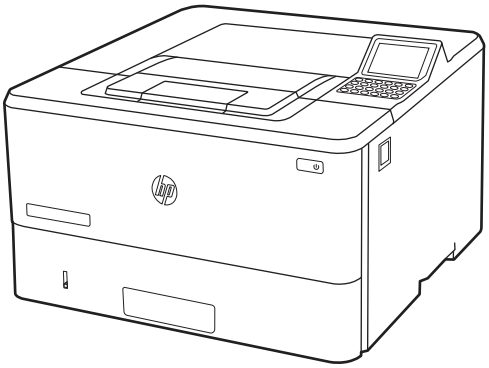
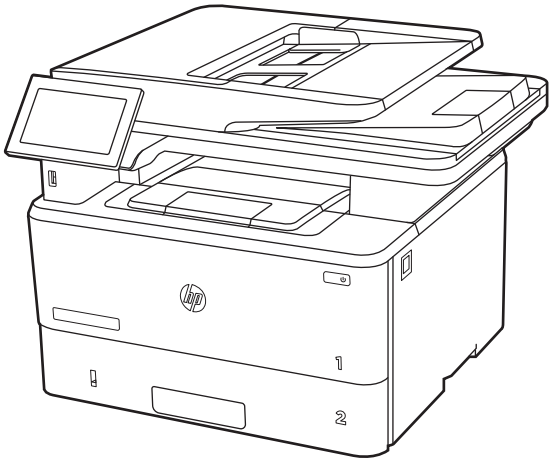
HP LaserJet Enterprise M406, M407
HP LaserJet Managed E40040
HP LaserJet Enterprise MFP M430, M431
HP LaserJet Managed E42540

Repair Manual





www.hp.com/videos/LaserJet
www.hp.com/support/ljM406
www.hp.com/support/ljM407
www.hp.com/support/ljM430MFP
www.hp.com/support/ljM431MFP
www.hp.com/support/ljE40040
www.hp.com/support/ljE42540MFP

HP LaserJet M406, M407, E40040, MFP M430, M431, E42540 - Repair manual

SUMMARY

This guide provides troubleshooting and repair information.

Legal information

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Edition 1, 12/2023

Conventions used in this guide

Learn about the conventions used in this publication.

TIP: Tips provide helpful hints or shortcuts.

NOTE: Notes provide important information to explain a concept or to complete a task.

CAUTION: Cautions indicate procedures that you should follow to avoid losing data or damaging the product.

WARNING! Warnings alert you to specific procedures that you should follow to avoid personal injury, catastrophic loss of data, or extensive damage to the product.

Safety precautions

Follow these safety protocols when handling or repairing the printer.

Product safety classification: This is a Safety Class I product, which means it has a protective earth terminal. This terminal must be connected to earth ground.

IMPORTANT: Before operation or repair, check the product and review this manual for safety warnings and instructions. Safety warnings for specific procedures are located at appropriate places in the manual.

WARNING: Hazardous voltages exist within the product.

NOTE: HP recommends that only qualified personnel trained in working with high voltage power equipment should service this unit.

Follow these precautions always:

NOTE: If you do not want to disassemble and repair the printer yourself, contact your local HP Service Representative for service, see Contact HP Support section.

Warnings and Cautions

To ensure the proper use of the printer and to prevent the printer from being damaged, follow the warning and caution symbols marked in this guide. See Conventions used in this guide.

Electrical precautions

- **Power cord instructions**
  - Make sure your power source is adequate for the product voltage rating. The voltage rating is on the product label.

    Typically, the product uses either 110-127 Vac or 220-240 Vac and 50/60 Hz. Depending on a product, the voltage usage might change (100-127 Vac, for example). It is recommended to refer your product manual for the specified voltage.
  - Connect the power cord between the product and a grounded AC outlet.

    CAUTION: To prevent damage to the product, use only the power cord that is provided with the product.

    Do not damage, cut, or repair the power cord. A damaged power cord can cause fire or electric shock. Replace a damaged power cord with an HP-approved power cord.
  - Unplug the power cord when disassembling or assembling the printer.

The printer utilizes a power switch (button) that is turned "ON" or "OFF". Be aware that electricity may flow on the primary side of the printer even when the printer is "OFF".

- Power off the printer and unplug the power cord and fax cord (if available) from the electrical outlet in any of the following cases:
  - When removing product enclosure or covers from the printer or when accessing internal parts of a printer.
  - If there is smoke or an unusual smell coming from the printer.
  - A piece of metal or a liquid (not part of cleaning and maintenance routines) touches internal parts of the printer.
  - During an electrical storm (with thunder and/or lightning).
  - During an electrical power failure.

Electrostatic Discharge (ESD) precautions

Electrostatic discharge (ESD) can damage electronic components inside your printer.

Use these guidelines to protect sensitive parts against damage from electrostatic discharge.

- Touch a metal object that is not painted and is grounded.
- Leave electronic parts such as a memory chip in the bag it was shipped in until you are ready to perform the installation.
- ESD wrist straps can also be used to help release excess electrostatic charge.

- **CAUTION:** 

  Some parts are sensitive to electrostatic discharge (ESD). Look for the ESD reminder when removing printer parts.

  Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly.

- Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

Handling toner

HP recommends that you wear gloves when handling toner cartridges and toner system components.

Do not expose toner or toner cartridge to fire or any heat source.

Keep imaging unit and/or toner cartridge away from children. The toner powder contained in the imaging unit and toner cartridge may be harmful, and if swallowed, you should contact a doctor.

Lifting equipment

Follow the recommendations for lifting or moving your printer.

The printed inbox guides and support documentation available on support.hp.com for your printer model will provide the lifting requirements to avoid injury and to safely move the printer.

NOTE: Do not attempt to lift heavy equipment without assistance.

Safety measures during disassembling or reassembling

IMPORTANT: Before disassembling or reassembling a printer, be sure to unplug its power cord from the electrical outlet.

NOTE: Assembly is the reverse of disassembly unless otherwise specified.

- During disassembly, reassembly, or transportation of a printer, remove the toner cartridge as necessary.
- Only fuses with the required rated current, voltage, and specified type (normal blow, time delay, etc.) should be used.

  Do not use repaired fuses or short-circuited fuse holders. Doing so, could cause a shock or fire hazard.
- Capacitors inside this product may hold a hazardous charge even if the product has been disconnected from its power source.
- Do not disable safety functions (Interlocks or safety circuits). Safety will not be assured leading to a safety hazard and potential injury.
- Note the length, diameters, and locations of screws as you remove them. When reassembling the printer, be sure to use them in their original locations.
- As a best practice safety rule, do not run the printer with any parts removed.

Ingestion hazards

This product may contain a button cell or coin battery that is not intended to be replaced.

- A swallowed button cell or coin battery can cause internal chemical burns in as little as two (2) hours.

  Death or serious injury can occur if ingested.
- Keep new and used batteries out of reach of children. Used batteries may cause severe injury or death.

  Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body. Call a local poison control center for treatment information.
- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do not dispose of batteries in household trash or incinerate.

Laser radiation hazards

The printer is certified as a Class 1 laser product.

WARNING: Using controls, adjusting or performing procedures other than those specified in the user guide could result in exposure to hazardous radiation. Do not disassemble the laser/scanner unit as the laser beam can injure your eyes. An invisible laser beam is emitted within the laser/scanner unit.

Mechanical hazards

The printer has moving parts that could cause injury. To avoid personal injury, take the following precautions when working close to the printer.

- Keep your clothes and body away from the printer's moving parts.
  - Avoid wearing dangling jewelry or other hanging objects around the printer as it might be caught by moving parts and lead to injury.
  - Keep long hair tied up and away from the paper feed mechanism.
  - Ensure the sleeves or gloves do not get caught in the printer's moving parts.
- Avoid standing close to the fans as it could cause injury and could also affect print quality (by obstructing the air flow).
- Do not touch gears or moving rolls during printing.
- Do not operate the printer when having enclosure covers removed or interlock switches bypassed.
- The product may have internal sharp edges.

  Make sure the wiring does not come into contact with sharp edges, burrs, or other pointed parts. Current can leak, leading to a risk of electrical shock or fire hazard.
- During and after repair, check internal electrical wiring for squeezing, sheaths and any damage.
- – Make sure that all screws, components, wiring, connectors and so forth that were removed, have been reinstalled in the original location.
  - Do not allow any metal parts such as clips, staples and screws to fall into the printer. This could potentially short internal circuits and cause an electrical shock hazard.
  - Do not allow liquids (except those used in HP cleaning kits) to touch the internal parts of the printer. Doing so may cause fire, electric shock, or other serious hazards.

Thermal hazards

Caution: Inspection before repair for fuser

The area around the fuser unit may be hot. Wait for a few minutes until the fuser assembly cools down.

Contact HP Support

HP offers phone support to assist you for printer issues. Ensure to read the following information before contacting HP Support.

Before contacting HP Support

Before contacting support, consider checking the resources available on HP Customer Support.

1. Go to HP Customer Support (https://support.hp.com) to locate your product support page.
2. Review the documents for troubleshooting before contacting HP.

Information required when contacting HP Support

If you call an HP support representative for assistance, ensure you have the following information for HP support to answer your questions quickly:

- **Product model**: Note the printer model, product number, and serial number you are using. The product number and the serial number are typically found on the label at the back of the product.
- **Error code**: If there is an error code or message displaying on the printer control panel, note the error code and message.
- **Computer (operating system)**: Provide the name of the computer/computer operating system you are using.
- Any **special equipment or software** you are using (for example, spoolers, networks, switch-boxes, modems or special software drivers).
  - The type of interface used on your product (USB or network).
  - The software and driver name and firmware version number that you are currently using.
- **Printer service information**: You can obtain the printer service information from the Embedded Web Server (EWS). If you need to send this information by email, download it as a file from your browser, and send the file.

NOTE: Depending on your printer firmware version, the menu items in the EWS might vary.

1. Open a Web browser on your computer, and then enter the IP address of your printer to access the Embedded Web Server.
2. Click **Support** > **Service support** > **Service information** > **Display**.

Phone support

HP phone support is available on the HP support website. For assistance, go to one of the following websites:

- https://support.hp.com/contact or
- https://support.hp.com/contact/help/printer or
- https://www.hp.com/us-en/contact-hp/contact.html.

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1 Printer information, configurations, and specifications

Learn about printer configuration and specifications.

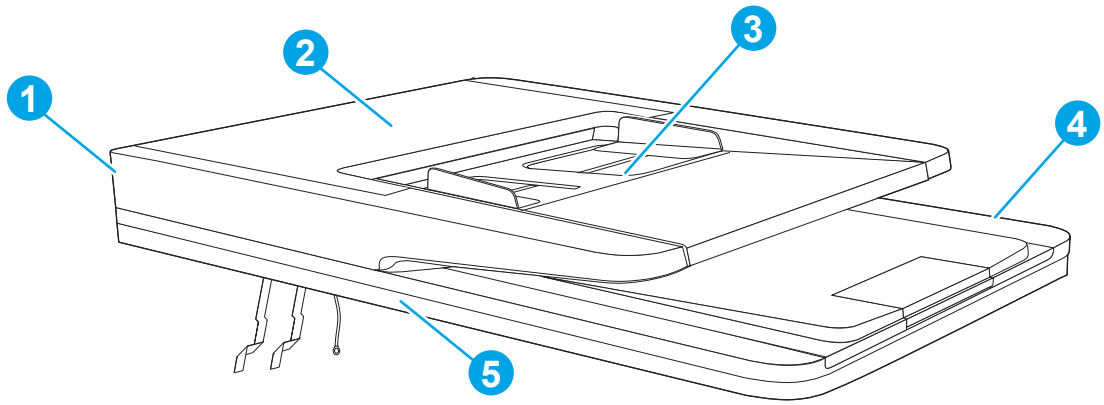
Information (document feeder and scanner)

Learn about the document feeder and scanner.

Document feeder and scanner front view

Learn about the document feeder and scanner components.

Figure 1-1 Document feeder and scanner front view



Item	Description
1	Document feeder
2	Jam access door
3	Input tray (source documents)
4	Output bin (source documents)
5	Flatbed scanner

Specifications (document feeder and scanner)

Learn about the document feeder and scanner specifications.

Technical specifications

Learn about the document feeder and scanner specifications.

Review the technical specifications for the document feeder and scanner.

See www.hp.com/support/ljM430MFP or www.hp.com/support/ljM431MFP or www.hp.com/support/lj42540MFP for current information.

Table 1-1 Copy and scan specifications (document feeder and scanner)

Copy and scan features	M430	M431	E42540
Copies and scans up to 32 pages per minute (ppm)	✓	✓	✓
50-page document feeder with dual-head scanning for single-pass duplex copying and scanning	✓	✓	✓
Scan to E-mail, Scan to USB, and Scan to Network Folder option	✓	✓	✓

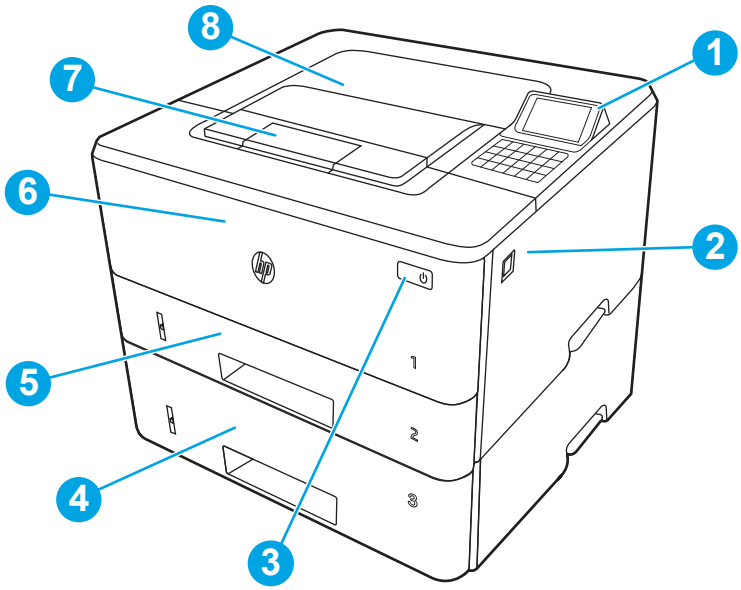
Information (base printer)

Learn about the base printer.

Printer front view (SFP)

Identify the parts on the front of the printer (SFP).

Figure 1-2 Printer front view (SFP)



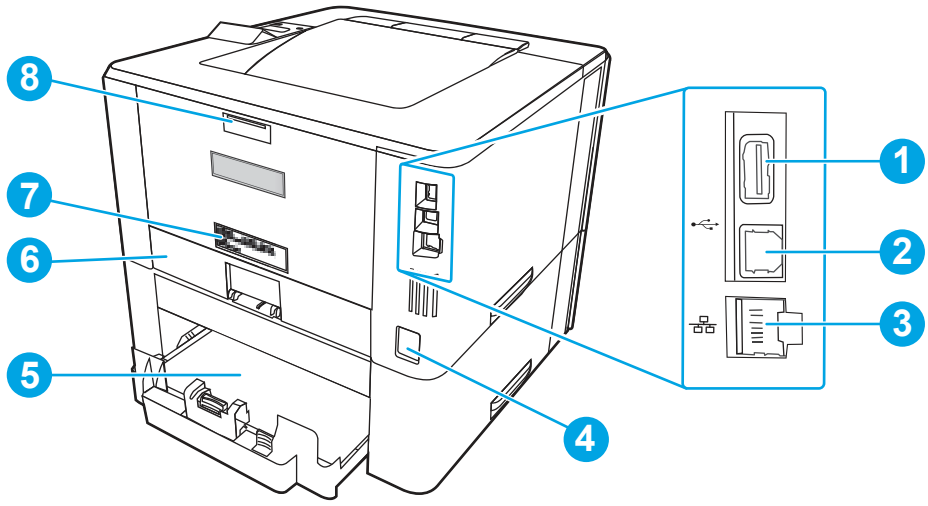
Number	Description
1	Color non-touch control panel with 10-key keypad

Number	Description
2	Front door release button (access to the toner cartridge)
3	Power on/off button
4	Tray 3 (optional)
5	Tray 2
6	Tray 1
7	Output bin extension
8	Output bin

Printer back view (SFP)

Identify the parts on the back of the printer (SFP).

Figure 1-3 Printer rear view (SFP)

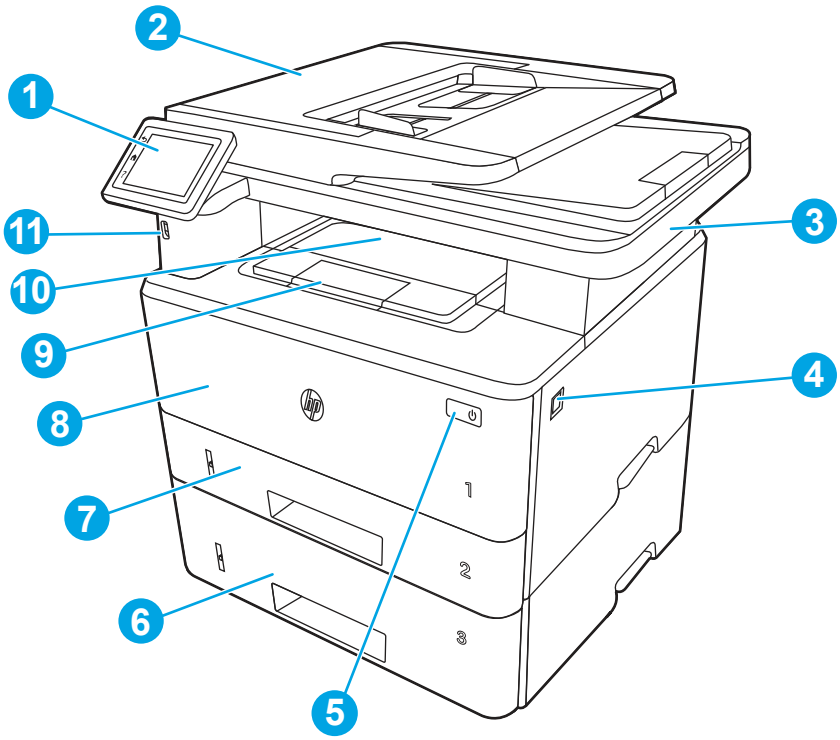


Number	Description
1	USB port for job storage or connecting accessories
2	USB port for direct connection to a computer
3	Ethernet port
4	Power connection
5	Tray 3 (optional) NOTE: Tray 3 extends when legal-size or A4-size paper is loaded.
6	Dust cover for Tray 2 NOTE: Dust cover flips up when legal-size or A4-size paper is loaded.
7	Serial number and product number label
8	Rear door (access for clearing jams)

Printer front view (MFP)

Identify the parts on the front of the printer (MFP).

Figure 1-4 Printer front view (MFP)

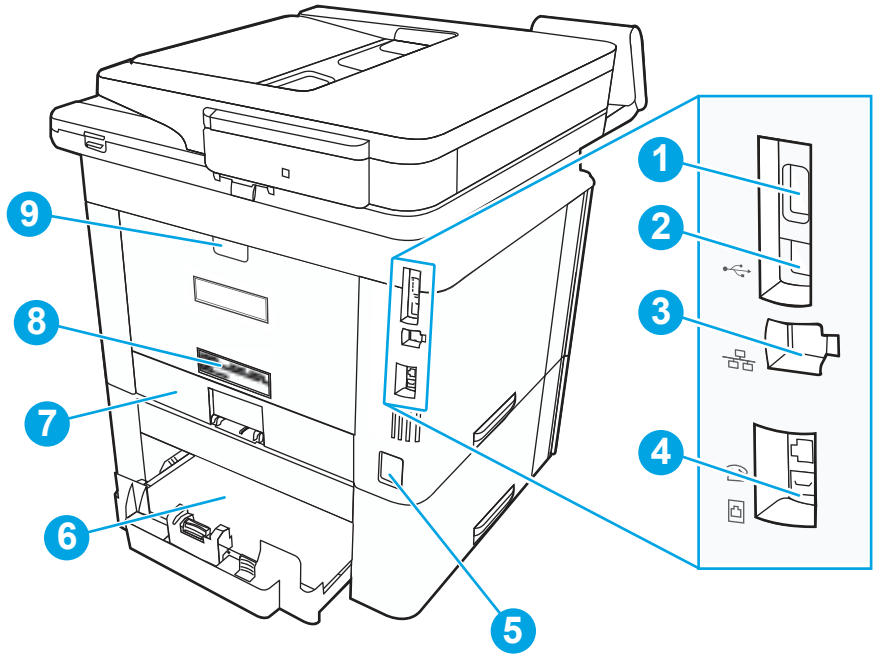


Number	Description
1	Control panel (tilts up for easier viewing)
2	Document feeder
3	Scanner
4	Front door release button (access to the toner cartridge)
5	Power on/off button
6	Tray 3 (optional)
7	Tray 2
8	Tray 1
9	Output bin extension
10	Output bin
11	Walk-up USB port (for printing and scanning without a computer)

Printer back view (MFP)

Identify the parts on the back of the printer (MFP).

Figure 1-5 Printer rear view (MFP)



Number	Description
1	USB port (for job storage and private printing)
2	USB interface port
3	Ethernet port
4	Fax "line in" port (for attaching the fax phone line to the printer)
5	Power connection
6	Tray 3 (optional) NOTE: Tray 3 extends when legal-size or A4-size paper is loaded.
7	Dust cover for Tray 2 NOTE: Dust cover flips up when legal-size or A4-size paper is loaded.
8	Serial number and printer number label
9	Rear door (provides access for clearing jams)

Configuration (base printer)

Learn about the base printer configurations.

Configuration (base printer SFP)

Learn about the base printer SFP configurations.

Figure 1-6 HP LaserJet Enterprise M406/M407/E40040 printer



HP LaserJet Enterprise M406

- 40/38 pages per minute (letter/A4)
- FutureSmart 5 firmware
- Trusted platform module 2.0 (security)
- HP Web JetAdmin
- Automatic duplex printing
- 700-4,000 pages per month
- 350-sheet standard capacity
- 900-sheet maximum capacity
- 68.58 mm (2.7 in) color non-touchscreen control panel
- 1.0 GB RAM memory
- 4GB eMMC mass storage
- 550-sheet paper feeder (optional)
- 508 accessibility kit (optional)

HP LaserJet Enterprise M407

- Same features as the HP LaserJet Enterprise M406
- China/India specific supplies

HP LaserJet Managed E40040

- Same features as the HP LaserJet Enterprise M406
- Managed contractual cartridge with lowest possible cost per page
- Locking tray guides
- Smart device services (SDS) firmware features

Configuration (base printer MFP)

Learn about the base printer MFP configurations.

Figure 1-7 HP LaserJet Enterprise M430/M431/E42540 printer



HP LaserJet Enterprise M430

- 40/38 pages per minute (letter/A4)
- FutureSmart 5 firmware
- Trusted platform module 2.0 (security)
- HP Web JetAdmin
- Automatic duplex printing
- 50-sheet document feeder (duplex scanning)
- Single pass double sided scan/copy
- Fax
- 700-4,000 pages per month
- 350-sheet standard capacity
- 900-sheet maximum capacity
- 109.22 mm (4.3 in) color touchscreen control panel
- 1.5 GB RAM memory
- 8GB eMMC mass storage
- 550-sheet paper feeder (optional)
- 508 accessibility kit (optional)

HP LaserJet Enterprise M431

- Same features as the HP LaserJet Enterprise M430
- China/India specific supplies

HP LaserJet Managed E42540

- Same features as the HP LaserJet Enterprise M430
- Managed contractual cartridge with lowest possible cost per page

- Locking tray guides
- Smart device services (SDS) firmware features

Specifications (base printer)

Learn about the base printer specifications.

Technical specifications (M406/M407)

Review the technical specifications for the M406/M407 printers.

See www.hp.com/support/ljM406 or www.hp.com/support/ljM407 or www.hp.com/support/ljE40040 for current information.

Product numbers for each model

- M406dn - #3PZ15A
- M407dn - #3PZ16A

Table 1-2 Paper handling specifications

Paper handling features	M406dn	M407dn
Tray 1 (100-sheet capacity)	✓	✓
Tray 2 (250-sheet capacity)	✓	✓
Optional 550-sheet accessory tray	Optional	Optional
Automatic duplex printing	✓	✓

Table 1-3 Connectivity specifications

Connectivity features	M406dn	M407dn
10/100/1000 Ethernet LAN connection with IPv4 and IPv6	✓	✓
Hi-Speed USB 2.0	✓	✓
HP Jetdirect 2900nw Print Server accessory for Wi-Fi connectivity and an additional Ethernet port	Optional	Optional
HP Jetdirect 3000w NFC/Wireless Accessory for printing from mobile devices	Optional	Optional
HP Jetdirect 3100w accessory for Wi-Fi, BLE, NFC, and proximity badge reading	Optional	Optional

Table 1-4 Print specifications

Print features	M406dn	M407dn
Prints 38 pages per minute (ppm) on A4 and 40 ppm on letter-size paper Prints 40 ppm on A4 and 42 ppm on letter-size paper with Speed-up Option	✓	✓

Table 1-4 Print specifications (continued)

Print features	M406dn	M407dn
Job storage and private printing	✓	✓

Table 1-5 Other specifications

Other features	M406dn	M407dn
1.0 GB base memory	✓	✓
4 GB embedded Multi-Media Controller (eMMC)	✓	✓
68.58 mm (2.7 in) color non-touch control panel with 10-key keypad	✓	✓
HP Trusted Platform Module for encrypting all data that passes through the printer	✓	✓
HP Accessibility Kit	Optional	Optional
HP Accessibility Assistant	Optional	Optional
HP USB Universal Card Reader	Optional	Optional
HP LEGIC Card Reader	Optional	Optional

Technical specifications (E40040)

Review the technical specifications for the E40040 printer.

See www.hp.com/support/lj40040 for current information.

Product numbers for each model

- E40040dn - #3PZ35A

Table 1-6 Paper handling specifications

Paper handling features	E40040dn
Tray 1 (100-sheet capacity)	✓
Tray 2 (250-sheet capacity)	✓
Optional 550-sheet accessory tray	Optional
Automatic duplex printing	✓

Table 1-7 Connectivity specifications

Connectivity features	E40040dn
10/100/1000 Ethernet LAN connection with IPv4 and IPv6	✓
Hi-Speed USB 2.0	✓
HP Jetdirect 2900nw Print Server accessory for Wi-Fi connectivity and an additional Ethernet port	Optional
HP Jetdirect 3000w NFC/Wireless Accessory for printing from mobile devices	Optional

Table 1-7 Connectivity specifications (continued)

Connectivity features	E40040dn
HP Jetdirect 3100w accessory for Wi-Fi, BLE, NFC, and proximity badge reading	Optional

Table 1-8 Print specifications

Print features	E40040dn
Prints 38 pages per minute (ppm) on A4 and 40 ppm on letter-size paper	✓
Prints 40 ppm on A4 and 42 ppm on letter-size paper with Speed-up Option	
Job storage and private printing	✓

Table 1-9 Other specifications

Other features	E40040dn
1.0 GB base memory	✓
4 GB embedded Multi-Media Controller (eMMC)	✓
68.58 mm (2.7 in) color non-touch control panel with 10-key keypad	✓
HP Trusted Platform Module for encrypting all data that passes through the printer	✓
HP Accessibility Kit	Optional
HP Accessibility Assistant	Optional
HP USB Universal Card Reader	Optional
HP LEGIC Card Reader	Optional

Technical specifications (M430/M431)

Review the technical specifications for the M430/M431 MFP printers.

See www.hp.com/support/ljM430MFP or www.hp.com/support/ljM431MFP or www.hp.com/support/lj42540MFP for current information.

Product numbers for each model

- M430f - #3PZ55A
- M431f - #3PZ56A

Table 1-10 Paper handling specifications

Paper handling features	M430f	M431f
Tray 1 (50-sheet capacity)	✓	✓
Tray 2 (250-sheet capacity)	✓	✓
Optional 550-sheet accessory tray	Optional	Optional
Automatic duplex printing	✓	✓

Table 1-11 Connectivity specifications

Connectivity features	M430f	M431f
10/100/1000 Ethernet LAN connection with IPv4 and IPv6	✓	✓
Hi-Speed USB 2.0	✓	✓
Walk-up USB port	✓	✓
HP Jetdirect 2900nw Print Server accessory for Wi-Fi connectivity and an additional Ethernet port	Optional	Optional
HP Jetdirect 3000w NFC/Wireless Accessory for printing from mobile devices	Optional	Optional
HP Jetdirect 3100w accessory for Wi-Fi, BLE, NFC, and proximity badge reading	Optional	Optional

Table 1-12 Print specifications

Print features	M430f	M431f
Prints 38 pages per minute (ppm) on A4 and 40 ppm on letter-size paper Prints 40 ppm on A4 and 42 ppm on letter-size paper with Speed-up Option	✓	✓
Job storage and private printing	✓	✓

Table 1-13 Copy and scan specifications

Copy and scan features	M430f	M431f
Copies and scans up to 32 pages per minute (ppm)	✓	✓
50-page document feeder with dual-head scanning for single-pass duplex copying and scanning	✓	✓
Scan to E-mail, Scan to USB, and Scan to Network Folder options	✓	✓

Table 1-14 Other specifications

Other features	M430f	M431f
1.5 GB base memory	✓	✓
eMMC 16GB	✓	✓
Color touchscreen control panel	✓	✓
Fax features	✓	✓
HP Trusted Platform Module for encrypting all data that passes through the printer	✓	✓
HP Accessibility Kit	Optional	Optional
HP Accessibility Assistant	Optional	Optional
HP USB Universal Card Reader	Optional	Optional

Table 1-14 Other specifications (continued)

Other features	M430f	M431f
HP LEGIC Card Reader	Optional	Optional

Technical specifications (E42540)

Review the technical specifications for the E42540 MFP printer.

See www.hp.com/support/ljE42540MFP for current information.

Product numbers for each model

- E42540f - #3PZ75A

Table 1-15 Paper handling specifications

Paper handling features	E42540f
Tray 1 (50-sheet capacity)	✓
Tray 2 (250-sheet capacity)	✓
Optional 550-sheet accessory tray	Optional
Automatic duplex printing	✓

Table 1-16 Connectivity specifications

Connectivity features	E42540f
10/100/1000 Ethernet LAN connection with IPv4 and IPv6	✓
Hi-Speed USB 2.0	✓
Walk-up USB port	✓
HP Jetdirect 2900nw Print Server accessory for Wi-Fi connectivity and an additional Ethernet port	Optional
HP Jetdirect 3000w NFC/Wireless Accessory for printing from mobile devices	Optional
HP Jetdirect 3100w accessory for Wi-Fi, BLE, NFC, and proximity badge reading	Optional

Table 1-17 Print specifications

Print features	E42540f
Prints 38 pages per minute (ppm) on A4 and 40 ppm on letter-size paper Prints 40 ppm on A4 and 42 ppm on letter-size paper with Speed-up Option	✓
Job storage and private printing	✓

Table 1-18 Copy and scan specifications

Copy and scan features	E42540f
Copies and scans up to 32 pages per minute (ppm)	✓
50-page document feeder with dual-head scanning for single-pass duplex copying and scanning	✓
Scan to E-mail, Scan to USB, and Scan to Network Folder options	✓

Table 1-19 Other specifications

Other features	E42540f
1.5 GB base memory	✓
eMMC 16GB	✓
Color touchscreen control panel	✓
Fax features	✓
HP Trusted Platform Module for encrypting all data that passes through the printer	✓
HP Accessibility Kit	Optional
HP Accessibility Assistant	Optional
HP USB Universal Card Reader	Optional
HP LEGIC Card Reader	Optional

Printer dimensions (SFP)

Make sure your printer environment is large enough to accommodate the printer.

Figure 1-8 Dimensions for the SFP printer

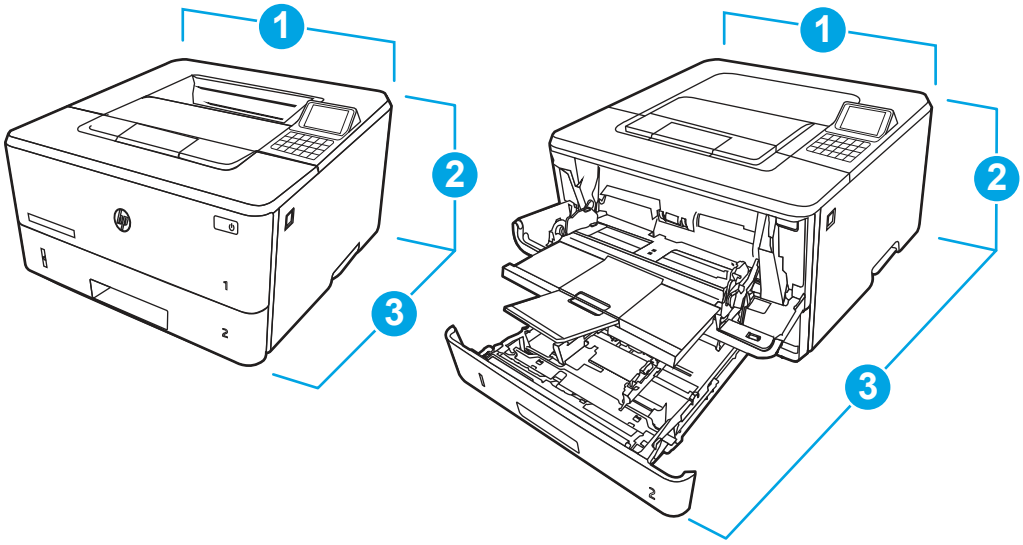


Table 1-20 Dimensions for the SFP printer

Measurement	Printer fully closed	Printer fully opened
1. Width	381 mm (15 in)	381 mm (15 in)
2. Height	220 mm (8.7 in)	241 mm (9.5 in)
3. Depth	357 mm (14 in)	781 mm (30.8 in)
Weight (with cartridge)	8.5 kg (18.74 lb)	8.5 kg (18.74 lb)

Figure 1-9 Dimensions for the optional 550-sheet tray

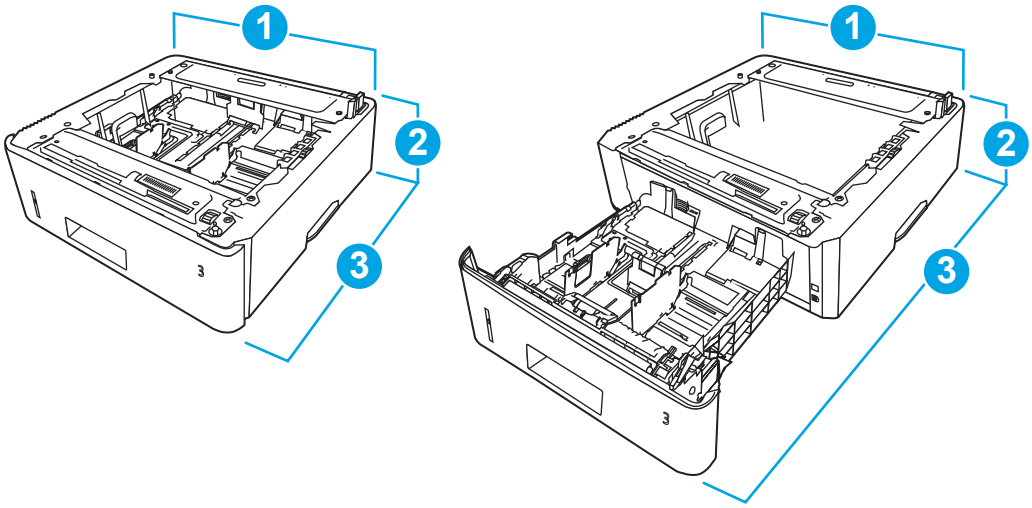


Table 1-21 Dimensions for the optional 550-sheet tray

Measurement	Tray fully closed	Tray fully opened
1. Width	381 mm (15 in)	381 mm (15 in)
2. Height	131 mm (5.1 in)	131 mm (5.1 in)
3. Depth	357 mm (14 in)	781 mm (30.8 in)
Weight	3.7 kg (8.2 lb)	3.7 kg (8.2 lb)

Figure 1-10 Dimensions for the printer with the optional 550-sheet tray (SFP)

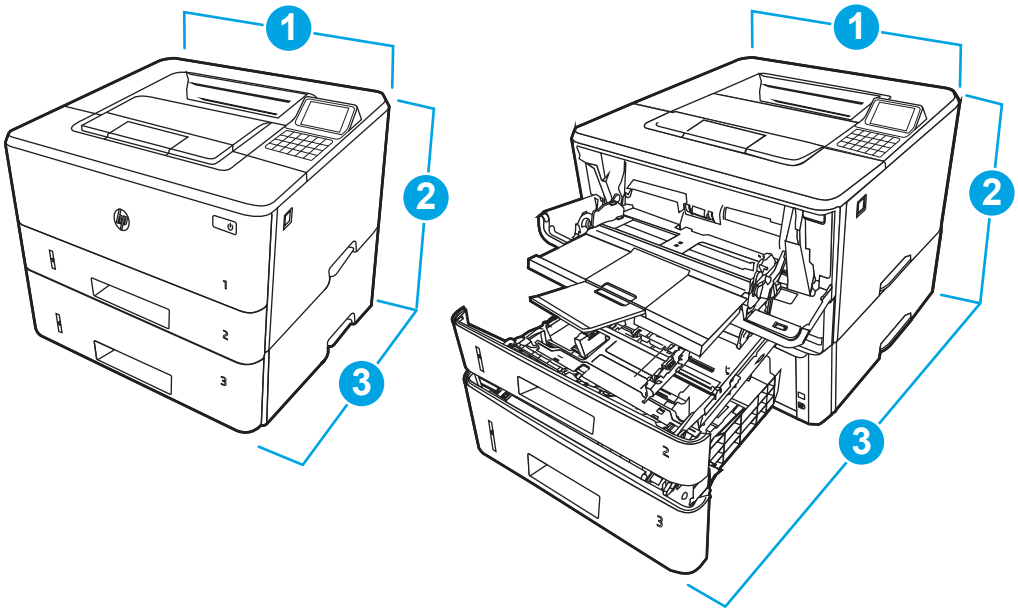


Table 1-22 Dimensions for the printer with the optional 550-sheet tray (SFP)

Measurement	Printer fully closed	Printer fully opened
1. Width	381 mm (15 in)	381 mm (15 in)
2. Height	349 mm (13.7 in)	372 mm (14.6 in)
3. Depth	357 mm (14 in)	781 mm (30.8 in)
Weight (with cartridge)	12.2 kg (26.9 lb)	12.2 kg (26.9 lb)

Printer dimensions (MFP)

Make sure your printer environment is large enough to accommodate the printer.

Figure 1-11 Dimensions for the MFP printer

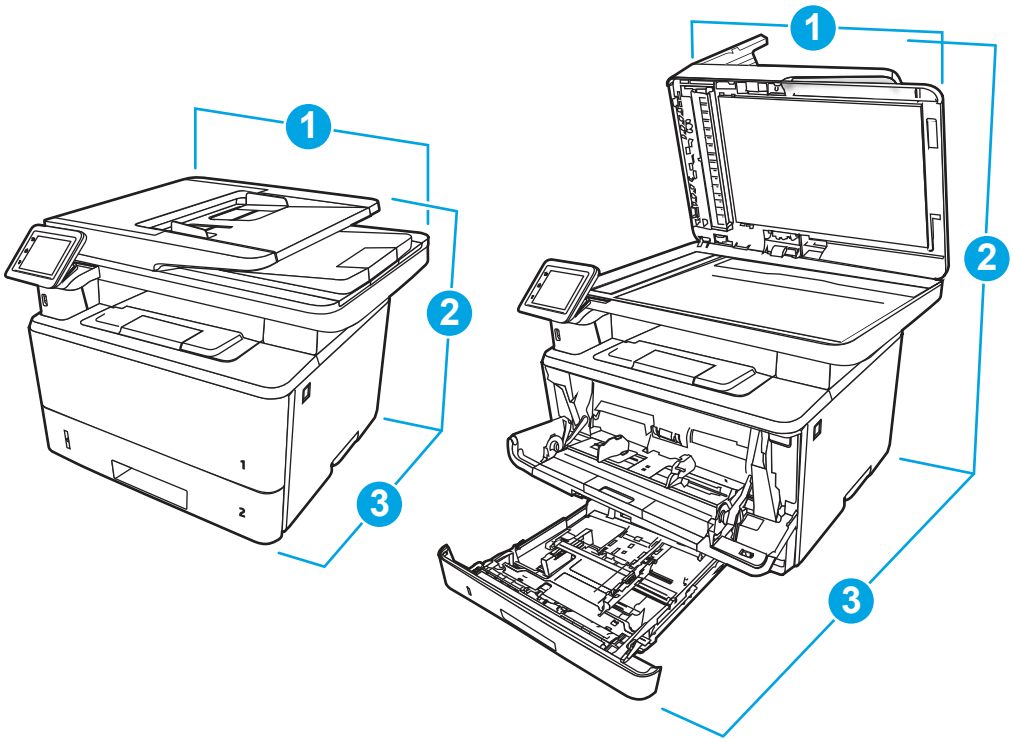


Table 1-23 Dimensions for the MFP printer

Measurement	Printer fully closed	Printer fully opened
1. Width	420 mm (16.5 in)	453 mm (17.8 in)
2. Height	323 mm (12.7 in)	577 mm (22.7 in)
3. Depth	390 mm (15.3 in)	839 mm (33 in)
Weight (with cartridge)	13.01 kg (28.68 lb)	13.01 kg (28.68 lb)

Figure 1-12 Dimensions for the optional 550-sheet tray

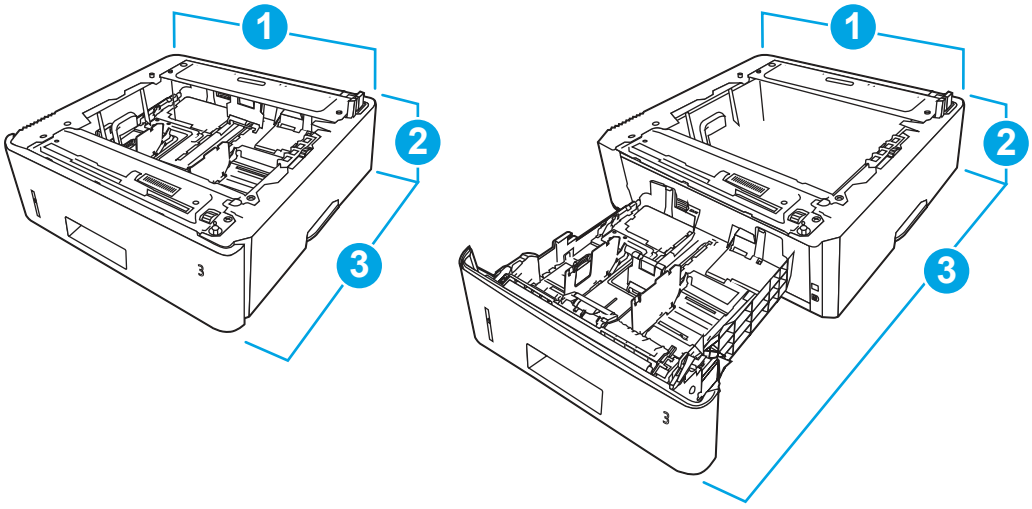


Table 1-24 Dimensions for the optional 550-sheet tray

Measurement	Tray fully closed	Tray fully opened
1. Width	381 mm (15 in)	381 mm (15 in)
2. Height	131 mm (5.1 in)	131 mm (5.1 in)
3. Depth	357 mm (14 in)	781 mm (30.8 in)
Weight	3.7 kg (8.2 lb)	3.7 kg (8.2 lb)

Figure 1-13 Dimensions for the printer with the optional 550-sheet tray (MFP)

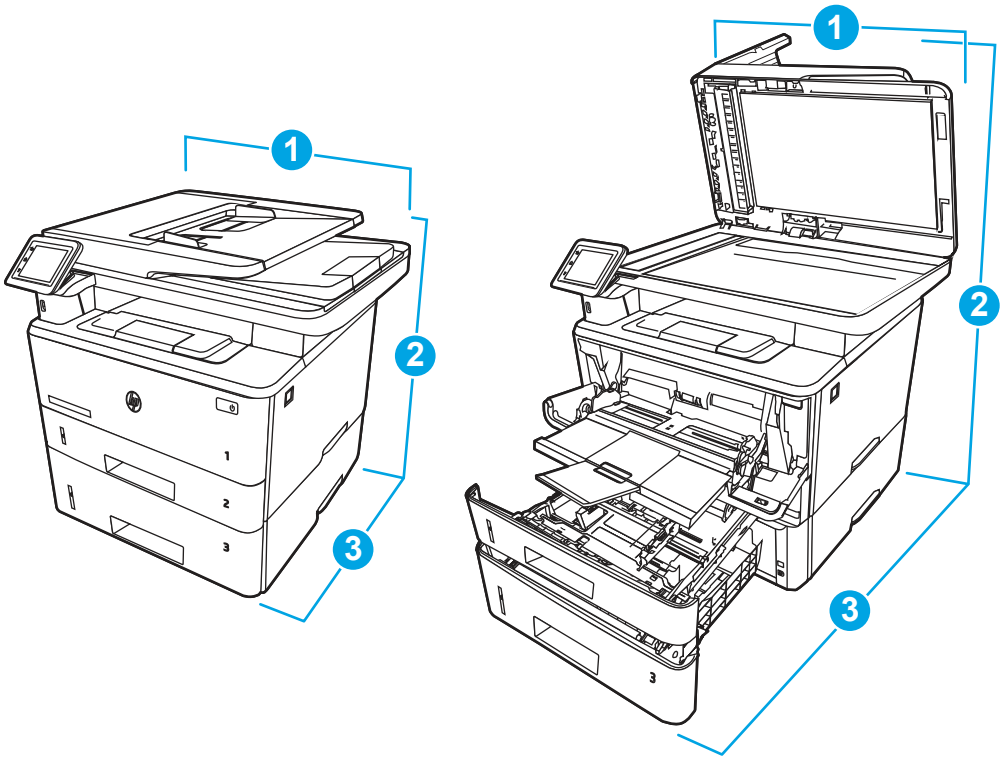


Table 1-25 Dimensions for the printer with the optional 550-sheet tray (MFP)

Measurement	Printer fully closed	Printer fully opened
1. Width	420 mm (16.5 in)	453 mm (17.8 in)
2. Height	452 mm (17.8 in)	706 mm (27.8 in)
3. Depth	390 mm (15.3 in)	839 mm (33 in)
Weight (with cartridge)	16.71 kg (36.83 lb)	16.71 kg (36.83 lb)

Printer space requirements

Learn about the printer space requirements

HP recommends that 30 mm (1.81 in) be added to the printer dimensions to make sure there is sufficient space to open doors and covers, and to provide proper ventilation. See Printer dimensions (SFP) and/or Printer dimensions (MFP).

Power consumption, electrical specifications, and acoustic emissions

In order to operate properly, the printer must be in an environment that meets certain power specifications.

See www.hp.com/support/ljM406 or www.hp.com/support/ljM407 or www.hp.com/support/ljM430MFP or www.hp.com/support/ljM431MFP or www.hp.com/support/ljE40040 or www.hp.com/support/ljE42540MFP for current information.

⚠ **CAUTION:** Power requirements are based on the country/region where the printer is sold. Do not convert operating voltages. This will damage the printer and void the printer warranty.

Operating-environment range

In order to operate properly, the printer must be in an environment that meets certain specifications.

Table 1-26 Operating-environment specifications

Environment	Recommended	Storage
Temperature	15° to 27°C (59° to 80.6°F)	10° to 32.5°C (50° to 90.5°F)
Relative humidity	30% to 70% relative humidity (RH)	10% to 80% RH

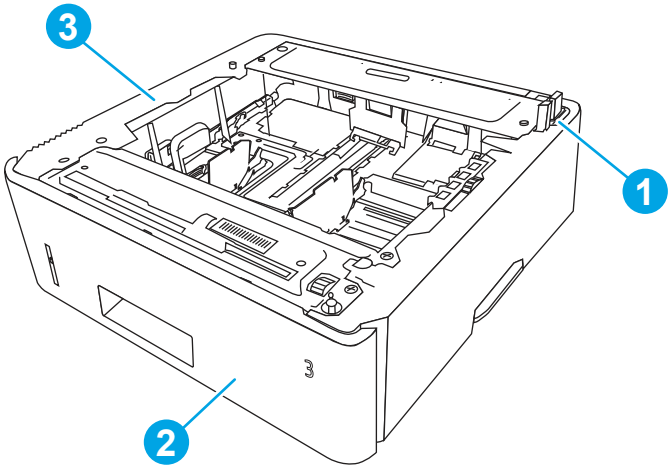
Information (input devices)

Learn about the printer input devices.

550-sheet paper feeder front view

Identify the pars on the 550-sheet paper feeder.

Figure 1-14 550-sheet paper feeder front view



Number	Description
1	Drawer connector
2	Tray 3 (cassette)
3	550-sheet paper feeder (whole unit)

2 Printer installation and maintenance

Learn about printer installation and maintenance.

Document feeder / scanner

Learn about the printer document feeder and scanner installation and maintenance.

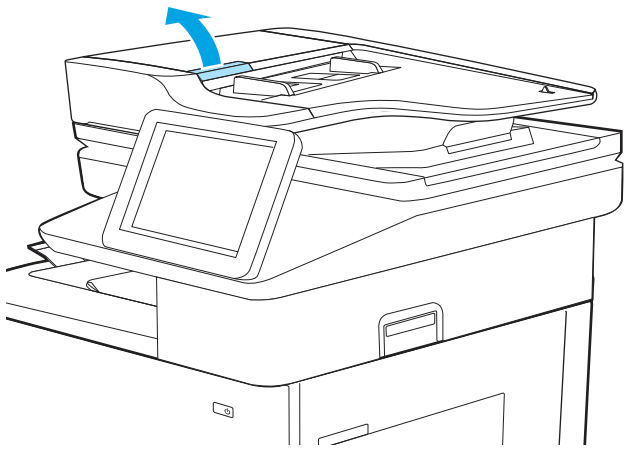
Clean the pickup rollers and separation pad in the document feeder (MFP)

Learn about cleaning the document feeder rollers and pads.

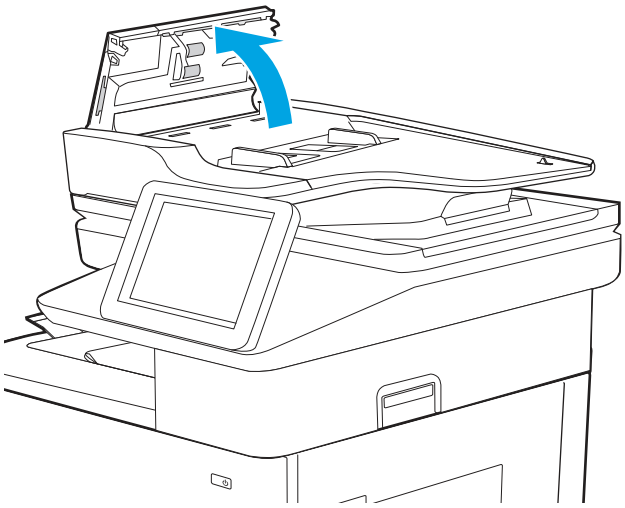
Over time, specks of debris might collect on the document feeder rollers and pads which can affect performance.

NOTE: The figures in this topic show a typical MFP printer. However, the procedure is correct for all MFP printers.

1. . Lift the document-feeder latch.



2. . Open the document-feeder cover.



3. . Remove any visible lint or dust from each of the feed rollers and the separation pad using compressed air or a clean lint-free cloth moistened with warm water.

NOTE: Lift up the roller assembly to access and clean the second roller.



4. . Close the document-feeder cover.

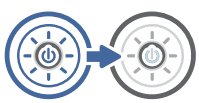
Check the scanner glass for dirt and smudges

Learn about solving copy-quality debris problems.

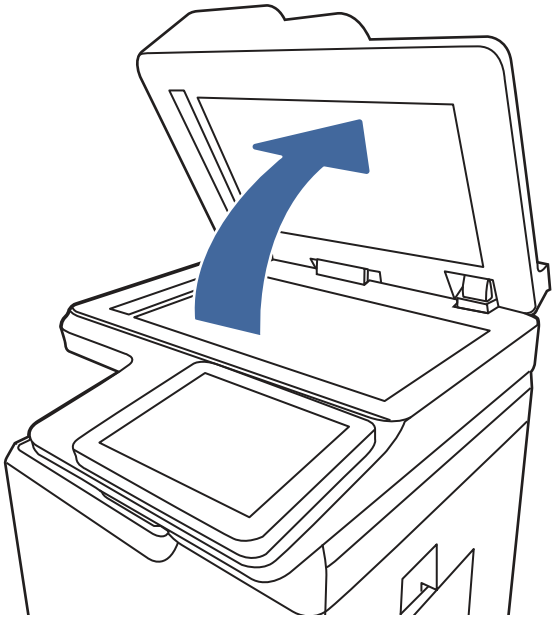
Over time, specks of debris might collect on the scanner glass and document feeder white plastic backing, which might cause print defects. Use the following procedure to clean the scanner if the printed pages have streaks, unwanted lines, black dots, poor print quality, or unclear text.

View a video of cleaning the document feeder glass and flatbed glass.

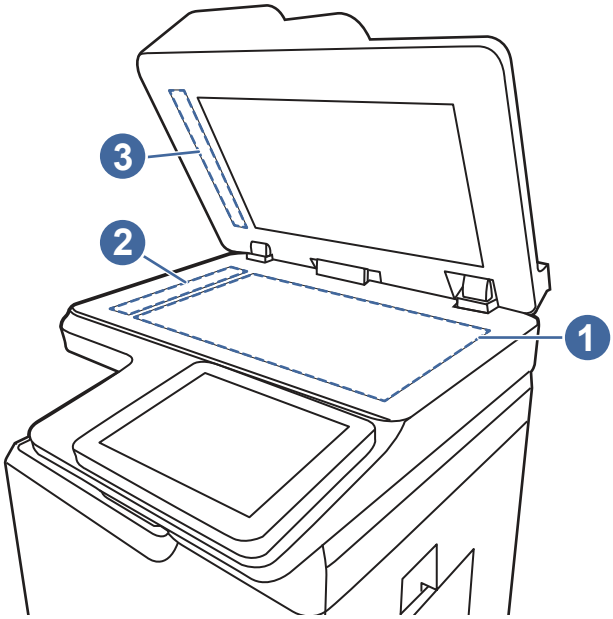
1. Press the power button to turn the printer off, and then disconnect the power cable from the electrical outlet.



2. Open the scanner lid.



3. Clean the scanner glass (callout 1) and the document feeder strips (callout 2, callout 3) with a soft cloth or sponge that has been moistened with nonabrasive glass cleaner.

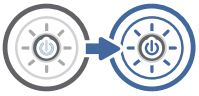


⚠ **CAUTION:** Do not use abrasives, acetone, benzene, ammonia, ethyl alcohol, or carbon tetrachloride on any part of the printer; these can damage the printer. Do not place liquids directly on the glass or platen. They might seep and damage the printer.

NOTE: If you are having trouble with streaks on copies when you are using the document feeder, be sure to clean the small strips of glass on the left side of the scanner (callout 2, callout 3).

4. Dry the glass and white plastic parts with a chamois or a cellulose sponge to prevent spotting.

5. Connect the power cable to an outlet, and then press the power button to turn the printer on.



Base printer

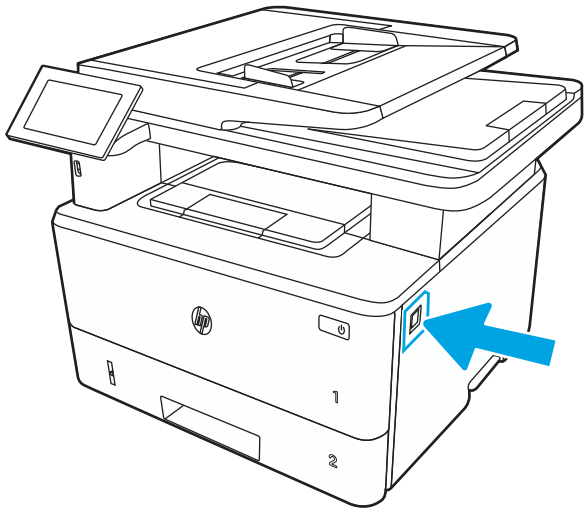
Learn about the base printer installation and maintenance.

Remove and replace the cartridge

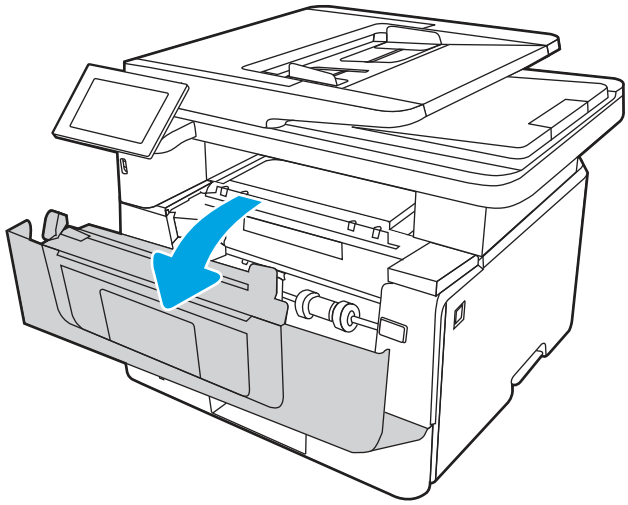
Follow these steps to replace the toner cartridge.

View a video of how to replace the toner cartridge

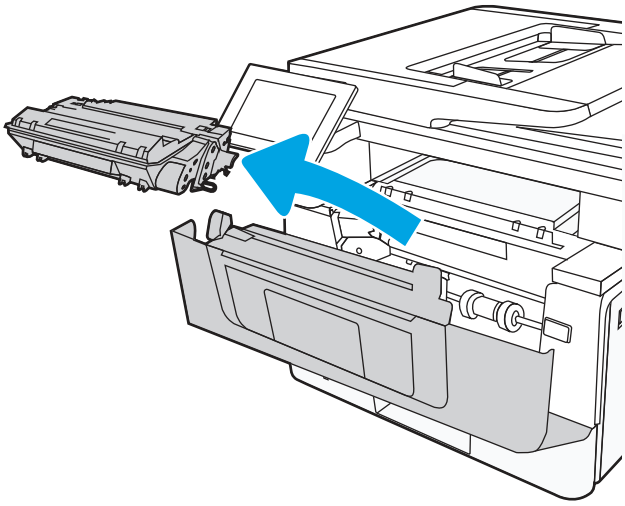
1. . Press the front door release button.



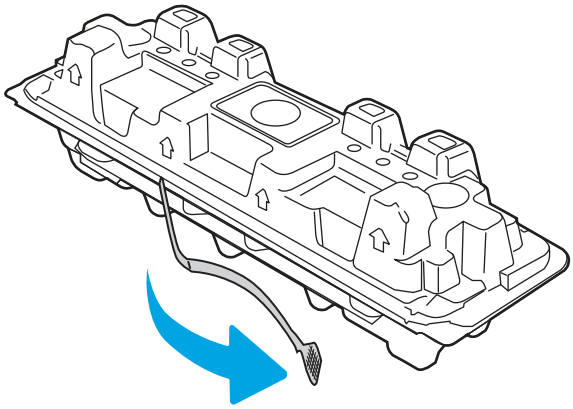
2. . Open the front door.



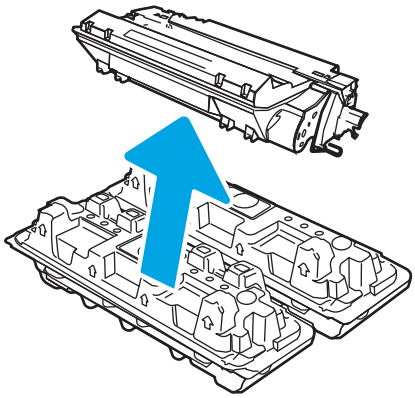
3. Remove the used toner cartridge from the printer.



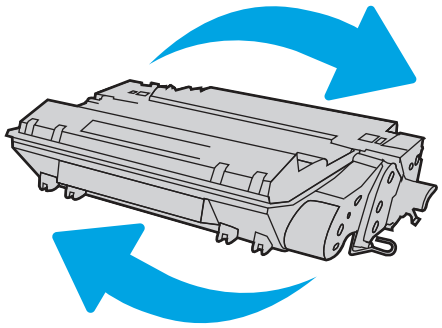
4. Remove the new toner cartridge package from the box, and then pull the release tab on the packaging.



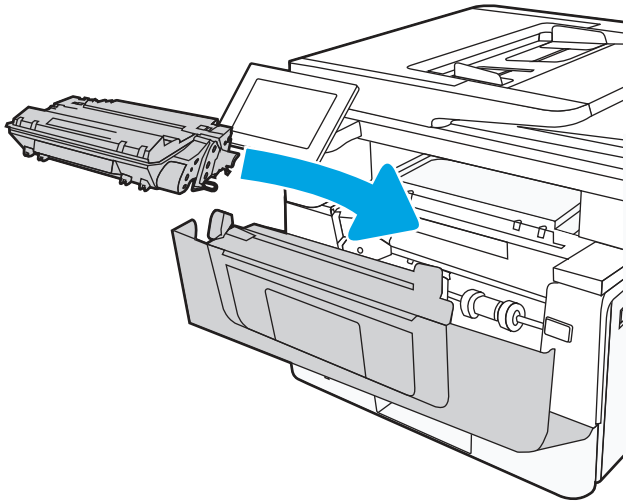
5. Remove the toner cartridge from the opened packaging shell. Place the used toner cartridge in the shell for recycling.



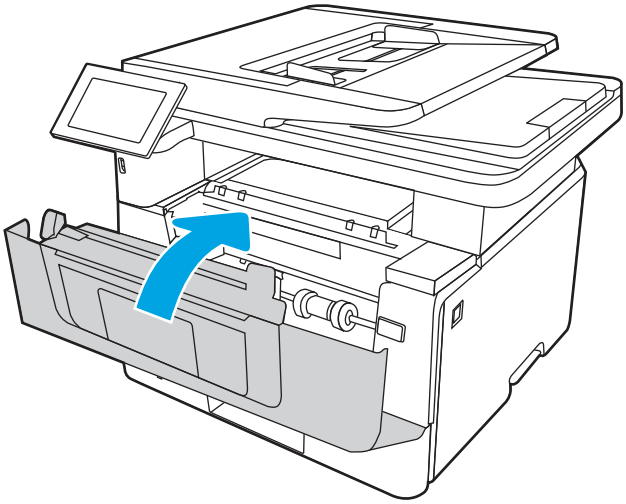
6. . Holding the toner cartridge on both ends, gently rock the cartridge end to end to distribute the toner evenly inside the cartridge.



7. . Align the toner cartridge with the tracks inside the printer, and install the toner cartridge until it is firmly seated.



8. . Close the front door.



Print a cleaning page

Learn how to print a cleaning page.

Print a cleaning page from a non-touchscreen control panel

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then press the OK button.

2. Use the arrow buttons to scroll to Maintenance, and then press the OK button.
3. Use the arrow buttons to scroll to Calibration/Cleaning, and then press the OK button.
4. Use the arrow buttons to scroll to Cleaning page, and then press the OK button.

TIP: Use this screen to set up automatic cleaning page intervals if desired.

5. Use the arrow buttons to scroll to Print (at the bottom of the control-panel display), and then press the OK button to print the cleaning page.

NOTE: A **Cleaning...** message displays on the control-panel display. Do not turn the printer off until the cleaning process has finished. When it is finished, discard the printed page.

Print a cleaning page from a touchscreen control panel

1. From the Home screen on the printer control panel, scroll to and touch the Support Tools button.
2. Open the following menus:
   - Maintenance
   - Calibration/Cleaning
3. Touch Cleaning Page, and then touch the Print button to print the cleaning page.

NOTE: A **Cleaning...** message displays on the control-panel display. Do not turn the printer off until the cleaning process has finished. When it is finished, discard the printed page.

TIP: Use this screen to set up automatic cleaning page intervals if desired.

Automatic cleaning page

Learn how to set up automatic cleaning page intervals.

Enable and configure auto cleaning from a non-touchscreen control panel

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then press the OK button.
2. Use the arrow buttons to scroll to Maintenance, and then press the OK button.
3. Use the arrow buttons to scroll to Calibration/Cleaning, and then press the OK button.
4. Use the arrow buttons to scroll to Cleaning page, and then press the OK button.
5. Use the arrow buttons to scroll to the desired automatic cleaning page interval, and then press the OK button to print the cleaning page.
6. Use the arrow buttons to scroll to Done (at the bottom of the control-panel display), and then press the OK button.

Enable and configure auto cleaning from a touchscreen control panel

1. From the Home screen on the printer control panel, scroll to and touch the Support Tools button.
2. Open the following menus:
   - Maintenance

- Calibration/Cleaning
- Cleaning Page

3. Touch the desired automatic cleaning page interval, and then touch the Done button.

Clean the Tray 1 roller and separation pad

Learn about cleaning the Tray 1 roller and separation pad.

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

If the part is damaged and cannot be cleaned, use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 2-1 Part information

Part number	Part description
3PZ15-67966	Tray 1 Pickup Roller

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Print any pages necessary to make sure the printer is functioning correctly.

Remove the roller

Follow these steps to remove the roller.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

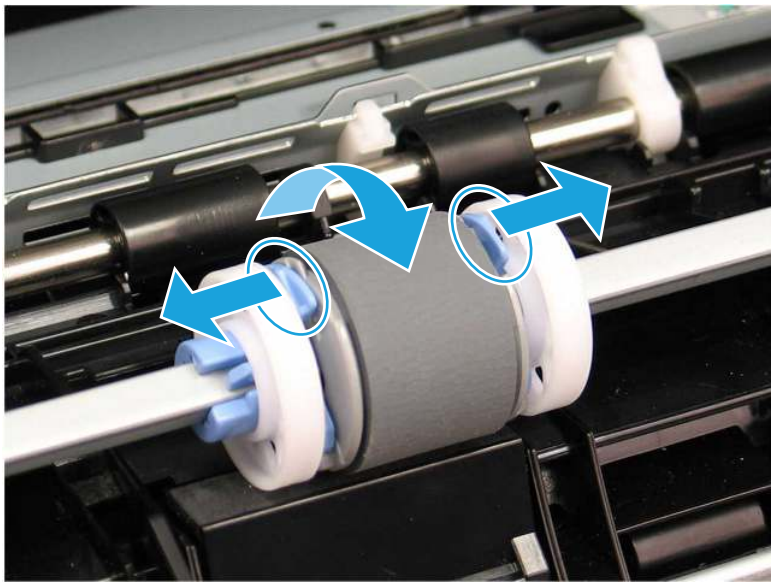
1. Press the door-release button, and then open the toner-cartridge door

Figure 2-1 Open the toner-cartridge door



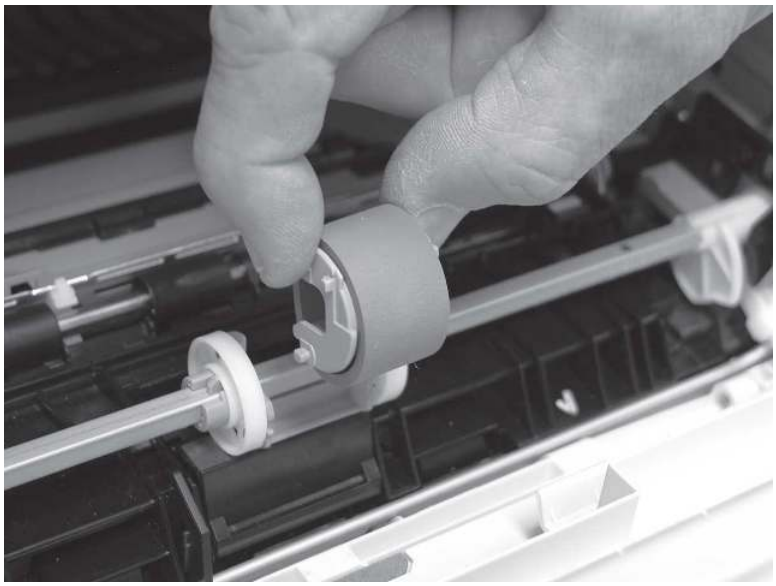
2. Release two tabs between the roller collar and roller, and then rotate the top of the roller out and away from the printer.

Figure 2-2 Release the roller



3. Remove the roller.

Figure 2-3 **Remove the roller**



Clean the Tray 1 roller and separation pad

Carefully clean the Tray 1 roller and separation pad.

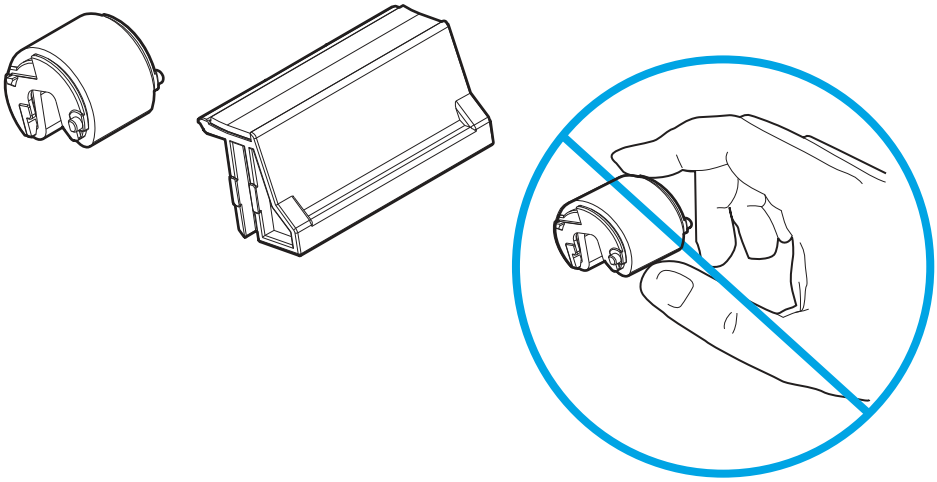
- Clean the Tray 1 roller and separation pad.

NOTE: With the Tray 1 roller removed the separation pad is accessible in the printer (it does not need to be removed to be cleaned.

- Use a damp, lint-free cloth to gently clean the rollers.

CAUTION: When handling the roller and/or pad, avoid touching the spongy surfaces. Skin oils and fingerprints on a roller surface can cause print-quality problems.

Figure 2-4 **Clean the roller and pad**



Install the roller

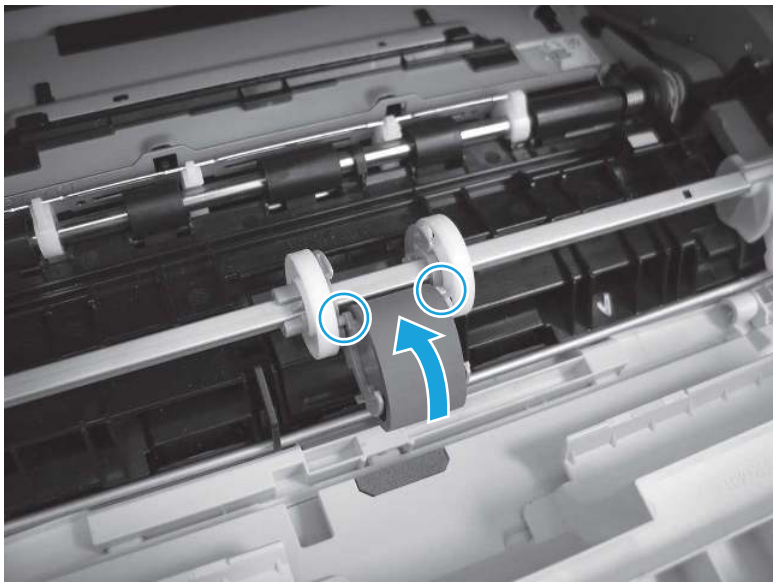
Follow these steps to install the roller.

⚠ **CAUTION:** Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

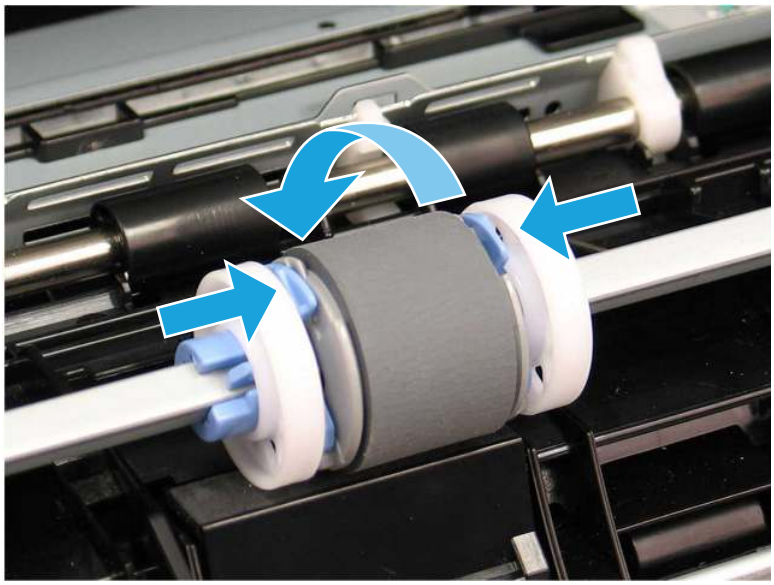
1. Position the pickup roller with the pins in the provided slots on the holder, and then rotate the top of the roller up and toward the printer.

Figure 2-5 Install the roller



2. Continue to rotate the top of the roller toward the printer (callout 1), until two tabs (callout 2) snap into place.

Figure 2-6 Engage two tabs



3. Close the toner-cartridge door

Figure 2-7 Close the toner-cartridge door



Clean the Tray 2 rollers

Learn about cleaning the Tray 2 rollers.

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

IMPORTANT: The originally installed Tray 2 pickup roller might look different than what is included in the kit below (3PZ15-67966). However, the roller supplied in the kit is correct for the 4001-4004 and 4101-4104 printers.

For more information, see the Additional information section at the end of this topic.

If the part is damaged and cannot be cleaned, use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 2-2 Part information

Part number	Part description
3PZ15-67965	Tray 2 Pickup Roller
3PZ15-67964	Separation assembly (Tray 2)

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Print any pages necessary to make sure the printer is functioning correctly.

Additional information

The following figure and table describe the design differences for the Tray2 pickup roller assembly.

Figure 2-8 Tray 2 pickup roller

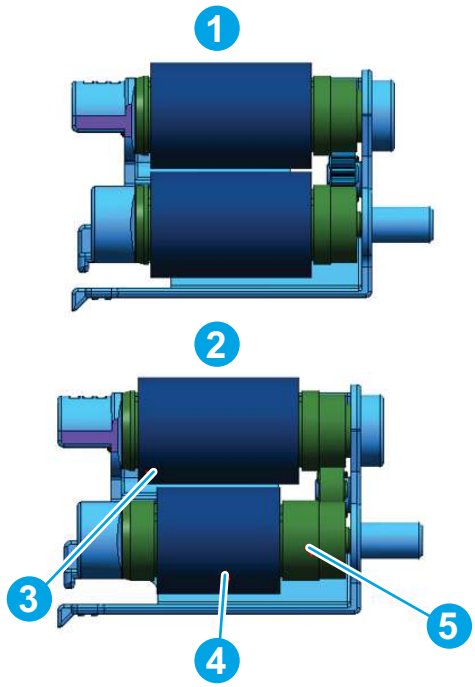


Table 2-3 Tray 2 pickup roller differences

Item	Description
1	**Tray 2 pickup roller**: Included in kit 3PZ15-67966.
2	**Tray 2 pickup roller**: Installed in 4001-4004 and 4101-4104 printers during manufacturing.
3	**Feed roller**: Rubber reduction in width (0.33mm).
4	**Pick roller**: Rubber reduction in width.
5	**Pick core**: Thrust decision changes to accommodate rubber width reductions.

Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 2-9 **Remove the tray**



Remove the pickup roller assembly (Tray 2)

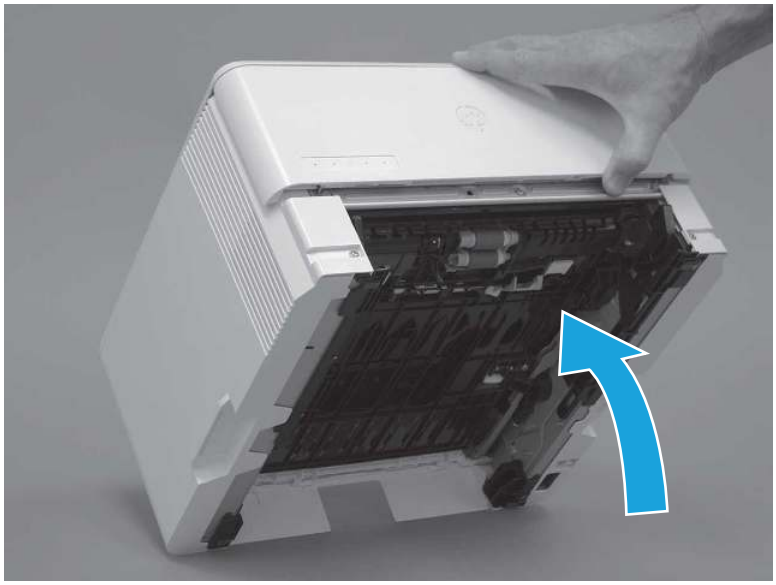
Follow these steps to remove the pickup roller assembly (Tray 2).

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

1. Carefully rotate the printer backward.

CAUTION: To avoid damage to the rear cassette cover, keep it in the closed position

Figure 2-10 **Tilt the printer backward**



2. Continue rotate the printer backward until it rests on the rear cover, bottom-side face forward.

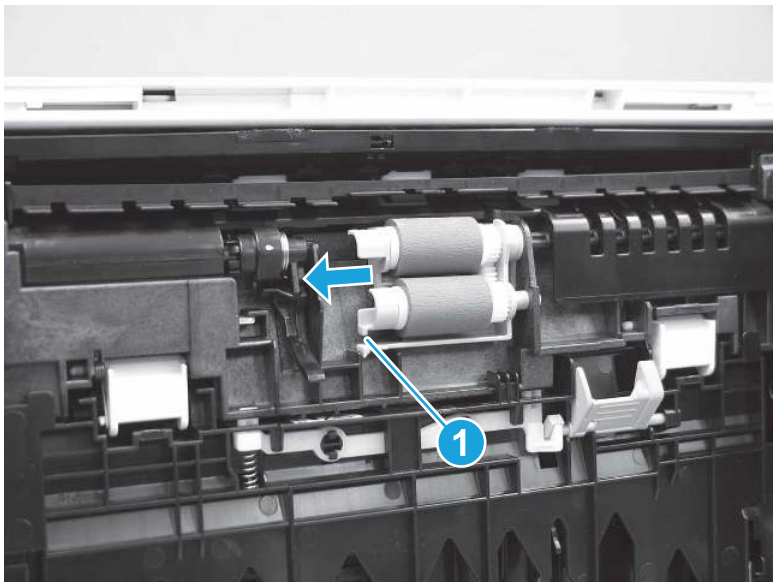
⚠ **CAUTION:** **MFP printers only**: The document feeder is not captive and can unexpectedly open when the printer is tilted backward.

Figure 2-11 Place the printer bottom-side face forward



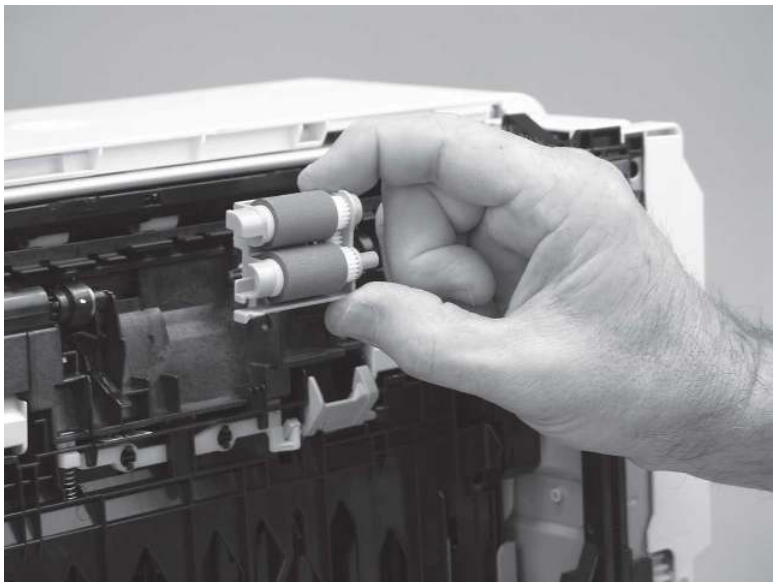
3. Release one tab (callout 1), and then slide the roller holder toward the left side of the printer to release it.

Figure 2-12 Release one tab



4. Remove the roller assembly.

Figure 2-13 **Remove the roller assembly**



Clean the Tray 2 rollers

Learn about cleaning the Tray 2 rollers.

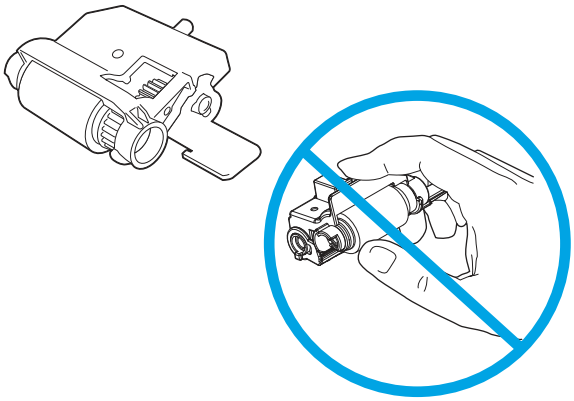
- Clean the Tray 2 rollers.

NOTE: The roller in the tray (cassette) can be cleaned without removing it from the tray.

- Use a damp, lint-free cloth to gently clean the rollers.

CAUTION: Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

Figure 2-14 **Clean the rollers**



Install the pickup roller assembly (Tray 2)

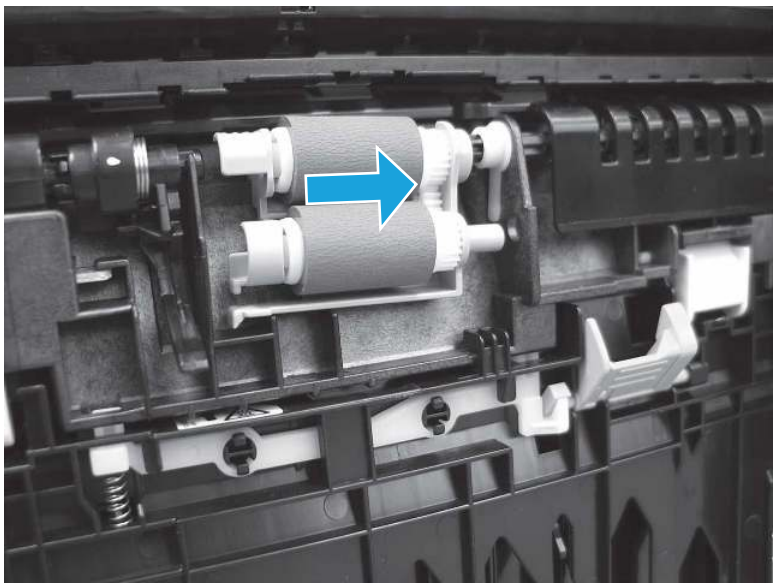
Follow these steps to install the pickup roller assembly (Tray 2).

⚠ **CAUTION:** Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

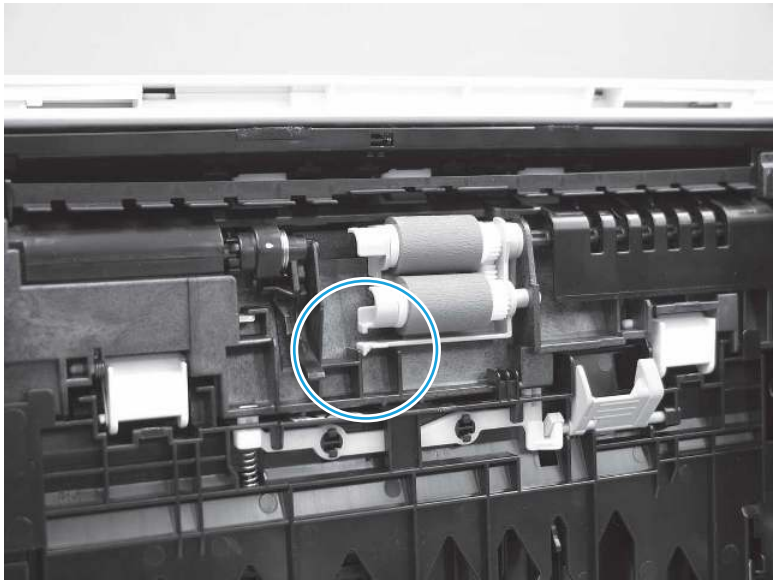
1. Position the roller holder assembly in the printer as shown, and then slide it toward the right side of the printer.

Figure 2-15 **Install the roller holder**



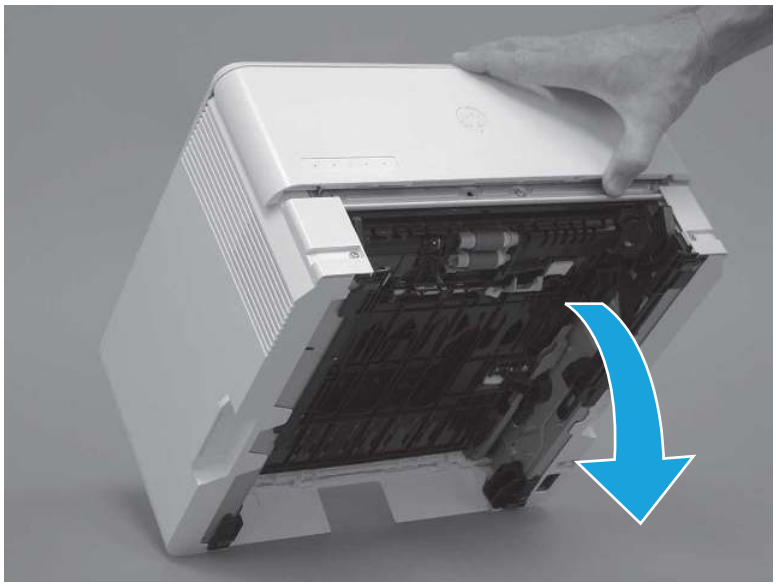
2. Make sure that the tab snaps into place.

Figure 2-16 **Check the tab**



3. Carefully rotate the printer forward.

Figure 2-17 Rotate the printer forward



4. Continue rotate the printer forward until it rests in the operational position.

Figure 2-18 Place the printer in the operational position



Install Tray 2

Follow these steps to install Tray 2.

- Slide the tray straight into the printer to install it.

Figure 2-19 **Install the tray**



Input devices

Learn about input device installation and maintenance.

Clean the Tray 3 rollers

Learn about cleaning the Tray 3 rollers.

Before performing service

Turn the printer power off

- Disconnect the power cable.

⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

If the part is damaged and cannot be cleaned, use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 2-4 **Part information**

Part number	Part description
3PZ15-67968	Tray pickup roller assembly (optional Tray 3)

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Print any pages necessary to make sure the printer is functioning correctly.

Remove optional Tray 3

Follow these steps to remove optional Tray 3.

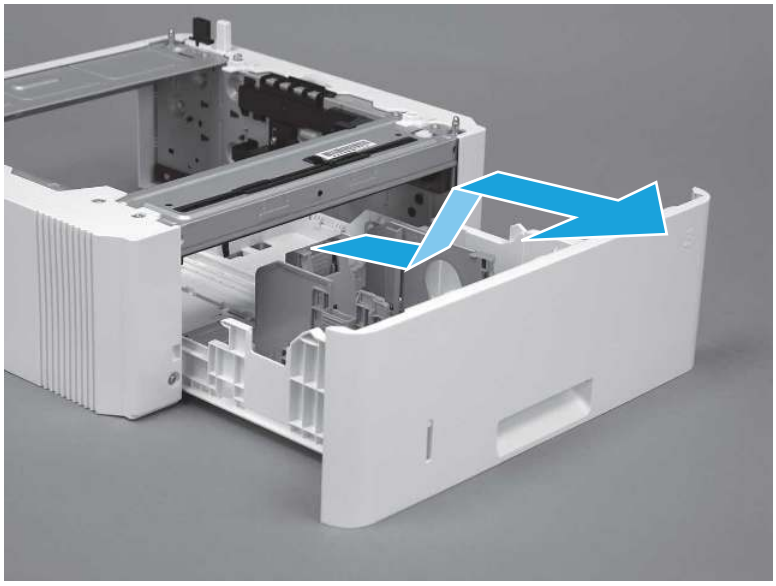
1. Pull the tray straight out of the printer until it stops.

Figure 2-20 Pull the tray out of the printer



2. Slightly lift up on the front of the tray to release it, and then continue to pull the tray out of the accessory to remove it.

Figure 2-21 Release and remove the tray



Remove the pickup roller assembly (optional Tray 3)

Follow these steps to remove the pickup roller assembly (optional Tray 3).

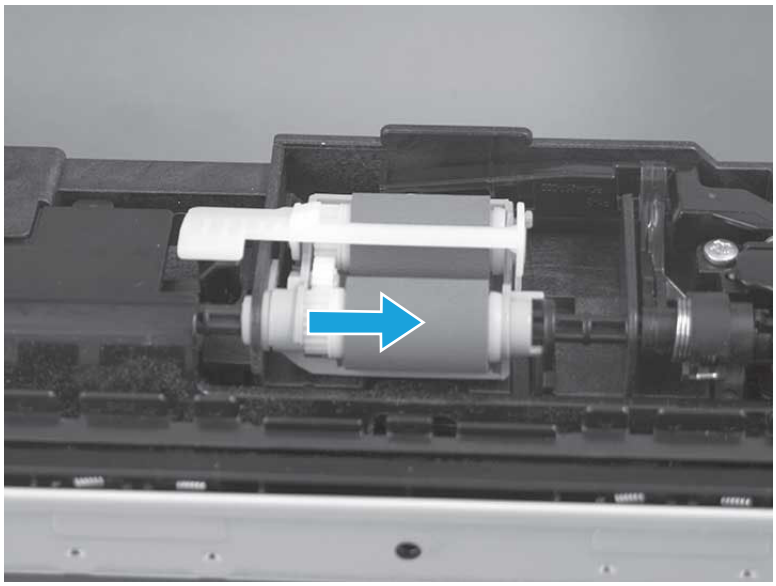
1. Carefully turn the accessory over to expose the roller assembly.

Figure 2-22 Turn the accessory over



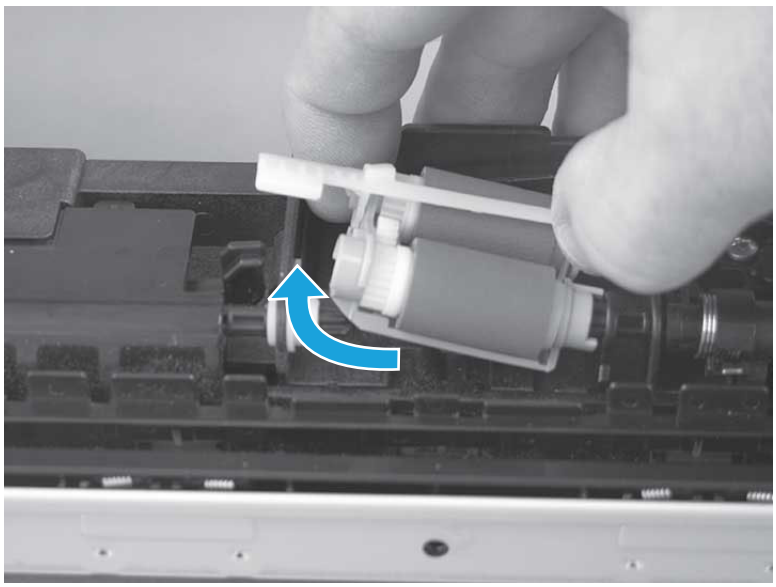
2. Slide the roller holder to the right to compress the spring-loaded shaft and release the assembly.

Figure 2-23 Release the roller assembly



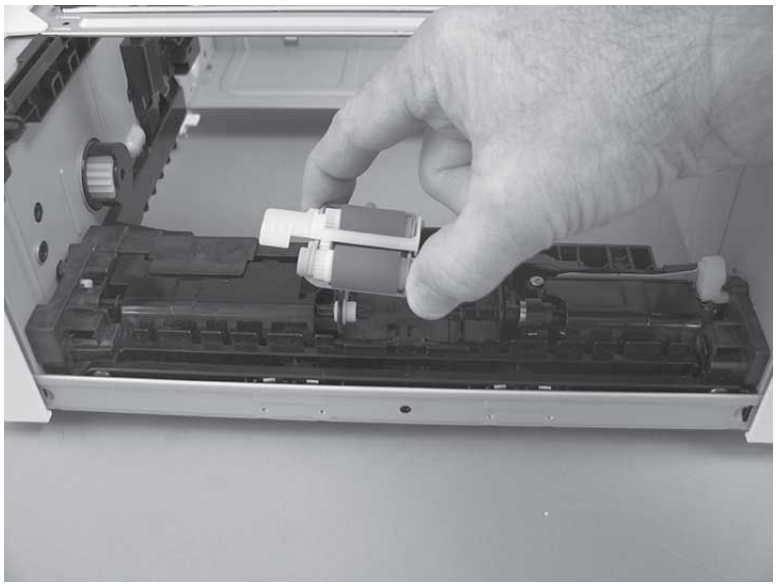
3. Rotate the end of the assembly up and away from the accessory.

Figure 2-24 Rotate the assembly up



4. Remove the roller assembly.

Figure 2-25 **Remove the roller assembly**



Clean the 550-sheet paper feeder (Tray 3) rollers

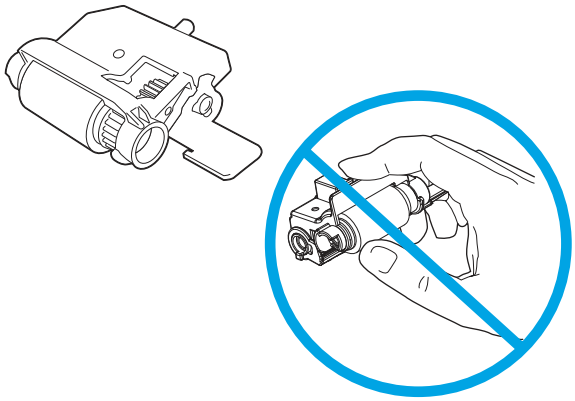
Learn about cleaning the Tray 3 rollers.

TIP: The roller in the tray (cassette) can be cleaned without removing it from the tray.

- Clean the 550-sheet paper feeder (Tray 3) rollers.
  - Use a damp, lint-free cloth to gently clean the rollers.

CAUTION: Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

Figure 2-26 **Clean the rollers**



Install the pickup roller assembly (optional Tray 3)

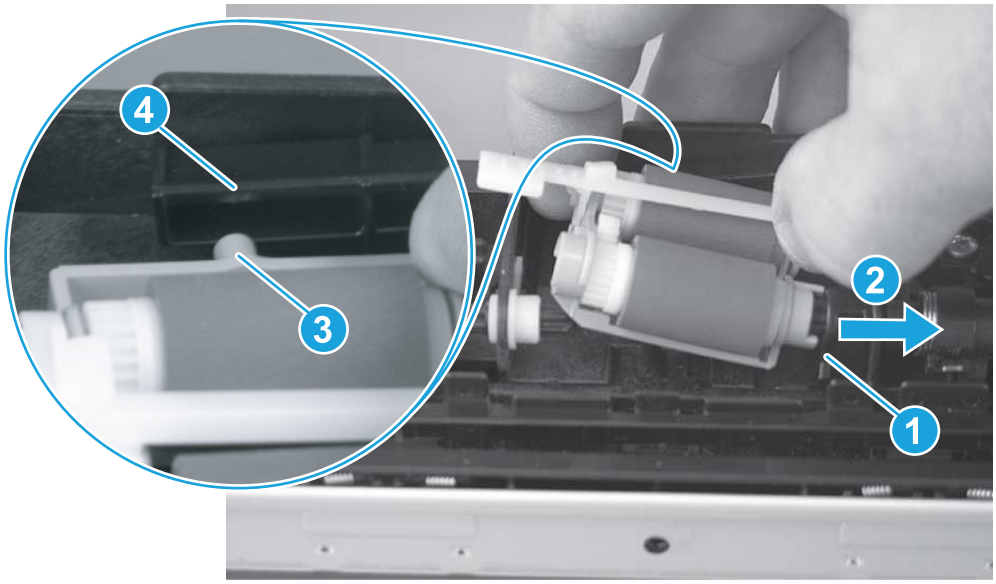
Follow these steps to install the pickup roller assembly (optional Tray 3).

⚠ **CAUTION:** Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

1. Install the right end of the assembly on the spring-loaded shaft (callout 1), and then slide it to the right to compress the shaft (callout 2).

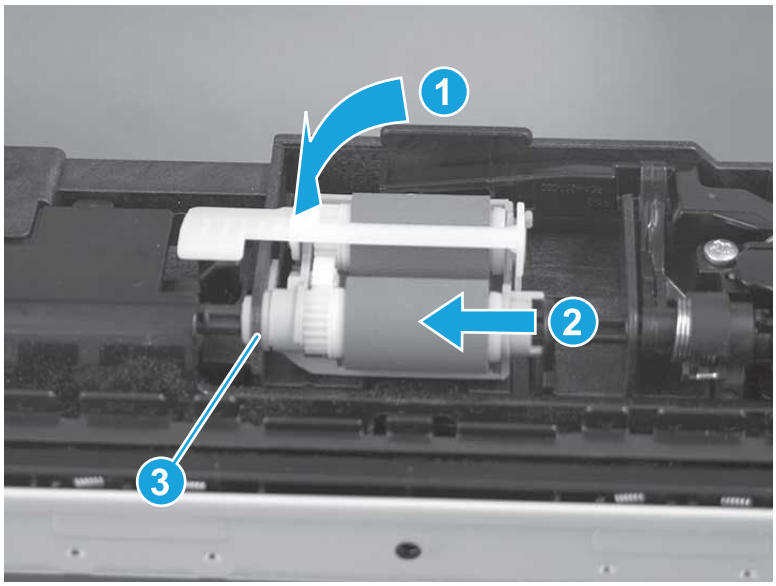
IMPORTANT: Make sure that the pin on the back of the holder (callout 3) is inserted in the slot (callout 4) in the lever arm. If the pin is not correctly installed, the accessory will not pick paper.

Figure 2-27 Install the roller assembly



2. Rotate the left end of the assembly down and into place (callout 1), and then slide the assembly to the left (callout 2) to engage the drive end of the assembly with the drive shaft (callout 3).

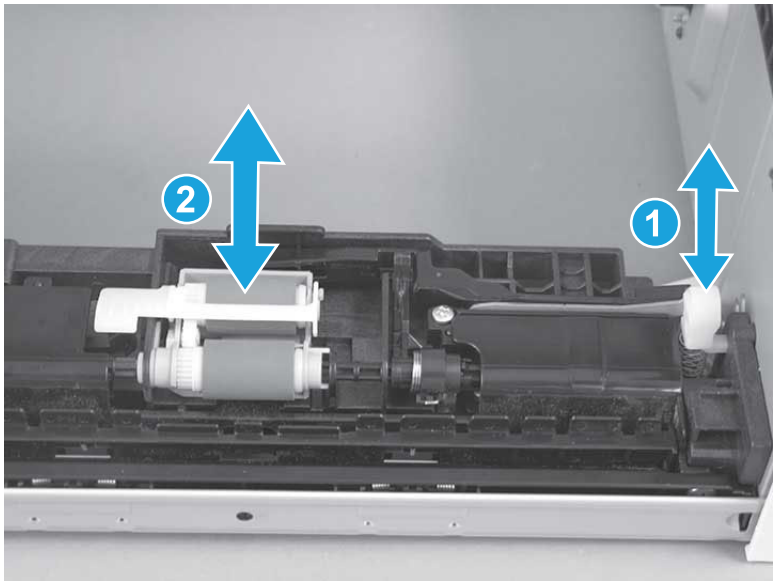
Figure 2-28 Engage the assembly



3. Push down and then release the tray-roller actuator (callout 1) and observe the roller assembly. It should move up and down (callout 2) in response to the actuator.

NOTE: If it does not, remove the roller assembly and reinstall it making sure that the pin on the back of the assembly is in the lever arm. See the previous steps in this section.

Figure 2-29 Check the installation

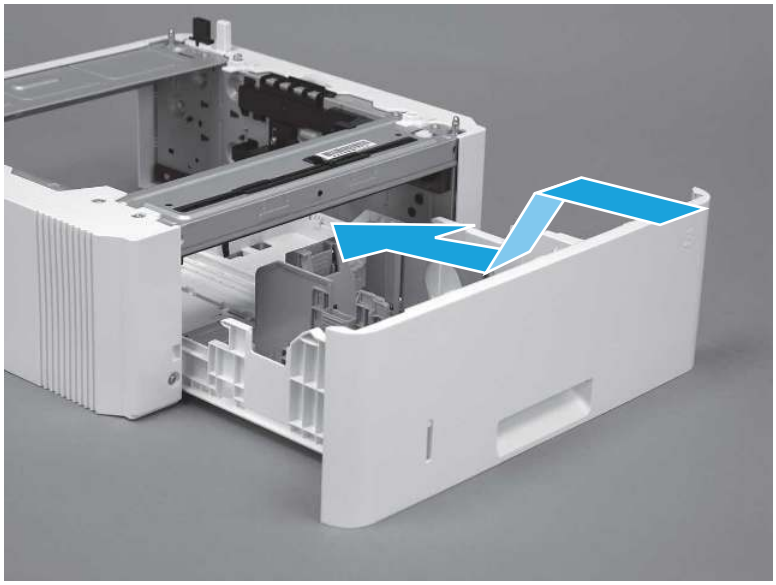


Install optional Tray 3

Follow these steps to install optional Tray 3.

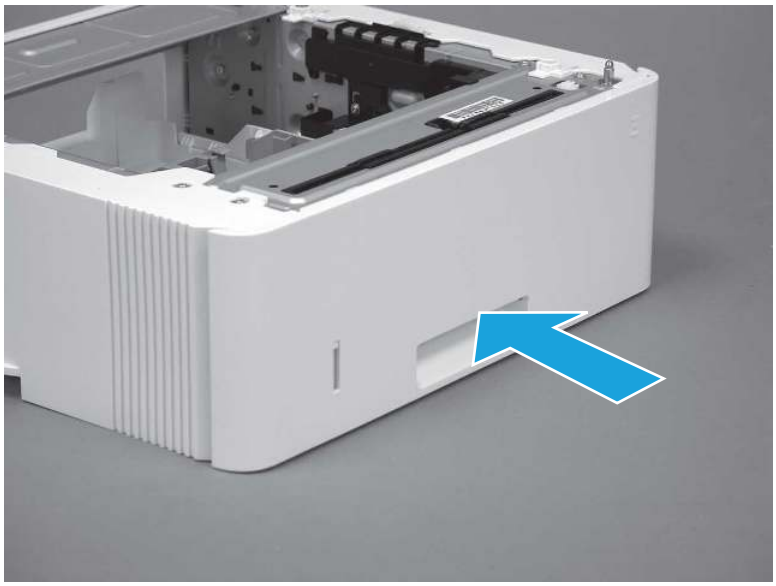
1. With the tray at a slight angle, align the sides of the tray with the rails in the accessory, and then partially slide the tray into the accessory.

Figure 2-30 Install the tray



2. Push the tray straight into the accessory to close it

Figure 2-31 Close the tray



3 Solve problems

Learn about solving printer problems.

Determine the problem source

When the printer malfunctions or encounters an unexpected situation, the printer control panel alerts the user to the situation.

This section contains a pre-troubleshooting checklist and a troubleshooting flow chart to filter out many possible causes of the problem.

- Use the pre-troubleshooting check list to gather information about the problem from the customer.
- Use the troubleshooting flowchart to pinpoint the root cause of hardware malfunctions. The flowchart guides you to the section of this chapter that contains steps for correcting the malfunction.

Before beginning any troubleshooting procedure, check the following issues:

- Are supply items within their rated life?
- Does the configuration page reveal any configuration errors?

NOTE: To print a configuration page using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

NOTE: The customer is responsible for checking supplies and for using supplies that are in good condition.

Pre-troubleshooting checklist

The following table includes basic questions to ask the customer to quickly help define the problem(s).

Table 3-1 **Pre-troubleshooting checklist**

General topic	Questions
Environment	• Is the printer installed on a solid, level surface (+/- 1°)? • Is the power-supply voltage within ± 10 volts of the specified power source? • Is the power-supply plug inserted in the printer and the wall outlet (not a surge protector)? • Is the operating environment within the specified parameters? • Is the printer exposed to ammonia gas, such as that produced by diazo copiers or office cleaning materials? NOTE: Diazo copiers produce ammonia gas as part of the copying processes. Ammonia gas (from cleaning supplies or a diazo copier) can have an adverse effect on some printer components (for example, the toner cartridge or cartridges OPC). • Is the printer exposed to direct sunlight? • Is the printer exposed to an air conditioning or heating vent that can cause temperature fluctuations?
Media	• Does the customer use only supported media? • Is the media in good condition (no curls, folds, or distortion)? • Is the media stored correctly and within environmental limits?
Input trays	• Is the amount of media in the tray within specifications? • Is the media correctly placed in the tray? • Are the paper guides aligned with the stack (no gaps in the stack or excessive pressure causing the stack to bow)? • Is the tray (or trays) correctly installed in the printer?
Toner cartridge	• Is the toner cartridge (or cartridges) installed correctly? NOTE: If country/region specific toner cartridges are available for the printer, make sure the correct cartridge is installed.
Transfer unit and fuser	• Are the transfer unit and fuser installed correctly? NOTE: For printers with an intermediate transfer belt (ITB), is the ITB installed correctly and fully seated. If a replacement ITB was installed, was all of the packing materials removed?
Covers	• Is the toner cartridge door closed?
Condensation	• Does condensation occur following a temperature change (particularly in winter following cold storage)? If so, wipe affected parts dry or leave the printer on for 10 to 20 minutes. • Was a toner cartridge (or cartridges) opened soon after being moved from a cold to a warm room? If so, allow the toner cartridge (or cartridges) to sit at room temperature for 1 to 2 hours.
Miscellaneous	• Check for and remove any non-HP components (toner cartridges, memory modules, and EIO cards) from the printer. • Remove the printer from the network and ensure that the failure is associated with the printer before beginning troubleshooting. • For any color print-quality issues (color printers only), calibrate the printer, and then print a diagnostics page to verify print quality.

Troubleshooting flowchart

This flowchart highlights the general processes to follow to quickly isolate and solve printer hardware problems.

Each row depicts a major troubleshooting step. Follow a "yes" answer to a question to proceed to the next major step. A "no" answer indicates that more testing is needed. Go to the appropriate section in this chapter and follow the instructions there. After completing the instructions, go to the next major step in this troubleshooting flowchart.

NOTE: For solutions that require printing a page, see the following.

To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Table 3-2 Troubleshooting flowchart

Step	Question		Action
1 **Power on**	Is the printer on and does a readable message display?		
	Yes ↓	No →	Basic printer functions should start up when the printer is connected into an electrical outlet and the power switch is pushed to the on position. During normal operation cooling fans and/or motors should be operating. Place a hand over fan intake or exhaust vents to determine if the fan or fans are spinning. Lean close to the printer to hear motors rotating. If fans and/or motors are operating, the dc side of the power supply is functioning. Always make sure that the printer is plugged into a known-functioning wall receptacle. Remove power strips and plug the printer directly into a wall receptacle. After the control panel display is functional, see step 2.
2 **Control panel messages**	Does the message **Ready** display on the control panel?		
	Yes ↓	No →	After the errors have been corrected, go to step 3. Use the control panel message document (CPMD) section in this manual to correct any displayed error messages.
3 **Event log**	Open the Troubleshooting menu and print an event log to see the history of errors with this printer. Does the event log print?		

Table 3-2 Troubleshooting flowchart (continued)

Step	Question		Action
	Yes ↓	No →	If the event log does not print, check for error messages. If paper jams inside the printer, see the jams section of the printer service manual. If error messages display on the control panel when trying to print an event log, see the control panel message document (CPMD) section of this manual. After successfully printing and evaluating the event log, see step 4.
4 **Information pages**	Open the Reports menu and print the configuration pages to verify that all the accessories are installed. Are all the accessories installed?		
	Yes ↓	No →	If accessories that are installed are not listed on the configuration page, remove the accessory and reinstall it. Make sure that the most recent firmware is installed. See the firmware upgrade section of this manual for more information. After evaluating the configuration pages, see step 5.
5 **Print quality**	Does the print quality meet the customer's requirements?		
	Yes ↓	No →	Compare the images with the sample defects in the Image-quality troubleshooting section of this manual. Solve print-quality and copy-quality issues as needed. After the print quality is acceptable, see step 6.
6 **Interface**	Can the customer print successfully from the host computer?		
	Yes. This is the end of the troubleshooting process.	No →	Verify that all I/O cables are connected correctly and that a valid IP address is listed on the HP Jetdirect configuration page. If error messages display on the control panel or appear in the event log, see the control-panel message document (CPMD) section of this manual. When the customer can print from the host computer, this is the end of the troubleshooting process.

Firmware upgrades

Learn about printer firmware upgrades.

To download the most recent firmware upgrade for the printer, go to:

- In the US, go to www.hp.com/support/ljM406 or www.hp.com/support/ljM407 or www.hp.com/support/ljM430MFP or www.hp.com/support/ljM431MFP or www.hp.com/support/ljE40040 or www.hp.com/support/ljE42540MFP.

  a. Select **Get drivers, Software, and Firmware**, and then select the appropriate product by name.

  NOTE: More than one printer model might be listed. Make sure to select the correct model so that the upgraded firmware supports all of the printer functions.

  b. Select the driver language and operating system.

  c. Locate the firmware download, and then select **Download**.

- Outside the U.S., go to www.hp.com/support.

  – Select your country/region.

  – Select **Drivers & Downloads**.

  – Enter the product name in the **Find my product** dialogue box, and then select **Go**.

  TIP: Click on the **How do I find my product name/number?** link to see a short video on identifying the printer's name and number.

  – Select the appropriate product by name.

  NOTE: More than one printer model might be listed. Make sure to select the correct model so that the upgraded firmware supports all of the printer functions.

  – Select the driver language and operating system.

  – Locate the firmware download, and then select **Download**.

Determine the installed revision of firmware

Learn about how to determine the version of installed printer firmware.

Print a configuration page to determine the installed revision of firmware.

Print the configuration page from an MFP control panel

1. From the Home screen on the printer control panel, scroll to and touch the Reports button.
2. Open the following menus:
   - Configuration/Status pages
3. Touch Configuration Page to select it.
4. Touch the print icon to print the pages.

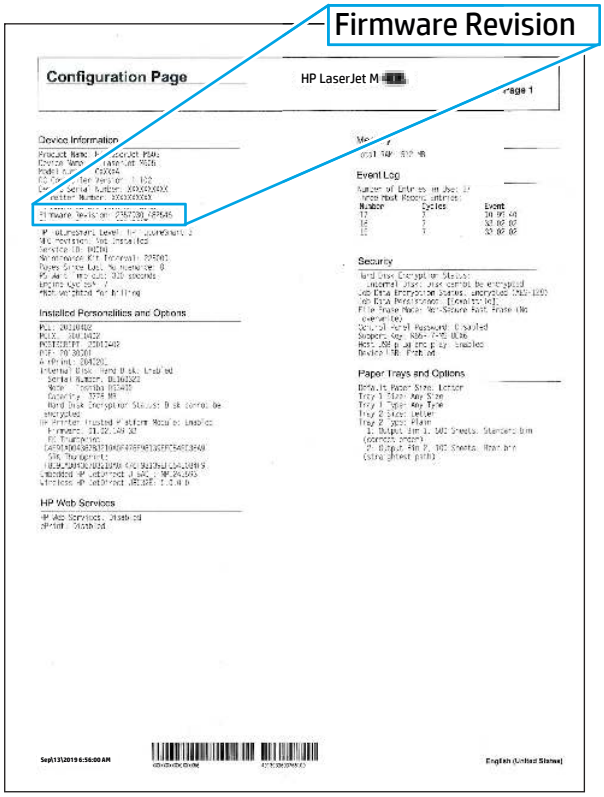
Print the configuration page from a SFP control panel

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Reports, and then press the OK button.
2. Use the arrow buttons to scroll to Configuration/Status Pages, and then press the OK button.

3. Use the arrow buttons to scroll to Configuration Page, and then press the OK button.

4. Use the arrow buttons to scroll to the print icon . Press the OK button to print the pages.

Figure 3-1 **Configuration page firmware version**



HP Embedded Web Server

Learn how to perform a firmware upgrade using the HP Embedded Web Server.

NOTE: The printer should be at the **Ready** state.

The firmware update might take 10 minutes or longer based on the input/output (I/O) transfer rates and the time it takes for the printer to reinitialize.

1. Open an Internet browser window.
2. Enter the printer IP address in the URL line.
3. Select the **Firmware Upgrade** link from the **General** tab or from the **Troubleshooting** tab.
4. Browse to the location that the firmware upgrade file was downloaded to, and then select the firmware file. The file has a .bdl file extension. Select the Install button to perform the upgrade.

   NOTE: Do not close the browser window OR interrupt communication until the HP Embedded Web Server (EWS) displays the confirmation page.

5. After the printer reinitializes, print a configuration page and verify that the latest firmware version has been installed.

USB flash drive firmware (Pre-boot menu) (SFP)

Learn how to perform a USB flash drive firmware (Pre-boot menu) update using a SFP control panel.

1. Press the Cancel button when you see the 1/8 under the logo.
2. Use the arrow buttons to highlight +3 Administrator, and then press the OK button.
3. Use the arrow buttons to highlight +1 Download, and then press the OK button.
4. Insert the USB flash drive with the .bdl file on it into the USB port on the printer.

NOTE: If the error message No USB Thumbdrive Files Found displays on the control panel display, try using a different portable storage device.

5. Use the arrow buttons to highlight USB Thumbdrive, and then press the OK button.
6. Use the arrow buttons to highlight the .bdl file, and then press the OK button.

NOTE: The upgrade process can take 10 minutes or longer to complete.

TIP: If there is more than one .bdl file on the storage device, make sure to select the correct file for this printer.

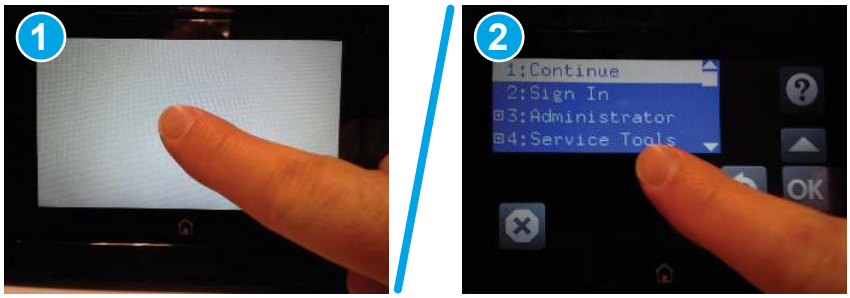
7. When the message Complete displays on the control panel display, turn the printer power off, and then on again.
8. When the upgrade process is complete, print a configuration page and verify that the upgrade firmware version was installed.

USB flash drive firmware (Pre-boot menu) (MFP)

Learn how to perform a USB flash drive firmware (Pre-boot menu) update from an MFP control panel.

1. Copy the .bdl file to a portable USB flash drive.
2. Touch the middle of the control panel display when you see the 1/8 under the logo.

Figure 3-2 **Open the Pre-boot menu**



3. Use the arrow buttons to highlight +3 Administrator, and then touch the OK button.
4. Use the arrow buttons to highlight +1 Download, and then touch the OK button.
5. Insert the USB flash drive with the .bdl file on it into the USB port on the printer.

NOTE: If the error message No USB Thumbdrive Files Found displays on the control panel display, try using a different portable storage device.

6. Use the arrow buttons to highlight USB Thumbdrive, and then touch the OK button.
7. Use the arrow buttons to highlight the .bdl file, and then touch the OK button.

NOTE: The upgrade process can take 10 minutes or longer to complete.

TIP: If there is more than one .bdl file on the storage device, make sure to select the correct file for this printer.

8. When the message Complete displays on the control panel display, touch the down arrow ▼ button several times until the message Continue displays.
9. Touch the OK button to begin the upgrade. When the upgrade is complete, the printer will initialize to the **Ready** state.
10. When the upgrade process is complete, print a configuration page and verify that the upgrade firmware version was installed.

USB flash drive firmware (control panel menu) (SFP)

Learn how to perform a USB flash drive firmware (control panel menu) update from a SFP control panel (FutureSmart 4 firmware or later).

1. From the Home screen on the printer control panel, use the arrow buttons to scroll to Support Tools, and then press the OK button.
2. Open the following menus:
   - Maintenance
   - USB Firmware Upgrade
3. Insert the USB flash drive with the .bdl file on it into the USB port on the printer.
4. Use the arrow buttons to scroll to the appropriate .bdl file, and then press the OK button.
5. When the upgrade process is complete, print a configuration page and verify that the upgrade firmware version was installed.

USB flash drive firmware (control panel menu) (MFP)

Learn how to perform a USB flash drive firmware (control panel menu) update from a n MFP control panel.

1. Copy the .bdl file to a portable USB flash drive.
2. Turn the printer on, and then wait until it reaches the **Ready** state.
3. From the Home screen on the printer control panel, scroll to and touch the Support Tools button.
4. Open the Maintenance menu.
5. Touch the USB Firmware Upgrade button.
6. Insert the USB flash drive with the .bdl file on it into the USB port on the printer.
7. Touch the .bdl file, and then touch the Upgrade button.

TIP: If there is more than one .bdl file on the storage device, make sure to select the correct file for this printer.

8. Select one of the following options:

   - Upgrade

   NOTE: The upgrade process can take 10 minutes or longer to complete.

   - Re-install
   - Downgrade

9. When the upgrade is complete, the printer will initialize to the **Ready** state.
10. When the upgrade process is complete, print a configuration page and verify that the upgrade firmware version was installed.

Comprehensive list of troubleshooting tools

Learn about the printer troubleshooting tools.

Engine test

Learn about troubleshooting the printer using the engine test diagnostic.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

When the engine test is performed, a test page with lines prints if the engine is functioning correctly.

NOTE: Depending on printer models, either a simplex engine test page, a duplex engine test page, or both simplex and duplex engine test pages might be available.

Depress and hold the cartridge door release button, and then open and close the cartridge door four times within a three second time period to print a simplex engine test page. Open and close the door five times within a three second period to print a duplex engine test page.

Pre-boot menu options

The Pre-boot menus are available prior to the printer initializing.

CAUTION: The Format Disk option performs a disk initialization for the entire disk. The operating system, firmware files, and third party files (among other files) will be completely lost. HP does not recommend this action unless it is specified as a solution in the CPMD.

TIP: The Pre-boot menu is also remotely accessible by using a telnet network protocol (Remote Admin) to establish an administration connection to the printer.

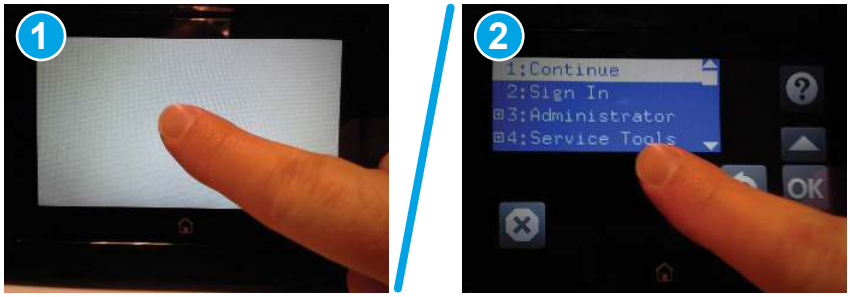
Open the Pre-boot menu from a touchscreen control panel

Use the following procedure to open the Pre-boot menu from a touchscreen control panel.

1. Turn the printer on.

2. Touch the middle of the control-panel display when you see the 1/8 under the logo.

Figure 3-3 Open the Pre-boot menu



3. On the Pre-boot menu screen, use the following buttons to navigate the tests.

Figure 3-4 Pre-boot menu



Button	Description
	Use this button to see more information about a selected item.
	Use this button to scroll up through menu items.
	Use this button to select a highlighted menu item.
	Use this button to scroll down through menu items.

Button	Description
	Use this button to go back to the previous menu.
	Not used.

4. Use the arrow buttons on the touchscreen to navigate the Pre-boot menu.
5. Touch the OK button to select a menu item.

Open the Pre-Boot menu from an LCD control panel

Use the following procedure to open the Pre-Boot menu from an LCD control panel.

1. Turn the printer on.
2. Press the Cancel button when you see the 1/8 under the logo.
3. Use the arrow buttons on the control panel to navigate the Pre-Boot menu.
4. Press the OK button to select a menu item.

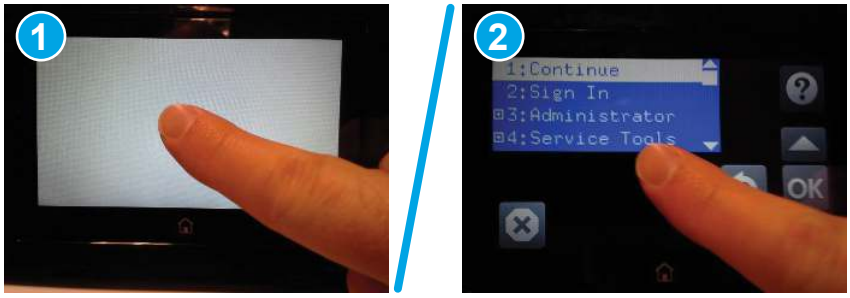
Cold reset using the Pre-boot menu from a touchscreen control panel

Use the following procedure to perform a cold reset using the Pre-boot menu from a touchscreen control panel.

⚠ CAUTION: This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Touch the middle of the control-panel display when you see the 1/8 under the logo.

Figure 3-5 Open the Pre-boot menu



2. Use the down arrow ▼ button to highlight the +3:Administrator item, and then touch the OK button.
3. Use the down arrow ▼ button to highlight the +8:Startup Options item, and then touch the OK button.
4. Use the down arrow ▼ button to highlight the 2 Cold Reset item, and then touch the OK button to select it.

5. Touch the Home button to return to the main Pre-boot menu and highlight the 1:Continue item, and then touch the OK button.

NOTE: The printer will initialize.

Cold reset using the Pre-boot menu from an LCD control panel

Use the following procedure to perform a cold reset using the Pre-boot menu from an LCD control panel.

CAUTION: This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Press the Cancel button when you see the 1/8 under the logo.
2. Use the down arrow ▼ button to highlight the +3:Administrator item, and then press the OK button.
3. Use the down arrow ▼ button to highlight the +8:Startup Options item, and then press the OK button.
4. Use the down arrow ▼ button to highlight the 2 Cold Reset item, and then press the OK button to select it.
5. Touch the Home button to return to the main Pre-boot menu and highlight the 1:Continue item, and then touch the OK button.

NOTE: The printer will initialize.

NOTE: Some of the pre-boot options in the following tables are not supported by the current version of the printer firmware and are included for information only. Future versions of firmware will support these options.

Table 3-3 Pre-boot menu options (1 of 7)

Menu option	First level	Second level	Third level	Description
Continue				Selecting the Continue item exits the Pre-boot menu and continues the normal boot process. If a selection is not made in the initial menu within 30 seconds, the printer returns to a normal boot (the same as selecting Continue). If the user navigates to another menu, the timeout does not apply.
Sign In				Enter the administrator PIN or service PIN if one is required to open the Pre-boot menu.
Administrator				This item navigates to the Administrator submenus. If authentication is required (and the user is not already signed in) the Sign In prompt displays. The user is required to sign in.
Administrator	Download	Network USB USB Thumbdrive		This item initiates a Pre-boot firmware download process. A USB Thumbdrive option will work on all FutureSmart printers. USB or Network connections are not currently supported.

Table 3-3 Pre-boot menu options (1 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Format Disk			This item reinitializes the disk and cleans all disk partitions. **CAUTION:** Selecting the Format Disk item removes **all** data. A delete confirmation prompt is **not** provided. The system is **not** bootable after this action and a **99.09.67** error displays on the control panel. A firmware download must be performed to return the system to a bootable state.
Administrator	Partial Clean			This item reinitializes the disk (removing all data except the firmware repository where the master firmware bundle is downloaded and saved). **CAUTION:** Selecting the Partial Clean item removes **all** data except the firmware repository. A delete confirmation prompt is **not** provided. **CAUTION:** This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost). This allows a user to reformat the disk by removing the firmware image from the active directory without having to download new firmware code (printer remains bootable).
Administrator	Change Password			Select this item to set or change the administrator password.
Administrator	Clear Password			Select the Clear Password item to remove a password from the Administrator menu. Before the password is actually cleared, a message will be shown asking to confirm that the password should be cleared. Press the OK button to confirm the action. When the confirmation prompt displays, press the OK button to clear the password.

Table 3-4 Pre-boot menu options (2 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Manage Disk	Clear disk		Select the Clear disk item to enable using an external device for job storage. Job storage is normally enabled only for the Boot device. This will be grayed out unless the **99.09.68** error is displayed.
Administrator	Manage Disk	Lock Disk		Select the Lock Disk item to lock (mate) a new secure disk to this printer. The secure disk already locked to this printer will remain accessible to this printer. Use this function to have more than one encrypted disk accessible by the printer when using them interchangeably. The data stored on the secure disk locked to this printer always remains accessible to this printer.

Table 3-4 Pre-boot menu options (2 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Manage Disk	Leave Unlocked		Select the Leave Unlocked item to use a new secure disk in an unlocked mode for a single service event. The secure disk that is already locked to this printer will remain accessible to this printer and uses the old disk's encryption password with the new disk. The secure disk that is already locked to this printer remains accessible to this printer.
Administrator	Manage Disk	Clear Disk Pwd		Select the Clear Disk Pwd item to continue using the non-secure disk and clear the password associated with the yet-to-be installed secure disk. CAUTION: Data on the missing secure disk will be permanently inaccessible.
Administrator	Manage Disk	Retain Password		Select the Retain Password item to use the non-secure disk for this session only, and then search for the missing secure disk in future sessions.
Administrator	Manage Disk	Boot Device	Secure Erase	Select the Secure Erase item to erase all of the data on the disk and unlock it if required. This might take a long time. NOTE: The system will be unusable until the system files are reinstalled. The ATA secure-erase command is a one-pass overwrite, which erases the entire disk including firmware. The disk remains an encrypted disk.
Administrator	Manage Disk	Boot Device	Erase/ Unlock	Select the Erase/Unlock item to cryptographically erase all data on the disk and unlock the disk to allow a user to gain access to it from any printer. NOTE: The system will be unusable until the system files are reinstalled. It erases the encryption key. The encryption key is erased, so the disk becomes a non-encrypted disk.
Administrator	Manage Disk	Boot Device	Get Status	This item provides disk status information if any is available.

Table 3-5 Pre-boot menu options (3 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Manage Disk (continued)	Internal Device		Select the Internal Device item to erase the internal device or get a status about the internal device.
Administrator	Manage Disk	Internal Device	Secure Erase	Select the Secure Erase item to erase all of the data on the disk and unlock it if required. This might take a long time. NOTE: The system will be unusable until the system files are reinstalled. The ATA secure-erase command erases the entire disk, including firmware. The disk remains an encrypted disk.

Table 3-5 Pre-boot menu options (3 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Manage Disk	Internal Device	Erase/ Unlock	Select the Erase/Unlock item to cryptographically erase all of the data on disk and unlock the disk to allow the user to gain access to it from any printer. **NOTE:** The system will be unusable until the system files are reinstalled. The HP High Performance Secure Hard Disk is erased.
Administrator	Manage Disk	Internal Device	Get Status	This item provides disk status information if any is available.
Administrator	Manage Disk	External Device		Select the External Device item to erase the external device or get status about the external device.
Administrator	Manage Disk	External Device	Secure Erase	Select the Secure Erase item to erase all of the data on the disk and unlock it if required. This might take a long time. **NOTE:** The system will be unusable until the system files are reinstalled. The ATA secure-erase command erases the entire disk, including firmware. The disk remains an encrypted disk.
Administrator	Manage Disk	External Device	Erase/ Unlock	Select the Erase/Unlock item to cryptographically erase all of the data on disk and unlock the disk to allow a user to gain access to it from any printer. **NOTE:** The system will be unusable until the system files are reinstalled. The encryption key is erased, so the disk becomes a non-encrypted disk.
Administrator	Manage Disk	External Device	Get Status	This item provides disk status information if any is available.

Table 3-6 Pre-boot menu options (4 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Configure LAN **NOTE:** This configuration is only active when the Pre-boot menu is open.	IP Mode [DHCP]		The network can be configured to obtain the network settings from a DHCP server or as static. Use this item for automatic IP address acquisition from the DHCP server.
Administrator	Configure LAN **NOTE:** This configuration is only active when the Pre-boot menu is open.	IP Mode [STATIC]		Use this item to manually assign the network addresses.

Table 3-6 Pre-boot menu options (4 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Configure LAN **NOTE:** This configuration is only active when the Pre-boot menu is open.	IP Mode [STATIC]	IP Address	Use this item to manually enter the IP addresses.
Administrator	Configure LAN **NOTE:** This configuration is only active when the Pre-boot menu is open.	IP Mode [STATIC]	Subnet Mask	Use this item to manually enter the subnet mask.
Administrator	Configure LAN **NOTE:** This configuration is only active when the Pre-boot menu is open.	IP Mode [STATIC]	Default Gateway	Use this item to manually enter the default gateway.
Administrator	Configure LAN **NOTE:** This configuration is only active when the Pre-boot menu is open.	IP Mode [STATIC]	Save	Select the Save item to save the manual settings.

Table 3-7 Pre-boot menu options (5 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Startup Options			Select the Startup Options item to specify options that can be set for the next time the printer is turned on and initializes to the **Ready** state.
Administrator	Startup Options	Show Revision		**Not currently functional**: Select the Show Revision item to allow the printer to initialize and show the firmware version when the printer reaches the **Ready** state. Once the printer power is turned on the next time, the Show Revision item is unchecked so that the firmware revision is not shown.
Administrator	Startup Options	Cold Reset		Select the Cold Reset item to clear the IP address and all customer settings. (This item also returns all settings to factory defaults.) **NOTE:** Items in the Service menu are not reset.
Administrator	Startup Options	Skip Disk Load		Select the Skip Disk Load item to disable installed third-party applications.
Administrator	Startup Options	Skip Cal		Select the Skip Cal item to skip the printer calibration for the very next power-initialization cycle only.

Table 3-7 Pre-boot menu options (5 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Startup Options	Lock Service		**CAUTION:** Select the Lock Service item to lock the Service menu access (both in the Pre-boot menu and the Device Maintenance menu). Service personnel must have the administrator remove the Lock Service setting before they can open the Service menu.
Administrator	Startup Options	Skip FSCK		Select the Skip FSCK item to disable Chkdisk/ScanVolume during startup.
Administrator	Startup Options	First Power		**Not currently functional**: This item allows the printer to initialize as if it is the first time it has been turned on. For example, the user is prompted to configure first-time settings like date/time, language, and other settings. Select this item so that it is enabled for the next time the printer power is turned on. When the printer power is turned on the next time, this item is unchecked so that the pre-configured settings are used during configuration, and the first-time setting prompt is not used.
Administrator	Startup Options	Embedded Jetdirect Off		Select the Embedded Jetdirect Off item to disable the embedded HP Jetdirect. By default this item is unchecked so that HP Jetdirect is always enabled.
Administrator	Startup Options	WiFi Accessory		Select the WiFi Accessory item to enable the wireless accessory.

Table 3-8 Pre-boot menu options (6 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Diagnostics			Diagnostic items are useful to diagnose hardware components and their interface connections. Use these items to troubleshoot specific hardware components, and the interface between them and other components.
Administrator	Diagnostics	Memory	Do Not Run	Use the Do Not Run item to exclude the Memory diagnostic when executing multiple diagnostics.
Administrator	Diagnostics		Short	Use the Short item to select a brief memory test. **NOTE:** This test requires about four minutes to execute.
Administrator	Diagnostics		Long	Use the Long item to select an extended memory test. **NOTE:** This test requires about twenty minutes to execute.
Administrator	Diagnostics	Disk	Do Not Run	Use the Do Not Run item to exclude the Disk diagnostic when executing multiple diagnostics.

Table 3-8 Pre-boot menu options (6 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Diagnostics		Short	Use the Short item to select a brief firmware self-test. **NOTE:** This test requires about two or three minutes to execute.
Administrator	Diagnostics		Long	Use the Long item to select an extended firmware self-test. **NOTE:** This test requires about sixty minutes to execute.
Administrator	Diagnostics		Optimized	Use the Optimized item to select a test that checks the active sectors on the disk. **NOTE:** This test requires about thirty minutes to execute.
Administrator	Diagnostics		Raw	Use the Raw item to select a test that checks every sector on the disk. **NOTE:** This test requires about fifty minutes to execute.
Administrator	Diagnostics		Smart	Use the Smart item to select a very brief test that checks the drive self-monitoring analysis and reporting technology (SMART) status—the drive detects and reports reliability indicators to help anticipate disk failures (SMART status).
Administrator	Diagnostics	CPB		Use the CPB item to verify the integrity of the copy processor board (CPB) and the formatter PCA connections.
Administrator	Diagnostics	Interconnect		Use the Interconnect item to verify the integrity of the interconnect PCA (ICB) and its connections.
Administrator	Diagnostics	Run Selected		Select the Run Selected item to execute a selected test. **NOTE:** If more than one test is selected, they are executed in sequence.

Table 3-9 Pre-boot menu options (7 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Remote Admin	Start Telnet		The Remote Admin item allows a service technician to access to the printer Pre-boot menu remotely, and to navigate the menu selections from a remote location. **IMPORTANT:** A Remote Admin connection must be initiated by a person that is physically present at the printer. This person will also need to provide a randomly generated PIN to the remote service technician. **NOTE:** For more information about using the Remote Admin function, see "Remote Admin (M506/M507/E50145, M527/M528/E52645)" in the Troubleshooting Manual.
Administrator	Remote Admin	Stop Telnet		

Table 3-9 Pre-boot menu options (7 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Remote Admin	Refresh IP		
Administrator	System Triage	Copy Logs		If the device will not boot to the **Ready** state, or the diagnostic log feature found in the Troubleshooting menu is not accessible, then use the System Triage item to copy the diagnostic logs to a USB flash drive at the next printer start up. The files can then be sent to HP to help diagnose the problem.
Administrator	Change Svc PWD			Use this item to change the Service menu personal identification number (PIN).
Administrator	Reset Svc PWD			If the Service menu personal identification number (PIN) has been changed. Use this item to reset it to the original PIN.
Service Tools	Reset Password			Use this item to reset the Pre-boot administrator password.
Service Tools	Subsystems			For manufacturing use only. Do not change these values.
Developer Tools	Netexec			

Remote Admin

Learn about the printer Remote Admin function.

The Remote Admin feature allows remote access the printer Pre-boot menu (BIOS environment). The printer functions as a telnet server which uses the telnet networking protocol to transmit text data. Any computer (with telnet installed and enabled) can function as the telnet client to remotely display and interact with the Pre-boot menu.

IMPORTANT: While the Remote Admin function allows remote access the Pre-boot menu, for security reasons the Remote Admin connection must be initiated by a person that is physically present at the printer.

Required software and network connection

Before using the Remote Admin feature, make sure that the telnet network protocol is installed and enabled on the remote telnet client computer.

NOTE: This section describes enabling and configuring the telnet feature for computers using a Windows® operating system.

HP recommends that the telnet client computer be a Windows-based system; however, there are other operating systems that support the telnet network protocol. For information about enabling and configuring the telnet network protocol for other operating systems, see the owner's manual for that operating system.

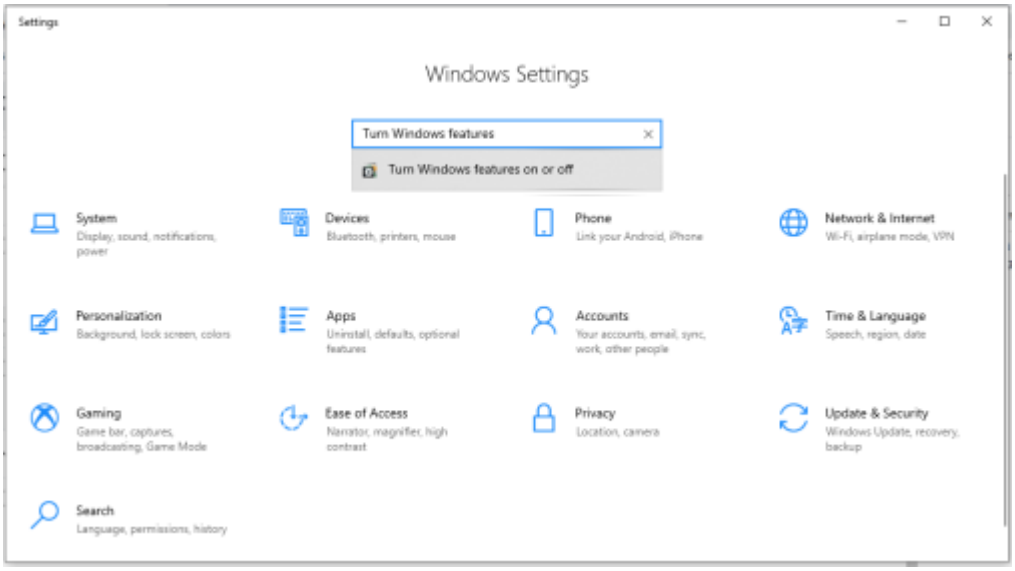
Enable the Windows telnet client

All computers using the Windows operating system have the telnet client installed, however, the telnet client function might not be enabled by default.

NOTE: The figures and menus in this section are for the Windows 10® operating system. Screens and menu selections might vary slightly for other operating systems.

1. Use the **Start** menu to open the **Windows Settings** dialog box, and then search for **Turn Windows features on or off**. Click the **Turn Windows features on or off** item.

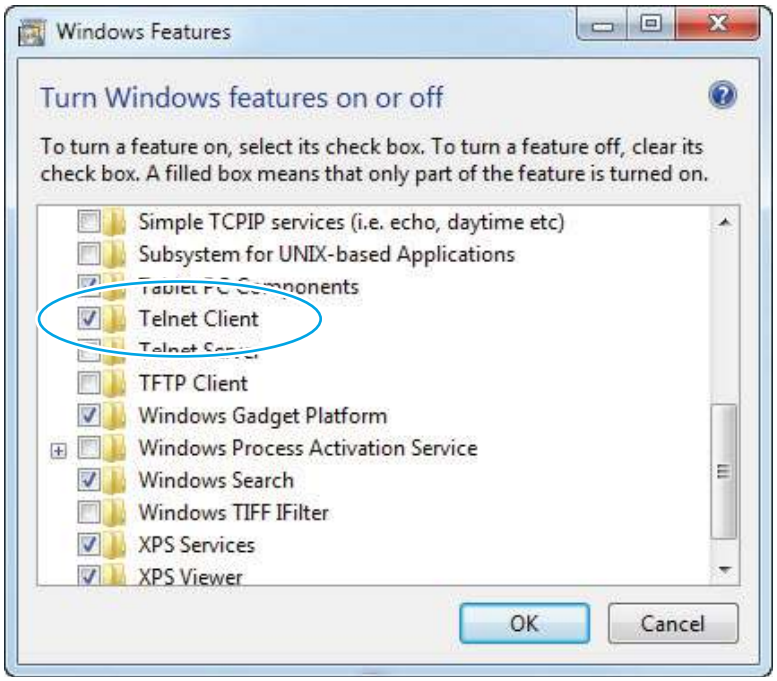
Figure 3-6 **Open Windows Settings**



2. In the **Windows Features** box, scroll down to **Telnet Client**. If the check box is not checked, click the box to select it, and then click the **OK** button.

TIP: If the check box is already checked then the telnet client function is already enabled. Click the **Cancel** button.

Figure 3-7 **Enable the telnet client feature**



Network connection

The remote telnet client computer must have direct network access to the printer for the Remote Admin function to operate. This means that the telnet client computer must be on the same network as the printer.

The Remote Admin function cannot be accessed through a network firewall or other remote access network security programs.

If a private network is not accessible, ask the network administrator to set up a virtual private network (VPN) connection to the network.

Connect a remote connection

Use the following procedures to connect a remote connection.

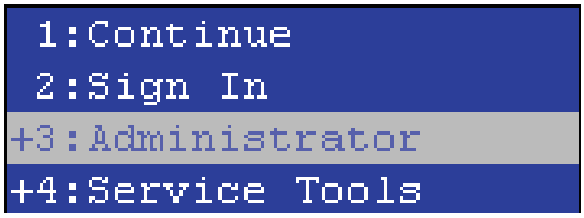
Start the telnet server function at the printer

For security reasons the Remote Admin feature must be initiated by a person that is physically present at the printer. The following steps must be performed by a person that is physically present at the printer.

NOTE: This person might need to sign in with an administrator or service password depending on how the printer is configured.

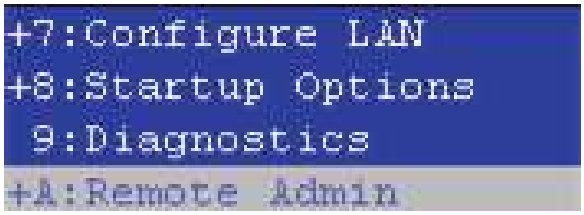
1. Turn the printer on.
2. The HP logo displays on the printer control panel. When a 1/8 with an underscore displays, touch the middle of the screen to open the Pre-boot menu.
3. Use the arrow buttons on the touchscreen to scroll down and highlight the +3:Administrator item, and then touch the OK button to select it.

Figure 3-8 Select the +3:Administrator item



4. Use the arrow buttons on the touchscreen to scroll down and highlight the +A:Remote Admin item, and then touch the OK button to select it.

Figure 3-9 Select the +A:Remote Admin item



5. Use the arrow buttons on the touchscreen to scroll down and highlight the 1:Start Telnet item, and then touch the OK button to select it.

Figure 3-10 Select the 1:Start Telnet item



6. Do one of the following

- If a connecting message displays briefly, go to 7.

Figure 3-11 Telnet connecting message



- If an error message displays, use the steps below to identify the problem.

Figure 3-12 Telnet error message



a. The printer network cable is not correctly connected.

b. The BIOS LAN settings are incorrect.

   – The printer should be configured to use a static IP address, but is configured to use DHCP instead.

   – The printer is configured to use a static IP address, but the IP address is incorrect.

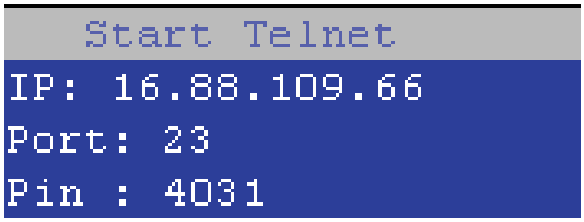
c. The printer is correctly configured to use DHCP, but the DHCP server is not turned on or is malfunctioning.

7. When the printer telnet server function is initialized, the following screen appears. Use the information on this screen to connect the remote telnet client computer to the printer.

NOTE: The printer is now ready to receive remote telnet client commands.

- **IP**: The static or dynamically allocated IP address for the printer.
- **Port**: The standard telnet port (23).
- **Pin**: A randomly generated 4-digit personal identification number (PIN).

Figure 3-13 Telnet server function initialized



Start the telnet client function at the remote computer

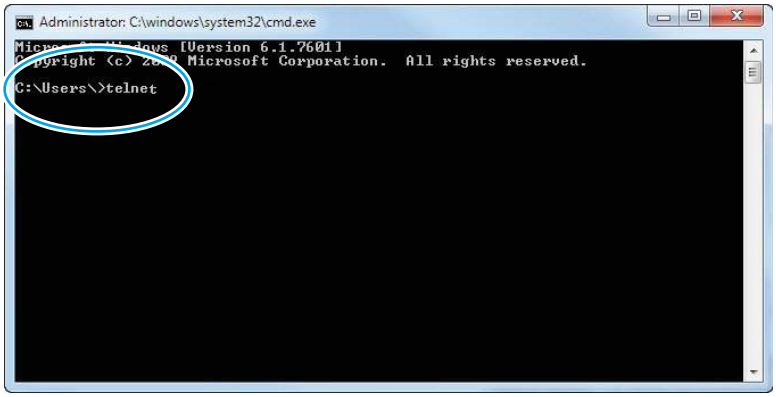
The following steps establish a Remote Admin connection from a remote computer to the printer.

1. From the **Start** menu open the **Command Prompt** desktop application.

TIP: Type `cmd` in the application search dialogue box to find the application.

2. From any displayed directory, type `telnet` at the prompt, and then press the **Enter** key.

Figure 3-14 Start a telnet session

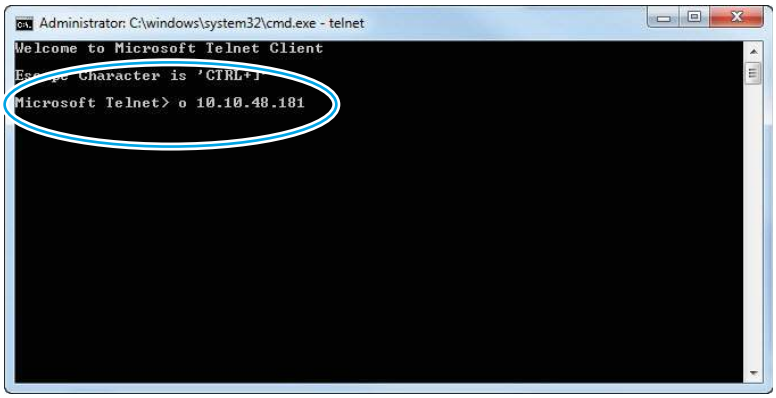


3. Type `o <IP ADDRESS>` at the telnet prompt, and then press the **Enter** key.

NOTE: For `<IP ADDRESS>`, substitute the IP address that was displayed in step 7 of the "Start the telnet server function at the printer" topic.

TIP: If the telnet connection fails to establish a connection, the printer is probably behind a firewall or on a different network that the remote telnet client computer.

Figure 3-15 Establish a telnet connection



4. Type the PIN that was displayed in step 7 of then "Start the telnet server function at the printer" topic at the prompt, and then press the **Enter** key.

IMPORTANT: Make sure to type the PIN correctly. After five incorrect PIN entries, the printer terminates the Remote Admin connection. The Remote Admin feature must be re-initiated at the printer. See the "Start the telnet server function at the printer" topic.

Figure 3-16 Enter the PIN

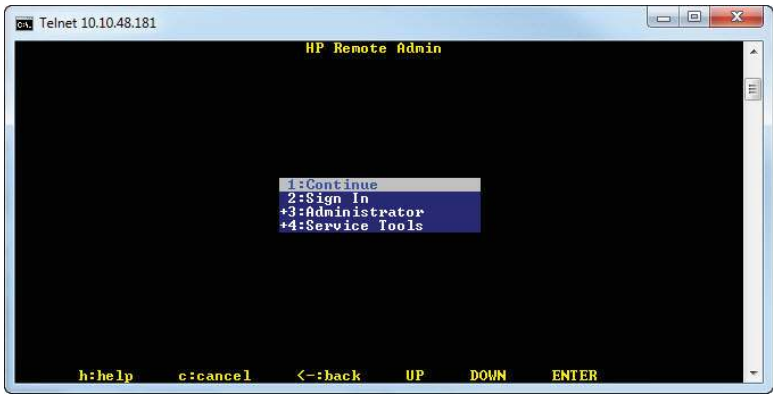


5. The following screen displays when the correct PIN is entered. and the Remote Admin connection is successful. For information about the Pre-boot menu and options, see "Pre-boot menu options" in the printer *Service Manual*.

NOTE: Because a Remote Admin connection is an unsecured telnet network protocol connection, the following Pre-boot menu items are disabled for the remote telnet client computer.

- The **+3:Administrator** menu **4:Change Password** item.
- The **+3:Administrator** menu **5:Clear Password** item.
- The **+3:Administrator** menu **6:Disk Manage** item.

Figure 3-17 Remote Admin window



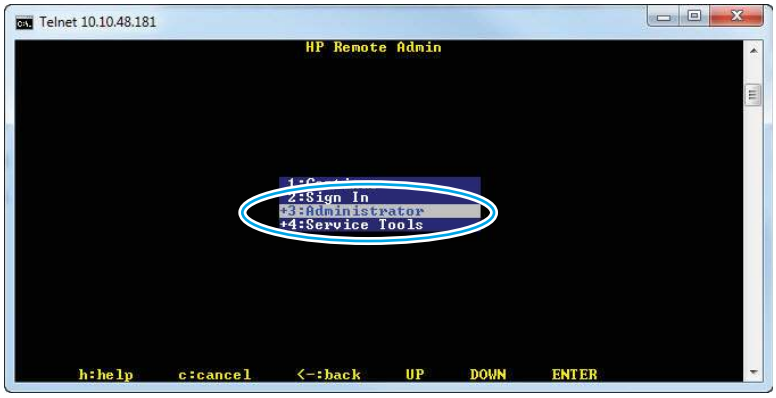
Disconnect a remote connection

The Remote Admin connection can be terminated from the printer control panel or the remote telnet client computer.

NOTE: The following procedure describes terminating a Remote Admin connection from the remote telnet client computer.

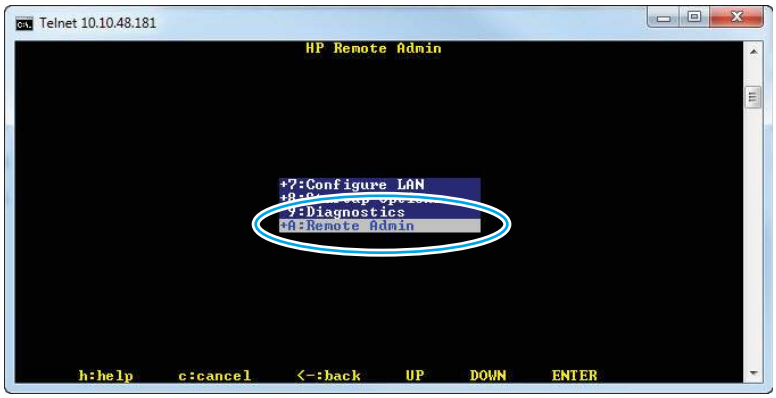
1. From the Pre-boot main menu, use the arrow buttons on the keyboard to scroll down to the **+3:Administrator** item, and then press the **Enter** key.

Figure 3-18 Access the administrator menu



2. Use the arrow buttons on the keyboard to scroll down to the **+A:Remote Admin** item, and then press the **Enter** key.

Figure 3-19 Access the remote admin menu

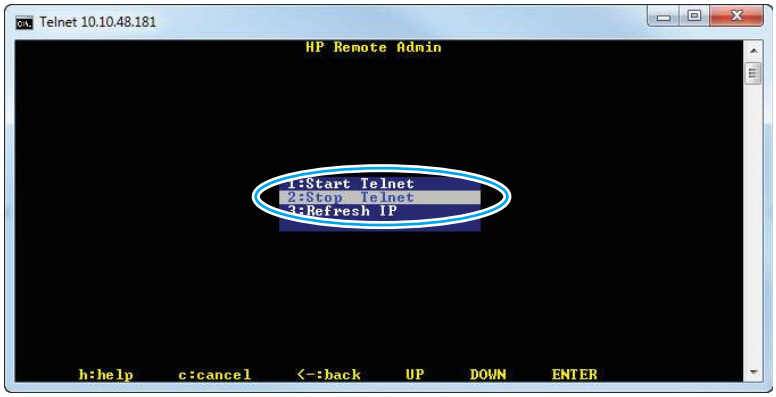


3. Use the arrow buttons on the keyboard to scroll down to the **2:Stop Telnet** item, and then press the **Enter** key. The Remote Admin connection between the printer and the remote telnet client computer terminates.

IMPORTANT: The printer remains in the Pre-boot menu. Have the person that is physically present at the printer do the following:

- Touch the Home button to return to the main Pre-boot menu and highlight the **1:Continue** item, and then touch the OK button. The printer will continue to initialize.

Figure 3-20 Terminate the telnet connection



Advanced configuration with the HP Embedded Web Server (EWS)

Use the HP Embedded Web Server to manage advanced printing functions.

Introduction

Use the HP Embedded Web Server to manage printing functions from a computer instead of the printer control panel.

- View printer status information
- Determine the remaining life for all supplies and order new ones
- View and change tray configurations
- View and change the printer control-panel menu configuration
- View and print internal pages
- Receive notification of printer and supplies events
- View and change network configuration

The HP Embedded Web Server works when the printer is connected to an IP-based network. The HP Embedded Web Server does not support IPX-based printer connections. Internet access is not needed to open and use the HP Embedded Web Server.

When the printer is connected to the network, the HP Embedded Web Server is automatically available.

NOTE: The HP Embedded Web Server is not accessible beyond the network firewall.

How to access the HP Embedded Web Server (EWS)

Use the following steps to open the Embedded Web Server.

1. From the Home screen on the printer control panel, touch the Information icon, and then touch the Ethernet icon to display the IP address or host name.

2. Open a web browser, and in the address line, type the IP address or host name exactly as it displays on the printer control panel. Press the `Enter` key on the computer keyboard. The EWS web page opens.



NOTE: If the web browser displays a message indicating that accessing the website might not be safe, select the option to continue to the website. Accessing this website will not harm the computer.

To use the HP Embedded Web Server, the browser must meet the following requirements:

Windows® 7

- Internet Explorer (version 8.x or greater)
- Google Chrome (version 34.x or greater)
- Firefox (version 20.x or greater)

Windows® 8 or greater

- Internet Explorer (version 9.x or greater)
- Google Chrome (version 34.x or greater)
- Firefox (version 20.x or greater)

Windows 10 or greater

- Microsoft Edge (version 93 or greater)
- Internet Explorer (version 9.x or greater)
- Google Chrome (version 34.x or greater)
- Firefox (version 20.x or greater)

macOS

- Safari (version 5.x or greater)
- Google Chrome (version 34.x or greater)

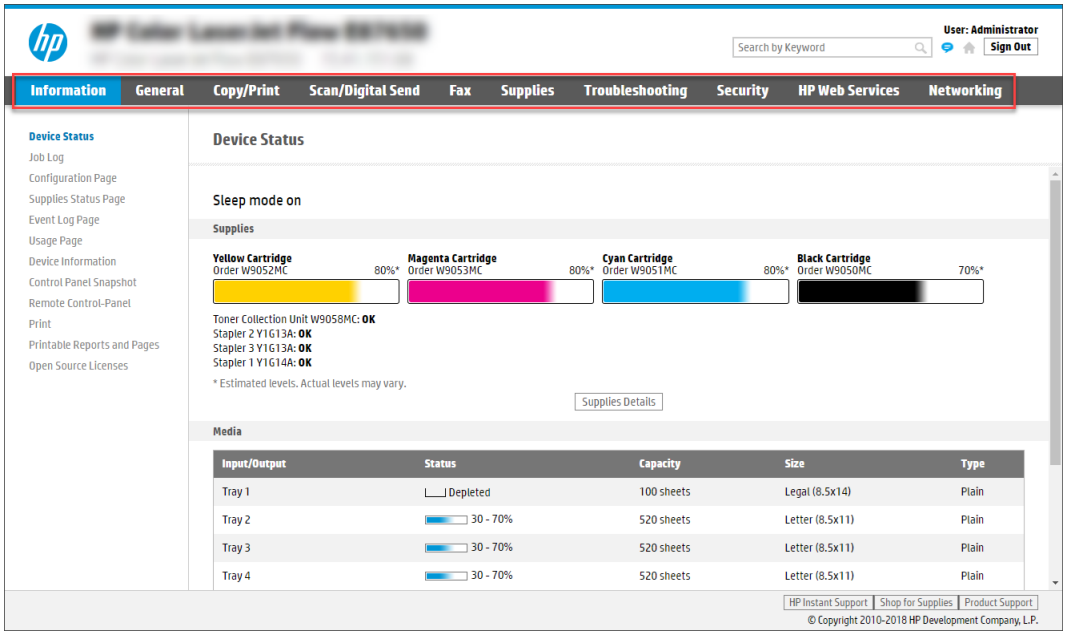
Linux

- Google Chrome (version 34.x or greater)
- Firefox (version 20.x or greater)

HP Embedded Web Server features

Learn about the HP Embedded Web Server (EWS) features available on each tab.

Figure 3-21 EWS Tabs



NOTE: **Copy/Print**, **Scan/Digital Send**, and **Fax** tabs only appear for multi-function printers (MFPs). A **Print** tab appears for single-function printers (SFPs).

Information tab

Settings available on the **Information** tab of the EWS.

Table 3-10 HP Embedded Web Server Information tab

Menu	Description
Configuration Page	Shows the information found on the configuration page.
Control Panel Snapshot	Shows an image of the current screen on the control panel display.
Device Information	Shows the printer network name, address, and model information. To customize these entries, click the **Device Information** menu on the **General** tab.
Device Status	Shows the printer status and shows the estimated life remaining of HP supplies. The page also shows the type and size of paper set for each tray. To change the default settings, click the **Change Settings** link.
Event Log Page	Shows a list of all printer events and errors. Use the **HP Instant Support** link (in the **Other Links** area on all HP Embedded Web Server pages) to connect to a set of dynamic web pages that help solve problems. These pages also show additional services available for the printer.
Event Schedule Summary	The Event Schedule Summary page is used to view a table of all scheduled events.
Job Log	Provides a list of the jobs that have been processed.
Open Source Licenses	Shows a summary of the licenses for open source software programs that can be used with the printer.
Print	Allows the user to send a print-ready file to the printer to be printed.
Printable Reports and Pages	Lists the internal reports and pages for the printer. Select one or more items to print.
Remote Control-Panel	Provides a way to troubleshoot or manage the printer from a browser window on a desktop or laptop.

Table 3-10 HP Embedded Web Server Information tab (continued)

Menu	Description
Supplies Status Page	Shows the status of the supplies for the printer.
Usage Page	Shows a summary of the number of pages the printer has printed, grouped by size, type, and paper print path.

General tab

Settings available on the **General** tab of the EWS.

Table 3-11 HP Embedded Web Server General tab

Menu	Description
Alerts	Set up email alerts for various printer and supplies events.
AutoSend	Configure the printer to send automated emails regarding printer configuration and supplies to specific email addresses.
Back up and Restore	Create a backup file that contains printer and user data. If necessary, use this file to restore data to the printer.
Control Panel Customization	Reorder, show, or hide features on the control-panel display. Change the default display language and keyboard layouts.
Control Panel Settings App	Shows the Settings app options that are available on the printer control panel.
Date/Time Settings	Set the date and time or synchronize with a network time server.
Device Information	Name the printer and assign an asset number to it. Enter the name of the primary contact who will receive information about the printer.
Edit Other Links	Add or customize a link to another website. This link displays in the footer area on all HP Embedded Web Server pages.
Energy Settings	Set or edit a wake time, sleep time, and sleep delay for the printer. Set a different schedule for each day of the week and for holidays. Set which interactions with the printer cause it to wake from sleep mode.
Firmware Upgrade	Download and install printer firmware upgrade files.
General Settings	Configure how the printer recovers from jams and other general printer settings.
Import/Export	Use this feature to export files that can be used to configure other devices. Select which settings, contacts, or user accounts to include in the export. The files can be imported to other devices including those with different capabilities. Any imported settings that are not available on the target device will be ignored.
Job Statistics Settings	Provides connection information about third-party job-statistics services, or enables local serverless device job accounting.
Language	Set the language in which to display the HP Embedded Web Server information.
Ordering Information	Enter information about ordering replacement toner cartridges. This information displays on the supplies status page.
Quick Sets	Configure jobs that are available in the **Quick Sets** area of the Home screen on the printer control panel.
Quota Settings	Provides connection information about third-party job-quota services, or enables local device quota service.
License Management	Use this menu to configure the engine speed with the LPD license.

Table 3-11 HP Embedded Web Server General tab (continued)

Menu	Description
Reset Factory Settings	Restore printer settings to the factory defaults.
Solution Installer	Install or remove third-party software packages that extend or modify the functionality of the printer.

Other Links list

Configure which links display in the footer of the HP Embedded Web Server (EWS) by using the **Edit Other Links** menu on the **General** tab.

NOTE: The following list includes the default links in the EWS.

Table 3-12 HP Embedded Web Server Other Links list

Menu	Description
HP Instant Support	Connect to the HP website to find solutions to printer problems.
Product Support	Connect to the support site for the printer to search for help on various topics.
Shop for Supplies	Connect to the HP website for information on purchasing original HP supplies, such as cartridges and paper.

Copy/Print tab

Settings available on the **Copy/Print** tab of the EWS.

Table 3-13 HP Embedded Web Server Copy/Print tab

Menu	Description
Copy Settings	Configure the default options and Quick Sets for copy jobs. NOTE: If job-specific copy setting options are not set from the control panel at the start of a job, the default settings will be used for the job.
Default Print Options	Configure the default options for print jobs.
Expert Copy	Enable or disable Expert Copy and set the initial copy view. The Expert Copy feature is available only on some HP MFPs with larger control panels, and is available in FutureSmart 4 firmware 24.7.3 release or later.
Manage Stored Jobs	Enable or disable the ability to store jobs in the printer memory. Configure job-storage options.
Manage Stapler/Stacker	Configure settings for the stapler/stacker for printers that have this feature.
Manage Trays	Configure settings for paper trays.
PCL and PostScript Settings	Adjust the PCL and PostScript settings for all print jobs, including copy jobs and received faxes.
Print from USB Drive Settings	Enable or disable the Print from USB Drive menu on the control panel.
Print Quality	Configure the print quality settings, including color adjustment, image registration, and allowed paper types.

Table 3-13 HP Embedded Web Server Copy/Print tab (continued)

Menu	Description
Restrict Color (Color printers only)	Permit or restrict color printing and copying. Specify permissions for individual users or for jobs that are sent from specific software programs.

Scan/Digital Send tab

Settings available on the **Scan/Digital Send** tab of the EWS.

Table 3-14 HP Embedded Web Server Scan/Digital Send tab

Menu	Description
Contacts	Manage contacts including the following options: • Add email addresses into the printer one at a time. • Import a large list of frequently-used email addresses on to the printer all at once, rather than adding them one at a time. • Export contacts from the printer into a .CSV file on the computer to use as a data backup, or import the records onto another HP printer. • Edit email addresses that have already been saved in the printer.
Digital Sending Software Setup	Configure settings related to using optional Digital Sending software.
Email Setup	Configure the default email settings for digital sending, including the following: • Settings for the outgoing mail (SMTP) server • Settings for Email Quick Sets jobs • Default message settings, such as the "From" address and the subject line • Settings for digital signatures and encryption • Settings for email notifications • Default scan settings for email jobs • Default file settings for email jobs
Email and Scan to Network Folder Quick Setup Wizards	Configure the printer to send scanned images as email attachments. Configure the printer to save scanned images to network-folder Quick Sets. Quick Sets provide easy access to files saved on the network.
Preferences	Manage general scanning settings.
Scan+ Setup	Scan+ is a unified scan app that offers scanning to multiple destinations in a single job. Scan+ provides access to favorites, recently used destinations, Auto Sense features, PDF Quality and File Size presets, and scan shortcuts to increase productivity.

Table 3-14 HP Embedded Web Server Scan/Digital Send tab (continued)

Menu	Description
Scan to Network Folder	Configure the network folder settings for digital sending, including the following: • Settings for Quick Sets jobs saved in a network folder • Settings for notifications • Default scan settings for jobs saved in a network folder • Default file settings for jobs saved in a network folder
Scan to SharePoint®	Configure the SharePoint settings for digital sending, including the following: • Settings for Quick Sets jobs saved in a document library on the SharePoint site • Default settings for jobs saved in a document library on the SharePoint site
Scan to USB Drive	Configure the USB settings for digital sending, including the following: • Settings for Quick Sets jobs saved on a USB flash drive • Settings for notifications • Default scan settings for jobs saved on a USB flash drive • Default file settings for jobs saved on a USB flash drive
Stamp	Select and configure content to be applied in up to six positions on the copy page.
Watermarks	Use this feature to add a watermark to the document.

Fax tab

Settings available on the **Fax** tab of the EWS.

Table 3-15 HP Embedded Web Server Fax tab

Menu	Description
Fax Activity Log	Contains a list of the faxes that have been sent from or received by this printer.
Fax Receive Setup	Configure default print options for incoming faxes, and set up a fax printing schedule.
Fax Send Setup	Configure settings for sending faxes, including the following: • Default settings for outgoing faxes • Settings for fax Quick Sets jobs • Settings for notifications • Default setting for sending faxes using the internal fax modem • Settings for using a LAN fax service • Settings for using an Internet fax service
Fax Speed Dials	Manage speed dials, including the following: • Import .CSV files containing email addresses, fax numbers, or user records, so that they can be accessed on this printer. • Export email, fax, or user records from the printer into a file on the computer to use as a data backup, or import the records onto another HP printer.

Table 3-15 HP Embedded Web Server Fax tab (continued)

Menu	Description
Fax Archive and Forwarding	Enable or disable fax archiving and fax forwarding, and configure basic settings for each: • Fax archiving is a method to send a copy of all incoming and outgoing faxes to an email address, a network folder, or an FTP server. • Fax forwarding is a method to forward incoming faxes to a different fax device.
Stamp	Select and configure content to be applied in up to six positions on the copy page.
Watermarks	Use this feature to add a watermark to the document.

Supplies tab

Settings available on the **Supplies** tab of the EWS.

Table 3-16 HP Embedded Web Server Supplies tab

Menu	Description
Consumables Access Control	Use this feature to lock toner cartridges into the product to help prevent early replacement. Each cartridge will automatically unlock when it reaches the replacement threshold or encounters an error. Signing in with Admin or Service credentials will also unlock all cartridges for the duration of the session.
Manage Supplies	Configure how the printer reacts when supplies reach a Very Low state.

Troubleshooting tab

Settings available on the **Troubleshooting** tab of the EWS.

Table 3-17 HP Embedded Web Server Troubleshooting tab

Menu	Description
Calibration/Cleaning **(Color LaserJet printers only)**	**Enable the automatic cleaning feature, create and print the cleaning page, and select an option to calibrate the printer immediately.**
Diagnostic Data NOTE: This option is available only if an administrator password is set from the **Security** tab.	Export printer information to a file that can be useful for HP technical support to use for detailed problem analysis.
Firmware Upgrade	Download and install printer firmware upgrade files.

Table 3-17 HP Embedded Web Server Troubleshooting tab (continued)

Menu	Description
Calibration/Cleaning **(Color LaserJet printers only)**	**Enable the automatic cleaning feature, create and print the cleaning page, and select an option to calibrate the printer immediately.**
General Troubleshooting	Use the following options as appropriate: • **Reports and Tests** area: Select and print several types of reports and tests. Some reports can be viewed in the Embedded Web Server by clicking the **View** button. • **Fax Tools** area: Configure settings for fax troubleshooting. (MFP and Digital Sender products with HP analog fax accessory only) • **OXPd Troubleshooting** area: Enable or disable the **Allow a Non-Secure Connection for Web Services** option • **Auto Recovery** area: Enable or disable the **Enable Auto Recovery** option, which allows the printer to auto recover from errors that might require the power to be turned off and on (for example, a 49 error).
Online Help	Link to HP cloud-based online help to assist in troubleshooting printing issues.
Reset Factory Settings	Restore printer settings to factory defaults.
Schedule Restart	Scheduled Restart allows users to set a time and frequency for when to restart the product.

Security tab

Settings available on the **Security** tab of the EWS.

Table 3-18 HP Embedded Web Server Security tab

Menu	Description
Access Control	Configure access to printer functions for specific individuals or groups, and select the method individuals use to sign in to the printer.
Account Policy	Configure for local administrator and remote configuration the password lockout and password complexity settings.
Certificate Management	Install, manage, and validate security certificates for access to the printer and the network.
Email Domain Restriction	If email functionality is enabled, administrators can limit the email addresses to which the printer can send messages.

Table 3-18 HP Embedded Web Server Security tab (continued)

Menu	Description
General Security	Settings for general security, including the following options: • Configure an administrator password to restrict access to certain features on the printer. • Set a custom device Service Access Code. • Set the Remote Configuration Password. • Set Embedded Web Server Options. • Enable WebScan Auto Capture Jobs. • Set PJL password and enable access commands. • Enable PostScript operations. • Set file system access and firmware upgrade security. • Enable Bluetooth Low Energy settings. • Enable or disable the Host USB port on the control panel or the USB connectivity port on the formatter for printing directly from a computer. • Set enabled SMB versions for the printer. • View the status of all security settings.
Manage Remote Apps	Manage or whitelist remote apps by importing or deleting certificates that allow devices to use this product.
Protect Stored Data	Configure and manage the internal storage for the printer. Configure settings for jobs that are stored on the printer internal storage.
Security Log	Retrieve security event log data, and export security event log data to a file that can be used for detailed problem analysis.
Self Test	Verify that the security functions are running according to expected system parameters.
Web Service Security	Allow resources on this printer to be accessed by web pages from different domains. If no sites are added to the list, then all sites are trusted.

HP Web Services tab

Settings available on the **HP Web Services** tab of the EWS.

Use the **HP Web Services** tab to configure and enable HP Web Services for this printer. HP Web Services must be enabled to use the HP ePrint feature.

Table 3-19 HP Embedded Web Server HP Web Services tab

Menu	Description
HP JetAdvantage	Access solutions that extend the capabilities of the printer
Smart Cloud Print	Enable Smart Cloud Print, which allows access to web-based apps that extend the capabilities of the printer.
Web Proxy	Configure a proxy server if there are issues enabling HP Web Services or connecting the printer to the Internet.

Table 3-19 HP Embedded Web Server HP Web Services tab (continued)

Menu	Description
Web Services Setup	Connect this printer to HP Connected on the web by enabling HP Web Services.

Networking tab

Settings available on the **Networking** tab of the EWS.

Use the **Networking** tab to configure and secure network settings for the printer when it is connected to an IP-based network.

NOTE: This tab does not display if the printer is connected to other types of networks.

Table 3-20 HP Embedded Web Server Networking tab > Configuration settings

Menu	Description
AirPrint	Enable, set up, or disable network printing from Apple-supported printers.
Network Settings	Configure IPX/SPX, AppleTalk, DLC/LLC, and SNMP settings, depending on the print server model.
Other Settings	Configure general printing protocols and services supported by the print server. The available options depend on the print server model, but can include firmware update, LPD queues, USB settings, support information, and refresh rate.
Select Language	Change the language displayed by the HP Embedded Web Server. This page displays if the web pages support multiple languages. Optionally, select supported languages through language-preference settings in the browser.
Select Location	Select a country/region for the printer.
TCP/IP Settings	Configure TCP/IP settings for IPv4 and IPv6 networks. NOTE: The configuration options available depend on the print server model.
Wi-Fi Direct	Configure Wi-Fi Direct settings for printers that include embedded Wi-Fi Direct Print and NFC printing or that have a wireless accessory installed. NOTE: The configuration options available depend on the print server model.
Wireless Station	Configure the initial wireless settings. NOTE: The configuration options available depend on the print server model.

Table 3-21 HP Embedded Web Server Networking tab > Diagnostics settings

Menu	Description
Configuration Page	View the HP Jetdirect configuration page, which contains status and configuration information.
Network Statistics	Display network statistics that are collected and stored on the HP Jetdirect print server.
Protocol Info	View a list of network-configuration settings on the HP Jetdirect print server for each protocol.

Table 3-22 HP Embedded Web Server Networking tab > Security settings

Menu	Description
802.1X Authentication	Configure 802.1X authentication settings on the Jetdirect print server as required for client authentication on the network, and reset the 802.1X authentication settings to factory-default values. CAUTION: When changing the 802.1X authentication settings; the printer might lose its connection. To reconnect, it might be necessary to reset the print server to a factory-default state and reinstall the printer.
Announcement Agent	Enable or disable the HP Device Announcement Agent, set the configuration server, and configure mutual authentication using certificates.
Authorization	Control configuration management and use of this printer, including limiting host access to this printer through an Access Control List (ACL) (for selected print servers on IPv4 networks only).
IPsec/Firewall	Enable, configure, and view an IPsec/Firewall policy.
Mgmt. Protocols	Configure and manage security protocols for this printer, including the following: • Set the security management level for the HP Embedded Web Server, and control traffic over HTTP and HTTPS. • Configure the SNMP (Simple Network Management Protocol) operation. Enable or disable the SNMP v1/v2c or SNMP v3 agents on the print server. • Control access through protocols that may not be secure, such as printing protocols, print services, discovery protocols, name resolution services, and configuration-management protocols.
Secure Communication	Configure Transport Layer Security (TLS) protocol, select encryption, enable FIPS-140, and enable logging of connectivity for troubleshooting.
Settings	View and restore current security settings to factory-default values. Configure security settings using the Security Configuration Wizard. NOTE: Do not use the Security Configuration Wizard to configure security settings if using network-management applications, such as HP Web Jetadmin.

Print menu (SFP) and Copy/Print menu (MFP)

Learn about the control-panel Print menu (SFP) and the Copy/Print menu (MFP).

To display: At the printer control panel, select the Settings menu, and then select the Print menu (SFP) or the Copy/Print menu (MFP).

To print: At the printer control panel, touch (MFP) or use the arrow buttons (SFP) to select the printer icon  . For the SFP, press the OK button to print the pages.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings MFP	Image preview			Make optional Require preview Disable preview	Use this menu to configure how Copy behaves.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings MFP	Copies			1-9999 Default = 1	Configure the default options for copy jobs. If the user does not specify the job options when creating the job, the default options are used.
Copy Settings MFP	Sides	Original Sides		1-sided 2-sided Flip pages up	Use to indicate whether the original document is printed on one or both sides. For example, select Original Sides 1-sided and Output Sides 2-sided when the original is printed on one side, but you want to make two-sided copies. Select Flip pages up to print the pages with long edge of the in the landscape orientation.
Copy Settings MFP	Sides	Output Sides		1-sided 2-sided Flip pages up	Use to indicate whether the copies should be printed on one or both sides. For example, select Original Sides 1-sided and Output Sides 2-sided when the original is printed on one side, but you want to make two-sided copies. Select Flip pages up to print the pages with long edge of the in the landscape orientation.
Copy Settings MFP	Watermark	Watermark Type		None* Text	Use to set a text watermark.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings MFP	Watermark	Watermark Text		Draft Confidential Secret Top Secret Urgent	Select a predefined text watermark.
Copy Settings MFP	Watermark	Text Font		Letter Gothic* Antique Olive New Century Schoolbook Roman Garamond Antiqua	Select the font of the text watermark.
Copy Settings MFP	Watermark	Text Size		30 point 40 point* 60 point	Select the font point size of the text watermark.
Copy Settings MFP	Watermark	Darkness		1 - (Lighter) 2 3* 4 5 - (Darker)	Select the darkness of the text watermark.
Copy Settings MFP	Stamps	Stamp Content		User-defined value None* IP address User name Product information Page number Date and time	Use to set a stamp in any or all the following locations in the document: • Top Left • Top Center • Top Right • Bottom Left • Bottom Center • Bottom Right
Copy Settings MFP	Stamps	Text Font		Letter Gothic* Antique Olive New Century Schoolbook Roman Garamond Antiqua	Select the font of the stamp.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings MFP	Stamps	Text Size		8 point 12 point* 20 point	Select the font point size of the stamp.
Copy Settings MFP	Stamps	White background		Disabled* Enabled	Select the check box to enable a white background for the stamp.
Copy Settings MFP	Scan Mode			Standard document* Prompt for additional pages Book 2-sided ID	Use to indicate the type of original document to be scanned. Select Prompt for additional pages to copy or scan an original document that has more pages than the document feeder can accommodate at one time, or to scan originals of different sizes that cannot be scanned together, and then combine these separate scan jobs into a single job.
Copy Settings MFP	Reduce/Enlarge			Automatic* Include margins Manual Default=100	Scale the size of the document up or down. To reduce the image, select a scaling percentage that is less than 100. To enlarge the image, select a scaling percentage that is greater than 100. When Include margins is enabled, the printer reduces the image slightly to fit the entire scanned image within the printable area on the page.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings MFP	Original Size			Automatically detect* Letter (8.5x11) Mixed Letter/Legal Legal (8.5x14) Executive (7.25x10.5) Statement (5.5x8.5) Oficio (8.5x13) 4x6 5x7 5x8 A4 (210x297 mm) A5 (148x210 mm) A6 (105x148 mm) RA4 (215x305 mm) B5 (182x257 mm) B6 (128x182 mm) 10x15cm 16K (195x270 mm) 16K (184x260 mm) 16K (197x273 mm) DPostcard JIS (148x200 mm) Oficio (216x340 mm)	Specify the size of the original document.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings MFP	Paper Selection		Paper Size	Match original size* Letter (8.5x11) Legal (8.5x14) Executive (7.25x10.5) Statement (5.5x8.5) Oficio (8.5x13) 3x5 4x6 5x7 5x8 A4 (210x297 mm) A5 (148x210 mm) A6 (105x148 mm) RA4 (215x305 mm) B5 (182x257 mm) B6 (128x182 mm) 10x15cm 16K (195x270 mm) 16K (184x260 mm) 16K (197x273 mm) Postcard JIS (100x148 mm) DPostcard JIS (148x200 mm) Envelope #9 Envelope #10 Envelope Monarch Envelope #10 Envelope B5 Envelope C5 Envelope C6 Envelope DL Custom Oficio (216x340 mm)	Select the size of paper to use when printing or making copies.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings MFP	Paper Selection		Paper Type	Any Type Plain* Light 60-74g Intermediate 85-95g Mid-Weight 96-110g Heavy 111-130g Extra Heavy 131-175g Cardstock 176-220g Mono Transparency Labels Letterhead Envelope Preprinted Prepunched Colored Bond Recycled Rough HP EcoFFICIENT Light Bond	Select the type of paper to use when printing or making copies.
Copy Settings MFP	Paper Selection		Paper Tray	Automatically detect* Manually Feed Tray 1 Tray 2	Select which tray to use when printing or making copies.
Copy Settings MFP	Booklet	Booklet Format		Enabled Disabled*	Select to have Booklet Format off or on.
Copy Settings MFP	Booklet	Booklet Format	Borders on each page	Enabled Disabled*	Select to have borders printed on the page.
Copy Settings MFP	Content Orientation			Portrait* Landscape	Specify the way the content of the original document is placed on the page.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings MFP	Pages per Sheet			One* Two Four	Select how many pages to print on one sheet.
Copy Settings MFP	Page Order			Right, then down Down, then right	Select to print the pages in rows or columns.
Copy Settings MFP	Add page borders			Enabled Disabled*	Select the Add page borders checkbox to add borders to the pages.
Copy Settings MFP	Image Adjustment	Darkness		1 - (Lighter) 2 3 4 5* 6 7 8 9 - (Darker)	Adjust to increase or decrease the amount of white and black in the colors.
Copy Settings MFP	Image Adjustment	Contrast		1 - (Less) 2 3 4 5* 6 7 8 9 - (More)	Adjust to increase or decrease the difference between the lightest and darkest color on the page.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings MFP	Image Adjustment	Background Cleanup		1 - (Normal) 2 3* 4 5* 6 7 8 9 - (Cleaner)	Adjust if you are having trouble copying a faint image.
Copy Settings MFP	Image Adjustment	Sharpness		1 - (Less) 2 3* 4 5 - (More)	Adjust to sharpen or soften the image.
Copy Settings MFP	Optimize Text/ Picture			Text Mixed* Printed picture Photograph	Select to optimize for the output of a particular type of content.
Copy Settings MFP	Edge-to-Edge			Normal (recommended) Edge-to-Edge output	When the Edge-to-Edge feature is enabled, the product minimizes margins and prints as close to the edge of the paper as possible.
Copy Settings MFP	Erase Edges	Use inches		Enabled* Disabled	Use the Erase Edges feature to remove blemishes, such as dark borders or staple marks, by cleaning the edges of the scanned image. Disabling Use inches changes the measurements to millimeters.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings MFP	Erase Edges	Front Side		Specify a different width for each edge Apply same width to all edges* All edges value Default = 0.00	Sets the width of the edge to clean.
Copy Settings MFP	Erase Edges	Back Side		Specify a different width for each edge Apply same width to all edges Mirror front side*	Sets the width of the edge to clean.
Copy Settings MFP	Collate			Collate on* Collate off	When Collate on is selected, each set of copied pages are assembled in the same order as the original document.
Copy Settings MFP	Multi-feed Detection			Disabled Enabled*	Use this feature to detect when multiple pages are fed simultaneously into the ADF (automatic document feeder) or sheet-feed scanner.
Copy Settings MFP					
Enable Print from USB Drive				Enabled Disabled*	Enables the printer to open a file from a USB drive.
Manage Stored Jobs	Job Sort Order			Job Name* Date*	This option allows you list the jobs either alphabetically or chronologically.
Manage Stored Jobs	Retain Temporary Jobs			Do not retain Personal jobs only All temporary jobs	Sets which temporary jobs will be retained in the event of a printer reboot.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Manage Stored Jobs	Temporary Job Storage Limit			1-300 Default = 32	Configure global settings for jobs that are stored in the printer memory. The Temporary Job Storage Limit feature specifies the number of temporary jobs that can be stored on the printer. The maximum allowed value is 300.
Manage Stored Jobs	Temporary Job Storage Retention			Off 30 minutes 1 hour 4 hours 1 day 1 week 4 weeks 3 days	Configure global settings for temporary jobs that are stored in the printer memory. The Temporary Stored Job Retention feature specifies the amount of time temporary jobs can be stored on the printer.
Manage Stored Jobs	Standard Stored Job Retention			Off 30 minutes 1 hour 4 hours 1 day 1 week 4 weeks 3 days	Configure global settings for jobs that are stored in the printer memory. The Standard Stored Job Retention feature specifies the amount of time jobs can be stored on the printer.
Default Print Options	Number of Copies			Range: 1-32000 Default = 1	Sets the default number of copies for a copy job. This default applies when the Copy function or the Quick Copy function is initiated from the printer Home screen.
Default Print Options	Paper Selection	Paper size Paper type Paper tray		Select from a list of sizes that the printer supports.	Configures the default paper size, type and tray used for print jobs.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Default Print Options	Default Custom Paper Size	X Dimension		Range: 3.00-8.50 inches Default = 8.5 inches	Configures the default paper size that is used when the user selects **Custom** as the paper size for a print job.
Default Print Options	Default Custom Paper Size	Y Dimension		Range: 5.00-14.00 inches Default = 14 inches	Configures the default paper size that is used when the user selects **Custom** as the paper size for a print job.
Default Print Options	Default Custom Paper Size	Use Inches		Enabled* Disabled	
Default Print Options	Output Sides			1-sided* 2-sided	Use to indicate whether the original document is printed on one or both sides.
Default Print Options	Edge-to-Edge			Normal (recommended)* Edge-to-Edge output	Use to avoid shadows that can appear along the edges of copies when the original document is printed close to the edges.
Default Print Options	Resolution			FastRes 1200* ProRes 1200	Use to select the level of desired print quality.
Default Print Options	Resolution	Economode		Enabled Disabled*	Text is printed using less toner. This setting is useful when you are printing drafts. You can turn on this option independently of other print quality settings.
PCL and Postscript Settings	Courier Font			Regular* Dark	Select which version of the Courier font you want to use. The factory default setting is Regular, which uses an average stroke width. The Dark setting can be used if a heavier Courier font is needed.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
PCL and Postscript Settings	Wide A4			Enabled Disabled*	Changes the printable area of A4-size paper. If you enable this option, eighty 10-pitch characters can be printed on a single line of A4 paper.
PCL and Postscript Settings	Print PS Errors			Enabled Disabled*	Use this feature to select whether a PostScript (PS) error page is printed when the printer encounters a PS error.
PCL and Postscript Settings	Print PDF Errors			Enabled Disabled*	Selects whether a PDF error page is printed when the printer encounters a PDF error.
PCL and Postscript Settings	Personality			Automatic* PCL PS PDF	Configures the default print language or personality for the printer. Normally you should not change the printer language. If you change the setting to a specific printer language, the printer does not automatically switch from one language to another unless specific software commands are sent to it.
PCL and Postscript Settings	PCL	Font Settings	Font Source	Internal Disk resident*	Selects the font source for the user-soft default font. The list of available options varies depending on the installed printer options.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
PCL and Postscript Settings	PCL	Font Settings	Font Number	Range: 0-110 Default = 0	Specifies the font number for the user-soft default font using the source that is specified in the Font Source menu. The printer assigns a number to each font and lists it on the PCL font list. The font number displays in the Font # column of the printout.
PCL and Postscript Settings	PCL	Font Settings	Font Pitch	Range: 0.44-99.99 Default = 10	If the Font Source option and the Font Number setting indicate a contour font, then use this feature to select a default pitch (for a fixed-spaced font).
PCL and Postscript Settings	PCL	PCL Settings	Form Length	Range: 5-128 lines Default = 60	Controls the PCL print-command options. PCL is a set of printer commands that HP developed to provide access to printer features. Use the Form Length feature to select the user soft -default vertical form length.
PCL and Postscript Settings	PCL	PCL Settings	Orientation	Portrait* Landscape	Select the orientation that is most often used for copy or scan originals. Select the Portrait option if the short edge is at the top or select the Landscape option if the long edge is at the top.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
PCL and Postscript Settings	PCL	PCL Settings	Symbol Set	Select from a list of symbol sets.	Select any one of several available symbol sets from the control panel. A symbol set is a unique grouping of all the characters in a font. The factory default value for this option is PC-8. Either PC-8 or PC-850 are recommended for line-draw characters.
PCL and Postscript Settings	PCL	PCL Settings	Append CR to LF	Enabled Disabled*	When enabled, this option appends a carriage return to each line feed encountered in backwards-compatible PCL jobs.
PCL and Postscript Settings	PCL	PCL Settings	Suppress Blank Pages	Enabled Disabled*	This option is for users who are generating their own PCL, which could include extra form feeds that would cause blank pages to be printed. When the On option is selected, form feeds are ignored if the page is blank.
PCL and Postscript Settings	PCL	PCL Settings	Media Source Mapping	Standard* Classic	Use to select and maintain input trays by number when you are not using the printer driver, or when the software program has no option for tray selection. The following options are available: Standard: Tray numbering is based on newer HP LaserJet models. Classic: Tray numbering is based on HP LaserJet 4 and older models.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Print Quality	General	Toner Density		A sliding bar appears with the indicator set in the middle between Less and More.	Lighten or darken the print on the page by changing the toner density setting.
Print Quality	General	REt		Disabled Enabled*	Use this setting to enable or disable Resolution Enhancement technology (REt), which produces smoother angles, curves, and edges.
Print Quality	Image Registration	Tray	Tray 1 Tray 2 Tray 3 Tray 4 Tray 5 Depends upon the number of trays installed		Specify tray to be adjusted

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Print Quality	Image Registration	Front-side Horizontal Shift		-5.00 mm to 5.00 mm	Shift the margin alignment to center the image on the page from top to bottom and from left to right. You can also align the image on the front with the image printed on the back. The direction that is perpendicular to the way the paper passes through the printer is referred to as X. This is also known as the scan direction. X1 is the scan direction for a single-sided page or for the second side of a two-sided page. X2 is the scan direction for the first side of a two-sided page. The direction that the paper feeds through the printer is referred to as Y. Y1 is the feed direction for a single-sided page or for the second side of a two-sided page. Y2 is the feed direction for the first side of a two-sided page. Use the Adjust Tray <X> menu to adjust the registration settings for each tray. Before adjusting these values, print a registration test page. It provides alignment guides in the X and Y directions so you can determine which adjustments are necessary. You can adjust values for X1 Shift, X2 Shift, Y1 Shift, and Y2 Shift.
		Front-side Vertical Shift			
		Back-side Horizontal Shift			
		Back-side Vertical Shift			

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Print Quality	Image Registration	Print Test Page			Use the Print Test Page option to print a page to test the image registration. It provides alignment guides in the X and Y directions so you can determine which adjustments are necessary.
Print Quality	Auto Sense Behavior	Tray 1		Sense every page Sense first page Sense transparency only	
Print Quality	Auto Sense Behavior	All Other Trays		Sense first page Sense transparency only	
Print Quality	Adjust Paper types	Select from a list of paper types that the printer supports. The available options are the same for each paper type.	Print mode	Select from a list of paper types Reset Paper Types	Changing the Print mode setting is usually the first thing to try to resolve print-quality problems. Problems can include toner not sticking well to the page, a faint image of the page repeated on the same or following page, incorrect gloss level, and so on.
Print Quality	Adjust Paper types	Select from a list of paper types that the printer supports. The available options are the same for each paper type.	Resistance mode	Normal* Up 1 Up 2	Use this setting to correct print quality problems in low-humidity environments and highly resistive paper. Use the Up options to solve print quality problems that are related to faded images or scattered toner on certain paper types. The Up options raise the secondary transfer bias.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Print Quality	Adjust Paper types	Select from a list of paper types that the printer supports. The available options are the same for each paper type.	Paper curl mode	Normal* Reduced	Use this setting to reduce paper curl in print jobs.
Print Quality	Optimize	Line Detail		Normal* Off Alternate	Use this setting if you have scattered lines in printed pages.
Print Quality	Optimize	Moisture Control		Normal* Alternate	
Print Quality	Optimize	Envelope control		Normal Reduced Temp	
Print Quality	Optimize	Tray 1		Normal Alternate	
Print Quality	Optimize	Background		Normal Alternate	
Print Quality	Optimize	Uniformity Control		Normal Alternate 1 Alternate 2 Alternate 3	
Print Quality	Optimize	Cac03		Off On	
Print Quality	Optimize	Best Normal		Off On	
Print Quality	Optimize	Tracking Control		Off On	
Print Quality	Optimize	Registration		Normal Alternate	
Print Quality	Optimize	Transfer Control		Normal Alternate 1	
Print Quality	Optimize	Moisture Control		Normal Alternate	
Print Quality	Optimize	Reset Optimize		Reset	

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Print Quality	Edge Control			Off Light Normal* Maximum	
Manage Trays	Use Requested Tray			Exclusively* When available	Controls how the printer handles jobs that have specified a specific input tray. Two options are available: Exclusively: The printer never selects a different tray when the user has indicated that a specific tray should be used, even if that tray is empty. When available: The printer pulls from another tray if the specified tray is empty, even though the specific tray was indicated for the job.
Manage Trays	Manually Feed Prompt			Always prompt* Prompt on mismatch	Indicate whether a prompt should appear when the type or size for a job does not match the specified tray and the printer pulls from the multipurpose tray instead. Two options are available: Always: A prompt always displays before using the multipurpose tray. Prompt on mismatch: A prompt displays only if the size or type do not match or the tray is empty.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Manage Trays	Size/Type Prompt			Display* Do not display	Controls whether the tray configuration message displays whenever a tray is closed. Two options are available: Display: Shows the tray configuration message when a tray is closed. The user is able to configure the tray settings directly from this message. Do not display: Prevents the tray configuration message from automatically appearing.
Manage Trays	Use Another Tray			Allow* Do not allow	Use to turn on or off the control panel prompt to select another tray when the specified tray is empty. Two options are available: Allow: When this option is selected the user is prompted to either add paper to the selected tray or to choose a different tray. This is the factory default. Do not allow: When this option is selected, the user is not given the option of selecting a different tray. The printer prompts the user to add paper to the tray that was initially selected.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Manage Trays	Alternative Letterhead Mode			Off* On	Use to load letterhead or preprinted paper into the tray the same way for all print jobs, whether you are printing to one side of the sheet or to both sides of the sheet. When this option is selected, load the paper as you would for printing on both sides. See the user documentation that came with the printer for instructions about loading letterhead for printing on both sides. When this option is selected, the printer speed slows to the speed required for printing on both sides.
Manage Trays	Duplex Blank Pages			Automatic* Always	Controls how the printer handles two-sided jobs (duplexing). Two options are available: Automatic: Choose this option to skip printing blank sides during a two-sided print job. The printer can print jobs faster when blank sides are skipped. Always: Choose this option to print all sides of a two-sided job, even if one side is blank. This might be preferable for certain jobs that use paper types such as letterhead or prepunched paper.

Table 3-23 Print menu (SFP) or Copy/Print menu (MFP) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Manage Trays	Override A4/ Letter			Yes* No	Prints on letter-size paper when an A4 job is sent but no A4-size paper is loaded in the printer (or to print on A4 paper when a letter-size job is sent but no letter-size paper is loaded). This option will also override A3 with ledger-size paper and ledger with A3-size paper.

Defeating interlocks

Learn about defeating printer interlocks.

Different tests can be used to isolate different types of issues. For assembly or noise isolation, run the diagnostic test when the toner cartridge door or rear door is open.

Defeating the door interlocks allows observation of the paper pick operation.

Defeat the front (cartridge) door interlock

1. Open the front door.
2. Insert a folded piece of paper into the slot.

TIP: Fold a stiff piece of paper, for example a business card or index card, into a strip, and insert the strip into the slot for the front door logic switch.

