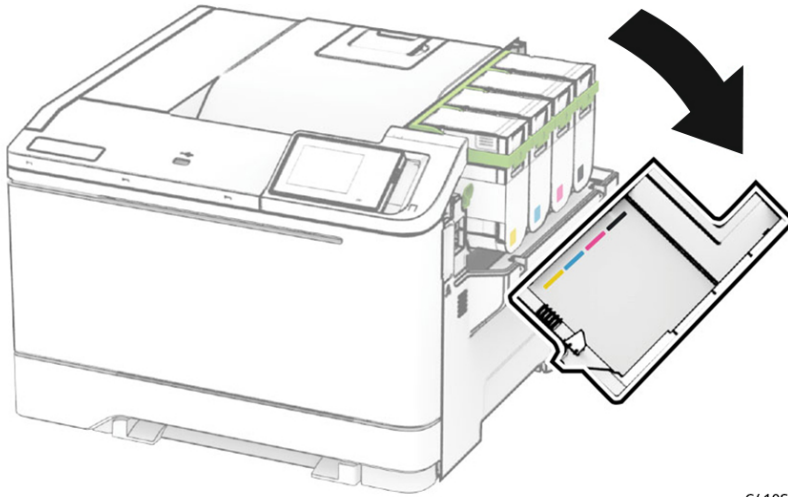


C410S\_4214

13. Close door A, and then close door B.

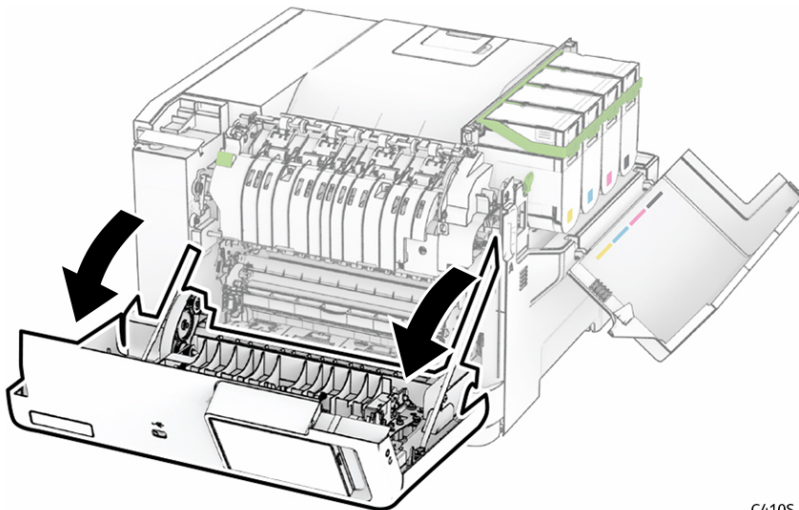
# Replacing The Waste Toner Bottle

1. Open door B.



C410S\_4256

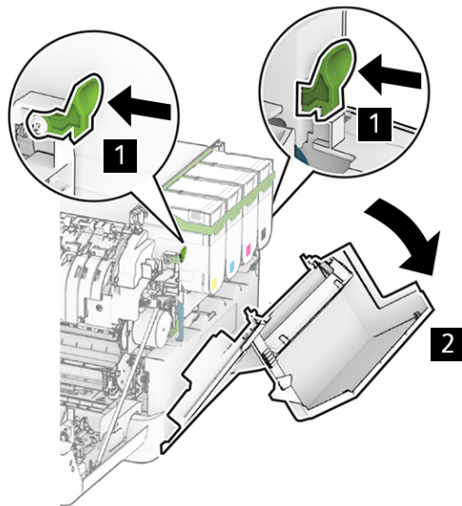
2. Open door A.



C410S\_4204

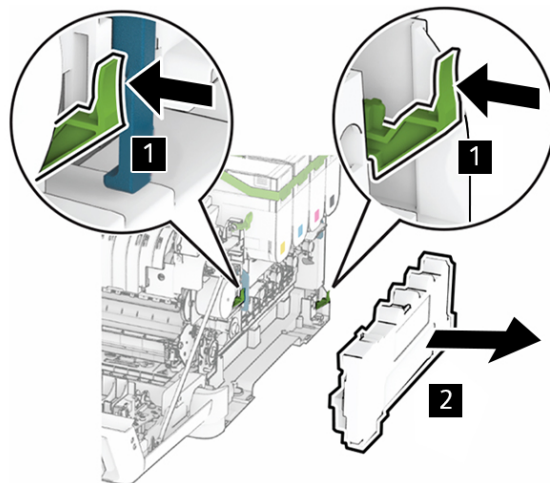
## Parts Removal

3. Remove the right cover.




C410S\_4206

4. Remove the waste toner bottle.



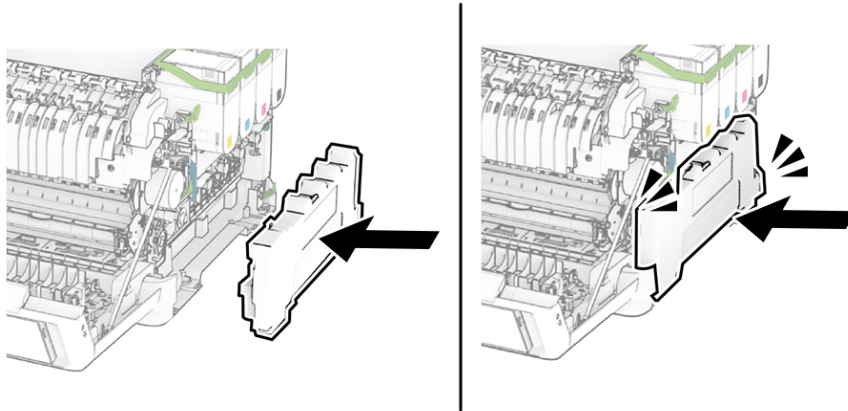
C410S\_4205

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

5. Unpack the new waste toner bottle.

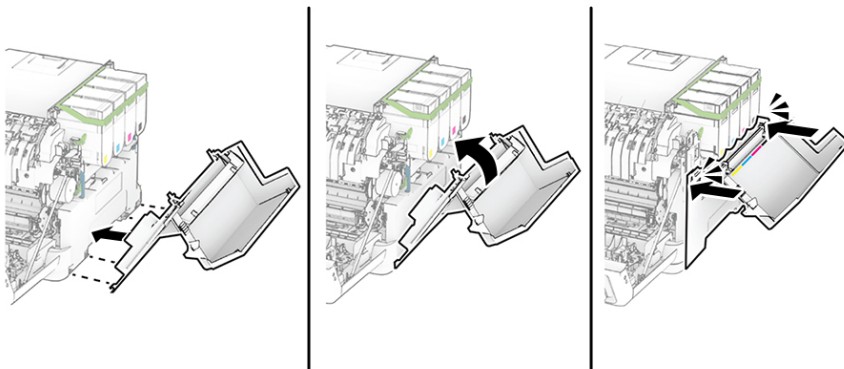


6. Insert the new waste toner bottle until it clicks into place.



C410S\_4213

7. Attach the right cover until it clicks into place.

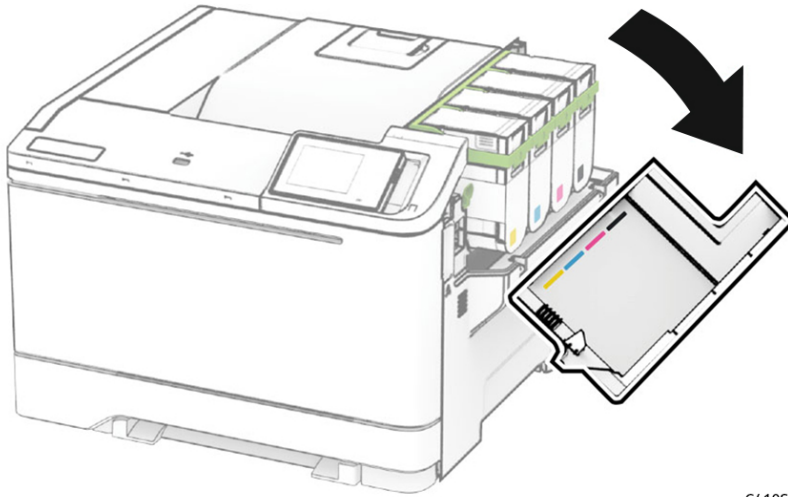


C410S\_4214

8. Close door A, and then close door B.

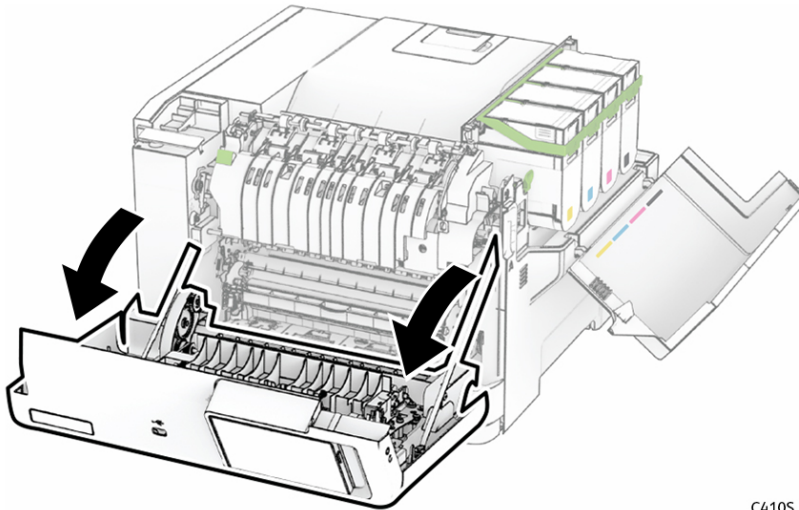
## Replacing a Developer Unit

1. Open door B.



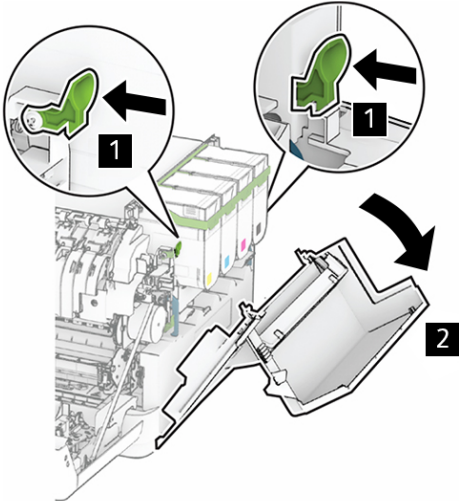
C410S\_4256

2. Open door A.



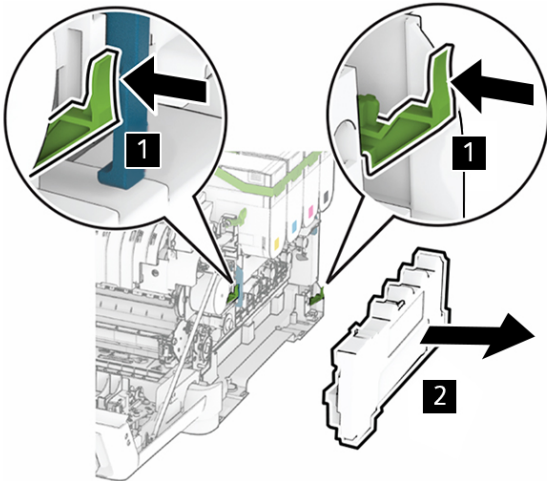
C410S\_4204

3. Remove the right cover.



C410S\_4206

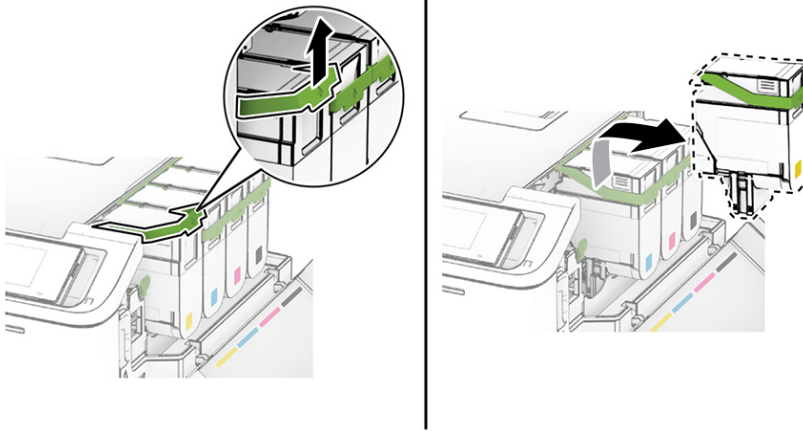
4. Remove the waste toner bottle.



C410S\_4205

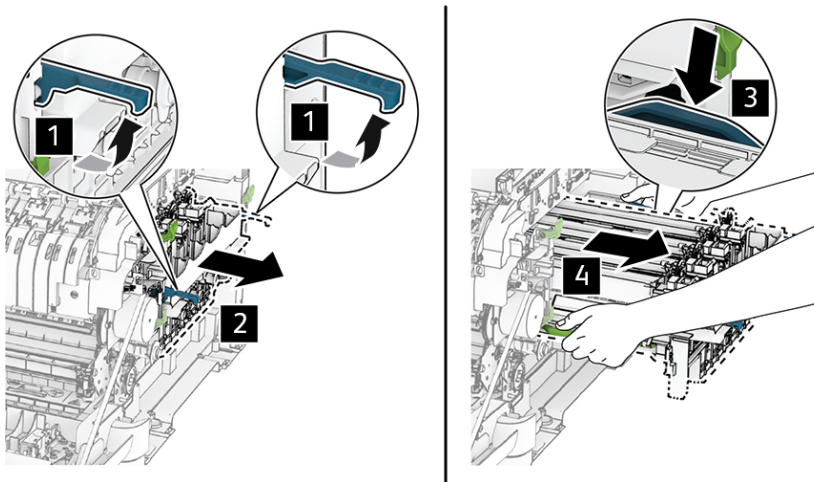
## Parts Removal

5. Remove the toner cartridges.



C410S\_4202

6. Remove the imaging kit.



C410S\_4207

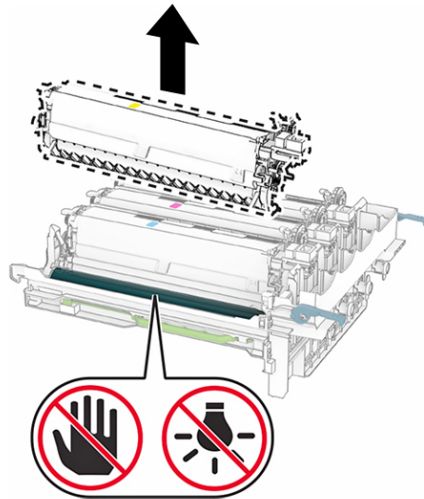
- Remove the used developer unit.

**Potential Damage:**

Do not expose the imaging kit to direct light. Extended exposure to light may cause print quality problems.

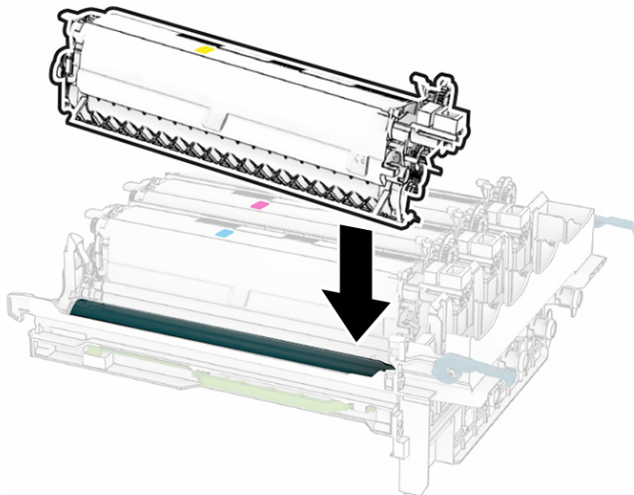
**Potential Damage:**

Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.



C410S\_4215

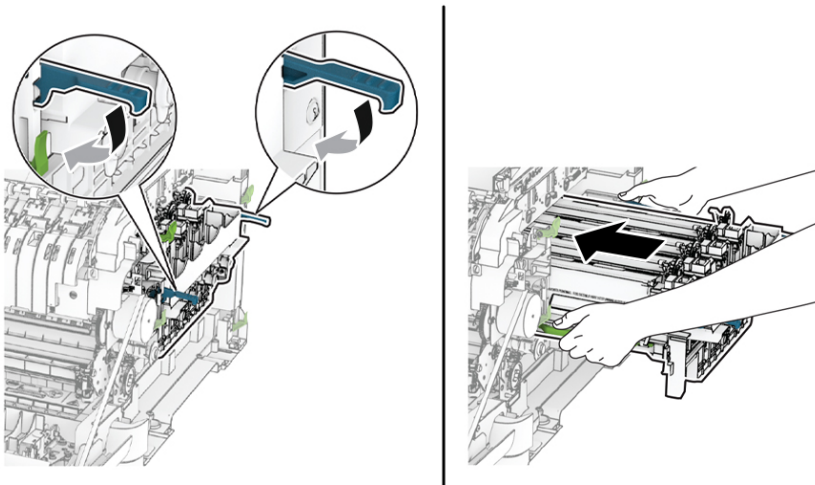
- Remove the packing material.
- Insert the new developer unit.