Figure 3-22 Defeat the front (cartridge) door interlock

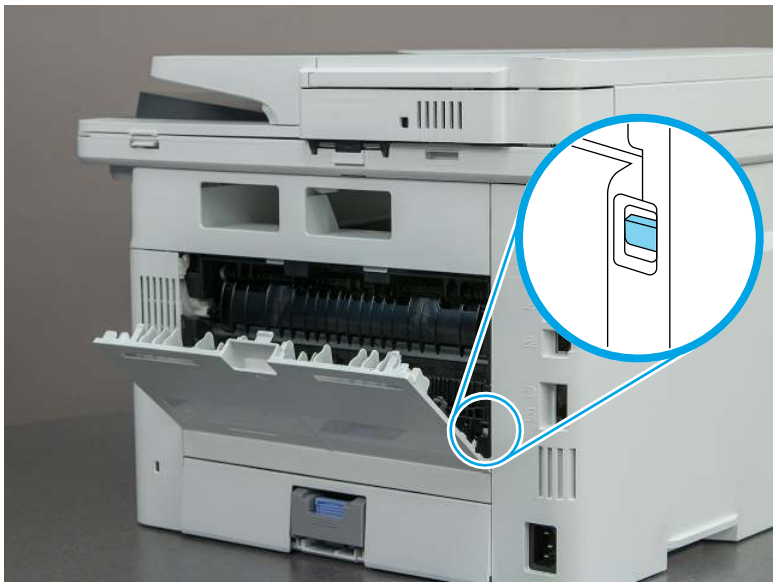


Defeat the rear door interlock

1. Open the rear door.
2. Insert a folded piece of paper into the slot.

TIP: It might be easier to use a small flat-blade screwdriver to defeat the rear door interlock.

Figure 3-23 Defeat the rear door interlock



LED Diagnostics (formatter)

Learn about troubleshooting the printer using formatter LEDs.

Network LEDs

The formatter has two network port LEDs. When the printer is connected to a properly working network through a network cable, the amber LED indicates network activity, and the green LED indicates the link status.

A blinking amber LED indicates network traffic. If the green LED is off, a link has failed. For link failures, check all of the network cable connections. In addition, try to manually configure the network card link speed setting by using the printer control panel.

Configure link speed setting from a SFP control panel

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Settings, and then press the OK button.
2. Use the arrow buttons to scroll to Networking, and then press the OK button.
3. Use the arrow buttons to scroll to Ethernet, and then press the OK button.
4. Use the arrow buttons to scroll to Link Speed, and then press the OK button.
5. Use the arrow buttons to scroll to the desired link speed setting, and then press the OK button.
6. Use the arrow buttons to scroll to Done (at the bottom of the control-panel display), and then press the OK button.

Configure link speed setting from an MFP control panel

1. From the Home screen on the printer control panel, scroll to and touch the Settings button.
2. Open the following menus:
   - Networking
   - Ethernet
   - Link Speed
3. Touch and then touch the desired link speed setting, and then touch the Done button.

Disable cartridge check

Learn about the disable cartridge check troubleshooting diagnostic.

NOTE: This item appears in the control-panel menus. However, the function is not available for this printer.

Print/stop test

Learn about the print/stop test troubleshooting diagnostic.

Use this diagnostic test to isolate the cause of problems such as image-formation defects and jams within the engine.

During this test, stop the paper anywhere along the printer paper path. The test can be programmed to stop printing internal pages or an external print job when the paper reaches a certain position. The test can also be programmed to stop from 0 to 60,000 ms. If the timer is set to a value that is greater than the job-print time, the printer can recover in one of two ways.

Printer recovery (print/stop test)

- After the print job is completed press the OK button to return to the Troubleshooting menu before the timer times out.
- After the timer times out, touch the Stop button. Activate the door switch to restart the engine and return it to a normal state.

Common print/stop test timing millisecond (ms) stops

- **600 ms**: The page has passed the registration area and the leading edge is just short of entering the fuser. The image can be seen on the paper but has not fused. If the defect is visible then the cause might be the drum, transfer roller, or a roller prior to, or in, the registration area.
- **1200 ms**: The leading edge is about 18mm (0.71 in) into the top output bin. The image has gone through the fuser. If the defect was not visible prior to the fuser, and is visible after the fuser, then the fuser it is the likely cause of the print quality defect. Inspect the fuser for damage, debris, or labels stuck to the fuser. Replace the fuser. Discuss media specifications and proper care of the fuser with the customer.

Print/stop test from a non-touchscreen control panel

1. From the Home screen on the printer control panel, use the arrow buttons to navigate to Support Tools, and then press the OK button.
2. Use the arrow buttons to scroll to Troubleshooting, and then press the OK button.

3. Use the arrow buttons to scroll to Diagnostic Tests, and then press the OK button.
4. Select Continue to enter **Maintenance mode**.
5. Use the arrow buttons to scroll to Print/Stop Test, and then press the OK button.

Print/stop test from a touchscreen control panel

1. From the Home screen on the printer control panel, scroll to and touch the Support Tools button.
2. Open the following menus:
   - Troubleshooting
   - Diagnostic Tests
   - Print/Stop Test
3. Enter a range, and then touch the OK button.

Individual component diagnostics

Learn about printer individual component diagnostics.

Paper path test

Learn about the paper path test troubleshooting diagnostic.

This diagnostic test generates one or more test pages. Use these pages to isolate the cause of jams.

To isolate a problem, specify which input tray to use, and specify the number of copies to print. Print multiple copies to help isolate intermittent problems. The following options become available after beginning the diagnostic feature:

- Print Test Page: Run the paper-path test from the default settings: Tray 2, no duplex, and one copy. To specify other settings, scroll down the menu, and select the setting, and then scroll back up and select Print Test Page to start the test.
- Source Tray: Select Tray 1, Tray 2, or the optional tray.
- Number of Copies: Set the numbers of copies to be printed; the choices are 1, 10, 50, 100, or 500.

Paper path test from a SFP control panel

1. From the Home screen on the printer control panel, use the arrow buttons to navigate to Support Tools, and then press the OK button.
2. Use the arrow buttons to scroll to Troubleshooting, and then press the OK button.
3. Use the arrow buttons to scroll to Diagnostic Tests, and then press the OK button.
4. Select Continue to enter **Maintenance mode**.
5. Use the arrow buttons to scroll to Paper Path Test, and then press the OK button.

Paper path test from an MFP control panel

1. From the Home screen on the printer control panel, scroll to and touch the Support Tools button.
2. Open the following menus:

- Troubleshooting
- Diagnostic Tests
- Paper Path Test

3. Select the paper path test options for the test.

Print/stop test

Learn about the print/stop test troubleshooting diagnostic.

Use this diagnostic test to isolate the cause of problems such as image-formation defects and jams within the engine.

During this test, stop the paper anywhere along the printer paper path. The test can be programmed to stop printing internal pages or an external print job when the paper reaches a certain position. The test can also be programmed to stop from 0 to 60,000 ms. If the timer is set to a value that is greater than the job-print time, the printer can recover in one of two ways.

Printer recovery (print/stop test)

- After the print job is completed press the OK button to return to the Troubleshooting menu before the timer times out.
- After the timer times out, touch the Stop button. Activate the door switch to restart the engine and return it to a normal state.

Common print/stop test timing millisecond (ms) stops

- **600 ms**: The page has passed the registration area and the leading edge is just short of entering the fuser. The image can be seen on the paper but has not fused. If the defect is visible then the cause might be the drum, transfer roller, or a roller prior to, or in, the registration area.
- **1200 ms**: The leading edge is about 18mm (0.71 in) into the top output bin. The image has gone through the fuser. If the defect was not visible prior to the fuser, and is visible after the fuser, then the fuser it is the likely cause of the print quality defect. Inspect the fuser for damage, debris, or labels stuck to the fuser. Replace the fuser. Discuss media specifications and proper care of the fuser with the customer.

Print/stop test from a non-touchscreen control panel

1. From the Home screen on the printer control panel, use the arrow buttons to navigate to Support Tools, and then press the OK button.
2. Use the arrow buttons to scroll to Troubleshooting, and then press the OK button.
3. Use the arrow buttons to scroll to Diagnostic Tests, and then press the OK button.
4. Select Continue to enter **Maintenance mode**.
5. Use the arrow buttons to scroll to Print/Stop Test, and then press the OK button.

Print/stop test from a touchscreen control panel

1. From the Home screen on the printer control panel, scroll to and touch the Support Tools button.
2. Open the following menus:

- Troubleshooting
- Diagnostic Tests
- Print/Stop Test

3. Enter a range, and then touch the OK button.

Paper path sensors test

Learn about the paper path sensors test troubleshooting diagnostic.

NOTE: This item appears in the control-panel menus. However, the function is not available for this printer.

Individual component test

Learn about the individual component test troubleshooting diagnostic.

NOTE: This item appears in the control-panel menus. However, the function is not available for this printer.

Manual sensor test

Learn about the manual sensor test troubleshooting diagnostic.

NOTE: This item appears in the control-panel menus. However, the function is not available for this printer.

Tray/bin manual sensor test

Learn about the tray/bin manual sensor test troubleshooting diagnostic.

NOTE: This item appears in the control-panel menus. However, the function is not available for this printer.

Diagrams: Block diagrams

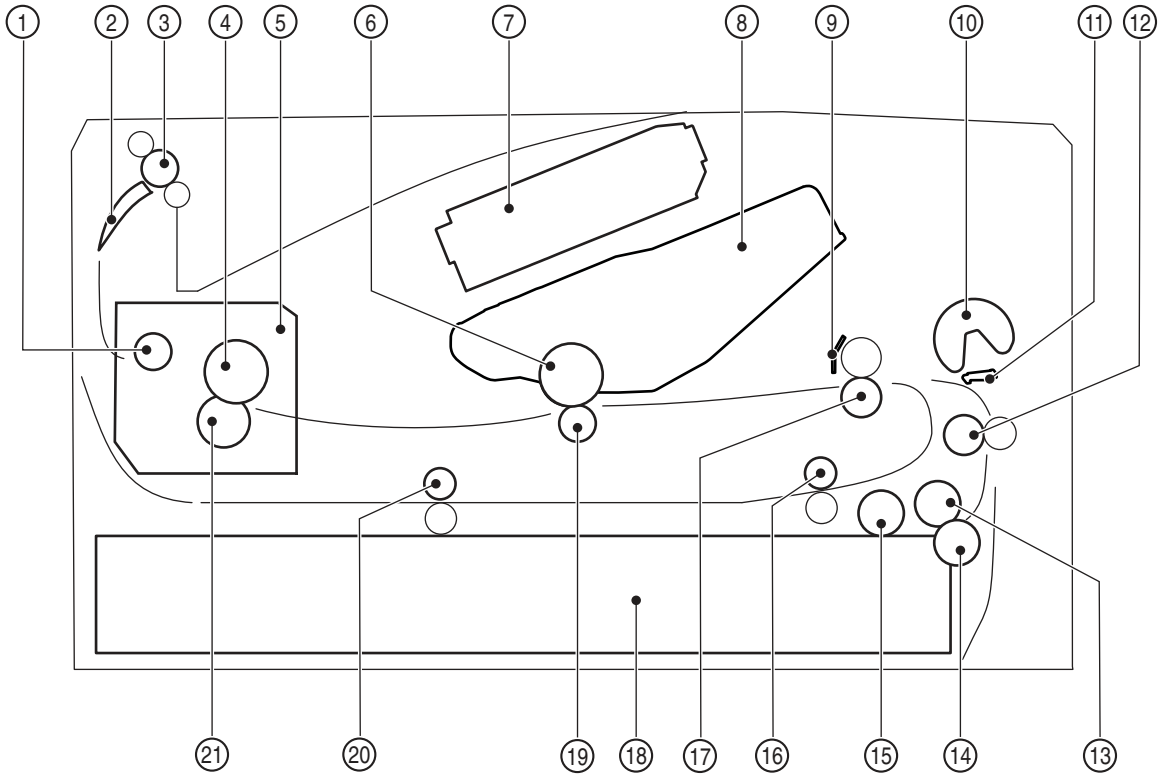
View block diagrams for the printer.

Cross section diagrams

View printer and paper feeder cross section diagrams.

Cross-sectional view of the printer

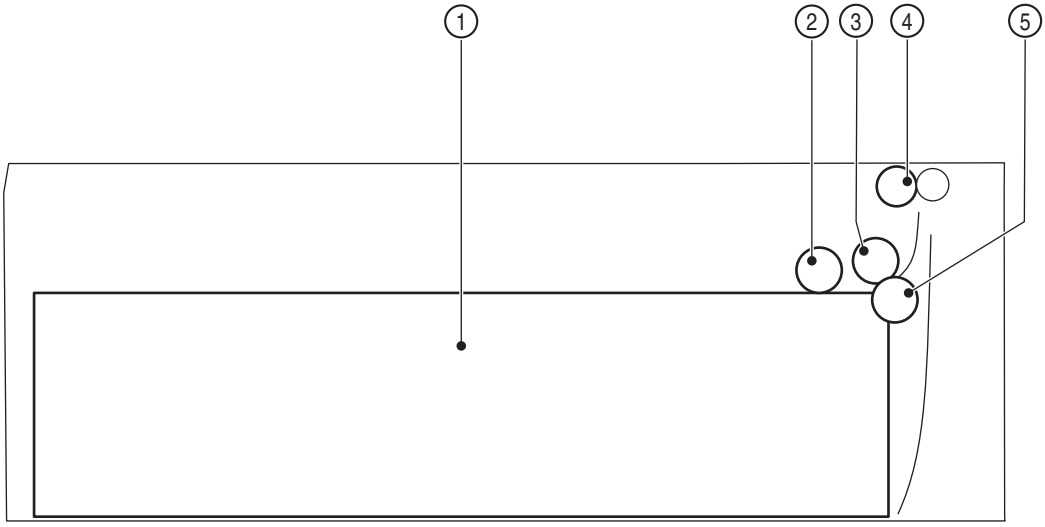
Figure 3-24 Cross-sectional view of the printer



Item	Description	Item	Description
1	Fuser output roller	12	Feed roller
2	Duplex flapper	13	Tray 2 feed roller
3	Output roller	14	Tray 2 separation roller
4	Fuser film	15	Tray 2 pickup roller
5	Fuser	16	Duplex re-pickup roller
6	Photosensitive drum	17	Registration roller
7	Laser scanner assembly	18	Tray 2
8	Toner cartridge	19	Transfer roller
9	Registration shutter	20	Duplex feed roller
10	Tray 1 pickup roller	21	Pressure roller
11	Tray 1 separation pad		

Cross-sectional view of the 550-sheet paper feeder

Figure 3-25 Cross-sectional view of the 550-sheet paper feeder



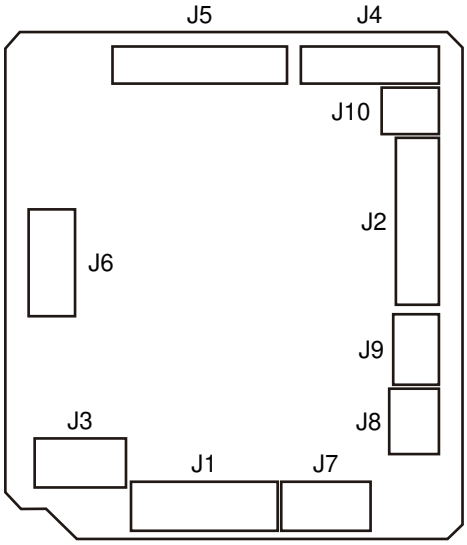
Item	Description
1	Tray 3
2	Tray 3 pickup roller
3	Tray 3 feed roller
4	Feed roller
5	Tray 3 separation roller

Printed circuit assembly (PCA) connector locations

View printed circuit assembly (PCA) diagrams.

DC controller PCA connections

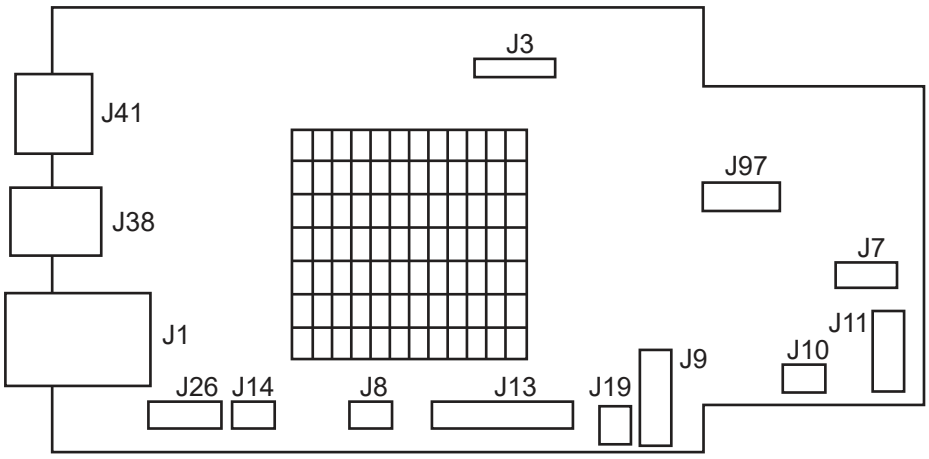
Figure 3-26 DC controller PCA connections



Item	Description	Item	Description
J1	Low-voltage power supply assembly	J6	Thermistor
J2	High-voltage power supply PCA	J7	Media-width sensor
J3	Formatter	J7	Duplex feed senor
J4	Laser assembly	J7	TOP sensor
J5	Connector PCA	J8	Cassette media out sensor
J6	Output bin media-full sensor	J9	Multipurpose tray media out sensor
J6	Fuser output sensor	J10	Memory tag (E-label)
J6	Loop sensor		

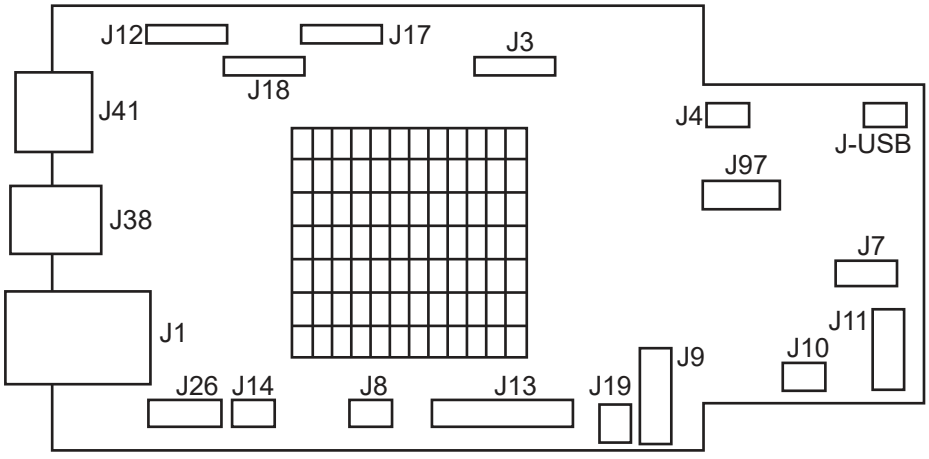
Formatter PCA connections

Figure 3-27 Formatter PCA connections (SFP)



Item	Description	Item	Description
J1	Ethernet port	J3	Control-panel FFC
J7	Trusted platform module (TPM)	J8	DC controller
J9	Low-voltage power supply (LVPS)	J10	Empty
J11	Island of Data (IOD)	J13	Empty
J14	Empty	J19	Empty
J26	Empty	J38	USB port (direct computer connection)
J41	USB port (job storage or accessory connection)	J97	embedded Multi-Media Card (eMMC)

Figure 3-28 Formatter PCA connections (MFP)

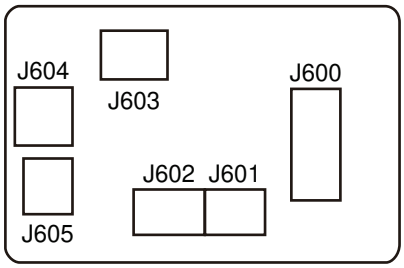


Item	Description	Item	Description
J1	Ethernet port	J3	Control-panel FFC

Item	Description	Item	Description
J4	Fax FFC	J7	Trusted platform module (TPM)
J8	DC controller	J9	Low-voltage power supply (LVPS)
J10	Empty	J11	Empty
J12	Document feeder	J13	Empty
J14	Empty	J17	Sub scanner assembly
J18	Sub scanner assembly	J19	Empty
J26	Empty	J38	USB port (direct computer connection)
J41	USB port (job storage or accessory connection)	J97	embedded Multi-Media Card (eMMC)
J-USB	Walk-up USB port		

1x550-sheet paper feeder PCA connectors

Figure 3-29 1x550-sheet paper feeder PCA connectors



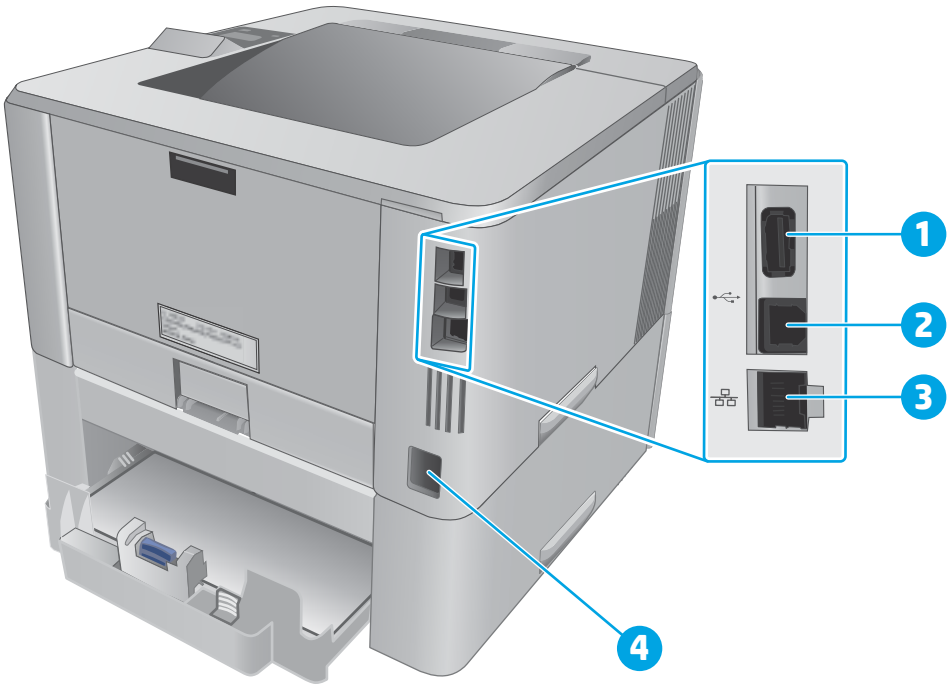
Item	Description
1	Tray 3
2	Tray 3 pickup roller
3	Tray 3 feed roller
4	Feed roller
5	Tray 3 separation roller

Diagrams: External plug and port locations

View printer external plugs and ports diagrams.

External plug and port locations (SFP)

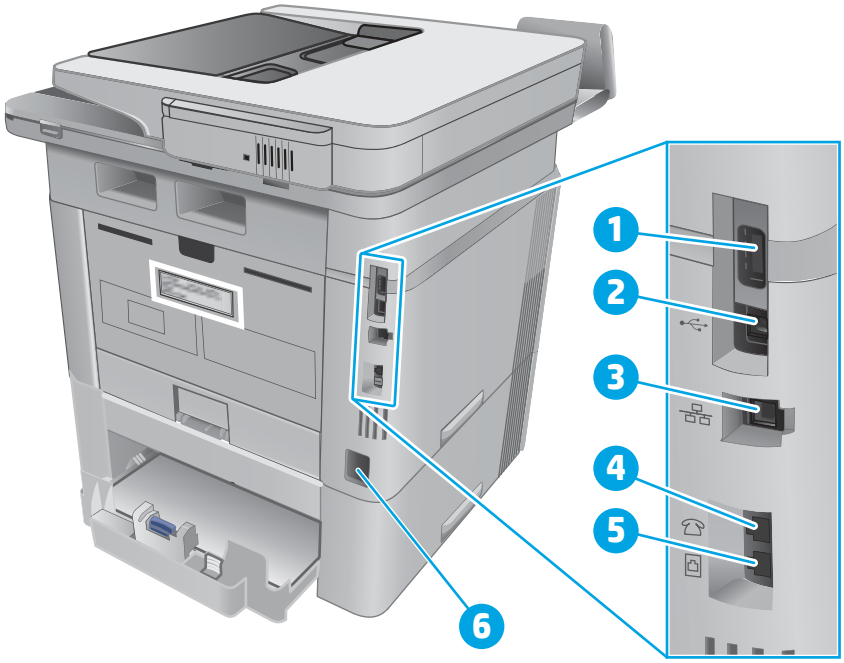
Figure 3-30 External plug and port locations (SFP)



Item	Description
1	USB port (for job storage and private printing)
2	USB interface port
3	Ethernet port
4	Power connection

External plug and port locations (MFP)

Figure 3-31 External plug and port locations (MFP)



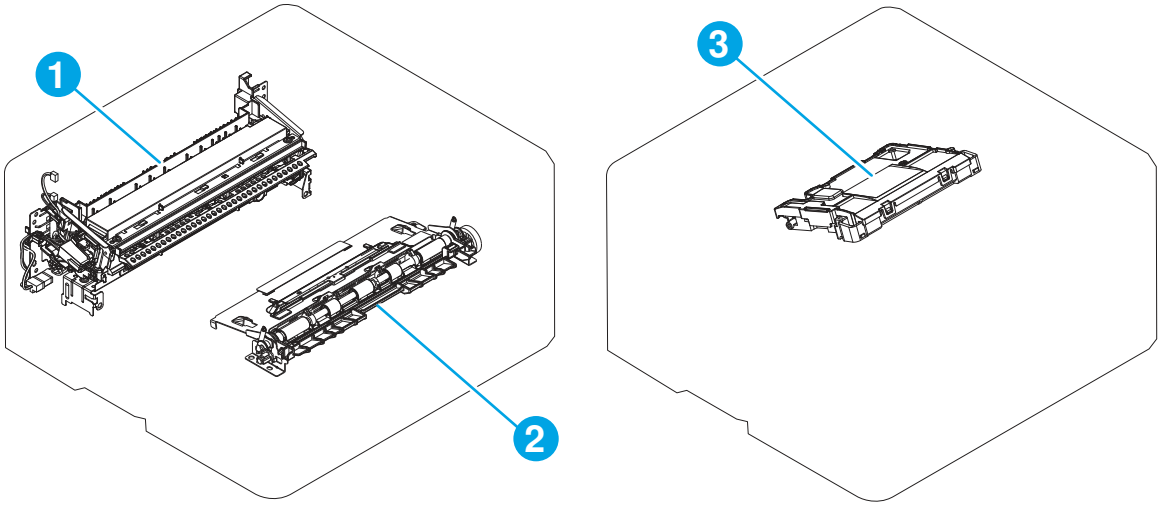
Item	Description
1	USB port (for job storage and private printing)
2	USB interface port
3	Ethernet port
4	Telephone “line out” port (this port is covered by a plug and is inactive)
5	Fax “line in” port (for attaching the fax phone line to the printer)
6	Power connection

Diagrams: Major component locations

View printer major component locations diagrams.

Major components (base printer)

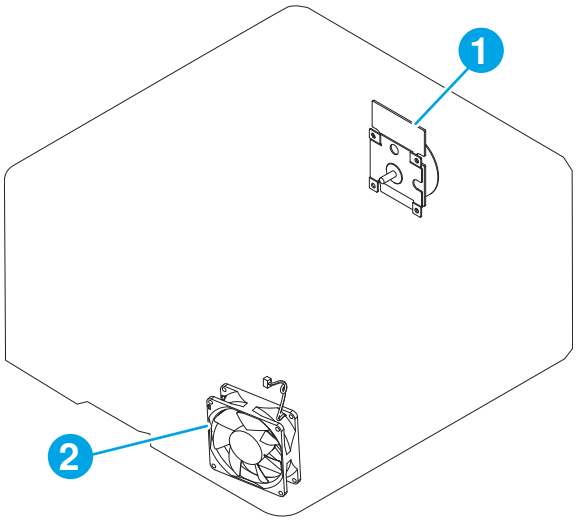
Figure 3-32 Major components (base printer)



Item	Description
1	Fuser
2	Registration assembly
3	Laser/scanner assembly

Motors and fans (base printer)

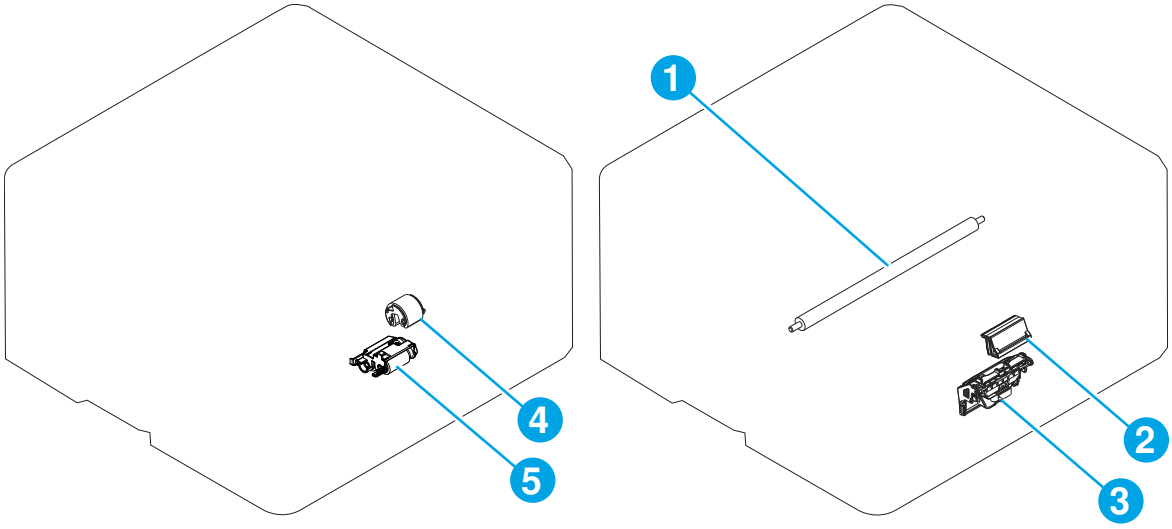
Figure 3-33 Motors and fans (base printer)



Item	Description
1	Fuser motor (M1)
2	Main fan (FM1)

Rollers and pads (base printer)

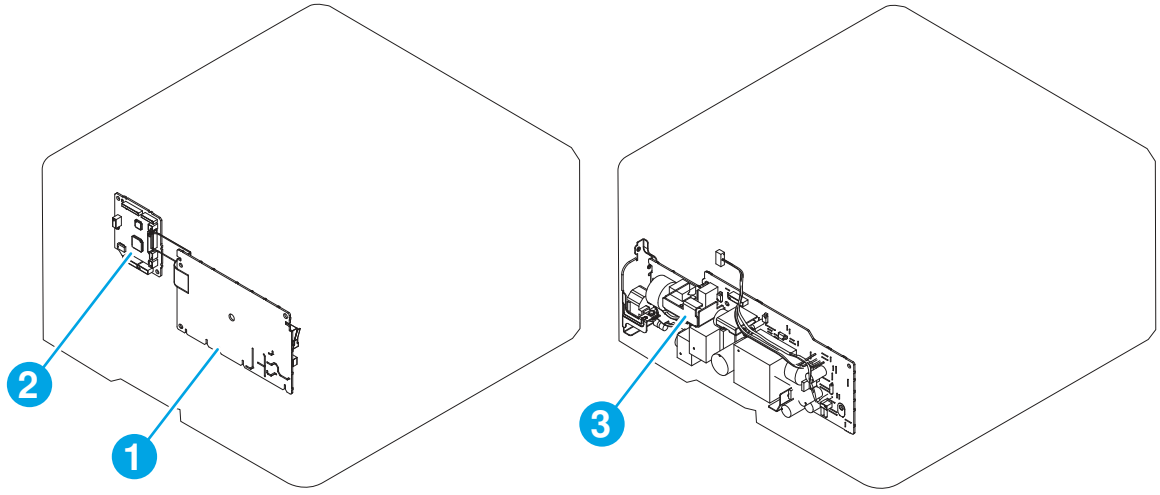
Figure 3-34 Rollers and pads (base printer)



Item	Description
1	Transfer roller
2	Tray 1 separation pad
3	Separation roller assembly
4	Tray 1 pickup roller
5	Pickup roller assembly

PCAs (base printer)

Figure 3-35 PCAs (base printer)



Item	Description
1	High-voltage power supply assembly
2	DC controller PCA

Item	Description
3	Low-voltage power supply assembly
Not shown	Formatter PCA (located in front of the DC controller)
Not shown	Fax PCA (located below the formatter PCA)

Internal test and information pages

Learn about printer test and information pages.

Configuration and Jetdirect page

Print and find printer information on configuration and HP embedded Jetdirect information pages.

NOTE: Depending on the model, up to three pages print when printing a configuration page. In addition to the main configuration page, the HP embedded Jetdirect configuration and the wireless pages print.

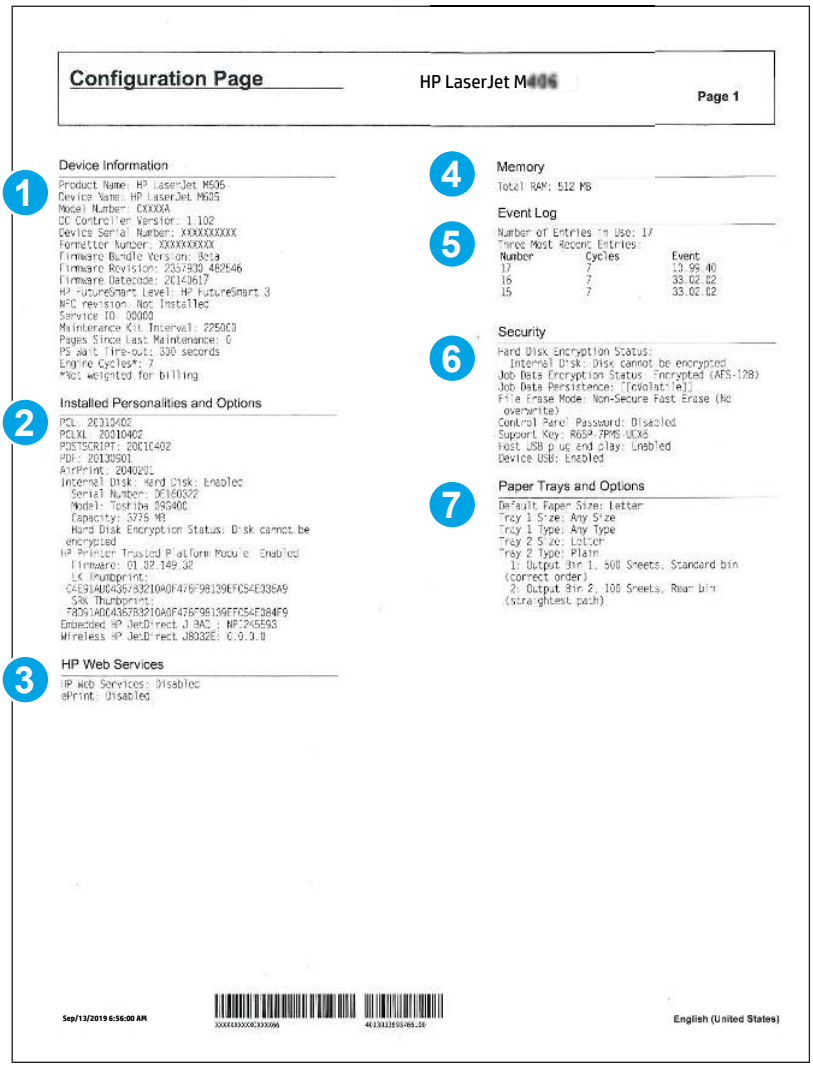
Print the configuration page from a non-touchscreen control panel

1. From the Home screen on the printer control panel, use the arrow buttons to navigate to Reports, and then press the OK button.
2. Use the arrow buttons to scroll to Configuration/Status Pages, and then press the OK button.
3. Use the arrow buttons to scroll to Configuration Page, and then press the OK button.
4. Use the arrow buttons to scroll to the print icon  . Press the OK button to print the pages.

Print the configuration page from a touchscreen control panel

1. From the Home screen on the printer control panel, scroll to and touch the Reports button.
2. Open the following menus:
   - Configuration/Status pages
3. Touch Configuration Page to select it.
4. Touch the print icon  to print the pages.

Figure 3-36 Configuration page



Item	Description	Item	Description
1	Device information	5	Event log
2	Installed personalities and options	6	Security
3	HP Web services	7	Paper trays and options
4	Memory		

Certain information, such as the firmware date codes, the IP address, and the email gateways, is especially helpful while servicing the printer. This information is on the various configuration pages.

Table 3-24 Important information on the configuration pages

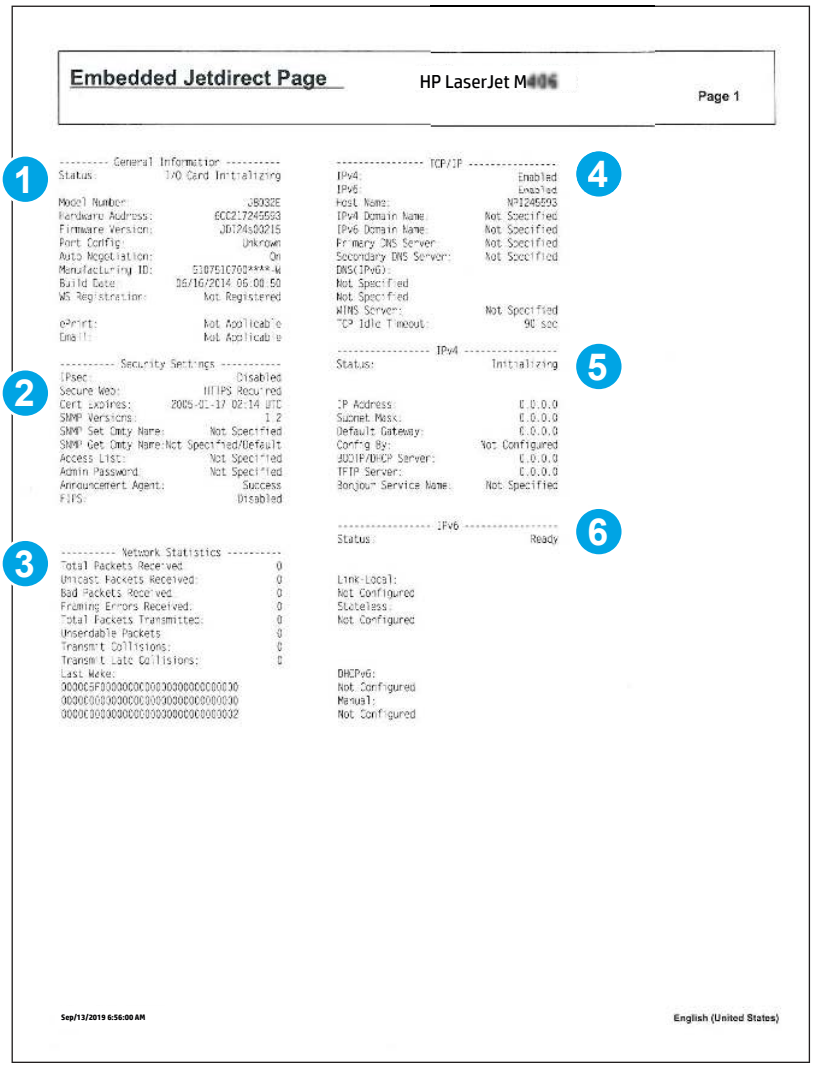
Type of information	Specific information	Configuration page
Firmware Bundle Version	Firmware information	Main configuration page (Device information)

Table 3-24 **Important information on the configuration pages (continued)**

Type of information	Specific information	Configuration page
Firmware Revision	Firmware information	Main configuration page (Device information)
Firmware Datecode	Firmware information	Main configuration page (Device information)
Accessories and internal storage All optional devices that are installed on the printer should be listed on the main configuration page. Separate pages print for the optional paper handling devices and the fax accessory. These pages list more-detailed information for those devices.	Optional installed formatter devices and accessories information	Main configuration page (Installed Personalities and Options)
Memory	Total RAM information	Main configuration page (Memory)
Tray and bin information	Size and type by tray (including installed optional paper feeders) information	Main configuration page (Paper Trays and Options)
Engine cycles, service ID, and cartridge information	Engine information	Main configuration page (Device Information)
Event-log information	Error information	Main configuration page (Event Log)

The second configuration page is the HP embedded Jetdirect page, which contains the following information:

Figure 3-37 HP embedded Jetdirect page



Item	Description
1	General Information indicates the printer status, model number, hardware firmware version, port select, port configuration, auto negotiation, manufacturing identification, and manufactured date.
2	Security Settings information
3	Network Statistics indicates the total packets received, unicast packets received, bad packets received, framing errors received, total packets transmitted, unsendable packets, transmit collisions, and transmit late collisions.
4	TCP/IP information, including the IP address
5	IPv4 information
6	IPv6 information

Reports menu

Learn about the control-panel Reports menu.

To display: At the printer control panel, select the Reports menu.

To print: At the printer control panel, touch (MFP) or use the arrow buttons (SFP) to select the printer icon  . For the SFP, press the OK button to print the pages.

In the following table, asterisks (*) indicate the factory default setting.

NOTE: The View option is control-panel type dependent (might not be available).

Table 3-25 Reports menu

First level	Second level	Values	Description
Configuration/Status Pages	Settings Menu Map	Cancel View Print	Shows a map of the entire control panel system and the selected values for each setting.
Configuration/Status Pages	Current Settings Page	Cancel View Print	Shows a summary of the current settings for the printer. This might be helpful if you plan to make changes and need a record of the present configuration.
Configuration/Status Pages	Configuration Page	Cancel View Print	Shows the printer settings and installed accessories.
Configuration/Status Pages	How to Connect Page	Cancel View Print	Shows the network information typically needed to connect the printer to a network.
Configuration/Status Pages	Supplies Status Page	Cancel View Print	Shows the approximate remaining life for the supplies; reports statistics on total number of pages and jobs processed, serial number, page counts, and maintenance information. HP provides approximations of the remaining life for the supplies as a customer convenience. The actual remaining supply levels might be different than the approximations provided.
Configuration/Status Pages	Usage Page	Cancel View Print	Shows a count of all paper sizes that have passed through the printer; lists whether they were simplex or duplex, and reports the page count.

Table 3-25 Reports menu (continued)

First level	Second level	Values	Description
Configuration/Status Pages	File Directory Page	Cancel View Print	Shows the file name and folder name for files that are stored in the printer memory.
Configuration/Status Pages	Web Services Status Page	Cancel View Print	Shows the detected Web Services for the printer.
Fax Reports Fax models only	Fax Activity Log	Cancel View Print	Contains a list of the faxes that have been sent from or received by this printer.
Fax Reports Fax models only	Billing Codes Report	Cancel View Print	Provides a list of billing codes that have been used for outgoing faxes. This report shows how many sent faxes were billed to each code.
Fax Reports Fax models only	Blocked Fax List	Cancel View Print	A list of phone numbers that are blocked from sending faxes to this printer.
Fax Reports Fax models only	Speed Dial List	Cancel View Print	Shows the speed dials that have been set up for this printer.
Fax Reports Fax models only	Fax Call Report	Cancel View Print	A detailed report of the last fax operation, either sent or received.
Other Pages	PCL Font List	Cancel Print	Prints the available PCL fonts.
Other Pages	PS Font List	Cancel Print	Prints the available PS fonts.

Settings menu

Learn about the control-panel Settings menu.

NOTE: You can perform basic printer setup by using the Settings menu. Use the HP Embedded Web Server for more advanced printer setup. To open the HP Embedded Web Server, enter the printer IP address or host name in the address bar of a Web browser.

TIP: If prompted, enter the EWS personal identification number (PIN) from a sticker on the printer (typically located inside the front door or on a toner cartridge tray).

General menu

Learn about the control-panel General (Settings) menu.

To display: At the printer control panel, select the Settings menu, and then select the General menu.

To print: At the printer control panel, touch (MFP) or use the arrow buttons (SFP) to select the printer icon  . For the SFP, press the OK button to print the pages.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-26 General menu

First level	Second level	Third level	Fourth level	Values	Description
Date/Time Settings	Date/Time Format	Date Format		DD/MMM/YYYY MMM/DD/YYYY YYYY/MMM/DD	Use the Date/Time Settings menu to specify the date and time and to configure date/time settings.
Date/Time Settings	Date/Time Format	Time Format		12 hour (AM/PM) 24 hours	Select the format that the printer uses to show the date and time, for example 12-hour format or 24-hour format.
Date/Time Settings	Date/Time	Time Zone		Select the time zone from a list.	
Date/Time Settings	Date/Time	Date		Select the date from a pop-up calendar.	
Date/Time Settings	Date/Time	Time		Select the time from a pop-up keypad.	
Date/Time Settings	Date/Time	Adjust for Daylight Savings		Checkbox	If you are in an area that uses daylight savings time, select the Adjust for Daylight Savings box.
Energy Settings MFP	Sleep Schedule	A list of scheduled events displays.		+ (Add) Edit Delete	Use to configure the printer to automatically wake up or go to sleep at specific times on specific days. Using this feature saves energy. **NOTE:** You must configure the date and time settings before you can use this feature.

Table 3-26 General menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Energy Settings MFP	Sleep Schedule	A list of scheduled events displays.	Event Type	Wake Sleep	Select whether to add or edit a Wake event or a Sleep event, and then select the time and the days for the wake or sleep event.
Energy Settings MFP	Sleep Schedule	A list of scheduled events displays.	Event Time		
Energy Settings MFP	Sleep Schedule	A list of scheduled events displays.	Event Days	Select days of the week from a list.	
Energy Settings MFP	Sleep Timer Settings	Sleep Mode/Auto Off After		Range: 1 to 120 minutes Default = 60 minutes	Set the number of minutes after which the printer enters Sleep or Auto Off mode. Use the arrow buttons on the control panel to increase or decrease the number of minutes.
Energy Settings MFP	Wake/Auto On to These Events			All Events* Network port Power button only	
Energy Settings SFP	Sleep Timer Settings	Sleep/Auto Off Timer		Enabled* Disabled	Enable or disable the printer sleep or auto off function.
Energy Settings SFP	Sleep Timer Settings	Sleep Mode/Auto Off After		Range: 1 to 120 minutes Default = 60 minutes	Set the number of minutes after which the printer enters Sleep or Auto Off mode. Use the arrow buttons on the control panel to increase or decrease the number of minutes.
Display Settings	Display Brightness	A sliding bar displays with the indicator set in the middle. Use the arrow keys to select the desired brightness and then select Done.			Use to specify the intensity of the LCD control panel display.
Display Settings	System Sound			On* Off	Use to enable or disable sounds on the printer.

Table 3-26 General menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Display Settings	Language Settings	Language		Select from a list of languages that the printer supports.	Use to select a different language for control panel messages and specify the default keyboard layout. When you select a new language, the keyboard layout automatically changes to match the factory default for the selected language.
Display Settings		Keyboard Layout		Each language has a default keyboard layout. To change it, select from a list of layouts.	Select the default keyboard layout that matches the language you want to use.
Display Settings	Information Screen			Show connection information* Hide connection information	Use this menu item to display or hide connection information on the Home screen.
Display Settings	Inactivity Timeout			Range: 10-300 seconds Default = 60 seconds	Specifies the amount of time that elapses between any activity on the control panel and when the printer resets to the default settings. When the timeout expires, the control panel display returns to the Home menu, and any user signed in to the printer is signed out.

Table 3-26 General menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Display Settings	Clearable Warnings			Display during job* Display until cleared	Use this feature to set the period that a clearable warning displays on the control panel. If the On setting is selected, clearable warnings appear until the Clearable Warnings button is pressed. If the Job setting is selected, clearable warnings stay on the display during the job that generated the warning and disappear from the display when the next job starts.
Display Settings	Continuable Events			Auto-continue (10 seconds)* Touch OK to continue	Use this option to configure the printer behavior when the printer encounters certain errors. If the Auto-continue (10 seconds) option is selected, the job will continue after 10 seconds. If the Touch OK to continue option is selected, the job will stop and require the user to touch the OK button before continuing.
Enable Device USB				Enabled Disabled*	Enables the printer to open a file from a USB drive.
Quiet Mode				Off* On Automatic transition Range: 10-300 pages Default = 10 pages	Quiet Mode slows the printer down to reduce the noise the printer makes when printing. Automatic transition allows you to set a predetermined job size of 10 to 999 pages, and print jobs will print in Quiet Mode for all print jobs up to the predetermined page size.

Table 3-26 General menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Jam Recovery				Automatic* Off On	This printer provides a jam recovery feature that reprints jammed pages. Select one of the following options: Automatic: The printer attempts to reprint jammed pages when sufficient memory is available. This is the default setting. Off: The printer does not attempt to reprint jammed pages. Because no memory is used to store the most recent pages, performance is optimal. **NOTE:** When using this option, if the printer runs out of paper and the job is being printed on both sides, some pages can be lost. On: The printer always reprints jammed pages. Additional memory is allocated to store the last few pages printed. This might cause overall performance to suffer.
Auto Recovery				Enabled Disabled*	If Auto Recovery is enabled and an unrecoverable error occurs in the device firmware, the device automatically turns off and turns back on to recover from the error.

Table 3-26 General menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Enable Auto Send				Disabled* Enabled	Browse to the HP Embedded Web Server AutoSend configuration page for advanced set up and the HP online Privacy Statement Information. Use the Enable Auto Send menu to enable or disable the AutoSend feature. The AutoSend feature enables your product to periodically send product configuration information including serial number, event logs, page usage counts and supplies status information to HP web addresses (URLs), or email addresses. Information sent to HP is used to improve products and services, and to monitor the product if you have a relationship with HP that provides you services such as proactive cartridge replacement, pay-per-page contracts, support agreements, or usage tracking.
Hold Off Print Job				Enabled* Disabled	Enable this feature if you want to prevent print jobs from starting while a user is initiating a copy job from the control panel. Held print jobs start printing after the copy job is finished, provided that no other copy job is in the print queue.

Table 3-26 General menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Reset Factory Settings				Address Book (MFP) Copy (MFP) Digital Send (MFP) E-mail (MFP) Fax (MFP) General (MFP) Print (MFP) Security (MFP) Cancel (SFP) Reset (SFP)	Use to restore all printer settings to their factory defaults.

Scan/Digital Send Settings menu (MFP)

Learn about the control-panel Scan/Digital Send Settings (MFP) menu.

To display: At the printer control panel, select the Settings menu, and then select the Scan/Digital Send Settings menu.

To print: At the printer control panel, touch (MFP) or use the arrow buttons (SFP) to select the printer icon  . For the SFP, press the OK button to print the pages.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-27 Scan/Digital Send Settings menu (MFP)

First level	Second level	Third level	Fourth level	Values	Description
Scan to Email Settings Scan to Network Folder Settings Scan to USB Drive Settings **NOTE:** The same options are available for each of these features, except where noted.	E-mail Setup **NOTE:** Email Settings only	E-mail Setup Wizard			Use to configure settings that apply to sending documents through email or saving documents to a folder on the network or on a USB multi-drive. The E-mail Setup Wizard feature configures the printer to send scanned images as email attachments. To open the printer HP Embedded Web Server and set up the email notification server, enter the printer IP address into a Web browser.

Table 3-27 Scan/Digital Send Settings menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
	Default Job Options	Image Preview		Make optional* Require preview Disable preview	Defines the default job options for each function. If you do not specify the job options when creating the job, the default options are used. For complete setup, go to the HP Embedded Web Server by typing the IP address of the printer into a Web browser. Use the Image Preview feature to scan a document and display a preview before completing the job. Select whether this feature is available on the printer. Make optional: The feature is optional, depending on the user who is signed in. Require preview Previews are required for all users. Disable preview: Previews are disabled for all users.
		Default File Name		[Untitled]*	The printer is shipped with a factory default file name of [Untitled] for any scanned files that are sent or saved. Use this feature to specify a different default file name. If you are saving a file to a network folder or USB storage device and a file with the default file name already exists, a number is appended to the file name, for example, [Untitled]001.

Table 3-27 Scan/Digital Send Settings menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Document File Type		Select from a list of file types.	PDF provides the best overall image and text quality. JPEG is a good choice for most graphics. Most computers have a browser that can view .JPEG files. This file type produces one file per page. TIFF is a standard file format that many graphics programs support. This file type produces one file per page. MTIFF: stands for multi-page TIFF. This file type saves multiple scanned pages in a single file. XPS (XML Paper Specification) creates an XAML file that preserves the original formatting of the document and supports color graphics and embedded fonts. PDF/A (Archivable): provides archivable text and image quality. **NOTE:** OCR file types are not supported on this printer unless attached to DSS.

Table 3-27 Scan/Digital Send Settings menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Optimize Text/ Picture		Mixed* Text Printed picture Photograph	Use to optimize the output for a particular type of content. You can optimize the output for text, printed pictures, or a mixture. Mixed: Use to optimize the setting for text and for pictures. Text: Use to optimize the text portion of the copy when text and/or pictures are on the original. Printed picture: Use for line drawings and preprinted images, such as magazine clippings or pages from books. Photograph: Best suited for making copies of printed pictures.
		Quality and File Size		High (large file) Medium* Low (small file)	Use to select the quality for the output. Higher-quality images require a larger file size than lower-quality images. Larger files take more time to send, and some recipients might have trouble receiving larger files.

Table 3-27 Scan/Digital Send Settings menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Original Sides		1-sided 2-sided	Use to describe the layout for each side of the original document. First select whether the original document is printed on one side or both sides. Then touch the Orientation setting to indicate whether the original has portrait or landscape orientation. If it is printed on both sides, also select the 2-sided format that matches the original document.
			Orientation	Automatically detect Portrait* Landscape	For some features to work correctly, you must specify the way the content of the original document is placed on the page. Portrait orientation means the short edge of the page is along the top. Landscape orientation means the long edge of the page is along the top. In the Orientation area, select whether the original document has a portrait or landscape orientation.

Table 3-27 Scan/Digital Send Settings menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Resolution		600 dpi 400 dpi 300 dpi 200 dpi 150 dpi* 75 dpi	Sets the resolution for sent documents. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller. Some file types, for example a file that will be processed with OCR, require a specific resolution. When these file types are selected, the Resolution setting might automatically change to a valid value.
		Content Orientation	Orientation	Auto Detect Portrait* Landscape	For some features to work correctly, you must specify the way the content of the original document is placed on the page. Portrait orientation means the short edge of the page is along the top. Landscape orientation means the long edge of the page is along the top. In the Orientation area, select whether the original document has a portrait or landscape orientation.

Table 3-27 Scan/Digital Send Settings menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Color/Black		Automatically detect color or black* Automatically detect color or gray Color Black Black/Gray	Use to enable or disable color scanning. Automatically detect color or black: When pages without color are detected, the printer creates an image of the page in 1-bit black if other settings allow. If the other settings don't allow (File Type, for example), the image is in grayscale. Automatically detect color or gray: When pages without color are detected, the printer creates an image of the page in grayscale. Select this option for the best image quality for non-color pages. Color: Scans documents in color. Black/Gray: Scans documents in grayscale. Black: Scans documents in black and white with a compressed file size.
		Original Size		Select from a list of supported sizes.	Use to describe the page size of the original document.

Table 3-27 Scan/Digital Send Settings menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Notification		Do not notify* Notify when job completes Notify only if job fails	Configure to receive notification about the status of a sent document. Do not notify: Turns off this feature. Notify when job completes: Select to receive notification for this job only.
				Print E-mail	Notify only if job fails: Select to receive notification only if the job is not sent successfully. Print: Select to print the notification at this printer.
			Include Thumbnail		**NOTE:** When sending an analog fax, select Include Thumbnail to receive a thumbnail image of the first page of the fax in your notification.
			Notification E-mail address		E-mail: Select to receive the notification in an email. Touch the text box following Email Address, and then type the email address for the notification.
		Image Adjustment	Darkness		Use to improve the overall quality of the copy. Adjust the Darkness setting to increase or decrease the amount of white and black in the colors.

Table 3-27 Scan/Digital Send Settings menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
			Contrast		Adjust the Contrast setting to increase or decrease the difference between the lightest and darkest color on the page.
			Background Cleanup		Adjust the Background Cleanup setting if you are having trouble copying a faint image.
			Sharpness		Adjust the Sharpness setting to clarify or soften the image. For example, increasing the sharpness could make text appear crisper, but decreasing it could make photographs appear smoother.
			Automatic Tone		
			Default		Select this to make the selected Image Adjustment setting the default value.
		Cropping Options		Do not crop* Crop to content Crop to paper	Use this menu item to automatically crop the scan for digital sending. Use the Crop to content option to scan the smallest possible area that has detectable content.

Table 3-27 Scan/Digital Send Settings menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Erase Edges		Use Inches Back side erase Front side erase	Use this menu item to remove blemishes, such as dark borders or staple marks, by cleaning the specified edges of the scanned image. In each of the text boxes enter the measurements, in millimeters or inches, for how much of the top edge, bottom edge, left edge, and right edge to clean.
		Multi-feed Detection		On* Off	This setting stops the scanning process if it detects multiple-page feeds through the document feeder.
		Blank Page Suppression		Disabled* Enabled	Use to prevent blank pages in the original document from being included in the output document.
Digital Send Service Setup	Allow Usage of Digital Sending Software (DSS) Server			Enabled* Disabled	Configure how the printer interacts with the HP Digital Sending Software (DSS) server. HP DSS handles digital sending tasks, such as faxing, emailing, and sending scanned documents to a network folder or USB storage device. Use the Allow Usage of Digital Sending Software (DSS) Server option to configure the printer to use HP DSS.

Table 3-27 Scan/Digital Send Settings menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
	Allow Transfer to New Digital Sending Software (DSS) Server			Enabled* Disabled	Use the Allow Transfer to New Digital Sending Software (DSS) Server option to specify whether DSS management of a printer is transferable to a different DSS.

Fax menu (MFP)

Learn about the control-panel Fax menu (MFP).

To display: At the printer control panel, select the Settings menu, and then select the Fax menu.

To print: At the printer control panel, touch (MFP) or use the arrow buttons (SFP) to select the printer icon  . For the SFP, press the OK button to print the pages.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-28 Fax menu (MFP)

First level	Second level	Third level	Fourth level	Values	Description
Internal Fax Modem Setup					Configure settings for sending faxes from the printer. Use the Internal Fax Modem Setup feature to set up options for faxing. **NOTE:** To set up LAN fax or Internet fax, use the HP Embedded Web Server. To open the HP Embedded Web Server, type the printer network address into a Web browser. To configure the fax features, select the **Fax** tab.
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Fax Dial Volume	Off Low* High	These settings control how the fax modem dials the outgoing fax number when faxes are sent.
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Dialing Mode	Tone* Pulse	

Table 3-28 Fax menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Redial Interval	1 - 5 Minutes Default = 5 minutes	
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Fax Send Speed	Fast* Medium Slow	
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Dialing Prefix		
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Detect Dial Tone		
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Redial on Error	Range: 0 - 9 Default = 2	
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Redial on No Answer	Range: 0 - 2 Default = 0	
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Redial on Busy	Range: 0 - 9 Default = 3	
Fax Send Settings	Fax Send Setup	General Fax Send Settings	Fax Number Confirmation	Enabled Disabled*	If this feature is enabled, you must enter the fax number twice.
Fax Send Settings	Fax Send Setup	General Fax Send Settings	PC Fax Send	Enabled* Disabled	Enables users who have the correct driver installed to send faxes through the printer from their computers.
Fax Send Settings	Fax Send Setup	General Fax Send Settings	JBIG Compression	Enabled* Disabled	The JBIG compression reduces fax-transmission time, which can result in lower phone charges. However, using JBIG compression sometimes causes compatibility problems with older fax machines. If this occurs, turn off the JBIG compression.

Table 3-28 Fax menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Fax Send Setup	General Fax Send Settings	Error Correction Mode	Enabled* Disabled	When error-correction mode is enabled and an error occurs during fax transmission, the printer sends or receives the error portion again.
Fax Send Settings	Fax Send Setup	General Fax Send Settings	Fax Header	Prepend* Overlay	Use to prepend or overlay the fax header page.
Fax Send Settings	Fax Send Setup	Billing Codes	Enable Billing Codes	Off On*	When billing codes are enabled, a prompt displays that asks the user to enter the billing code for an outgoing fax. This prompt does not appear if the Allow users to edit billing codes check box is not checked. You can also use the billing codes report in the Reports menu to view the list of the billing codes that have been used for faxes that have been sent from the printer. The list is grouped by billing code and also shows fax details. This feature can be used for billing or usage tracking.
Fax Send Settings	Fax Send Setup	Billing Codes	Default Billing Code		Specify a default billing code for faxing. If you specify a default billing code, this code displays in the Billing Code field when the user sends an outgoing fax. If this field is blank, no default billing code is provided for the user.

Table 3-28 Fax menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Fax Send Setup	Billing Codes	Minimum Length	Range: 1 - 16 Default = 1	Specify the required length of the billing code. Billing codes can be between 1 and 16 characters long.
Fax Send Settings	Fax Send Setup	Billing Codes	Allow users to edit billing codes	Off On*	
Fax Send Settings	Default Job Options	Image Preview		Make optional* Require preview Disable preview	Use the Image Preview feature to scan a document and display a preview before completing the job. Select whether this feature is available on the printer. Make optional: The feature is optional, depending on the user who is signed in. Require preview Previews are required for all users. Disable preview: Previews are disabled for all users.
Fax Send Settings	Default Job Options	Resolution		Standard (100 x 200dpi)* Fine (200 x 200dpi) Superfine (300 x 300dpi)	Select the resolution for outgoing faxes. If you increase the resolution, faxes might be clearer but they could transmit more slowly. Some file types, for example a file that will be processed with OCR, require a specific resolution. When these file types are selected, the Resolution setting might be automatically changed to a valid value.

Table 3-28 Fax menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Default Job Options	Original Sides		1-sided* 2-sided Pages flip up	Use to describe the layout for each side of the original document. First select whether the original document is printed on one side or both sides. Then touch the Orientation setting to indicate whether the original has portrait or landscape orientation. If it is printed on both sides, also select the 2-sided format that matches the original document. If the Pages flip up option is selected, the back side of the page is printed upside-down. This option is for print jobs that are bound along the top edge.
Fax Send Settings	Default Job Options	Original Sides	Orientation	Portrait* Landscape	For some features to work correctly, you must specify the way the content of the original document is placed on the page. Portrait: This setting means the short edge of the page is along the top. Landscape: This setting means the long edge of the page is along the top.

Table 3-28 Fax menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Default Job Options	Notification		Do not notify* Notify when job completes Notify only if job fails	Use to receive notification about the status of a sent document. Do not notify: Turns off this feature. Notify when job completes: Select to receive notification for this job only. Notify only if job fails: Select to receive notification only if the job is not sent successfully.
Fax Send Settings	Default Job Options	Notification		Print E-mail	Print: Select to print the notification at this printer. E-mail: Select to receive the notification in an email. Touch the text box following Email Address, and then enter the email address for the notification.
Fax Send Settings	Default Job Options	Notification	Include Thumbnail		When sending an analog fax, select Include Thumbnail to receive a thumbnail image of the first page of the fax in your notification.
Fax Send Settings	Default Job Options	Notification	Notification E-mail address		Provide the email address that will receive notifications.

Table 3-28 Fax menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Default Job Options	Content Orientation	Orientation	Portrait* Landscape	For some features to work correctly, you must specify the way the content of the original document is placed on the page. Portrait: This setting means the short edge of the page is along the top. Landscape: This setting means the long edge of the page is along the top.
Fax Send Settings	Default Job Options	Original Size		Select from a list of sizes that the printer supports.	Use to describe the page size of the original document.
Fax Send Settings	Default Job Options	Image Adjustment	Darkness		Use to improve the overall quality of the copy. Adjust the Darkness setting to increase or decrease the amount of white and black in the colors.
Fax Send Settings	Default Job Options	Image Adjustment	Contrast		Adjust the Contrast setting to increase or decrease the difference between the lightest and darkest color on the page.
Fax Send Settings	Default Job Options	Image Adjustment	Background Cleanup		Adjust the Background Cleanup setting if you are having trouble copying a faint image.

Table 3-28 Fax menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Default Job Options	Image Adjustment	Sharpness		Adjust the Sharpness setting to clarify or soften the image. For example, increasing the sharpness could make text appear crisper, but decreasing it could make photographs appear smoother.
Fax Send Settings	Default Job Options	Image Adjustment	Automatic Tone		The printer automatically adjusts the Darkness, Contrast, and Background Cleanup settings to the most appropriate for the scanned document.
Fax Send Settings	Default Job Options	Optimize Text/ Picture	Manually adjust*	Optimize For Text Printed picture Photograph	Optimizes the output for a particular type of content. You can optimize the output for text, printed pictures, or a mixture. Manually adjust: Use to manually optimize the setting for text or for pictures. Text: Use to optimize the text portion of the copy where text and/or pictures are on the original. Printed picture: Use for line drawings and preprinted images, such as magazine clippings or pages from books. Photograph: Best suited for making copies of printed pictures.

Table 3-28 Fax menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Default Job Options	Multi-feed Detection		Disabled Enabled*	This setting stops the scanning process if it detects multiple-page feeds through the document feeder.
Fax Send Settings	Default Job Options	Blank Page Suppression		Disabled* Enabled	Prevents blank pages in the original document from being included in the output document.
Fax Receive Settings	Fax Receive Setup	Ringer Volume		Off Low* High	Use to configure settings for receiving faxes.
Fax Receive Settings	Fax Receive Setup	Rings To Answer		Range: 1-6 Default = 1	
Fax Receive Settings	Fax Receive Setup	Fax Send Speed		Fast* Medium Slow	
Fax Receive Settings	Fax Receive Setup	Ring Interval		Range: 220-600 ms Default = 600 ms	
Fax Receive Settings	Fax Receive Setup	Ring Frequency		Range: 1-200 Default = 68hz	
Fax Receive Settings	Fax Printing Schedule			Always store faxes Always print faxes* Use schedule	If you have concerns about the security of private faxes, use this feature to store faxes rather than having them automatically print. Select Incoming Fax Options, and then you can choose to always store faxes, always print them, or you can set up a schedule for each day of the week.

Table 3-28 Fax menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Receive Settings	Fax Printing Schedule	Schedule Touch this to set up a fax printing schedule if you selected the Use Fax Printing Schedule option.	Add Edit Delete	Print incoming faxes Store incoming faxes Time Event Days	If you are using a fax printing schedule, use this menu to configure when to print faxes.
Fax Receive Settings	Blocked Fax Numbers	Fax Number to Block			The blocked fax list can contain up to 30 numbers. When the printer receives a call from one of the blocked fax numbers, it deletes the incoming fax. It also logs the blocked fax in the activity log along with job-accounting information. Add blocked numbers: Enter a fax number into the Fax Number to Block field, and then touch the arrow button to add a new number to the blocked fax list. To remove blocked numbers: Select a number and touch the Delete button to delete it from the blocked fax list. To clear all blocked numbers: Touch the Delete All button to clear all of the numbers from the blocked fax list. You can also use the Blocked Fax List report in the Information menu to view the list of the fax numbers that have been blocked on this printer.

Table 3-28 Fax menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Receive Settings	Default Job Options	Notification		Do not notify* Notify when job completes Notify only if job fails	Configure to receive notification about the status of a sent document. Do not notify: Turns off this feature. Notify when job completes: Select to receive notification for this job only. Notify only if job fails: Select to receive notification only if the job is not sent successfully.
Fax Receive Settings	Default Job Options			Print E-mail*	E-mail: Select to receive the notification in an email. Touch the text box following Email Address, and then enter the email address for the notification.
Fax Receive Settings	Default Job Options		Include Thumbnail		**NOTE:** When sending an analog fax, select Include Thumbnail to receive a thumbnail image of the first page of the fax in your notification.
Fax Receive Settings	Default Job Options		Notification E-mail address		
Fax Receive Settings	Default Job Options	Stamp Received Faxes		Enabled Disabled*	Use this option to add the date, time, sender's phone number, and page number to each page of the faxes that this printer receives.

Table 3-28 Fax menu (MFP) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Receive Settings	Default Job Options	Fit to Page		Enabled* Disabled	Use to shrink faxes that are larger than Letter-size or A4-size so that they can fit onto a Letter-size or A4-size page. If this feature set to Disabled, faxes larger than Letter or A4 will flow across multiple pages.
Fax Receive Settings	Default Job Options	Paper Selection		Automatic* Select from a list of the trays.	
Fax Receive Settings	Default Job Options	Output sides		1-sided* 2-sided Pages flip up	Use to describe the layout for each side of the original document. First select whether the original document is printed on one side or both sides. Then touch the Orientation setting to indicate whether the original has portrait or landscape orientation. If it is printed on both sides, also select the 2-sided format that matches the original document.
Fax Forwarding	Enable Fax Forwarding			Disabled* Enabled	Use to forward received faxes to another fax machine.
Fax Forwarding	Type of Fax Job to Forward			All faxes Sent faxes Received faxes	
Fax Forwarding	Fax Forwarding Number				Enter the fax forwarding number.
Clear Fax Activity Log				Cancel Clear	Clears all events from the Fax Activity Log list.

Manage Supplies menu

Learn about the control-panel Manage Supplies menu.

To display: At the printer control panel, select the Settings menu, and then select the Manage Supplies menu.

To print: At the printer control panel, touch (MFP) or use the arrow buttons (SFP) to select the printer icon  . For the SFP, press the OK button to print the pages.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-29 Manage Supplies menu

First level	Second level	Third level	Fourth level	Values	Description
Low Warning Thresholds	Black Cartridge			1-100% Default = 4%	Set the estimated percentage at which the printer notifies you when a toner cartridge is very low.
Low Warning Thresholds	Document Feeder Kit MFP			1-100% Default = 10%	Set the estimated percentage at which the printer notifies you when the document feeder kit is very low.
Low Warning Thresholds	Maintenance Kit SFP			1-100% Default = 10%	Set the estimated percentage at which the printer notifies you when the maintenance kit is very low.
Low Warning Threshold Message				On* Off	Displays a message on the control panel when a cartridge is very low.
Low Behavior				Continue* Stop	Use one of these options to specify the action for the device to take when a supply reaches a low condition. Stop: Stops the current print job. Continue: Completes the current print job.

Table 3-29 Manage Supplies menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Very Low Behavior	Black Cartridge			Stop Continue* Prompt to continue	Use one or more of these options to specify the action for the device to take when a supply reaches a very low condition. Stop: Stops the current print job. Continue: Completes the current print job. Prompt to continue: Allows the user to decide whether or not to finish printing.
Very Low Behavior	Document Feeder Kit MFP			Stop Continue Prompt to continue*	Use one or more of these options to specify the action for the device to take when a supply reaches a very low condition. Stop: Stops the current print job. Continue: Completes the current print job. Prompt to continue: Allows the user to decide whether or not to finish printing.
Very Low Behavior	Maintenance Kit SFP			Stop Continue Prompt to continue*	Use one or more of these options to specify the action for the device to take when a supply reaches a very low condition. Stop: Stops the current print job. Continue: Completes the current print job. Prompt to continue: Allows the user to decide whether or not to finish printing.

Table 3-29 Manage Supplies menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Store Usage Data				On supplies* Not on supplies	Store Usage Data provides a way to suppress the toner cartridges from storing most of the information gathered exclusively for the purpose of understanding the usage of the printer. Select the On supplies setting to store the data on the toner cartridge memory chip. Select the Not on supplies setting to suppress the information from being stored on the memory chip.
Cartridge Protection				Off* Protect cartridges	Select to permanently protect cartridges so that they can be used only in this product or fleet of products.
Cartridge Policy				Off* Authorized HP	Set Authorized HP to allow only genuine HP cartridges to be used in this printer.
Reset Supplies	Document Feeder Kit MFP Maintenance Kit SFP			Reset Cancel	Select this option if you have installed a new document feeder kit or maintenance kit.

Networking menu

Learn about the control-panel Networking menu.

To display: At the printer control panel, select the Settings menu, and then select the Networking menu.

To print: At the printer control panel, touch (MFP) or use the arrow buttons (SFP) to select the printer icon  . For the SFP, press the OK button to print the pages.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-30 Networking menu

First level	Second level	Third level	Fourth level	Values	Description
Ethernet	Information	Print Security Report		Yes No*	Yes: Prints a page that contains the current security settings on the HP Jetdirect print server. No: A security settings page is not printed.
Ethernet	TCP/IP	Host Name		Use the arrow buttons to edit the host name. **NPIXXXXXX***	An alphanumeric string, up to 32 characters, used to identify the printer. This name is listed on the HP Jetdirect configuration page. The default host name is NPIxxxxxx, where xxxxxx is the last six digits of the LAN hardware (MAC) address.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Ethernet	TCP/IP	IPV4 Settings	Config Method	Bootp DHCP* Auto IP Manual	Specifies the method that TCP/IPv4 parameters will be configured on the HP Jetdirect print server. Bootp (Bootstrap Protocol): Use for automatic configuration from a BootP server. DHCP (Dynamic Host Configuration Protocol): Use for automatic configuration from a DHCPv4 server. If selected and a DHCP lease exists, the DHCP Release menu and the DHCP Renew menu are available to set DHCP lease options. Auto IP: Use for automatic link-local IPv4 addressing. An address in the form 169.254.x.x is assigned automatically. If you set this option to the Manual setting, use the Manual Settings menu to configure TCP/IPv4 parameters.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Ethernet	TCP/IP	IPV4 Settings	Default IP	Auto IP* Legacy	Specify the IP address to default to when the print server is unable to obtain an IP address from the network during a forced TCP/IP reconfiguration (for example, when manually configured to use BootP or DHCP). **NOTE:** This feature assigns a static IP address that might interfere with a managed network. Auto IP: A link-local IP address 169.254.x.x is set. Legacy: The address 192.0.0.192 is set, consistent with older HP Jetdirect printers.
Ethernet	TCP/IP	IPV4 Settings	DHCP Release	Yes No*	
Ethernet	TCP/IP	IPV4 Settings	DHCP Renew	Yes No*	
Ethernet	TCP/IP	IPV4 Settings	Primary DNS	Range: 0-255 Default = xxx.xxx.xx.xx	Specify the IP address (n.n.n.n) of a Primary Domain Name System (DNS) Server.
Ethernet	TCP/IP	IPV4 Settings	Secondary DNS	Range: 0-255 Default = 0.0.0.0	Specify the IP address (n.n.n.n) of a Secondary DNS Server.
Ethernet	TCP/IP	IPV6 Settings	Enable	Off On*	Use this item to enable or disable IPv6 operation on the print server. Off: IPv6 is disabled. On: IPv6 is enabled.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Ethernet	TCP/IP	IPV6 Settings	Address	Manual Settings Enable Address	Use this item to enable and manually configure a TCP/IPv6 address.
Ethernet	TCP/IP	IPV6 Settings	DHCPV6 Policy	Router Specified Router Unavailable* Always	Router Specified: The stateful auto-configuration method to be used by the print server is determined by a router. The router specifies whether the print server obtains its address, its configuration information, or both from a DHCPv6 server. Router Unavailable: If a router is not available, the print server should attempt to obtain its stateful configuration from a DHCPv6 server. Always: Whether a router is available, the print server always attempts to obtain its stateful configuration from a DHCPv6 server.
Ethernet	TCP/IP	IPV6 Settings	Primary DNS	Range: 0-255 Default = xxx.xxx.xx.xx	Specify the IP address (n.n.n.n) of a Primary Domain Name System (DNS) Server.
Ethernet	TCP/IP	IPV6 Settings	Secondary DNS	Range: 0-255 Default = 0.0.0.0	Specify the IP address (n.n.n.n) of a Secondary DNS Server.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Ethernet	TCP/IP	Proxy Server		Select from a provided list.	Specifies the proxy server to be used by embedded applications in the printer. A proxy server is typically used by network clients for Internet access. It caches Web pages, and provides a degree of Internet security for those clients. To specify a proxy server, enter its IPv4 address or fully-qualified domain name. The name can be up to 255 octets. For some networks, you might need to contact your Internet Service Provider (ISP) for the proxy server address.
Ethernet	TCP/IP	Proxy Port		Range: 1-65535 Default = 00080	Enter the port number used by the proxy server for client support. The port number identifies the port reserved for proxy activity on your network, and can be a value from 0 to 65535.
Ethernet	TCP/IP	Idle Timeout		Range: 1-3600 Default = 0270	The time period, in seconds, after which an idle TCP print data connection is closed (default is 270 seconds, 0 disables the timeout).

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
I/O Timeout				Range: 5 - 300 sec Default = 10	Use to set the I/O timeout period in seconds. I/O timeout refers to the elapsed time before a print job fails. If the stream of data that the printer receives for a print job gets interrupted, this setting indicates how long the printer will wait before it reports that the job has failed.

Supplies menu

Learn about the control-panel Supplies menu.

To display: At the printer control panel, select the Supplies menu.

To print: At the printer control panel, touch (MFP) or use the arrow buttons (SFP) to select the printer icon  . For the SFP, press the OK button to print the pages.

In the following table, asterisks (*) indicate the factory default setting.

NOTE: The View option is control-panel type dependent (might not be available).

Table 3-31 Supplies menu

First level	Values	Description
Black Cartridge		View a summary of the status of the printer supplies.

Trays menu

Learn about the control-panel Trays menu.

To display: At the printer control panel, select the Trays menu.

To print: At the printer control panel, touch (MFP) or use the arrow buttons (SFP) to select the printer icon  . For the SFP, press the OK button to print the pages.

In the following table, asterisks (*) indicate the factory default setting.

NOTE: The View option is control-panel type dependent (might not be available).

Table 3-32 Trays menu

First level	Second level	Values	Description
Tray 1 Tray 2-x	Size	Select paper size from a list of supported sizes.	Choose the paper size for the tray
Tray 1 Tray 2-x	Type	Select paper type from a list of supported types.	Choose the paper type for the tray.

Support Tools menu

Learn about the control-panel Support Tools menu.

NOTE: The Support Tools sub-menu contains the options for maintaining the printer and troubleshooting printer problems.

Maintenance menu

Learn about the control-panel Maintenance menu.

Backup/Restore menu

Learn about the control-panel Backup/Restore menu.

To display: At the printer control panel, select the Support Tools menu, select the Maintenance menu, and then select the Backup/Restore menu.

To print: At the printer control panel, touch (MFP) or use the arrow buttons (SFP) to select the printer icon  . For the SFP, press the OK button to print the pages.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-33 Backup/Restore menu

First level	Second level	Third level	Values
Back up Data	Enable Scheduled Backups	Backup Time	Enter a time
Back up Data	Enable Scheduled Backups	Days Between Backups	Enter the number of days
Back up Data	Back up Now		
Back up Data	Export Last Backup		
Restore Data			Insert a USB drive that contains the backup file.

Calibration/Cleaning menu

Learn about the control-panel Calibration/Cleaning menu .

To display: At the printer control panel, select the Support Tools menu, select the Maintenance menu, and then select the Calibration/Cleaning menu.

To print: At the printer control panel, touch (MFP) or use the arrow buttons (SFP) to select the printer icon  . For the SFP, press the OK button to print the pages.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-34 Calibration/Cleaning menu

First level	Values	Description
Cleaning Page	Automatic Cleaning Interval Off* 1000 pages 2000 pages 5000 pages 10000 pages 20000 pages	Use this menu to configure the settings for the product to automatically print a cleaning page. Select Off to disable automatic cleaning. Select a cleaning interval to set the number of pages to be printed before an automatic cleaning page is printed. Touch Print to manually print a cleaning page. **NOTE:** Cleaning pages print on the default paper size configured for the printer.
Calibrate Scanner MFP	Done Start	Touch Start to calibrate the device scanner. Messages on the control panel display will lead you through the calibration process.
Clean Document Feeder Rollers MFP	Set cleaning reminder interval Range: 0 - 100% Default = 10% Done Clean Now	Configure cleaning settings for the document feeder rollers.

USB Firmware Upgrade menu

Learn about the control-panel USB Firmware Upgrade menu.

To display: At the printer control panel, select the Support Tools menu, select the Maintenance menu, and then select the USB Firmware Upgrade menu.

Insert a USB storage device with a firmware upgrade bundle into the USB port, and follow the on-screen instructions.

Service menu

Learn about the control-panel Service menu.

To display: At the printer control panel, select the Support Tools menu, and then select the Service menu.

The Service menu is locked and requires a personal identification number (PIN) for access. This menu is intended for use by authorized service personnel. See the Service menu section of this manual.

Troubleshooting menu

Learn about the control-panel Troubleshooting menu.

To display: At the printer control panel, select the Support Tools menu, and then select the Troubleshooting menu.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-35 Troubleshooting menu

First level	Second level	Third level	Fourth level	Values	Description
Reports	Configuration/ Status Pages			Settings Menu Map Current Settings Page Configuration Page Supplies Status Page Usage Page Paper Path Page File Directory Page Web Services Status Page PCL Font List PS Font List Event Log Warning Log Page T.30 Protocol Trace PQ Troubleshooting Pages Paper Path Test	Select the desired report and then select the print icon to print the page.
Reports	Fax Reports			Fax Activity Log Billing Codes Report Blocked Fax List Fax Call Report	Select the desired report and then select the print icon to print the page.
Reports	Other Pages			PCL Font List PS Font List	Select the desired report and then select the print icon to print the page.

Table 3-35 Troubleshooting menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Tools Fax models only	Fax T.30 Trace Report			Never automatically print* Print after every fax Print only after fax send jobs Print only after received faxes Print only after fax send errors Print only after fax receive errors Print after any fax error	Use to print or configure the fax T.30 trace report. T.30 is the standard that specifies handshaking, protocols, and error correction between fax machines.
Fax Tools Fax models only	Fax V.34			Enable* Disable	Use to disable V.34 modulations if several fax failures have occurred or if phone line conditions require it.
Fax Tools Fax models only	JBIG Compression			On Off*	
Fax Tools Fax models only	Fax Speaker Mode			Normal* Diagnostic	Used by a technician to evaluate and diagnose fax issues by listening to the sounds of fax modulations
Fax Tools Fax models only	Fax Service Log			Print	The standard fax log includes basic information such as the time and whether the fax was successful. The detailed fax log shows the intermediate results of the redial process not shown in the standard fax log.
Print Quality Pages	PQ Troubleshooting Pages			Print	Use to print pages that help you resolve problems with print quality.

Table 3-35 Troubleshooting menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Event Log					Prints the 50 most recent events in the Event Log. For each event, the printed log shows the error number, page count, error code, and description or personality.
Paper Path Page				Print	Shows how many pages were printed from each tray.
Diagnostic Tests	Disable Cartridge Check			Continue	Use this diagnostic test to print internal pages or send an external job to the printer when the toner cartridge is removed or exchanged. Supply errors are ignored while the printer is in this mode.
Diagnostic Tests	Paper Path Test	Source Tray		Select from a list of the available trays.	Generates a test page for testing paper handling features. You can define the path that is used for the test in order to test specific paper paths
Diagnostic Tests	Paper Path Test	Number of Copies		Range: 1-500 Default = 1	Sets the default number of copies for a copy job. This default applies when the Copy or Quick Copy function is initiated from the printer Home screen. The factory default setting is 1.
Diagnostic Tests	Paper Path Test	Test Duplex Path		Enable Disable*	Prints on both sides of the paper.
Diagnostic Tests	Print/Stop Test				Specify the length of time in milliseconds (0-60,000).
Diagnostic Tests	Paper Path Sensor Test			Select from a list of the printer sensors.	Initiates a test of the paper path sensors.

Table 3-35 Troubleshooting menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Diagnostic Tests	Manual Sensor Test **NOTE:** This item appears in the control-panel menus. However, the function is not available for this printer			Select from a list of available components Reset	Test the printer sensors and switches for correct operation. Each sensor is displayed on the control-panel screen, along with its status. Manually trip each sensor and watch for it to change on the screen. Press the Stop button to abort the test.
Diagnostic Tests	Tray/Bin Manual Sensor Test **NOTE:** This item appears in the control-panel menus. However, the function is not available for this printer			Select from a list of available components Reset	Test the printer sensors and switches for correct operation. Each sensor is displayed on the control-panel screen, along with its status. Manually trip each sensor and watch for it to change on the screen. Press the Stop button to abort the test.
Diagnostic Tests	Component Test **NOTE:** This item appears in the control-panel menus. However, the function is not available for this printer			Select from a list of available components.	Use to exercise individual parts independently to isolate noise, leaking, or other issues. To start the test, select one of the components. The test will run the number of times specified by the Repeat option. You might be prompted to remove parts from the printer during the test. Press the Stop button to abort the test.
Diagnostic Tests	Continuous Scan MFP			2-sided	
Diagnostic Tests	Scanner Tests MFP			Sensors	
Generate Debug Data				Start	

Table 3-35 Troubleshooting menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Retrieve Diagnostic Data				Create device data file Create zipped debug information file Include crash dump files Clean up debug information Send to E-mail Export to USB	Create files that contain information about the printer that can help identify the cause of problems.
Retrieve Fax Diagnostic Data				Create device data file Create zipped debug information file Include crash dump files Clean up debug information Send to E-mail Export to USB	Create files that contain information about the printer that can help identify the cause of problems.

Service menu

Learn about the printer Service menu.

Service menu access is restricted by using a personal identification number (PIN). Only authorized service people should access the Service menu. When selecting Service from the list of menus, the printer prompts the user to enter an eight-digit PIN.

NOTE: The printer automatically exits the Service menu after about one minute if no items are selected or changed.

Open the Service menu from a SFP control panel

1. From the Home screen on the printer control panel, use the arrow buttons to navigate to Support Tools, and then press the OK button.
2. Use the arrow buttons to scroll to Service, and then press the OK button.
3. Make sure that Service Access Code is selected for the Access Type item.

NOTE: Use the arrow buttons to select and change the Access Type item if necessary.

4. Enter the following service access PIN for the printer:

- 12040620 (SFP)
- 12043020 (MFP)

Open the Service menu from an MFP control panel

1. From the Home screen on the printer control panel, scroll to and touch the Support Tools button.
2. Open the following menus:
   - Service
3. Make sure that Service Access Code is selected for the Access Type item.
4. Enter the following service access PIN for the printer:
   - 12040620 (SFP)
   - 12043020 (MFP)

Service menu table

The following menu items appear in the Service menu.

Table 3-36 Service menu

First level	Second level	Value	Description
Event Log	Print		Print or view the event log.
Clear Event Log	Clear		Use this item to clear the printer event log.
Cycle Counts	Total Engine Cycles		Set the page count that was stored in NVRAM prior to installing a new formatter.
Cycle Counts	Refurbish Cycle Count		Use this item to record the page count when the printer was refurbished.
Cycle Counts	Document Feeder MFP		Total number of pages since the document feeder kit was replaced.
Cycle Counts	Document Feeder Kit Interval MFP		Use this item to set the interval that causes the printer to prompt the customer to replace document feeder maintenance kit.
Cycle Counts	Clean Rollers Count MFP		Total number of pages since the document feeder rollers were cleaned.
Cycle Counts	Clean Rollers Interval MFP		Use this item to set the interval that causes the printer to prompt the customer to clean the document feeder rollers and separation pad.

Table 3-36 Service menu (continued)

First level	Second level	Value	Description
Cycle Counts	ADF Count MFP		Set the total pages fed through the document feeder.
Cycle Counts	Flatbed Count MFP		Set the total pages scanned from the flatbed.
Cycle Counts	ADF Simplex Count MFP		Set the total single-sided pages fed through the document feeder.
Cycle Counts	ADF Duplex Count MFP		Set the total two-sided pages fed through the document feeder.
Cycle Counts	Copy Scan Count MFP		Set the total copy pages that have been scanned.
Cycle Counts	Send Scan Count MFP		Set the number of scanned pages sent to email.
Cycle Counts	Fax Scan Count Fax models only		Set the number of scanned pages that have been faxed.
Cycle Counts	Copy Pages Count MFP		Set the number of scanned pages that have been printed.
Scanner Settings MFP	ADF Settings	Leading edge front Leading edge back Trailing edge front Trailing edge back Left side front Left side back	Set the calibration values. **WARNING!** Do not change these values unless instructed to do so.
Scanner Settings MFP	Glass Settings	Leading edge glass Left Side Glass	
Serial Number			Set the serial number.
Service ID			Use this item to show the date that the printer was first used on the control panel. This eliminates the need for users to keep paper receipts for proof of warranty.

Table 3-36 Service menu (continued)

First level	Second level	Value	Description
Cold Reset Paper			When you perform a cold reset, the paper size that is stored in NVRAM is reset to the default factory setting. If you replace a formatter board in a country/region that uses A4 as the standard paper size, use this menu to reset the default paper size to A4. LETTER and A4 are the only available values.
Low Alerts		Enable Disable	Turn on (or off) low alerts (for supplies).
Reset Low Alerts	• Reset to level 1 • Reset to level 2 • Reset to level 3 • Set to non-HP managed mode		
PTT Test Mode Fax models only			Test the internal modem for the analog fax accessory.
PTT Test Mode Fax models only	Hook Operations	Off Hook On Hook	
PTT Test Mode Fax models only	Generate Random Data	Select a value from the list.	
PTT Test Mode Fax models only	Generate DTMF Tone Burst	Select a value from the list.	
PTT Test Mode Fax models only	Generate DTMF Continuous Tone	Select a value from the list.	
PTT Test Mode Fax models only	Generate Pulse Burst	Select a value from the list.	
PTT Test Mode Fax models only	Generate Tone Dial Number	Enter dial number.	
PTT Test Mode Fax models only	Generate Pulse Dial Number	Enter dial number.	
PTT Test Mode Fax models only	Generate Single Modem Tone	Range: 1100–2100 Hz Default = 2100 Hz	
PTT Test Mode Fax models only	Line Measurements		

Table 3-36 Service menu (continued)

First level	Second level	Value	Description
PTT Test Mode Fax models only	Fax Transmit Signal Loss		
Test Support	Continuous Scan	2-sided	
	MFP	Save to Disk	
Test Support	Continuous Copy	2-sided	
	MFP	Save to Disk	
Test Support	Raw Scan	2-sided	
	MFP	Mechanical Calibration	
Test Support	Continuous Print from USB		
Test Support	Automatic Calibrations	Disabled	
	MFP	Enabled*	
Test Support	Runtime Configuration	Standard	
	MFP	StandardEIC	
		Workflow	
		WorkflowEIC	
		Reconfigure	

Printer resets

Learn about the printer resets.

Restore factory-set defaults from a non-touchscreen control panel

1. From the Home screen on the printer control panel, use the arrow buttons to navigate to Settings, and then press the OK button.
2. Use the arrow buttons to scroll to General, and then press the OK button.
3. Use the arrow buttons to scroll to Restore Factory Settings, and then press the OK button.
4. A verification message advises that completing the reset function might result in loss of data. Select the Reset button to complete the process.

Restore factory-set defaults from a touchscreen control panel

1. From the Home screen on the printer control panel, scroll to and touch the Settings button.
2. Open the following menus:
   - General Settings
   - Reset Factory Settings

3. A verification message advises that completing the reset function might result in loss of data. Touch the Reset button to complete the process.

Restore the Service ID

When replacing the formatter, the Service ID date is lost. Use this menu item to reset the date to the original date that the printer was first used. The date format is YYDDD. Use the following formula to calculate the Service ID.

Calculate the service ID

For the calculation below, the placed-in-service date is 17OCT2002.

1. To calculate YY, subtract 1990 from the calendar year. If the printer was first used in 2002, calculate YY as follows: 2002 - 1990 = 19. YY = 12.
2. Subtract 1 from 10 (October is the tenth month of the year): 10 - 1 = 9.
   - Multiply 9 by 30: 9 x 30 = 270 and add 17 to 270: 270 + 17 = 287. Thus, DDD = 287.
3. In this example the Service ID is 12287.

Convert the Service ID to an actual date

Use the printer Service ID number to determine whether the printer is still under warranty. Use the following formula to convert the Service ID into the actual date the printer was placed-in-service. For the example below, use the Service ID previously calculated (12287).

1. Add 1990 to YY to get the actual year that the printer was installed.
2. Divide DDD by 30. If there is a remainder, add 1 to the result. This is the month.
3. The remainder from the calculation in step 2 is the date.
   a. 12 + 1990 = 2002, so the year is 2002.
   b. 287 divided by 30 = 9 with a remainder of 17. Because there is a remainder, add 1 to 9 to get 10, which represents October.
   c. The remainder in step 2 is 17, so that is the date. The complete date is 17-October-2002.

   NOTE: A six-day grace period is built into the date system.

Cold reset using the Pre-boot menu from a non-touchscreen control panel

CAUTION: This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Press the Cancel button when you see the 1/8 under the logo
2. Use the arrow buttons to highlight +3:Administrator item, and then press the OK button.
3. Use the arrow buttons to highlight +8:Startup Options item, and then press the OK button.
4. Use the arrow buttons to highlight 2 Cold Reset item, and then press the OK button.

5. Press the Home button to return to the main Pre-boot menu and highlight the 1:Continue item, and then press the OK button.

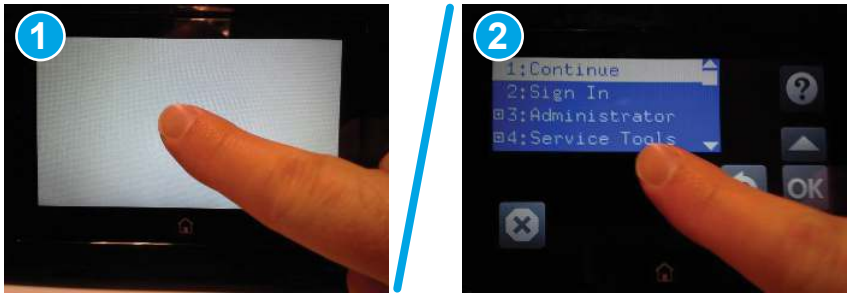
NOTE: The printer initializes.

Cold reset using the Pre-boot menu from a touchscreen control panel

CAUTION: This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Touch the middle of the control-panel display when you see the 1/8 under the logo

Figure 3-38 **Open the Pre-boot menu (MFP)**



2. Use the arrow buttons to highlight +3:Administrator item, and then press the OK button.
3. Use the arrow buttons to highlight +8:Startup Options item, and then press the OK button.
4. Use the arrow buttons to highlight 2 Cold Reset item, and then press the OK button.
5. Touch the Home button to return to the main Pre-boot menu and highlight the 1:Continue item, and then press the OK button.

NOTE: The printer initializes.

Format Disk and Partial Clean functions

Learn about the printer Format Disk and Partial Clean functions.

Active and repository firmware locations

The firmware bundle consists of multiple parts. The main components are the Windows CE Operating System and the printer/peripheral firmware files.

There are two locations/partitions on the hard drive where the firmware components are stored:

- The Active, where the operating system and firmware currently are executing.
- The Repository, the recovery location.

If the Active location is damaged, or a Partial Clean was performed, the printer automatically copies over the OS and firmware files from the Repository location and the printer recovers.

If both the Active and Repository locations are damaged, or a Format Disk was performed, then both locations are gone and the error message **99.09.67** displays on the control-panel display. The user must upload the firmware to the printer in order for it to function again.

⚠ **CAUTION:** The Format Disk option performs a disk initialization for the entire disk. The operating system, firmware files, and third party files (among other files) are completely lost. HP does not recommend this action.

Partial Clean

The Partial Clean option erases all partitions and data on the disk drive, except for the firmware repository where a backup copy of the firmware file is stored. This allows the disk drive to be reformatted without having to download a firmware upgrade file to return the printer to a bootable state.

Characteristics of a Partial Clean

- Customer-defined settings, third-party solutions, firmware files, and the operating system are deleted.
- Rebooting the printer restores the firmware files from the Repository location, but does not restore any customer-defined settings.
- For previous HP printers, a Hard Disk Initialization is similar to executing the Partial Clean function for this printer.

⚠ **CAUTION:** HP recommends backing-up printer configuration data before executing a Partial Clean to retain customer-defined settings (if needed). See the Backup/Restore item in the Device Maintenance menu.

Reasons for performing Partial Clean

- The printer continually boots up in an error state.

NOTE: Try clearing the error prior to executing a Partial Clean.

- The printer will not respond to commands from the control panel.
- Executing the Partial Clean function is helpful for troubleshooting hard disk problems.
- To reset the printer by deleting all solutions and customer-defined settings.
- The printer default settings are not properly working.

Execute a Partial Clean from a non-touchscreen control panel

This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Press the Cancel button when you see the 1/8 under the logo
2. Use the arrow buttons to highlight +3:Administrator item, and then press the OK button.
3. Use the arrow buttons to highlight Partial Clean item, and then press the OK button.
4. Press the OK button again.

5. Press the Home button to return to the main Pre-boot menu and highlight the Continue item, and then press the OK button.

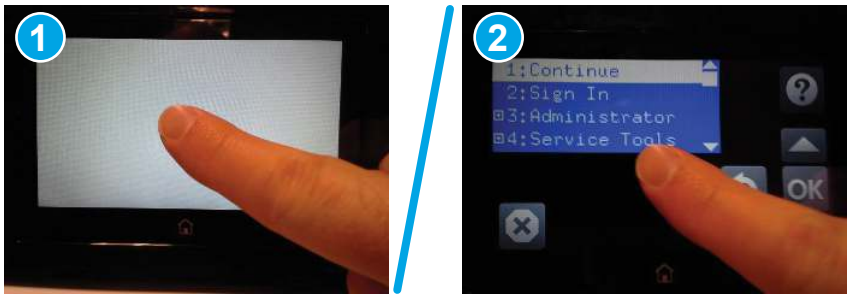
NOTE: The printer initializes.

Execute a Partial Clean from a touchscreen control panel

This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Touch the middle of the control-panel display when you see the 1/8 under the logo

Figure 3-39 Open the Pre-boot menu (MFP)



2. Use the arrow buttons to highlight +3:Administrator item, and then press the OK button.
3. Use the arrow buttons to highlight Partial Clean item, and then press the OK button.
4. Press the OK button again.
5. Touch the Home button to return to the main Pre-boot menu and highlight the Continue item, and then press the OK button.

NOTE: The printer initializes.

Format Disk

The Format Disk option erases the entire disk drive.

CAUTION: After executing a Format Disk option, the printer is not bootable.

Characteristics of a Format Disk

- Customer-defined settings, third-party solutions, firmware files, and the operating system are deleted.

NOTE: Rebooting the printer *does not* restore the firmware files

- Rebooting the printer restores the firmware files from the Repository location, but does not restore any customer-defined settings.
- After executing the Format Disk function, the message **99.09.67** displays on the control panel.
- After executing the Format Disk function, the printer firmware must be reloaded.

CAUTION: HP recommends not using the Format Disk option unless an error occurs and the solution in the printer service manual recommends this solution. After executing the Format Disk function, the printer is unusable.

HP recommends backing-up printer configuration data before executing a Format Disk to retain customer-defined settings (if needed). See the Backup/Restore item in the Device Maintenance menu.

Reasons for performing Format Disk

- The printer continually boots up in an error state.

NOTE: Try clearing the error prior to executing a Format Disk.

- The printer will not respond to commands from the control panel.
- Executing the Format Disk function is helpful for troubleshooting hard disk problems.
- To reset the printer by deleting all solutions and customer-defined settings.

Execute a Format Disk from a non-touchscreen control panel

This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Press the Cancel button when you see the 1/8 under the logo
2. Use the arrow buttons to highlight +3:Administrator item, and then press the OK button.
3. Use the arrow buttons to highlight Format Disk item, and then press the OK button.
4. Press the OK button again.

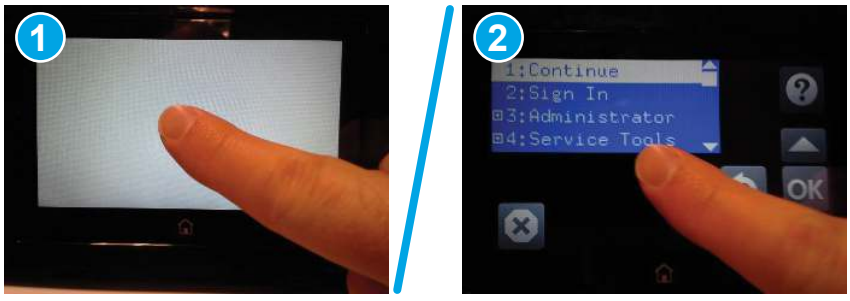
NOTE: When the Format Disk operation is complete, reload the printer firmware.

Execute a Format Disk from a touchscreen control panel

This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Touch the middle of the control-panel display when you see the 1/8 under the logo

Figure 3-40 Open the Pre-boot menu (MFP)



2. Use the arrow buttons to highlight +3:Administrator item, and then press the OK button.
3. Use the arrow buttons to highlight Format Disk item, and then press the OK button.
4. Press the OK button again.

NOTE: When the Format Disk operation is complete, reload the printer firmware.

Troubleshooting power-on or blank control panel problems

If the printer is not powering on correctly, use the following steps to begin troubleshooting the problem.

1. Verify that power is available to the printer. If the printer is plugged into a surge protector or uninterruptible power supply (UPS), remove it. Plug the printer directly into a known operating wall receptacle (make sure that the wall receptacle provides the correct voltage and current for the printer).

   NOTE: Unplug any other devices on the same circuit that the printer is using.

2. Try another known operating wall receptacle and a different power cord.
3. To eliminate a thermal switch issue, unplug the power cord and leave it unplugged for over 20 minutes. Re-attach the power cord, and then turn the power on again.
4. During normal operation, a cooling fan or fans begin to spin briefly after the printer power is turned on. Place a hand over the cover vent or vents to feel air passing out of the printer. Lean close to the printer to hear the fan or fans operating. Look for illuminated lights on the control panel and formatter LEDs.

   NOTE: Operational fans, motors, and control-panel lights indicate the following:

   - AC power is present at the printer.
   - The power supply is providing either or both 24 Vdc and 5 Vdc voltages.
   - The DC controller microprocessor is functioning.

5. If the printer powers on, but the control panel is blank, make sure that the control-panel display wire harness or harnesses and flat flexible cable or cables (FFCs) are connected.

   NOTE: The following conditions indicate that the printer has frozen while in Sleep mode or Sleep delay. Opening a door or pressing a control-panel button should cause the printer to wake up from Sleep mode or Sleep delay.

   - The control panel home button LED is illuminated
   - The power-switch LED flashes once every three to five seconds

   If the control panel is not responding, or if it appears black or blank, try the following:

   a. Turn the printer power off, and then on again.

   b. Verify that the system is correctly functioning by printing a test page. Does the test page print correctly?

      Is the printer HP Embedded Web Server (EWS) accessible?

   c. Verify that the control panel is correctly functioning. If it is not, turn the printer off and reseat the control-panel assembly cable connections at the control-panel assembly and the formatter.

   d. Try upgrading the firmware. If the firmware upgrade fails to resolve the problem, and the printer still freezes while in Sleep mode or Sleep delay, elevate the case.

   e. If the error persists and the EWS functions correctly, replace the control-panel assembly.

6. If normal start-up noises are not heard, turn the printer off, and then remove any installed accessories (for example, envelope feeders, paper feeders, or output accessories).
7. Turn the printer on, and then listen for start-up noises. If normal start-up noises are heard, the problem might be with an accessory.
8. Perform an engine test. The engine test procedure varies by printer, so refer to the printer Service Manual to get instructions.
9. If the engine test page prints, the print engine is operating normally. Replace the formatter.

⚠ CAUTION: Under **NO** circumstances should a formatter from a different printer be installed during the repair or troubleshooting processes. The formatter stores important data specific to the model of printer it is installed in and is not designed to be swapped or repurposed in any way. Return a used formatter to HP.

Issues that can occur from swapping a formatter include:

- Serial number, product number, product name, page count, and supported cartridges information change and might make a product unusable
- 33.02.01 Used board/Disk installed errors

If a used formatter is installed and causes this issue, **there is no method in the field to recover a printer where a used formatter is installed.**

NOTE: If the engine test page does not print, turn the printer off, reconnect the formatter power connector, remove the embedded MultiMedia Card (eMMC), and then try the engine test again. If the page prints, the problem might be the eMMC.

10. If after replacing the formatter or eMMC normal start-up noises are still not heard, replace the DC controller.
11. If the print engine appears to be correctly operating (the engine test page successfully printed) and the control panel is still blank, replace the power supply.

Troubleshooting an unresponsive printer

If the printer powers up normally and the control panel displays correctly, but the printer appears unresponsive to print jobs, use the following steps to troubleshoot the issue.

1. The control panel should indicate a Ready, Paused, Sleep mode on or Sleep delay on status. If an error message displays, resolve the error. Resolve any supply issues.
2. For network connection errors, verify that the network port is active and that the cables are securely seated.
   a. Check the network cable connections between the printer and the computer or network port. Make sure that the connections are secure.
   b. Make sure that the cables are not faulty by trying different cables, if possible.
3. Check the network LEDs (callout 1) to see if they indicate any issues.

NOTE: The figure below is representational only. Network LED location varies by printer.

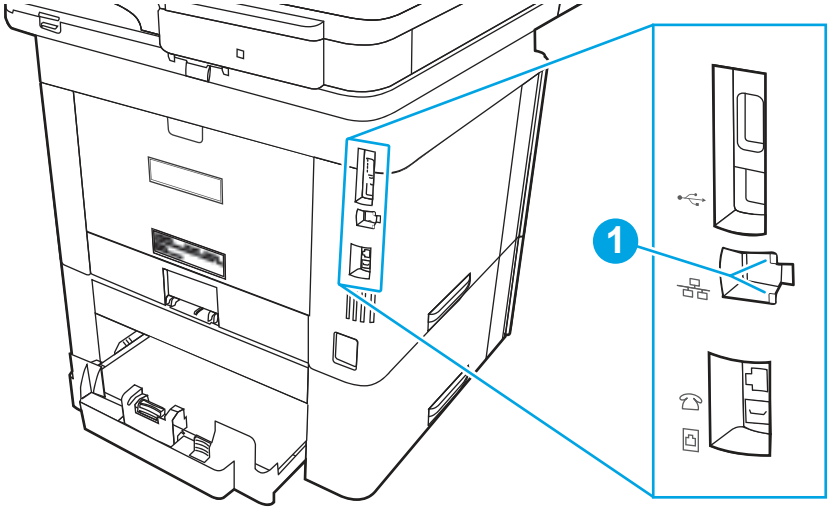


Table 3-37 **Network LEDs**

LED light pattern	Description
	Solid green light and flashing yellow light indicates a successful network connection.
	No lights on indicates a faulty network connection. Disconnect and reconnect the cable to the port. In the Network Settings Menu, verify the link settings and make sure that the port is enabled.

4. Use one of the following options to print a configuration page. If the printer is connected to a network, an HP Jetdirect page also prints.

   Print the configuration page from a SFP control panel

   a. From the Home screen on the printer control panel, use the arrow buttons to navigate to Reports, and then press the OK button.

   b. Use the arrow buttons to scroll to Configuration/Status Pages, and then press the OK button.

   c. Use the arrow buttons to scroll to Configuration Page, and then press the OK button.

   d. Use the arrow buttons to scroll to the print icon  . Press the OK button to print the pages.

   Print the configuration page from an MFP control panel

   a. From the Home screen on the printer control panel, scroll to and touch the Reports button.

   b. Open the following menus:

      - Configuration/Status pages

   c. Touch Configuration Page to select it.

   d. Touch the print icon  to print the pages.

5. Check to see if there is a newer version of the firmware available. If there is, update the firmware.

6. Verify that the correct print driver for this printer is installed. Check the program to make sure that the print driver for this printer is used. The print driver can be downloaded from support.hp.com.

7. Print a short document from a different program that has worked in the past. If this solution works, the problem is with the program. If this solution does not work (the document does not print), complete these steps:

   a. Try printing the job from another computer that has the printer software installed.

   b. If the printer is connected to the network, connect the printer directly to a host computer with a USB cable. Redirect the printer to the correct port, or reinstall the software (make sure to select the new connection type).

   NOTE: The host USB port may disabled from the factory. If so, this port needs to be activated first before connecting the printer to the USB port.

For more information about troubleshooting an unresponsive printer and about troubleshooting connectivity issues, see the "Performance and connectivity troubleshooting" section of the Service manual.

Engine diagnostics

Learn about internal engine diagnostics that help in troubleshooting print quality, paper path, noise, assembly, and timing issues.

Engine test

Learn about troubleshooting the printer using the engine test diagnostic.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

When the engine test is performed, a test page with lines prints if the engine is functioning correctly.

NOTE: Depending on printer models, either a simplex engine test page, a duplex engine test page, or both simplex and duplex engine test pages might be available.

Depress and hold the cartridge door release button, and then open and close the cartridge door four times within a three second time period to print a simplex engine test page. Open and close the door five times within a three second period to print a duplex engine test page.

Defeating interlocks

Learn about defeating printer interlocks.

Different tests can be used to isolate different types of issues. For assembly or noise isolation, run the diagnostic test when the toner cartridge door or rear door is open.

Defeating the door interlocks allows observation of the paper pick operation.

Defeat the front (cartridge) door interlock

1. Open the front door.

2. Insert a folded piece of paper into the slot.

TIP: Fold a stiff piece of paper, for example a business card or index card, into a strip, and insert the strip into the slot for the front door logic switch.

Figure 3-41 Defeat the front (cartridge) door interlock

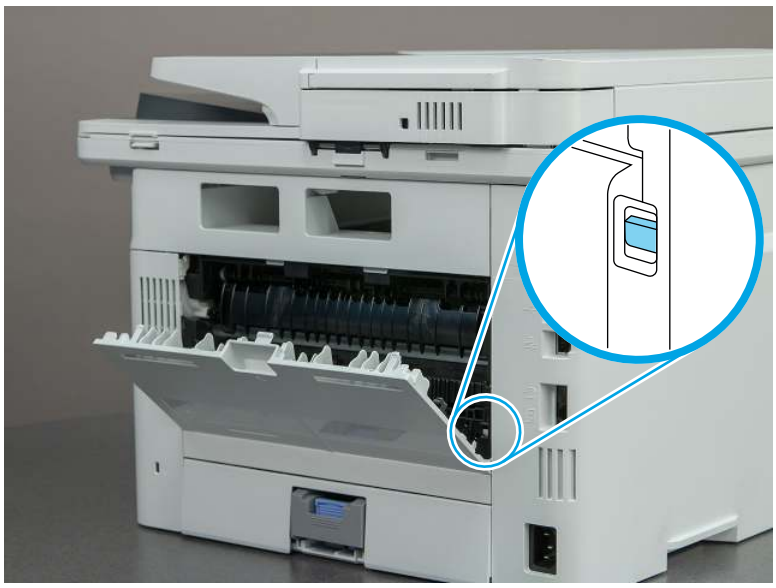


Defeat the rear door interlock

1. Open the rear door.
2. Insert a folded piece of paper into the slot.

TIP: It might be easier to use a small flat-blade screwdriver to defeat the rear door interlock.

Figure 3-42 Defeat the rear door interlock



Control panel troubleshooting

If the control panel is not responding normally or has display issues, use the following procedures to troubleshoot the issues.

Control panel system diagnostics (MFP)

Learn about MFP printer firmware control panel troubleshooting.

Use the diagnostics in this section to test the control panel hardware and display using the printer firmware system diagnostics.

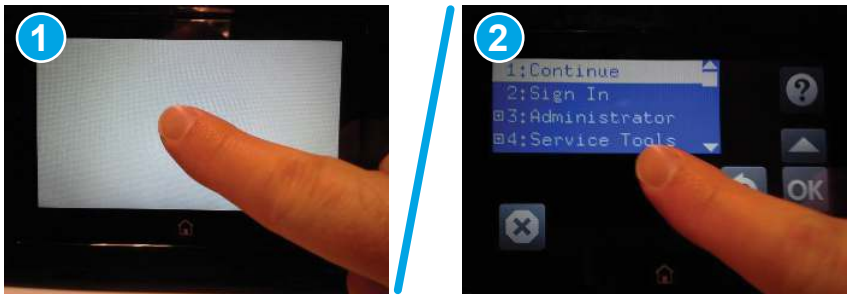
Open the control panel system diagnostic tests

Learn about accessing the control panel system diagnostics tests from a touchscreen control panel.

Use the following procedure to open the control panel system diagnostics tests.

1. Turn the printer power off, and then on again.
2. Touch the middle of the control panel display when you see the 1/8 under the logo.

Figure 3-43 Open the Pre-boot menu



3. On the Pre-boot menu screen, use the following buttons to navigate the tests.

Figure 3-44 Pre-boot menu

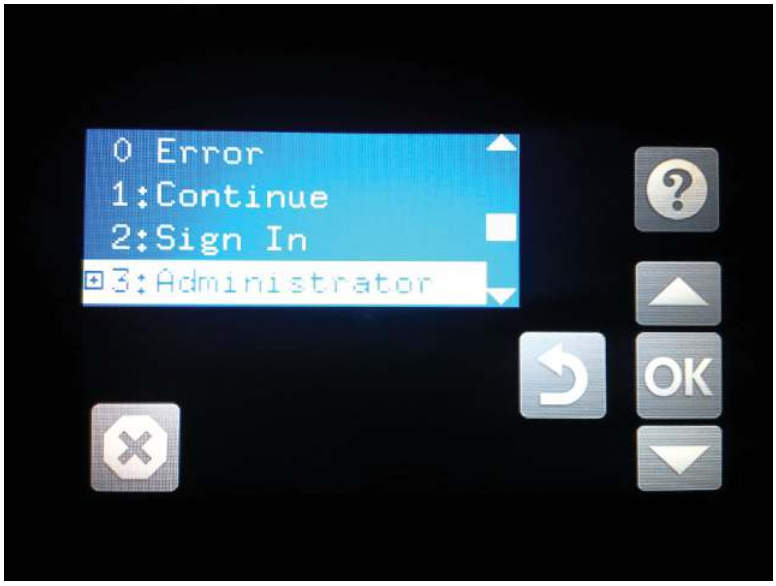


Table 3-38 Pre-boot menu button descriptions

Button	Description
	Use this button to see more information about a selected item.
	Use this button to scroll up through menu items.
	Use this button to select a highlighted menu item.
	Use this button to scroll down through menu items.
	Use this button to go back to the previous menu.
	Not used.
	Use this button to exit a diagnostic test.

4. Use the down arrow ▼ button to scroll to +3 Administration, and then press the OK button to select it.

Figure 3-45 Access the administration menu



5. Use the down arrow ▼ button to scroll to +E CP Diagnostics, and then press the OK button to select it.

NOTE: An administrator password might be required to continue.

Figure 3-46 Access the diagnostics menu



Screen test

Learn about the control panel system diagnostic screen test.

1. Open the control panel system diagnostic tests.

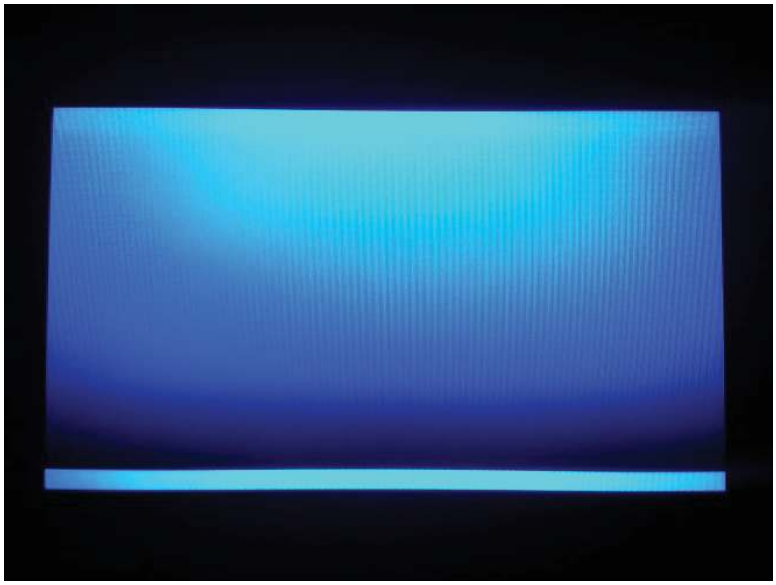
2. With 1 Screen Test highlighted, press the OK button to select it.

Figure 3-47 Open the screen test



The blue vertical gradient screen appears.

Figure 3-48 Blue vertical gradient screen



3. Touch the touchscreen to scroll though the remaining touchscreen test screens.

NOTE: Touch the Home button to exit the test.

Table 3-39 Touchscreen test screens

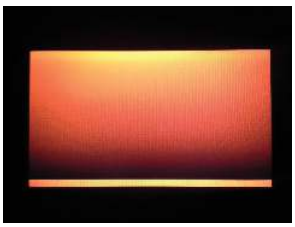
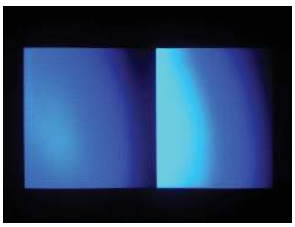
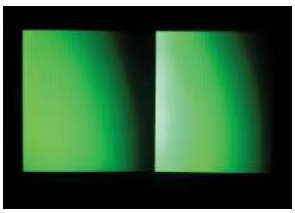
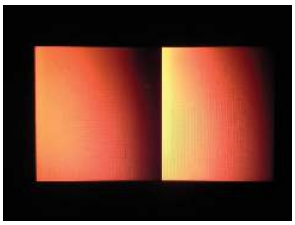
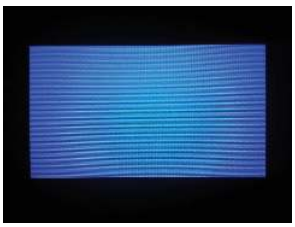
Screen	Description
	Green vertical gradient
	Red vertical gradient
	Blue horizontal gradient
	Green horizontal gradient
	Red horizontal gradient
	Blue with black horizontal interlaced

Table 3-39 Touchscreen test screens (continued)

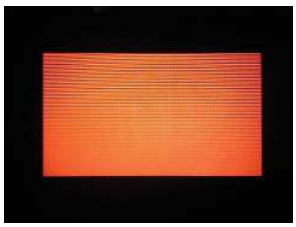
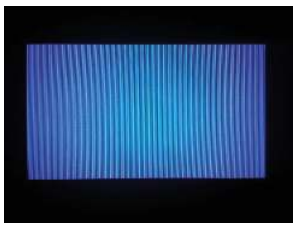
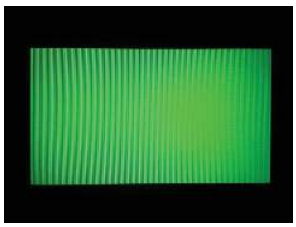
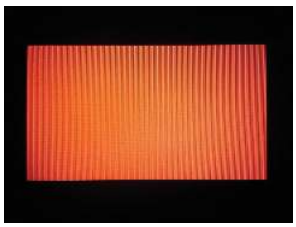
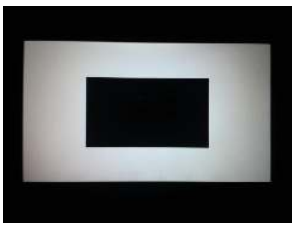
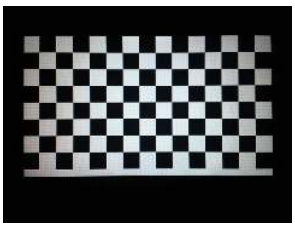
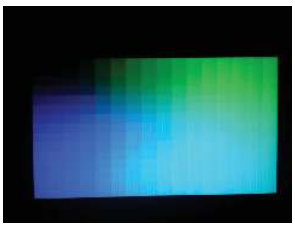
Screen	Description
	Green with black horizontal interlaced
	Red with black horizontal interlaced
	Blue with black vertical interlaced
	Green with black vertical interlaced
	Red with black vertical interlaced
	Black with white center

Table 3-39 Touchscreen test screens (continued)

Screen	Description
	White with black center
	Checkerboard
	Multicolor stripes
	Blue green grid meshing

Touch test

Learn about the control panel system diagnostic touch test.

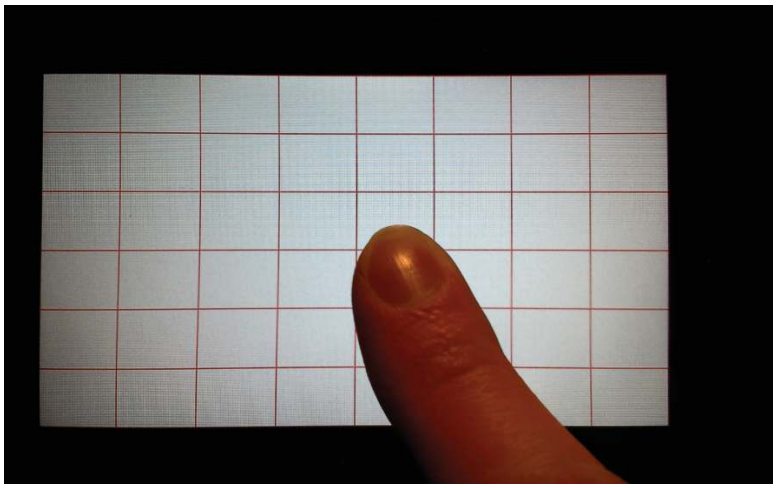
1. Open the control panel system diagnostic tests.
2. Use the down arrow ▼ button to scroll to 2 Touch Test, and then press the OK button to select it.

Figure 3-49 Open the touch test



3. Use your finger to touch the white grid on the display.

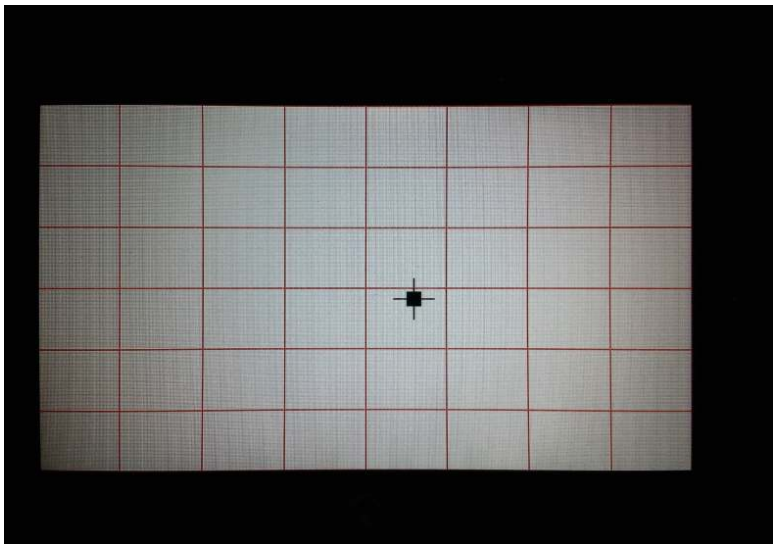
Figure 3-50 **Touch the white grid**



A mark appears on the grid where it was touched.

NOTE: Touch the Home button to exit the test.

Figure 3-51 **Verify the mark**



SoftKey test

Learn about the control panel system diagnostic SoftKey test.

1. Open the control panel system diagnostic tests.

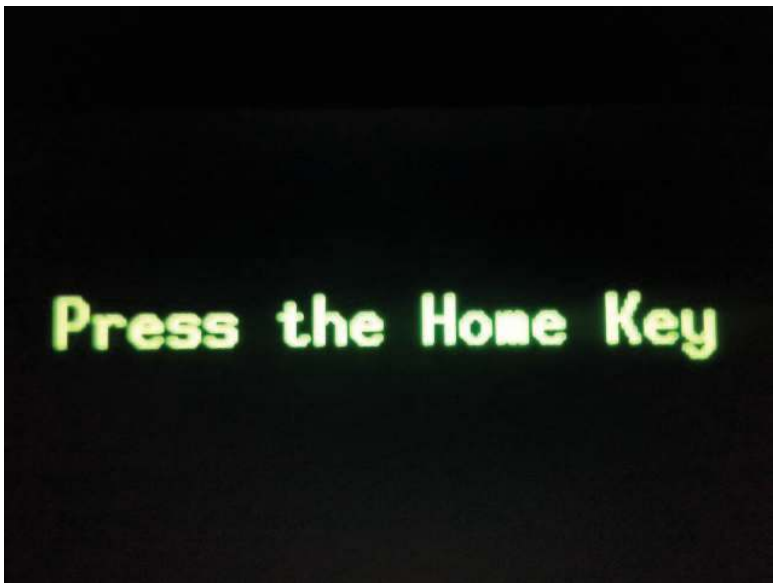
2. Use the down arrow ▼ button to scroll to 3 SoftKey Test, and then press the OK button to select it.

Figure 3-52 Open the softkey test



3. When prompted, touch the Home button.

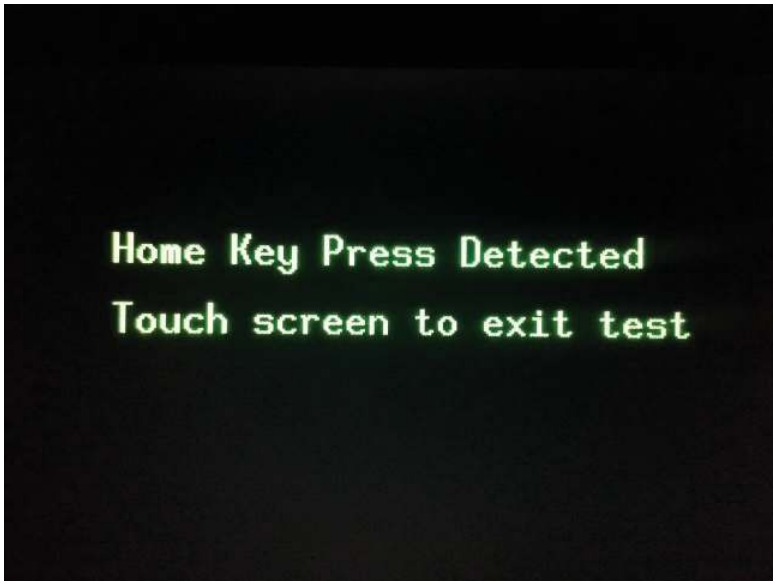
Figure 3-53 Touch the Home button



If the test is successful, the following screen appears on the display.

NOTE: Touch the screen to exit the test.

Figure 3-54 Successful test



Backlight test

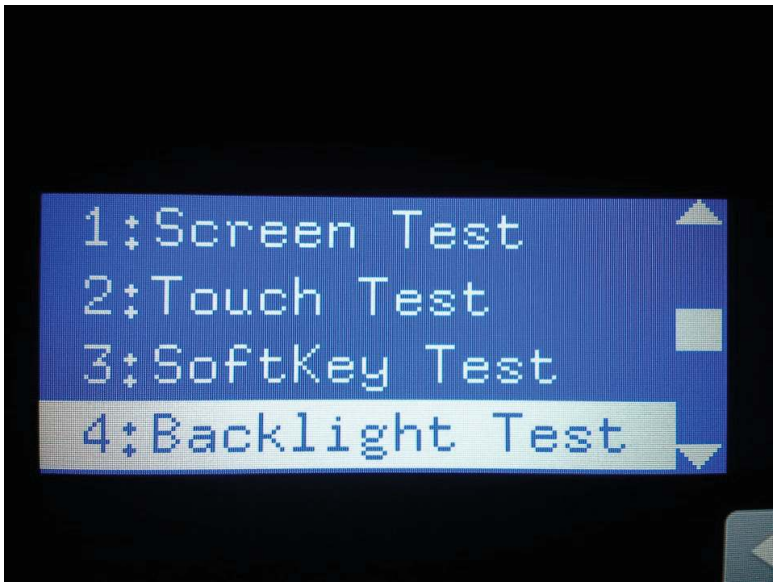
Learn about the control panel system diagnostic backlight test.

1. Open the control panel system diagnostic tests.
2. Use the down arrow ▼ button to scroll to 4 Backlight Test, and then press the OK button to select it.

   After selecting the 4 Backlight Test, the screen automatically dims, and then returns to full brightness.

NOTE: Touch any key to exit the test.

Figure 3-55 Open the backlight test



Sound test

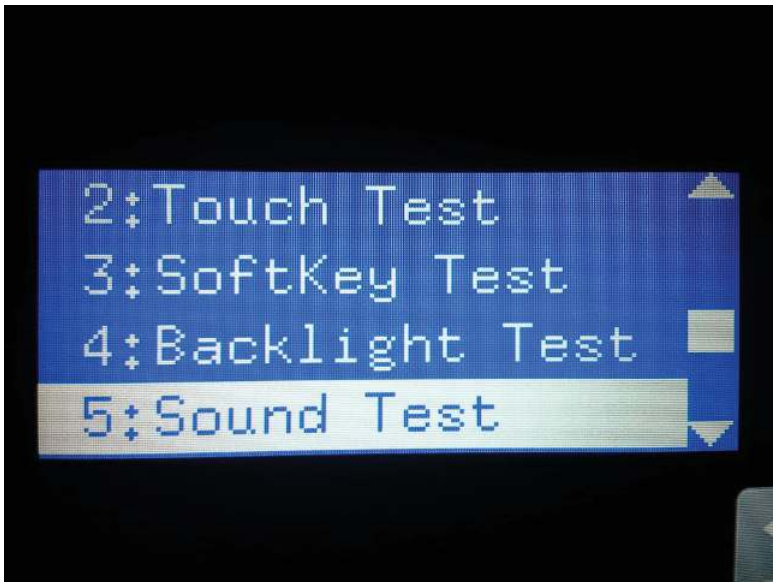
Learn about the control panel system diagnostic sound test.

1. Open the control panel system diagnostic tests.
2. Use the down arrow ▼ button to scroll to 5 Sound Test, and then press the OK button to select it.

   After selecting the 5 Sound Test, the printer emits a series of audible tones.

NOTE: Touch any key to exit the test.

Figure 3-56 Open the sound test



Version

Learn about the control panel system diagnostic version information.

1. Open the control panel system diagnostic tests.
2. Use the down arrow ▼ button to scroll to 7 Version, and then press the OK button to select it.

NOTE: Touch any key to exit the test.

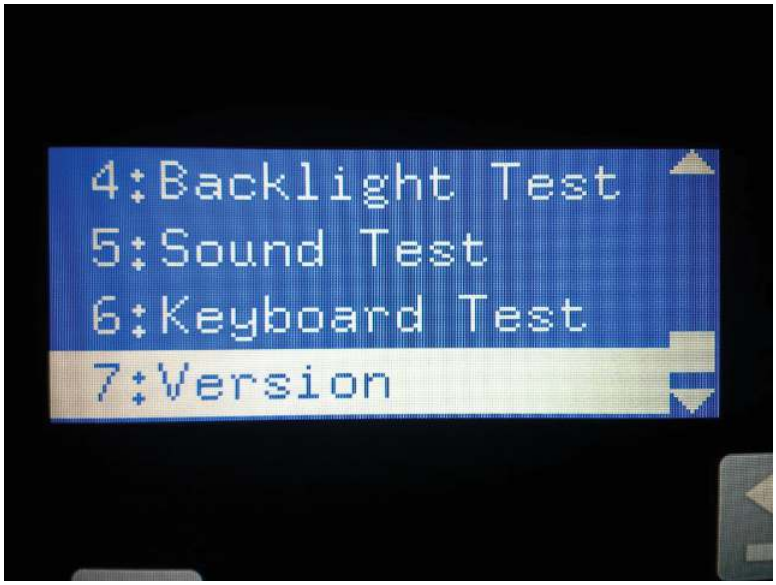
Select 7 Version to view the following types of information:

NOTE: The following types of information are for the control panel only, not the printer.

- Panel ID
- Hardware (version)
- Firmware (version)
- KB Hw (version)
- KB Firm (version)
- LCD Vendor

- Touch Controller Version

Figure 3-57 **Open the version information**



Control panel messages document (CPMD)

Learn about the printer control panel messages document (CPMD).

NOTE: A complete CPMD is not included in this service manual.

You can use the error code look-up tool from product home page.

Error codes (types and structure)

Error codes and control-panel messages display on the printer control panel to indicate the current printer status or situations that might require action. Error codes are numerical, or alphanumerical, and have a set structure with six characters (example: 13.WX.YZ).

- The first two characters are numeric and represent the system component that is causing the error. For example, in error code `10.22.15`, **10** = **Supplies** for HP LaserJets.
- The remaining four characters (W, X, Y, and Z values) further define the error.

HP LaserJet and HP PageWide Enterprise error codes are documented in the control panel message document (CPMD) for each printer.

The CPMD is a comprehensive list of error codes, diagnostic and troubleshooting steps to clear or resolve the error, and other helpful information such as service mode pins and part numbers.

The CPMD is continually updated and republished with the latest information for the following error codes.

Table 3-40 **ERROR CODES: The first two characters**

Error code	System Component	System Error Description
10.WX.YZ	Supplies (LaserJet)	Supply error or supply memory error.

Table 3-40 ERROR CODES: The first two characters (continued)

Error code	System Component	System Error Description
11.WX.YZ	Real-time clock	Internal error with the clock on the formatter.
13.WX.YZ	Jam (LaserJet)	Paper jam or open door jam error.
15.WX.YZ	Jam (PageWide)	Paper jam or open door jam error.
17.WX.YZ	Supplies (PageWide)	Supply error or supply memory error.
20.WX.YZ	Printer memory	Insufficient memory or buffering error.
21.WX.YZ	Page	Page complexity causing a decompression error when trying to process job.
30.WX.YZ	Scanner	Flatbed scanner error occurring inside the unit.
31.WX.YZ	Document feeder	Document feeder, scanner, or jam error.
32.WX.YZ	Backup, restore, or reset	Backup, restore, or reset notification or error.
33.WX.YZ	Security	Backup, Disk, EFI BIOS, Firmware integrity (SureStart), or Trusted Platform Module (TPM) notification or error.
40.WX.YZ	Input/Output (I/O)	Partition manager, secure erase, or USB accessory error.
41.WX.YZ	Fuser, Laser scanner, or Paper path	Miscellaneous error including general and misprint or mismatch errors typically involving (but not limited to) the fuser, the laser scanner, or the paper path.
42.WX.YZ	Firmware	Firmware failure involving the Event Log, Shell, System Manager, or other component.
44.WX.YZ	Firmware	Firmware failure involving a digital sending component.
45.WX.YZ	OXPd/Web Kit (PageWide)	Informational notifications involving the OXPd Web Kit (communications log).
46.WX.YZ	Engine (LaserJet)	Engine communication error.
47.WX.YZ	Firmware	Job parser or printer calibration error.
48.WX.YZ	Firmware	PJA job accounting, job management, or job pipeline error.
49.WX.YZ	Firmware	Firmware communication error.
50.WX.YZ	Fuser (LaserJet)	Fuser error.
51.WX.YZ	Laser scanner (LaserJet)	Laser scanner beam error.
52.WX.YZ	Laser scanner (LaserJet)	Laser scanner startup error.
54.WX.YZ	Sensor	Sensor error (not jam related).
55.WX.YZ	DC controller (LaserJet)	DC controller communication error.
56.WX.YZ	Paper handling (LaserJet)	Paper input/output or accessory error.
57.WX.YZ	Fan	Fan error.
58.WX.YZ	Sensor	Engine sensor failure.
59.WX.YZ	Motor (LaserJet)	Motor error.

Table 3-40 ERROR CODES: The first two characters (continued)

Error code	System Component	System Error Description
60.WX.YZ	Tray motor error (LaserJet)	Tray lifting or pick up error.
61.WX.YZ	Engine (PageWide)	Print engine error with the 8-bit data package.
62.WX.YZ	System (LaserJet) Print bar (PageWide)	LaserJet internal system error. PageWide print system error.
63.WX.YZ	Engine (LaserJet)	General engine error (electrical, communication, etc.).
65.WX.YZ	Connector	Output accessory connection error.
66.WX.YZ	Output accessory	Output accessory error.
67.WX.YZ	Input accessory	Input accessory connection error
69.WX.YZ	Duplexer	Duplexer error.
70.WX.YZ	DC controller (LaserJet)	DC controller firmware error.
76.WX.YZ	DC controller (LaserJet)	Power supply fluctuations causes formatter and DC controller communication issue and results them not to be in synchronization.
80.WX.YZ	Managed device	Embedded Jetdirect error.
81.WX.YZ	Near Field Communication (NFC)	Wireless, Bluetooth or internal EIO error.
82.WX.YZ	Memory (hard disk, EMMC, etc.)	Disk hardware error.
90.WX.YZ	Internal diagnostics	Internal test of systems (i.e. disk, CPB, display) or interconnection error.
98.WX.YZ	Hard disk	Hard disk partition error.
99.WX.YZ	Firmware installer	Remote Firmware Upgrade (RFU), firmware install (engine or accessory), or disk error.

Printer service information

Use the PIN code to access the Service menu.

Service mode PIN numbers

Table 3-41 Service PIN

Product model	PIN
HP LaserJet Enterprise M406, M407, HP LaserJet Managed E40040	12040620
HP LaserJet Enterprise MFP M430, M431, HP LaserJet Managed MFP E42540	12043020

NOTE: When possible, always update the printer firmware to the latest available version at HP.com as part of the troubleshooting performed for any error codes.

If the default PIN has been changed, contact the printer administrator.

Solve paper handling problems

Review the following information to solve paper handling problems.

Clear paper jams (SFP)

Use the procedures in this section to clear jammed paper from the printer paper path.

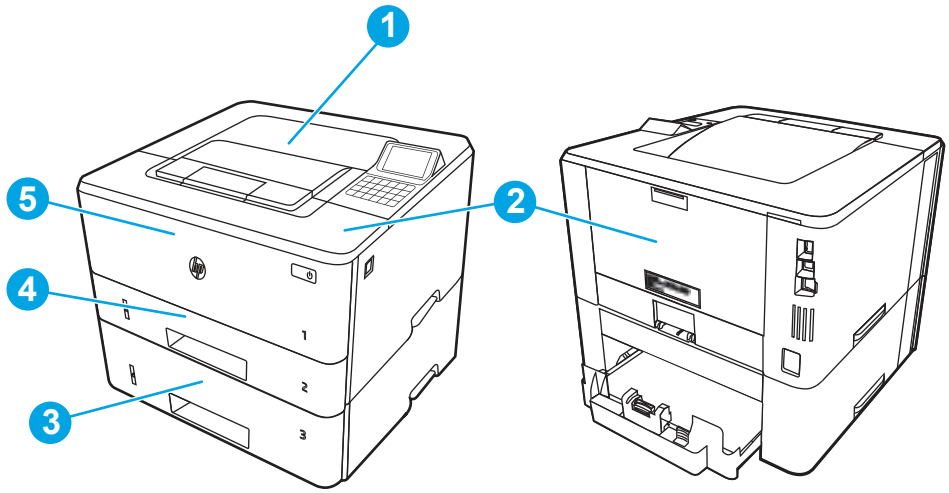
NOTE: To avoid tearing the paper, pull the jammed paper out slowly and gently.

Figures in this section are representational only. The actual printer being serviced might look slightly different depending on the model and installed accessories.

Paper jam locations

Jams can occur in these locations.

Figure 3-58 Paper jam locations



Number	Description
1	Output bin
2	Fuser area
3	Tray 3 (optional)
4	Tray 2 Duplexing area (remove Tray 2 for access)
5	Tray 1
6	Toner cartridge area (open the front door for access)

Auto-navigation for clearing paper jams

Learn about printer jam clearing auto-navigation.

The auto-navigation feature assists in clearing jams by providing step-by-step instructions on the control panel.

When you complete a step, the printer displays instructions for the next step until you have completed all steps in the procedure.

Experiencing frequent or recurring paper jams?

To reduce the number of paper jams, try these solutions.

View a video that demonstrates how to load paper in a way that reduces the number of paper jams

1. Use only paper that meets HP specifications for this printer.
2. Use paper that is not wrinkled, folded, or damaged. If necessary, use paper from a different package.
3. Use paper that has not previously been printed or copied on.
4. Make sure the tray is not overfilled. If it is, remove the entire stack of paper from the tray, straighten the stack, and then return some of the paper to the tray.
5. Make sure the paper guides in the tray are adjusted correctly for the size of paper. Adjust the guides so they are touching the paper stack without bending it.
6. Make sure that the tray is fully inserted in the printer.
7. If you are printing on heavy, embossed, or perforated paper, use the manual feed feature and feed sheets one at a time.
8. Open the Trays menu on the printer control panel. Verify that the tray is configured correctly for the paper type and size.
9. Make sure the printing environment is within recommended specifications.

13.B2.D1 Clear paper jam error in Tray 1

Use the following procedure to clear paper jams in Tray 1.

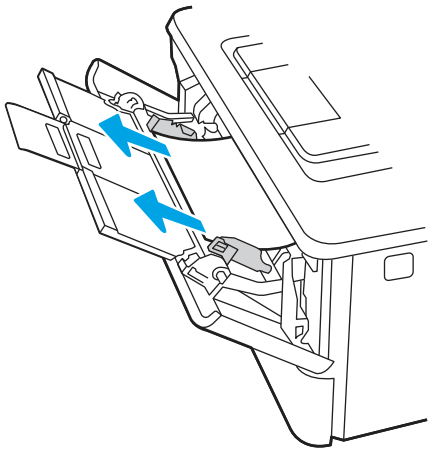
Recommended action for customers

When a jam occurs, the control panel displays a message and an animation that assists in clearing the jam.

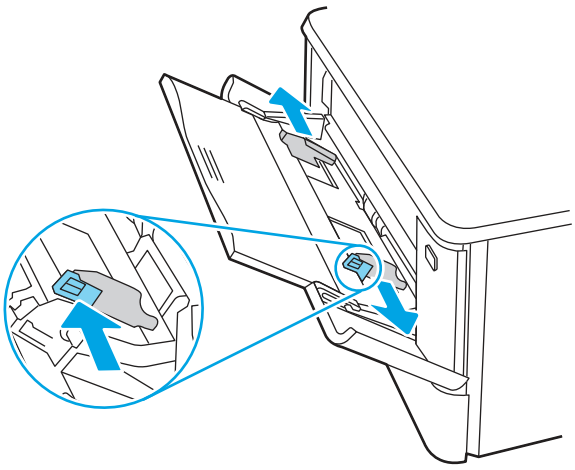
- **13.B2.D1 Jam in tray 1**

View a video of how to clear a jam in tray 1

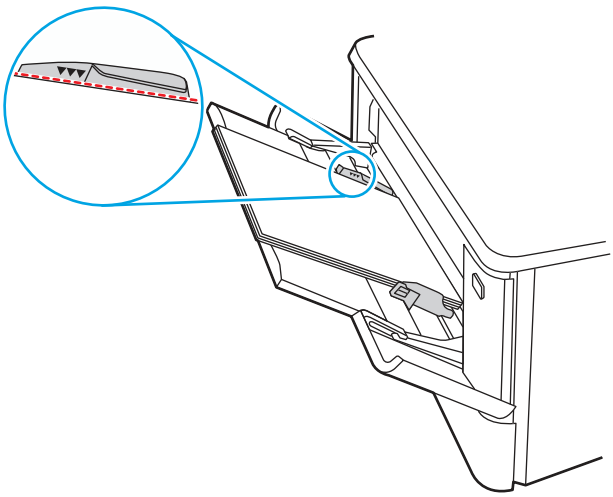
1. Slowly pull the jammed paper out of the printer.



2. Adjust the paper guides to the correct paper size, then .reload paper into the tray.



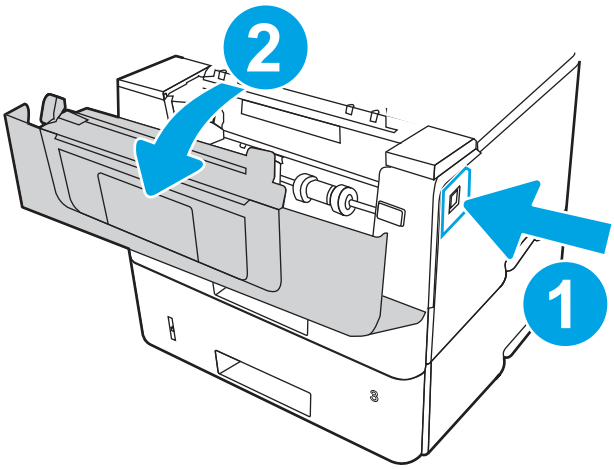
3. Ensure the tray is not overfilled. Paper should be below the 3 triangles in the following image.



4. Ensure the type and quality of the paper being used meets the HP specifications for the printer.

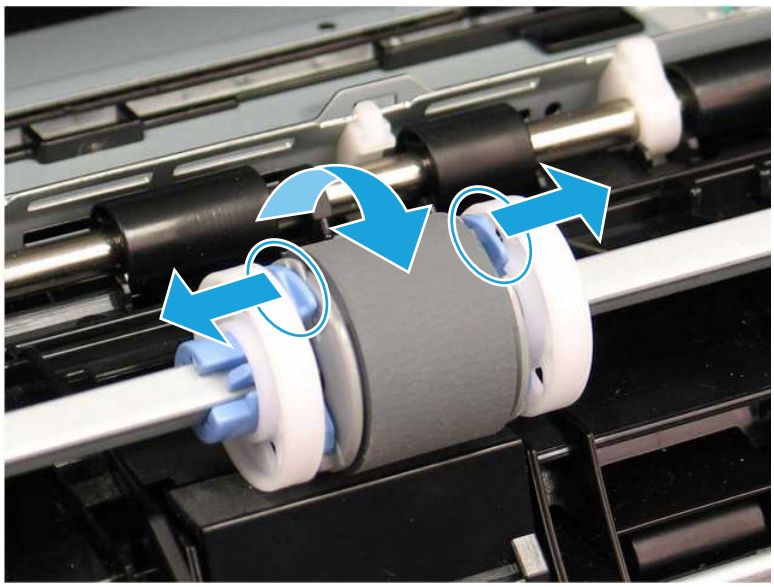
5. If the error persists, clean the tray 1 pickup roller and separation pad.

   a. Press the door-release button, and then open the toner-cartridge door



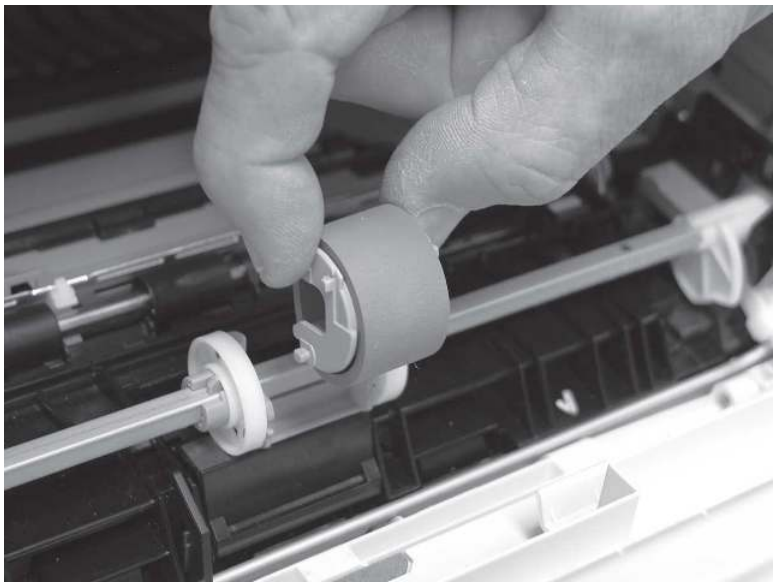
   b. To clean the roller thoroughly, release two tabs between the roller collar and roller, and then rotate the top of the roller out and away from the printer.

Figure 3-59 **Release the roller**



c. Remove the roller.

Figure 3-60 **Remove the roller**

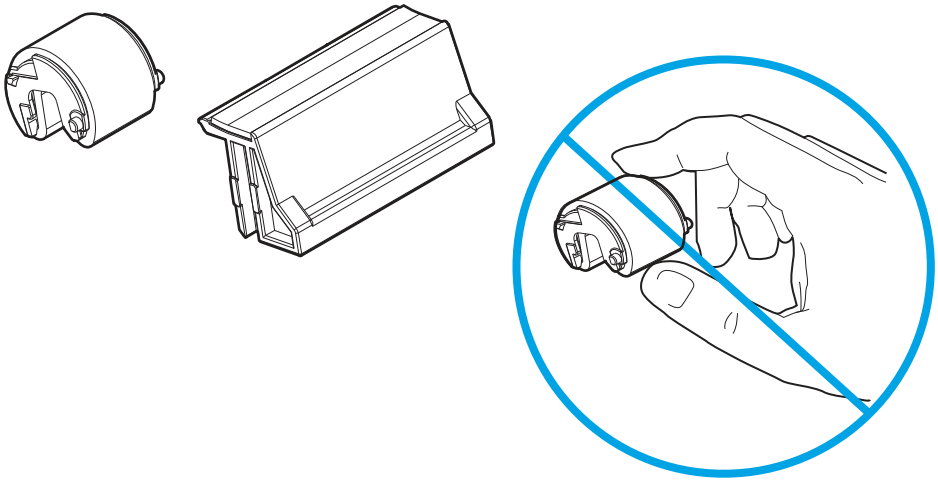


d. With the Tray 1 roller removed the separation pad is accessible in the printer (it does not need to be removed to be cleaned.

e. Use a damp, lint-free cloth to gently clean the rollers.

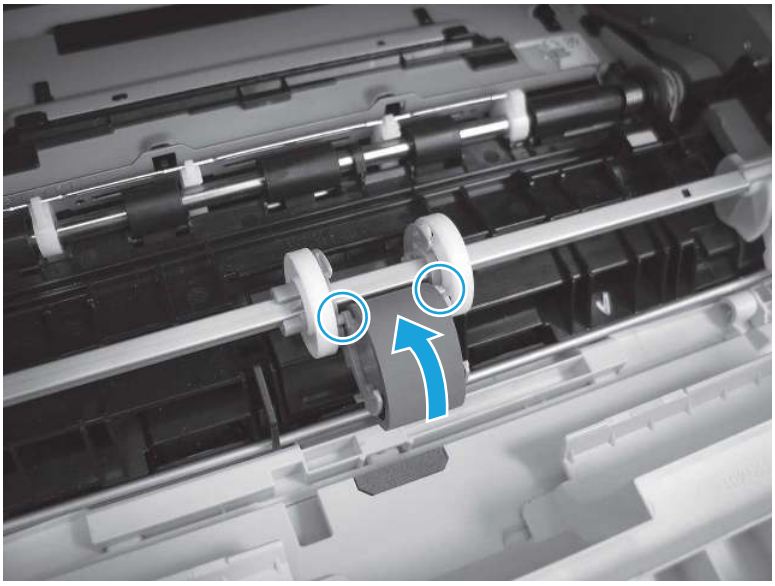
⚠ CAUTION: When handling the roller and/or pad, avoid touching the spongy surfaces. Skin oils and fingerprints on a roller surface can cause print-quality problems.

Figure 3-61 **Clean the roller and pad**



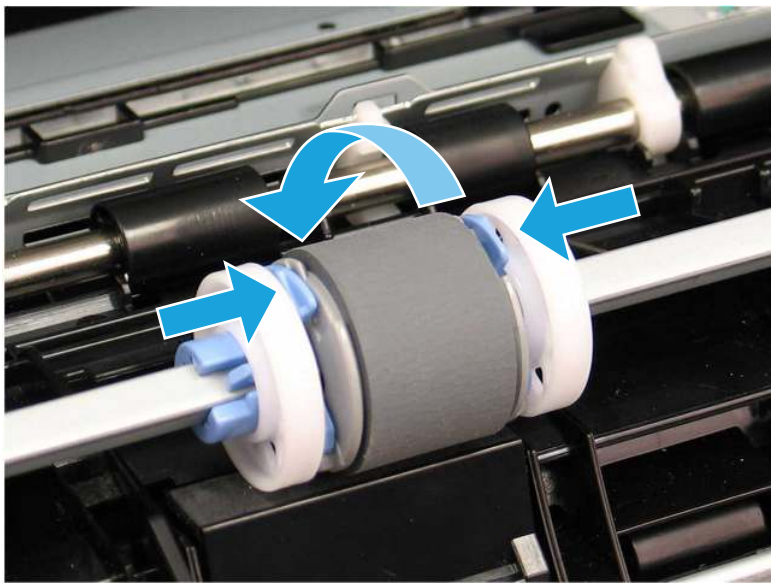
f. Position the pickup roller with the pins in the provided slots on the holder, and then rotate the top of the roller up and toward the printer.

Figure 3-62 Install the roller



g. Continue to rotate the top of the roller toward the printer (callout 1), until two tabs (callout 2) snap into place.

Figure 3-63 Engage two tabs



h. Close the toner-cartridge door.

6. Perform a test page from tray 1 to see if issue is resolved.

7. If the error persists, contact your HP-authorized service or support provider, or contact customer support at www.hp.com/go/contactHP.

13.B2.D2 Clear paper jams in Tray 2

Use the following procedure to check for paper in all possible jam locations related to Tray 2.

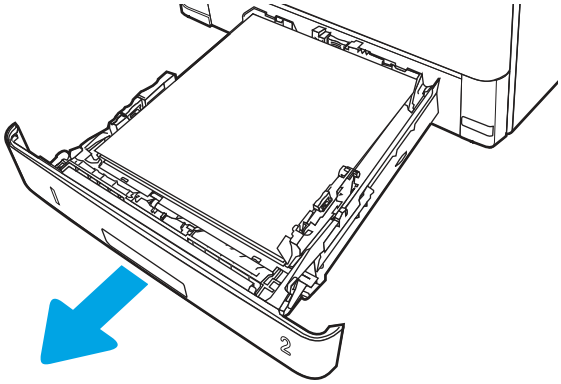
Recommended action for customers

When a jam occurs, the control panel displays an animation that assists in clearing the jam.

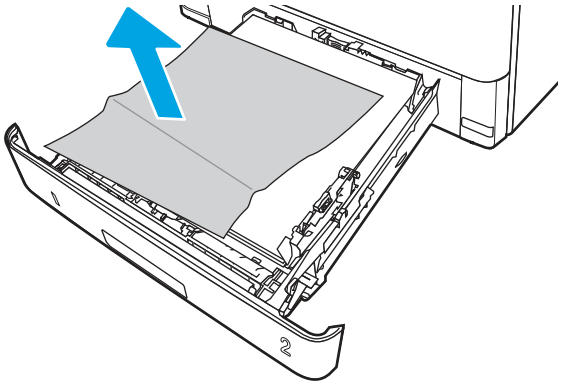
- 13.B2.D2 Paper jam in tray 2

View a video of how to clear a jam in tray 2

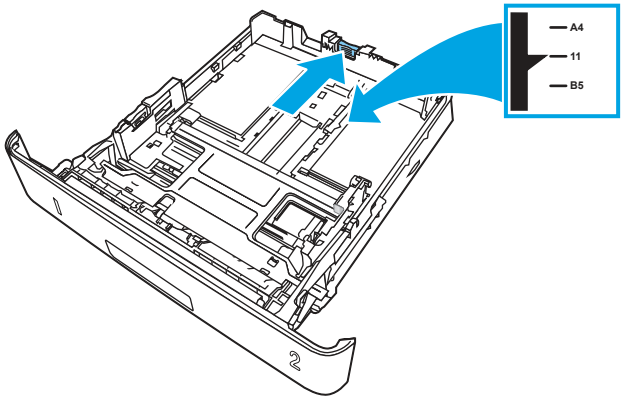
1. Remove the tray from the printer.



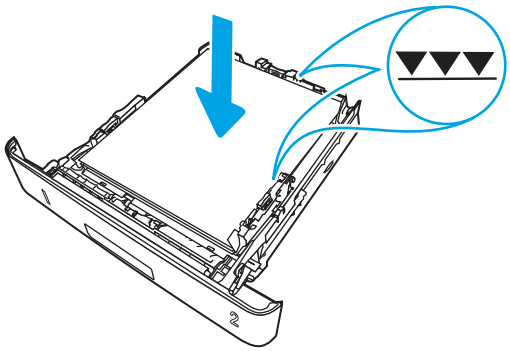
2. Remove the paper from the tray, and discard any damaged paper.



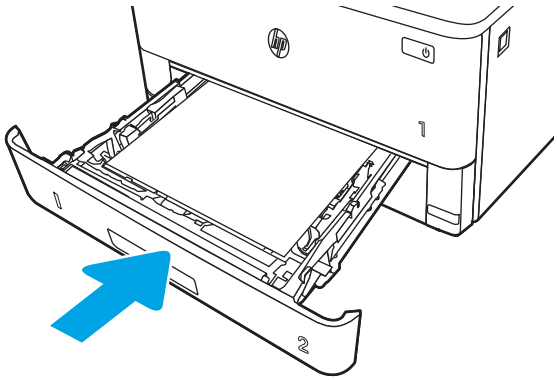
3. Verify that the rear paper guide is adjusted to the indentation for the correct paper size. If necessary, pinch the release and move the rear paper guide to the correct position. It should click into place.



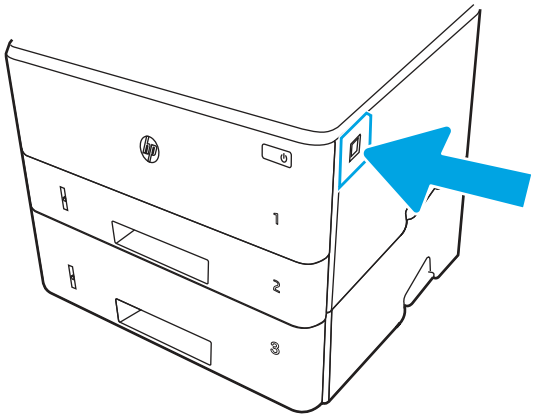
4. Load the paper into the tray. Make sure that the stack is flat at all four corners and that the top of the stack is below the maximum-height indicators.



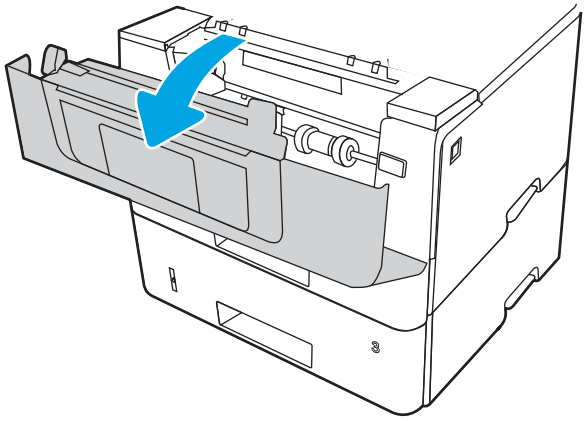
5. Reinsert and close the tray.



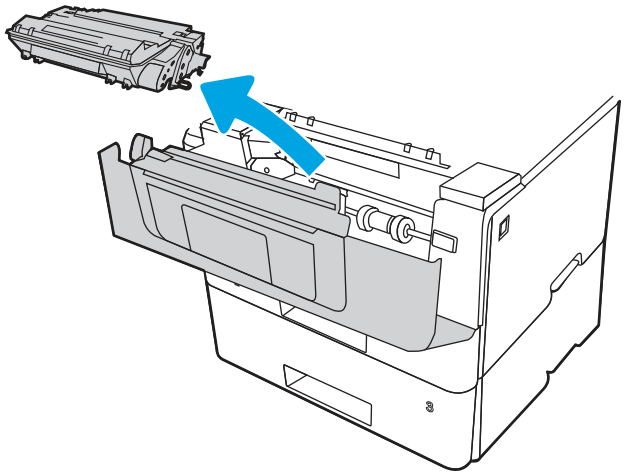
6. Press the front door release button.



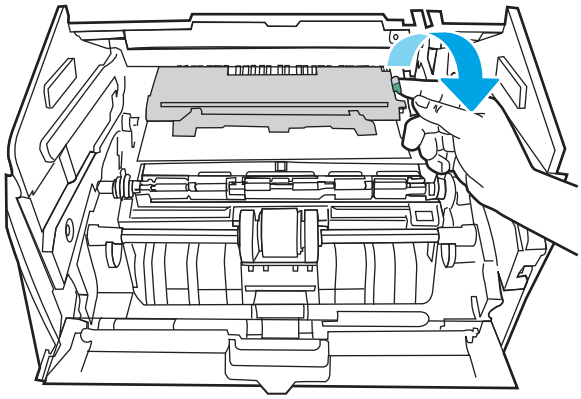
7. Open the front door.



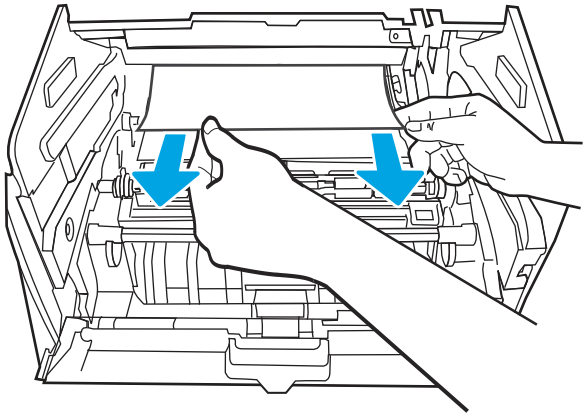
8. Remove the toner cartridge.



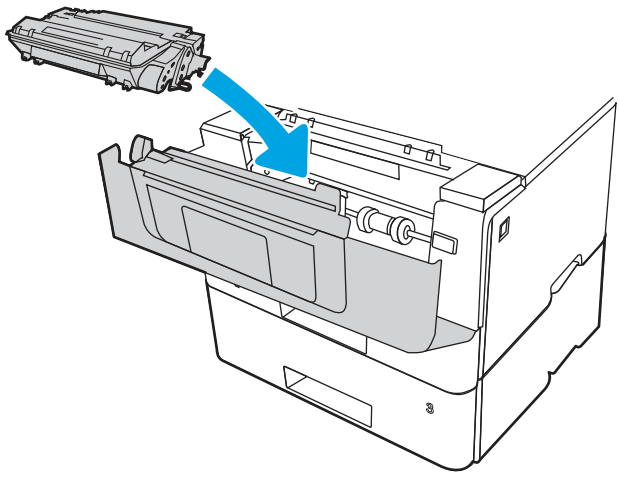
9. Lift the jam-access cover.



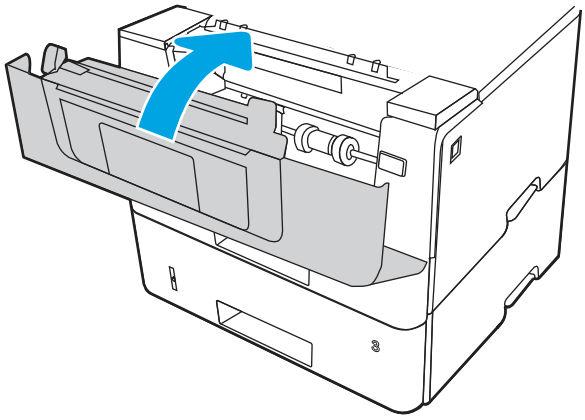
10. Remove any jammed paper.



11. Install the toner cartridge.



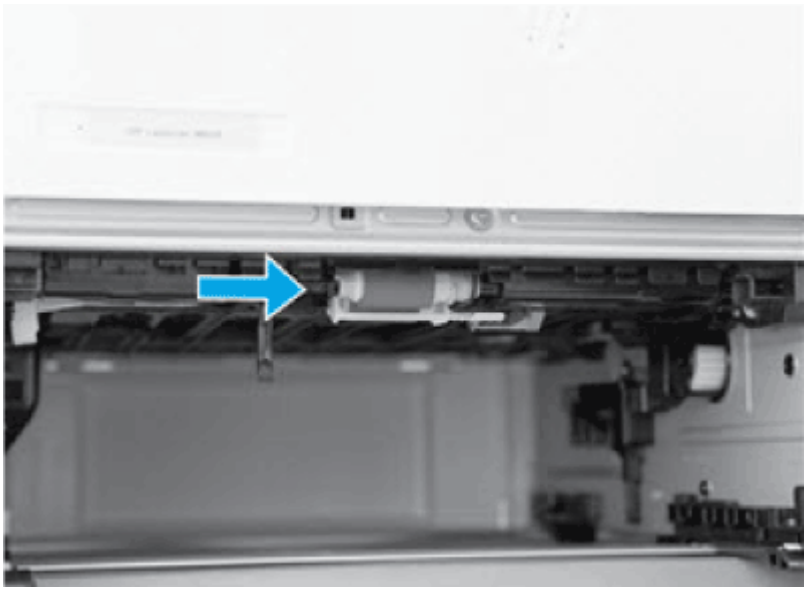
12. Close the front door.



13. Ensure the type and quality of the paper being used meets the HP specifications for the printer.
14. If the error persists, clean the tray 2 pickup and feed rollers.

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

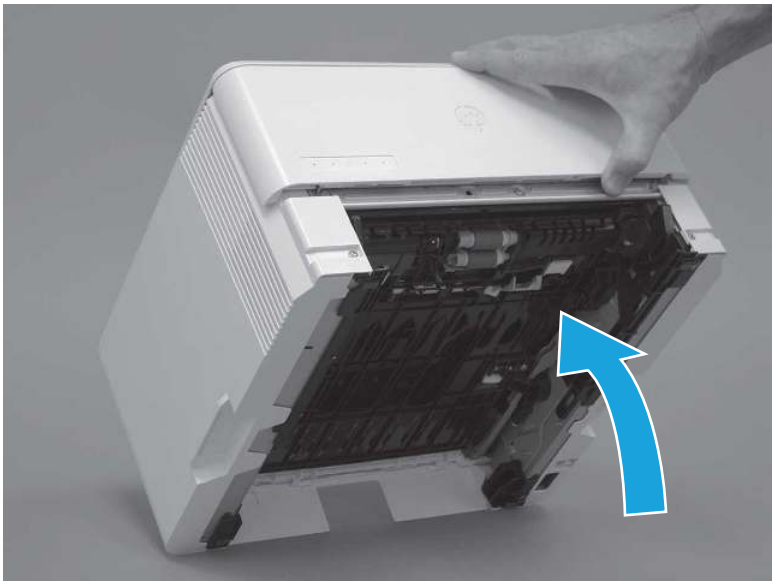
a. Remove tray 2 and locate the paper tray rollers.



b. Clean the rollers by gently wiping them with a damp, lint-free cloth.
c. If needed for better access to the rollers, carefully rotate the printer backward.

CAUTION: To avoid damage to the rear cassette cover, keep it in the closed position

Figure 3-64 **Tilt the printer backward**



d. Continue rotate the printer backward until it rests on the rear cover, bottom-side face forward.

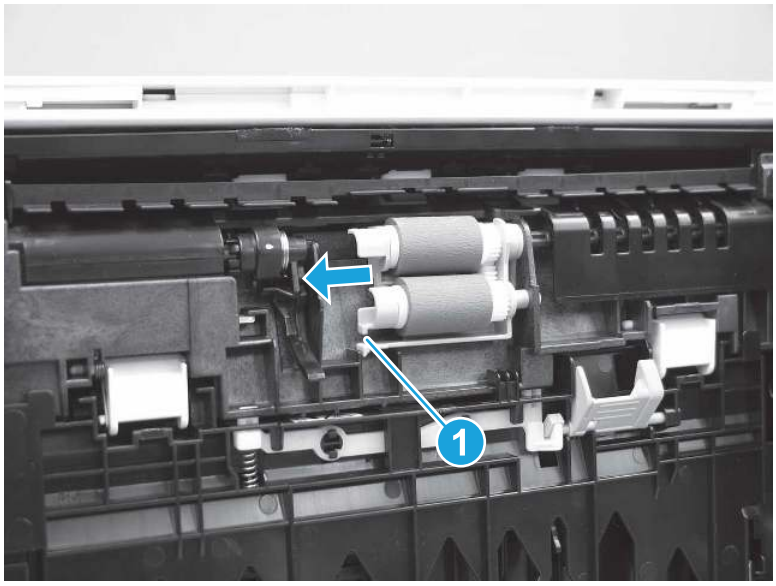
⚠ CAUTION: **MFP printers only**: The document feeder is not captive and can unexpectedly open when the printer is tilted backward.

Figure 3-65 **Place the printer bottom-side face forward**



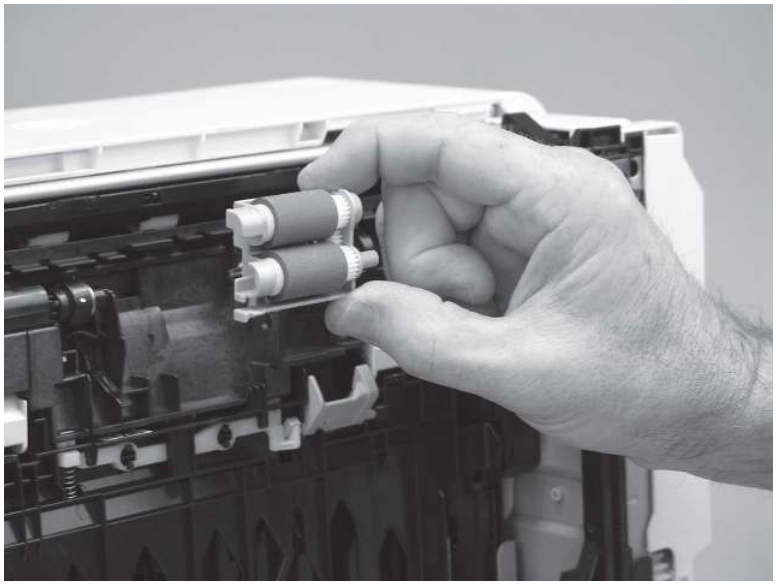
e. Release one tab (callout 1), and then slide the roller holder toward the left side of the printer to release it.

Figure 3-66 Release one tab



f. Remove the roller assembly.

Figure 3-67 Remove the roller assembly

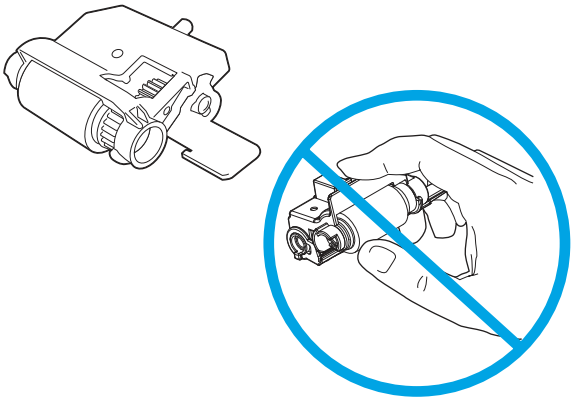


g. Use a damp, lint-free cloth to gently clean the rollers.

NOTE: The roller in the tray (cassette) can be cleaned without removing it from the tray.

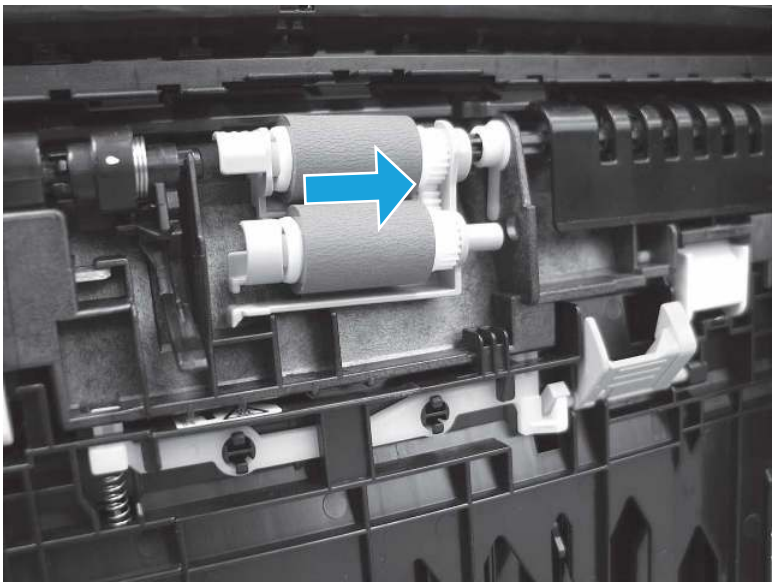
CAUTION: Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

Figure 3-68 **Clean the rollers**



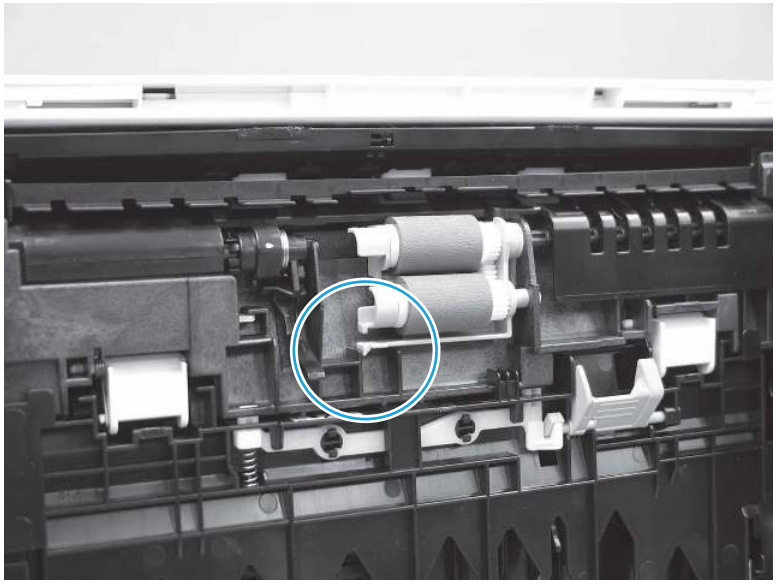
h. After cleaning the roller, position the roller holder assembly in the printer as shown, and then slide it toward the right side of the printer.

Figure 3-69 **Install the roller holder**



i. Make sure that the tab snaps into place.

Figure 3-70 Check the tab



j. Carefully rotate the printer forward to position it back on its base. Reinstall the tray 2 paper tray.

15. Perform a test print from tray 2 to see if the issue is resolved.

16. If the error persists, contact your HP-authorized service or support provider, or contact customer support at www.hp.com/go/contactHP.

13.A3.D3 Clear paper jams in Tray 3

Use the following procedure to check for paper in all possible jam locations related to Tray 3.

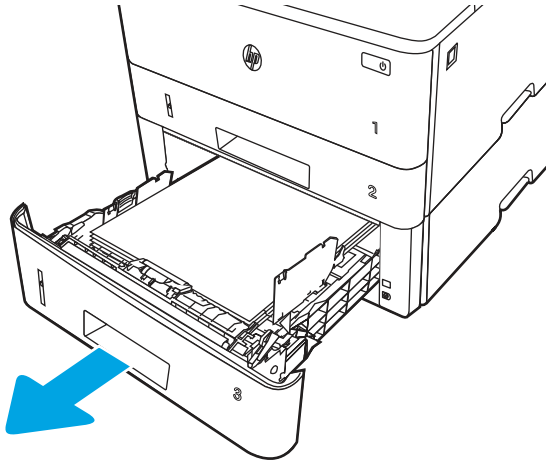
Recommended action for customers

When a jam occurs, the control panel displays an animation that assists in clearing the jam.

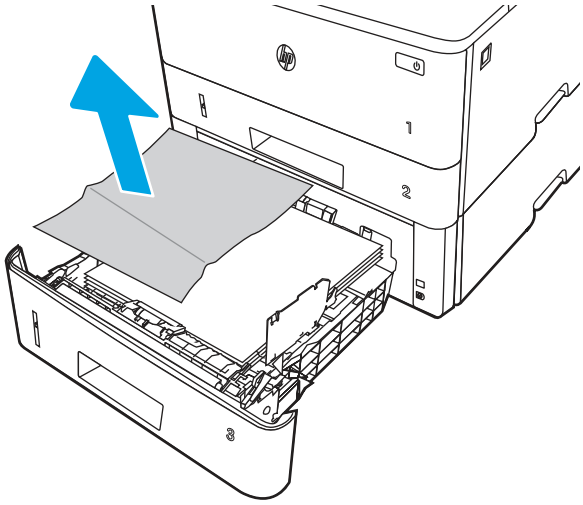
- 13.B2.D3 Paper jam in top cover

View a video of how to clear a jam in tray 3

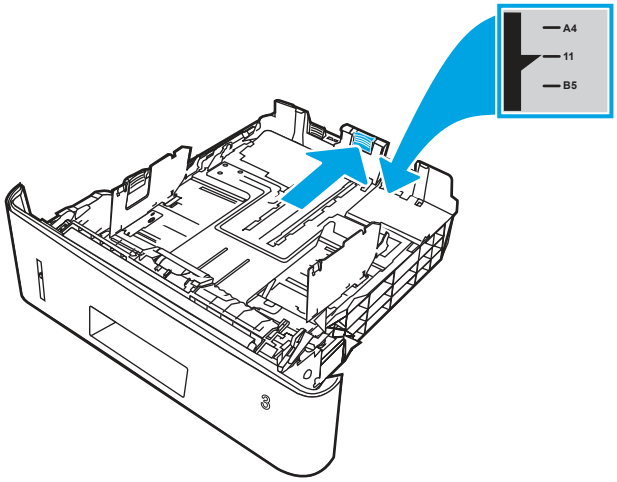
1. Remove the tray from the printer.



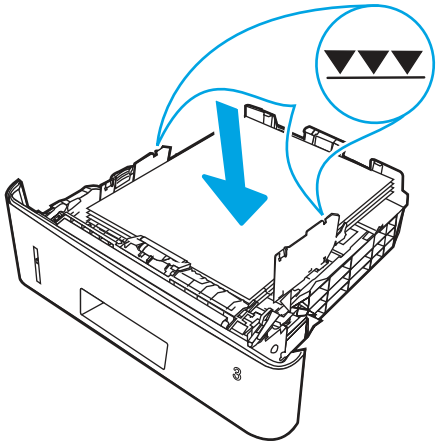
2. Remove the paper from the tray, and discard any damaged paper.



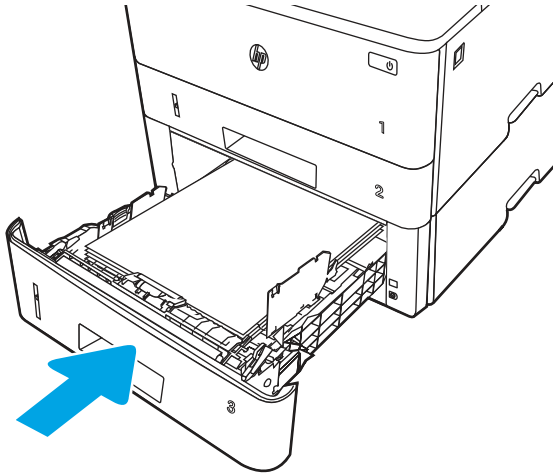
3. Verify that the rear paper guide is adjusted to the indentation for the correct paper size. If necessary, pinch the release and move the rear paper guide to the correct position. It should click into place.



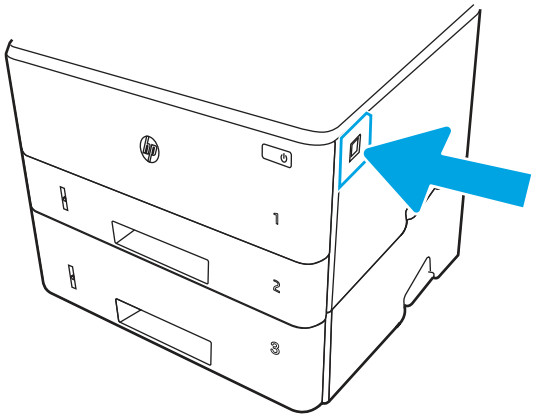
4. Load the paper into the tray. Make sure that the stack is flat at all four corners and that the top of the stack is below the maximum-height indicators.



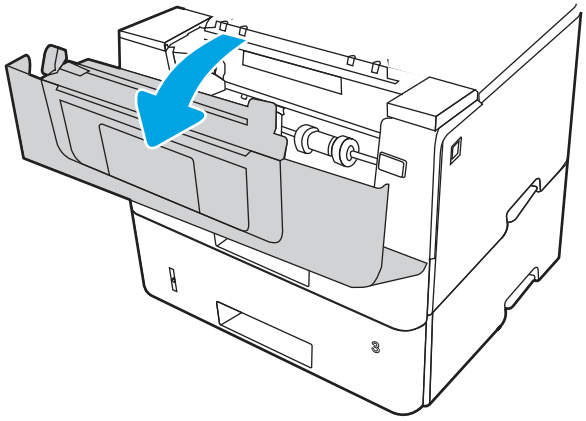
5. Reinsert and close the tray.



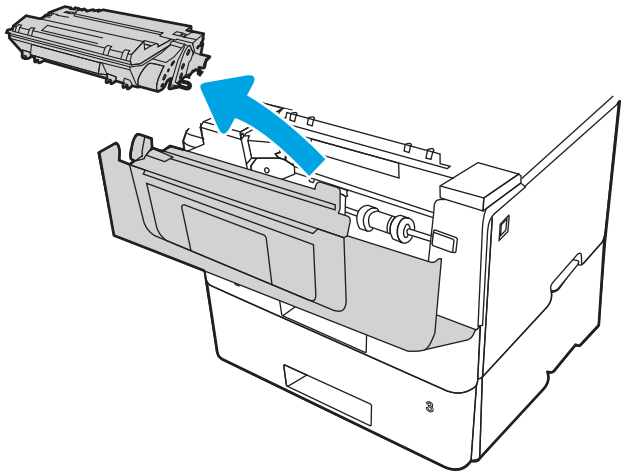
6. Press the front door release button.



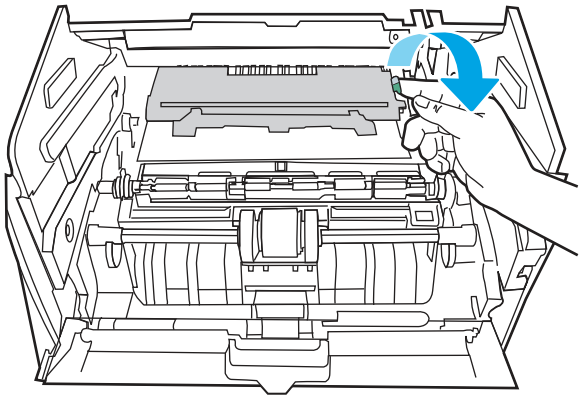
7. Open the front door.



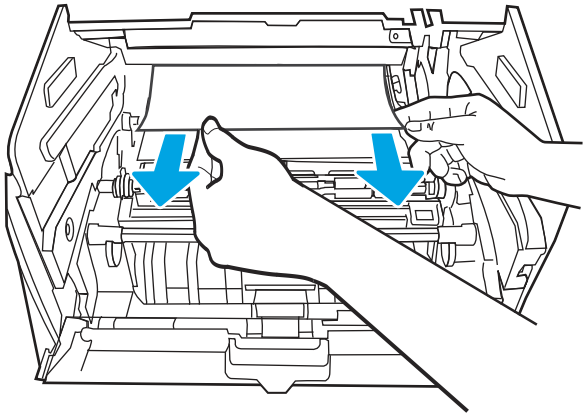
8. Remove the toner cartridge.



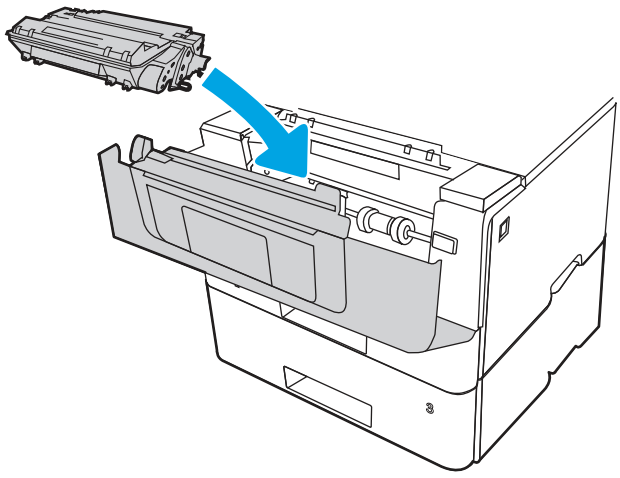
9. Lift the jam-access cover.



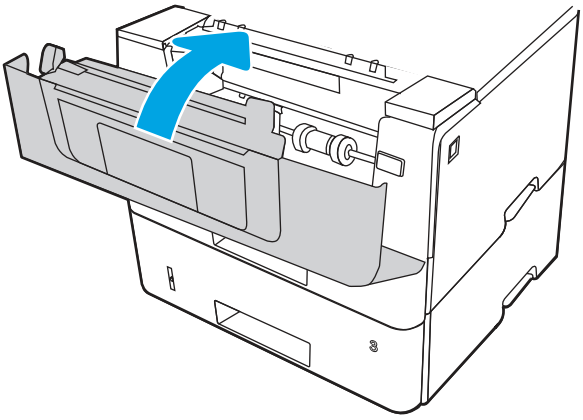
10. Remove any jammed paper.



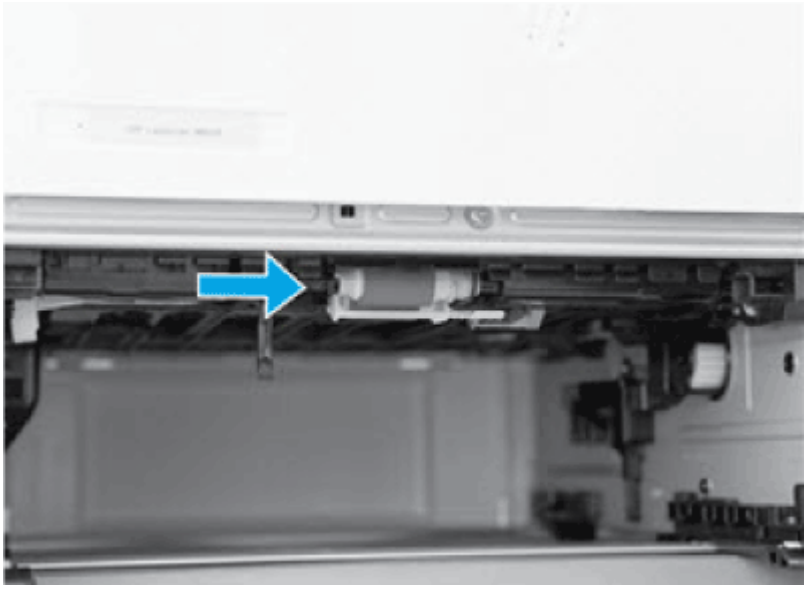
11. Install the toner cartridge.



12. Close the front door.



13. If the error persists, ensure the type and quality of the paper being used meets the HP specifications for the printer.
14. If the error persists, clean the tray 3 pickup and feed rollers.
    a. Remove tray 3 and locate the paper tray rollers.



    b. Clean the rollers by gently wiping them with a damp, lint-free cloth.
15. Perform a test print from tray 3 to see if the issue is resolved.
16. If the error persists, contact your HP-authorized service or support provider, or contact customer support at www.hp.com/go/contactHP.

13.B2.A jam error in top cover

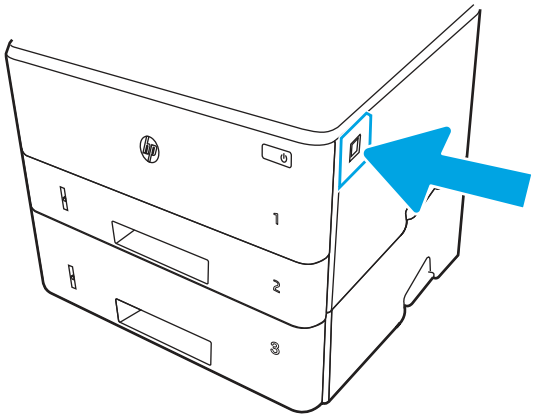
Use the following procedure to check for paper in all possible jam locations registration area.

Recommended action for customers

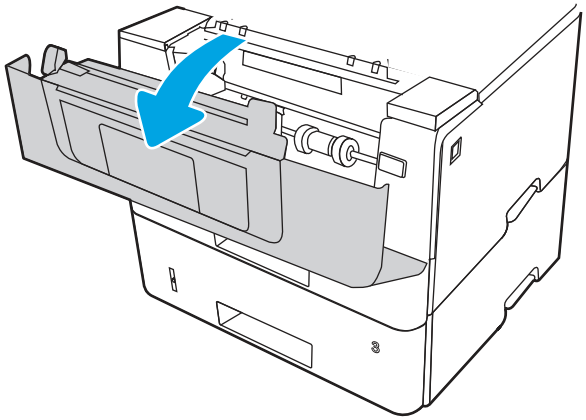
When a jam occurs, the control panel displays an animation that assists in clearing the jam.

- 13.B2.A1 Paper jam in top cover
- 13.B2.A2 Paper jam in top cover
- 13.B2.A3 Paper jam in top cover

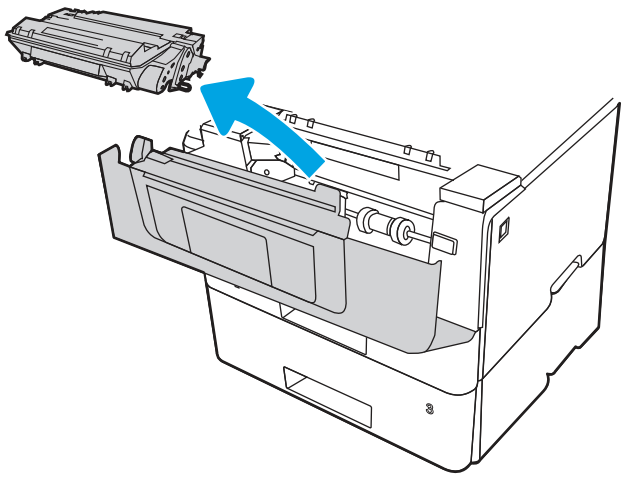
1. Press the front door release button.



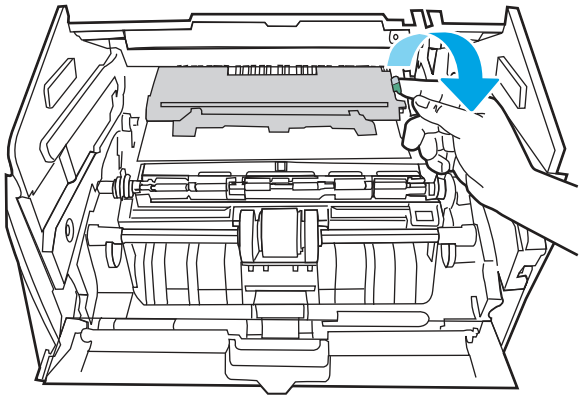
2. Open the front door.



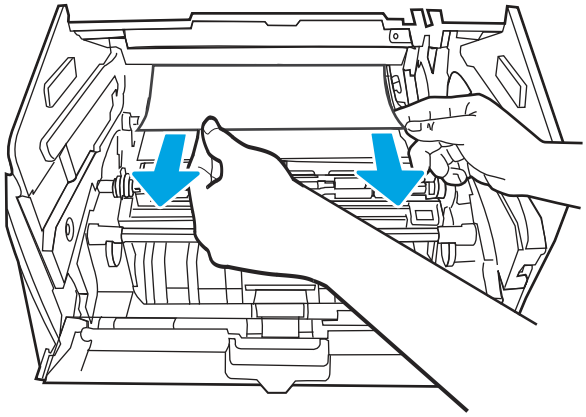
3. Remove the toner cartridge.



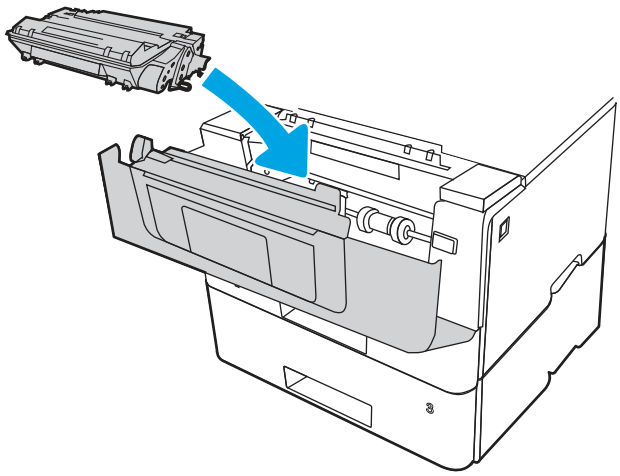
4. Lift the jam-access cover.



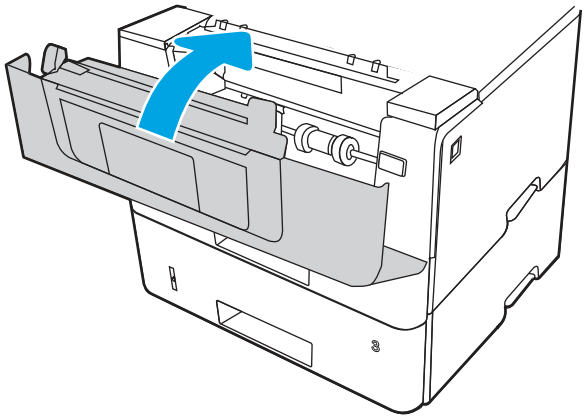
5. Remove any jammed paper.



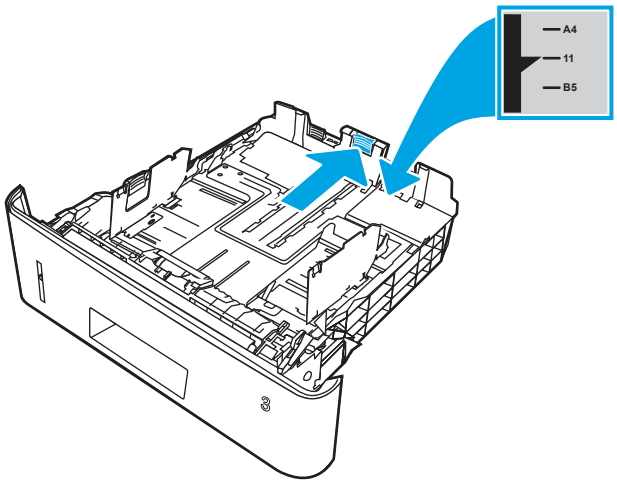
6. Install the toner cartridge.



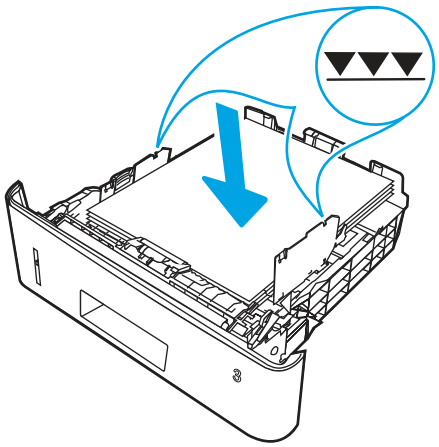
7. Close the front door.



8. If the error persists, verify that the rear paper guide is adjusted to the indentation for the correct paper size. If necessary, pinch the release and move the rear paper guide to the correct position. It should click into place.



9. Load the paper into the tray. Make sure that the stack is flat at all four corners and that the top of the stack is below the maximum-height indicators.



10. If the error persists, ensure the type and quality of the paper being used meets the HP specifications for the printer.

11. If the error persists, contact your HP-authorized service or support provider, or contact customer support at www.hp.com/go/contactHP.

13.B9, 13.B2, 13.FF Clear paper jams in the toner cartridge and fuser area

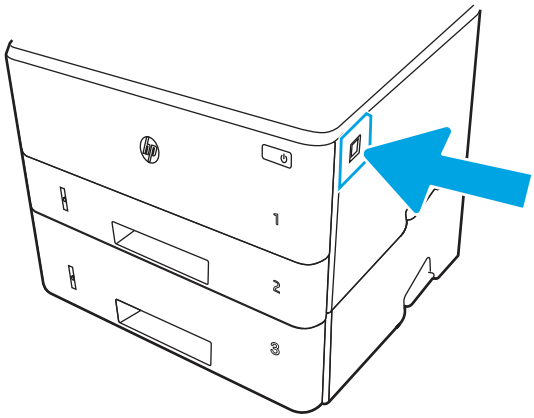
Use the following procedure to check for paper in all possible jam locations in the fuser area.

Recommended action for customers

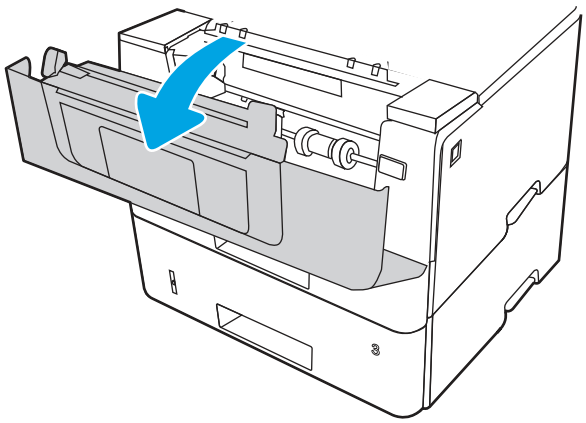
When a jam occurs, the control panel displays an animation that assists in clearing the jam.

View a video of how to clear a jam in the fuser area

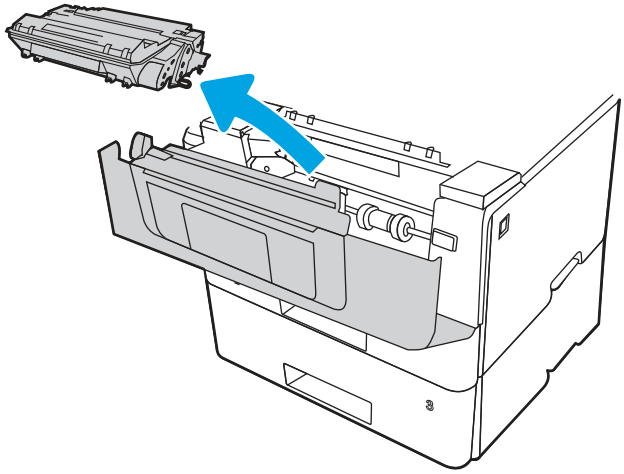
1. Press the front door release button.



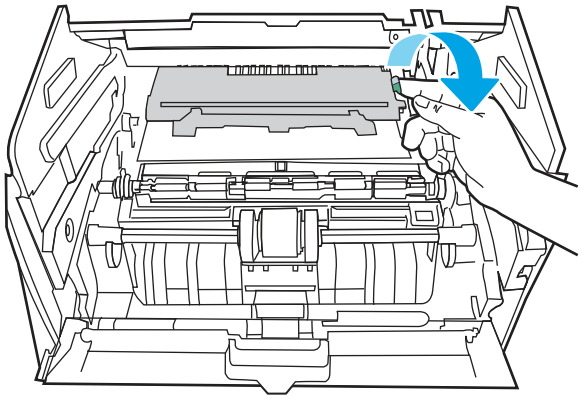
2. Open the front door.



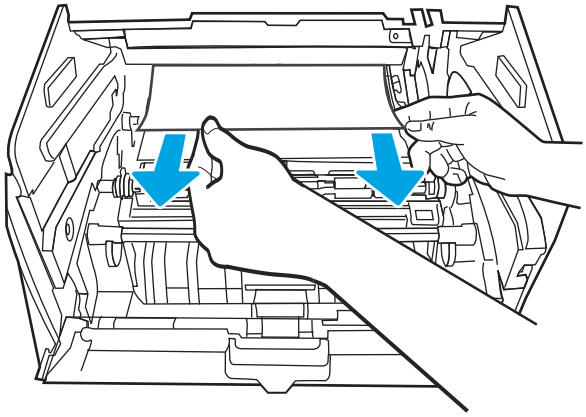
3. Remove the toner cartridge.



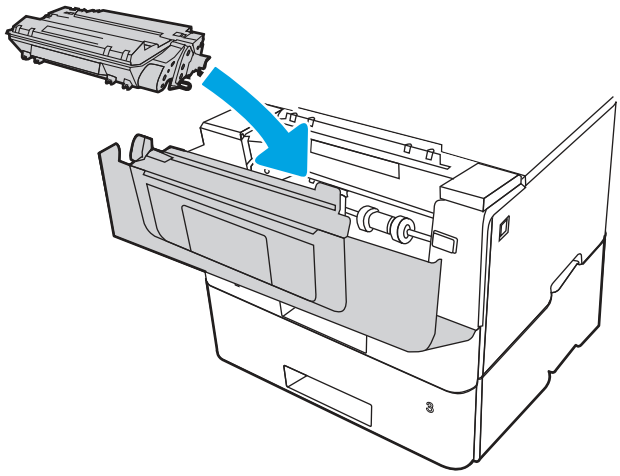
4. Lift the jam-access cover.



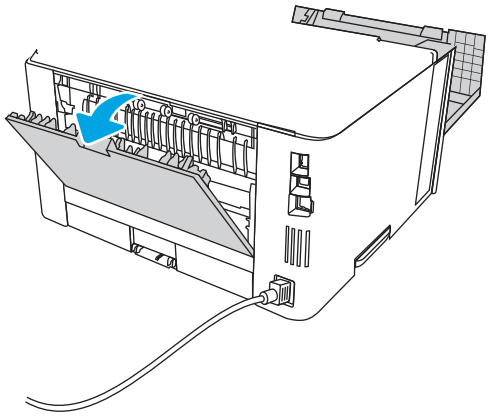
5. Remove any jammed paper.



6. Install the toner cartridge.

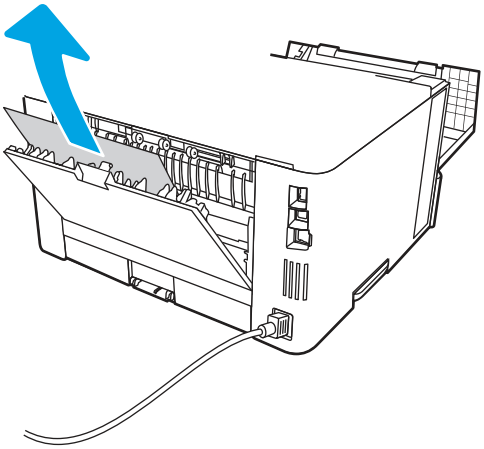


7. Open the front door and the rear door.

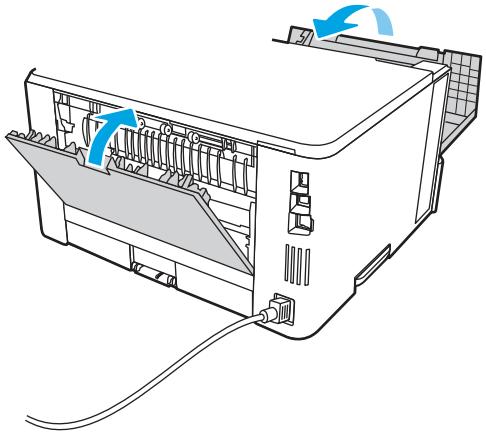


> **CAUTION:** The fuser can be hot while the printer is in use. Wait for the fuser to cool before handling it.

8. If jammed paper is visible, remove any jammed paper from the rear door area.



9. Close the rear door and the front door.



10. If the error persists, contact your HP-authorized service or support provider, or contact customer support at www.hp.com/go/contactHP.

13.D1.yz, 13.D3.yz Clear paper jams in the duplexer

Use the following procedure to check for paper in all possible jam locations in the automatic duplexer.

Recommended action for customers

When a jam occurs, the control panel displays an animation that assists in clearing the jam.

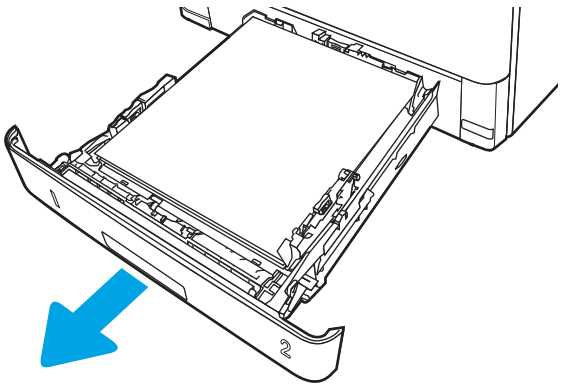
- 13.D1.yz - Jam in duplex unit
- 13.D3.yz - Jam in duplex unit

y = A, C, or D

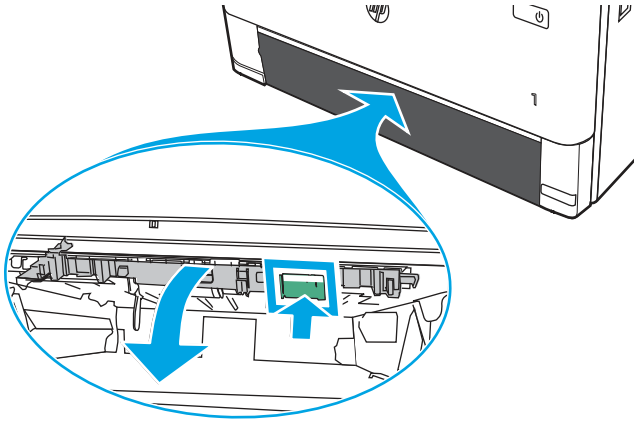
z = 0-9 or A-F

View a video of how to clear a jam in the duplexer

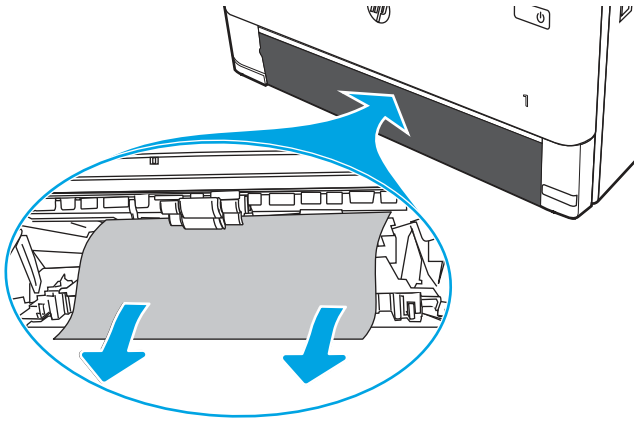
1. Completely remove Tray 2 from the printer.



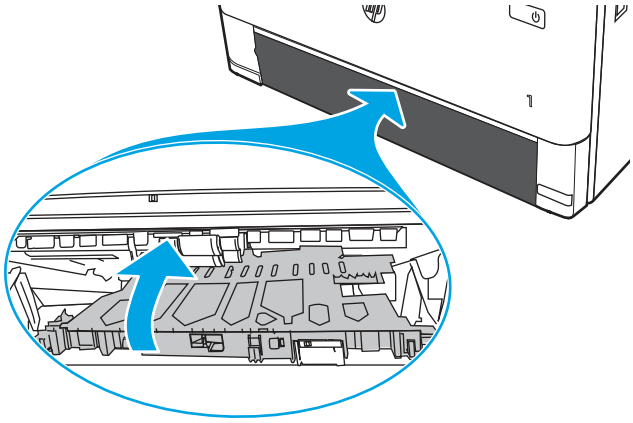
2. Push the green button to release the duplex pan.



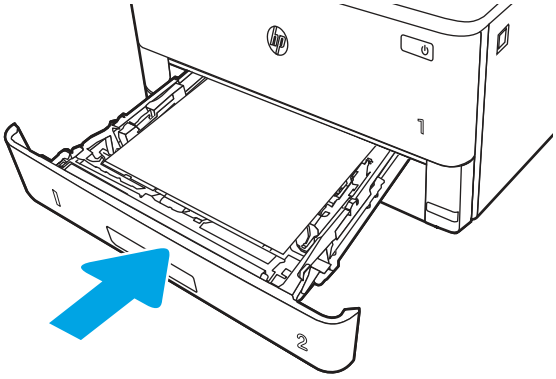
3. Remove any jammed paper.



4. Close the duplex pan.

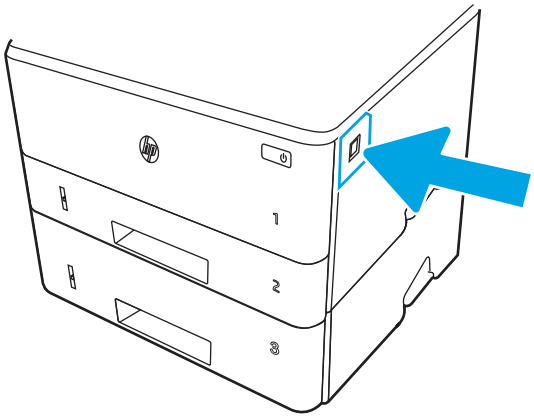


5. Reinsert Tray 2.

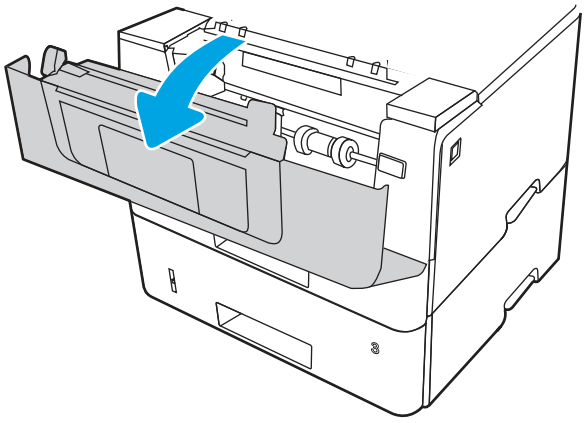


6. Open the front door to clear the jam message.

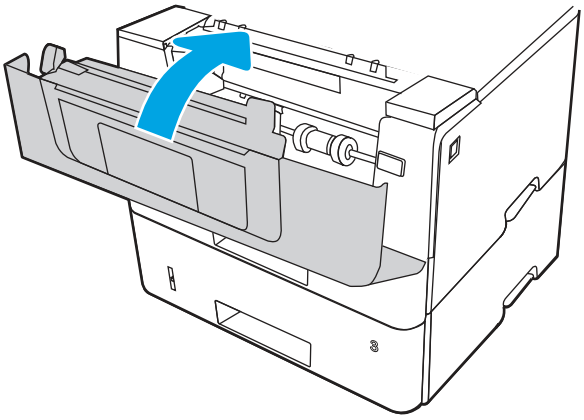
   a. Press the front door release button.



   b. Open the front door.



c. Close the front door.



7. If the error persists, ensure the type and quality of the paper being used meets the HP specifications for the printer.

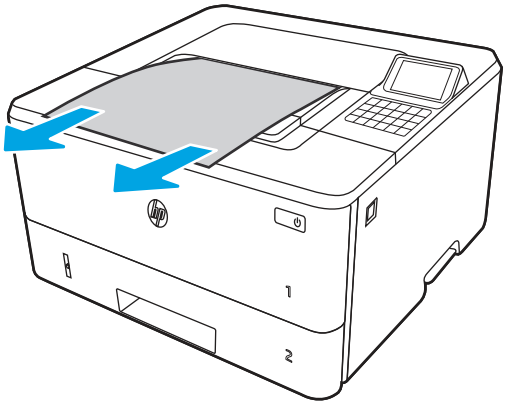
8. If the error persists, contact your HP-authorized service or support provider, or contact customer support at www.hp.com/go/contactHP.

13.E1 Clear paper jams in the output bin

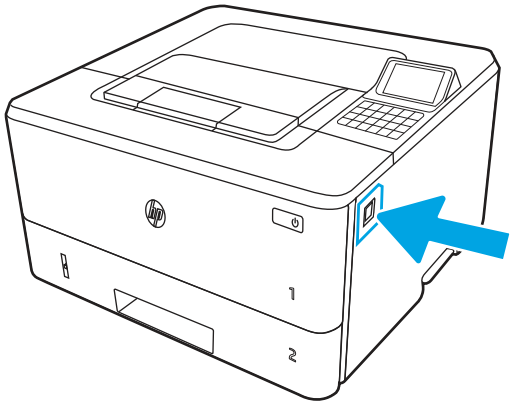
Use the following procedure to check for paper in all possible jam locations related to the output bin.

View a video of how to clear a jam in the output bin

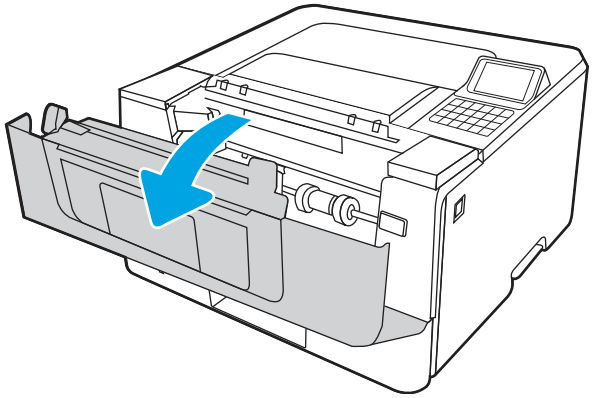
1. If paper is visible in the output bin, grasp the leading edge and remove it.



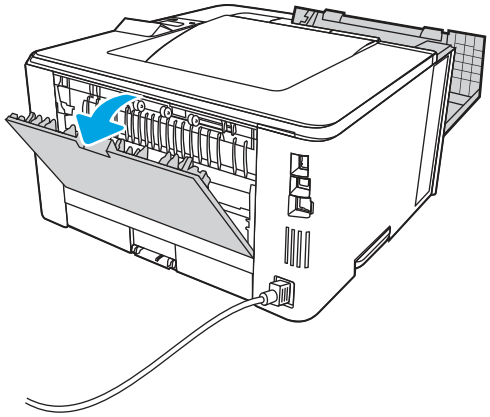
2. Press the front door release button.



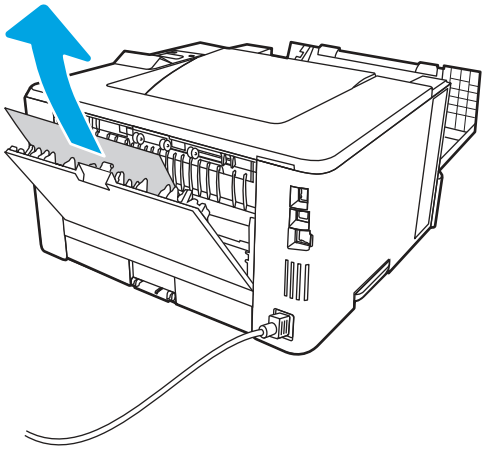
3. Open the front door.



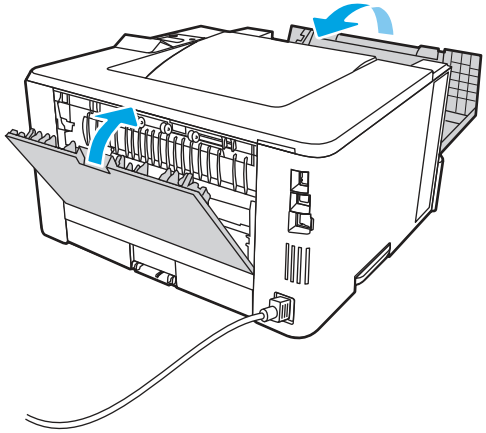
4. Open the rear door.



5. Remove any jammed paper from the rear door area.



6. Close the rear door and the front door.



Change jam recovery (non-touchscreen)

Use the following procedure to change jam recovery from a non-touchscreen control panel (FutureSmart 4 firmware or later).

1. From the Home screen on the printer control panel, use the arrow buttons to navigate to Settings, and then press the OK button.
2. Use the buttons to scroll to General, and then press the OK button.
3. Use the arrow buttons to scroll to Jam Recovery, and then press the OK button.
4. Use the arrow buttons to scroll to an option, and then press the OK button to select it.
   - Auto – The printer attempts to reprint jammed pages when sufficient memory is available. This is the default setting.
   - Off – The printer does not attempt to reprint jammed pages. Because no memory is used to store the most recent pages, performance is optimal.

   NOTE: Some pages can be lost if the printer runs out of paper while printing a duplex job with Jam Recovery set to Off.

- On – The printer always reprints jammed pages. Additional memory is allocated to store the last few pages printed.

Clear paper jams (MFP)

Use the procedures in this section to clear jammed paper from the printer paper path.

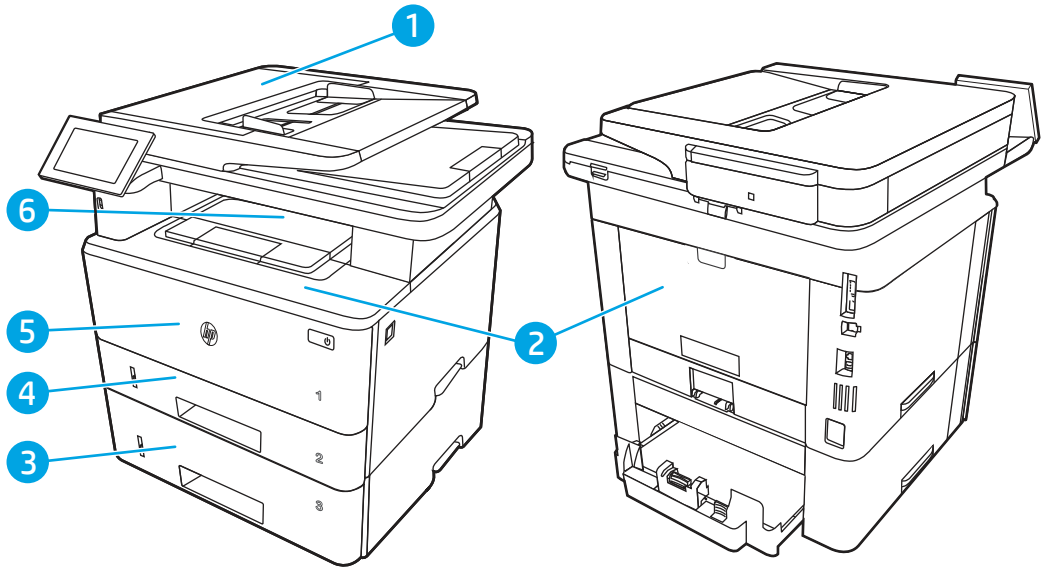
NOTE: To avoid tearing the paper, pull the jammed paper out slowly and gently.

Figures in this section are representational only. The actual printer being serviced might look slightly different depending on the model and installed accessories.

Paper jam locations

Jams can occur in these locations.

Figure 3-71 **Paper jam locations**



Number	Description
1	Document feeder
2	Fuser area
3	Tray 3 (optional)
4	Tray 2 Duplexing area (remove Tray 2 for access)
5	Tray 1
6	Toner cartridge area (open the front door for access)
7	Output bin

Auto-navigation for clearing paper jams

Learn about printer jam clearing auto-navigation.

The auto-navigation feature assists in clearing jams by providing step-by-step instructions on the control panel.

When you complete a step, the printer displays instructions for the next step until you have completed all steps in the procedure.

Experiencing frequent or recurring paper jams?

To reduce the number of paper jams, try these solutions.

View a video that demonstrates how to load paper in a way that reduces the number of paper jams

1. Use only paper that meets HP specifications for this printer.
2. Use paper that is not wrinkled, folded, or damaged. If necessary, use paper from a different package.
3. Use paper that has not previously been printed or copied on.
4. Make sure the tray is not overfilled. If it is, remove the entire stack of paper from the tray, straighten the stack, and then return some of the paper to the tray.
5. Make sure the paper guides in the tray are adjusted correctly for the size of paper. Adjust the guides so they are touching the paper stack without bending it.
6. Make sure that the tray is fully inserted in the printer.
7. If you are printing on heavy, embossed, or perforated paper, use the manual feed feature and feed sheets one at a time.
8. Open the Trays menu on the printer control panel. Verify that the tray is configured correctly for the paper type and size.
9. Make sure the printing environment is within recommended specifications.

13.B2.D1 Clear paper jam error in Tray 1

Use the following procedure to clear paper jams in Tray 1.

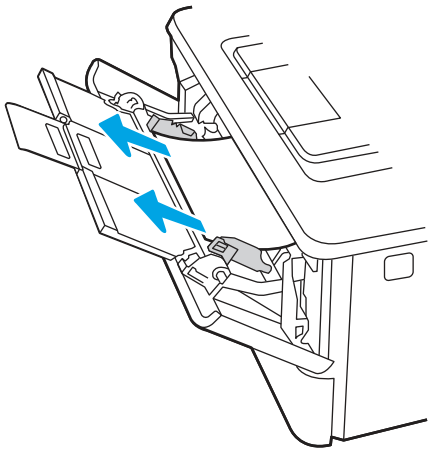
Recommended action for customers

When a jam occurs, the control panel displays a message and an animation that assists in clearing the jam.

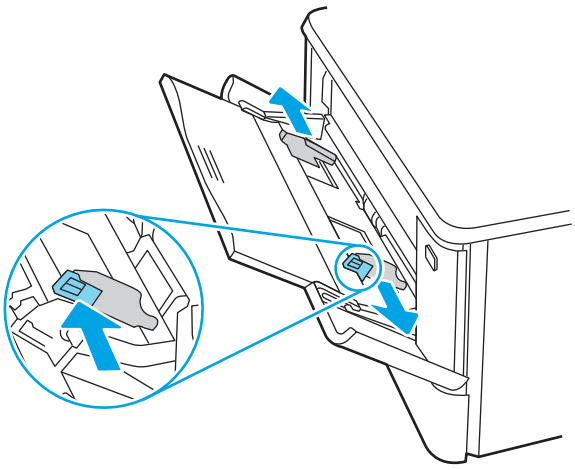
- **13.B2.D1 Jam in tray 1**

View a video of how to clear a jam in tray 1

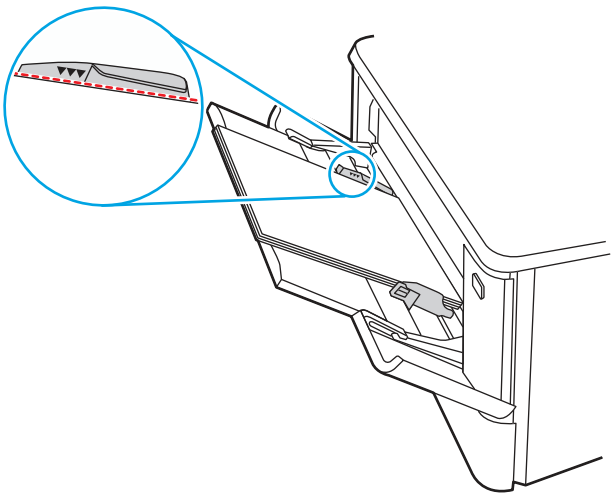
1. Slowly pull the jammed paper out of the printer.



2. Adjust the paper guides to the correct paper size, then .reload paper into the tray.



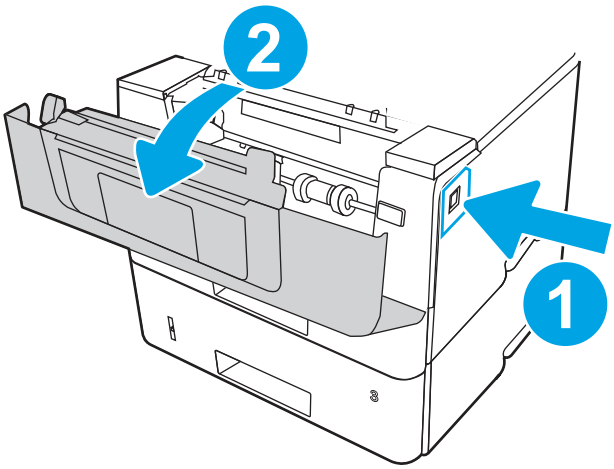
3. Ensure the tray is not overfilled. Paper should be below the 3 triangles in the following image.



4. Ensure the type and quality of the paper being used meets the HP specifications for the printer.

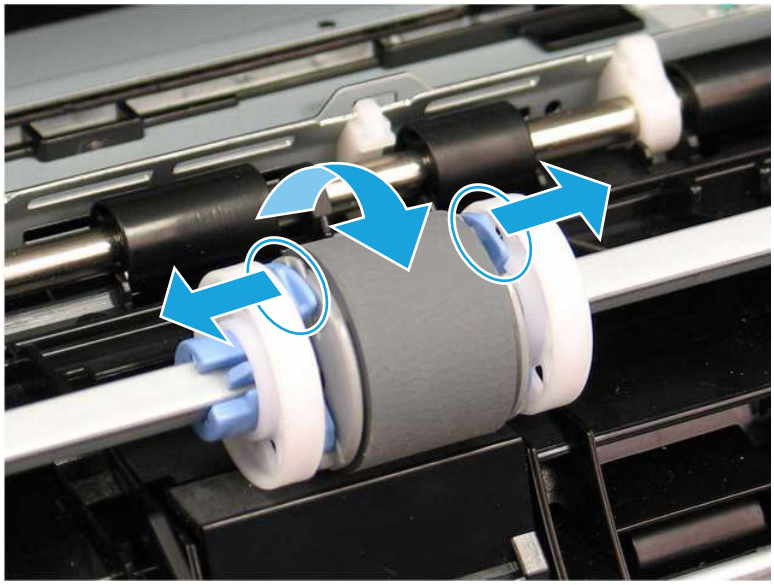
5. If the error persists, clean the tray 1 pickup roller and separation pad.

   a. Press the door-release button, and then open the toner-cartridge door



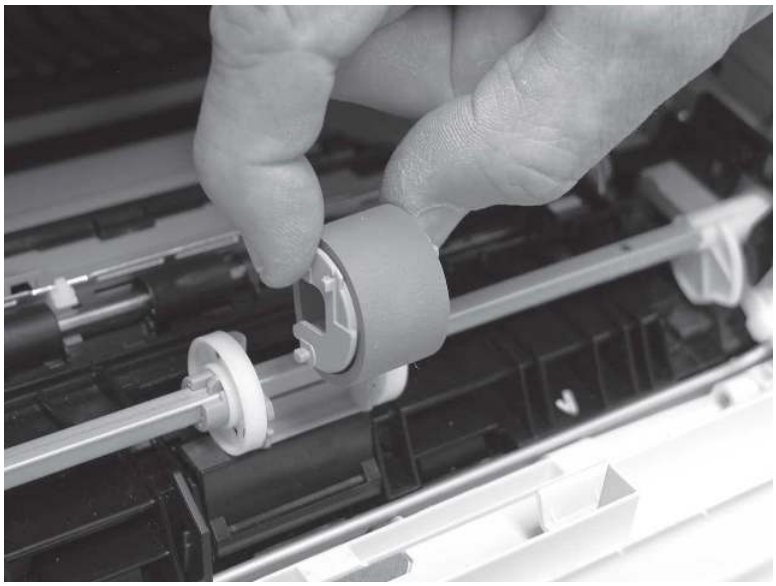
   b. To clean the roller thoroughly, release two tabs between the roller collar and roller, and then rotate the top of the roller out and away from the printer.

Figure 3-72 **Release the roller**



c. Remove the roller.

Figure 3-73 Remove the roller

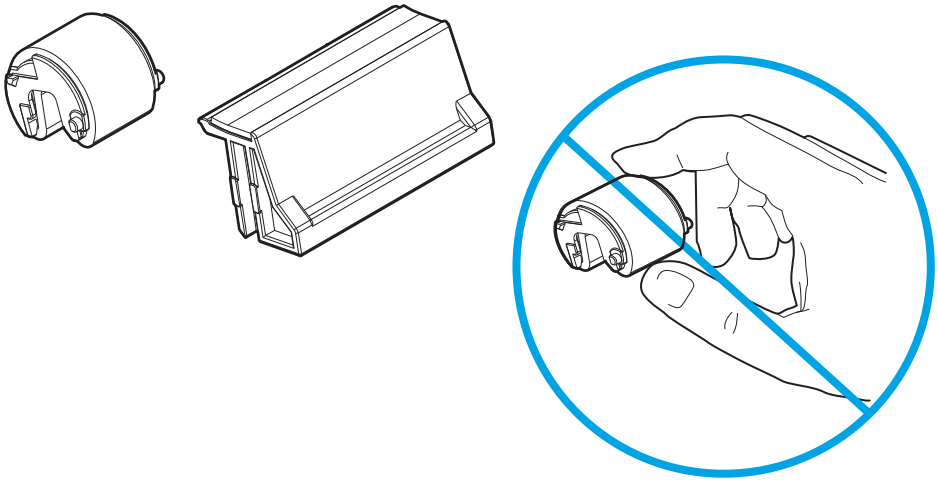


d. With the Tray 1 roller removed the separation pad is accessible in the printer (it does not need to be removed to be cleaned.

e. Use a damp, lint-free cloth to gently clean the rollers.

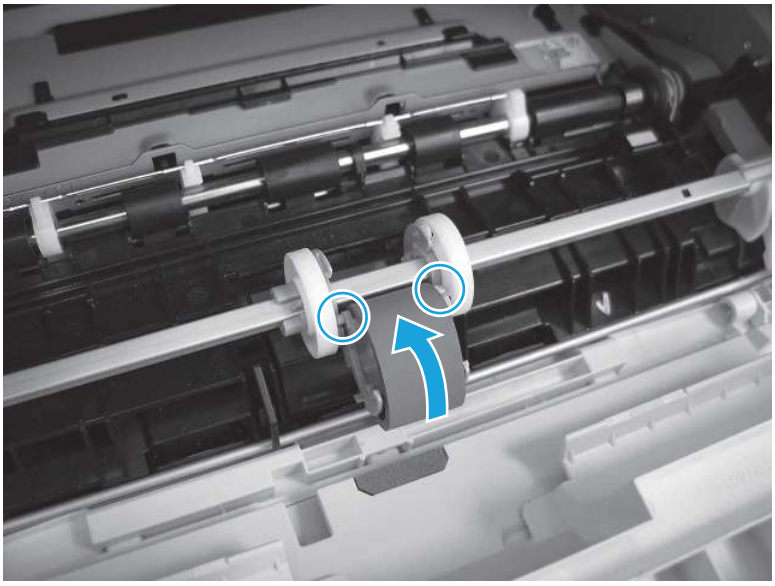
⚠ CAUTION: When handling the roller and/or pad, avoid touching the spongy surfaces. Skin oils and fingerprints on a roller surface can cause print-quality problems.

Figure 3-74 Clean the roller and pad



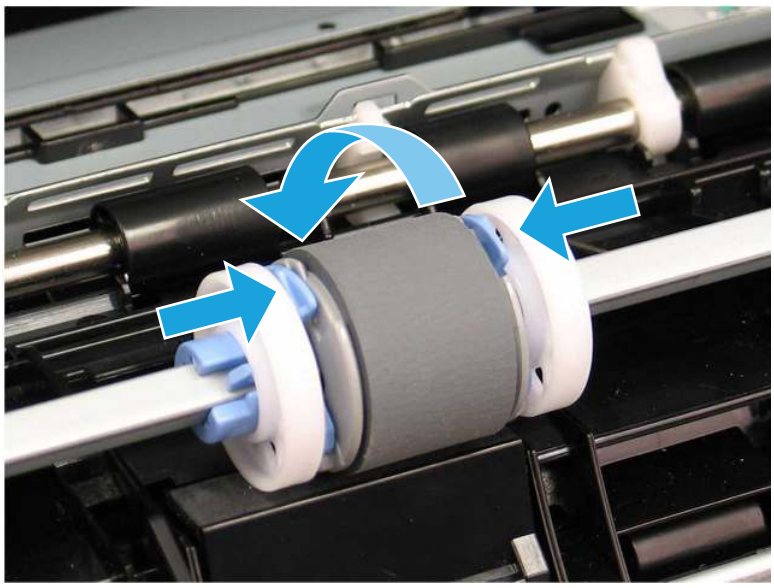
f. Position the pickup roller with the pins in the provided slots on the holder, and then rotate the top of the roller up and toward the printer.

Figure 3-75 Install the roller



g. Continue to rotate the top of the roller toward the printer (callout 1), until two tabs (callout 2) snap into place.

Figure 3-76 Engage two tabs



h. Close the toner-cartridge door.

6. Perform a test page from tray 1 to see if issue is resolved.

7. If the error persists, contact your HP-authorized service or support provider, or contact customer support at www.hp.com/go/contactHP.

13.B2.D2 Clear paper jams in Tray 2

Use the following procedure to check for paper in all possible jam locations related to Tray 2.

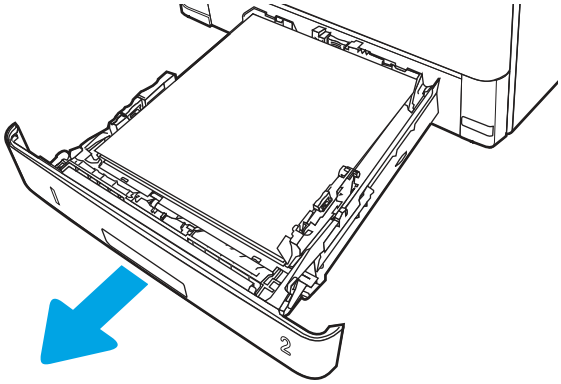
Recommended action for customers

When a jam occurs, the control panel displays an animation that assists in clearing the jam.

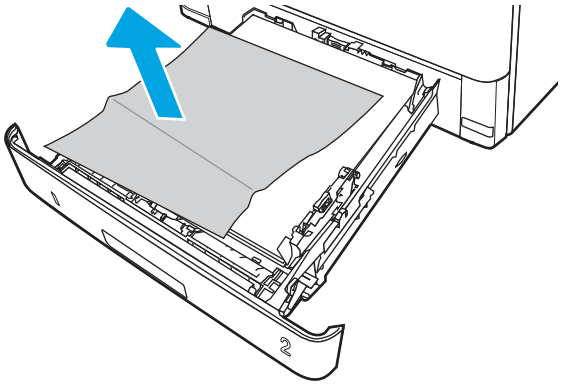
- 13.B2.D2 Paper jam in tray 2

View a video of how to clear a jam in tray 2

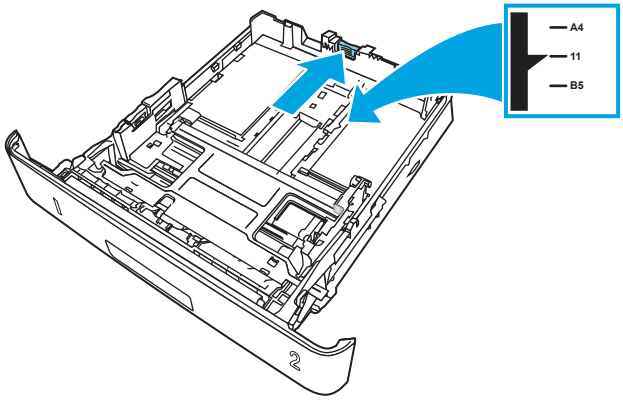
1. Remove the tray from the printer.



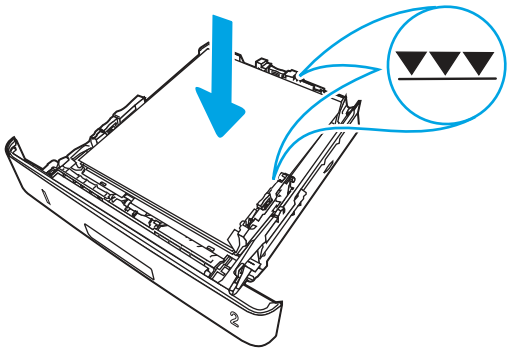
2. Remove the paper from the tray, and discard any damaged paper.



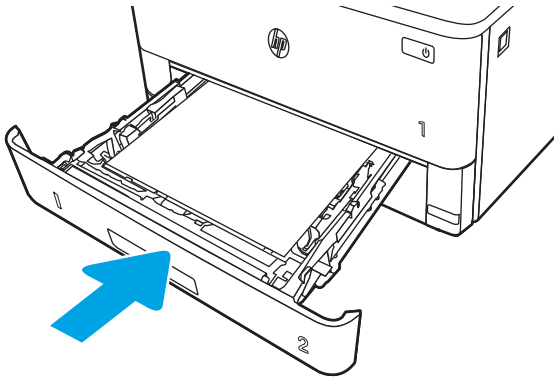
3. Verify that the rear paper guide is adjusted to the indentation for the correct paper size. If necessary, pinch the release and move the rear paper guide to the correct position. It should click into place.



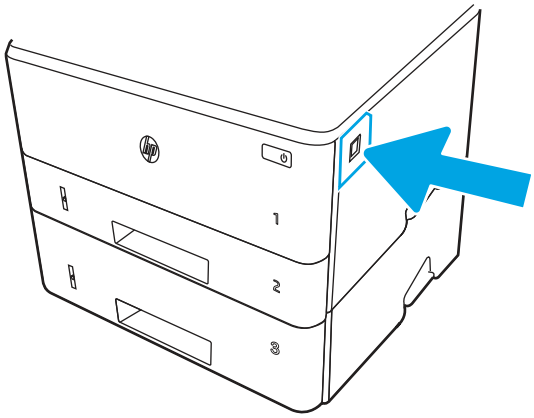
4. Load the paper into the tray. Make sure that the stack is flat at all four corners and that the top of the stack is below the maximum-height indicators.



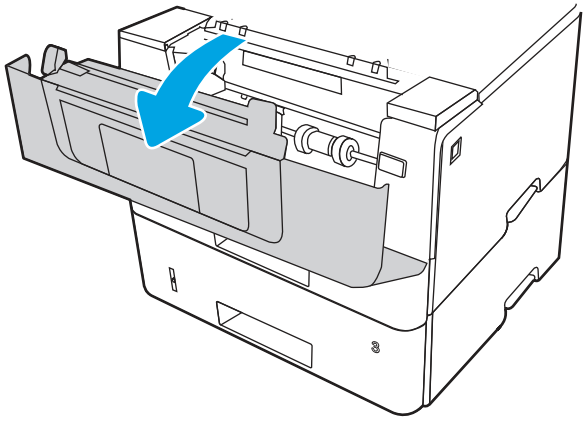
5. Reinsert and close the tray.



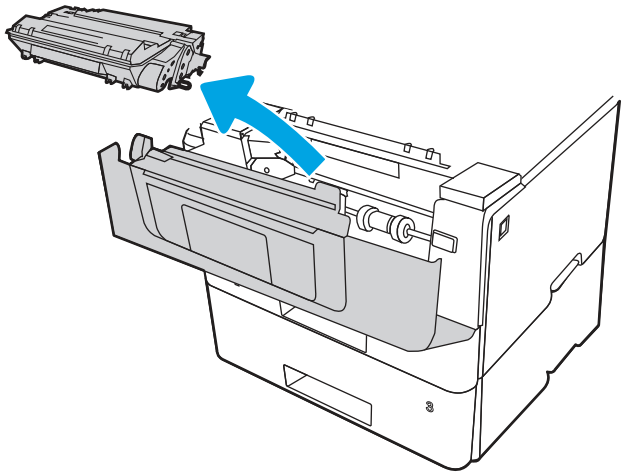
6. Press the front door release button.



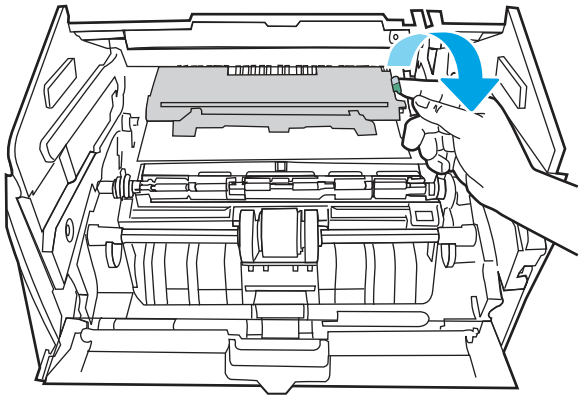
7. Open the front door.



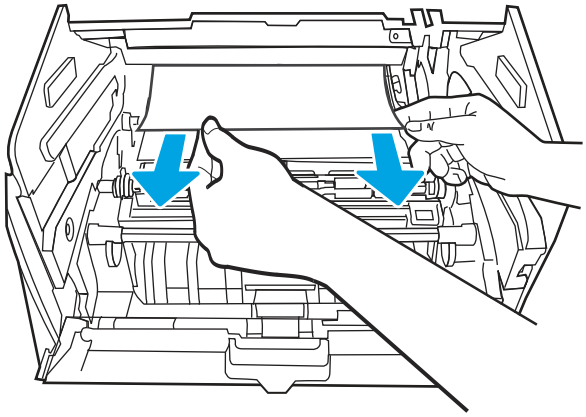
8. Remove the toner cartridge.



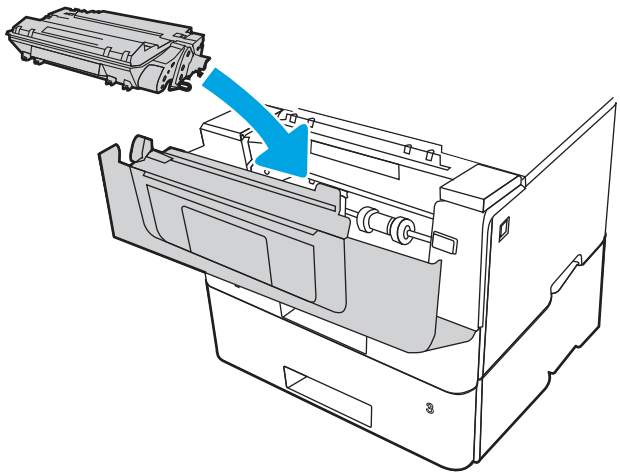
9. Lift the jam-access cover.



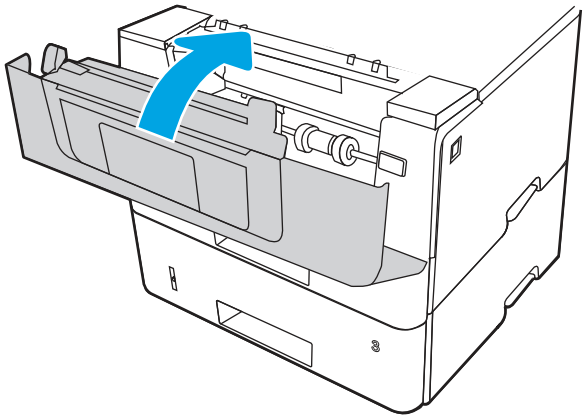
10. Remove any jammed paper.



11. Install the toner cartridge.



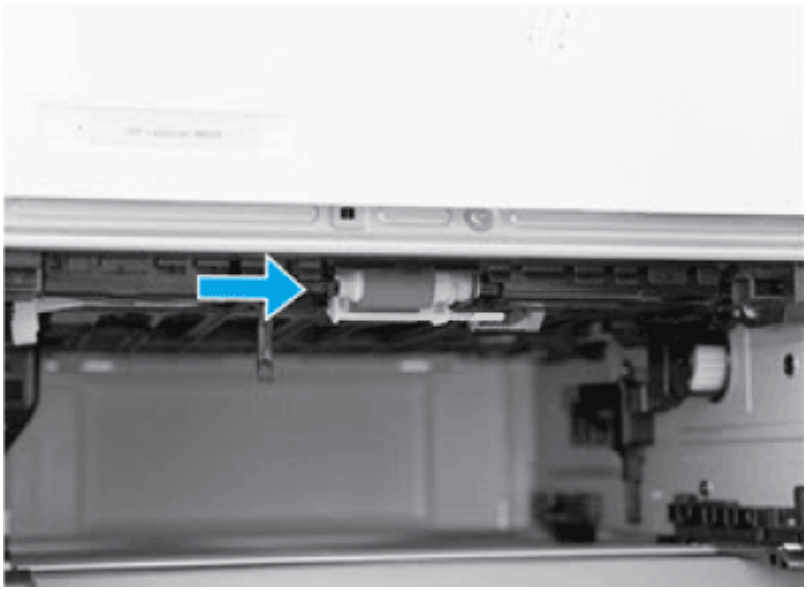
12. Close the front door.



13. Ensure the type and quality of the paper being used meets the HP specifications for the printer.
14. If the error persists, clean the tray 2 pickup and feed rollers.

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

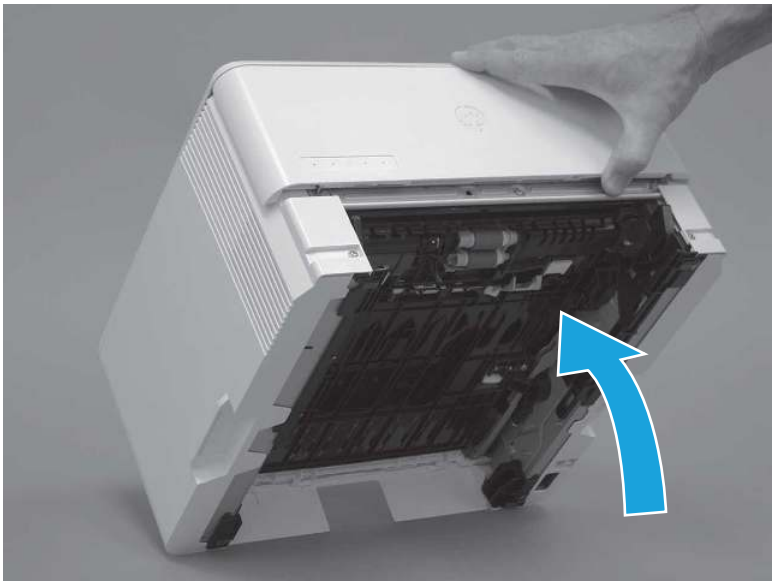
a. Remove tray 2 and locate the paper tray rollers.



b. Clean the rollers by gently wiping them with a damp, lint-free cloth.
c. If needed for better access to the rollers, carefully rotate the printer backward.

CAUTION: To avoid damage to the rear cassette cover, keep it in the closed position

Figure 3-77 Tilt the printer backward



d. Continue rotate the printer backward until it rests on the rear cover, bottom-side face forward.

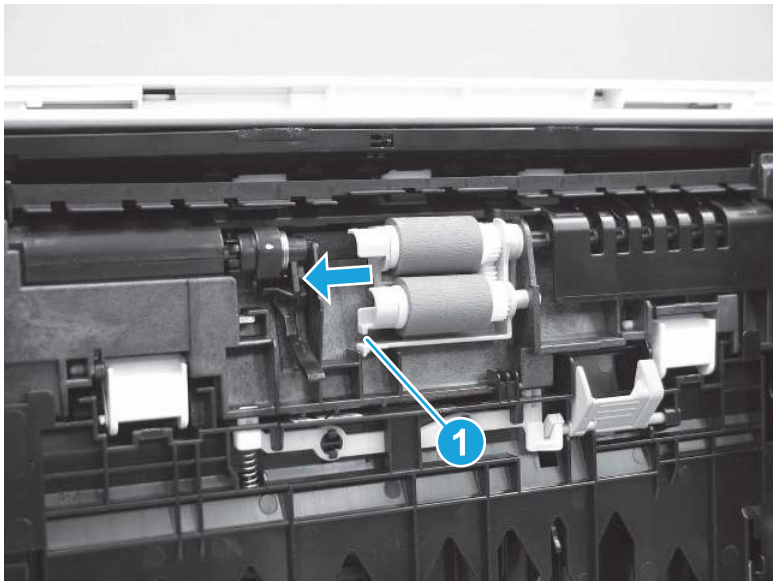
⚠ CAUTION: **MFP printers only**: The document feeder is not captive and can unexpectedly open when the printer is tilted backward.

Figure 3-78 Place the printer bottom-side face forward



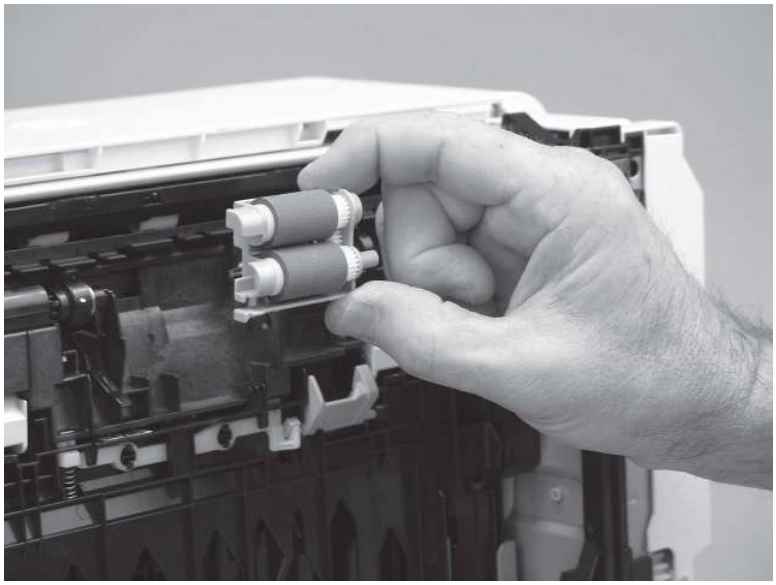
e. Release one tab (callout 1), and then slide the roller holder toward the left side of the printer to release it.

Figure 3-79 Release one tab



f. Remove the roller assembly.

Figure 3-80 Remove the roller assembly

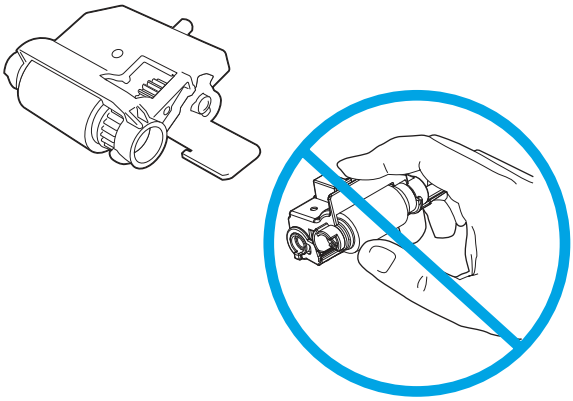


g. Use a damp, lint-free cloth to gently clean the rollers.

NOTE: The roller in the tray (cassette) can be cleaned without removing it from the tray.

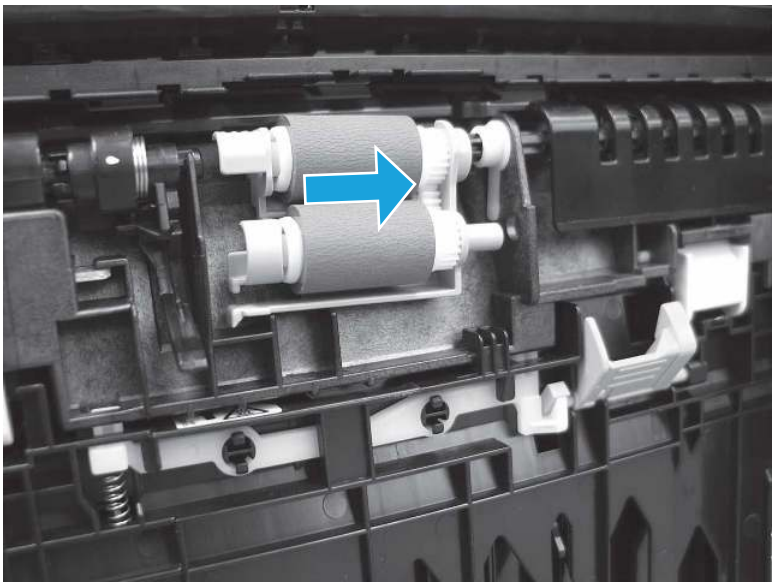
CAUTION: Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

Figure 3-81 Clean the rollers



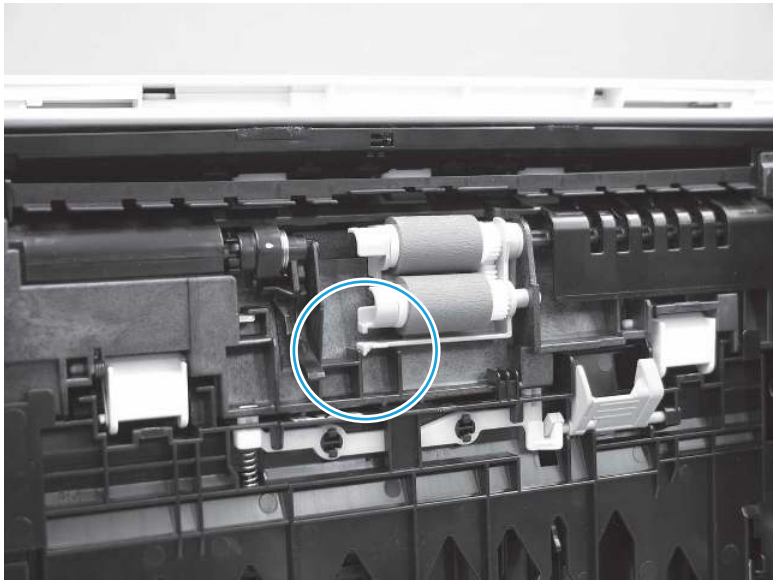
h. After cleaning the roller, position the roller holder assembly in the printer as shown, and then slide it toward the right side of the printer.

Figure 3-82 Install the roller holder



i. Make sure that the tab snaps into place.

Figure 3-83 **Check the tab**



j. Carefully rotate the printer forward to position it back on its base. Reinstall the tray 2 paper tray.

15. Perform a test print from tray 2 to see if the issue is resolved.

16. If the error persists, contact your HP-authorized service or support provider, or contact customer support at www.hp.com/go/contactHP.

13.A3.D3 Clear paper jams in Tray 3

Use the following procedure to check for paper in all possible jam locations related to Tray 3.

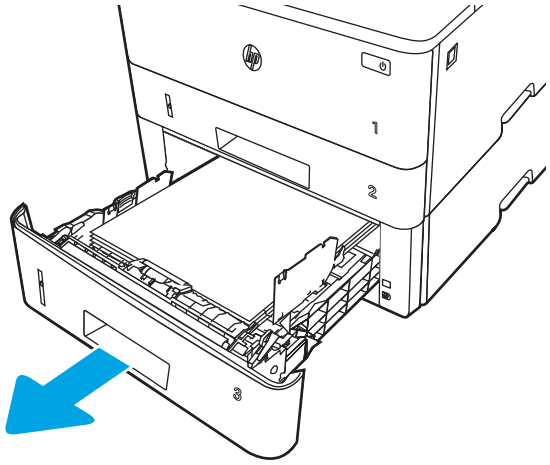
Recommended action for customers

When a jam occurs, the control panel displays an animation that assists in clearing the jam.

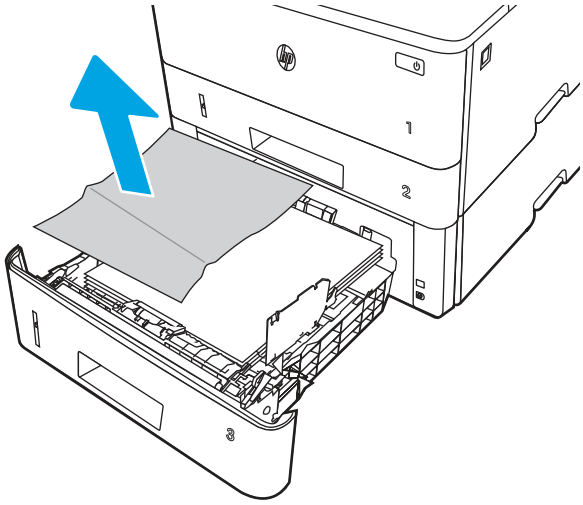
- 13.B2.D3 Paper jam in top cover

View a video of how to clear a jam in tray 3

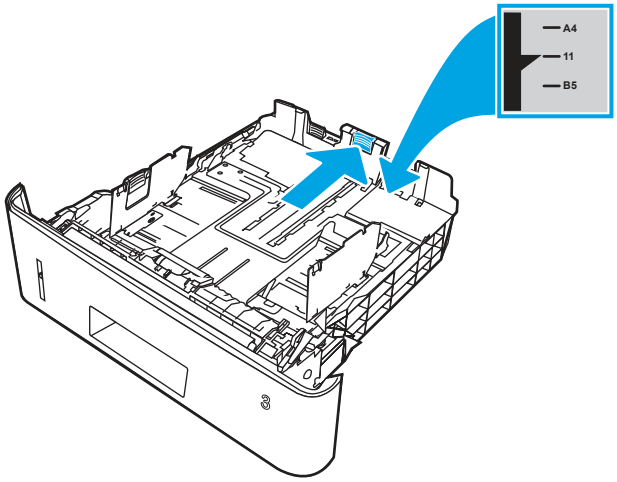
1. Remove the tray from the printer.



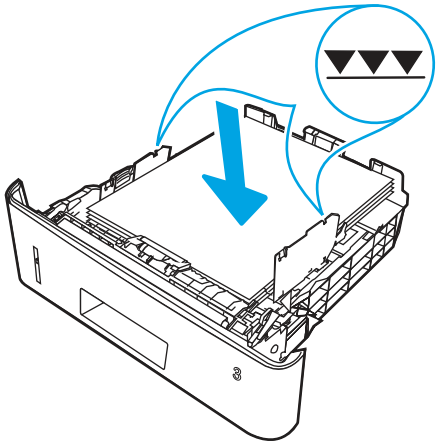
2. Remove the paper from the tray, and discard any damaged paper.



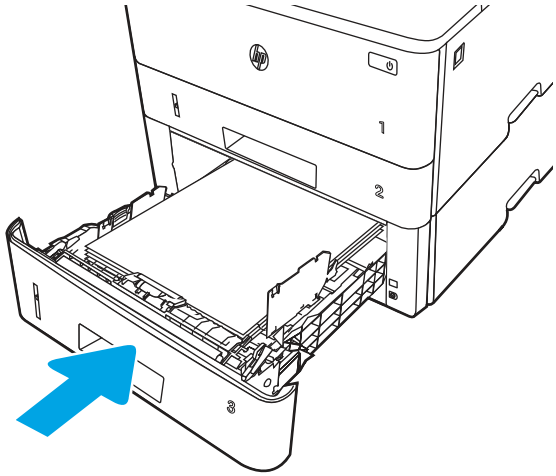
3. Verify that the rear paper guide is adjusted to the indentation for the correct paper size. If necessary, pinch the release and move the rear paper guide to the correct position. It should click into place.



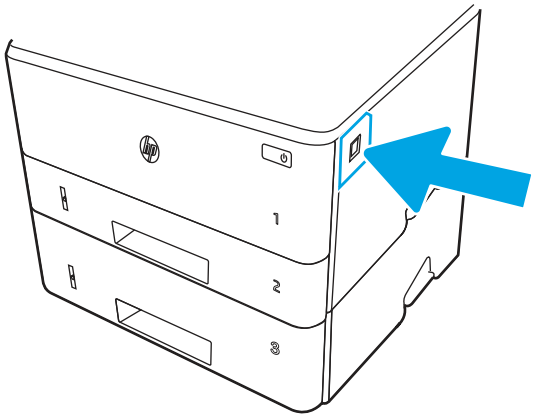
4. Load the paper into the tray. Make sure that the stack is flat at all four corners and that the top of the stack is below the maximum-height indicators.



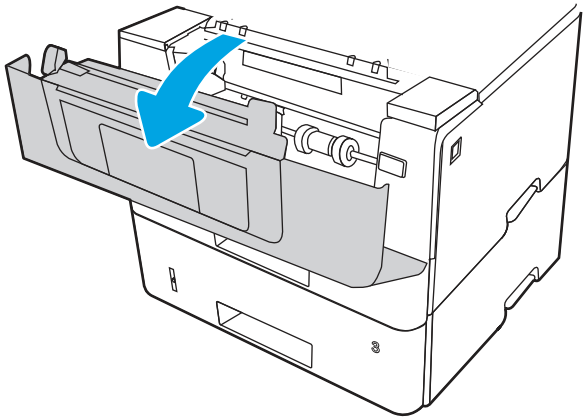
5. Reinsert and close the tray.



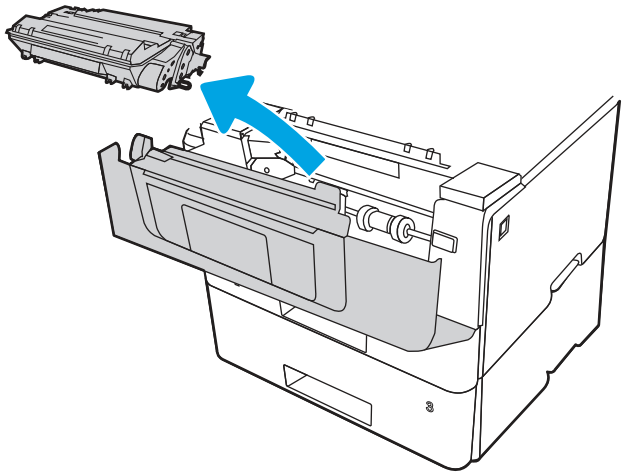
6. Press the front door release button.



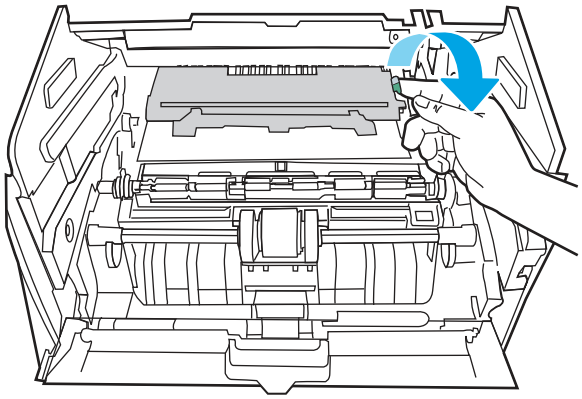
7. Open the front door.



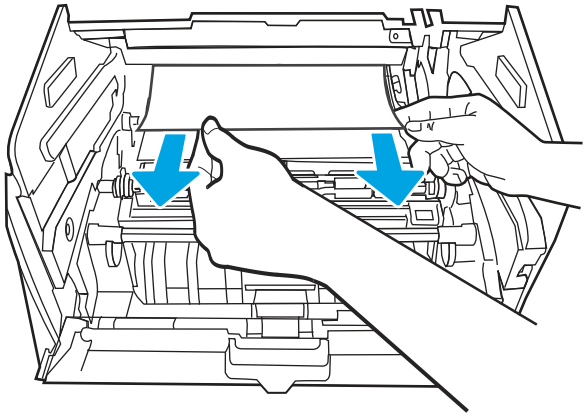
8. Remove the toner cartridge.



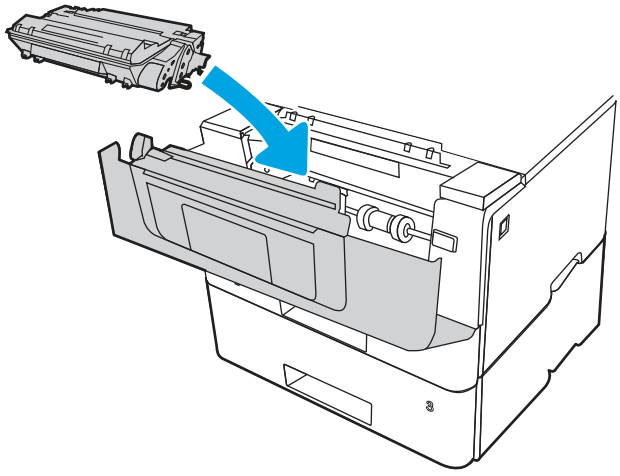
9. Lift the jam-access cover.



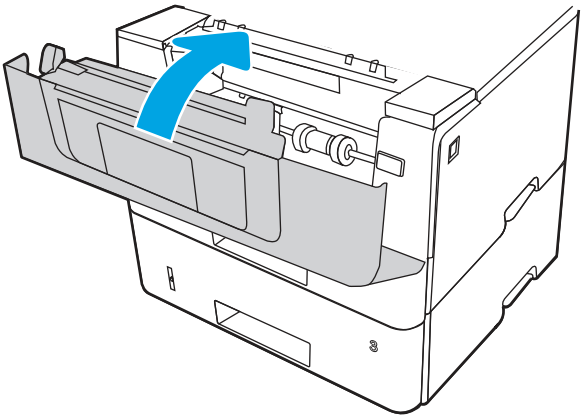
10. Remove any jammed paper.



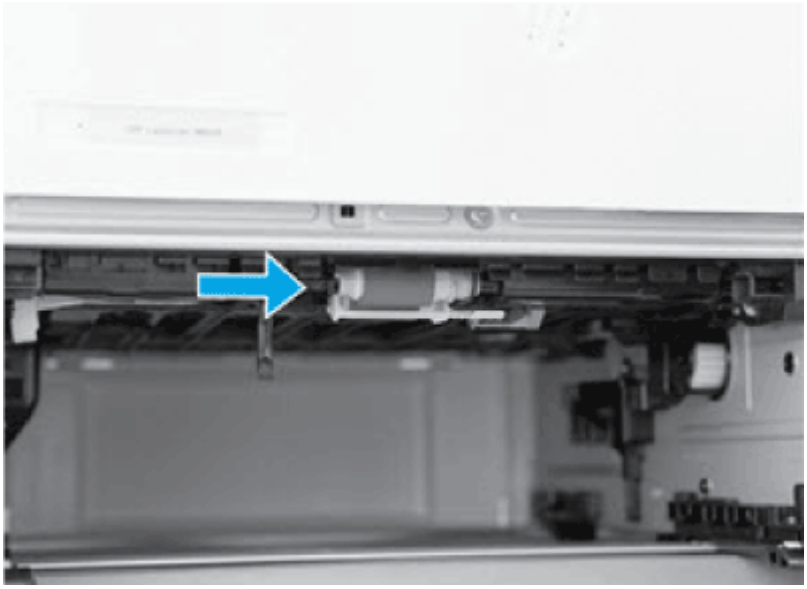
11. Install the toner cartridge.



12. Close the front door.



13. If the error persists, ensure the type and quality of the paper being used meets the HP specifications for the printer.
14. If the error persists, clean the tray 3 pickup and feed rollers.
    a. Remove tray 3 and locate the paper tray rollers.



    b. Clean the rollers by gently wiping them with a damp, lint-free cloth.
15. Perform a test print from tray 3 to see if the issue is resolved.
16. If the error persists, contact your HP-authorized service or support provider, or contact customer support at www.hp.com/go/contactHP.

13.B9, 13.B2, 13.FF Clear paper jams in the toner cartridge and fuser area

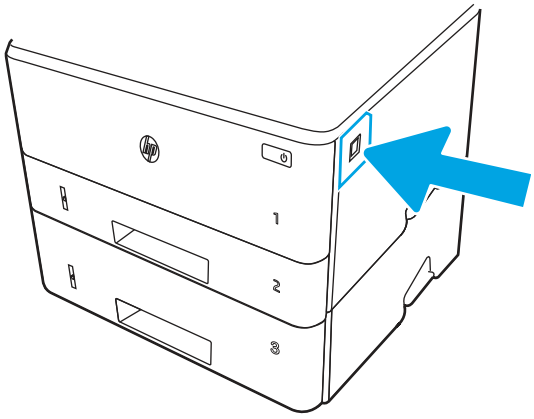
Use the following procedure to check for paper in all possible jam locations in the fuser area.

Recommended action for customers

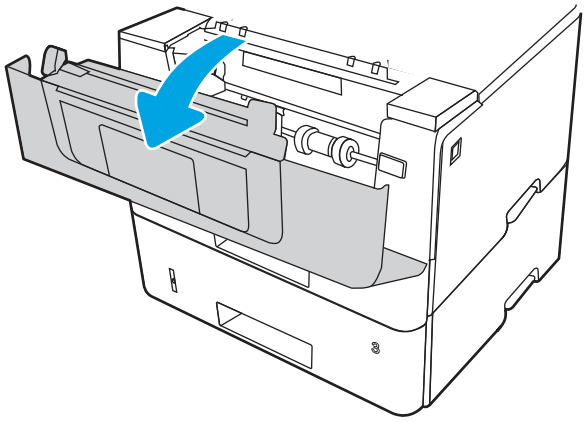
When a jam occurs, the control panel displays an animation that assists in clearing the jam.

View a video of how to clear a jam in the fuser area

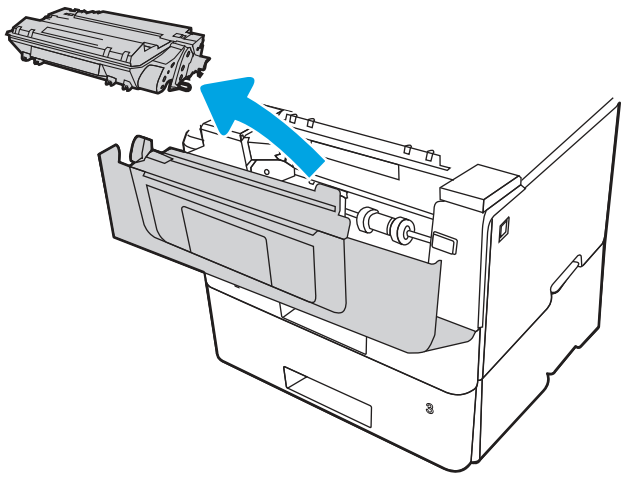
1. Press the front door release button.



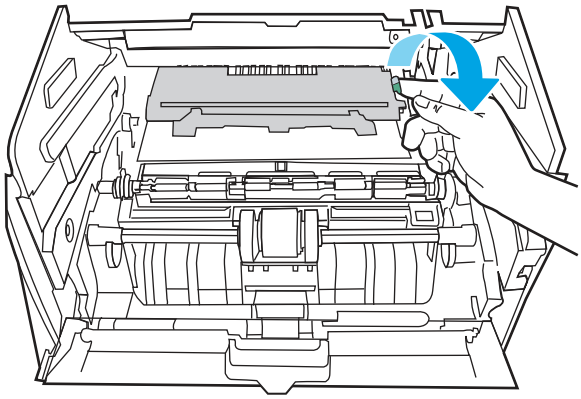
2. Open the front door.



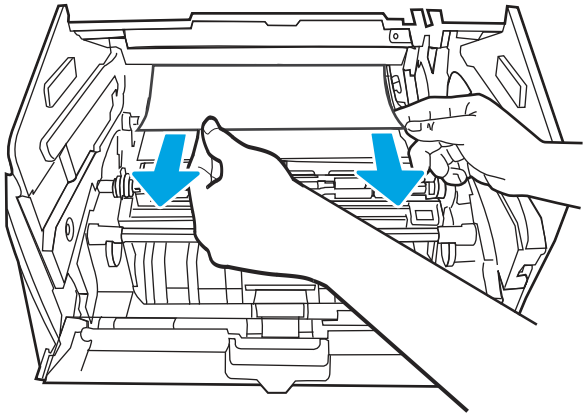
3. Remove the toner cartridge.



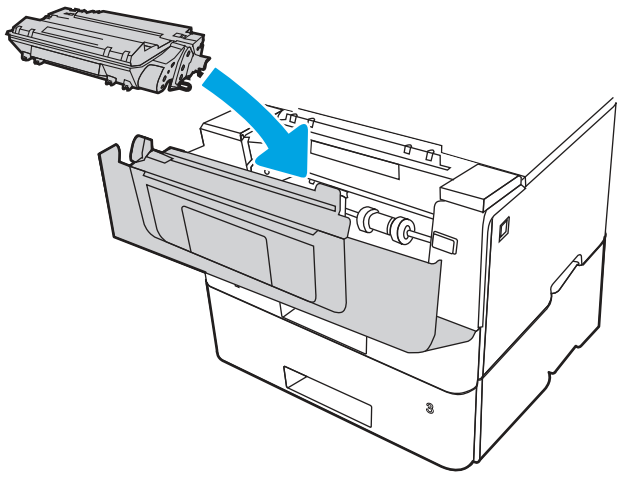
4. Lift the jam-access cover.



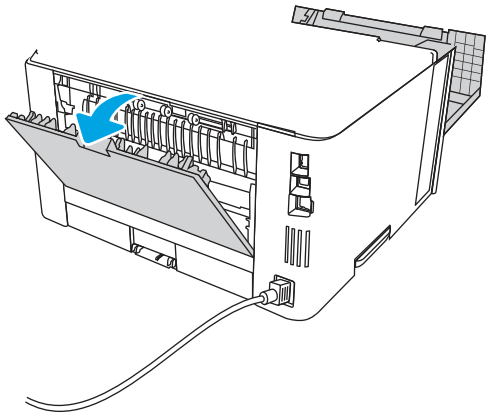
5. Remove any jammed paper.



6. Install the toner cartridge.

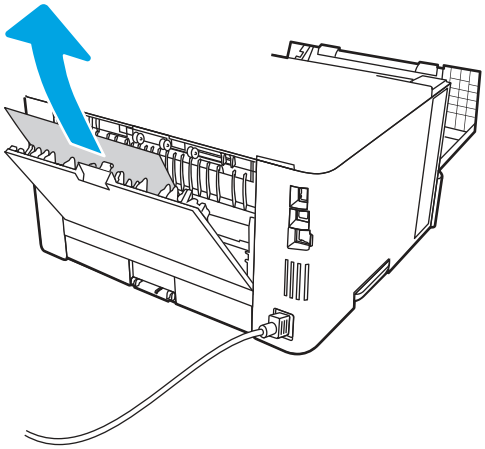


7. Open the front door and the rear door.

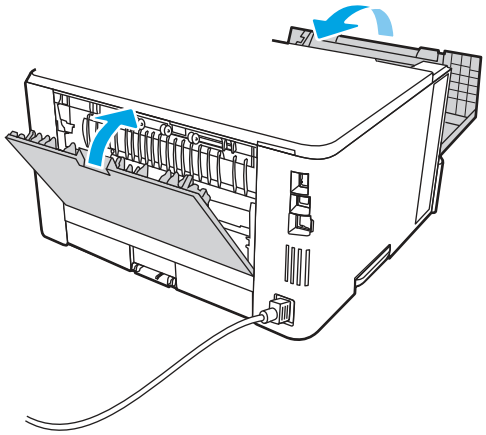


⚠ **CAUTION:**  The fuser can be hot while the printer is in use. Wait for the fuser to cool before handling it.

8. If jammed paper is visible, remove any jammed paper from the rear door area.



9. Close the rear door and the front door.



10. If the error persists, contact your HP-authorized service or support provider, or contact customer support at www.hp.com/go/contactHP.

13.D1.yz, 13.D3.yz Clear paper jams in the duplexer

Use the following procedure to check for paper in all possible jam locations in the automatic duplexer.

Recommended action for customers

When a jam occurs, the control panel displays an animation that assists in clearing the jam.

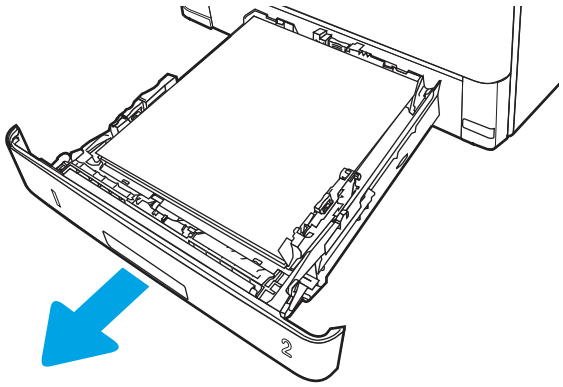
- 13.D1.yz - Jam in duplex unit
- 13.D3.yz - Jam in duplex unit

y = A, C, or D

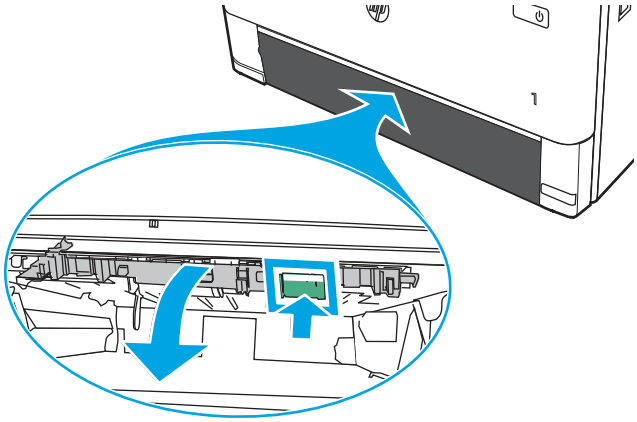
z = 0-9 or A-F

View a video of how to clear a jam in the duplexer

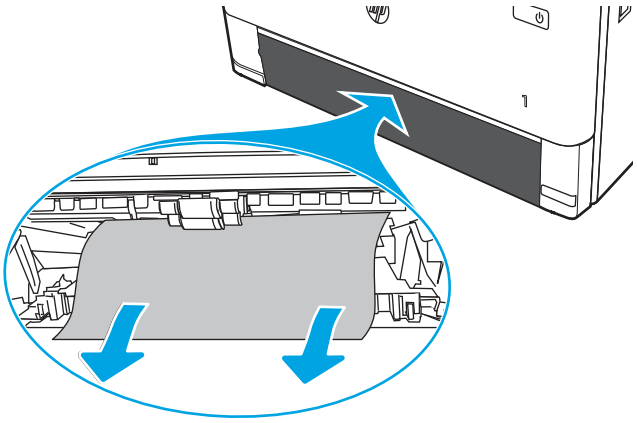
1. Completely remove Tray 2 from the printer.



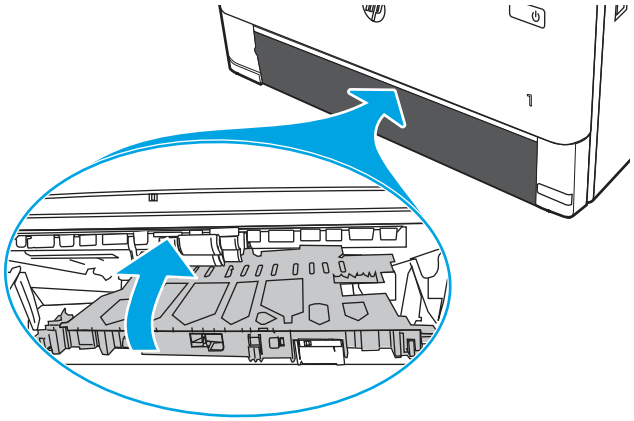
2. Push the green button to release the duplex pan.



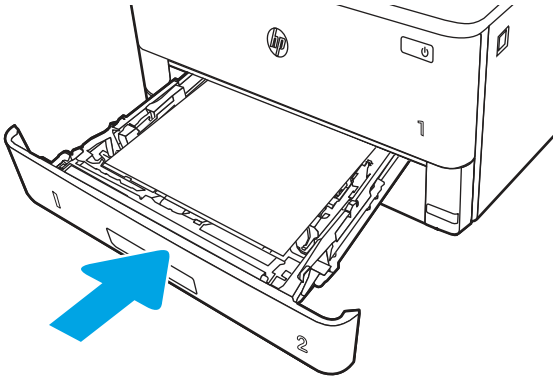
3. Remove any jammed paper.



4. Close the duplex pan.

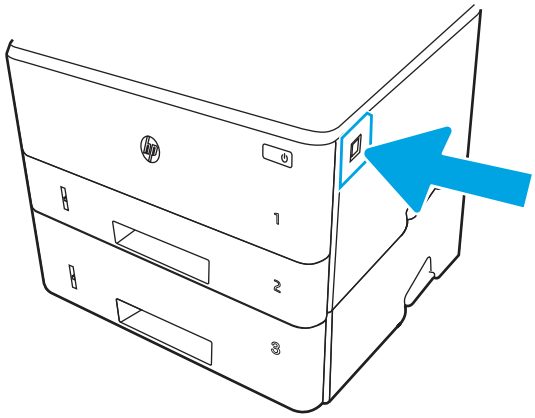


5. Reinsert Tray 2.

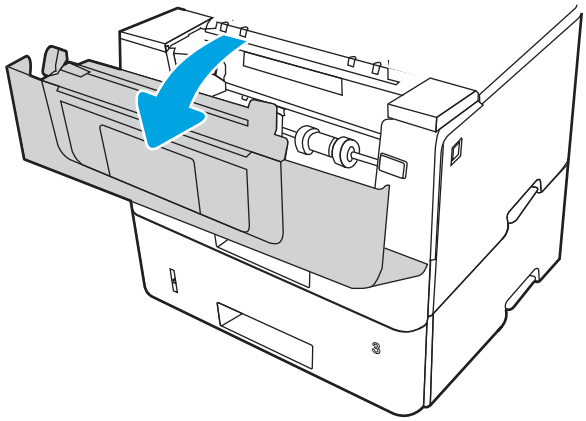


6. Open the front door to clear the jam message.

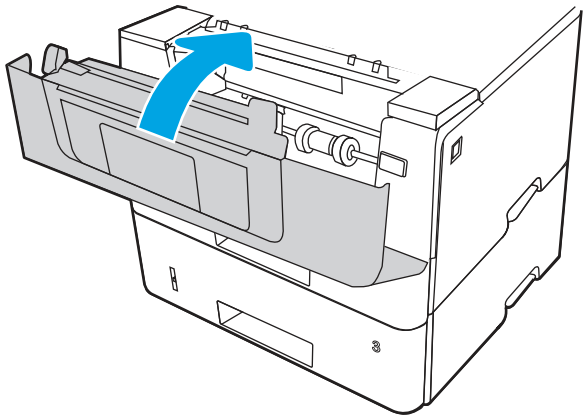
a. Press the front door release button.



b. Open the front door.



c. Close the front door.



7. If the error persists, ensure the type and quality of the paper being used meets the HP specifications for the printer.

8. If the error persists, contact your HP-authorized service or support provider, or contact customer support at www.hp.com/go/contactHP.

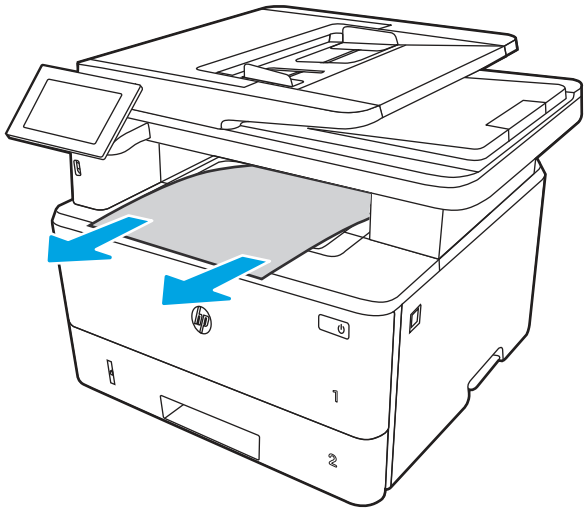
13.E1 Clear paper jams in the output bin

Use the following procedure to check for paper in all possible jam locations related to the output bin.

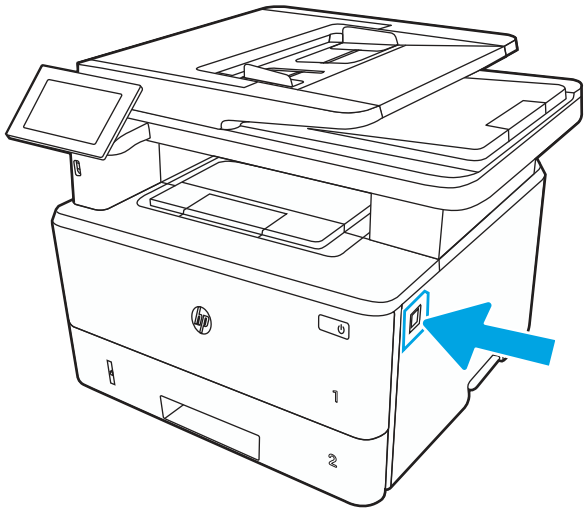
When a jam occurs, the control panel displays an animation that assists in clearing the jam.

View a video of how to clear a jam in the output bin

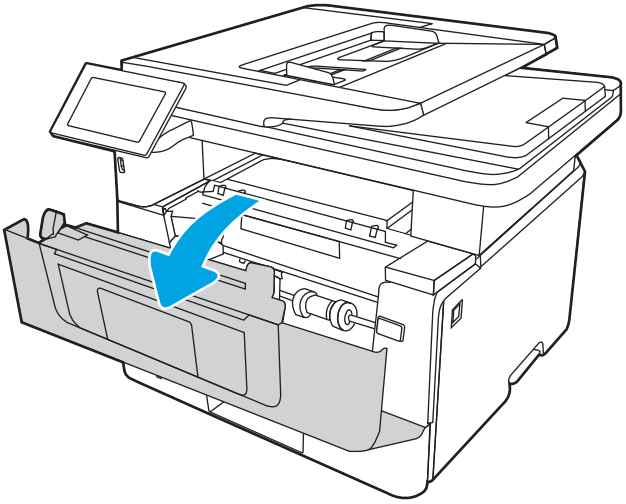
1. If paper is visible in the output bin, grasp the leading edge and remove it.



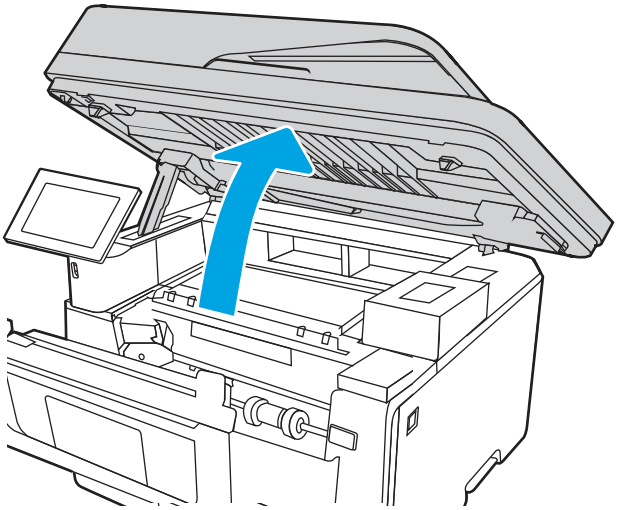
2. Press the front door release button.



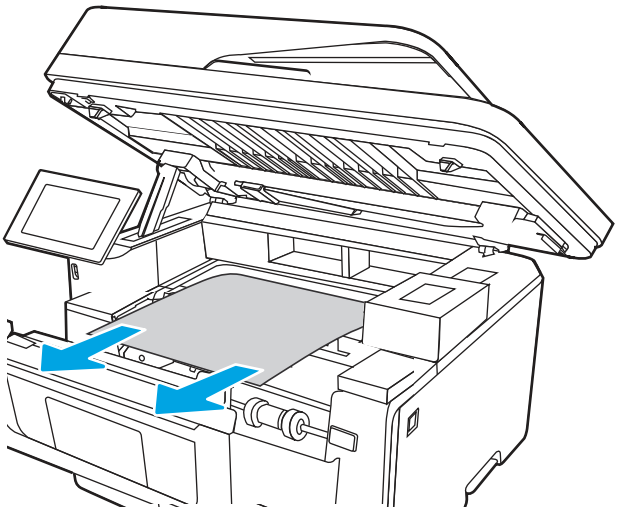
3. Open the front door.



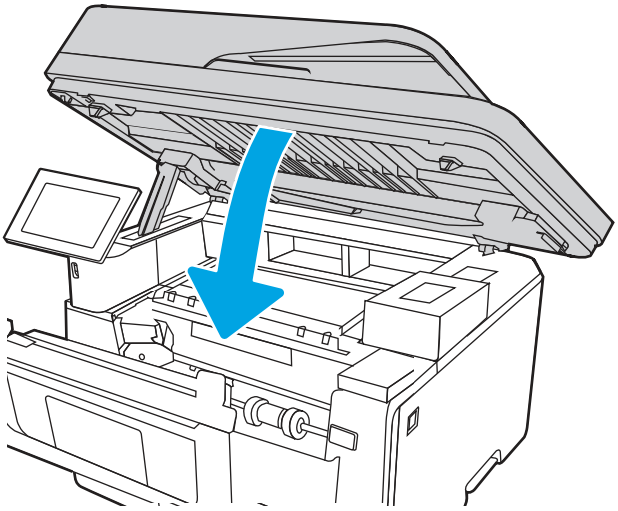
4. Lift the scanner assembly.



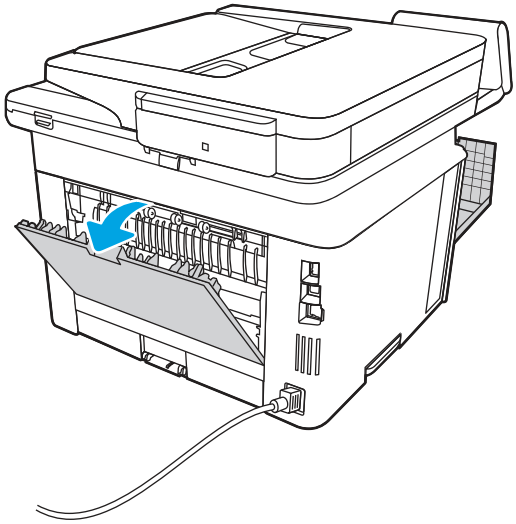
5. Remove any jammed paper.



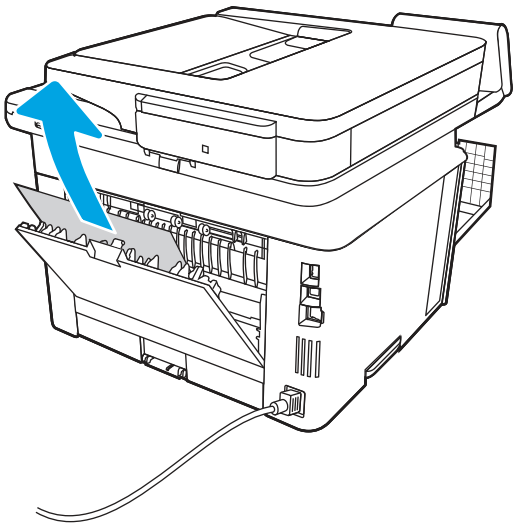
6. Close the scanner assembly.



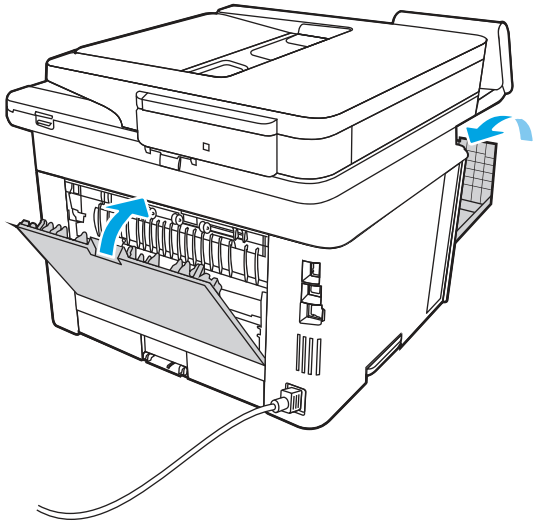
7. Open the rear door.



8. Remove any jammed paper from the rear door area.



9. Close the rear door and the front door.



Change jam recovery (touchscreen)

Use the following procedure to change jam recovery from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Settings button.
2. Open the General menu, and then open the Jam recovery menu.
3. Select one of the following options:
   - Auto – The printer attempts to reprint jammed pages when sufficient memory is available. This is the default setting.
   - Off – The printer does not attempt to reprint jammed pages. Because no memory is used to store the most recent pages, performance is optimal.

     NOTE: Some pages can be lost if the printer runs out of paper while printing a duplex job with Jam Recovery set to Off.

   - On – The printer always reprints jammed pages. Additional memory is allocated to store the last few pages printed.

Printer feeds incorrect page size

Review the following information when the printer feeds an incorrect page size.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Table 3-42 Printer feeds incorrect page size

Cause	Solution
The correct size paper is not loaded in the tray.	Load the correct size paper in the tray.

Table 3-42 Printer feeds incorrect page size (continued)

Cause	Solution
The correct size paper is not selected in the software program or printer driver.	Confirm that the settings in the software program and printer driver are correct, because the software program settings override the printer driver and control panel settings, and the printer driver settings override the control panel settings.
The correct size paper for the tray is not selected in the printer control panel.	From the control panel, select the correct size paper for the tray.
The paper size is not configured correctly for the tray.	Print a configuration page to determine the paper size for which the tray is configured.
The guides in the tray are not against the paper.	Verify that the paper guides are touching the paper.

Printer pulls from incorrect tray

Review the following information when the printer pulls from an incorrect tray.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Table 3-43 Printer pulls from incorrect tray

Cause	Solution
A driver for a different printer is in use.	Use a driver for this printer.
The specified tray is empty.	Load paper in the specified tray.
The paper size is not configured correctly for the input tray.	Print a configuration page or use the control panel to determine the paper size for which the tray is configured.
The guides in the tray are not against the paper.	Verify that the guides are touching the paper.

Printer will not duplex or duplexes incorrectly (duplex models)

Review the following information when the printer will not duplex or duplexes incorrectly.

Table 3-44 Printer will not duplex (print 2-sided jobs) or duplexes incorrectly

Cause	Solution
The duplex job is trying to use unsupported paper.	Verify that the paper is supported for duplex printing.
The printer driver is not set up for duplex printing.	Set up the printer driver to enable duplex printing.
The first page is printing on the back of preprinted forms or letterhead.	Load preprinted forms and letterhead in Tray 1 with the letterhead or printed side down, with the top of the page leading into the printer. For Tray 2-X, load the paper printed side up with the top of the page toward the right of the printer.
The printer model does not support automatic 2-sided printing.	The printer model does not support automatic 2-sided printing.

Paper does not feed from Tray 2-X

Review the following information when the paper does not feed from Tray 2-X.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Table 3-45 Paper does not feed from Tray 2-X

Cause	Solution
The correct size paper is not loaded.	Load the correct size paper.
The input tray is empty.	Load paper in the input tray.
The correct paper type for the input tray is not selected in the printer control panel.	From the printer control panel, select the correct paper type for the input tray. Trays configured for a paper type with a specific weight range will not match a print job that specifies an exact weight, even if the specified weight is within the weight range.
Paper from a previous jam has not been completely removed.	Open the printer and remove any paper in the paper path. Closely inspect the fuser area for jams.
None of the optional trays appear as input tray options.	The optional trays only display as available if they are installed. Verify that any optional trays are correctly installed. Verify that the printer driver has been configured to recognize the optional trays.
An optional tray is incorrectly installed.	Print a configuration page to confirm that the optional tray is installed. If not, verify that the tray is correctly attached to the printer.
The paper size is not configured correctly for the input tray.	Print a configuration page or use the control panel to determine the paper size for which the tray is configured.
The guides in the tray are not against the paper.	Verify that the guides are touching the paper.

Output is curled or wrinkled

Review the following information when the output is curled or wrinkled.

Table 3-46 Output is curled or wrinkled

Cause	Solution
Paper does not meet the specifications for this printer.	Use only paper that meets the HP paper specifications for this printer. Non-recycled, 75 g/m2 (20 lb) paper is optimal for office use.
The correct paper type for the input tray is not selected in the printer control panel.	From the printer control panel, select the correct paper type for the input tray. Trays configured for a paper type with a specific weight range will not match a print job that specifies an exact weight, even if the specified weight is within the weight range.
Paper is damaged or in poor condition.	Remove paper from the input tray and load paper that is in good condition.
The printer is operating in an excessively humid environment.	Verify that the printing environment is within humidity specifications.
The print job consist of large, solid-filled areas.	Large, solid-filled areas can cause excessive curl. Try using a different pattern.
Paper used was not stored correctly and might have absorbed moisture.	Remove paper and replace it with paper from a fresh, unopened package. Store paper in a plastic bag to protect it from humidity.

Table 3-46 **Output is curled or wrinkled (continued)**

Cause	Solution
Paper has poorly cut edges.	Remove paper, flex it, rotate it 180 degrees or turn it over, and then reload it into the input tray. Do not fan paper. If the problem persists, replace the paper.
The specific paper type was not configured for the tray or selected in the software.	Configure the software for the paper (see the software documentation). Configure the tray for the paper.
The paper has previously been used for a print job.	Do not re-use paper.

The printer does not pick up paper

If the printer does not pick up paper from the tray, try these solutions.

NOTE: Tray 1 and Tray 2 are optimal for paper pickup when using special paper or media other than 20lb plain paper. For Tray 1 and Tray 2 the printer increases the number of attempts to pick up a page, which increases the reliability of successfully picking the page from the tray and decreases the possibility of a mispick jam.

HP recommends using Tray 1 or Tray 2 if the printer is experiencing excessive or reoccurring jams from trays other than Tray 1 and Tray 2, or for print jobs that require media other than 20lb plain paper.

1. Open the printer and remove any jammed sheets of paper.
2. Load the tray with the correct size of paper for the job.
3. Make sure the paper size and type are set correctly on the printer control panel.
4. Make sure the paper guides in the tray are adjusted correctly for the size of paper. Adjust the guides to the appropriate indentation in the tray.
5. Check the printer control panel to see if the printer is waiting for an acknowledgment to the feed the paper manually prompt. Load paper, and continue.
6. The rollers above the tray might be contaminated. Clean the rollers with a lint-free cloth dampened with warm water.

The printer picks up multiple sheets of paper

If the printer picks up multiple sheets of paper from the tray, try these solutions.

1. Remove the stack of paper from the tray and flex it, rotate it 180 degrees, and flip it over. *Do not fan the paper*. Return the stack of paper to the tray.
2. Use only paper that meets HP specifications for this printer.
3. Use paper that is not wrinkled, folded, or damaged. If necessary, use paper from a different package.
4. Make sure the tray is not overfilled. If it is, remove the entire stack of paper from the tray, straighten the stack, and then return some of the paper to the tray.
5. Make sure the paper guides in the tray are adjusted correctly for the size of paper. Adjust the guides to the appropriate indentation in the tray.

6. Make sure the printing environment is within recommended specifications.
7. The tray pick and/or feed rollers might be contaminated. Clean the rollers with a lint-free cloth dampened with warm water.

The document feeder jams, skews, or picks up multiple sheets of paper (MFP)

Learn about MFP document feeder paper handling problems.

Review the following information when the document feeder jams, skews, or picks up multiple sheets of paper.

- Check to see if there are areas on the page that might have had staples removed. This can cause jams and/or mispicks.
- The original might have something on it, such as staples or self-adhesive notes that must be removed.
- Check that all rollers are in place and correctly installed.
- Make sure that the top document-feeder cover is closed.
- The pages might not be placed correctly. Straighten the pages and adjust the paper guides to center the stack.
- The paper guides must be touching the sides of the paper stack to work correctly. Make sure that the paper stack is straight, and the guides are against the paper stack.
- The document feeder input tray or output bin might contain more than the maximum number of pages. Make sure the paper stack fits below the guides in the input tray and remove pages from the output bin.
- Verify that there are no pieces of paper, staples, paper clips, or other debris in the paper path.
- Clean the document-feeder rollers and the separation pad. Use compressed air or a clean, lint-free cloth moistened with warm water. If misfeeds still occur, replace the rollers.
- Use the control panel menus to check the status of the document-feeder kit and replace it if necessary.

Paper does not feed automatically

Review the following information when the paper does not feed automatically.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Table 3-47 Paper does not feed automatically

Cause	Solution
Manual feed is selected in the software program.	Load Tray 1 with paper, or, if the paper is loaded, press the OK button.
The correct size paper is not loaded.	Load the correct size paper.
The input tray is empty.	Load paper into the input tray.
Paper from a previous jam has not been completely removed.	Open the printer and remove any paper in the paper path.

Table 3-47 Paper does not feed automatically (continued)

Cause	Solution
The paper size is not configured correctly for the input tray.	Print a configuration page or use the control panel to determine the paper size for which the tray is configured.
The guides in the tray are not against the paper.	Verify that the rear and width paper guides are touching the paper.

Image-quality troubleshooting

Learn about image-quality troubleshooting.

Use the information in this topic to troubleshoot and resolve image-quality (what you see on the final printed page) problems including copy-quality, print-quality, and color problems (color printers only).

Various printer hardware problems can cause image-quality defects. This topic is a guide to the steps used to isolate the specific areas of the printer that are causing image-quality defects on the printed page, and to provide solutions to resolve those image-quality defects.

Image-quality problems are defined as:

- **Print-quality (PQ) problems**: PQ problems are associated with the print engine (printer base) of an MFP printer (single function non MFP image-quality problems are always PQ defects). PQ defects appear on pages that are **printed** by the print engine and not fed through an integrated scanner assembly (ISA).
- **Copy-quality (CQ) problems**: CQ problems are associated with the integrated-scanner assembly (ISA) portion of an MFP printer. CQ defects appear on pages that are **copied** using the document feeder or flatbed glass.

If the print defect is already known to be a PQ or CQ problem, skip to the appropriate troubleshooting topic listed below. Otherwise, follow the steps in the next section below to get started troubleshooting image-quality problems.

- **Print-quality (PQ) problems**: See Print-quality troubleshooting.
- **Copy-quality (CQ) problems**: See Copy-quality troubleshooting.

Get started troubleshooting image-quality problems

Print a demonstration page to identify the defect as a PQ (print engine) or CQ (ISA) problem.

NOTE: If the image defect appears on the printed demonstration page, the issue is a print-quality (PQ) problem (associated with the print engine and not the document feeder or flatbed glass) and not a CQ problem.

Make sure that the demonstration page is printed on **plain paper**.

Enterprise printers

1. Select **Reports** > **Other pages**.
2. Select Demonstration Page.

Pro printers

1. At the printer, scroll to or select Setup.
2. Go to Reports, and then select Demonstration Page.

Does the demonstration page show any image-quality defects?

- **Yes**: If defects appear on the printed demonstration page the issue is PQ related. See Print-quality troubleshooting.
- **No**: If defects does not appear on the printed demonstration page the issue is CQ related. See Copy-quality troubleshooting.

Print-quality troubleshooting

Learn about the print-quality troubleshooting.

NOTE: Print-quality (PQ) problems are associated with the print engine (printer base) of an MFP printer (single function non MFP image-quality problems are always PQ defects). PQ defects appear on pages that are **printed** by the print engine and not feed through an integrated scanner assembly (ISA).

Repetitive image defect ruler

Review the following information about a repetitive image defect ruler.

When troubleshooting the source of some print image defects, one solution is to identify if it is a repetitive defect (does the print quality defect appear multiple times on the printed page?). If this is the case, use a ruler to measure occurrences of repetitive image defects to help solve image-quality problems. For more information, see Using a ruler to measure between repetitive defects.

Use a ruler to measure occurrences of repetitive image defects to help solve image-quality problems. Place the ruler next to the first occurrence of the defect on the page. Find the distance between identical defects and use the table below to identify the component that is causing the defect.

CAUTION: Do not use solvents or oils to clean rollers. Instead, rub the roller with a lint-free cloth. If dirt is difficult to remove, rub the roller with a lint-free cloth that has been dampened with water.

NOTE: The primary charging roller, photosensitive drum, and developer roller cannot be cleaned because they are internal assemblies in the toner cartridge or imaging drum. If one of these assemblies is causing the defect, replace the toner cartridge.

The primary fuser sleeve unit or pressure roller cannot be cleaned because they are internal assemblies in the fuser. If one of these assemblies is causing the defect, replace the fuse

TIP: To make a printer specific repetitive defect ruler, use a metric ruler to transfer the measurements in the table below to a transparency or the edge of a piece of paper—clearly label each ruler mark with the associated defective assembly.

Table 3-48 Repetitive defects

Assembly	Distance between defects
Primary charging roller	28 mm (1.10 in)
Developer roller	31 mm (1.22 in)
Transfer roller	39 mm (1.54 in)
Registration roller	43 mm (1.69 in)
Cassette separation roller	44 mm (1.73 in)

Table 3-48 Repetitive defects (continued)

Assembly	Distance between defects
Cassette pickup or feed roller	50 mm (1.97 in)
Fuser film	57 mm (2.24 in)
Pressure roller	63 mm (2.48 in)
Photosensitive drum	75 mm (2.95 in)

Use a ruler to measure between repetitive defects

The figures in this section show color repetitive defect pages. However, the process for measuring repetitive defects is valid for mono pages.

1. Identify a repetitive defect on the page.

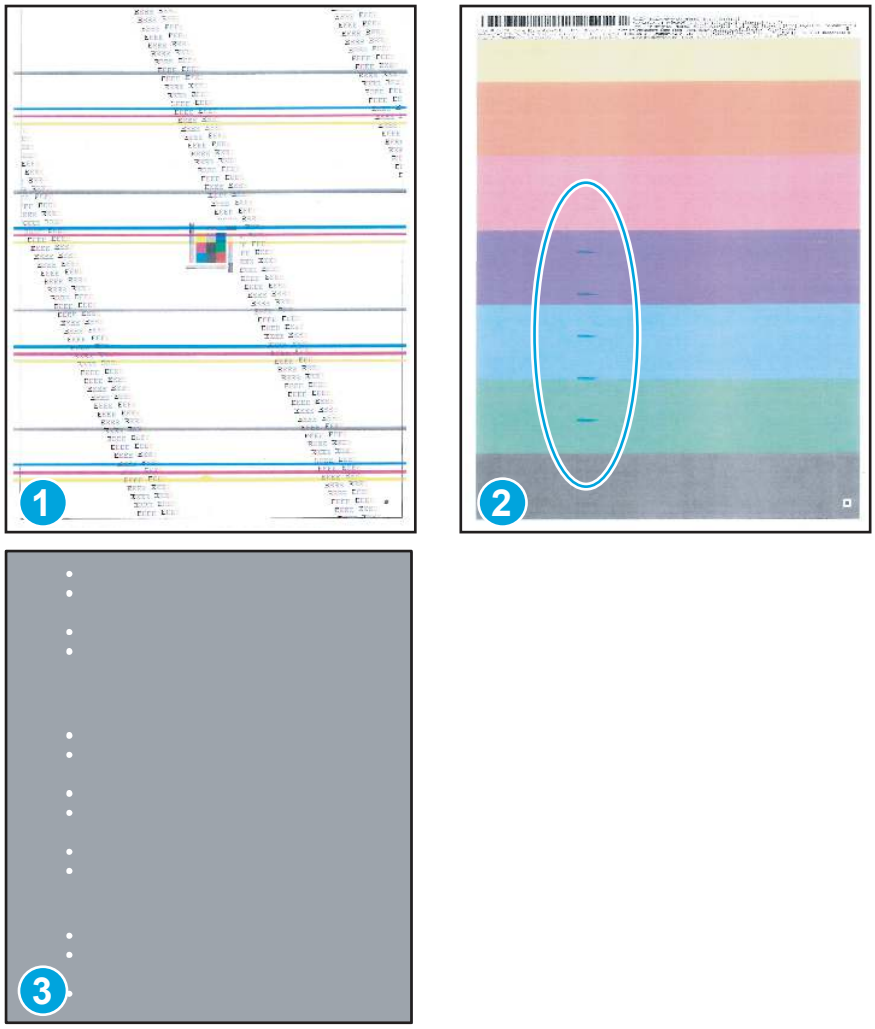
TIP: Print a cleaning page to see if that resolves the defect.

NOTE: Some printers allow loading Letter and A4 media in short-edge-first or long-edge-first orientation in the paper trays. When measuring repetitive defects, make sure to place the ruler at the leading edge of the page. This is the edge of the page that feeds into the printer first.

The example pages below show the following types of repetitive defects.

- Lines (callout 1)
- Smudges (callout 2)
- Dots or spots (callout 3)

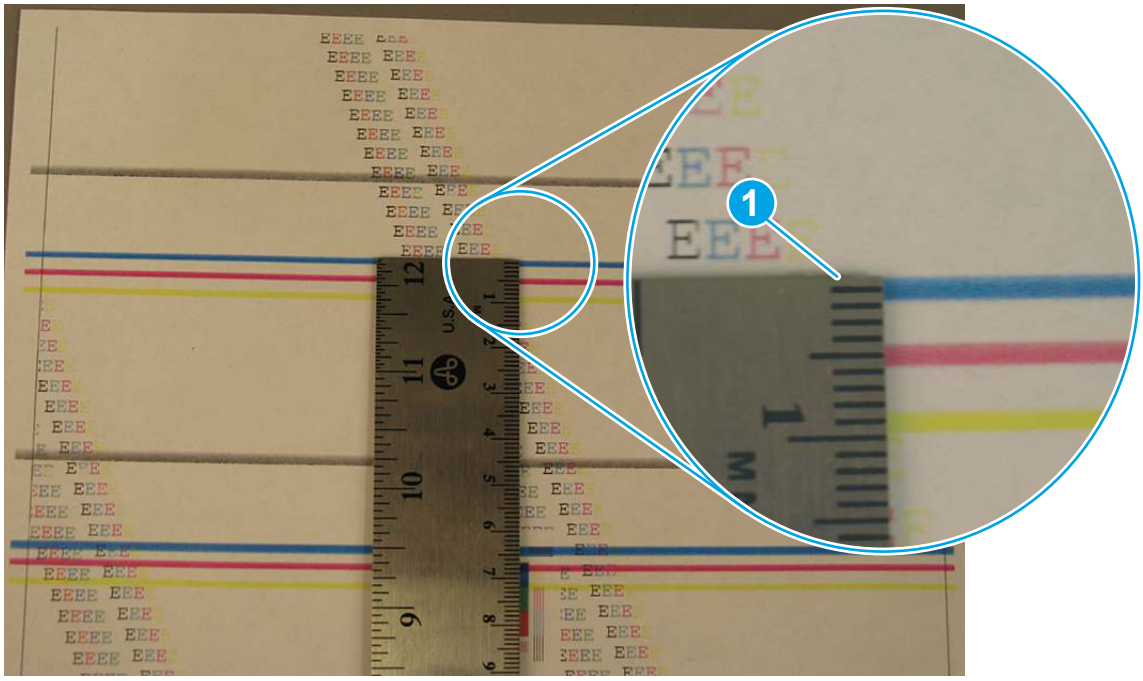
Figure 3-84 Examples of repetitive defects



NOTE: These are examples only, other types of repetitive defects might appear on a page.

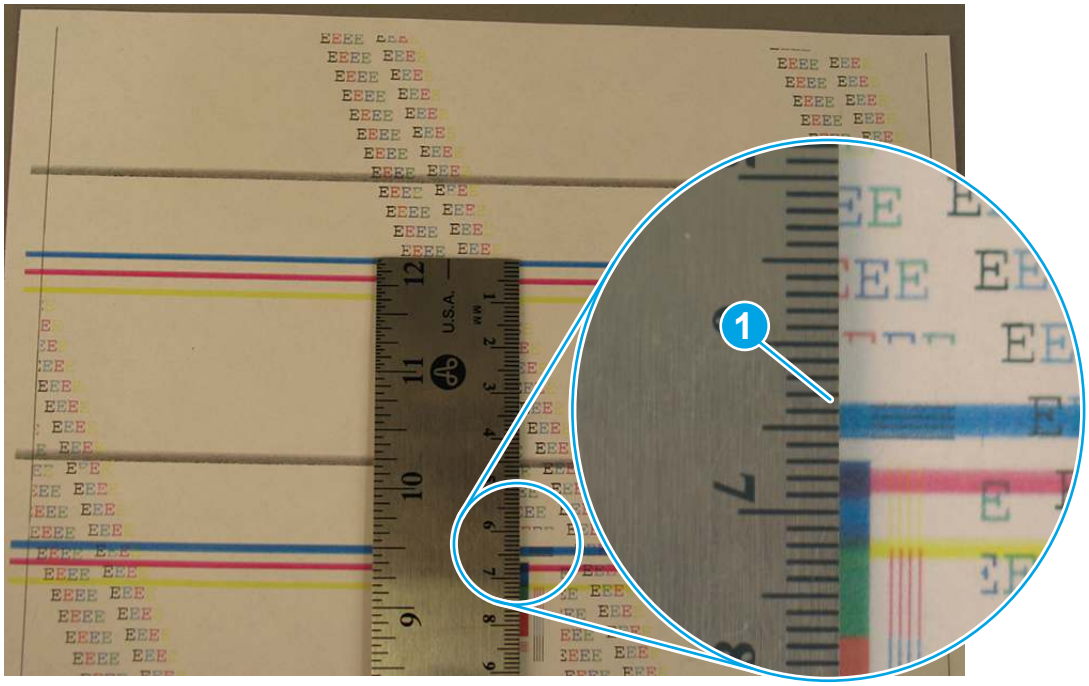
2. Position a metric ruler on the page with the “zero” ruler mark at one occurrence of the defect (callout 1).

Figure 3-85 Place the ruler on the page



3. Locate the next occurrence of the defect (callout 1).

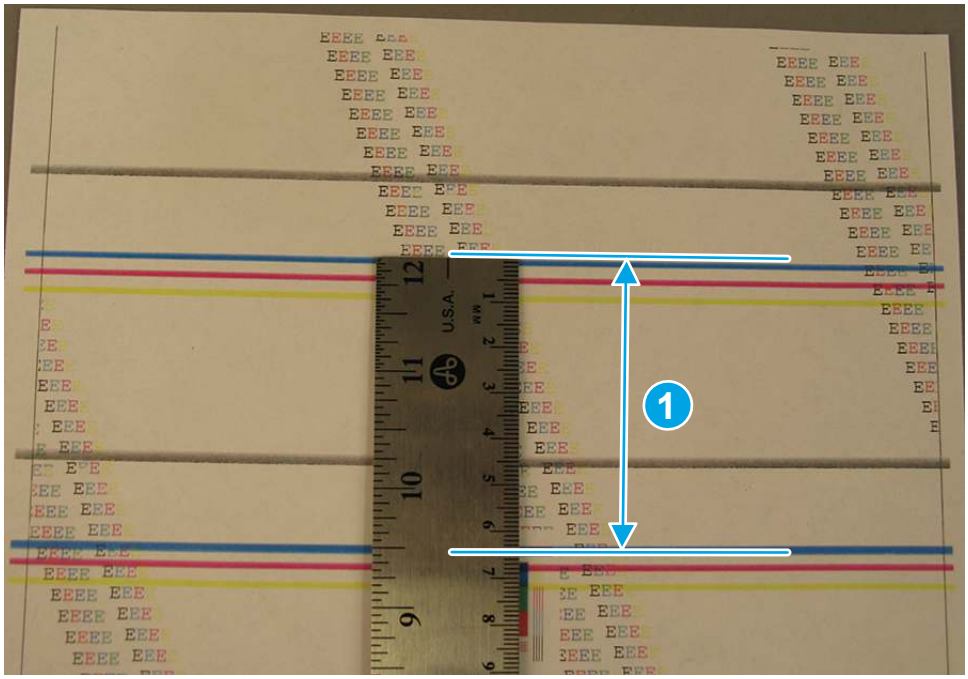
Figure 3-86 Locate the next repetitive defect



4. Measure the distance (in millimeters) between the two occurrences (callout 1), and then use the Repetitive defects table to determine the defective assembly.

TIP: Always measure from and to the same point on the defects. For example, if the ruler is "zeroed" at the top edge of a defect, measure to the top edge of the next occurrence of that defect.

Figure 3-87 Determine the defective assembly



Print from a different software program

Try printing from a different software program.

If the page prints correctly, the problem is with the software program from which you were printing.

Check the paper-type setting for the print job

Check the paper type setting when printing from a software program and the printed pages have smears, fuzzy or dark print, curled paper, scattered dots of toner, loose toner, or small areas of missing toner.

Check the paper type setting on the control panel

Check the paper type setting on the printer control panel, and change the setting as needed.

1. Open and close the paper tray.
2. Follow the control panel prompts to confirm or modify the paper type and size settings for the tray.
3. Make sure the paper loaded meets specifications.
4. Adjust the humidity and resistance setting on the control panel to match the environment.
   a. Open the following menus:
      i. Settings

ii. Copy/Print

iii. Print quality

iv. Adjust paper type

b. Select the paper type that matches the type loaded in the tray.

c. Use the arrows to increase or decrease the humidity and resistance setting.

5. Make sure the driver settings match the control panel settings.

NOTE: The print driver settings will override any control panel settings.

Check the paper type setting (Windows)

Check the paper type setting for Windows, and change the setting as needed.

NOTE: The print driver settings will override any control panel settings.

1. From the software program, select the **Print** option.
2. Select the printer, and then click the **Properties** or **Preferences** button.
3. Click the **Paper/Quality** tab.
4. From the **Paper Type** drop-down list, click the **More...** option.
5. Expand the list of **Type is:** options.
6. Expand the category of paper types that best describes your paper.
7. Select the option for the type of paper you are using, and click the **OK** button.
8. Click the **OK** button to close the **Document Properties** dialog box. In the **Print** dialog box, click the **OK** button to print the job.

Check the paper type setting (macOS)

Check the paper type setting for macOS, and change the setting as needed.

1. Click the **File** menu, and then click the **Print** option.
2. In the **Printer** menu, select the printer.
3. Click **Show Details** or **Copies & Pages**.
4. Open the menus drop-down list, and then click the **Paper/Quality** menu.
5. Select a type from the **Media Type** drop-down list.
6. Click the **Print** button.

Check toner-cartridge status

Follow these steps to check the estimated life remaining in the toner cartridges and if applicable, the status of other replaceable maintenance parts.

Step one: Print the Supplies Status Page

The supplies status page indicates the cartridge status.

1. From the Home screen on the printer control panel, select the Reports menu.
2. Select the Configuration/Status Pages menu.
3. Select Supplies Status Page, and then select Print to print the page.

Step two: Check supplies status

Check the supplies status report as follows.

1. Look at the supplies status report to check the percent of life remaining for the toner cartridges and, if applicable, the status of other replaceable maintenance parts.

   Print quality problems can occur when using a toner cartridge that is at its estimated end of life. The supplies status page indicates when a supply level is very low. After an HP supply has reached the very low threshold, HP's premium protection warranty on that supply has ended.

   The toner cartridge does not need to be replaced now unless the print quality is no longer acceptable. Consider having a replacement available to install when print quality is no longer acceptable.

   If you determine that you need to replace a toner cartridge or other replaceable maintenance parts, the supplies status page lists the genuine HP part numbers.

2. Check to see if you are using a genuine HP cartridge.

   A genuine HP toner cartridge has the word "HP" on it, or has the HP logo on it. For more information on identifying HP cartridges go to www.hp.com/go/learnaboutsupplies.

Print a cleaning page

Learn how to print a cleaning page.

Print a cleaning page from a non-touchscreen control panel

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then press the OK button.
2. Use the arrow buttons to scroll to Maintenance, and then press the OK button.
3. Use the arrow buttons to scroll to Calibration/Cleaning, and then press the OK button.
4. Use the arrow buttons to scroll to Cleaning page, and then press the OK button.

TIP: Use this screen to set up automatic cleaning page intervals if desired.

5. Use the arrow buttons to scroll to Print (at the bottom of the control-panel display), and then press the OK button to print the cleaning page.

NOTE: A **Cleaning...** message displays on the control-panel display. Do not turn the printer off until the cleaning process has finished. When it is finished, discard the printed page.

Print a cleaning page from a touchscreen control panel

1. From the Home screen on the printer control panel, scroll to and touch the Support Tools button.
2. Open the following menus:
   - Maintenance

- Calibration/Cleaning

3. Touch Cleaning Page, and then touch the Print button to print the cleaning page.

NOTE: A **Cleaning...** message displays on the control-panel display. Do not turn the printer off until the cleaning process has finished. When it is finished, discard the printed page.

TIP: Use this screen to set up automatic cleaning page intervals if desired.

Check paper and the printing environment

Use the following information to check the paper selection and the printing environment.

Step one: Use paper that meets HP specifications

Some print-quality problems arise from using paper that does not meet HP specifications.

- Always use a paper type and weight that this printer supports.
- Use paper that is of good quality and free of cuts, nicks, tears, spots, loose particles, dust, wrinkles, voids, staples, and curled or bent edges.
- Use paper that has not been previously printed on.
- Use paper that does not contain metallic material, such as glitter.
- Use paper that is designed for use in laser printers. Do not use paper that is designed only for use in Inkjet printers.
- Use paper that is not too rough. Using smoother paper generally results in better print quality.

Step two: Check the environment

The environment can directly affect print quality and is a common cause of print-quality or paper-feeding issues. Try the following solutions:

- Move the printer away from drafty locations, such as open windows or doors, or air-conditioning vents.
- Make sure the printer is not exposed to temperatures or humidity outside of printer specifications.
- Do not place the printer in a confined space, such as a cabinet.
- Place the printer on a sturdy, level surface.
- Remove anything that is blocking the vents on the printer. The printer requires good air flow on all sides, including the top.
- Protect the printer from airborne debris, dust, steam, grease, or other elements that can leave residue inside the printer.

Step three: Set the individual tray alignment

Follow these steps when text or images are not centered or aligned correctly on the printed page when printing from specific trays.

1. From the Home screen on the printer control panel, select the Settings menu.
2. Select the following menus:

a. Copy/Print or Print

b. Print Quality

c. Image Registration

3. Select Tray, and then select the tray to adjust.
4. Select Print Test Page, and then follow the instructions on the printed pages.
5. Select Print Test Page again to verify the results, and then make further adjustments if necessary.
6. Select Done to save the new settings.

Try a different print driver

Try a different print driver when printing from a software program and the printed pages have unexpected lines in graphics, missing text, missing graphics, incorrect formatting, or substituted fonts.

Download a different print driver from the HP support Web site: www.hp.com/support/ljM406 or www.hp.com/support/ljM407 or www.hp.com/support/ljM430MFP or www.hp.com/support/ljM431MFP or www.hp.com/support/ljE40040 or www.hp.com/support/ljE42540MFP.

Troubleshoot image defects

Review examples of image defects and steps to resolve these defects.

Table 3-49 Image defects table quick reference

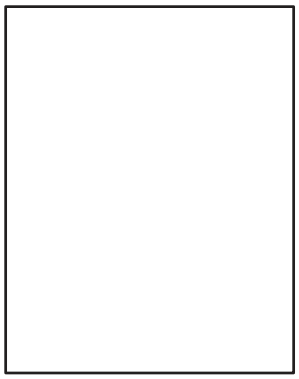
Sample	Description	Possible solutions
Table 3-56 Light print	Table 3-54 Gray background or dark print	Table 3-52 Blank page – No print
		

Table 3-49 Image defects table quick reference (continued)

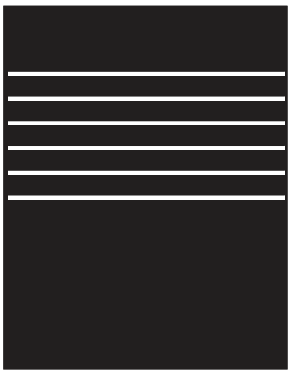
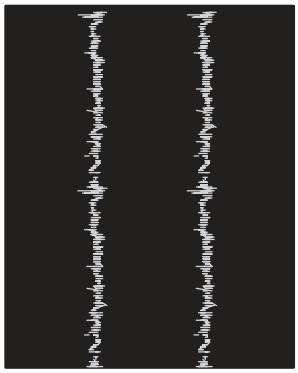
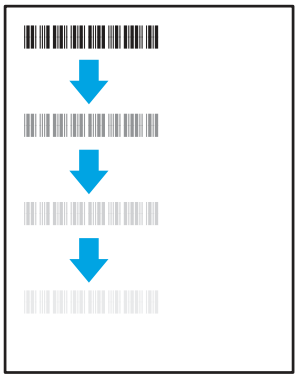
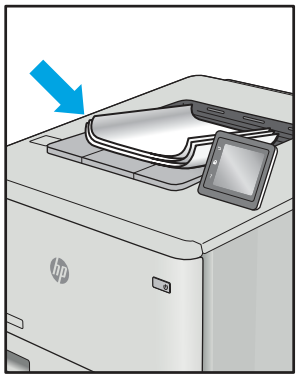
Sample	Description	Possible solutions
Table 3-51 Black page	Table 3-50 Banding defects	Table 3-58 Streak defects
		
Table 3-53 Fixing/fuser defects	Table 3-55 Image placement defects	Table 3-57 Output defects
		

Image defects, no matter the cause, can often be resolved using the same steps. Use the following steps as a starting point for solving image defect issues.

1. Reprint the document. Print quality defects can be intermittent in nature or can go away completely with continued printing.
2. Check the condition of the cartridge or cartridges. If a cartridge is in a **Very Low** state (it has passed the rated life), replace the cartridge.
3. Make sure that the driver and tray print mode settings match the media that is loaded in the tray. Try using a different ream of media or a different tray. Try using a different print mode.
4. Make sure that the printer is within the supported operating temperature/humidity range.
5. Make sure that the paper type, size, and weight are supported by the printer. See support.hp.com for a list of the supported paper sizes and types for the printer.

NOTE: The term “fusing” refers to the part of the printing process where toner is affixed to paper.

The following examples depict letter-size paper that has passed through the printer short edge first.

Table 3-50 Banding defects

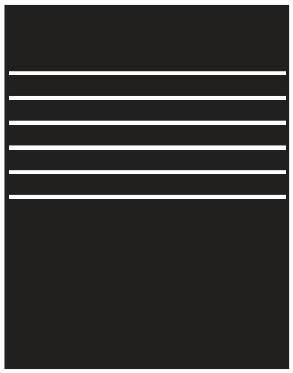
Sample	Description	Possible solutions
	Dark or light lines which repeat down the length of the page, and are wide-pitch and/or impulse bands. They might be sharp or soft in nature. The defect displays only in areas of fill, not in text or sections with no printed content.	1. Reprint the document. 2. Try printing from another tray. 3. Replace the cartridge. 4. Use a different paper type. 5. **Enterprise models only:** From the Home screen on the printer control panel, go to the Adjust Paper Types menu, and then choose a print mode that is designed for a slightly heavier media than what you are using. This slows the print speed and might improve the print quality. 6. If the issue persists, go to support.hp.com.

Table 3-51 Black page

Sample	Description	Possible solutions
	The entire printed page is black.	1. Visually inspect the cartridge to check for damage. 2. Make sure that the cartridge is installed correctly. 3. Replace the cartridge. 4. If the issue persists, go to support.hp.com.

Table 3-52 Blank page – No print

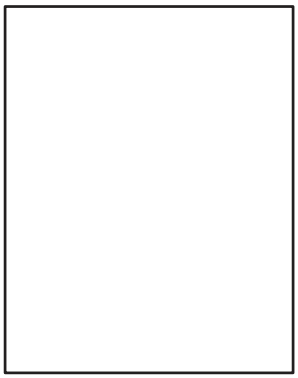
Sample	Description	Possible solutions
	The page is completely blank and contains no printed content.	1. Make sure that the cartridges are genuine HP cartridges. 2. Make sure that the cartridge is installed correctly. 3. Print with a different cartridge. 4. Check the paper type in the paper tray and adjust the printer settings to match. If necessary, select a lighter paper type. 5. If the issue persists, go to support.hp.com.

Table 3-53 Fixing/fuser defects

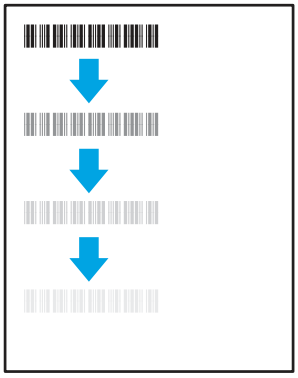
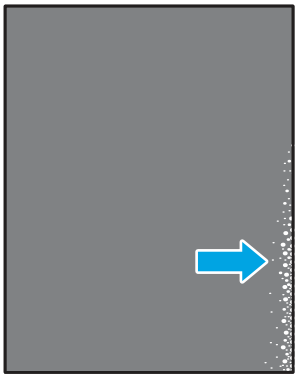
Sample	Description	Possible solutions
	Slight shadows or offsets of the image are repeated down the page. The repeated image might fade with each recurrence.	1. Reprint the document. 2. Check the paper type in the paper tray and adjust the printer settings to match. If necessary, select a lighter weight paper type. 3. If the issue persists, go to support.hp.com.
	Toner rubs off along either edge of the page. This defect is more common at the edges of high-coverage jobs, and on light media types, but can occur anywhere on the page.	1. Reprint the document. 2. Check the paper type in the paper tray and adjust the printer settings to match. If necessary, select a heavier paper type. 3. **Enterprise models only:** From the printer control panel, go to the Edge-to-Edge menu and then select Normal. Reprint the document. 4. **Enterprise models only:** From the printer control panel, select Auto Include Margins and then reprint the document. 5. If the issue persists, go to support.hp.com.

Table 3-54 Gray background or dark print

Sample	Description	Possible solutions
	The image or text is darker than expected and/or the background is gray.	1. Make sure that the paper in the trays has not already been run through the printer. 2. Use a different paper type. 3. Reprint the document. 4. **Mono models only:** From the Home screen on the printer control panel, go to the Adjust Toner Density menu, and then adjust the toner density to a lower level. 5. Make sure that the printer is within the supported operating temperature and humidity range. 6. Replace the cartridge. 7. If the issue persists, go to support.hp.com.

Table 3-55 Image placement defects

Sample	Description	Possible solutions
	The image is not centered, or is skewed on the page. The defect occurs when the paper is not positioned properly as it is pulled from the tray and moves through the paper path.	1. Reprint the document. 2. Remove the paper and then reload the tray. Make sure that all the paper edges are even on all sides. 3. Make sure that the top of the paper stack is below the tray-full indicator. Do not overfill the tray. 4. Make sure that the paper guides are adjusted to the correct size for the paper. Do not adjust the paper guides tightly against the paper stack. Adjust them to the indentations or markings in the tray. 5. If the issue persists, go to support.hp.com.

Table 3-56 **Light print**

Sample	Description	Possible solutions
	The printed content is light or faded on the entire page.	1. Reprint the document. 2. Remove the cartridge, and then shake it to redistribute the toner. Reinsert the toner cartridges into the printer and close the cover. For a graphical representation of this procedure, see *Replace the toner cartridges*. 3. **Mono models only:** Make sure that the EconoMode setting is disabled, both at the printer control panel and in the print driver. 4. Make sure that the cartridge is installed correctly. 5. Print a Supplies Status Page and check the life and usage of the cartridge. 6. Replace the cartridge. 7. If the issue persists, go to support.hp.com.

Table 3-57 **Output defects**

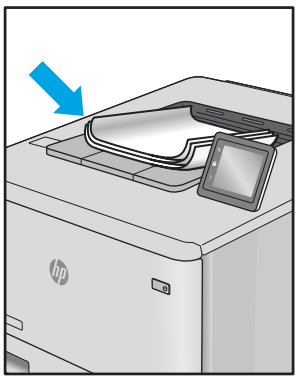
Sample	Description	Possible solutions
	Printed pages have curled edges. The curled edge can be along the short or long side of the paper. Two types of curl are possible: • **Positive curl:** The paper curls toward the printed side. The defect occurs in dry environments or when printing high-coverage pages. • **Negative curl:** The paper curls away from the printed side. The defect occurs in high-humidity environments or when printing low-coverage pages.	1. Reprint the document. 2. **Positive curl:** From the printer control panel, select a heavier paper type. The heavier paper type creates a higher temperature for printing. **Negative curl:** From the printer control panel, select a lighter paper type. The lighter paper type creates a lower temperature for printing. Try storing the paper in a dry environment prior to use, or use freshly opened paper. 3. Print in duplex mode. 4. If the issue persists, go to support.hp.com.

Table 3-57 Output defects (continued)

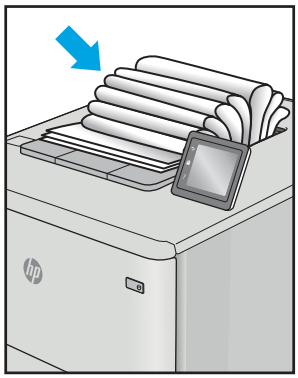
Sample	Description	Possible solutions
	The paper does not stack well in the output tray. The stack might be uneven, skewed, or the pages might be pushed out of the tray and onto the floor. Any of the following conditions can cause this defect: • Extreme paper curl • The paper in the tray is wrinkled or deformed • The paper is a non-standard paper type, such as envelopes • The output tray is too full	1. Reprint the document. 2. Extend the output bin extension. 3. If the defect is caused by extreme paper curl, refer to the troubleshooting steps for "Output curl." 4. Use a different paper type. 5. Use freshly opened paper. 6. Remove the paper from the output tray before the tray gets too full. 7. If the issue persists, go to support.hp.com.

Table 3-58 Streak defects

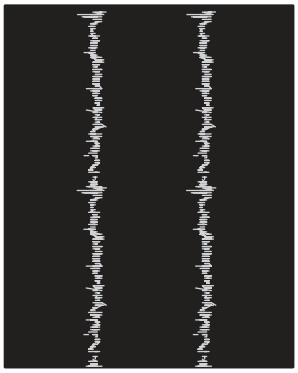
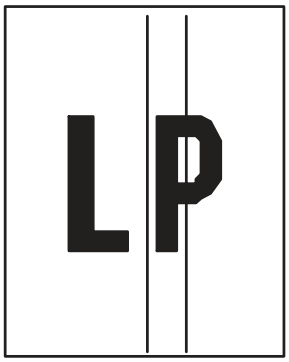
Sample	Description	Possible solutions
	Light vertical streaks that usually span the length of the page. The defect displays only in areas of fill, not in text or sections with no printed content.	1. Reprint the document. 2. Remove the cartridge, and then shake it to redistribute the toner. Reinsert the toner cartridges into the printer and close the cover. For a graphical representation of this procedure, see *Replace the toner cartridges*. 3. If the issue persists, go to support.hp.com. **NOTE:** Both light and dark vertical streaks can occur when the printing environment is outside the specified range for temperature or humidity. Refer to your printer's environmental specifications for allowable temperature and humidity levels.

Table 3-58 **Streak defects (continued)**

Sample	Description	Possible solutions
	Dark vertical lines which occur down the length of the page. The defect might occur anywhere on the page, in areas of fill or in sections with no printed content.	1. Reprint the document. 2. Remove the cartridge, and then shake it to redistribute the toner. Reinsert the toner cartridges into the printer and close the cover. For a graphical representation of this procedure, see *Replace the toner cartridges*. 3. Print a cleaning page. 4. Check the toner level in the cartridge. 5. If the issue persists, go to support.hp.com.

Copy-quality troubleshooting

Learn about copy-quality troubleshooting.

NOTE: Copy-quality (CQ) problems are associated with the integrated-scanner assembly (ISA) portion of an MFP printer. CQ defects appear on pages that are **copied** using the document feeder or flatbed glass.

Identify the location and type of the CQ problem

Resolving CQ problems involves isolating the defect to the document feeder or flatbed glass. Comparing printed output between the document feeder and the flatbed glass might determine the ISA location that is causing the CQ defect.

NOTE: If a CQ defect appears on printed output from both the document feeder **and** the flatbed glass, carefully inspect the original source for a print-quality (PQ) problem.

Document feeder isolation test

1. Mark a printed page in a way that clearly identifies it as the source document used in this isolation procedure.
2. Place the source page in the document feeder, and then make a copy.
3. Mark the copied output page to clearly identify it as output from the document feeder.
4. Compare the original and copied pages. Defects appearing on the copied page are caused by a problem in the document feeder.

Flatbed isolation test

1. Mark a printed page in a way that clearly identifies it as the source document used in this isolation procedure.
2. Place the source page on the flatbed glass, and then make a copy.
3. Mark the copied output page to clearly identify it as output from the flatbed.

4. Compare the original and copied pages. Defects appearing on the copied page are caused by a problem in the flatbed.

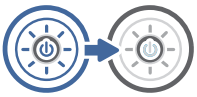
Check the scanner glass for dirt and smudges

Learn about solving copy-quality debris problems.

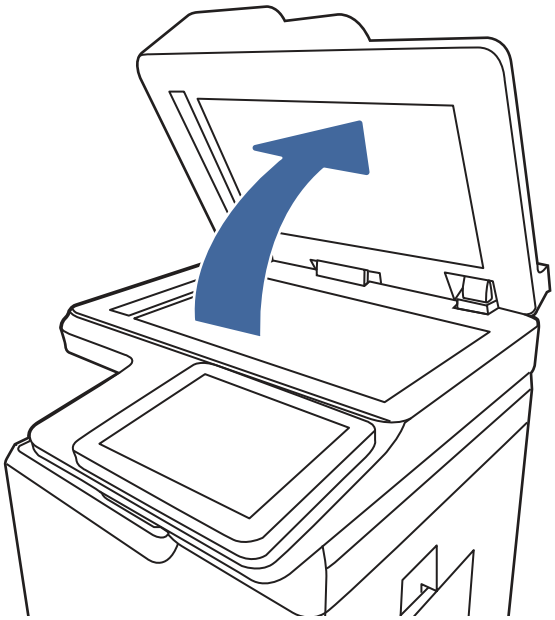
Over time, specks of debris might collect on the scanner glass and document feeder white plastic backing, which might cause print defects. Use the following procedure to clean the scanner if the printed pages have streaks, unwanted lines, black dots, poor print quality, or unclear text.

View a video of cleaning the document feeder glass and flatbed glass.

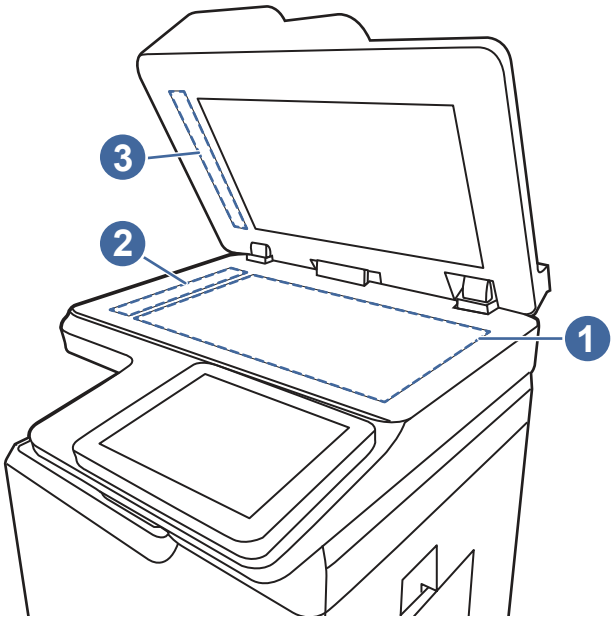
1. Press the power button to turn the printer off, and then disconnect the power cable from the electrical outlet.



2. Open the scanner lid.



3. Clean the scanner glass (callout 1) and the document feeder strips (callout 2, callout 3) with a soft cloth or sponge that has been moistened with nonabrasive glass cleaner.

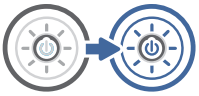


⚠ CAUTION: Do not use abrasives, acetone, benzene, ammonia, ethyl alcohol, or carbon tetrachloride on any part of the printer; these can damage the printer. Do not place liquids directly on the glass or platen. They might seep and damage the printer.

NOTE: If you are having trouble with streaks on copies when you are using the document feeder, be sure to clean the small strips of glass on the left side of the scanner (callout 2, callout 3).

4. Dry the glass and white plastic parts with a chamois or a cellulose sponge to prevent spotting.

5. Connect the power cable to an outlet, and then press the power button to turn the printer on.



Vertical lines, bands, or streaks

Learn about vertical lines, bands, or streaks copy-quality problems.

Vertical lines or streaks appear on copies and/or scans in the same direction that the paper feeds when copying and/or scanning from the document feeder. Lines or streaks might be visible on the front and/or the back side of the page. Copies and/or scans from the flatbed glass look normal. Printouts also look normal.

The line or streak might be black or in color, and can also be present on fax or digital send output (for example, when using Scan to folder or Scan to email features.

NOTE: HP has determined that **99%** of all lines and streaks on copies made by feeding the original documents through the document feeder are caused by **debris on the document feeder glass strip**. Even small specks can cause the light reflected off the original to be distorted, resulting in a line, streak, or smudge on copies or scans made from the document feeder.

Even if the document feeder glass strip and/or flatbed glass has been wiped clean, the defect might persist. Persistent vertical lines, bands, or streaks when copying from the document feeder might mean that the debris causing the print quality are not readily visible and cannot be removed with a quick cleaning.

Use the procedures below to resolve persistent lines, bands, or streak copy-quality (CQ) problems.

Locate debris and thoroughly clean the document feeder glass

1. Place a blank sheet of paper in the document feeder and mark an **X** in the lower right corner as shown.

   Figure 3-88 Load the document feeder

2. Press the Start button to make a copy of the blank page.
3. Place the copied paper face-up on the flatbed glass with the **X** located as shown.

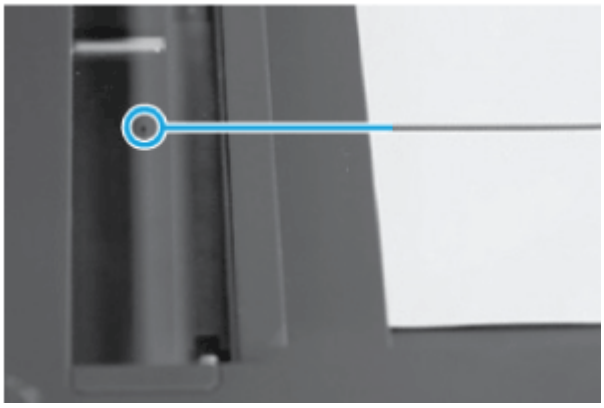
NOTE: Make sure the upper left corner of the copy is aligned with the upper left corner of the flatbed glass.

Figure 3-89 Place the copy on the flatbed



4. Follow the line or streak on the paper to the area on the document feeder glass that is causing the CQ problem.

Figure 3-90 Identify the CQ defect location



5. Use a fingernail to loosen any stubborn debris.

⚠ **WARNING!** Use only a fingernail. Other objects can scratch the document feeder glass.

Clean this specific area again (with a lint-free cloth dampened with water), and then dry the glass with a soft, lint-free cloth.

Figure 3-91 Clean the glass



6. Make another copy or scan to determine if the defect is gone.

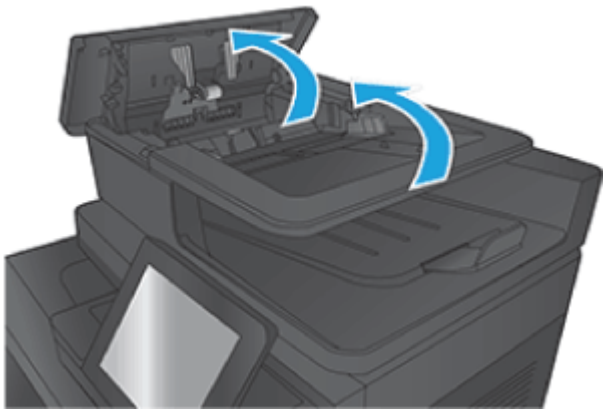
Clean the duplexer scanner glass (model specific)

NOTE: Not all MFP printers use a background selector for duplex printing.

If a *Side 2 Background Selector* cannot be located for the printer (it might not include one) skip this procedure.

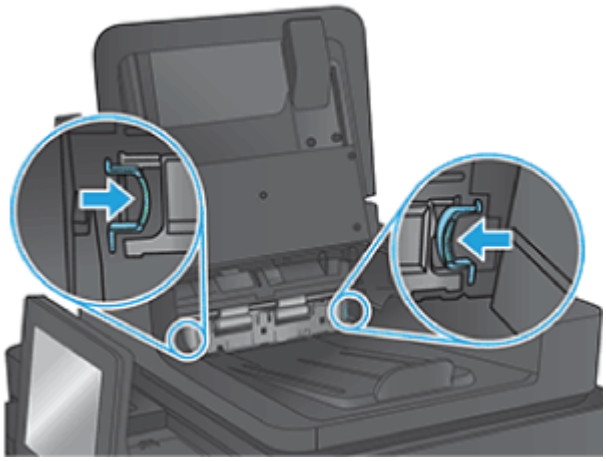
1. Release the latch and open the document feeder jam-access door.

Figure 3-92 Open the jam-access door



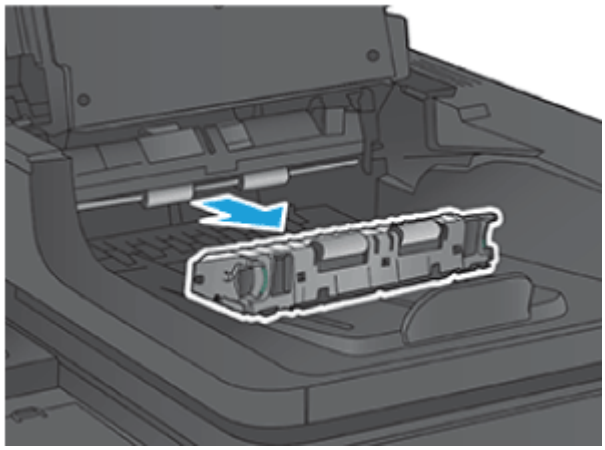
2. Unlock the Side 2 Background Selector by pressing and holding both green tabs inward towards each other.

Figure 3-93 Release the Side 2 Background Selector



3. While holding the green tabs, pull out and remove the Side 2 Background Selector.

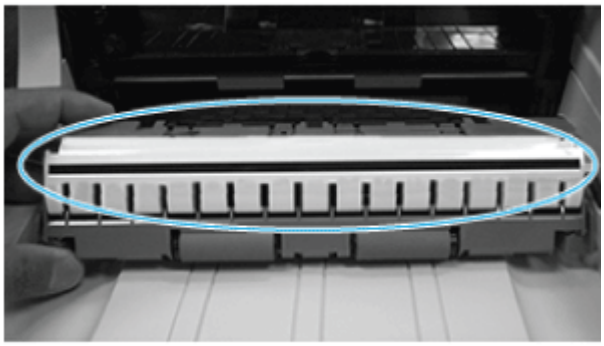
Figure 3-94 Remove the Side 2 Background Selector



4. Rotate the top to reveal the white and black backside reflector (circled in blue).

NOTE: If the white and black areas do not come clean, wipe the surface thoroughly with a damp cloth again. Dry the area with a soft, dry cloth to prevent spotting.

Figure 3-95 Locate the backside reflector



5. With the background selector removed from the document feeder, clean the inside of the scan module.
6. In the back area from where the background selector was removed, locate the Side 2 Scan Module glass found under the top area.

NOTE: The glass surface of the Side 2 Scan module sits horizontally flat and might not be easily viewable.

7. Use a soft, lint-free cloth moistened with water and apply pressure upwards behind the rollers to clean the Side 2 Scan Module Glass, making sure to that the entire width of the glass is cleaned from left to right.

NOTE: If needed, lens cleaner or non-abrasive glass cleaner can be applied to the cloth before cleaning the glass. Spray only onto the cloth and not directly onto the glass or device. Do not spray water or glass cleaner on the glass as it can seep under it and possibly damage the printer. Do not use abrasives, acetone, benzene, ethyl alcohol, or carbon tetrachloride on the glass; these can damage it and/or leave residue on the glass resulting in degraded copy/scan quality.

8. Reverse the removal steps to reinstall the Side 2 Background Selector.
9. Make another copy or scan to determine if the defect is gone.

Modify printer settings to improve scan or copy quality

Learn about printer settings to improve scan or copy quality.

Optimize printer settings to potentially improve scan or copy quality.

IMPORTANT: The printer settings described in this section are firmware dependent and might not be available for a specific printer (for example, color adjustment settings do not apply to mono printers).

Image Adjustment settings

NOTE: Settings > Print (SFP) or Copy/Print (MFP) > Image Adjustment > Background Cleanup.

Use the sliders to perform a Background Cleanup, adjust the image Darkness as well as changing the Sharpness and Contrast.

Use this feature to improve the overall quality of the copy (for example, adjusting the Darkness and Sharpness. Use the Background Cleanup setting to remove faint images from the background or to remove a light background color.

- Darkness: Adjust this setting to increase or decrease the amount of white and black in the colors.
- Contrast: Adjust this setting to increase or decrease the difference between the lightest and darkest color on the page.
- Background Cleanup: Adjust this setting if copying a faint image is a problem.
- Sharpness: Adjust this setting to clarify or soften the image. Increasing the sharpness might make text appear crisper, but decreasing it would make photographs appear smoother.

Optimize Text/Picture settings

NOTE: Settings > Scan/Digital Send Settings > Optimize Text/Picture.

Use to optimize the output for a particular type of content. You can optimize the output for text, printed pictures, or a mixture.

Use this setting to optimize the output for a particular type of content.

- Mixed: Use to optimize the setting for text and for pictures.
- Text: Use to optimize the text portion of the copy when text and/or pictures are on the original.
- Printed picture: Use to optimize line drawing and preprinted images such as magazine clippings or pages from a book. If you see bands of irregular intensity on copies, try selecting Printed picture to improve quality.
- Photographs: Use to optimize photographic prints.

Color/Black settings

NOTE: Settings > Scan/Digital Send Settings > Color/Black.

Use to enable or disable color scanning.(some highlighters will not auto detect as color).

- Automatically detect color or black: When pages without color are detected, the printer creates an image of the page in 1-bit black if other settings allow. If the other settings don't allow (File Type, for example), the image is in grayscale.
- Automatically detect color or gray: When pages without color are detected, the printer creates an image of the page in grayscale. Select this option for the best image quality for non-color pages.
- Color: Scans the documents in color.
- Black: Scans documents in black and white with a compressed file size.
- Black/Gray: Scans or prints documents in grayscale.

Light or faint copies (color models)

Learn how to resolve light or faint copy-quality problems.

Are you attempting to copy or scan highlighted text?

NOTE: When digitally sending or copying highlighted images or text objects, the image might appear lighter than expected or does not show up at all with certain brands/types of highlighter pens.

Highlighters come in bright, often fluorescent colors. Fluorescent highlighter inks tend to reflect more light than that which is absorbed by the paper source. This reflection might cause the image to not show up as well as non-fluorescent colors depending upon the scanner/MFP being used.

The most common color for highlighters is yellow, but many other colors are also found such as pink, blue, green, orange, and purples. Yellow is often the preferred color to use when making a photocopy as it tends to not produce as much of a shadow on copies or scans.

There are different color and ink properties depending upon the brand of highlighters used. Due to these differences, scanning of the images might vary greatly from not being seen at all to changing colors (for example, orange highlighter might appear brown in the copy or scan or yellow highlighter might appear green).

Automatic color detect

HP has a feature in all FutureSmart (LaserJet Enterprise Series only) printers which automatically detects color on each page. Depending upon the amount of color information on a page, the scanner might determine the page to be black and white due to a very, very small amount of color which might be considered background artifacts. This helps to reduce the file size of sent files as well as toner usage on a copied page. You might see small highlighted marks on pages print out in black and white or even disappear.

The black and white effect is due to the printer not seeing enough color on the page, in which case the whole image is rendered as a black and white page. The highlighted mark disappearing might be due to the marker characteristics not being detected by the scanner.

Does the printer have the latest firmware version installed?

No or I don't know.

A Firmware enhancement has been introduced for certain LaserJets to help with the reproduction of highlighted images.

NOTE: Some Multifunction Printers (MFPs) using FutureSmart firmware v3.5.3 or later have improved color reproduction of fluorescent highlighters when scanning or copying.

Use the following steps to identify the installed firmware version, and then upgrade the firmware if needed.

1. Print a configuration page (from the printer control panel).
2. On the printed configuration page look in the section marked **Device Information**, and then identify the **Firmware Datecode** and **Firmware Revision**.

   This is the current version of firmware installed on this printer.
3. In the US, go to www.hp.com/support/ljM406 or www.hp.com/support/ljM407 or www.hp.com/support/ljM430MFP or www.hp.com/support/ljM431MFP or www.hp.com/support/ljE40040 or www.hp.com/support/ljE42540MFP.

a. Select **Get drivers, Software, and Firmware**, and then select the appropriate product by name.

> **NOTE:** More than one printer model might be listed. Make sure to select the correct model so that the upgraded firmware supports all of the printer functions.

b. Select the driver language and operating system.

c. Locate the firmware download. If the firmware version is more recent than the one shown on the printed configuration page, select **Download**.

4. Outside the U.S., go to www.hp.com/support.

a. Select your country/region.

b. Select **Drivers & Downloads**.

c. Enter the product name in the **Find my product** dialogue box, and then select **Go**.

> **TIP:** Click on the **How do I find my product name/number?** link to see a short video on identifying the printer name and number.

d. Select the appropriate product by name.

> **NOTE:** More than one printer model might be listed. Make sure to select the correct model so that the upgraded firmware supports all of the printer functions.

e. Select the driver language and operating system.

f. Locate the firmware download. If the firmware version is more recent than the one shown on the printed configuration page, select **Download**.

5. Perform a firmware upgrade. See the *Firmware upgrades* topic in the product service manual.

6. When the upgrade process is complete, print a configuration page and verify that the upgrade firmware version was installed.

Yes

These procedures help provide settings which affect the way highlighters are scanned or copied. A firmware enhancement is available for certain printers that helps with the reproduction of highlighted images.

- **Enable Firmware Enhancement**

1. From the Home screen, select the desired scanning application (for example, Copy, E-Mail, Save to Network Folder).

2. Select More Options > Optimize Text/Picture > Text button (not slider). This enables the improved color reproduction of fluorescent highlighters.

> **TIP:** Administrators can set Text as the default setting on the device.

- **Alternative Settings**

  See Modify printer settings to improve scan or copy quality for more information.

Performance and connectivity troubleshooting

Learn about performance and connectivity troubleshooting.

Solve performance problems

Review the following information and procedures to solve performance problems.

NOTE: Tray 1 and Tray 2 are optimal for paper pickup when using special paper or media other than 75-80gsm (20lb) plain paper. For Tray 1 and Tray 2 the printer increases the number of attempts to pick up a page, which increases the reliability of successfully picking the page from the tray and decreases the possibility of a mis-pick jam.

HP recommends using Tray 1 or Tray 2 if the printer is experiencing excessive or reoccurring jams from trays other than Tray 1 and Tray 2, or for print jobs that require media other than 75-80gsm (20lb) plain paper.

Factors affecting print performance

Review the following information about factors affecting print performance.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Table 3-59 Solve performance problems

Problem	Cause	Solution
Pages print but are totally blank.	The document might contain blank pages.	Check the original document to see if content is present on all of the pages.
Pages print but are totally blank.	The printer might be malfunctioning.	To check the printer, print a Configuration page.
Pages print but are totally blank.	Make sure that the printer is not feeding multiple pages (especially if very thin paper is used).	Make sure that the paper meets HP specifications for this printer. For a complete list of specific HP-brand paper that this printer supports, go to www.hp.com/support/ljM406 or www.hp.com/support/ljM407 or www.hp.com/support/ljM430MFP or www.hp.com/support/ljM431MFP or www.hp.com/support/ljE40040 or www.hp.com/support/ljE42540MFP.
Pages print very slowly. **NOTE:** Some software programs process print jobs slowly.	Heavier paper types can slow the print job.	Print on a different type of paper.
Pages print very slowly. **NOTE:** Some software programs process print jobs slowly.	Complex pages can print slowly.	Proper fusing might require a slower print speed to ensure the best print quality.
Pages print very slowly. **NOTE:** Some software programs process print jobs slowly.	Large batches, narrow paper, and special paper such as gloss, transparency, cardstock, and HP Tough Paper can slow the print job.	Print in smaller batches, on a different type of paper, or on a different size of paper.

Table 3-59 Solve performance problems (continued)

Problem	Cause	Solution
Pages did not print.	The printer might not be pulling paper correctly.	Make sure paper is loaded in the tray correctly.
Pages did not print.	The paper is jamming in the printer.	Clear the jam.
Pages did not print.	The USB cable might be defective or incorrectly connected.	• Disconnect the USB cable at both ends and reconnect it. • Try printing a job that has printed in the past. • Try using a different USB cable.
Pages did not print.	Other devices are running on the host computer.	The printer might not share a USB port. If an external hard drive or network switchbox is connected to the same port as the printer, the other device might be interfering with the printer. To connect and use the printer, disconnect the other device or use two USB ports on the host computer.
Pages did not print.	The print job might not have arrived at the printer.	Check the printer status queue. Also, the Printing message should appear on the control panel display.

Print speeds

Print speed is the number of pages that print in one minute. Print speed depends on different engine-process speeds or operational pauses between printed pages during normal printer operation. Factors that determine the print speed of the printer include the following:

- Page formatting time

  The printer must pause for each page to be formatted before it prints. Complex pages take more time to format, resulting in reduced print speed. However, most jobs print at full engine speed.

- Media size

  Legal-size media reduces print speed because it is longer than the standard Letter- or A4–size media. A reduce print speed is used when printing on narrow media to prevent the edges of the fuser from overheating.

- Media mode

  Some media types require a reduced print speed to achieve maximum print quality on that media. For example, glossy, heavy, and specialty media (for example, envelopes or photos) require a reduced print speed. To maximize the print speed for special media types, make sure that the correct media type in the print driver is selected.

- Printer temperature

  To prevent printer damage, print speed is reduced if the printer reaches a specific internal temperature (thermal slow down). The starting temperature of the printer, ambient environment temperature, and the print job size effect the number of pages that can be printed before the printer reduces the print speed. Thermal slow down reduces print speed by printing four pages and then pausing for an amount of time before printing continues.

- Other print speed reduction factors

  Other factors (especially during large print jobs) that can cause reduced print speeds include:

  – Density control sequence; occurs every 150 pages and takes about 120 seconds

The printer does not print

If the printer does not print at all, try the following solutions.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

1. Make sure the printer is turned on and that the control panel indicates it is ready.
   - If the control panel does not indicate the printer is ready, turn the printer off and then on again.
   - If the control panel indicates the printer is ready, try sending the job again.
2. If the control panel indicates the printer has an error, resolve the error and then try sending the job again.
3. Make sure the cables are all connected correctly. If the printer is connected to a network, check the following items:
   - Check the bottom LED next to the network connection on the printer. If the network is active, the light is green.
   - Make sure that a network cable and not a phone cord is used to connect to the network.
   - Make sure the network router, hub, or switch is turned on and that it is working correctly.
4. Install the HP software for the printer. Using generic printer drivers can cause delays clearing jobs from the print queue.
5. From the list of printers on your computer, right-click the name of this product, click **Properties**, and open the **Ports** tab.
   - If a network cable is used to connect to the network, make sure the printer name listed on the **Ports** tab matches the one on the printer configuration page.
   - If a USB cable is used, and the printer is connected to a wireless network, make sure the box is checked next to **Virtual printer port for USB**.
6. If a personal firewall system on the computer is used, it might be blocking communication with the printer. Try temporarily disabling the firewall to see if it is the source of the problem.
7. If the host computer or the printer is connected to a wireless network, low signal quality or interference might be delaying print jobs.

The printer prints slowly

If the printer prints, but it seems slow, try the following solutions.

1. Make sure the computer meets the minimum specifications for this printer. For a list of specifications, go to this Web site: www.hp.com/support/ljM406 or www.hp.com/support/ljM407 or www.hp.com/support/ljM430MFP or www.hp.com/support/ljM431MFP or www.hp.com/support/ljE40040 or www.hp.com/support/ljE42540MFP.

2. When the printer is configured to print on some paper types, such as heavy paper, the printer prints more slowly so it can correctly fuse the toner to the paper. If the paper type setting is not correct for the type of paper you are using, change the setting to the correct paper type.
3. If the host computer or the printer is connected to a wireless network, low signal quality or interference might be delaying print jobs.

Solve connectivity problems

Review the following information and procedures to solve connectivity problems.

Solve USB connection problems

If you have connected the product directly to a computer, check the cable.

- Verify that the cable is connected to the computer and to the product.
- Verify that the cable is not longer than 2 m (6.65 ft). Try using a shorter cable.
- Verify that the cable is working correctly by connecting it to another product. Replace the cable if necessary.

Solve wired network problems

Review the following information and procedures to solve wired network problems.

Introduction

Learn about solving wired network problems.

Certain types of problems can indicate there is a network communication problem. These problems include the following issues:

- The periodic loss of ability to communicate with the printer
- The printer cannot be found during driver installation
- A periodic failure to print

Check the items in this topic to verify that the printer is communicating with the network. Before beginning, print a configuration page from the printer control panel and locate the printer IP address that is listed on this page.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Poor physical connection

Use the following procedure when the printer has a poor physical connection.

1. Verify that the printer is attached to the correct network port using a cable of the correct length.
2. Verify that cable connections are secure.
3. Look at the network port connection on the back of the printer, and verify that the amber activity light and the green link-status light are lit.
4. If the problem continues, try a different cable or port on the hub.

The computer is using the incorrect IP address for the printer

Use the following procedure when the computer is using the incorrect IP address for the printer.

1. Open the printer properties and click the **Ports** tab. Verify that the current IP address for the printer is selected. The printer IP address is listed on the printer configuration page.

   NOTE: To print a configuration page using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

2. If you installed the printer using the HP standard TCP/IP port, select the box labeled **Always print to this printer, even if its IP address changes**.
3. If you installed the printer using a Microsoft standard TCP/IP port, use the hostname instead of the IP address.
4. If the IP address is correct, delete the printer and then add it again.

The computer is unable to communicate with the printer

Use the following procedure when the computer is unable to communicate with the printer.

1. Test network communication by pinging the network.
   a. Open a command-line prompt on your computer.
      - For Windows, click **Start**, click **Run**, type `cmd`, and then press Enter.
      - For macOS, go to **Applications**, then **Utilities**, and open **Terminal**.
   b. Type `ping` followed by the IP address for your printer.
   c. If the window displays round-trip times, the network is working.
2. If the ping command failed, verify that the network hubs are on, and then verify that the network settings, the printer, and the computer are all configured for the same network.

The printer is using incorrect link and duplex settings for the network

HP recommends leaving these settings in automatic mode (the default setting). If you change these settings, you must also change them for your network.

New software programs might be causing compatibility problems

Verify that any new software programs are correctly installed and that they use the correct print driver.

The computer or workstation might be set up incorrectly

Use the following procedure when the computer or workstation might be set up incorrectly.

1. Check the network drivers, print drivers, and the network redirection settings.
2. Verify that the operating system is configured correctly.

The printer is disabled, or other network settings are incorrect

Use the following procedure when the printer is disabled, or other network settings are incorrect.

1. Review the configuration page to check the status of the network protocol. Enable it if necessary.

NOTE: To print a configuration page using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

2. Reconfigure the network settings if necessary.

4 Removal and replacement

When servicing the printer, several items must be considered to ensure a successful repair and to avoid damage to the printer or personal injury. Learn about these considerations and find detailed instructions for removing and replacing printer parts.

Safety and support guidelines when using the printer

Learn how to use your printer safely and review the information required when contacting HP support for printer assistance.

Safety precautions

Follow these safety protocols when handling or repairing the printer.

Product safety classification: This is a Safety Class I product, which means it has a protective earth terminal. This terminal must be connected to earth ground.

IMPORTANT: Before operation or repair, check the product and review this manual for safety warnings and instructions. Safety warnings for specific procedures are located at appropriate places in the manual.

WARNING: Hazardous voltages exist within the product.

NOTE: HP recommends that only qualified personnel trained in working with high voltage power equipment should service this unit.

Follow these precautions always:

NOTE: If you do not want to disassemble and repair the printer yourself, contact your local HP Service Representative for service, see Contact HP Support section.

Warnings and Cautions

To ensure the proper use of the printer and to prevent the printer from being damaged, follow the warning and caution symbols marked in this guide. See Conventions used in this guide.

Electrical precautions

- **Power cord instructions**
  - Make sure your power source is adequate for the product voltage rating. The voltage rating is on the product label.

Typically, the product uses either 110-127 Vac or 220-240 Vac and 50/60 Hz. Depending on a product, the voltage usage might change (100-127 Vac, for example). It is recommended to refer your product manual for the specified voltage.

- Connect the power cord between the product and a grounded AC outlet.

  CAUTION: To prevent damage to the product, use only the power cord that is provided with the product.

  Do not damage, cut, or repair the power cord. A damaged power cord can cause fire or electric shock. Replace a damaged power cord with an HP-approved power cord.

- Unplug the power cord when disassembling or assembling the printer.

  The printer utilizes a power switch (button) that is turned "ON" or "OFF". Be aware that electricity may flow on the primary side of the printer even when the printer is "OFF".

- Power off the printer and unplug the power cord and fax cord (if available) from the electrical outlet in any of the following cases:

  - When removing product enclosure or covers from the printer or when accessing internal parts of a printer.
  - If there is smoke or an unusual smell coming from the printer.
  - A piece of metal or a liquid (not part of cleaning and maintenance routines) touches internal parts of the printer.
  - During an electrical storm (with thunder and/or lightning).
  - During an electrical power failure.

Electrostatic Discharge (ESD) precautions

Electrostatic discharge (ESD) can damage electronic components inside your printer.

Use these guidelines to protect sensitive parts against damage from electrostatic discharge.

- Touch a metal object that is not painted and is grounded.
- Leave electronic parts such as a memory chip in the bag it was shipped in until you are ready to perform the installation.
- ESD wrist straps can also be used to help release excess electrostatic charge.

- **CAUTION:** 

  Some parts are sensitive to electrostatic discharge (ESD). Look for the ESD reminder when removing printer parts.

  Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly.

- Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

Handling toner

HP recommends that you wear gloves when handling toner cartridges and toner system components.

Do not expose toner or toner cartridge to fire or any heat source.

Keep imaging unit and/or toner cartridge away from children. The toner powder contained in the imaging unit and toner cartridge may be harmful, and if swallowed, you should contact a doctor.

Lifting equipment

Follow the recommendations for lifting or moving your printer.

The printed inbox guides and support documentation available on support.hp.com for your printer model will provide the lifting requirements to avoid injury and to safely move the printer.

NOTE: Do not attempt to lift heavy equipment without assistance.

Safety measures during disassembling or reassembling

IMPORTANT: Before disassembling or reassembling a printer, be sure to unplug its power cord from the electrical outlet.

NOTE: Assembly is the reverse of disassembly unless otherwise specified.

- During disassembly, reassembly, or transportation of a printer, remove the toner cartridge as necessary.
- Only fuses with the required rated current, voltage, and specified type (normal blow, time delay, etc.) should be used.

  Do not use repaired fuses or short-circuited fuse holders. Doing so, could cause a shock or fire hazard.
- Capacitors inside this product may hold a hazardous charge even if the product has been disconnected from its power source.
- Do not disable safety functions (Interlocks or safety circuits). Safety will not be assured leading to a safety hazard and potential injury.
- Note the length, diameters, and locations of screws as you remove them. When reassembling the printer, be sure to use them in their original locations.
- As a best practice safety rule, do not run the printer with any parts removed.

Ingestion hazards

This product may contain a button cell or coin battery that is not intended to be replaced.

- A swallowed button cell or coin battery can cause internal chemical burns in as little as two (2) hours.

  Death or serious injury can occur if ingested.
- Keep new and used batteries out of reach of children. Used batteries may cause severe injury or death.

Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body. Call a local poison control center for treatment information.

- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do not dispose of batteries in household trash or incinerate.

Laser radiation hazards

The printer is certified as a Class 1 laser product.

WARNING: Using controls, adjusting or performing procedures other than those specified in the user guide could result in exposure to hazardous radiation. Do not disassemble the laser/scanner unit as the laser beam can injure your eyes. An invisible laser beam is emitted within the laser/scanner unit.

Mechanical hazards

The printer has moving parts that could cause injury. To avoid personal injury, take the following precautions when working close to the printer.

- Keep your clothes and body away from the printer's moving parts.
  - Avoid wearing dangling jewelry or other hanging objects around the printer as it might be caught by moving parts and lead to injury.
  - Keep long hair tied up and away from the paper feed mechanism.
  - Ensure the sleeves or gloves do not get caught in the printer's moving parts.
- Avoid standing close to the fans as it could cause injury and could also affect print quality (by obstructing the air flow).
- Do not touch gears or moving rolls during printing.
- Do not operate the printer when having enclosure covers removed or interlock switches bypassed.
- The product may have internal sharp edges.

  Make sure the wiring does not come into contact with sharp edges, burrs, or other pointed parts. Current can leak, leading to a risk of electrical shock or fire hazard.
- During and after repair, check internal electrical wiring for squeezing, sheaths and any damage.
- - Make sure that all screws, components, wiring, connectors and so forth that were removed, have been reinstalled in the original location.
  - Do not allow any metal parts such as clips, staples and screws to fall into the printer. This could potentially short internal circuits and cause an electrical shock hazard.
  - Do not allow liquids (except those used in HP cleaning kits) to touch the internal parts of the printer. Doing so may cause fire, electric shock, or other serious hazards.

Thermal hazards

Caution: Inspection before repair for fuser

The area around the fuser unit may be hot. Wait for a few minutes until the fuser assembly cools down.

Contact HP Support

HP offers phone support to assist you for printer issues. Ensure to read the following information before contacting HP Support.

Before contacting HP Support

Before contacting support, consider checking the resources available on HP Customer Support.

1. Go to HP Customer Support (https://support.hp.com) to locate your product support page.
2. Review the documents for troubleshooting before contacting HP.

Information required when contacting HP Support

If you call an HP support representative for assistance, ensure you have the following information for HP support to answer your questions quickly:

- **Product model**: Note the printer model, product number, and serial number you are using. The product number and the serial number are typically found on the label at the back of the product.
- **Error code**: If there is an error code or message displaying on the printer control panel, note the error code and message.
- **Computer (operating system)**: Provide the name of the computer/computer operating system you are using.
- Any **special equipment or software** you are using (for example, spoolers, networks, switch-boxes, modems or special software drivers).
  - The type of interface used on your product (USB or network).
  - The software and driver name and firmware version number that you are currently using.
- **Printer service information**: You can obtain the printer service information from the Embedded Web Server (EWS). If you need to send this information by email, download it as a file from your browser, and send the file.

NOTE: Depending on your printer firmware version, the menu items in the EWS might vary.

1. Open a Web browser on your computer, and then enter the IP address of your printer to access the Embedded Web Server.
2. Click **Support** > **Service support** > **Service information** > **Display**.

Phone support

HP phone support is available on the HP support website. For assistance, go to one of the following websites:

- https://support.hp.com/contact or
- https://support.hp.com/contact/help/printer or
- https://www.hp.com/us-en/contact-hp/contact.html.

Order parts, accessories, and supplies

Find information about ordering parts and supplies for the printer.

Ordering

Order parts by authorized service providers.

Table 4-1 **Ordering**

Item or provider	Description
Order supplies and paper	www.hp.com/go/suresupply
Order parts from authorized service providers	www.hp.com/buy/parts or partsurfer.hp.com
Order through service or support providers	Contact an HP-authorized service or support provider.
Order using the HP Embedded Web Server (EWS)	To access, in a supported web browser on your computer, enter the printer IP address or host name in the address/URL field. The EWS contains a link to the HP SureSupply web site, which provides options for purchasing Original HP supplies.

Orderable parts

Not all of the parts shown in the exploded assembly diagrams are orderable parts.

Refer to the tables following the diagrams or the alphabetical/numerical parts lists to determine if a part is orderable.

Supplies and accessories

Learn about the supplies and accessories that are available for the printer.

To order cartridges, visit http://www.hp.com (some portions of the HP Web site are available in English only). Ordering cartridges online is not supported in all countries/regions. However, many countries/regions have information about ordering by telephone, locating a local store, and printing a shopping list. In addition, go to hp.com/supplies to obtain information about purchasing HP products in your country/region.

Use only the replacement cartridges that have the same cartridge number as the cartridge that is being replaced. Find the cartridge number in the following places:

- On the label of the cartridge that is being replaced.
- On a sticker inside the printer. Open the cartridge door to locate the sticker.
- Open the printer software (**HP Printer Assistant**), and then click **Shop** > **Shop For Supplies Online**.
- Open the HP Embedded Web Server (EWS), and then click **Tools** > **Supply Status** (under the **Product Information** item).

Table 4-2 **Supplies part numbers**

Item	Description	Part number (service)	Product number (new)
Toner cartridge	HP 58A Black Original LaserJet toner cartridge	CF258-67901	CF258A

Table 4-2 Supplies part numbers (continued)

Item	Description	Part number (service)	Product number (new)
Toner cartridge	HP 59A Black Original LaserJet toner cartridge	CF259-67901	CF259A
Toner cartridge	HP 76A Black Original LaserJet toner cartridge	CF276-67901	CF276A
Toner cartridge	HP 77A Black Original LaserJet toner cartridge	CF277-67901	CF277A
Toner cartridge	HP 58X High Yield Black Original LaserJet toner cartridge	CF258-67902	CF258X
Toner cartridge	HP 59X High Yield Black Original LaserJet toner cartridge	CF259-67902	CF259X
Toner cartridge	HP 76X High Yield Black Original LaserJet toner cartridge	CF276-67902	CF276X
Toner cartridge	HP 77X High Yield Black Original LaserJet toner cartridge	CF277-67902	CF277X
Toner cartridge	Black, managed toner cartridge	3PZ35-67901	W9024MC

Table 4-3 Accessories

Description	Part number (service)	Product number
550-sheet paper feeder	D9P29-67018	D9P29A
HP JetDirect 3100w BLE/NFC/Wireless accessory	3JN69-61001	3JN69A
HP Accessibility Kit	2TD64-61001	2TD64A
HP Accessibility Assistant	2MU47-61001	2MU47A
Locking Tray Guides (managed printers only)	3PZ15-67909	NA
HP Jetdirect LAN Accessory Module	5851-8004	8FP31A

Customer self-repair parts

Learn about printer customer self-repair parts.

Customer self-repair (CSR) parts are available for many HP LaserJet printers to reduce repair time.

NOTE: More information about the CSR program and benefits can be found at www.hp.com/go/csr-support and www.hp.com/go/csr-faq.

Genuine HP replacement parts can be ordered at www.hp.com/buy/parts or by contacting an HP-authorized service or support provider. When ordering, one of the following will be needed: part number, serial number (found on back of printer), product number, or printer name.

- Parts listed as **A**: Easy
- Parts listed as **B**: Difficult and/or require tools
- Parts listed as **Mandatory**: Customer installed self-replacement parts (unless the customer is willing to pay for HP service personnel to perform the repair). For these parts, on-site or return-to-depot support is not provided under the HP printer warranty.
- Parts listed as **Optional**: HP service personnel installed self-replacement parts by customer request for no additional charge during the printer warranty period.

Table 4-4 Customer self-repair (CSR) parts

Kit name	Description	CSR level	Self-replacement options	Part number
Tray 2	Replacement 250-sheet paper input tray (Tray 2)	A	Mandatory	RM2-5392-010CN
Tray 3	Replacement 550-sheet paper input tray (optional Tray 3)	A	Mandatory	RM2-5413-000CN
Tray 2 Separation Pad	Separation assembly (Tray 2)	A	Mandatory	3PZ15-67964
Tray 3 Separation Pad	Separation assembly (optional Tray 3)	A	Mandatory	3PZ15-67967
Tray 1 Pickup Roller	Tray pickup roller assembly (Multipurpose Tray 1)	A	Mandatory	3PZ15-67966
Tray 2 Pickup Roller	Tray pickup roller assembly (Tray 2)	A	Mandatory	3PZ15-67965
Tray 3 Pickup Roller	Tray pickup roller assembly (optional Tray 3)	A	Mandatory	3PZ15-67968

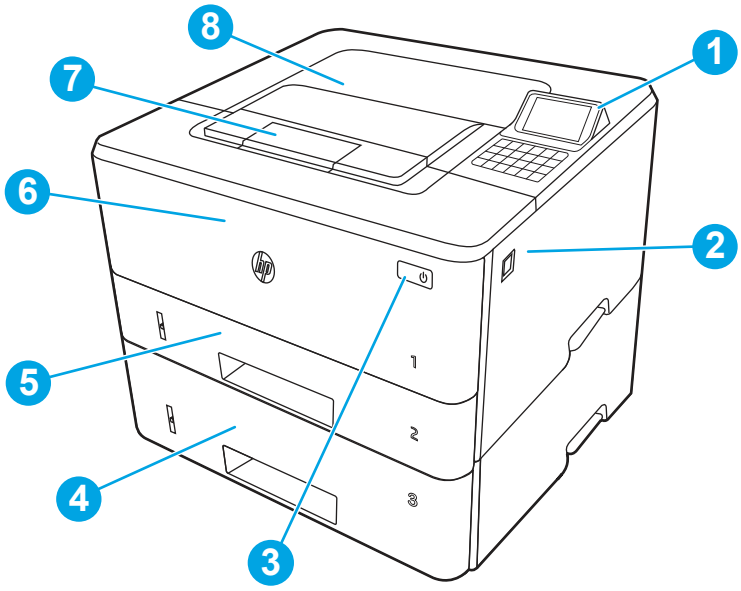
Assembly locations

Learn about major printer assembly locations.

Printer front view (SFP)

Identify the parts on the front of the printer (SFP).

Figure 4-1 Printer front view (SFP)

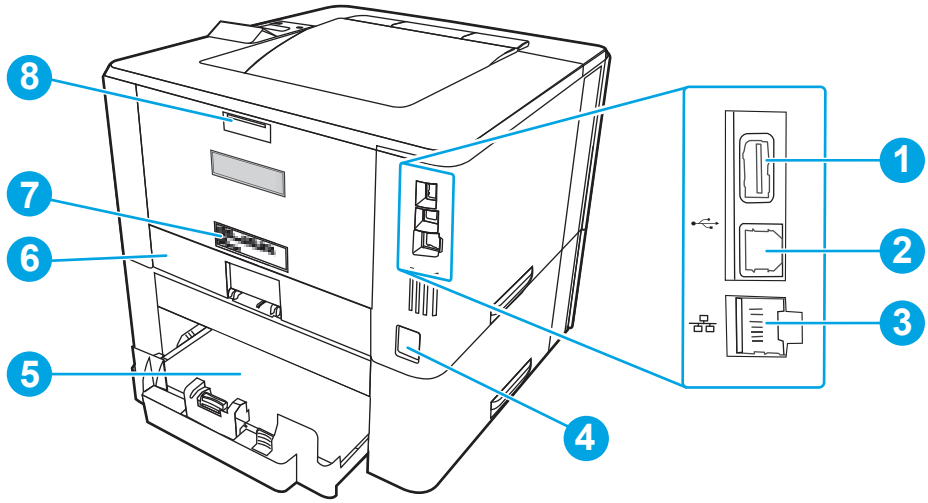


Number	Description
1	Color non-touch control panel with 10-key keypad
2	Front door release button (access to the toner cartridge)
3	Power on/off button
4	Tray 3 (optional)
5	Tray 2
6	Tray 1
7	Output bin extension
8	Output bin

Printer back view (SFP)

Identify the parts on the back of the printer (SFP).

Figure 4-2 Printer rear view (SFP)

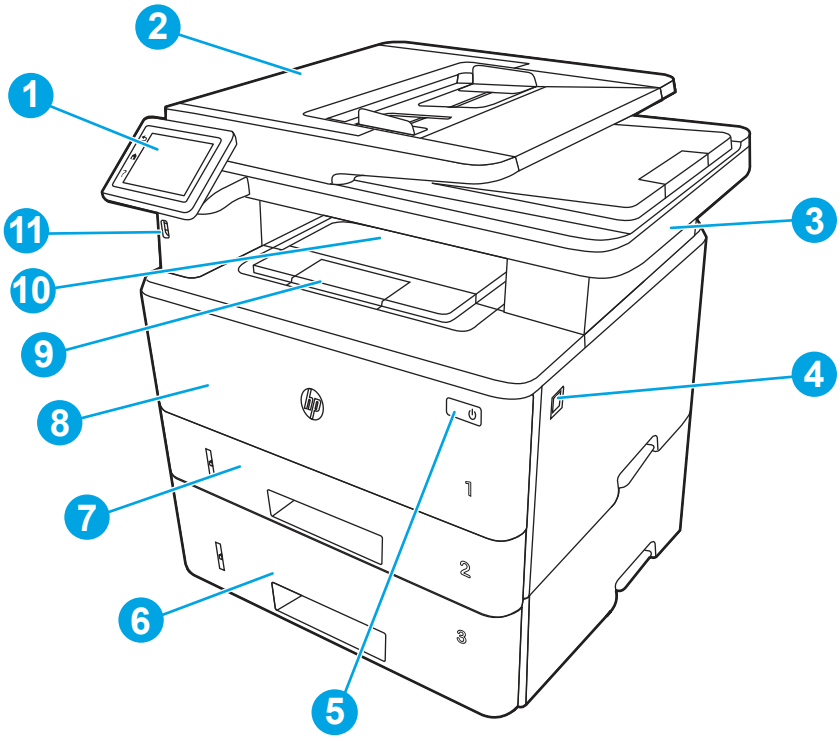


Number	Description
1	USB port for job storage or connecting accessories
2	USB port for direct connection to a computer
3	Ethernet port
4	Power connection
5	Tray 3 (optional) NOTE: Tray 3 extends when legal-size or A4-size paper is loaded.
6	Dust cover for Tray 2 NOTE: Dust cover flips up when legal-size or A4-size paper is loaded.
7	Serial number and product number label
8	Rear door (access for clearing jams)

Printer front view (MFP)

Identify the parts on the front of the printer (MFP).

Figure 4-3 Printer front view (MFP)

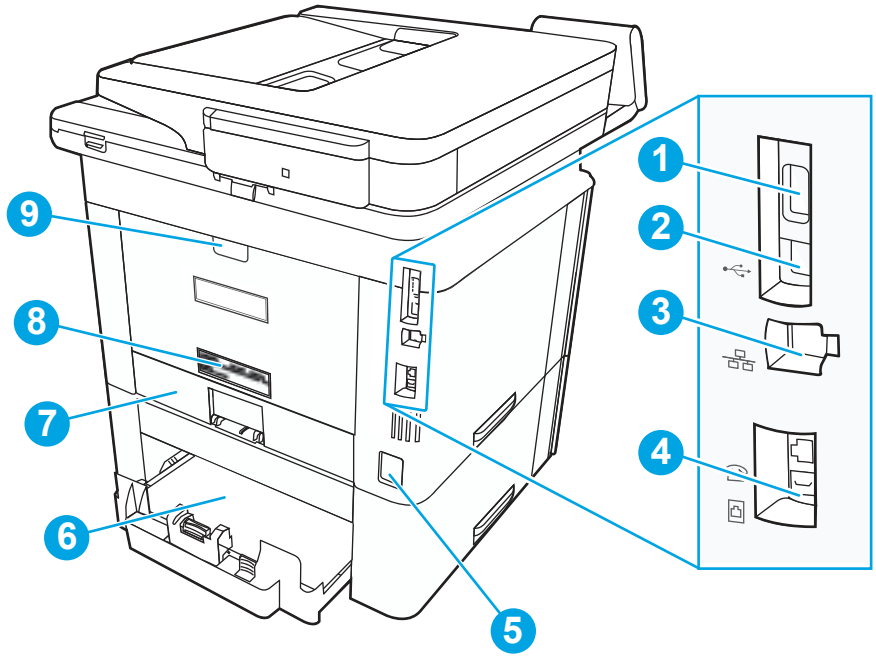


Number	Description
1	Control panel (tilts up for easier viewing)
2	Document feeder
3	Scanner
4	Front door release button (access to the toner cartridge)
5	Power on/off button
6	Tray 3 (optional)
7	Tray 2
8	Tray 1
9	Output bin extension
10	Output bin
11	Walk-up USB port (for printing and scanning without a computer)

Printer back view (MFP)

Identify the parts on the back of the printer (MFP).

Figure 4-4 Printer rear view (MFP)



Number	Description
1	USB port (for job storage and private printing)
2	USB interface port
3	Ethernet port
4	Fax "line in" port (for attaching the fax phone line to the printer)
5	Power connection
6	Tray 3 (optional) NOTE: Tray 3 extends when legal-size or A4-size paper is loaded.
7	Dust cover for Tray 2 NOTE: Dust cover flips up when legal-size or A4-size paper is loaded.
8	Serial number and printer number label
9	Rear door (provides access for clearing jams)

Customer self-repair (CSR) A parts and accessories

Customer self-repair (CSR) A parts are parts that a customer replaces without assistance from a field technician. These parts can be replaced without the use of any tools.

Removal and replacement: RM2-5392-010CN 250-sheet paper input tray

Learn how to remove and replace the Tray 2 cassette.

View a video of how to remove and replace the Tray 2 cassette.

Mean time to repair: 2 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-5 Part information

Part number	Part description
RM2-5392-010CN	Tray 2

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-5 Remove the tray



2. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

3. Install Tray 2

Follow these steps to install Tray 2.

- Slide the tray straight into the printer to install it.

Figure 4-6 **Install the tray**



Removal and replacement: RM2-5413-000CN optional Tray 3 cassette

Learn how to remove and replace the Tray 3 cassette.

View a video of how to remove and replace the Tray 3 cassette.

Mean time to repair: 2 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-6 **Part information**

Part number	Part description
RM2-5413-000CN	Tray 3

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

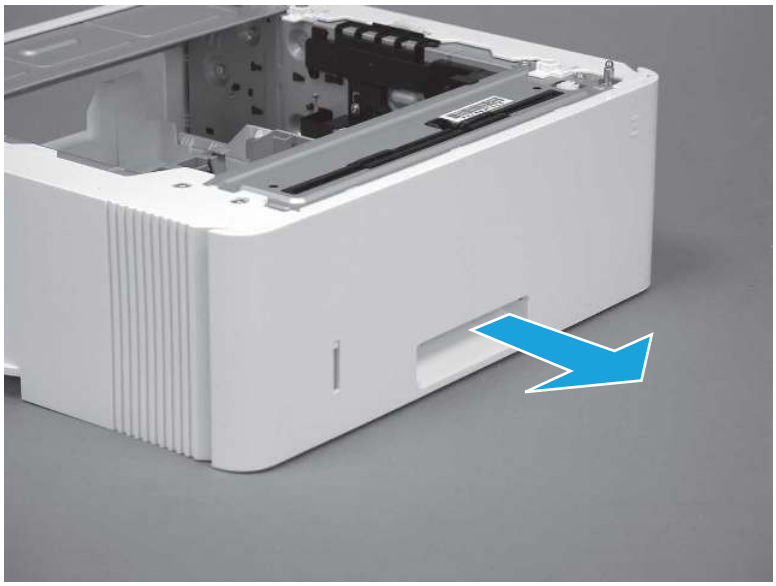
Print any pages necessary to make sure the printer is functioning correctly.

1. Remove optional Tray 3

Follow these steps to remove optional Tray 3.

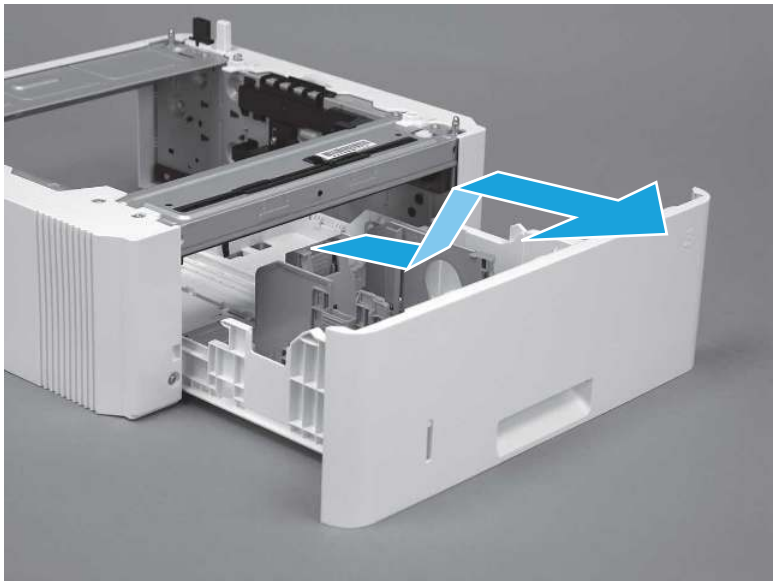
1. Pull the tray straight out of the printer until it stops.