C410S\_4216

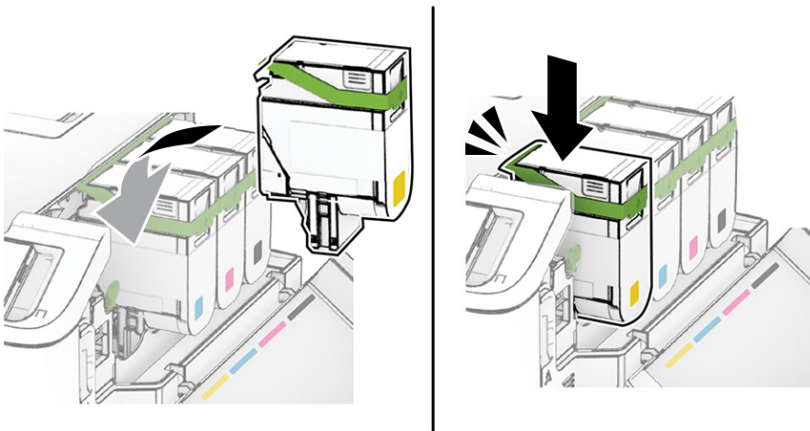
## Parts Removal

10. Insert the imaging kit until it is fully seated.



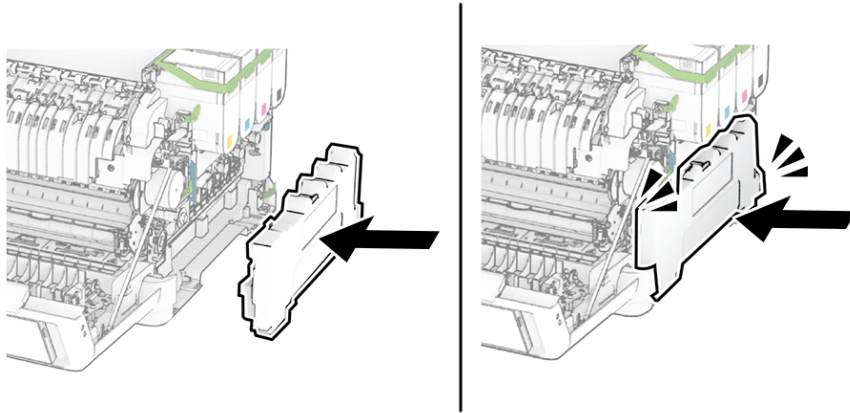
C410S\_4208

11. Insert the toner cartridges until they click into place.



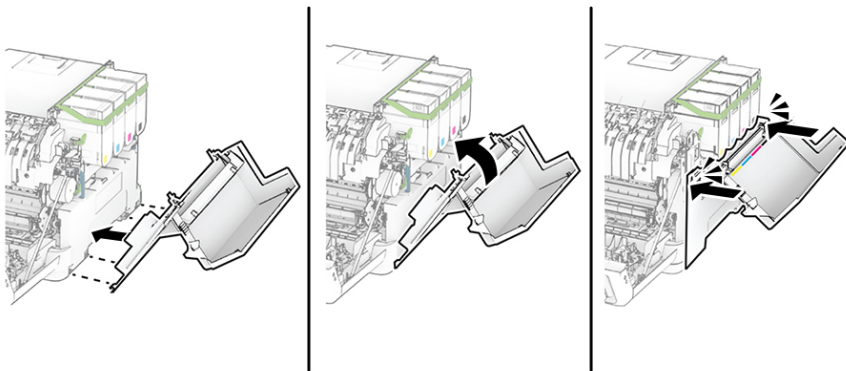
C410S\_4203

12. Insert the waste toner bottle until it clicks into place.



C410S\_4213

13. Attach the right cover until it clicks into place.

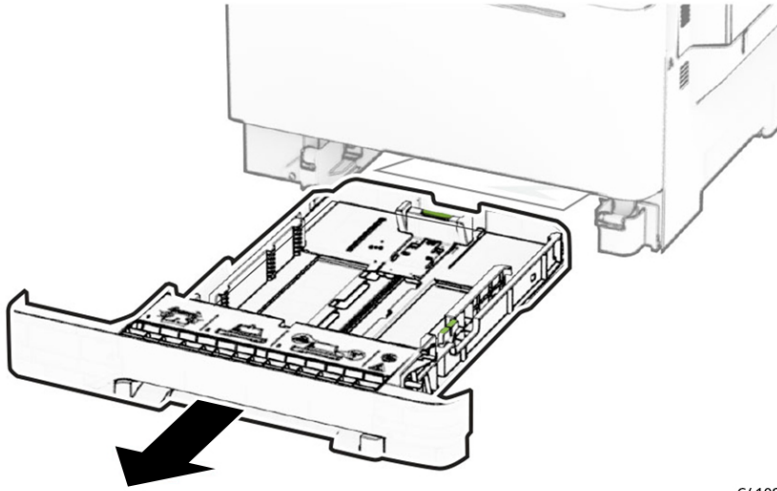


C410S\_4214

14. Close door A, and then close door B.

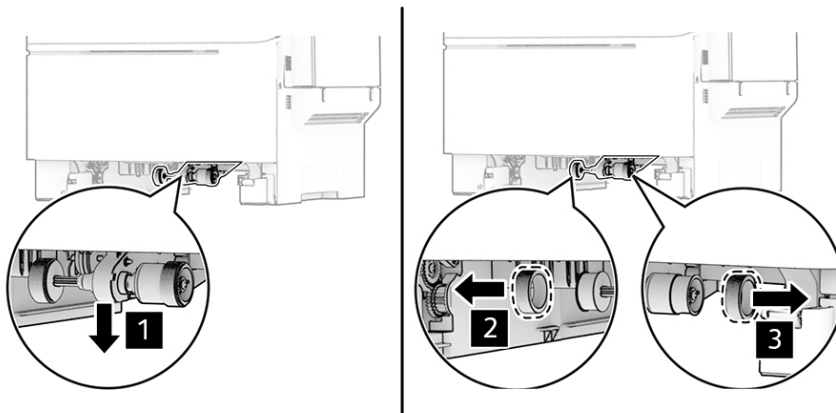
## Replacing The Pick Tires

1. Remove the tray.



C4105\_4217

2. Remove the used pick tires.

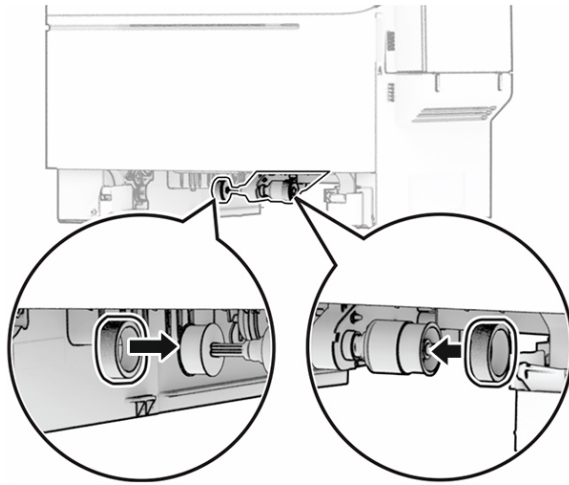


C4105\_4218


3. Unpack the new pick tires.

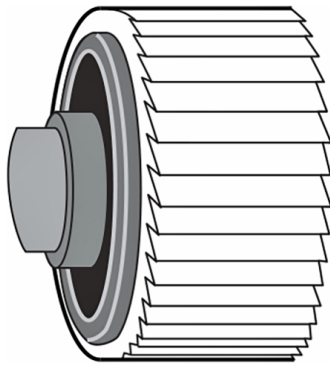


4. Insert the new pick tires.



C410S\_4219

 **Note:** Make sure that the edges of the pick tire treads are facing downward.

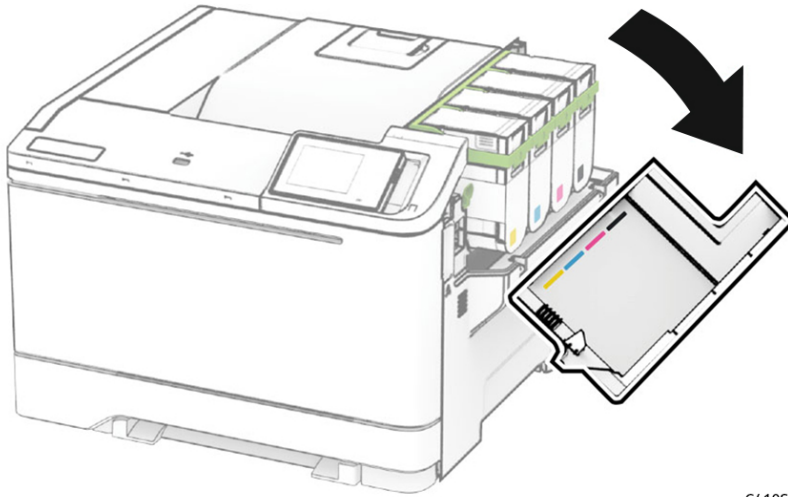


C410S\_4220

5. Insert the tray.

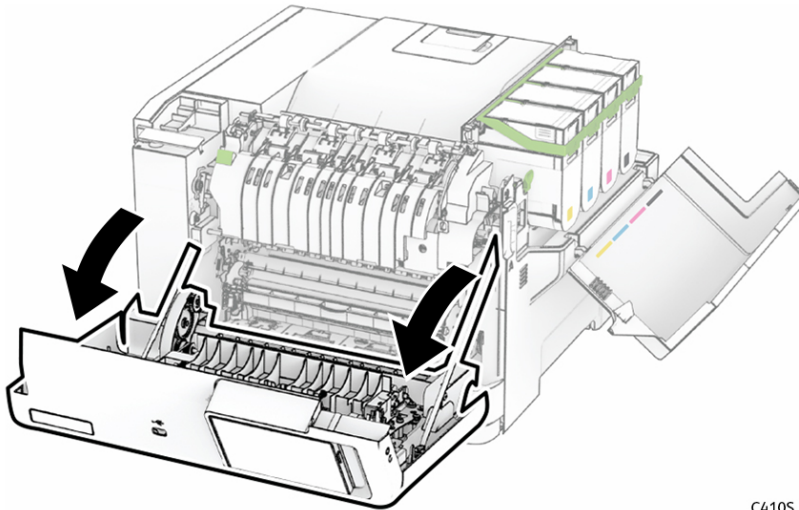
## Replacing The Right Cover

1. Open door B.



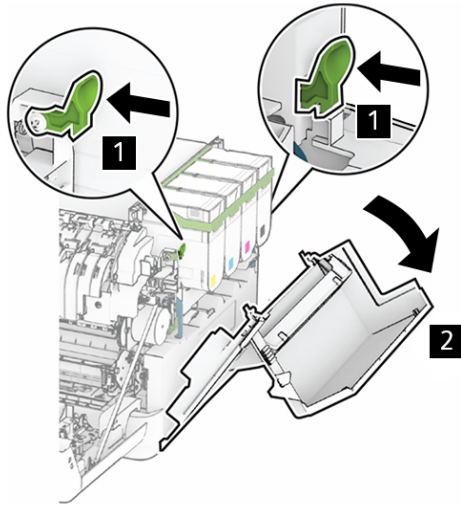
C410S\_4256

2. Open door A.



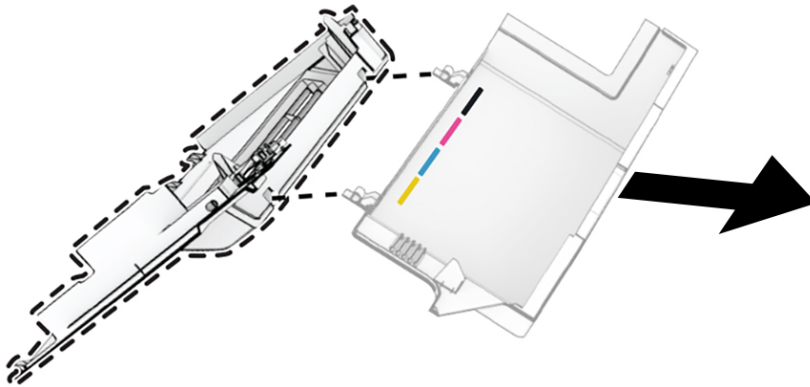
C410S\_4204

3. Remove the right cover.



C410S\_4206

4. Remove door B from the used right cover.

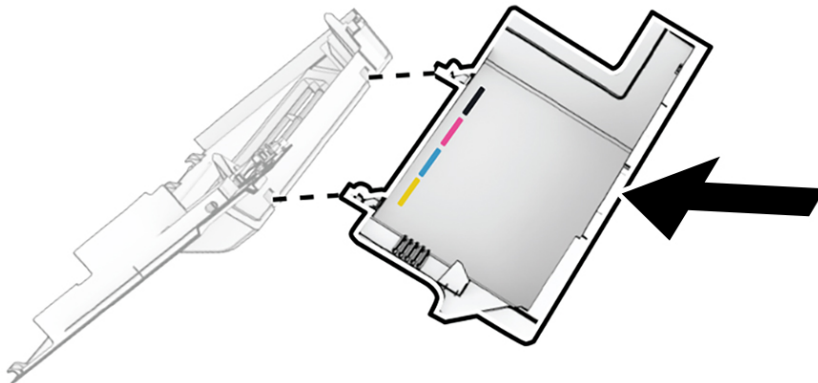


C410S\_4221

5. Unpack the new right cover.

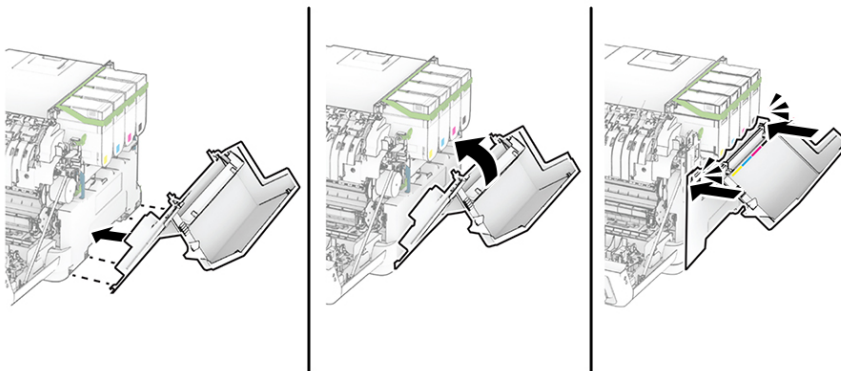
## Parts Removal

6. Attach door B to the new right cover.



C410S\_4222

7. Attach the new right cover until it clicks into place.



C410S\_4214

8. Close door A, and then close door B.

## Resetting the Supply Usage Counters

1. From the home screen, touch **Settings** > **Device** > **Maintenance** > **Configuration Menu** > **Supply Usage And Counters**.
2. Select the counter that you want to reset.

### **Warning—Potential Damage:**

Supplies and parts without Return Program agreement terms may be reset and remanufactured. However, the manufacturer's warranty does not cover any damage caused by non-genuine supplies or parts. Resetting counters on the supply or part without proper remanufacturing can cause damage to your printer. After resetting the supply or part counter, your printer may display an error indicating the presence of the reset item.

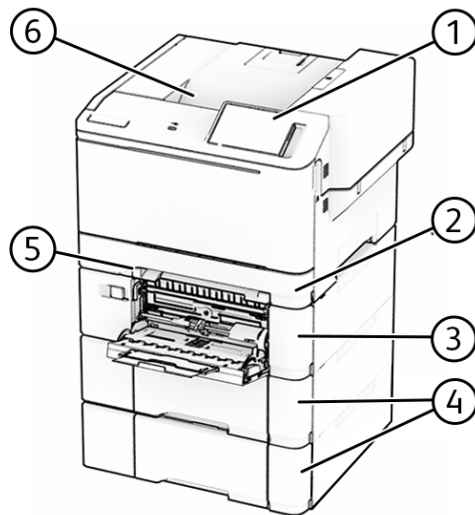
# Component Locations

## Printer Configurations


You can configure your printer by adding any of the following options:

- A 650-sheet duo tray
- A 650-sheet duo tray and up to two 550-sheet trays
- Up to three 550-sheet trays

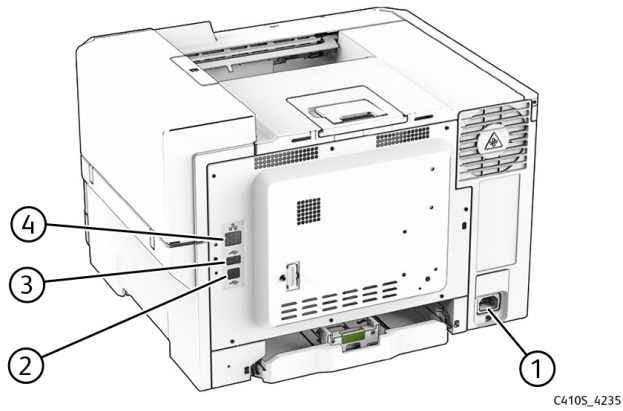
For more information, see [Installing Optional Trays](#)



C410S\_4227

1	Control panel
2	Standard 250-sheet tray
3	Optional 650-sheet duo tray  <b>Note:</b> The tray is composed of a 550-sheet tray and a 100-sheet multipurpose feeder.
4	Optional 550-sheet trays
5	Manual feeder
6	Standard bin

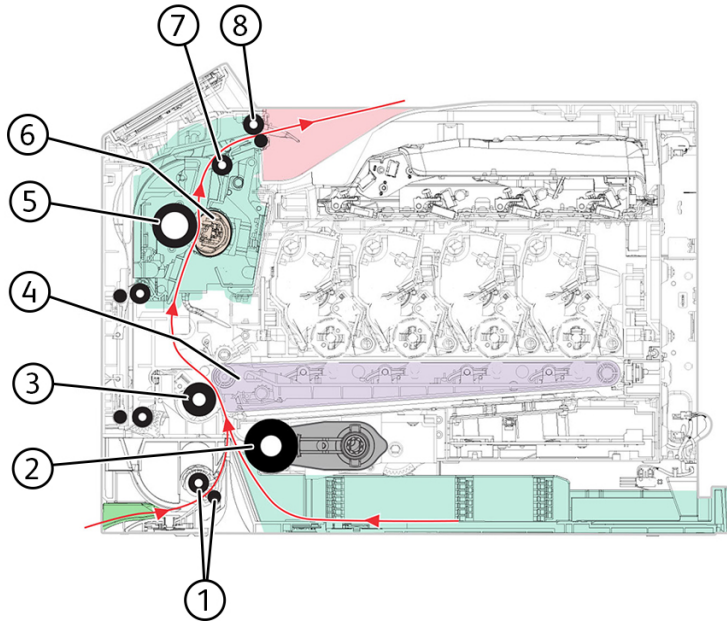
## Port Locations



	Printer port	Function
1	Power cord socket	Connect the printer to a properly grounded electrical outlet
2	USB printer port	Connect the printer to a computer
3	USB port	Attach a keyboard or any compatible option
4	Ethernet port	Connect the printer to a network

# Roller Locations

## Standard Paper Path

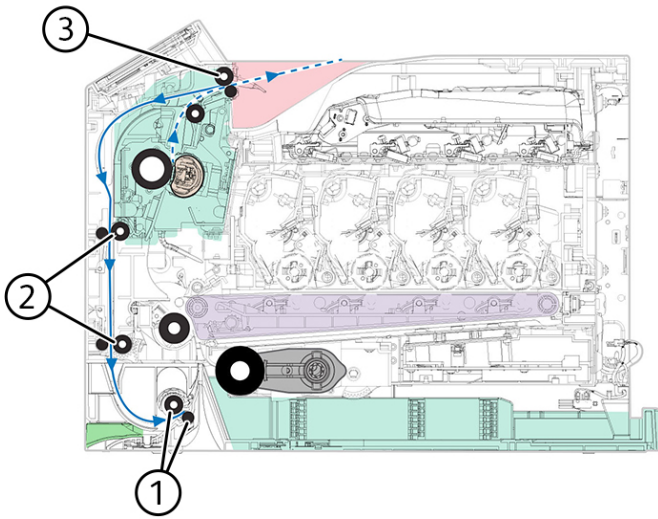


C410S\_4230

1	MPF feed rollers
2	Tray 1 pick roller
3	Second transfer roller
4	Transfer belt
5	Fuser roller
6	Fuser belt
7	Fuser decurl roller
8	Fuser exit rollers



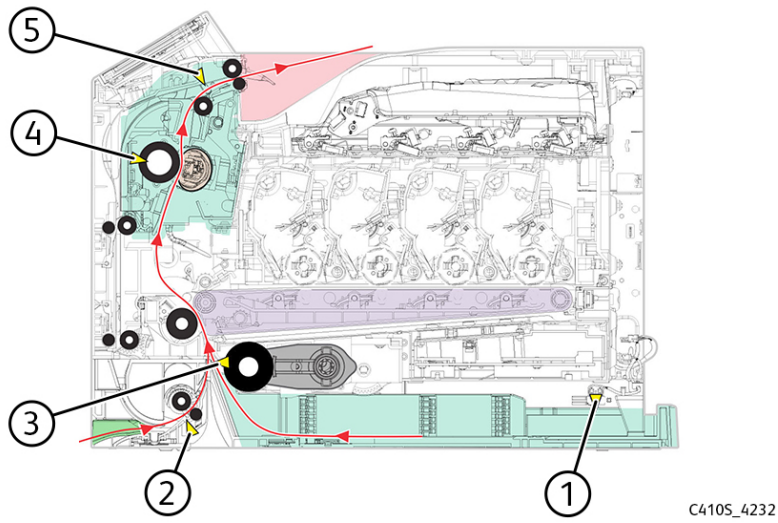
Duplex Paper Path



C410S\_4231

1	Duplex staging rollers
2	Duplex transport rollers
3	Fuser exit roller

## Sensor Locations



1	Sensor (tray present)
2	Sensor (duplex/manual feed)
3	Sensor (input)
4	Sensor (fuser exit)
5	Sensor (bin full)

# Maintenance

## Inspection Guide

Use this guide in identifying the parts that must be inspected, cleaned, or replaced based on the page count.

If any unsafe condition exists, find out the seriousness of the hazard. Assess if you can continue before you correct the hazard or you should correct the hazard immediately.

As you service the machine, check for the following:

- Damaged, missing, or altered parts, especially in the area of the power switch and the power supply
- Damaged, missing, or altered covers, especially in the area of the top cover and power supply cover
- Possible safety exposure from any non-Xerox attachments

Use the following table to determine when specified parts should be inspected:

Printer parts	Every service call	Notes
<b>Tray insert</b> <ul style="list-style-type: none"> <li>• Width guides</li> <li>• Length guides</li> </ul>	Inspect	Check for correct positioning.
<b>Transfer module</b>	Inspect	Ensure correct installation.
<b>Fuser</b>	Inspect	Ensure correct installation.
<b>Pick rollers</b> <ul style="list-style-type: none"> <li>• Tray pick roller</li> <li>• MPF pick roller</li> <li>• Separator bracket</li> </ul>	Inspect and clean if needed.	Clean with a damp cloth.
<b>Paper path rollers</b>	Inspect	<ul style="list-style-type: none"> <li>• Check for paper fragments.</li> <li>• Check for excessive toner build-up on rollers.</li> <li>• Clean with damp cloth if needed.</li> </ul>
<b>Others</b> <ul style="list-style-type: none"> <li>• Toner spillage</li> </ul>	Clean	Use a toner vacuum and cloth to remove all toner spillage from the printer.

## Scheduled Maintenance

When performing the scheduled maintenance procedure, the following areas should be cleaned of paper dust and toner contamination:

- Trays
- Imaging kit and imaging unit areas
- Transfer roller area
- Duplex area
- Standard bin

## Cleaning Printer Parts

### Cleaning the Printer

**CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

**CAUTION—SHOCK HAZARD:** Para evitar el riesgo de descarga eléctrica al limpiar el exterior de la impresora, desconecte el cable de alimentación de la toma eléctrica y desconecte todos los cables de la impresora antes de realizar la operación.

**CAUTION—SHOCK HAZARD:** Pour éviter tout risque d'électrocution lors du nettoyage de l'extérieur de l'imprimante, débranchez le cordon d'alimentation électrique de la prise et déconnectez tous les câbles de l'imprimante avant de continuer.

**CAUTION—SHOCK HAZARD:** Um das Risiko eines elektrischen Schlags beim Reinigen des Druckergehäuses zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose, und ziehen Sie alle Kabel vom Drucker ab, bevor Sie fortfahren.

 **Note:**

- Perform this task after every few months.
  - Damage to the printer caused by improper handling is not covered by the printer warranty.
1. Turn off the printer, and then unplug the power cord from the electrical outlet.
  2. Remove paper from the standard bin and multipurpose feeder.
  3. Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.
  4. Wipe the outside of the printer with a damp, soft, lint-free cloth.

 **Note:**

- Do not use household cleaners or detergents, as they may damage the finish of the printer.
  - Make sure that all areas of the printer are dry after cleaning.
5. Connect the power cord to the electrical outlet, and then turn on the printer.

## Cleaning The Touch Screen

**CAUTION—SHOCK HAZARD:** To avoid the risk of electric shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

**CAUTION—SHOCK HAZARD:** Para evitar el riesgo de descarga eléctrica al limpiar el exterior de la impresora, desconecte el cable de alimentación de la toma eléctrica y desconecte todos los cables de la impresora antes de realizar la operación.

**CAUTION—SHOCK HAZARD:** Pour éviter tout risque d'électrocution lors du nettoyage de l'extérieur de l'imprimante, débranchez le cordon d'alimentation électrique de la prise et déconnectez tous les câbles de l'imprimante avant de continuer.

**CAUTION—SHOCK HAZARD:** Um das Risiko eines elektrischen Schlags beim Reinigen des Druckergehäuses zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose, und ziehen Sie alle Kabel vom Drucker ab, bevor Sie fortfahren.

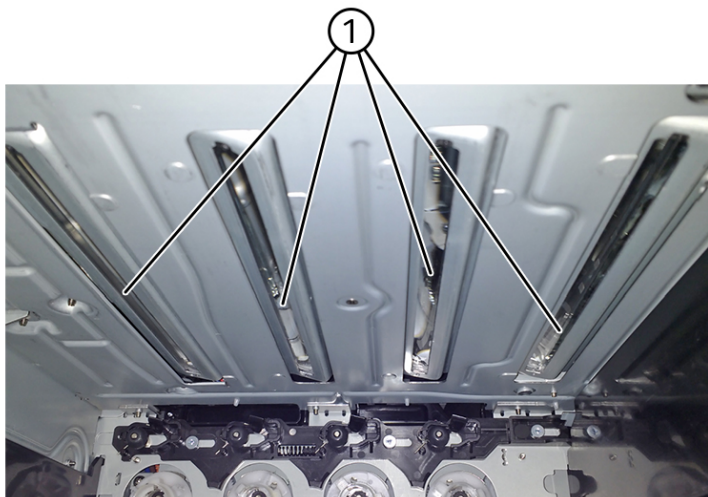
1. Turn off the printer, and then unplug the power cord from the electrical outlet.
2. Using a damp, soft, lint-free cloth, wipe the touch screen.

 **Note:**

- Do not use household cleaners or detergents, as they may damage the touch screen.
  - Make sure that the touch screen is dry after cleaning.
3. Connect the power cord to the electrical outlet, and then turn on the printer.

## Cleaning The Printhead Lenses

1. Remove the waste toner bottle. See [Waste Toner Bottle Removal](#).
2. Remove the imaging kit. See [Imaging Kit Removal](#).
3. Using a damp, soft, lint-free cloth, wipe the printhead lenses (1).



C4105\_4236

## Loading Paper And Specialty Media

### Setting The Paper Size and Type


1. From the home screen, touch **Settings** > **Paper** > **Tray Configuration** > **Paper Size/Type** > select a paper source.
2. Set the paper size and type.

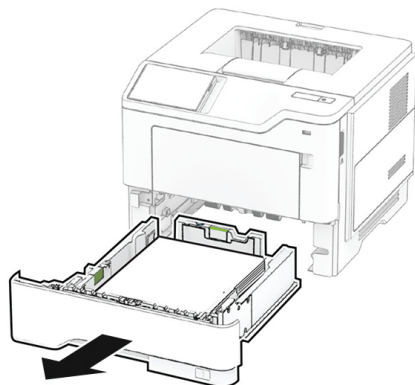
### Configuring Universal Paper Settings

1. From the home screen, touch **Settings** > **Paper** > **Media Configuration** > **Universal Setup**.
2. Configure the settings.

### Loading trays

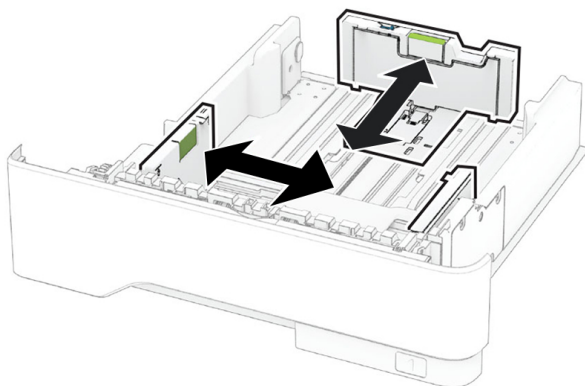
1. Remove the tray.

 **Note:** To avoid paper jams, do not remove the tray while the printer is busy.



B4105\_4167

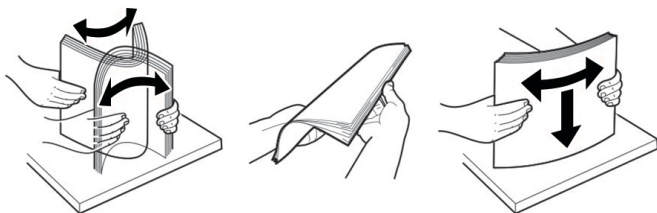
2. Adjust the guides to match the size of the paper that you are loading.



B4105\_4162



3. Flex, fan, and align the paper edges before loading.

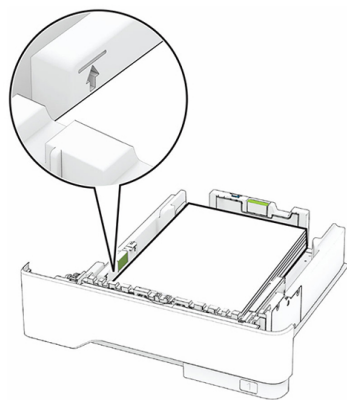


B4105\_4156

4. Load the paper stack with the printable side facedown, and then make sure that the guides fit snugly against the paper.

 **Note:**

1. Load letterhead facedown with the header toward the front of the tray for one-sided printing.
2. Load letterhead faceup with the header toward the back of the tray for two-sided printing.
3. Do not slide paper into the tray.
4. To avoid paper jams, make sure that the stack height is below the maximum paper fill indicator.




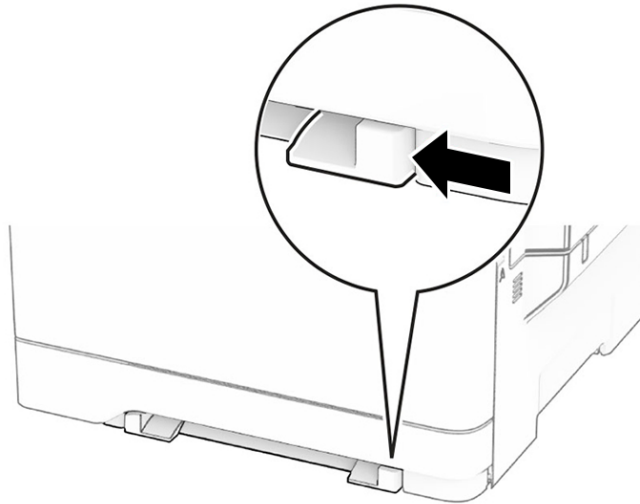
B4105\_4161

5. Insert the tray. If necessary, set the paper size and paper type from the control panel to match the paper loaded.

## Loading The Manual Feeder

1. Adjust the edge guides to match the width of the paper that you are loading.

 **Note:** Make sure that the guides fit snugly against the paper, but not too tight as to cause the paper to buckle.

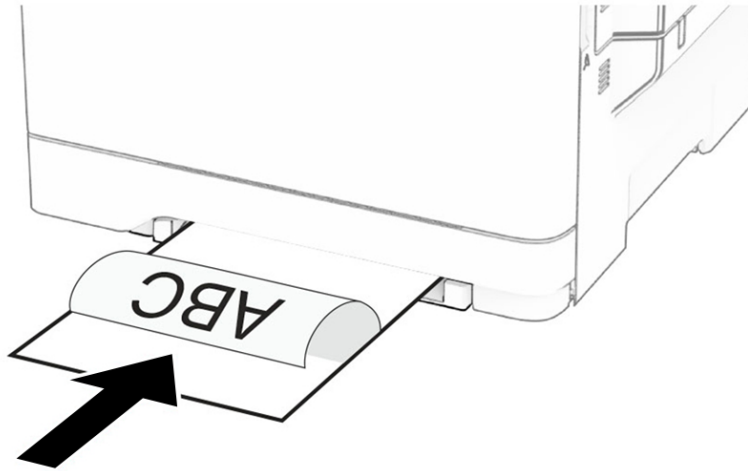


C410S\_4238

2. Load a sheet of paper with the printable side facedown.

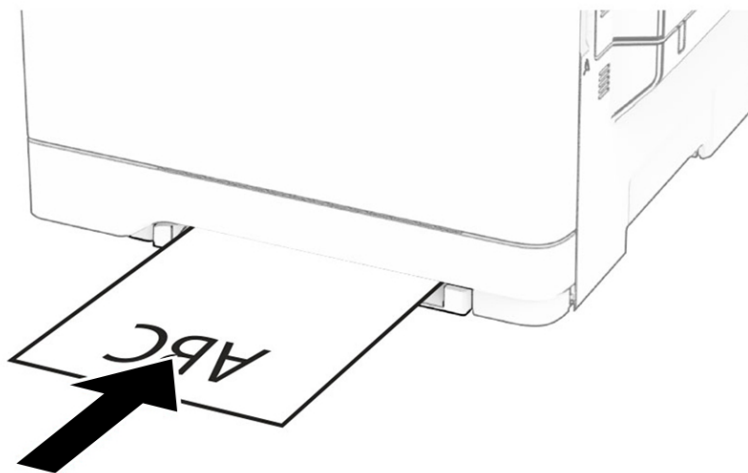
 **Note:** Make sure that the paper is loaded straight to avoid skewed or crooked print.