Figure 4-7 **Pull the tray out of the printer**



2. Slightly lift up on the front of the tray to release it, and then continue to pull the tray out of the accessory to remove it.

Figure 4-8 Release and remove the tray



2. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

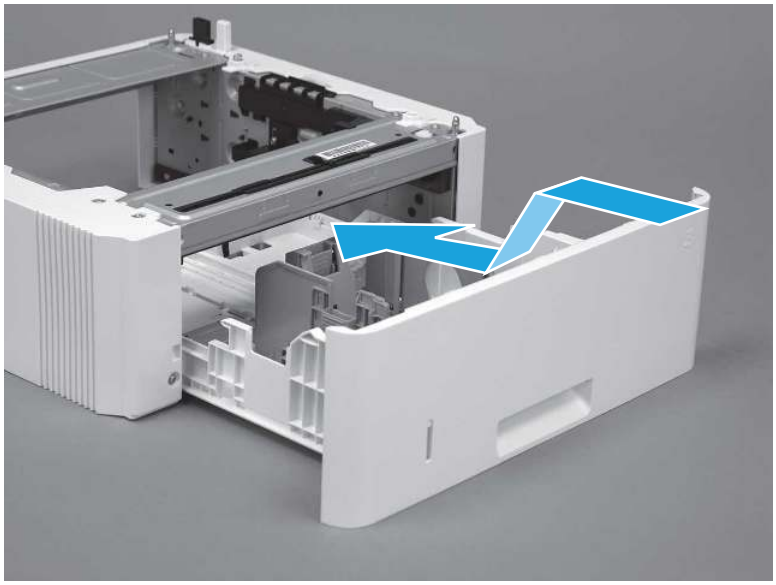
NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

3. Install optional Tray 3

Follow these steps to install optional Tray 3.

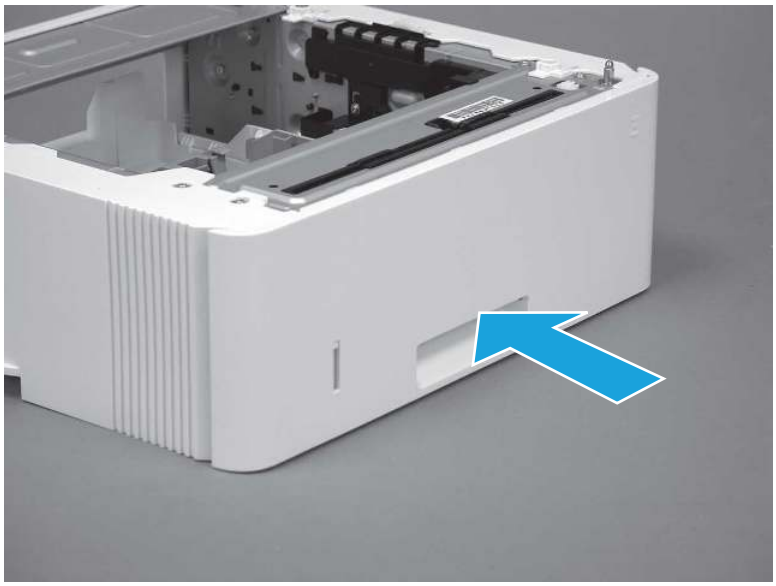
1. With the tray at a slight angle, align the sides of the tray with the rails in the accessory, and then partially slide the tray into the accessory.

Figure 4-9 **Install the tray**



2. Push the tray straight into the accessory to close it

Figure 4-10 **Close the tray**



Removal and replacement: 3PZ15-67966 multipurpose tray roller

Learn how to remove and replace the Tray 1 roller.

View a video of how to remove and replace the Tray 1 roller.

Mean time to repair: 2 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-7 Part information

Part number	Part description
3PZ15-67967	Tray 1 Pickup Roller

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove the roller

Follow these steps to remove the roller.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

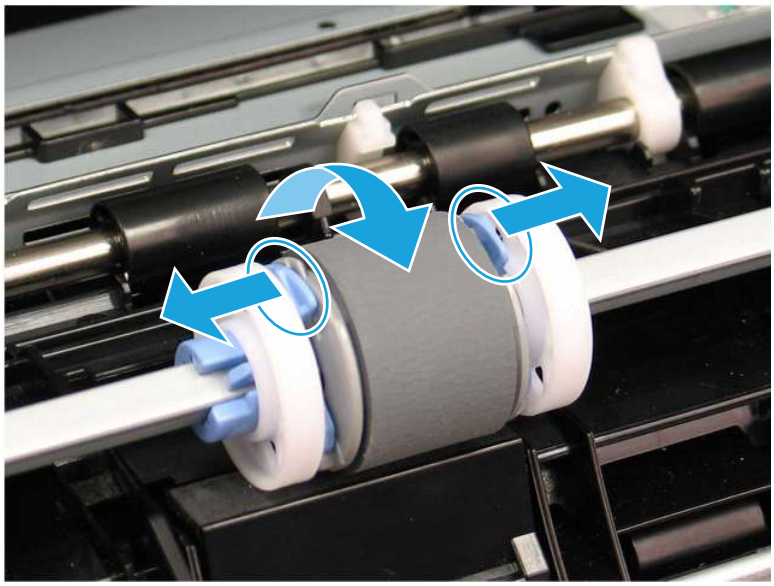
1. Press the door-release button, and then open the toner-cartridge door

Figure 4-11 Open the toner-cartridge door



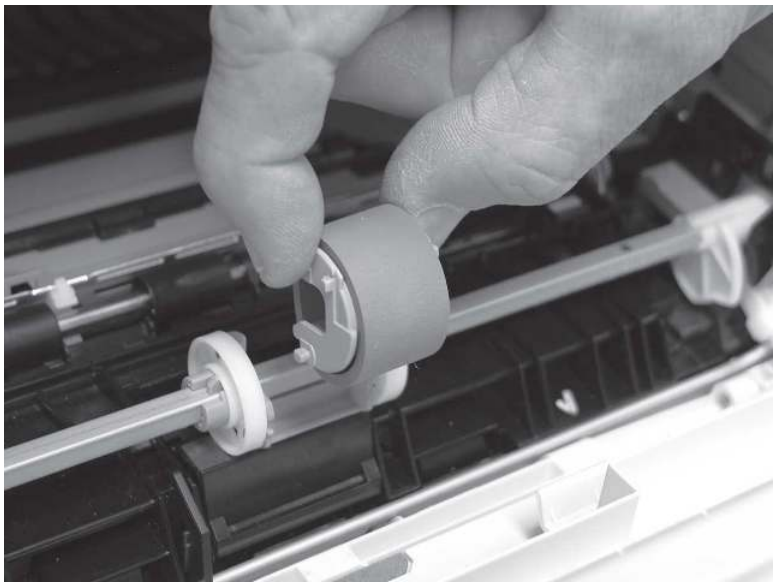
2. Release two tabs between the roller collar and roller, and then rotate the top of the roller out and away from the printer.

Figure 4-12 Release the roller



3. Remove the roller.

Figure 4-13 **Remove the roller**



2. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

3. Install the roller

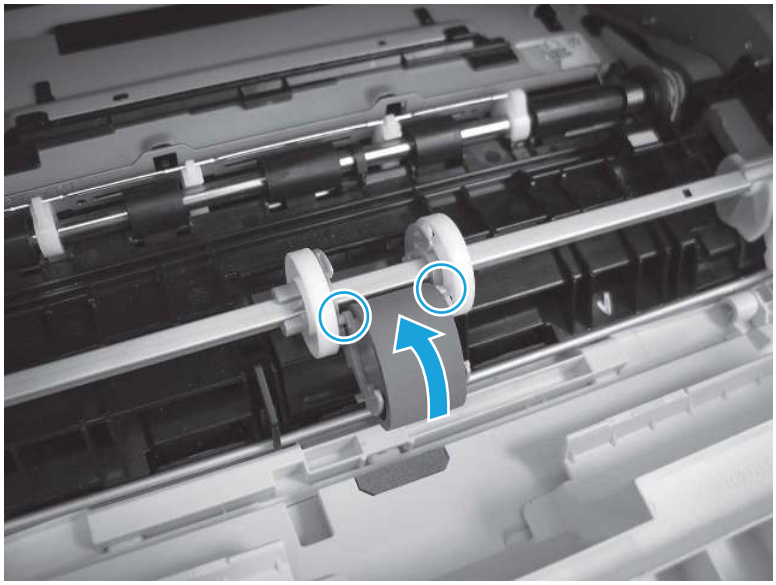
Follow these steps to install the roller.

CAUTION: Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

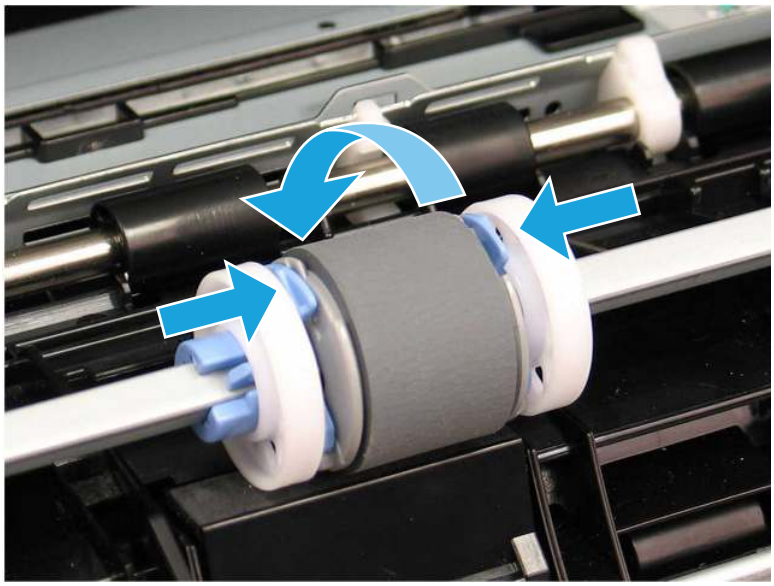
1. Position the pickup roller with the pins in the provided slots on the holder, and then rotate the top of the roller up and toward the printer.

Figure 4-14 **Install the roller**



2. Continue to rotate the top of the roller toward the printer (callout 1), until two tabs (callout 2) snap into place.

Figure 4-15 Engage two tabs



3. Close the toner-cartridge door

Figure 4-16 Close the toner-cartridge door



Removal and replacement: 3PZ15-67965 Tray 2 paper pickup roller assembly

Learn how to remove and replace the Tray 2 pickup roller.

View a video of how to remove and replace the Tray 2 pickup roller.

Mean time to repair: 2 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-8 Part information

Part number	Part description
3PZ15-67965	Tray 2 Pickup Roller

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-17 Remove the tray



2. Remove the pickup roller assembly (Tray 2)

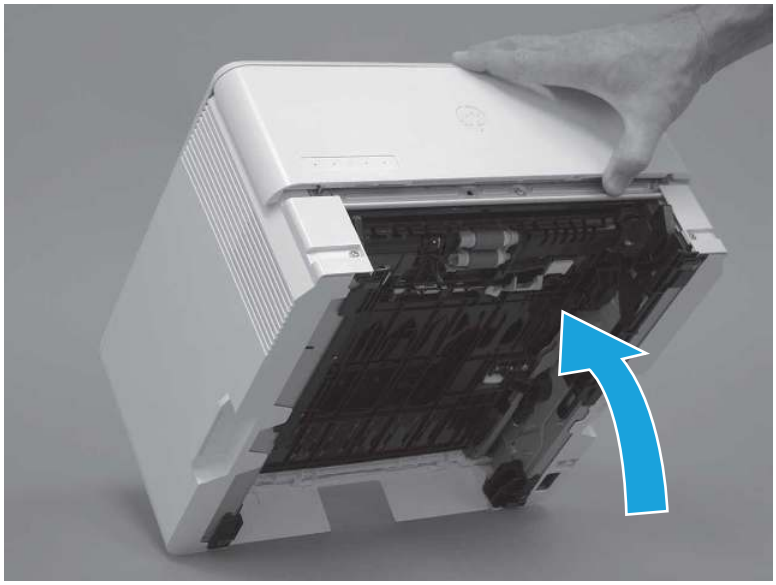
Follow these steps to remove the pickup roller assembly (Tray 2).

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

1. Carefully rotate the printer backward.

CAUTION: To avoid damage to the rear cassette cover, keep it in the closed position

Figure 4-18 Tilt the printer backward



2. Continue rotate the printer backward until it rests on the rear cover, bottom-side face forward.

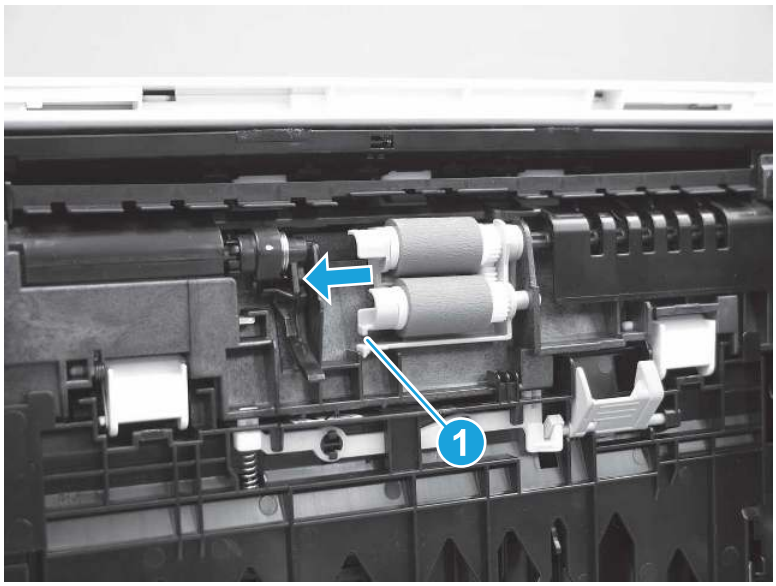
⚠ **CAUTION:** **MFP printers only**: The document feeder is not captive and can unexpectedly open when the printer is tilted backward.

Figure 4-19 Place the printer bottom-side face forward



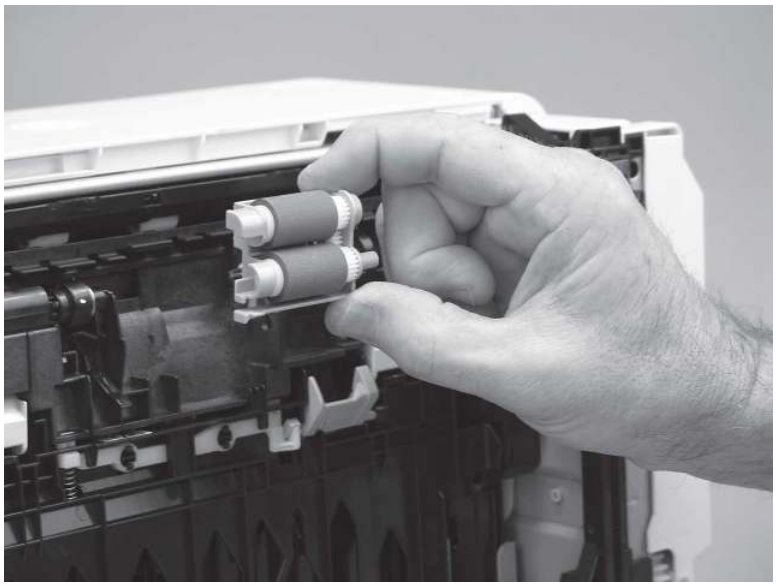
3. Release one tab (callout 1), and then slide the roller holder toward the left side of the printer to release it.

Figure 4-20 Release one tab



4. Remove the roller assembly.

Figure 4-21 **Remove the roller assembly**



3. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

4. Install the pickup roller assembly (Tray 2)

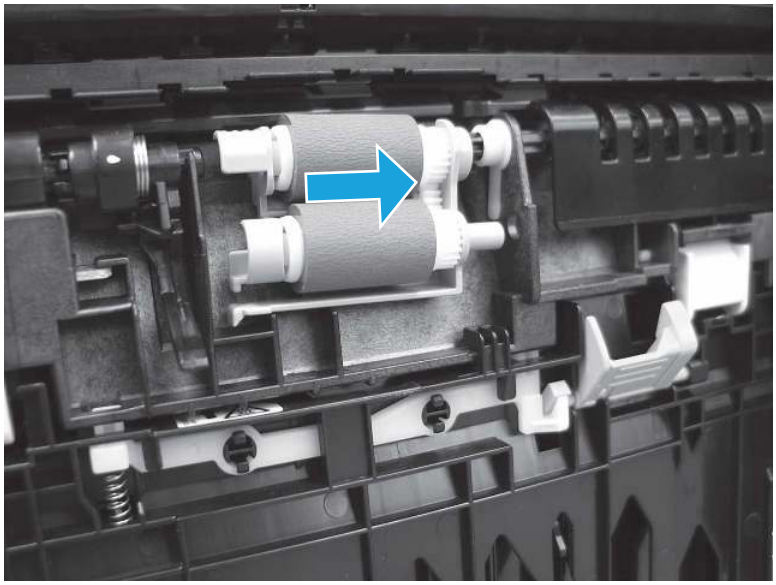
Follow these steps to install the pickup roller assembly (Tray 2).

CAUTION: Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

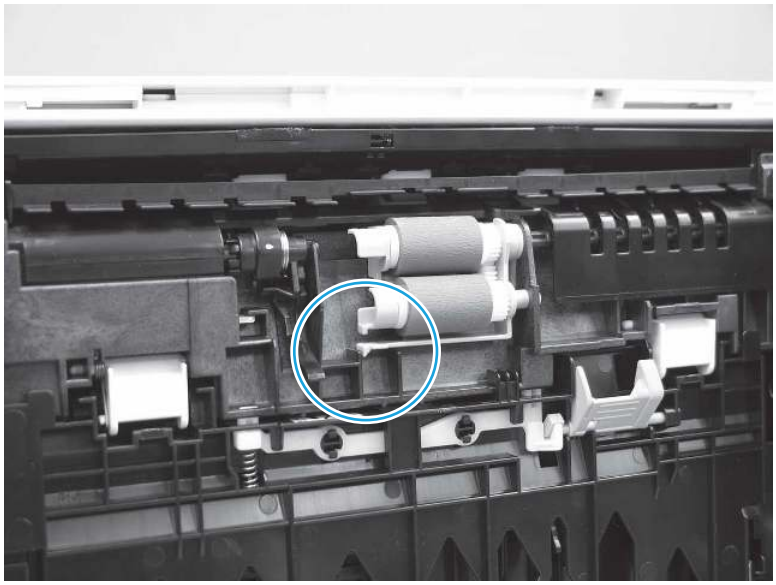
1. Position the roller holder assembly in the printer as shown, and then slide it toward the right side of the printer.

Figure 4-22 **Install the roller holder**



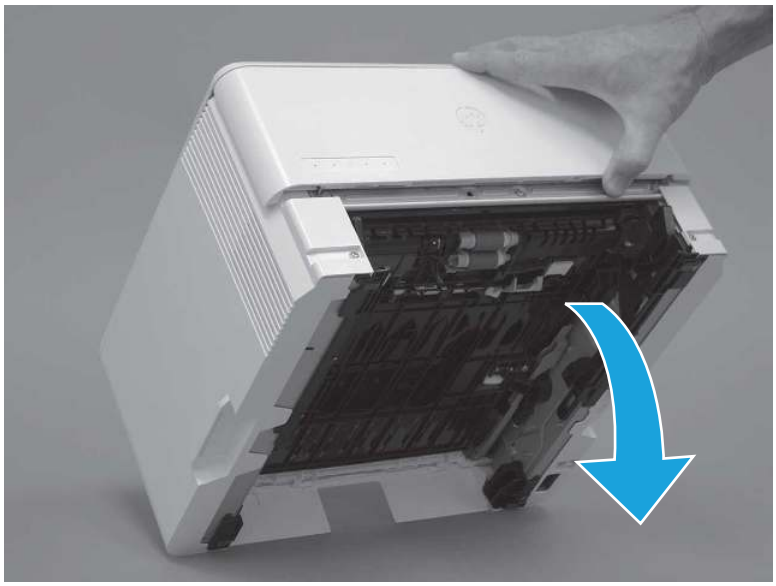
2. Make sure that the tab snaps into place.

Figure 4-23 Check the tab



3. Carefully rotate the printer forward.

Figure 4-24 Rotate the printer forward



4. Continue rotate the printer forward until it rests in the operational position.

Figure 4-25 **Place the printer in the operational position**



5. Install Tray 2

Follow these steps to install Tray 2.

- Slide the tray straight into the printer to install it.

Figure 4-26 **Install the tray**



Removal and replacement: 3PZ15-67964 Tray 2 separation roller assembly

Learn how to remove and replace the Tray 2 separation roller.

View a video of how to remove and replace the Tray 2 separation roller.

Mean time to repair: 2 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-9 Part information

Part number	Part description
3PZ15-67964	Separation assembly (Tray 2)

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-27 Remove the tray

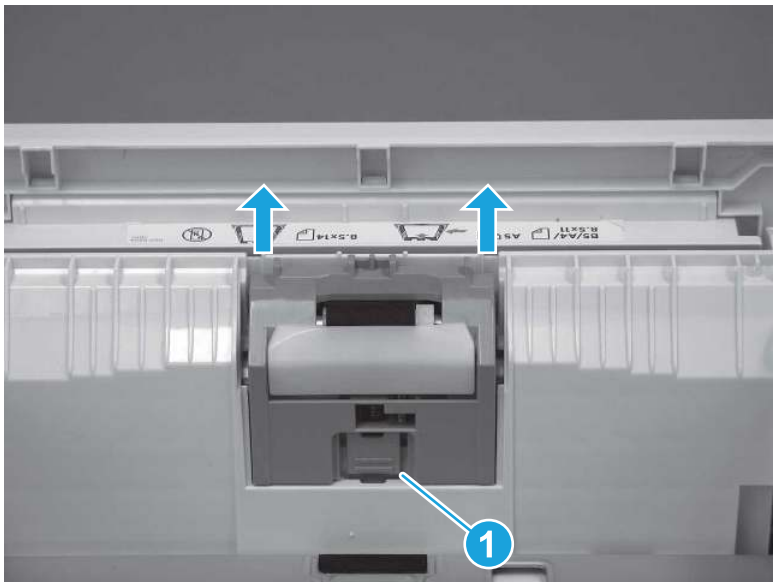


2. Remove the separation pad roller assembly (Tray 2)

Follow these steps to remove the separation pad roller assembly (Tray 2).

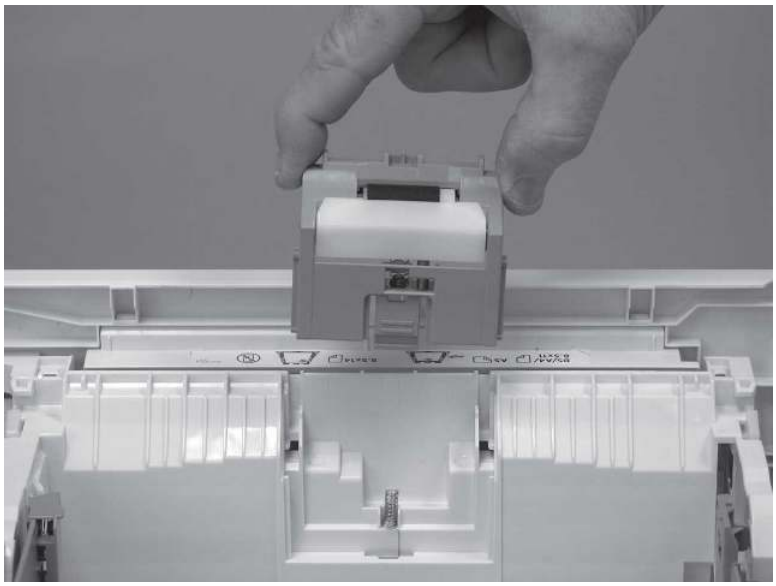
1. Press the locking lever (callout 1), and then pull the separation roller assembly straight up to release it.

Figure 4-28 Release the assembly



2. Remove the assembly.

Figure 4-29 **Remove the assembly**



3. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

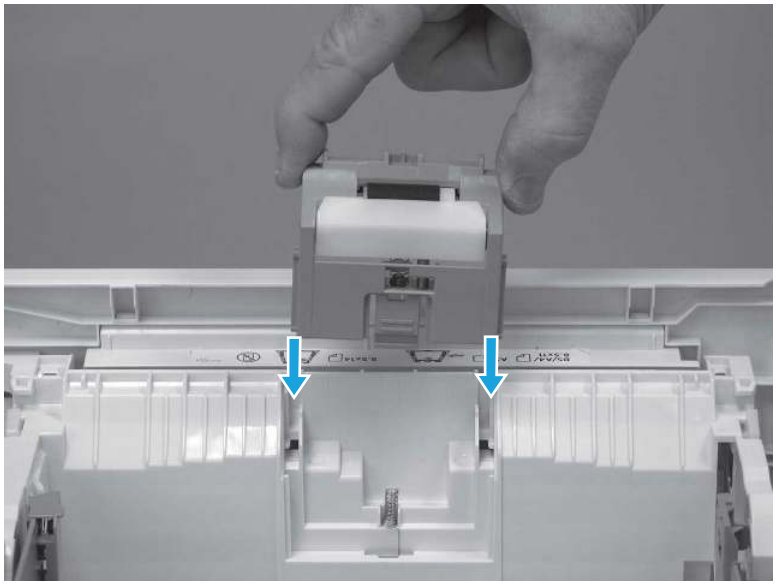
NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

4. Install the separation pad roller assembly (Tray 2)

Follow these steps to install the separation pad roller assembly (Tray 2).

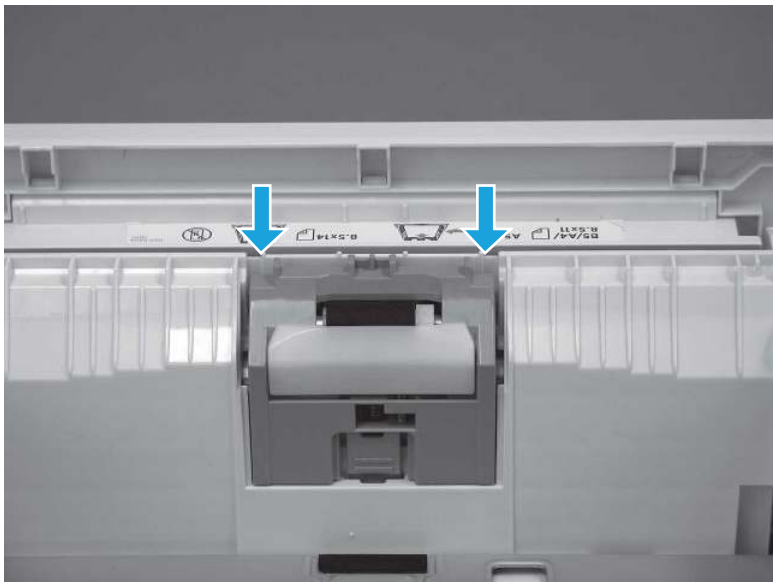
1. Install the assembly in the slots in the cassette.

Figure 4-30 **Install the assembly (1 of 2)**



2. Push the separation roller assembly straight down until it snaps into place.

Figure 4-31 **Install the assembly (2 of 2)**



5. Install Tray 2

Follow these steps to install Tray 2.

- Slide the tray straight into the printer to install it.

Figure 4-32 **Install the tray**



Removal and replacement: 3PZ15-67968 optional Tray 3 paper pickup roller assembly

Learn how to remove and replace the Tray 3 pickup roller.

View a video of how to remove and replace the Tray 3 pickup roller.

Mean time to repair: 2 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-10 **Part information**

Part number	Part description
3PZ15-67968	Tray pickup roller assembly (optional Tray 3)

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

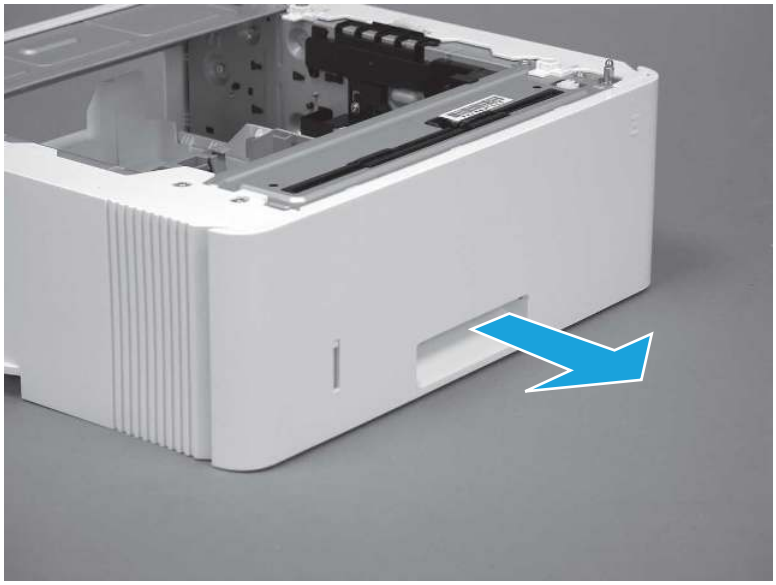
Print any pages necessary to make sure the printer is functioning correctly.

1. Remove optional Tray 3

Follow these steps to remove optional Tray 3.

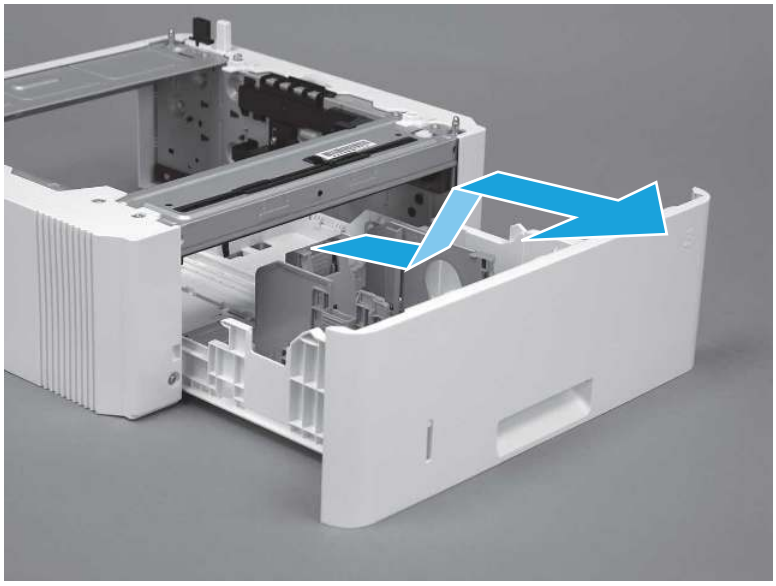
1. Pull the tray straight out of the printer until it stops.

Figure 4-33 Pull the tray out of the printer



2. Slightly lift up on the front of the tray to release it, and then continue to pull the tray out of the accessory to remove it.

Figure 4-34 Release and remove the tray



2. Remove the pickup roller assembly (optional Tray 3)

Follow these steps to remove the pickup roller assembly (optional Tray 3).

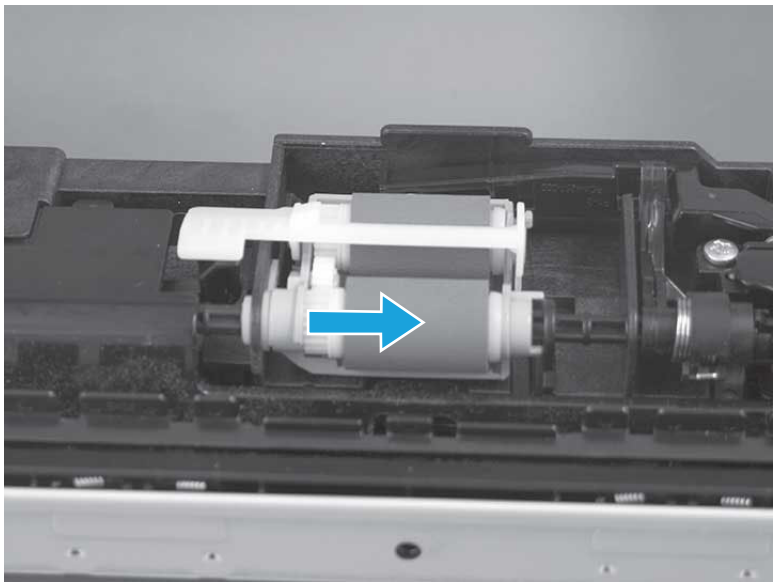
1. Carefully turn the accessory over to expose the roller assembly.

Figure 4-35 Turn the accessory over



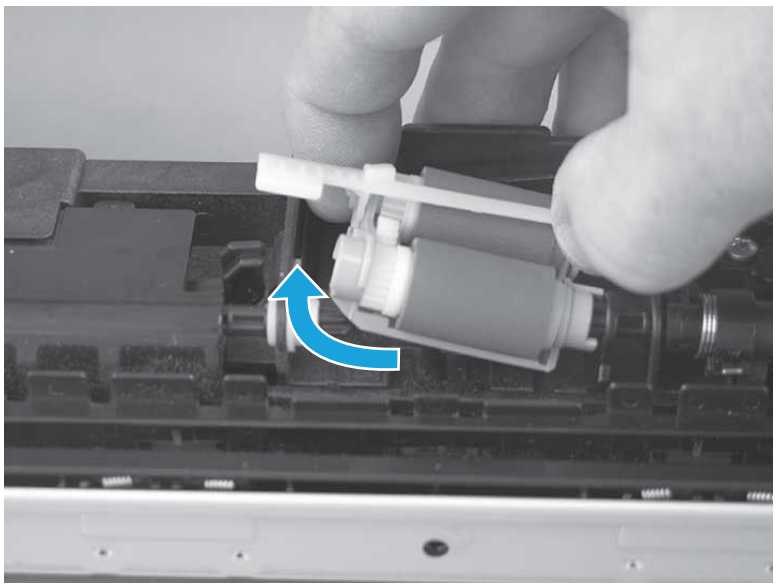
2. Slide the roller holder to the right to compress the spring-loaded shaft and release the assembly.

Figure 4-36 Release the roller assembly



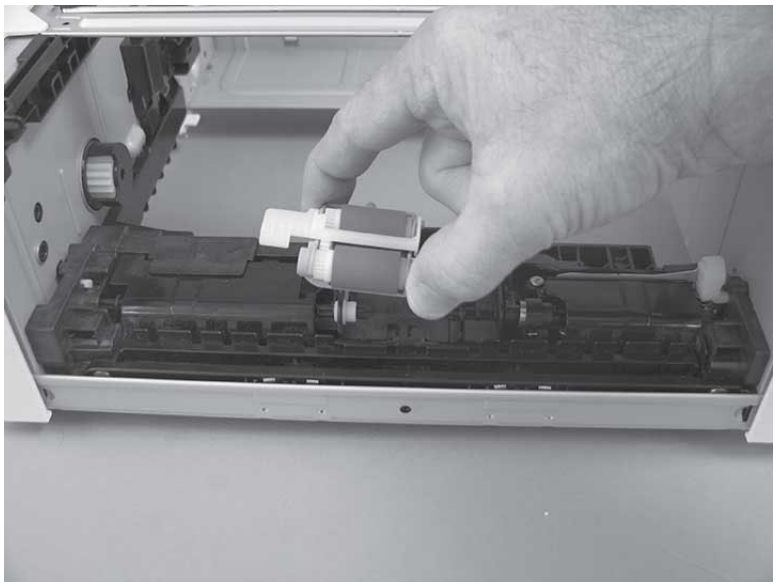
3. Rotate the end of the assembly up and away from the accessory.

Figure 4-37 Rotate the assembly up



4. Remove the roller assembly.

Figure 4-38 Remove the roller assembly



3. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

4. Install the pickup roller assembly (optional Tray 3)

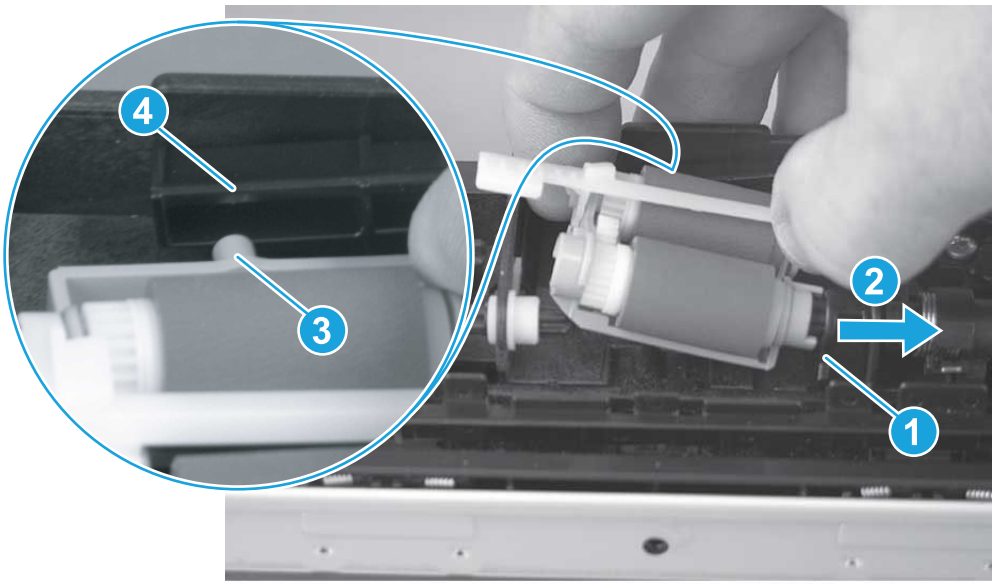
Follow these steps to install the pickup roller assembly (optional Tray 3).

CAUTION: Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

1. Install the right end of the assembly on the spring-loaded shaft (callout 1), and then slide it to the right to compress the shaft (callout 2).

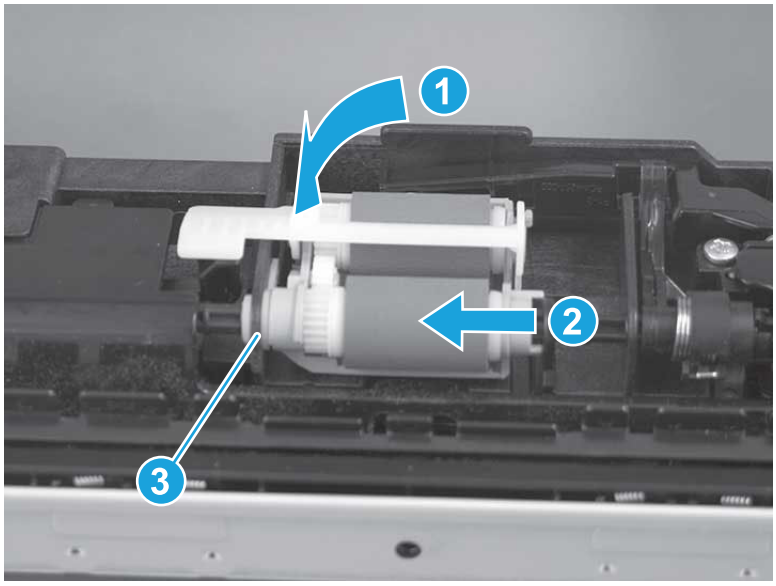
IMPORTANT: Make sure that the pin on the back of the holder (callout 3) is inserted in the slot (callout 4) in the lever arm. If the pin is not correctly installed, the accessory will not pick paper.

Figure 4-39 **Install the roller assembly**



2. Rotate the left end of the assembly down and into place (callout 1), and then slide the assembly to the left (callout 2) to engage the drive end of the assembly with the drive shaft (callout 3).

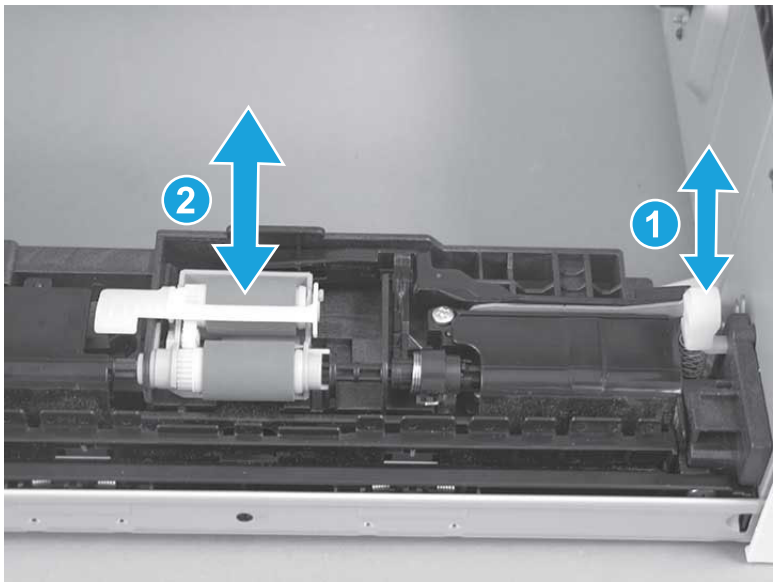
Figure 4-40 Engage the assembly



3. Push down and then release the tray-roller actuator (callout 1) and observe the roller assembly. It should move up and down (callout 2) in response to the actuator.

NOTE: If it does not, remove the roller assembly and reinstall it making sure that the pin on the back of the assembly is in the lever arm. See the previous steps in this section.

Figure 4-41 Check the installation

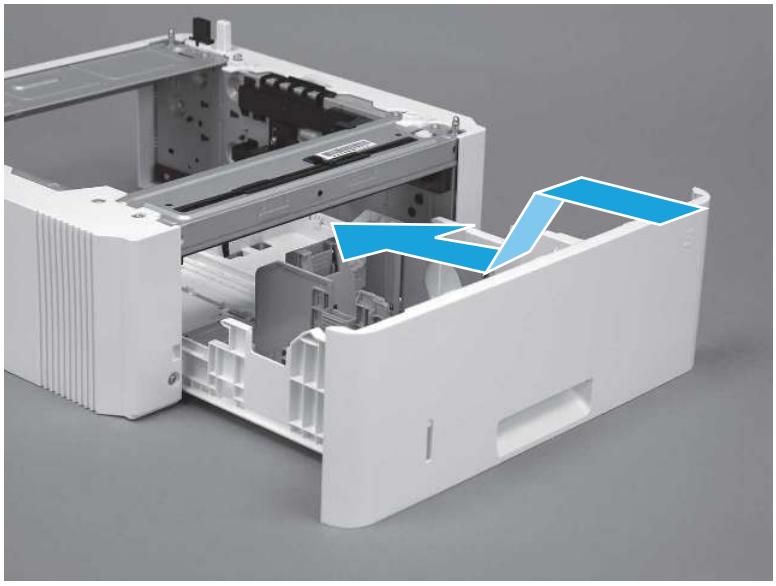


5. Install optional Tray 3

Follow these steps to install optional Tray 3.

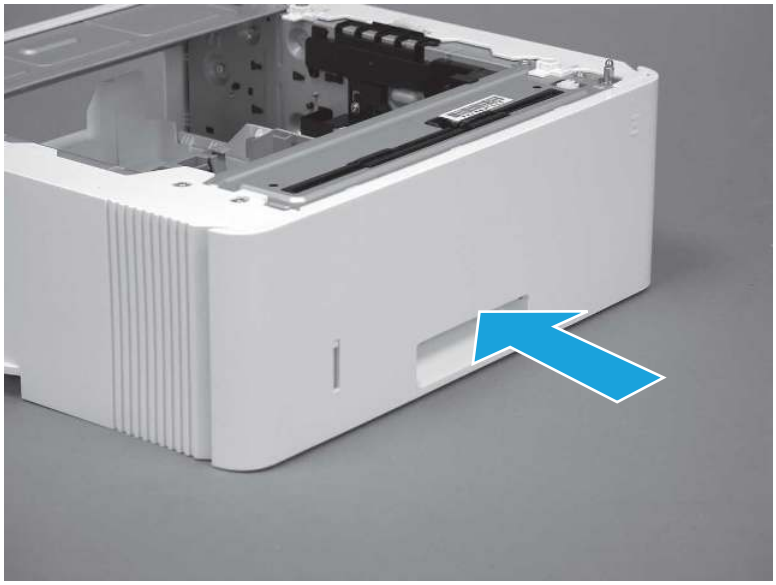
1. With the tray at a slight angle, align the sides of the tray with the rails in the accessory, and then partially slide the tray into the accessory.

Figure 4-42 Install the tray



2. Push the tray straight into the accessory to close it

Figure 4-43 Close the tray



Removal and replacement: 3PZ15-67967 optional Tray 3 separation roller assembly

Learn how to remove and replace the Tray 3 separation roller.

View a video of how to remove and replace the Tray 3 separation roller.

Mean time to repair: 2 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-11 Part information

Part number	Part description
3PZ15-67967	Tray 3 Separation Pad

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

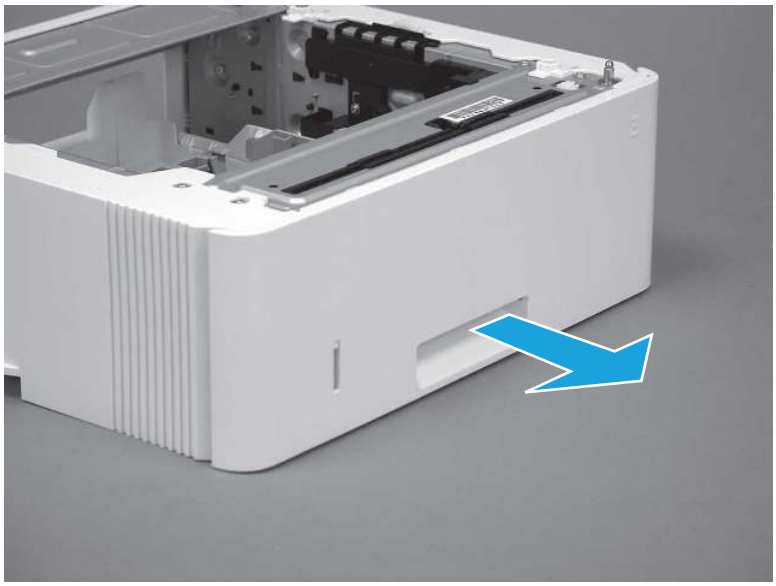
Print any pages necessary to make sure the printer is functioning correctly.

1. Remove optional Tray 3

Follow these steps to remove optional Tray 3.

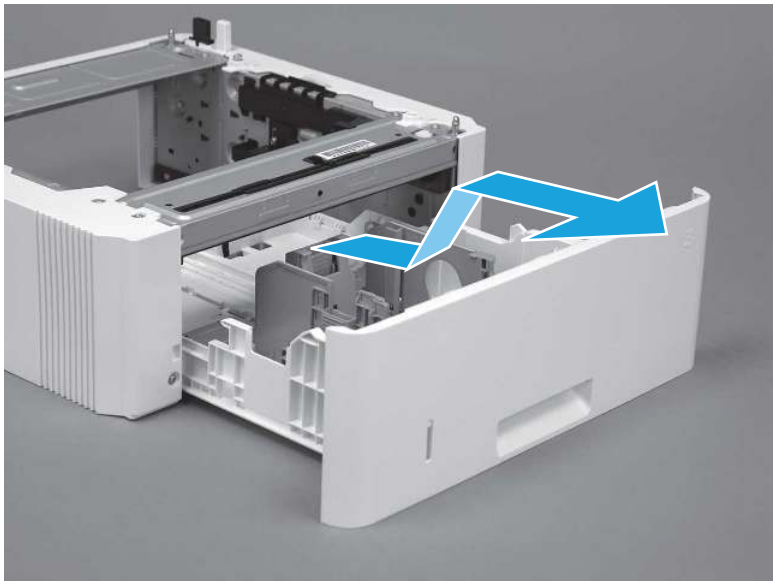
1. Pull the tray straight out of the printer until it stops.

Figure 4-44 **Pull the tray out of the printer**



2. Slightly lift up on the front of the tray to release it, and then continue to pull the tray out of the accessory to remove it.

Figure 4-45 **Release and remove the tray**

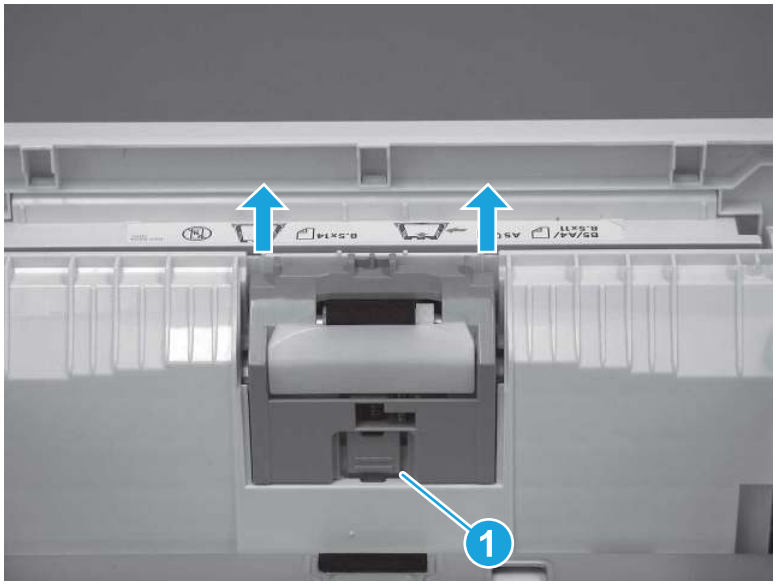


2. Remove the separation roller assembly (optional Tray 3)

Follow these steps to remove the separation roller assembly (optional Tray 3).

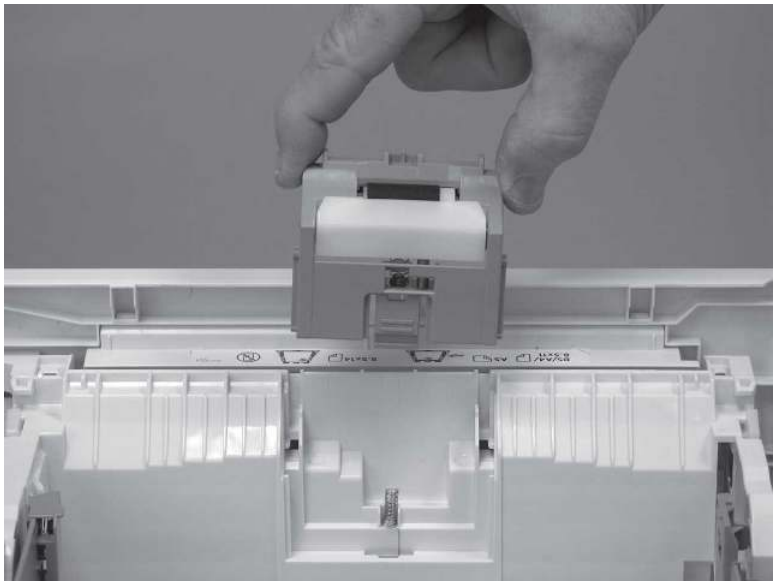
1. Press the locking lever (callout 1), and then pull the separation roller assembly straight up to release it.

Figure 4-46 Release the assembly



2. Remove the assembly.

Figure 4-47 Remove the assembly



3. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

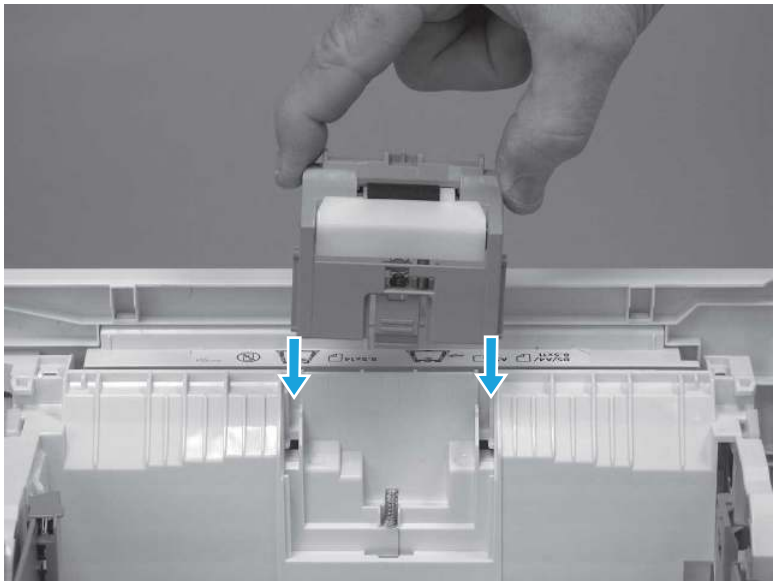
NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

4. Install the separation pad roller assembly (optional Tray 3)

Follow these steps to install the separation pad roller assembly (optional Tray 3).

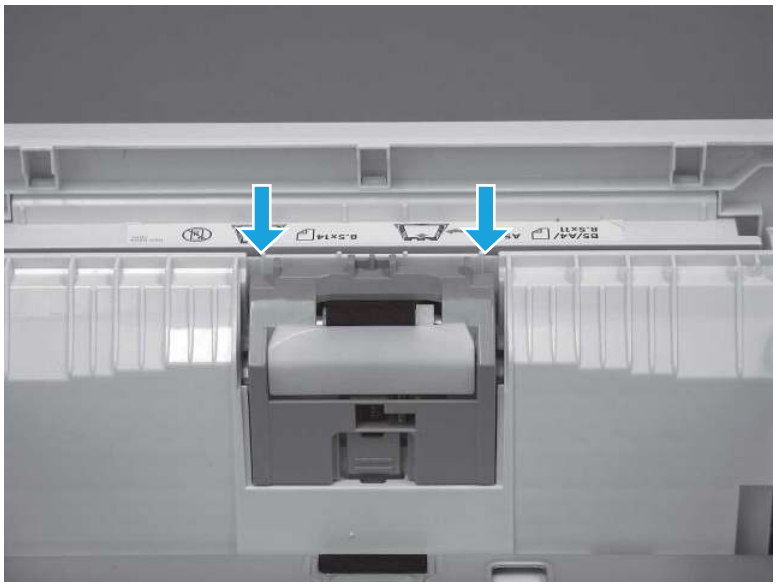
1. Install the assembly in the slots in the cassette.

Figure 4-48 Install the assembly (1 of 2)



2. Push the separation roller assembly straight down until it snaps into place.

Figure 4-49 Install the assembly (2 of 2)

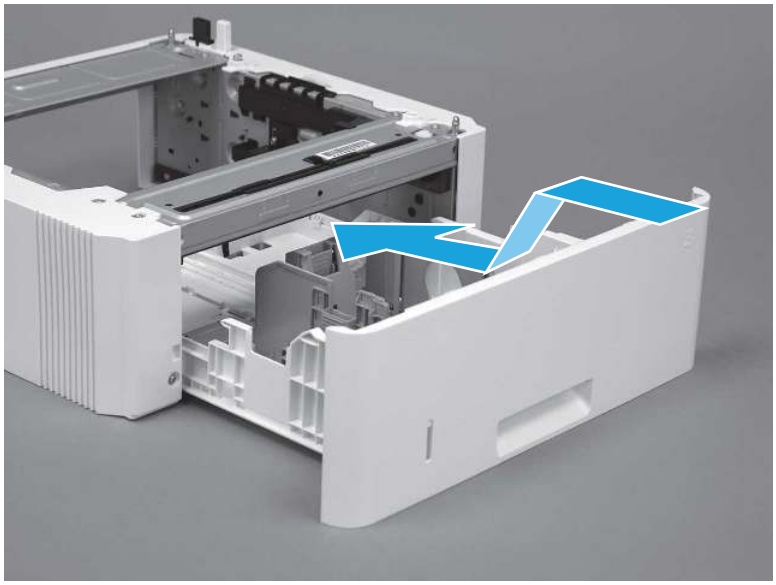


5. Install optional Tray 3

Follow these steps to install optional Tray 3.

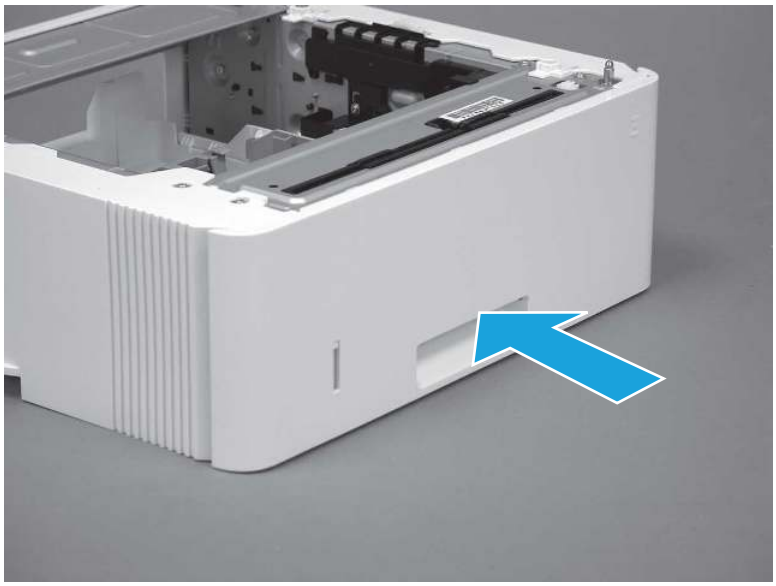
1. With the tray at a slight angle, align the sides of the tray with the rails in the accessory, and then partially slide the tray into the accessory.

Figure 4-50 Install the tray



2. Push the tray straight into the accessory to close it

Figure 4-51 **Close the tray**



Document feeder / scanner

Learn about document feeder and scanner parts removal and replacement.

Removal and replacement: Document feeder top cover assembly with rollers

Learn how to remove and replace the document feeder top cover assembly with rollers.

View a video of how to remove and replace the document feeder top cover assembly with rollers.

Mean time to repair: 5 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-12 **Part information**

Part number	Part description
W1A77-67903	ADF top cover assembly (includes rollers)

Required tools

- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove the document feeder top cover assembly

Follow these steps to remove the document feeder top cover assembly.

1. Open the document feeder top cover.

Figure 4-52 **Open the document feeder top cover**



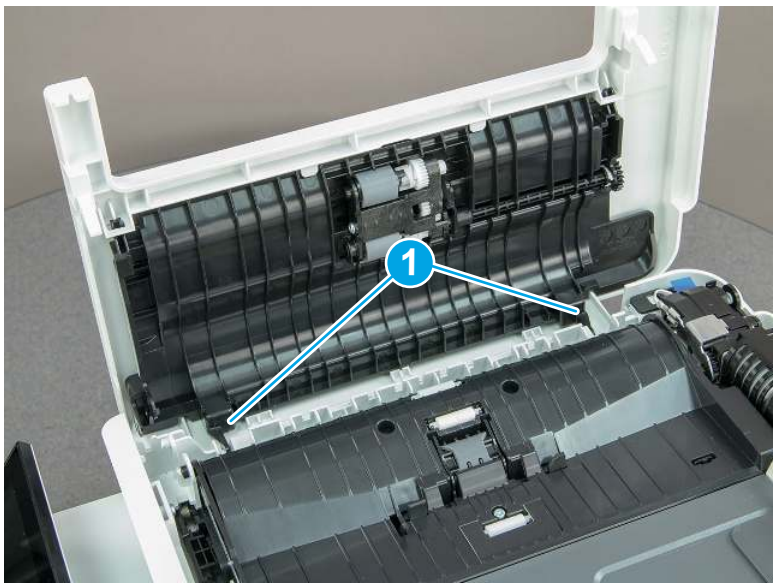
2. Release one hinge pin (callout 1).

Figure 4-53 Release one hinge pin



3. Use a small, flat blade screwdriver to lift up and release two hinge pins (callout 1), and then remove the cover.

Figure 4-54 Release two hinge pins



2. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: ISA lift assembly and slider pin (MFP)

Learn how to remove and replace the integrated scanner assembly (ISA) lift assembly and slider pin.

View a video of how to remove and replace the ISA lift assembly and slider pin.

Mean time to repair: 4 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-13 Part information

Part number	Part description
B3Q10-60128	ISA lift assembly
B3Q10-40041	ISA lift slider pin

Required tools

- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

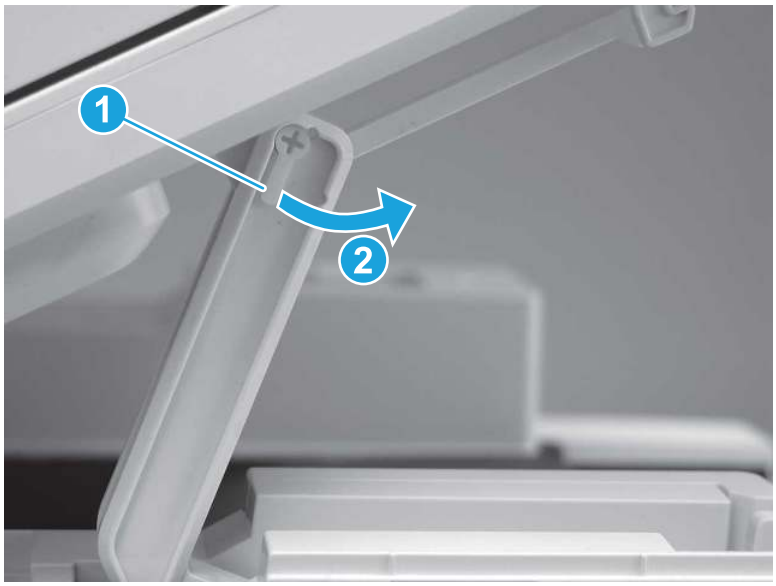
Make sure that toner ISA correctly opens and closes.

1. Remove the slider pin and ISA lift assembly (MFP only)

Follow these steps to remove the slider pin and ISA lift assembly (MFP only).

1. open the ISA, release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

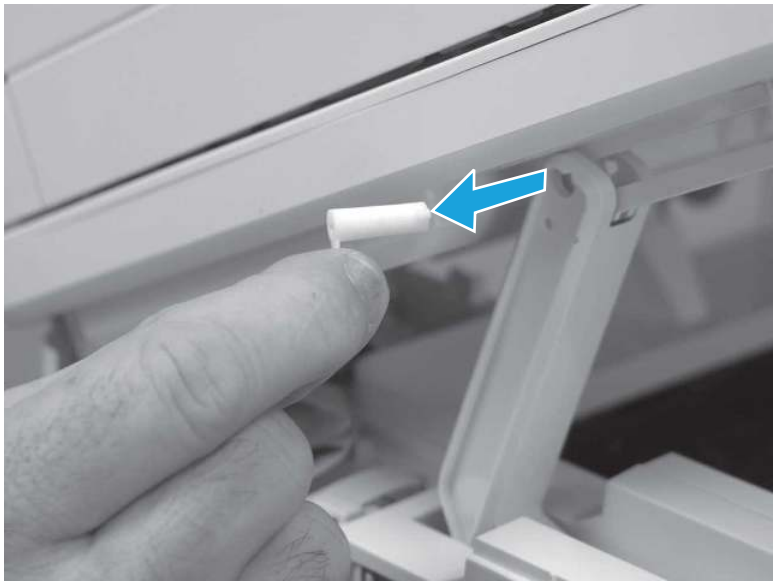
   Figure 4-55 **Release one tab and rotate the slider pin**

2. Remove the slider pin.

Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-56 Remove the slider pin

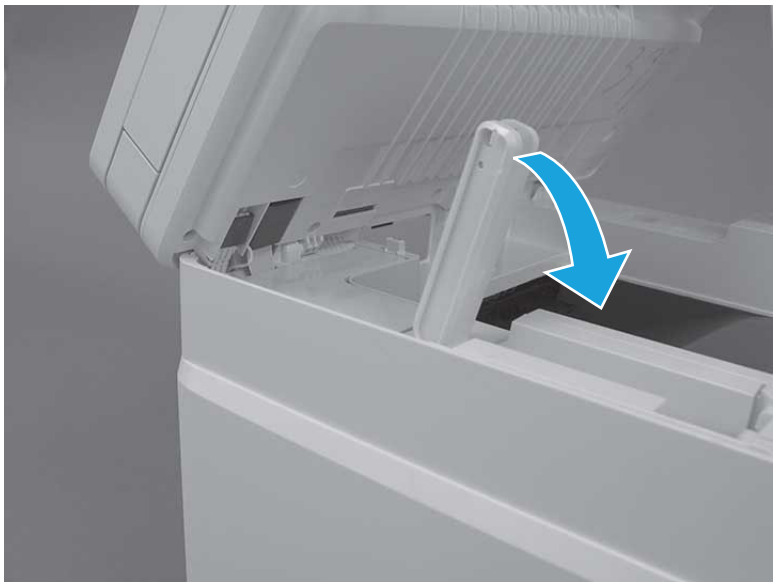


3. Move the ISA out of the way, and then lower the support arm to the closed position.

CAUTION: The ISA hinges are not captive in the top cover mounting bosses. Do not allow the ISA to slip off of the top cover.

Reinstallation tip: If the replacement lift assembly is in the closed position, place it in the open position.

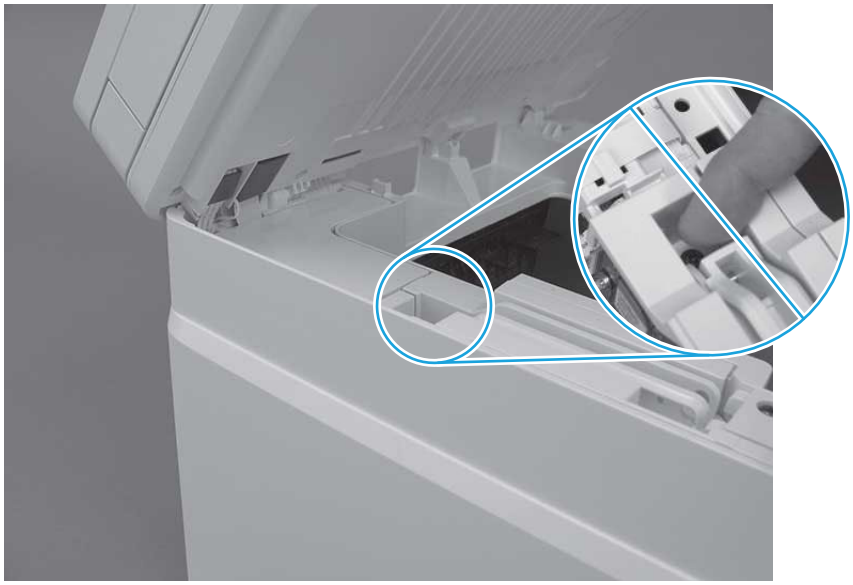
Figure 4-57 Lower the support arm



4. Before proceeding take note of the following.

CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-58 Before proceeding take note



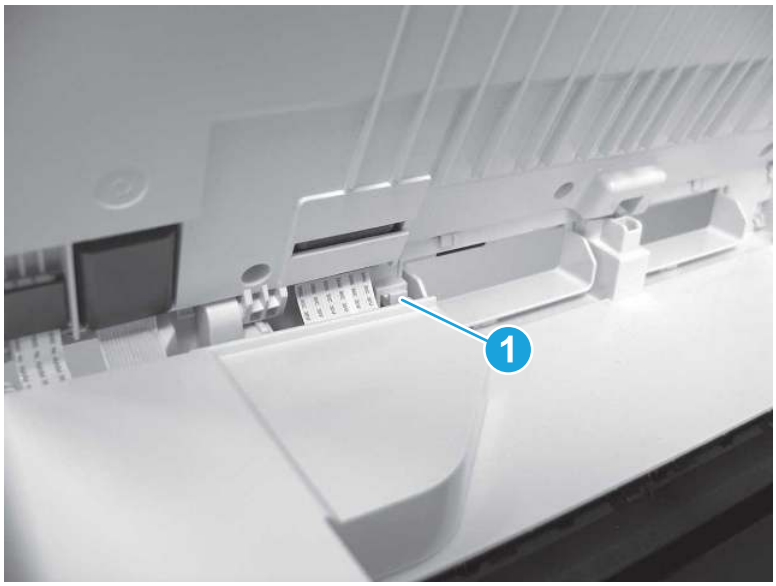
5. Remove one screw (callout 1).

Figure 4-59 Remove one screw



6. Use a flat-blade screwdriver to release one tab (callout 1).

Figure 4-60 Release one tab



7. Remove the support arm.

Figure 4-61 Remove the support arm



2. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Integrated scanner assembly (MFP)

Learn how to remove and replace the integrated scanner assembly (ISA).

Mean time to repair: 22 minutes

Service level: Medium

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

NOTE: The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

Table 4-14 Part information

Part number	Part description
3PZ55-60117	Assy-duplex GSO (ISA/ADF assembly)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-62 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

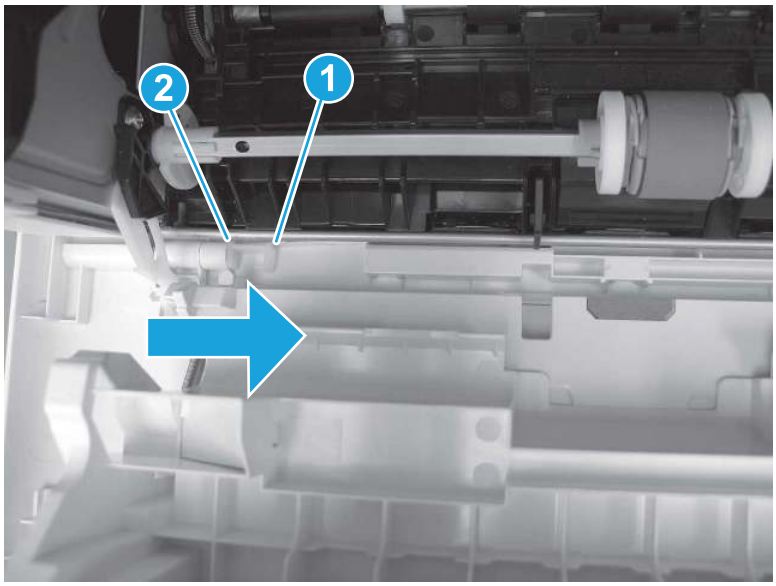
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

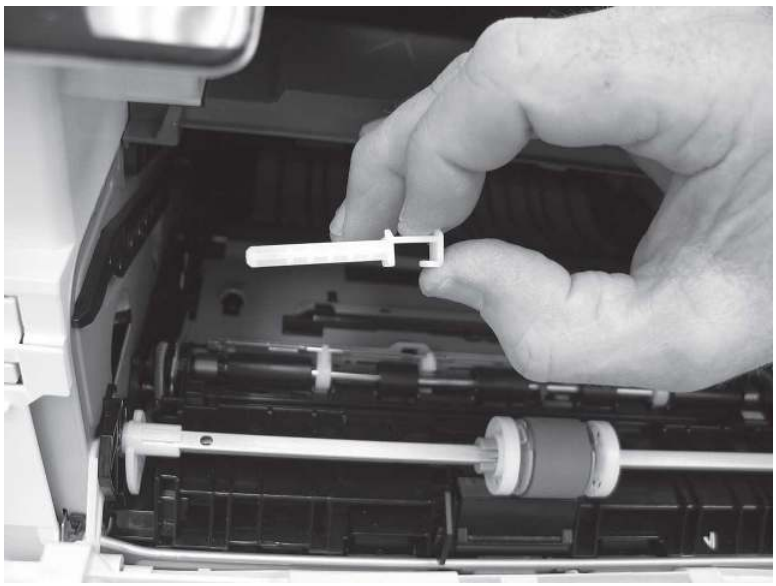
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-63 Release the support shaft



2. Remove the support shaft.

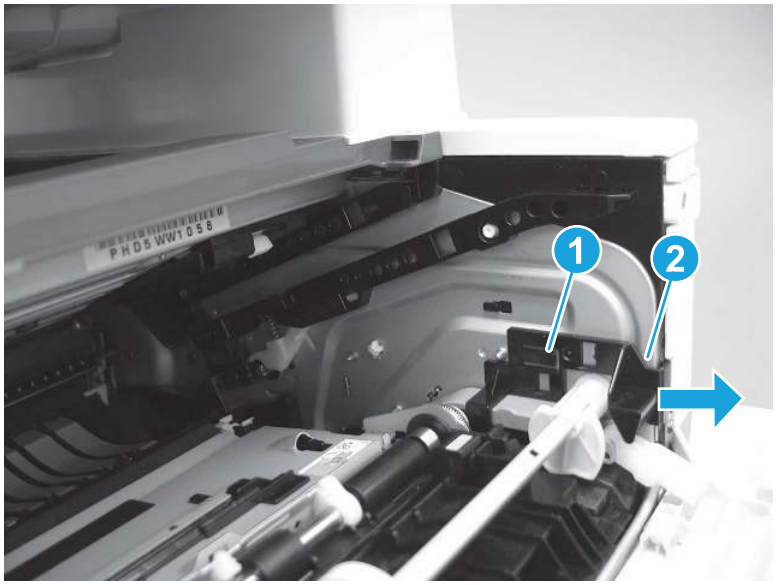
Figure 4-64 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

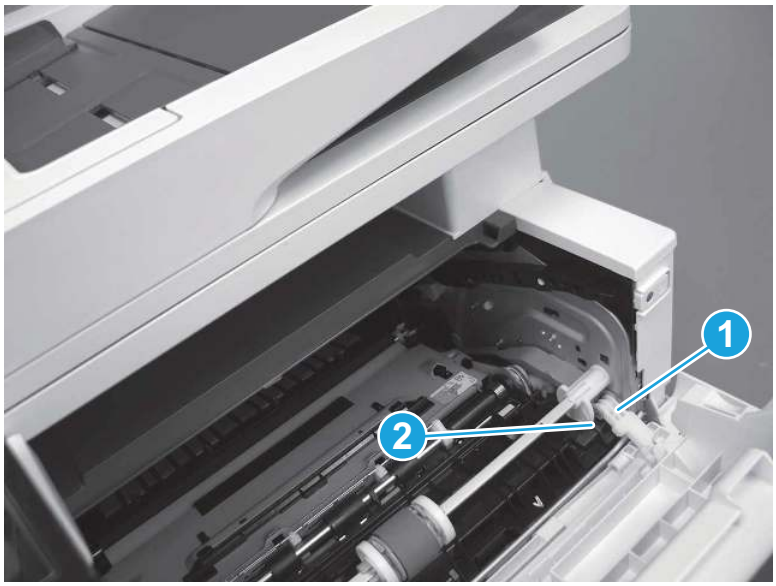
CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-65 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-66 Release the pressure-release link

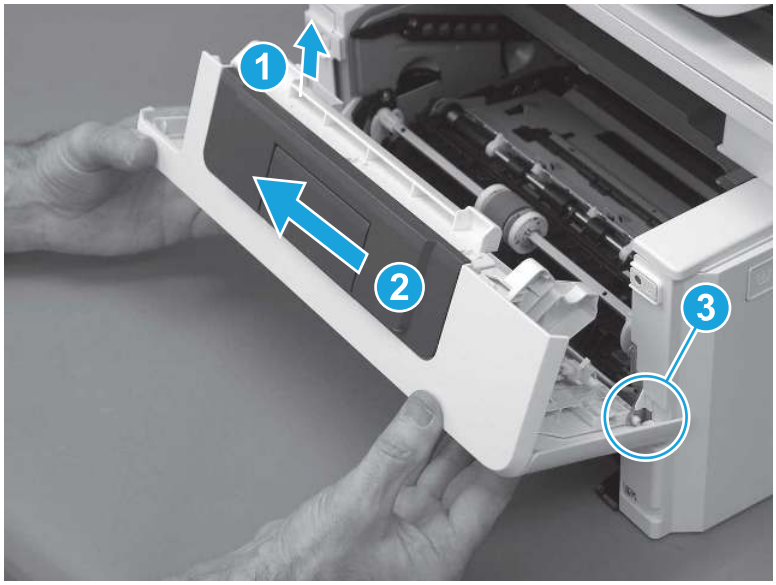


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

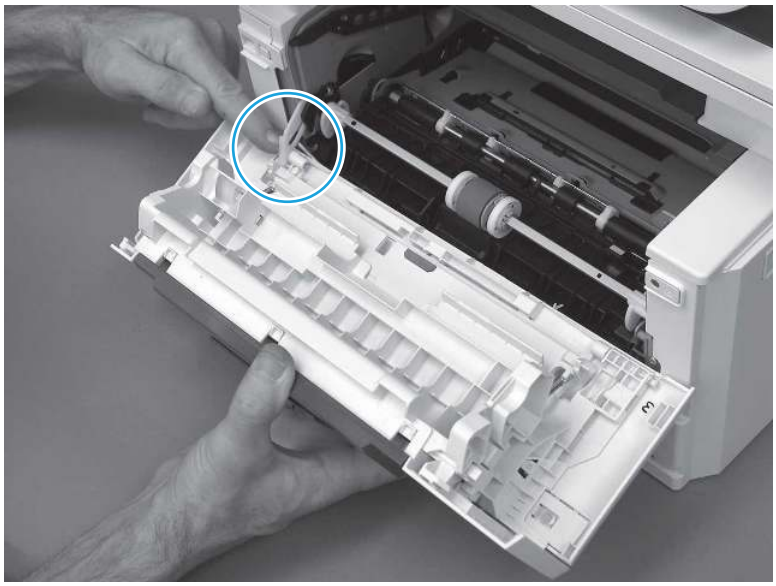
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-67 Release the door



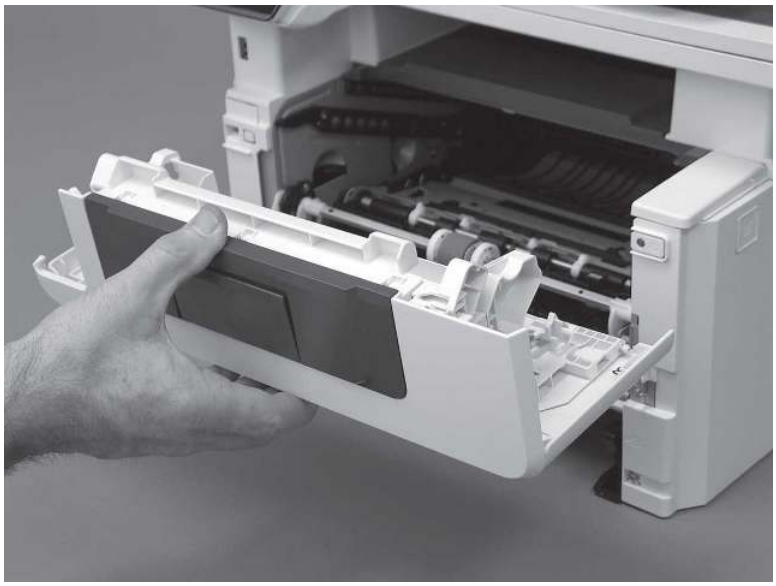
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-68 Release the left-side retainer arm



7. Remove the door.

Figure 4-69 Remove the door



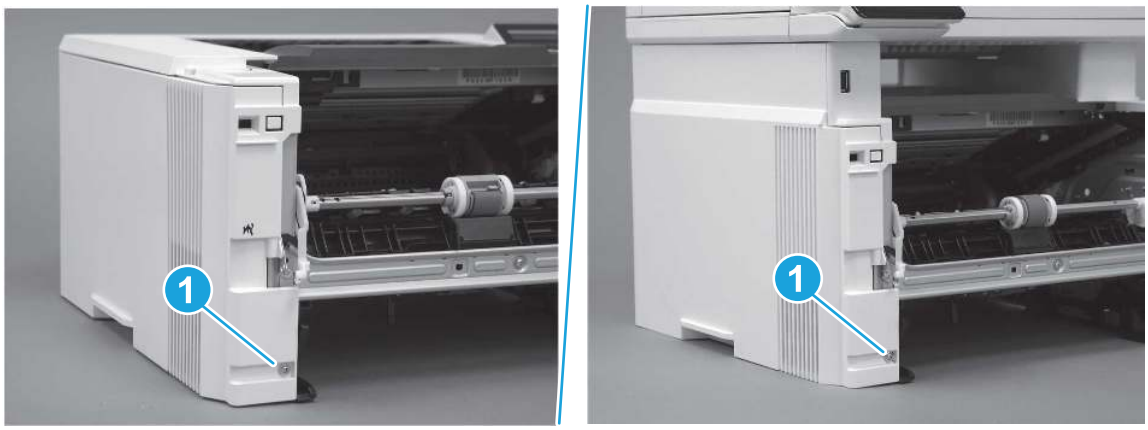
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

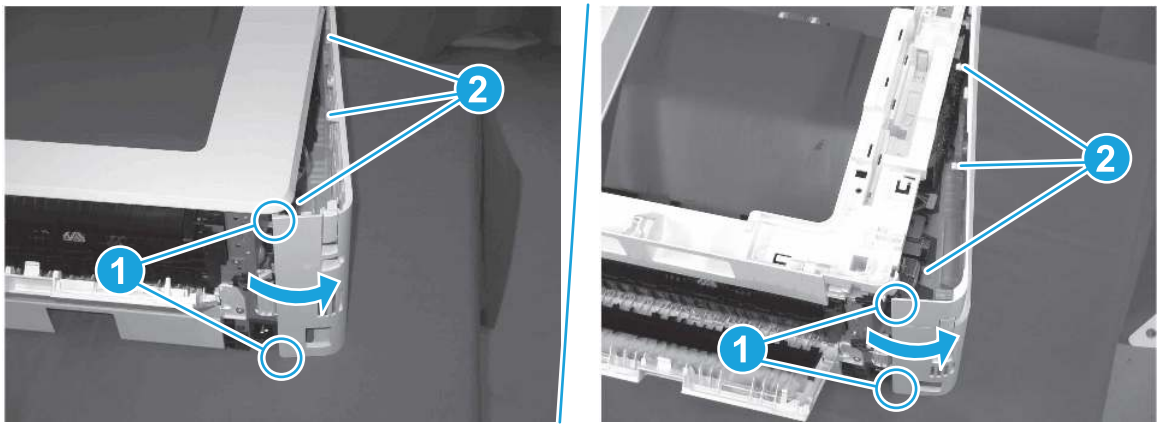
1. Remove one screw (callout 1).

Figure 4-70 Remove one screw



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-71 Release two bosses and three tabs

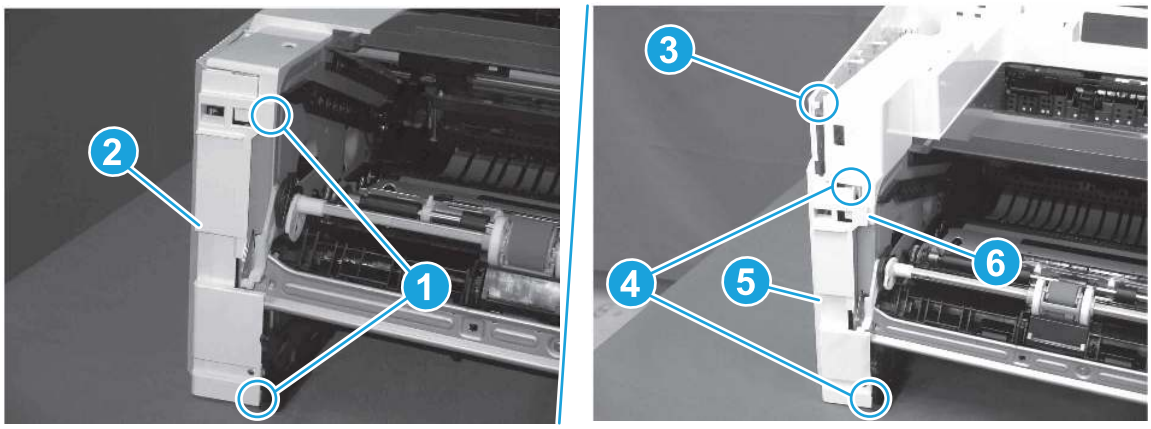


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-72 Remove the cover

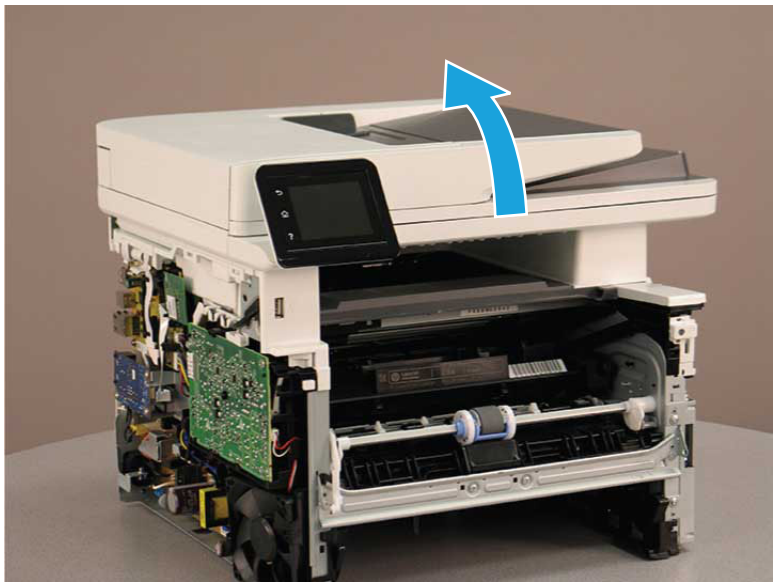


4. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

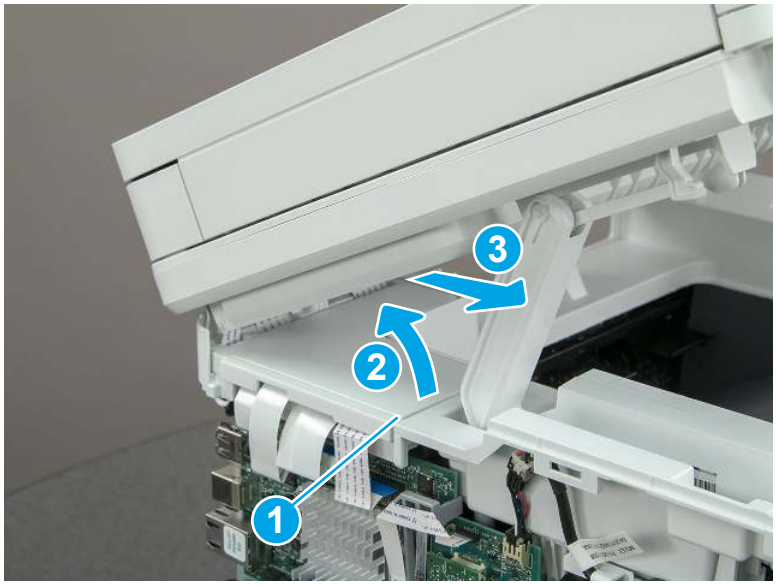
1. If the ISA is not already raised, raise it now.

Figure 4-73 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-74 Remove the ISA FFC cover



5. Remove the integrated scanner assembly (MFP only)

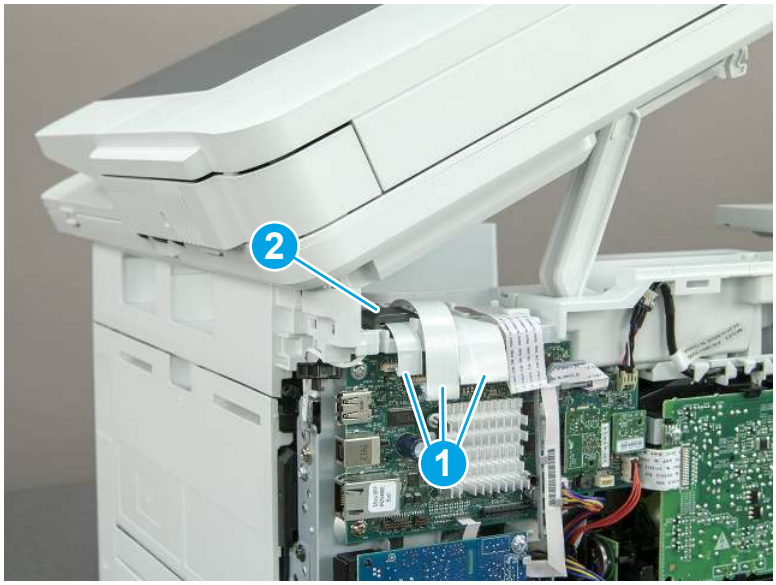
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-75 Disconnect three FFCs



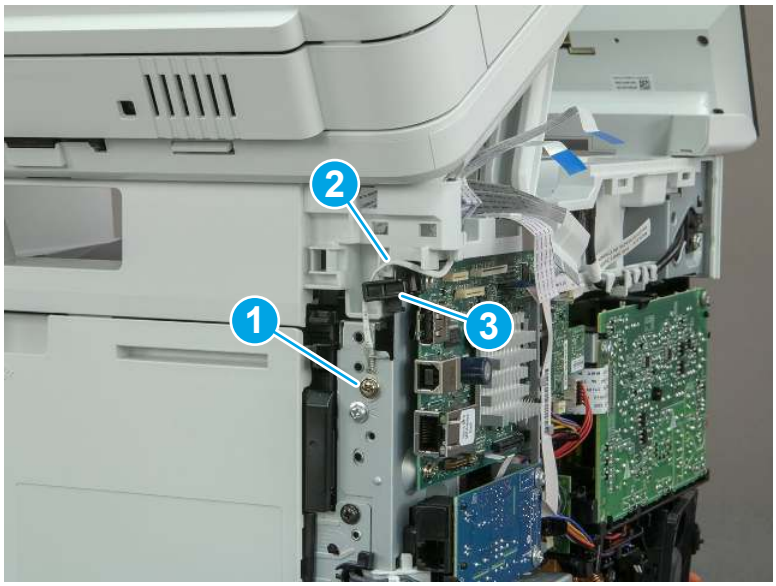
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-76 Release the tape



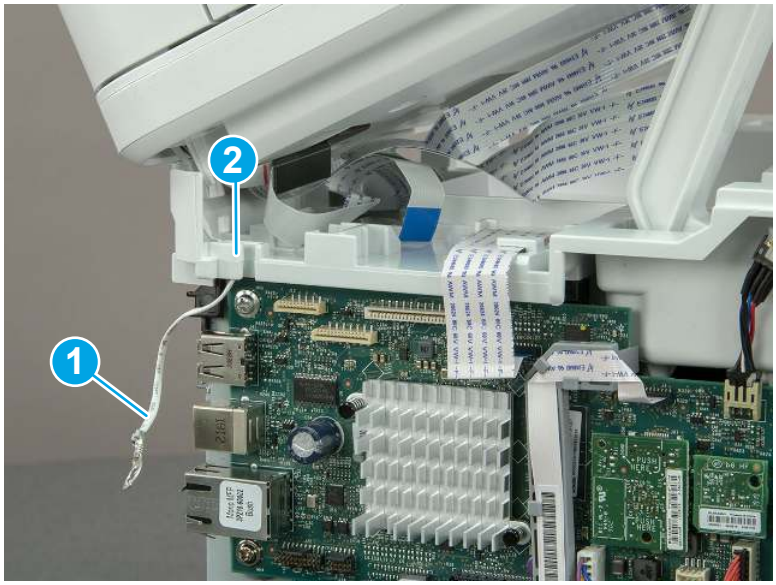
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-77 Release the ground wire



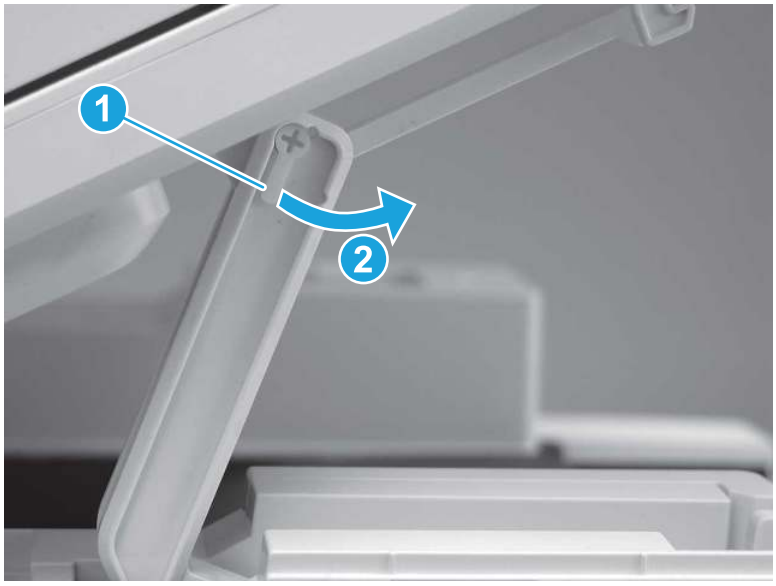
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-78 Release the ground wire



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

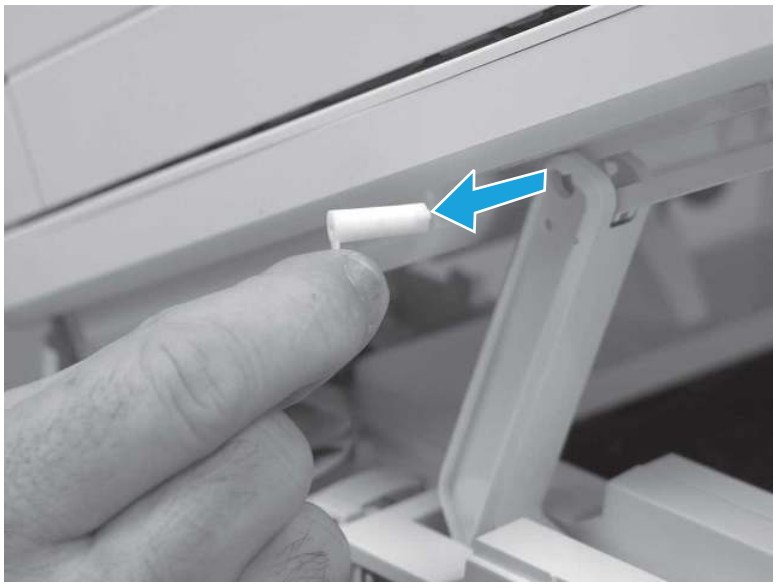
Figure 4-79 **Release one tab and rotate the slider pin**



6. Remove the slider pin.

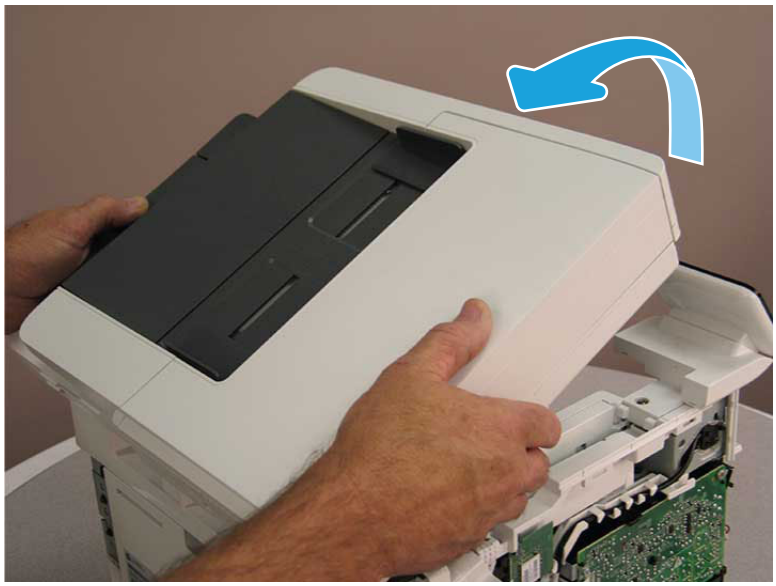
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-80 **Remove the slider pin**



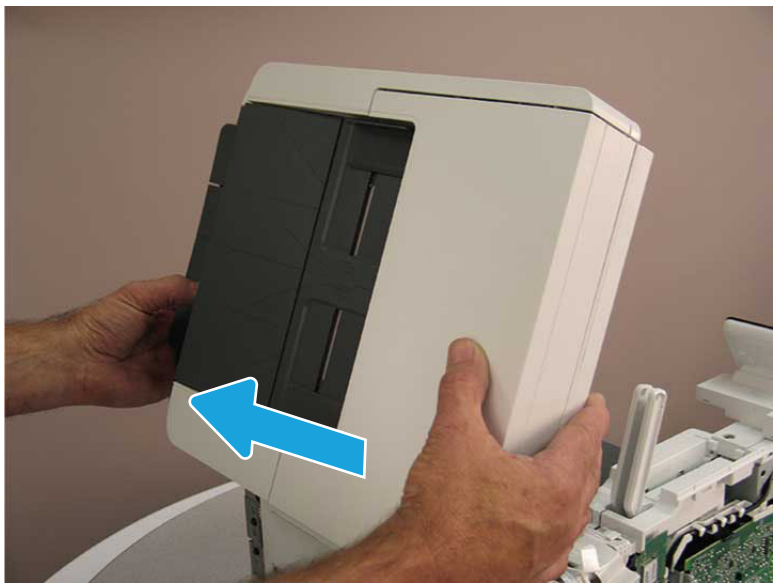
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-81 Rotate the ISA towards the rear of the printer



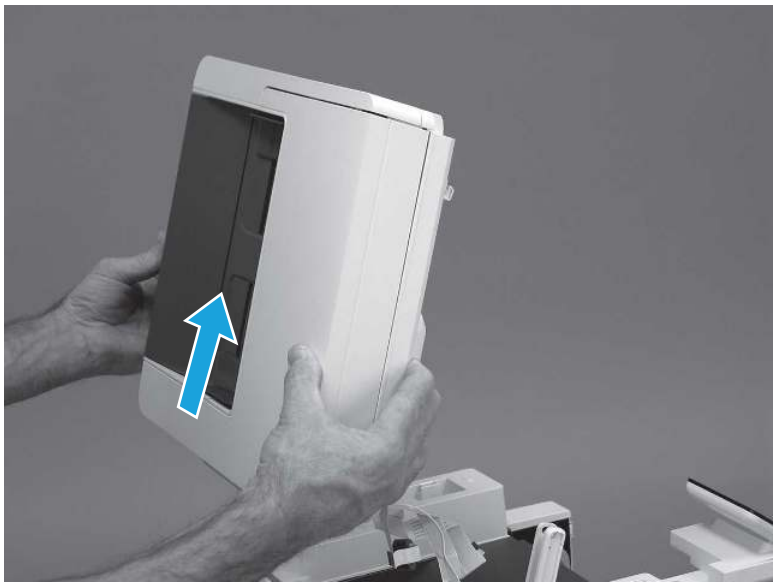
8. Slide the ISA as shown to release it.

Figure 4-82 Release the ISA



9. Remove the ISA.

Figure 4-83 **Remove the ISA**



6. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: External panels, covers, and doors (base printer)

Learn how to remove and replace the printer external panels, covers, and doors.

Removal and replacement: Damper sheets

Learn how to remove and replace the damper sheets.

View a video of how to remove and replace the damper sheets.

Mean time to repair: 2 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-15 Part information

Part number	Part description
Not orderable	Sheets, damper (2)

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

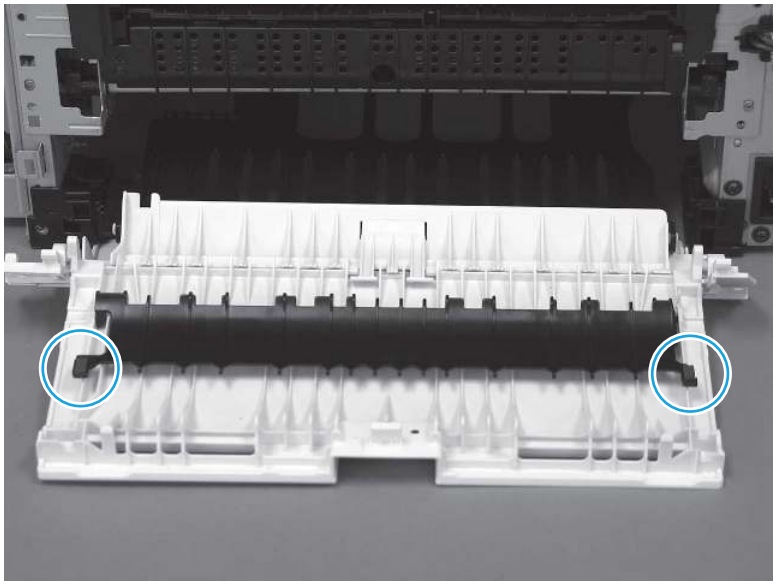
1. Remove the damper sheets

Follow these steps to remove the damper sheets.

- Remove the damper sheets from the rear cover.

Reinstallation tip: Make sure that all of the residual adhesive is removed from the rear cover damper sheet area. Residual adhesive can cause the replacement sheets to not adhere properly to the door.

Figure 4-84 **Remove the damper sheets**



2. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Support shaft

Learn how to remove and replace the toner-cartridge door support shaft.

View a video of how to remove and replace the toner-cartridge door support shaft.

Mean time to repair: 1 minute

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-16 Part information

Part number	Part description
RC4-3002-000CN	Shaft, support

Required tools

- Optional: Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

1. Remove the support shaft

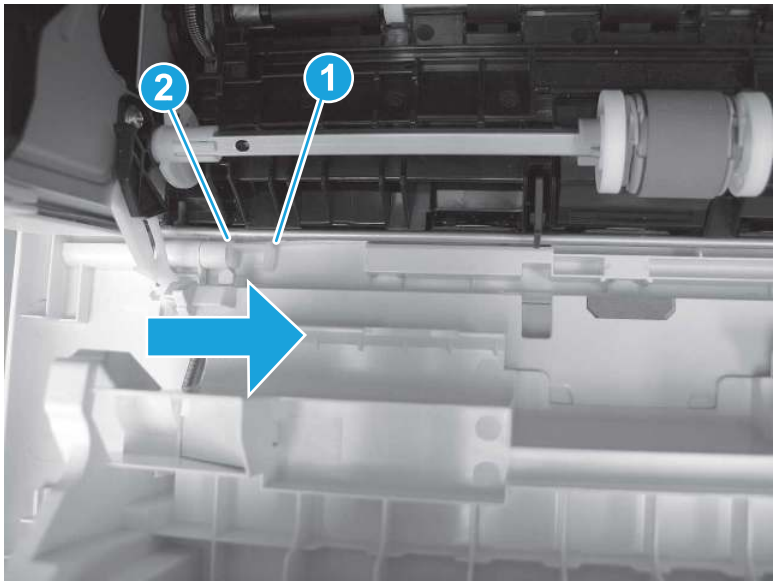
Follow these steps to remove the support shaft.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

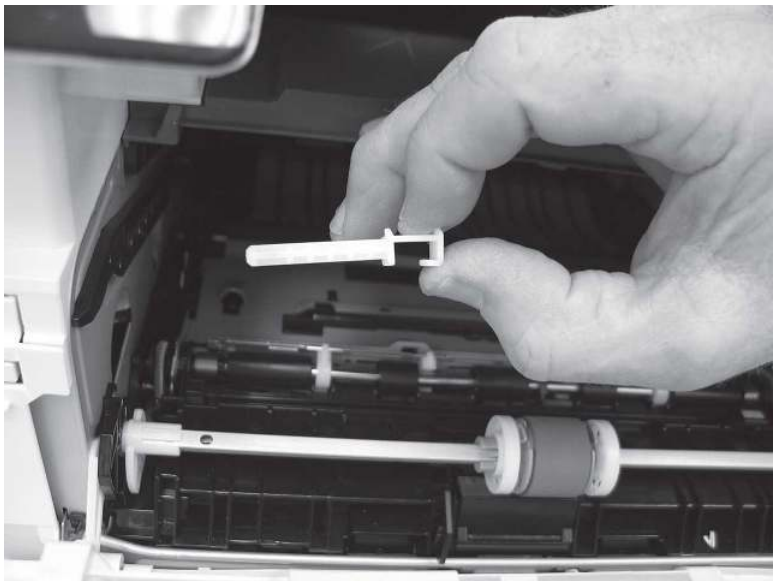
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-85 Release the support shaft



2. Remove the support shaft.

Figure 4-86 Remove the support shaft



2. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Cartridge door assembly

Learn how to remove and replace the cartridge door assembly.

View a video of how to remove and replace the cartridge door assembly.

Mean time to repair: 6 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-17 Part information

Part number	Part description
RM2-2562-000CN	Cartridge (front) door assembly (SFP)
RM2-2567-000CN	Cartridge (front) door assembly (MFP)

Required tools

- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

1. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

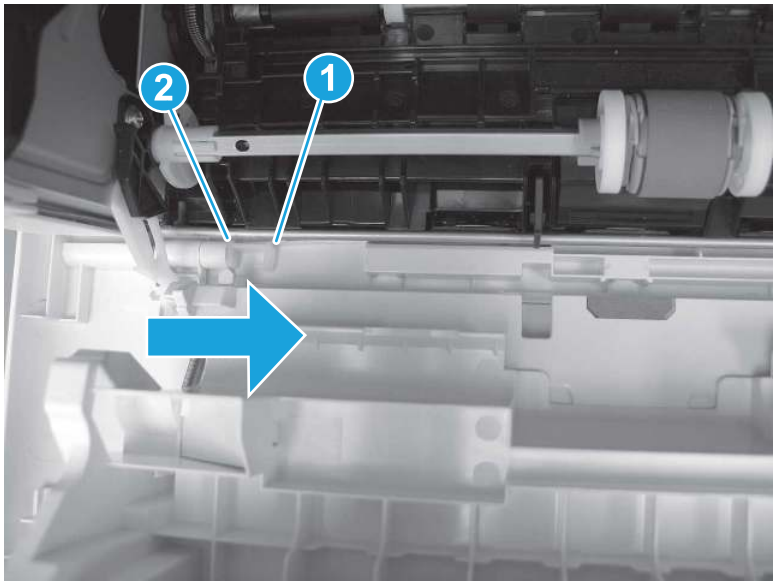
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

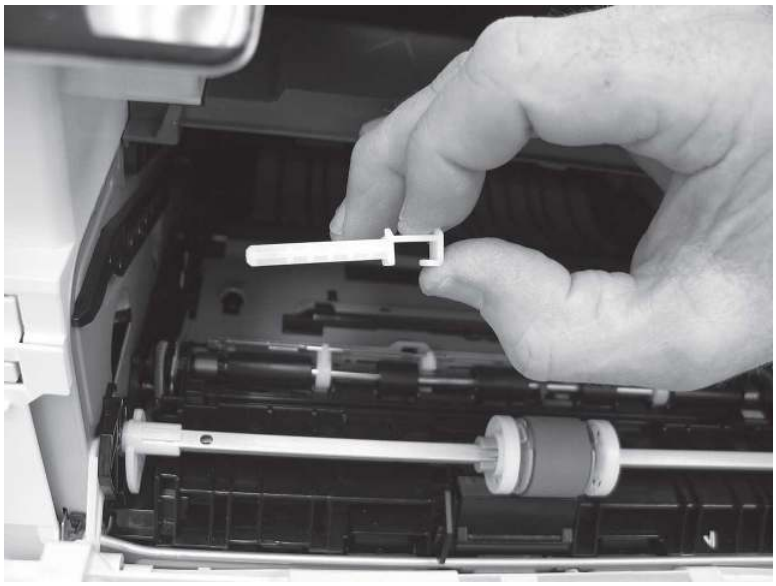
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-87 Release the support shaft



2. Remove the support shaft.

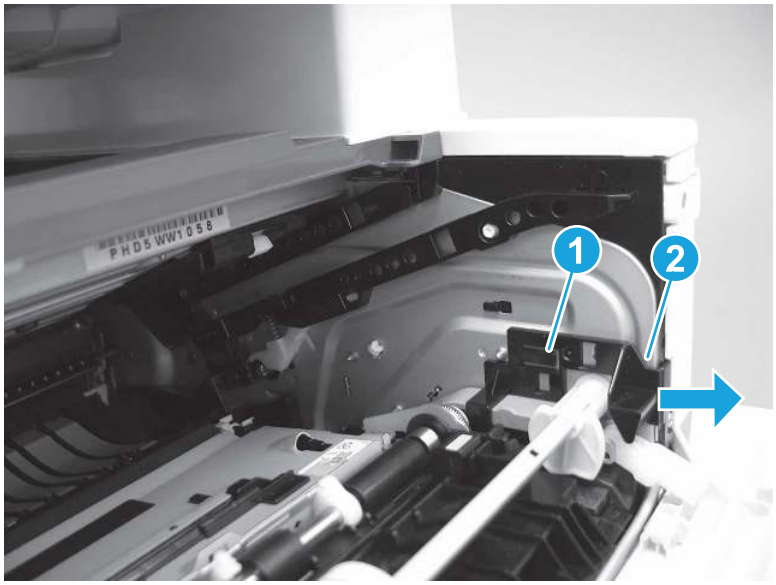
Figure 4-88 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

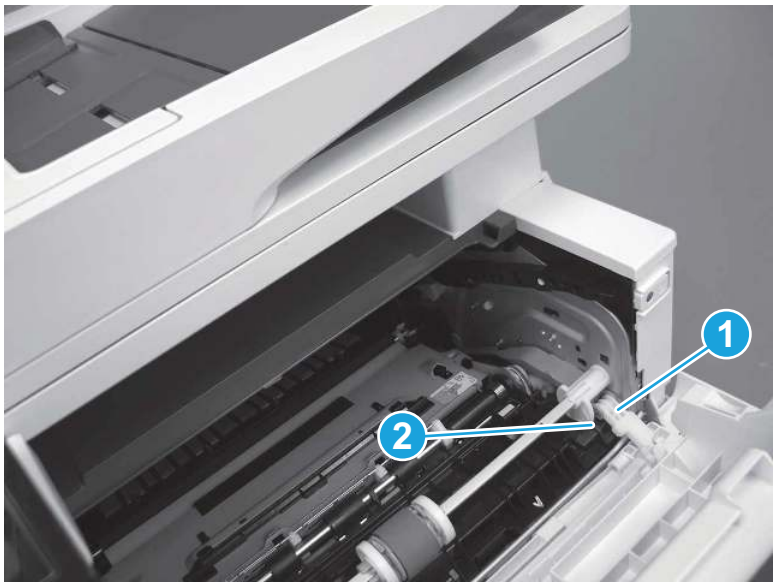
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-89 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-90 Release the pressure-release link

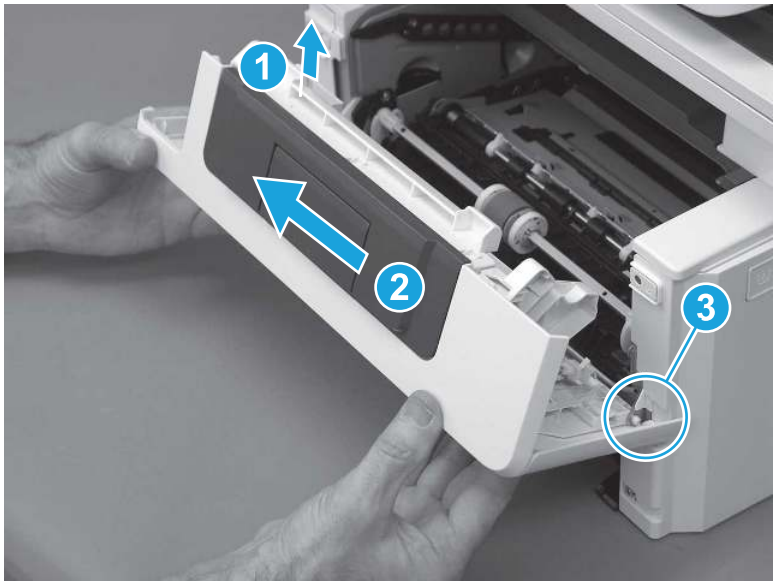


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

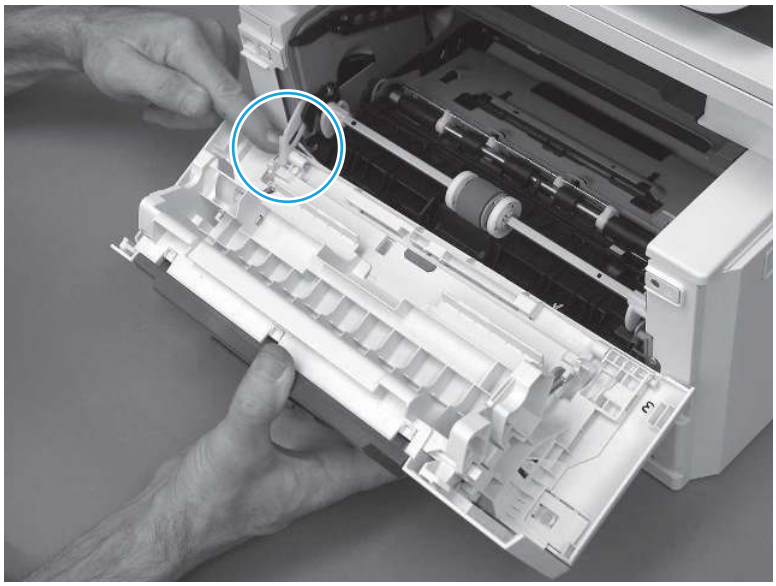
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-91 Release the door



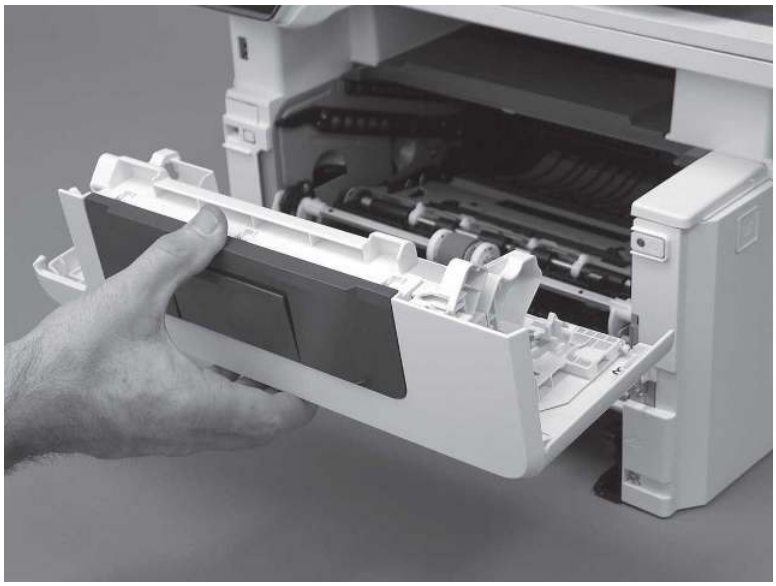
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-92 Release the left-side retainer arm



7. Remove the door.

Figure 4-93 **Remove the door**



2. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Pressure-release link

Learn how to remove and replace the pressure-release link arm.

View a video of how to remove and replace the pressure release link arm.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-18 Part information

Part number	Part description
RC4-4479-000CN	Link, pressure release

Required tools

- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

1. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

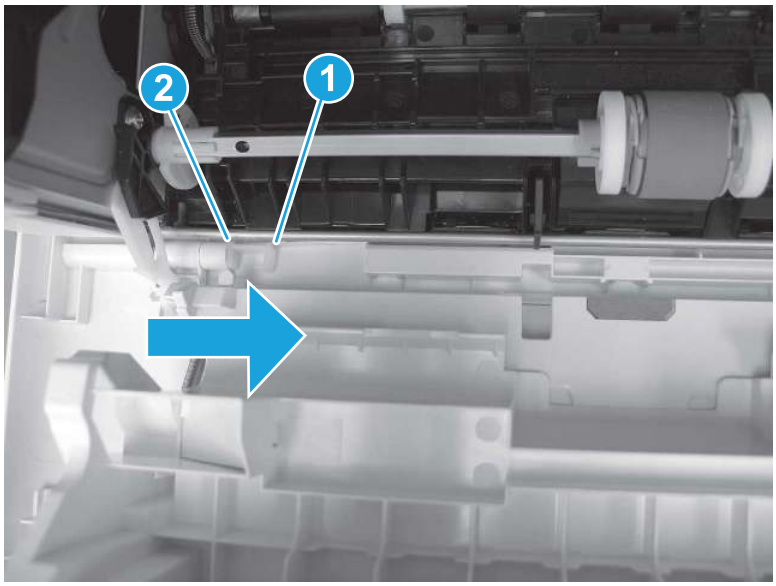
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

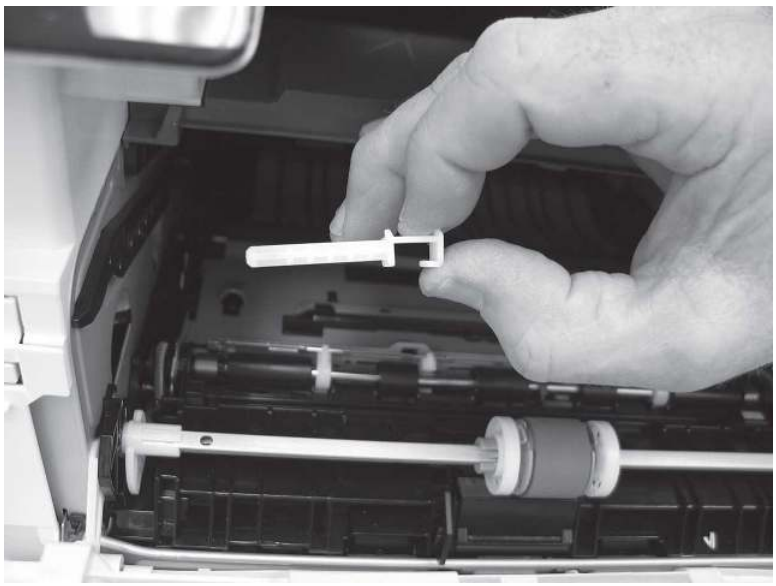
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-94 Release the support shaft



2. Remove the support shaft.

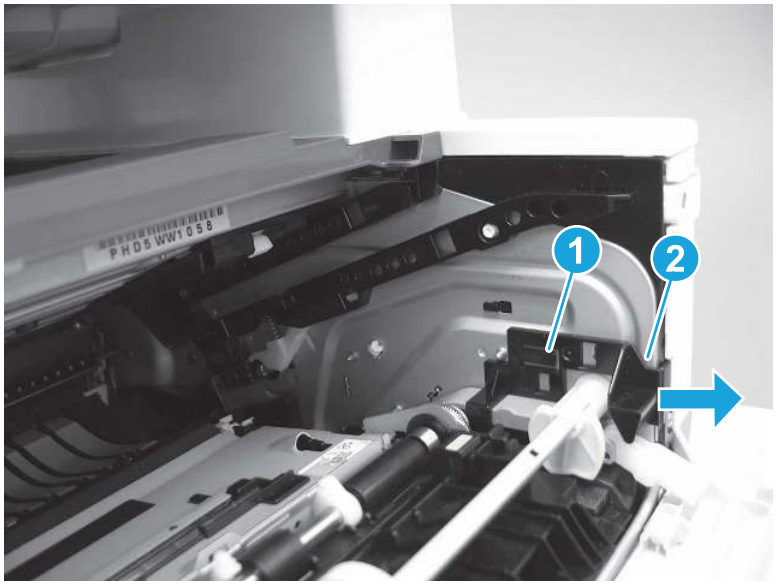
Figure 4-95 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

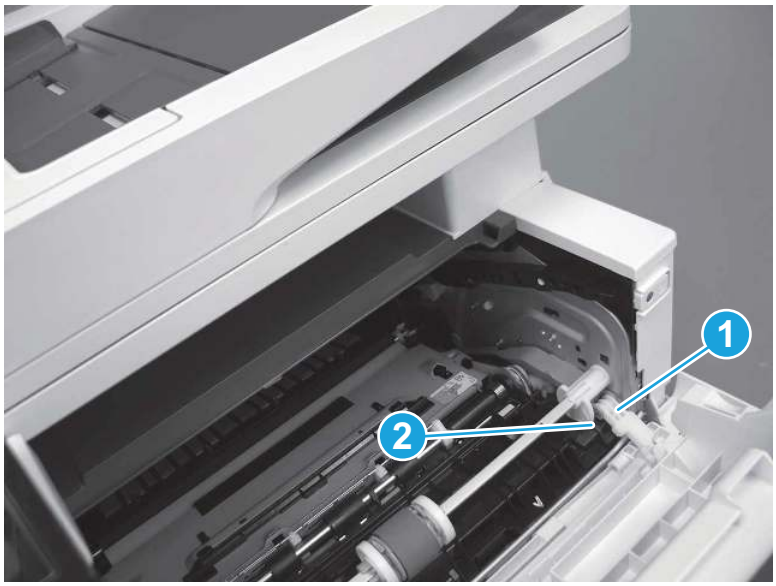
CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-96 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-97 Release the pressure-release link

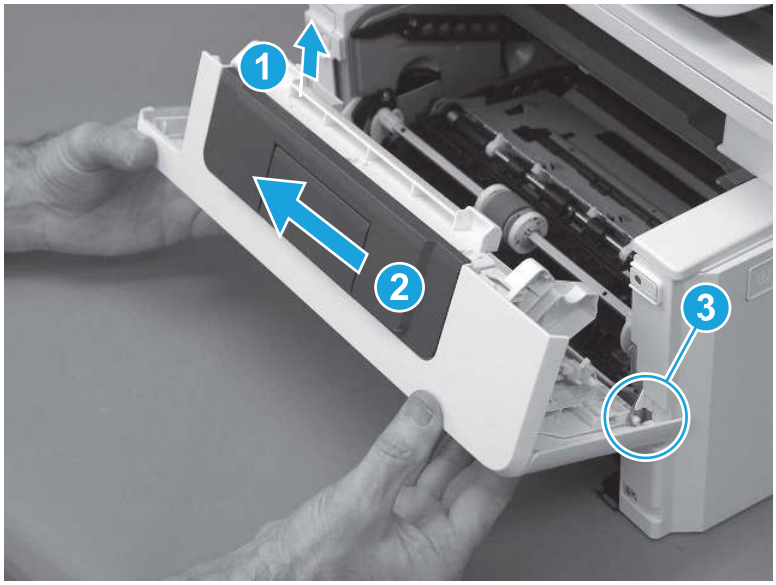


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

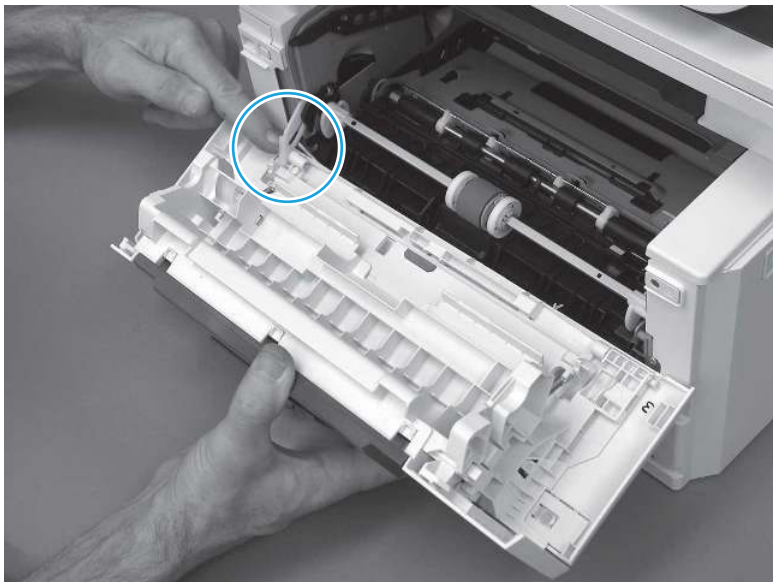
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-98 Release the door



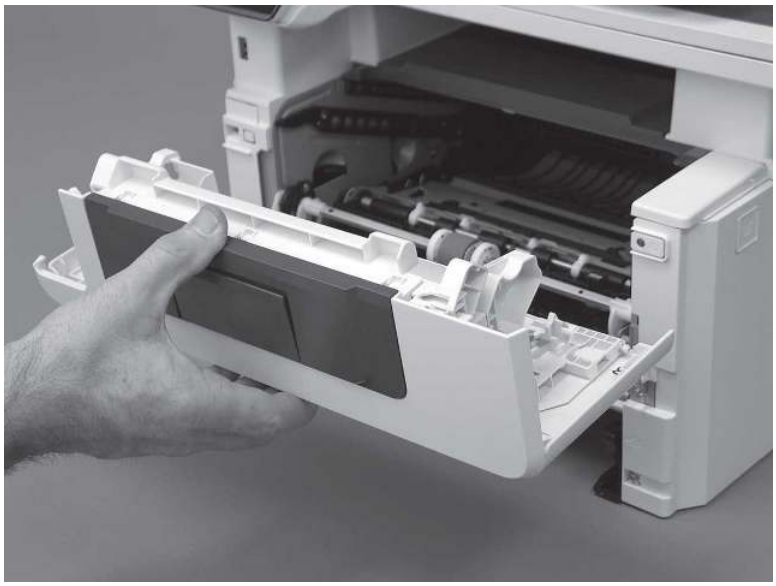
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-99 Release the left-side retainer arm



7. Remove the door.

Figure 4-100 **Remove the door**

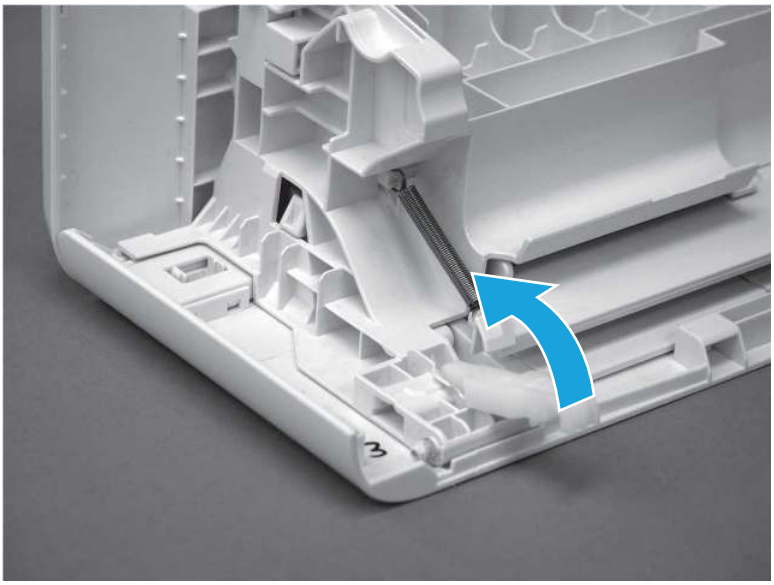


2. Remove the pressure-release link

Follow these steps to remove the pressure-release link.

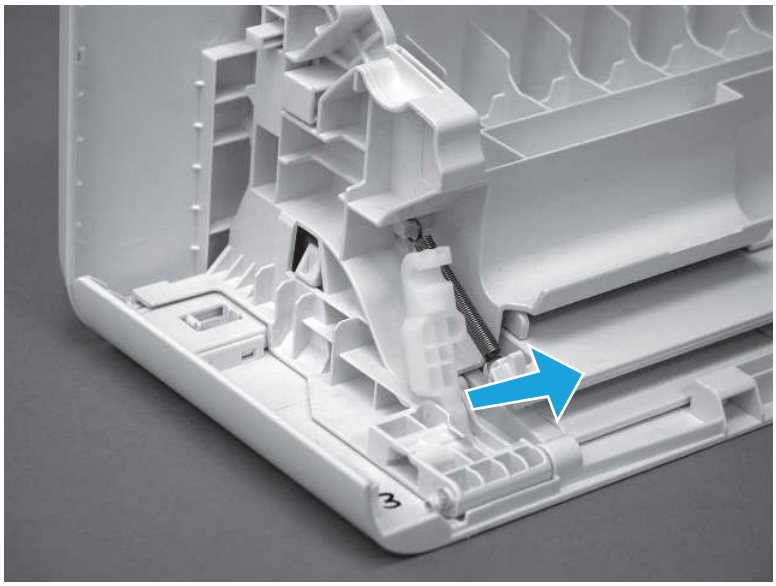
1. Rotate the pressure-release link until the keyed portion of the pin aligns with the slot in the holder.

Figure 4-101 **Release the pressure-release link**



2. Remove the pressure-release link.

Figure 4-102 **Remove the pressure-release link**



3. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Left cover

Learn how to remove and replace the left cover.

View a video of how to remove and replace the left cover.

Mean time to repair: 9 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-19 Part information

Part number	Part description
RM2-2960-000CN	Cover, left (SFP)
RM2-2961-000CN	Cover, left (MFP)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-103 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

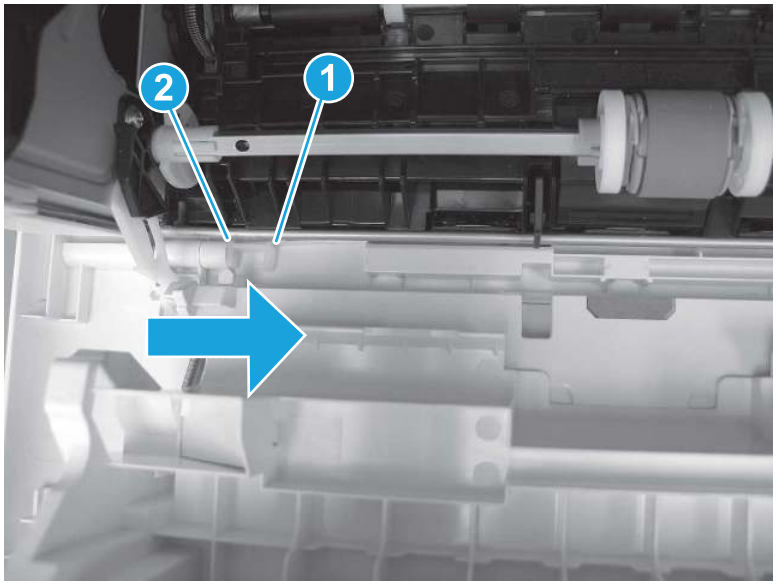
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

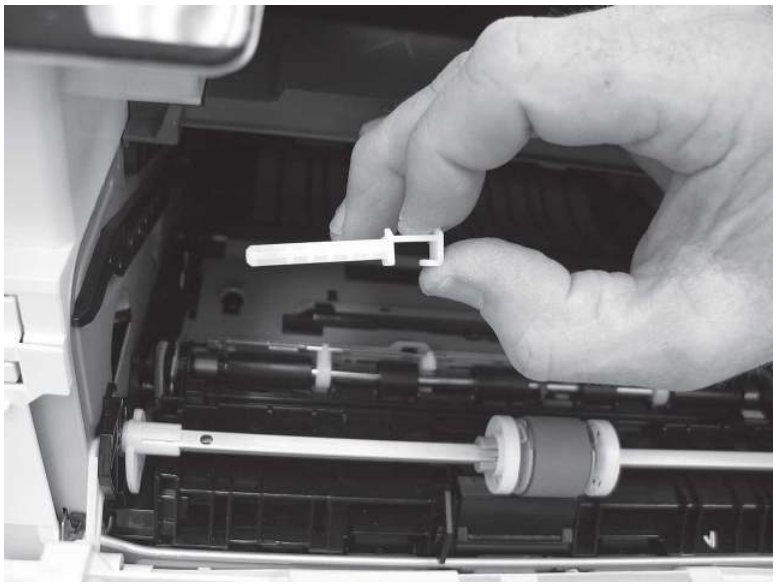
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-104 Release the support shaft



2. Remove the support shaft.

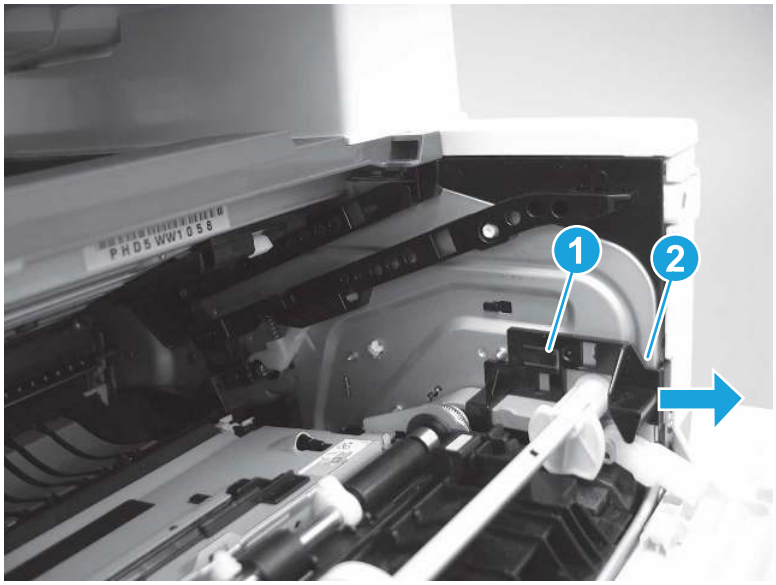
Figure 4-105 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

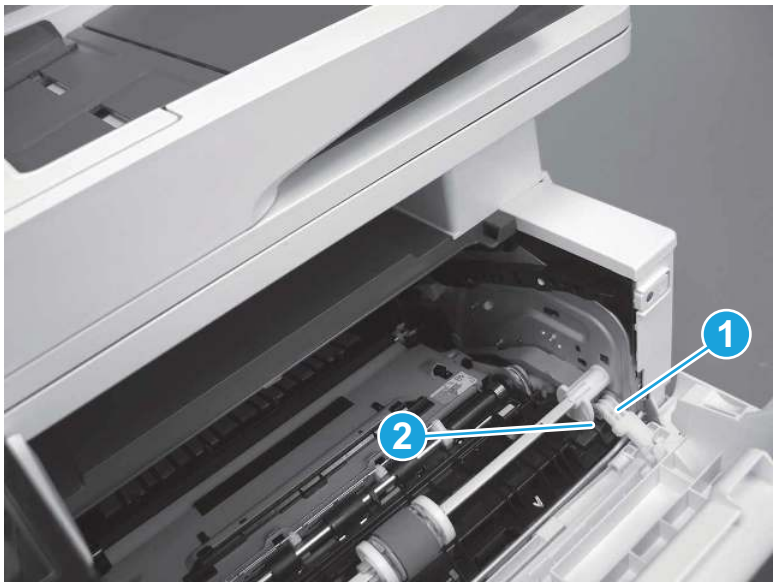
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-106 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-107 Release the pressure-release link

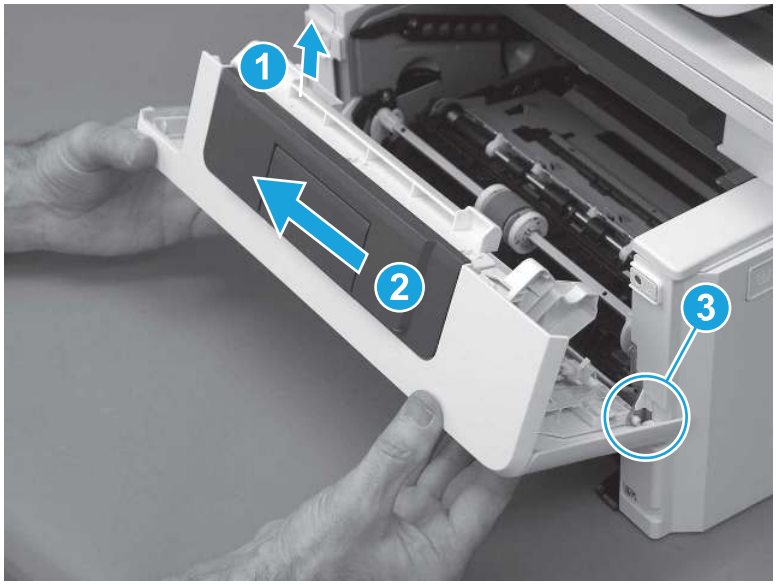


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

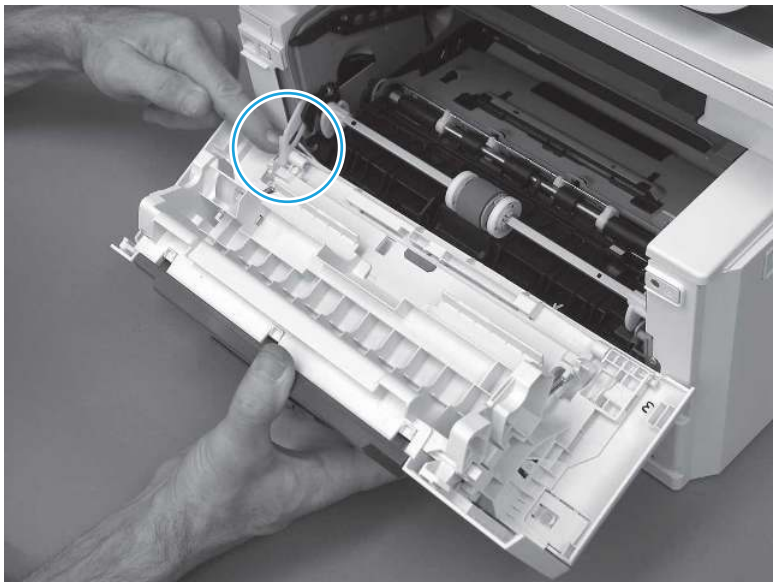
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-108 Release the door



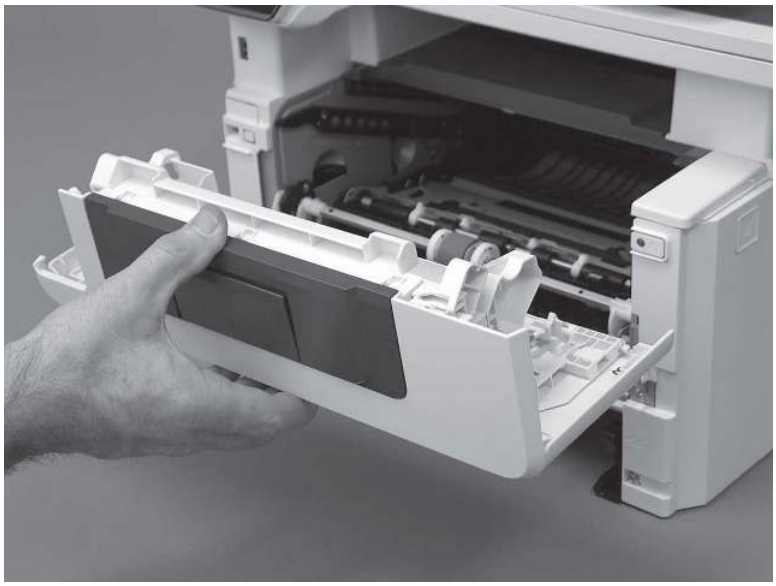
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-109 Release the left-side retainer arm



7. Remove the door.

Figure 4-110 **Remove the door**



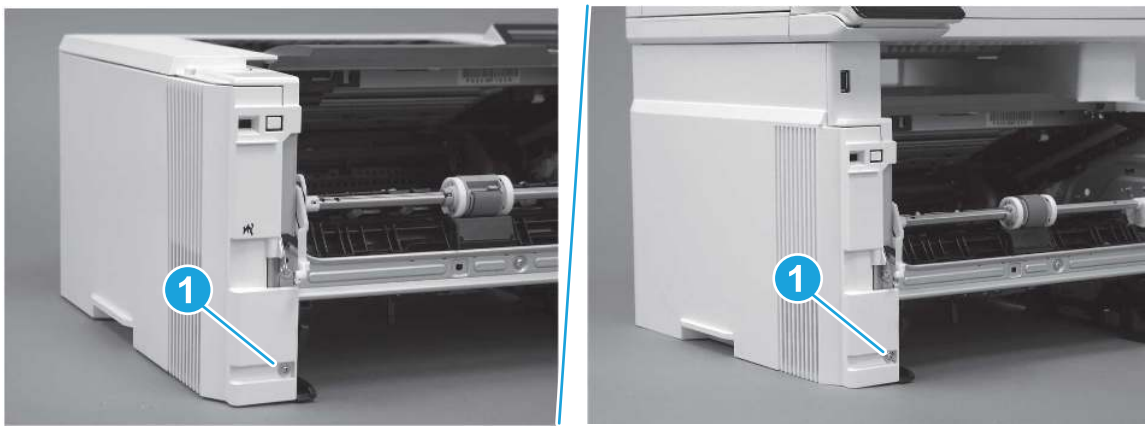
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

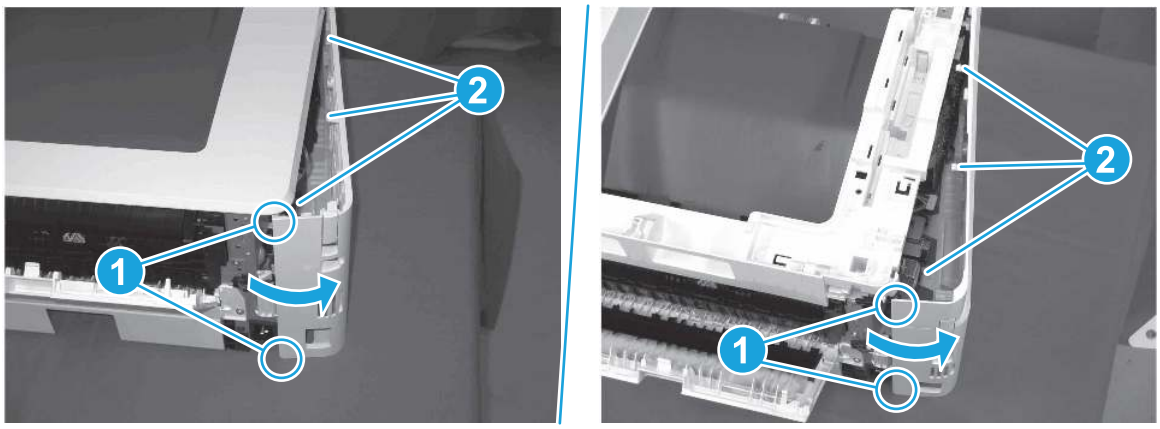
1. Remove one screw (callout 1).

Figure 4-111 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-112 **Release two bosses and three tabs**

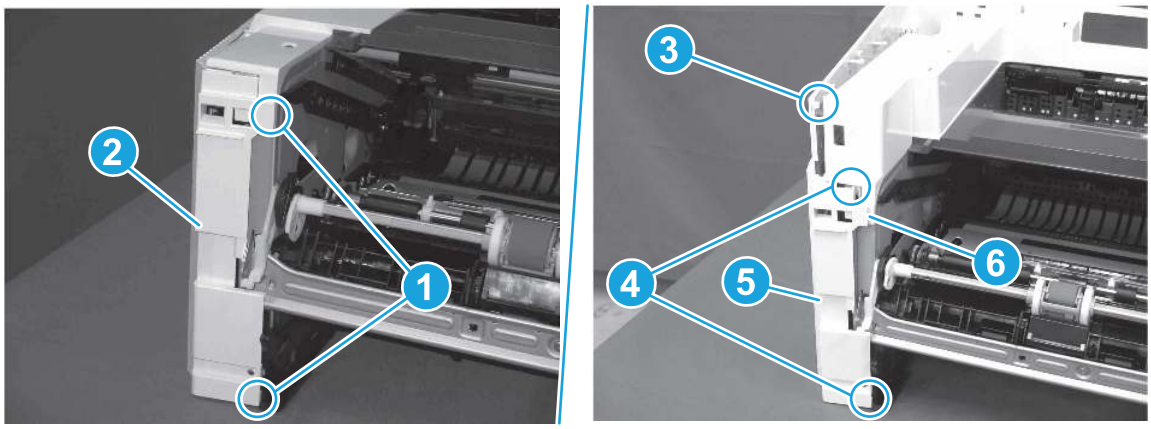


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-113 **Remove the cover**



4. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Right cover

Learn how to remove and replace the right cover.

View a video of how to remove and replace the right cover.

Mean time to repair: 9 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-20 Part information

Part number	Part description
Not orderable	Right cover

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-114 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

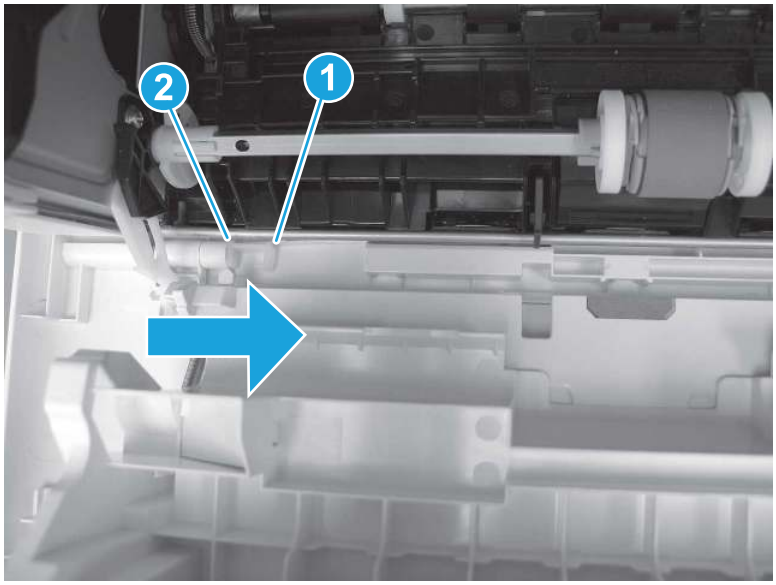
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

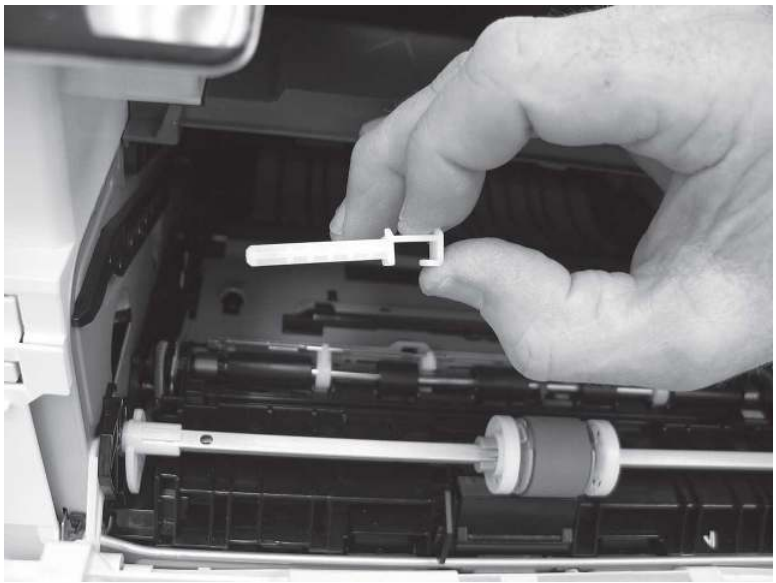
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-115 Release the support shaft



2. Remove the support shaft.

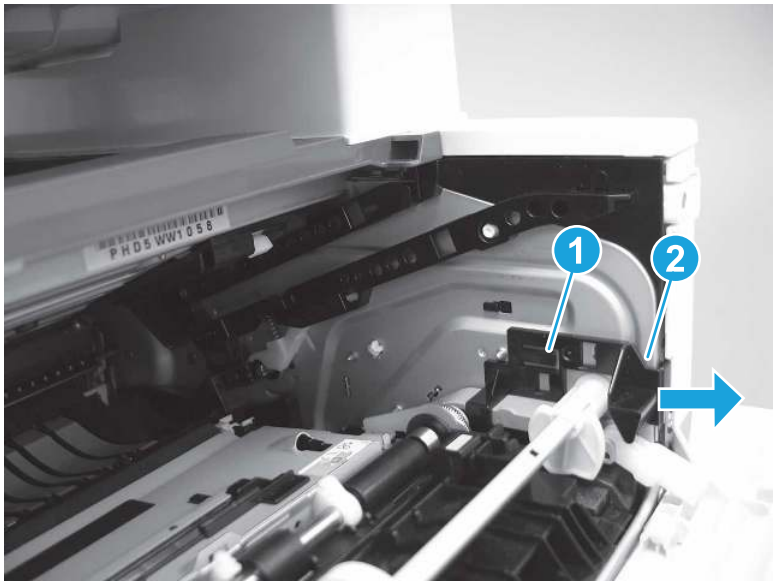
Figure 4-116 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

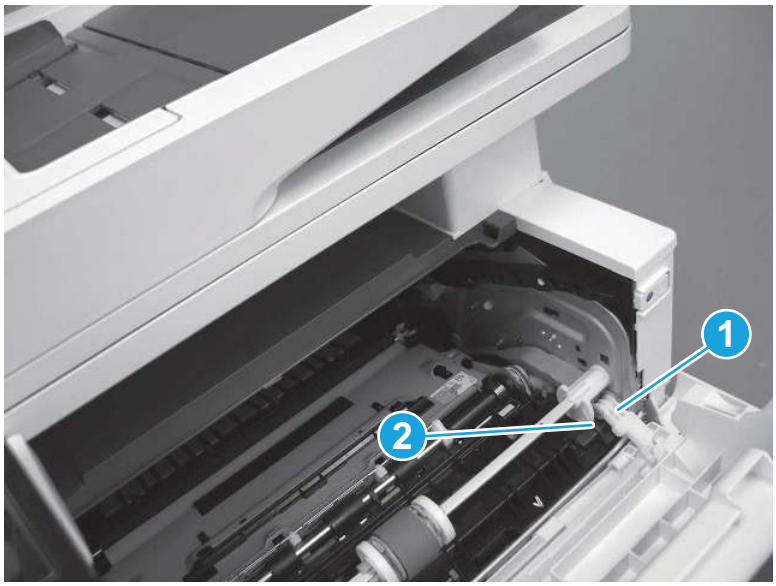
CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-117 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-118 Release the pressure-release link

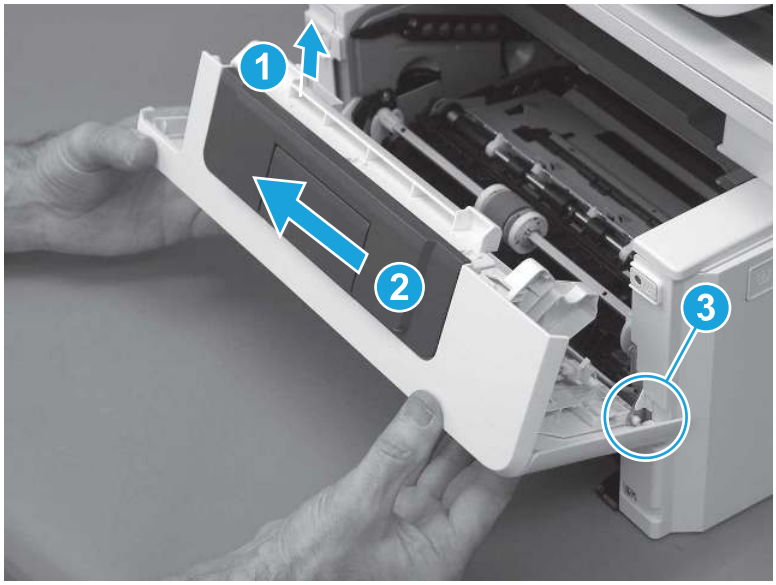


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ **CAUTION:** The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

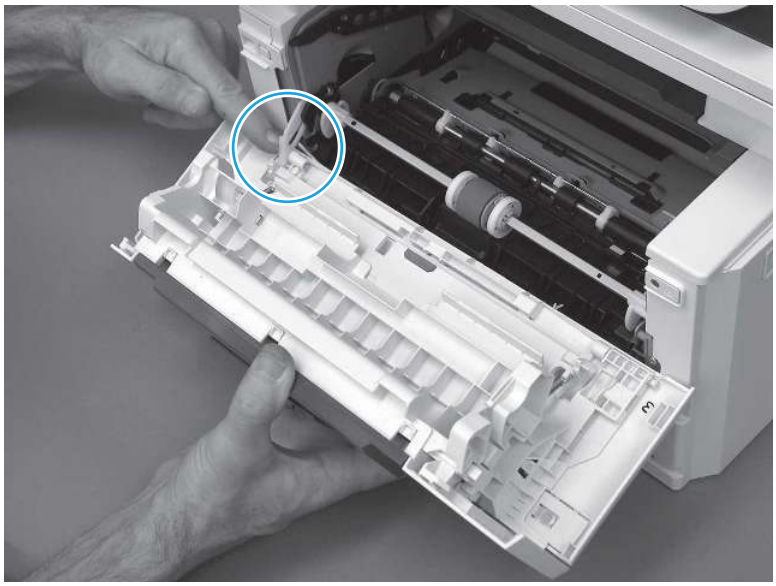
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-119 Release the door



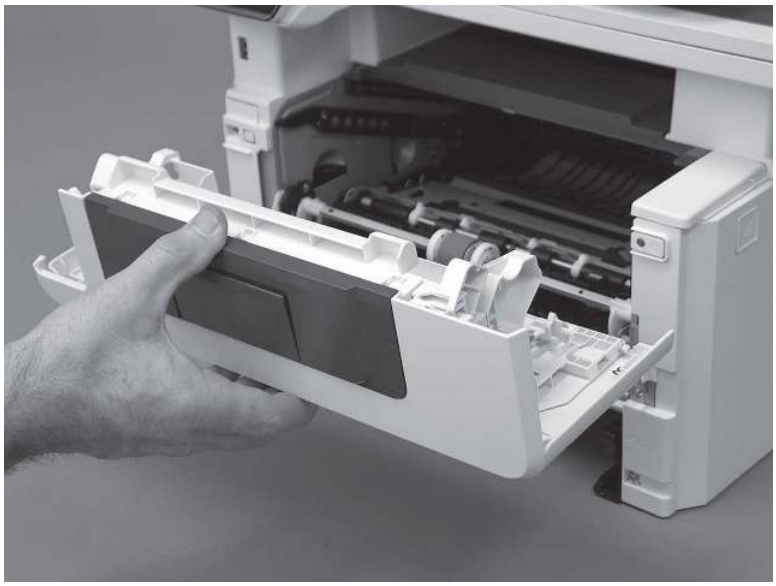
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-120 Release the left-side retainer arm



7. Remove the door.

Figure 4-121 Remove the door



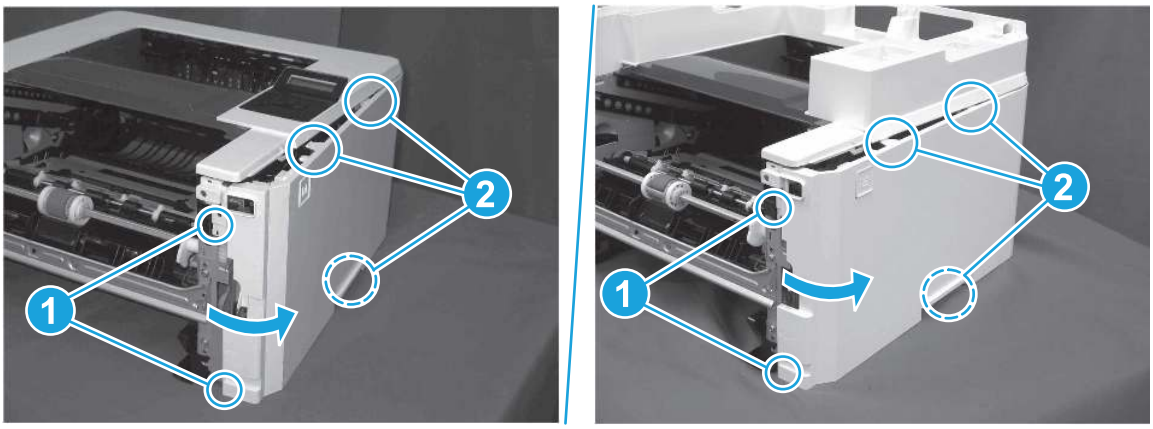
3. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

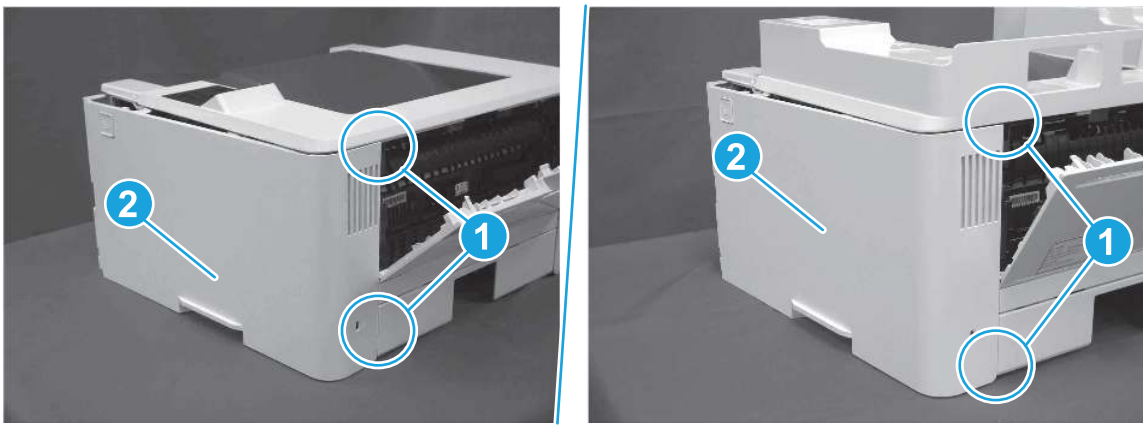
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-122 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-123 Remove the cover



4. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Rear door assembly

Learn how to remove and replace the rear door assembly.

View a video of how to remove and replace the rear door assembly.

Mean time to repair: 13 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-21 Part information

Part number	Part description
RM2-5405-000CN	Rear door assembly

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-124 Remove the tray



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

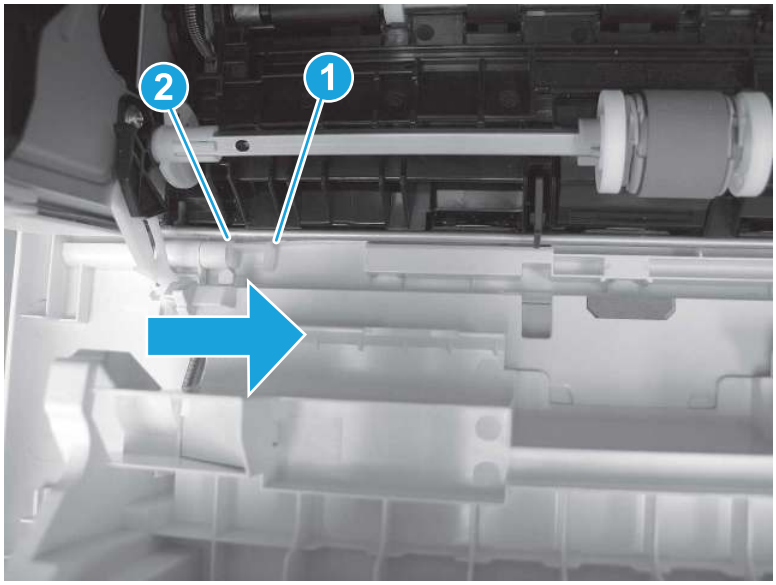
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

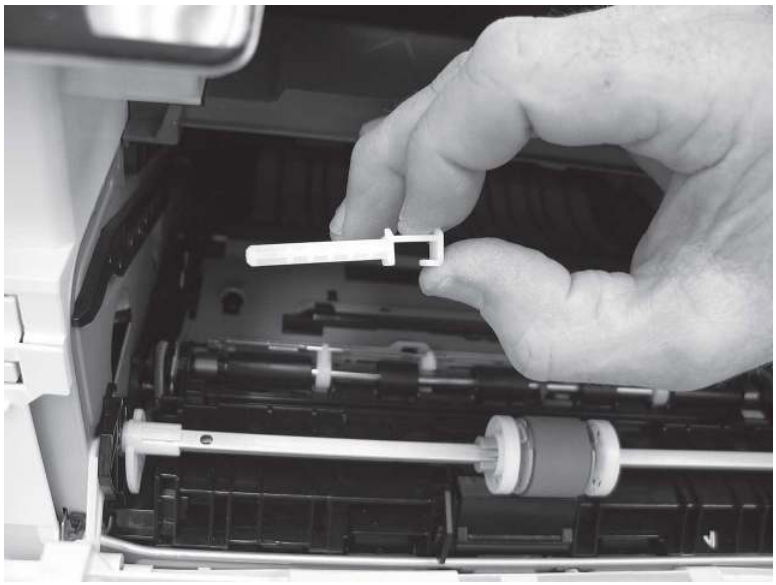
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-125 Release the support shaft



2. Remove the support shaft.

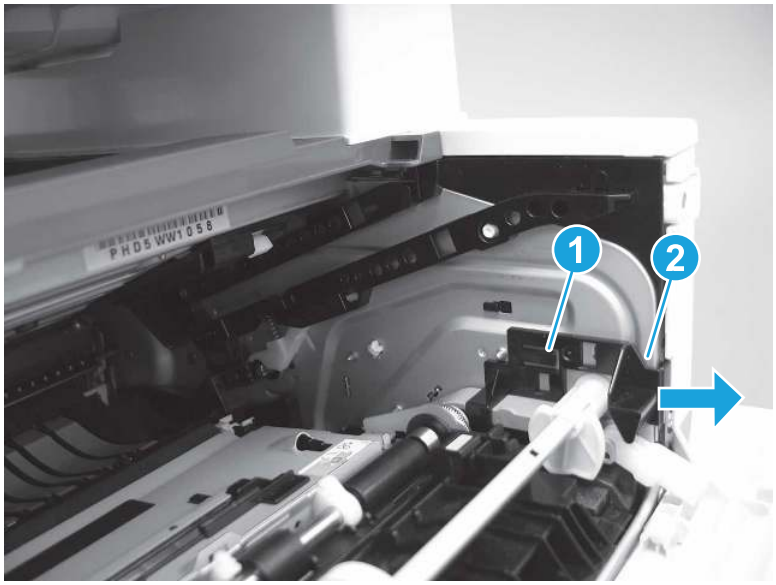
Figure 4-126 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

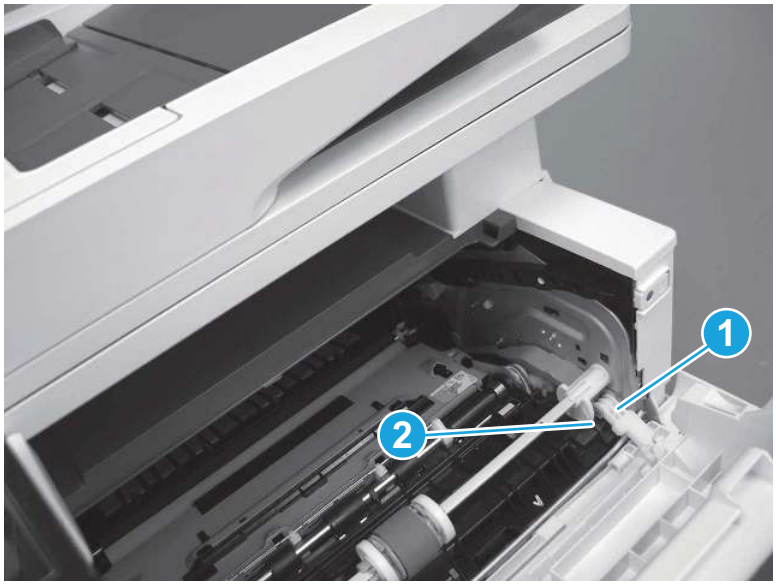
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-127 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-128 Release the pressure-release link

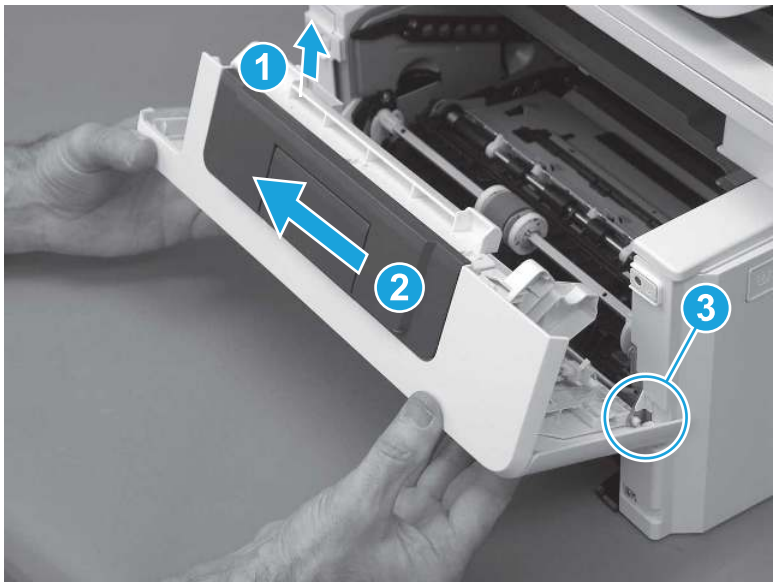


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

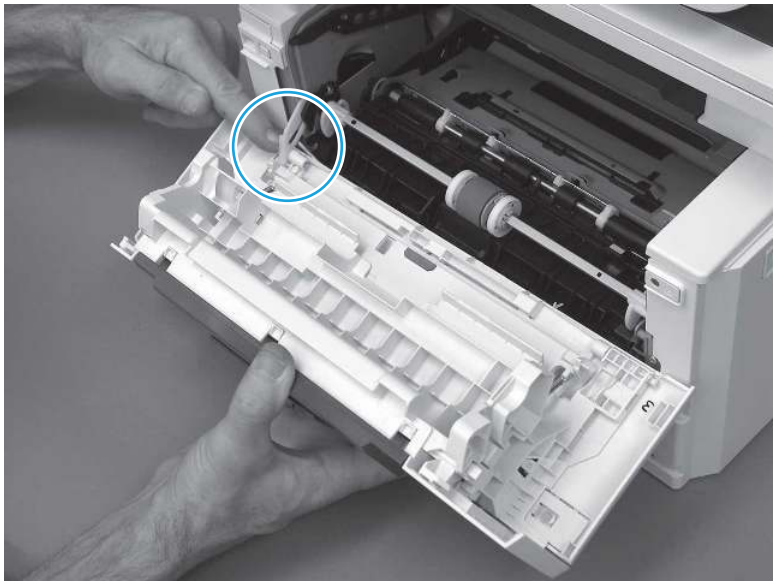
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-129 Release the door



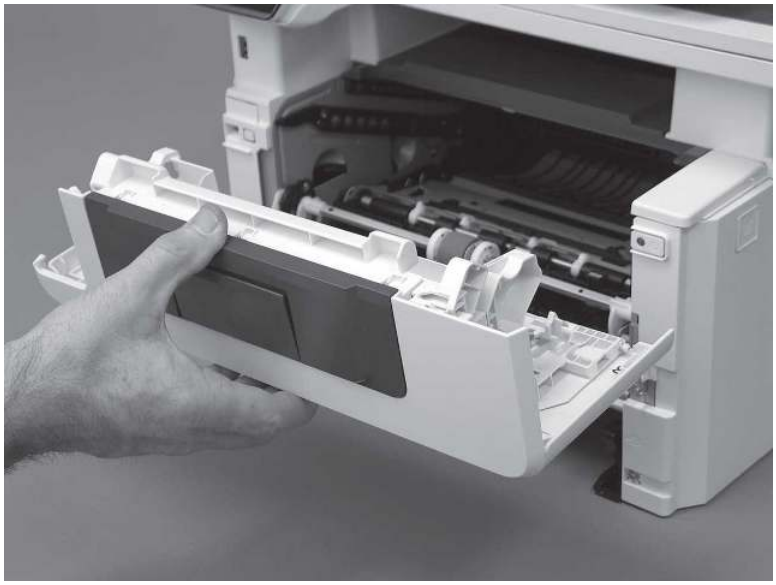
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-130 Release the left-side retainer arm



7. Remove the door.

Figure 4-131 Remove the door



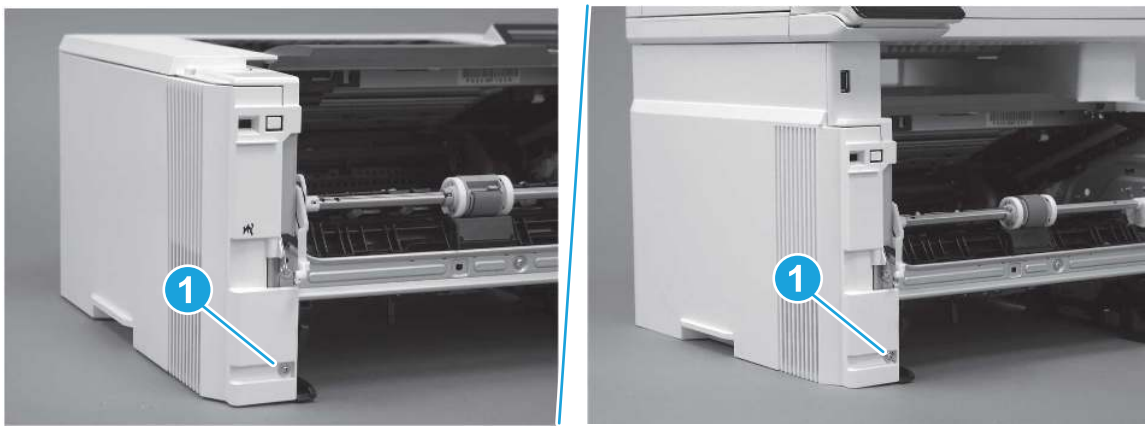
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

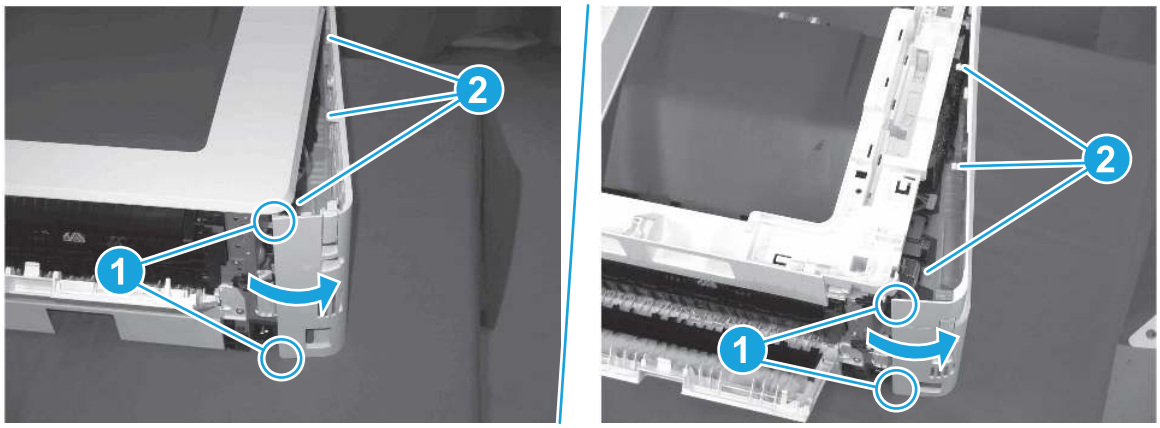
1. Remove one screw (callout 1).

Figure 4-132 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-133 **Release two bosses and three tabs**

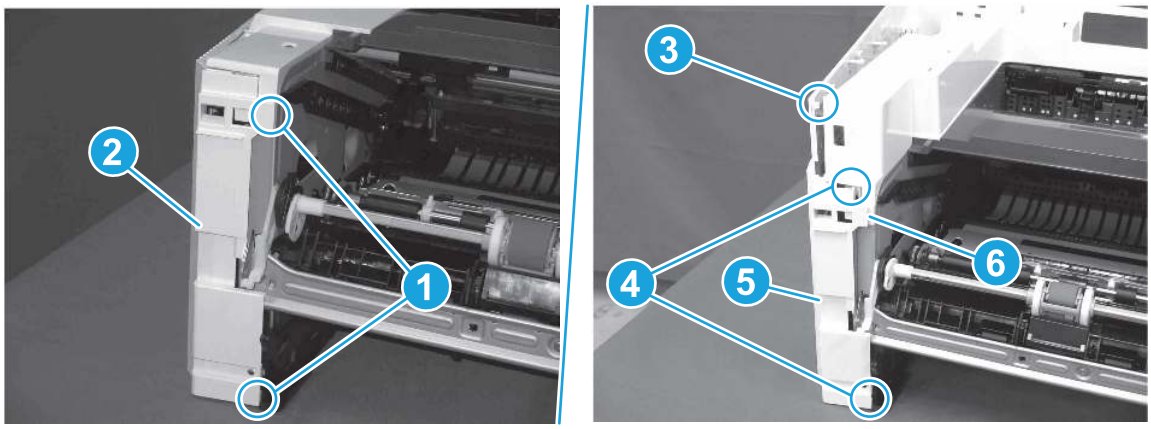


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-134 Remove the cover



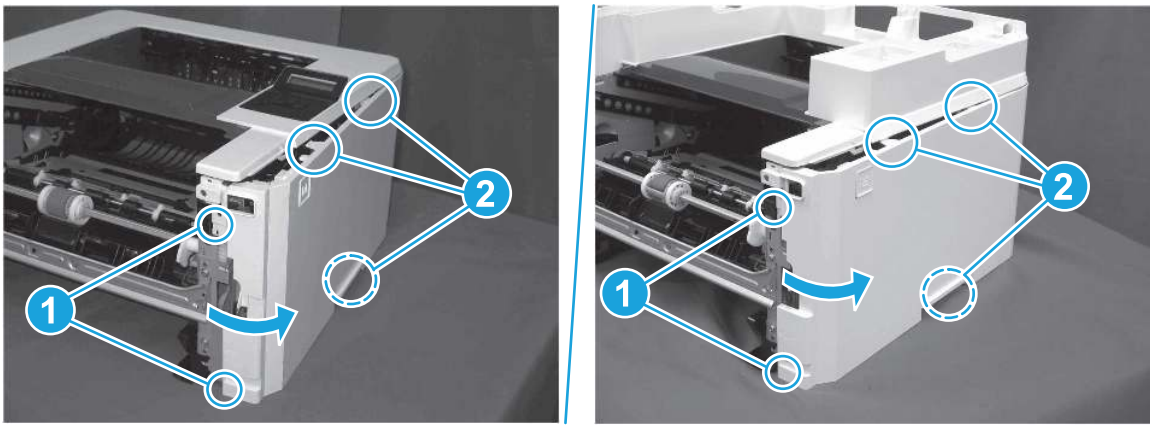
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

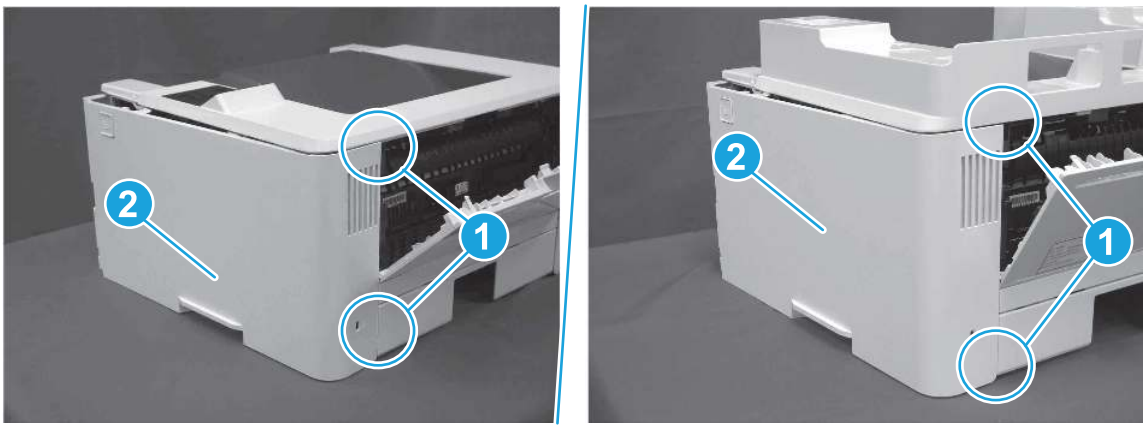
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-135 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-136 **Remove the cover**



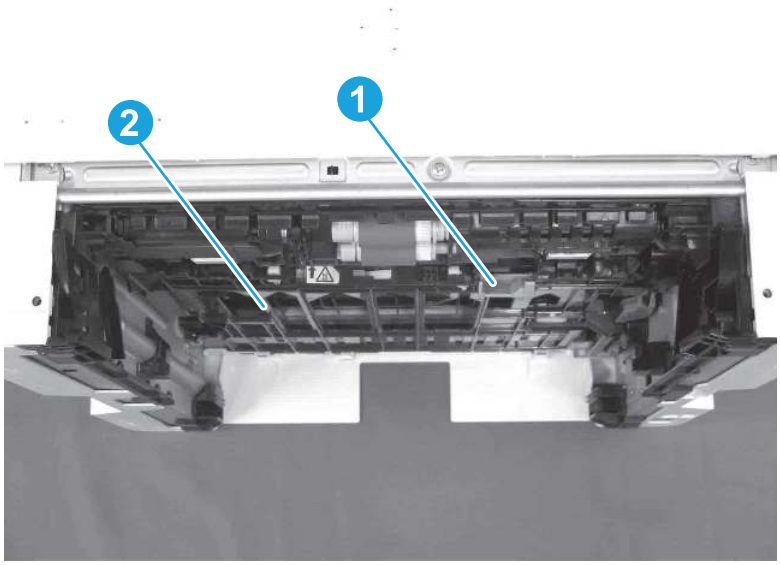
5. Remove the rear door assembly

Follow these steps to remove the rear door assembly.

1. Inside the Tray 2 cavity, press the green jam access lever (callout 1), and then lower the duplex feed assembly (callout 2).

Reinstallation tip: Reach in from the front of the Tray 2 cavity and raise the feed assembly to the up and locked position so that the rear cover will fit flat against the chassis.

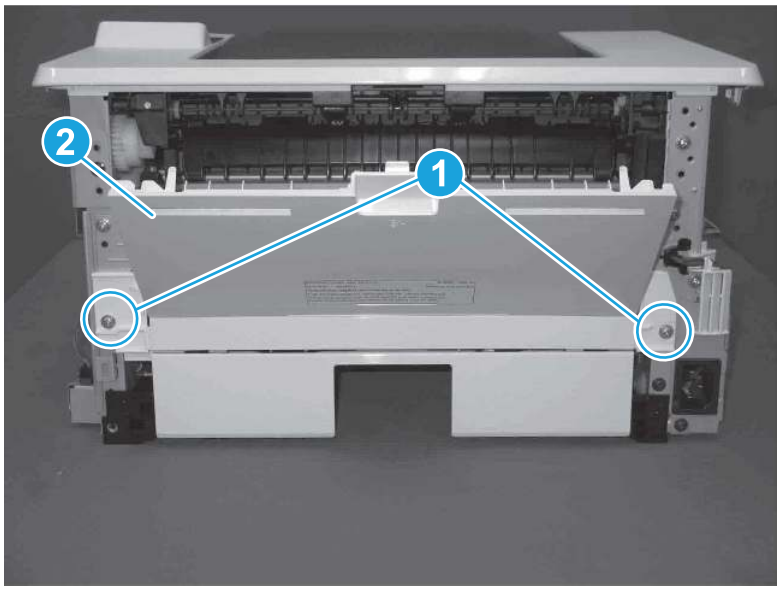
Figure 4-137 **Lower the duplex feed assembly**



2. At the rear of the printer, remove two screws (callout 1), and then remove the rear door assembly (callout 2).

Reinstallation tip: Slide the duplex tray into the Tray 2 cavity.

Figure 4-138 Remove the door assembly



6. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Cassette rear cover

Learn how to remove and replace the cassette rear cover.

View a video of how to remove and replace the cassette rear cover.

Mean time to repair: 14 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-22 Part information

Part number	Part description
RC4-3082-000CN	Cover, cassette rear

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-139 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

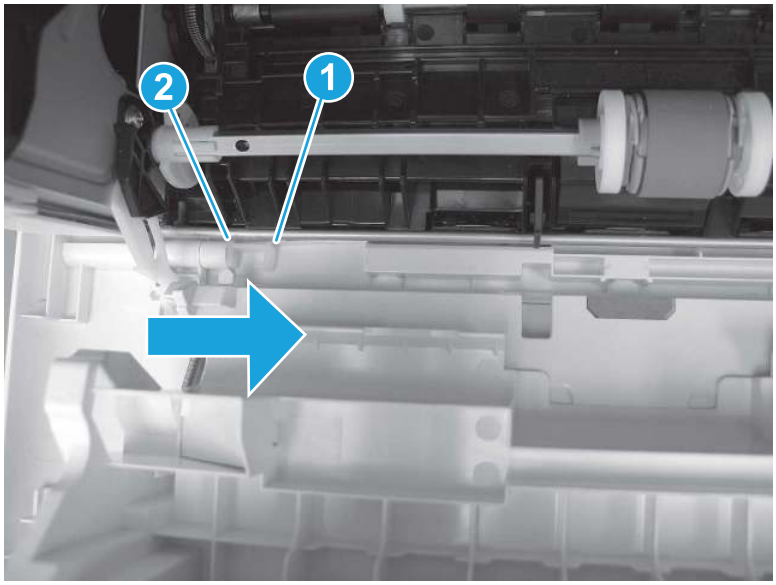
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

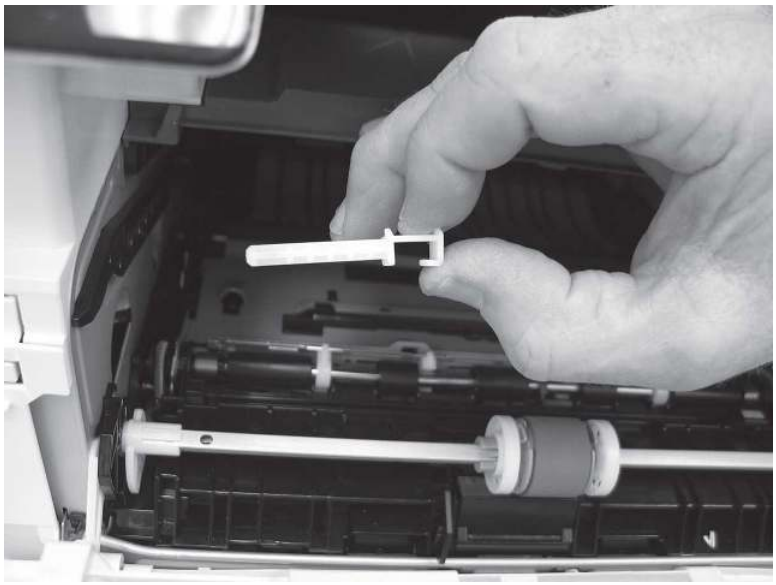
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-140 **Release the support shaft**



2. Remove the support shaft.

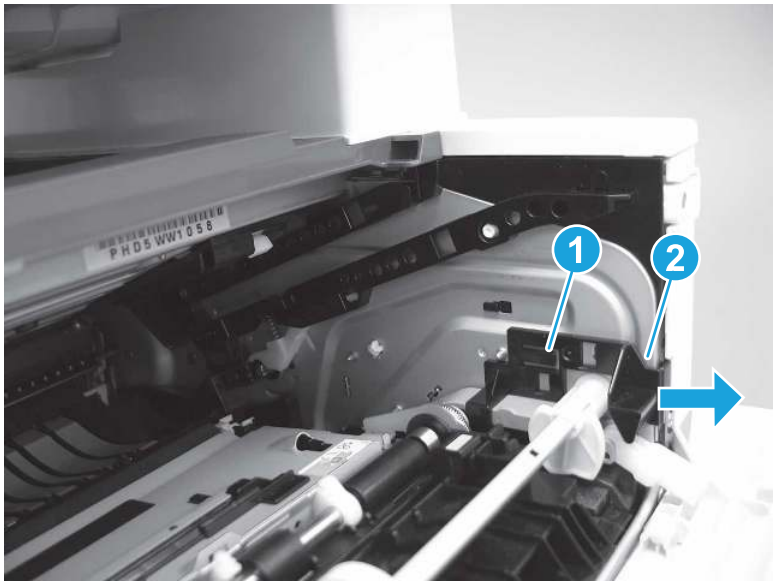
Figure 4-141 **Remove the support shaft**



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

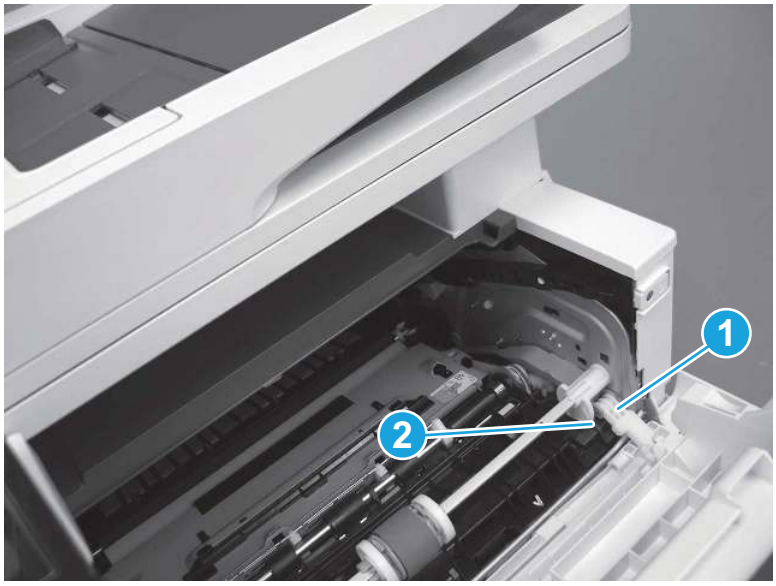
⚠ **CAUTION:** Be careful, the tab (callout 1) can be easily broken.

Figure 4-142 **Remove the guide**



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-143 Release the pressure-release link

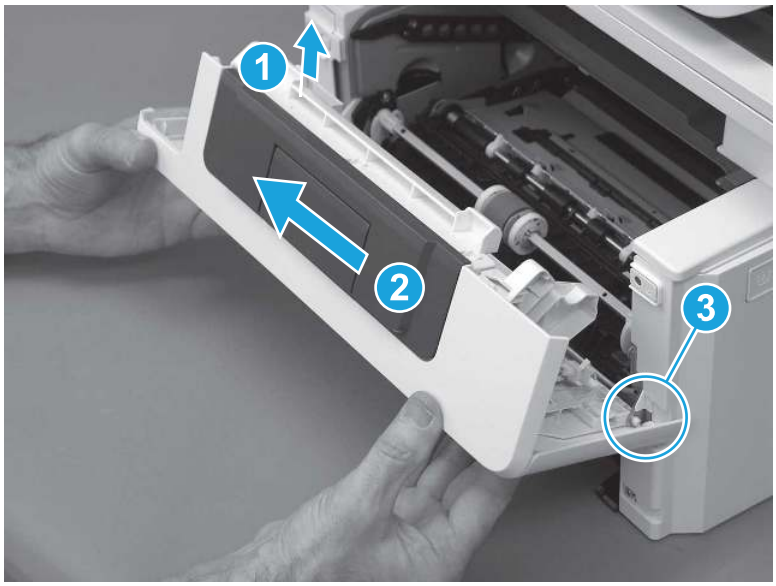


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

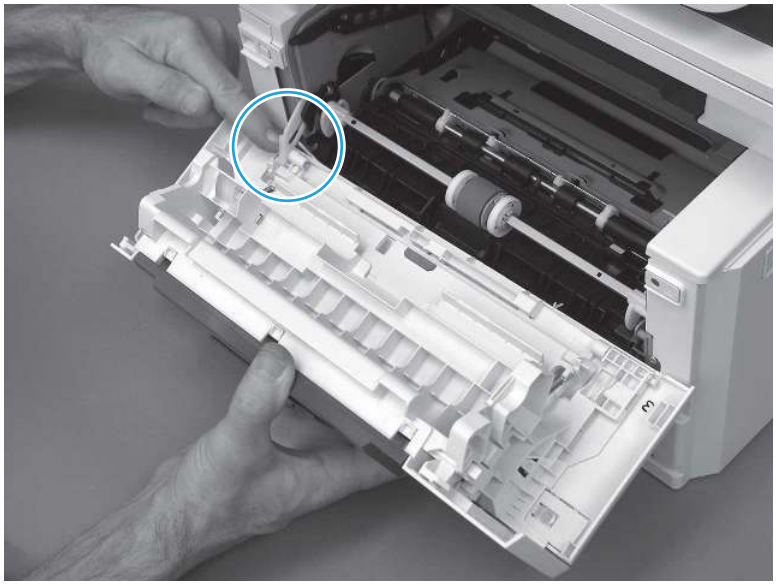
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-144 Release the door



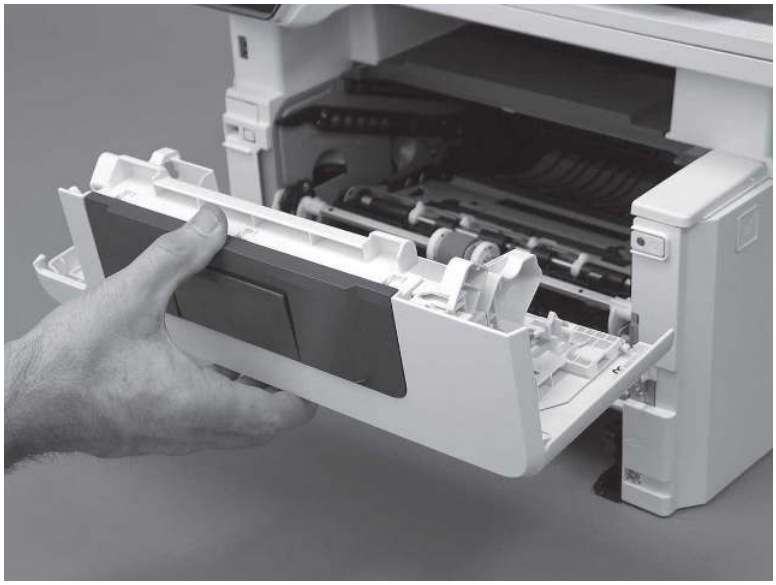
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-145 Release the left-side retainer arm



7. Remove the door.

Figure 4-146 Remove the door



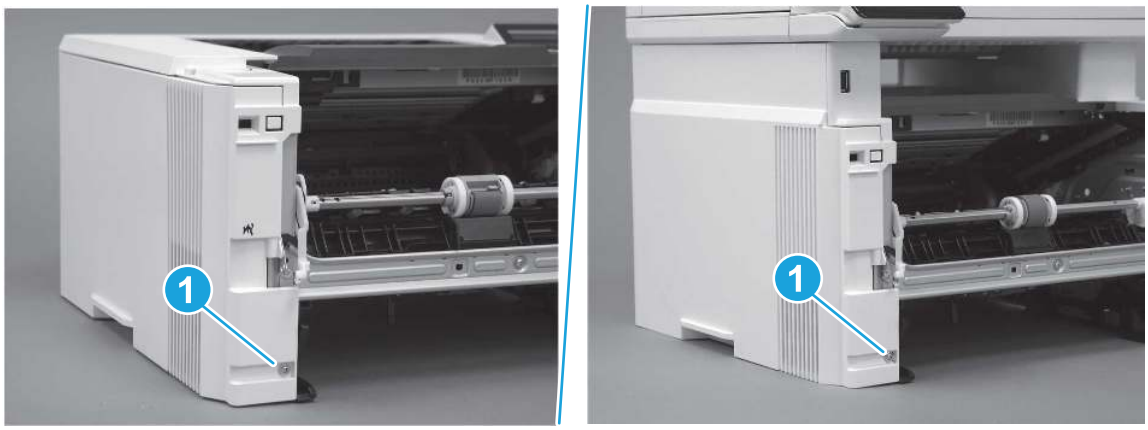
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

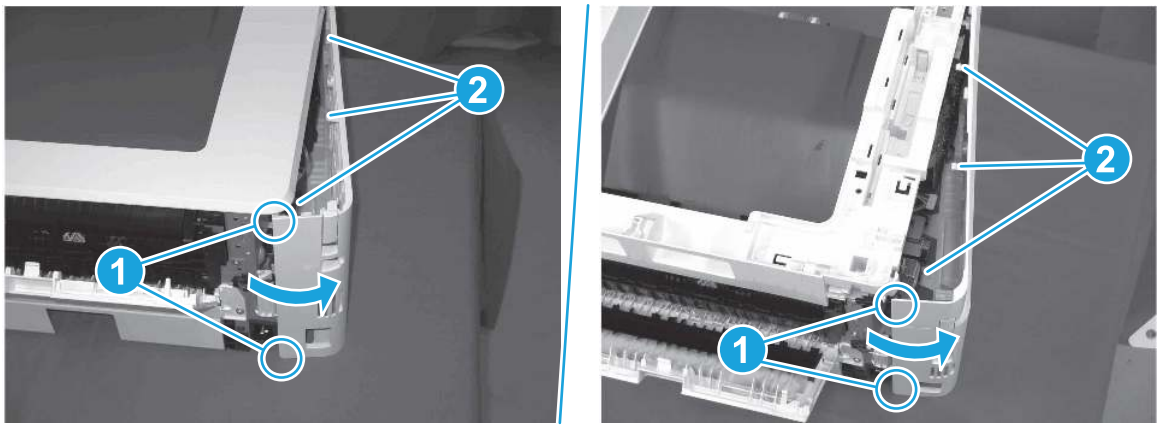
1. Remove one screw (callout 1).