- For one-sided printing, load letterhead with the printable side facedown and the top edge entering the printer first.



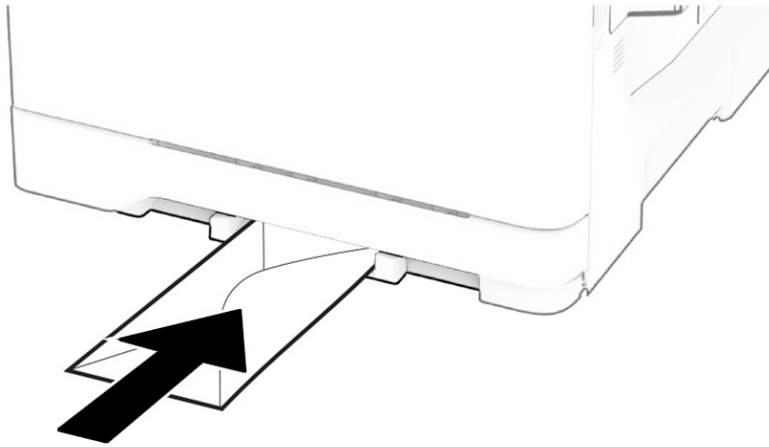
C410S\_4241

- For two-sided printing, load letterhead with the printable side faceup and the top edge entering the printer last.



C410S\_4240

- Load envelope with the flap side up and against the right side of the paper guide.




C410S\_4239

3. Feed the paper until its leading edge gets pulled in.

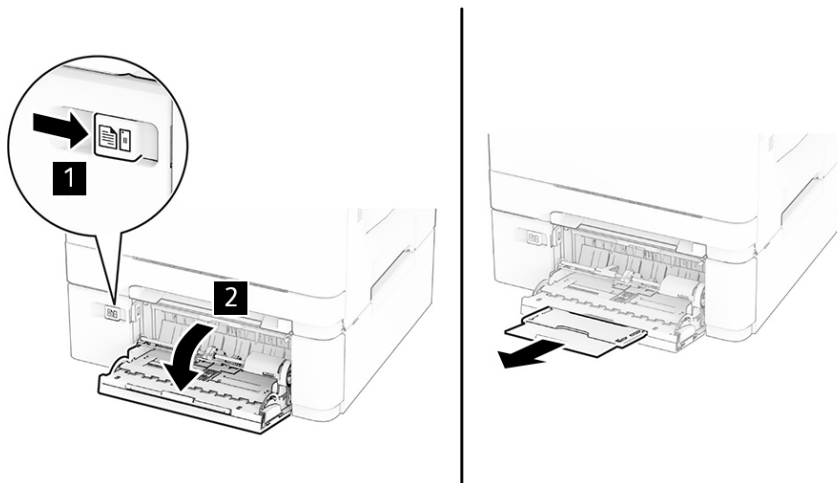
**Warning—Potential Damage:**

To avoid paper jams, do not force paper into the manual feeder.

## Loading The Multipurpose Feeder

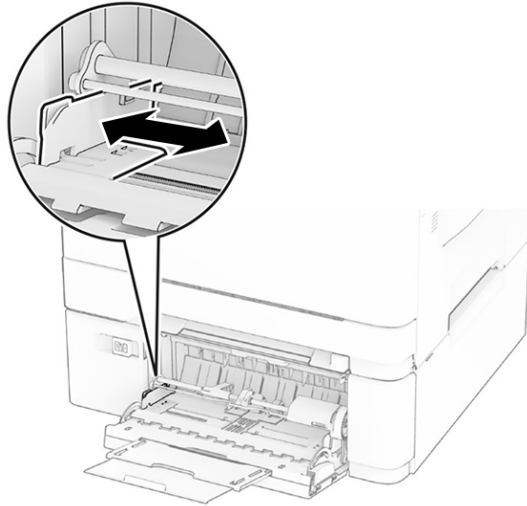
 **Note:** The multipurpose feeder is available only if the optional 650-sheet duo tray is installed.

1. Open the multipurpose feeder.



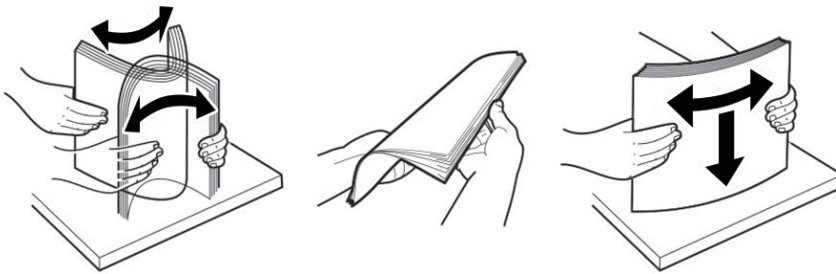
C410S\_4244

2. Adjust the guide to match the size of the paper that you are loading.



C410S\_4242

3. Flex, fan, and align the paper edges before loading.



C410S\_4248

## Maintenance

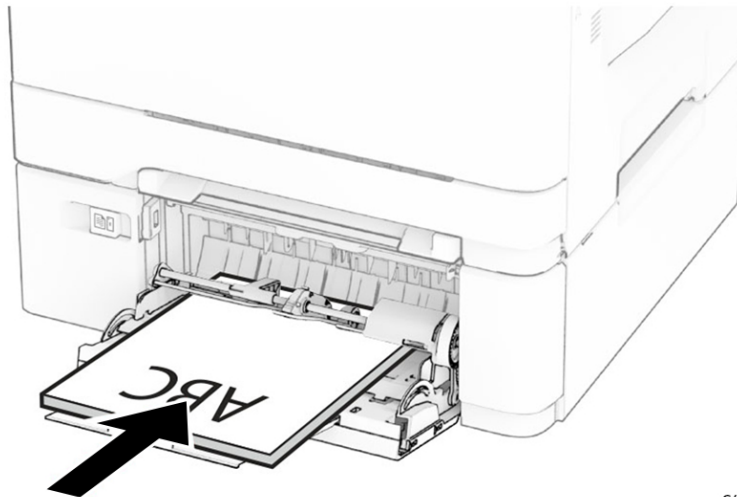
### 4. Load the paper.

- For one-sided printing, load letterhead with the printable side facedown and the top edge entering the printer first.



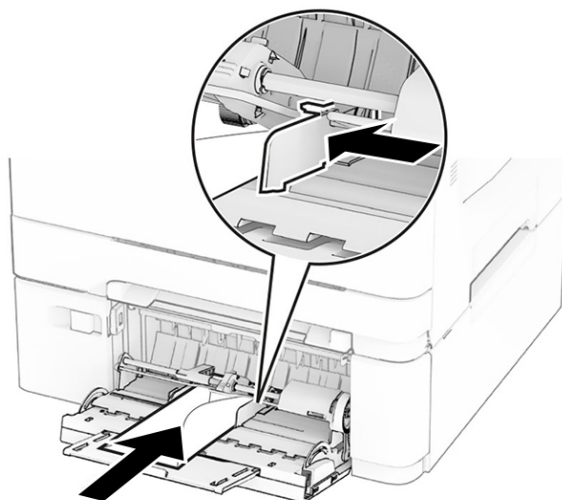
C410S\_4246

- For two-sided printing, load letterhead with the printable side faceup and the top edge entering the printer last.



C410S\_4245

- Load envelopes with the flap side up and against the right side of the paper guide.



C410S\_4243

**Warning—Potential Damage:**

Do not use envelopes with stamps, clasps, snaps, windows, coated linings, or self-stick adhesives.

5. From the Paper menu in the control panel, set the paper size and type to match the paper loaded in the multipurpose feeder.

## Linking Trays

1. From the home screen, touch **Settings > Paper > Tray Configuration** > select a paper source.
2. From the home screen, touch **Settings > Device > Maintenance > Configuration Menu > Tray Configuration > Tray Linking**.
3. Touch **Automatic**.

To unlink trays, make sure that no trays have the same paper size and paper type settings.

**Warning—Potential Damage:**

The temperature of the fuser varies according to the specified paper type. To avoid printing issues, match the paper type setting in the printer with the paper loaded in the tray.





# Parts Catalog

## Legend

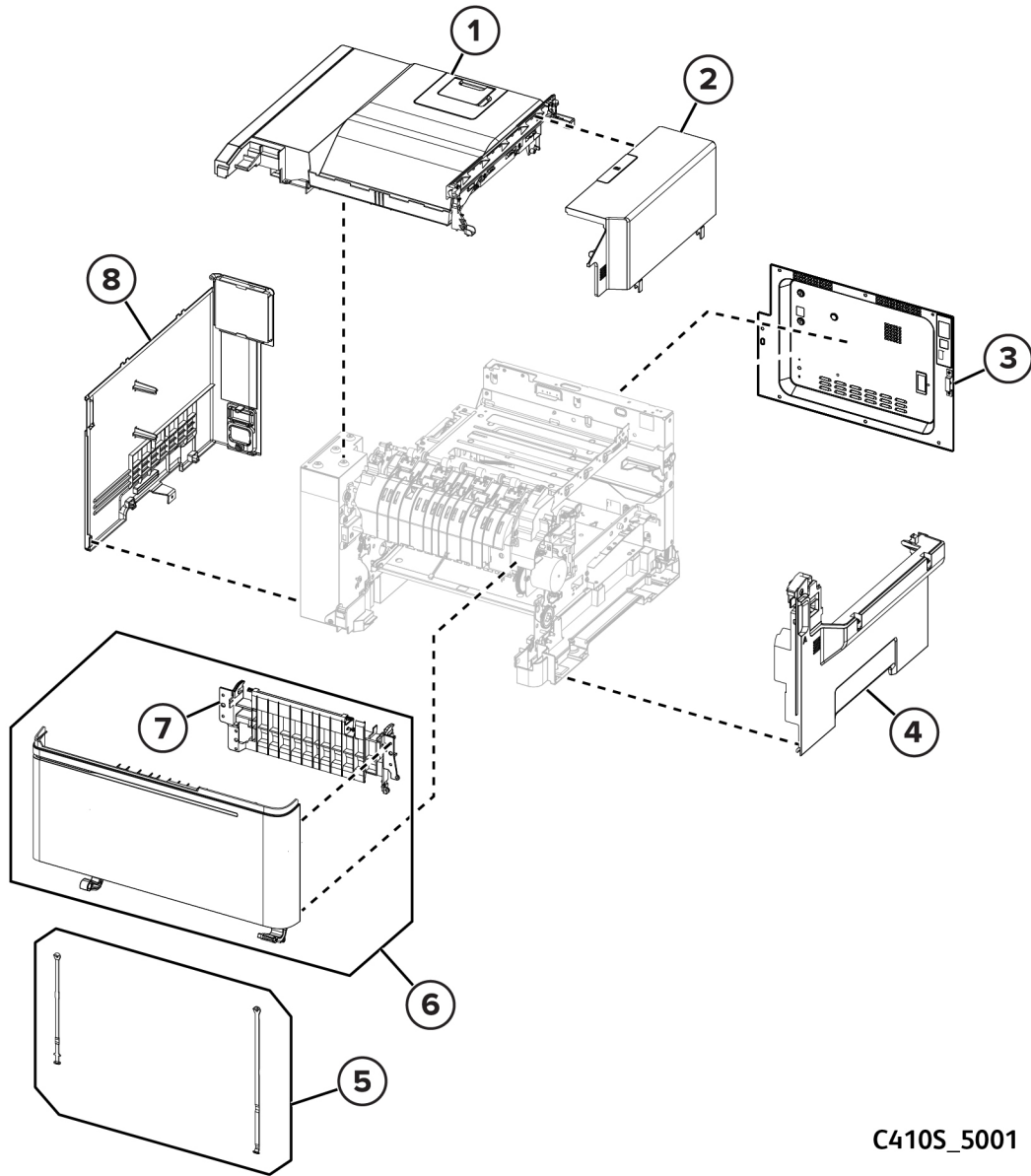
The following column headings are used in the parts catalog:

- **Asm-index**—Identifies the item in the illustration.
- **Part number**—Identifies the unique number that correlates with the part.
- **Units/mach**—Refers to the number of units actually used in the base machine or product.
- **Units/FRU**—Refers to the number of units in a particular FRU.
- **Description**—Describes the part.

The following abbreviations are used in the parts catalog:

- **NS** (not shown) in the Asm-index column indicates that the part is procurable but is not pictured in the illustration.
- **PP** (parts packet) in the Description column indicates that the part is contained in a parts packet.

# Assembly 1: Covers 1

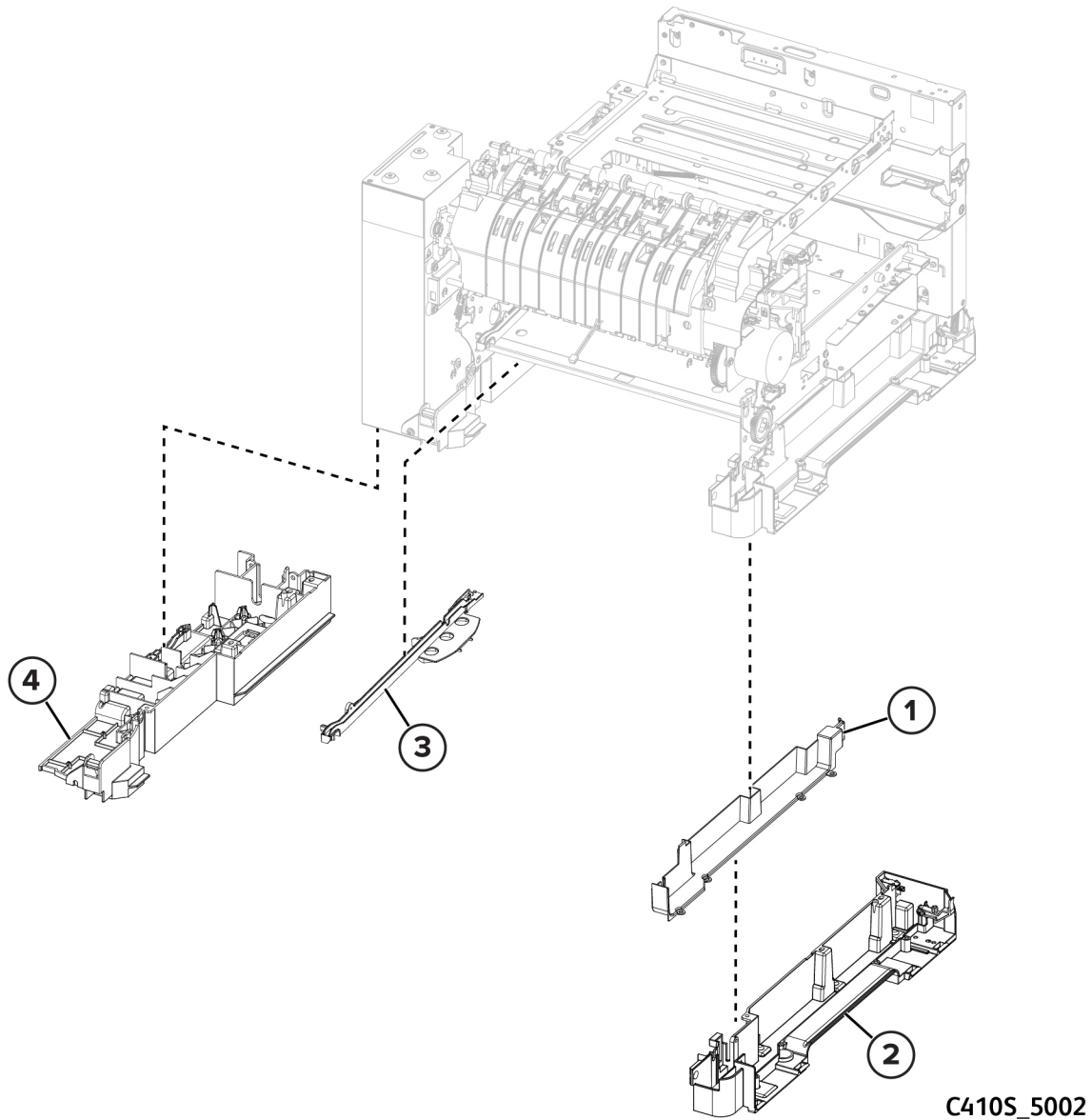


C410S\_5001

Parts Catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	002N03743	1	1	Top cover	<a href="#">Top Cover Removal</a>
2	002N03744	1	1	Toner cover	–
3	002N03758	1	1	Rear cover	–
4	002N03745	1	1	Right cover	–
5	003N01189	1	2	Door straps	–
6	002N03754	1	1	Front door	<a href="#">Front Door Removal</a>
7	–	1	1	Front door inner paper feed guide	<a href="#">Front door inner paper feed guide removal</a>
8	002N03746	1	1	Left cover	<a href="#">Left Cover Removal</a>