Figure 4-147 Remove one screw



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-148 Release two bosses and three tabs

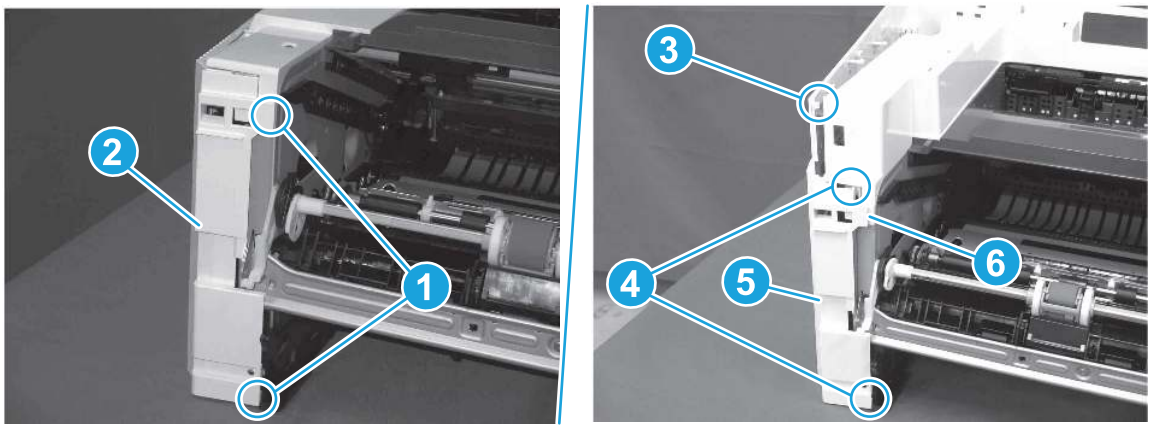


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-149 Remove the cover



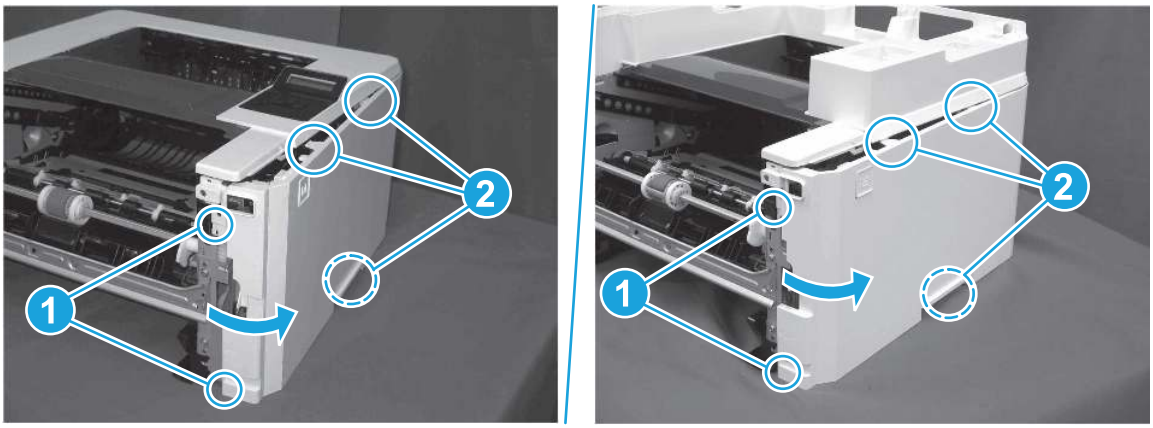
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

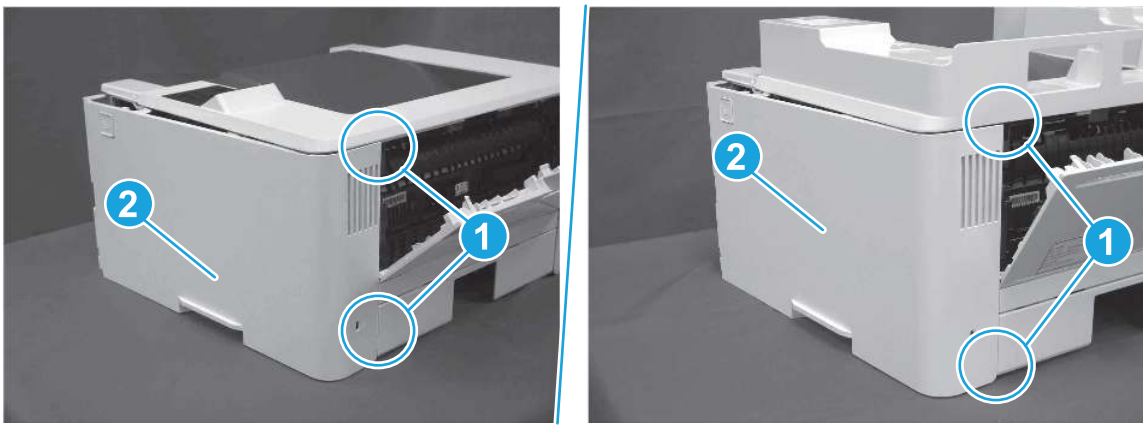
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-150 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-151 **Remove the cover**



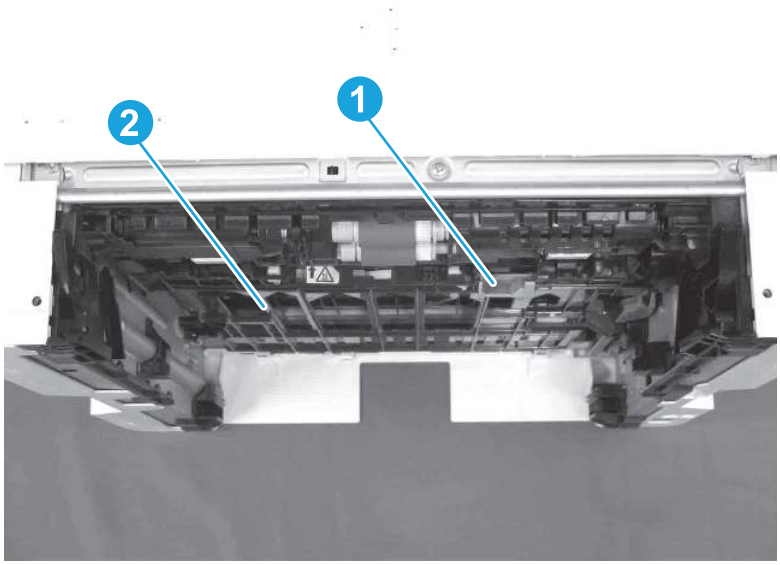
5. Remove the rear door assembly

Follow these steps to remove the rear door assembly.

1. Inside the Tray 2 cavity, press the green jam access lever (callout 1), and then lower the duplex feed assembly (callout 2).

Reinstallation tip: Reach in from the front of the Tray 2 cavity and raise the feed assembly to the up and locked position so that the rear cover will fit flat against the chassis.

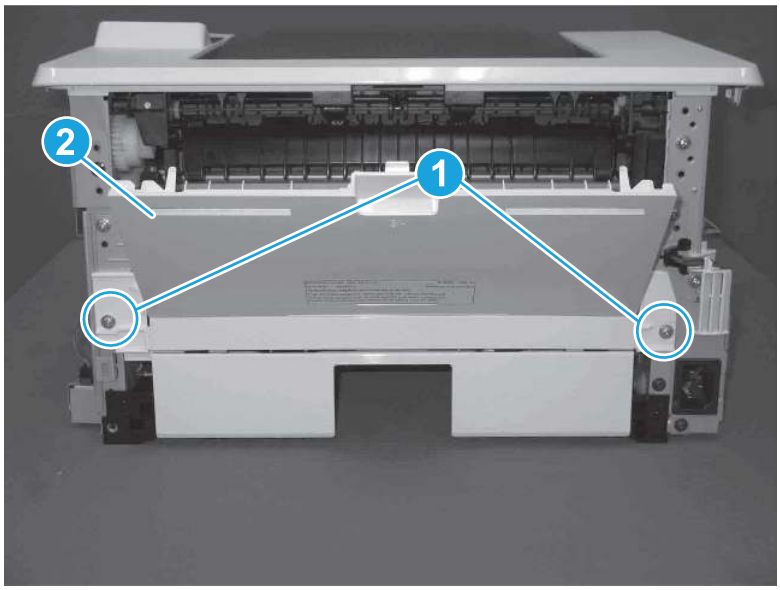
Figure 4-152 **Lower the duplex feed assembly**



2. At the rear of the printer, remove two screws (callout 1), and then remove the rear door assembly (callout 2).

Reinstallation tip: Slide the duplex tray into the Tray 2 cavity.

Figure 4-153 Remove the door assembly



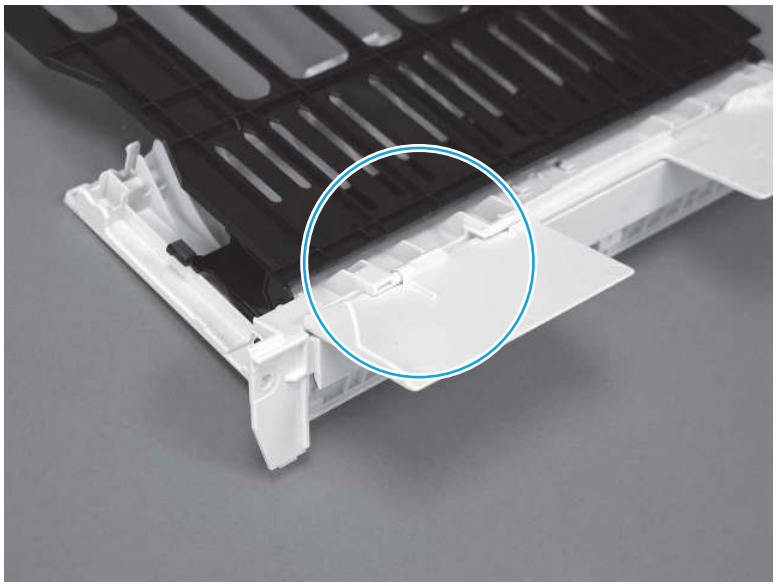
6. Remove the cassette rear cover

Follow these steps to remove the cassette rear cover.

NOTE: The figures in this procedure show a duplex rear cover assembly. However, the procedure is valid for a simplex (not all printers have simplex models) rear cover.

1. Locate the left-side hinge retainer (callout 1).

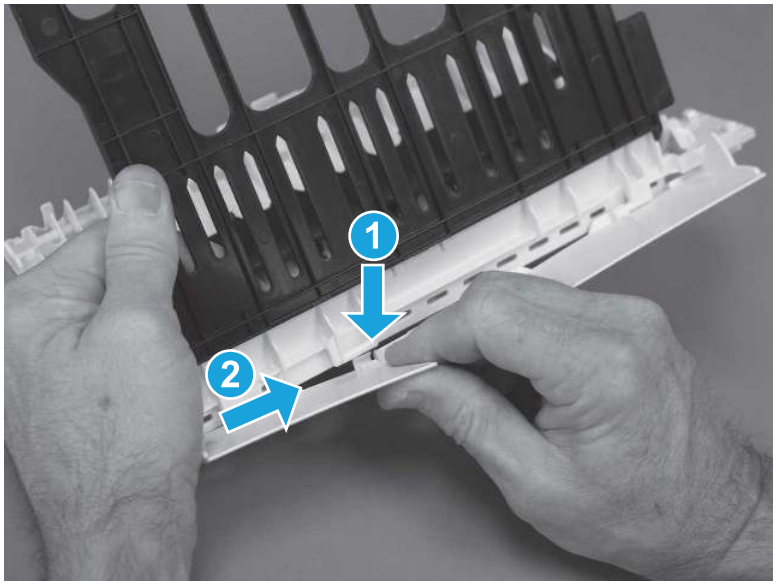
Figure 4-154 Locate the hinge retainer



2. Carefully flex the cover to release the retainer (callout 1), and the left-side hinge pin (callout 2).

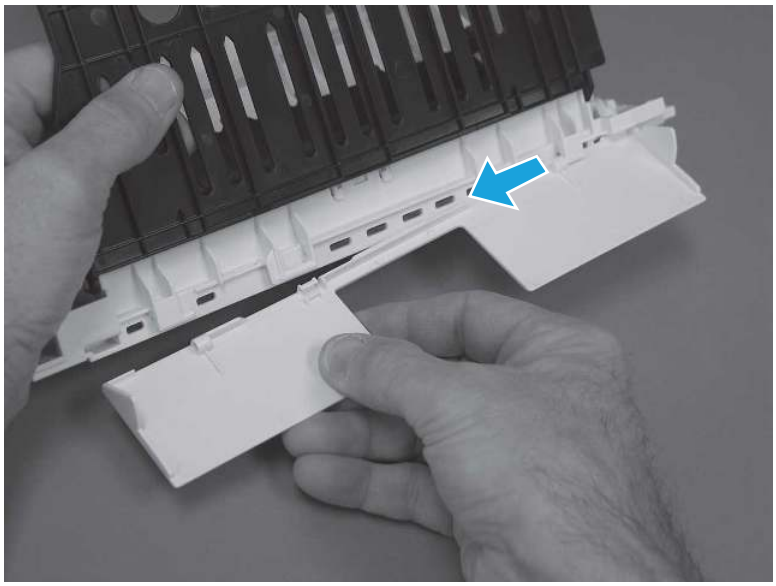
Reinstallation tip: When the cover is correctly installed, it moves freely on the hinge pins.

Figure 4-155 Release the retainer and the hinge pin



3. Remove the cover.

Figure 4-156 Remove the cover



7. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Control panel mount top cover (MFP)

Learn how to remove and replace the MFP control panel mount cover.

View a video of how to remove and replace the control panel mount top cover (MFP).

Mean time to repair: 2 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-23 Part information

Part number	Part description
3PZ55-67902	Cover, top control panel mount

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove the control panel mount cover (MFP only)

Follow these steps to remove the control panel mount cover (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-157 **Open the ISA**



2. Remove one screw (callout 1).

Figure 4-158 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-159 Release two tabs



4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-160 Remove the cover



5. Remove the control-panel mount cover.

Figure 4-161 Remove the cover



2. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Top cover (MFP)

Learn how to remove and replace the top cover (MFP).

View a video of how to remove and replace the top cover.

Mean time to repair: 36 minutes

Service level: Medium

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-24 Part information

Part number	Part description
RC4-3207-000CN	Cover, top (MFP)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-162 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

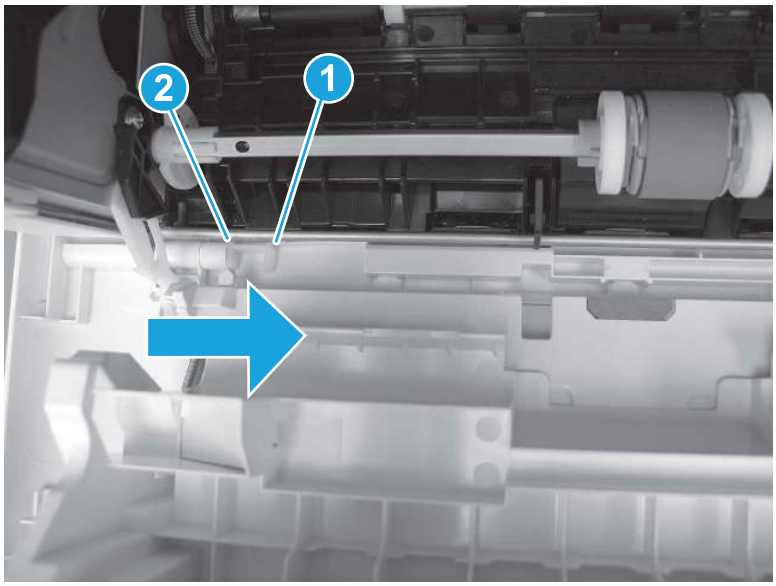
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

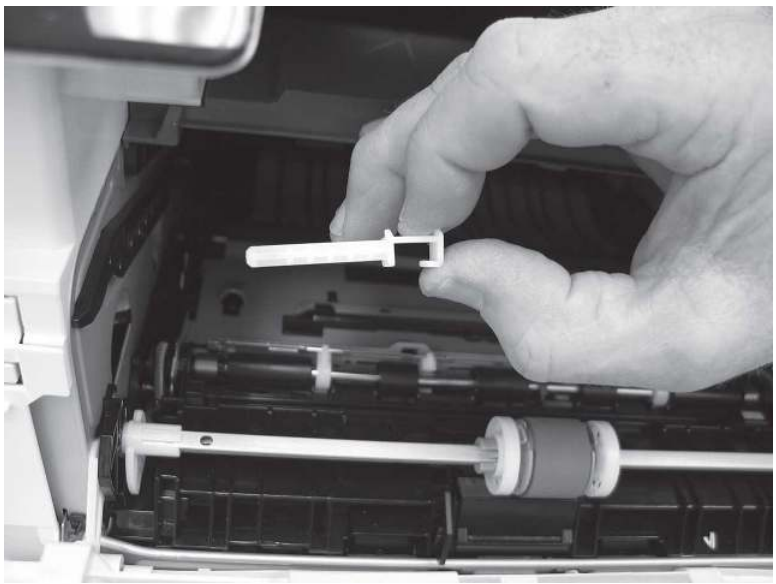
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-163 Release the support shaft



2. Remove the support shaft.

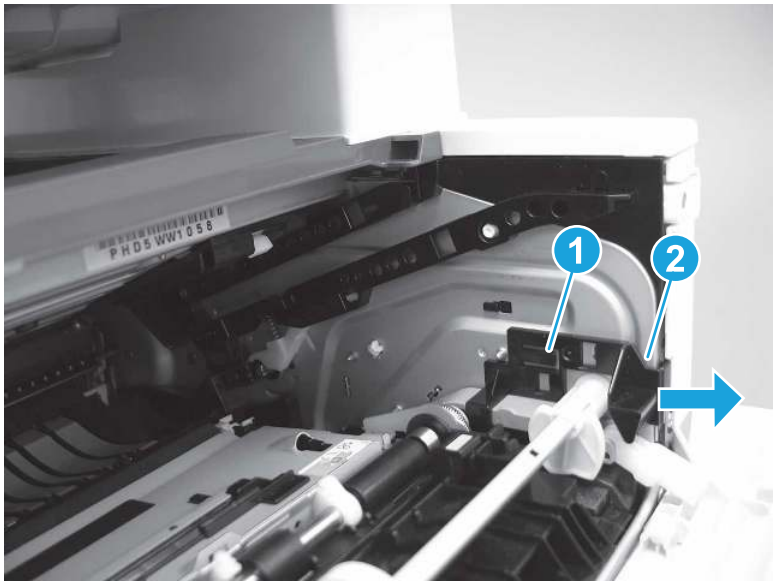
Figure 4-164 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

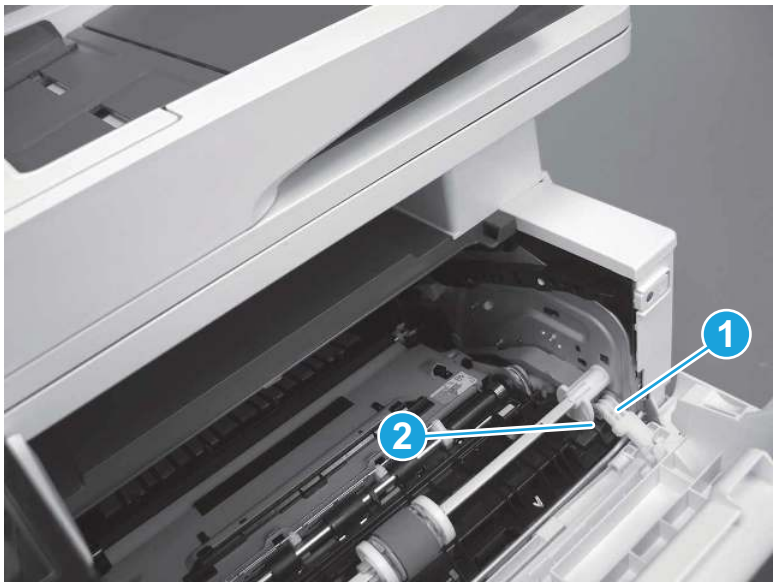
CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-165 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-166 Release the pressure-release link

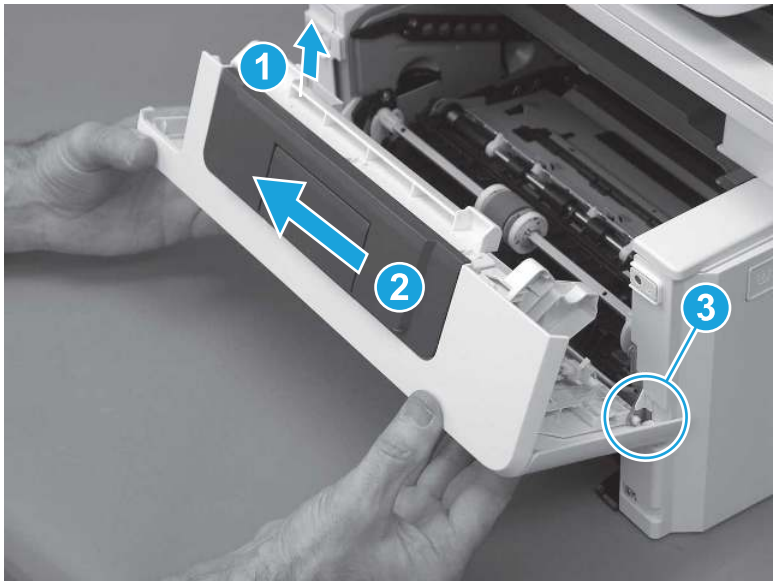


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

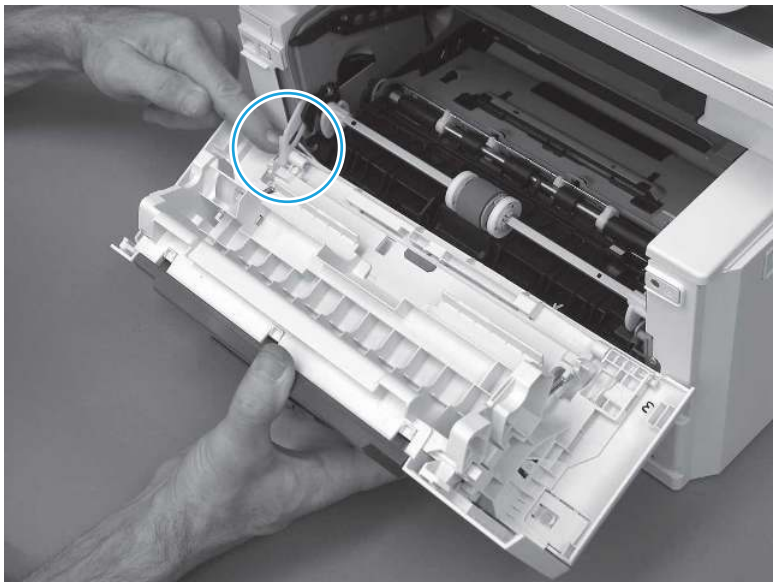
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-167 Release the door



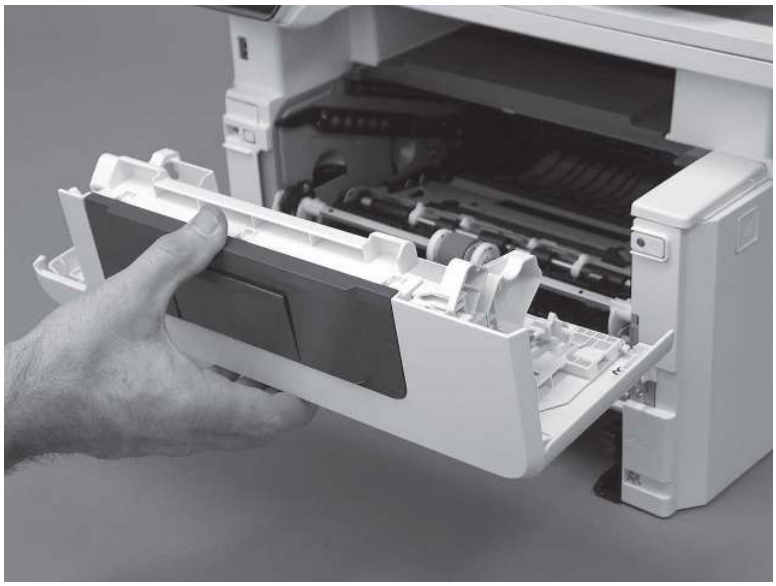
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-168 Release the left-side retainer arm



7. Remove the door.

Figure 4-169 Remove the door



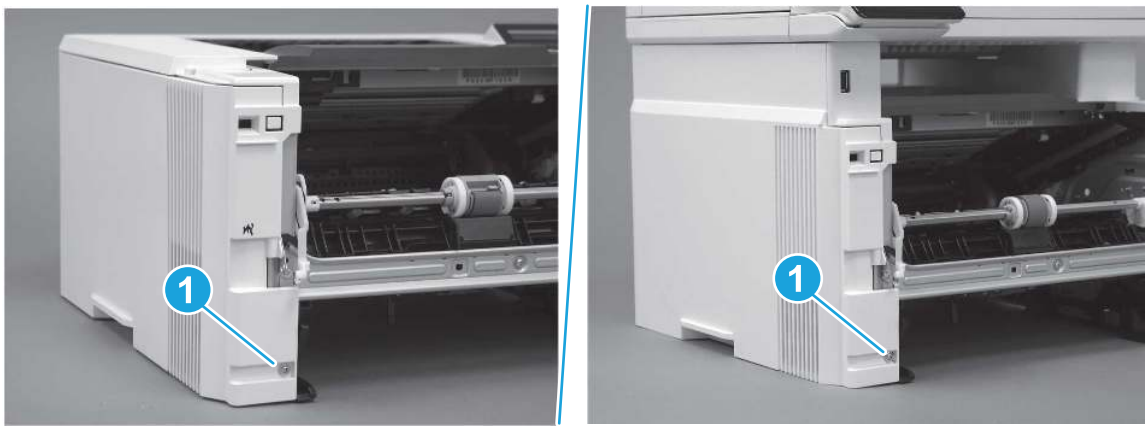
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

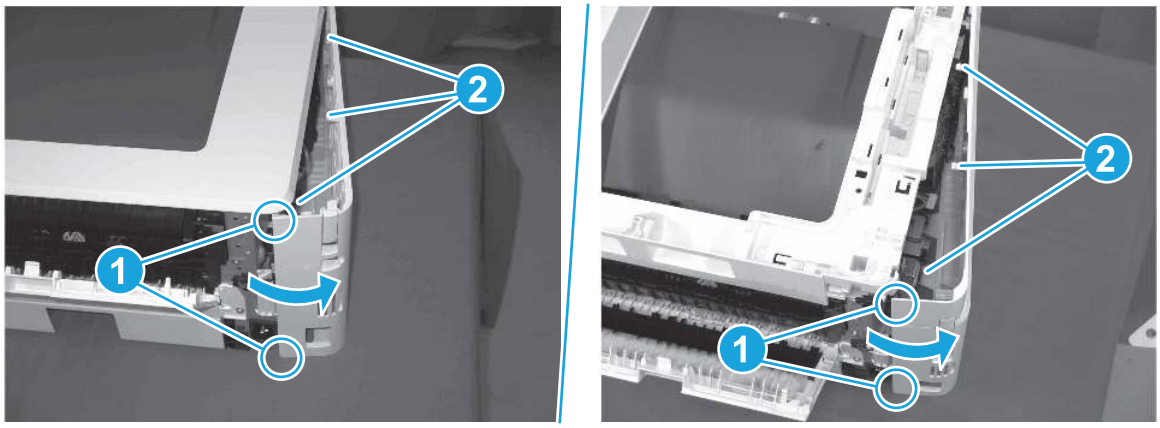
1. Remove one screw (callout 1).

Figure 4-170 Remove one screw



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-171 **Release two bosses and three tabs**

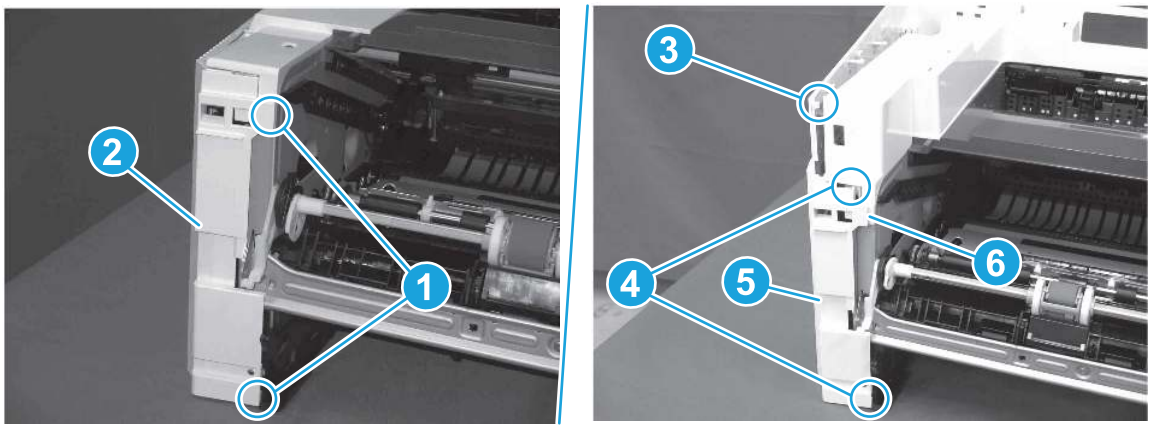


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-172 **Remove the cover**



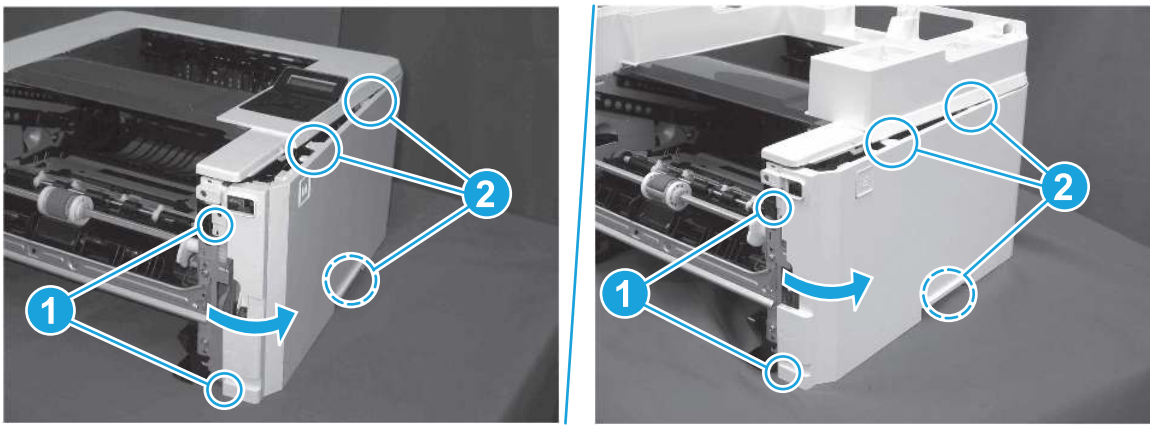
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

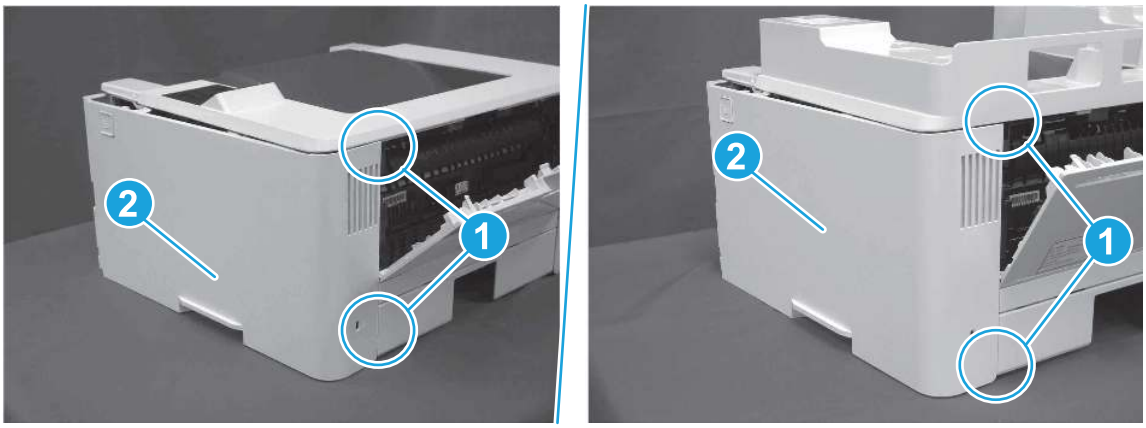
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-173 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-174 Remove the cover

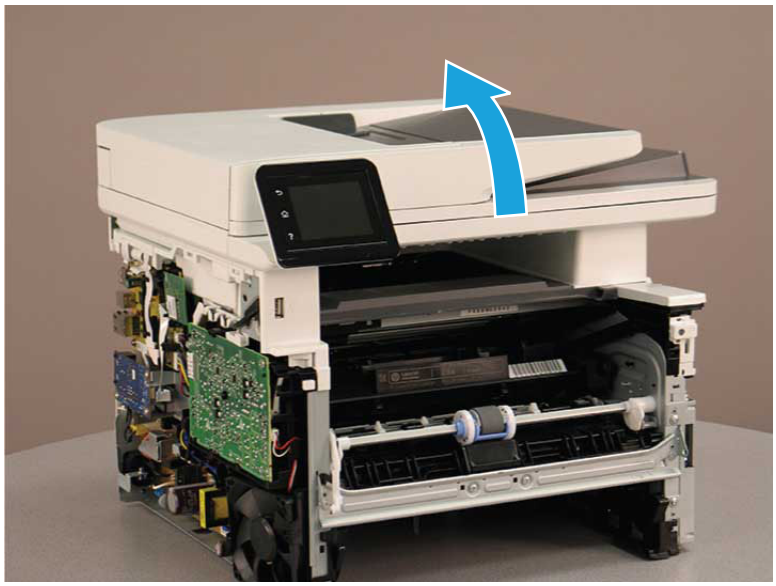


5. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

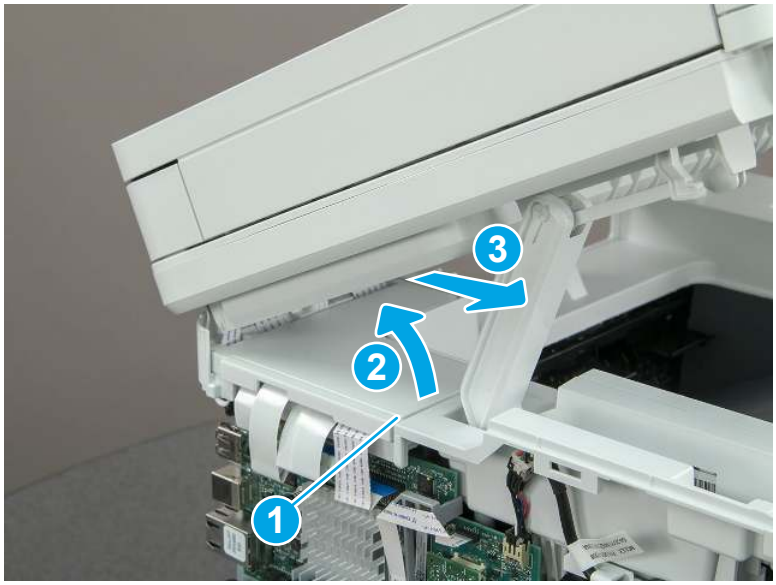
1. If the ISA is not already raised, raise it now.

Figure 4-175 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-176 Remove the ISA FFC cover



6. Remove the integrated scanner assembly (MFP only)

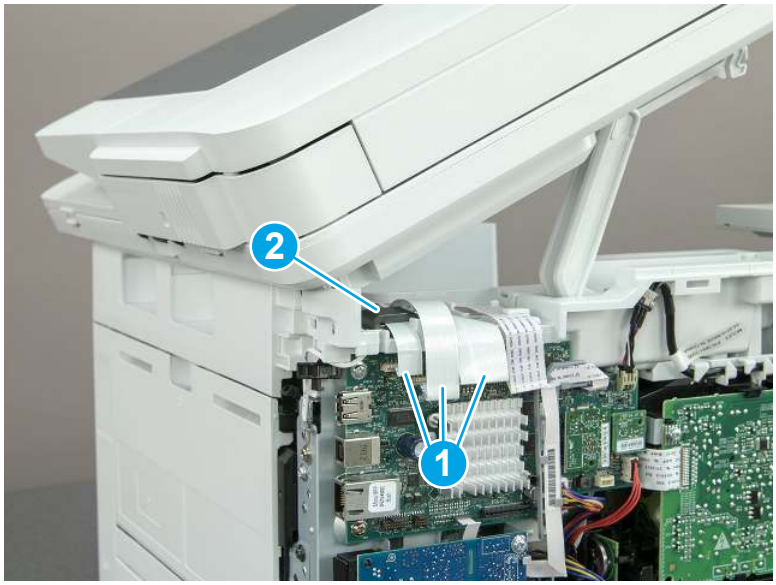
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-177 Disconnect three FFCs



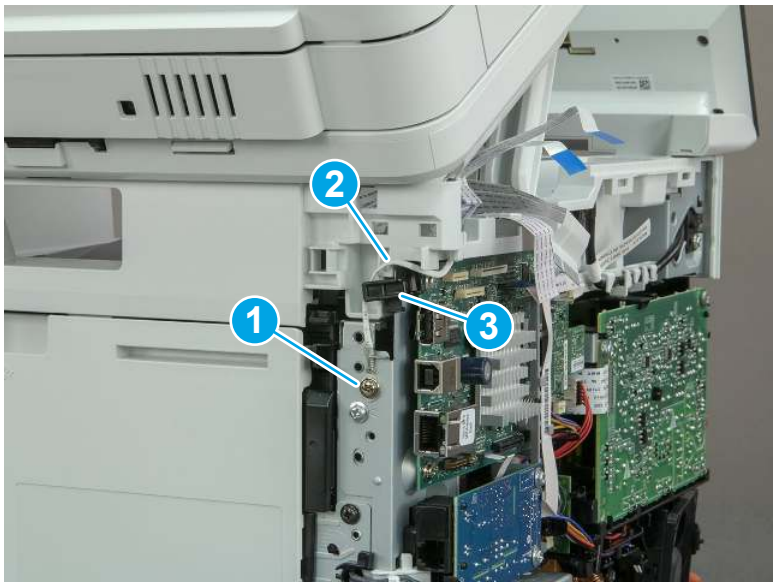
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-178 Release the tape



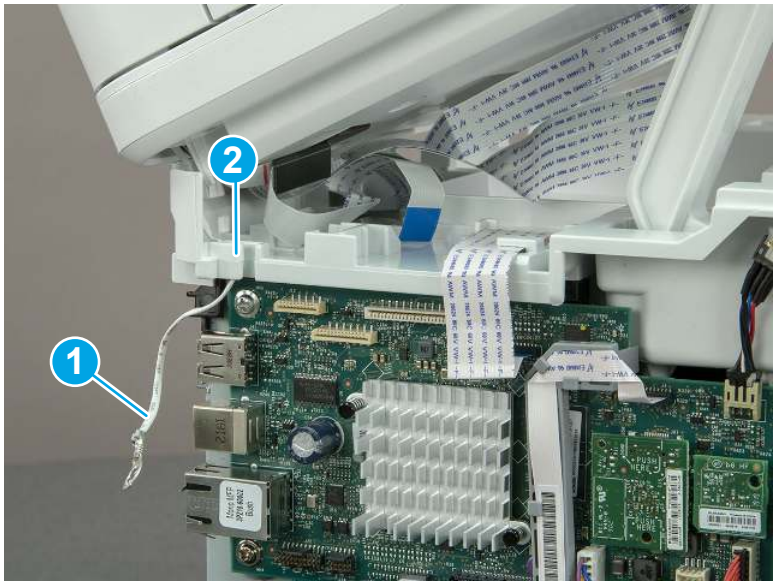
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-179 Release the ground wire



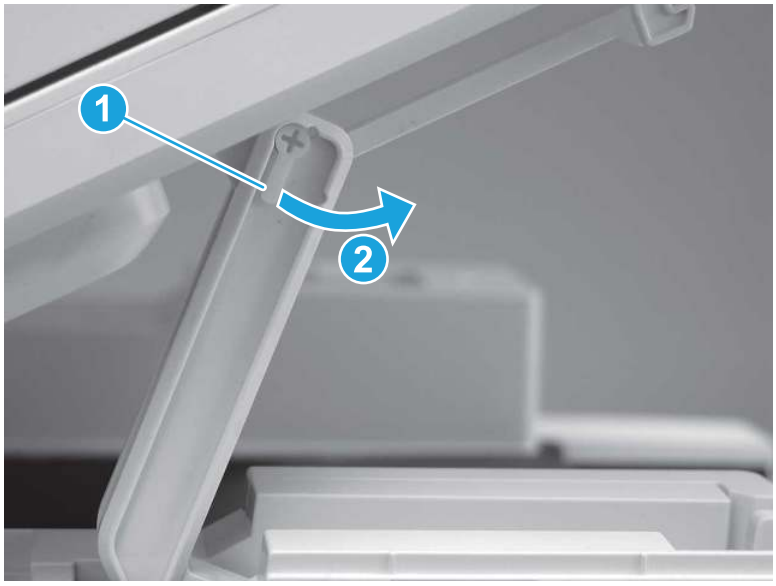
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-180 Release the ground wire



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

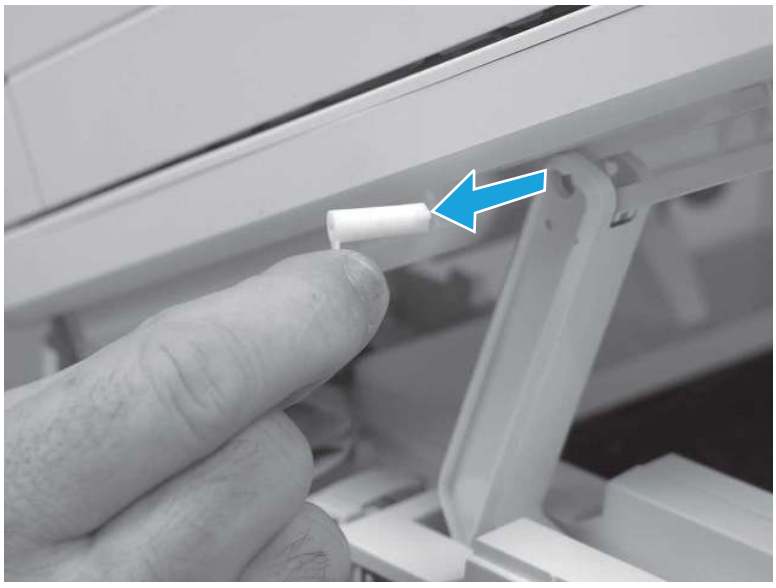
Figure 4-181 Release one tab and rotate the slider pin



6. Remove the slider pin.

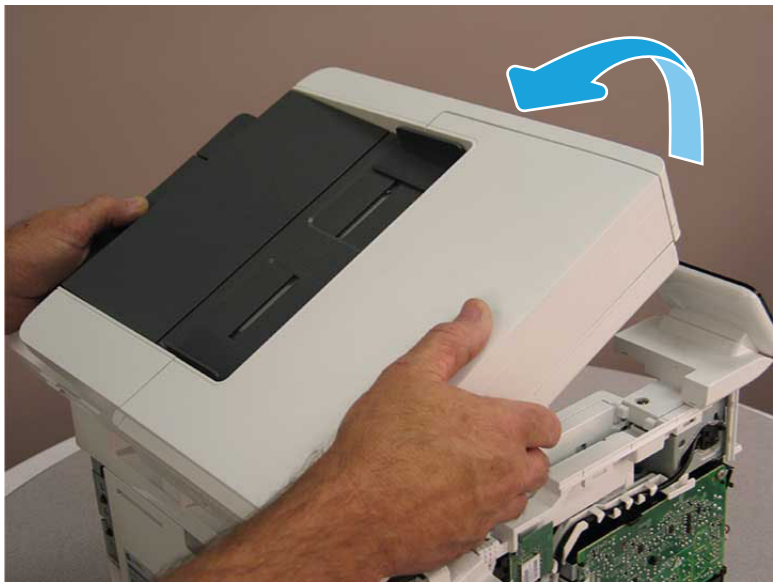
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-182 Remove the slider pin



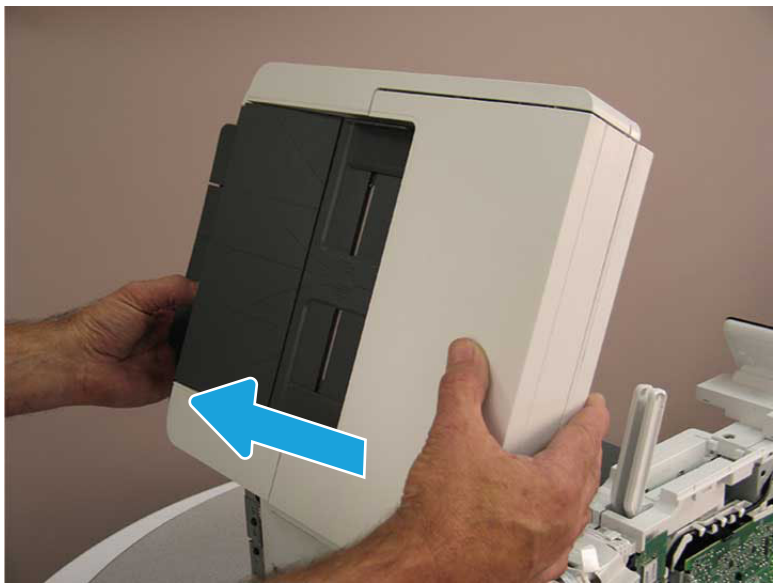
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-183 Rotate the ISA towards the rear of the printer



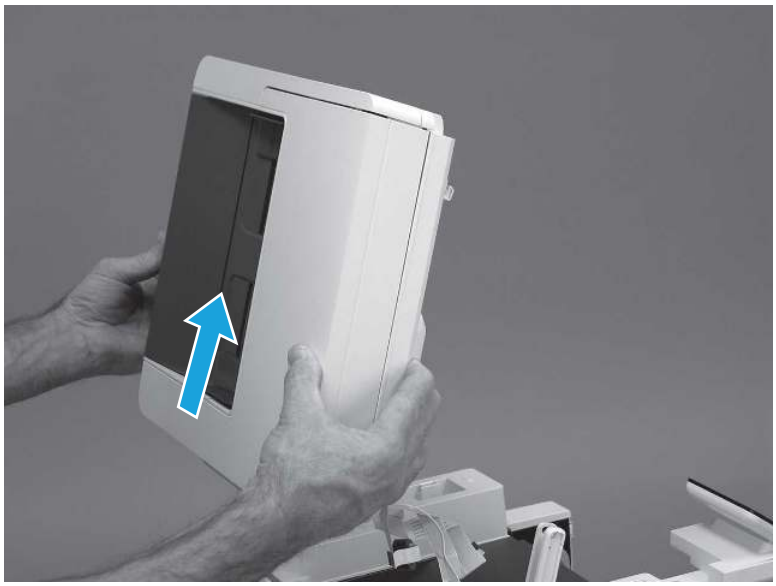
8. Slide the ISA as shown to release it.

Figure 4-184 Release the ISA



9. Remove the ISA.

Figure 4-185 Remove the ISA



7. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-186 Open the ISA



2. Remove one screw (callout 1).

Figure 4-187 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-188 Release two tabs



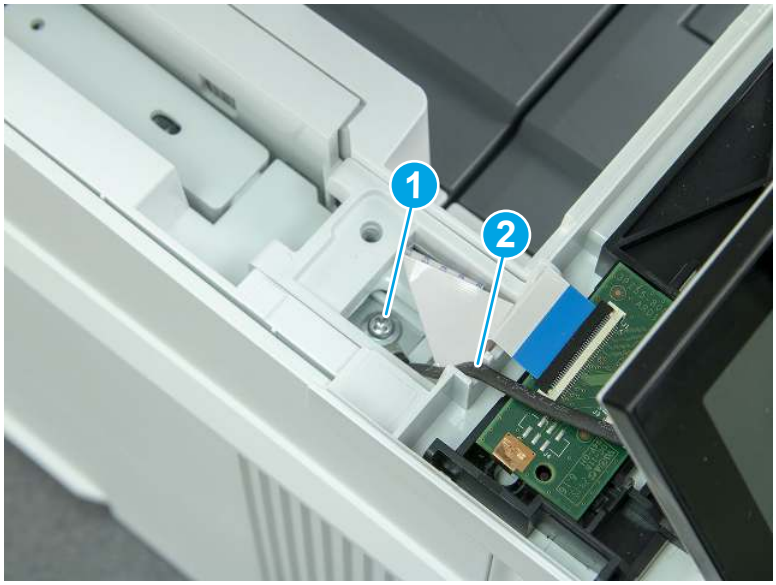
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-189 Remove the cover



5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-190 Remove one screw



6. Disconnect two FFC (callout 1).

Figure 4-191 Disconnect two FFC



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

Figure 4-192 Remove the ICB



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ CAUTION: Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-193 Remove two screws and remove the control panel assembly

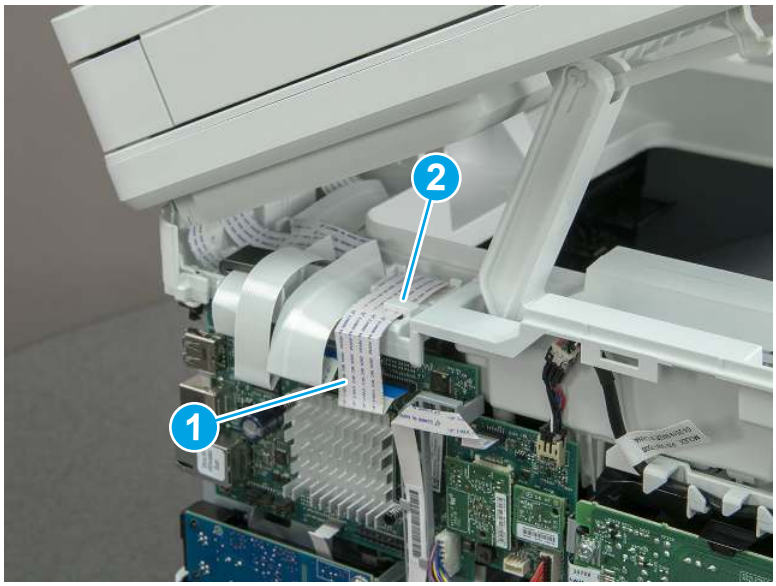


8. Remove the control panel flat cable and cover (MFP only)

Follow these steps to remove the control panel flat cable and cover (MFP only).

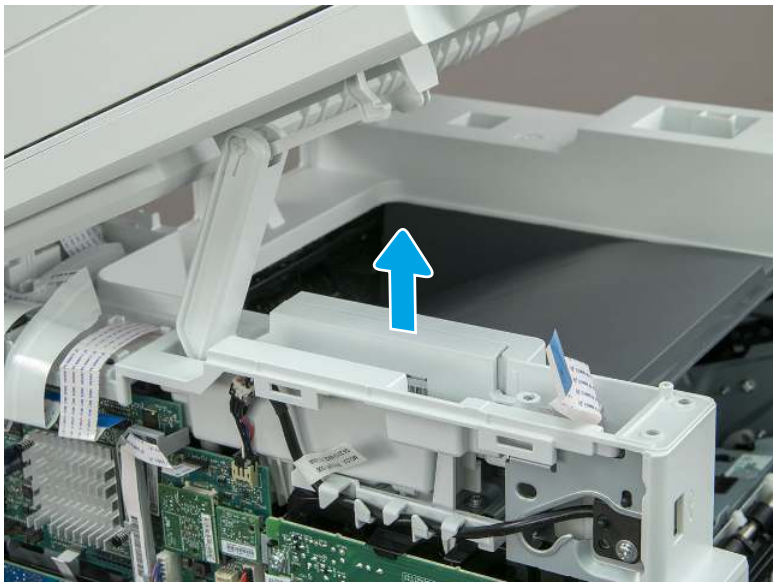
1. Disconnect one FFC (callout 1), and then release the cable from the guides (callout 2).

Figure 4-194 Disconnect one cable



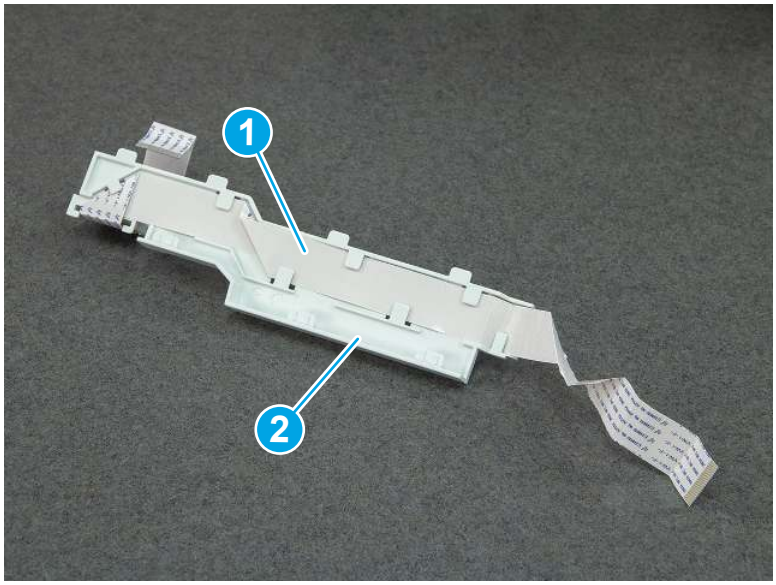
2. Lift up the control-panel FFC cover to remove the cover and cable.

Figure 4-195 Remove the cover and cable



3. If you are replacing the FFC or the cover, remove the FFC (callout 1) from the cover (callout 2).

Figure 4-196 Remove the FFC

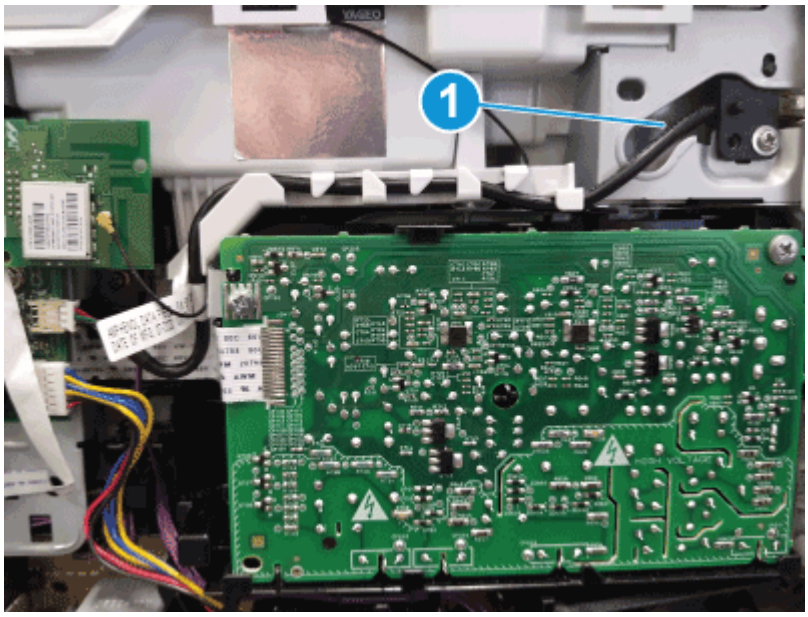


9. Remove the top cover (MFP)

Follow these steps to remove the top cover (MFP).

1. Release the USB cable (callout 1) from the cable guide.

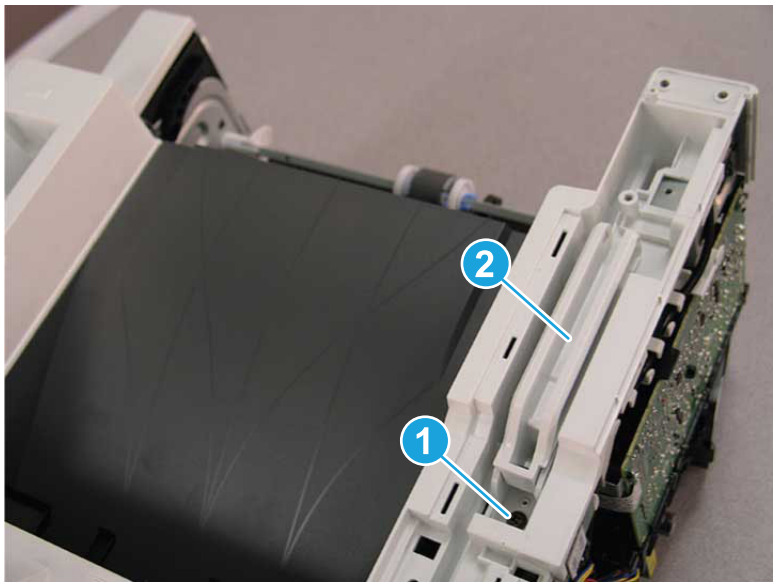
Figure 4-197 Release the USB cable



2. Remove one screw (callout 1), and then remove the support arm (callout 2).

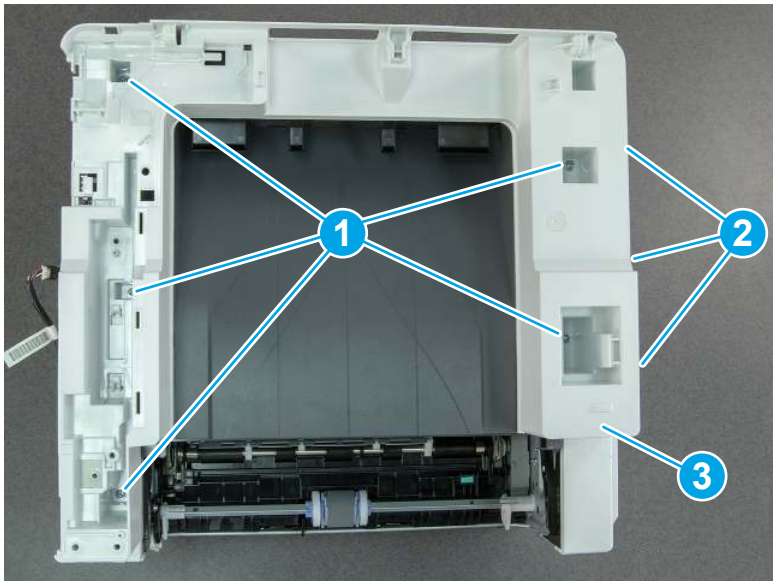
⚠ CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-198 Remove the support arm



3. Remove five screws (callout 1), release three bosses (callout 2), and then remove the top cover (callout 3).

Figure 4-199 Remove the top cover



10. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Learn how to remove and replace the cable guide (MFP).

View a video of how to remove and replace the cable guide.

Mean time to repair: 38 minutes

Service level: Medium

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-25 Part information

Part number	Part description
RC5-7024-000CN	Guide, USB cable

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-200 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

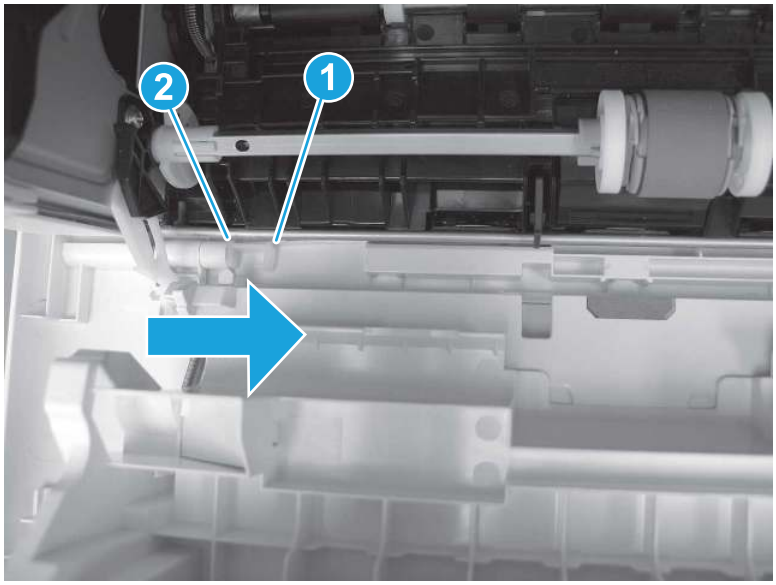
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

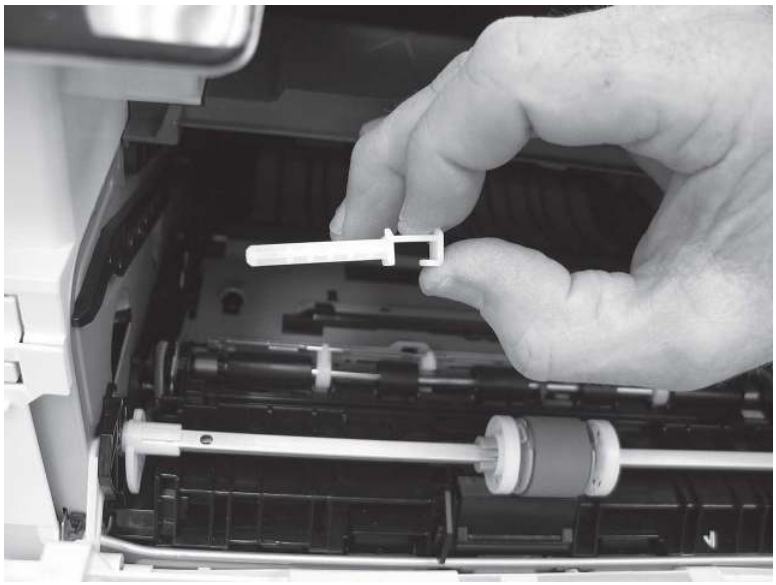
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-201 **Release the support shaft**



2. Remove the support shaft.

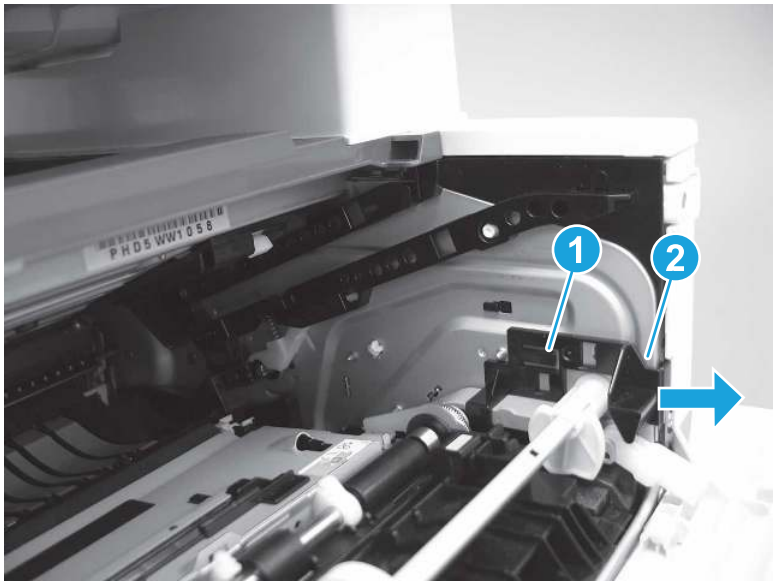
Figure 4-202 **Remove the support shaft**



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

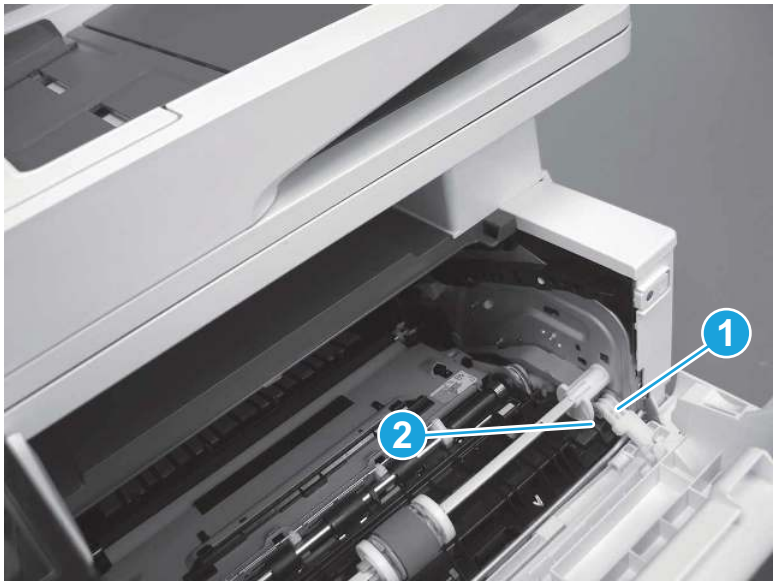
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-203 **Remove the guide**



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-204 Release the pressure-release link

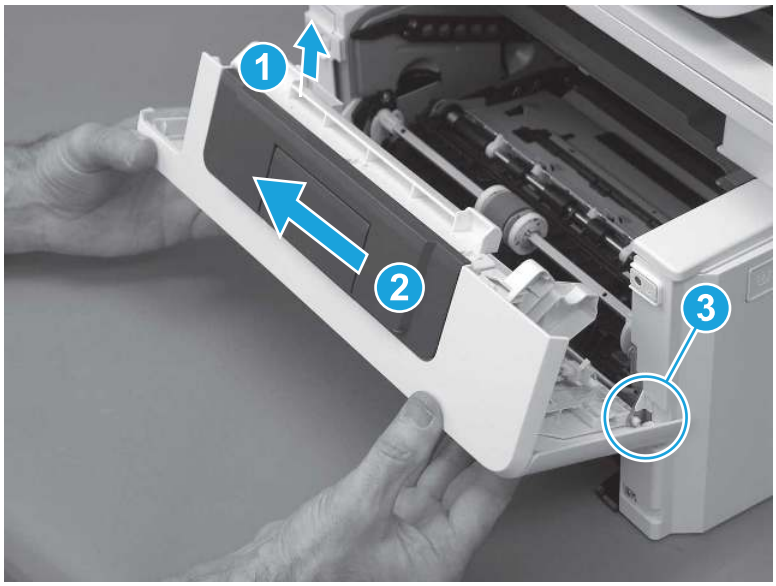


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

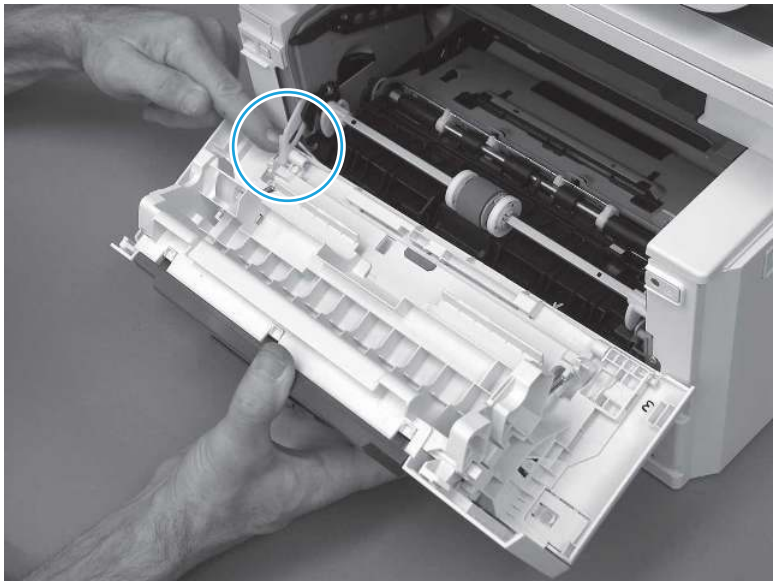
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-205 Release the door



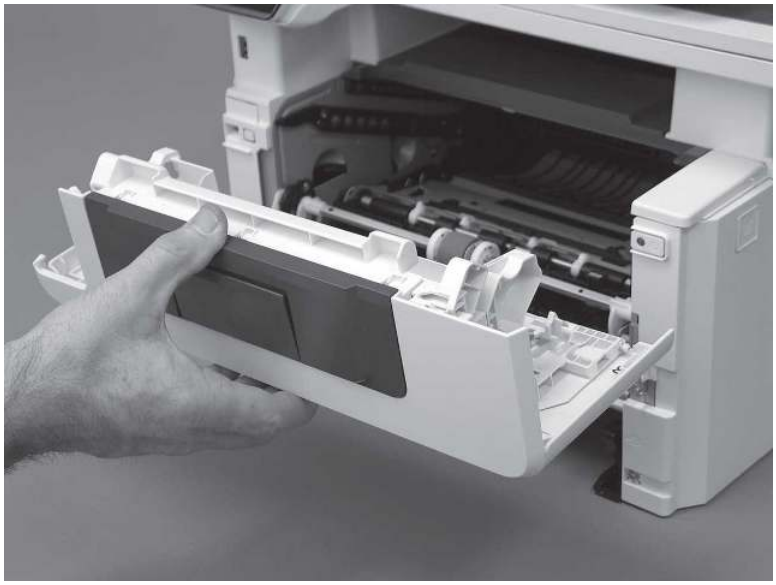
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-206 Release the left-side retainer arm



7. Remove the door.

Figure 4-207 Remove the door



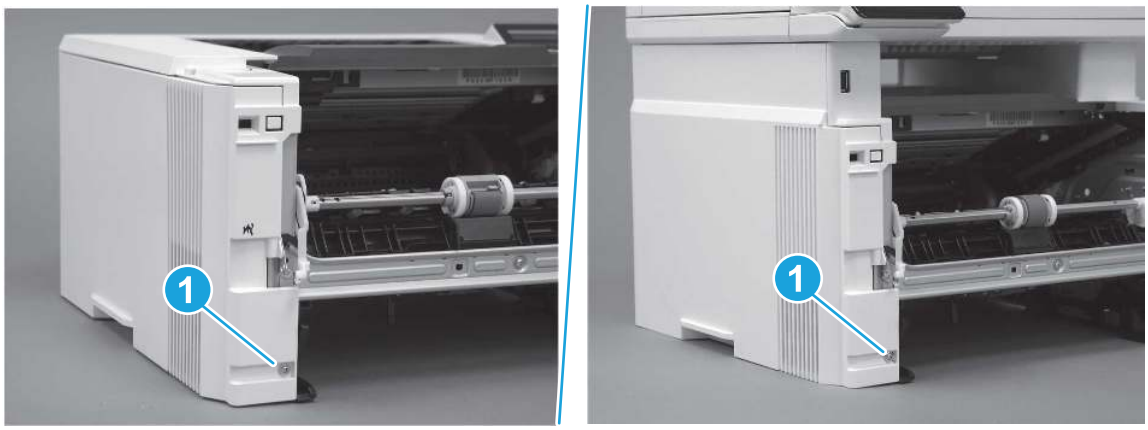
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

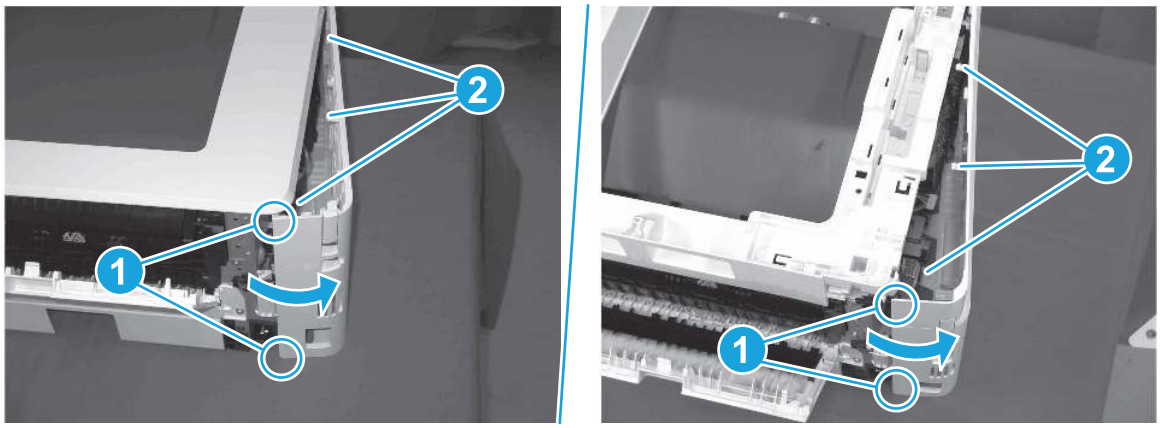
1. Remove one screw (callout 1).

Figure 4-208 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-209 **Release two bosses and three tabs**

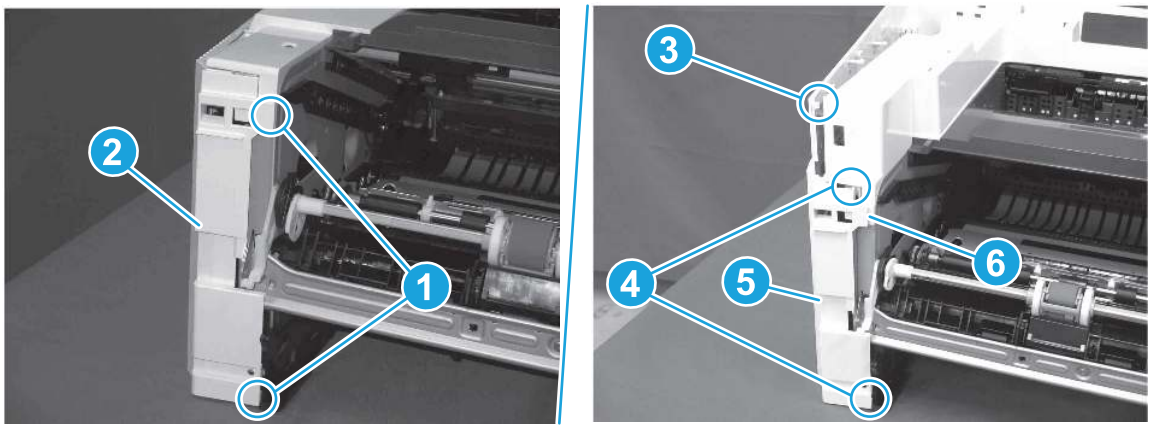


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-210 Remove the cover



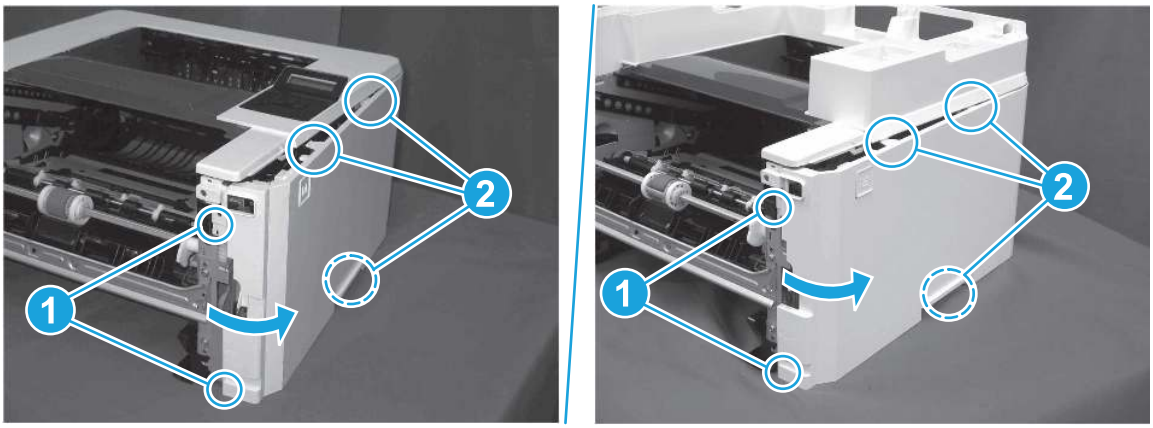
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

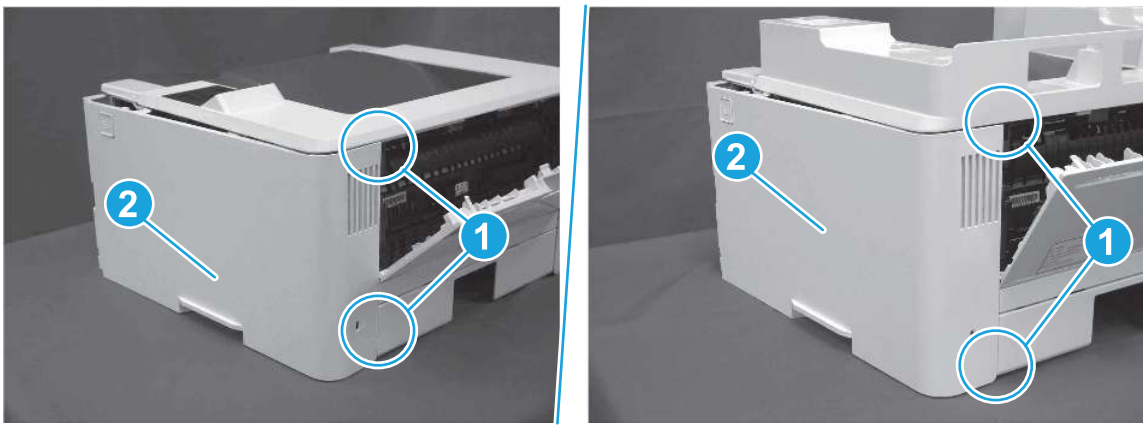
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-211 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-212 **Remove the cover**

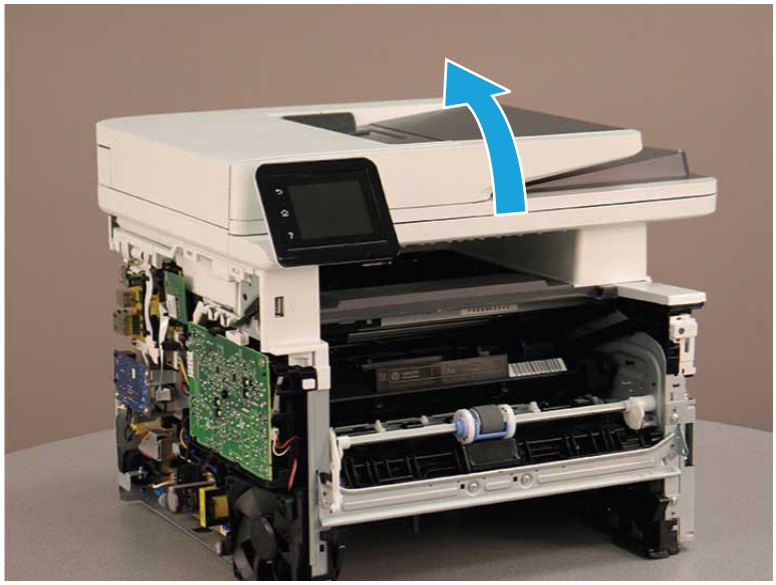


5. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

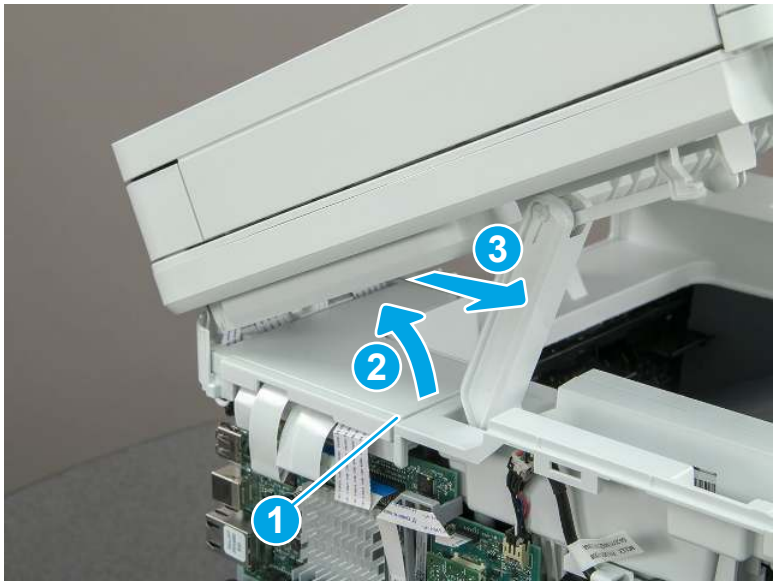
1. If the ISA is not already raised, raise it now.

Figure 4-213 **Raise the ISA**



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-214 Remove the ISA FFC cover



6. Remove the integrated scanner assembly (MFP only)

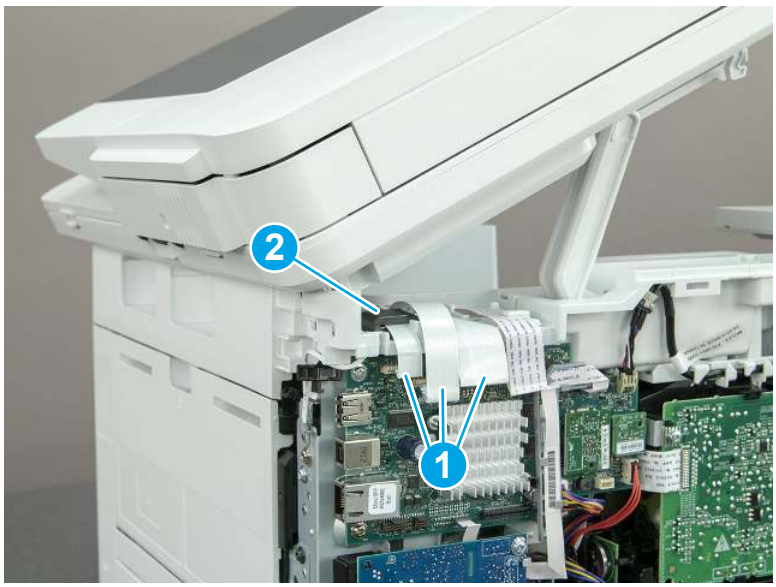
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-215 Disconnect three FFCs



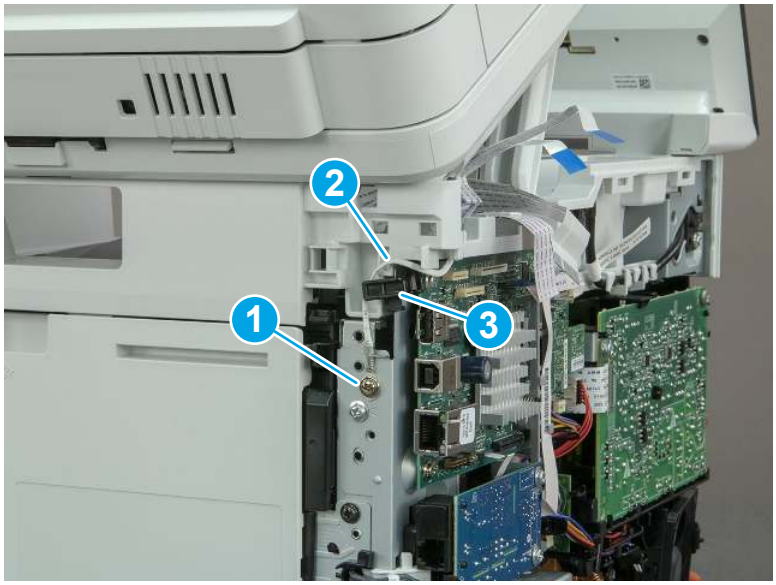
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-216 Release the tape



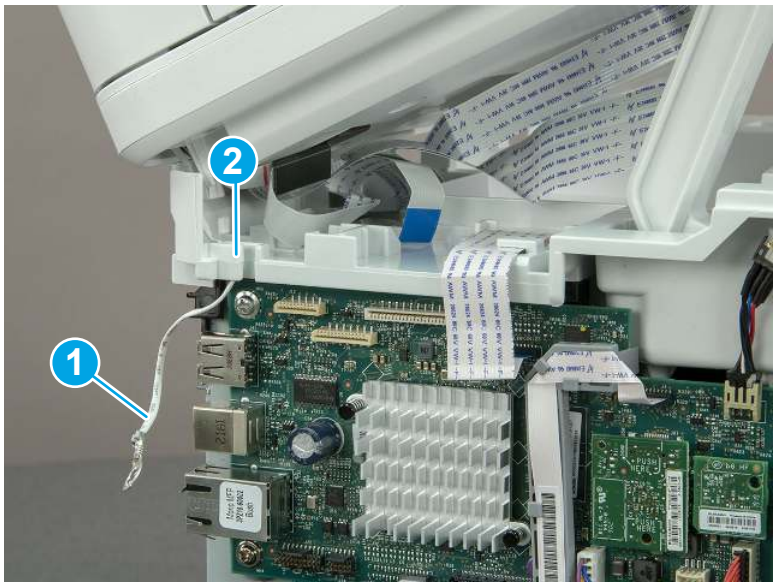
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-217 Release the ground wire



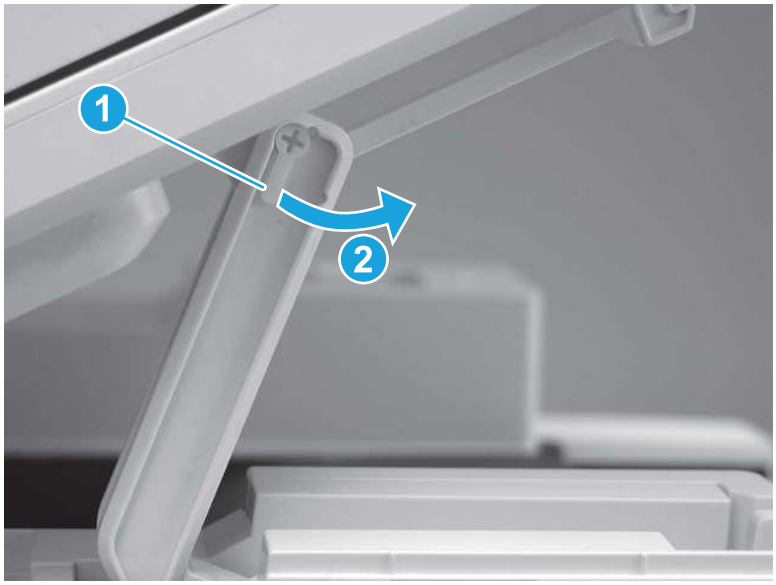
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-218 **Release the ground wire**



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

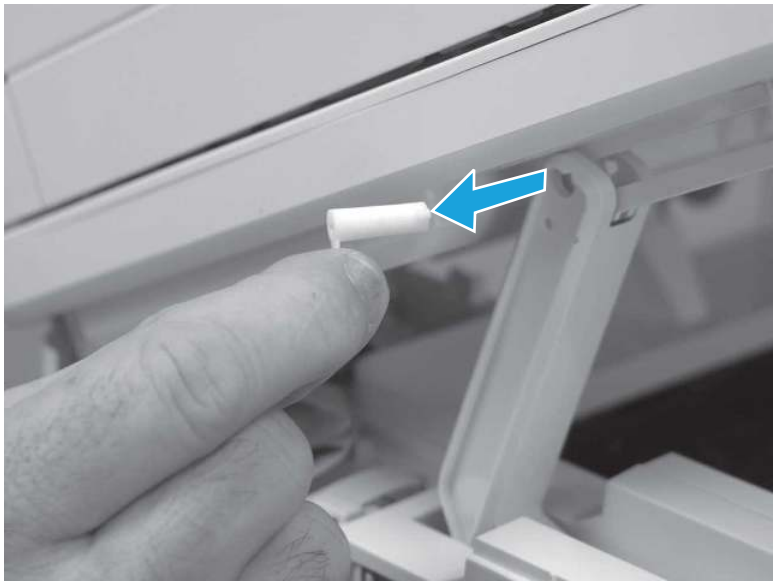
Figure 4-219 **Release one tab and rotate the slider pin**



6. Remove the slider pin.

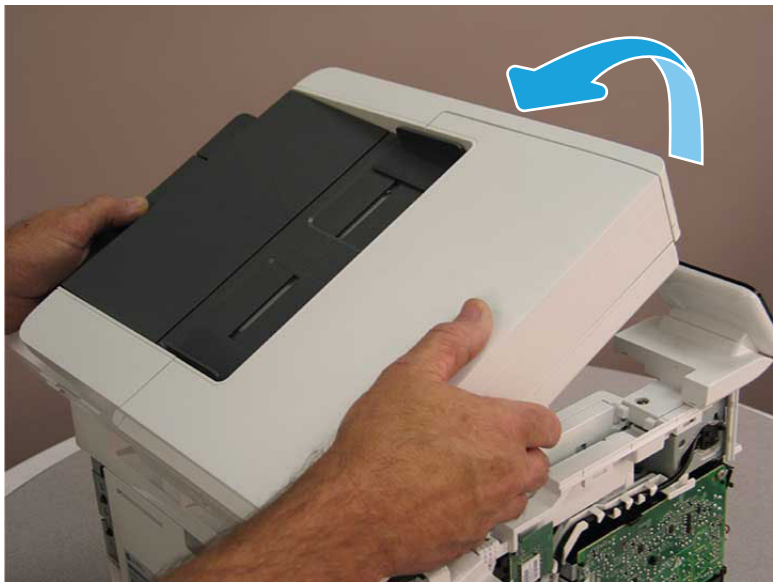
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-220 Remove the slider pin



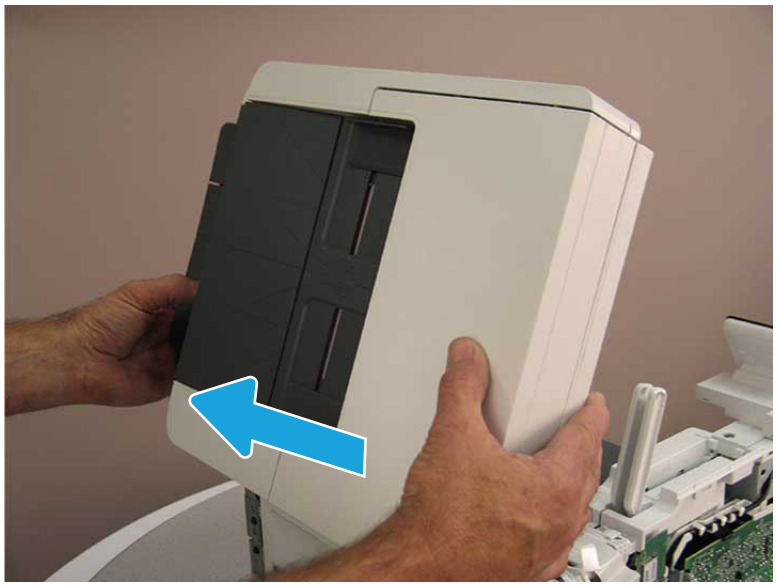
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-221 Rotate the ISA towards the rear of the printer



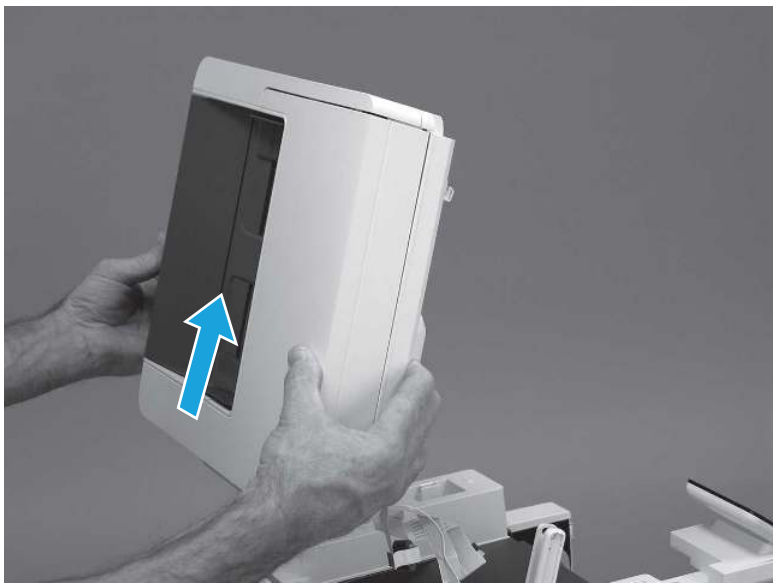
8. Slide the ISA as shown to release it.

Figure 4-222 Release the ISA



9. Remove the ISA.

Figure 4-223 Remove the ISA



7. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-224 Open the ISA



2. Remove one screw (callout 1).

Figure 4-225 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-226 Release two tabs



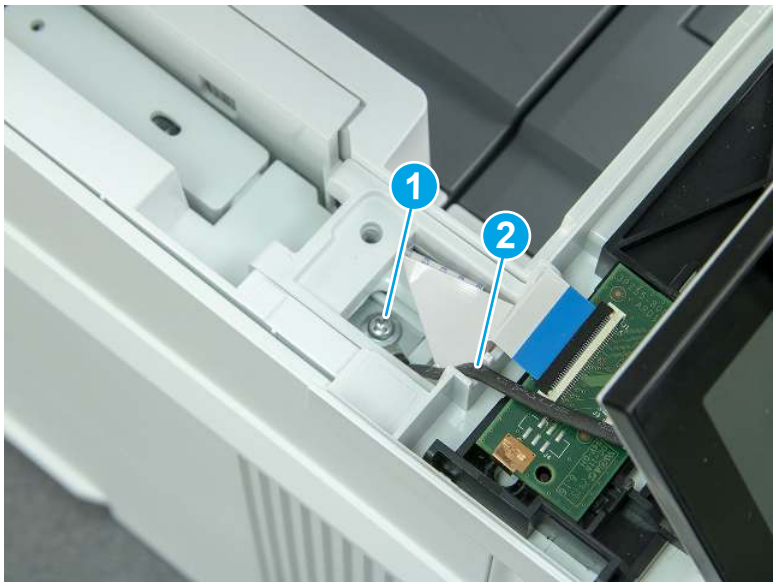
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-227 Remove the cover



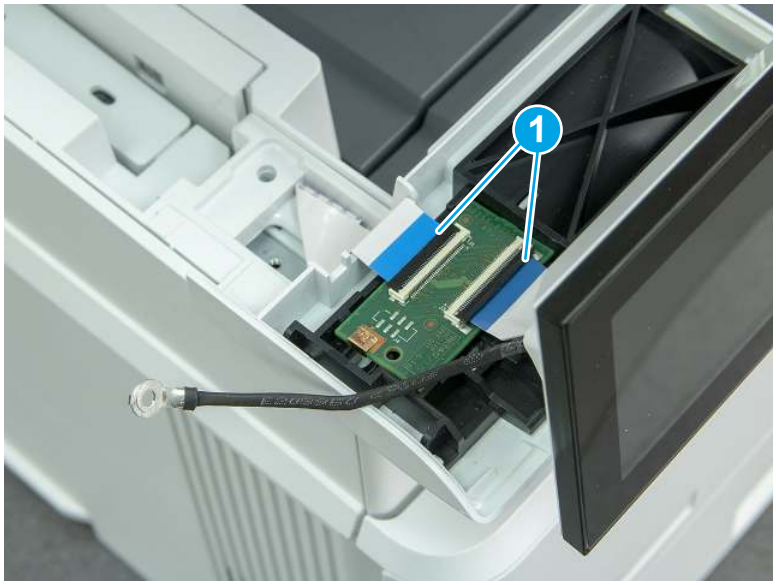
5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-228 **Remove one screw**



6. Disconnect two FFC (callout 1).

Figure 4-229 **Disconnect two FFC**



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

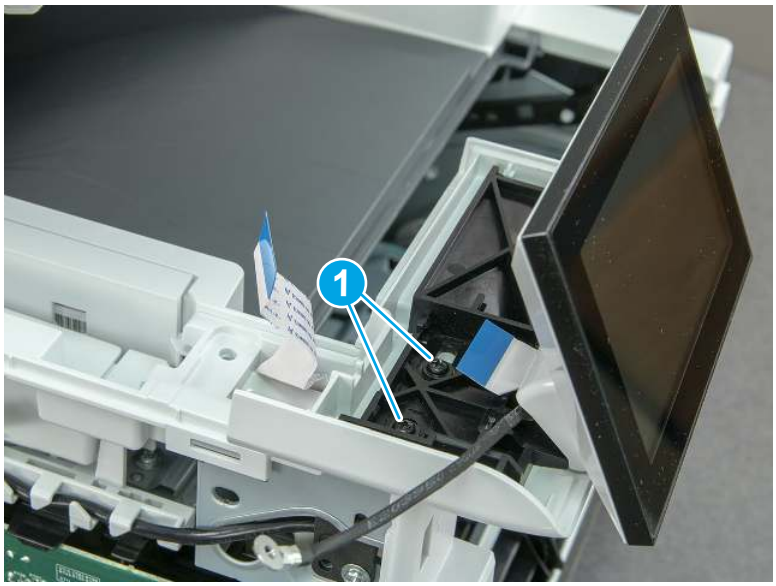
Figure 4-230 Remove the ICB



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ CAUTION: Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-231 Remove two screws and remove the control panel assembly

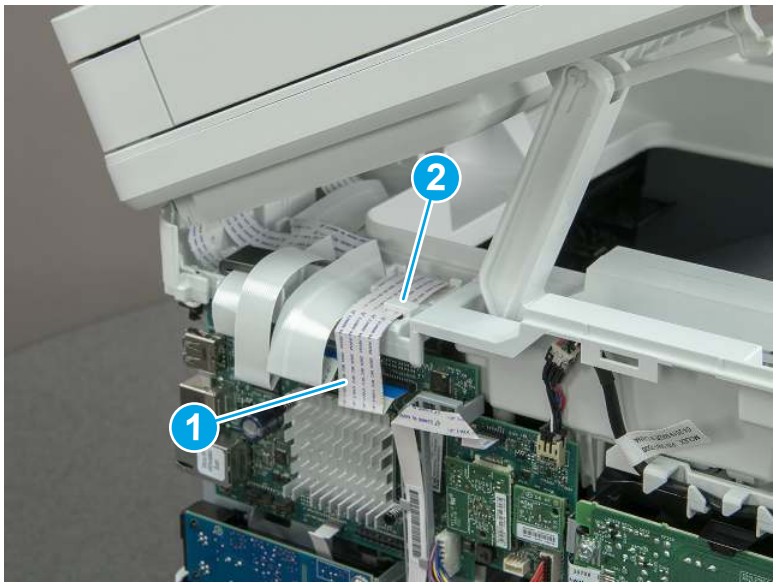


8. Remove the control panel flat cable and cover (MFP only)

Follow these steps to remove the control panel flat cable and cover (MFP only).

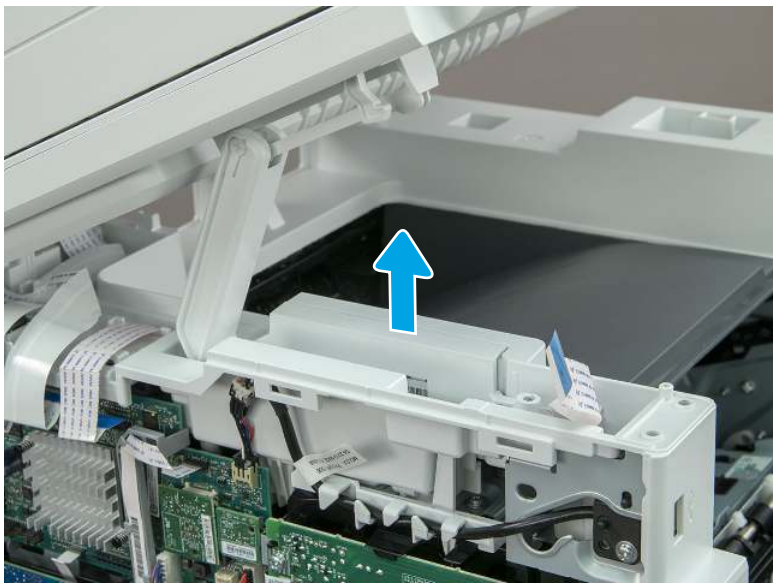
1. Disconnect one FFC (callout 1), and then release the cable from the guides (callout 2).

Figure 4-232 **Disconnect one cable**



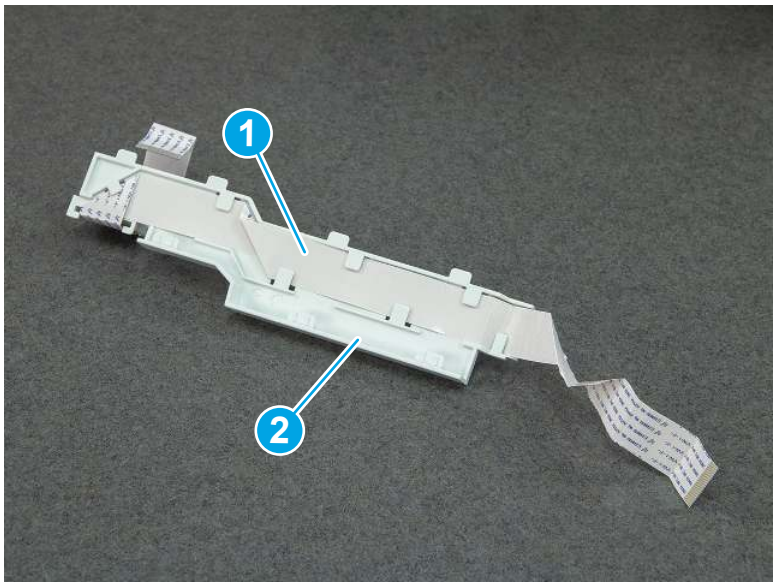
2. Lift up the control-panel FFC cover to remove the cover and cable.

Figure 4-233 **Remove the cover and cable**



3. If you are replacing the FFC or the cover, remove the FFC (callout 1) from the cover (callout 2).

Figure 4-234 Remove the FFC

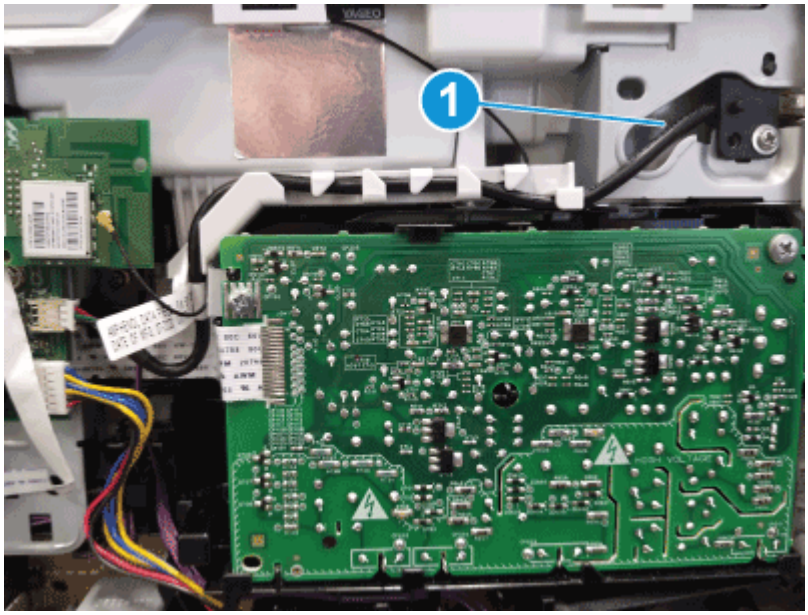


9. Remove the top cover (MFP)

Follow these steps to remove the top cover (MFP).

1. Release the USB cable (callout 1) from the cable guide.

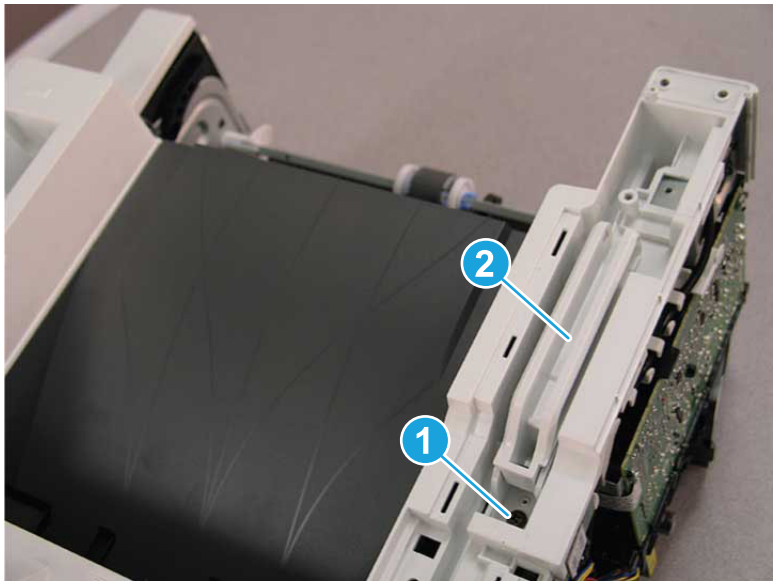
Figure 4-235 Release the USB cable



2. Remove one screw (callout 1), and then remove the support arm (callout 2).

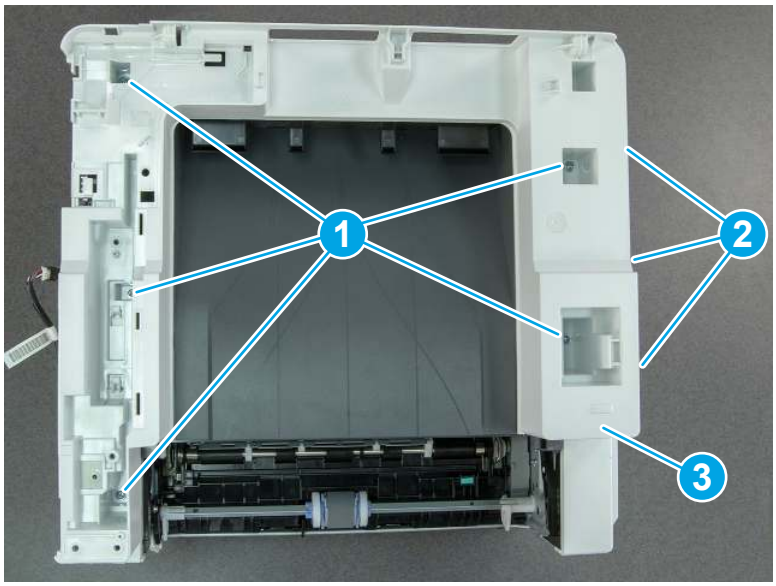
⚠ CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-236 Remove the support arm



3. Remove five screws (callout 1), release three bosses (callout 2), and then remove the top cover (callout 3).

Figure 4-237 Remove the top cover

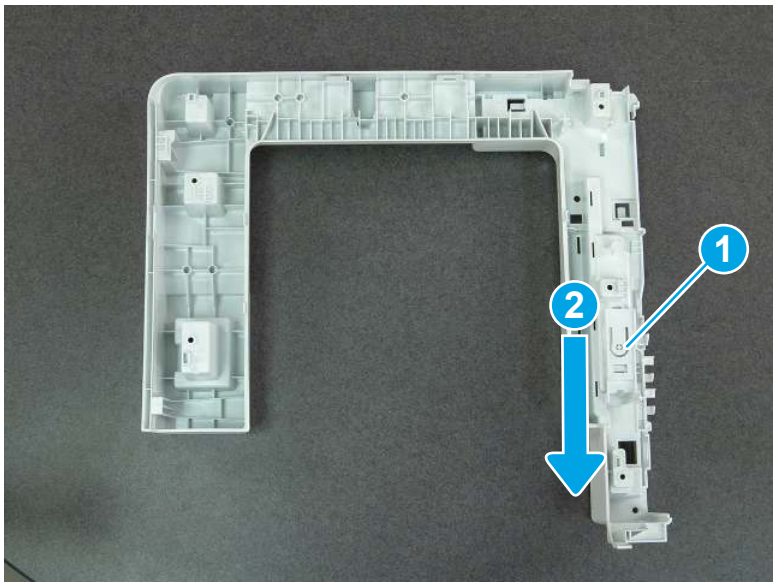


10. Remove the cable guide (MFP only)

Follow these steps to remove the cable guide (MFP only).

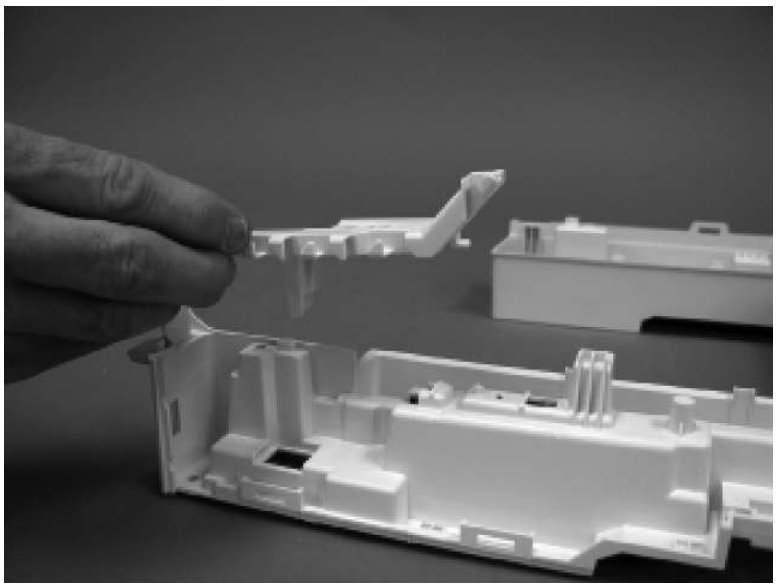
1. Turn the top cover over, release one tab (callout 1), and then slide the guide as shown to release it.

Figure 4-238 Release the cable guide



2. Remove the guide.

Figure 4-239 Remove the guide



11. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Integrated scanner assembly (ISA) FFC cover

Learn how to remove and replace the integrated scanner assembly (ISA) cable cover.

View a video of how to remove and replace the ISA cable cover.

Mean time to repair: 2 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-26 Part information

Part number	Part description
3PZ55-67978	Cover, ISA/fax FFC cables

Required tools

- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

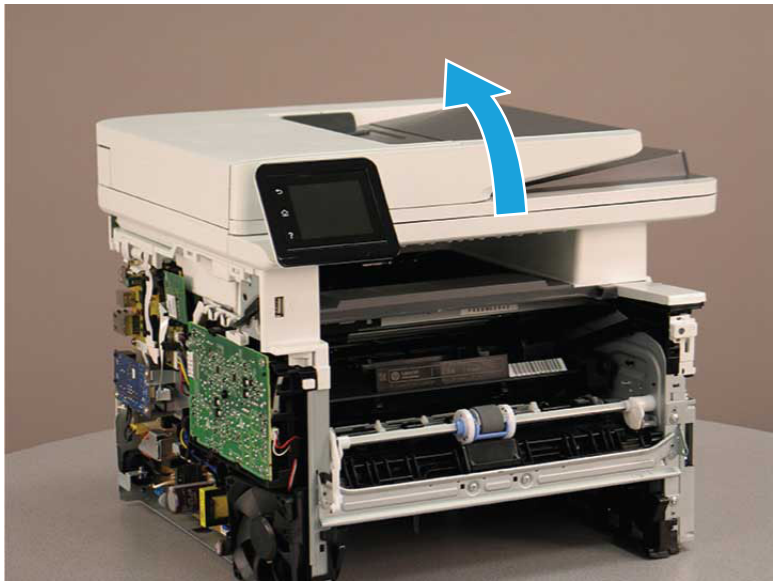
Make sure that the printer initializes to a **Ready** state.

1. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

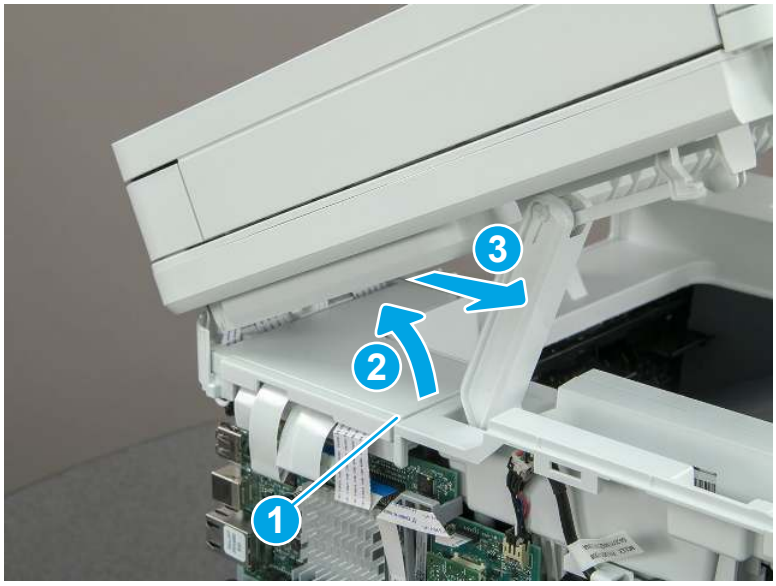
1. If the ISA is not already raised, raise it now.

Figure 4-240 **Raise the ISA**



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-241 Remove the ISA FFC cover



2. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Top cover (SFP)

Learn how to remove and replace the top cover.

View a video of how to remove and replace the top cover.

Mean time to repair: 14 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-27 Part information

Part number	Part description
RC5-7026-000CN	Cover, top (SFP)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-242 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

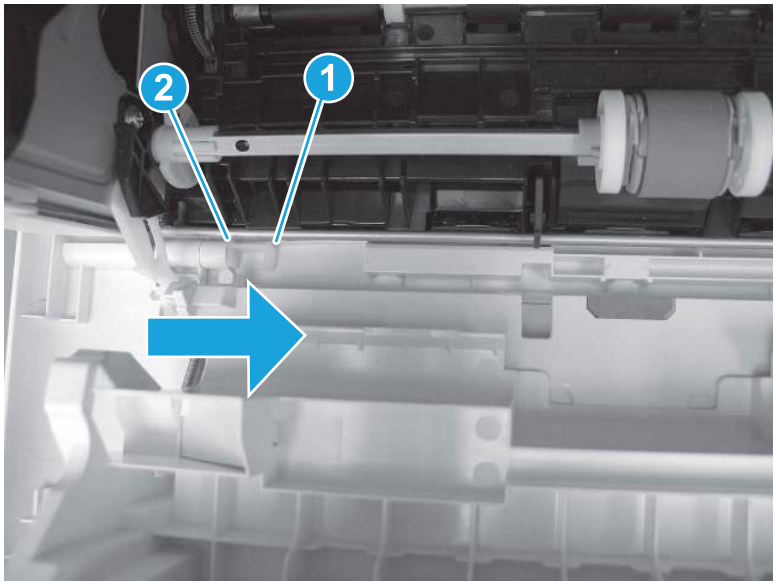
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

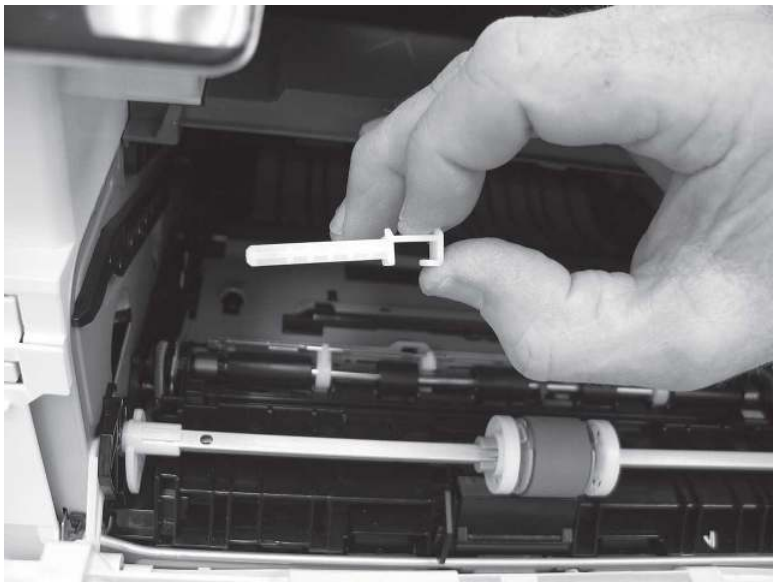
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-243 Release the support shaft



2. Remove the support shaft.

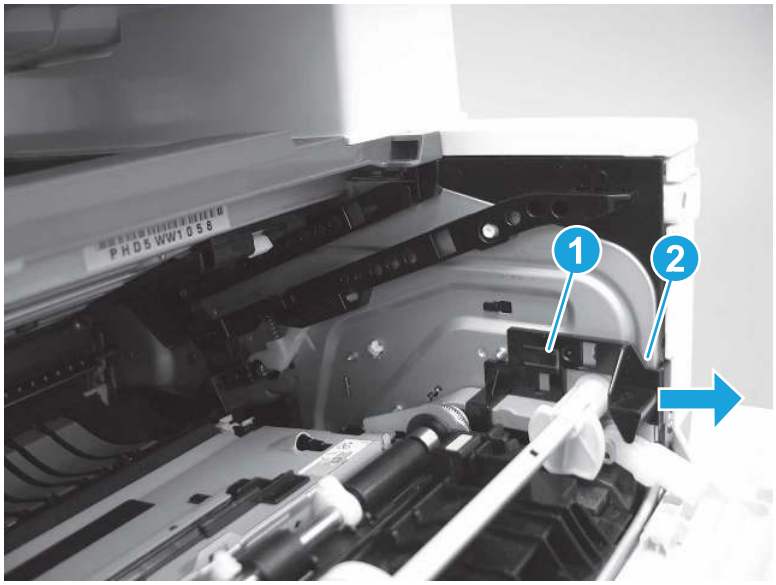
Figure 4-244 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

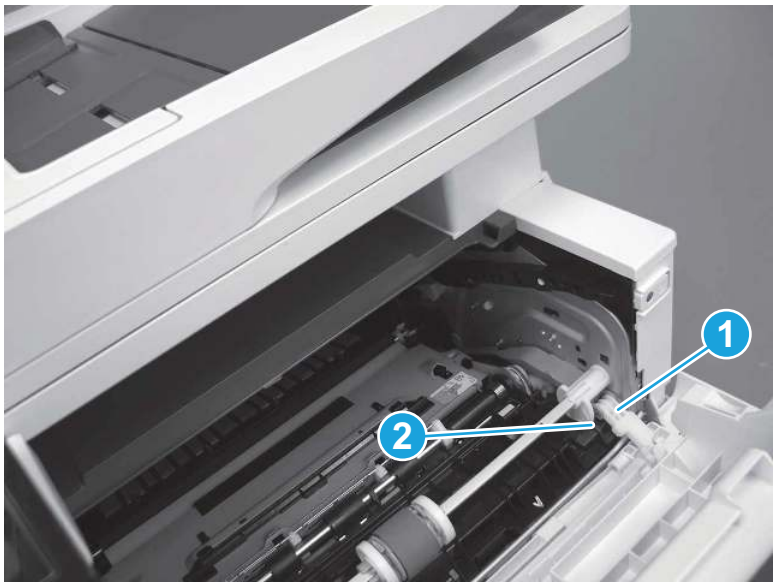
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-245 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-246 Release the pressure-release link

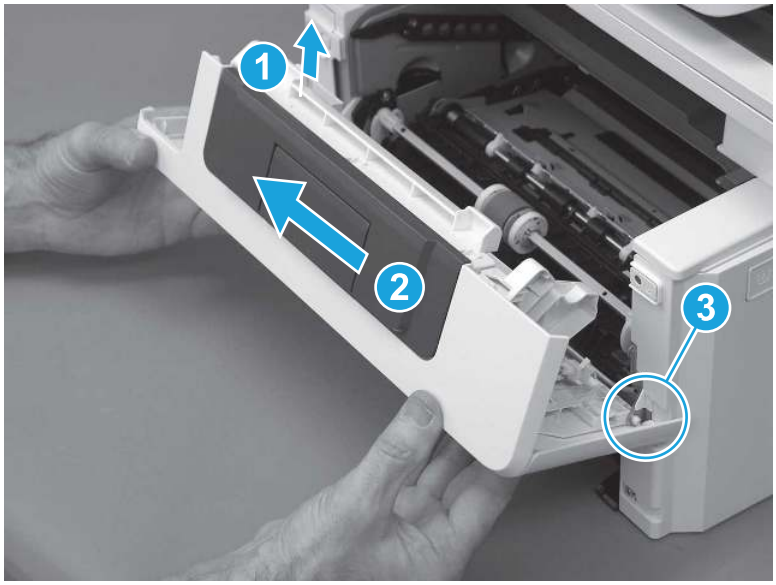


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

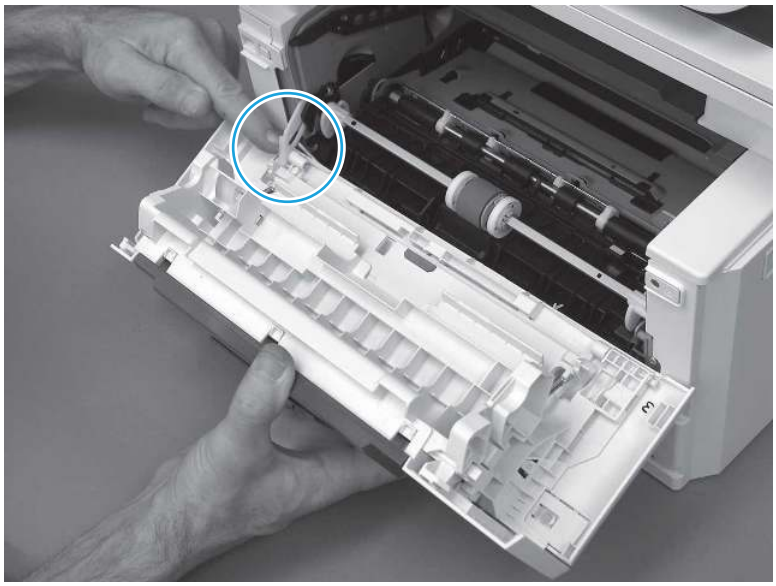
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-247 Release the door



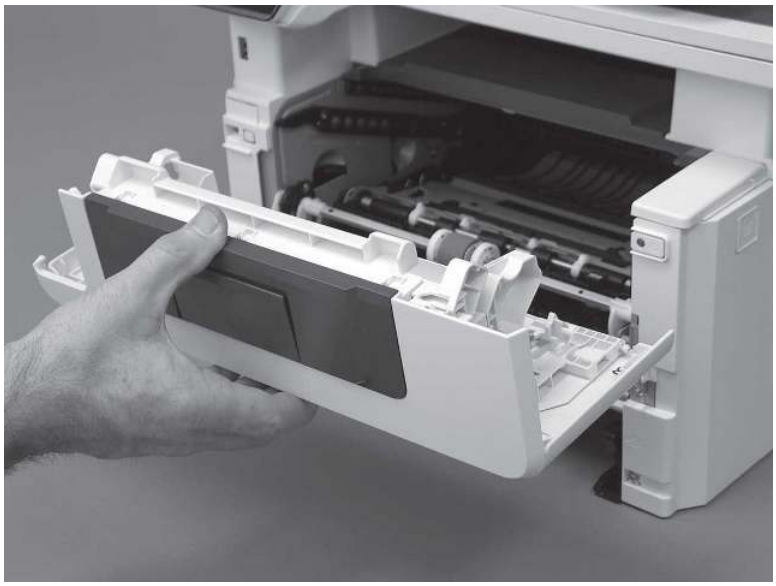
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-248 Release the left-side retainer arm



7. Remove the door.

Figure 4-249 **Remove the door**



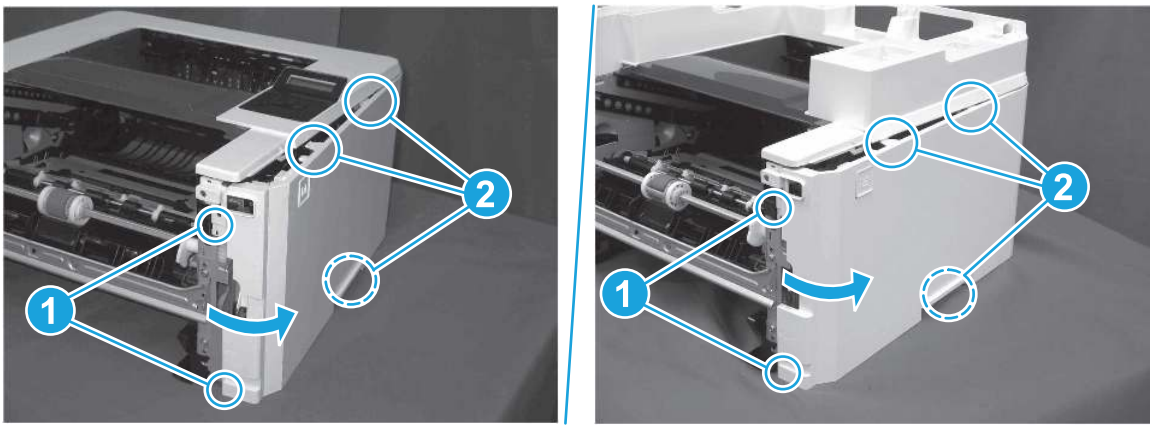
3. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

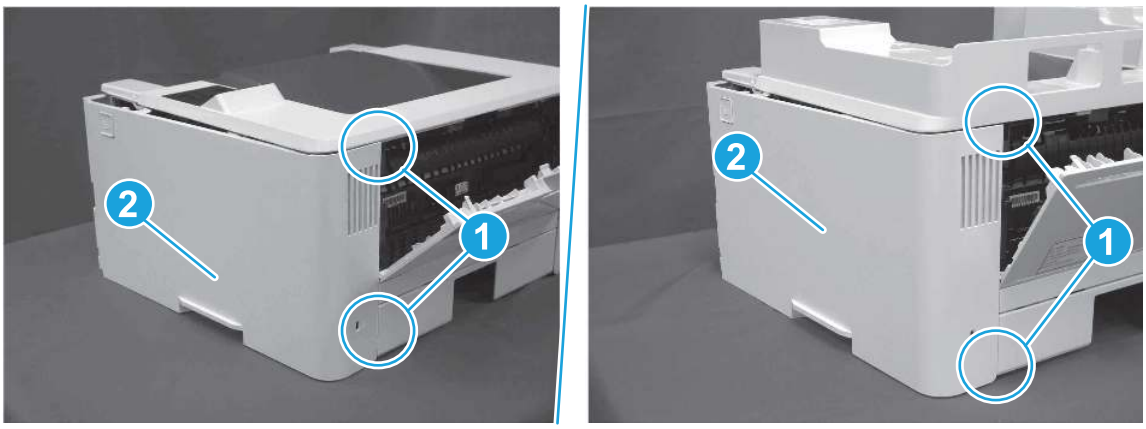
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-250 **Release two bosses and three tabs**



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-251 **Remove the cover**



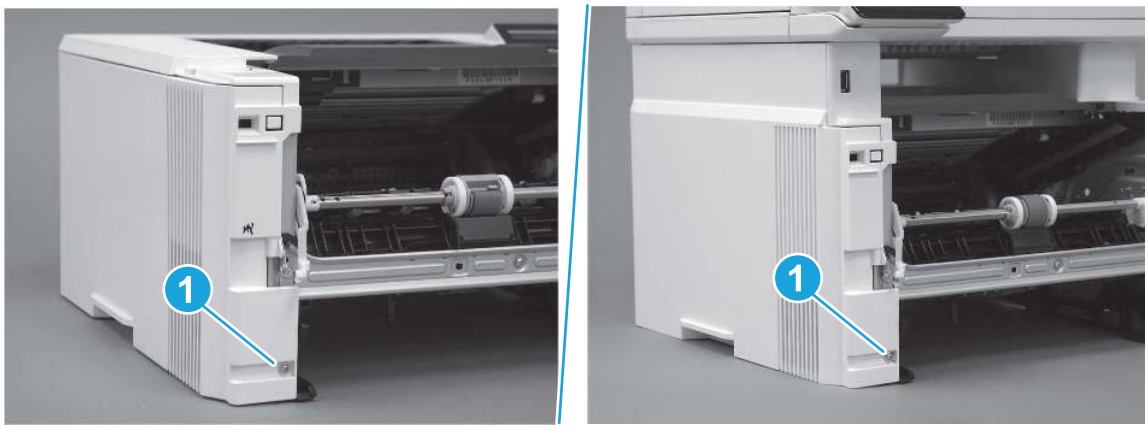
4. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

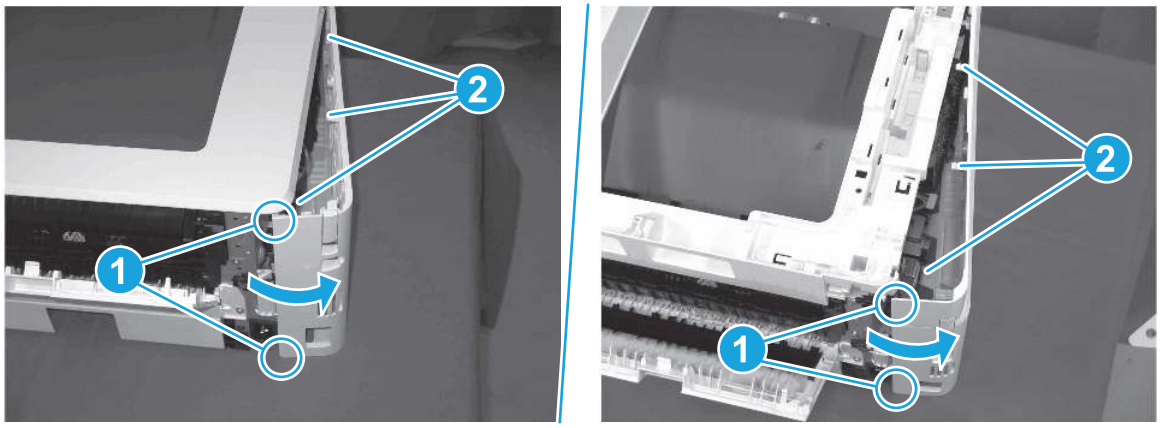
1. Remove one screw (callout 1).

Figure 4-252 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-253 Release two bosses and three tabs

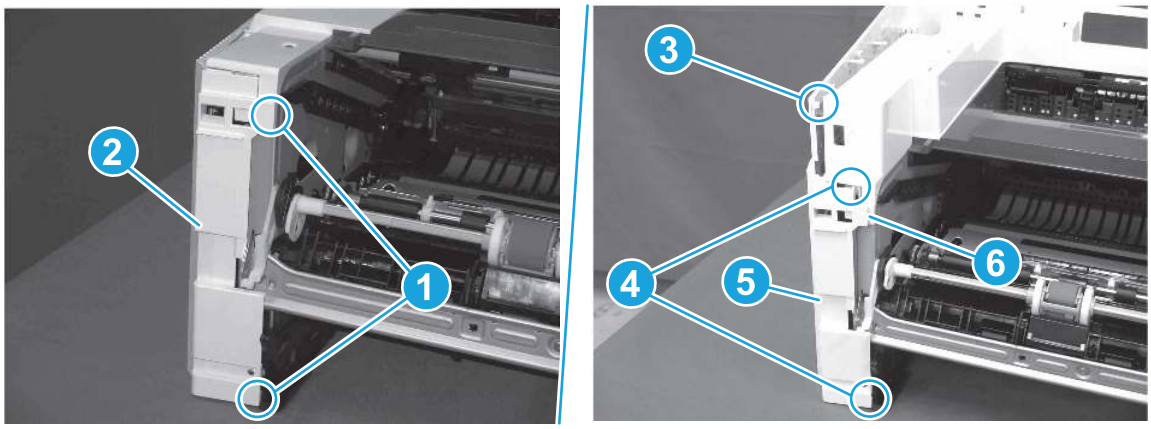


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-254 Remove the cover



5. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

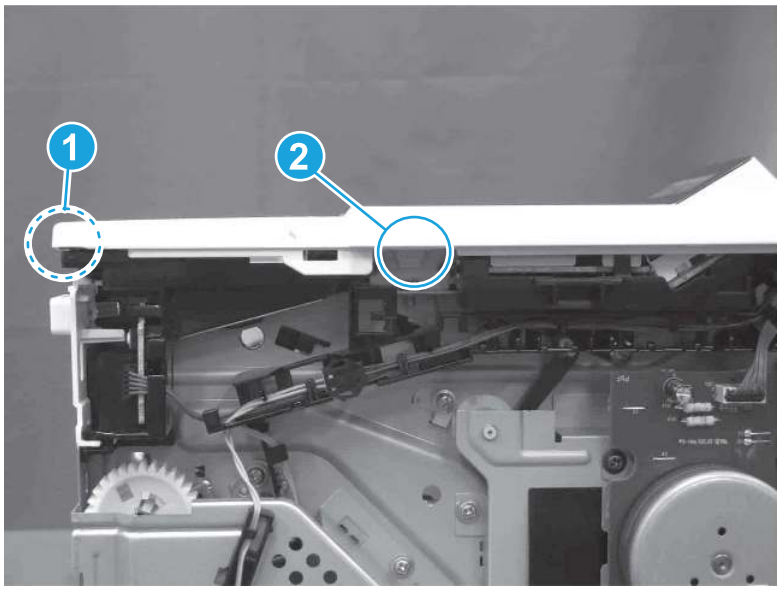
1. Remove one screw.

Figure 4-255 Remove one screw



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

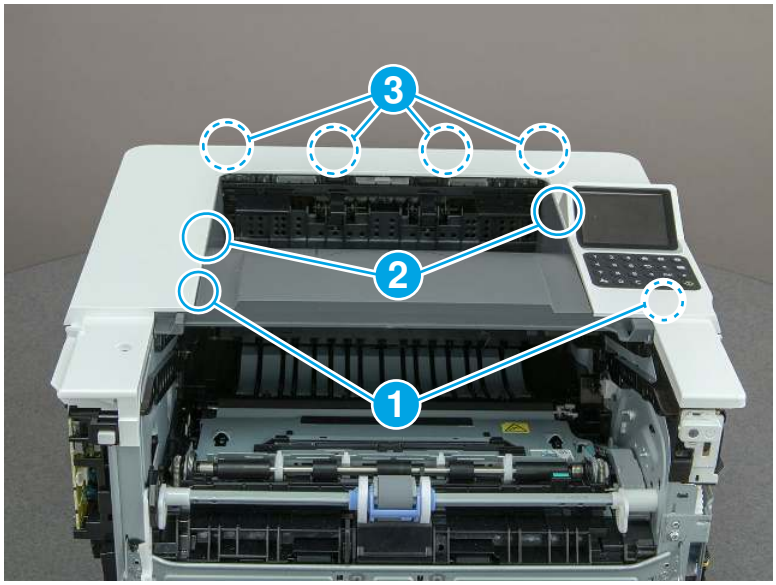
Figure 4-256 Release one boss and one tab



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-257 Remove the cover



6. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Keypad and indication covers (SFP)

Learn how to remove and replace the keypad and indication covers.

View a video of how to remove and replace the keypad and indication covers.

Mean time to repair: 16 minutes

Service level: Medium

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-28 Part information

Part number	Part description
RC5-7025-000CN	Keypad cover
RL2-3790-000CN	Cover, indication

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-258 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

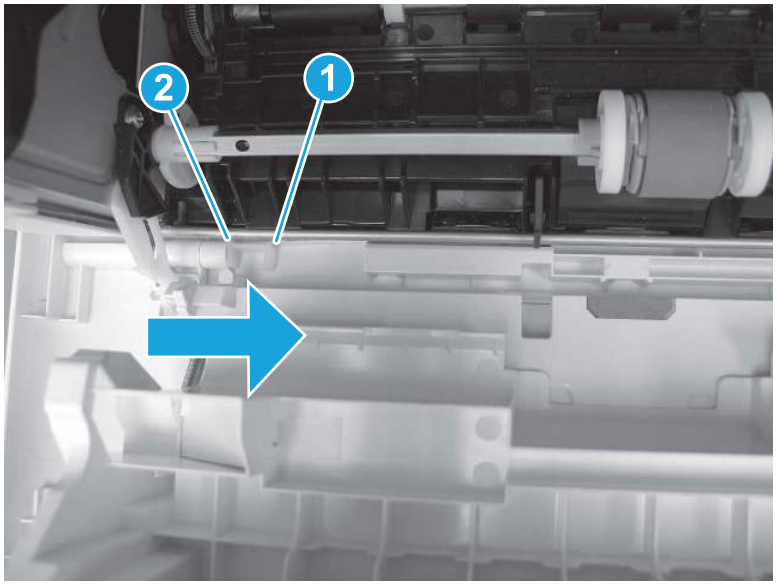
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

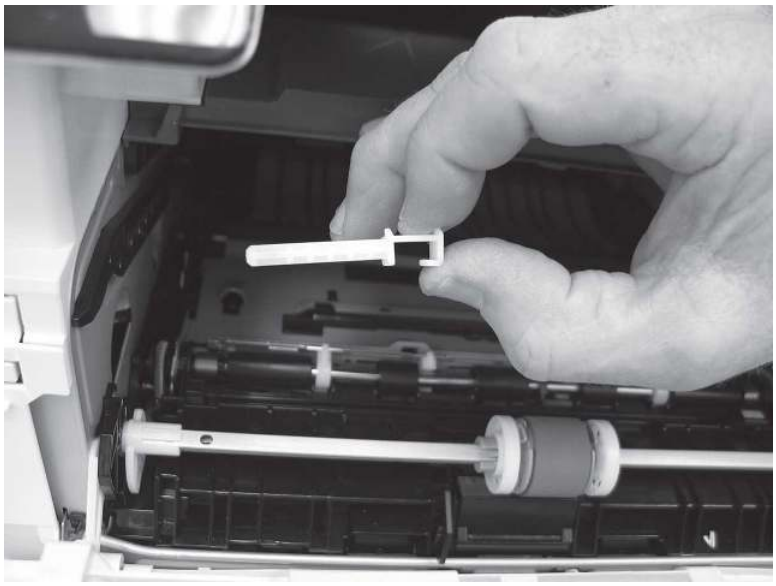
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-259 Release the support shaft



2. Remove the support shaft.

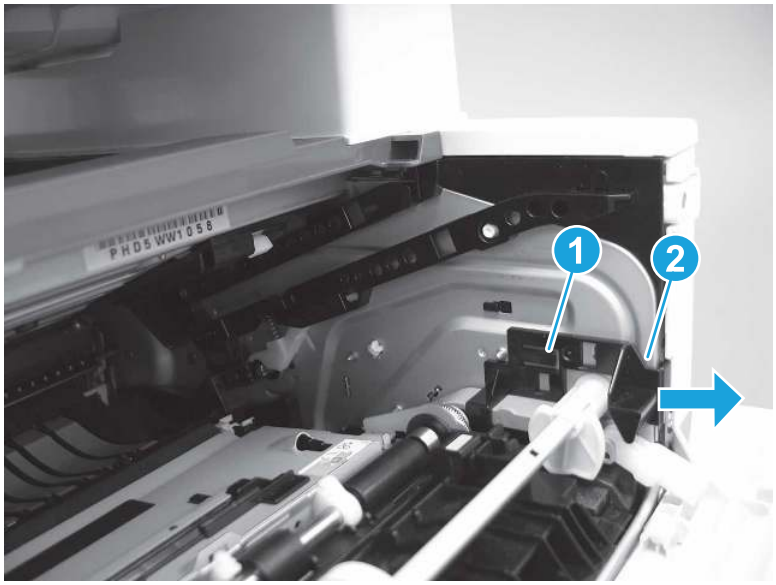
Figure 4-260 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

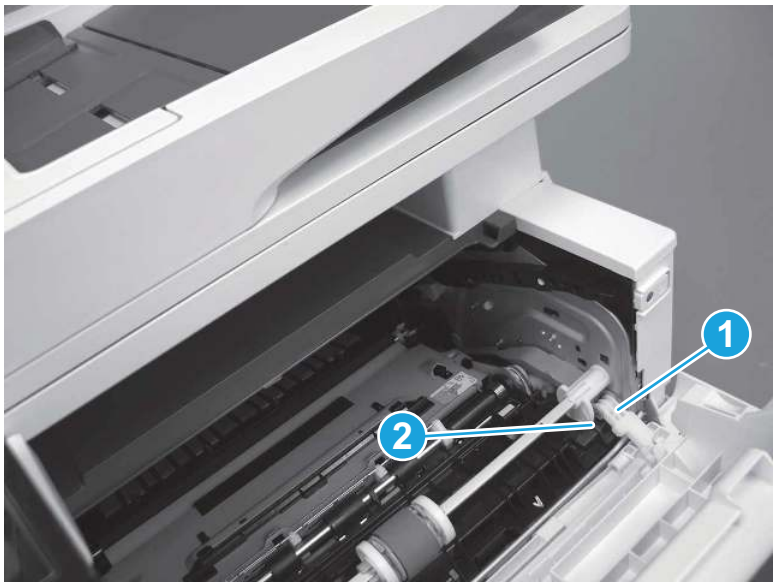
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-261 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-262 Release the pressure-release link

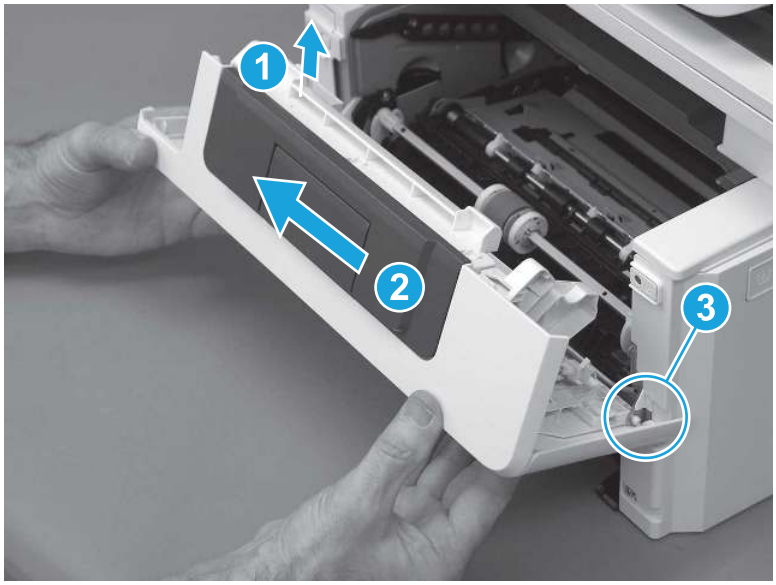


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

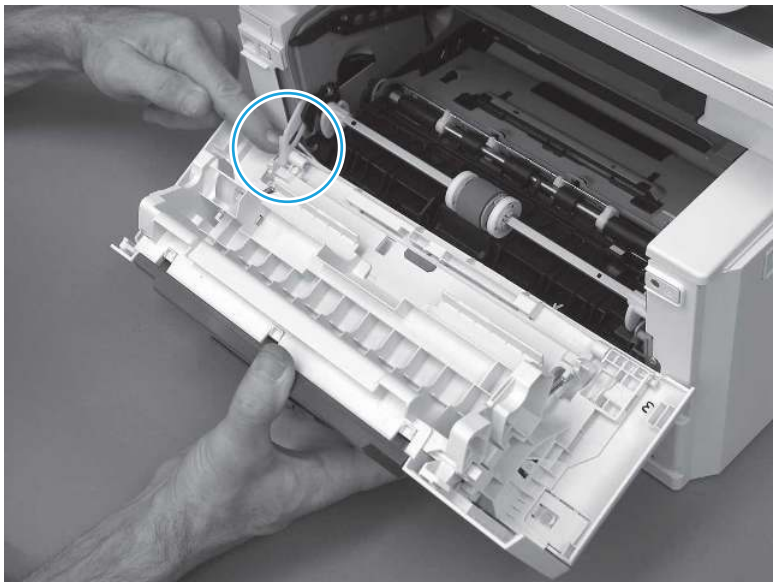
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-263 Release the door



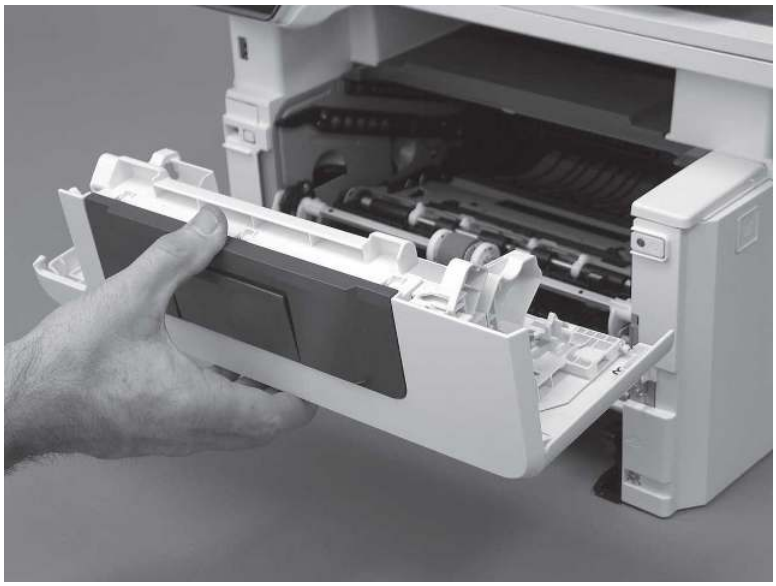
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-264 Release the left-side retainer arm



7. Remove the door.

Figure 4-265 Remove the door



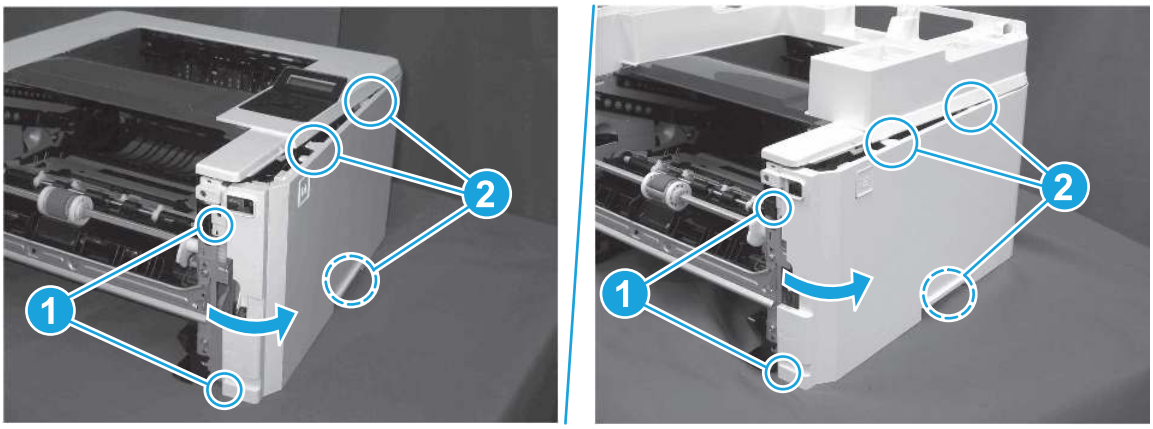
3. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

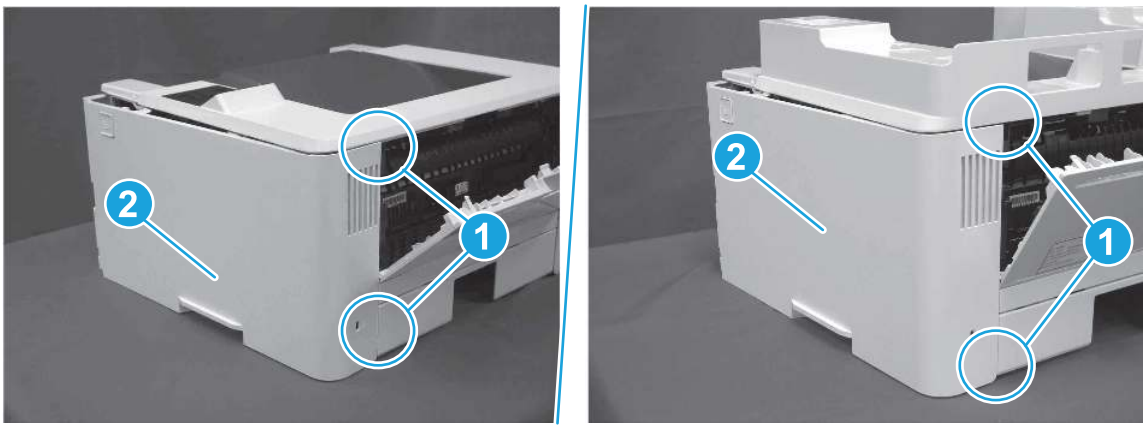
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-266 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-267 **Remove the cover**



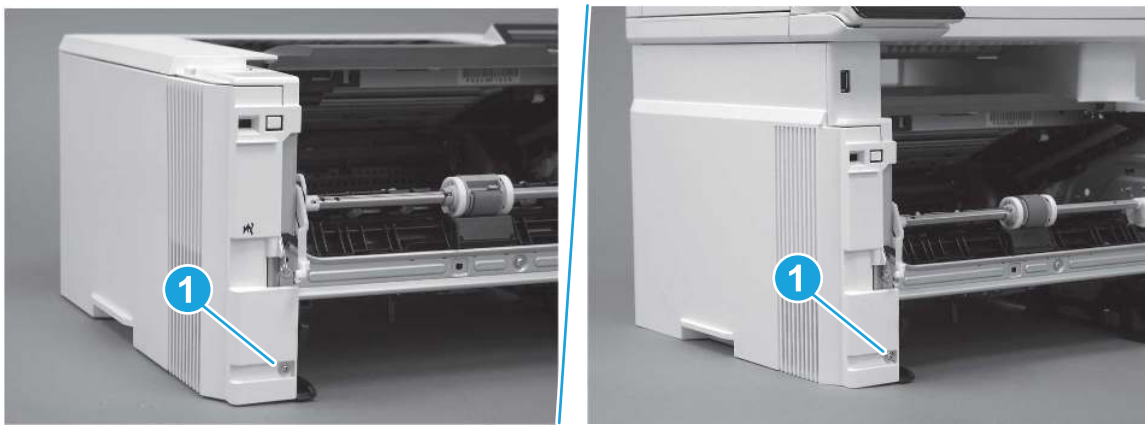
4. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

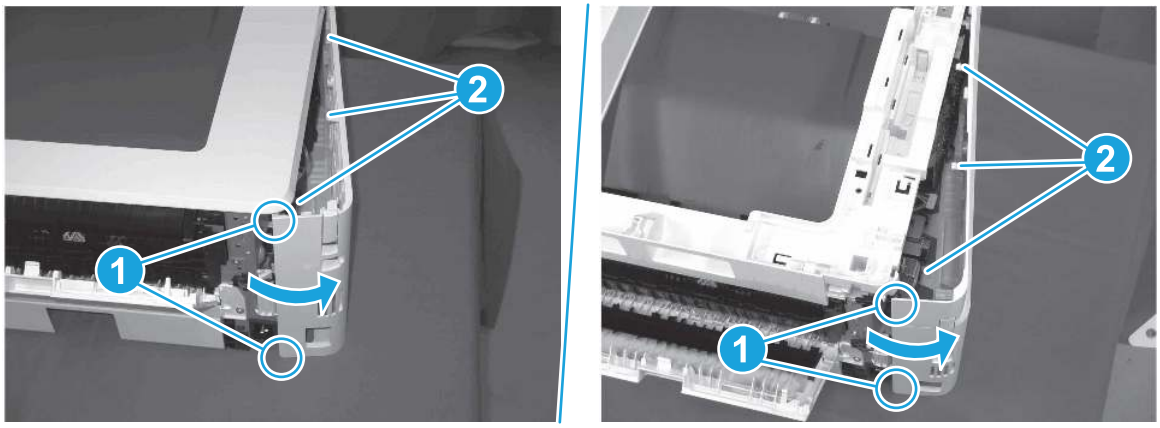
1. Remove one screw (callout 1).

Figure 4-268 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-269 **Release two bosses and three tabs**

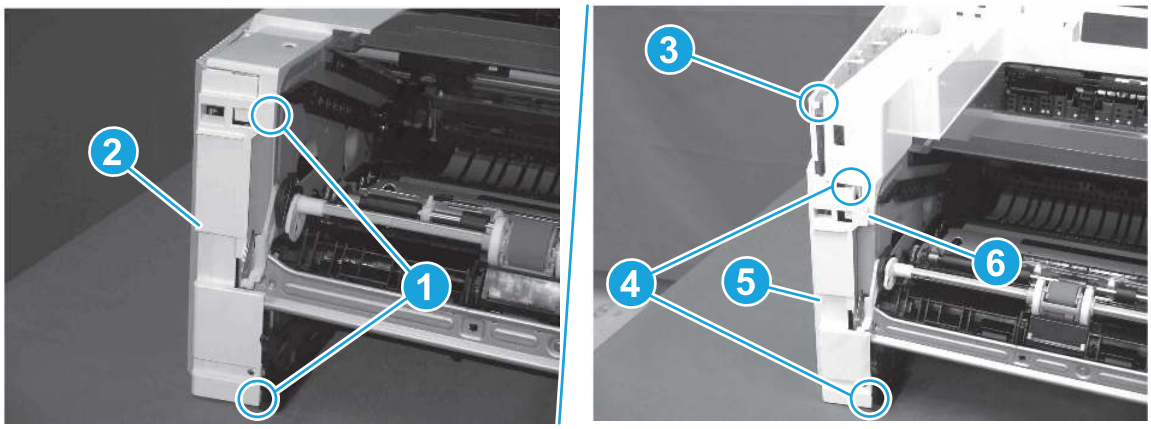


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-270 **Remove the cover**



5. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

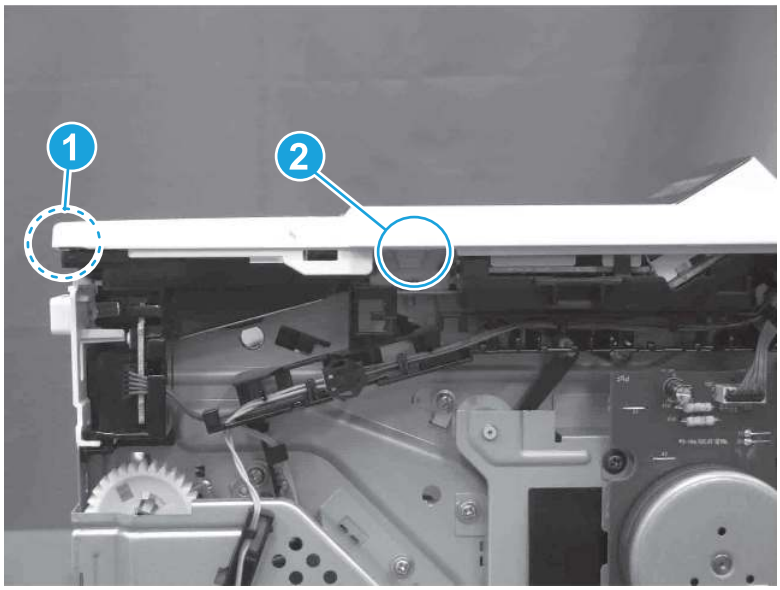
1. Remove one screw.

Figure 4-271 Remove one screw



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

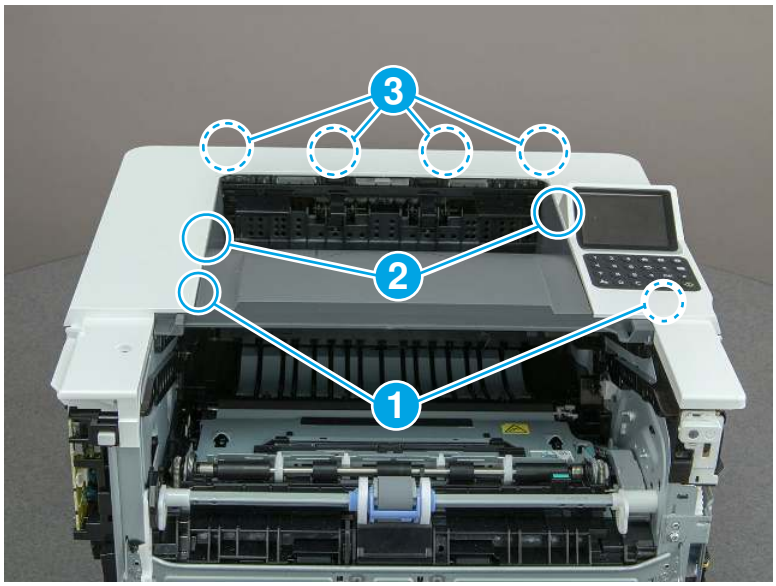
Figure 4-272 Release one boss and one tab



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-273 Remove the cover



6. Remove the keypad cover and indication cover

Follow these steps to remove the keypad cover and indication cover.

1. Starting with a corner of the keypad cover, gently peel it away from the printer to remove it.

Figure 4-274 Remove the keypad



2. Rotate the top edge of the indication cover away from the printer to release it.

Reinstallation tip: Use two-sided tape to secure the upper edge of the indication cover to the top cover.

Figure 4-275 Remove the cover



3. Remove the indicator cover.

Figure 4-276 Remove the cover



7. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Paper delivery tray (output bin)

Learn how to remove and replace the paper delivery tray (output bin).

View a video of how to remove and replace the SFP output bin.

View a video of how to remove and replace the MFP output bin.

Mean time to repair: 16 minutes SFP, 38 minutes MFP

Service level: Medium for SFP and MFP

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-29 Part information

Part number	Part description
RC4-3231-000CN	Paper delivery tray (output bin)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-277 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

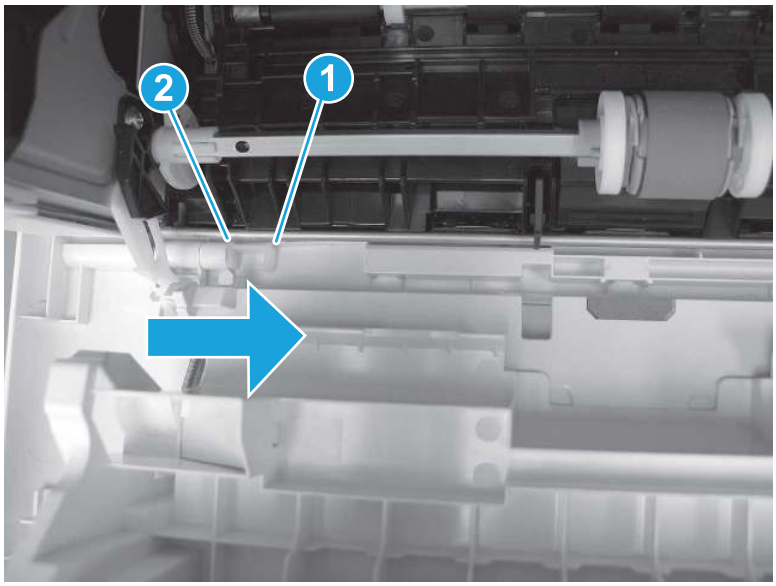
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

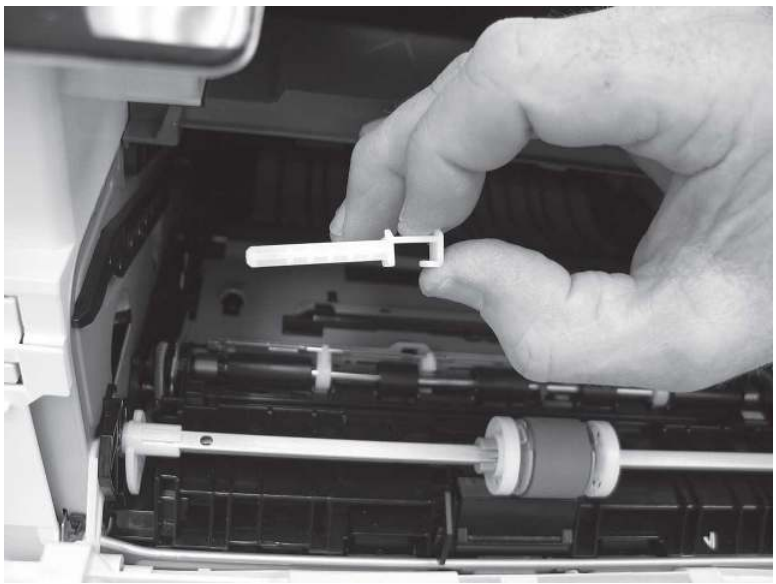
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-278 Release the support shaft



2. Remove the support shaft.

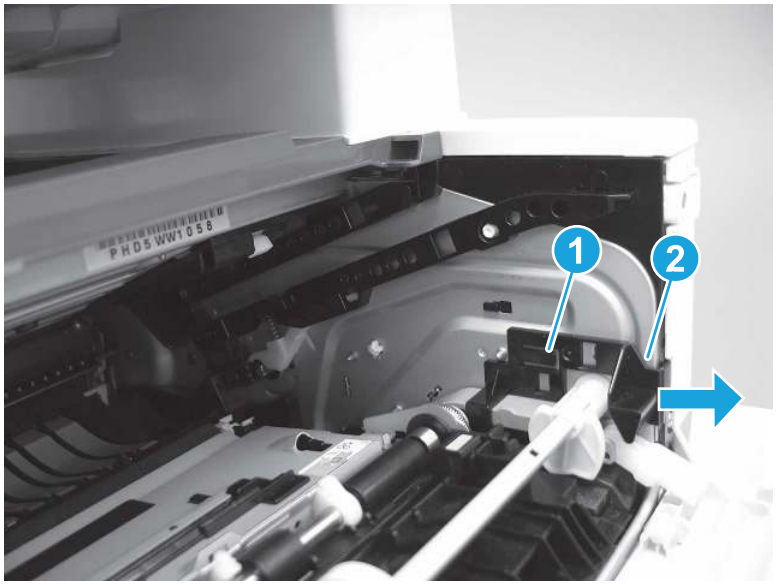
Figure 4-279 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

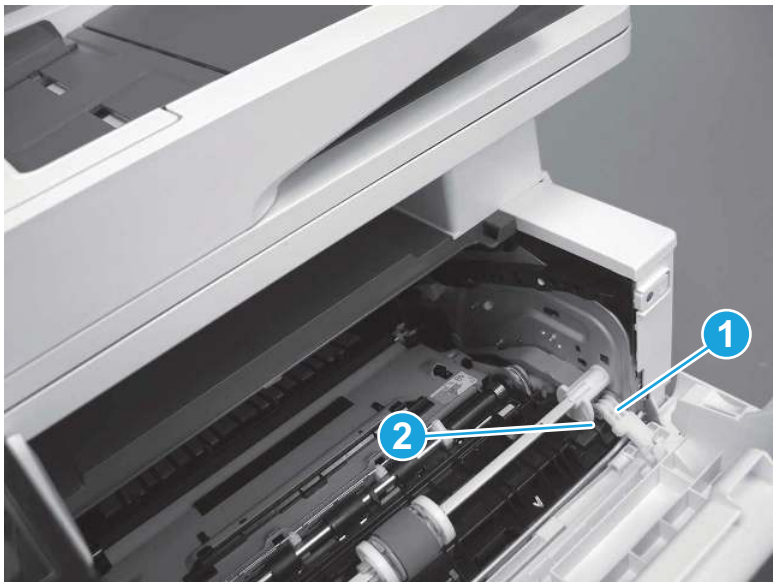
CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-280 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-281 Release the pressure-release link

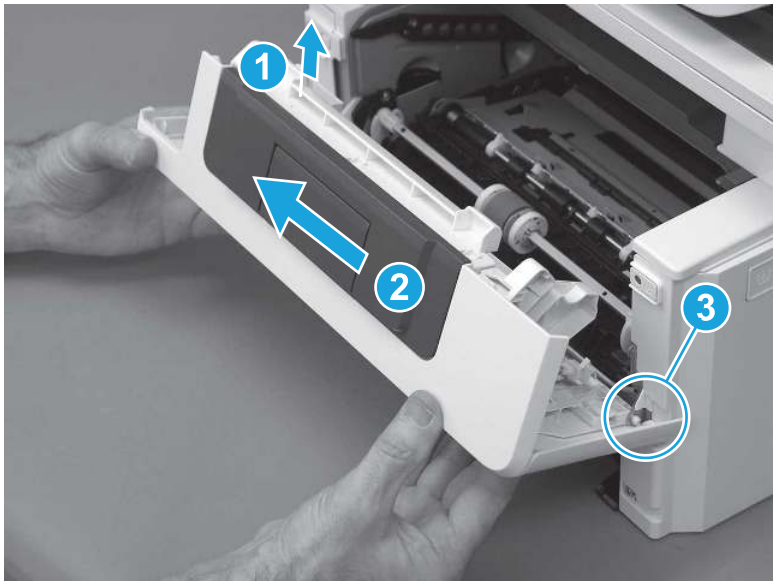


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

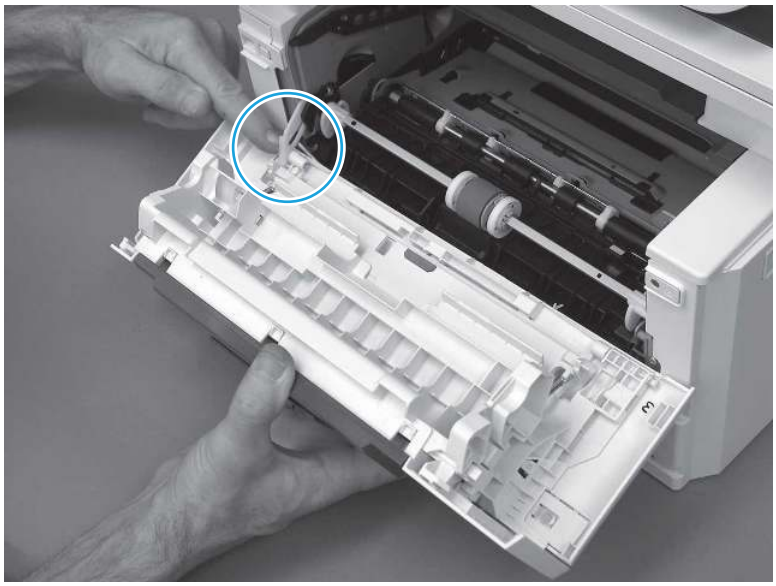
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-282 Release the door



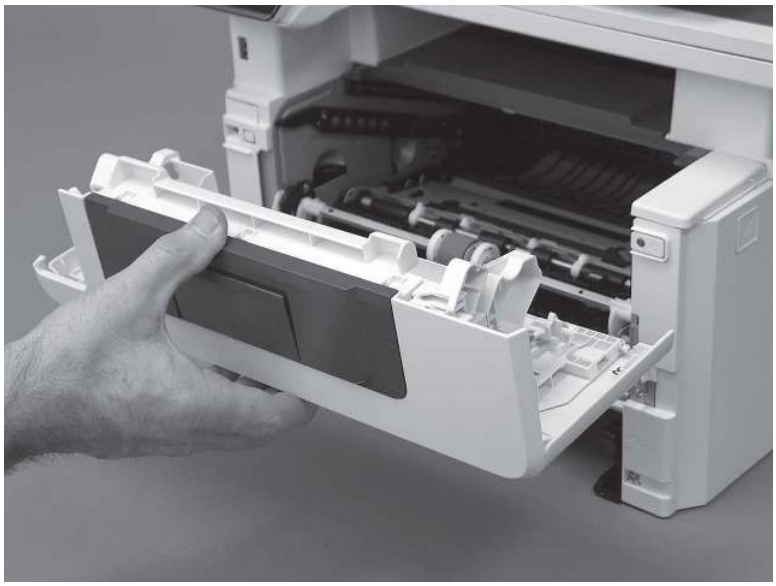
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-283 Release the left-side retainer arm



7. Remove the door.

Figure 4-284 Remove the door



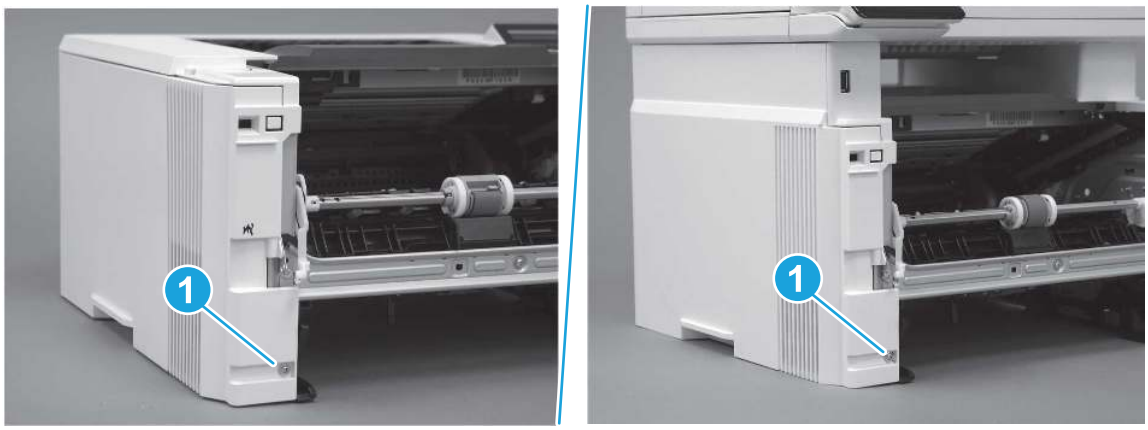
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

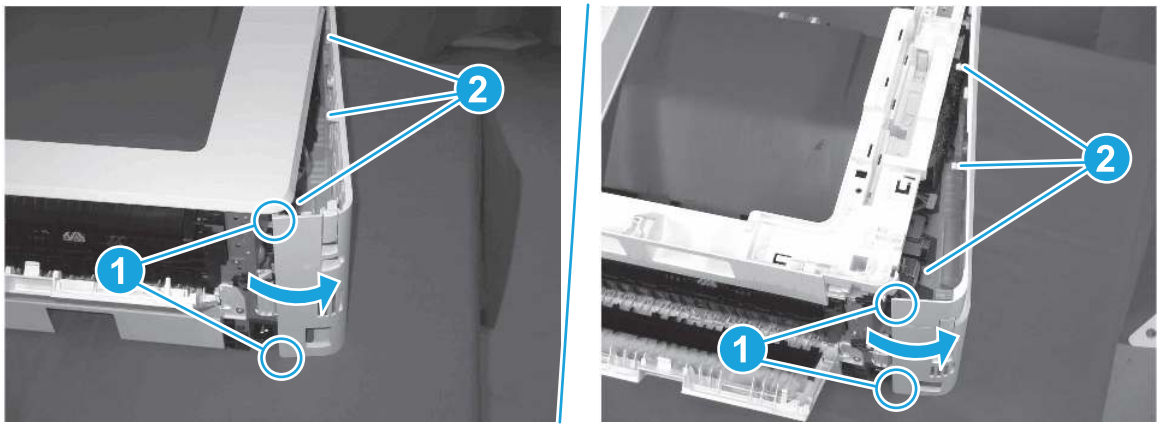
1. Remove one screw (callout 1).

Figure 4-285 Remove one screw



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-286 **Release two bosses and three tabs**

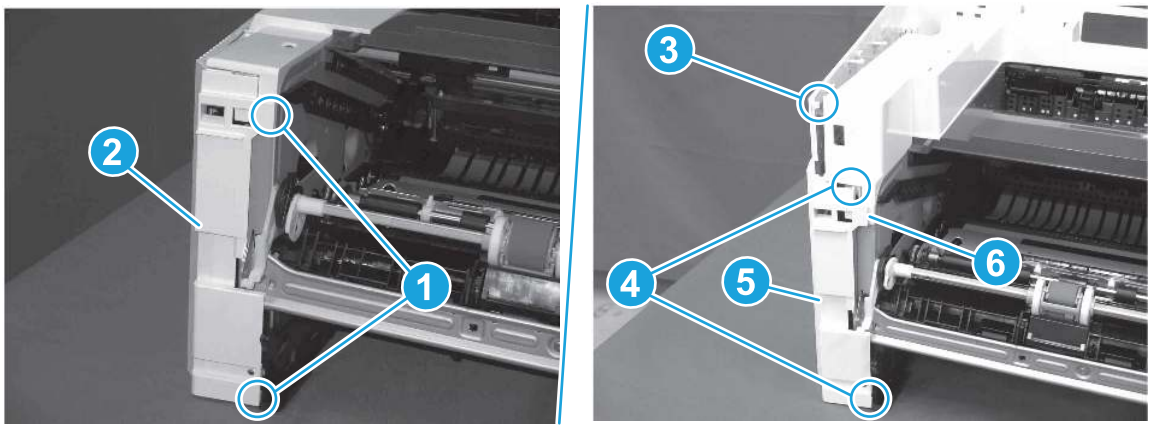


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-287 **Remove the cover**



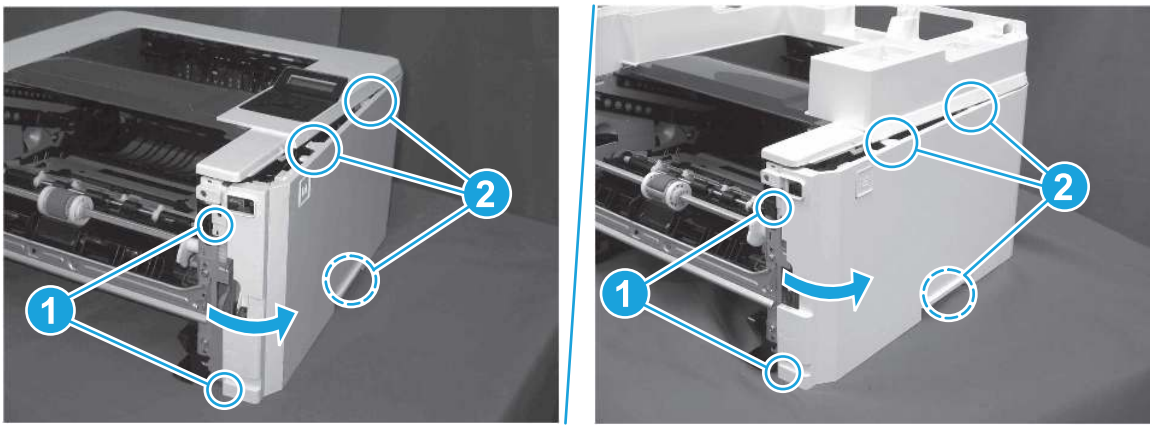
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

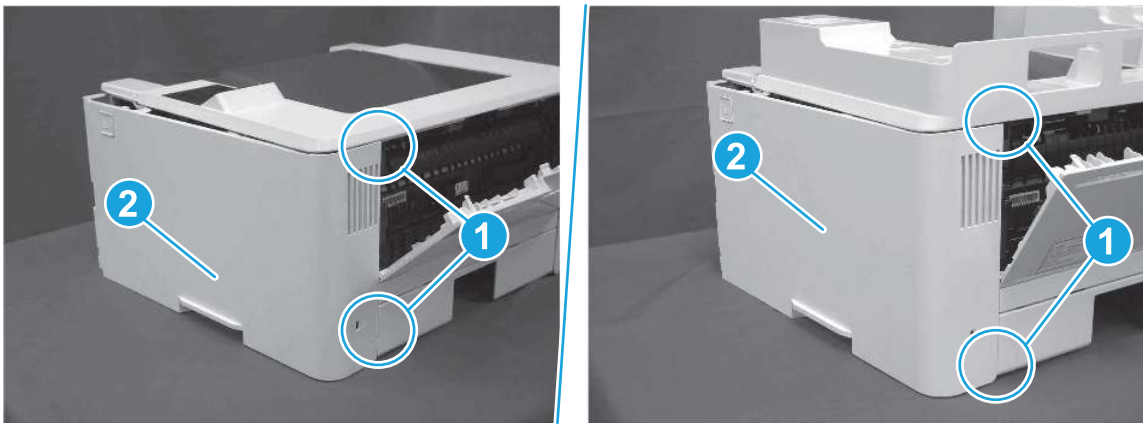
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-288 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-289 Remove the cover

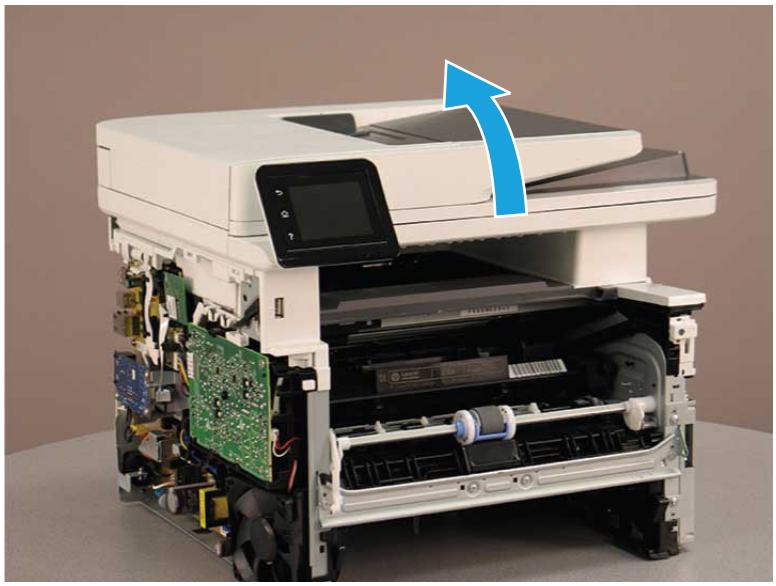


5. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

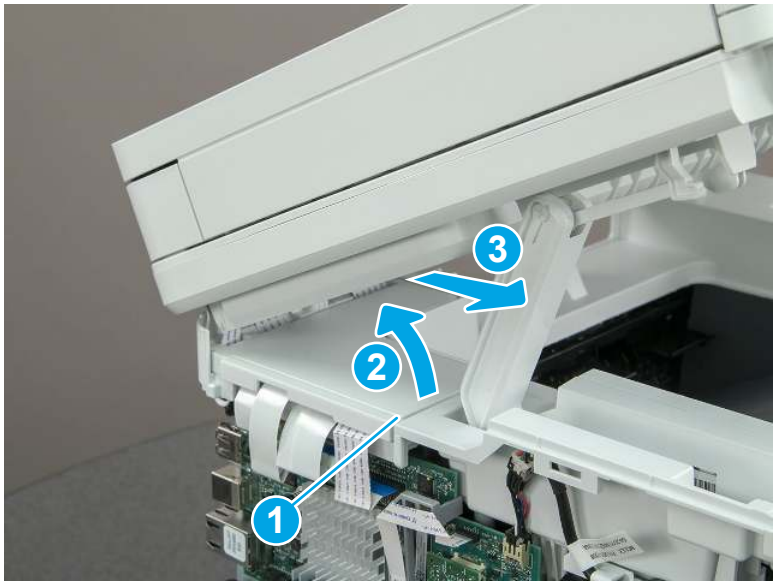
1. If the ISA is not already raised, raise it now.

Figure 4-290 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-291 Remove the ISA FFC cover



6. Remove the integrated scanner assembly (MFP only)

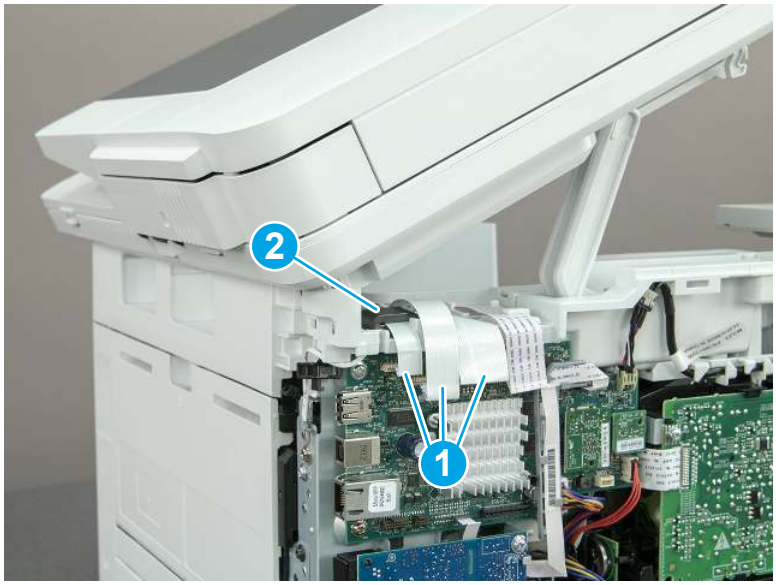
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-292 Disconnect three FFCs



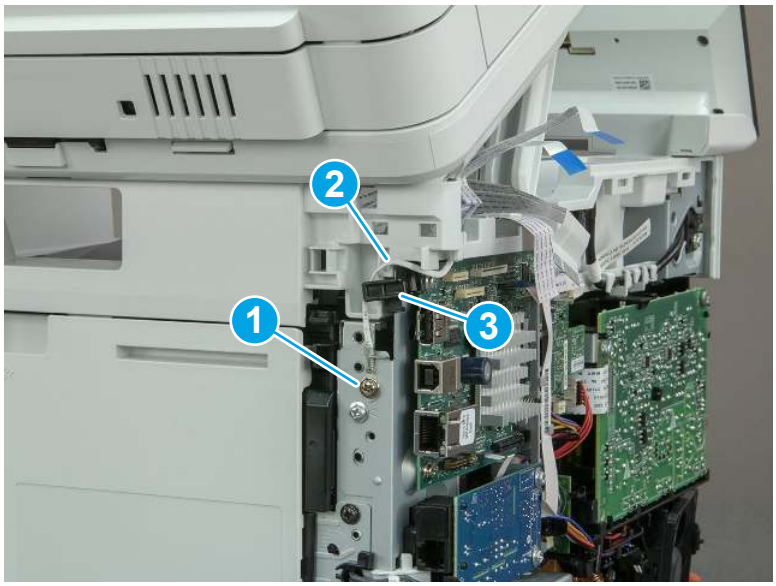
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-293 Release the tape



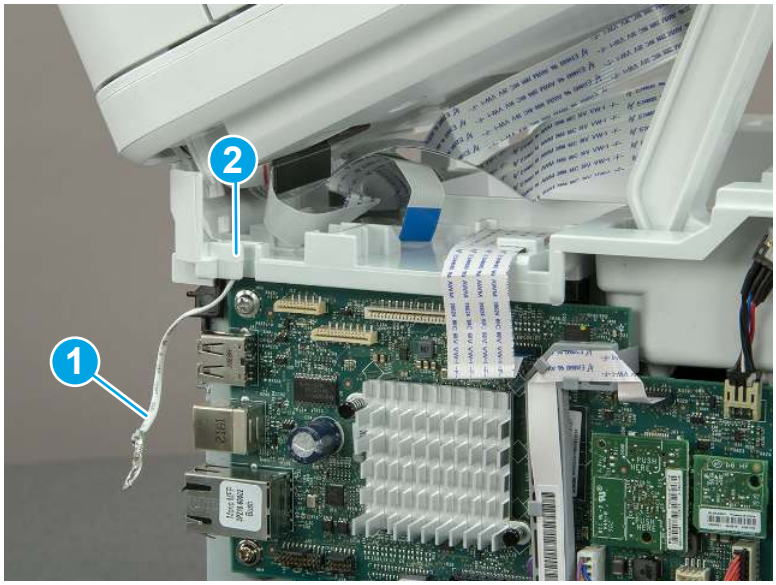
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-294 Release the ground wire



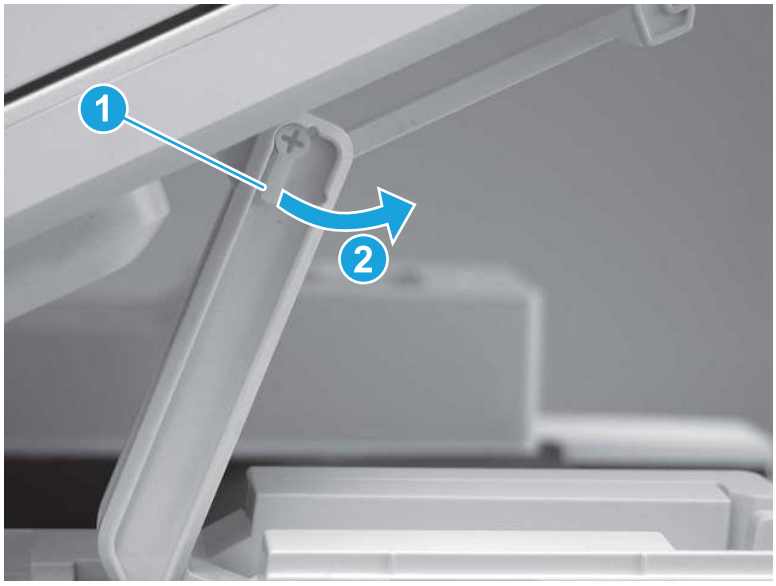
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-295 Release the ground wire



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

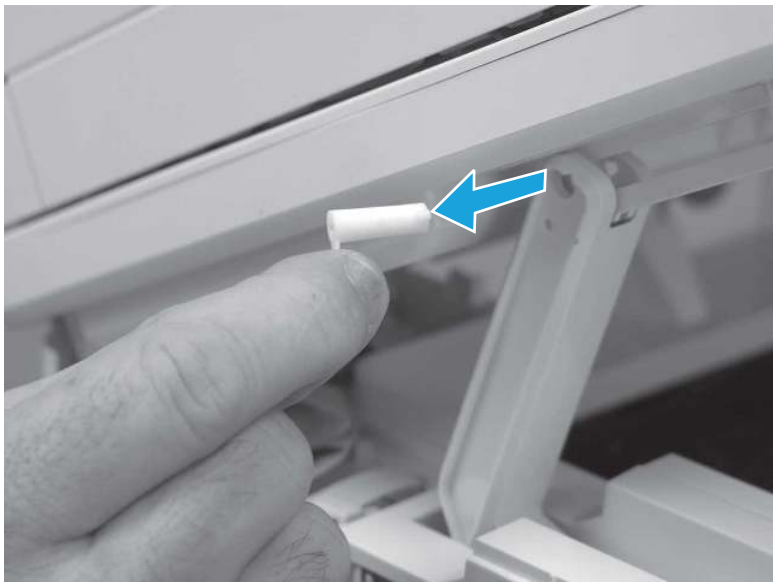
Figure 4-296 Release one tab and rotate the slider pin



6. Remove the slider pin.

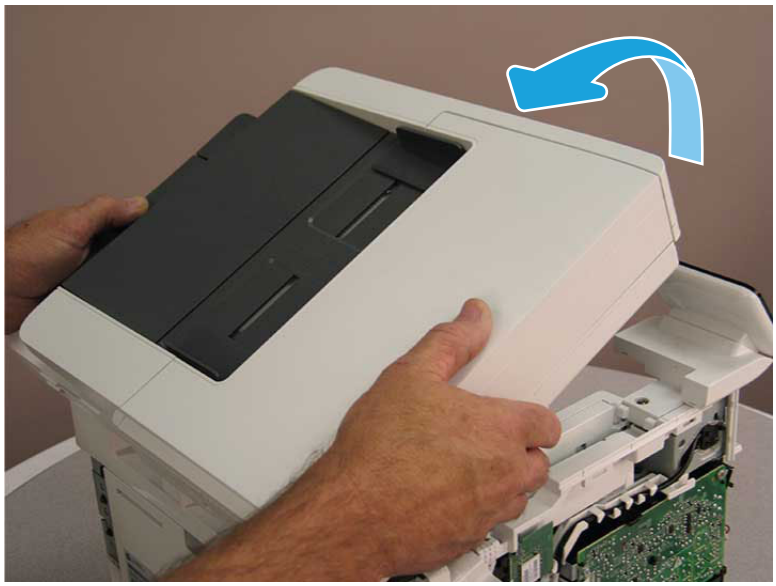
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-297 Remove the slider pin



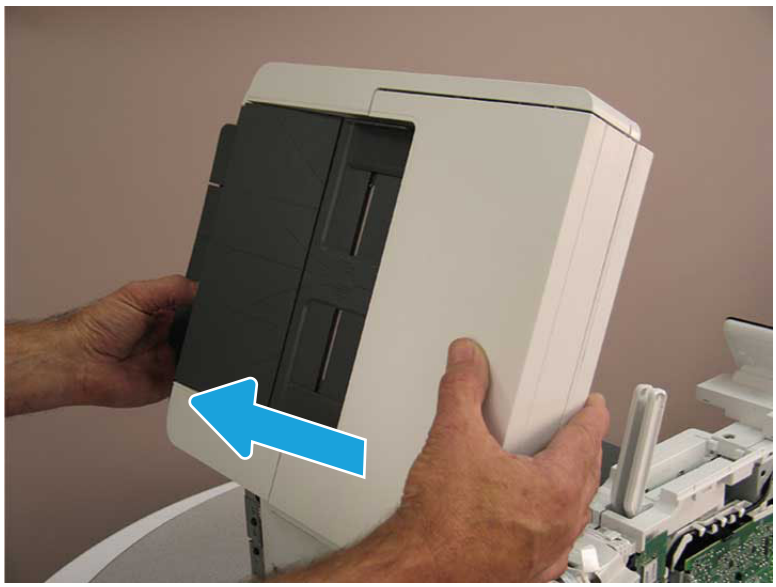
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-298 **Rotate the ISA towards the rear of the printer**



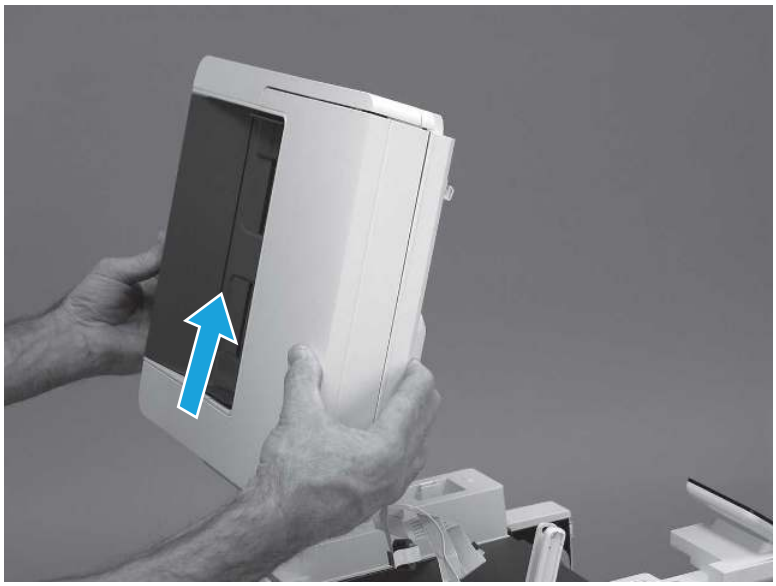
8. Slide the ISA as shown to release it.

Figure 4-299 **Release the ISA**



9. Remove the ISA.

Figure 4-300 Remove the ISA



7. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-301 Open the ISA



2. Remove one screw (callout 1).

Figure 4-302 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-303 Release two tabs



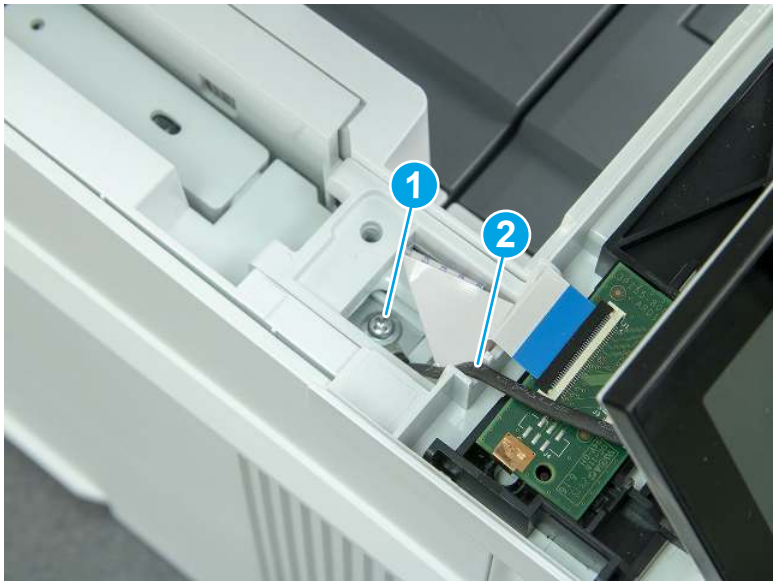
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-304 Remove the cover



5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-305 Remove one screw



6. Disconnect two FFC (callout 1).

Figure 4-306 **Disconnect two FFC**



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

Figure 4-307 **Remove the ICB**



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ **CAUTION:** Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-308 Remove two screws and remove the control panel assembly

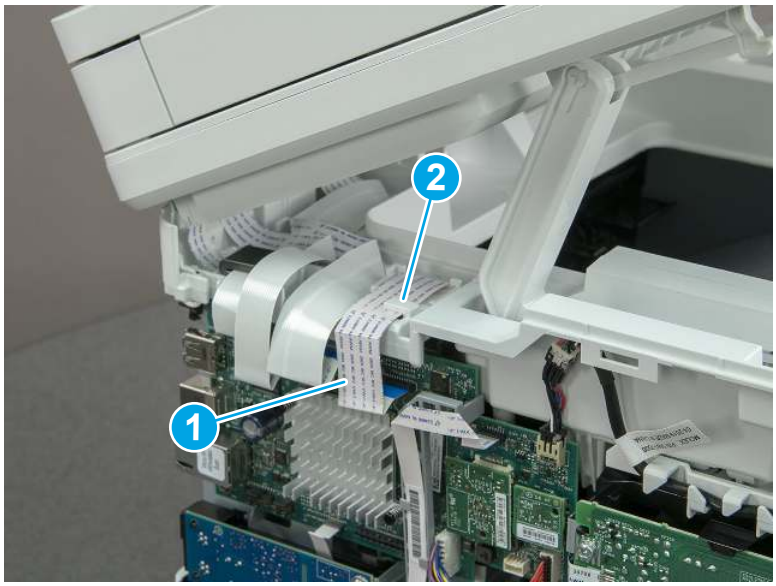


8. Remove the control panel flat cable and cover (MFP only)

Follow these steps to remove the control panel flat cable and cover (MFP only).