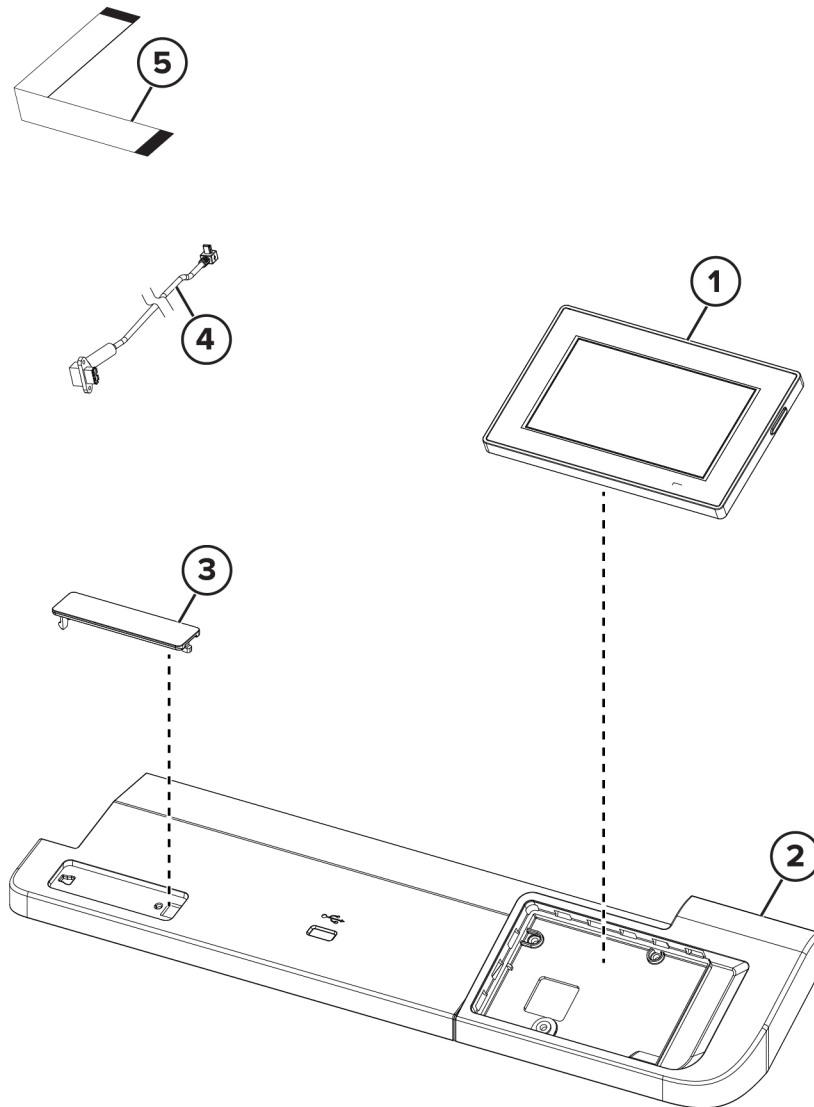
# Assembly 2: Covers 2



Parts Catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	117N02189	1	1	Subframe cable cover	--
2	001N00610	1	1	Lower right subframe	--
3	133N23274	1	1	Transfer module guide	<a href="#">Transfer Module Guide Removal</a>
4	001N00609	1	1	Lower left subframe	--

# Assembly 3: Control Panel



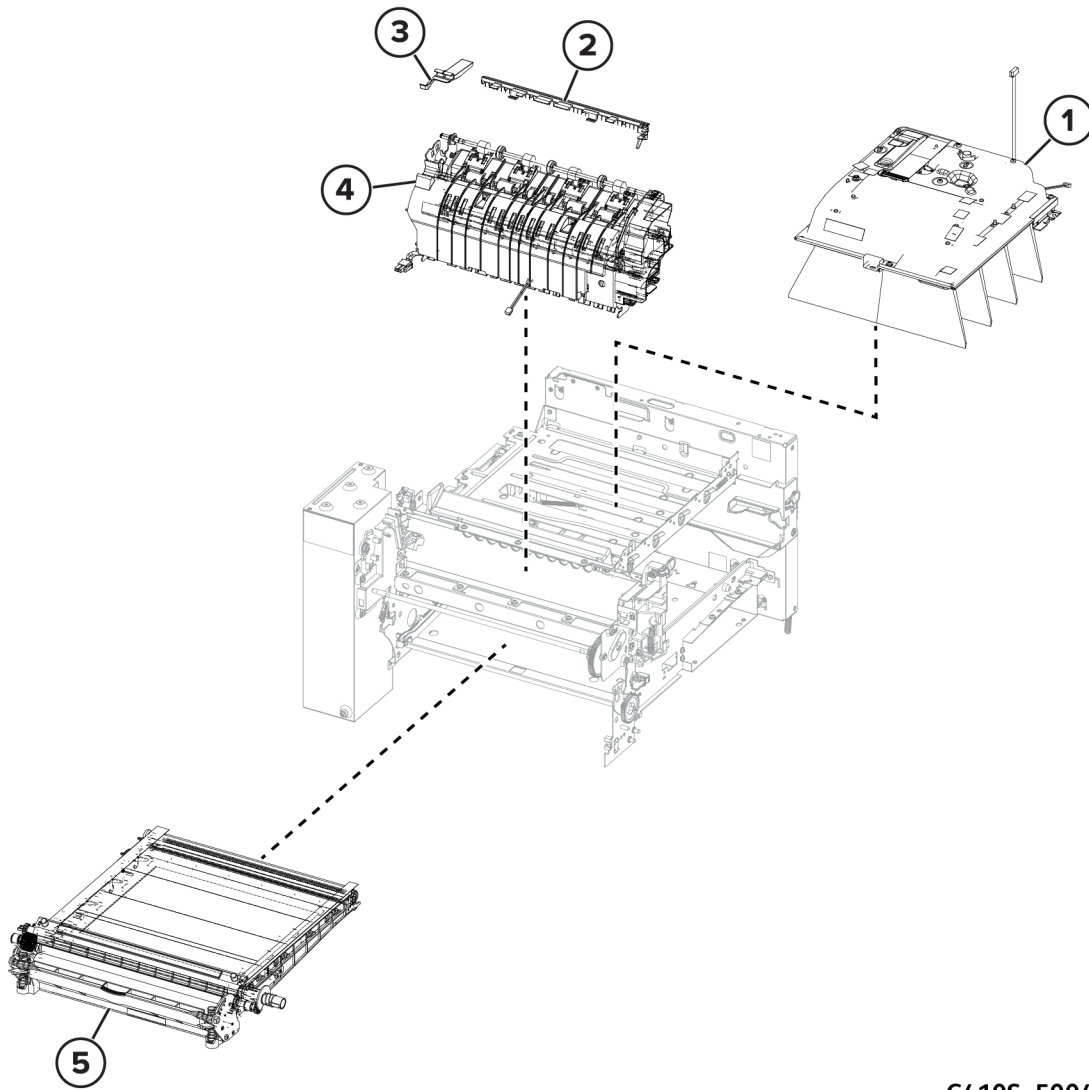
C410S\_5003

Parts Catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	123N00294	1	1	Control panel	<a href="#">Control Panel Removal</a>
2	002N03747	1	1	Control panel base cover	–
3	091N80394	1	1	Bezel (C410)	–
4	117N02415	1	1	Front USB cable	–
5	109N00928	1	1	Control panel flat cable	–



# Assembly 4: EP components

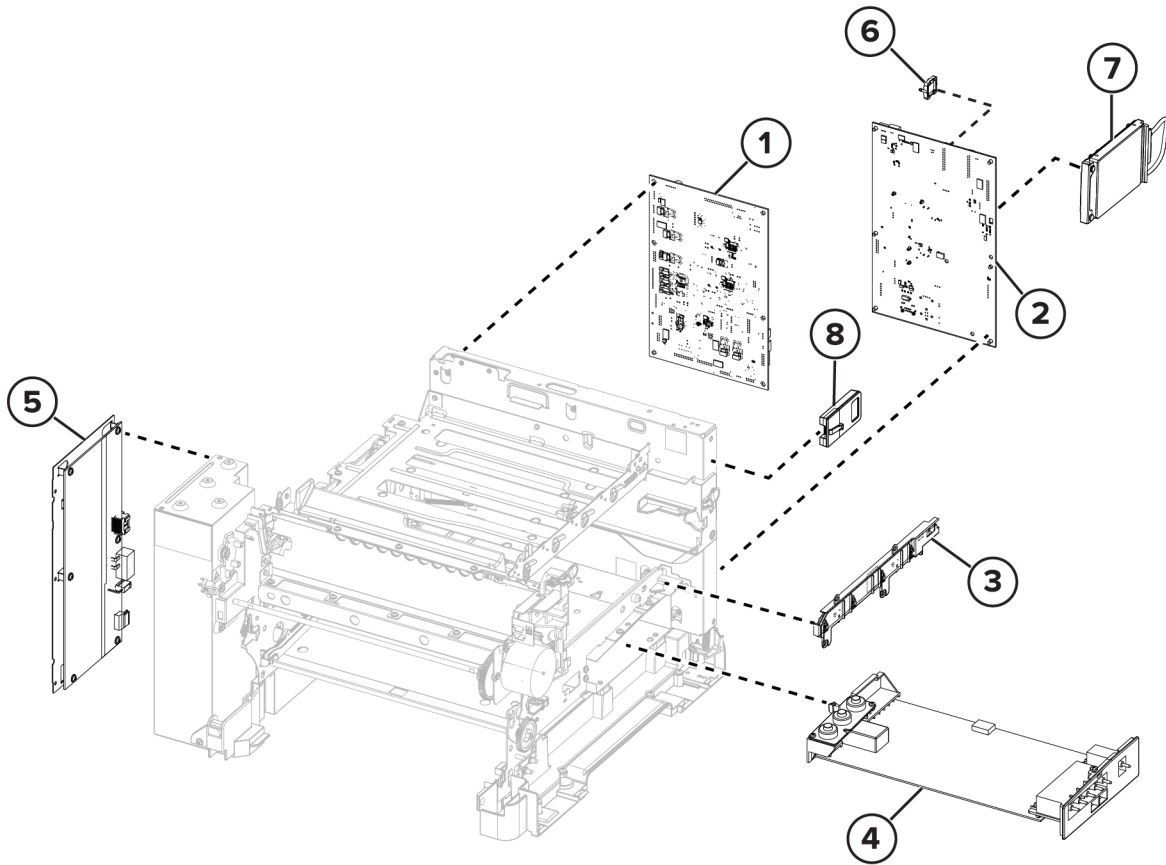


C410S\_5004

Parts Catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	046N00246	1	1	Printhead	Printhead Removal
2	126N00514	1	1	Fuser deflector	--
3	053N00378	1	1	Narrow media/ bin full flag	Narrow Media/ Bin Full Sensor Flag Removal
4	126N00519	1	1	Fuser, 110 V	Fuser Removal
4	126N00520	1	1	Fuser, 220 V	Fuser Removal
5	133N23275	1	1	Transfer module	Transfer Module Removal

# Assembly 5: Electronics

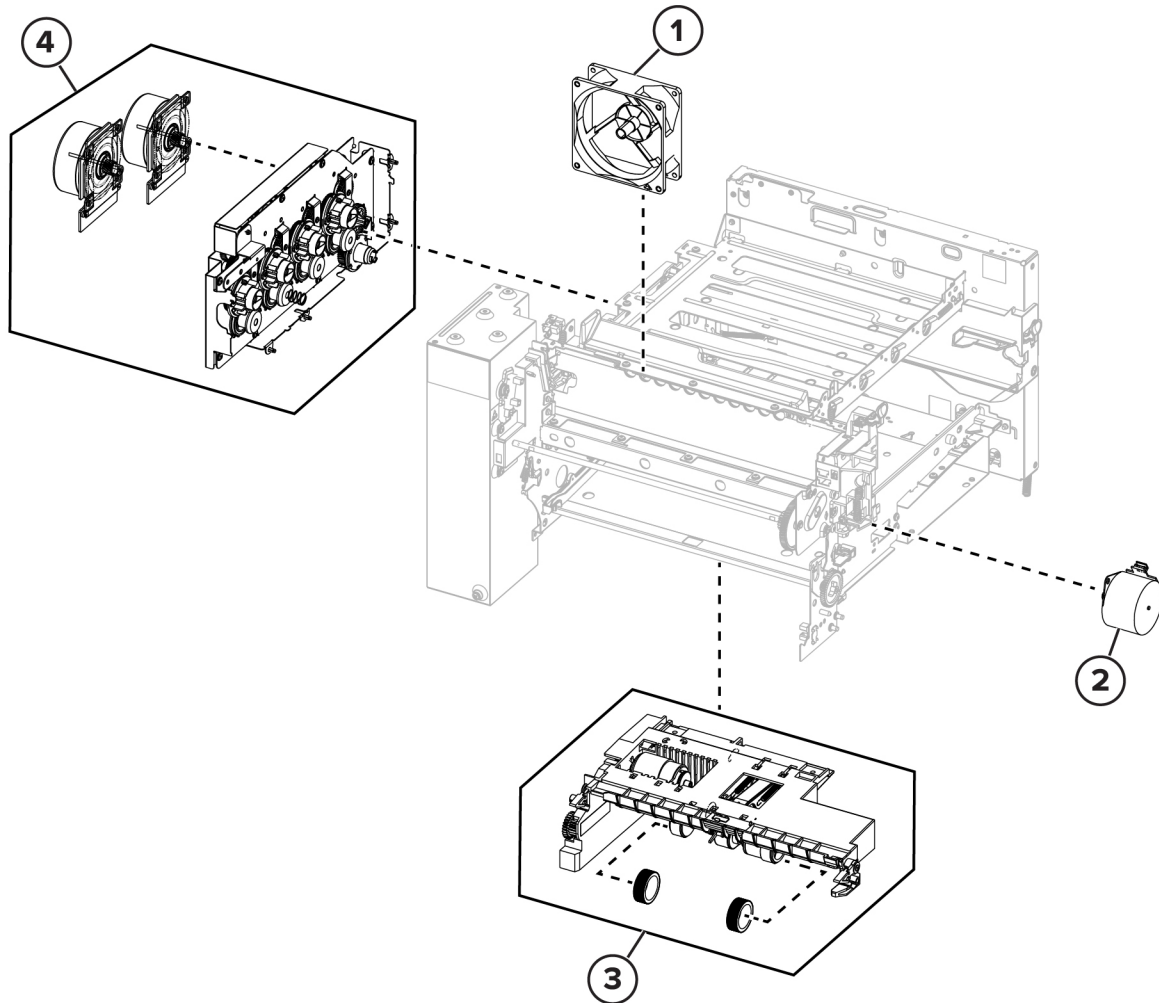


C410S\_5005

## Parts Catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	140N63971	1	1	Engine board (Drive PWB)	<a href="#">Engine Board Removal</a>
2	109N00926	1	1	Controller board	<a href="#">Controller Board Removal</a>
3	140N63970	1	1	Toner meter card	<a href="#">Toner Meter Card Removal</a>
4	105N02414	1	1	HVPS	<a href="#">HVPS Removal</a>
5	105N02413	1	1	LVPS (220 V)	<a href="#">LVPS Removal</a>
5	105N02412	1	1	LVPS (110 V)	<a href="#">LVPS Removal</a>
6	133N23278	1	1	Trusted platform module (TPM)	--
7	--	1	1	Optional 500 +GB HDD	--
8	--	1	1	Optional wireless network adapter	--

# Assembly 6: Motors

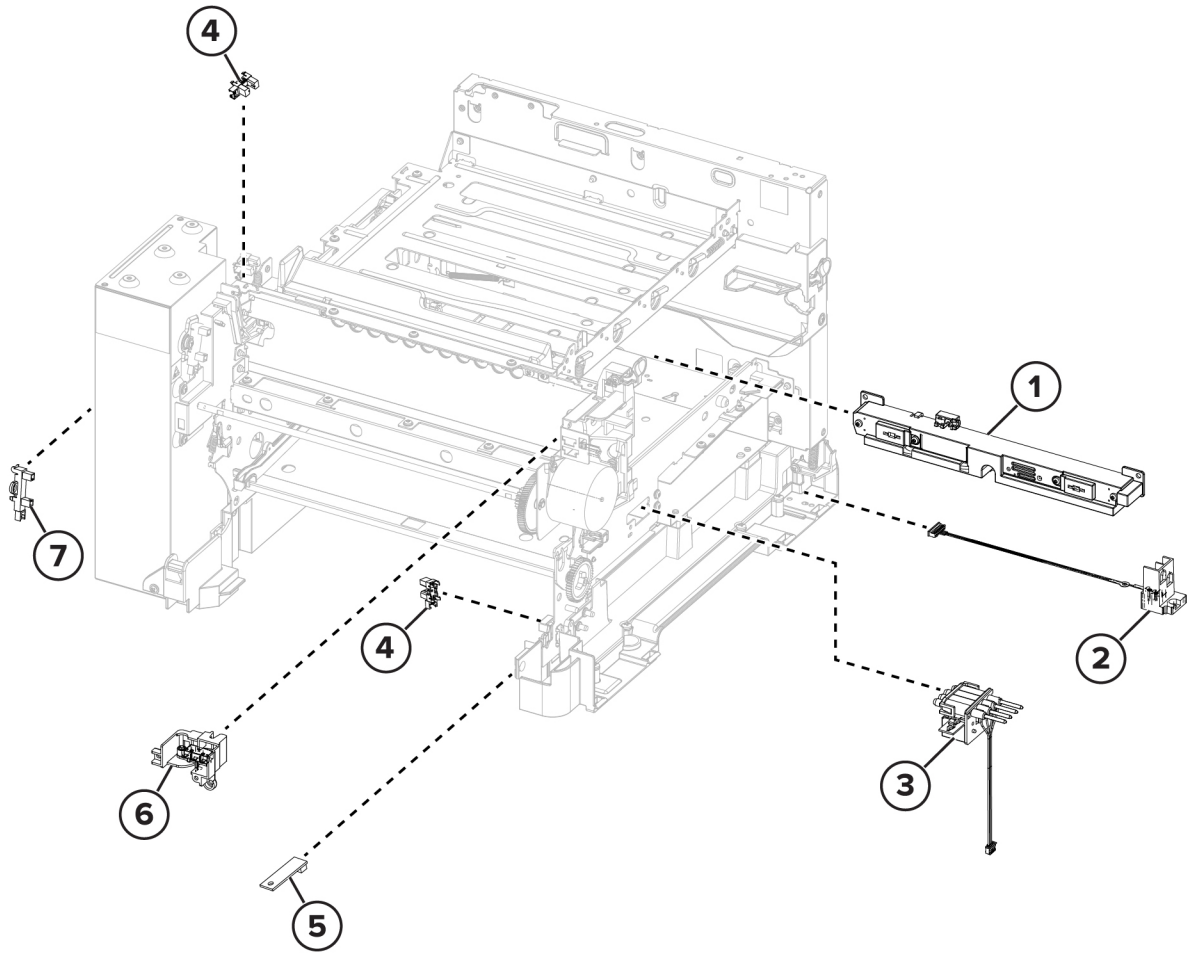


C410S\_5006

## Parts Catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	127N07965	1	1	Fan	<a href="#">Fan Removal</a>
2	127N07961	1	1	Motor (fuser drive)	<a href="#">Motor (Fuser) Removal</a>
3	022N02898	1	1	Media feeder	<a href="#">Tray 1 Media Feeder Removal</a>
4	007N01851	1	1	EP drive	<a href="#">EP Drive Removal</a>

# Assembly 7: Sensors



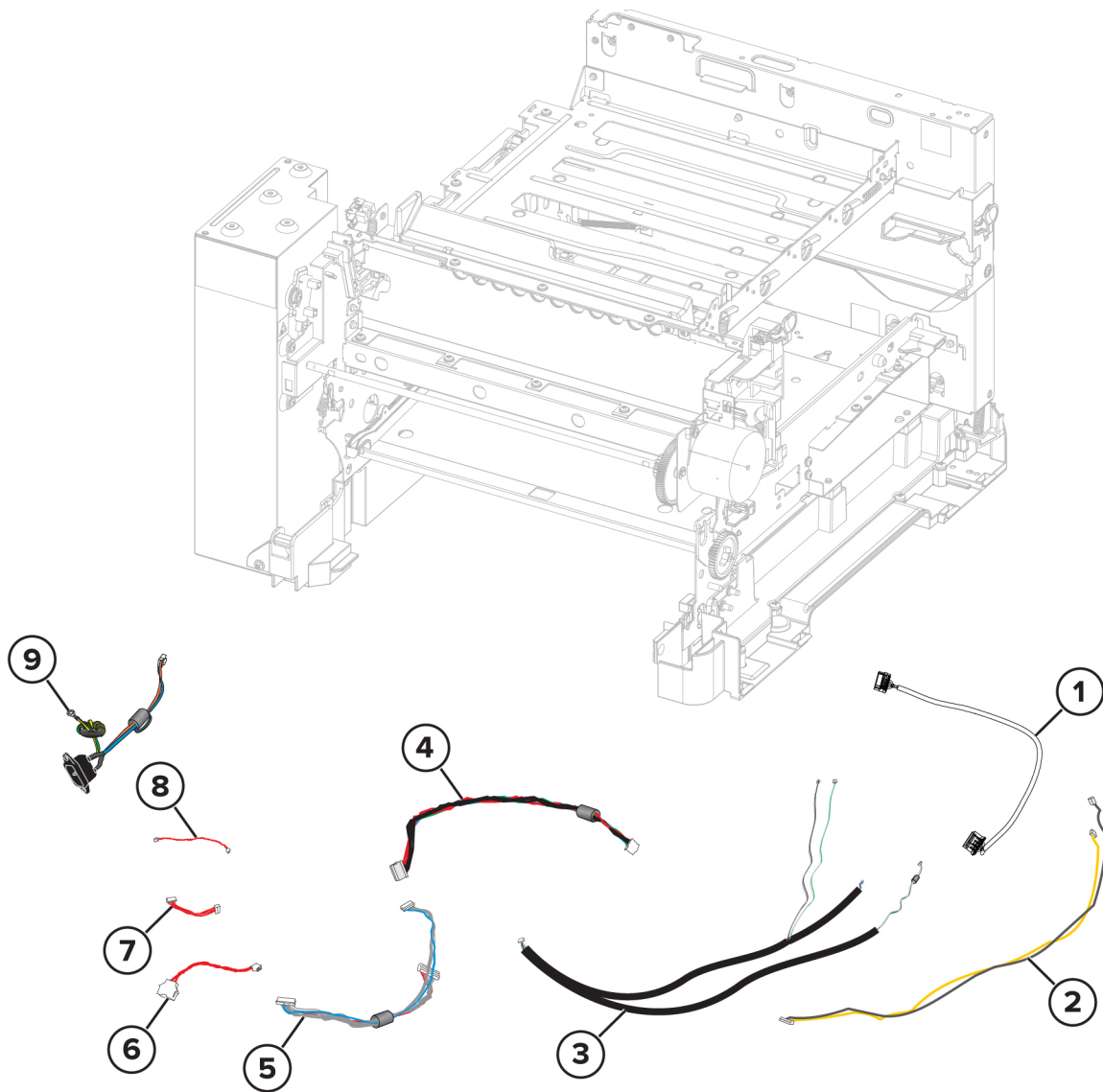
C410S\_5007

Parts Catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	130N01999	1	1	Sensor (toner patch)	Sensor (Toner Patch) Removal
2	014N00528	1	1	Waste toner bottle contact block	Waste Toner Bottle Contact Block Removal
3	108N00643	4	1	Toner cartridge contact	Toner Cartridge Contacts Removal
4	130N01896	3	1	Photo sensors: <ul style="list-style-type: none"> <li>• Sensors (duplex)</li> <li>• Sensors (narrow media/bin full)</li> </ul>	--
5	130N01909	1	1	Weather station	--
6	002N03757	1	1	Front and right side interlock switch cover	Interlock Switch Cover Removal
7	130N01895	1	1	Sensor (fuser exit)	Sensor (Fuser Exit) Removal



# Assembly 8: Cables

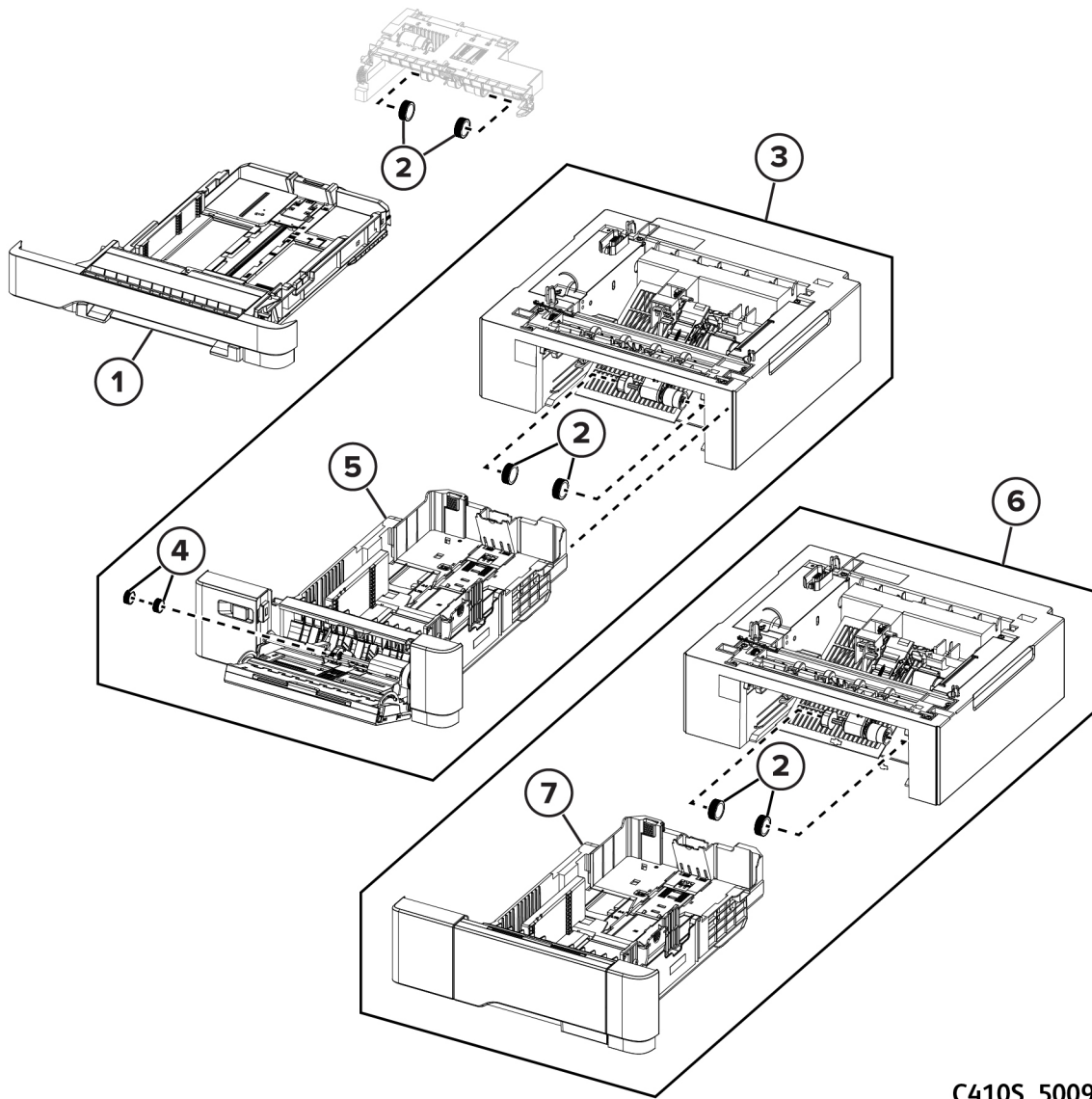


C410S\_5008

Parts Catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	117N02410	1	1	Weather station cable	--
2	126N00450	1	1	Fuser exit narrow media to controller board cable	--
3	117N02414	1	1	Fuser/input sensor cable	--
4	117N02413	1	1	LVPS to controller board cable	--
5	117N02190	1	1	EP motor to controller board cable	--
6	117N02412	1	1	Tray 2 to controller board cable	--
7	117N02193	1	1	HVPS to controller board cable	--
8	117N02411	1	1	Tray present sensor cable	--
9	112N00258	1	1	AC power to LVPS cable	--

# Assembly 9: Trays



C410S\_5009

Parts Catalog

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	050N00765	1	1	250-sheet tray	--
2	022N02894	1	2	Pick arm roller	--
3	–	1	1	Optional 650-sheet duo tray	--
4	022N02895	1	1	MPF rollers	--
5	050N00767	1	1	650-sheet duo tray insert	<a href="#">650-Sheet Duo Tray Insert Removal</a>
6	–	1	1	Optional 550-sheet tray	--
7	050N00766	1	1	550-sheet tray insert	--

## Assembly 10: Accessories

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	497N07994	1	1	Adjustable Printer Stand	--
NS	017N00320	1	1	Adjustable stand non-locking caster	--
NS	017N00319	1	1	Adjustable stand locking caster	--
NS	097S05244	1	1	Printer Stand	--
NS	097N02470	1	1	Optional wireless network adapter	--
NS	097N02464	1	1	Optional 500 +GB HDD	--
NS	097N02465	1	1	550-Sheet Tray	--
NS	097N02468	1	1	550+100-Sheet Tray	--

## Assembly 11: Consumables

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	008R13325	1	1	Waste Cartridge WW	--
2	013R00700	1	1	Black Imaging Kit	--
3	013R00701	1	1	Black and color image	--
4	006R04677	1	1	Black Std WW Sold (See Note)	--
5	006R04685	1	1	Black High-Capacity NA/XE Sold	--
6	006R04693	1	1	Black WW Metered	--
7	006R04697	1	1	Black WW Sold (See Note)	--
8	006R04764	1	1	Black High-Capacity DMO Sold	--
9	006R04678	1	1	Cyan Std WW Sold (See Note)	--
10	006R04686	1	1	Cyan High-Capacity NA/XE Sold	--
11	006R04694	1	1	Cyan WW Metered	--
12	006R04698	1	1	Cyan WW Sold (See Note)	--
13	006R04765	1	1	Cyan High-Capacity DMO Sold	--
14	006R04679	1	1	Magenta Std WW Sold (See Note)	--
15	006R04687	1	1	Magenta High-Capacity NA/XE Sold	--
16	006R04695	1	1	Magenta WW Metered	--
17	006R04699	1	1	Magenta WW Sold (See Note)	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
18	006R04766	1	1	Magenta High-Capacity DMO Sold	--
19	006R04680	1	1	Yellow Std WW Sold (See Note)	--
20	006R04688	1	1	Yellow High-Capacity NA/XE Sold	--
21	006R04696	1	1	Yellow WW Metered	--
22	006R04700	1	1	Yellow WW Sold (See Note)	--
23	006R04767	1	1	Yellow High-Capacity DMO Sold	--

 **Note:** Not widely distributed. For specific accounts only.






10

# Printer Specifications

## Power Consumption

### Product Power Consumption

The following table documents the power consumption characteristics of the product.

 **Note:** Some modes may not apply to your product.

Mode	Description	Power consumption (Watts)
Printing	The product is generating hard-copy output from electronic inputs.	One-sided: 574 Two-sided: 383
Ready	The product is waiting for a print job.	21.3
Sleep Mode	The product is in a high-level energy-saving mode.	1
Hibernate	The product is in a low-level energy-saving mode.	0.2
Off	The product is plugged into an electrical outlet, but the power switch is turned off.	0.2

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average.

### Sleep Mode

This product is designed with an energy-saving mode called *Sleep Mode*. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the *Sleep Mode Timeout*.

Factory default Sleep Mode Timeout for this product (in minutes):	15
---	----

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes, or between 1 minute and 114 minutes, depending on the printer model. If the printer speed is less than or equal to 30 pages per minute, then you can set the timeout only up to 60 minutes or 54 minutes, depending on the printer model. Setting the Sleep Mode Timeout to a low value reduces energy consumption, but may increase the response time of the product. Setting the Sleep Mode Timeout to a high value maintains a fast response, but uses more energy.

Some models support a *Deep Sleep Mode*, which further reduces power consumption after longer periods of inactivity.

## Hibernate Mode

This product is designed with an ultra-low power operating mode called *Hibernate mode*. When operating in Hibernate Mode, all other systems and devices are powered down safely.

The Hibernate mode can be entered in any of the following methods:

- Using the Hibernate Timeout
- Using the Schedule Power modes

Factory default Hibernate Timeout for this product in all countries or regions	3 days
--	--------

The amount of time the printer waits after a job is printed before it enters Hibernate mode can be modified between one hour and one month.

### Notes on EPEAT - registered imaging equipment products:

- Standby power level occurs in Hibernate or Off mode.
- The product shall automatically power down to a standby power level of  $\leq 1$  W. The auto standby function (Hibernate or Off) shall be enabled at product shipment.

## Off Mode

If this product has an off mode which still consumes a small amount of power, then to completely stop product power consumption, disconnect the power supply cord from the electrical outlet.

## Total Energy Usage

It is sometimes helpful to estimate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum of each mode's energy usage.

## Applicability of Regulation (EU) 2019/2015 and (EU) 2019/2020

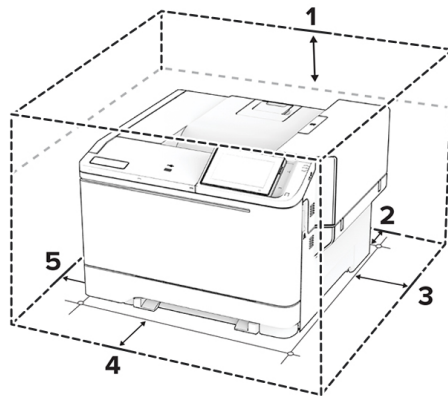
Per Commission Regulation (EU) 2019/2015 and (EU) 2019/2020, the light source contained within this product or its component is intended to be used for Image Capture or Image Projection only, and is not intended for use in other applications.