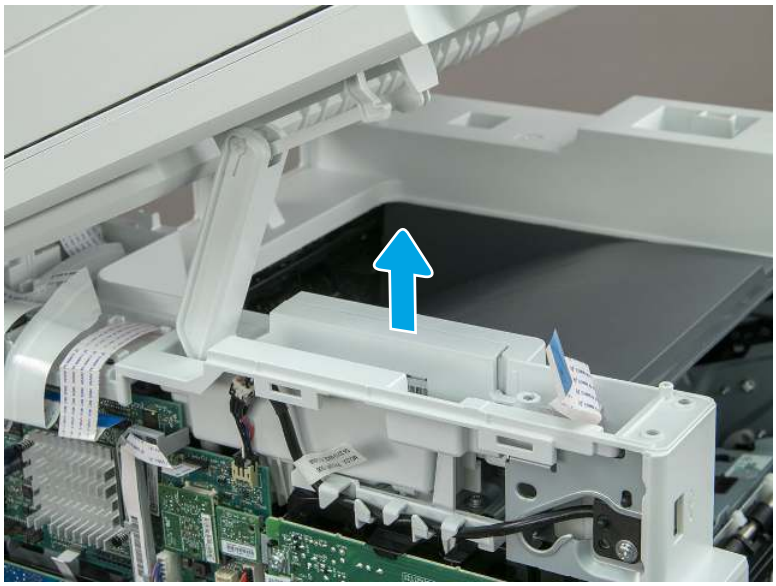
1. Disconnect one FFC (callout 1), and then release the cable from the guides (callout 2).

Figure 4-309 Disconnect one cable



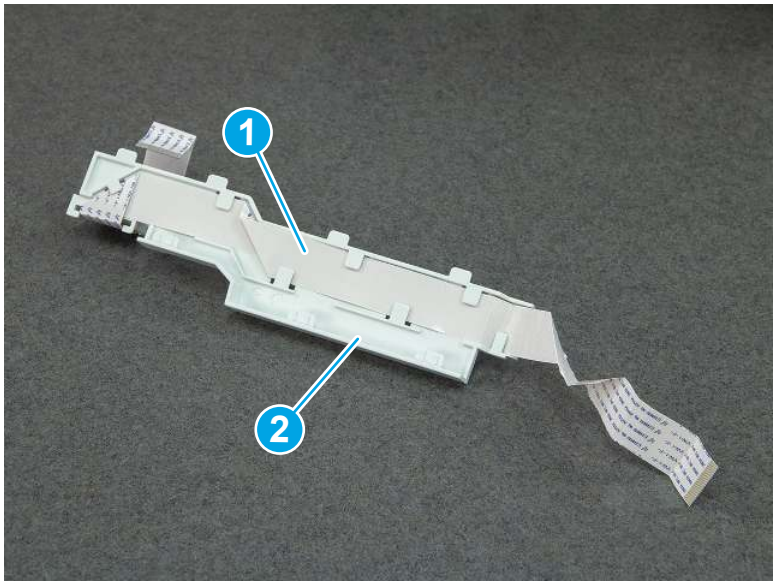
2. Lift up the control-panel FFC cover to remove the cover and cable.

Figure 4-310 Remove the cover and cable



3. If you are replacing the FFC or the cover, remove the FFC (callout 1) from the cover (callout 2).

Figure 4-311 Remove the FFC

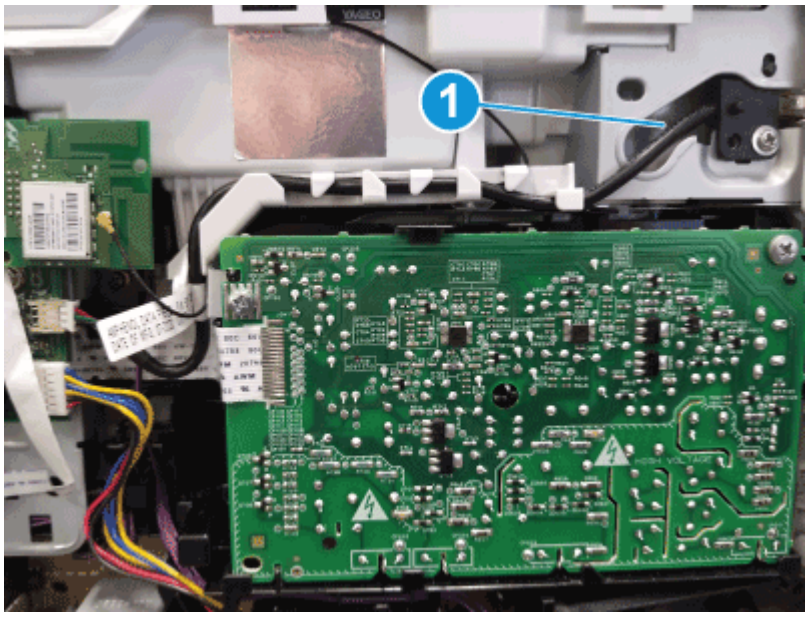


9. Remove the top cover (MFP)

Follow these steps to remove the top cover (MFP).

1. Release the USB cable (callout 1) from the cable guide.

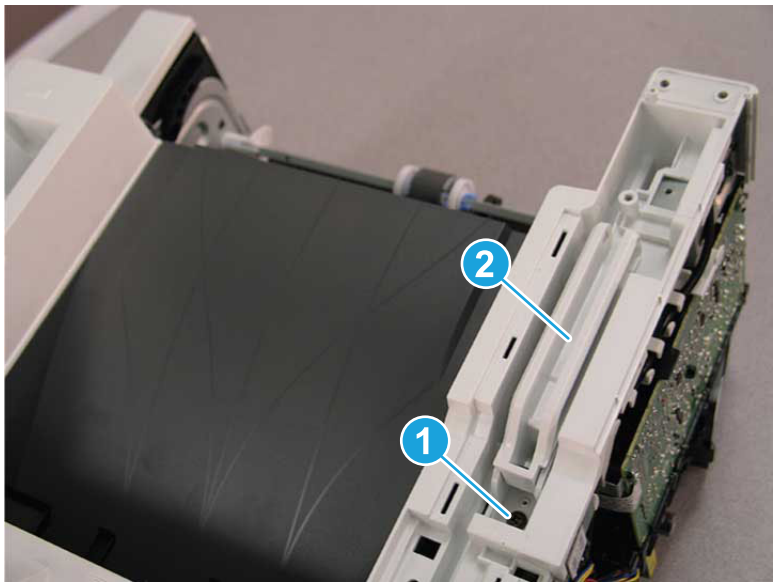
Figure 4-312 Release the USB cable



2. Remove one screw (callout 1), and then remove the support arm (callout 2).

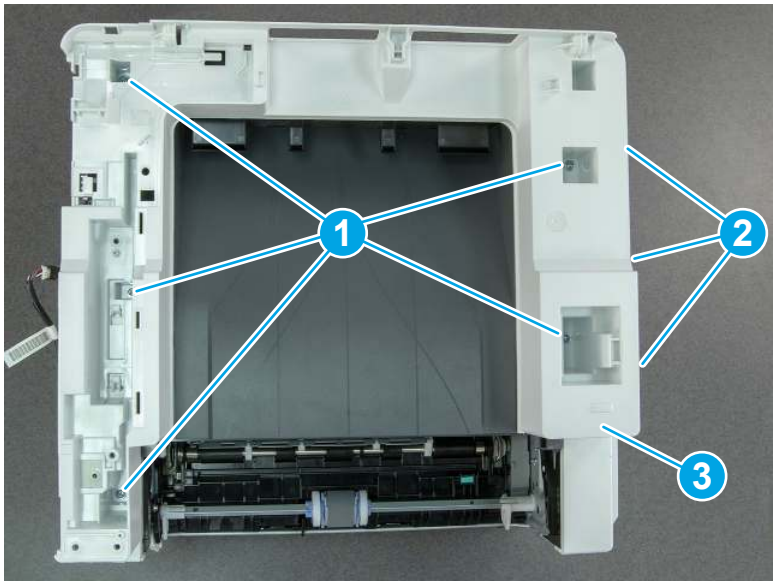
⚠ CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-313 Remove the support arm



3. Remove five screws (callout 1), release three bosses (callout 2), and then remove the top cover (callout 3).

Figure 4-314 Remove the top cover



10. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

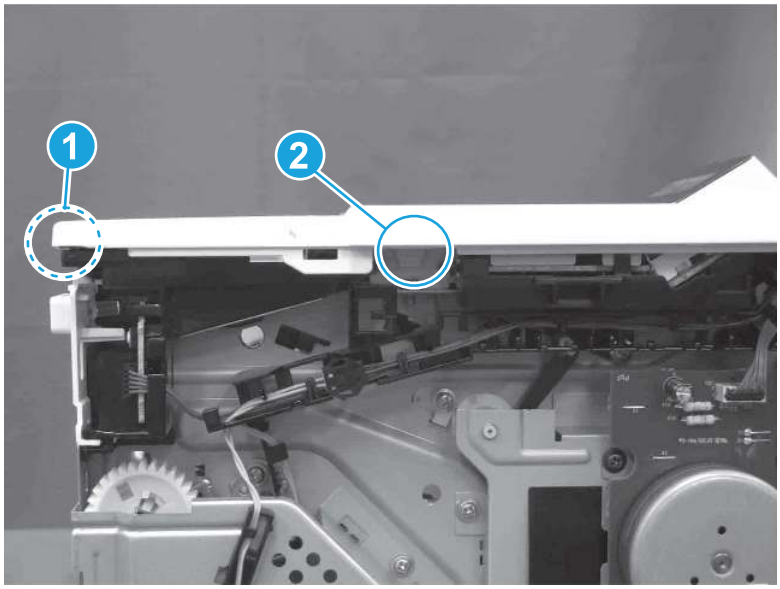
1. Remove one screw.

Figure 4-315 Remove one screw



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

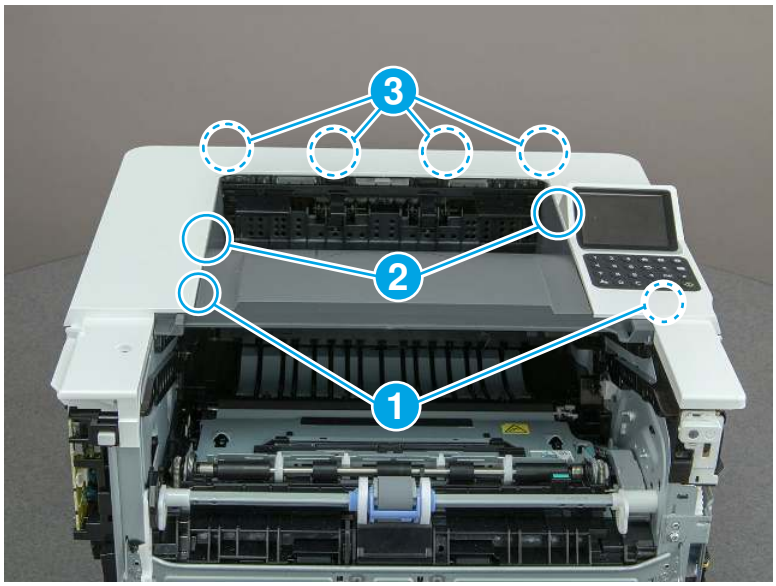
Figure 4-316 Release one boss and one tab



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-317 Remove the cover

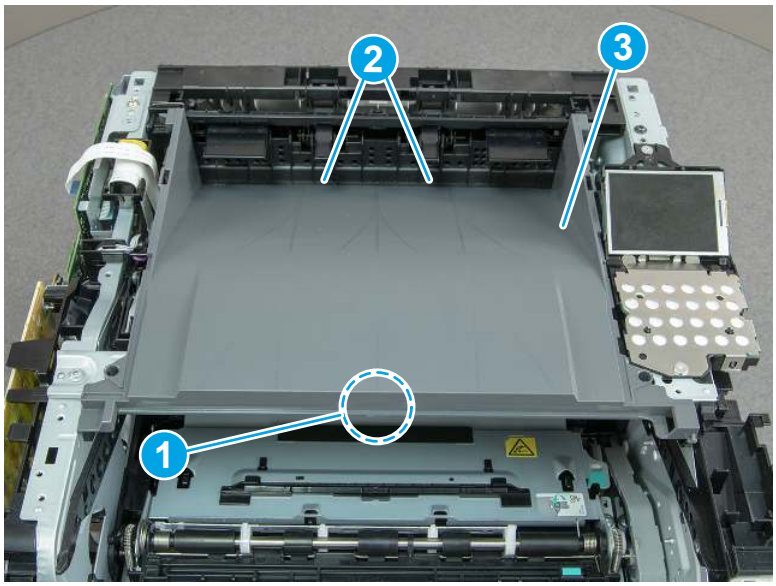


11. Remove the paper delivery tray (output bin)

Follow these steps to remove the paper delivery tray (output bin).

- Release one tab (callout 1), release two bosses (callout 2), and then remove the paper delivery tray (output bin; callout 3).

Figure 4-318 Remove the cover



12. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Internal parts and assemblies (base printer)

Learn how to remove and replace the base printer internal parts and assemblies.

Removal and replacement: Fuser

Learn how to remove and replace the fuser.

View a video of how to remove and replace the fuser.

Mean time to repair: 20 minutes

Service level: Medium

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-30 Part information

Part number	Part description
RM2-2554-000CN	Fuser assembly (110-127V)
RM2-2555-000CN	Fuser assembly (220-240V)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-319 Remove the tray



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

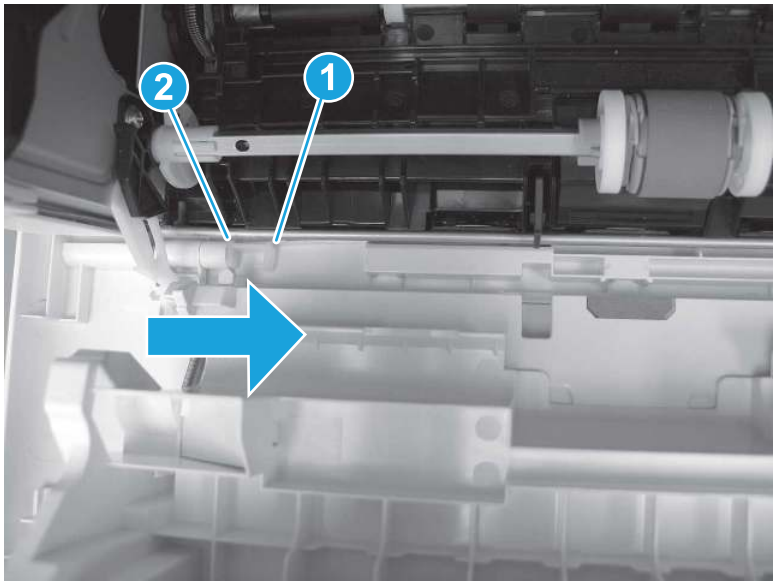
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

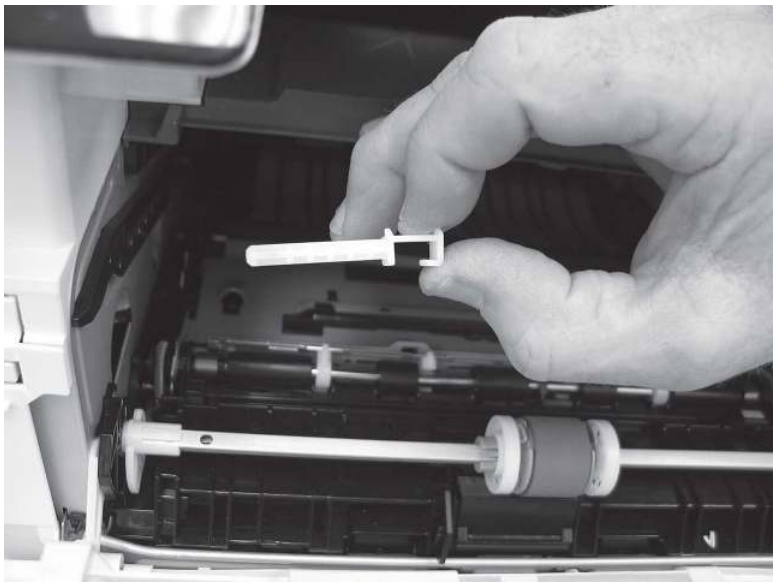
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-320 Release the support shaft



2. Remove the support shaft.

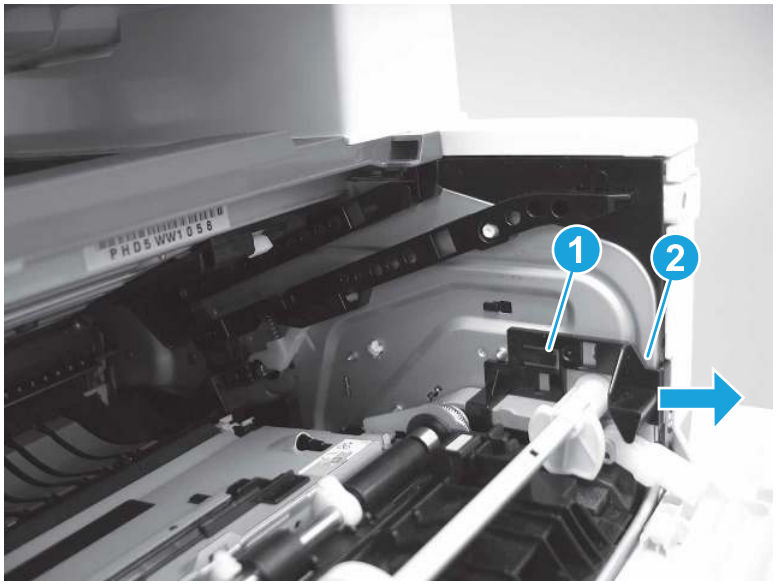
Figure 4-321 **Remove the support shaft**



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

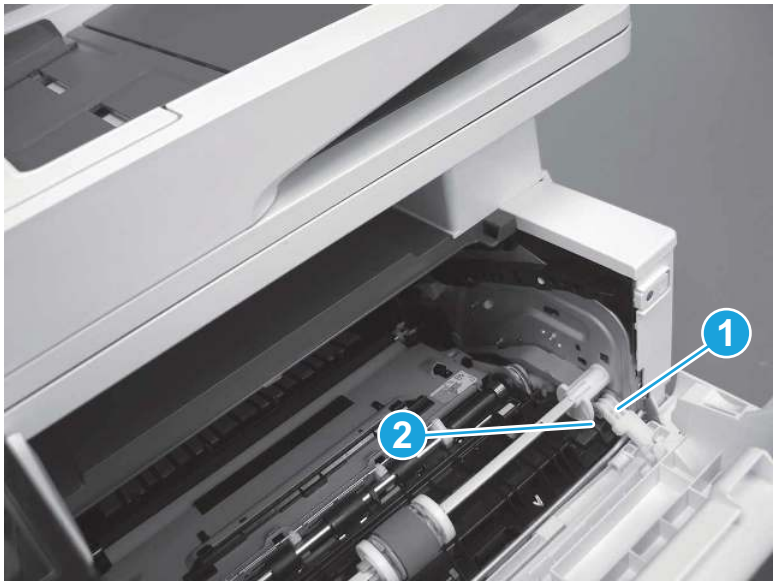
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-322 **Remove the guide**



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-323 Release the pressure-release link

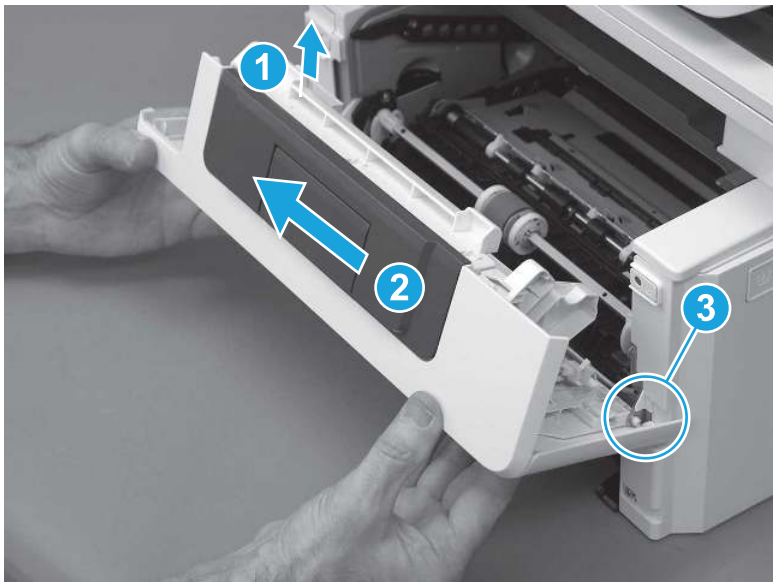


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

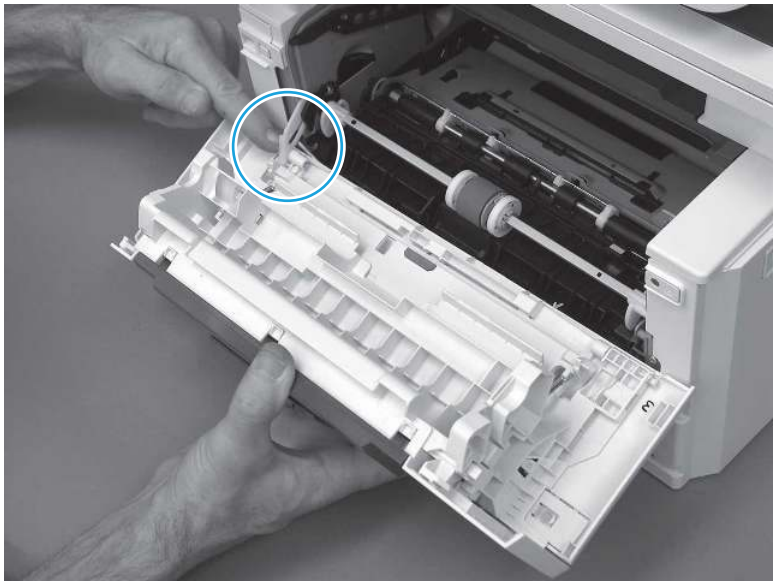
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-324 Release the door



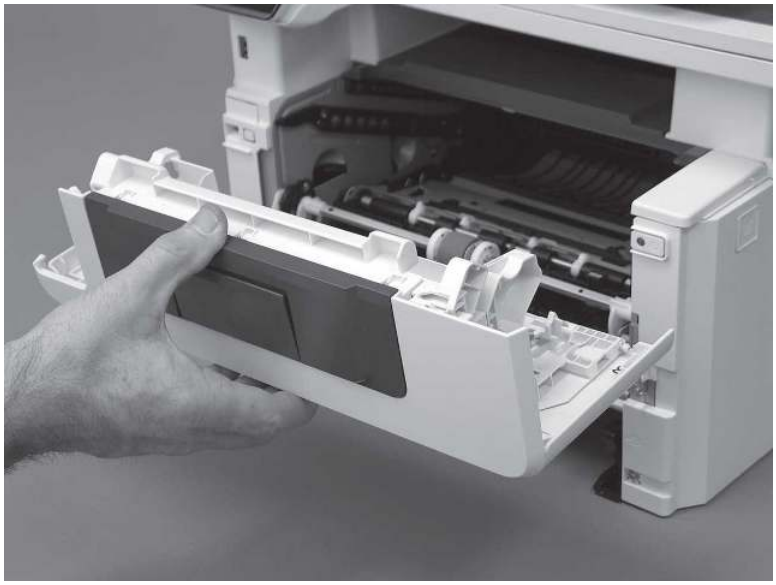
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-325 **Release the left-side retainer arm**



7. Remove the door.

Figure 4-326 **Remove the door**



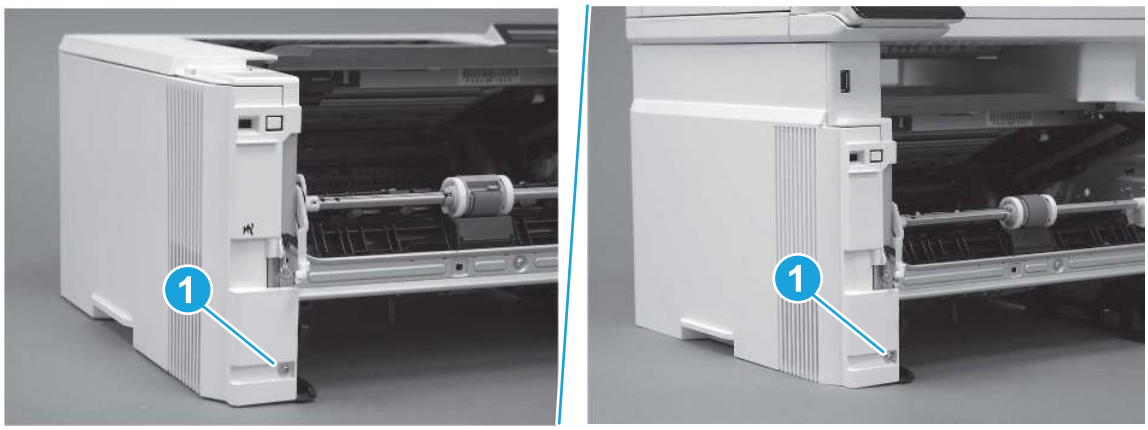
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

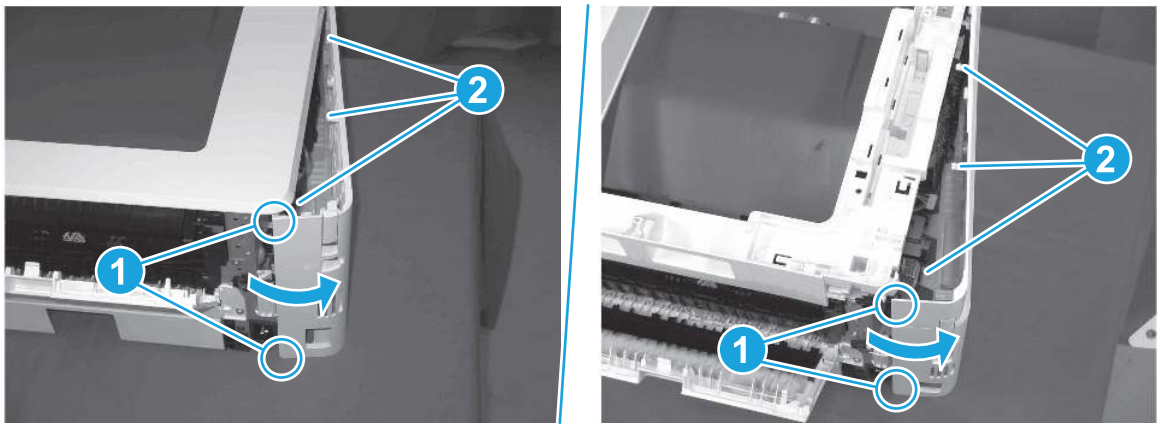
1. Remove one screw (callout 1).

Figure 4-327 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-328 **Release two bosses and three tabs**

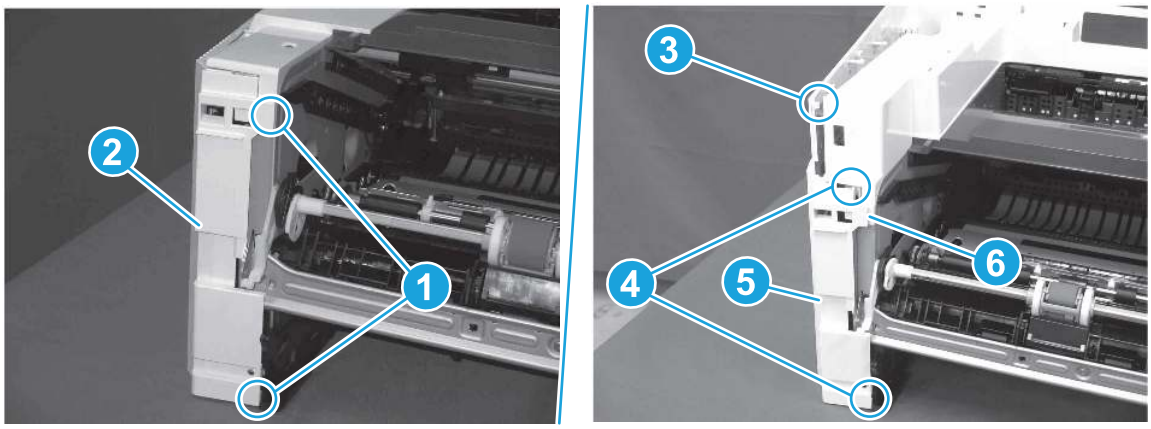


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-329 Remove the cover



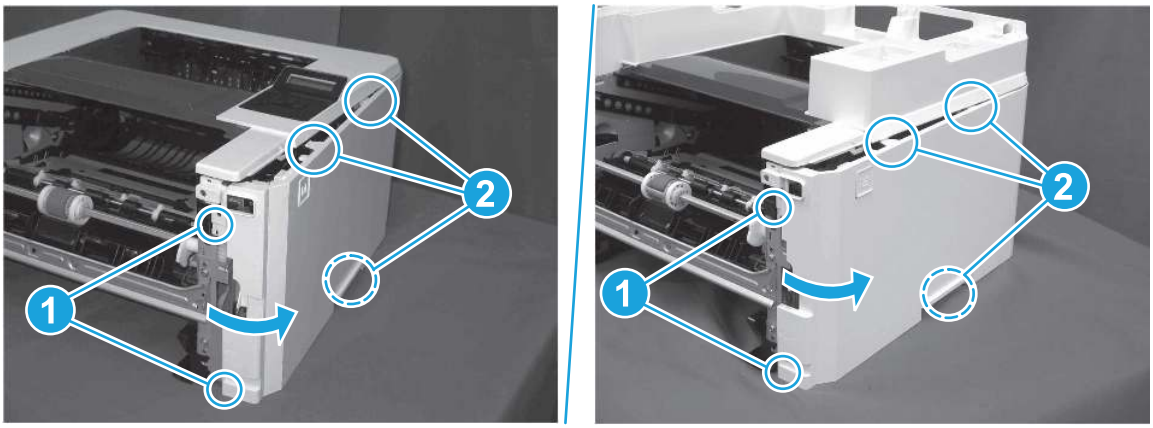
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

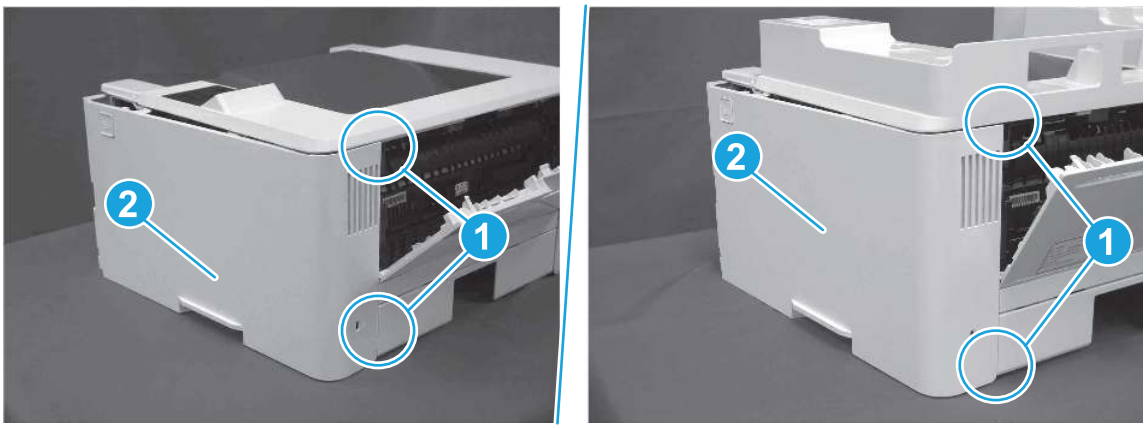
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-330 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-331 **Remove the cover**



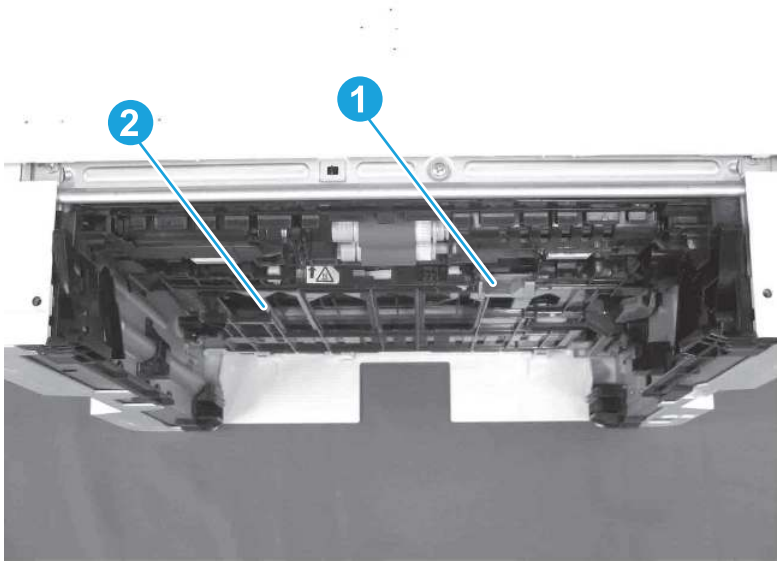
5. Remove the rear door assembly

Follow these steps to remove the rear door assembly.

1. Inside the Tray 2 cavity, press the green jam access lever (callout 1), and then lower the duplex feed assembly (callout 2).

Reinstallation tip: Reach in from the front of the Tray 2 cavity and raise the feed assembly to the up and locked position so that the rear cover will fit flat against the chassis.

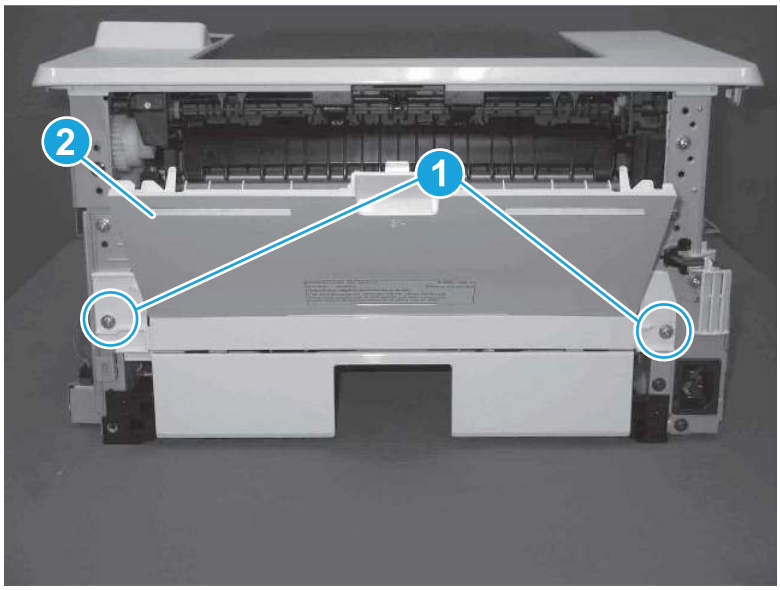
Figure 4-332 **Lower the duplex feed assembly**



2. At the rear of the printer, remove two screws (callout 1), and then remove the rear door assembly (callout 2).

Reinstallation tip: Slide the duplex tray into the Tray 2 cavity.

Figure 4-333 Remove the door assembly

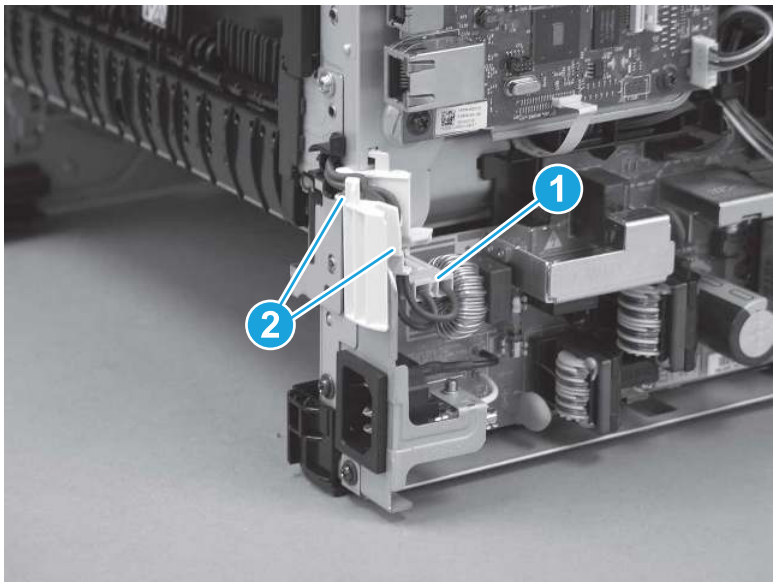


6. Remove the fuser

Follow these steps to remove the fuser.

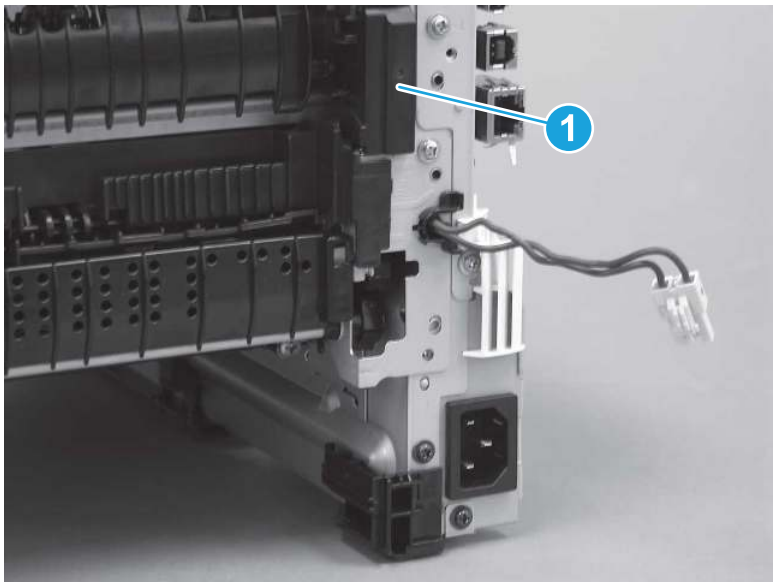
1. Disconnect one connector (callout 1), and then release the wire harness from the guide (callout 2).

Figure 4-334 Disconnect one connector



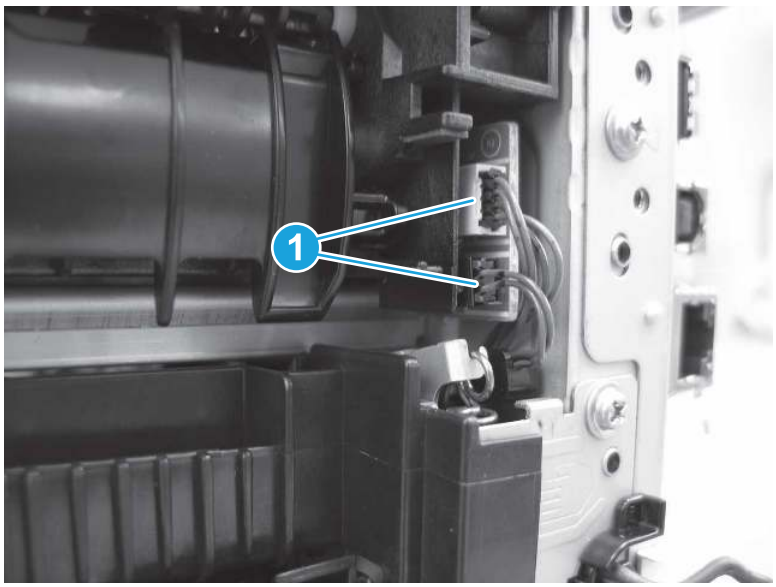
2. Pull the upper connector cover (callout 1) straight off of the printer to remove it.

Figure 4-335 Remove the cover



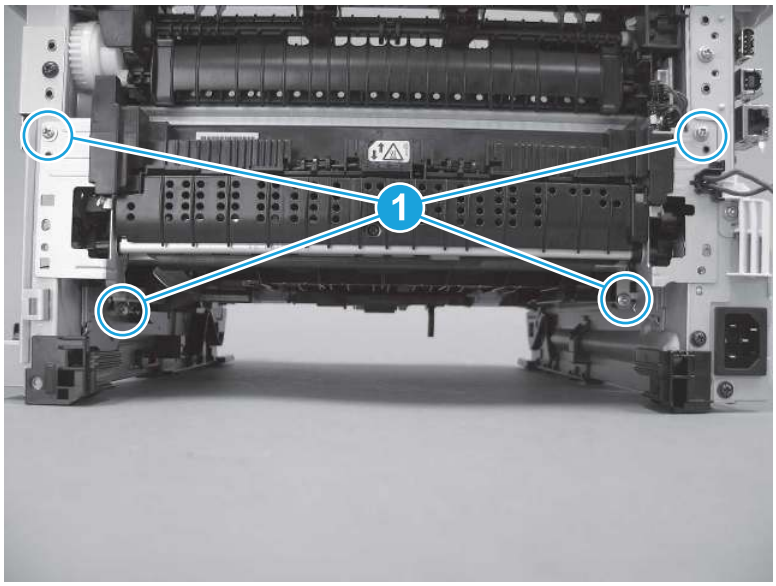
3. Disconnect two connectors (callout 1).

Figure 4-336 Disconnect two connectors



4. Remove four screws (callout 1).

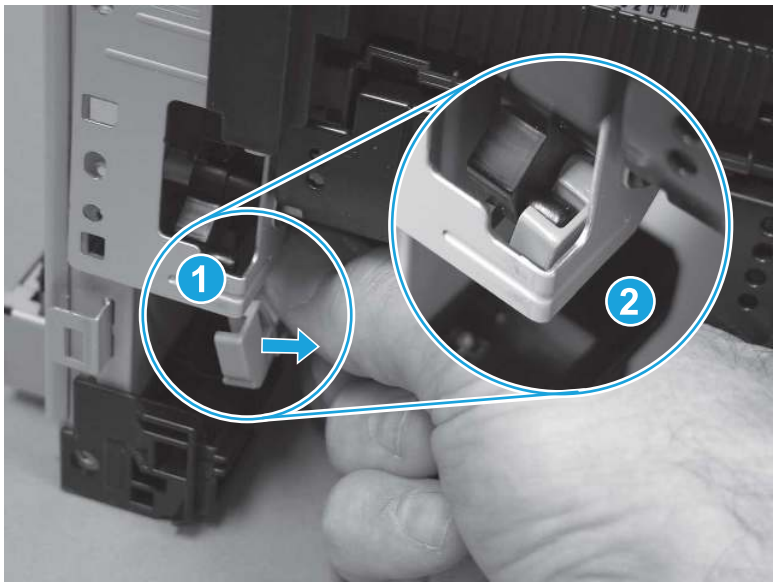
Figure 4-337 Remove four screws



5. Pull the pressure-release link arm (callout 1) to release it from the fuser.

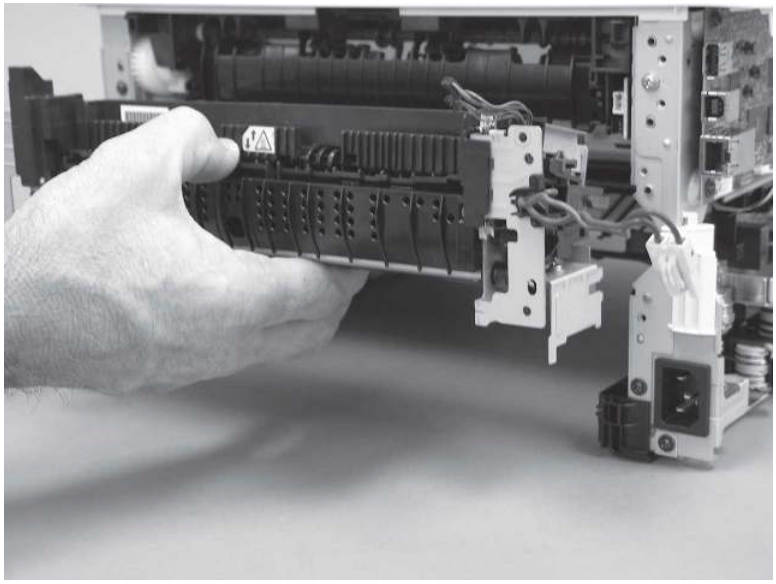
Reinstallation tip: When the fuser is installed, make sure that the pressure-release arm is correctly connected to the fuser (callout 2)

Figure 4-338 Release the pressure-release arm



6. Slide the fuser straight out of the printer to remove it.

Figure 4-339 Remove the fuser



7. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Registration assembly

Learn how to remove and replace the registration assembly.

View a video of how to remove and replace the SFP registration assembly.

View a video of how to remove and replace the MFP registration assembly.

Mean time to repair: 30 minutes SFP, 50 minutes MFP

Service level: Medium SFP, Difficult MFP

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-31 Part information

Part number	Part description
RM2-2577-000CN	Registration assembly

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-340 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

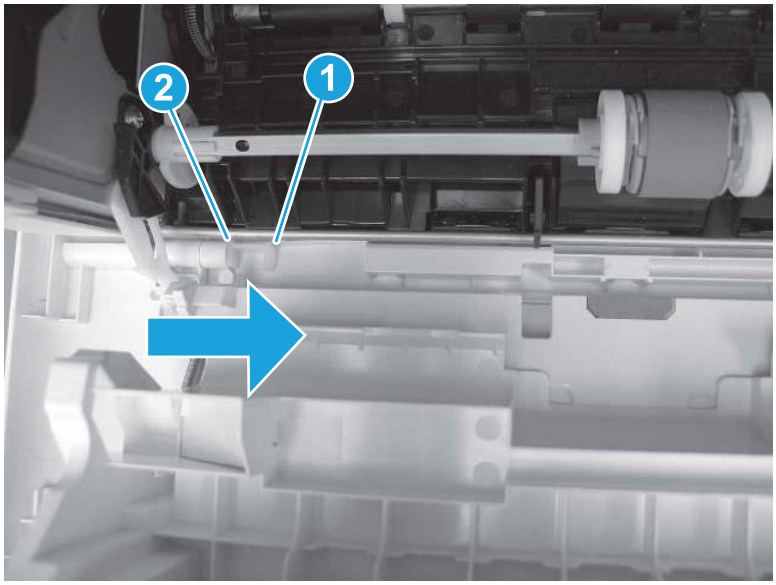
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

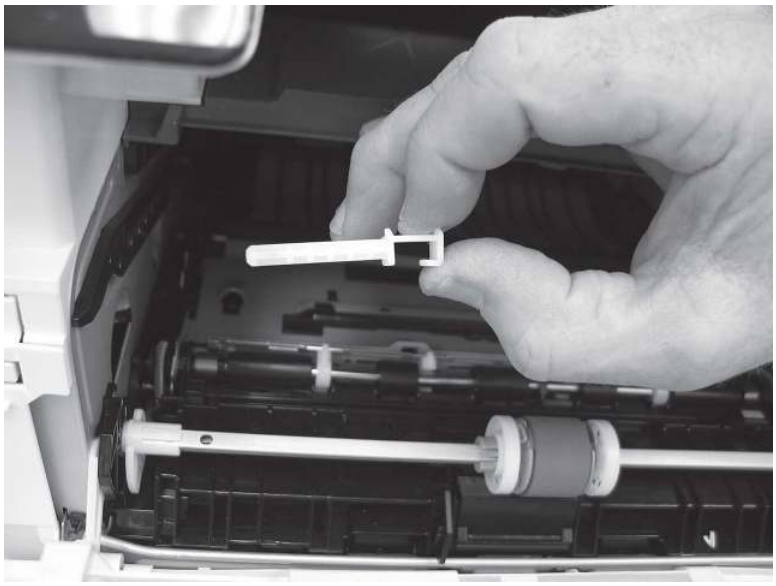
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-341 Release the support shaft



2. Remove the support shaft.

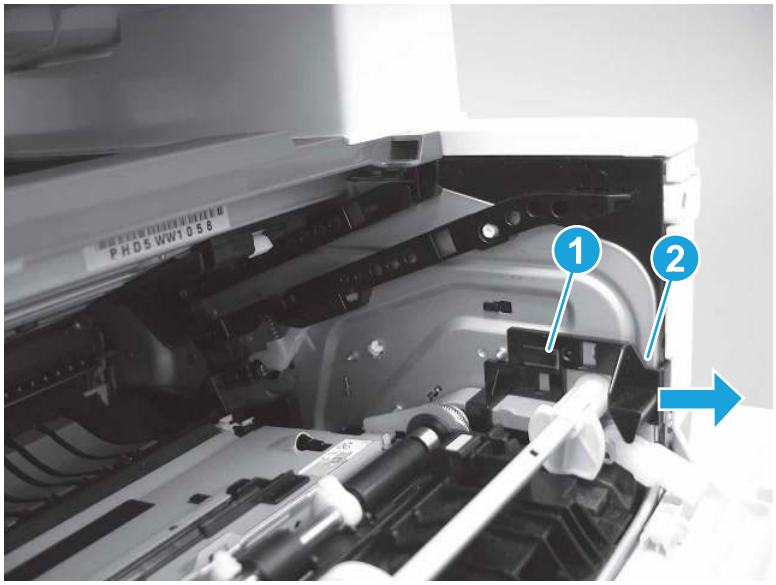
Figure 4-342 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

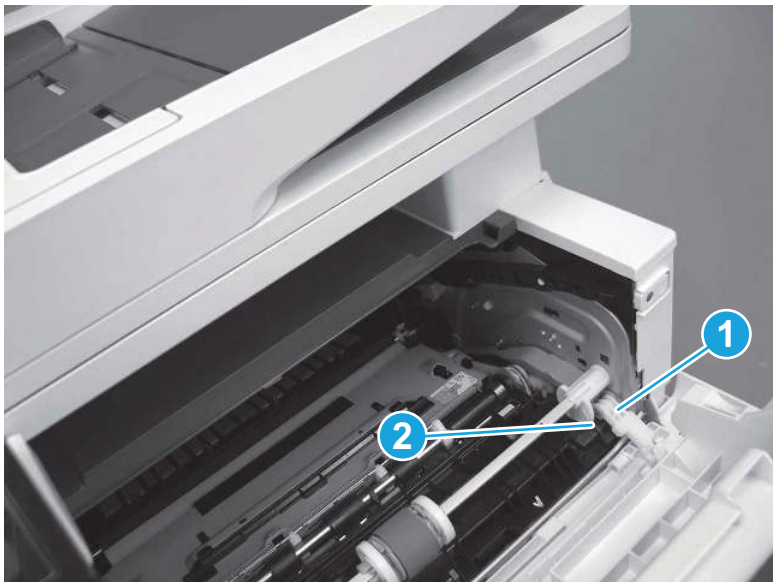
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-343 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-344 Release the pressure-release link

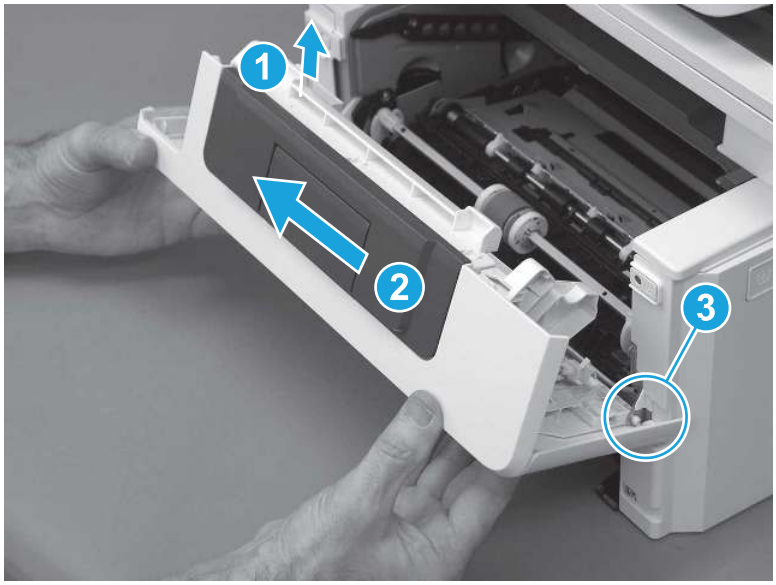


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

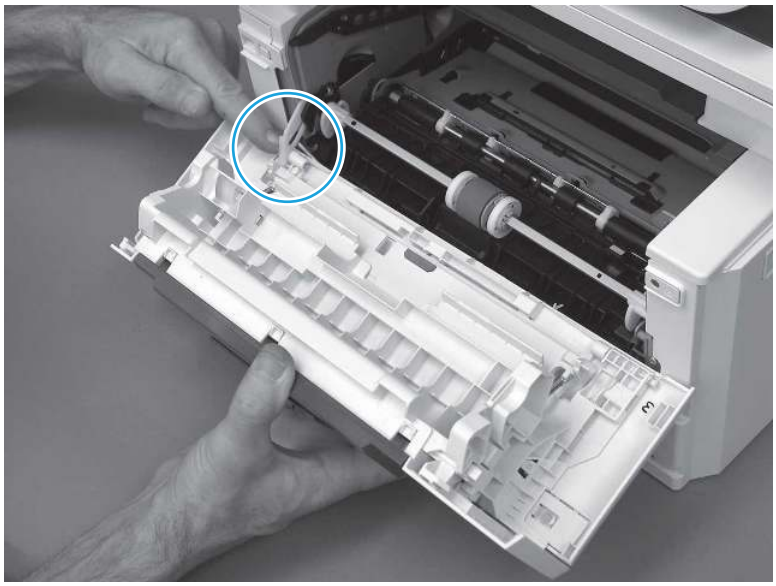
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-345 Release the door



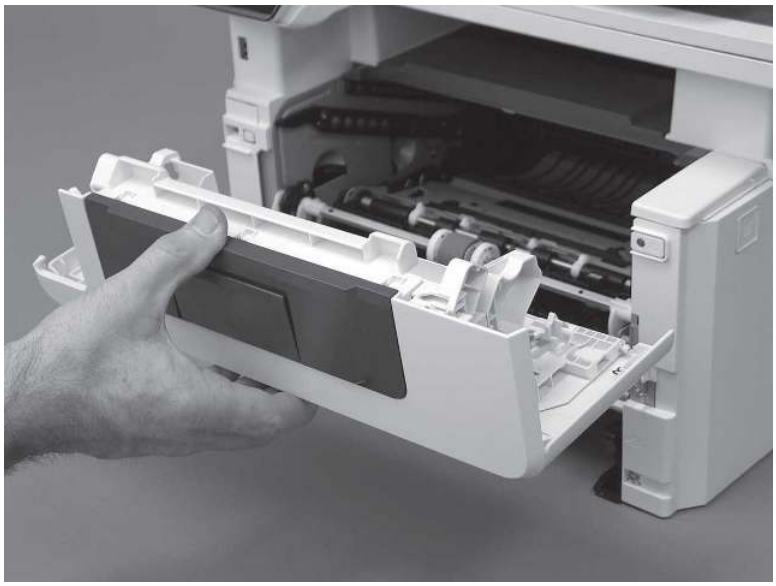
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-346 Release the left-side retainer arm



7. Remove the door.

Figure 4-347 Remove the door



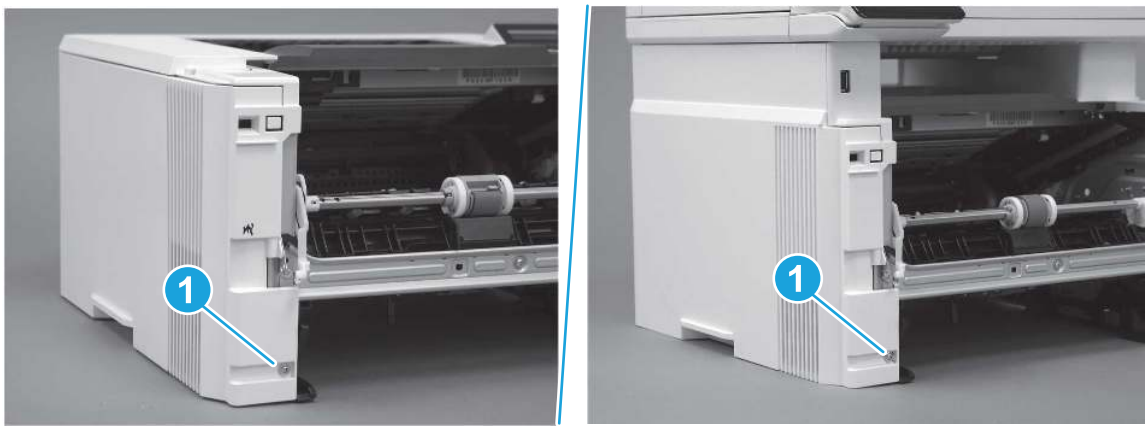
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

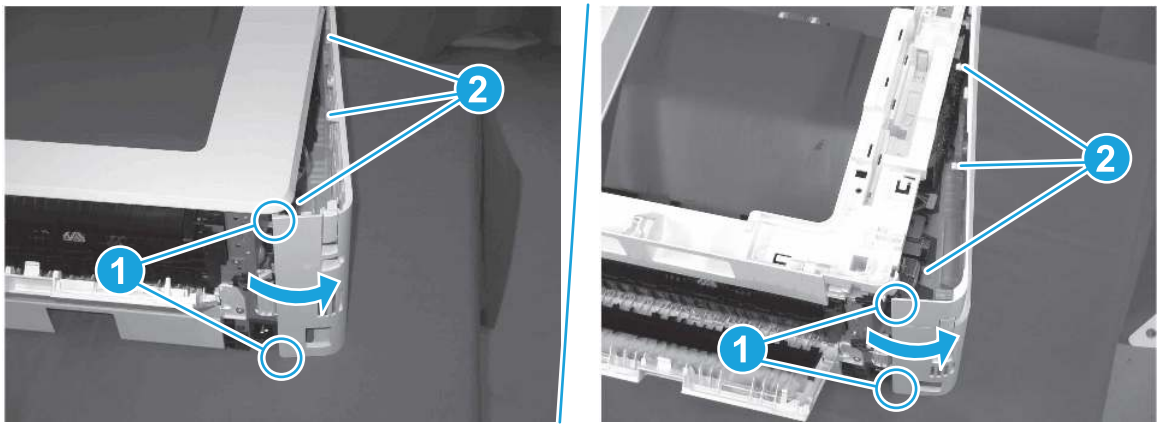
1. Remove one screw (callout 1).

Figure 4-348 Remove one screw



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-349 Release two bosses and three tabs

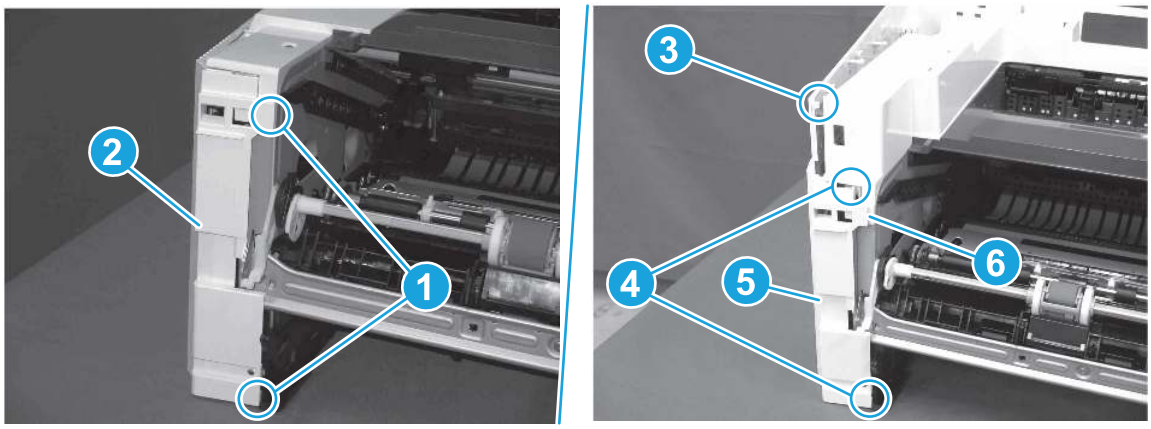


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-350 Remove the cover



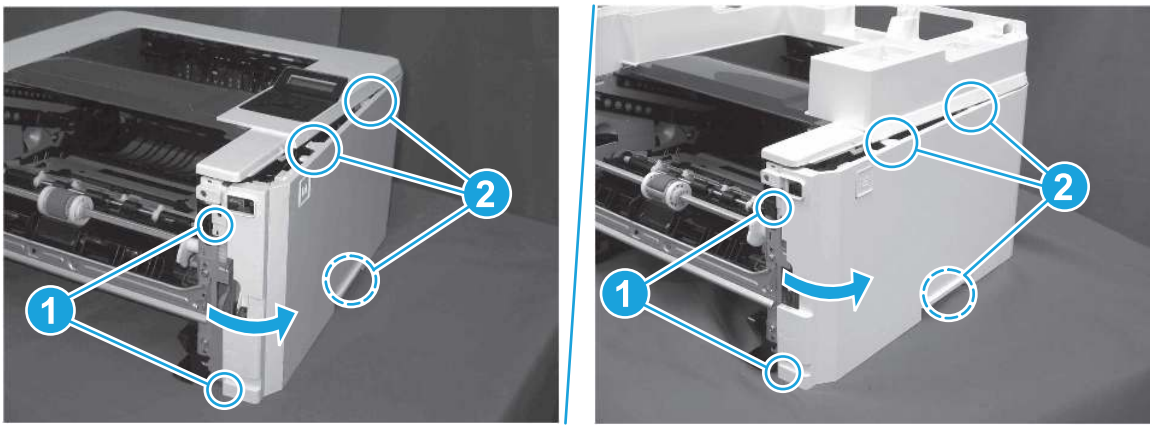
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

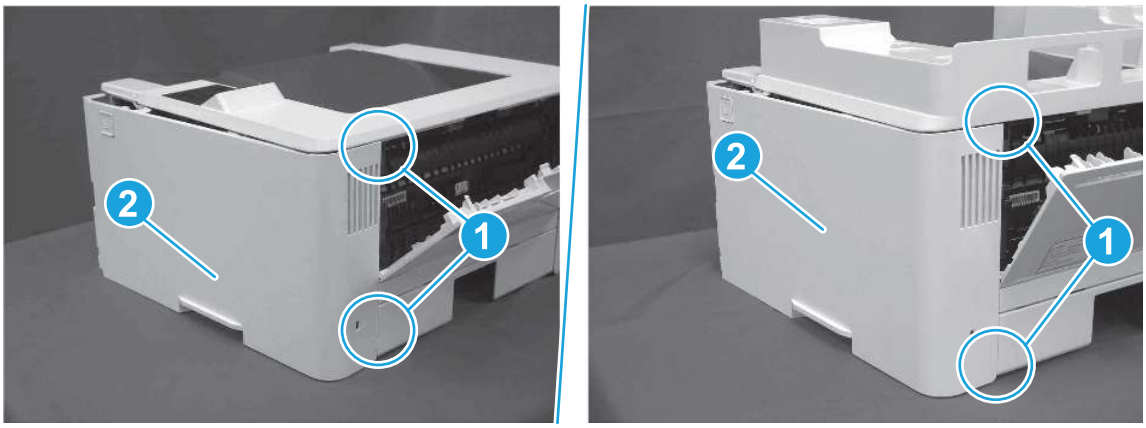
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-351 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-352 Remove the cover



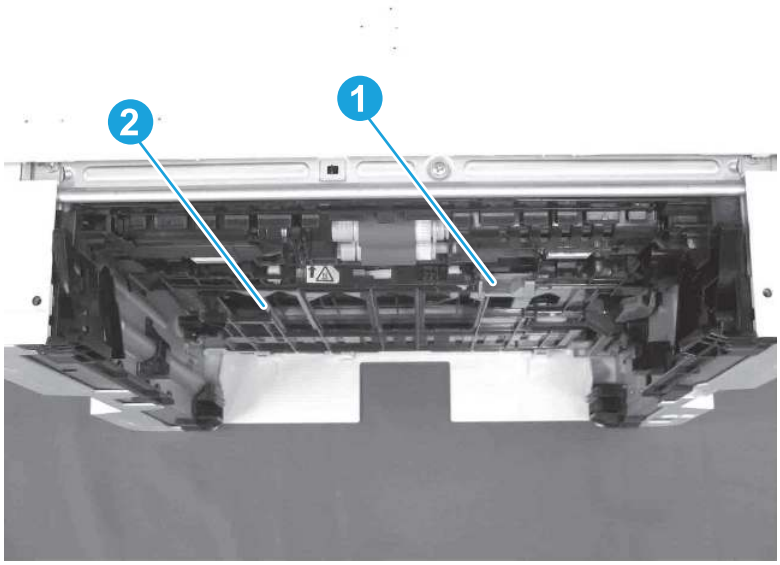
5. Remove the rear door assembly

Follow these steps to remove the rear door assembly.

1. Inside the Tray 2 cavity, press the green jam access lever (callout 1), and then lower the duplex feed assembly (callout 2).

Reinstallation tip: Reach in from the front of the Tray 2 cavity and raise the feed assembly to the up and locked position so that the rear cover will fit flat against the chassis.

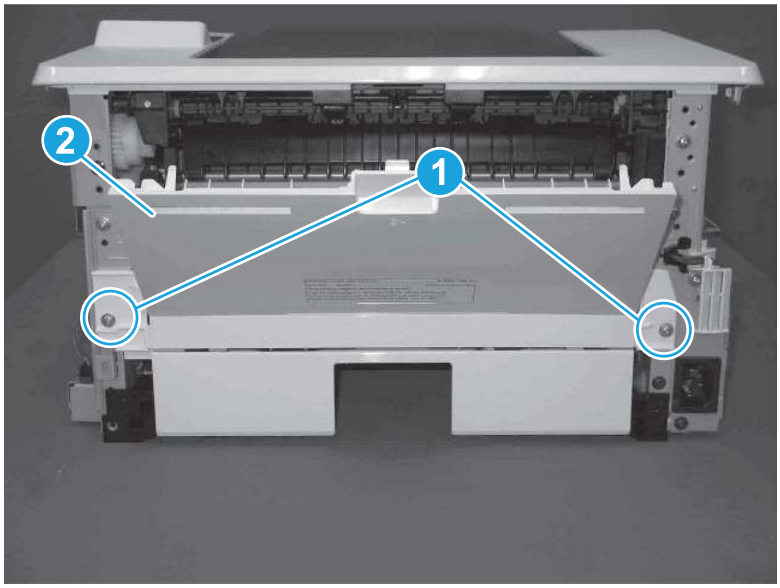
Figure 4-353 Lower the duplex feed assembly



2. At the rear of the printer, remove two screws (callout 1), and then remove the rear door assembly (callout 2).

Reinstallation tip: Slide the duplex tray into the Tray 2 cavity.

Figure 4-354 Remove the door assembly



6. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-355 Open the ISA



2. Remove one screw (callout 1).

Figure 4-356 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-357 Release two tabs



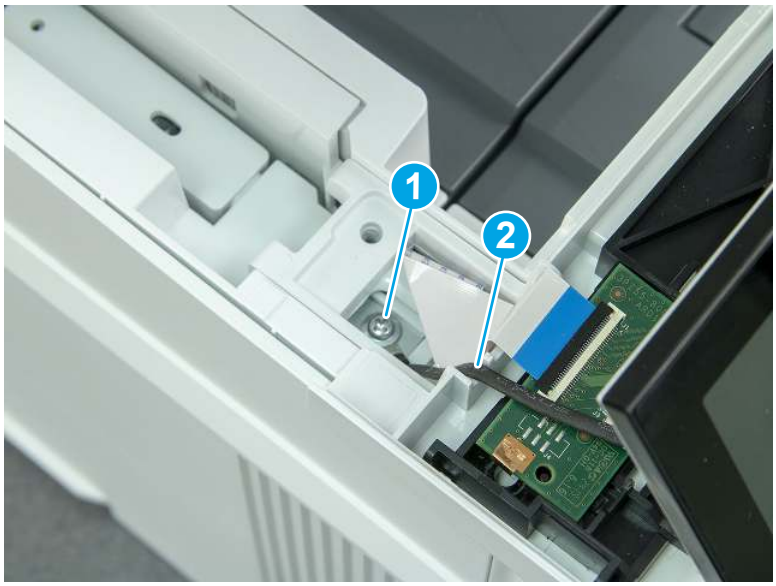
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-358 Remove the cover



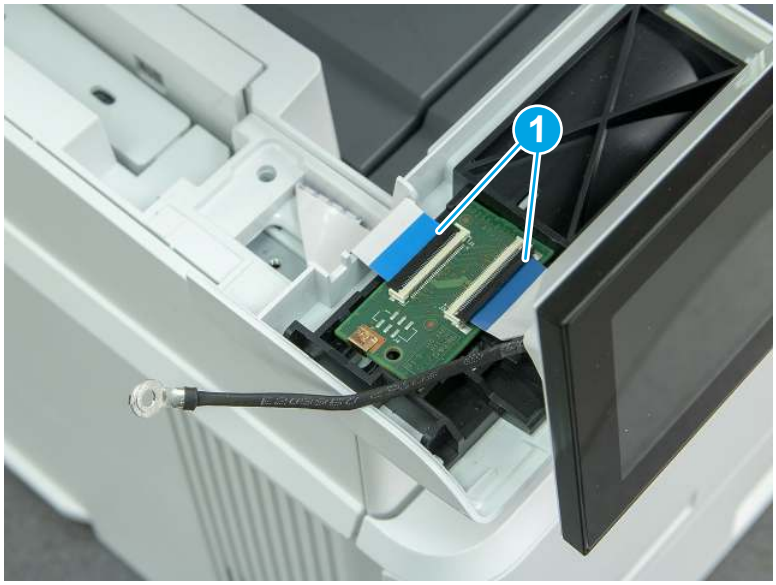
5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-359 Remove one screw



6. Disconnect two FFC (callout 1).

Figure 4-360 Disconnect two FFC



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

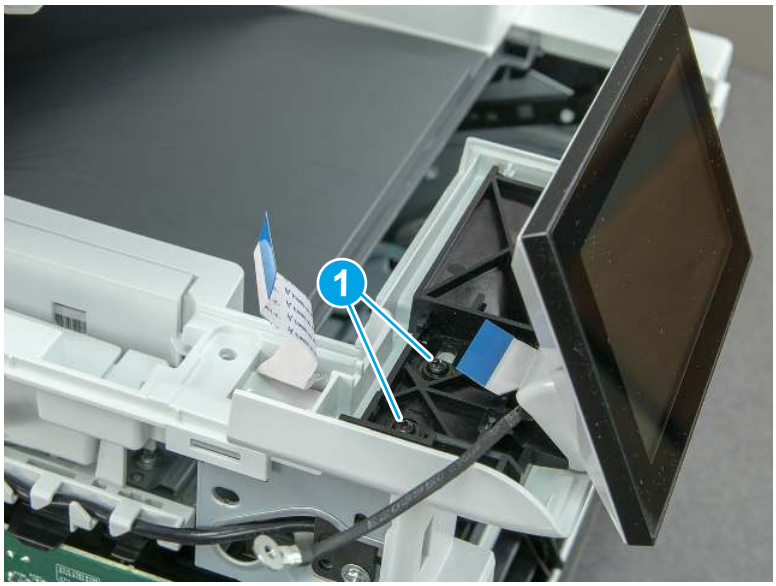
Figure 4-361 **Remove the ICB**



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ CAUTION: Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-362 **Remove two screws and remove the control panel assembly**

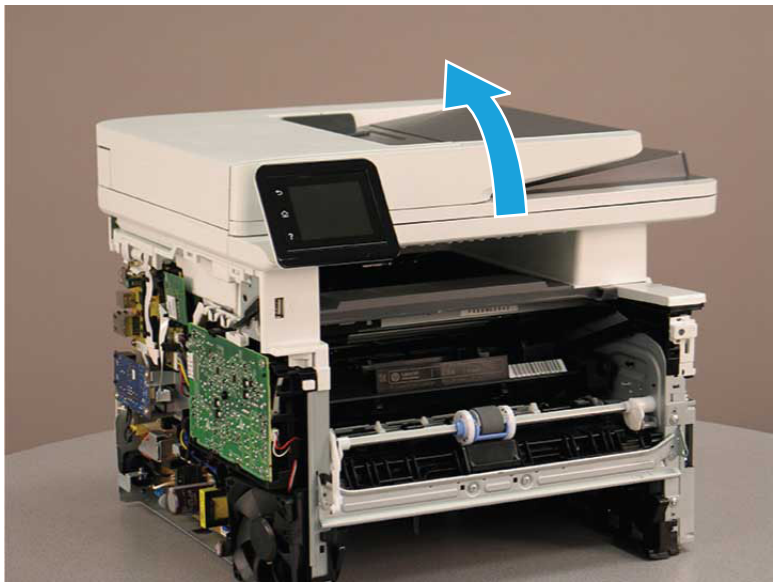


7. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

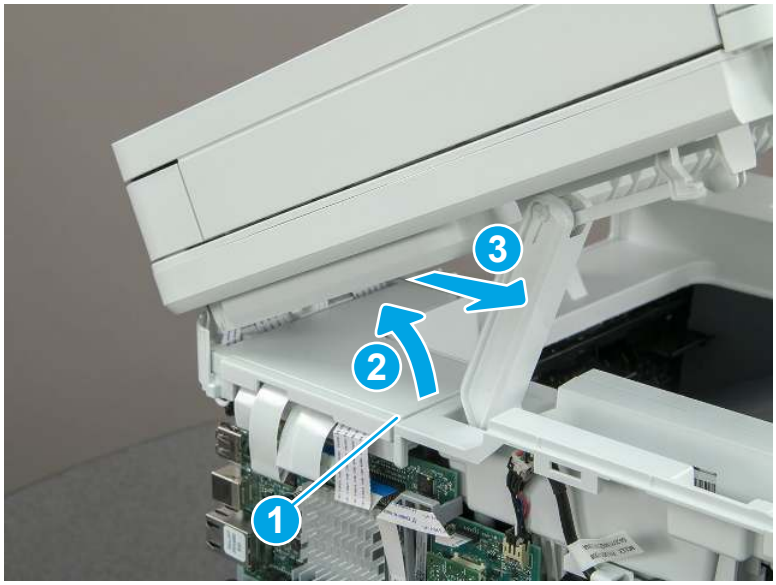
1. If the ISA is not already raised, raise it now.

Figure 4-363 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-364 Remove the ISA FFC cover



8. Remove the integrated scanner assembly (MFP only)

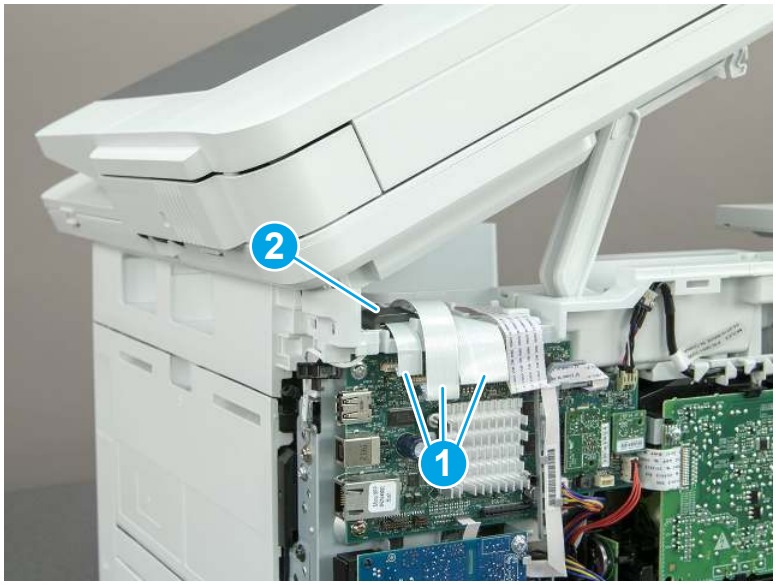
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-365 Disconnect three FFCs



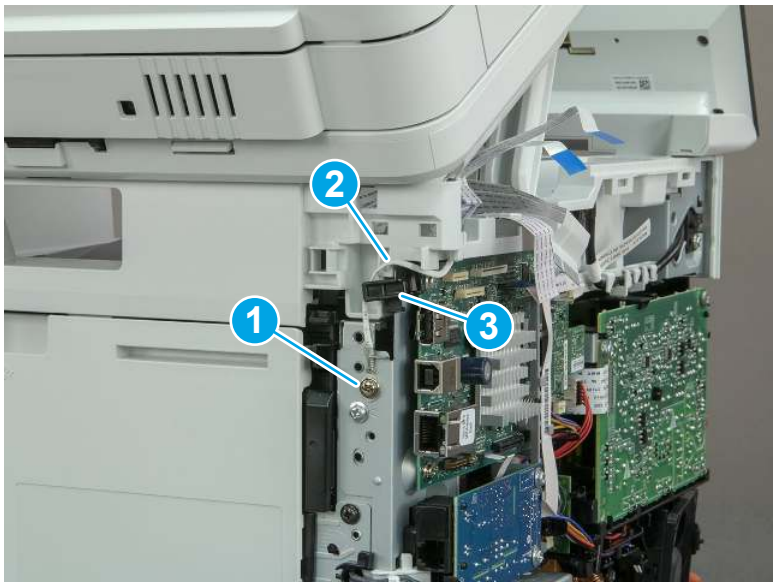
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-366 Release the tape



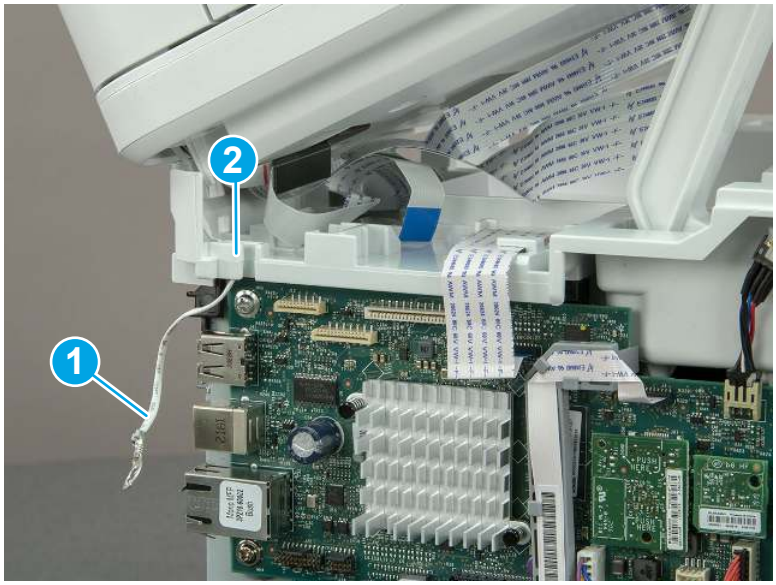
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-367 Release the ground wire



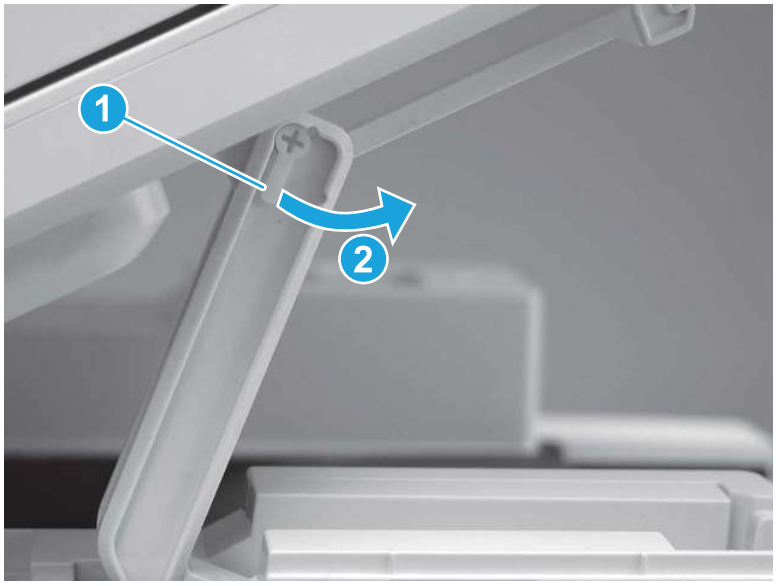
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-368 Release the ground wire



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

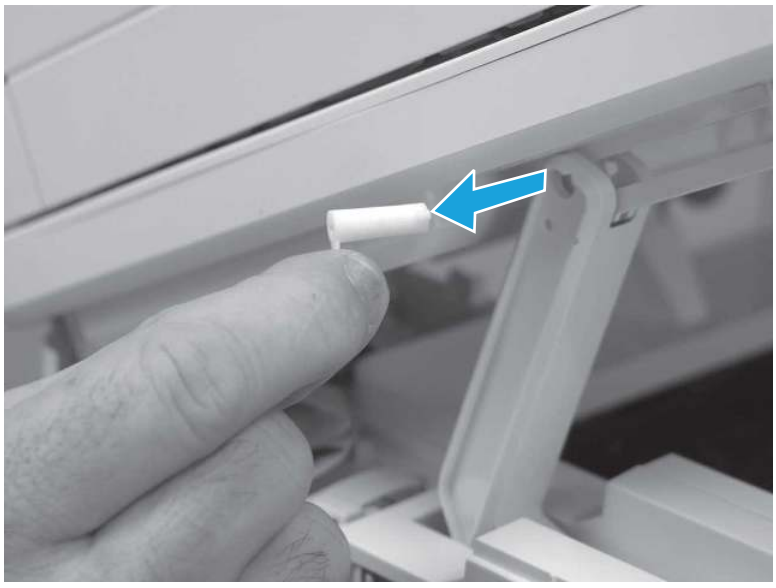
Figure 4-369 **Release one tab and rotate the slider pin**



6. Remove the slider pin.

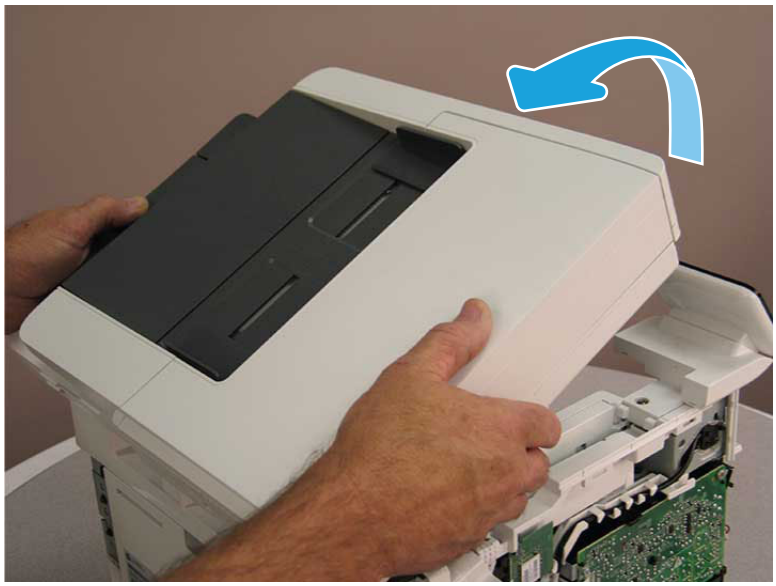
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-370 **Remove the slider pin**



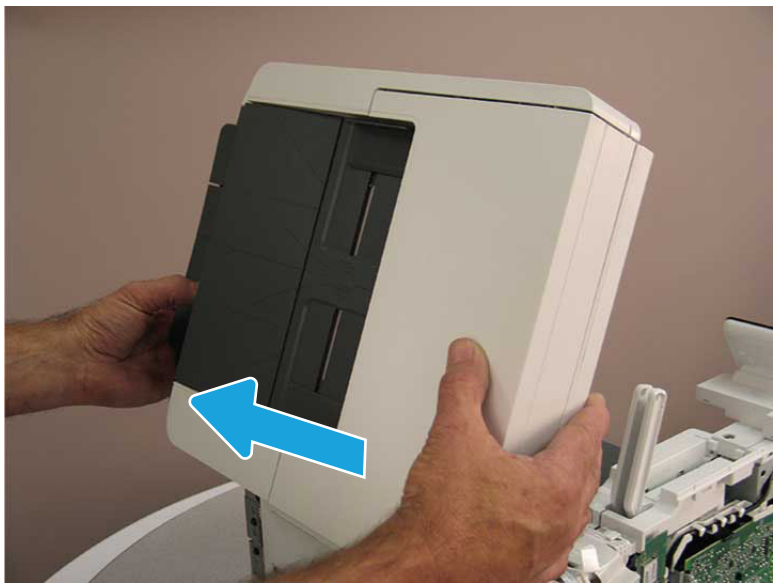
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-371 Rotate the ISA towards the rear of the printer



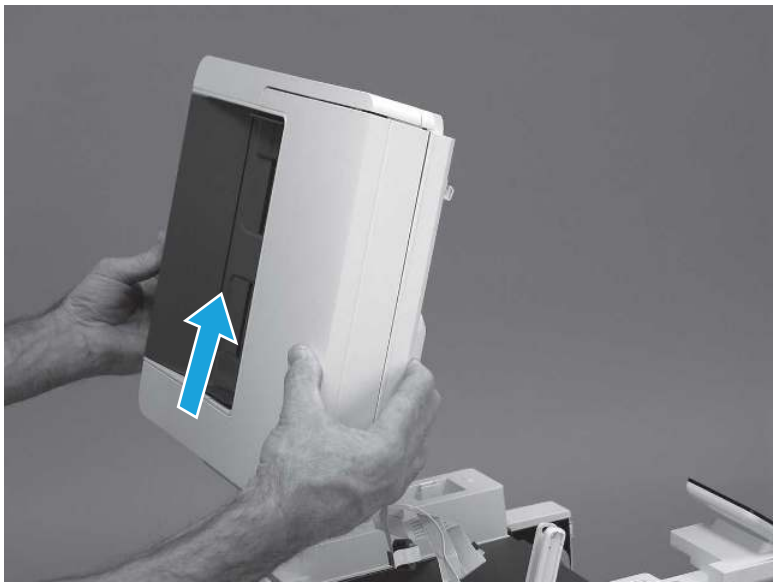
8. Slide the ISA as shown to release it.

Figure 4-372 Release the ISA



9. Remove the ISA.

Figure 4-373 **Remove the ISA**

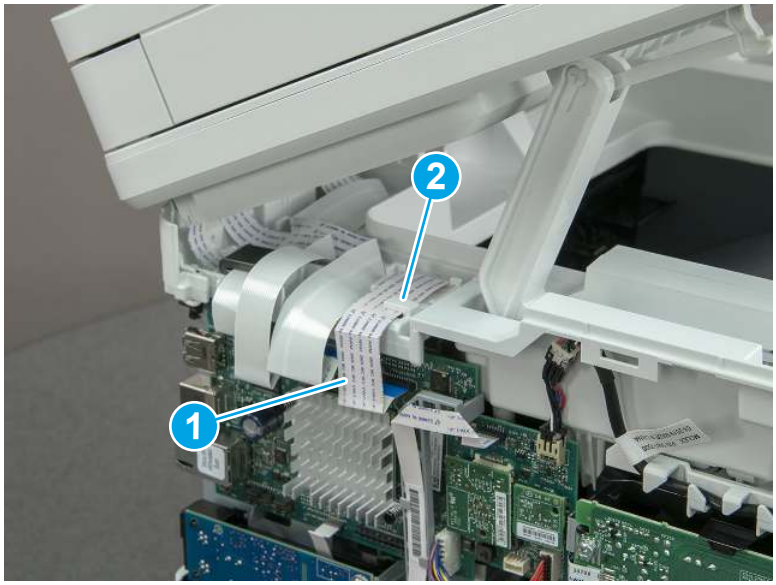


9. Remove the control panel flat cable and cover (MFP only)

Follow these steps to remove the control panel flat cable and cover (MFP only).

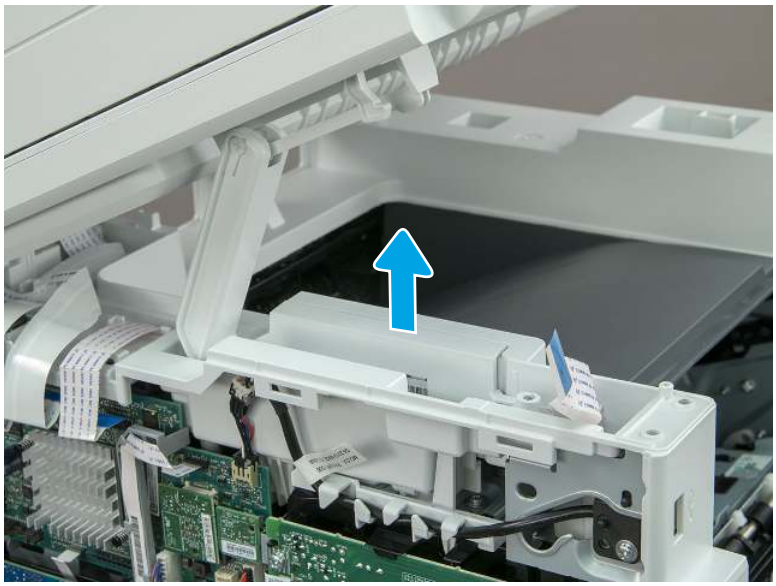
1. Disconnect one FFC (callout 1), and then release the cable from the guides (callout 2).

Figure 4-374 **Disconnect one cable**



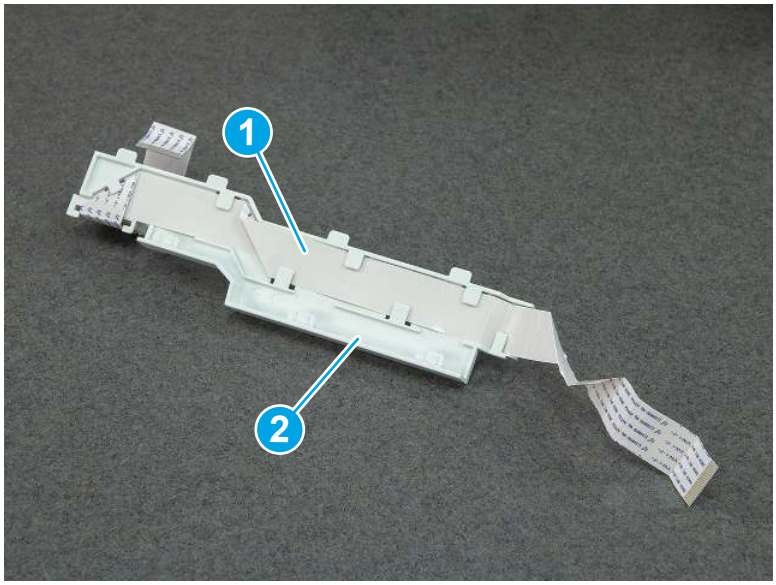
2. Lift up the control-panel FFC cover to remove the cover and cable.

Figure 4-375 Remove the cover and cable



3. If you are replacing the FFC or the cover, remove the FFC (callout 1) from the cover (callout 2).

Figure 4-376 Remove the FFC

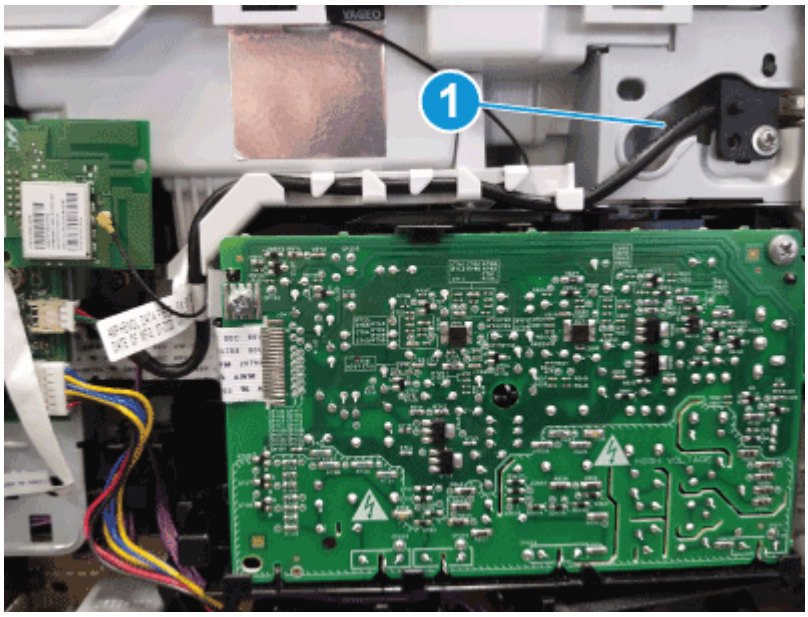


10. Remove the top cover (MFP)

Follow these steps to remove the top cover (MFP).

1. Release the USB cable (callout 1) from the cable guide.

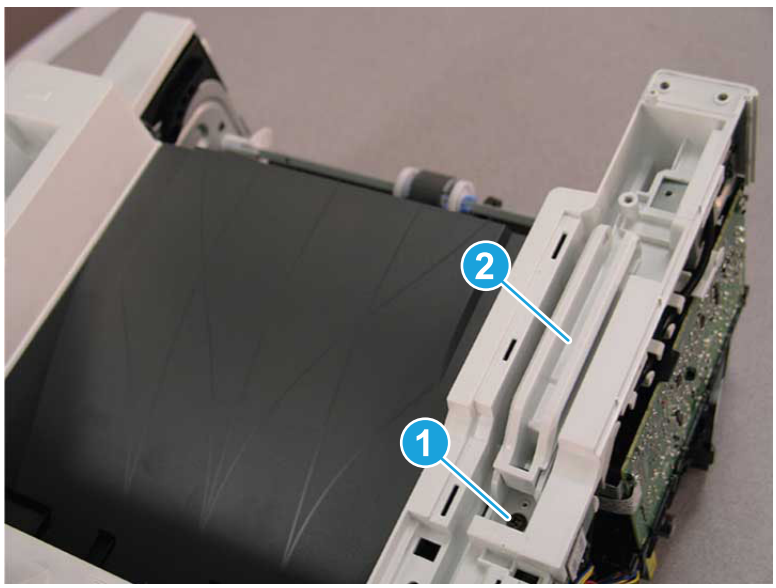
Figure 4-377 Release the USB cable



2. Remove one screw (callout 1), and then remove the support arm (callout 2).

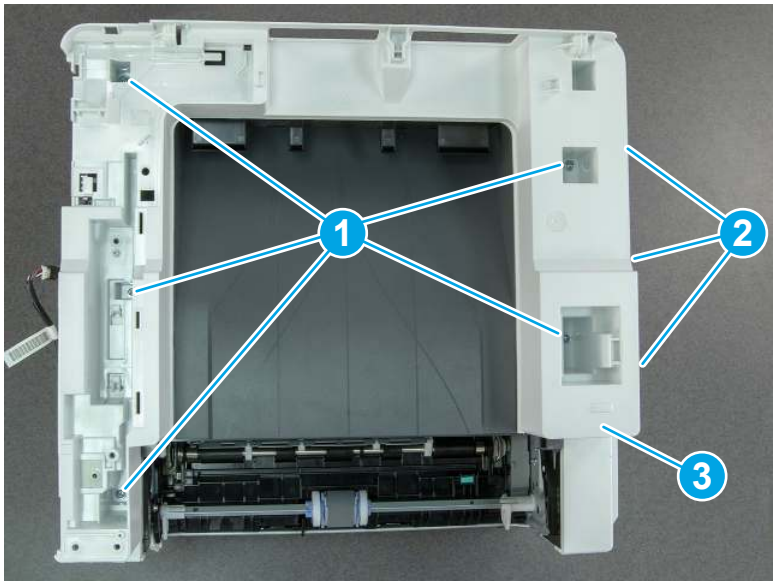
⚠ CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-378 Remove the support arm



3. Remove five screws (callout 1), release three bosses (callout 2), and then remove the top cover (callout 3).

Figure 4-379 Remove the top cover



11. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

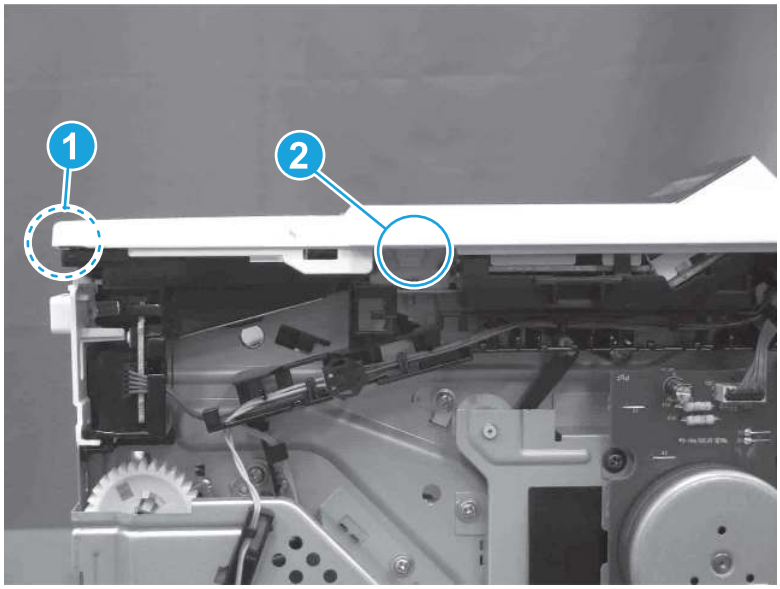
1. Remove one screw.

Figure 4-380 Remove one screw



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

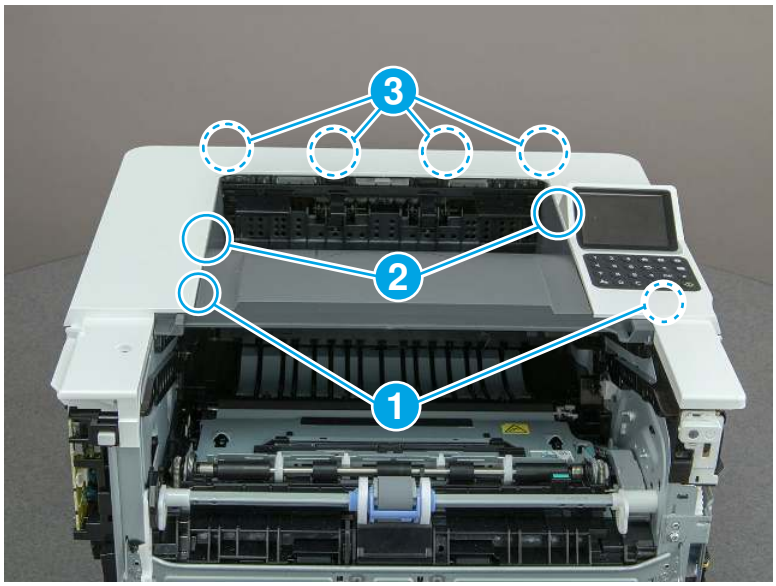
Figure 4-381 **Release one boss and one tab**



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-382 **Remove the cover**

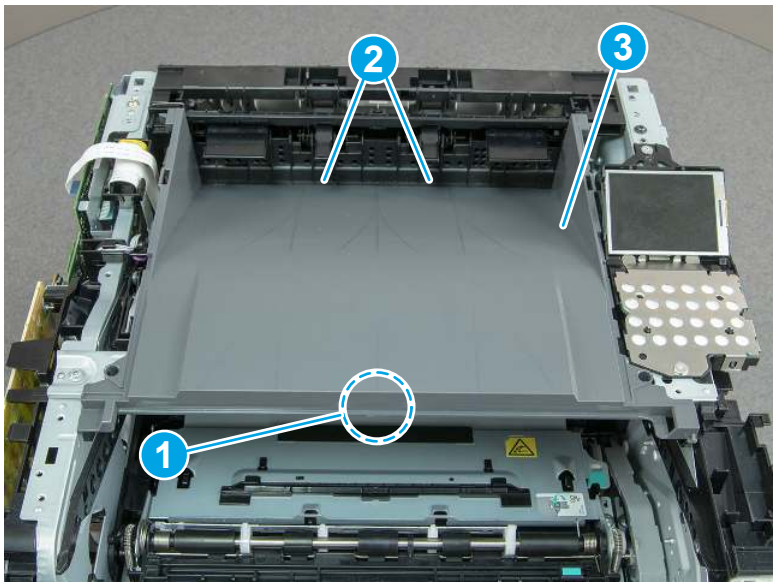


12. Remove the paper delivery tray (output bin)

Follow these steps to remove the paper delivery tray (output bin).

- Release one tab (callout 1), release two bosses (callout 2), and then remove the paper delivery tray (output bin; callout 3).

Figure 4-383 Remove the cover

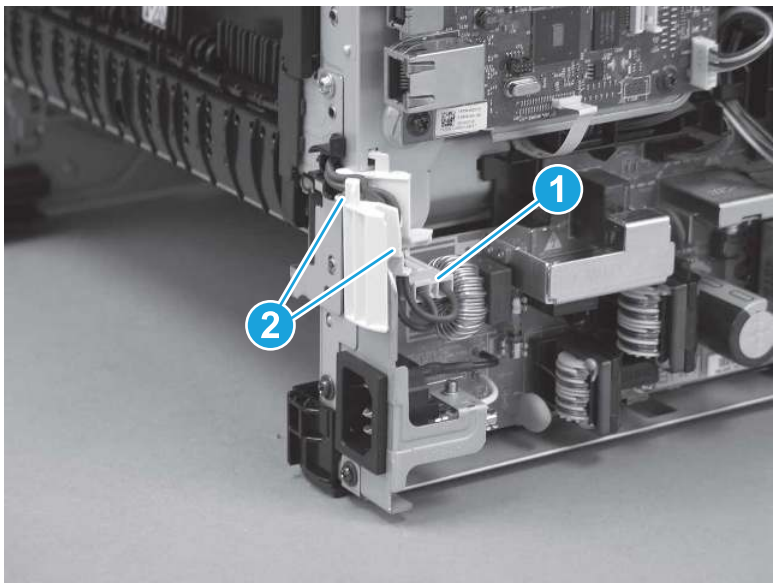


13. Remove the fuser

Follow these steps to remove the fuser.

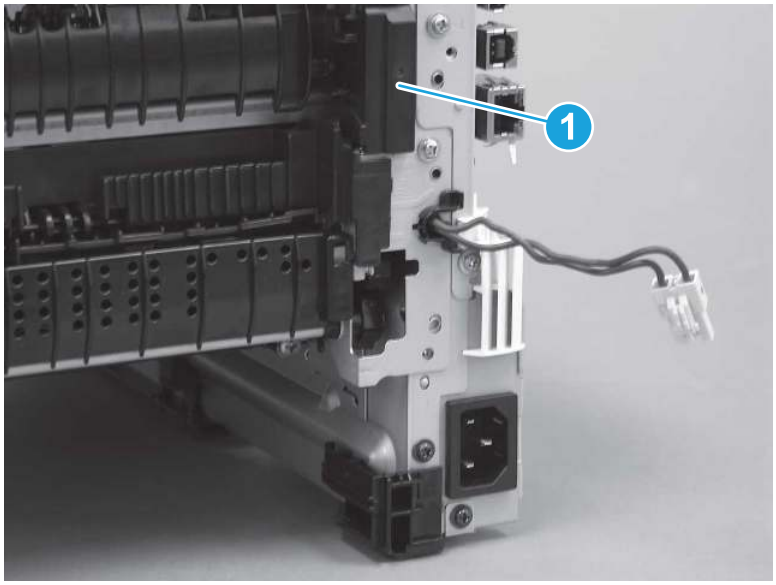
1. Disconnect one connector (callout 1), and then release the wire harness from the guide (callout 2).

Figure 4-384 Disconnect one connector



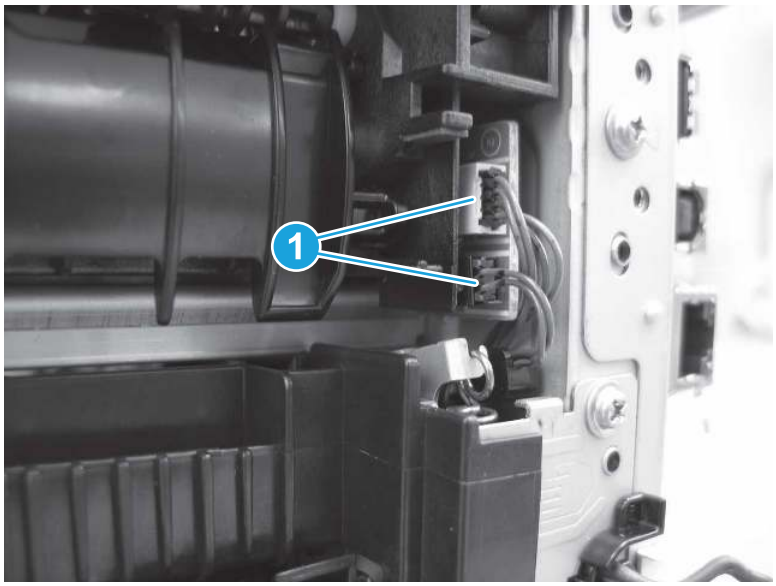
2. Pull the upper connector cover (callout 1) straight off of the printer to remove it.

Figure 4-385 Remove the cover



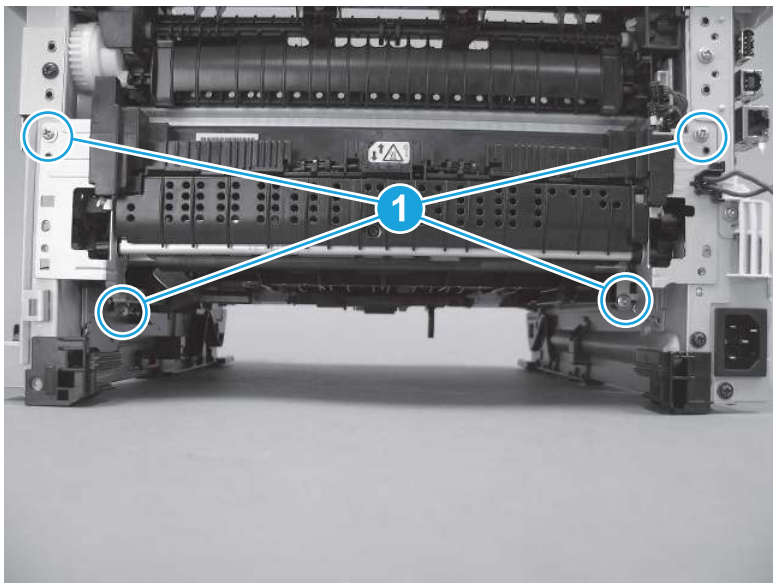
3. Disconnect two connectors (callout 1).

Figure 4-386 Disconnect two connectors



4. Remove four screws (callout 1).

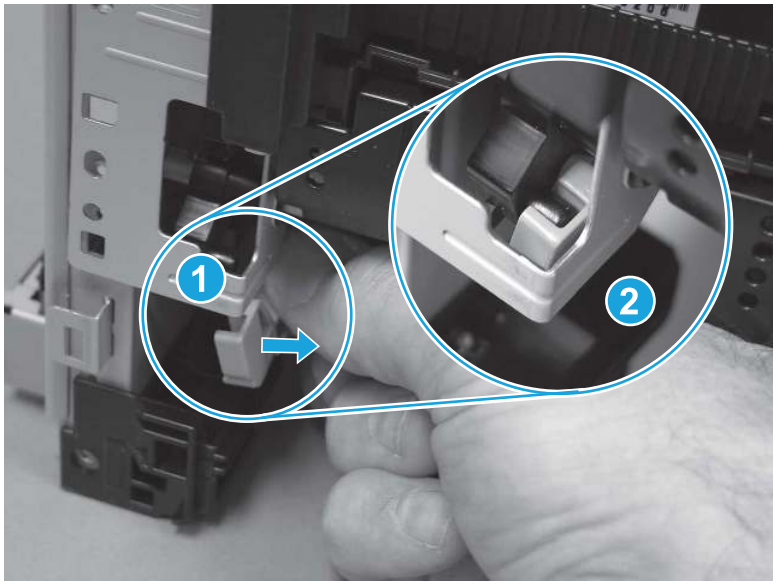
Figure 4-387 Remove four screws



5. Pull the pressure-release link arm (callout 1) to release it from the fuser.

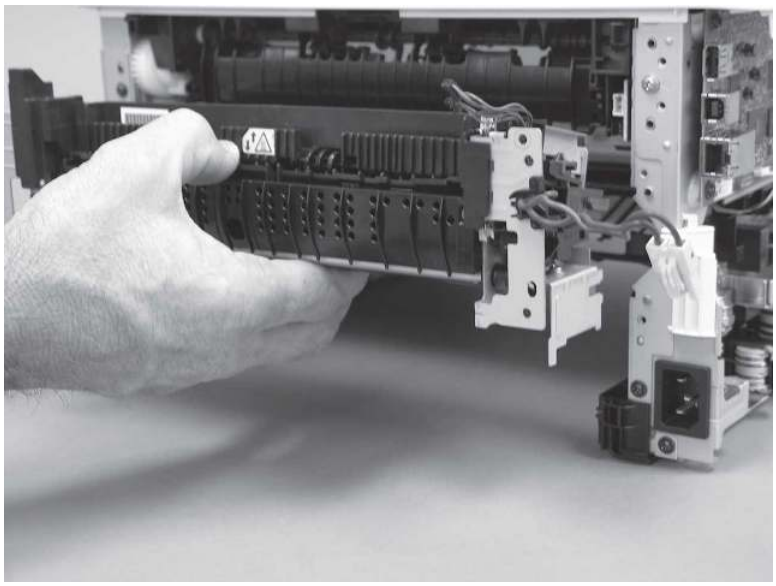
Reinstallation tip: When the fuser is installed, make sure that the pressure-release arm is correctly connected to the fuser (callout 2)

Figure 4-388 Release the pressure-release arm



6. Slide the fuser straight out of the printer to remove it.

Figure 4-389 Remove the fuser

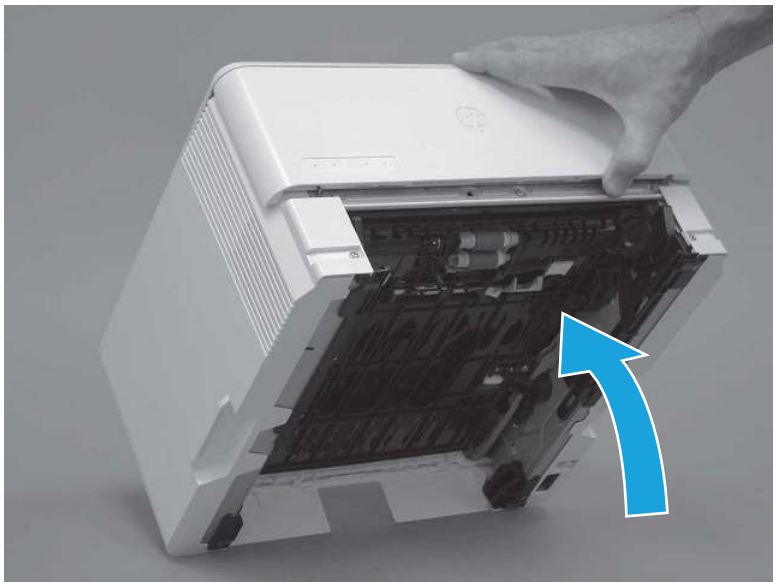


14. Remove the registration assembly

Follow these steps to remove the registration assembly.

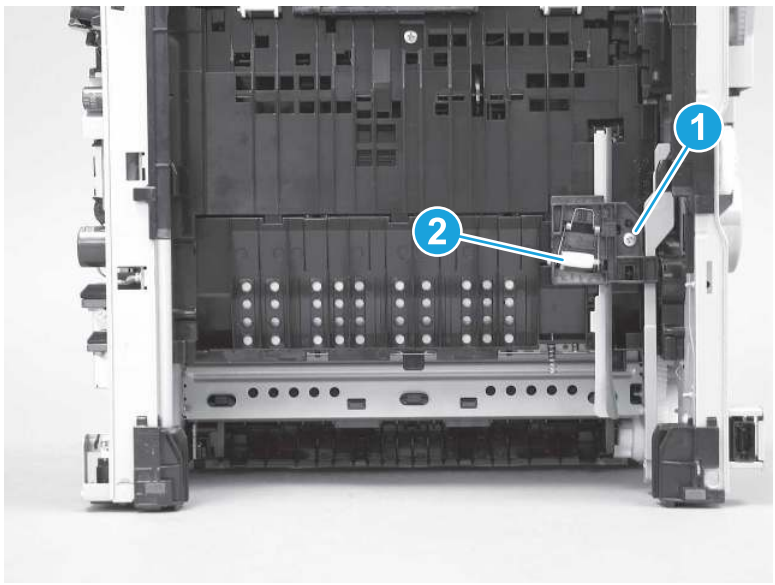
1. Carefully rotate the printer backward until it rests on the rear side, bottom-side face forward.

Figure 4-390 **Place the printer bottom-side face forward**



2. Remove one screw (callout 1), and then remove the guide (callout 2).

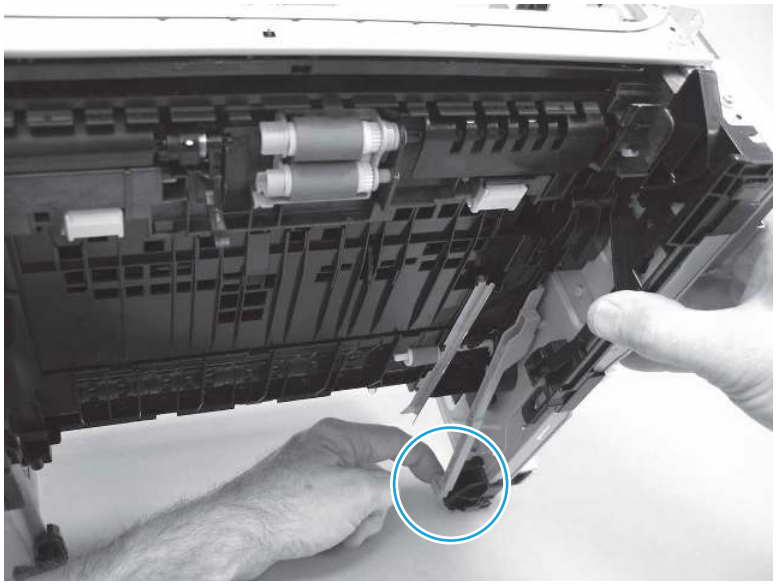
Figure 4-391 **Remove one screw and the guide**



3. Move the end of pressure-release link arm out of the way.

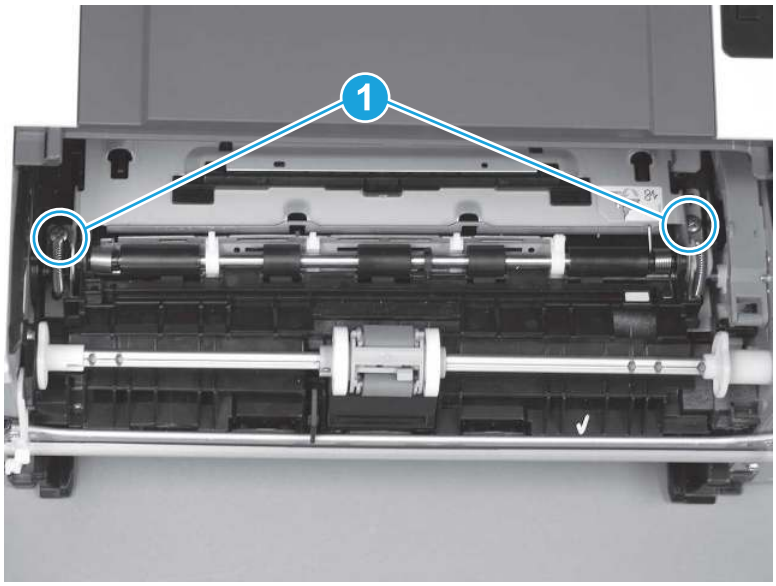
NOTE: Doing this makes the other end of the pressure-release arm easier to move out of the way of the later in this procedure.

Figure 4-392 Move the link arm out of the way



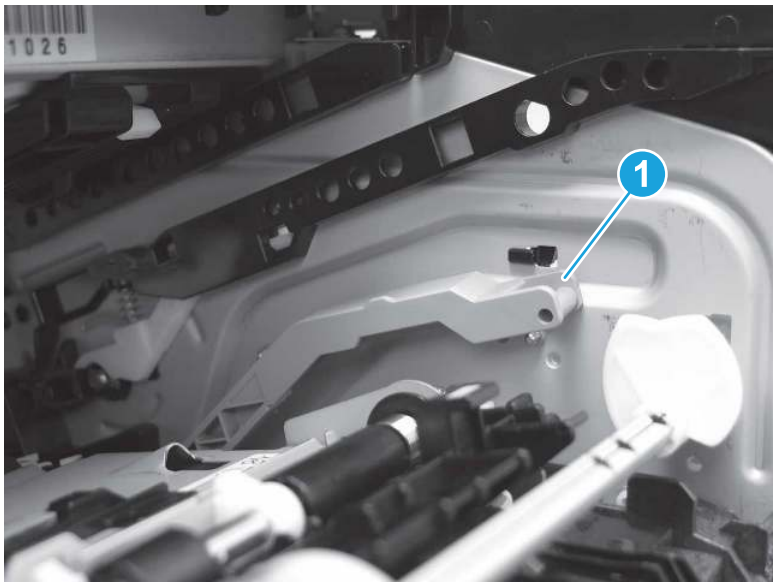
4. Place the printer with the bottom side down, look inside the toner-cartridge cavity, and then remove two screws (callout 1).

Figure 4-393 Remove two screws



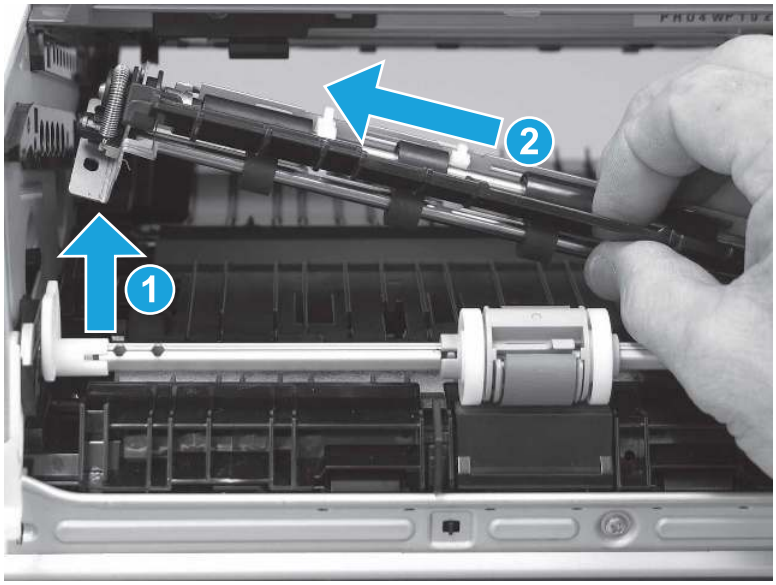
5. Move the end of pressure-release link arm (callout 1) out of the way.

Figure 4-394 Move the pressure-release arm out of the way



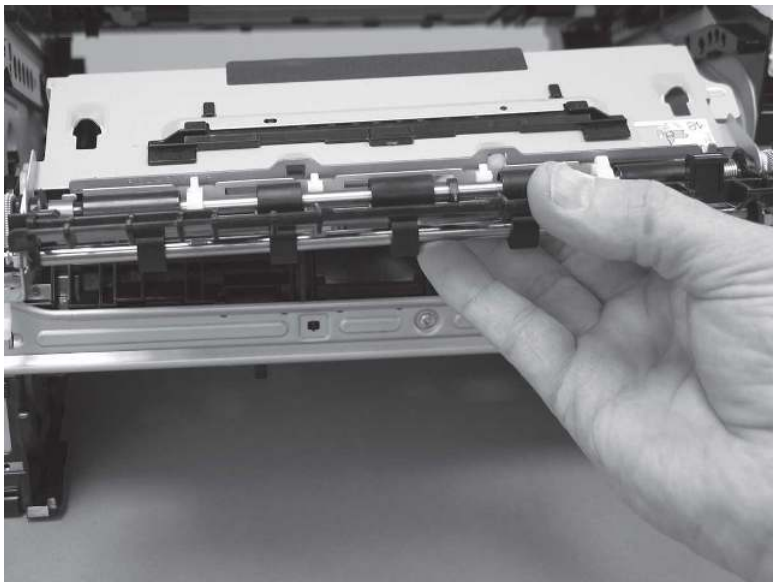
6. Rotate the left end of the registration up and out of the printer (callout 1), and then slide it to the left to release the gear end of the assembly (callout 2).

Figure 4-395 Release the assembly



7. Remove the assembly.

Figure 4-396 **Remove the assembly**



15. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Main motor (M1)

Learn how to remove and replace the main motor (M1).

View a video of how to remove and replace the main motor.

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-32 Part information

Part number	Part description
RM2-9531-000CN	Assembly, main motor

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-397 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

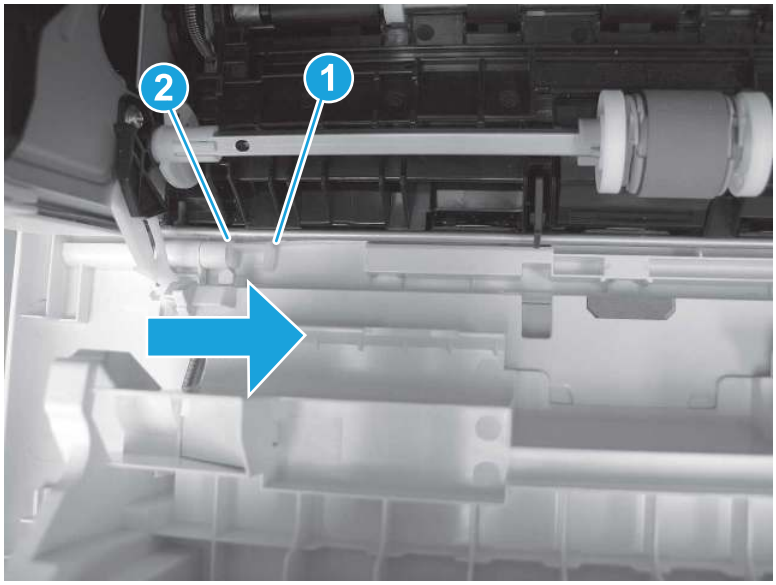
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

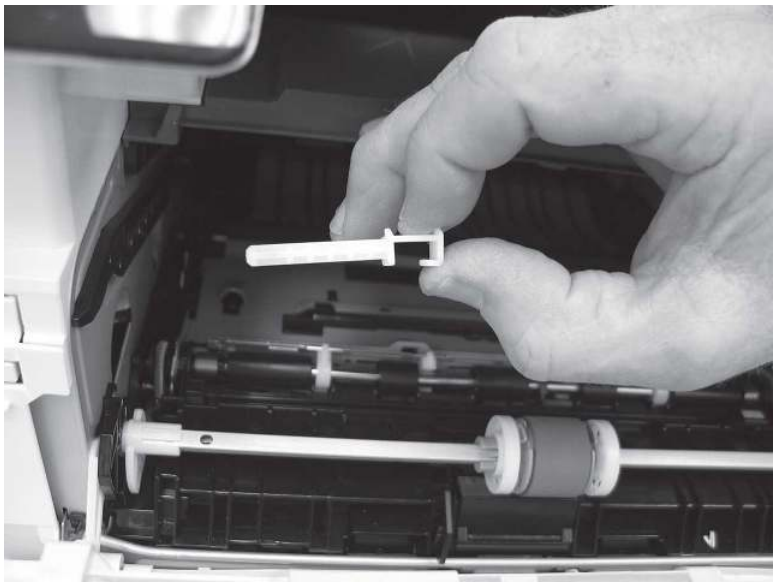
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-398 Release the support shaft



2. Remove the support shaft.

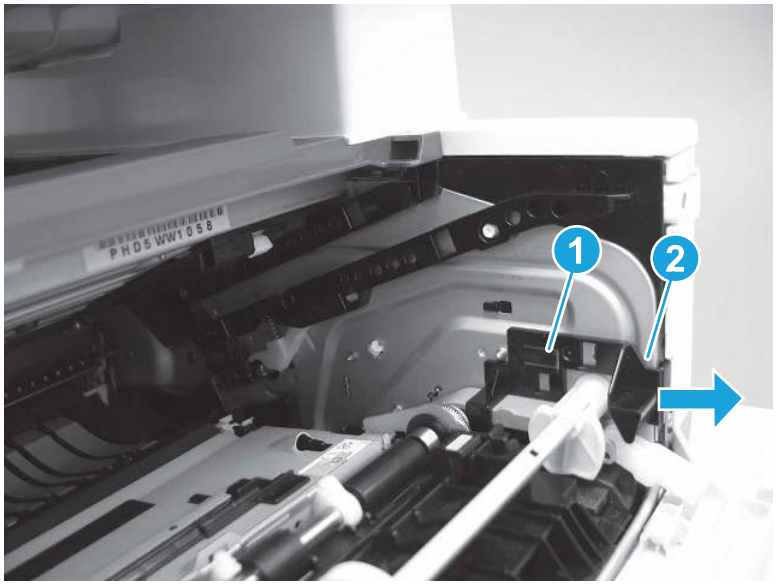
Figure 4-399 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

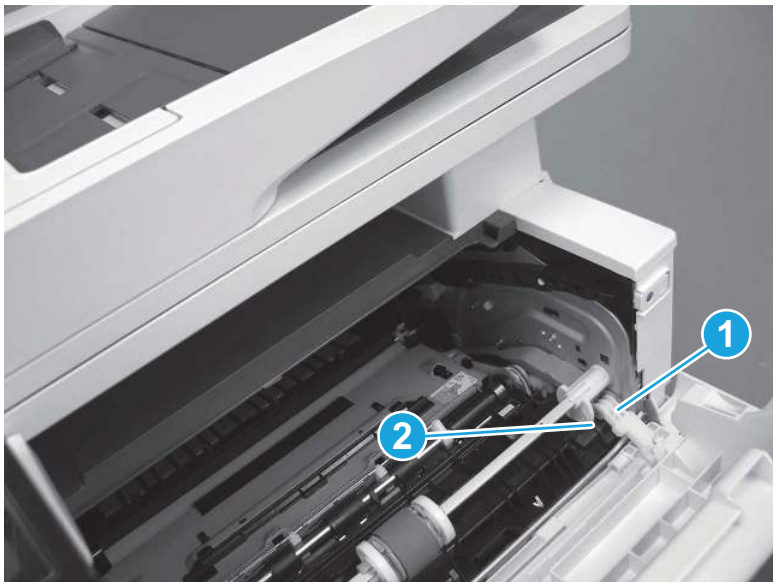
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-400 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-401 Release the pressure-release link

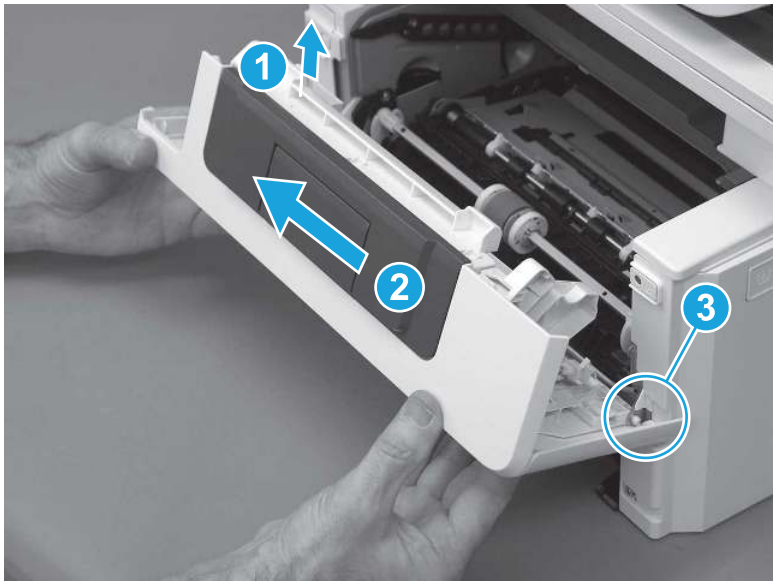


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

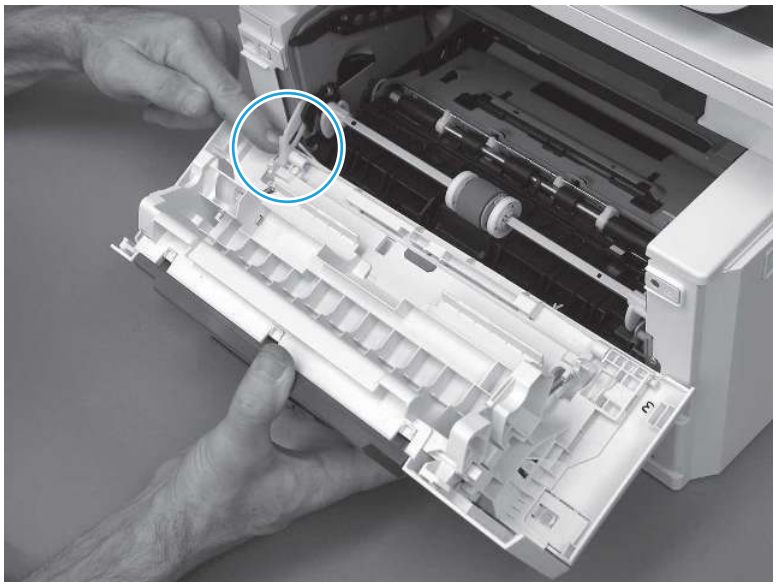
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-402 Release the door



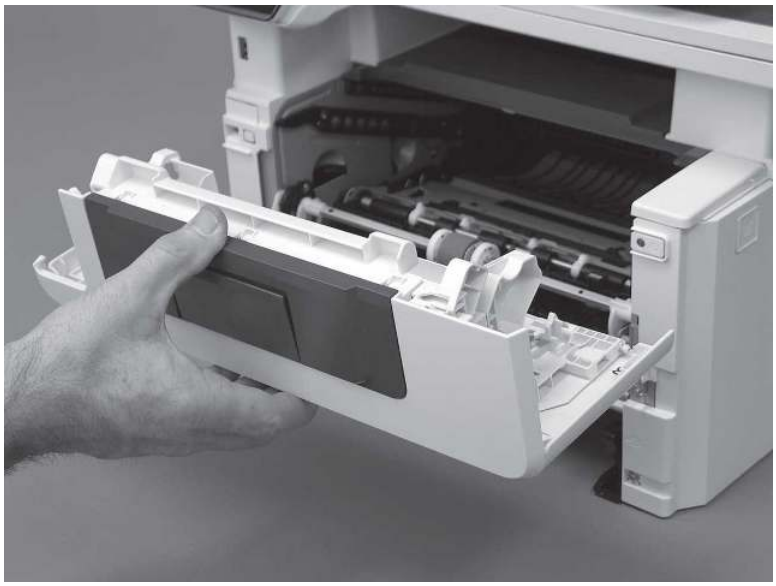
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-403 Release the left-side retainer arm



7. Remove the door.

Figure 4-404 **Remove the door**



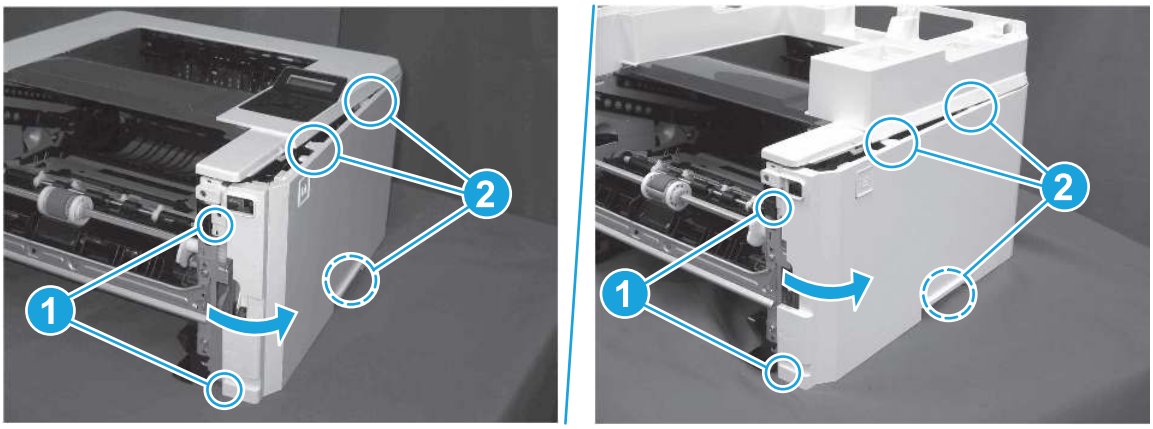
3. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

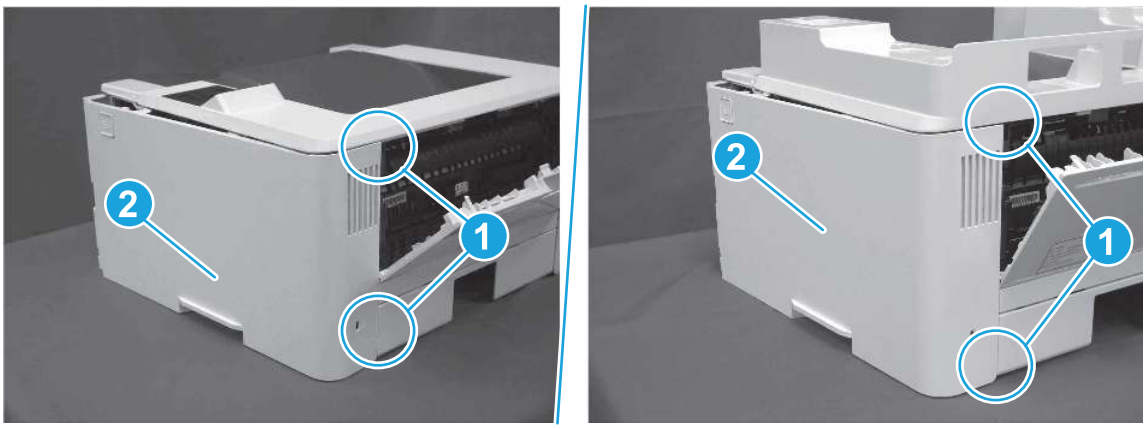
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-405 **Release two bosses and three tabs**



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-406 Remove the cover



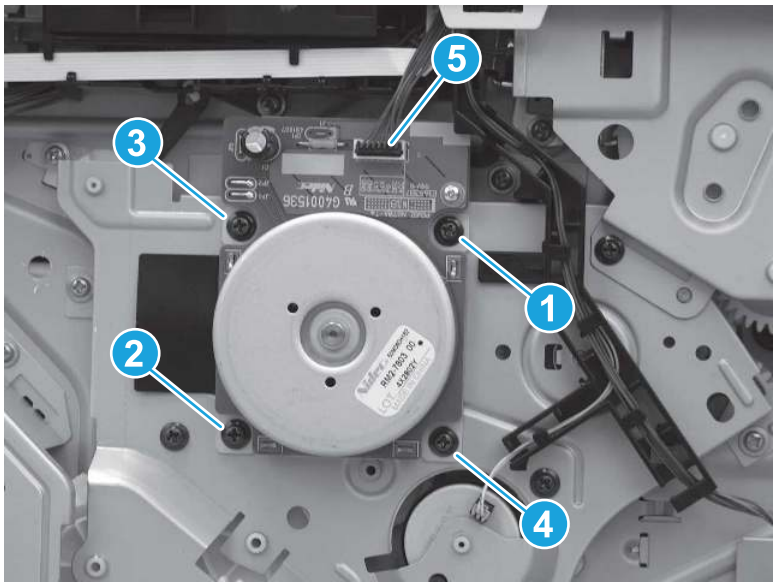
4. Remove the main motor (M1)

Follow these steps to remove the main motor (M1).

- Disconnect one connector (callout 5), remove four screws (callout 1 to callout 4), and the remove the main motor (M1).

Reinstallation tip: When the motor is installed, make sure that the screws are installed in the order (callout 1 - 4).

Figure 4-407 Remove the motor



5. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Power switch printed circuit assembly

Learn how to remove and replace the power switch printed circuit assembly (PCA).

View a video of how to remove and replace the power switch.

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-33 Part information

Part number	Part description
RM2-8506-000CN	Power switch PC board assembly

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-408 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

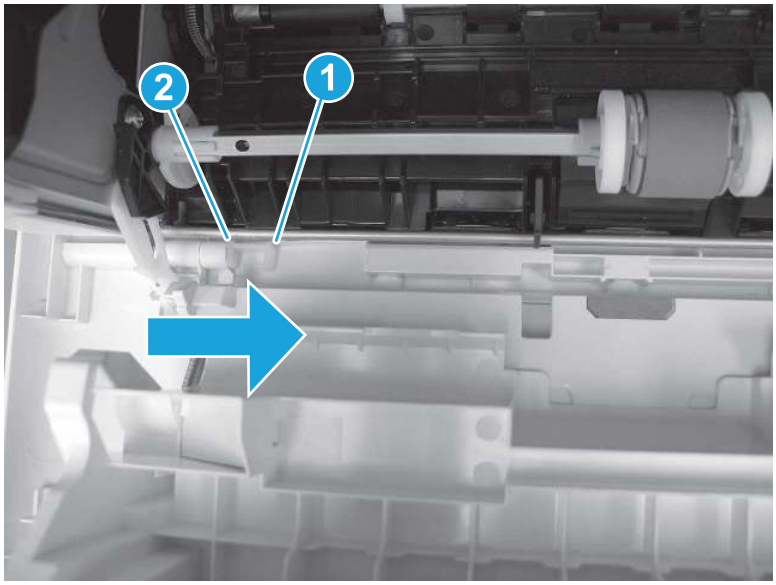
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

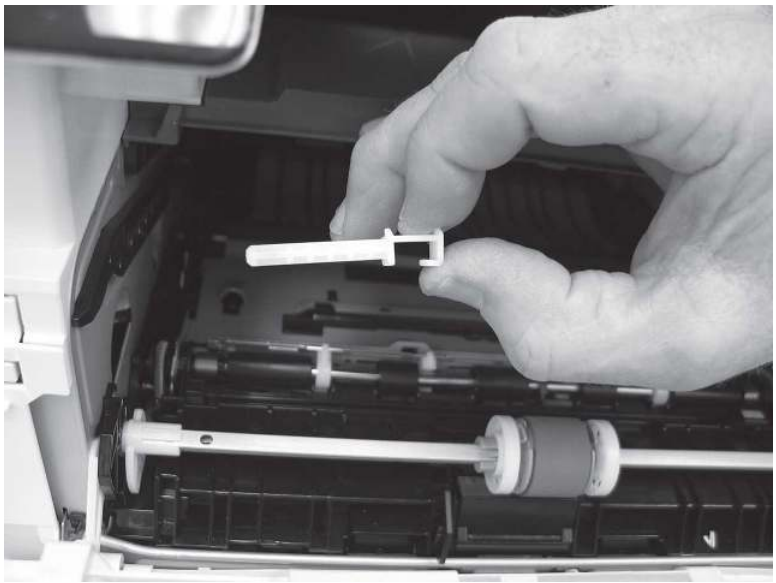
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-409 Release the support shaft



2. Remove the support shaft.

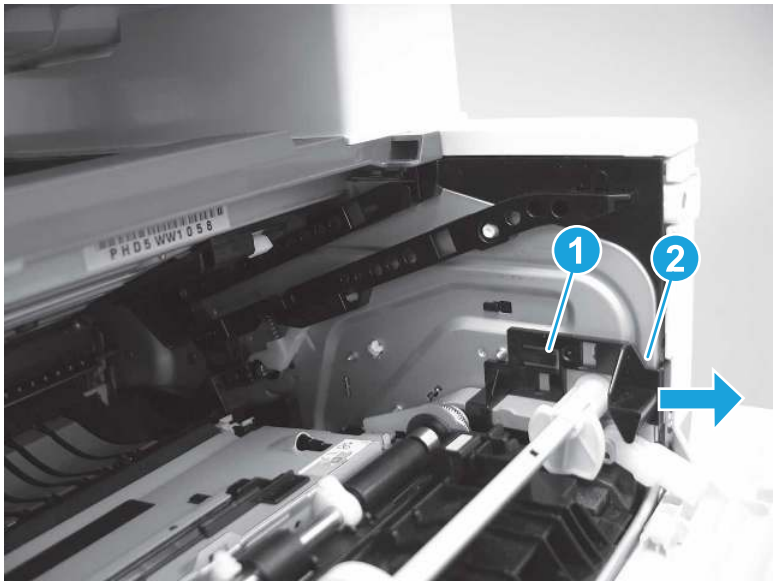
Figure 4-410 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

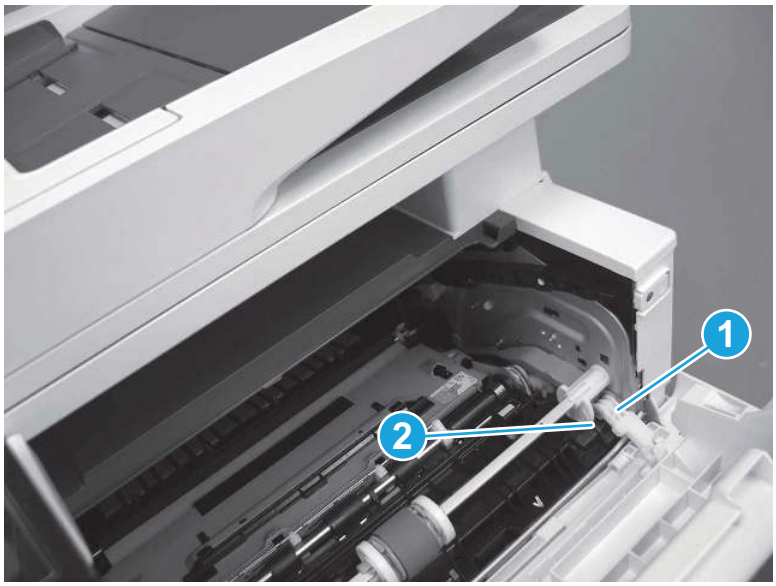
CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-411 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-412 Release the pressure-release link

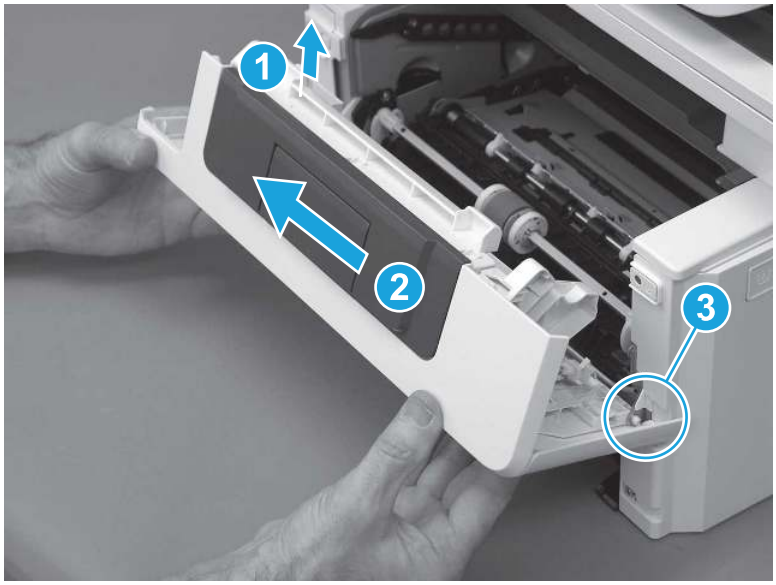


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

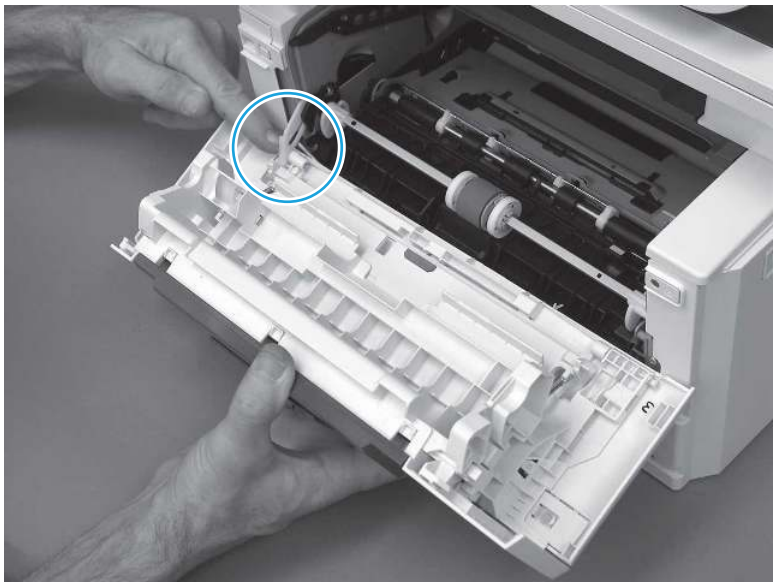
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-413 Release the door



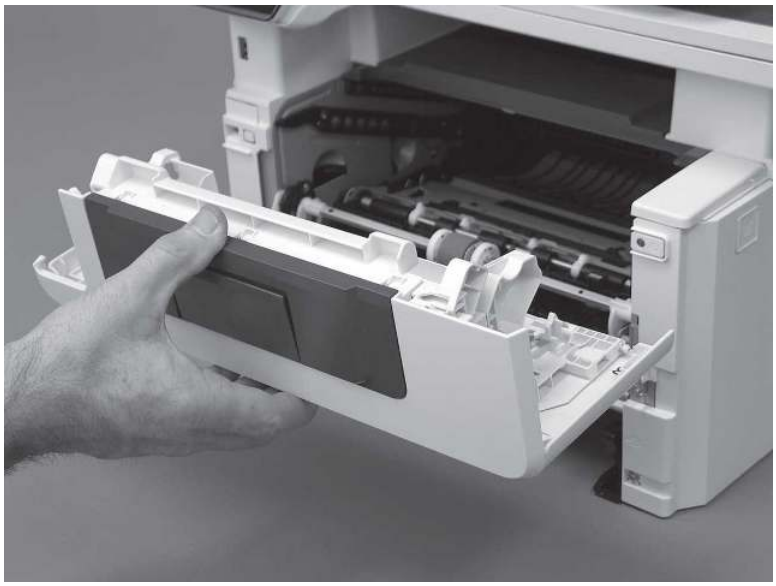
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-414 Release the left-side retainer arm



7. Remove the door.

Figure 4-415 Remove the door



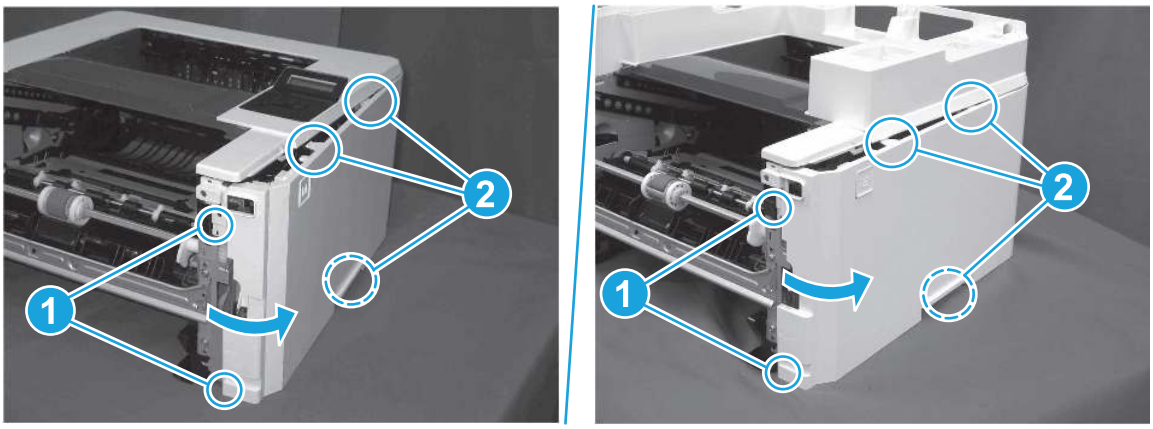
3. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

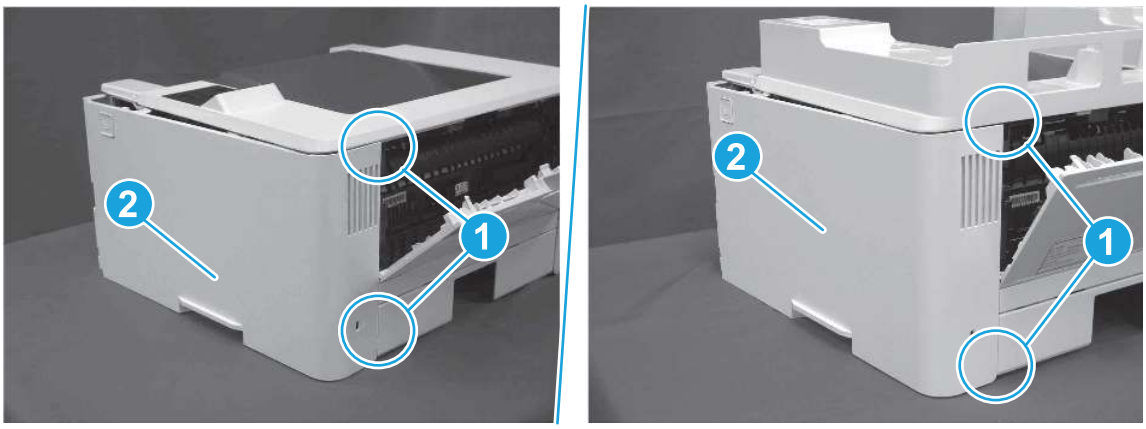
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-416 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-417 **Remove the cover**

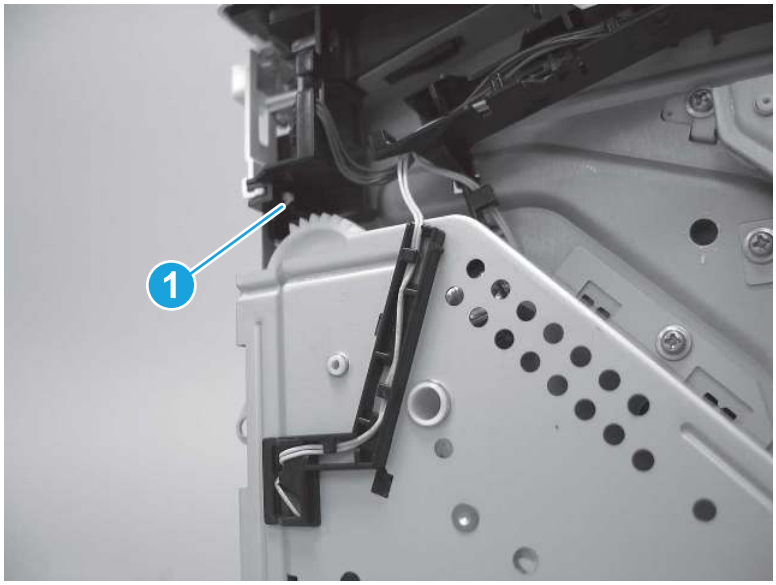


4. Remove the power switch PCA

Follow these steps to remove the power switch PCA.

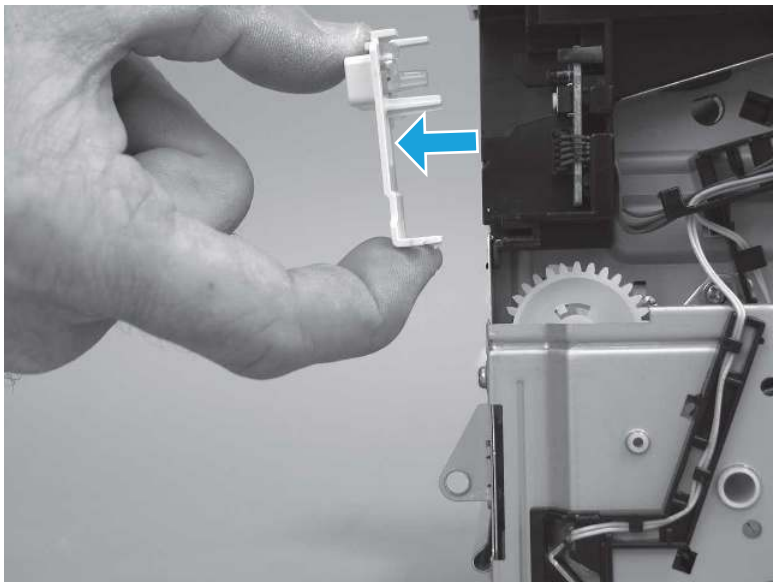
1. Release one tab (callout 1).

Figure 4-418 **Release one tab**



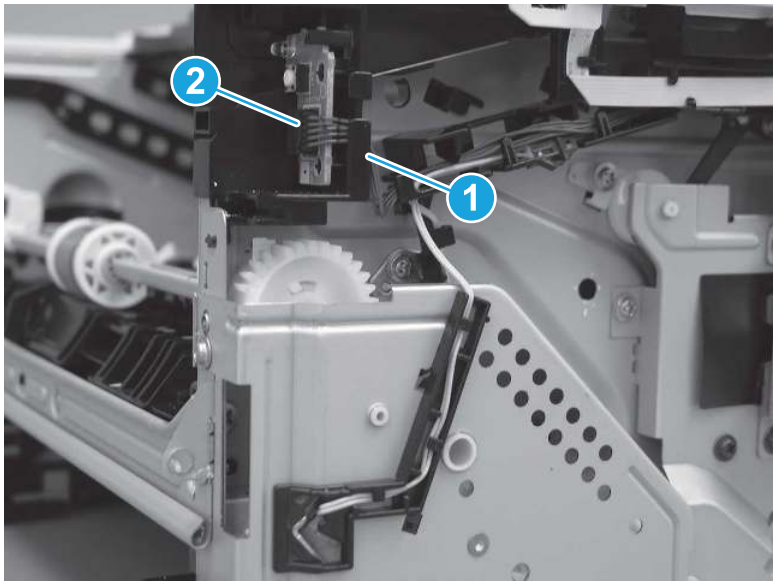
2. Remove the switch lever.

Figure 4-419 Remove the switch lever



3. Release the wire harness from the guide (callout 1), and then disconnect one connector (callout 2).

Figure 4-420 Disconnect one connector

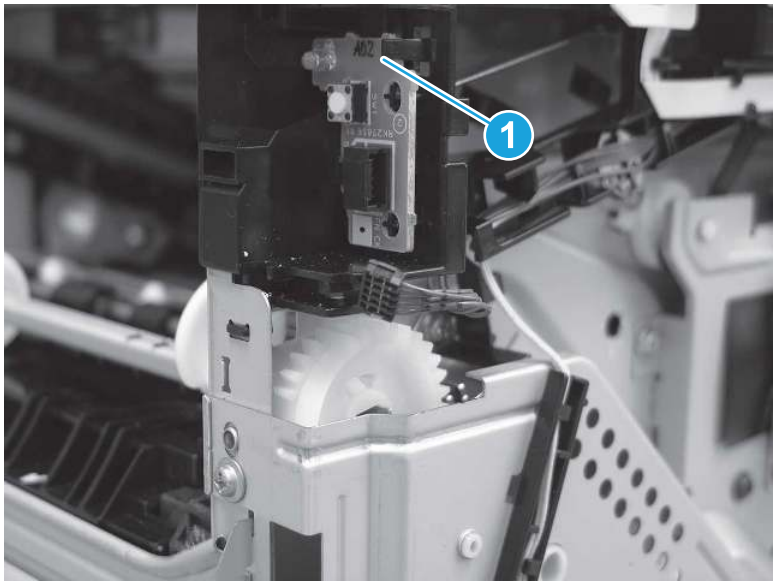


4. Release one tab (callout 1), and then remove the power switch PCA.

⚠ CAUTION: Do not damage the tab (callout 1) when releasing the it. The tab must snap over the PCA when it is reinstalled.

Reinstallation tip: The PCA must be securely installed in the holder. Make sure that the tab on the holder snaps in place over the edge of the PCA, and that the two alignment pins are installed in the holes on the PCA.

Figure 4-421 Release one tab and remove the PCA



5. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Fax PCA and cable (MFP)

Learn how to remove and replace the fax printed circuit assembly (PCA) and cable.

View a video of how to remove and replace the fax PCA.

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-34 Part information

Part number	Part description
3PZ55-67911	Cable, FFC fax to formatter
3PZ55-67980	Fax PCA with plug kit (USA)
3PZ55-67981	Fax PCA with plug kit (EURO)
3PZ55-67982	Fax PCA with plug kit (BRAZIL)
3PZ55-67983	Fax PCA with plug kit (AP)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

If possible, send a fax to the printer.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-422 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

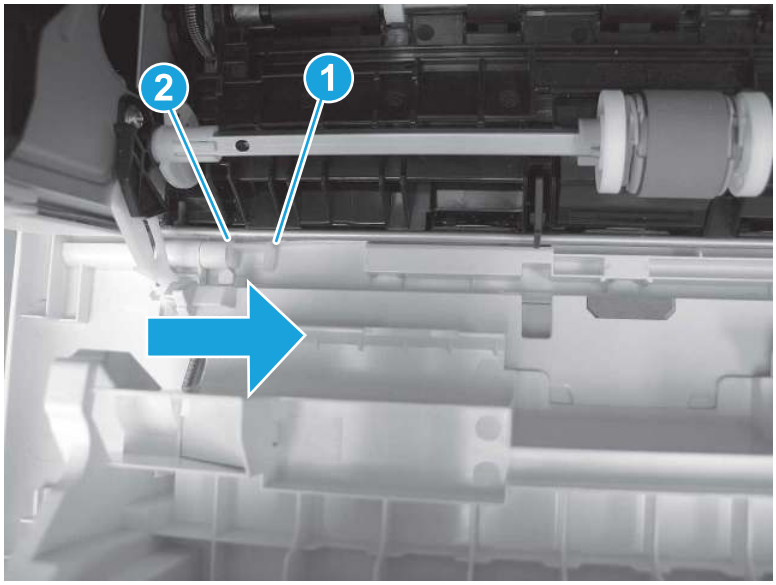
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

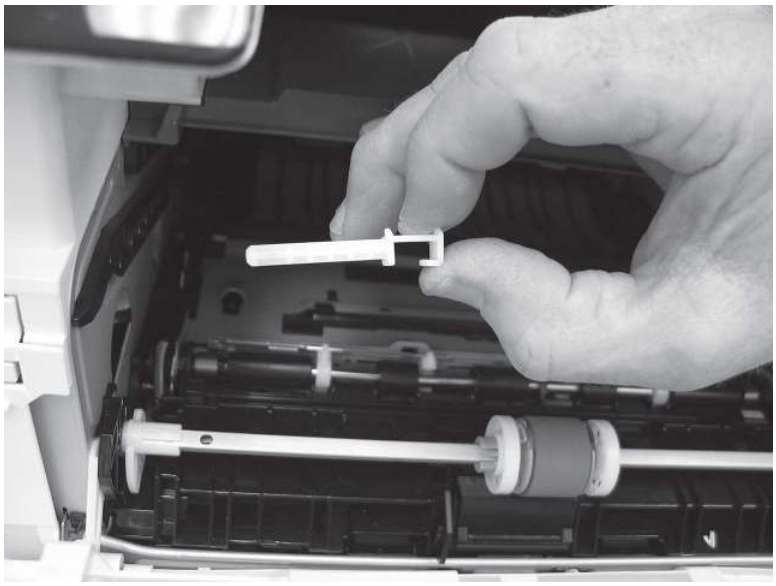
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-423 Release the support shaft



2. Remove the support shaft.

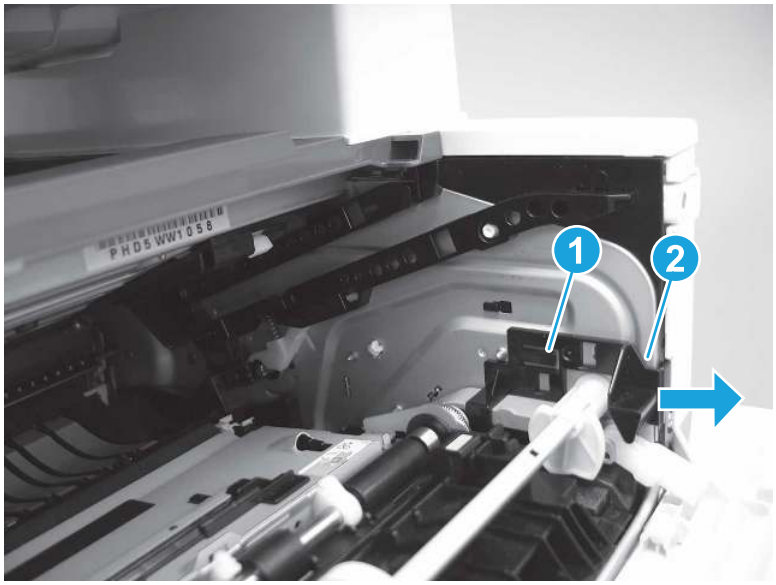
Figure 4-424 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

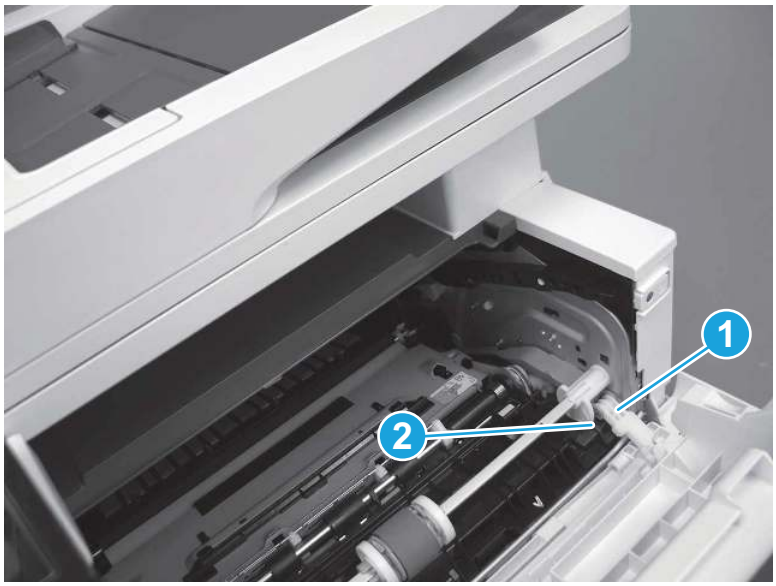
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-425 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-426 Release the pressure-release link

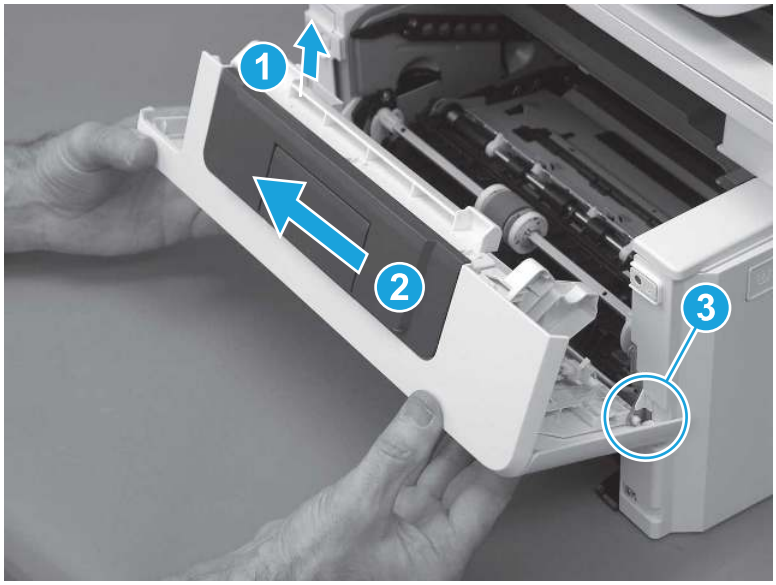


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

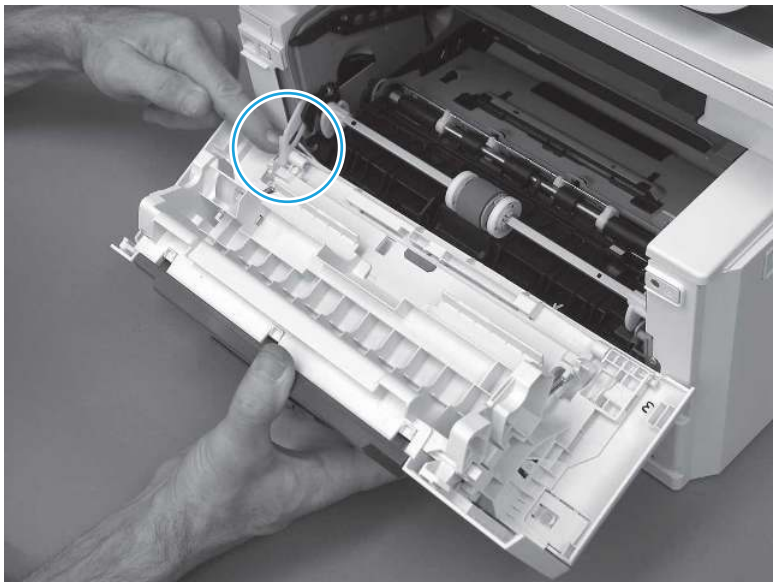
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-427 Release the door



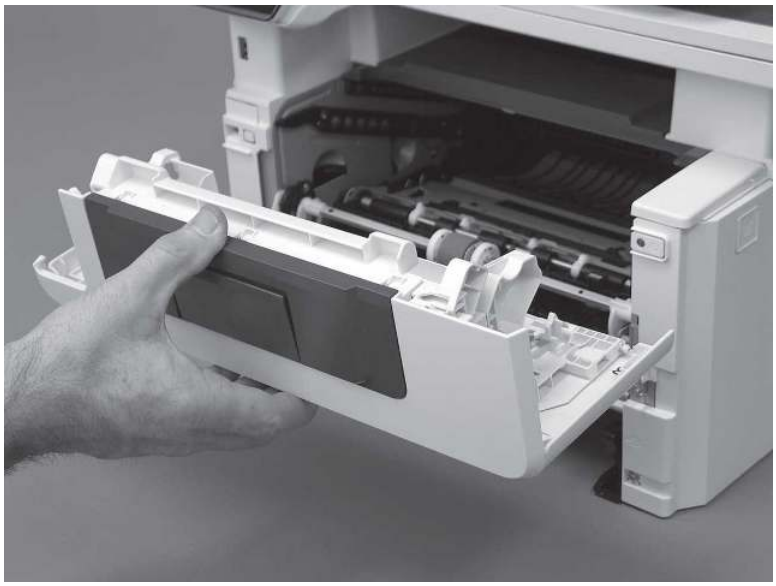
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-428 Release the left-side retainer arm



7. Remove the door.

Figure 4-429 **Remove the door**



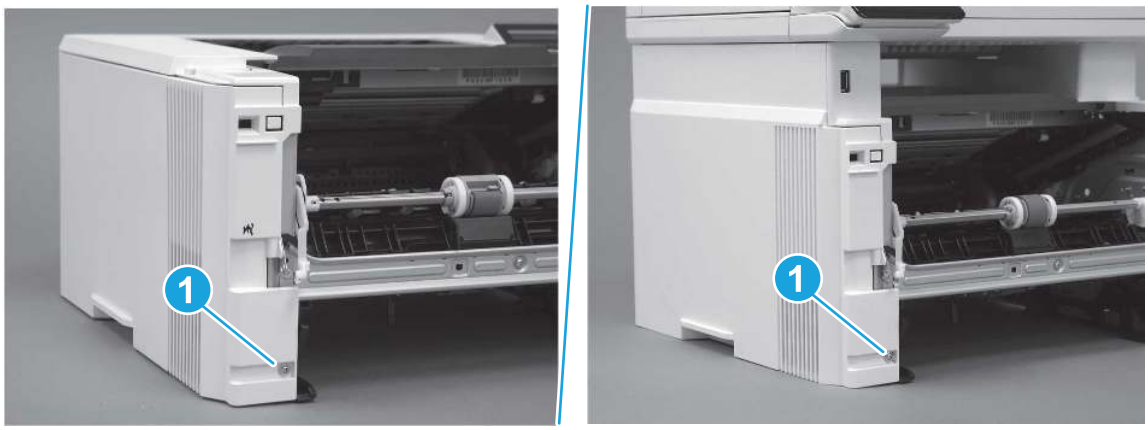
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

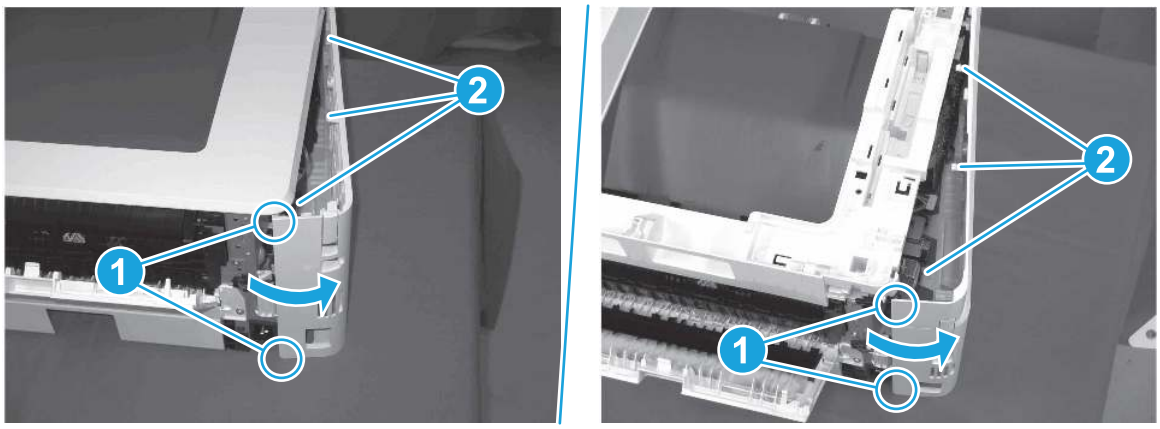
1. Remove one screw (callout 1).

Figure 4-430 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-431 Release two bosses and three tabs

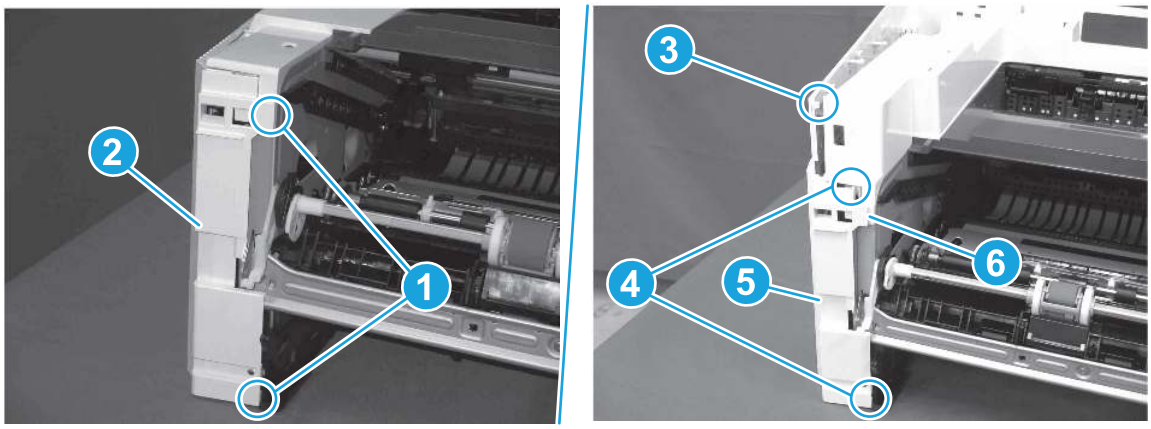


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-432 Remove the cover

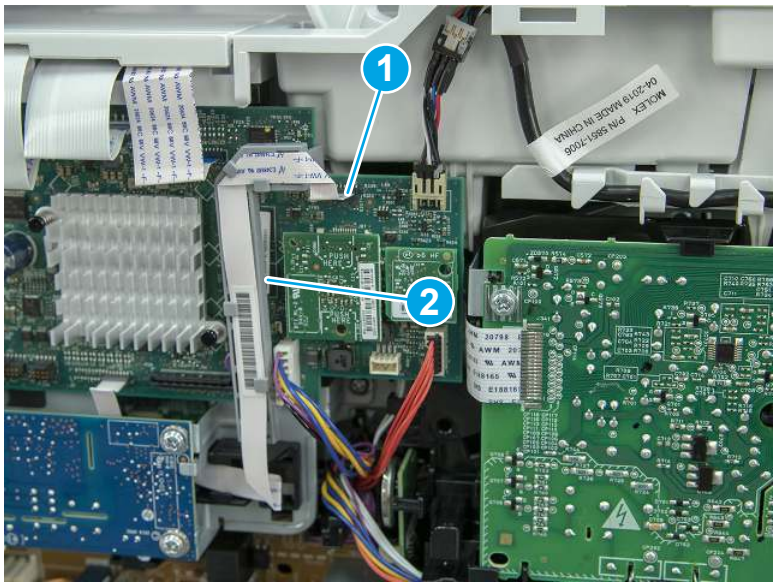


4. Remove the fax PCA and cable (Fax models only)

Follow these steps to remove the fax PCA and cable (Fax models only).

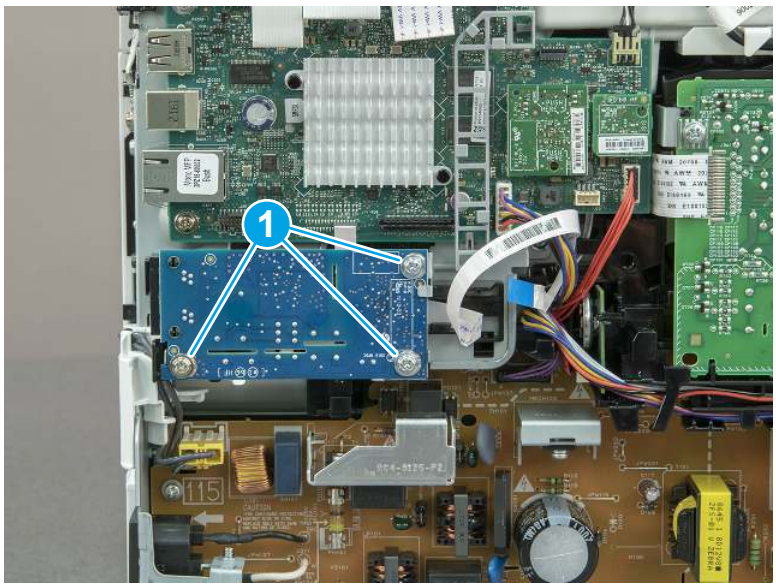
1. Disconnect one connector (callout 1), and then remove the cable from the guide (callout 2).

Figure 4-433 Disconnect one connector



2. Remove three screws (callout 1), and then remove the fax PCA and cable.

Figure 4-434 Remove three screws



3. **Optional step**: If you are replacing the fax PCA or the cable, disconnect the cable from the PCA.

Figure 4-435 Disconnect the cable



5. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Fax cable guide (MFP)

Learn how to remove and replace the fax cable guide.

View a video of how to remove and replace the fax cable guide.

Mean time to repair: 11 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-35 Part information

Part number	Part description
3PZ55-67979	Guide, fax FFC

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

If possible, send a fax to the printer.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-436 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

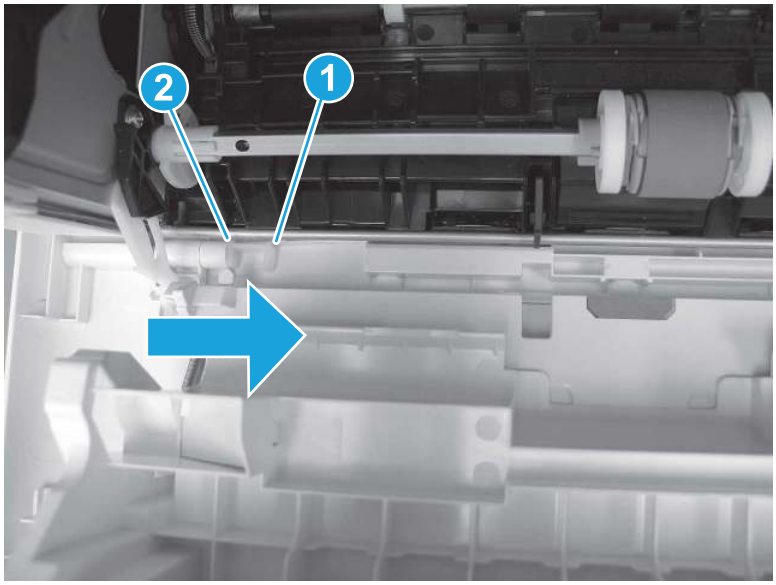
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

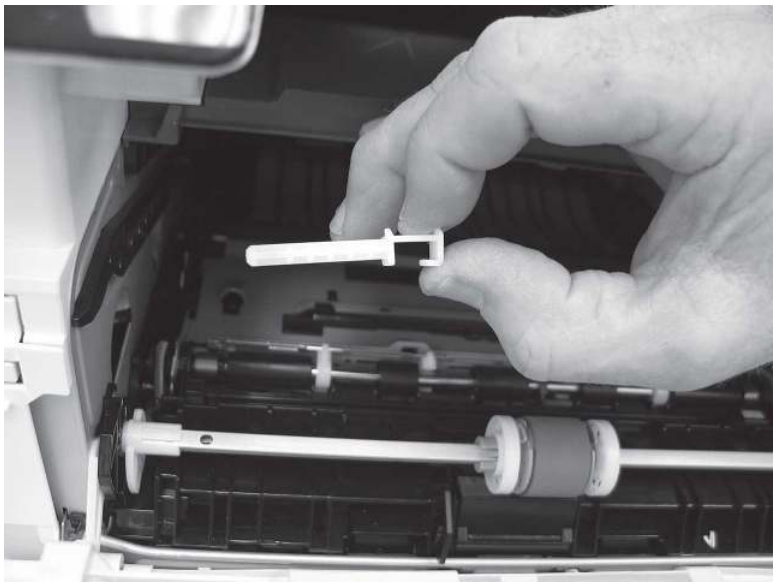
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-437 Release the support shaft



2. Remove the support shaft.

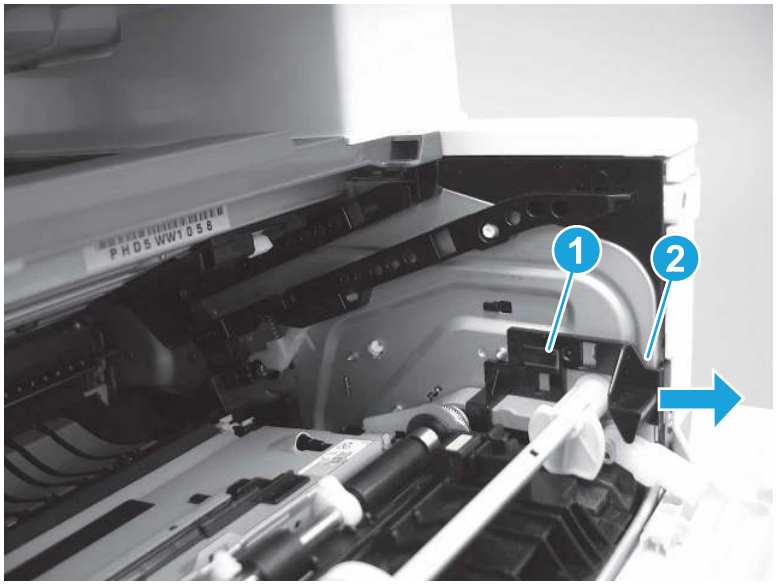
Figure 4-438 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

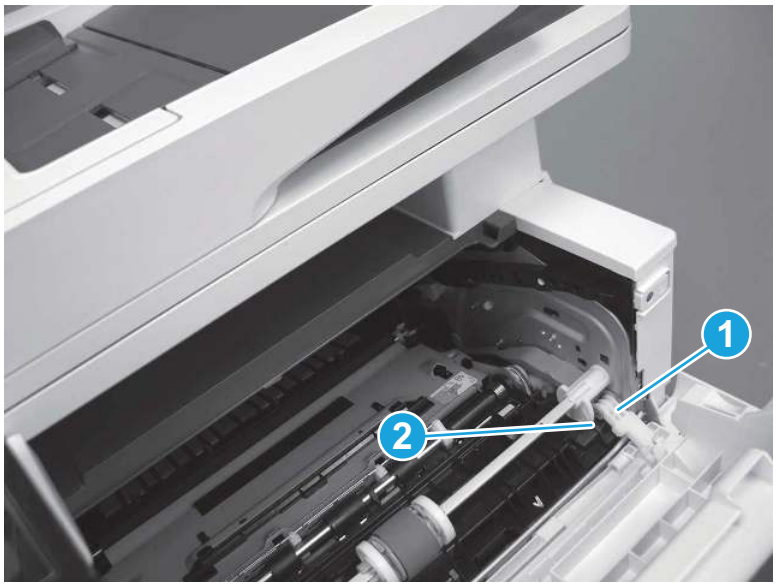
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-439 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-440 Release the pressure-release link

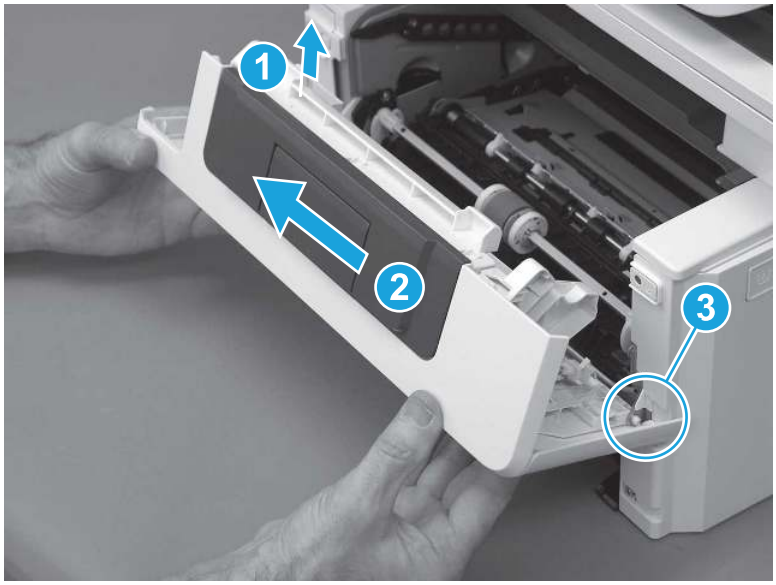


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

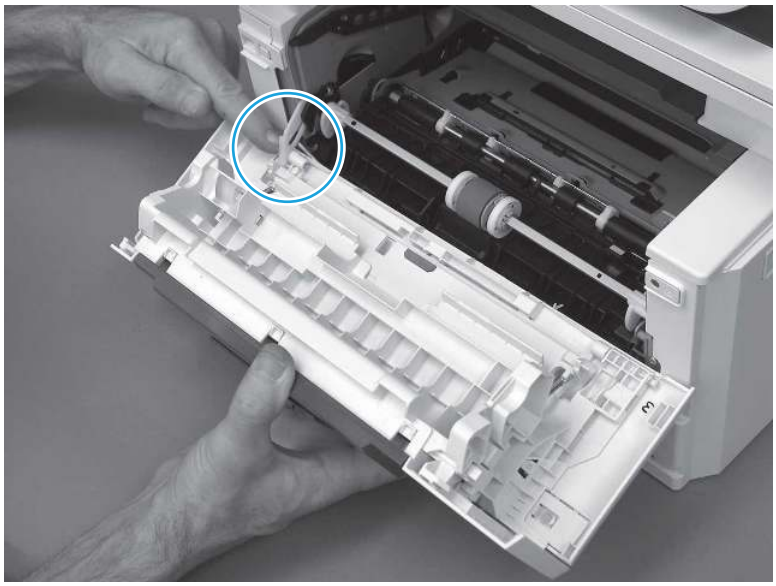
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-441 Release the door



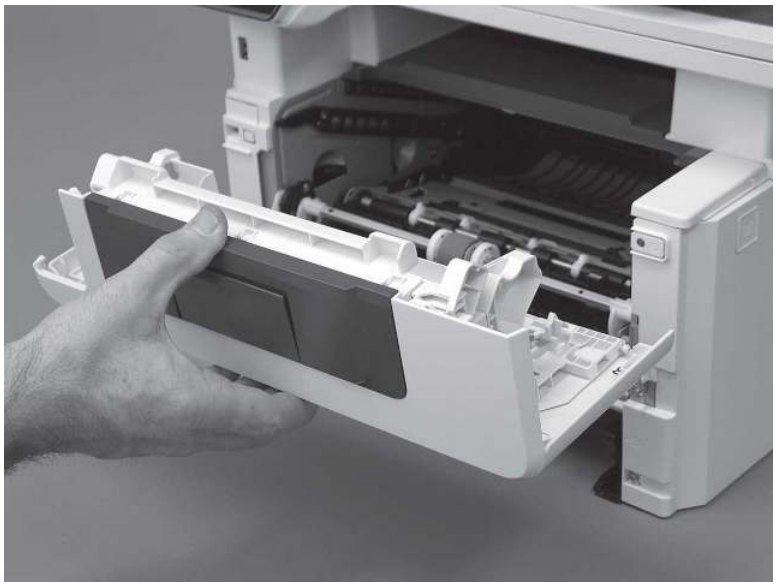
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-442 Release the left-side retainer arm



7. Remove the door.

Figure 4-443 Remove the door



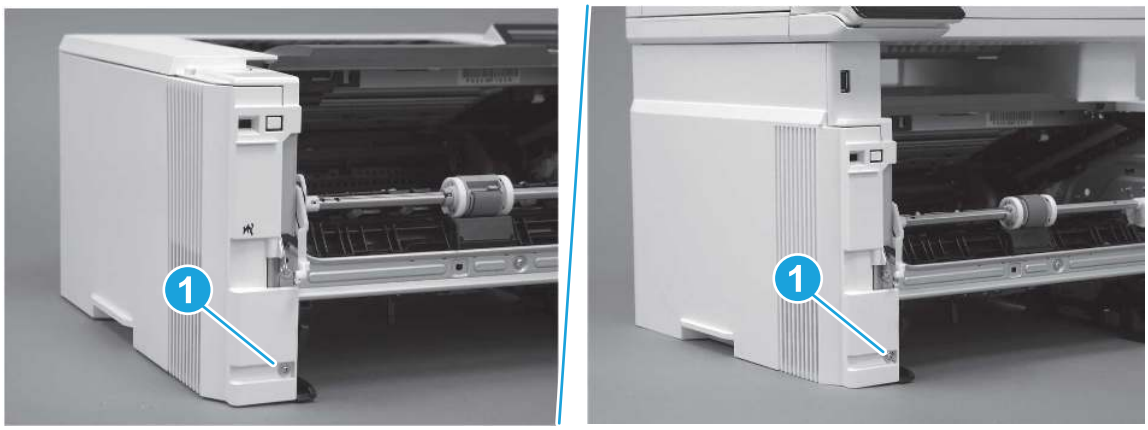
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

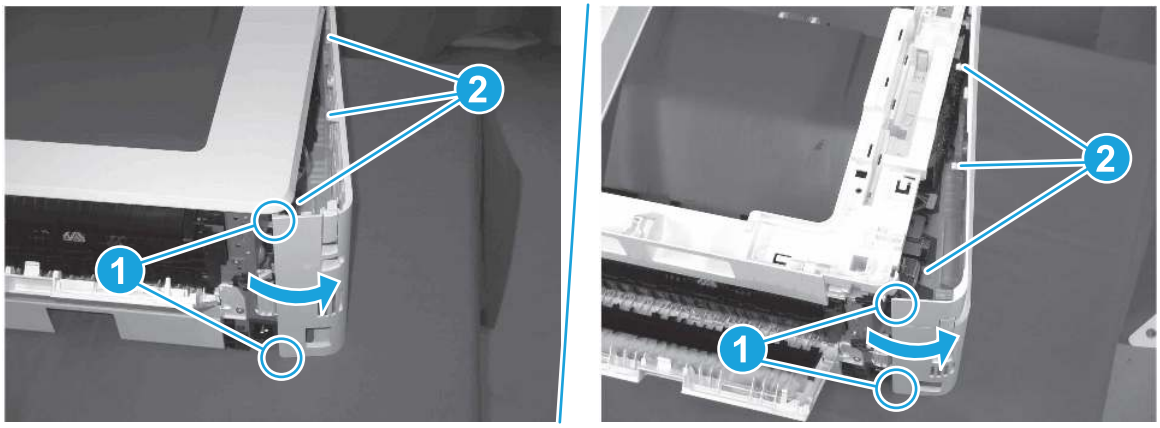
1. Remove one screw (callout 1).

Figure 4-444 Remove one screw



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-445 Release two bosses and three tabs

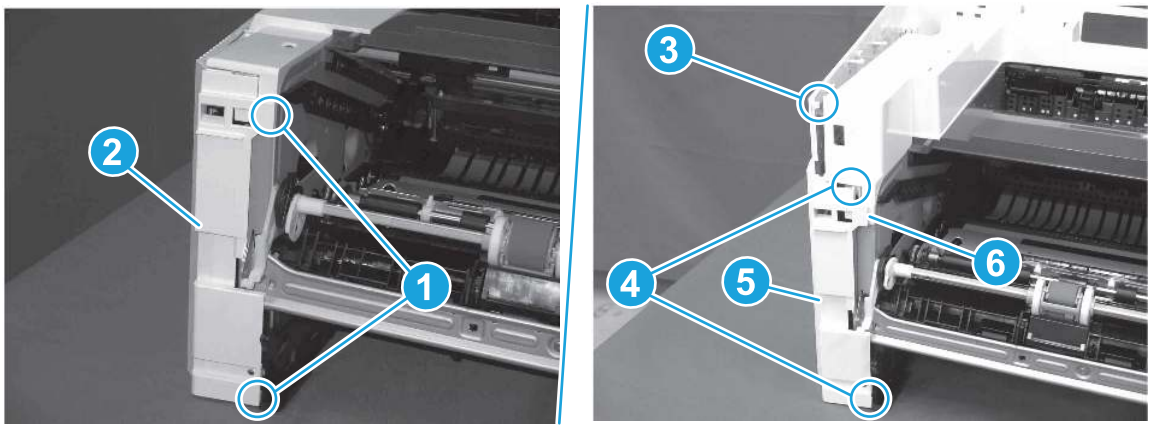


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-446 Remove the cover

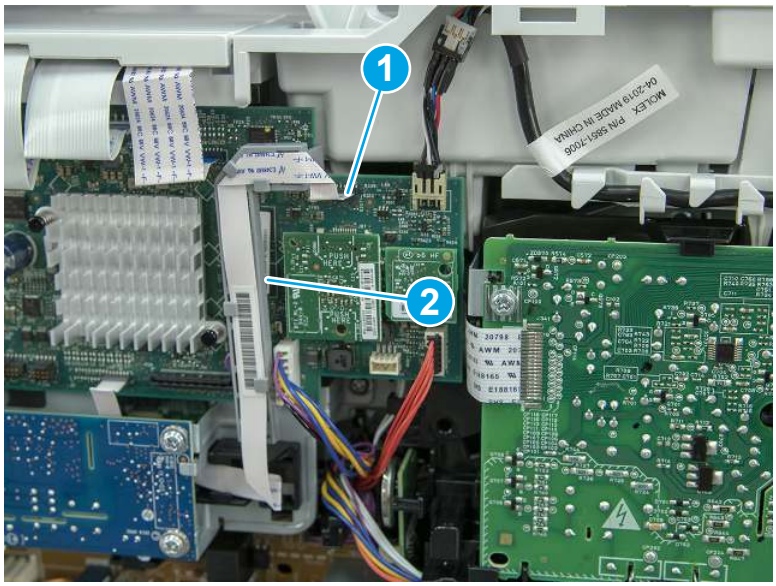


4. Remove the fax cable guide (fax models only)

Follow these steps to remove the fax cable guide (fax models only).