## Selecting A Location For The Printer


- Leave enough room to open trays, covers, and doors and to install hardware options.
- Set up the printer near an electrical outlet.
- Make sure that airflow in the room meets the latest revision of the ASHRAE 62 standard or the CEN Technical Committee 156 standard.
- Provide a flat, sturdy, and stable surface.
- Keep the printer:
  - Clean, dry, and free of dust.
  - Away from stray staples and paper clips.
  - Away from the direct airflow of air conditioners, heaters, or ventilators.
  - Free from direct sunlight and humidity extremes.
- Observe the recommended temperatures and avoid fluctuations:

Ambient temperature	10 to 32.2°C (50 to 90°F)
Storage temperature	15.6 to 32.2°C (60 to 90°F)

- Allow the following recommended amount of space around the printer for proper ventilation:




C410S\_4233

1	Top	254 mm (10 in.)
2	Rear	102 mm (4 in.)
3	Right side	76 mm (3 in.)
4	Front	508 mm (20 in.)  <b>Note:</b> The minimum space needed in front of the printer is 75 mm (3 in.)
5	Left side	76 mm (3 in.)

## Noise Emission Levels

The following measurements were made in accordance with ISO 7779 and reported in conformance with ISO 9296.

 **Note:** Some modes may not apply to your product.

1 - meter average sound pressure, dBA	
Printing	One-sided: 52 Two-sided: 54
Ready	14

Values are subject to change. See [www.xerox.com](http://www.xerox.com) for current values.

## Temperature Information

Operating temperature and relative humidity	10 to 32.2°C (50 to 90°F) and 15 to 80 % RH 15.6 to 32.2°C (60 to 90°F) and 8 to 80 % RH Maximum wet-bulb temperature <sup>2</sup> : 22.8°C (73°F) Non-condensing environment
Printer / cartridge / imaging unit long-term storage <sup>1</sup>	15.6 to 32.2°C (60 to 90°F) and 8 to 80 % RH Maximum wet-bulb temperature <sup>2</sup> : 22.8°C (73°F)
Printer / cartridge / imaging unit short-term shipping	-40 to 40°C (-40 to 104°F)
<p><sup>1</sup> Supplies shelf life is approximately 2 years. This is based on storage in a standard office environment at 22° C (72°F) and 45 % humidity.</p> <p><sup>2</sup> Wet-bulb temperature is determined by the air temperature and the relative humidity.</p>	

# Options and features

## Installing Optional Trays

**CAUTION—TIPPING HAZARD:** Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury.

**CAUTION—TIPPING HAZARD:** Para instalar uno o varios complementos en la impresora o el equipo multifunción, puede ser necesario utilizar una base de ruedas, mobiliario u otros elementos que eviten la inestabilidad del montaje y la consiguiente posibilidad de sufrir lesiones.

**CAUTION—TIPPING HAZARD:** pour installer une ou plusieurs options sur votre imprimante ou votre MFP, vous aurez peut-être besoin d'un support à roulettes, d'un meuble ou d'un autre système prévu pour stabiliser la machine et éviter les blessures.

**CAUTION—TIPPING HAZARD:** Wenn Sie mehrere Zuführungsoptionen am Drucker oder MFP angebracht haben, sollten Sie aus Stabilitätsgründen einen Rollunterschrank, ein Möbelstück oder Sonstiges verwenden, um Verletzungsrisiken zu vermeiden.

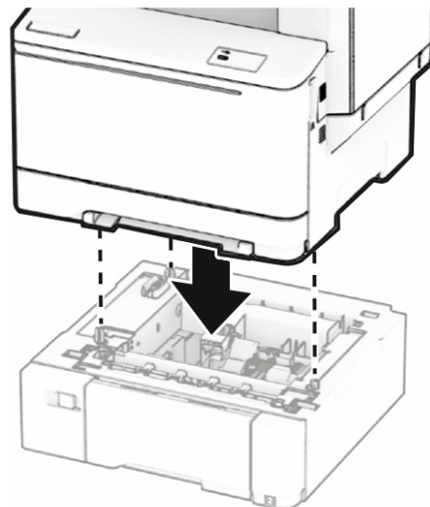
**CAUTION—POTENTIAL INJURY:** If the printer weight is greater than 20 kg (44 lb), then it may require two or more people to lift it safely.

**CAUTION—POTENTIAL INJURY:** Si el peso de la impresora es superior a 20 kg (44 lb), pueden ser necesarias dos o más personas para levantarla de forma segura.

**CAUTION—POTENTIAL INJURY:** Si votre imprimante pèse plus de 20 kg (44 lb), l'intervention d'au moins deux personnes est nécessaire pour la soulever sans risque.

**CAUTION—POTENTIAL INJURY:** Wenn der Drucker mehr als 20 kg wiegt, sind zum sicheren Anheben unter Umständen mindestens zwei Personen notwendig.

1. Turn off the printer.
2. Unplug the power cord from the electrical outlet, and then from the printer.
3. Unpack the optional tray, and then remove all packing material.
4. Align the printer with the optional tray, and then lower the printer into place.



C410S\_4228



**Note:** To avoid invalid configuration, when installing both the 550-sheet tray and 650-sheet tray, always place the 550-sheet tray below the 650-sheet tray.



5. Connect the power cord to the printer, and then to the electrical outlet.
6. Turn on the printer.

Add the tray in the print driver to make it available for print jobs. For more information, see [Adding available options in the print driver](#).

## Adding Available Options In The Print Driver

### For Windows users

1. Open the printers folder.
2. Select the printer you want to update, and then do either of the following:
  - For Windows 7 or later, select **Printer properties**.
  - For earlier versions, select **Properties**.
3. Navigate to the Configuration tab, and then select **Update Now - Ask Printer**.
4. Apply the changes.

### For Macintosh users

1. From System Preferences in the Apple menu, navigate to your printer, and then select **Options & Supplies**.
2. Navigate to the list of hardware options, and then add any installed options.
3. Apply the changes.

# Theory of Operation

## POR Sequence

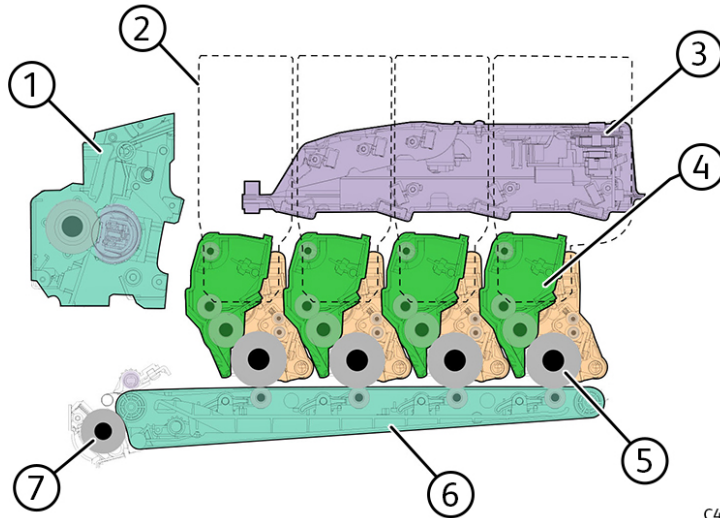
As the printer is turned on, the engine code goes through a series of tests to verify hardware integrity. If a hardware failure is detected, then it is reported to the printer. If the POR sequence cannot be completed successfully, then the printer may post an error message. The message states that service may be needed.

## Printer Control

The printer uses a single processor for both RIP and engine functions. The raster image processor (RIP) code performs system responsibilities such as PC connection, LAN, and bitmap generation. The engine code performs tasks related to the operation of the electrical and mechanical device systems such as motors, lasers, power supplies, and fusers. The NVRAMs are located on the controller board and control panel, replacement of either the controller board or control panel will pull or mirror NVRAM data from each other.

# Electrophotographic (EP) Process

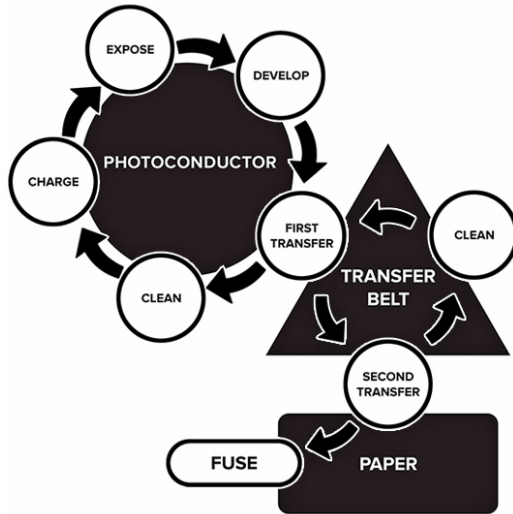
## Print Engine Layout



C410S\_8001

1	Fuser
2	Toner cartridges (Y, C, M, K)
3	Printhead
4	Developer unit
5	Photoconductor drum
6	Transfer belt
7	Second transfer roller

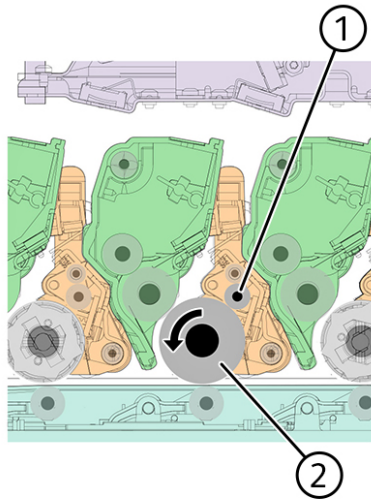
# Flowchart



C410S\_8002

# EP Process

## Charge



C410S\_8003

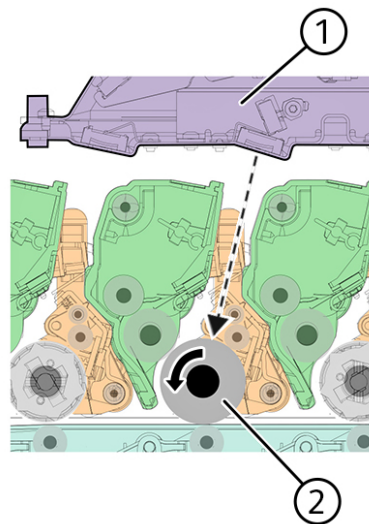
1	Charge roller
2	Photoconductor drum

The charge roller applies a uniform negative electrical charge to the surface of the photoconductor drum. The photoconductor drum, because of its photoconductive properties, holds the charge as long as it is not exposed to light.

### Service tips

- If the surface of the charge roller is damaged, such as having a nick or pit, then the charge on the photoconductor drum is uneven. A repeating mark may appear on the printed page. For more information, see [Repeating Defects](#).
- If the charge roller is severely damaged, then the surface of the photoconductor drum is not properly charged. Excessive amounts of toner particles are deposited on the photoconductor drum. The printed page becomes saturated with 100% of the color from the supply with the defective charge roller. The affected imaging unit or kit must be replaced immediately.

### Expose



C410S\_8004

1	Printhead
2	Photoconductor drum

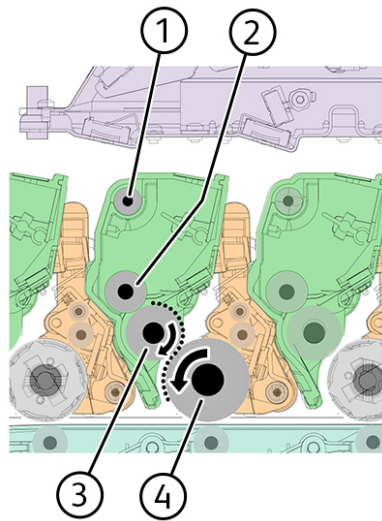
The printhead lasers emit the light that contacts the surface of the photoconductor drum. An invisible image, called *digitallatent image*, is written as the light turns on or off. The light causes areas of the photoconductor drum surface to lose charge, resulting in a relative opposite polarity.

### Service tips

- Do not touch the surface of the photoconductor drum with your bare hand. The oil from your skin may cause a charge disparity on the surface, and the toner may no longer stick properly. The result can be repeating blotches or voids on the printed page or patches of light print. The affected imaging unit or kit may need to be replaced.
- The surface of the photoconductor drum is coated with an organic substance that makes it sensitive to light. Make sure to cover the photoconductor drum when you are working on the printer. If it is exposed to light for too long, then light or dark print quality problems may occur. The imaging unit or imaging kit may need to be replaced.
- Toner particles or dirt that get stuck on the printhead lens may obstruct the path of the laser beam. The result can be vertical light streaks on the printed page. If cleaning is not possible, then the printhead may need to be replaced.



## Develop



C410S\_8005

1	Auger
2	Toner add roller
3	Developer roller
4	Photoconductor drum

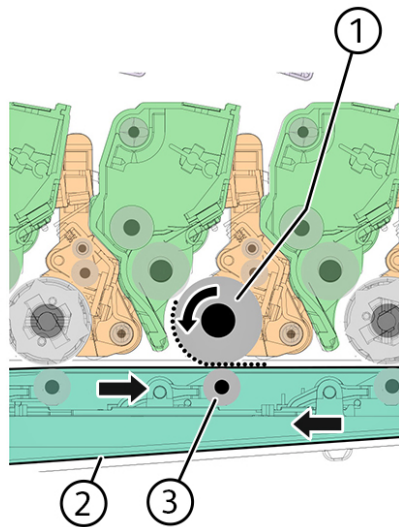
The developer roller applies the toner from the toner cartridge to the photoconductor drum. The relative opposite polarity in charge causes the toner particles to attract to the photoconductor drum areas which were exposed to light.

This process is similar to using glue to write on a can, and then rolling the can over glitter. The glitter sticks to the glue but does not stick to the rest of the can.

### Service tips

- Do not touch the surface of the developer roller with your bare hand. The oil from your skin may cause a charge disparity on the surface, and the toner may no longer stick properly. The result can be repeating blotches or voids on the printed page or patches of light print. The affected developer unit may need to be replaced.
- If the developer roller is damaged, then it cannot contact the surface of the photoconductor drum properly. The result can be repeating marks, thin vertical voids, or thin vertical lines of color on the printed page. Check the surface of the developer roller for damage. For more information, see [Repeating Defects](#).

## First Transfer



C410S\_8006

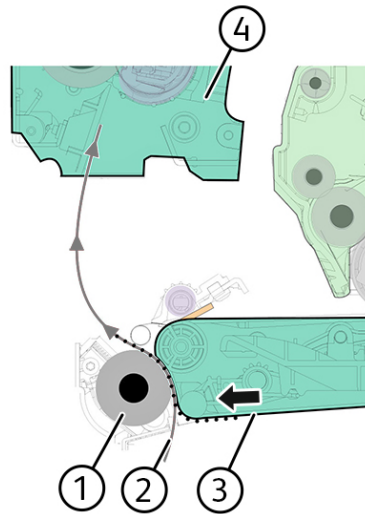
1	Photoconductor drum
2	Transfer belt
3	First transfer roller

For each color, there is a charge difference between the developed toner image on the photoconductor drum surface and the first transfer roller. This difference causes the image to transfer to the surface of the transfer belt. This transfer occurs during a direct surface-to-surface contact between the photoconductor drum and the transfer belt.

### Service tips

- Do not touch the surface of the transfer belt with your bare hand. The oil from your skin may cause a charge disparity on the surface, and the toner may no longer stick properly. The result can be repeating blotches or voids on the printed page or patches of light print. The transfer module may need to be replaced. For more information, see [Repeating Defects](#).
- Do not use solvents or other cleaners to clean the transfer belt surface. Their chemicals may result to scratches or charge disparities. Voids on the printed page or blotches of light print may occur. The transfer module may need to be replaced.
- Sharp and hard objects can damage the transfer belt surface. Be careful when using a screwdriver or prying tool near the transfer module. If the transfer belt has tears or cracks, then the transfer module may need to be replaced.

## Second Transfer



C410S\_8007

1	Second transfer roller
2	Paper
3	Transfer belt
4	Fuser

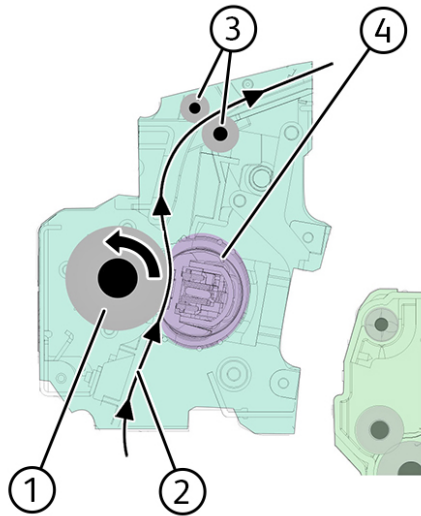
On the transfer belt, the four-color image is carried toward the second transfer roller until it reaches a set point. The paper pick is timed when the paper is at the exact position between the transfer belt and second transfer roller.

When the image on the transfer belt reaches the second transfer roller, the negatively charged toner clings to the paper. The entire image is then transferred from the transfer belt to the paper.