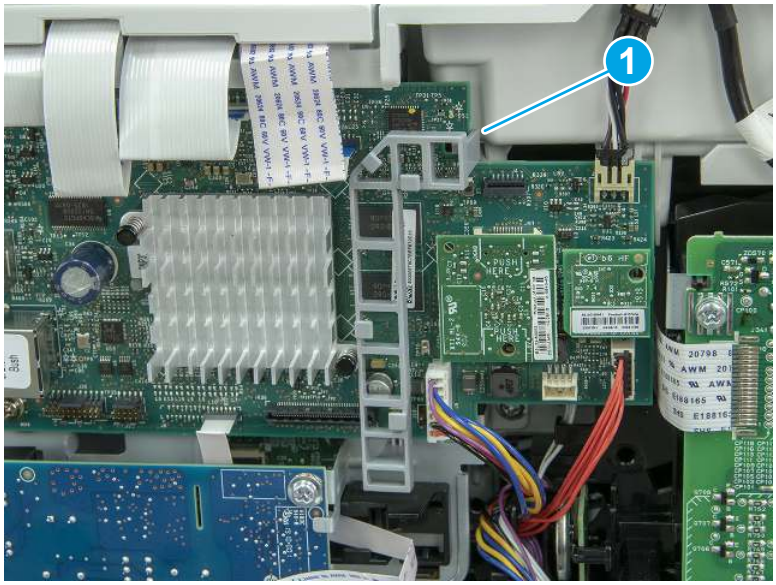
1. Disconnect one connector (callout 1), and then remove the cable from the guide (callout 2).

Figure 4-447 Remove the cable from the guide



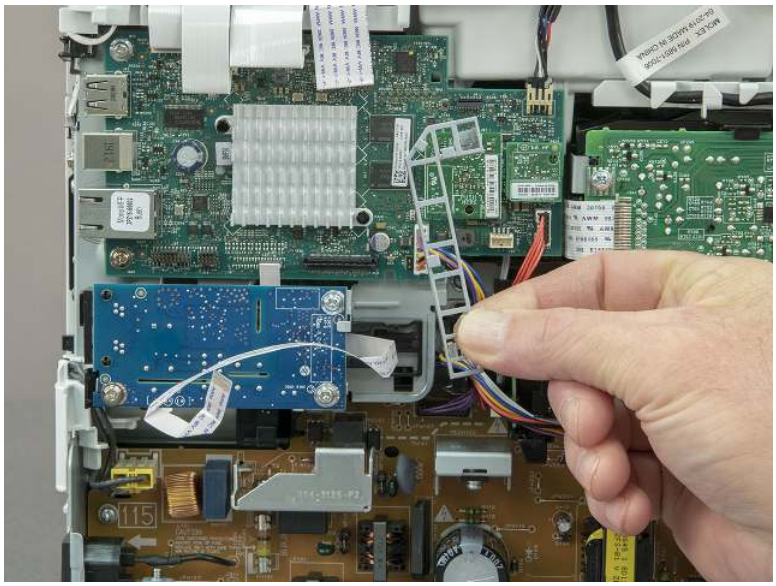
2. Release one tab (callout 1).

Figure 4-448 Release one tab



3. Lower the guide to release it from the formatter.

Figure 4-449 **Lower the guide**



5. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: USB port and cable (MFP)

Learn how to remove and replace the USB port and cable.

View a video of how to remove and replace the USB port and cable.

Mean time to repair: 11 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-36 Part information

Part number	Part description
5851-7008	USB A F panel mount to WTB 250mm (MFP) NOTE: This is the USB port and cable located at the front of the printer under the control panel.

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print a job from the walkup USB PCA.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-450 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

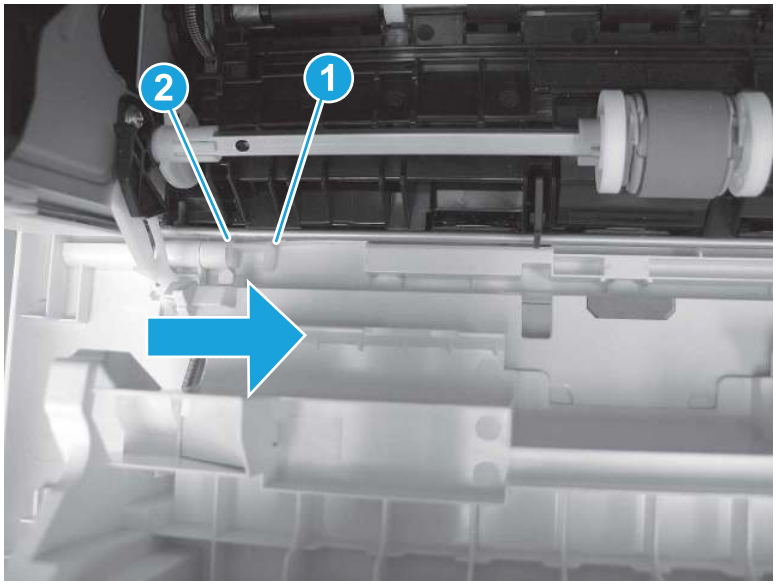
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

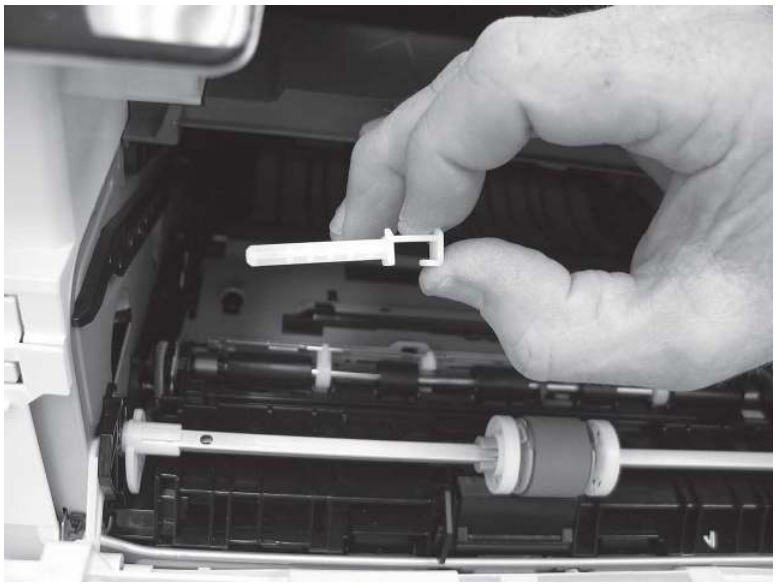
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-451 Release the support shaft



2. Remove the support shaft.

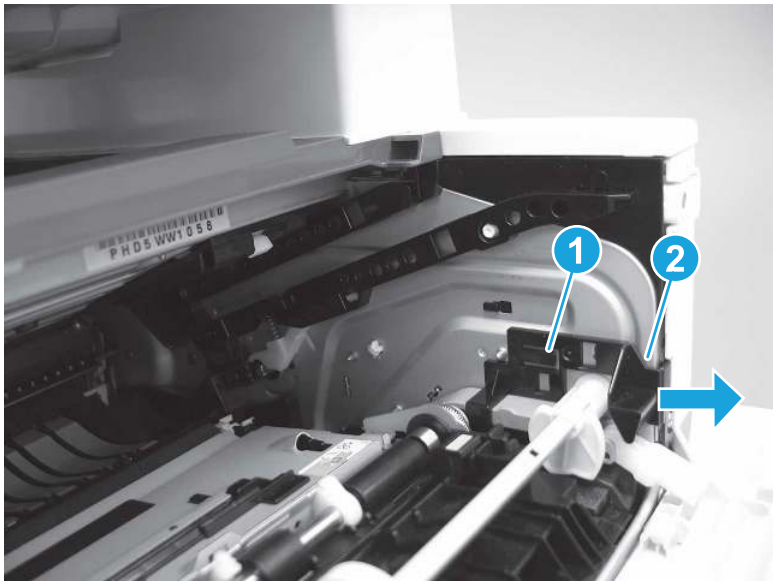
Figure 4-452 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

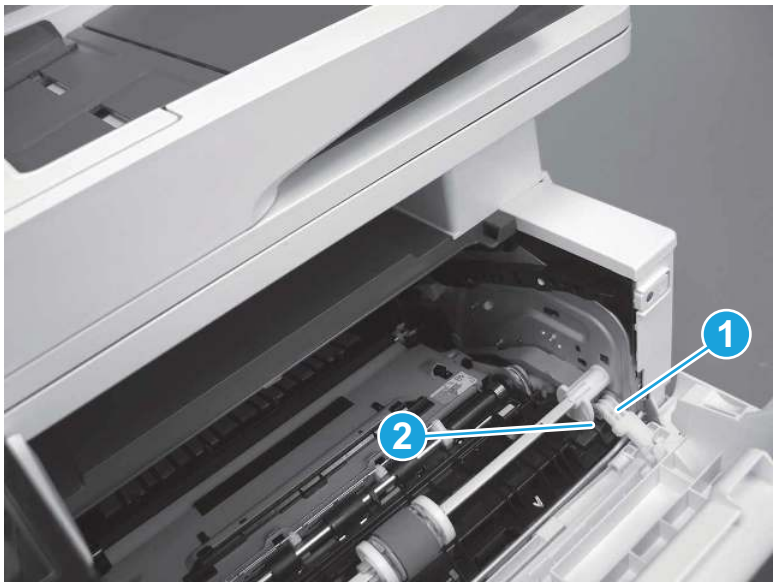
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-453 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-454 Release the pressure-release link

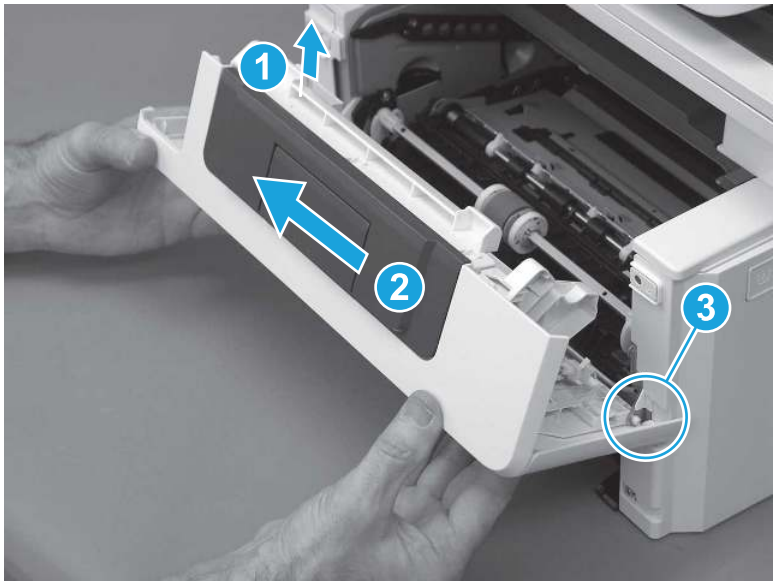


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

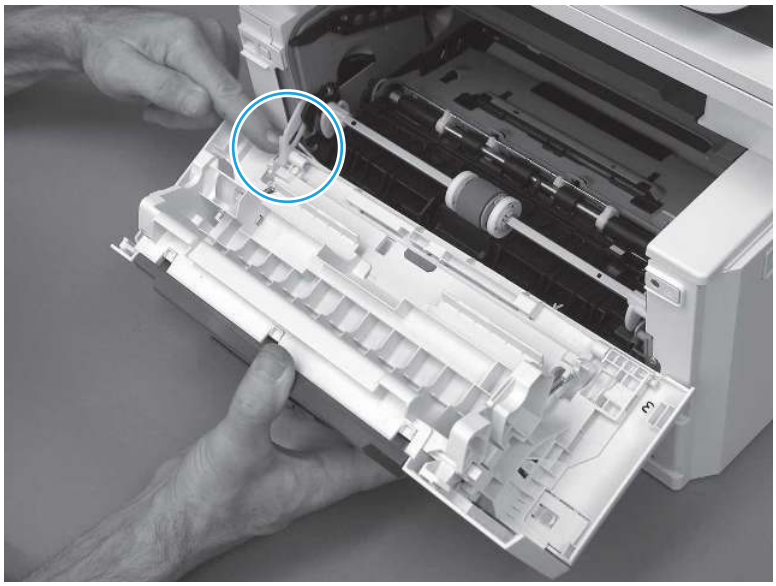
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-455 Release the door



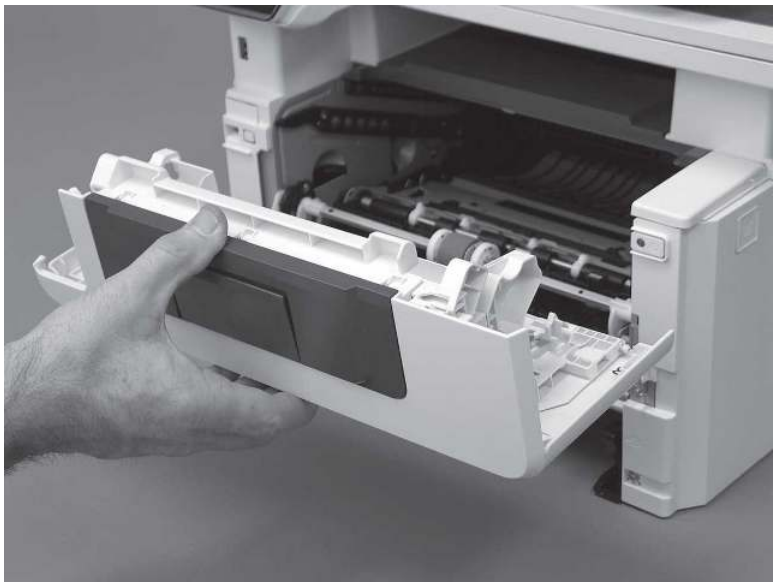
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-456 Release the left-side retainer arm



7. Remove the door.

Figure 4-457 **Remove the door**



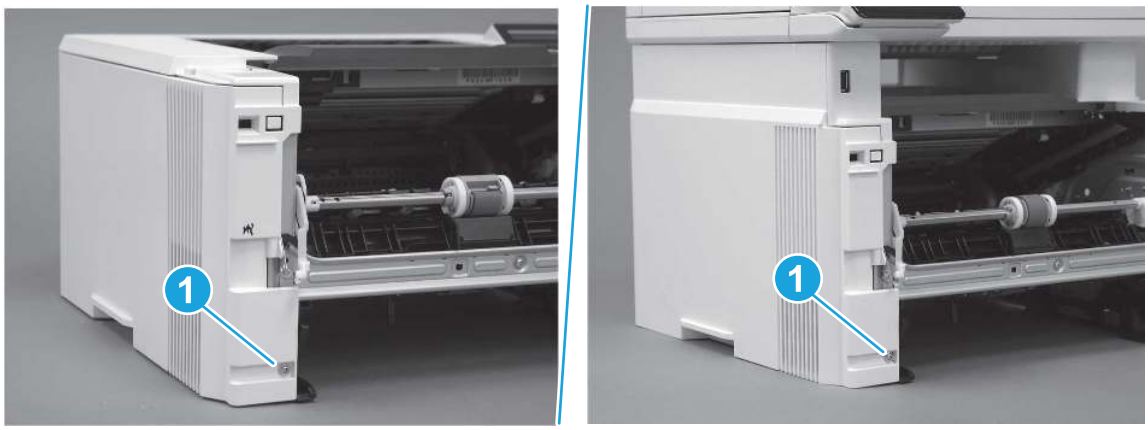
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

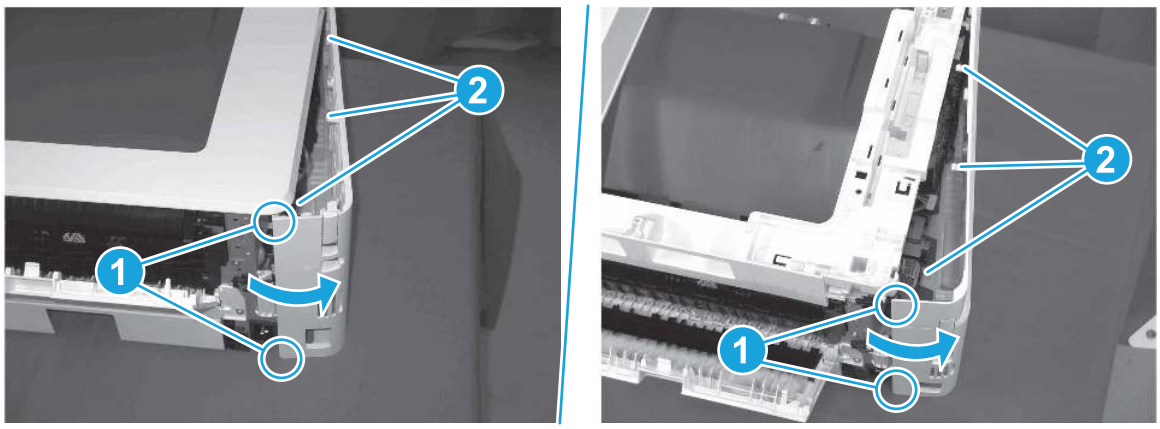
1. Remove one screw (callout 1).

Figure 4-458 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-459 Release two bosses and three tabs

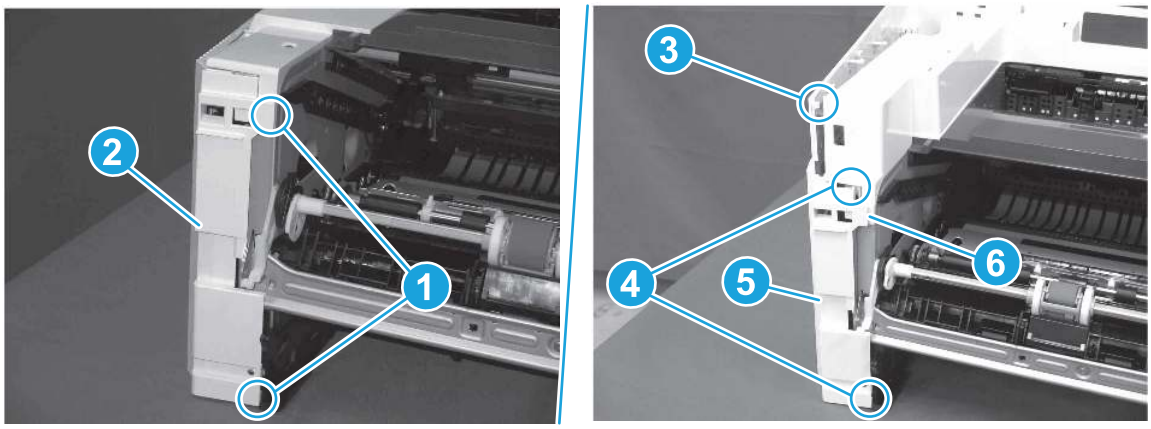


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-460 Remove the cover

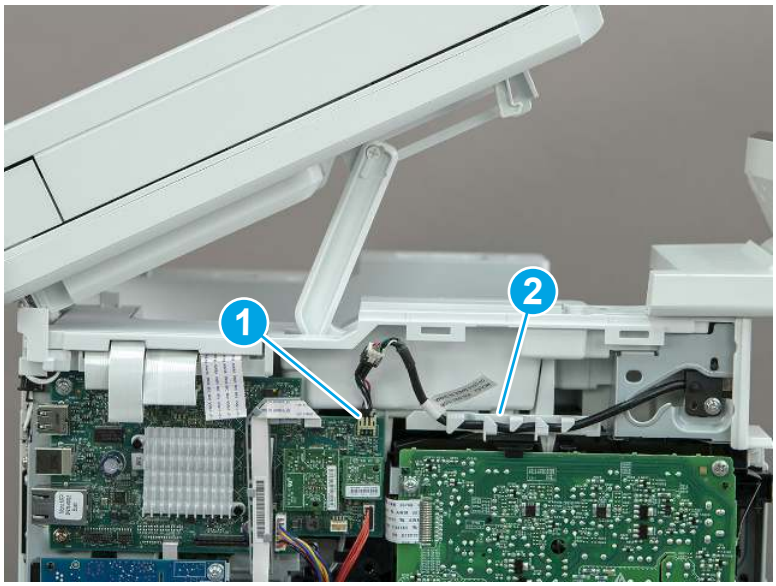


4. Remove the USB port and cable (MFP)

Follow these steps to remove the USB port and cable (MFP).

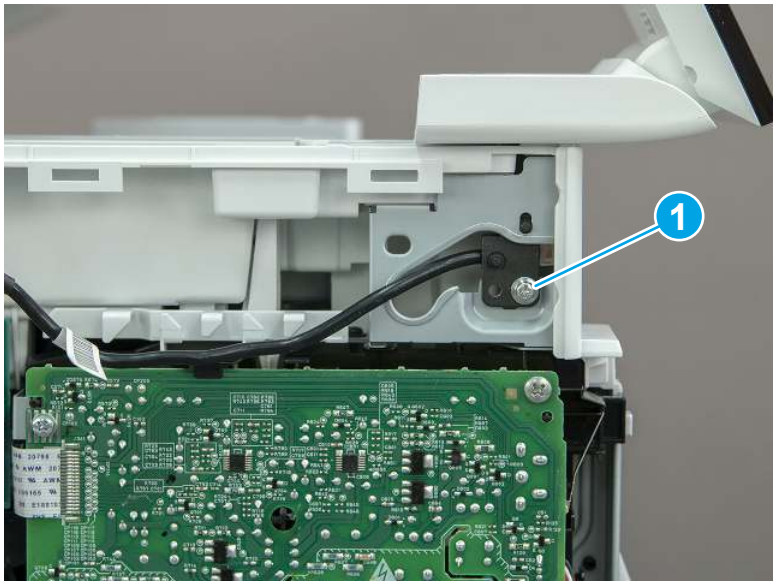
1. Disconnect one connector (callout 1), and then release the wire harness from the guide (callout 2).

Figure 4-461 Disconnect one connector



2. Remove one screw (callout 1), and then remove the USB port and cable.

Figure 4-462 Remove the USB port and cable



5. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Island of Data (IOD)

Learn how to remove and replace the Island of Data (IOD).

View a video of how to remove and replace the IOD.

Mean time to repair: 13 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-37 Part information

Part number	Part description
3PZ15-67908	Island of Data (IOD)

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length
- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-463 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

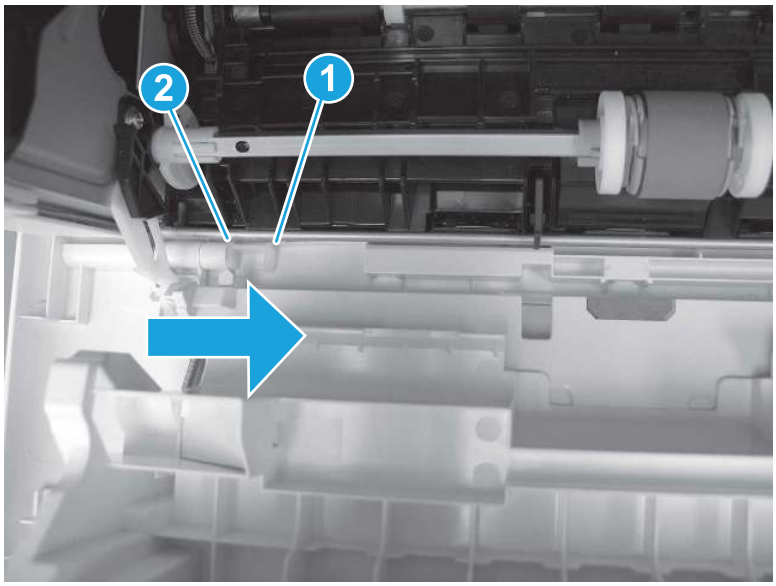
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

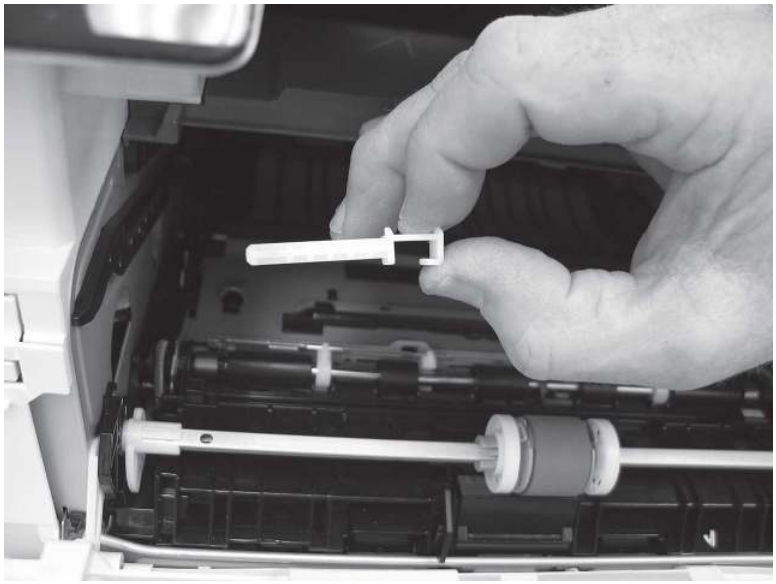
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-464 Release the support shaft



2. Remove the support shaft.

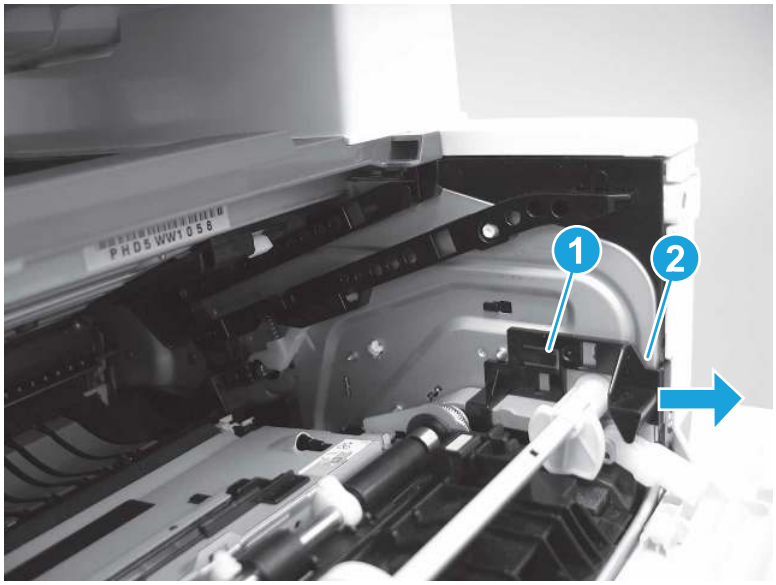
Figure 4-465 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

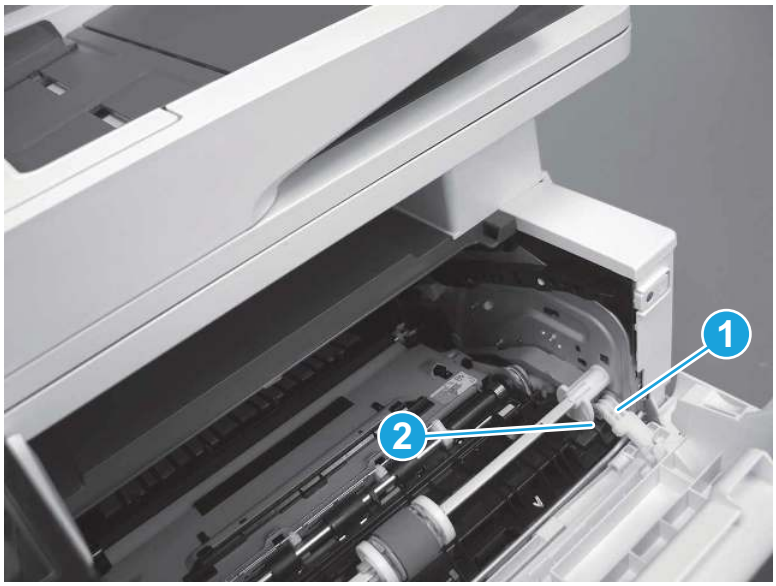
CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-466 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-467 Release the pressure-release link

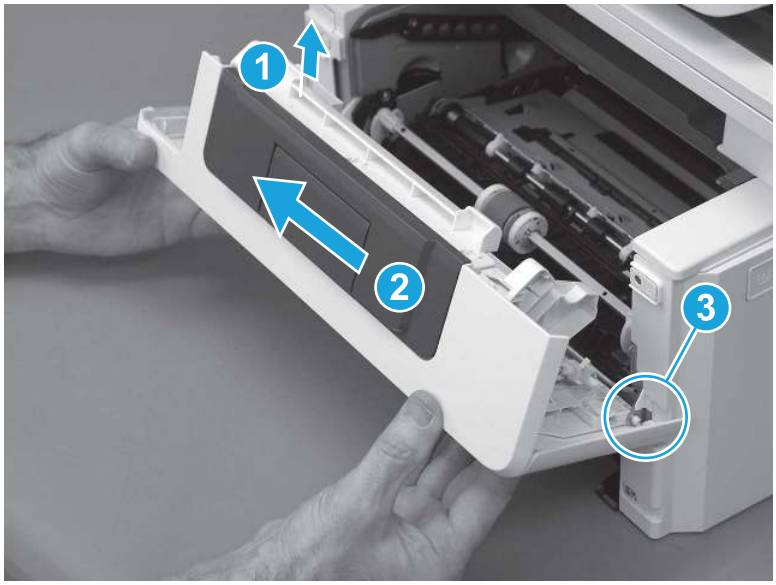


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

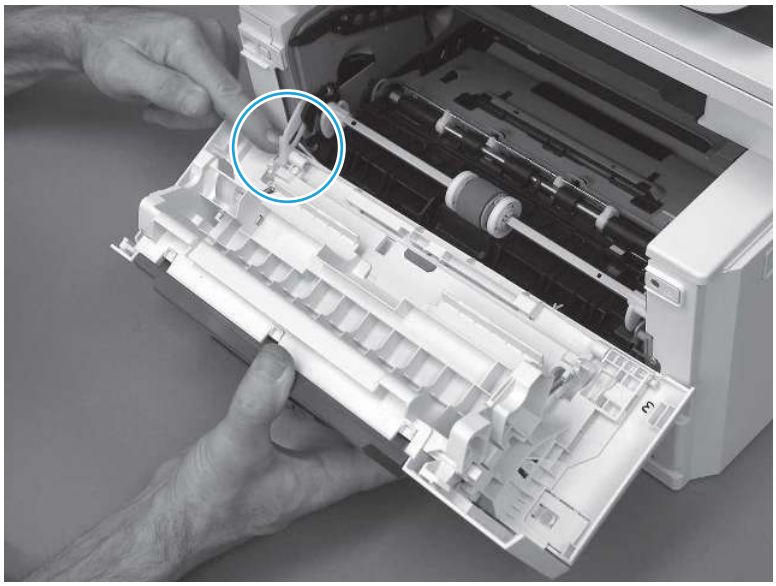
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-468 Release the door



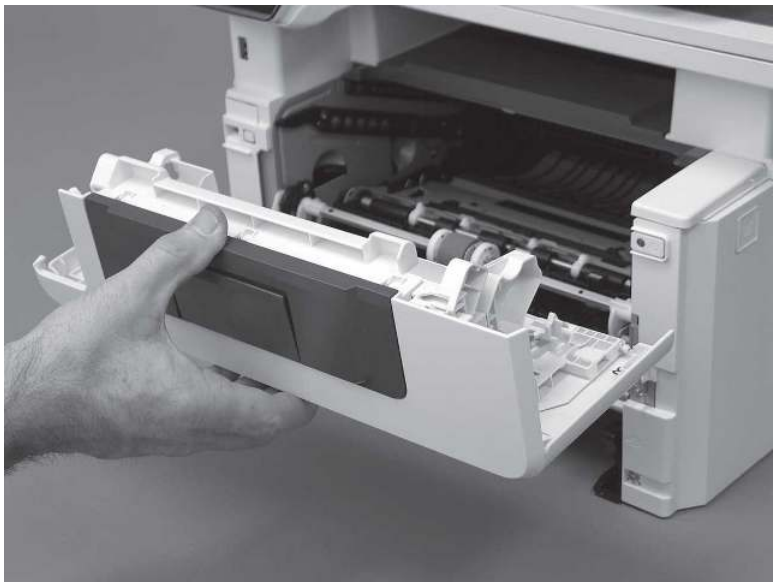
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-469 Release the left-side retainer arm



7. Remove the door.

Figure 4-470 **Remove the door**



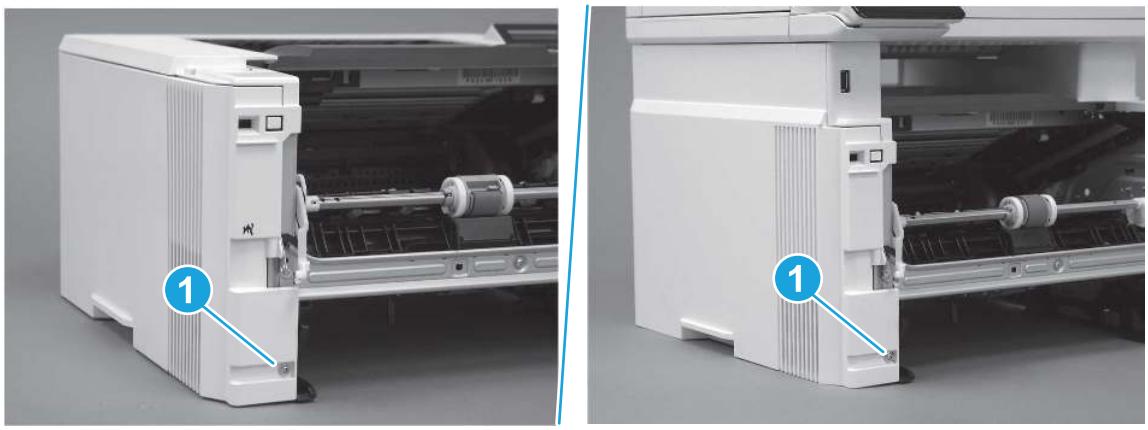
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

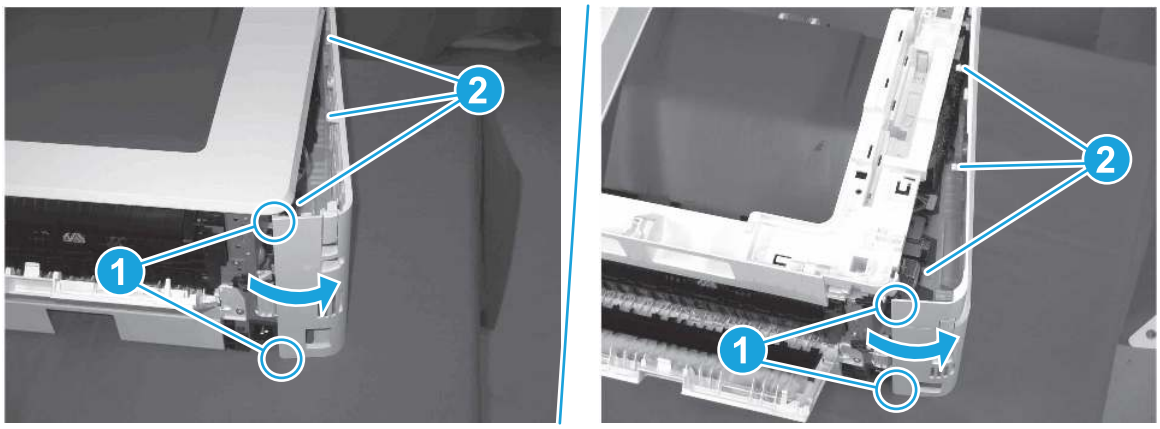
1. Remove one screw (callout 1).

Figure 4-471 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-472 Release two bosses and three tabs

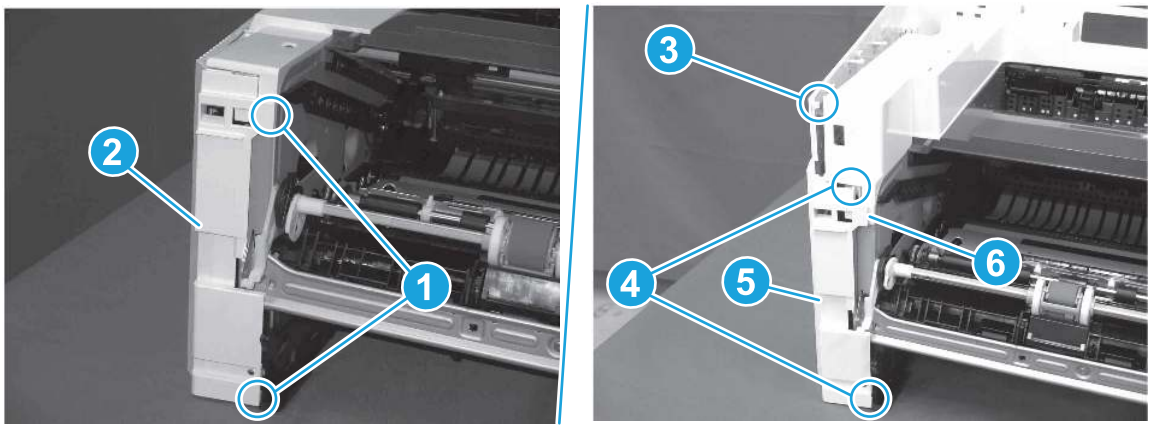


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-473 Remove the cover

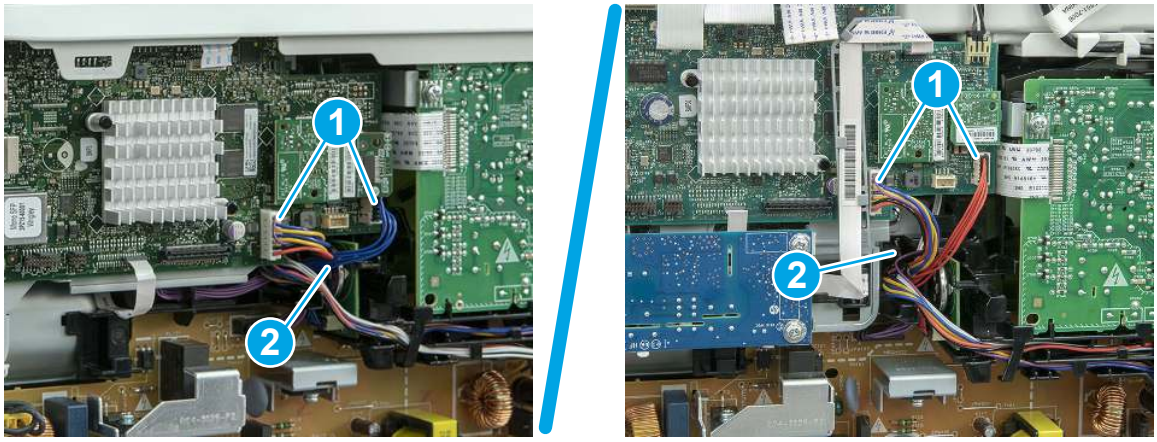


4. Remove the Island of Data (IOD)

Follow these steps to remove the Island of Data (IOD).

1. Disconnect two connectors (callout 1), and then remove the wire harness from the guide (callout 2).

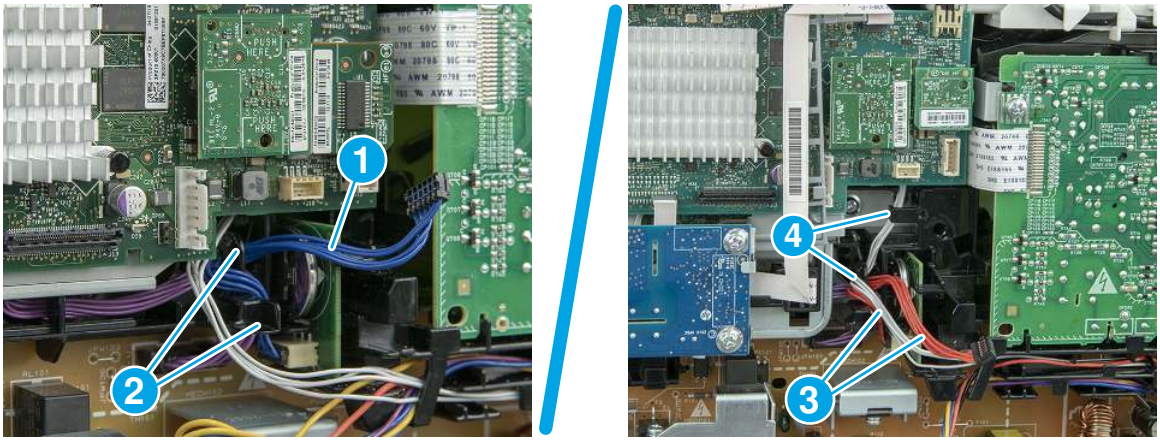
Figure 4-474 **Remove the wire harness**



2. Do one of the following:

- **SFP**: Remove the wire harness (callout 1) from the guide (callout 2).
- **MFP**: Remove the wire harnesses (callout 3) from the guides (callout 4).

Figure 4-475 **Remove the wire harness**



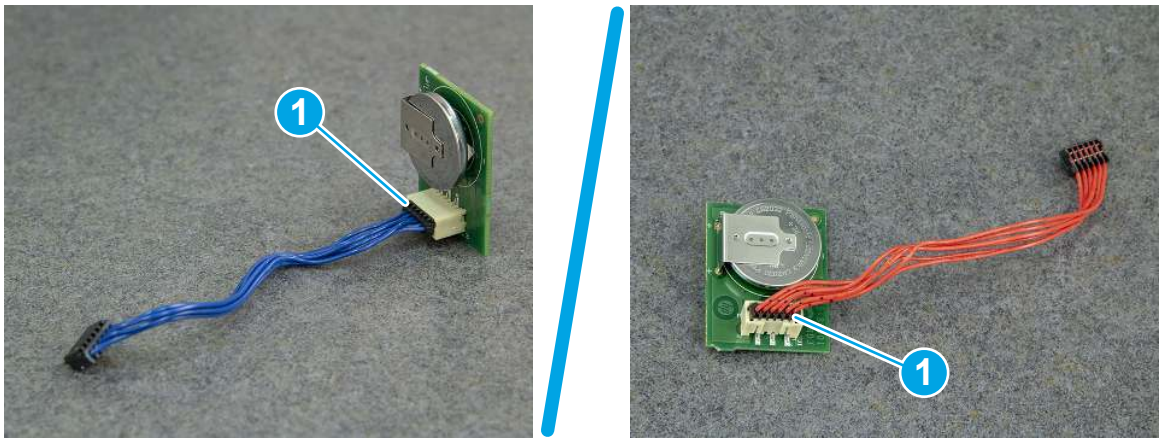
3. Release one tab (callout 1), and then slide the IOD (callout 2) away from the printer to remove it.

Figure 4-476 **Press the wire down and release the tab**



4. Disconnect one connector (callout 1), and then connect the cable to the replacement part (callout 2).

Figure 4-477 **Remove the IOD**



5. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not

available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: embedded Multi-Media Card (eMMC)

Learn how to remove and replace the embedded Multi-Media Card (eMMC).

View a video of how to remove and replace the eMMC.

Mean time to repair: 10 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-38 Part information

Part number	Part description
3PZ15-67905	eMMC 4GB SFP
B5L32-60002	eMMC 16GB (MFP)

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length
- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-478 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

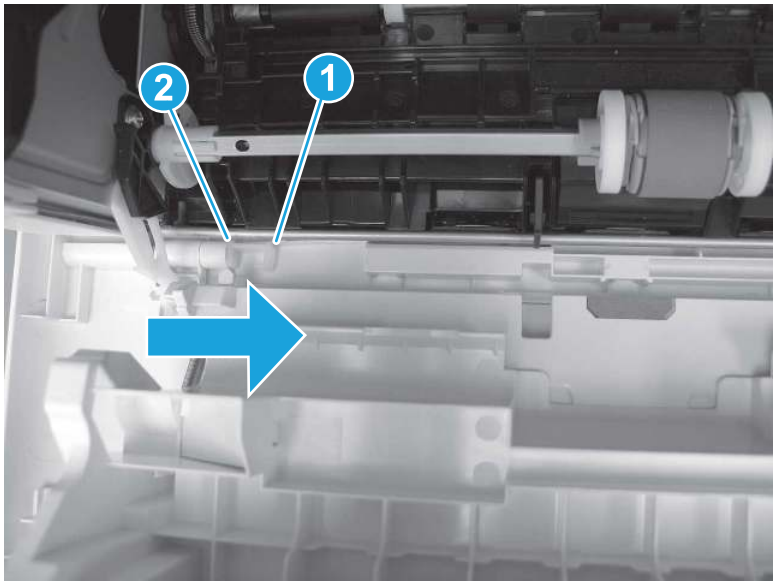
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

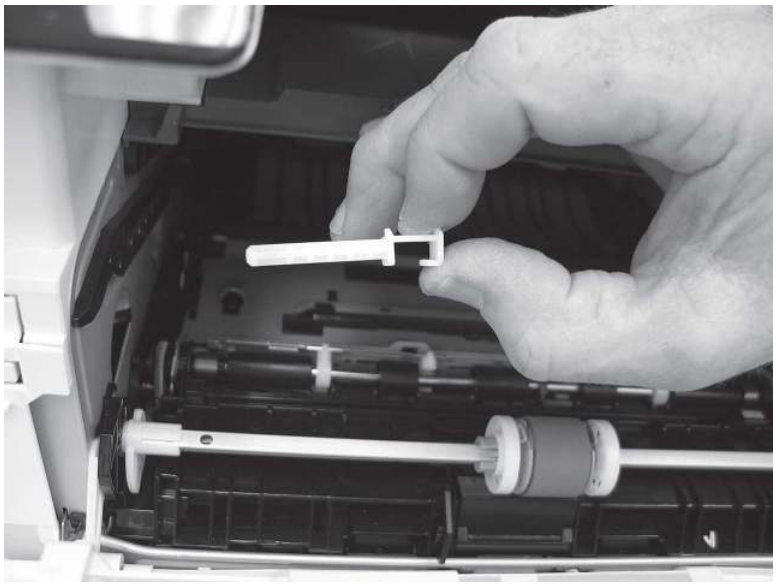
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-479 Release the support shaft



2. Remove the support shaft.

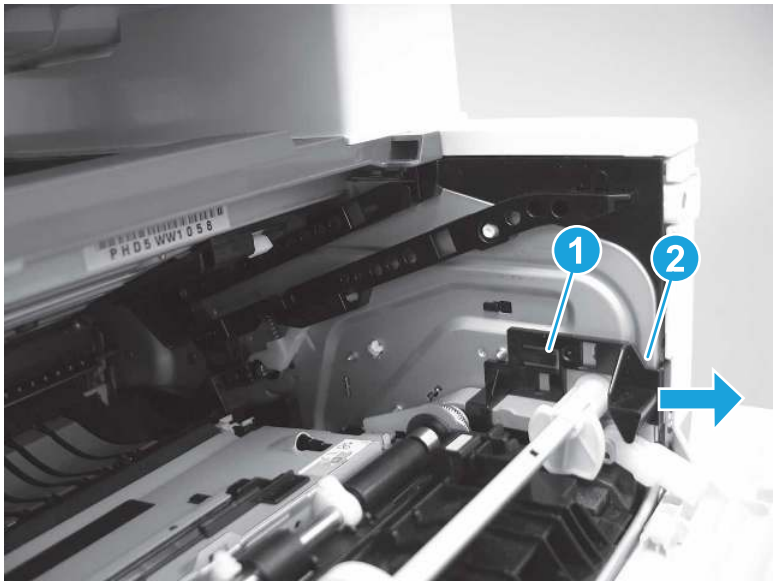
Figure 4-480 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

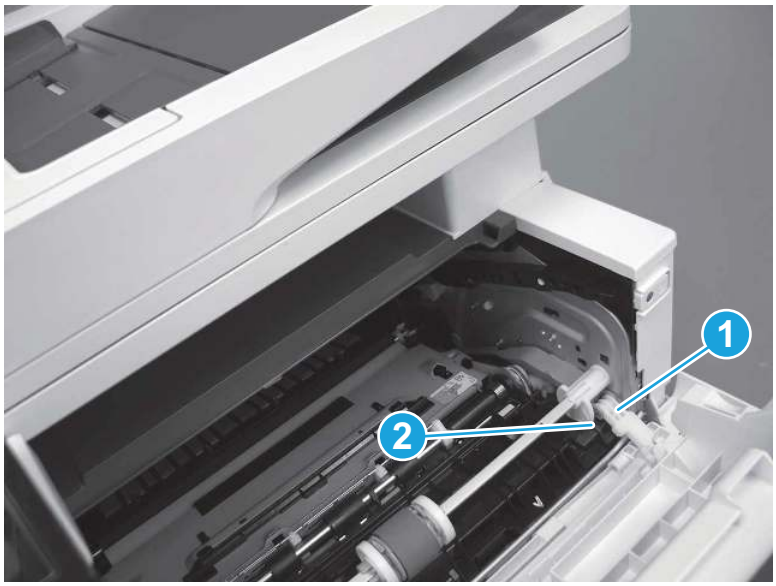
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-481 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-482 Release the pressure-release link

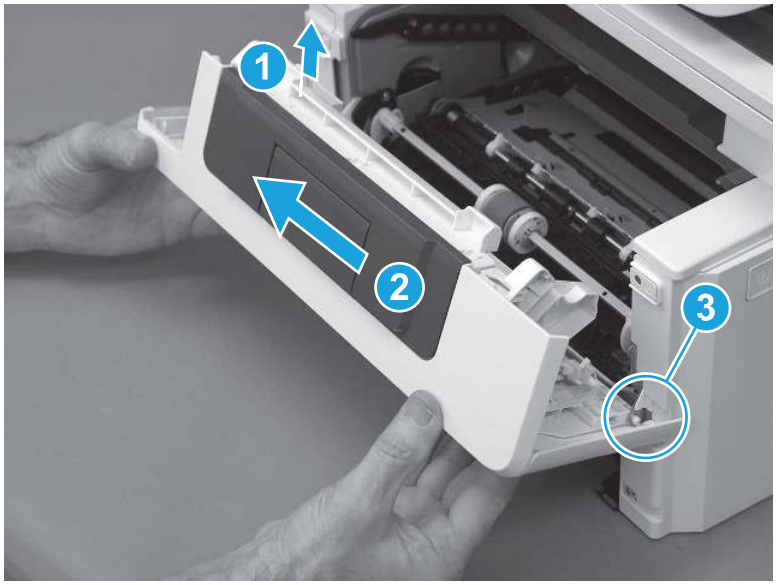


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

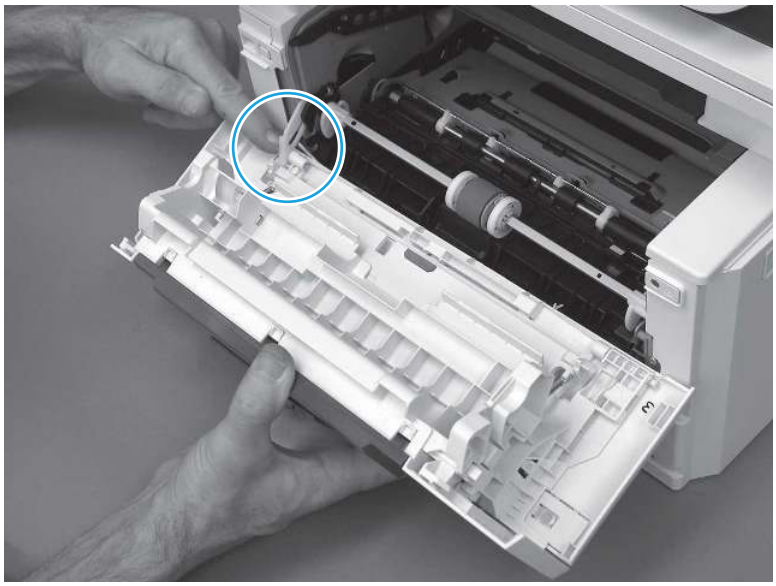
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-483 Release the door



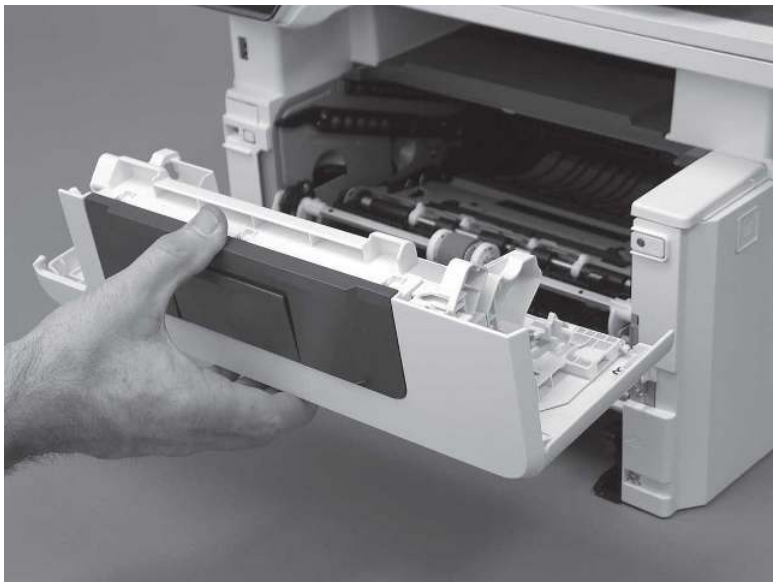
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-484 Release the left-side retainer arm



7. Remove the door.

Figure 4-485 Remove the door



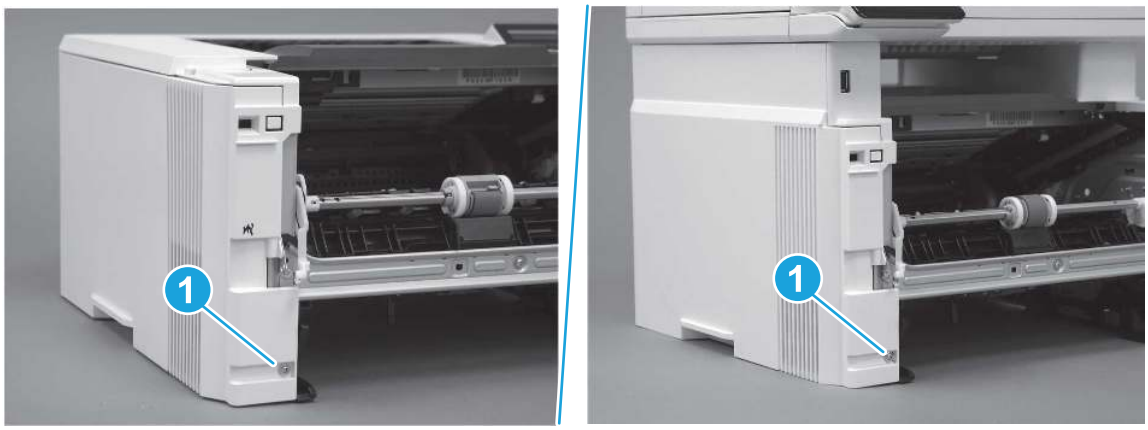
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

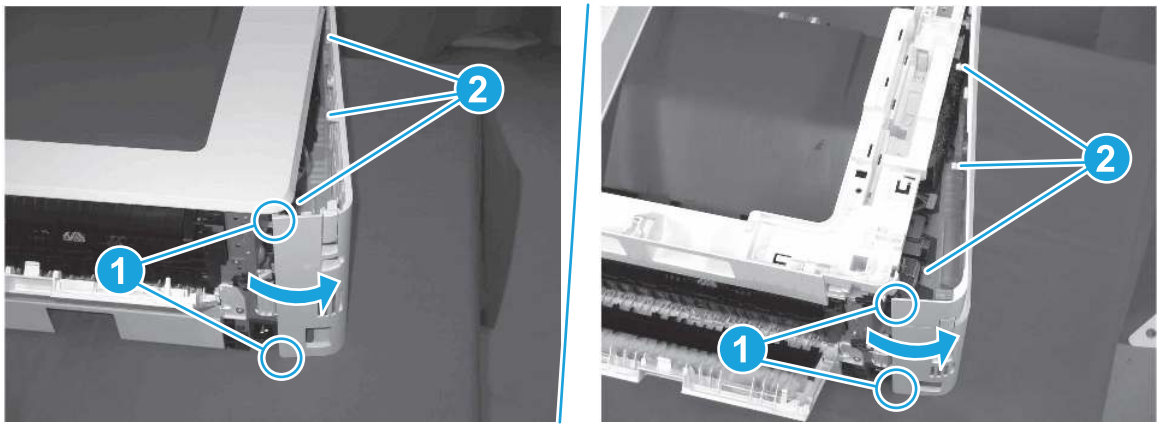
1. Remove one screw (callout 1).

Figure 4-486 Remove one screw



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-487 Release two bosses and three tabs

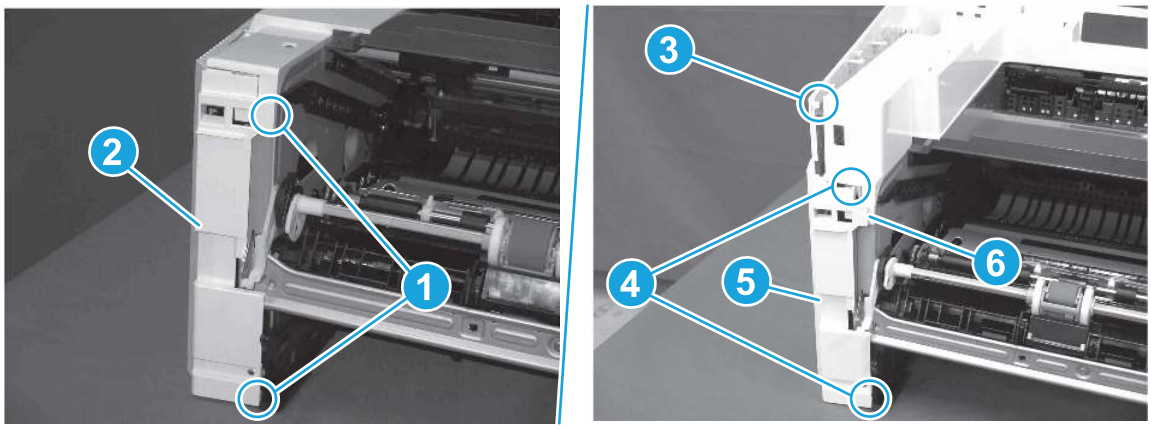


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-488 Remove the cover



4. Remove the embedded Multi-Media Card (eMMC)

Follow these steps to remove the embedded Multi-Media Card (eMMC).

- Carefully pull the eMMC away from the formatter to remove it.

NOTE: If replacing the formatter, retain the eMMC for installation on the replacement formatter.

Figure 4-489 Remove the eMMC



5. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Formatter PCA

Learn how to remove and replace the formatter printed circuit assembly (PCA).

View a video of how to remove and replace the formatter.

Mean time to repair: 14 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

CAUTION: Under **NO** circumstances should a formatter from a different printer be installed during the repair or troubleshooting processes. The formatter stores important data specific to the model of printer it is installed in and is not deigned to be swapped or repurposed in any way. Return a used formatter to HP.

Issues that can occur from swapping a formatter include:

- Serial number, product number, product name, page count, and supported cartridges information change and might make a product unusable
- 33.02.01 Used board/Disk installed errors

If a used formatter is installed and causes this issue, **there is no method in the field to recover a printer where a used formatter is installed.**

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-39 Part information

Part number	Part description
3PZ15-67903	Formatter (SFP)
3PZ15-67904	Formatter (China/India; SFP)
3PZ55-67906	Formatter (MFP)
3PZ55-67907	Formatter (China/India; MFP)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-490 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

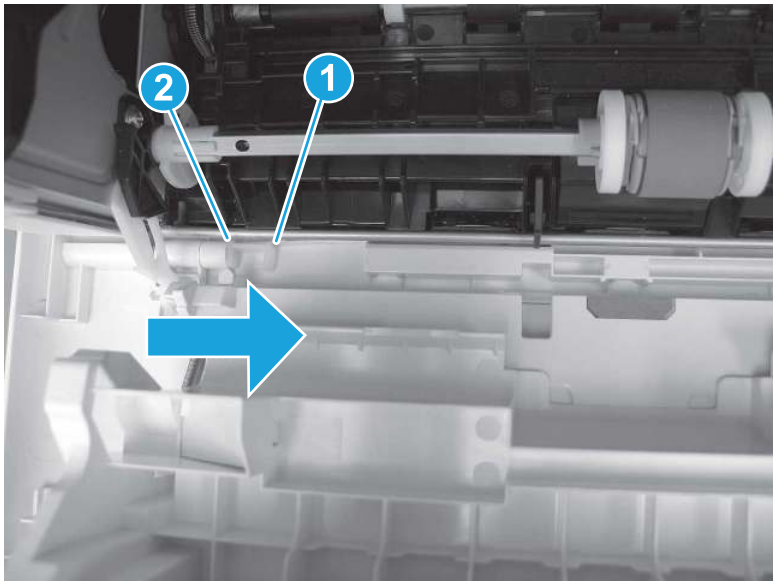
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

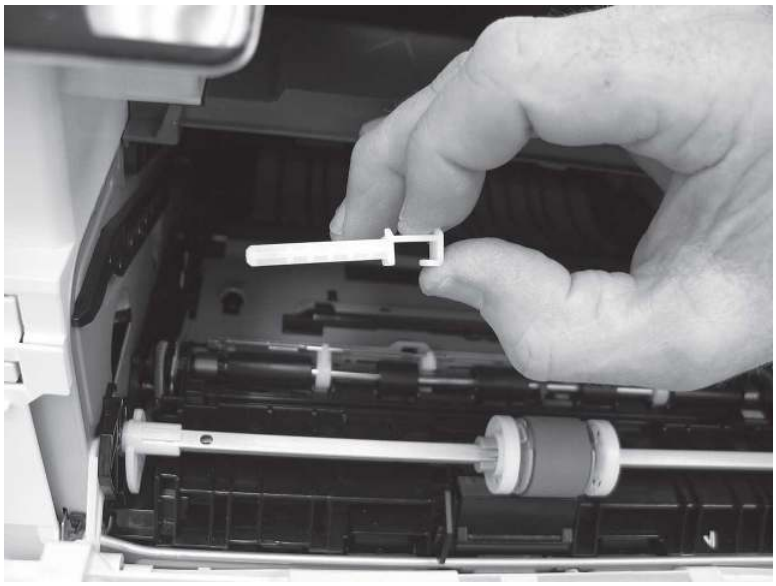
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-491 Release the support shaft



2. Remove the support shaft.

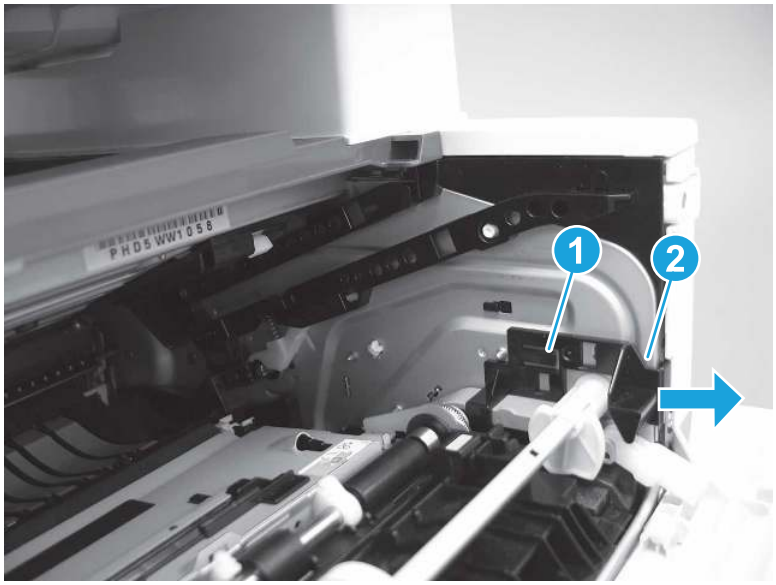
Figure 4-492 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

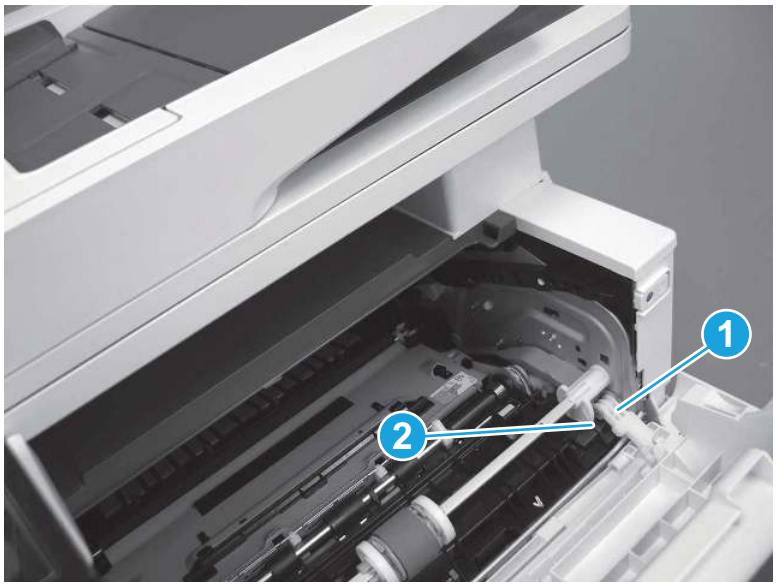
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-493 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-494 Release the pressure-release link

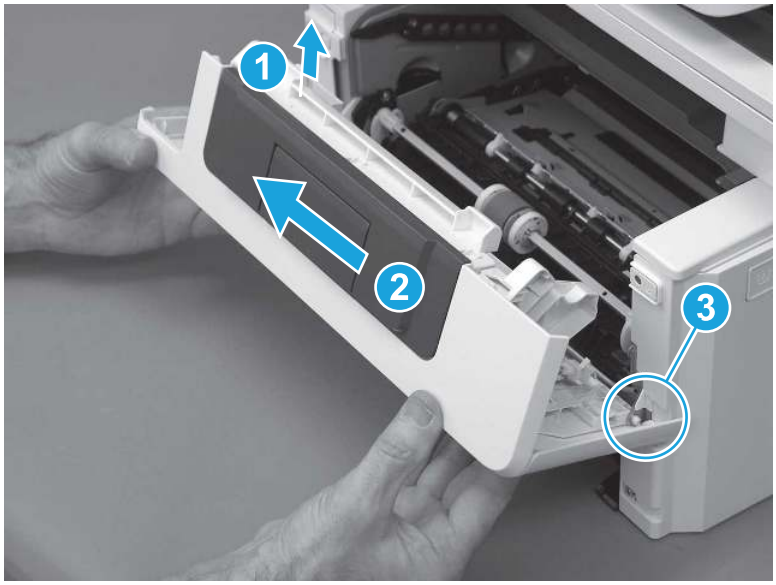


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

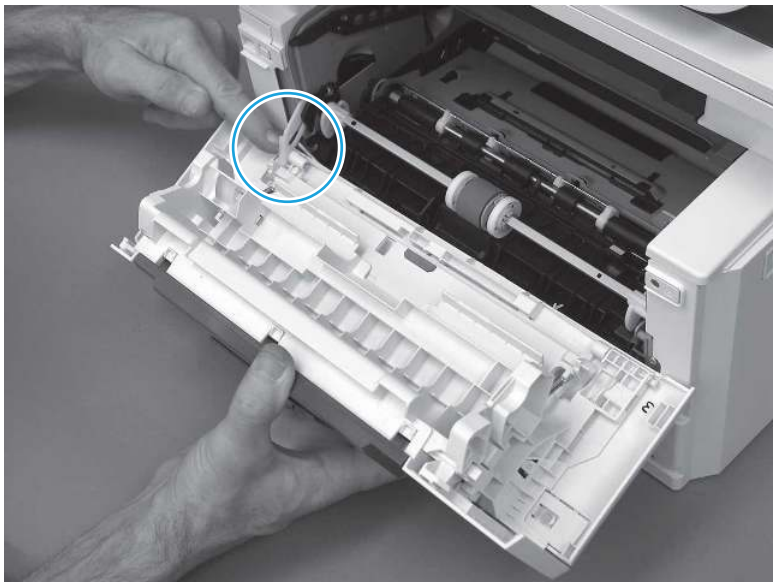
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-495 Release the door



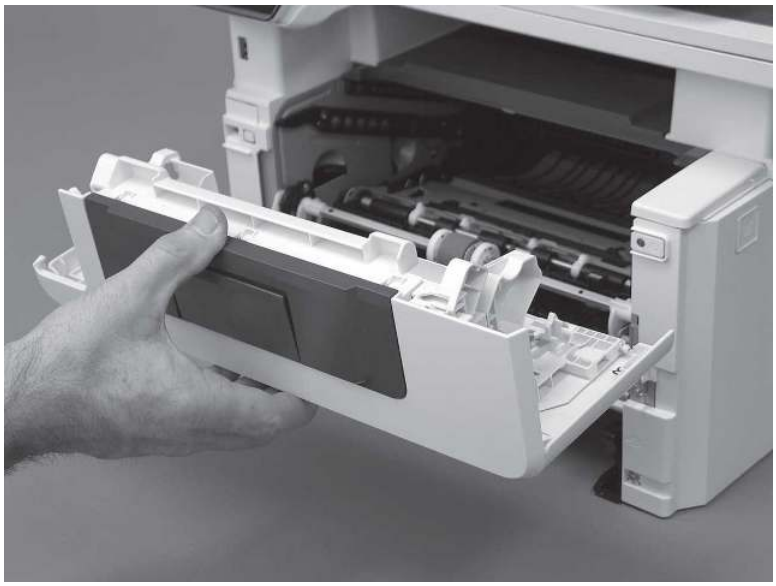
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-496 Release the left-side retainer arm



7. Remove the door.

Figure 4-497 Remove the door



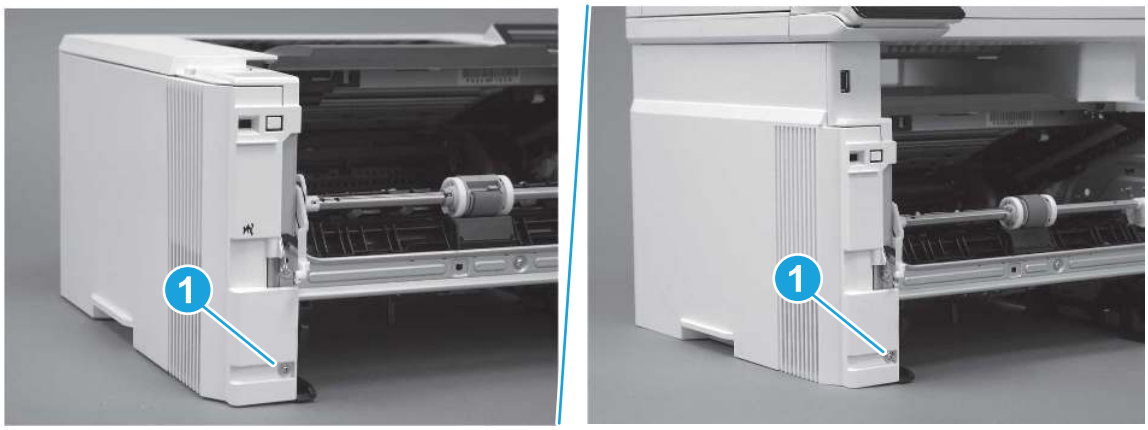
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

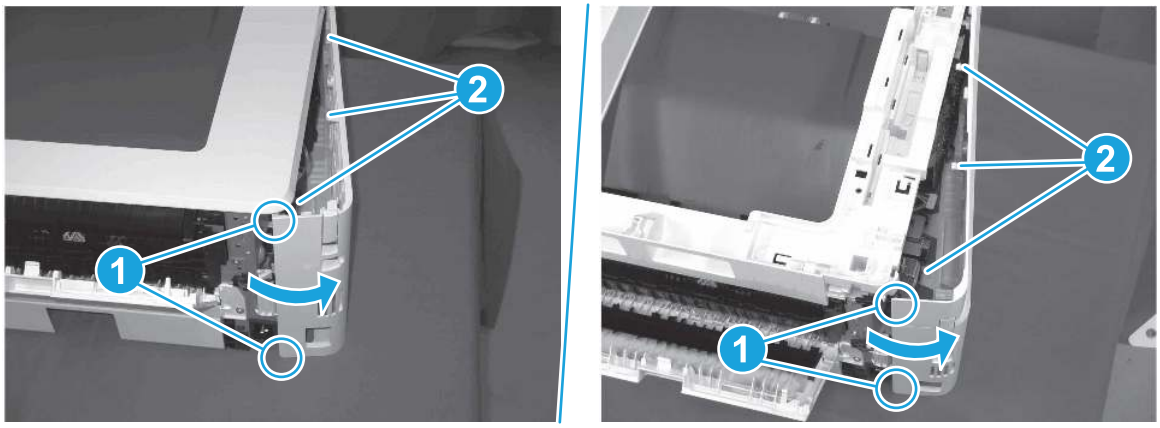
1. Remove one screw (callout 1).

Figure 4-498 Remove one screw



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-499 **Release two bosses and three tabs**

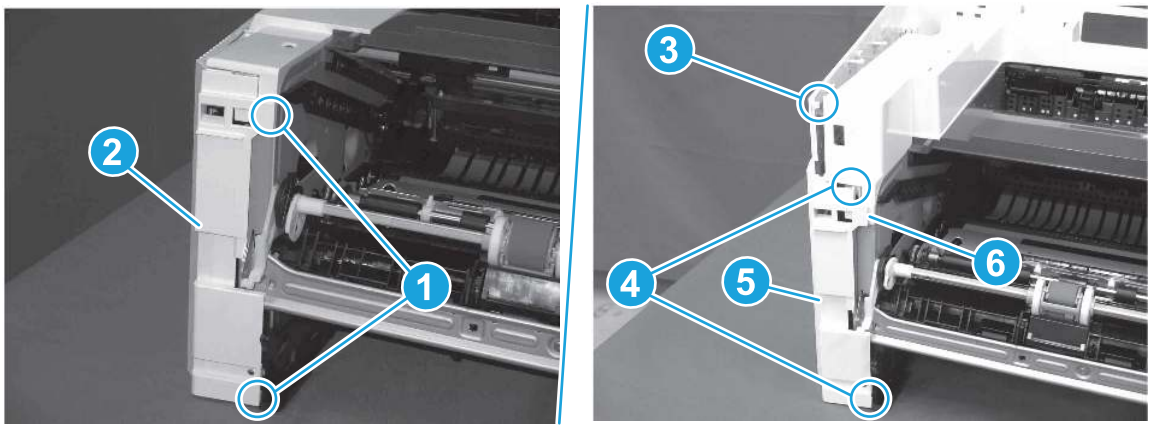


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-500 **Remove the cover**

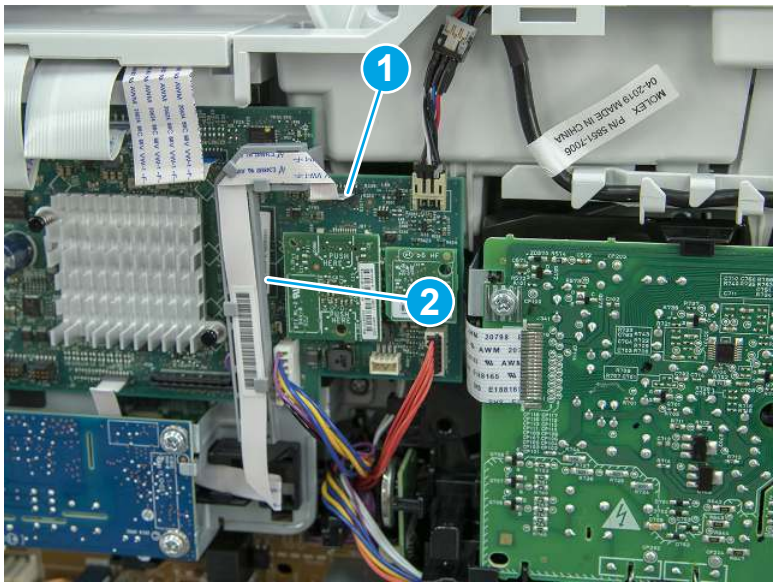


4. Remove the fax cable guide and fax PCA (fax models only)

Follow these steps to remove the fax cable guide and fax PCA (fax models only).

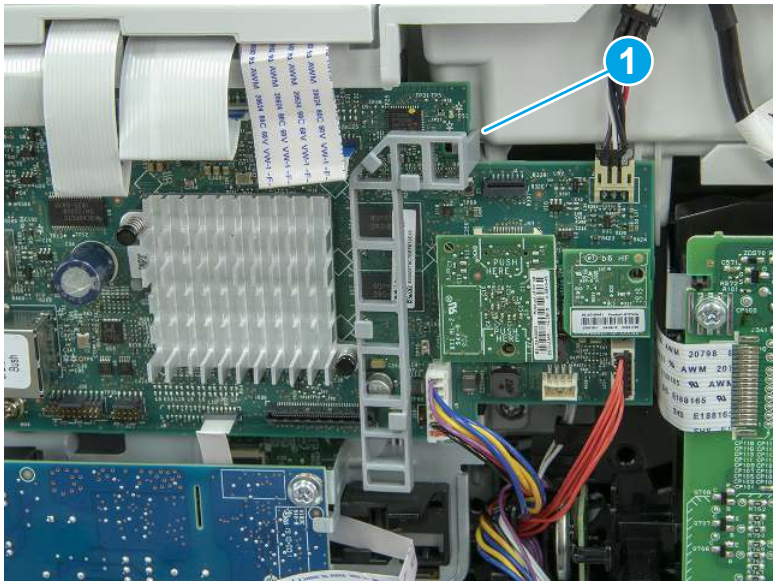
1. Disconnect one connector (callout 1), and then remove the cable from the guide (callout 2).

Figure 4-501 Remove the cable from the guide



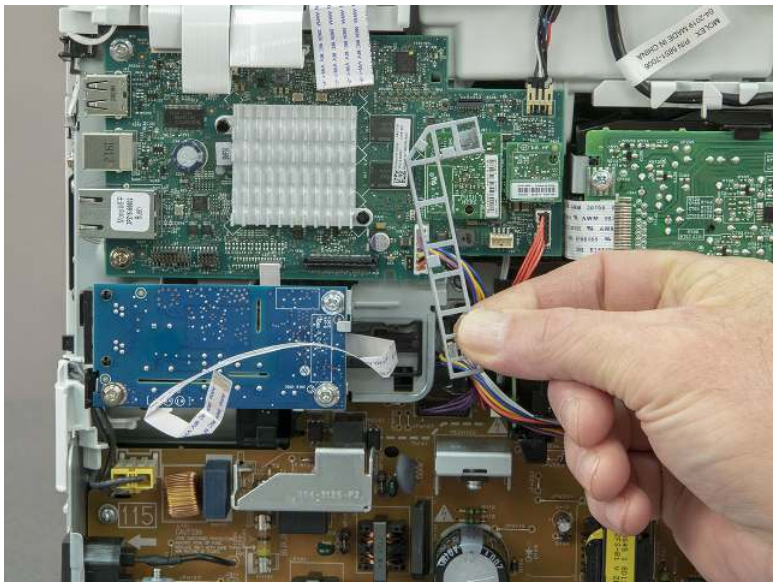
2. Release one tab (callout 1).

Figure 4-502 Release one tab



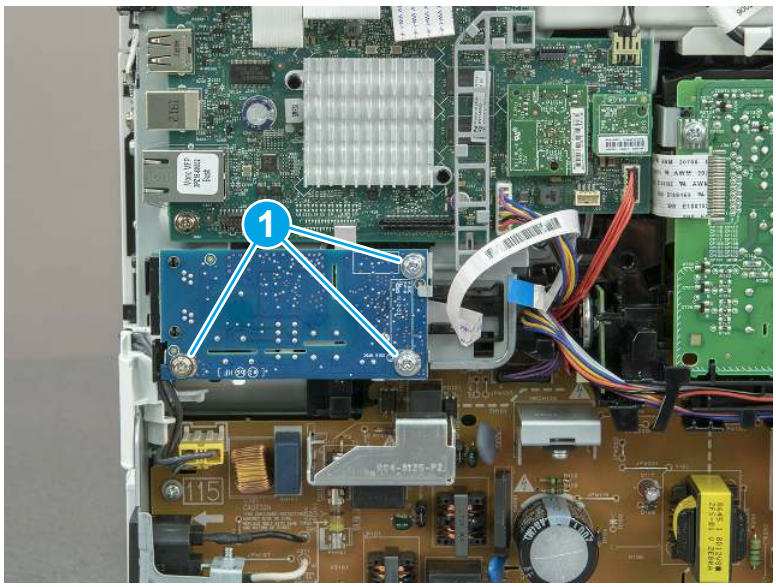
3. Lower the guide to release it from the formatter.

Figure 4-503 Lower the guide



4. Remove three screws (callout 1), and then remove the fax PCA and cable.

Figure 4-504 Remove three screws



5. Remove the embedded Multi-Media Card (eMMC)

Follow these steps to remove the embedded Multi-Media Card (eMMC).

- Carefully pull the eMMC away from the formatter to remove it.

NOTE: If replacing the formatter, retain the eMMC for installation on the replacement formatter.

Figure 4-505 Remove the eMMC



6. Remove the formatter PCA

Follow these steps to remove the formatter PCA.

⚠ CAUTION: Under **NO** circumstances should a formatter from a different printer be installed during the repair or troubleshooting processes. The formatter stores important data specific to the model of printer it is installed in and is not deigned to be swapped or repurposed in any way. Return a used formatter to HP.

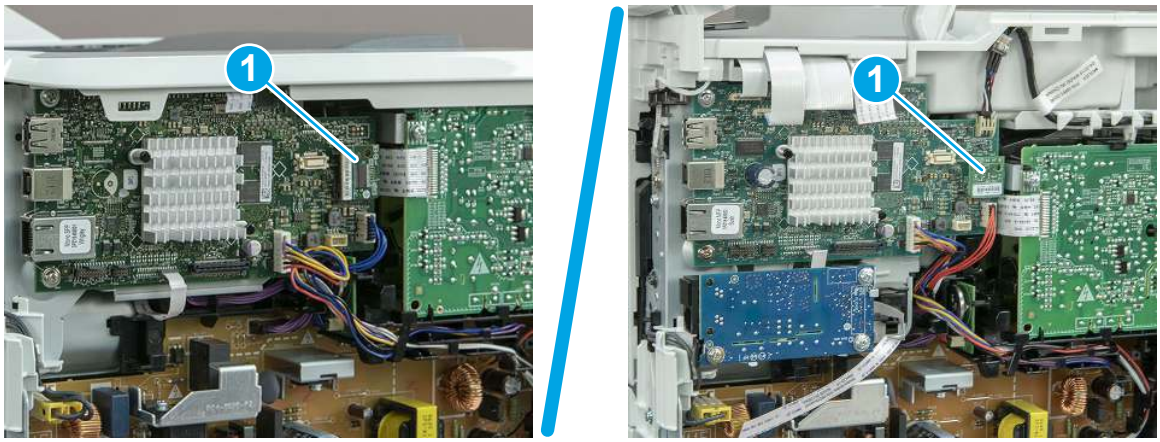
IMPORTANT: **For replacement formatter installations**: Make sure that the eMMC and TPM components are removed from the discarded formatter, and then installed on the replacement formatter.

A factory installed TPM **must** remain with the printer it is originally installed in. If the TPM is removed *the printer will not function* (reinstall the original TPM). If a TPM cannot be reinstalled or is damaged, a whole unit replacement printer is required (for security reasons there is no method for in-the-field recovery of the printer).

NOTE: The formatter PCA on other models might look differently and have a different number of connections. However, the procedure is correct for all models.

1. Carefully pull the Trusted Platform Module (TPM) (callout 1) away from the formatter to remove it.

Figure 4-506 Remove the TPM

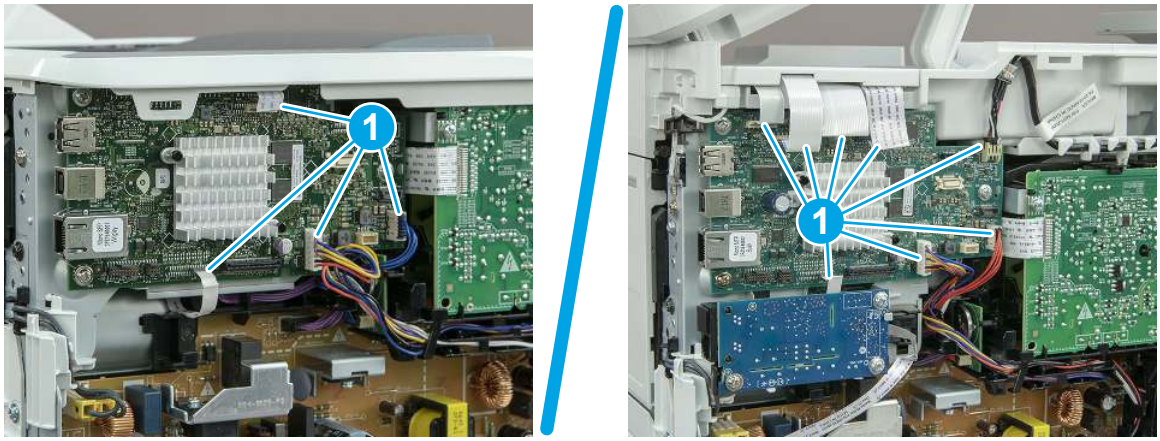


2. Do one of the following:

   - **SFP**: Disconnect four connectors (callout 1).
   - **MFP**: Disconnect eight connectors (callout 1).

IMPORTANT: Take note of any empty connectors before removing the formatter PCA.

Figure 4-507 **SFP/MFP: Disconnect the connectors**



3. Remove three screws (callout 1), and then remove the formatter PCA.

Figure 4-508 **Remove three screws**



7. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Fan (FM1)

Learn how to remove and replace the fan (FM1).

View a video of how to remove and replace the fan.

Mean time to repair: 11 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-40 **Part information**

Part number	Part description
RK2-8068-000CN	Fan assembly

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Listen for the fan to rotate when the printer power is turned on.

Make sure that the printer initializes to a **Ready** state.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-509 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

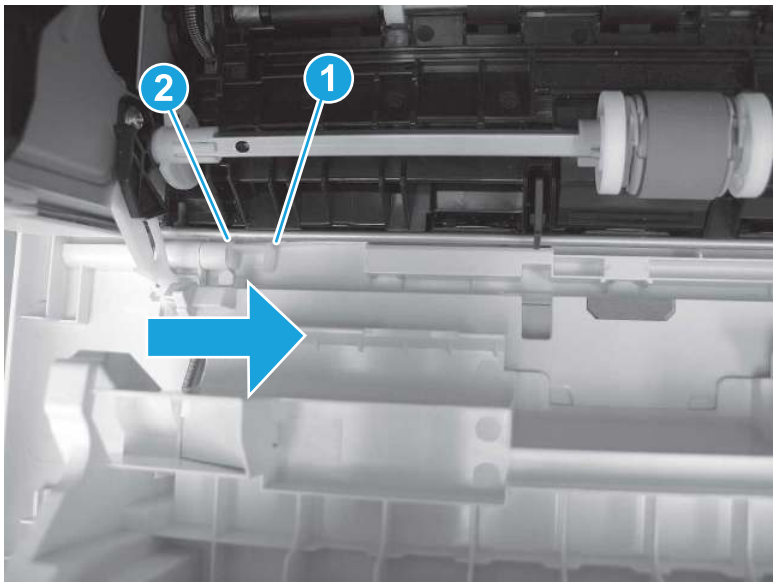
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

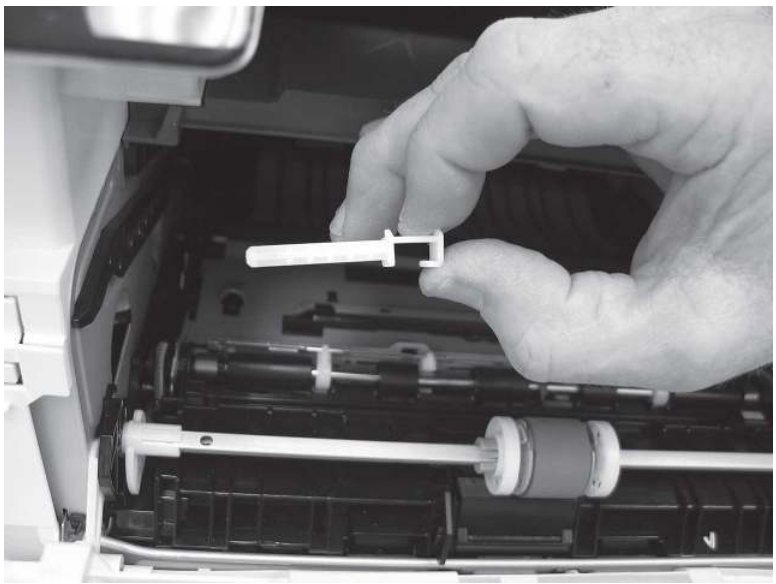
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-510 Release the support shaft



2. Remove the support shaft.

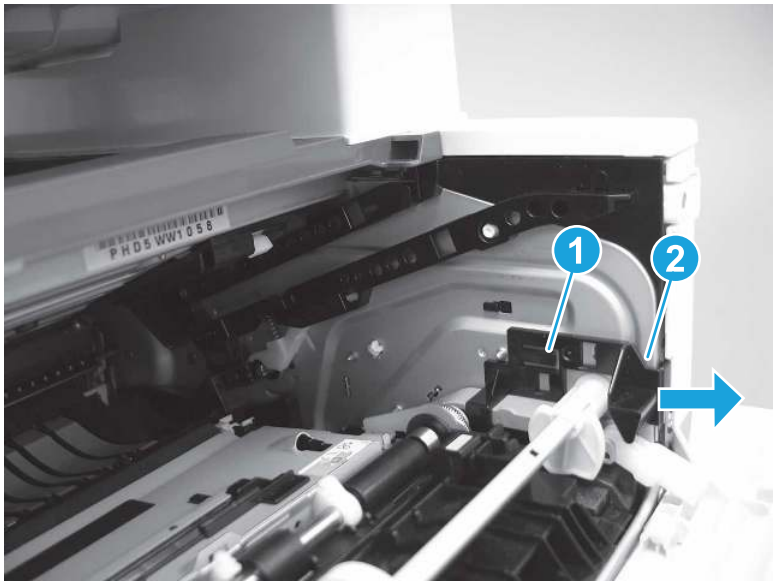
Figure 4-511 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

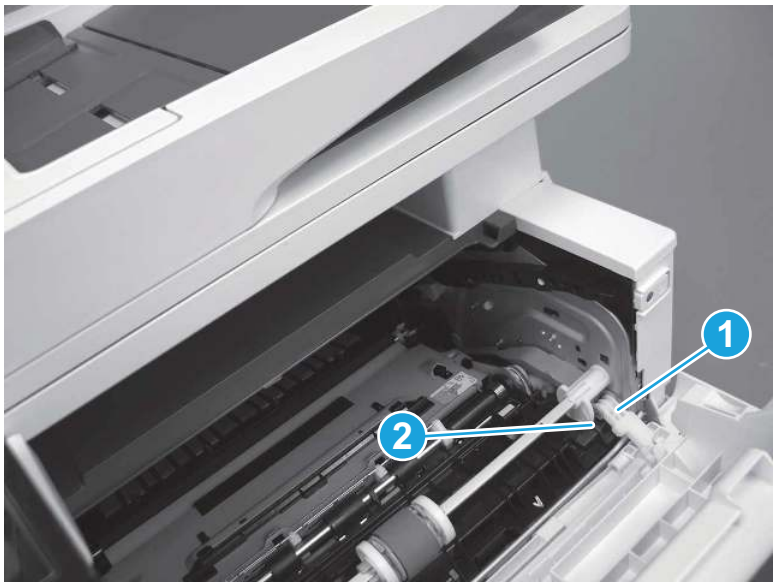
CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-512 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-513 Release the pressure-release link

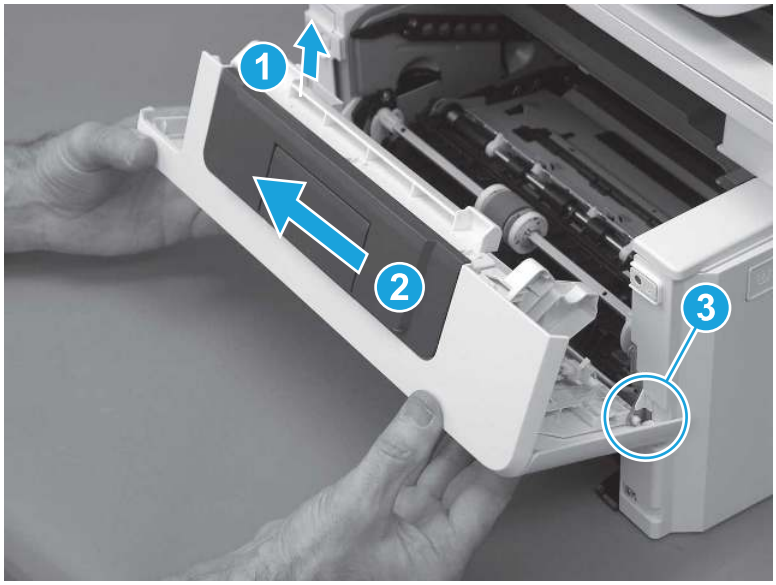


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

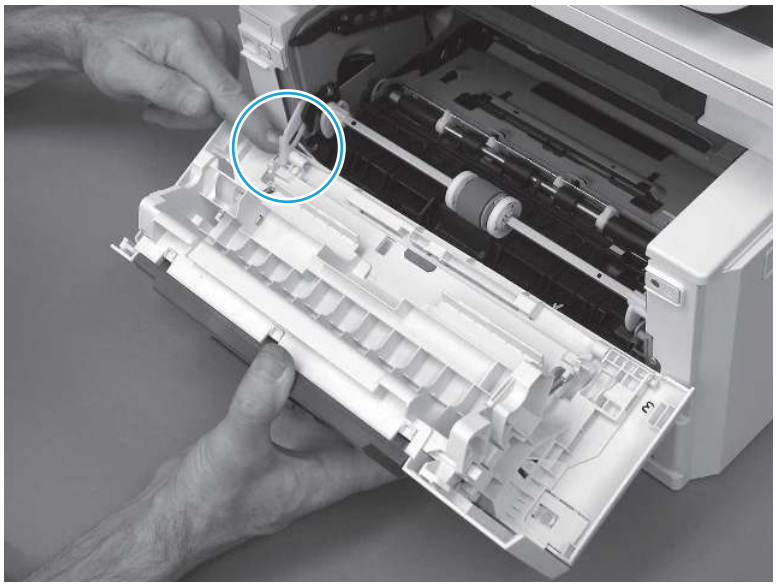
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-514 Release the door



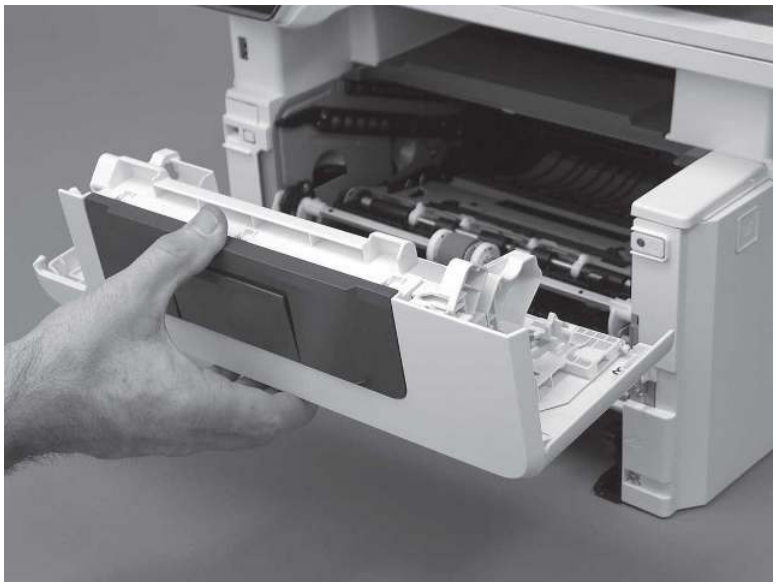
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-515 Release the left-side retainer arm



7. Remove the door.

Figure 4-516 **Remove the door**



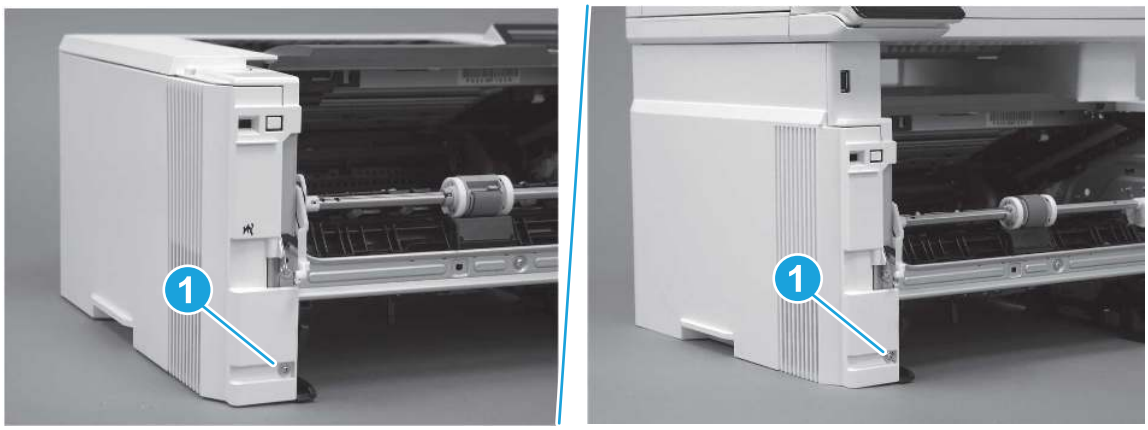
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

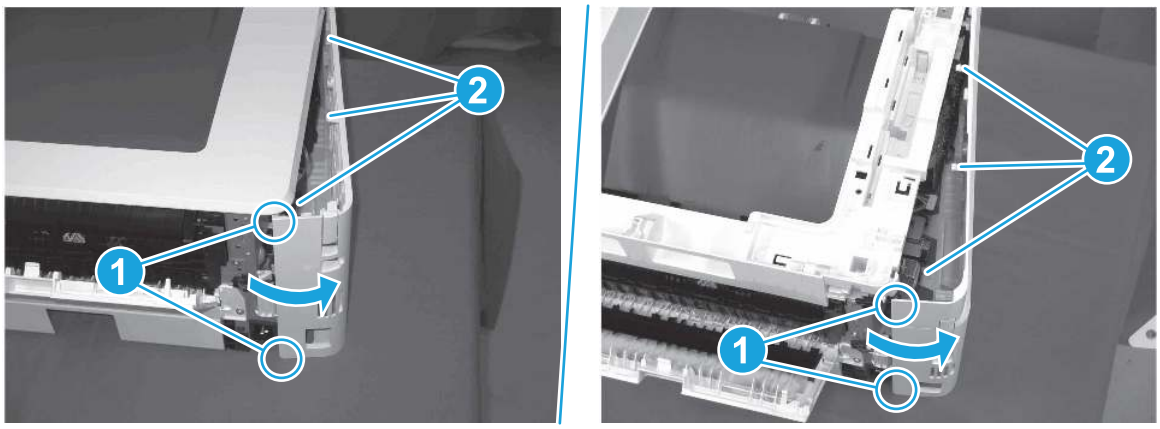
1. Remove one screw (callout 1).

Figure 4-517 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-518 **Release two bosses and three tabs**

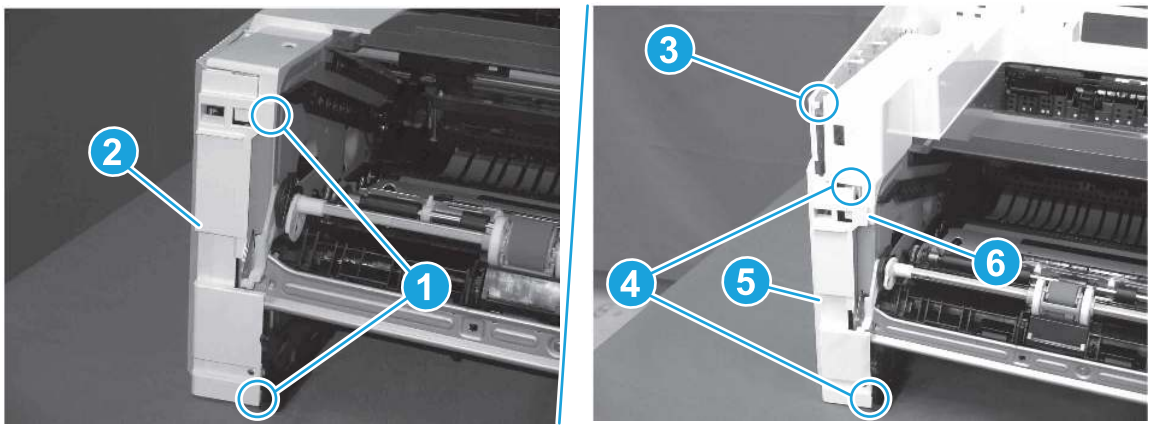


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-519 **Remove the cover**

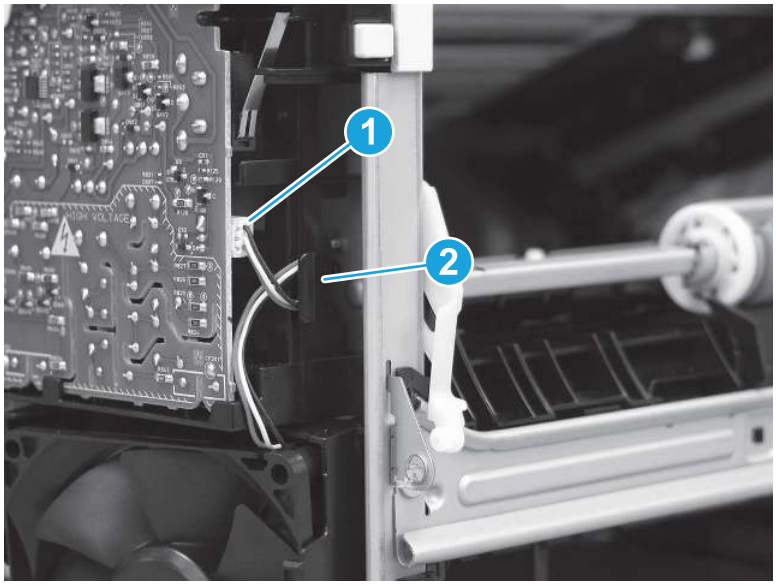


4. Remove the fan (FM1)

Follow these steps to remove the fan (FM1).

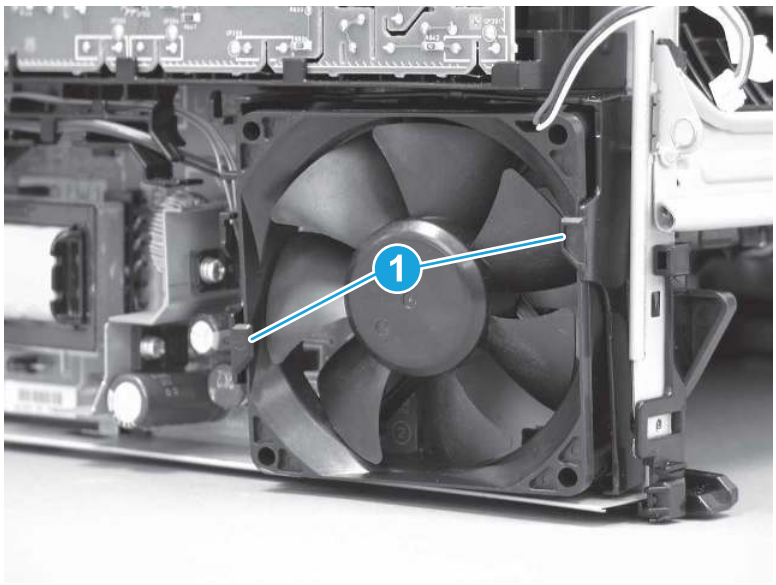
1. Disconnect one connector (callout 1), and then release the wire harness from the retainer (callout 2).

Figure 4-520 Disconnect one connector



2. Release two tabs (callout 1).

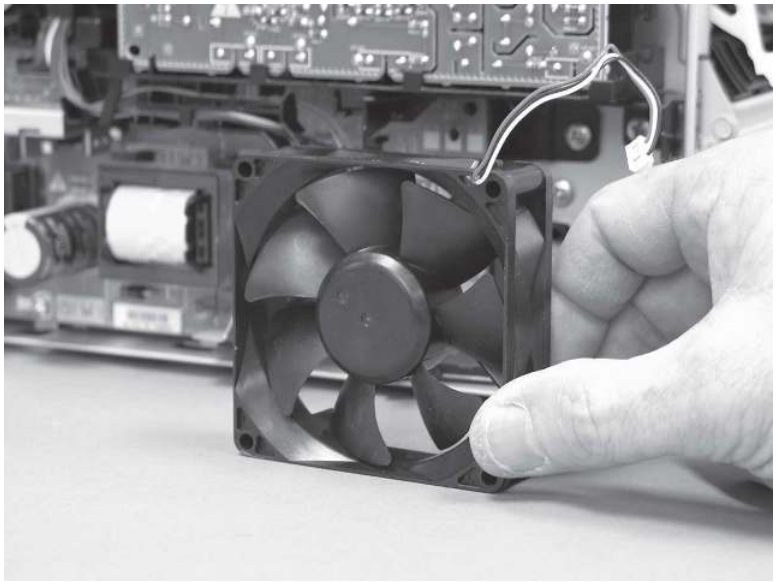
Figure 4-521 Release two tabs



3. Remove the fan.

Reinstallation tip: The fan must be correctly installed so that air is drawn into the printer. Make sure that the two arrows embossed on the right-side of the fan body—which indicate air flow direction—face upward and into the printer.

Figure 4-522 Remove the fan



5. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Fan holder (FM1)

Learn how to remove and replace the fan holder (FM1) .

View a video of how to remove and replace the fan holder.

Mean time to repair: 13 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-41 Part information

Part number	Part description
RC4-2891-000CN	Duct, fan (FM1)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Listen for the fan to rotate when the printer power is turned on.

Make sure that the printer initializes to a **Ready** state.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-523 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

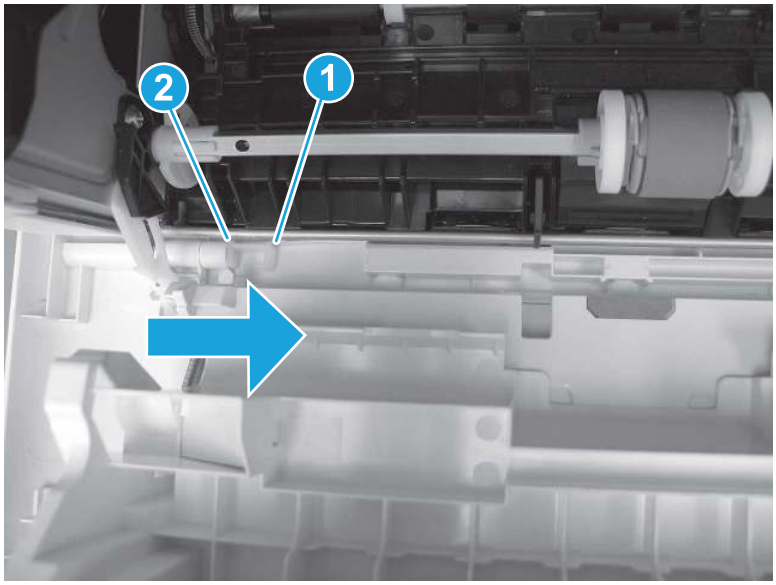
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

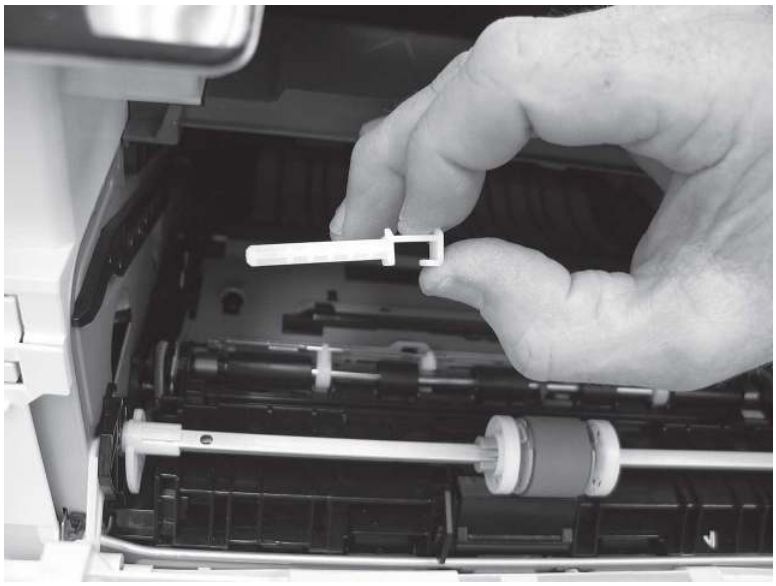
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-524 Release the support shaft



2. Remove the support shaft.

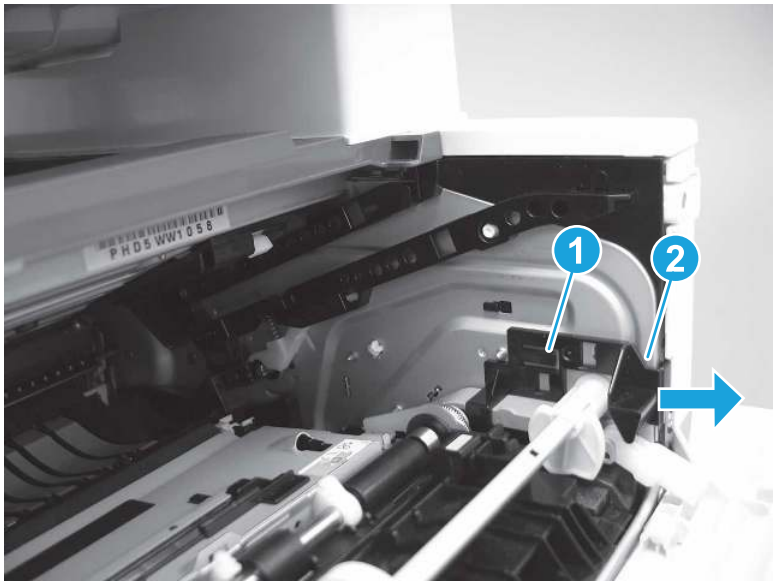
Figure 4-525 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

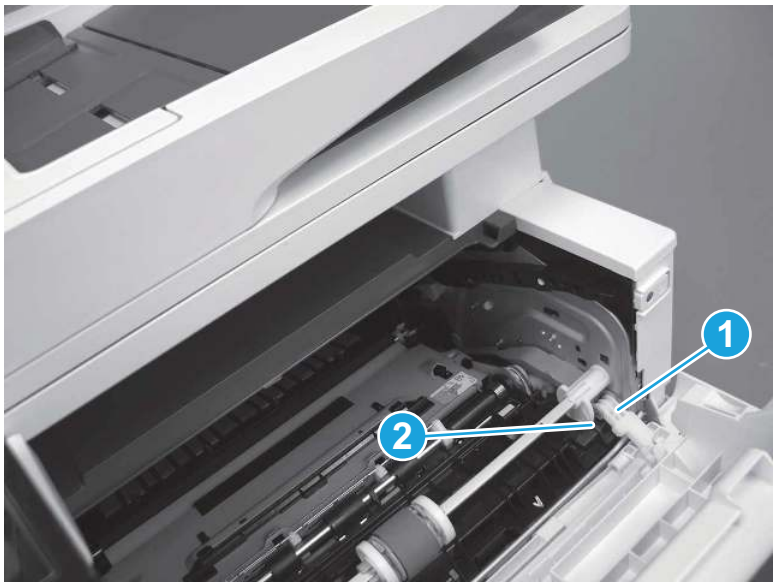
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-526 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-527 Release the pressure-release link

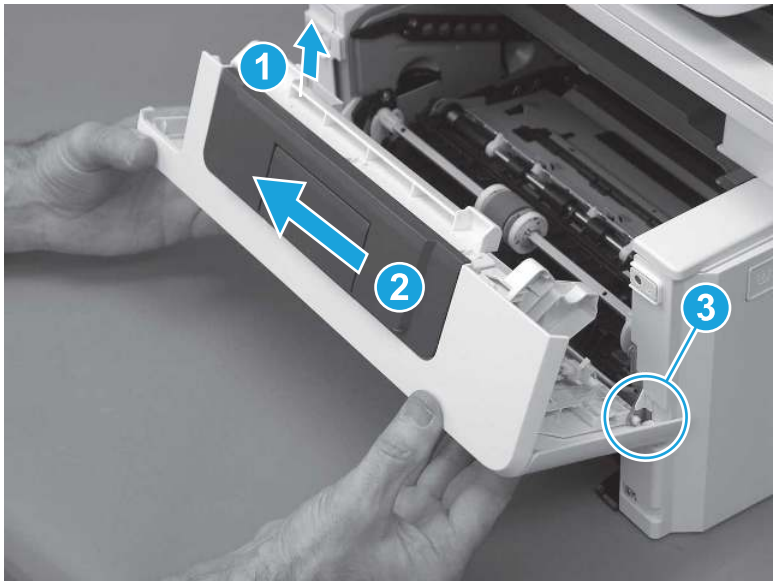


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

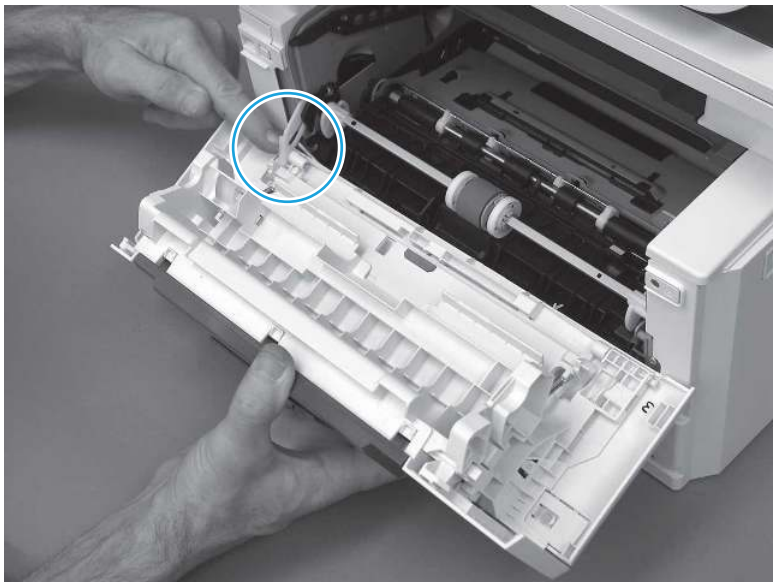
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-528 Release the door



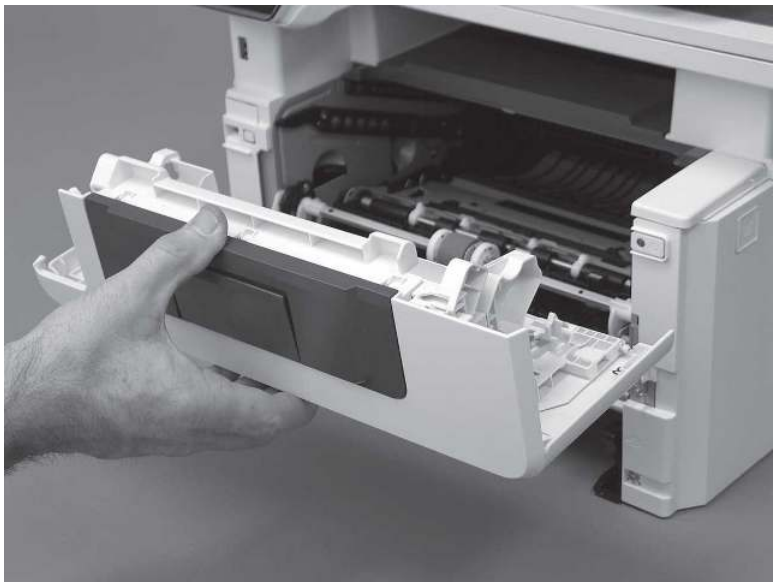
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-529 Release the left-side retainer arm



7. Remove the door.

Figure 4-530 **Remove the door**



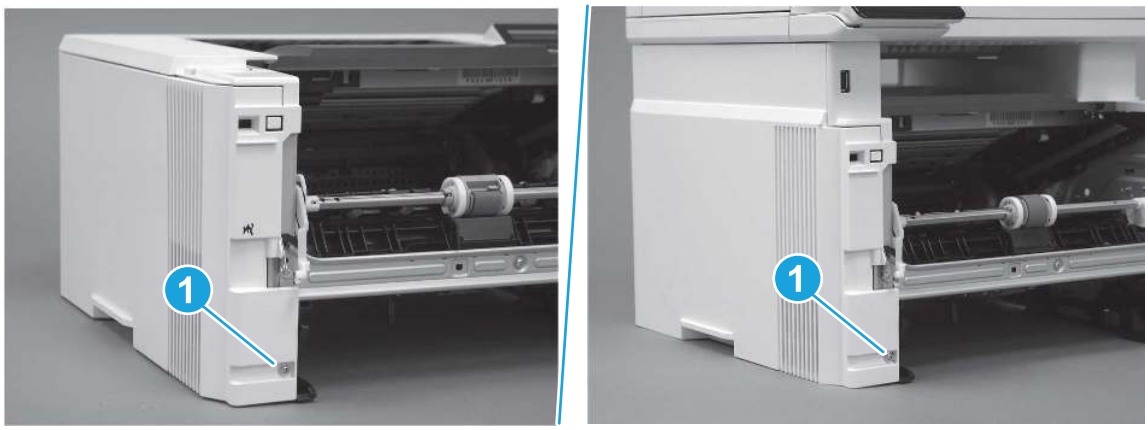
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

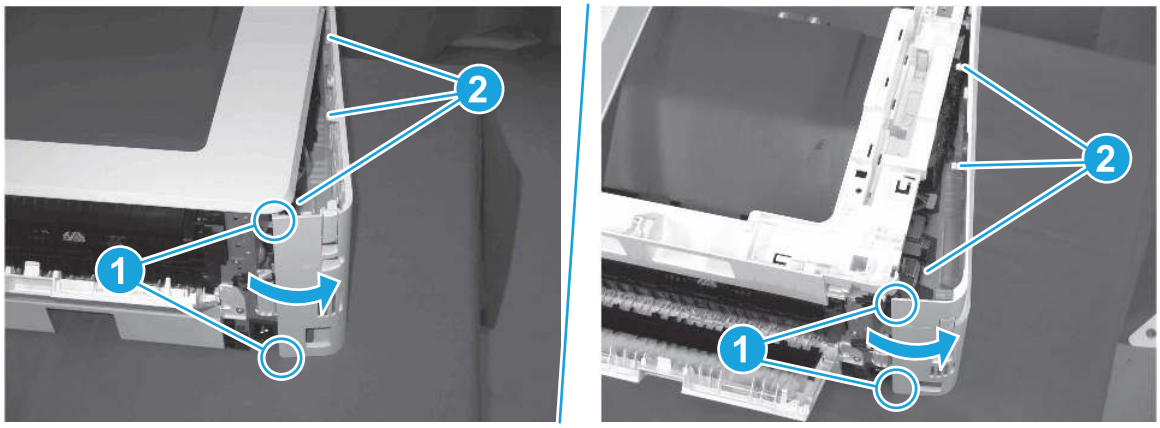
1. Remove one screw (callout 1).

Figure 4-531 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-532 Release two bosses and three tabs

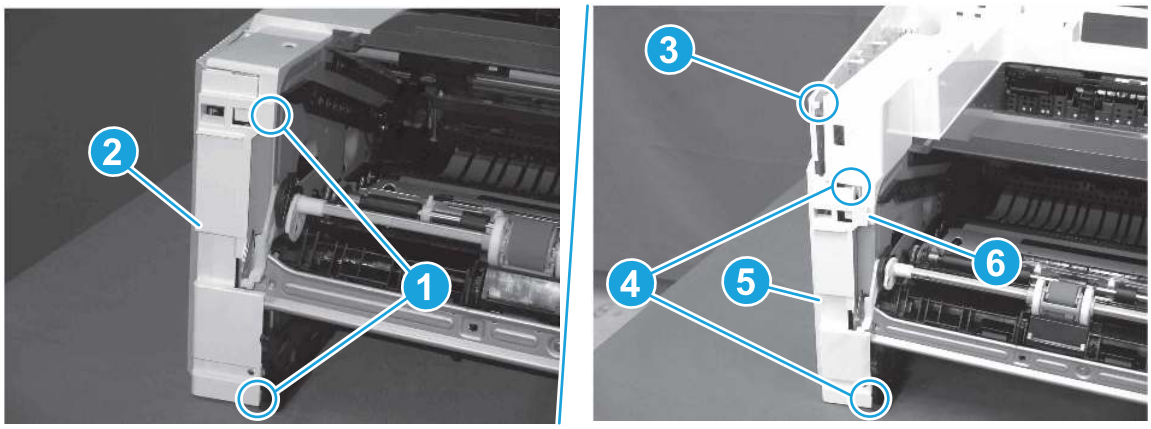


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-533 Remove the cover

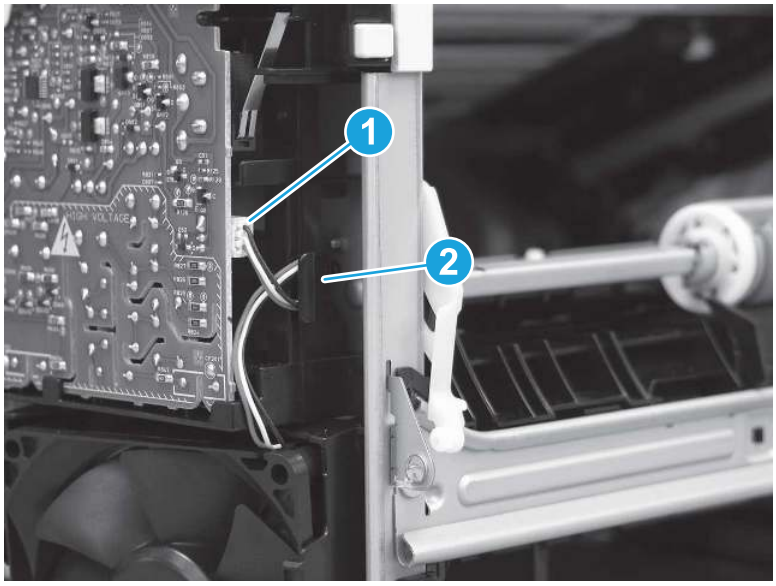


4. Remove the fan (FM1)

Follow these steps to remove the fan (FM1).

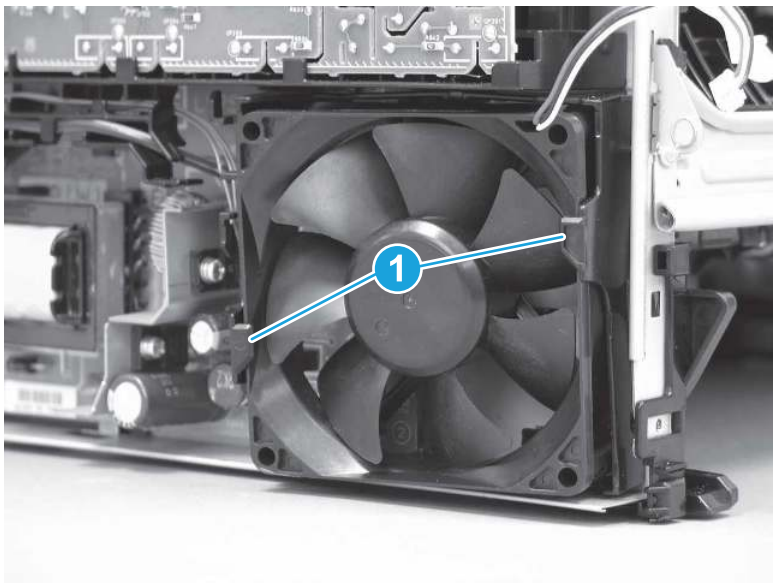
1. Disconnect one connector (callout 1), and then release the wire harness from the retainer (callout 2).

Figure 4-534 Disconnect one connector



2. Release two tabs (callout 1).

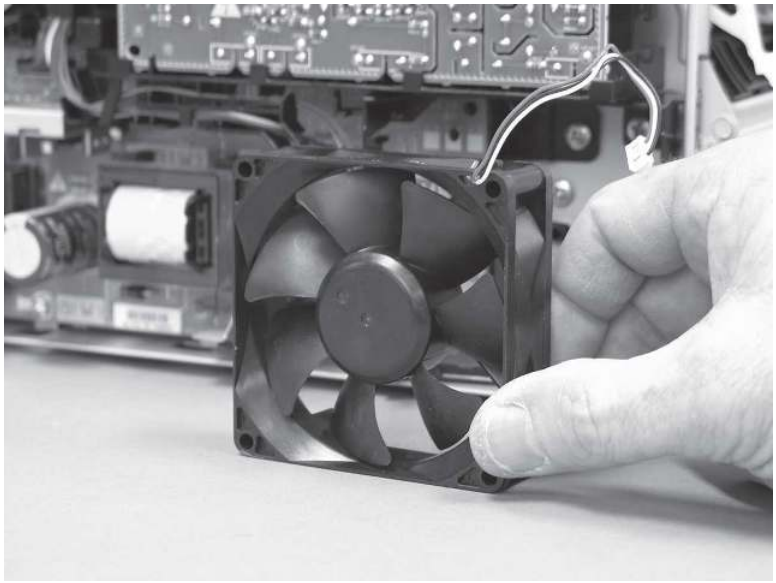
Figure 4-535 Release two tabs



3. Remove the fan.

Reinstallation tip: The fan must be correctly installed so that air is drawn into the printer. Make sure that the two arrows embossed on the right-side of the fan body—which indicate air flow direction—face upward and into the printer.

Figure 4-536 Remove the fan



5. Remove the fan holder (FM1)

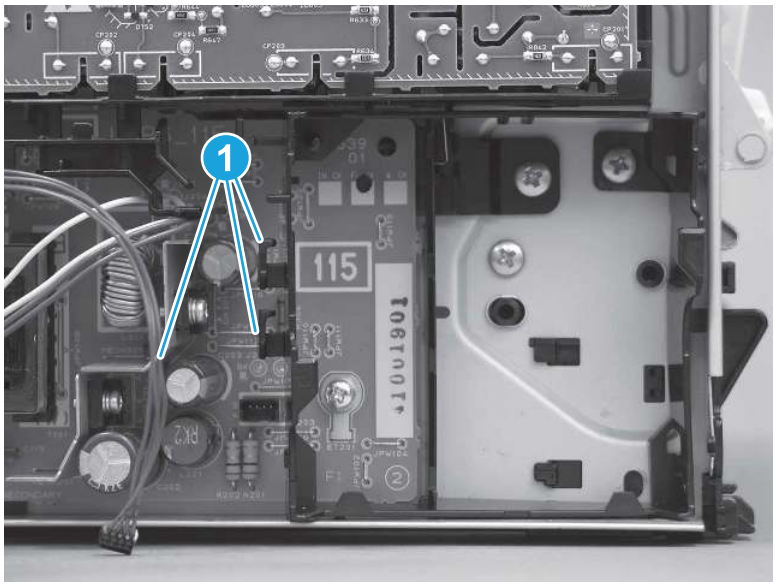
Follow these steps to remove the fan holder (FM1).

1. Release one wire harness from the retainers (SFP shown; callout 1) on the fan holder.

NOTE: The MFP has two wire harnesses in the retainers.

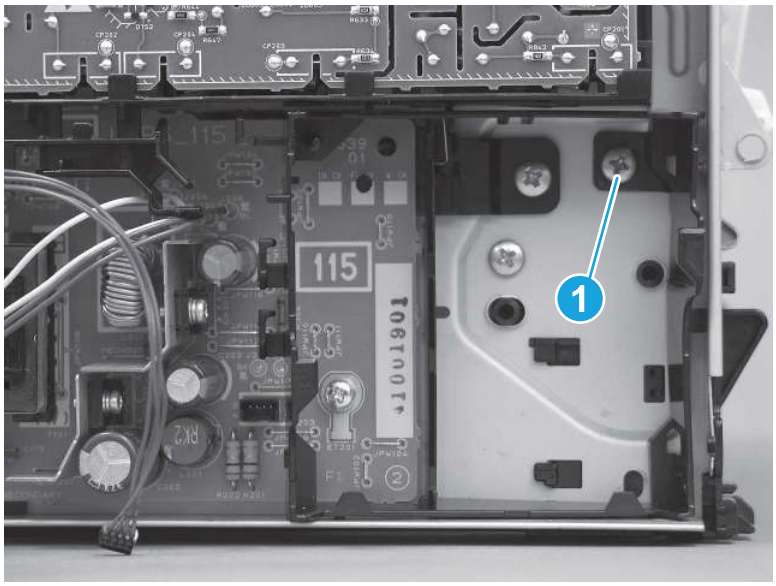
TIP: It might be easier to release the wire harness by first disconnecting the connector.

Figure 4-537 Release the wire harness (SFP shown)



2. Remove one screw (callout 1).

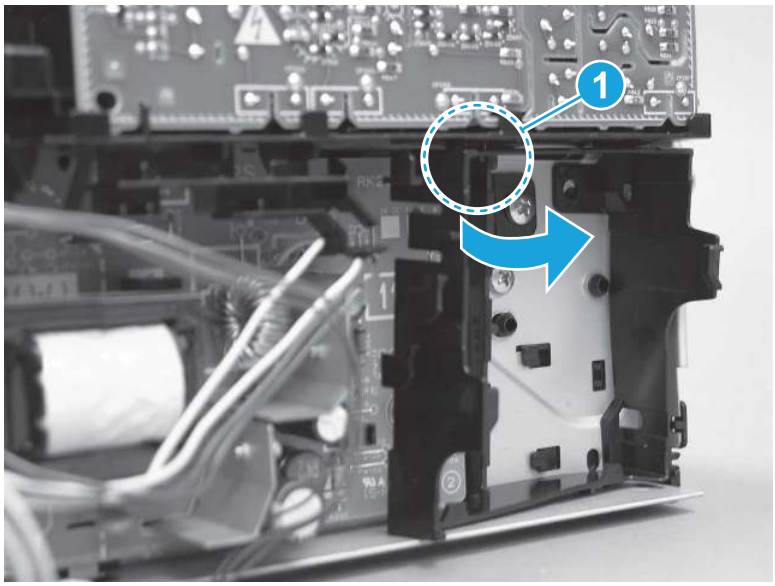
Figure 4-538 Remove one screw



3. Release one tab at the top-left side of the fan holder (callout 1), and then rotate the top-left side corner of the holder away from the printer.

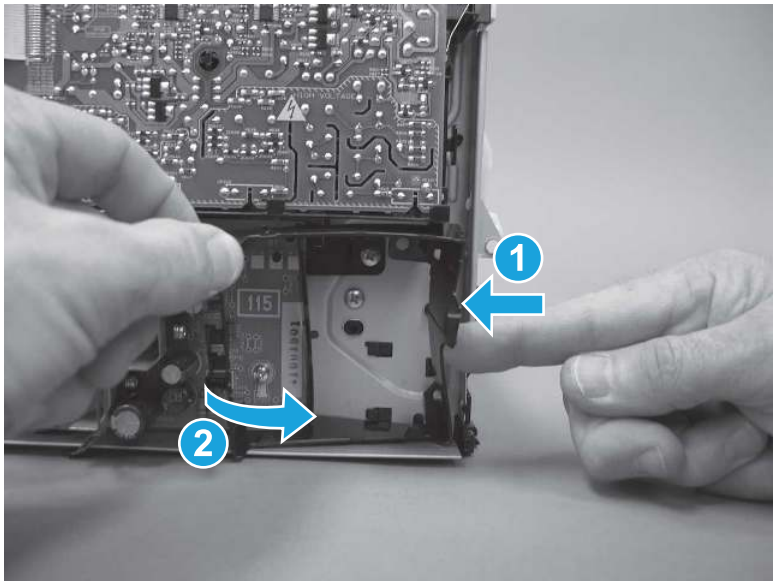
TIP: Use a flat-blade screwdriver to slightly flex the top of the holder down to make it easier to engage this tab.

Figure 4-539 Release one tab



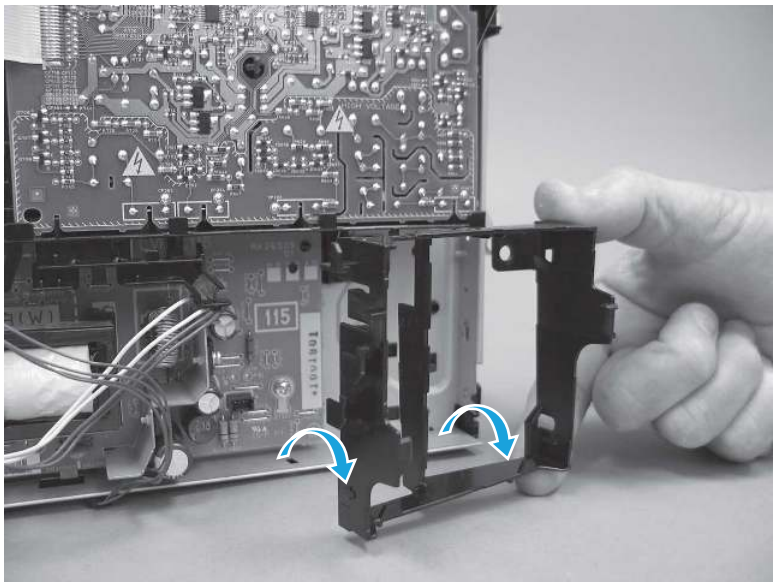
4. Slightly flex the right side of the holder to release one tab (callout 1), and then rotate the top of the holder away from the printer (callout 2).

Figure 4-540 Release one tab



5. Lift the holder up to release two alignment tabs on the bottom of the holder, and then remove the holder.

Figure 4-541 Remove the holder



6. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Laser scanner assembly

Learn how to remove and replace the laser scanner assembly.

View a video of how to remove and replace the SFP laser scanner assembly.

View a video of how to remove and replace the MFP laser scanner assembly.

Mean time to repair: 18 minutes SFP, 40 minutes MFP

Service level: Medium SFP, Medium MFP

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-42 Part information

Part number	Part description
RM2-2891-000CN	Laser scanner assembly

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-542 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

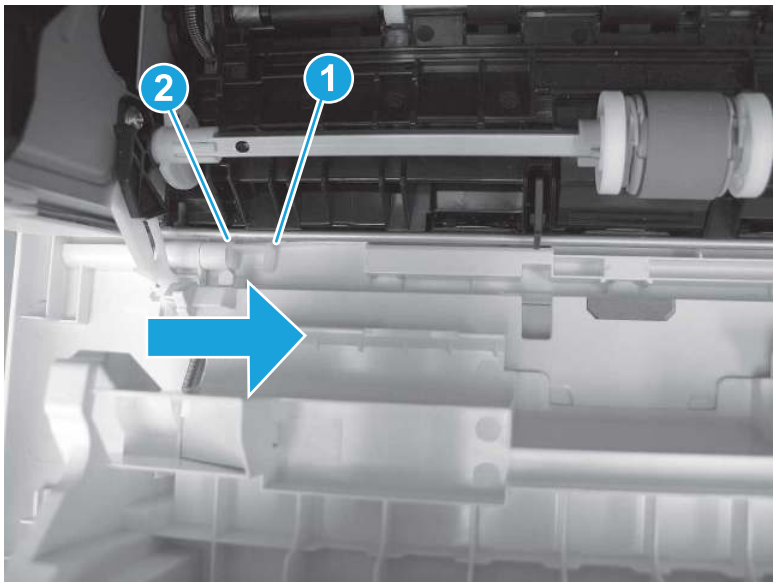
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

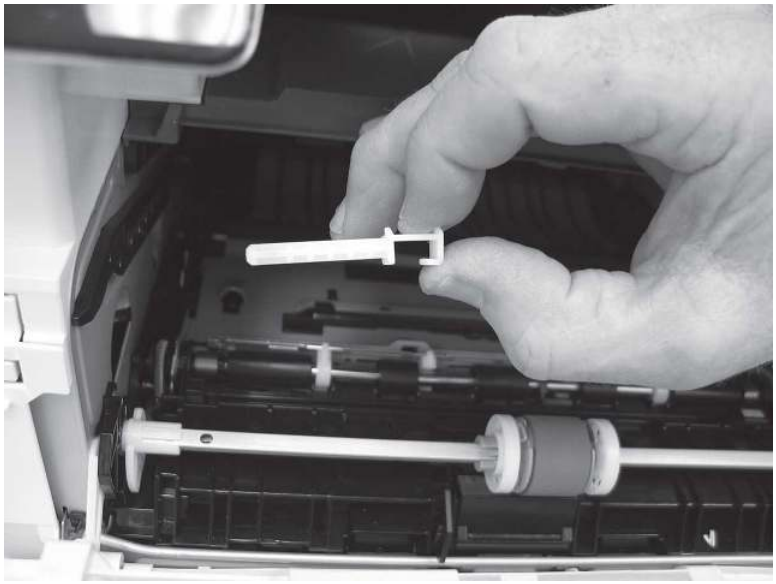
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-543 Release the support shaft



2. Remove the support shaft.

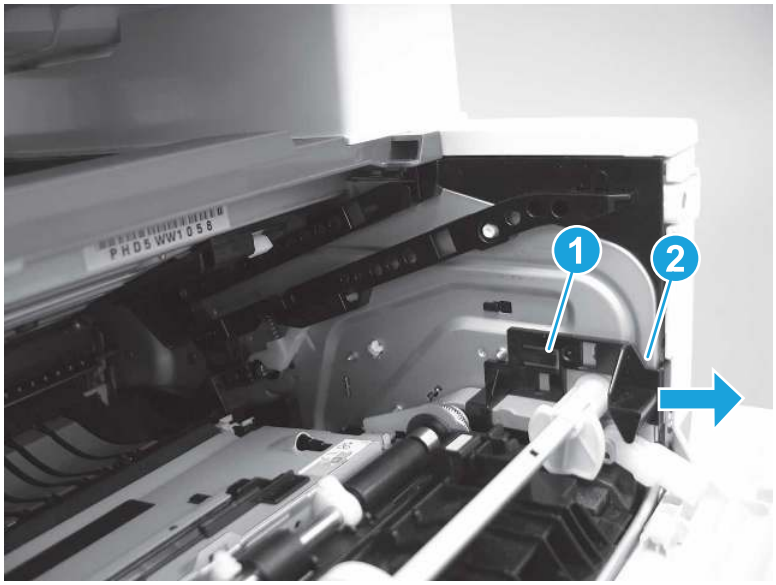
Figure 4-544 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

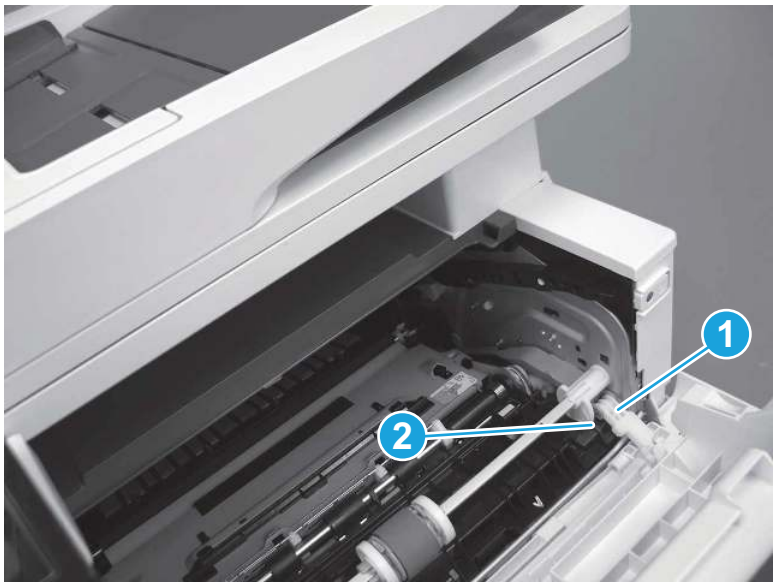
CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-545 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-546 Release the pressure-release link

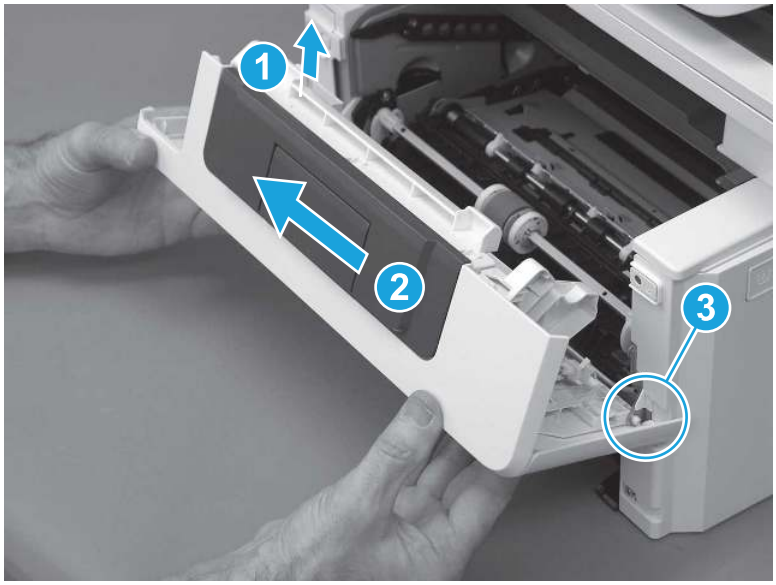


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

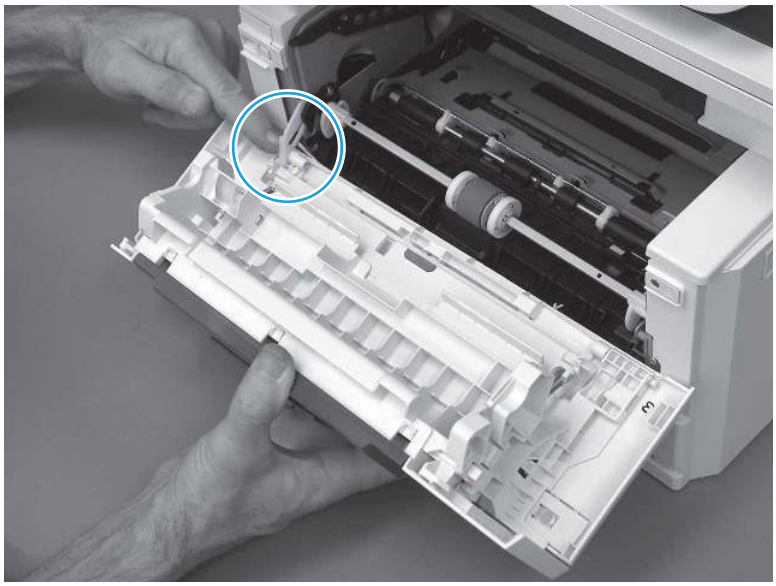
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-547 Release the door



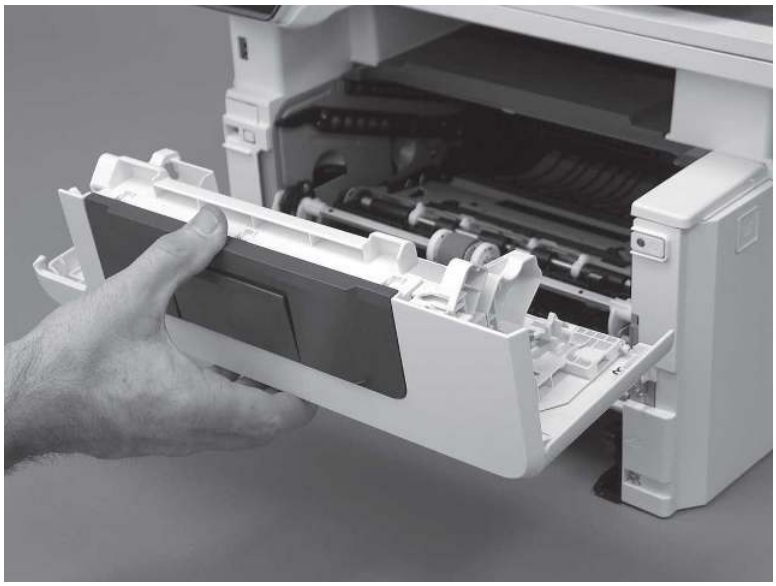
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-548 Release the left-side retainer arm



7. Remove the door.

Figure 4-549 **Remove the door**



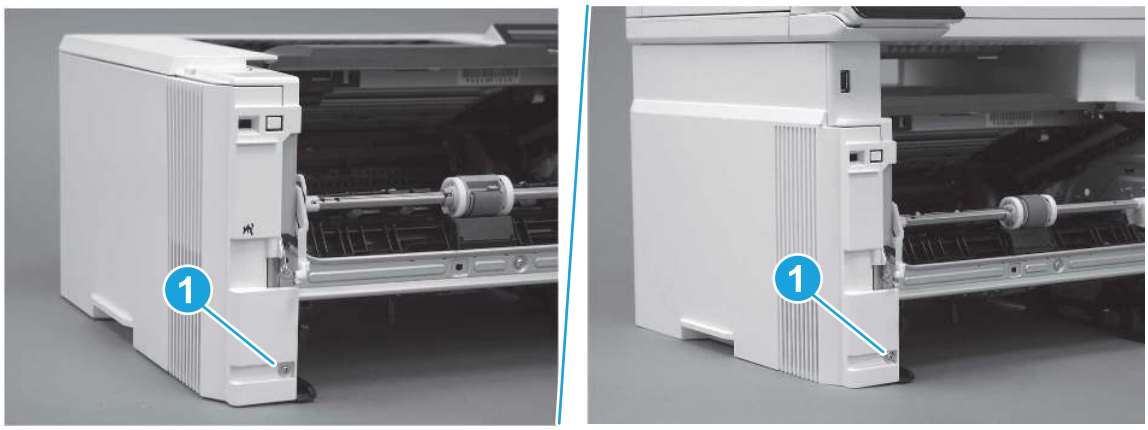
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

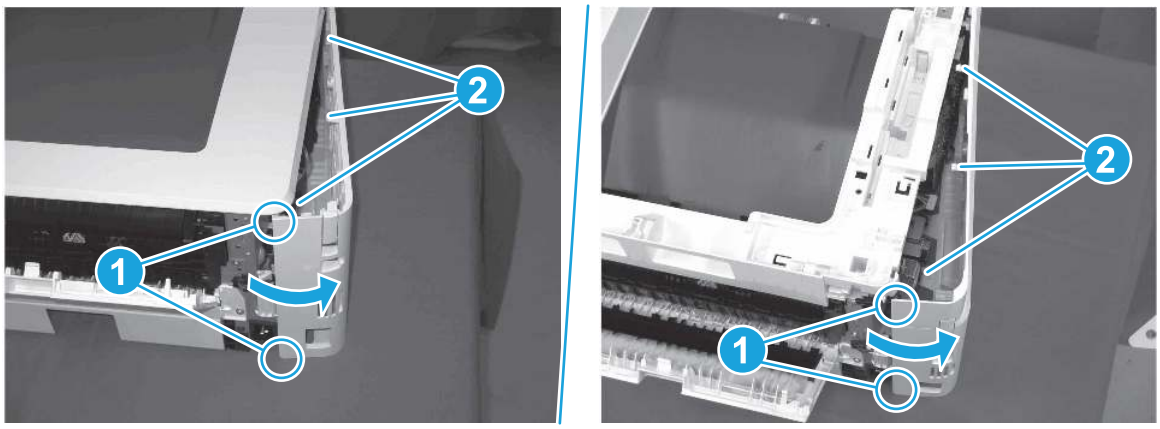
1. Remove one screw (callout 1).

Figure 4-550 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-551 Release two bosses and three tabs

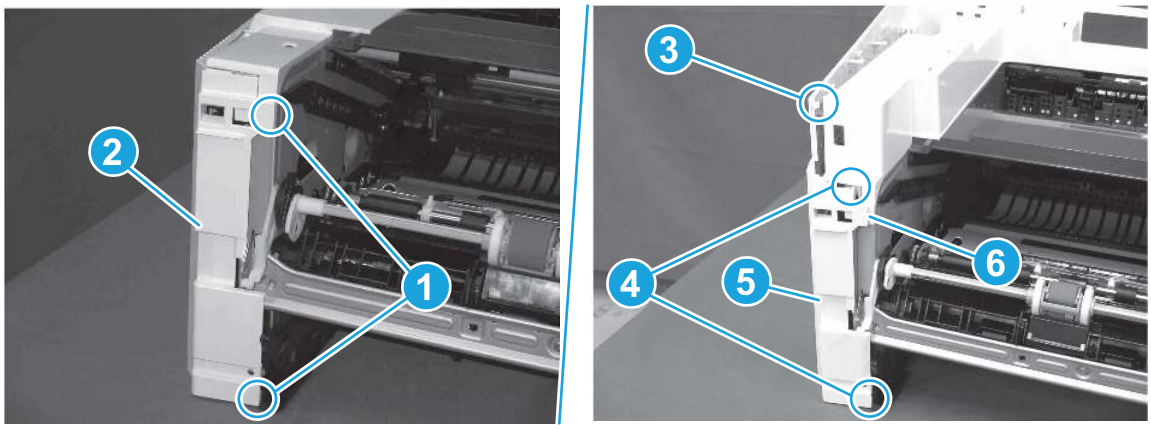


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-552 Remove the cover



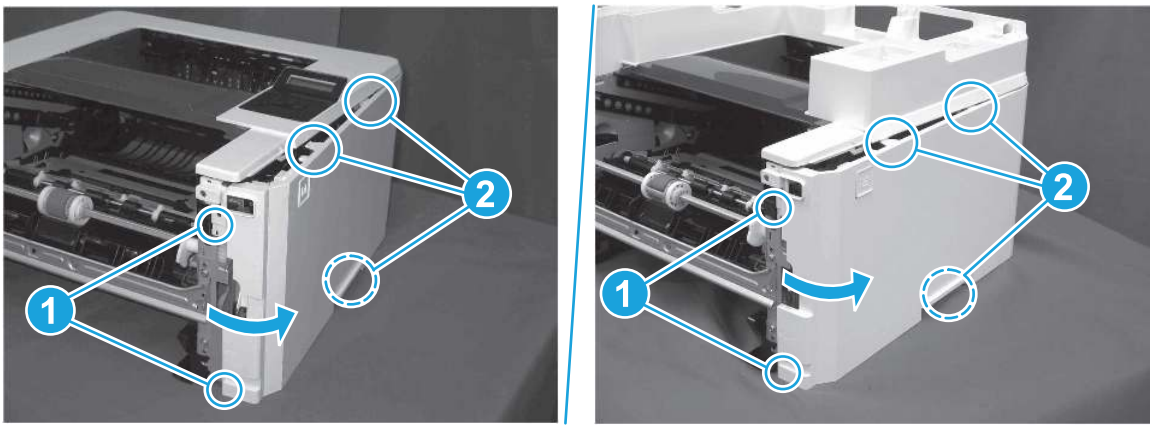
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

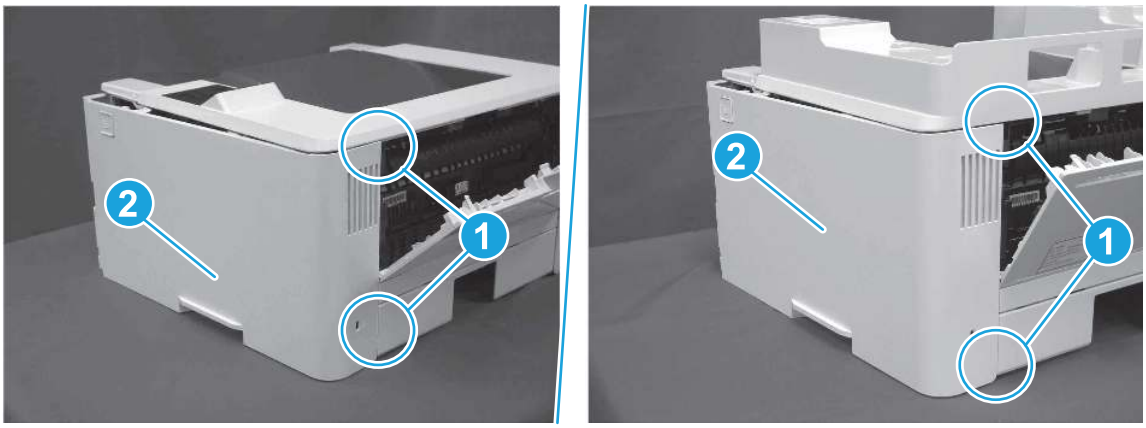
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-553 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-554 Remove the cover



5. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-555 Open the ISA



2. Remove one screw (callout 1).

Figure 4-556 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-557 Release two tabs



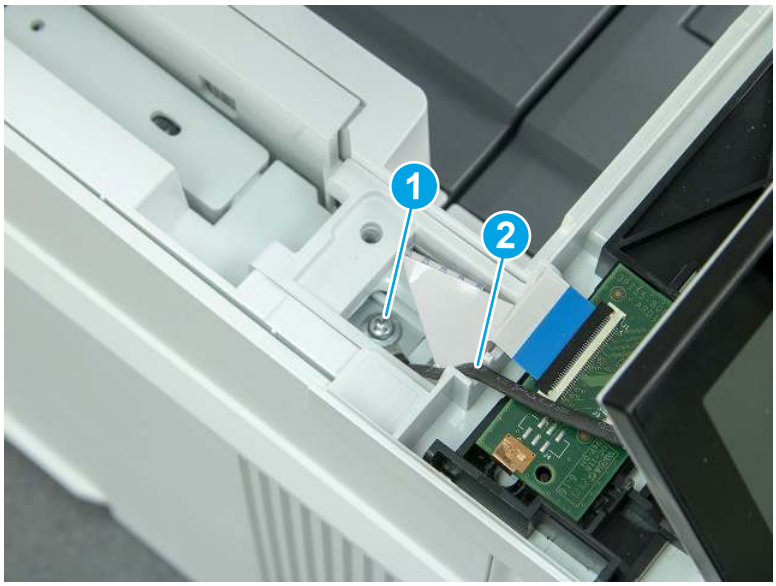
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-558 Remove the cover



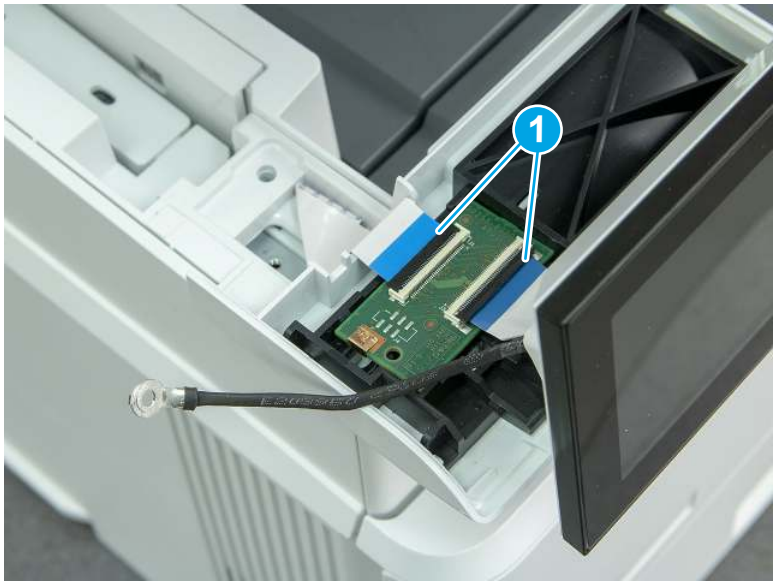
5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-559 Remove one screw



6. Disconnect two FFC (callout 1).

Figure 4-560 Disconnect two FFC



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

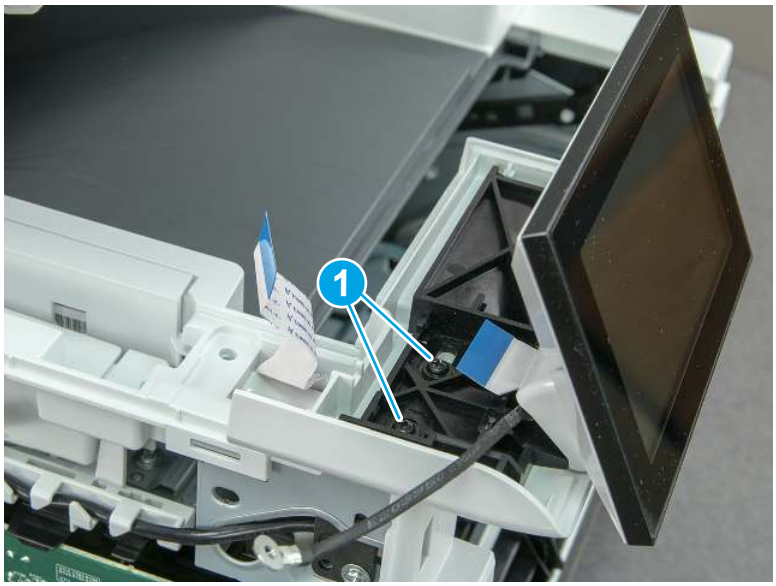
Figure 4-561 Remove the ICB



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ CAUTION: Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-562 Remove two screws and remove the control panel assembly

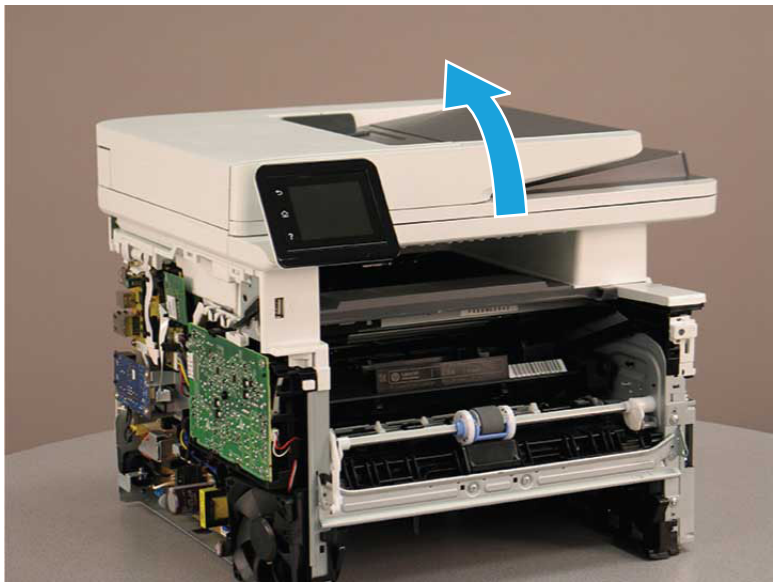


6. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

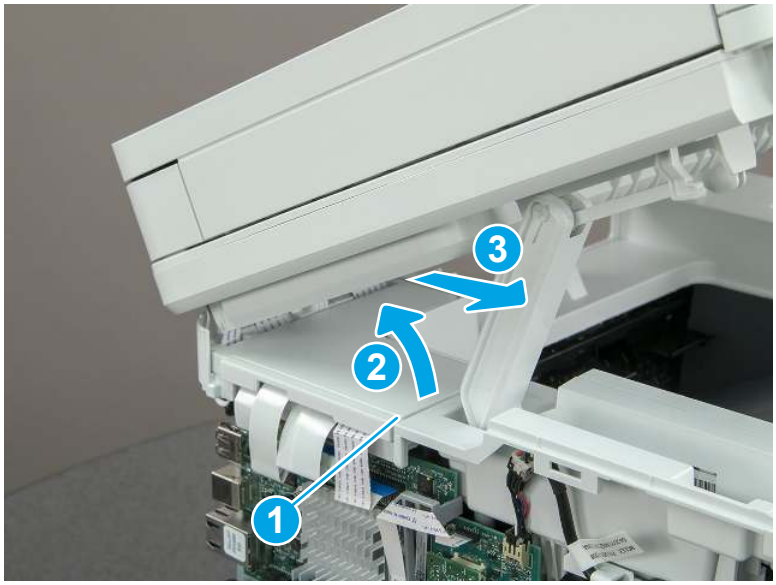
1. If the ISA is not already raised, raise it now.

Figure 4-563 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-564 Remove the ISA FFC cover

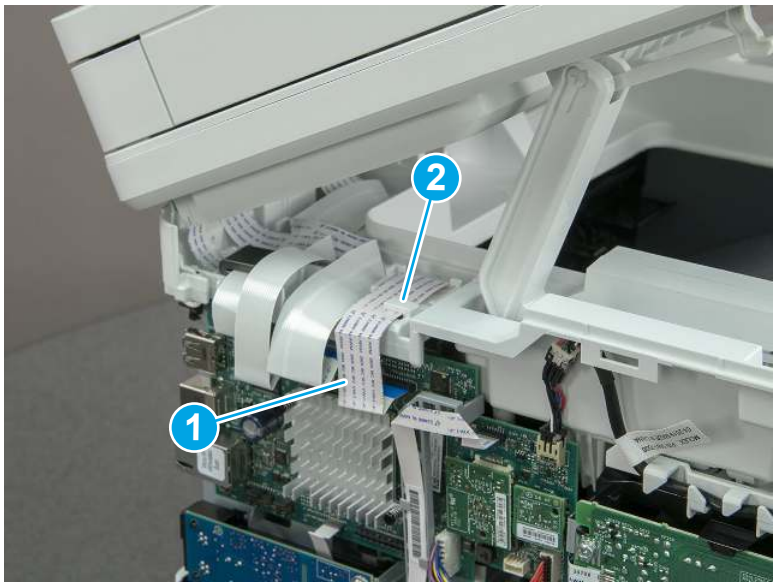


7. Remove the control panel flat cable and cover (MFP only)

Follow these steps to remove the control panel flat cable and cover (MFP only).

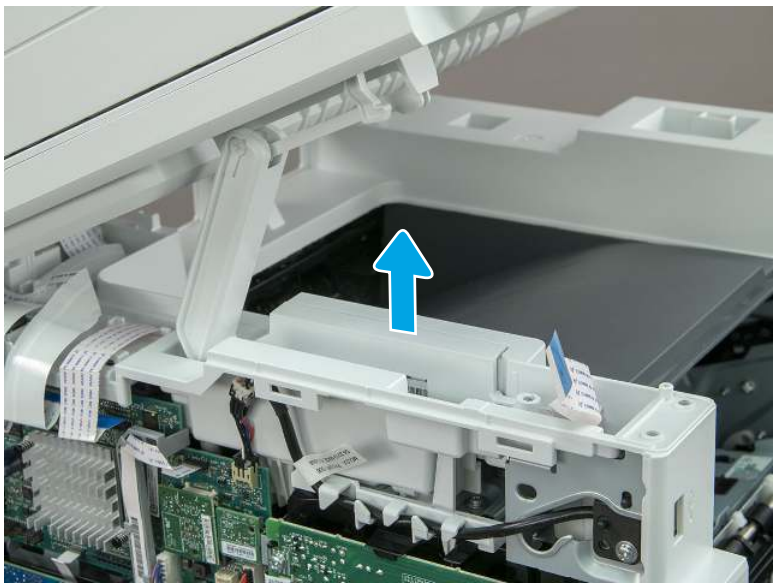
1. Disconnect one FFC (callout 1), and then release the cable from the guides (callout 2).

Figure 4-565 Disconnect one cable



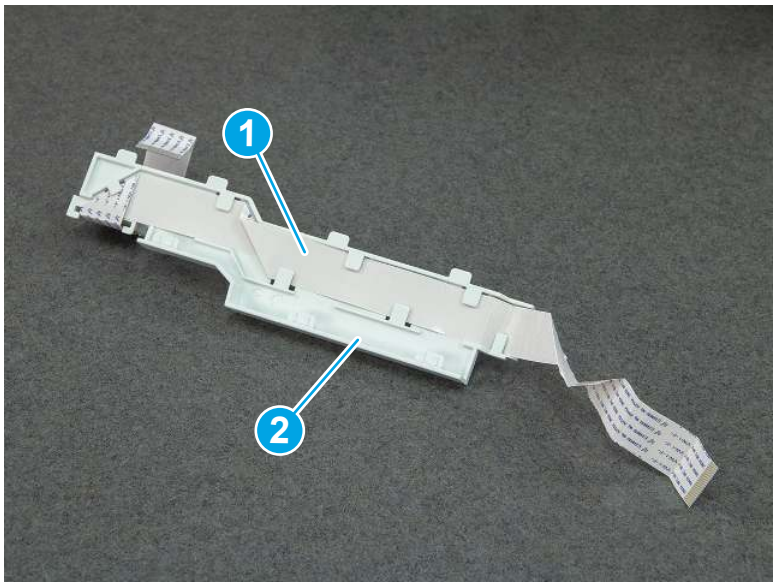
2. Lift up the control-panel FFC cover to remove the cover and cable.

Figure 4-566 Remove the cover and cable



3. If you are replacing the FFC or the cover, remove the FFC (callout 1) from the cover (callout 2).

Figure 4-567 Remove the FFC



8. Remove the integrated scanner assembly (MFP only)

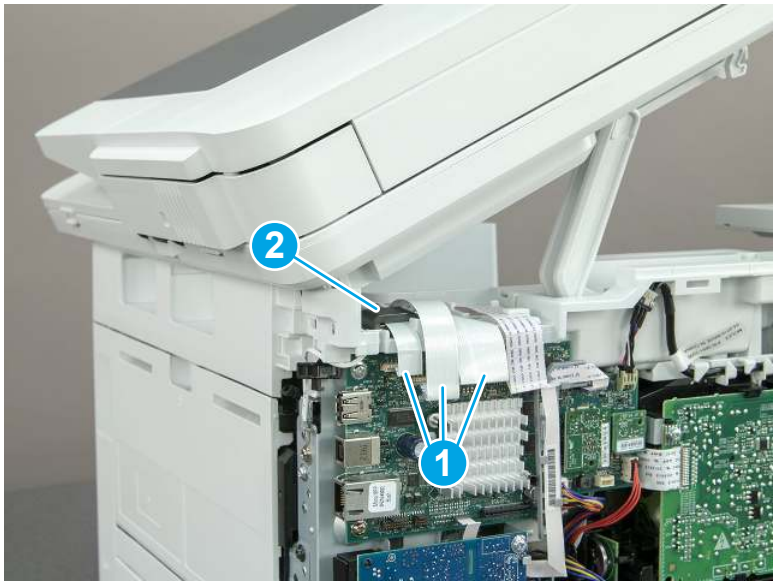
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-568 Disconnect three FFCs



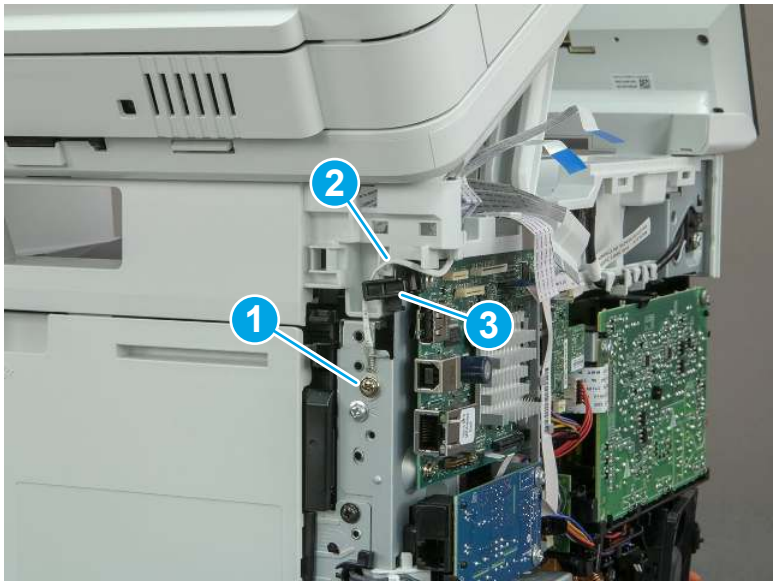
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-569 Release the tape



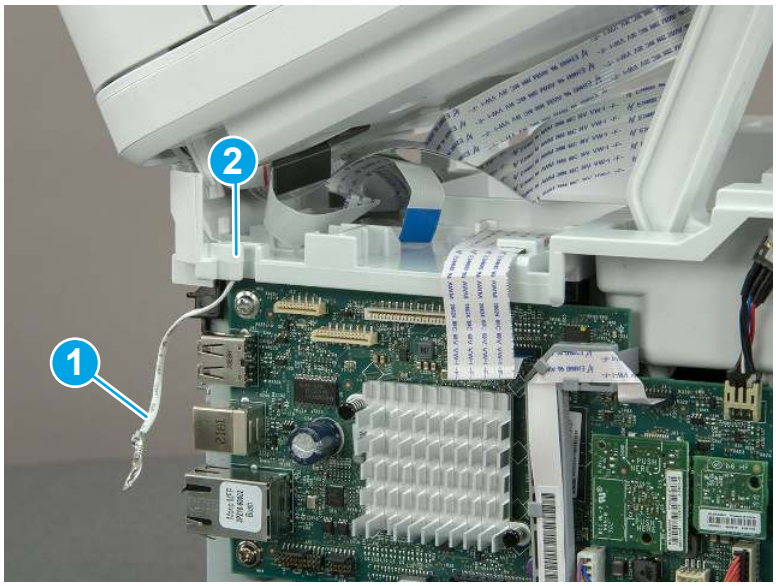
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-570 Release the ground wire



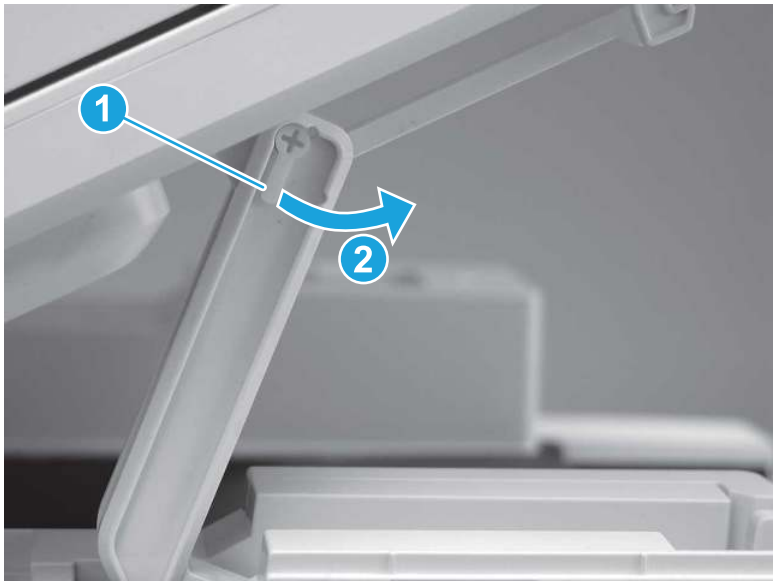
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-571 Release the ground wire



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

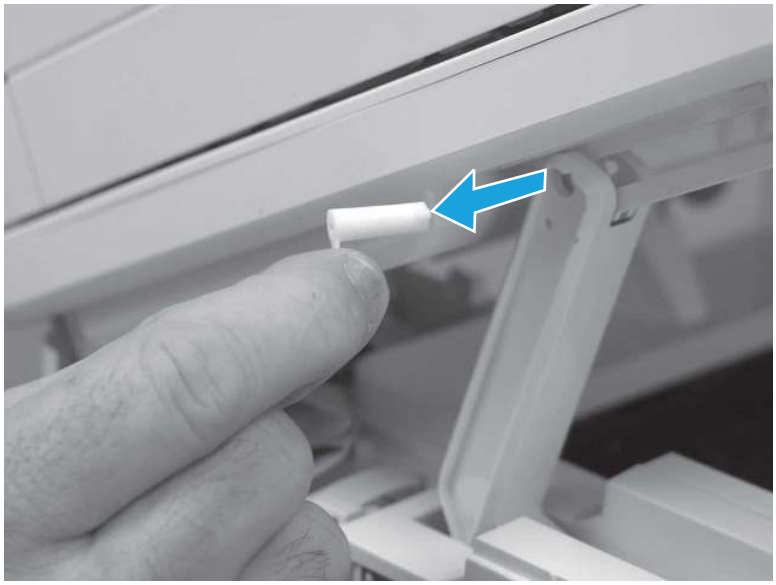
Figure 4-572 Release one tab and rotate the slider pin



6. Remove the slider pin.

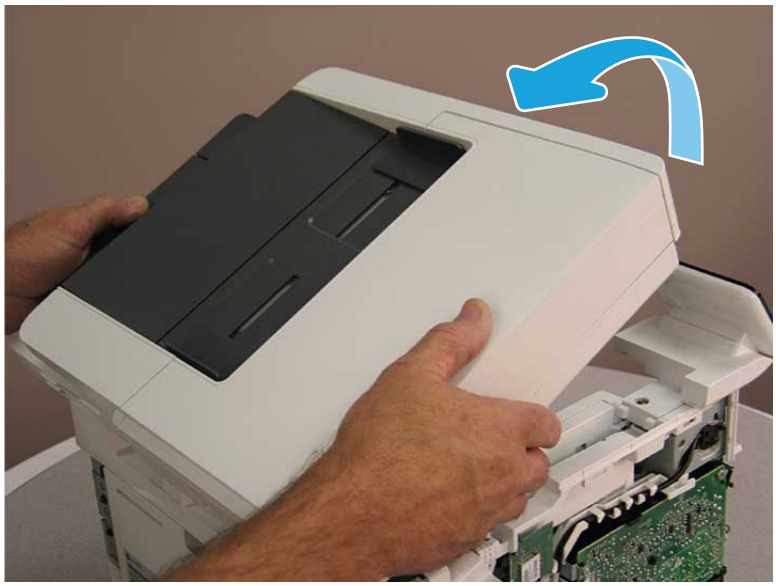
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-573 Remove the slider pin



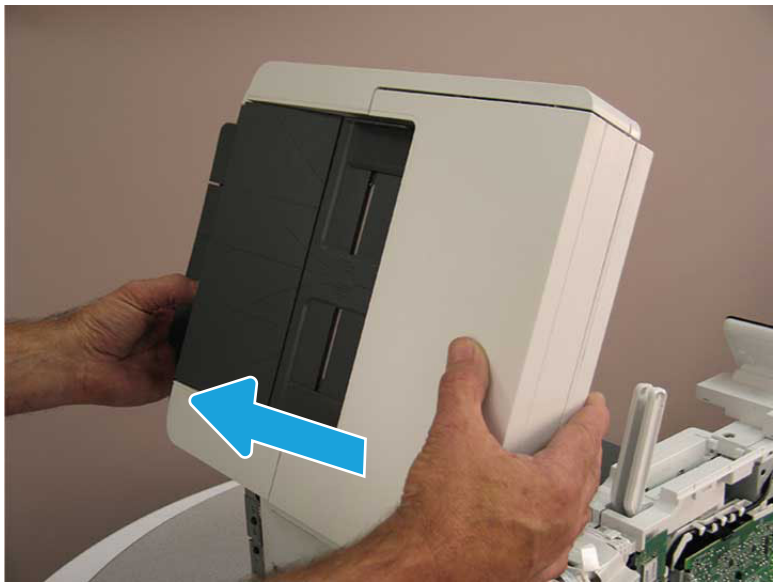
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-574 Rotate the ISA towards the rear of the printer



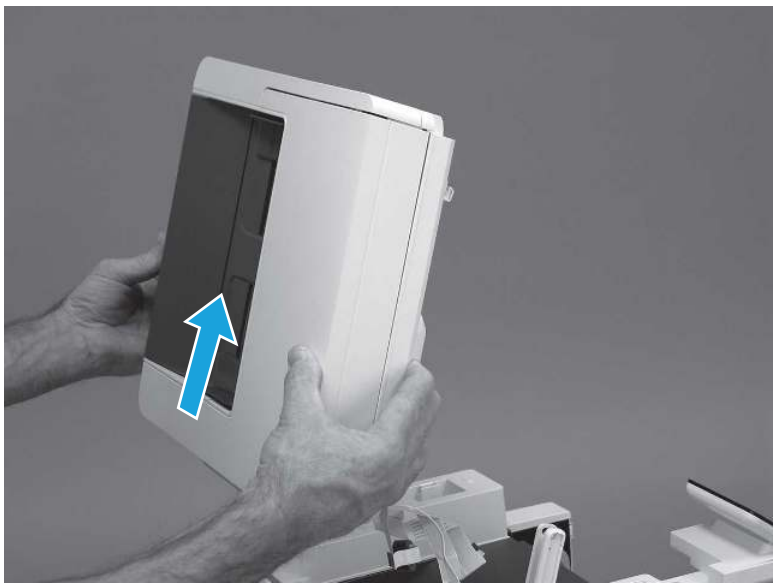
8. Slide the ISA as shown to release it.

Figure 4-575 Release the ISA



9. Remove the ISA.

Figure 4-576 Remove the ISA

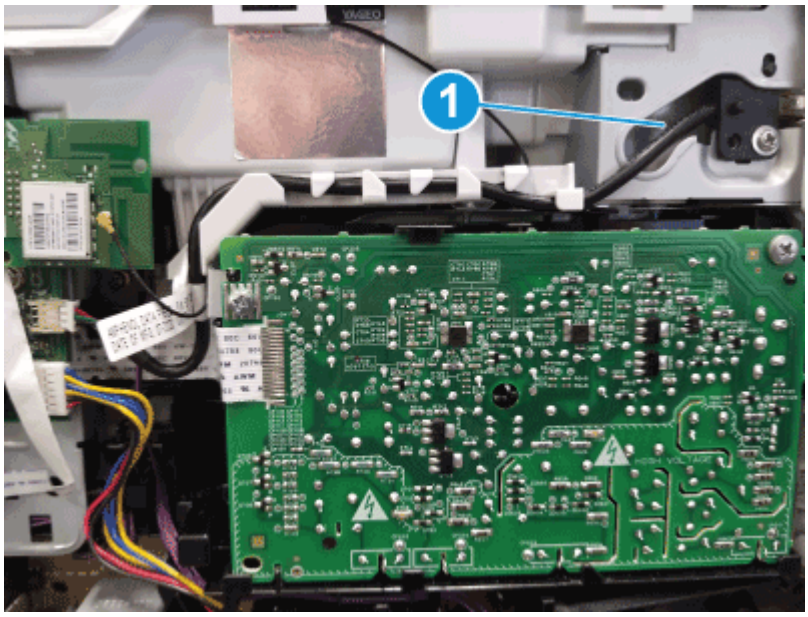


9. Remove the top cover (MFP)

Follow these steps to remove the top cover (MFP).

1. Release the USB cable (callout 1) from the cable guide.

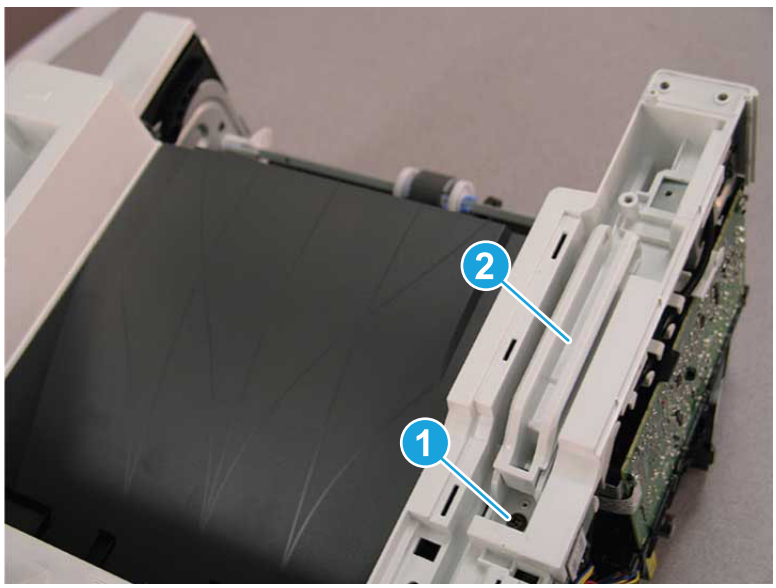
Figure 4-577 Release the USB cable



2. Remove one screw (callout 1), and then remove the support arm (callout 2).

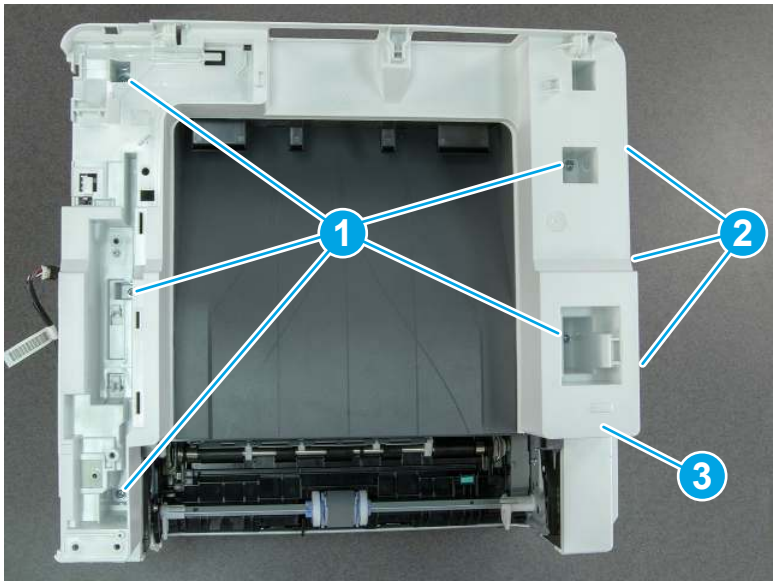
⚠ CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-578 Remove the support arm



3. Remove five screws (callout 1), release three bosses (callout 2), and then remove the top cover (callout 3).

Figure 4-579 Remove the top cover



10. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

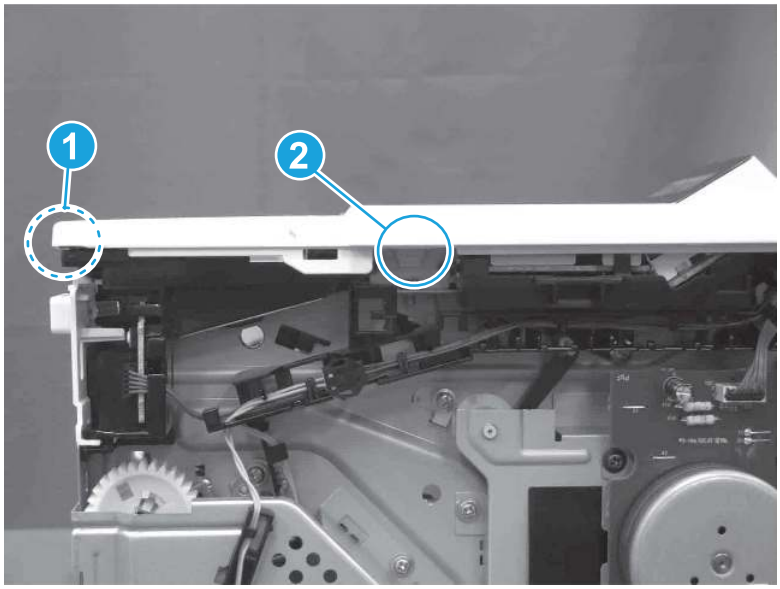
1. Remove one screw.

Figure 4-580 Remove one screw



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

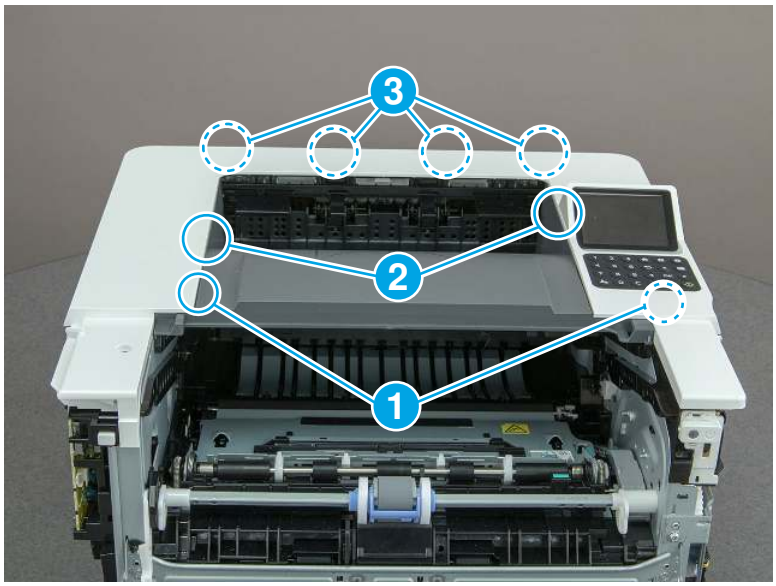
Figure 4-581 **Release one boss and one tab**



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-582 **Remove the cover**

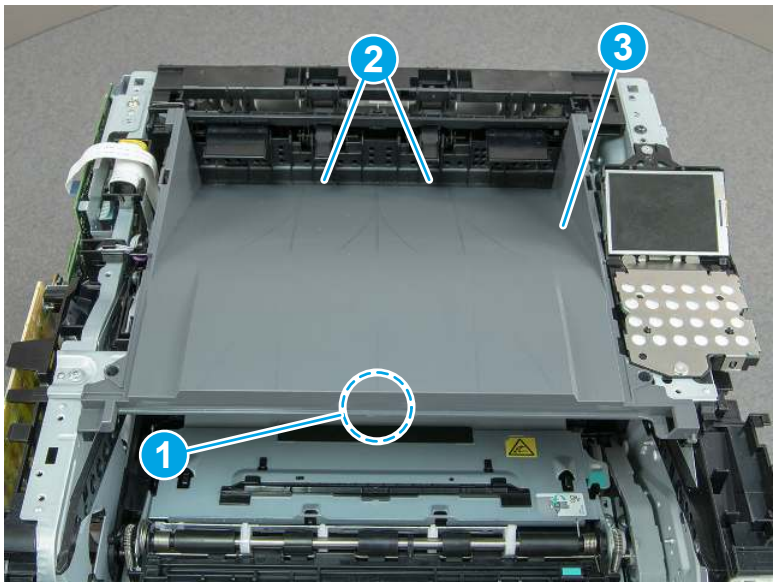


11. Remove the paper delivery tray (output bin)

Follow these steps to remove the paper delivery tray (output bin).

- Release one tab (callout 1), release two bosses (callout 2), and then remove the paper delivery tray (output bin; callout 3).

Figure 4-583 Remove the cover



12. Remove the laser scanner assembly

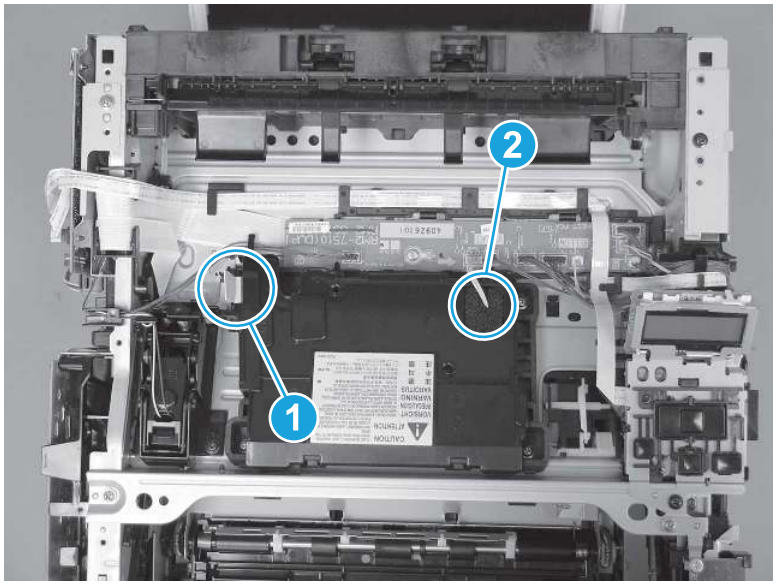
Follow these steps to remove the laser scanner assembly.

A SFP printer is shown in this section. However, the procedure is correct for all printer models.

1. Disconnect one flat-flexible cable (FFC) (callout 1), and one connector (callout 2).

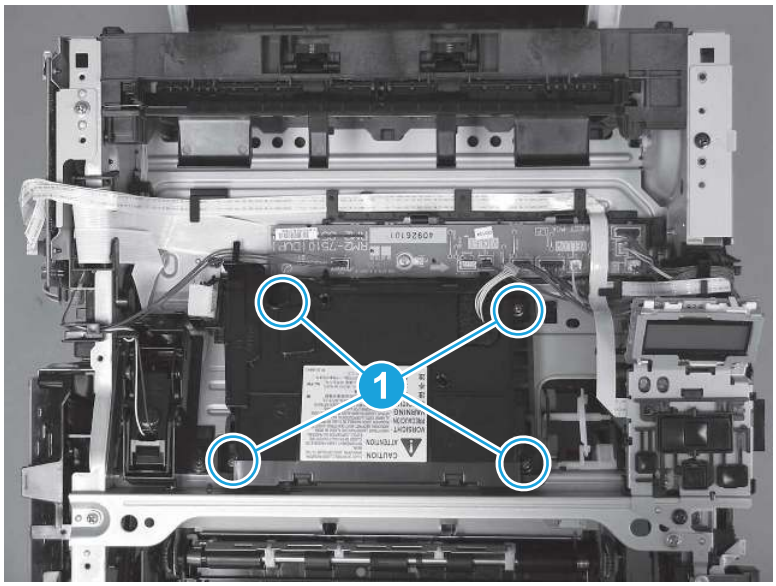
Reinstallation tip: Transfer the antistatic foam pad (callout 2) from the discarded laser/scanner assembly to the replacement assembly.

Figure 4-584 Disconnect one FFC and one connector



2. Remove four screws (callout 1), and then remove the laser scanner assembly.

Figure 4-585 Remove the laser scanner



13. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Formatter FFC

Learn how to remove and replace the formatter flat-flexible cable (FFC).

View a video of how to remove and replace the SFP formatter FFC.

View a video of how to remove and replace the MFP formatter FFC.

Mean time to repair: 25 minutes SFP, 52 MFP

Service level: Medium SFP, Difficult MFP

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-43 Part information

Part number	Part description
RK2-6920-000CN	Cable, flexible flat Frmtr to DCC (SFP)
RK2-6931-000CN	Cable, flexible flat Frmtr to DCC (MFP)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length
- – Socket screwdriver 5.5 mm (.216 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-586 Remove the tray



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

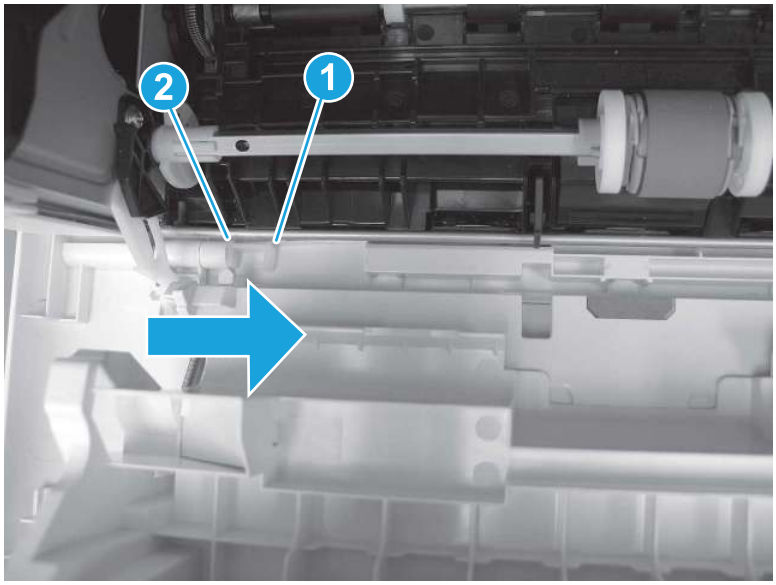
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

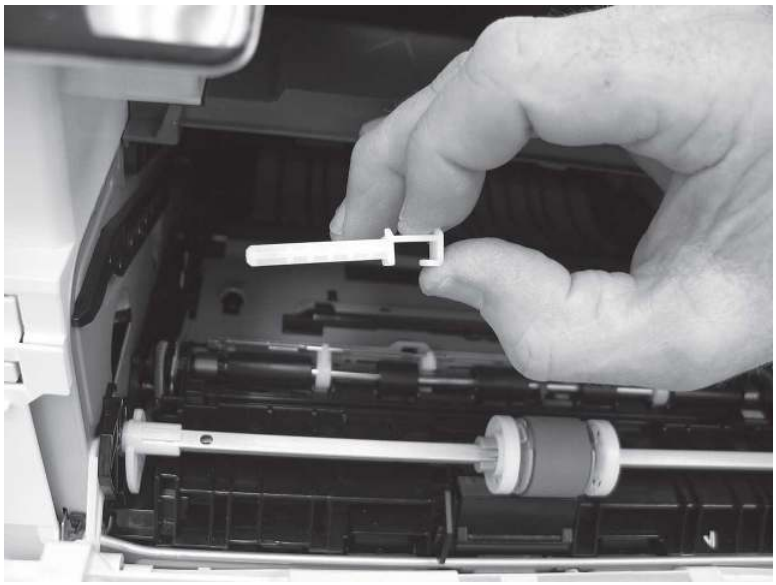
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-587 Release the support shaft



2. Remove the support shaft.

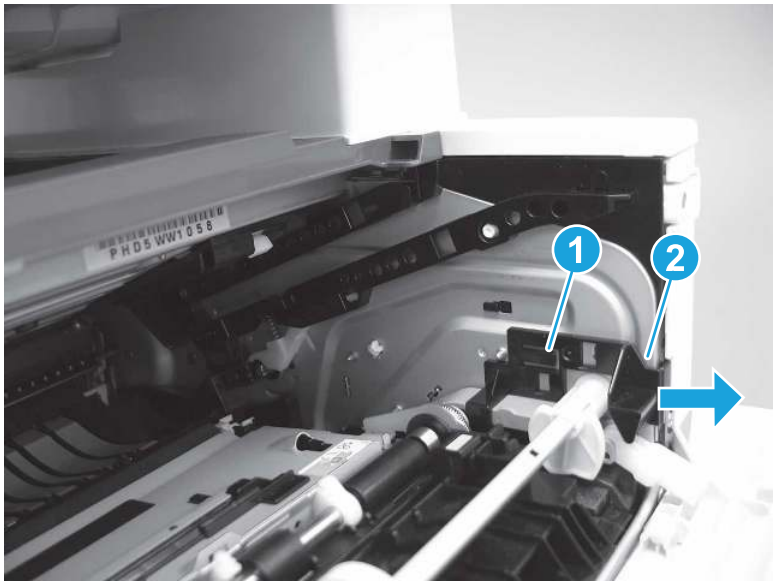
Figure 4-588 **Remove the support shaft**



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

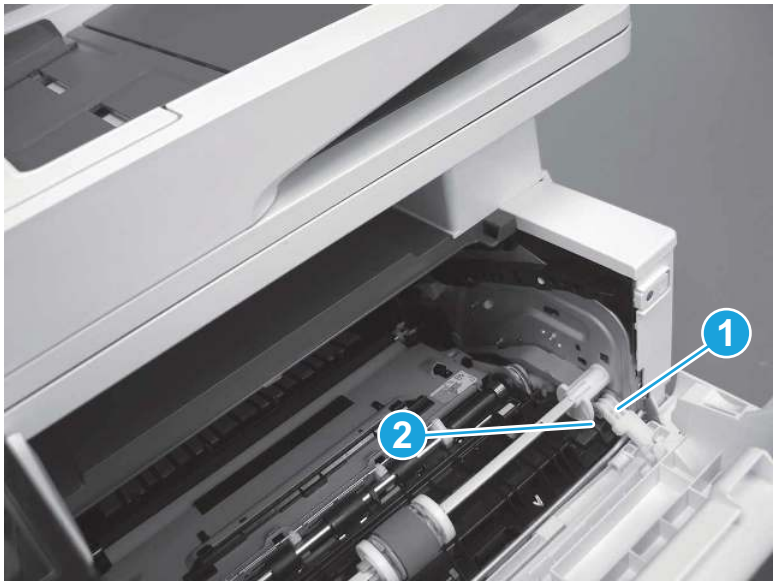
⚠ **CAUTION:** Be careful, the tab (callout 1) can be easily broken.