### Service tips

- If the second transfer roller has nicks, pits, or flat spots, then its surface cannot come into contact with the paper and transfer belt. The result can be voids on the printed page or spots of light print (or repeating voids or spots). For more information, see [Repeating Defects](#).
- If the toner does not fully transfer, then the entire page may be very light or blank due to the following:
  - The second transfer roller does not properly engage the transfer belt.
  - The HVPS does not have voltage. Any toner that does transfer, is due to contact alone (without charge). Check the HVPS contacts to the second transfer roller.

## Fuse



C410S\_8008

1	Pressure roller
2	Paper
3	Fuser decurl rollers
4	Heat belt

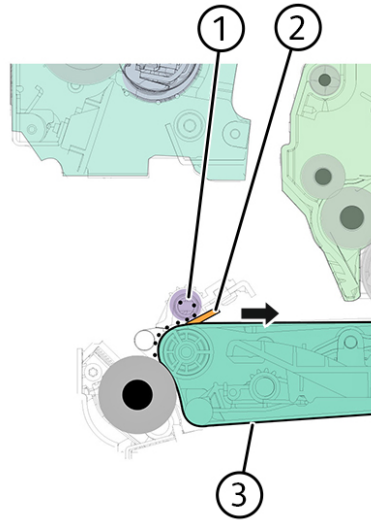
Even if the toner image is already on the paper, the toner particles are not yet permanently bonded to the surface. Paper is transported from the second transfer roller to the fuser where heat and pressure are applied to it. As a result, the toner particles melt and permanently fuse with the paper, completing the print process. The cycle repeats for the succeeding pages.

### Service tips

- If the pressure roller or heat belt is damaged, then the toner may be pulled off the page. Paper jams may also occur.
- Toner rubbing off a printed page indicates a malfunctioning fuser or an incorrect paper type setting. Always check the paper type setting before replacing the fuser. A common mistake is to print on heavier paper, such as card stock, with the paper type set to plain paper.
- After a jam is called on the fuser area, the fuser roller automatically releases to relieve the pressure on the paper. If possible, never pull paper with unfused toner through the fuser. Try to pull the jammed paper out of the fuser in the opposite direction it was traveling.

## Clean

Two cleaning processes take place during the EP process. Both processes remove the residual toner from the system.

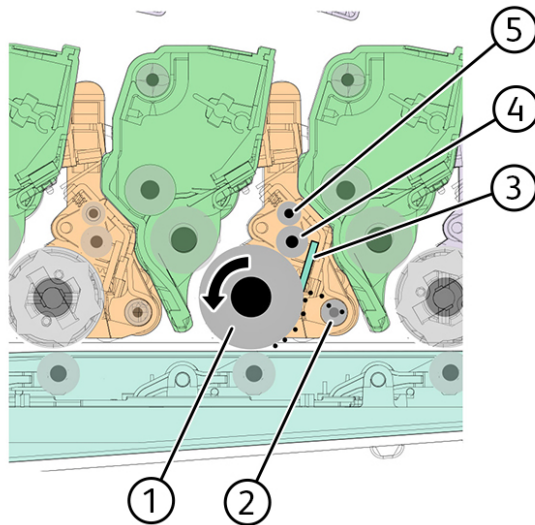


C410S\_8009

1	Auger
2	Cleaning blade
3	Transfer belt

When the toner image on the transfer belt is transferred to the page, the transfer belt rotates and gets cleaned by the cleaning blade. The cleaning occurs for every page that is printed.

The removed toner is moved to the waste toner bottle using a rotating auger.



C410S\_8010

1	Photoconductor drum
2	Auger
3	Cleaning blade
4	Charge roller
5	Charge roller cleaner

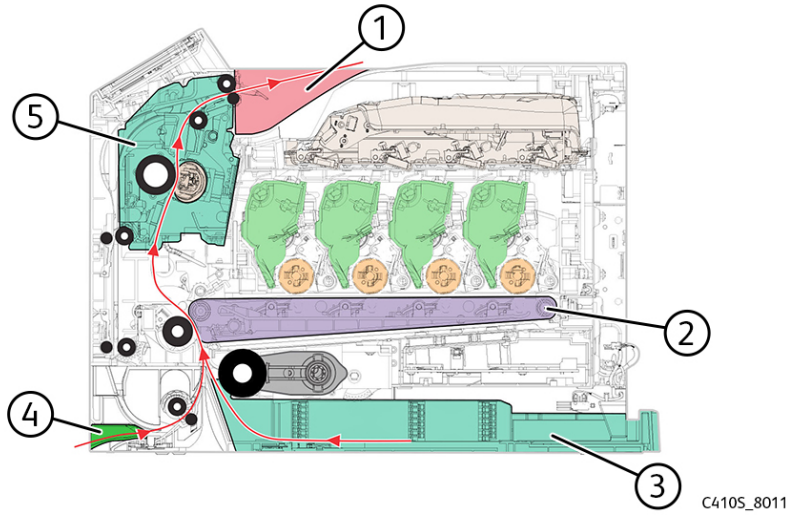
## Theory of Operation

After each plane of color is transferred to the transfer belt from the photoconductor drums, a cleaning blade scrapes the remaining toner from the drums.

The photoconductor drum surface is prepared to restart the EP process.

# Printer Operation

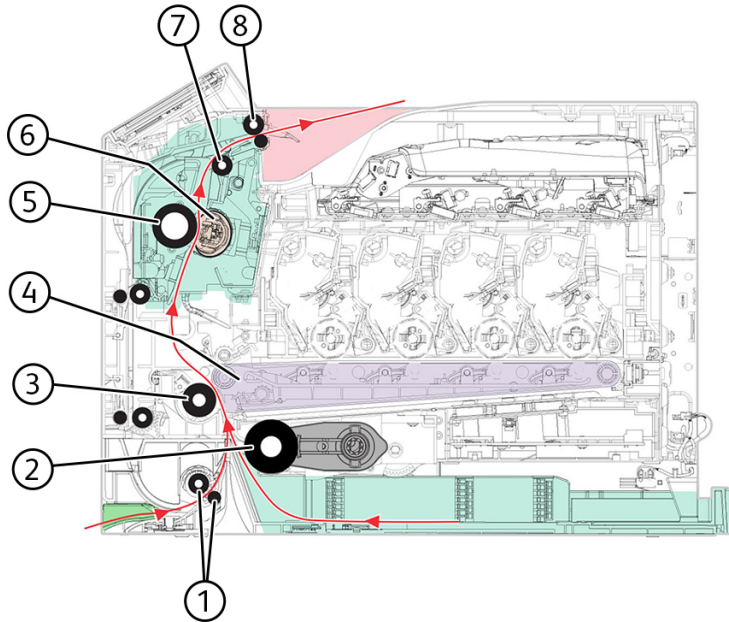
## Printer Sections



1	Output bin
2	Transfer module
3	Standard tray
4	MPF
5	Fuser

# Printer Paper Path Rollers

## Standard Paper Path



C410S\_4230

1	MPF feed rollers
2	Tray 1 pick roller
3	Second transfer roller
4	Transfer belt
5	Fuser roller
6	Fuser belt
7	Fuser decurl roller
8	Fuser exit rollers

Paper is fed from the tray or MPF into the printer by pick or feed rollers.

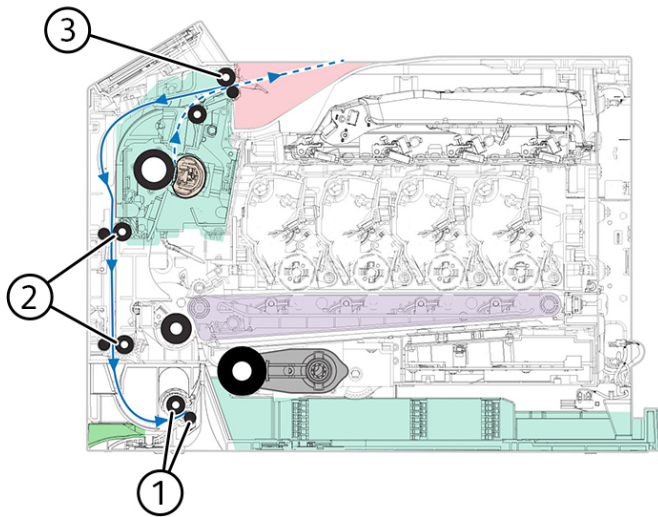
The rollers push the paper to the transfer module where the image is transferred to the page.

The second transfer roller then moves the paper to the fuser, where heat and pressure are applied to the page to make the toner stick to the media.

The fuser roller pushes the paper towards the exit bin. The fuser exit rollers guide the paper into the exit bin.



## Duplex Paper Path



C410S\_4231

1	Duplex staging rollers
2	Duplex transport rollers
3	Fuser exit roller


Printers with duplex support use a secondary paper path to print on the second side of a sheet of paper.

After the first side of the paper is printed and the trailing edge of the paper clears the fuser exit sensor, the fuser motor engages to reverse the paper direction and feed it into the duplex unit. The pick motor also reverses.

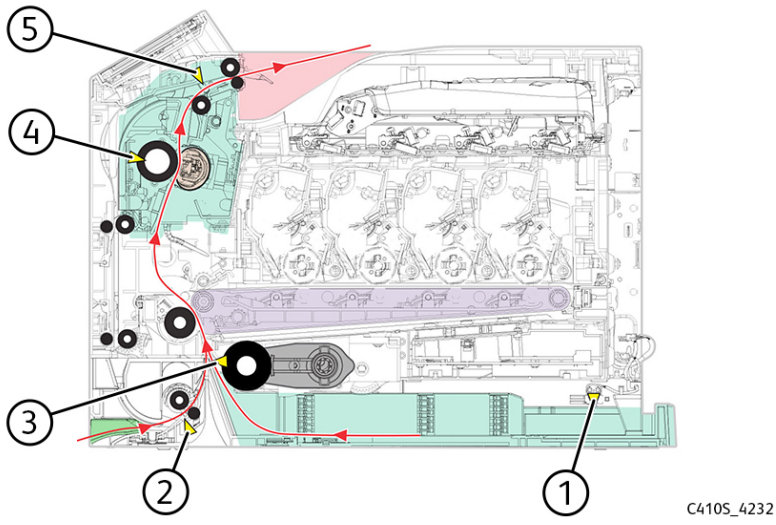
The pick motor drives the duplex aligner rollers, which push the media down to the bottom turnaround in the paper tray and gate aligner.

When the trailing edge of the media clears the fuser, the fuser engine rotates forward to prepare the fuser for the page traveling through the duplex unit. As the media reaches the gate aligner, the speed of the pick motor is adjusted to accommodate the speed of the transfer belt, ensuring the proper registration of the image on the media.

The paper travels to the transfer module, and the second image is transferred to the reverse side of the media. Once the image is transferred, the media travels to the fuser, the fuser exit roller, and then on to the output bin.

 **Note:** While the sheet is being transported through the duplex unit, it is the only sheet of paper being processed by the print engine. A user should not attempt to insert a sheet of paper into the manual paper feed while a duplex job is being processed to avoid a paper jam.

## Printer Paper Path Sensors



1	Sensor (tray present)
2	Sensor (duplex/manual feed)
3	Sensor (input)
4	Sensor (fuser exit)
5	Sensor (bin full)

# Acronyms

# Acronyms

ASIC	Application-Specific Integrated Circuit
BLDC	Brushless DC Motor
BOR	Black Only Retract
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
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

## Acronyms

# Part Name Index

## Part Name Index

P/N	Part Name
002N03743	Top cover
002N03744	Toner cover
002N03758	Rear cover
002N03745	Right cover
003N01189	Door straps
002N03754	Front door
–	Front door inner paper feed guide
002N03746	Left cover
117N02189	Subframe cable cover
001N00610	Lower right subframe
133N23274	Transfer module guide
001N00609	Lower left subframe
123N00294	Control panel
002N03747	Control panel base cover
091N80394	Bezel (C410)
117N02415	Front USB cable
109N00928	Control panel flat cable
046N00246	Printhead
126N00514	Fuser deflector
053N00378	Narrow media/bin full flag
126N00519	Fuser, 110 V
126N00520	Fuser, 220 V
133N23275	Transfer module
140N63971	Engine board (Drive PWB)
109N00926	Controller board
140N63970	Toner meter card
105N02414	HVPS
105N02413	LVPS (220 V)
105N02412	LVPS (110 V)
133N23278	Trusted platform module (TPM)



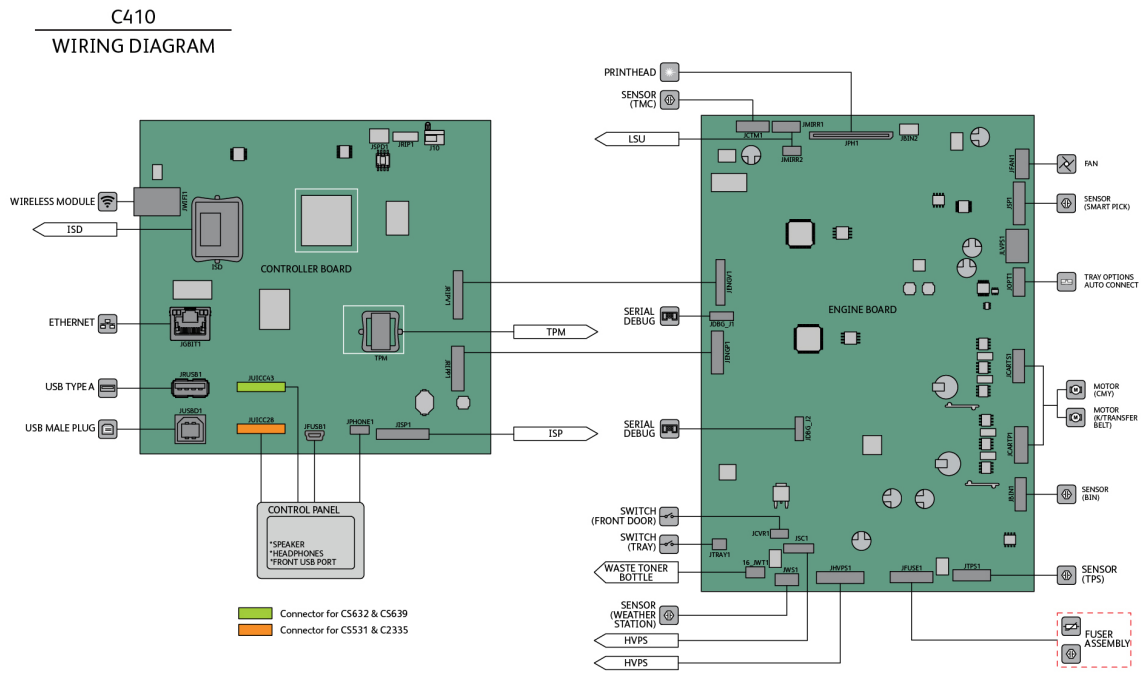
P/N	Part Name
127N07965	Fan
127N07961	Motor (fuser drive)
022N02898	Media feeder
007N01851	EP drive
130N01999	Sensor (toner patch)
014N00528	Waste toner bottle contact block
108N00643	Toner cartridge contact
130N01896	Photo sensors: <ul style="list-style-type: none"> <li>• Sensors (duplex)</li> <li>• Sensors (narrow media/bin full)</li> </ul>
130N01909	Weather station
002N03757	Front and right side interlock switch cover
130N01895	Sensor (fuser exit)
117N02410	Weather station cable
126N00450	Fuser exit narrow media to controller board cable
117N02414	Fuser/input sensor cable
117N02413	LVPS to controller board cable
117N02190	EP motor to controller board cable
117N02412	Tray 2 to controller board cable
117N02193	HVPS to controller board cable
117N02411	Tray present sensor cable
112N00258	AC power to LVPS cable
050N00765	250-sheet tray
022N02894	Pick arm roller
022N02895	MPF rollers
050N00767	650-sheet duo tray insert
050N00766	550-sheet tray insert
497N07994	Adjustable Printer Stand
017N00320	Adjustable stand non-locking caster
017N00319	Adjustable stand locking caster
097S05244	Printer Stand
097N02470	Optional wireless network adapter

Part Name Index

P/N	Part Name
097N02464	Optional 500+GB HDD
097N02465	550-Sheet Tray
097N02468	550+100-Sheet Tray
008R13325	Waste Catridge WW
013R00700	Black Imaging Kit
013R00701	Black and color image
006R04677	Black Std WW Sold (See Note)
006R04685	Black High-Capacity NA/XE Sold
006R04693	Black WW Metered
006R04697	Black WW Sold (See Note)
006R04764	Black High-Capacity DMO Sold
006R04678	Cyan Std WW Sold (See Note)
006R04686	Cyan High-Capacity NA/XE Sold
006R04694	Cyan WW Metered
006R04698	Cyan WW Sold (See Note)
006R04765	Cyan High-Capacity DMO Sold
006R04679	Magenta Std WW Sold (See Note)
006R04687	Magenta High-Capacity NA/XE Sold
006R04695	Magenta WW Metered
006R04699	Magenta WW Sold (See Note)
006R04766	Magenta High-Capacity DMO Sold
006R04680	Yellow Std WW Sold (See Note)
006R04688	Yellow High-Capacity NA/XE Sold
006R04696	Yellow WW Metered
006R04700	Yellow WW Sold (See Note)
006R04767	Yellow High-Capacity DMO Sold

# Wiring Diagram

# Wiring Diagram



C4105\_7001