Figure 4-589 **Remove the guide**



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-590 Release the pressure-release link

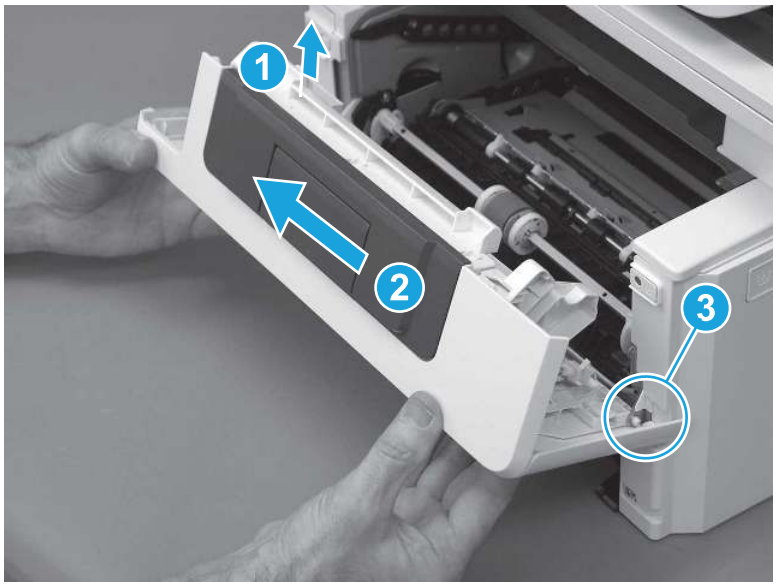


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

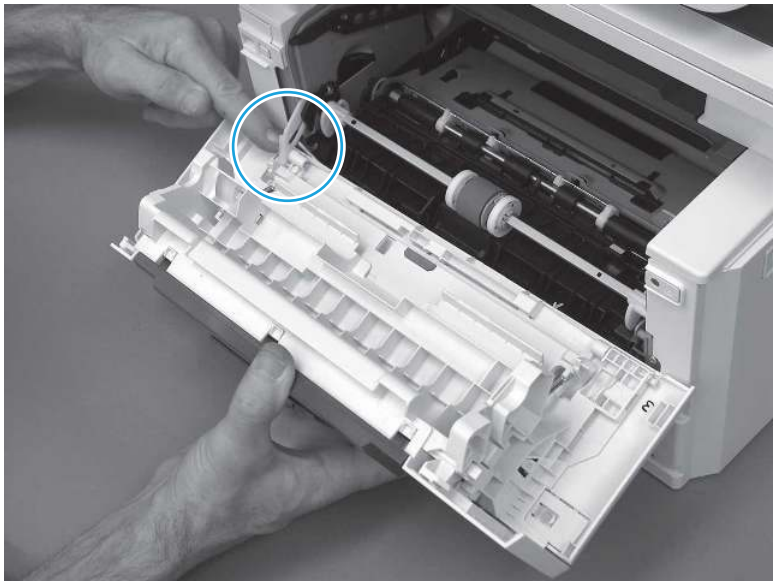
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-591 Release the door



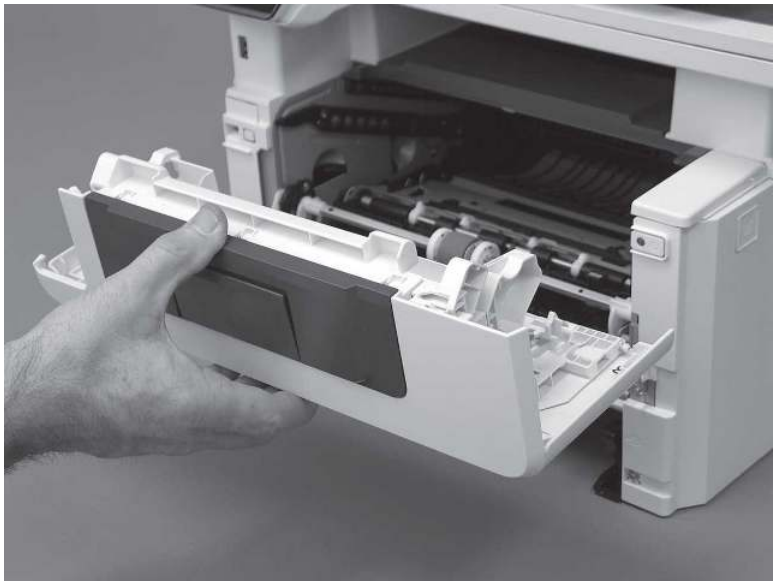
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-592 Release the left-side retainer arm



7. Remove the door.

Figure 4-593 Remove the door



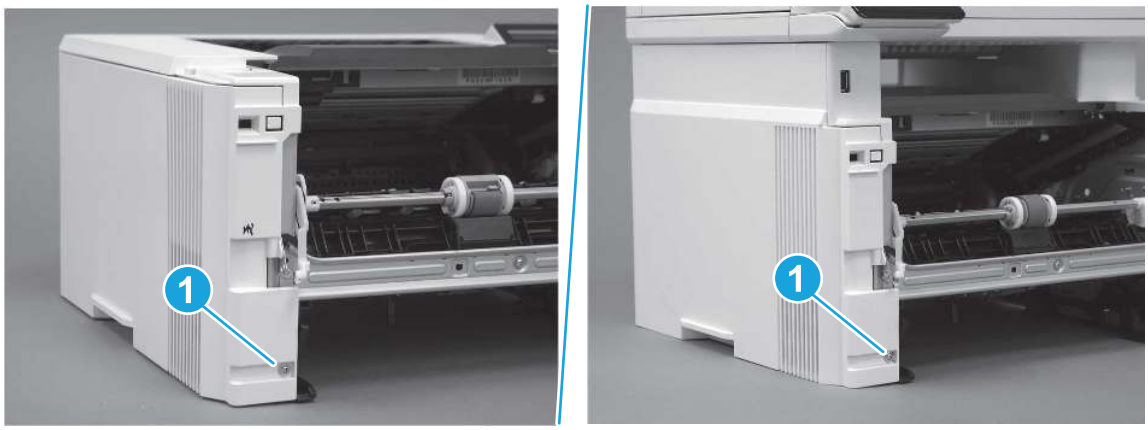
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

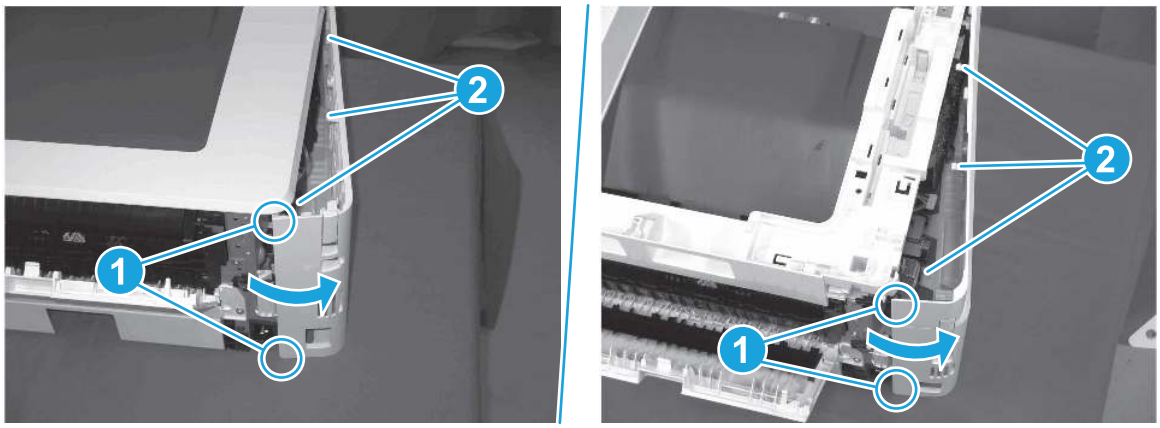
1. Remove one screw (callout 1).

Figure 4-594 Remove one screw



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-595 Release two bosses and three tabs

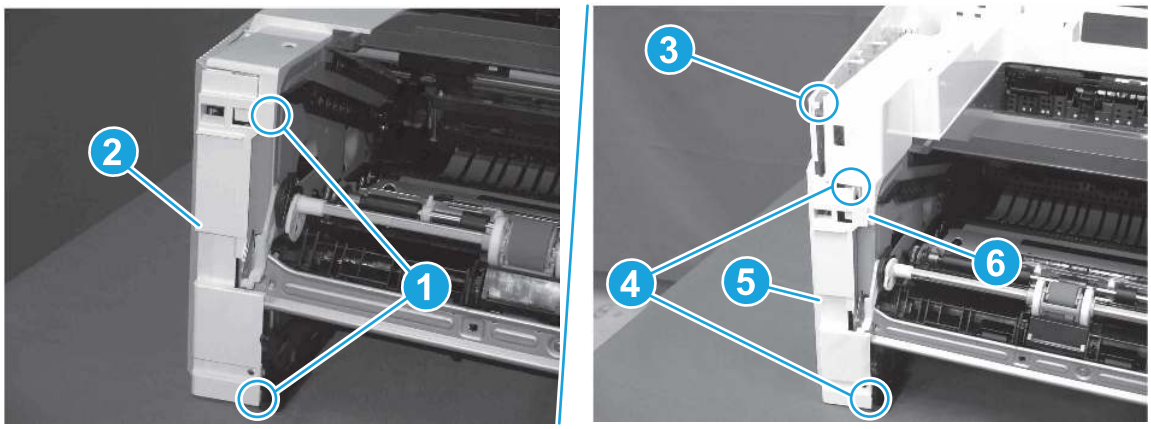


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-596 Remove the cover



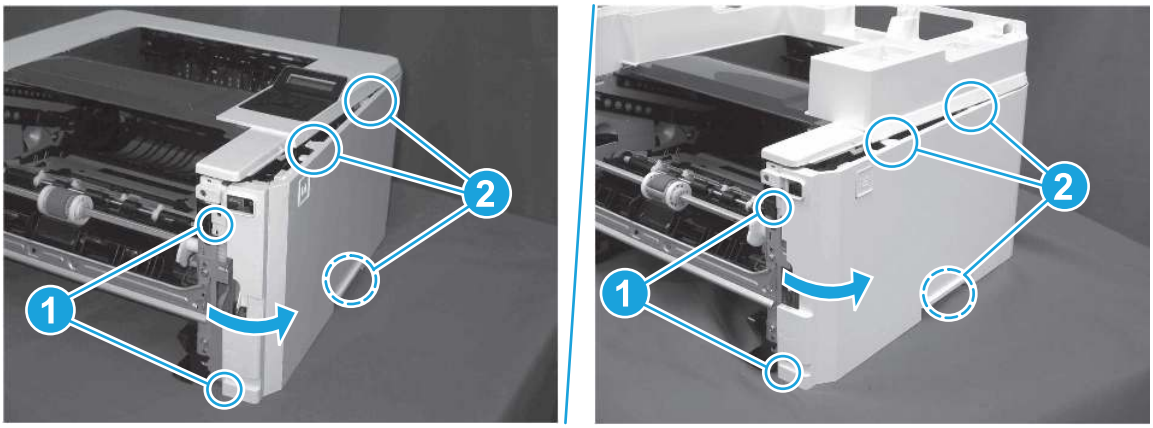
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

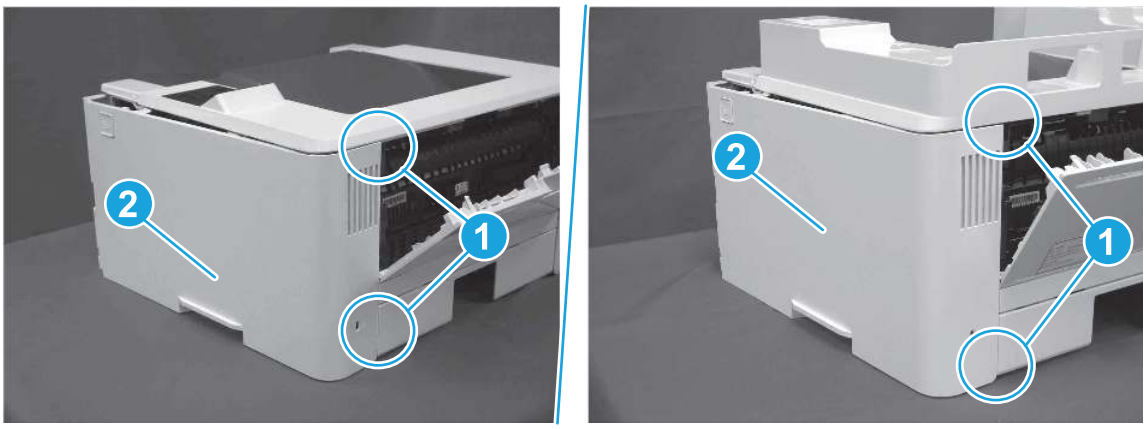
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-597 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-598 Remove the cover



5. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-599 Open the ISA



2. Remove one screw (callout 1).

Figure 4-600 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-601 Release two tabs



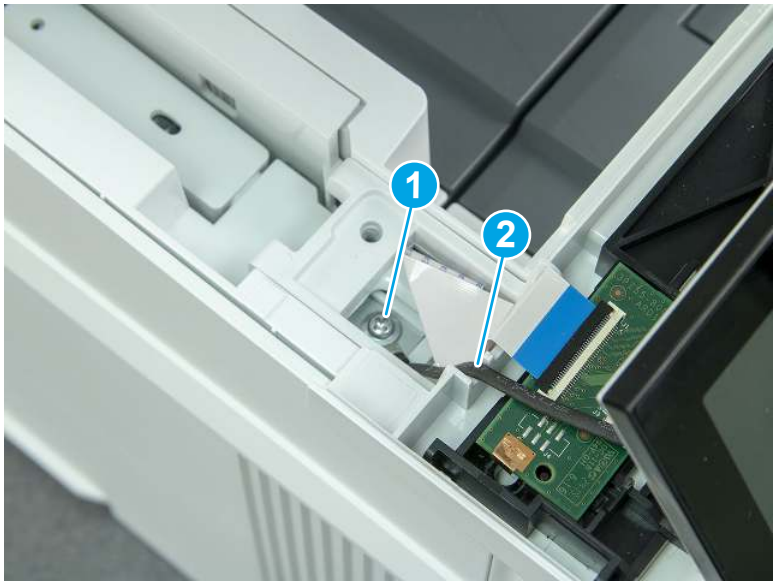
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-602 Remove the cover



5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-603 Remove one screw



6. Disconnect two FFC (callout 1).

Figure 4-604 Disconnect two FFC



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

Figure 4-605 Remove the ICB



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ CAUTION: Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-606 Remove two screws and remove the control panel assembly

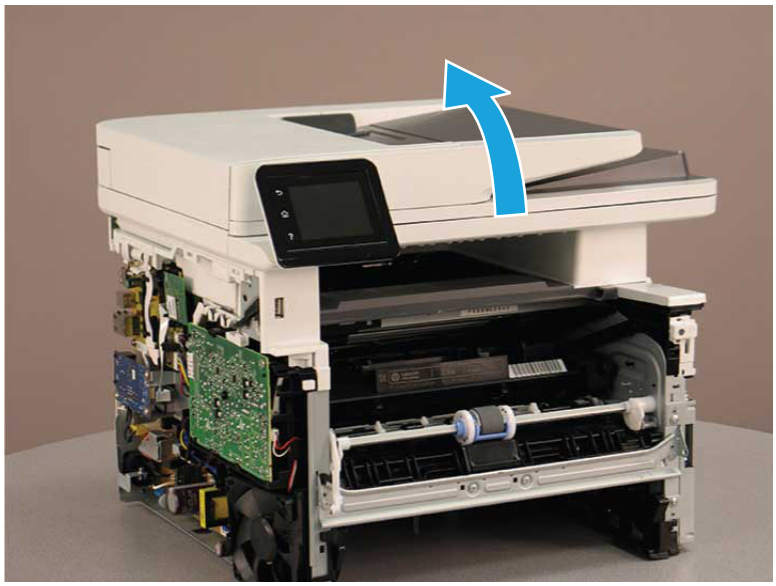


6. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

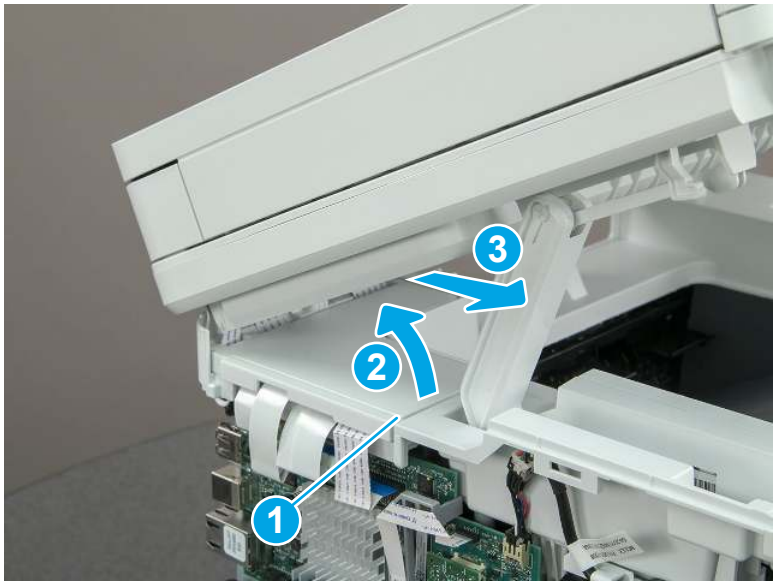
1. If the ISA is not already raised, raise it now.

Figure 4-607 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-608 Remove the ISA FFC cover

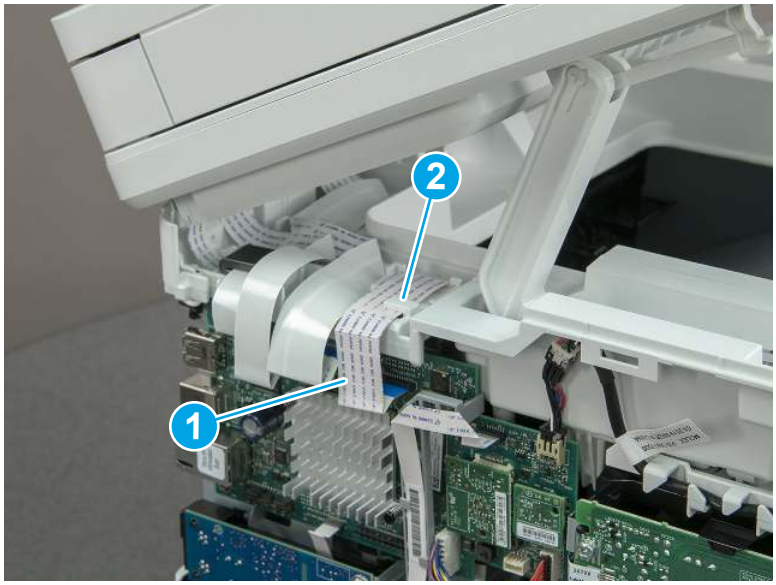


7. Remove the control panel flat cable and cover (MFP only)

Follow these steps to remove the control panel flat cable and cover (MFP only).

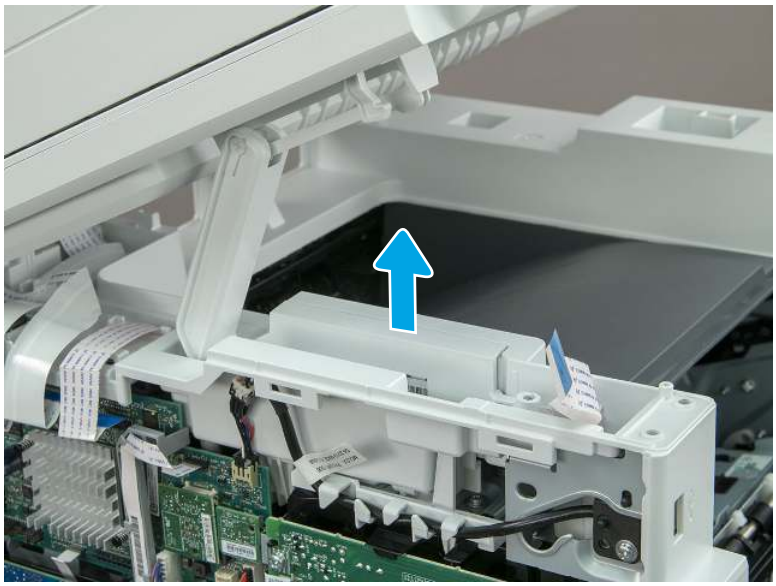
1. Disconnect one FFC (callout 1), and then release the cable from the guides (callout 2).

Figure 4-609 Disconnect one cable



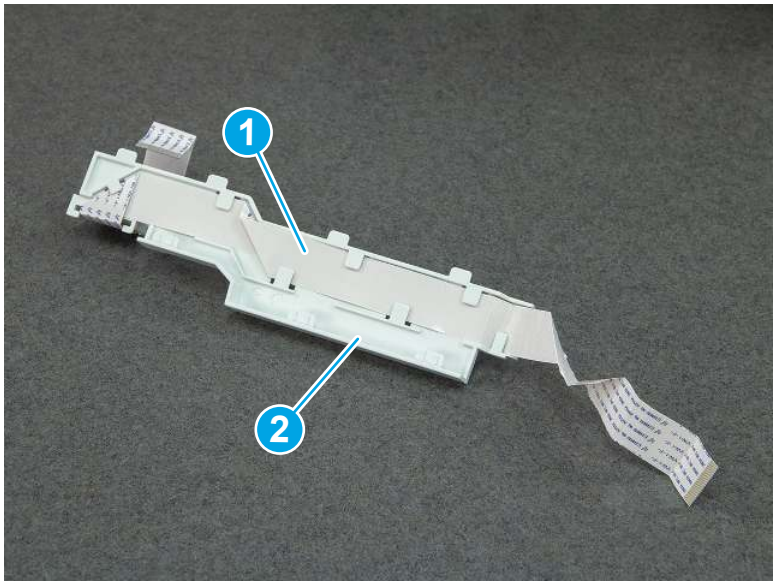
2. Lift up the control-panel FFC cover to remove the cover and cable.

Figure 4-610 Remove the cover and cable



3. If you are replacing the FFC or the cover, remove the FFC (callout 1) from the cover (callout 2).

Figure 4-611 Remove the FFC



8. Remove the integrated scanner assembly (MFP only)

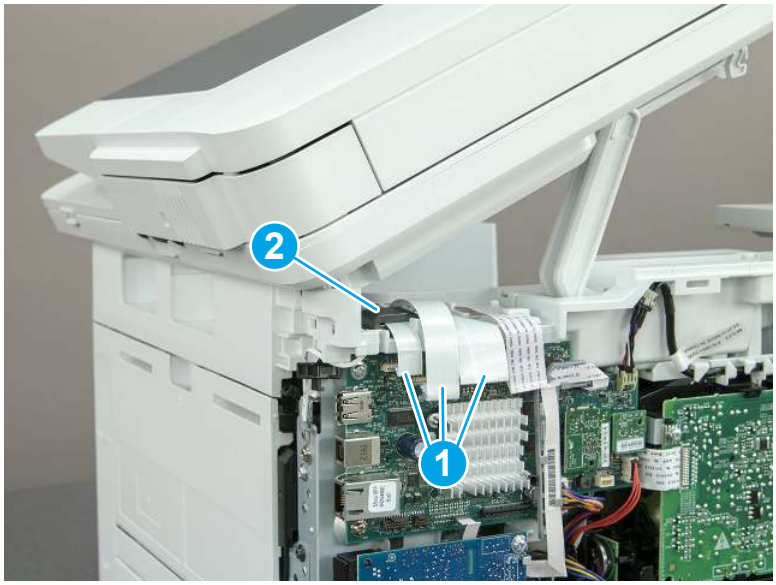
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-612 Disconnect three FFCs



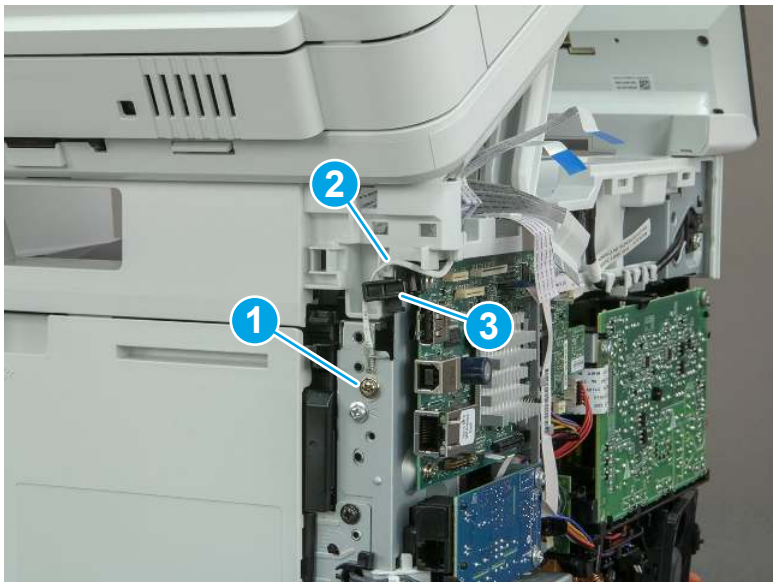
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-613 Release the tape



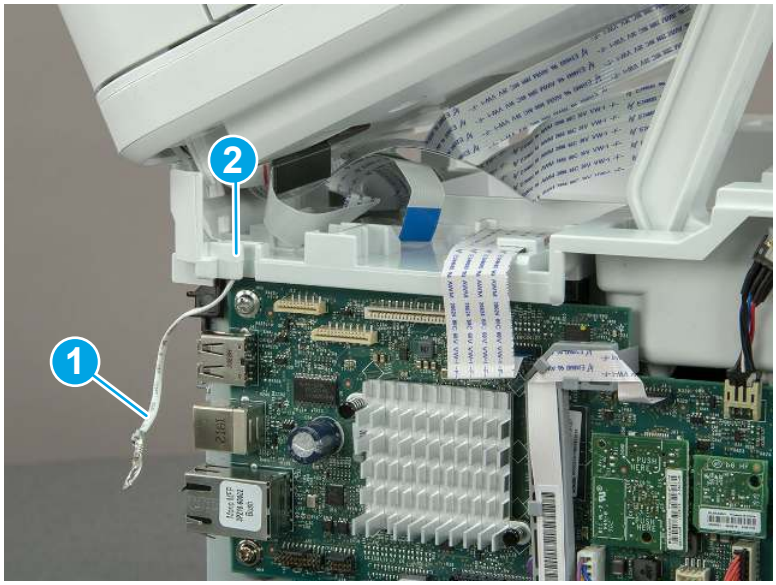
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-614 Release the ground wire



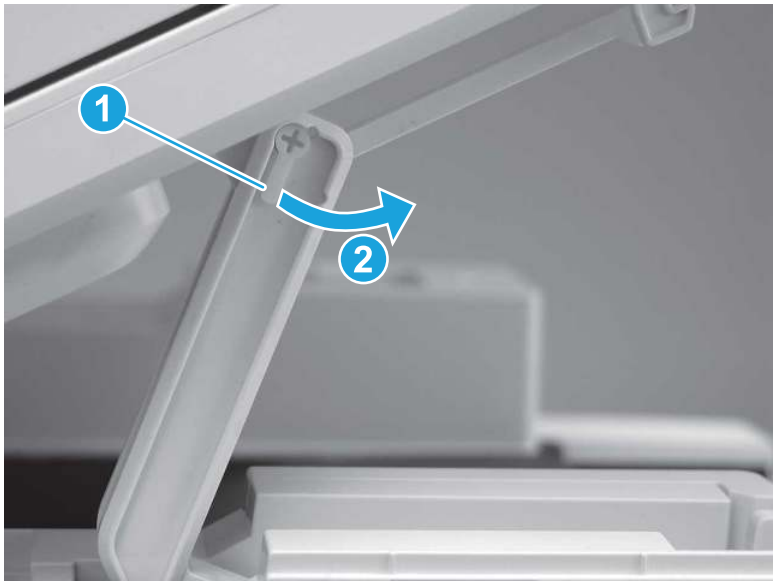
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-615 Release the ground wire



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

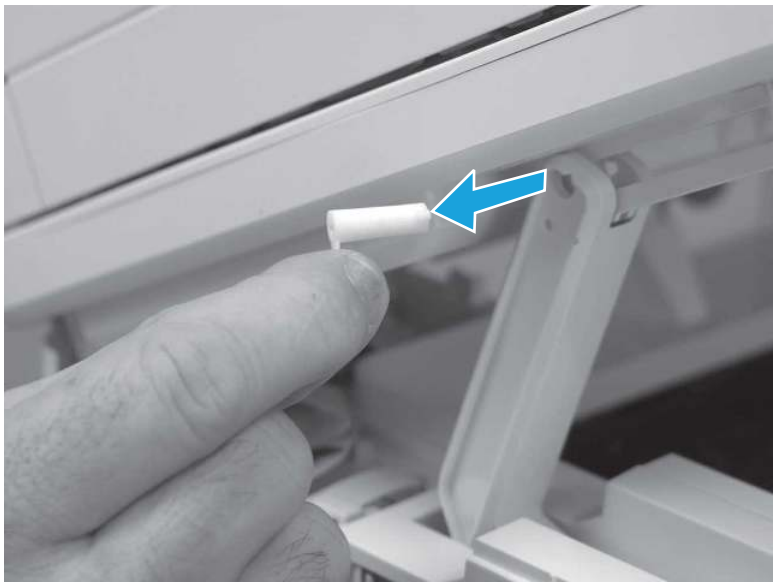
Figure 4-616 **Release one tab and rotate the slider pin**



6. Remove the slider pin.

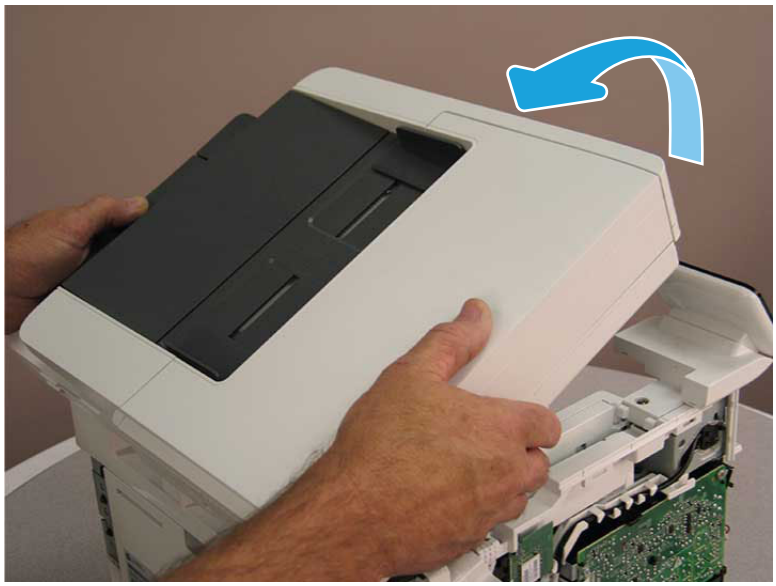
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-617 **Remove the slider pin**



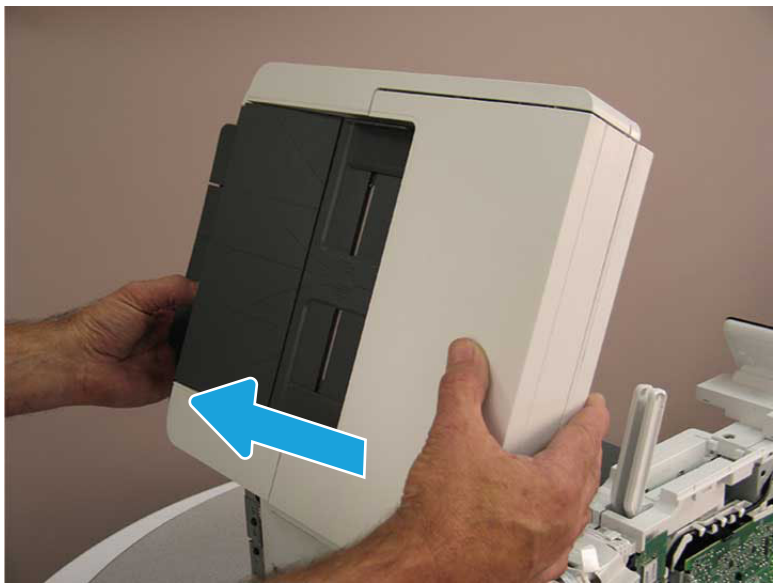
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-618 Rotate the ISA towards the rear of the printer



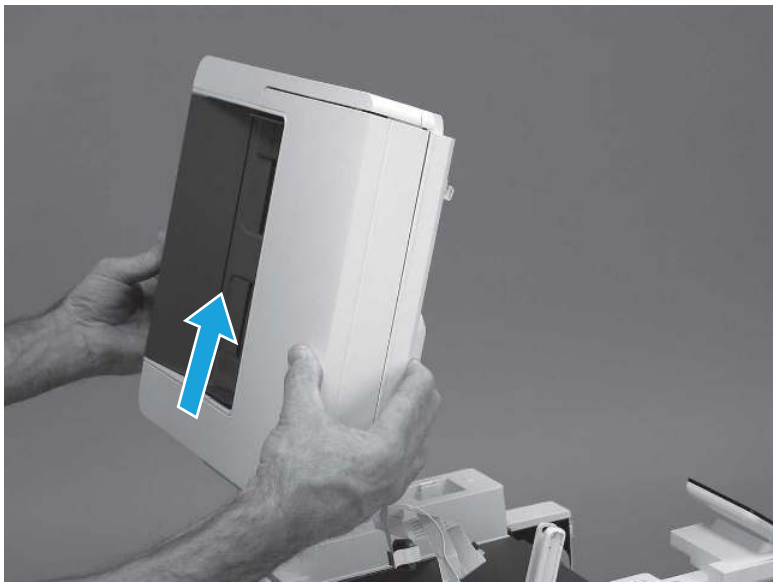
8. Slide the ISA as shown to release it.

Figure 4-619 Release the ISA



9. Remove the ISA.

Figure 4-620 **Remove the ISA**

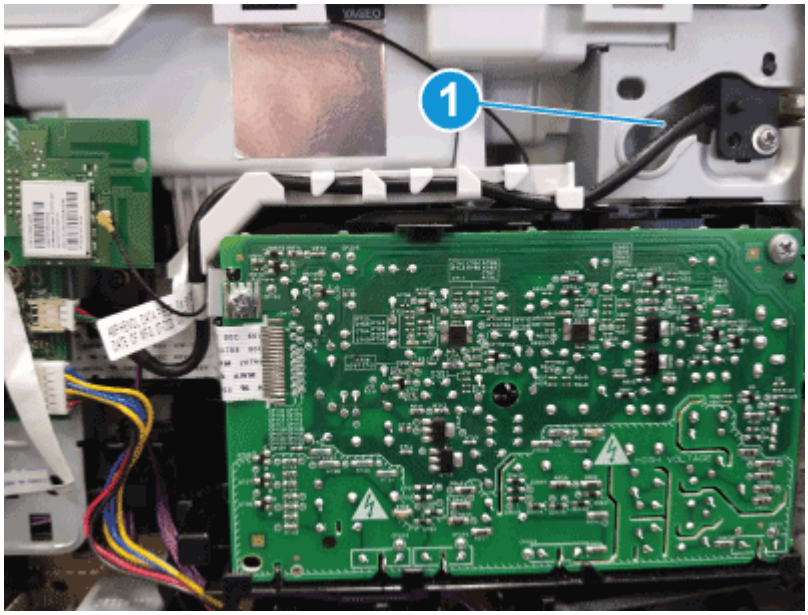


9. Remove the top cover (MFP)

Follow these steps to remove the top cover (MFP).

1. Release the USB cable (callout 1) from the cable guide.

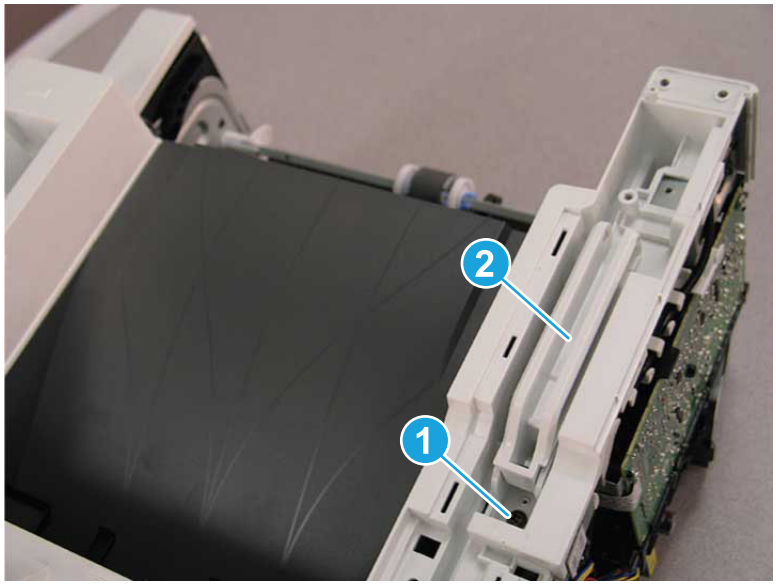
Figure 4-621 **Release the USB cable**



2. Remove one screw (callout 1), and then remove the support arm (callout 2).

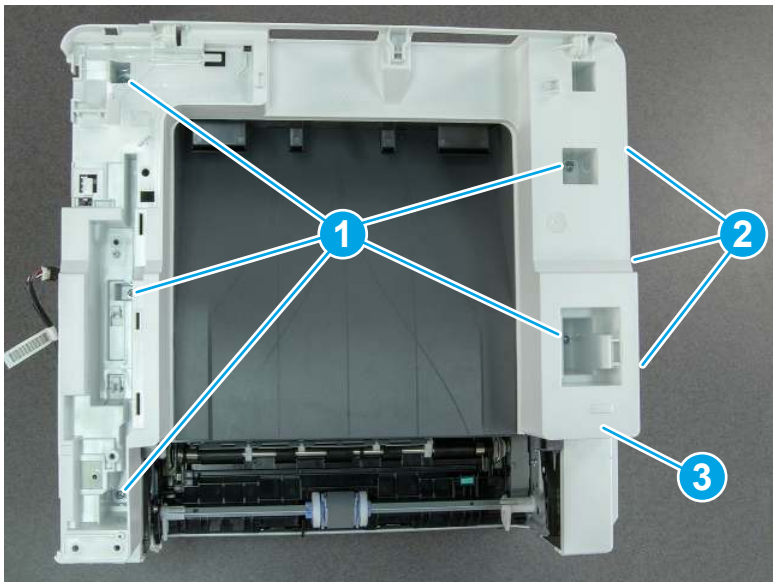
⚠ CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-622 Remove the support arm



3. Remove five screws (callout 1), release three bosses (callout 2), and then remove the top cover (callout 3).

Figure 4-623 Remove the top cover



10. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

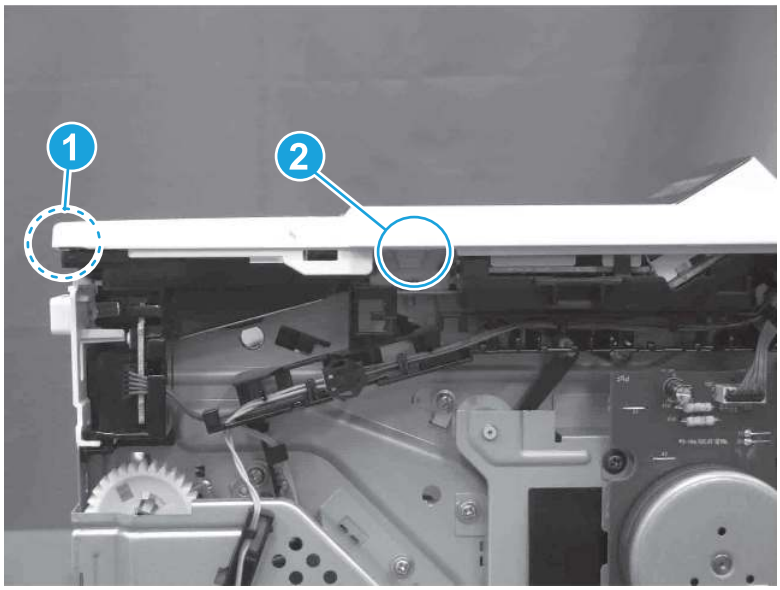
1. Remove one screw.

Figure 4-624 Remove one screw



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

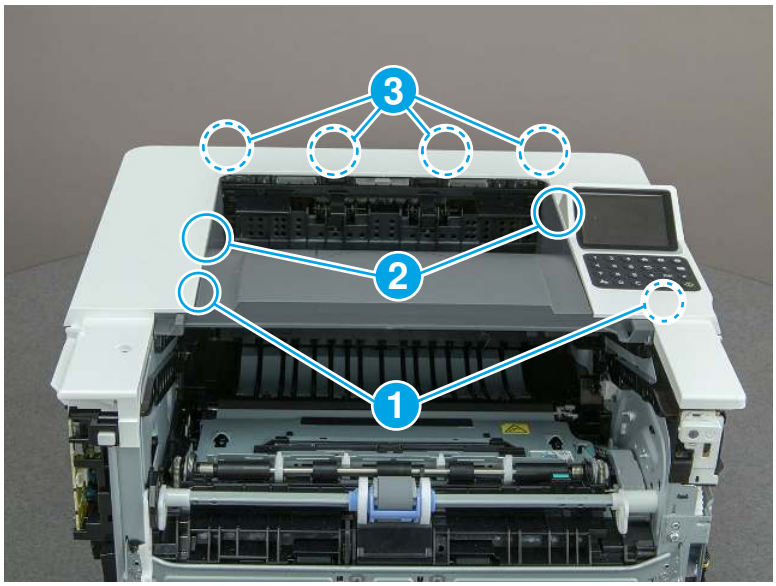
Figure 4-625 Release one boss and one tab



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-626 Remove the cover

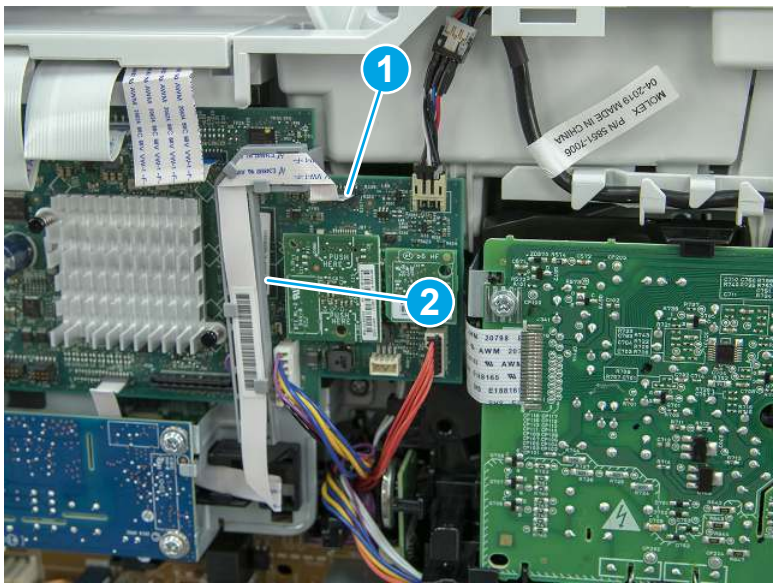


11. Remove the fax cable guide and fax PCA (fax models only)

Follow these steps to remove the fax cable guide and fax PCA (fax models only).

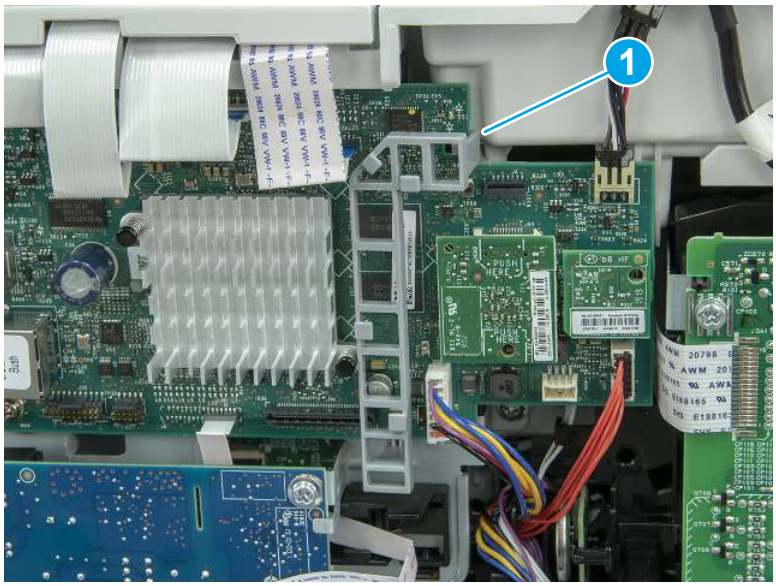
1. Disconnect one connector (callout 1), and then remove the cable from the guide (callout 2).

Figure 4-627 Remove the cable from the guide



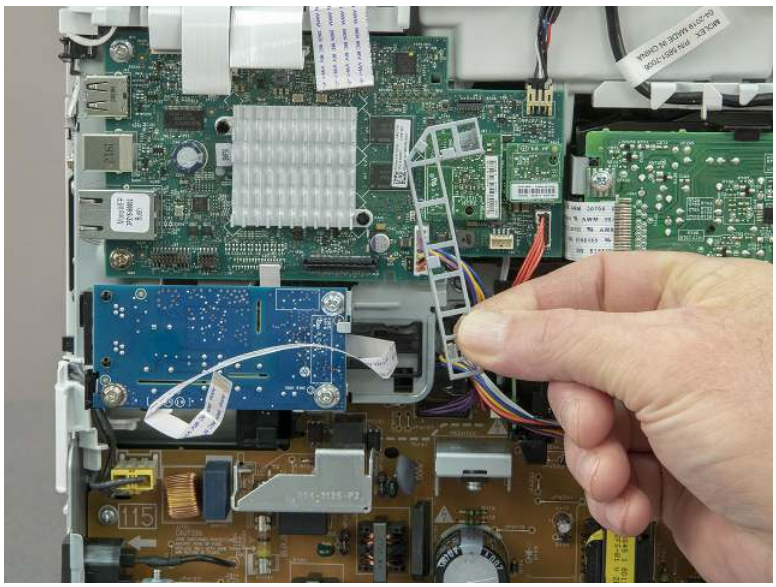
2. Release one tab (callout 1).

Figure 4-628 Release one tab



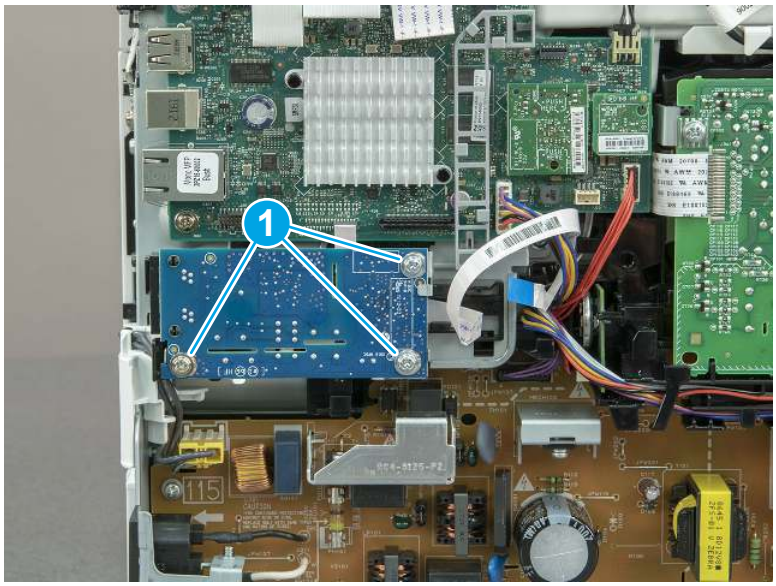
3. Lower the guide to release it from the formatter.

Figure 4-629 Lower the guide



4. Remove three screws (callout 1), and then remove the fax PCA and cable.

Figure 4-630 **Remove three screws**

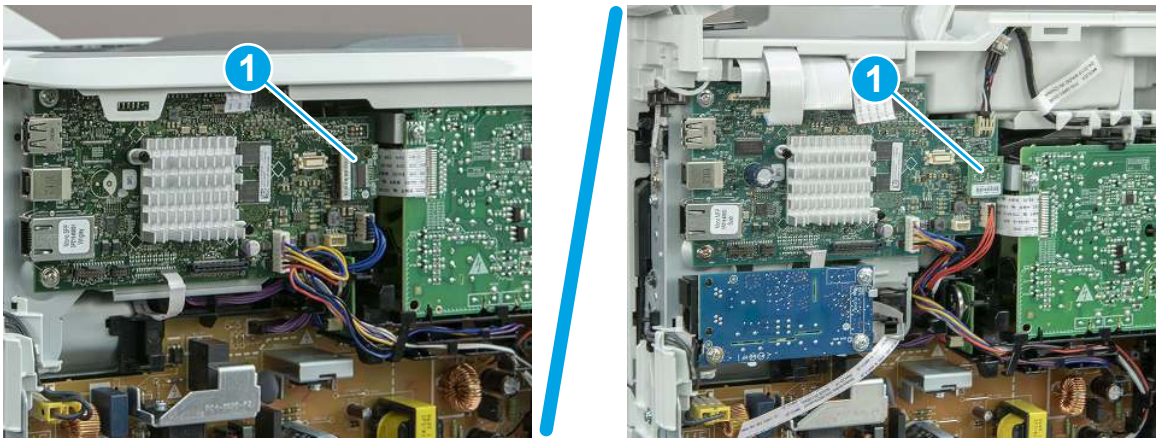


12. Remove the Trusted Platform Module (TPM)

Follow these steps to remove the Trusted Platform Module (TPM).

- Carefully pull the TPM (callout 1) away from the formatter to remove it.

Figure 4-631 **Remove the TPM**



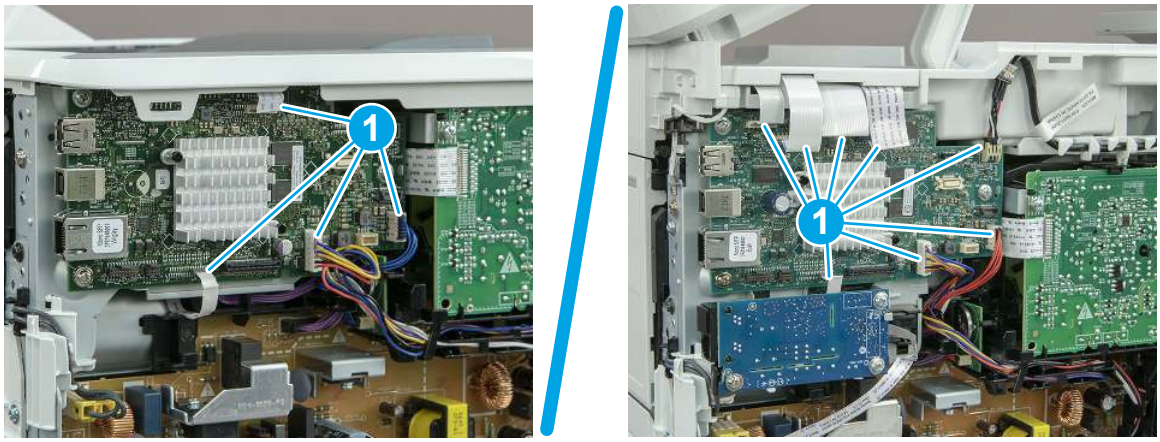
13. Remove the formatter PCA

Follow these steps to remove the formatter PCA.

1. Do one of the following:
   - **SFP**: Disconnect four connectors (callout 1).
   - **MFP**: Disconnect eight connectors (callout 1).

IMPORTANT: Take note of any empty connectors before removing the formatter PCA.

Figure 4-632 SFP/MFP: Disconnect the connectors



2. Remove three screws (callout 1), and then remove the formatter PCA.

Figure 4-633 Remove three screws



14. Remove the formatter bracket

Follow these steps to remove the formatter bracket.

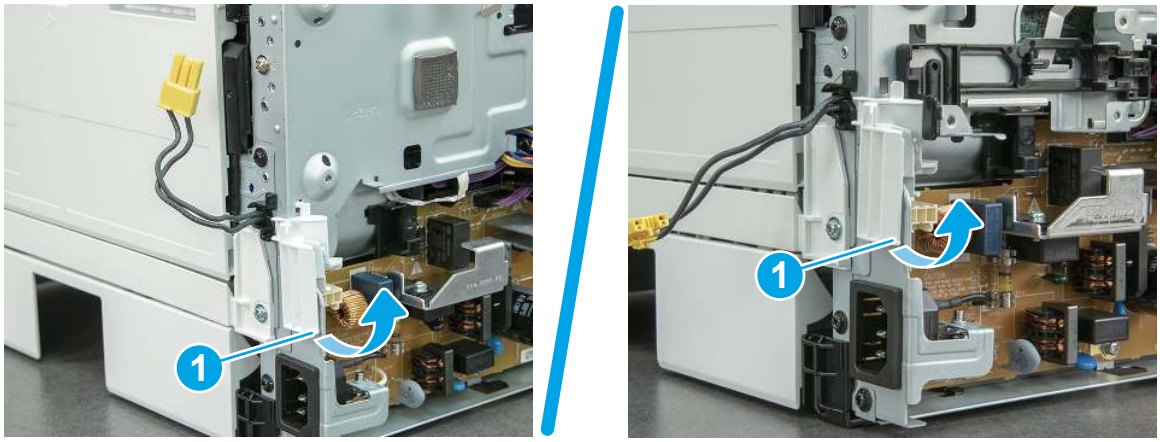
1. Disconnect one connector (callout 1), and then remove the wire harness (callout 2) from the guide (callout 3).

Figure 4-634 SFP/MFP: Remove the wire harness



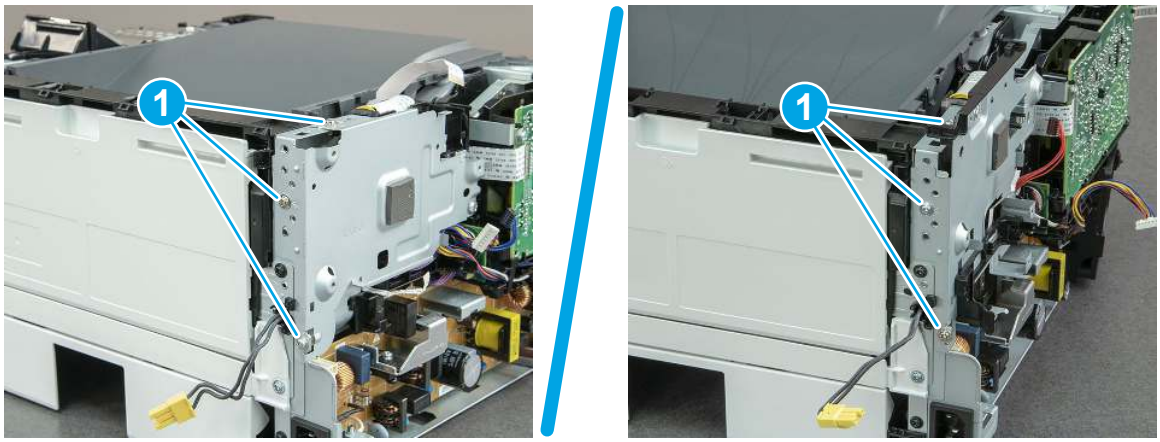
2. Release the front edge (callout 1), and then rotate the wire guide up to remove it.

Figure 4-635 Remove the wire guide



3. Remove three screws (callout 1).

Figure 4-636 Remove three screws

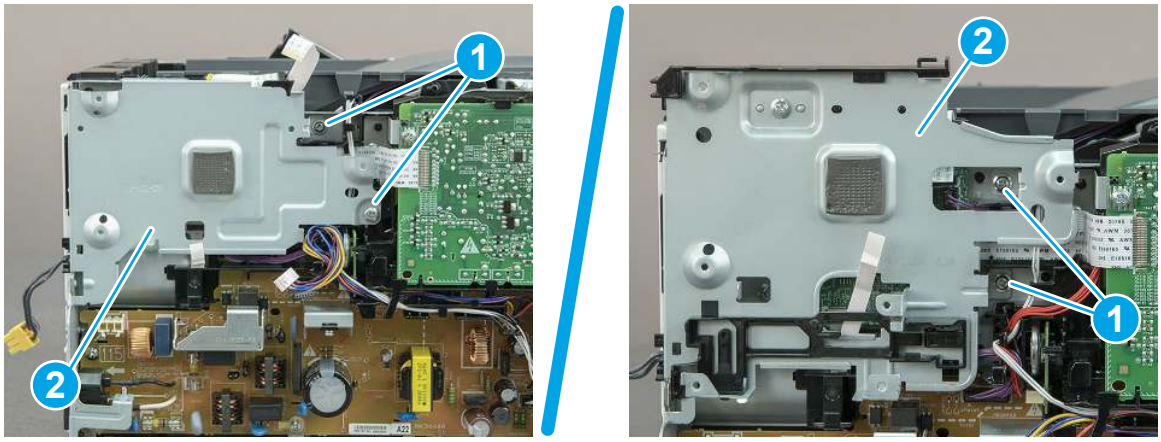


4. Remove two screws (callout 1), and then remove the formatter bracket (callout 2).

Reinstallation tip: Do one of the following:

- **SFP**: One screw is larger than the other screw. Make sure screws are installed in the correct locations.
- **MFP**: These two screws are longer than the previous three screws.

Figure 4-637 Remove two screws



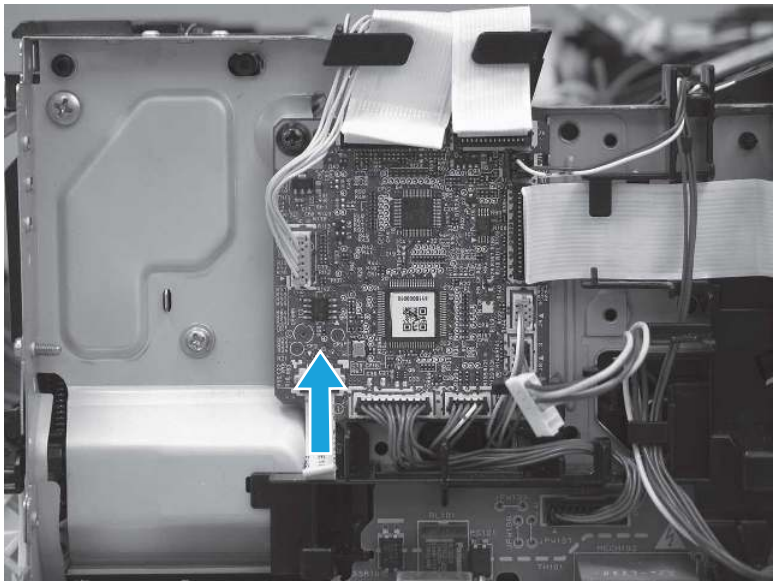
15. Remove the formatter FFC

Follow these steps to remove the formatter FFC.

1. Carefully pull up on the FFC (callout 1) to release it from the guide—the FFC is attached to the guide with two-sided tape.

⚠ CAUTION: The FFC is still attached to the DC controller. Do not attempt to completely remove the FFC.

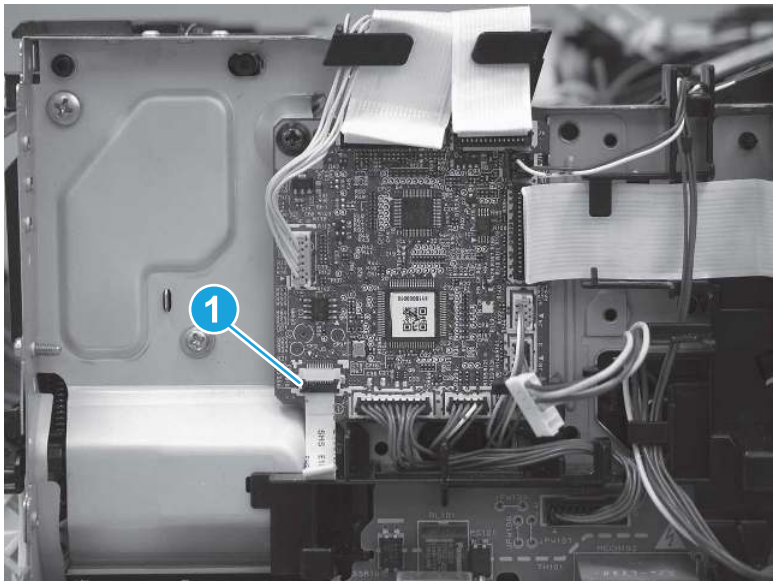
Figure 4-638 Release the FFC



2. Disconnect and remove the formatter FFC (callout 1).

IMPORTANT: The FFC connector (callout 2) is a Zero Insertion Force (ZIF) connector that uses a hinged retainer to secure the FFC. The hinged retainer must be opened to release the FFC.

Figure 4-639 Disconnect and remove the formatter FFC



16. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: DC controller

Learn how to remove and replace the DC controller (DCC).

View a video of how to remove and replace the SFP DCC.

View a video of how to remove and replace the MFP DCC.

Mean time to repair: 31 minutes SFP, 58 minutes MFP

Service level: Medium SFP, Difficult MFP

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-44 Part information

Part number	Part description
RM3-7584-000CN	DC controller

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-640 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

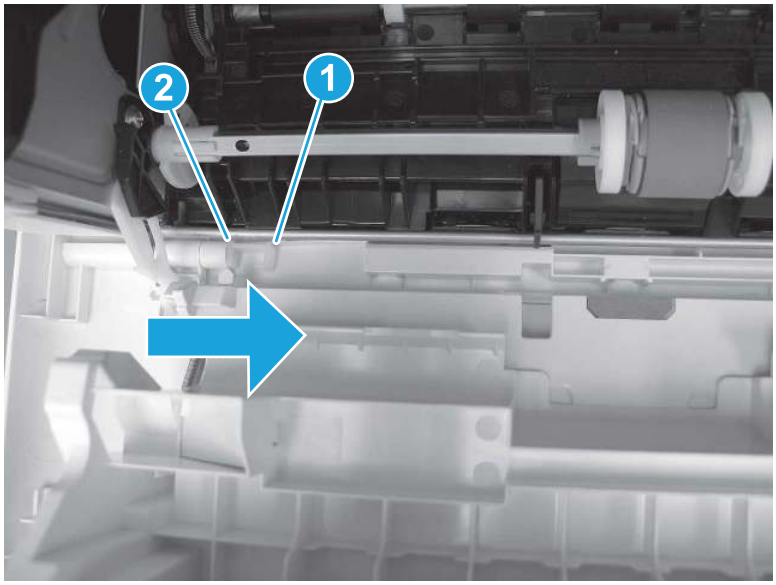
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

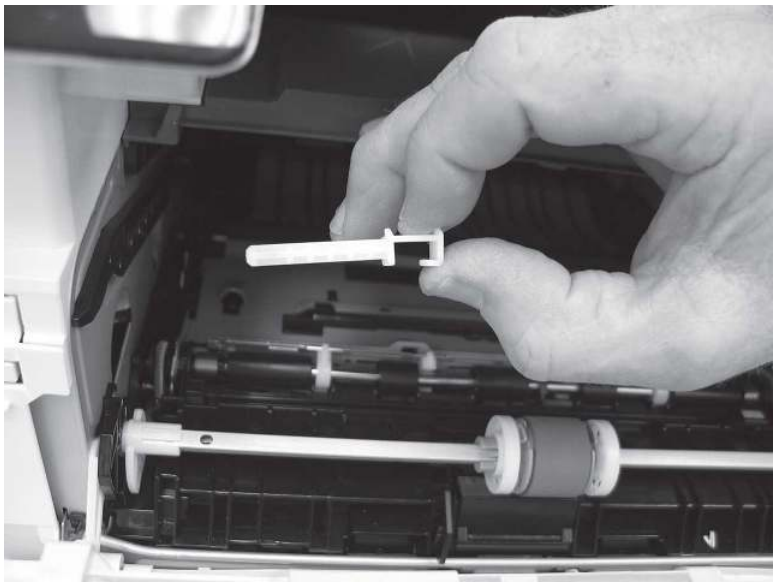
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-641 Release the support shaft



2. Remove the support shaft.

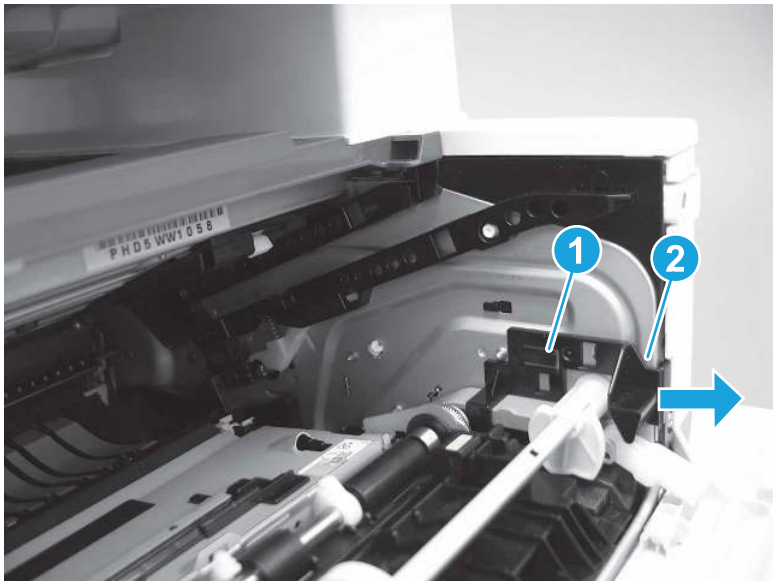
Figure 4-642 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

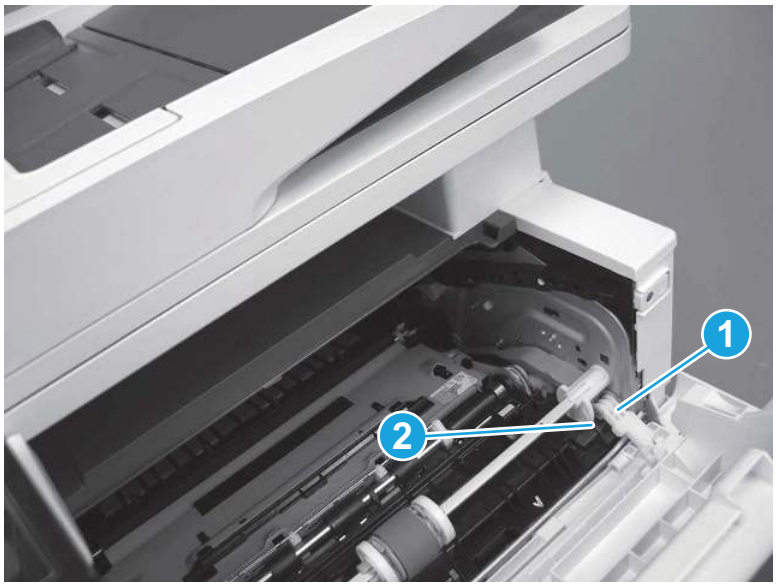
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-643 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-644 Release the pressure-release link

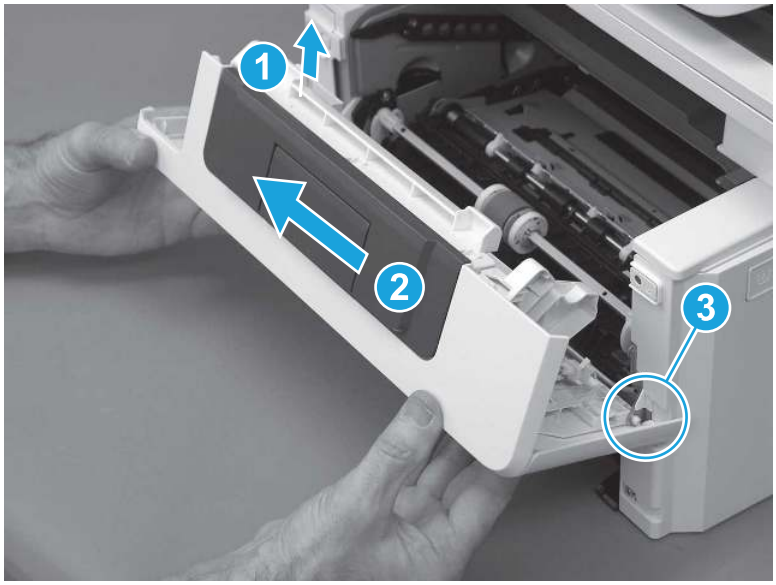


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

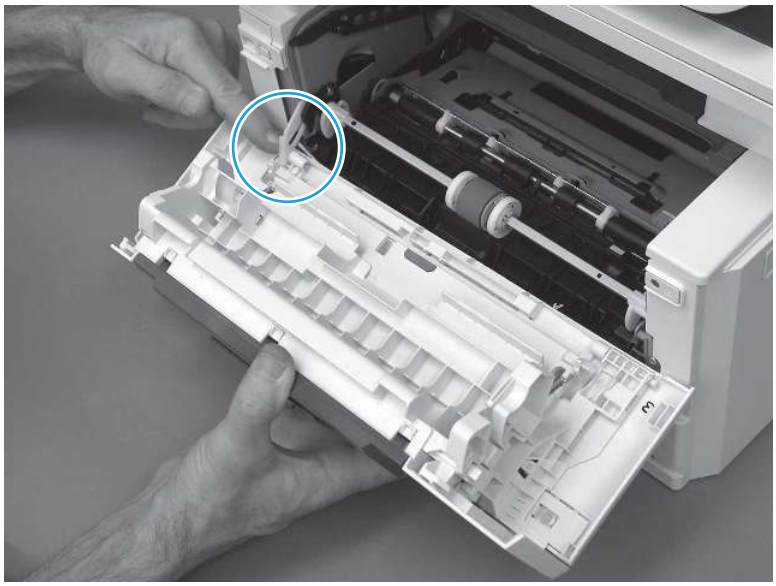
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-645 Release the door



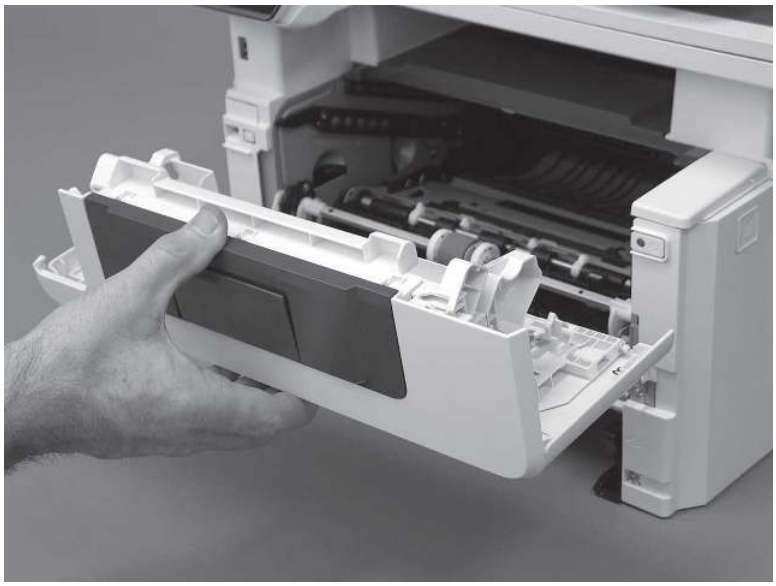
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-646 Release the left-side retainer arm



7. Remove the door.

Figure 4-647 Remove the door



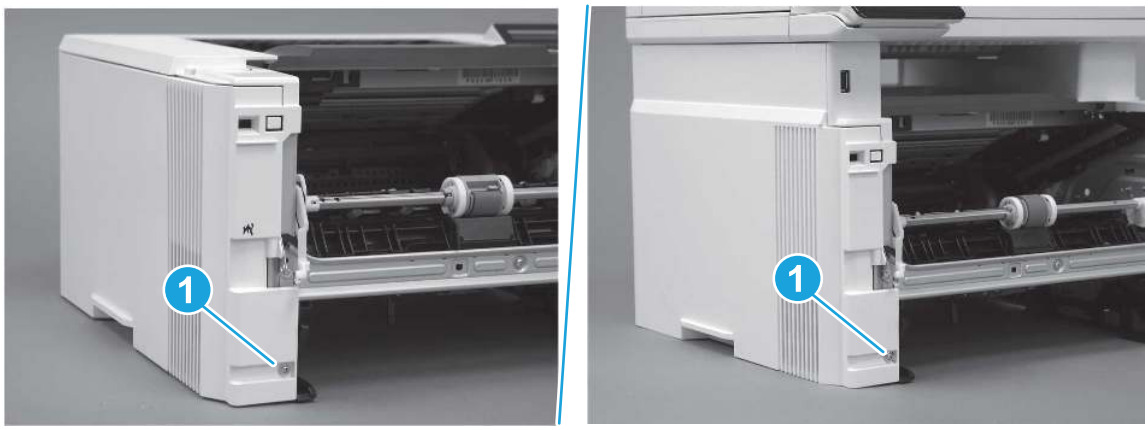
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

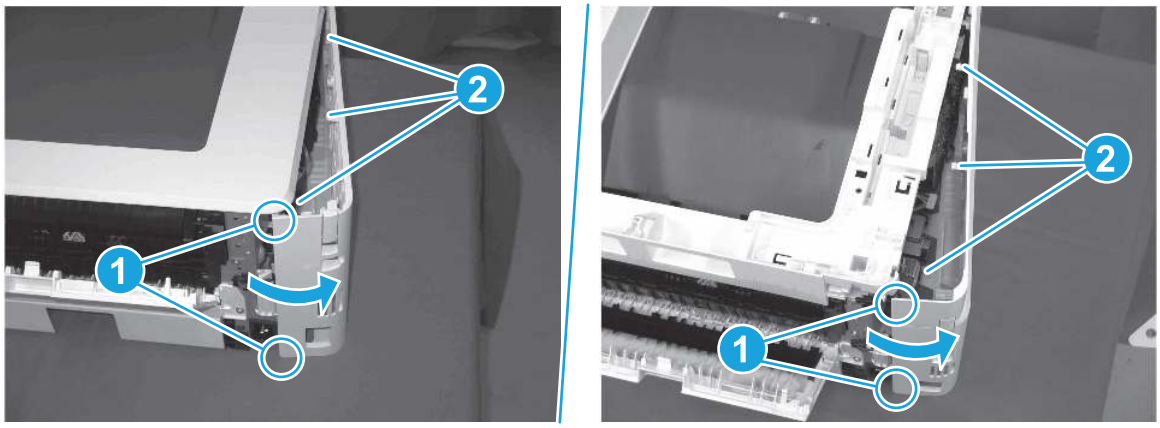
1. Remove one screw (callout 1).

Figure 4-648 Remove one screw



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-649 **Release two bosses and three tabs**

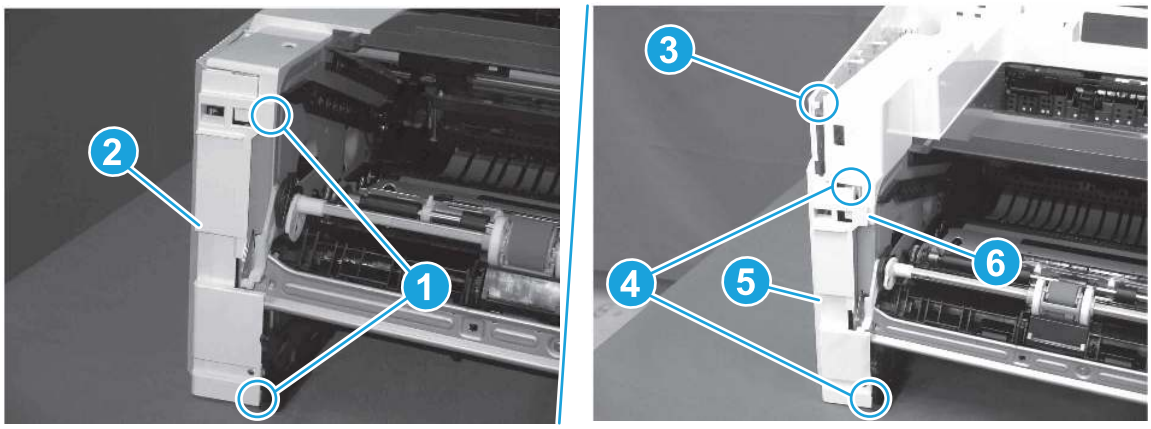


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-650 **Remove the cover**



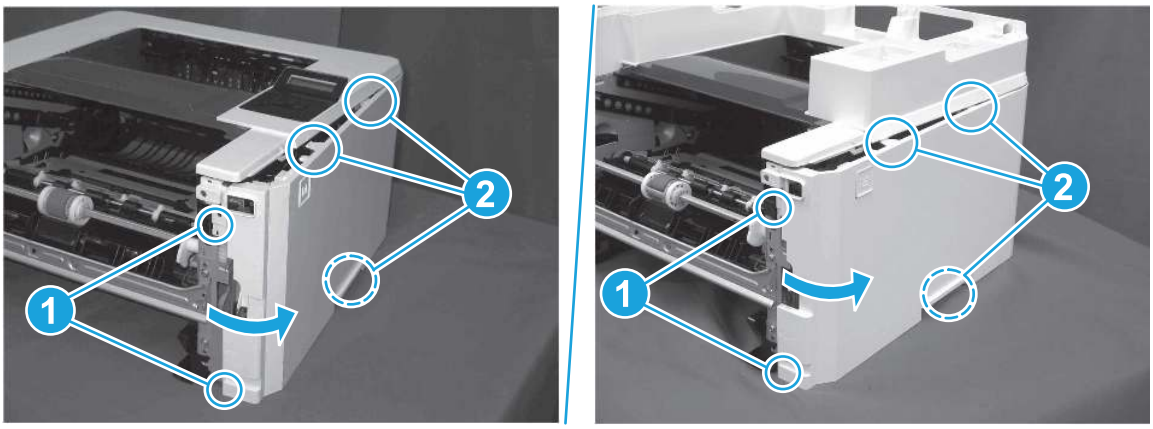
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

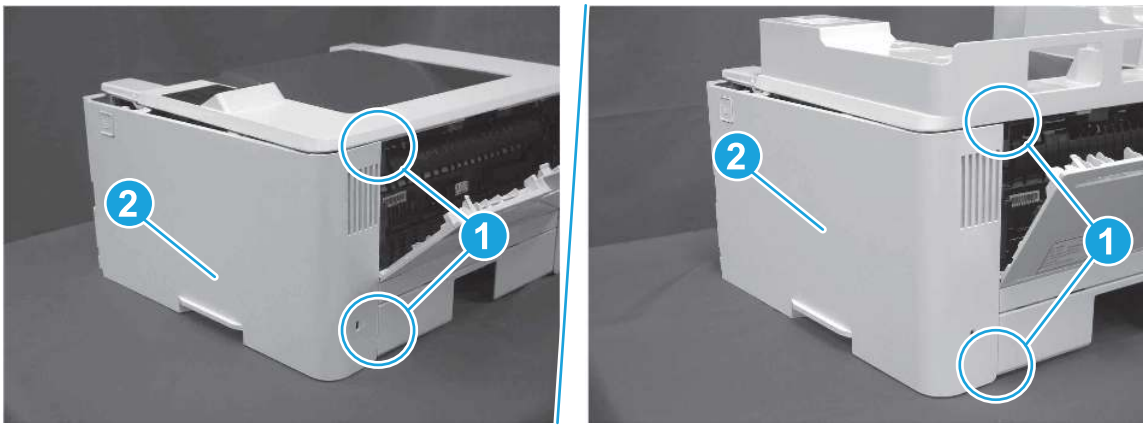
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-651 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-652 Remove the cover



5. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-653 Open the ISA



2. Remove one screw (callout 1).

Figure 4-654 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-655 Release two tabs



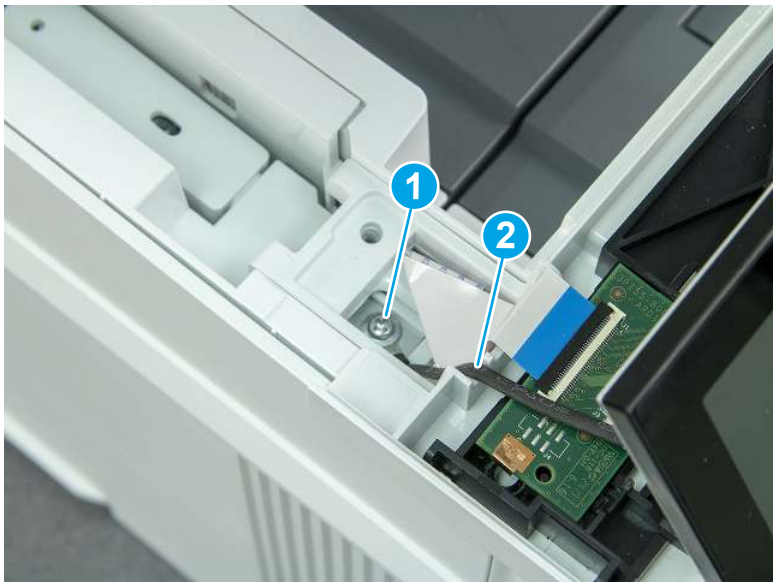
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-656 Remove the cover



5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-657 Remove one screw



6. Disconnect two FFC (callout 1).

Figure 4-658 Disconnect two FFC



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

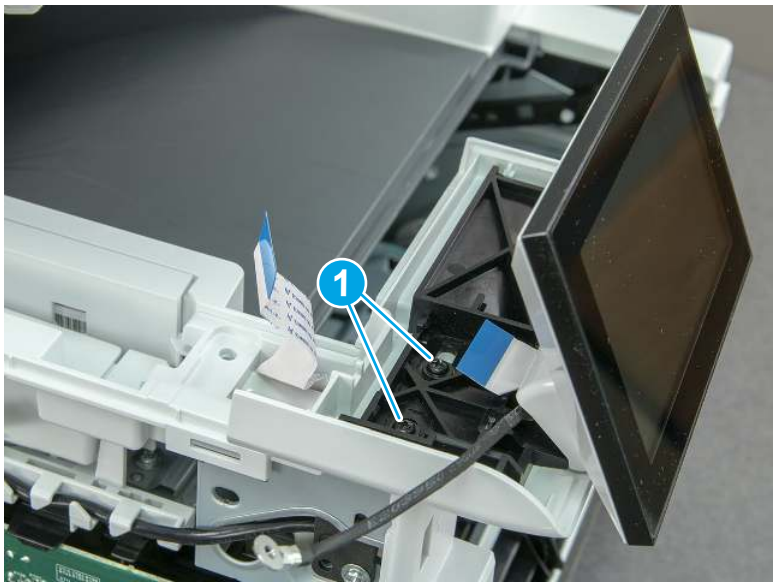
Figure 4-659 Remove the ICB



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ CAUTION: Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-660 Remove two screws and remove the control panel assembly

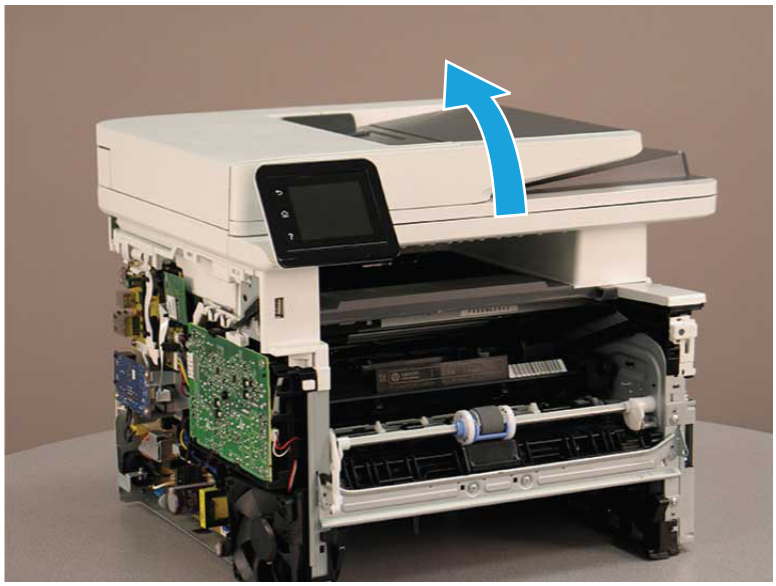


6. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

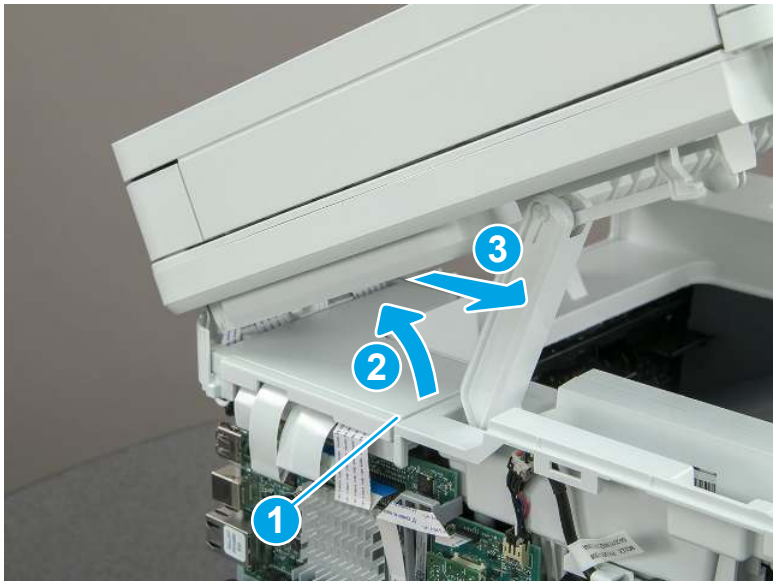
1. If the ISA is not already raised, raise it now.

Figure 4-661 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-662 Remove the ISA FFC cover

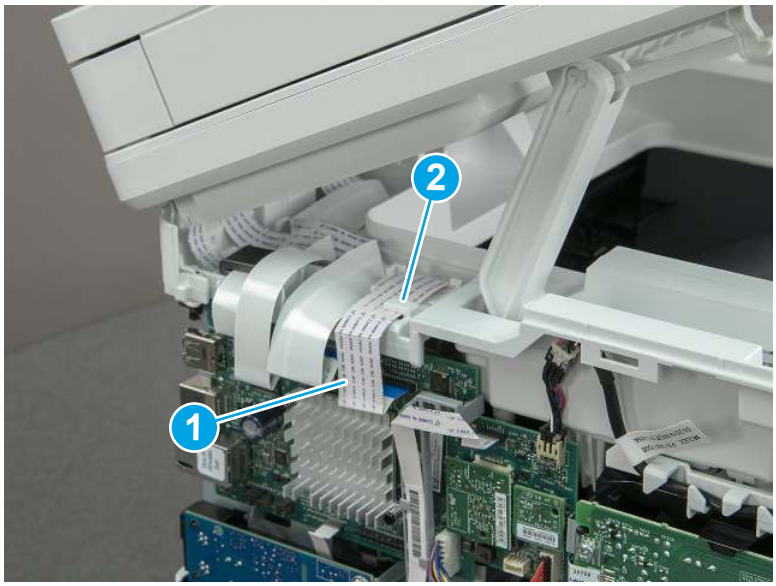


7. Remove the control panel flat cable and cover (MFP only)

Follow these steps to remove the control panel flat cable and cover (MFP only).

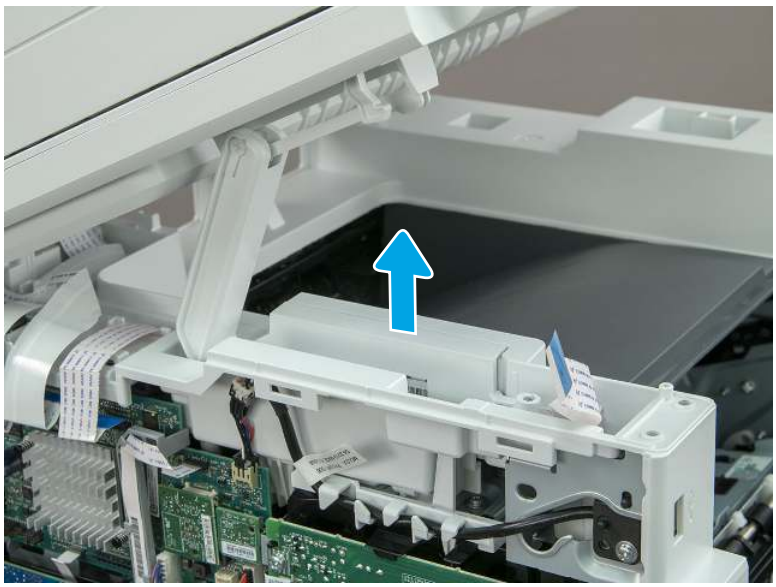
1. Disconnect one FFC (callout 1), and then release the cable from the guides (callout 2).

Figure 4-663 Disconnect one cable



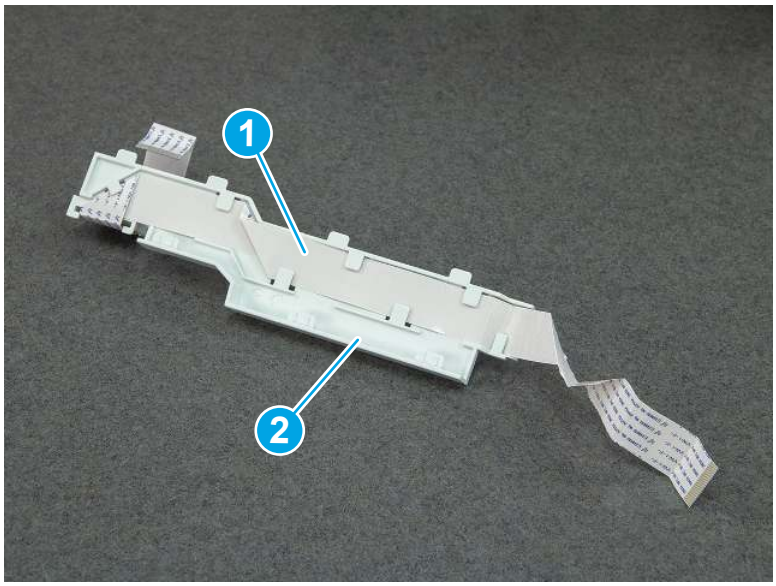
2. Lift up the control-panel FFC cover to remove the cover and cable.

Figure 4-664 Remove the cover and cable



3. If you are replacing the FFC or the cover, remove the FFC (callout 1) from the cover (callout 2).

Figure 4-665 **Remove the FFC**



8. Remove the integrated scanner assembly (MFP only)

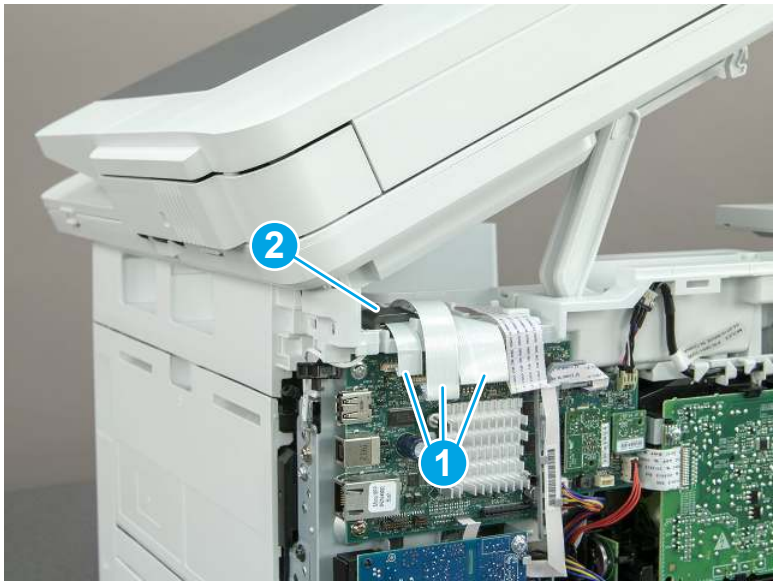
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-666 **Disconnect three FFCs**



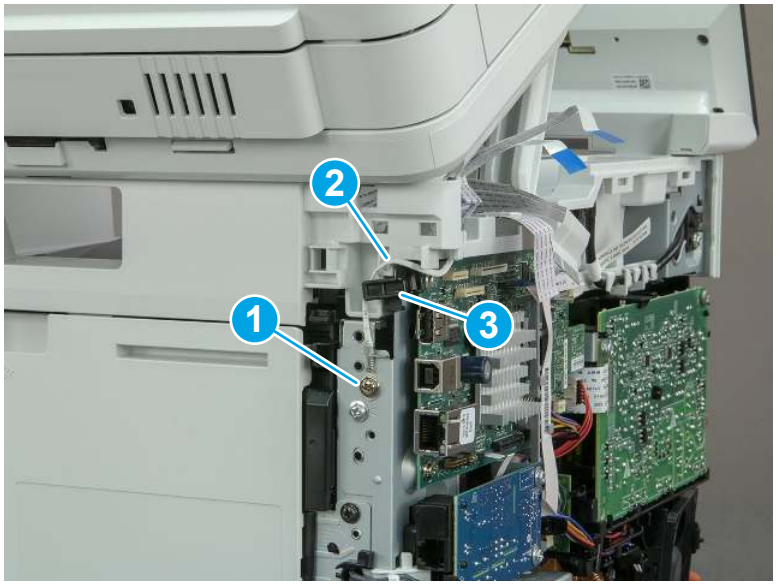
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-667 Release the tape



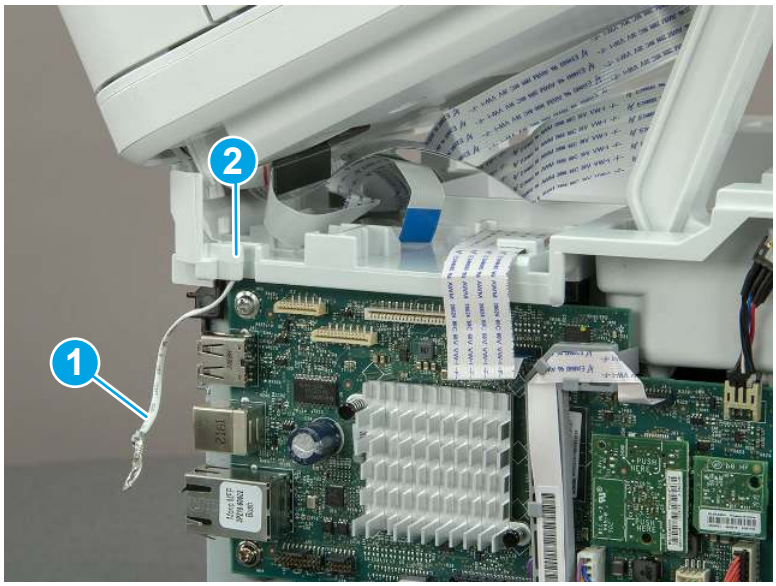
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-668 Release the ground wire



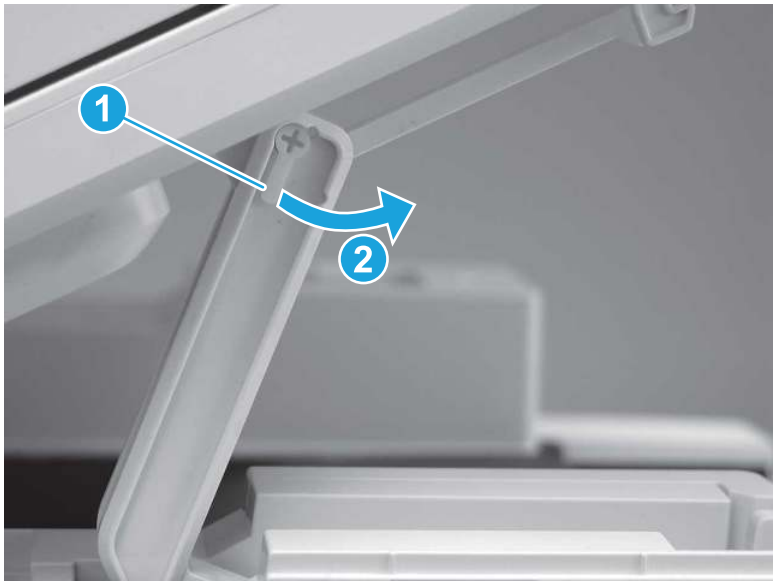
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-669 **Release the ground wire**



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

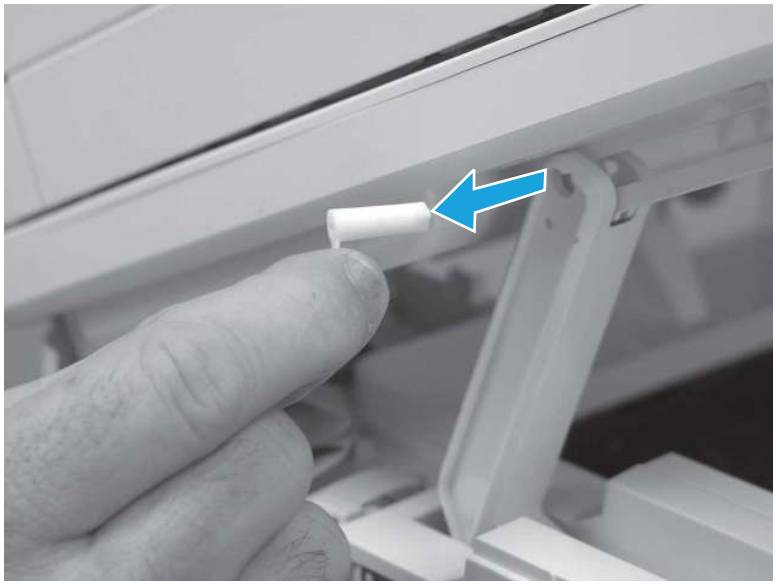
Figure 4-670 **Release one tab and rotate the slider pin**



6. Remove the slider pin.

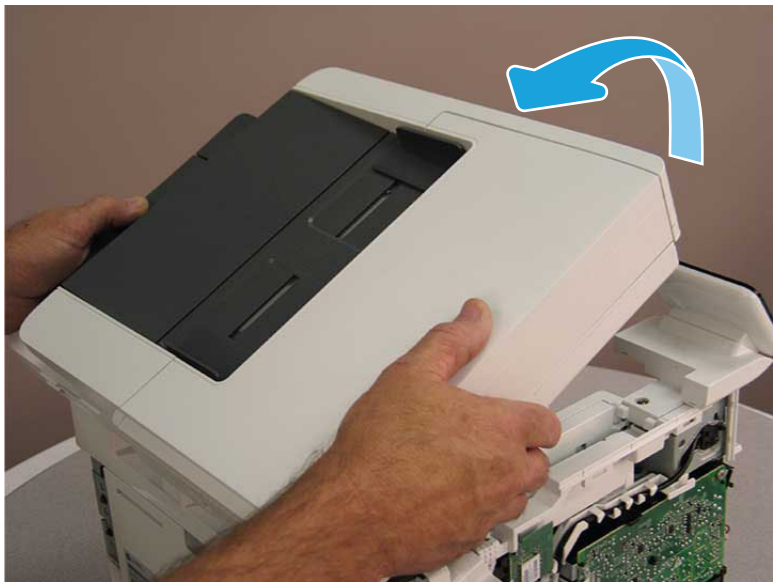
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-671 Remove the slider pin



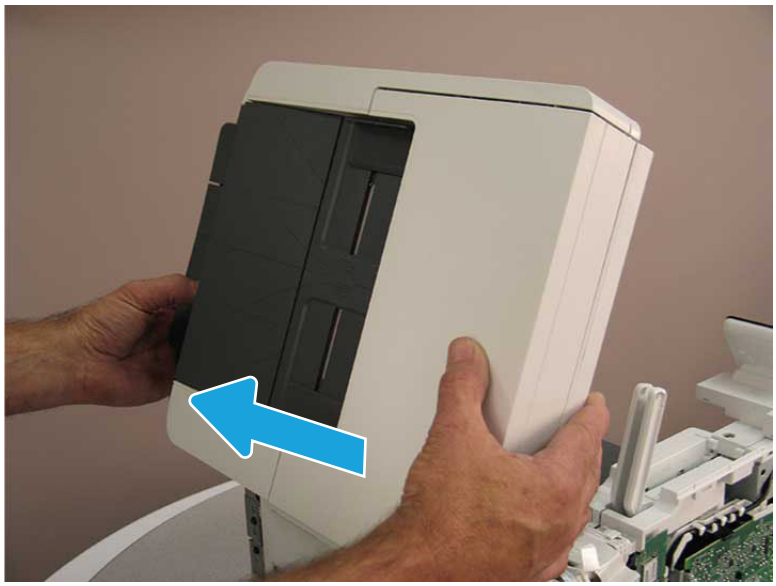
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-672 Rotate the ISA towards the rear of the printer



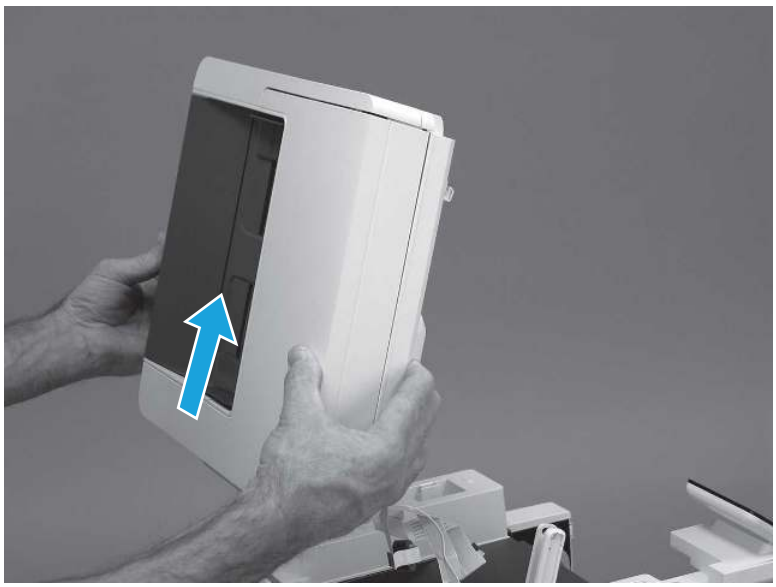
8. Slide the ISA as shown to release it.

Figure 4-673 Release the ISA



9. Remove the ISA.

Figure 4-674 Remove the ISA

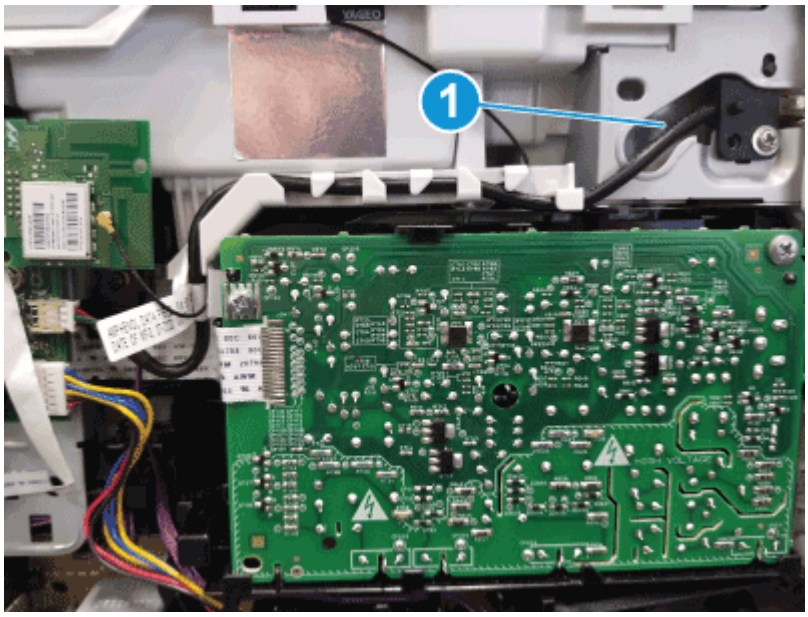


9. Remove the top cover (MFP)

Follow these steps to remove the top cover (MFP).

1. Release the USB cable (callout 1) from the cable guide.

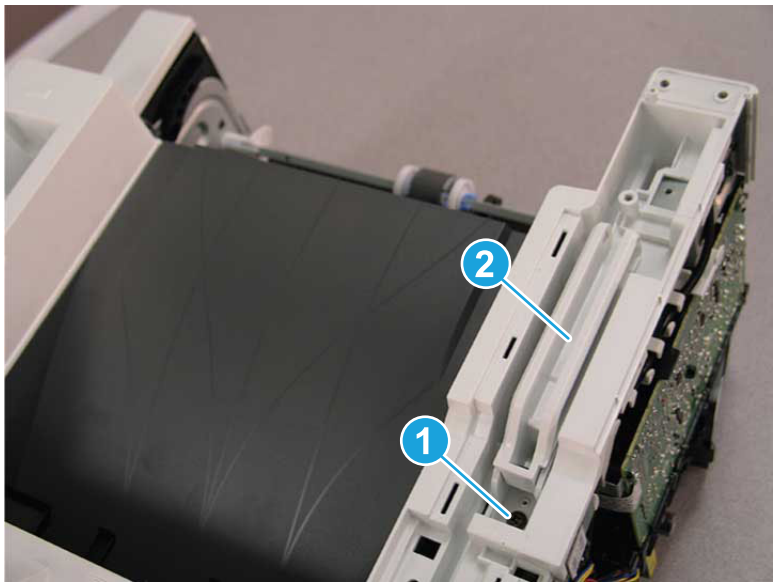
Figure 4-675 Release the USB cable



2. Remove one screw (callout 1), and then remove the support arm (callout 2).

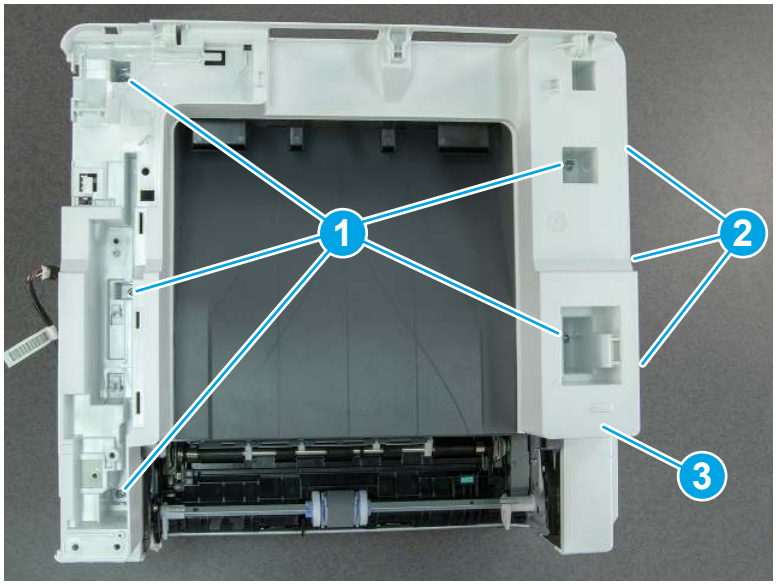
⚠ CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-676 Remove the support arm



3. Remove five screws (callout 1), release three bosses (callout 2), and then remove the top cover (callout 3).

Figure 4-677 **Remove the top cover**



10. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

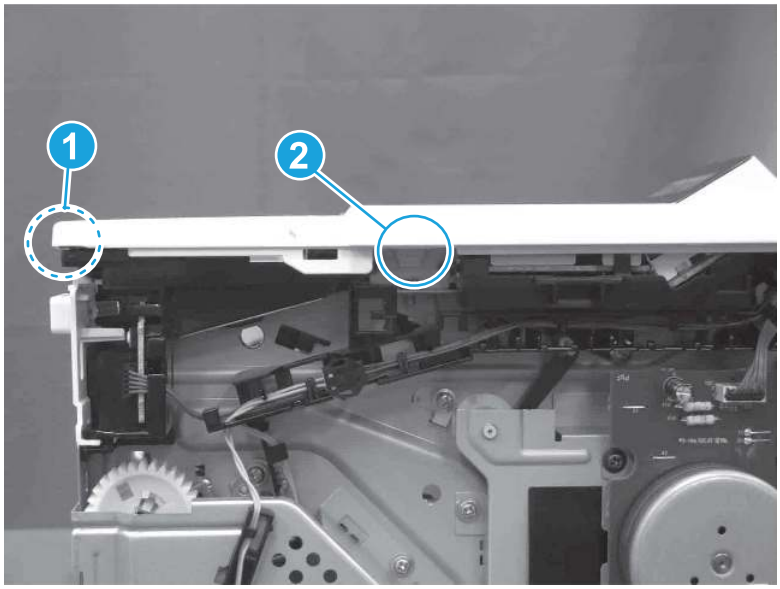
1. Remove one screw.

Figure 4-678 **Remove one screw**



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

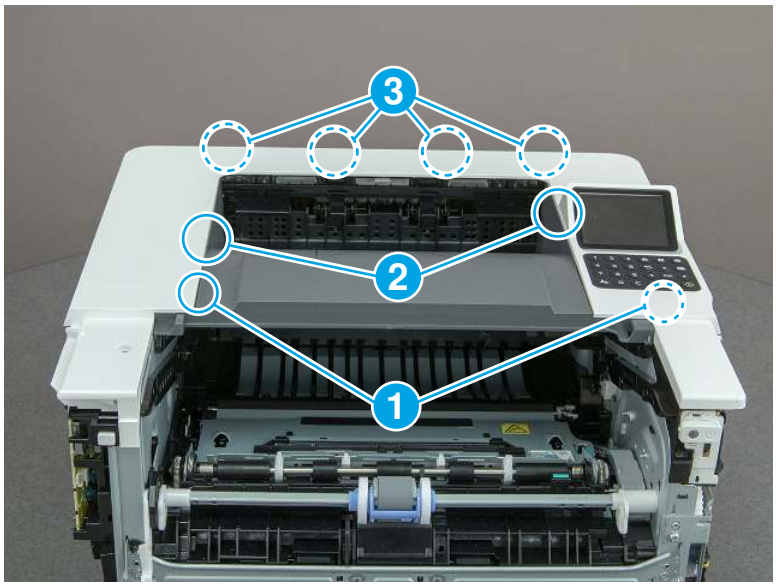
Figure 4-679 Release one boss and one tab



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-680 Remove the cover

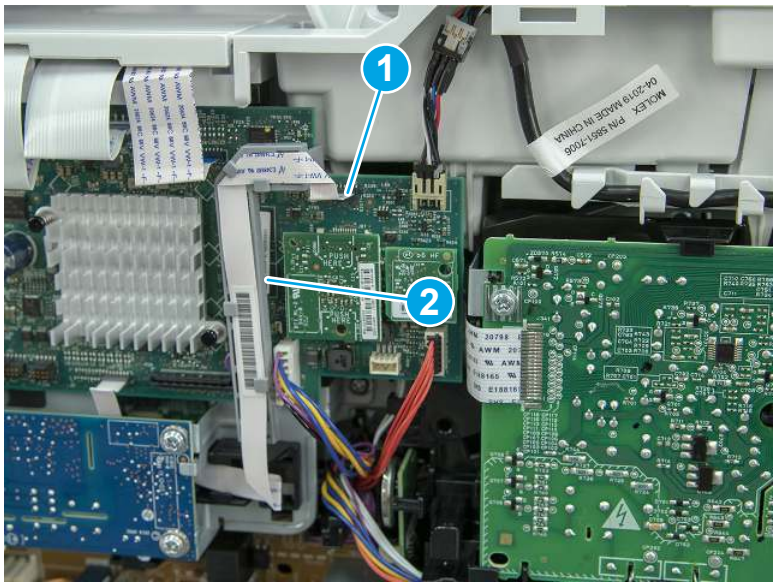


11. Remove the fax cable guide and fax PCA (fax models only)

Follow these steps to remove the fax cable guide and fax PCA (fax models only).

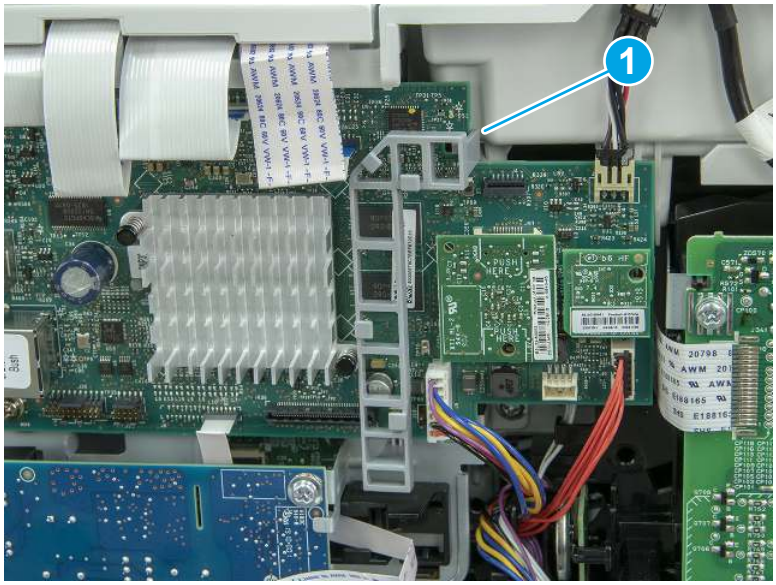
1. Disconnect one connector (callout 1), and then remove the cable from the guide (callout 2).

Figure 4-681 Remove the cable from the guide



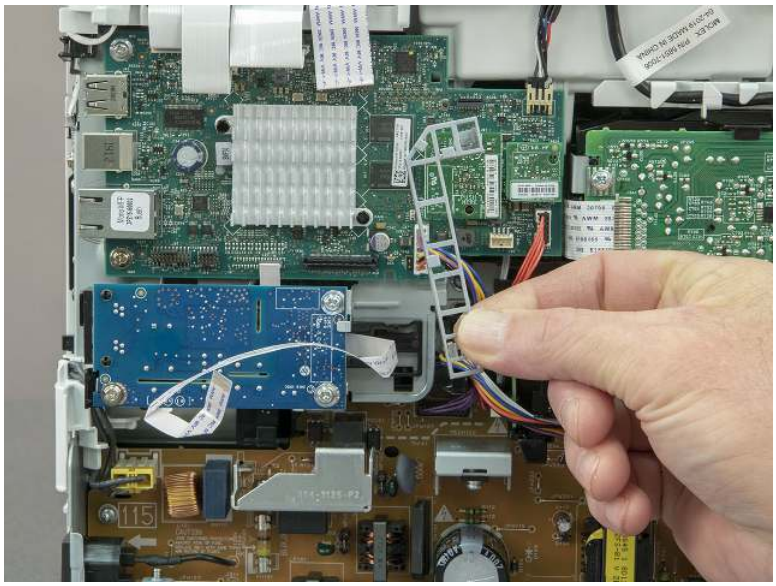
2. Release one tab (callout 1).

Figure 4-682 Release one tab



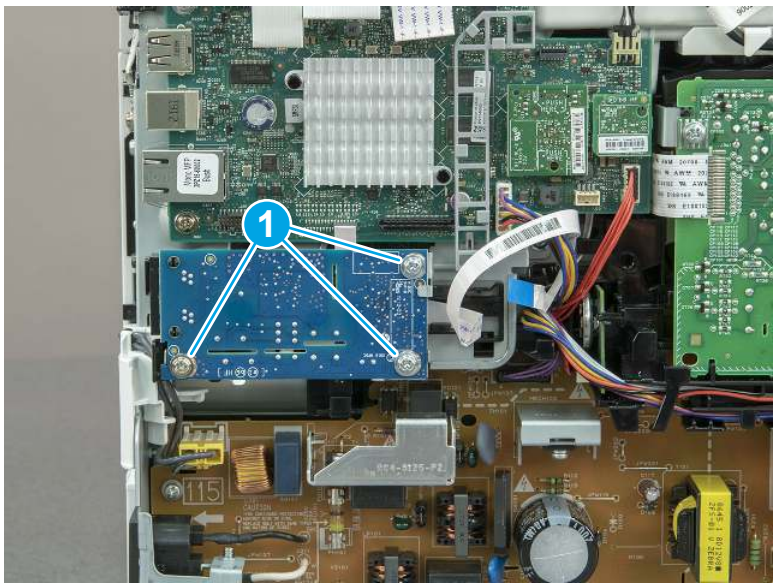
3. Lower the guide to release it from the formatter.

Figure 4-683 Lower the guide



4. Remove three screws (callout 1), and then remove the fax PCA and cable.

Figure 4-684 Remove three screws



12. Remove the Trusted Platform Module (TPM)

Follow these steps to remove the Trusted Platform Module (TPM).

- Carefully pull the TPM (callout 1) away from the formatter to remove it.

Figure 4-685 **Remove the TPM**



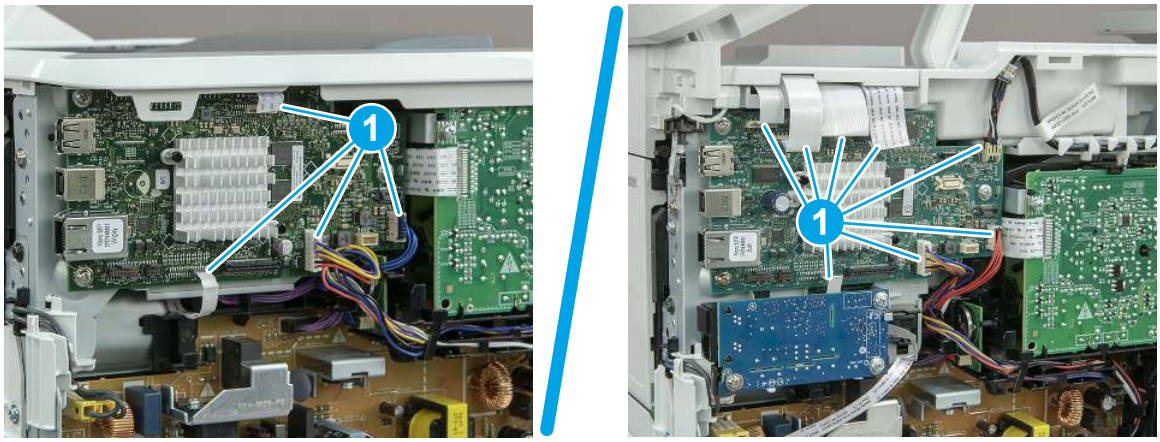
13. Remove the formatter PCA

Follow these steps to remove the formatter PCA.

1. Do one of the following:
   - **SFP**: Disconnect four connectors (callout 1).
   - **MFP**: Disconnect eight connectors (callout 1).

IMPORTANT: Take note of any empty connectors before removing the formatter PCA.

Figure 4-686 **SFP/MFP: Disconnect the connectors**



2. Remove three screws (callout 1), and then remove the formatter PCA.

Figure 4-687 Remove three screws



14. Remove the formatter bracket

Follow these steps to remove the formatter bracket.

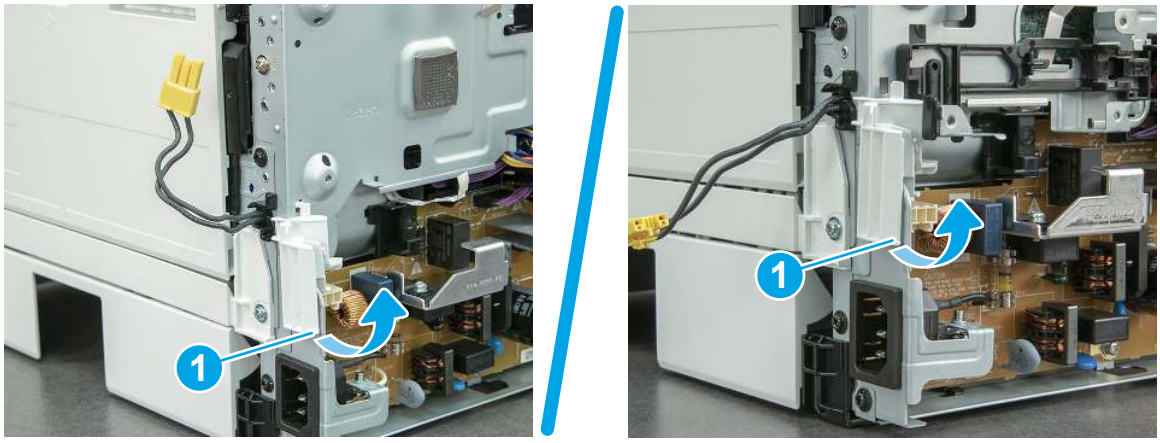
1. Disconnect one connector (callout 1), and then remove the wire harness (callout 2) from the guide (callout 3).

Figure 4-688 SFP/MFP: Remove the wire harness



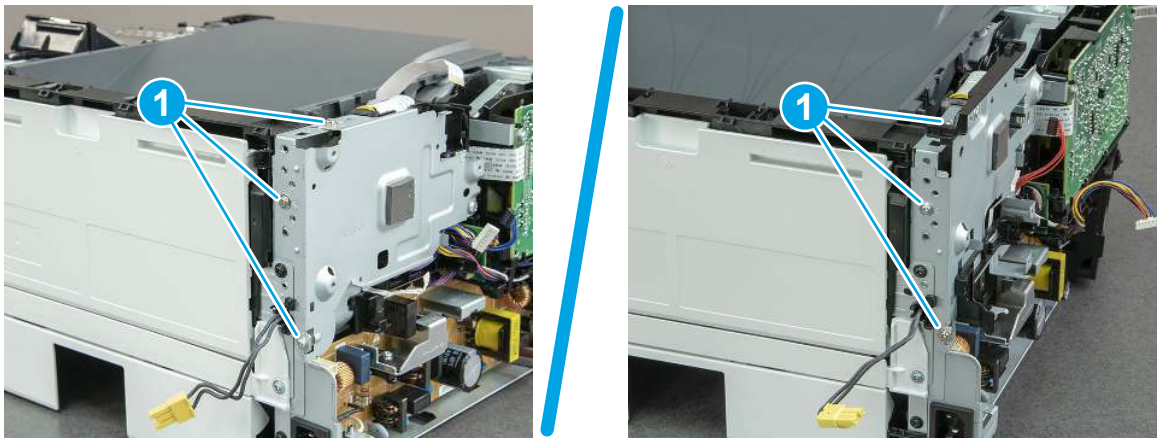
2. Release the front edge (callout 1), and then rotate the wire guide up to remove it.

Figure 4-689 **Remove the wire guide**



3. Remove three screws (callout 1).

Figure 4-690 **Remove three screws**

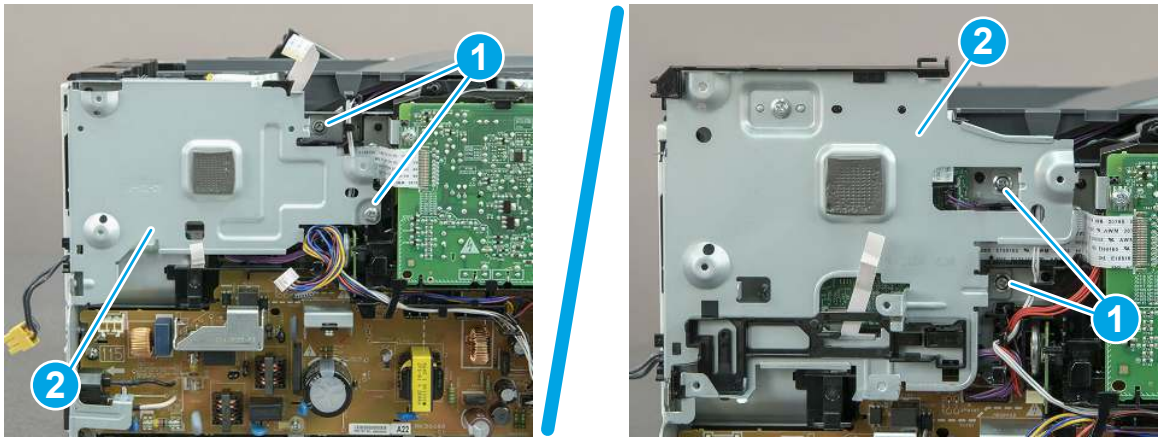


4. Remove two screws (callout 1), and then remove the formatter bracket (callout 2).

Reinstallation tip: Do one of the following:

- **SFP**: One screw is larger than the other screw. Make sure screws are installed in the correct locations.
- **MFP**: These two screws are longer than the previous three screws.

Figure 4-691 Remove two screws



15. Remove the DC controller

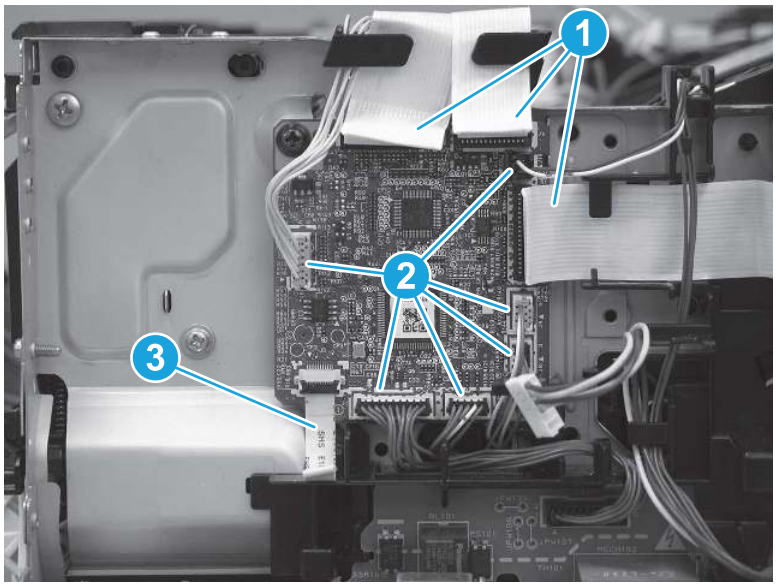
Follow these steps to remove the DC controller.

⚠ CAUTION: **Replacement DC controller installations only**: *DO NOT* skip this step. See for information about how to pair a formatter and DC controller.

1. Disconnect three FFCs (callout 1), and six connectors (callout 2).

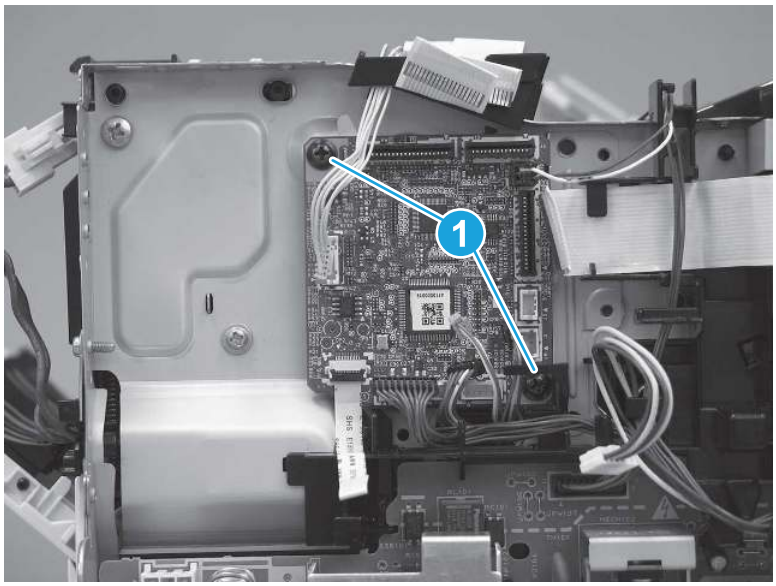
IMPORTANT: One FFC (callout 3) is fastened to the guide with two sided tape. This FFC is removed later in this procedure

Figure 4-692 Disconnect three FFCs and six connectors



2. Remove two screws (callout 1).

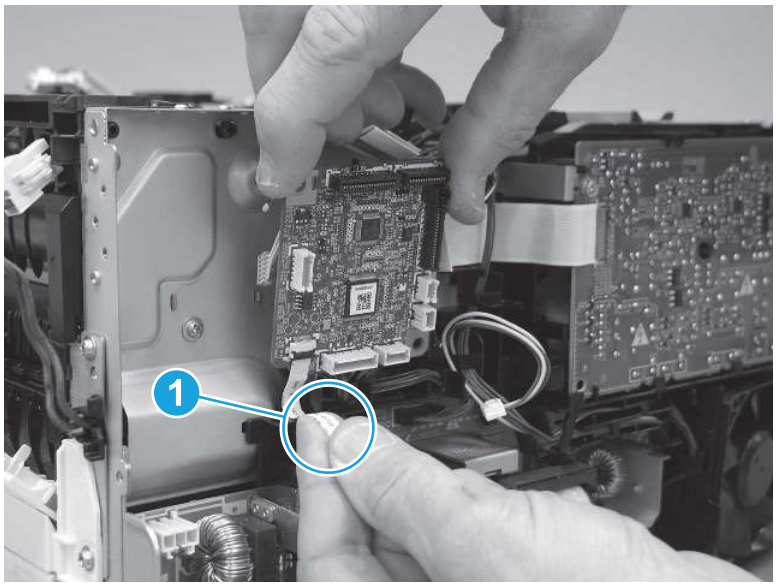
Figure 4-693 Remove two screws



3. Separate the DC controller from the printer.

⚠ CAUTION: Carefully pull up on the FFC (callout 1) to release it from the guide, and then remove the DC controller.

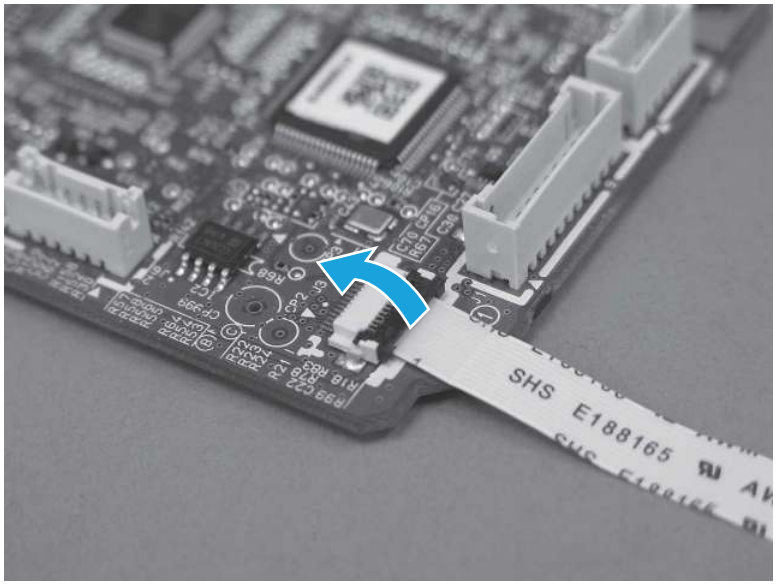
Figure 4-694 Remove the DC controller



4. Disconnect and remove one FFC, and then install this FFC on the replacement DC controller.

IMPORTANT: The FFC connector is a Zero Insertion Force (ZIF) connector that uses a hinged retainer to secure the FFC. The hinged retainer must be opened to release the FFC.

Figure 4-695 Remove the FFC



16. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Connecting PCA

Learn how to remove and replace the connecting printed circuit assembly (PCA).

View a video of how to remove and replace the SFP connecting PCA.

View a video of how to remove and replace the MFP connecting PCA.

Mean time to repair: 22 minutes SFP, 44 minutes MFP

Service level: Medium SFP, Medium MFP

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-45 Part information

Part number	Part description
RM2-7510-000CN	Connecting PCA assembly (duplex)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length
- – Socket screwdriver 5.5 mm (.216 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-696 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

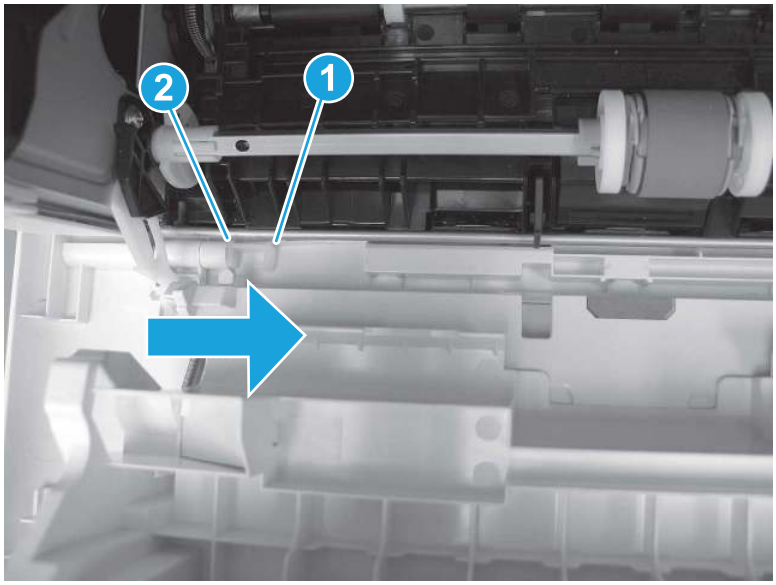
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

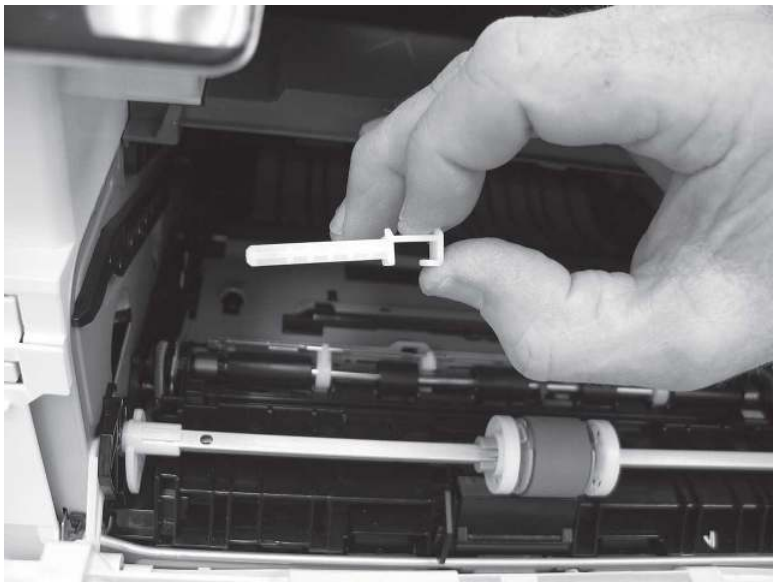
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-697 Release the support shaft



2. Remove the support shaft.

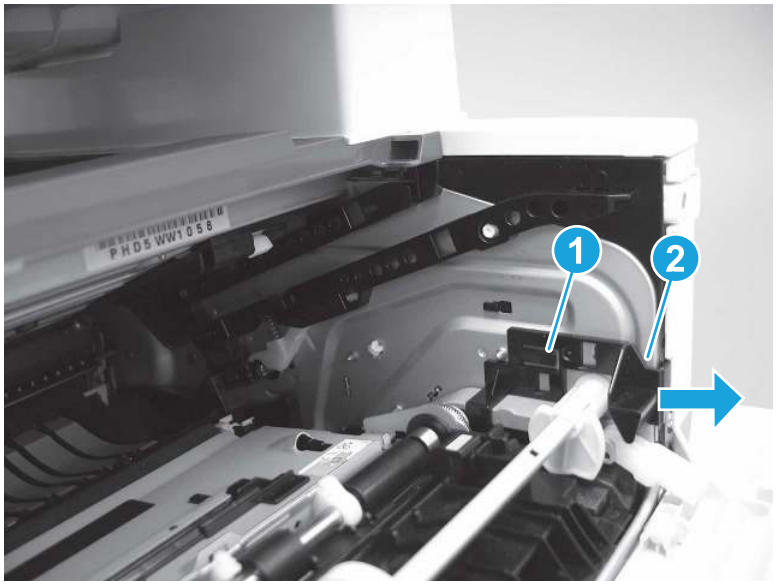
Figure 4-698 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

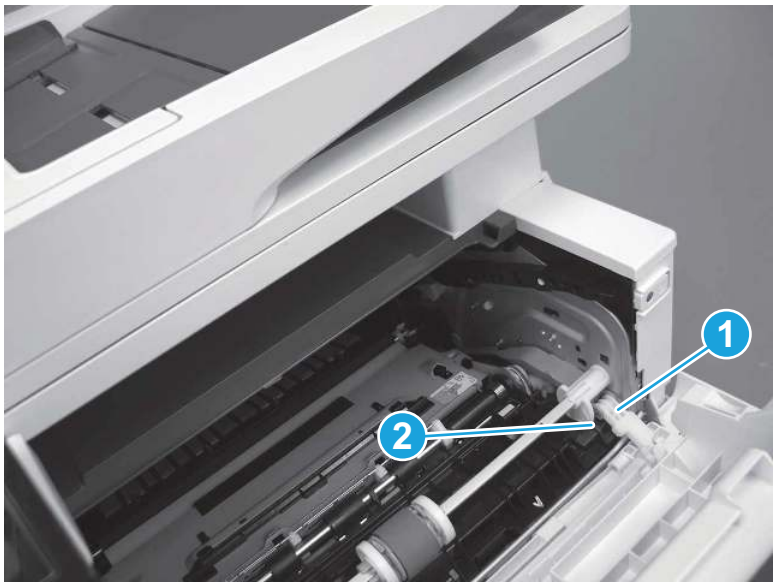
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-699 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-700 Release the pressure-release link

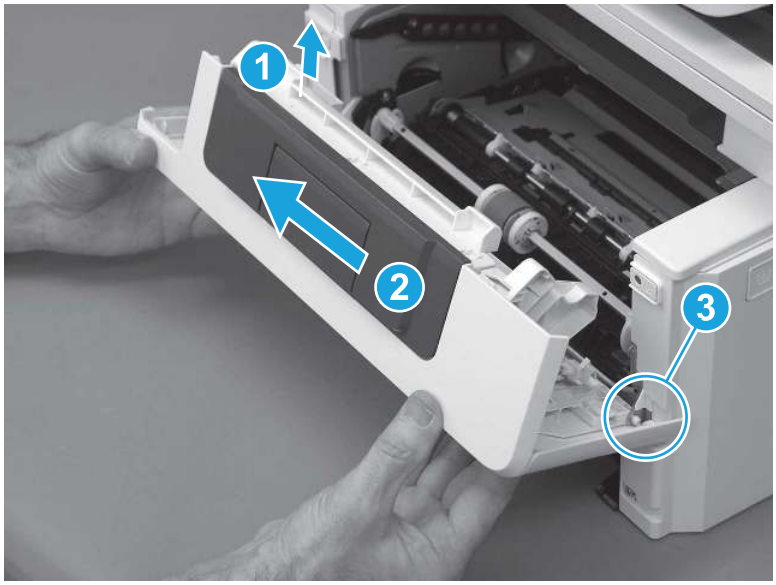


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

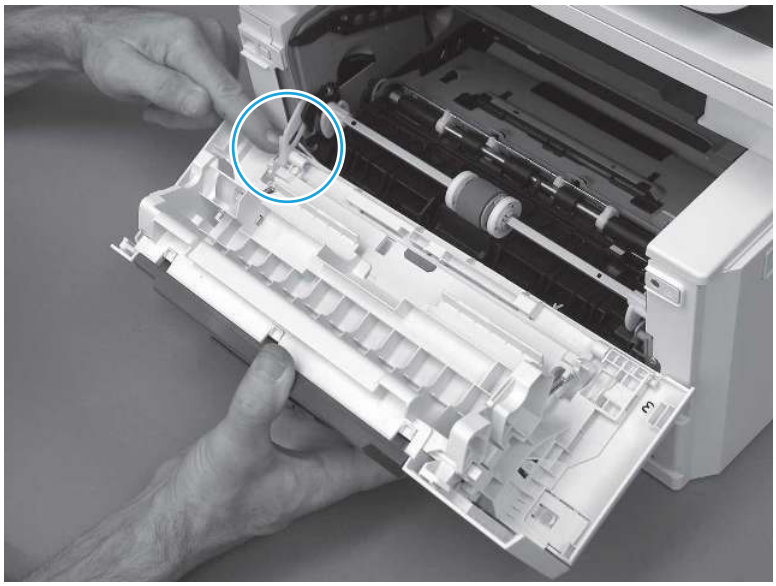
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-701 Release the door



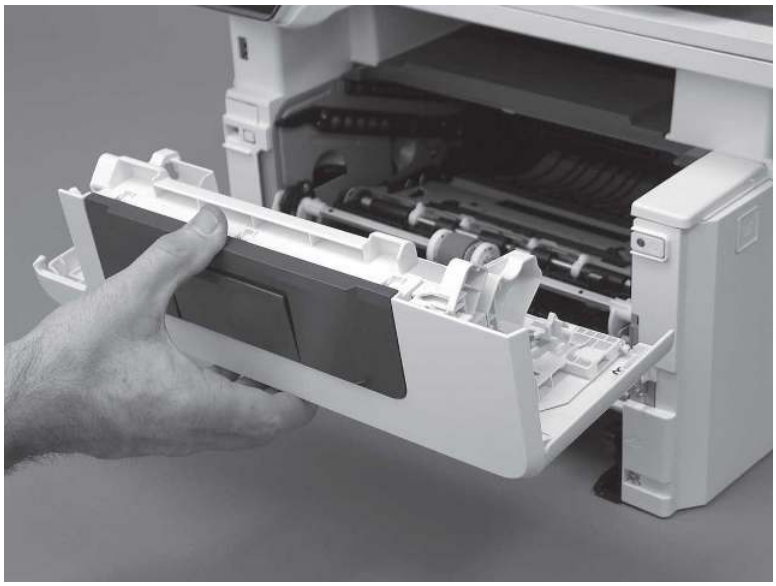
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-702 Release the left-side retainer arm



7. Remove the door.

Figure 4-703 Remove the door



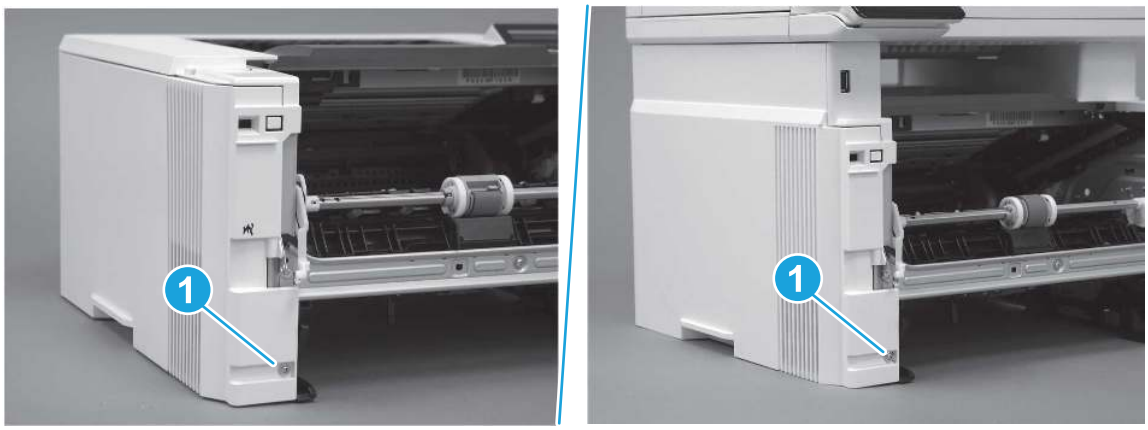
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

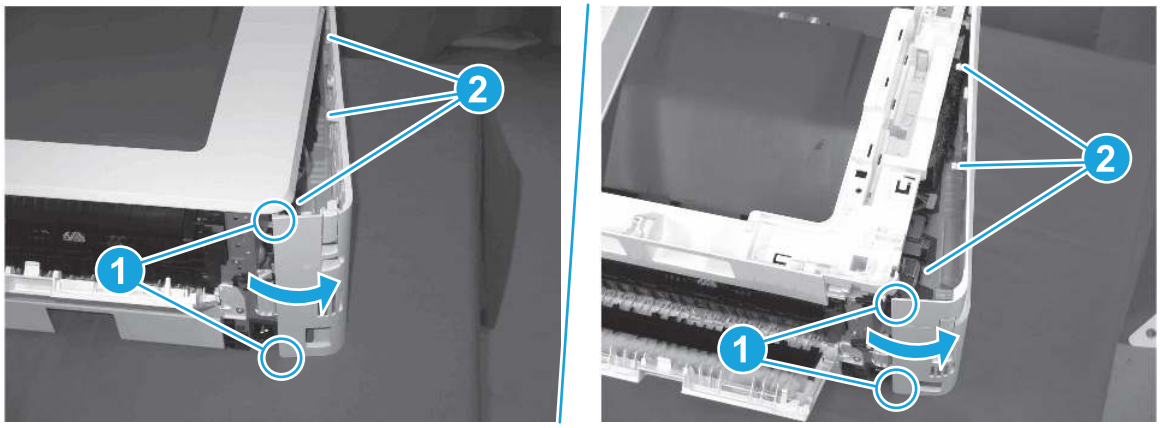
1. Remove one screw (callout 1).

Figure 4-704 Remove one screw



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-705 **Release two bosses and three tabs**

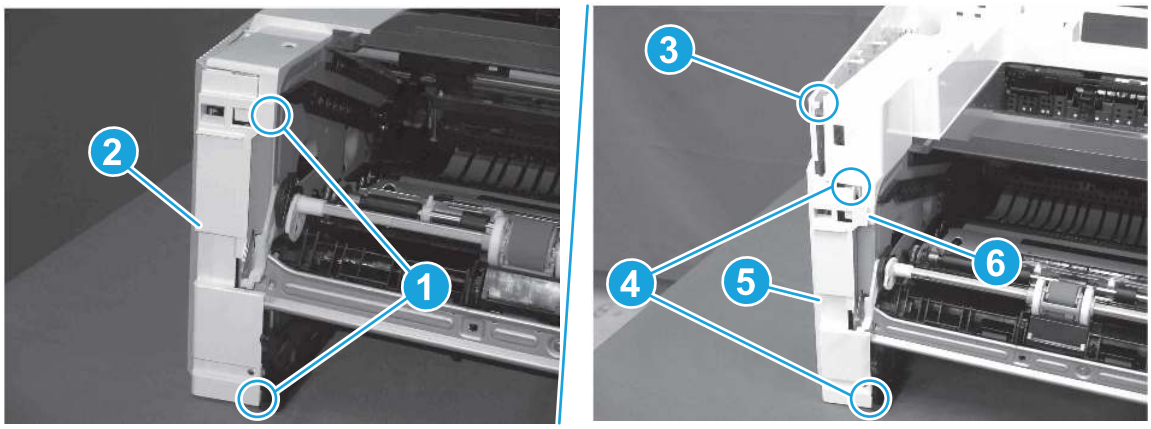


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-706 **Remove the cover**



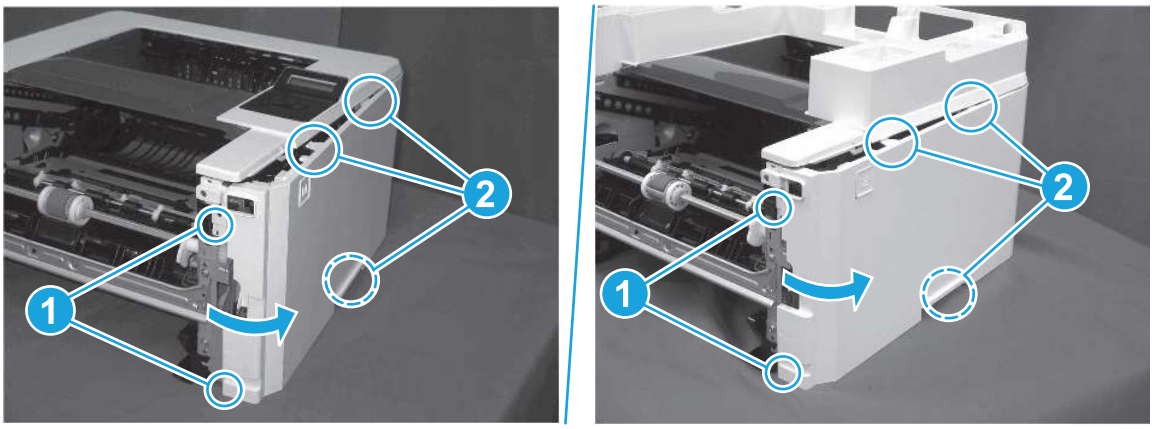
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

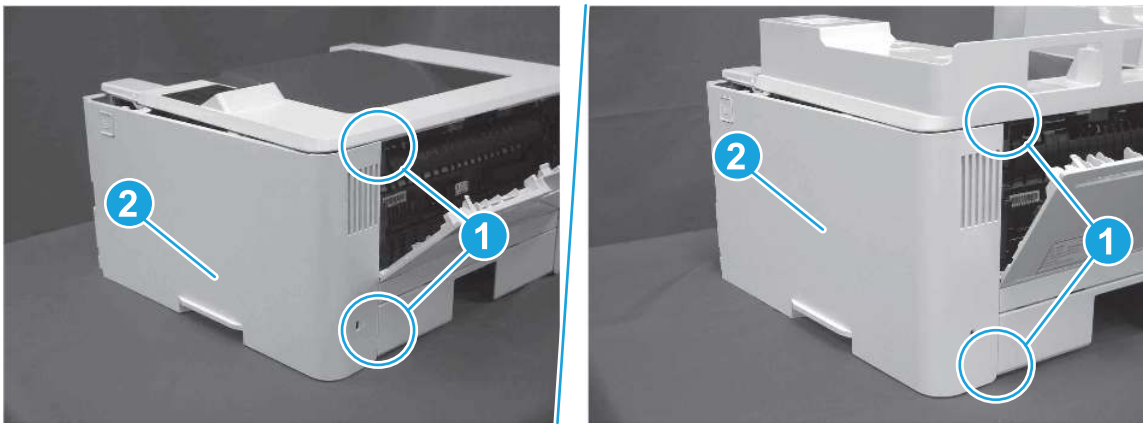
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-707 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-708 Remove the cover



5. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-709 Open the ISA



2. Remove one screw (callout 1).

Figure 4-710 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-711 Release two tabs



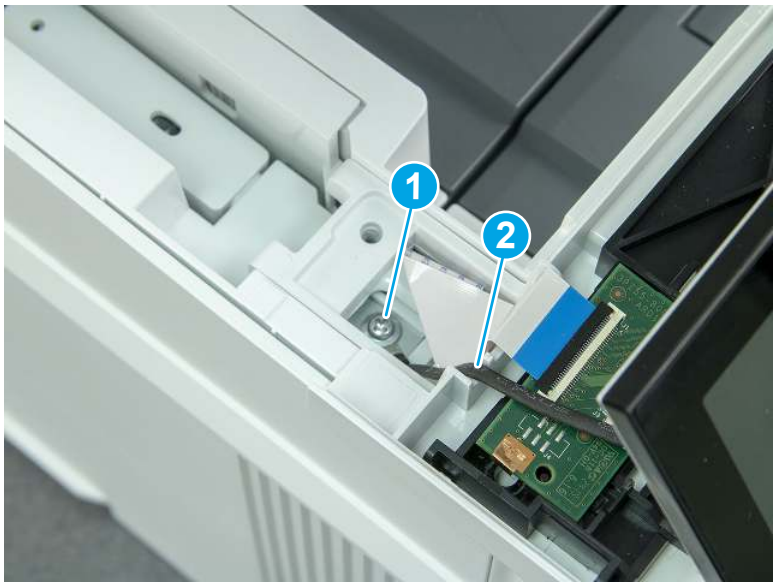
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-712 Remove the cover



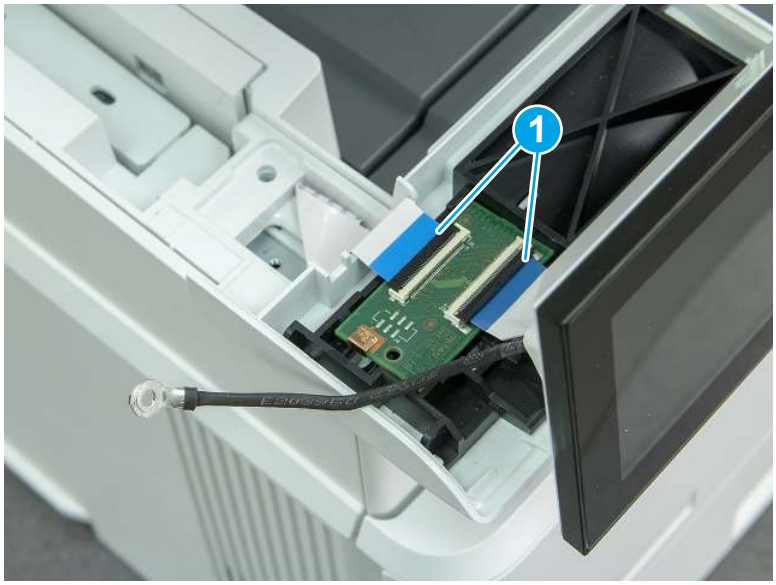
5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-713 Remove one screw



6. Disconnect two FFC (callout 1).

Figure 4-714 Disconnect two FFC



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

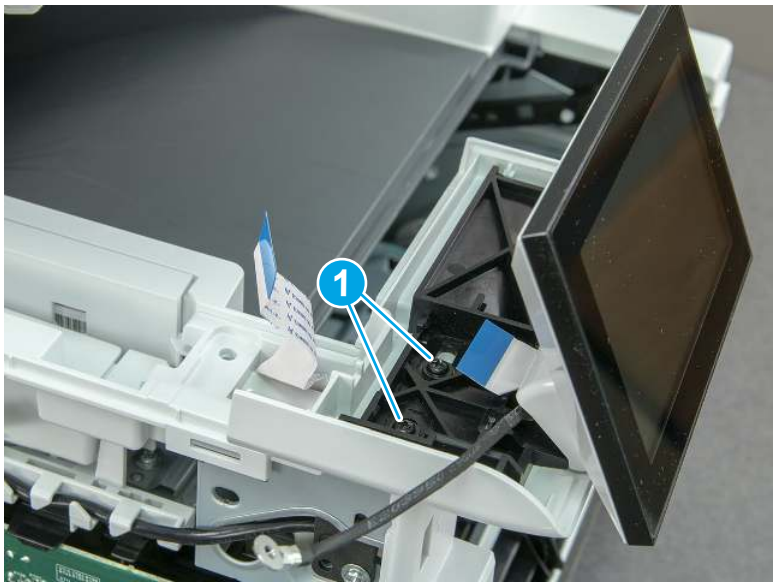
Figure 4-715 Remove the ICB



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ CAUTION: Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-716 Remove two screws and remove the control panel assembly

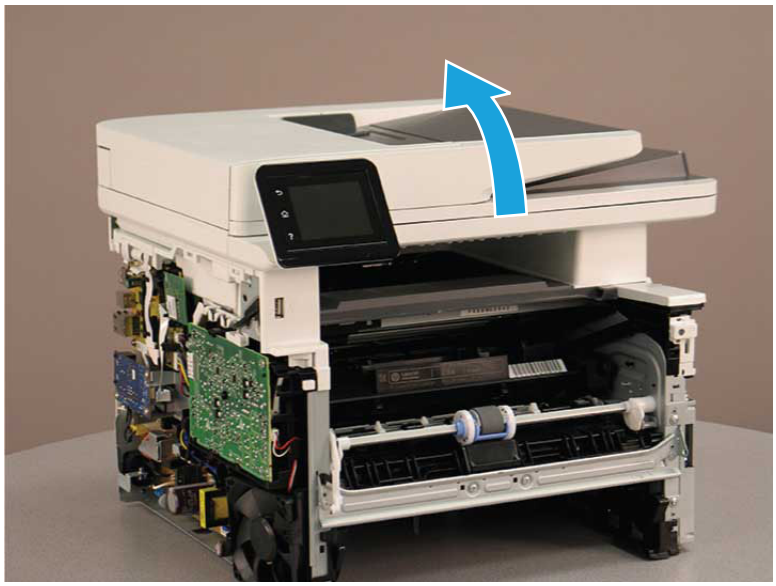


6. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

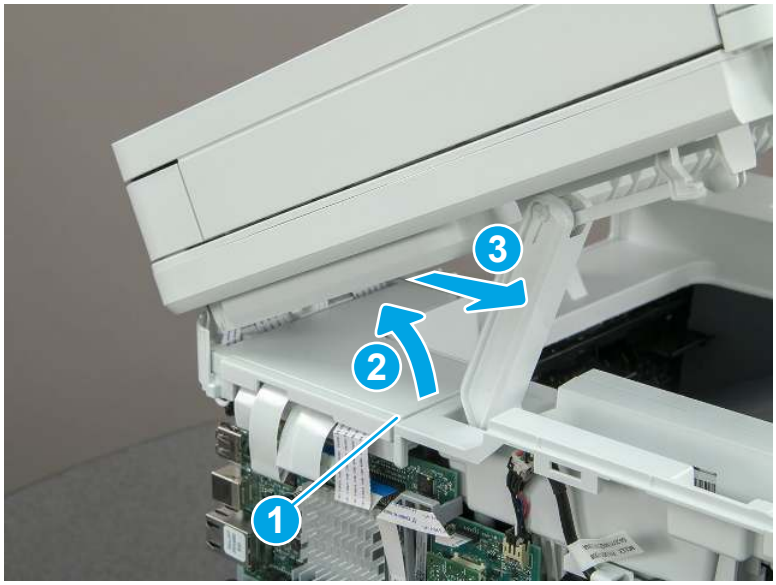
1. If the ISA is not already raised, raise it now.

Figure 4-717 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-718 Remove the ISA FFC cover

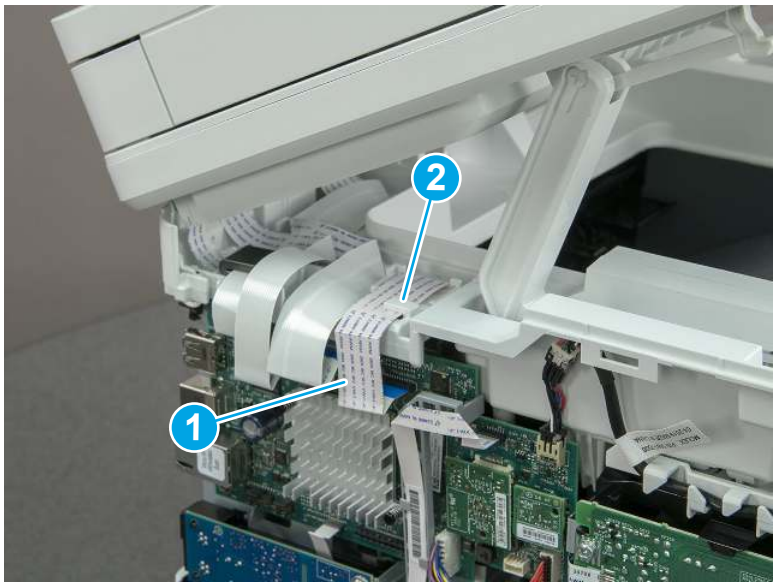


7. Remove the control panel flat cable and cover (MFP only)

Follow these steps to remove the control panel flat cable and cover (MFP only).

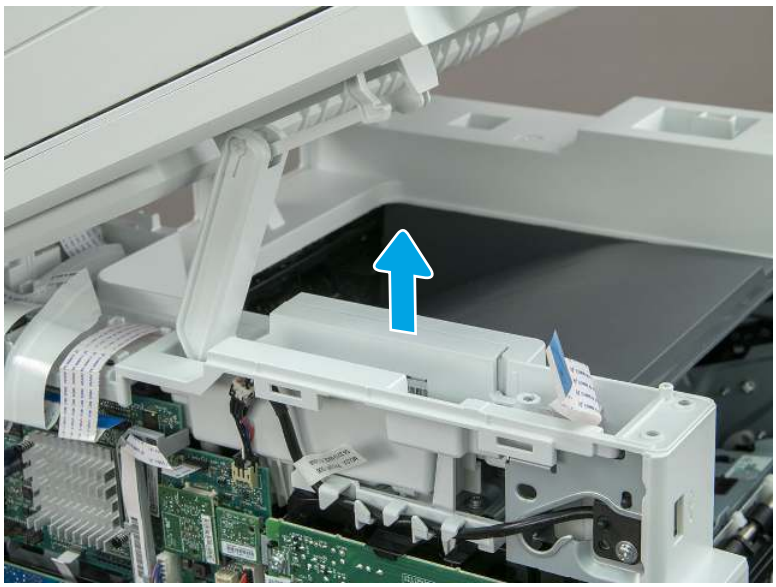
1. Disconnect one FFC (callout 1), and then release the cable from the guides (callout 2).

Figure 4-719 **Disconnect one cable**



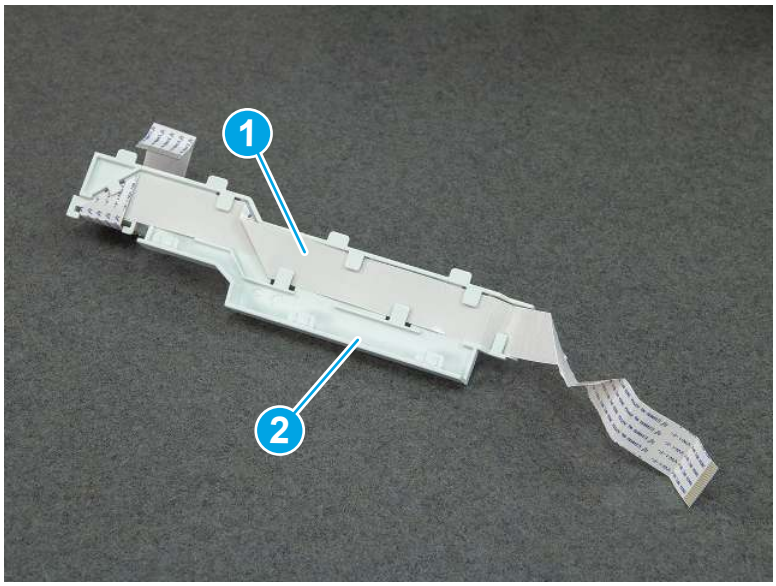
2. Lift up the control-panel FFC cover to remove the cover and cable.

Figure 4-720 **Remove the cover and cable**



3. If you are replacing the FFC or the cover, remove the FFC (callout 1) from the cover (callout 2).

Figure 4-721 **Remove the FFC**



8. Remove the integrated scanner assembly (MFP only)

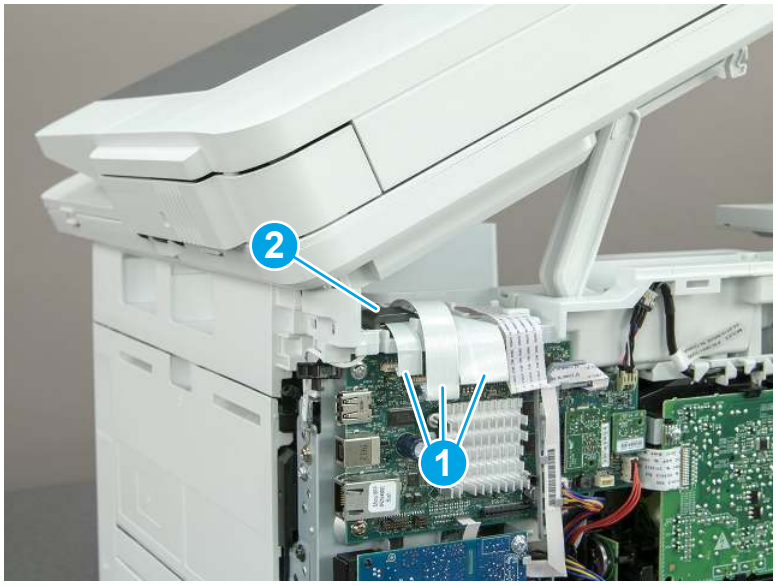
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-722 **Disconnect three FFCs**



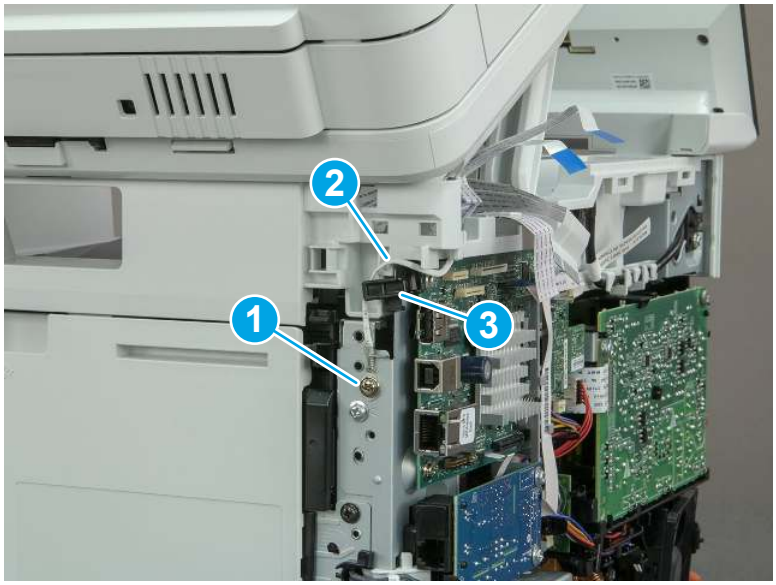
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-723 Release the tape



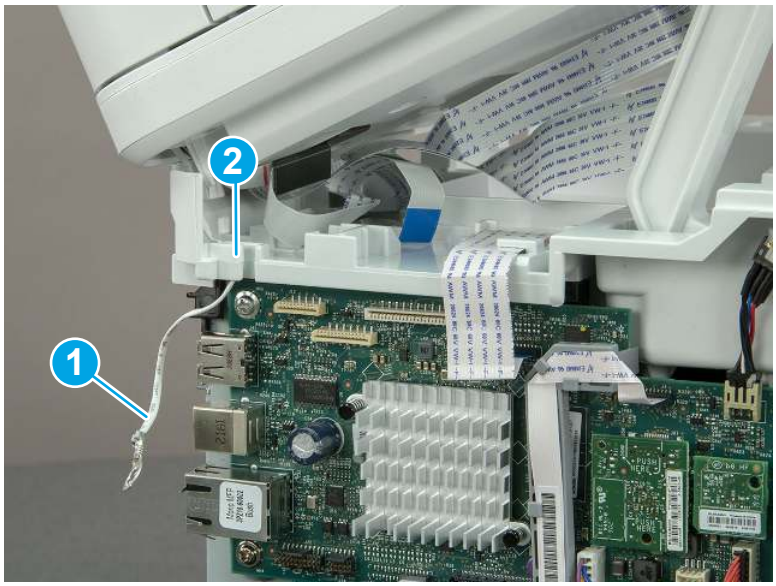
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-724 Release the ground wire



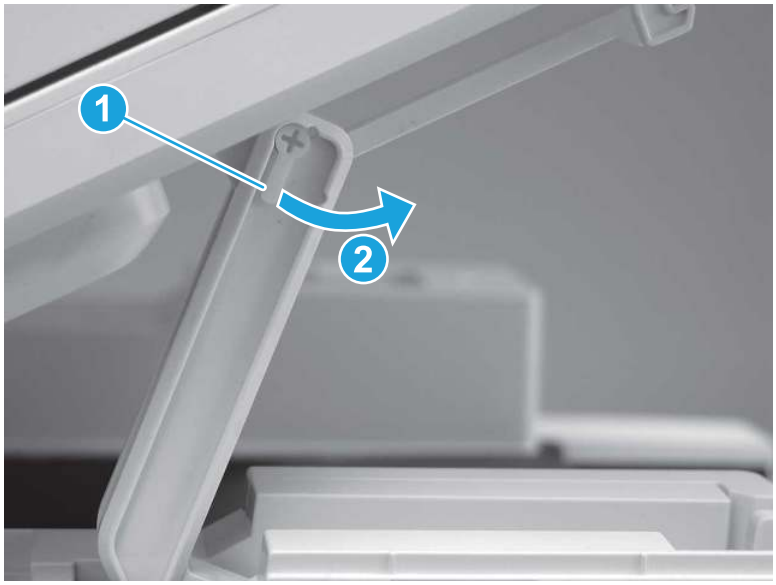
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-725 **Release the ground wire**



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

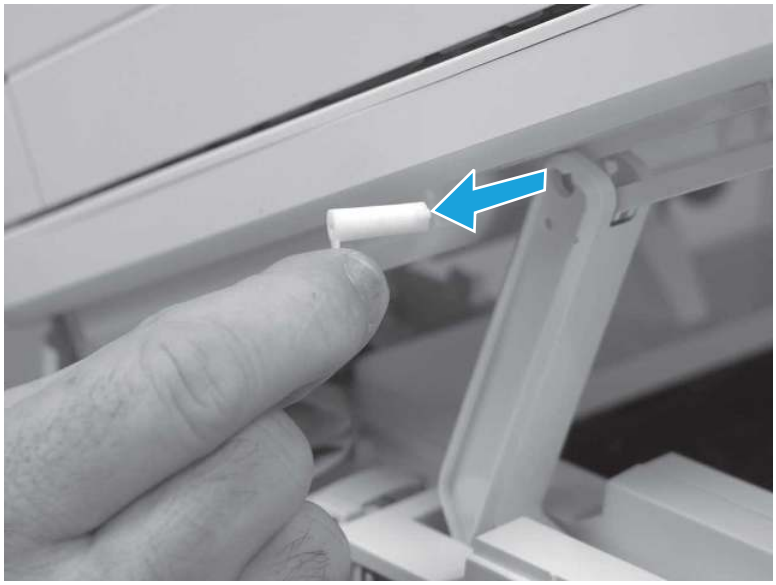
Figure 4-726 **Release one tab and rotate the slider pin**



6. Remove the slider pin.

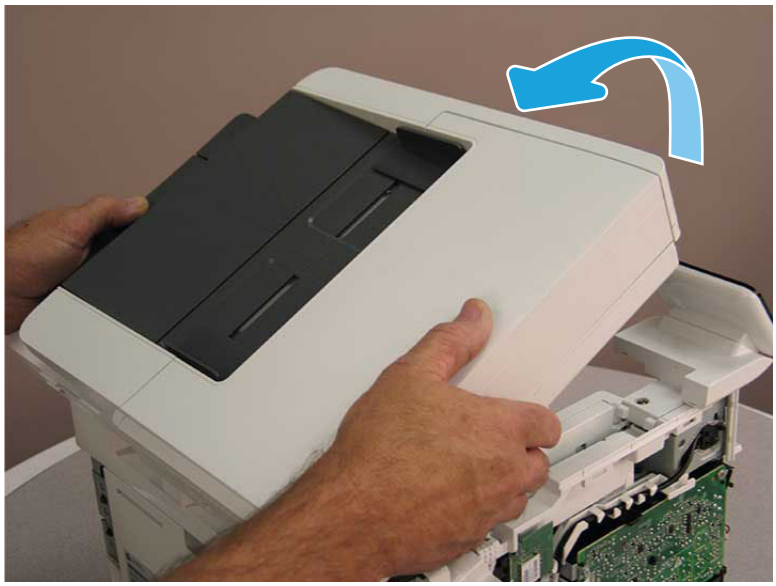
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-727 Remove the slider pin



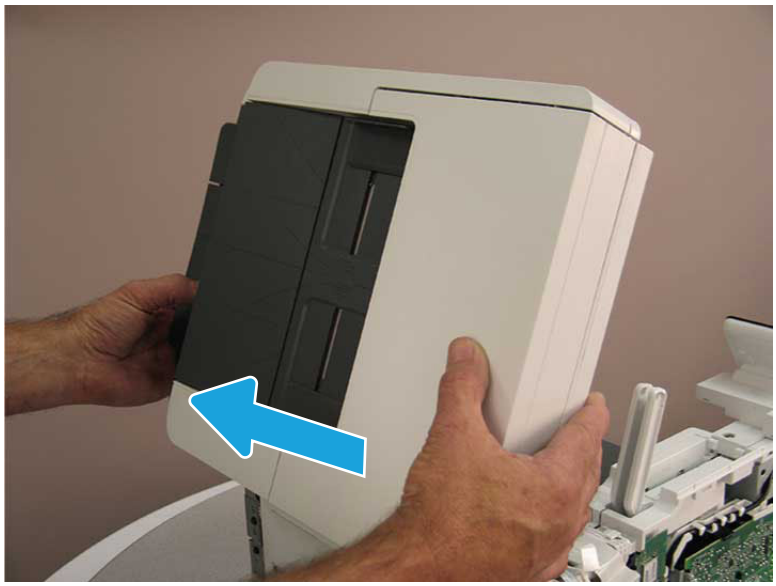
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-728 Rotate the ISA towards the rear of the printer



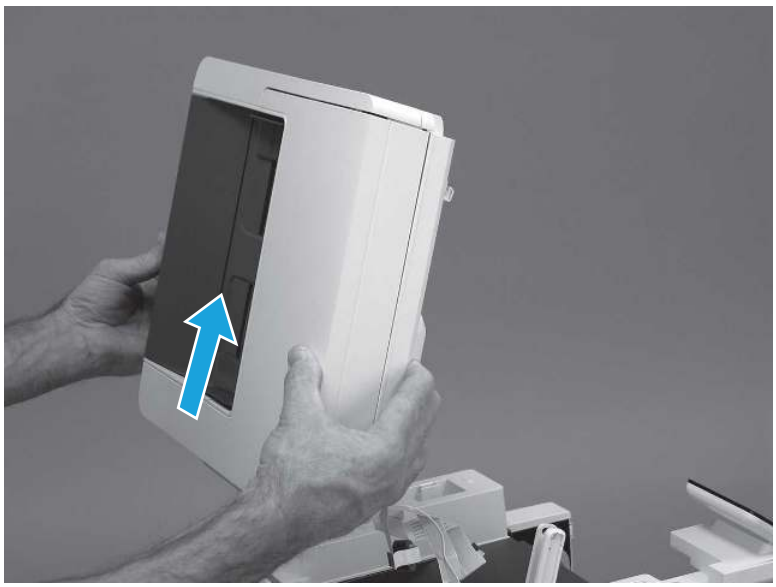
8. Slide the ISA as shown to release it.

Figure 4-729 Release the ISA



9. Remove the ISA.

Figure 4-730 Remove the ISA

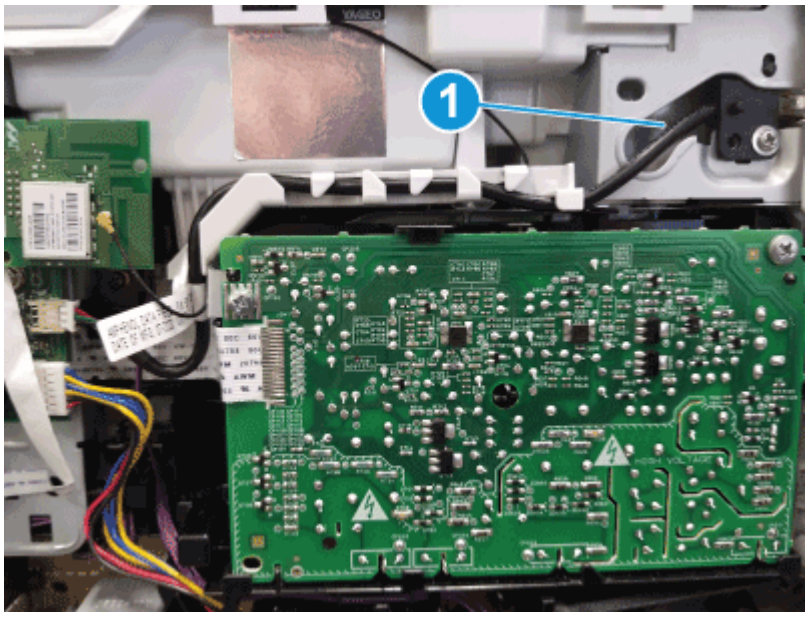


9. Remove the top cover (MFP)

Follow these steps to remove the top cover (MFP).

1. Release the USB cable (callout 1) from the cable guide.

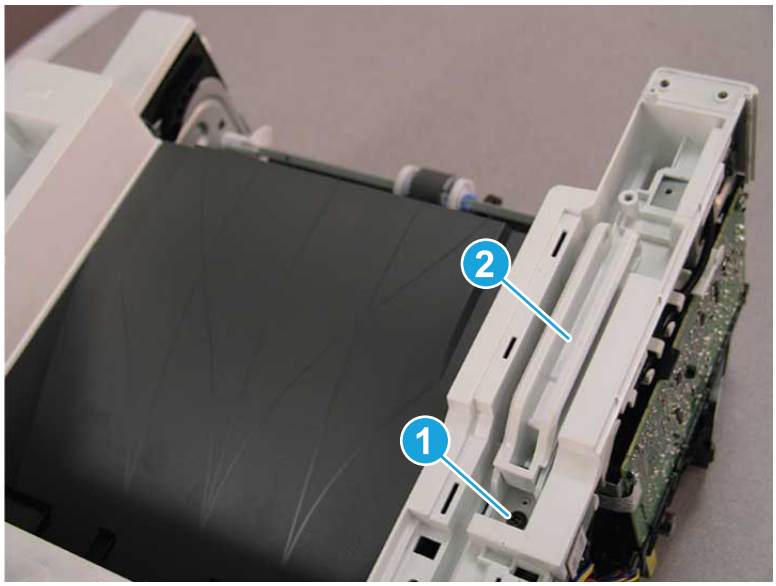
Figure 4-731 Release the USB cable



2. Remove one screw (callout 1), and then remove the support arm (callout 2).

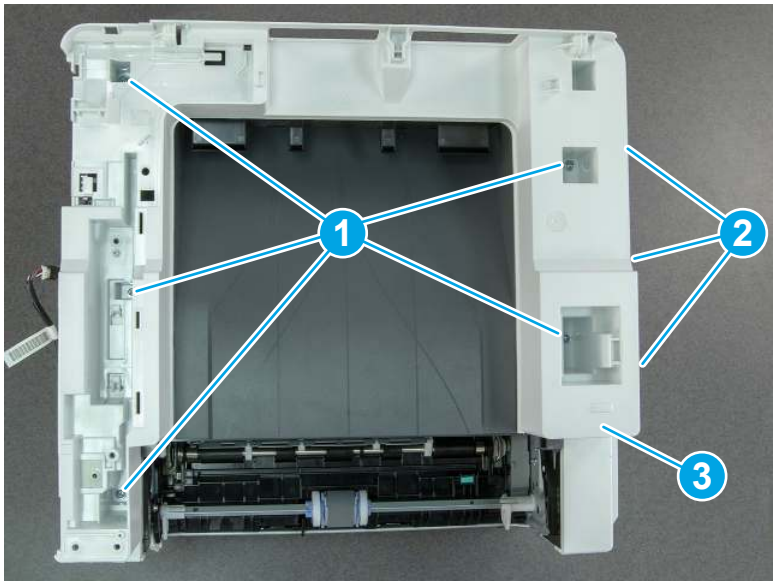
⚠ CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-732 Remove the support arm



3. Remove five screws (callout 1), release three bosses (callout 2), and then remove the top cover (callout 3).

Figure 4-733 Remove the top cover



10. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

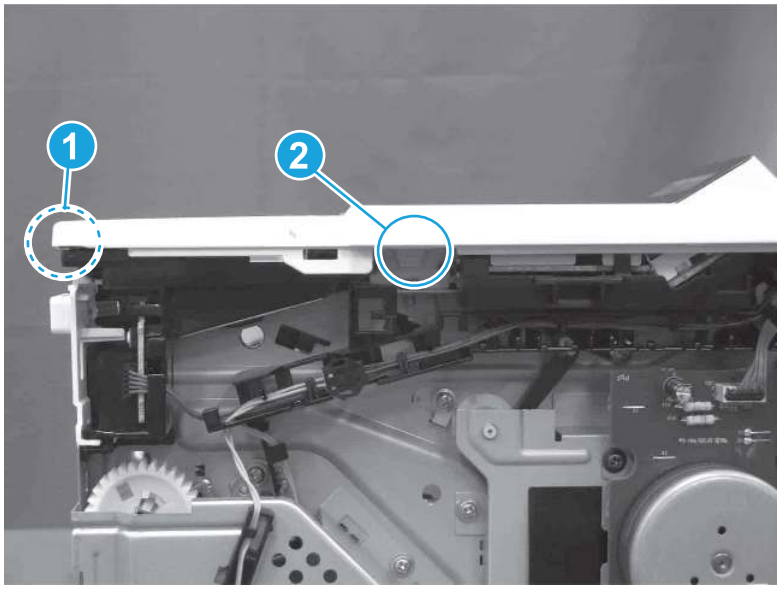
1. Remove one screw.

Figure 4-734 Remove one screw



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

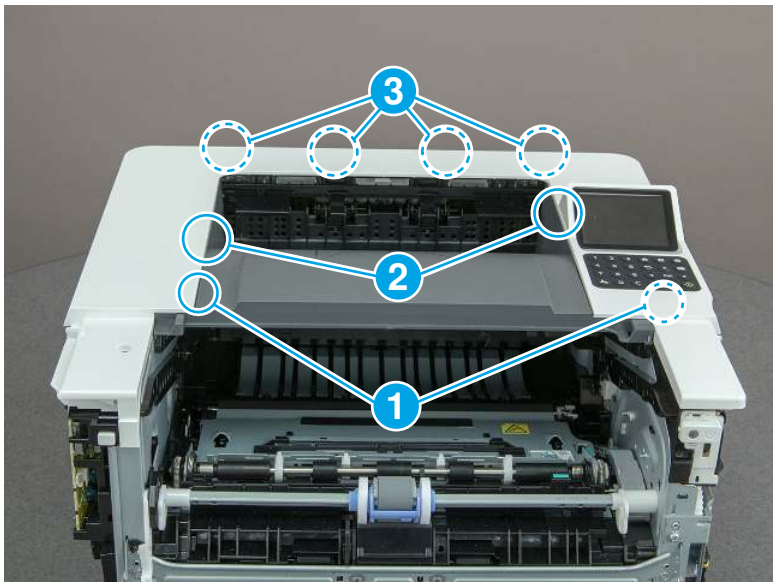
Figure 4-735 Release one boss and one tab



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-736 Remove the cover

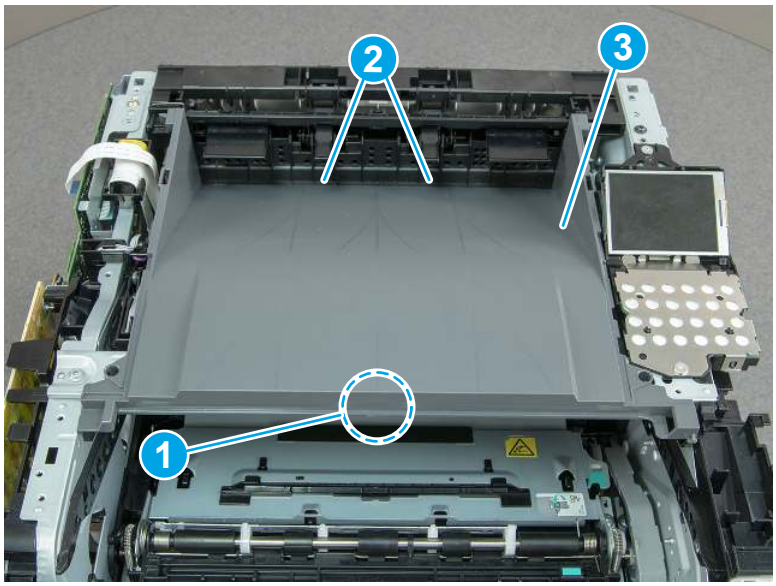


11. Remove the paper delivery tray (output bin)

Follow these steps to remove the paper delivery tray (output bin).

- Release one tab (callout 1), release two bosses (callout 2), and then remove the paper delivery tray (output bin; callout 3).

Figure 4-737 Remove the cover

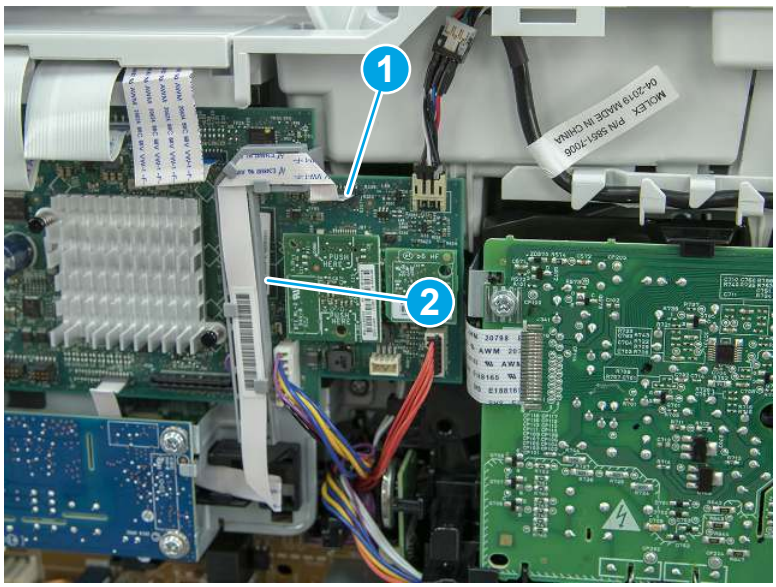


12. Remove the fax cable guide and fax PCA (fax models only)

Follow these steps to remove the fax cable guide and fax PCA (fax models only).

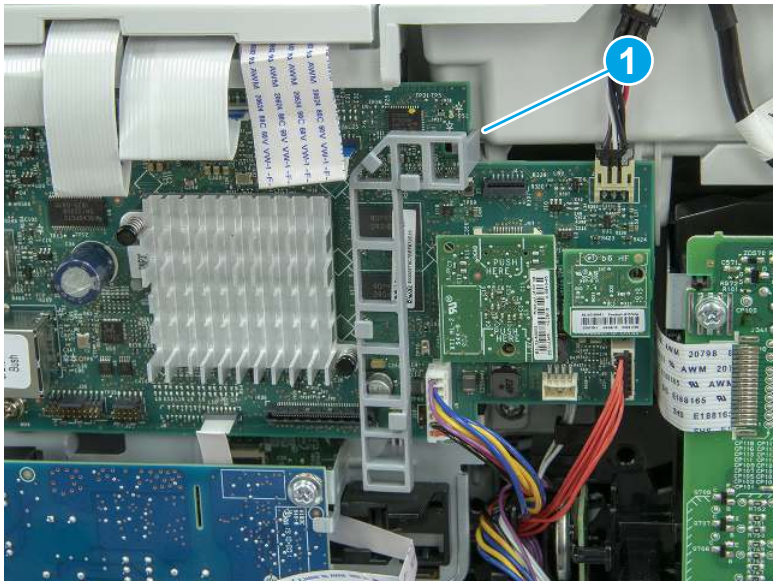
1. Disconnect one connector (callout 1), and then remove the cable from the guide (callout 2).

Figure 4-738 **Remove the cable from the guide**



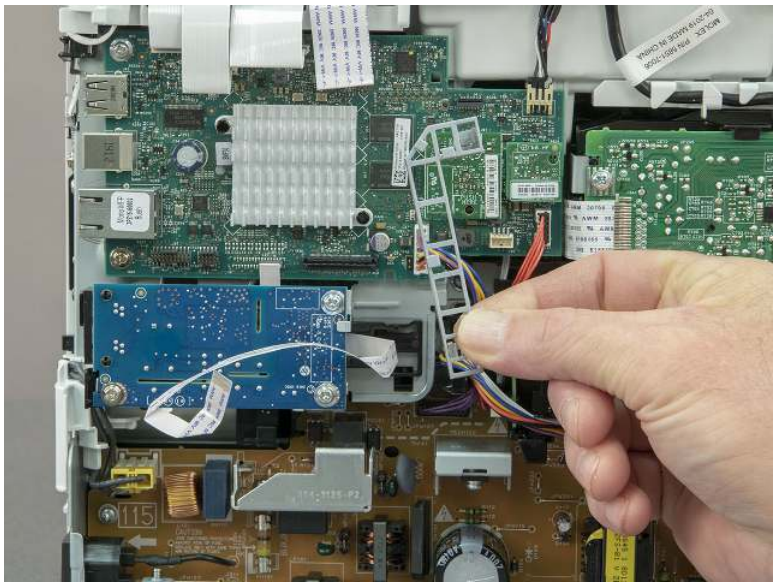
2. Release one tab (callout 1).

Figure 4-739 **Release one tab**



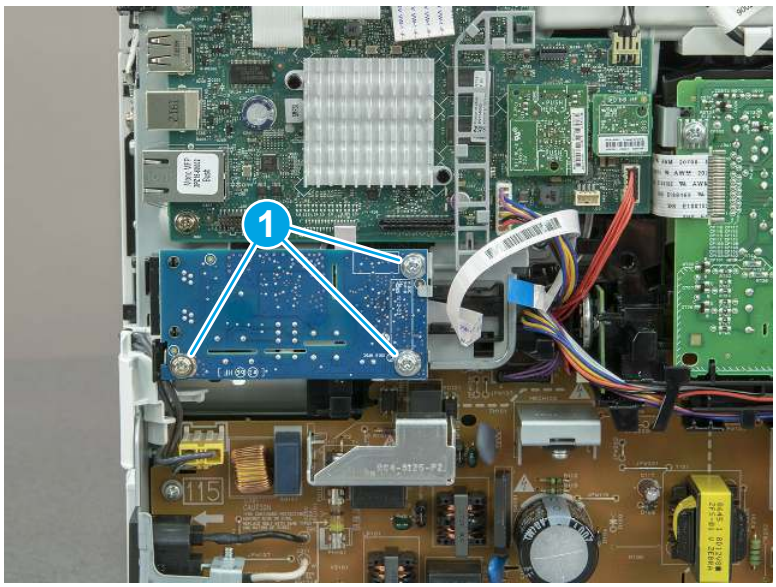
3. Lower the guide to release it from the formatter.

Figure 4-740 Lower the guide



4. Remove three screws (callout 1), and then remove the fax PCA and cable.

Figure 4-741 Remove three screws



13. Remove the Trusted Platform Module (TPM)

Follow these steps to remove the Trusted Platform Module (TPM).

- Carefully pull the TPM (callout 1) away from the formatter to remove it.

Figure 4-742 **Remove the TPM**



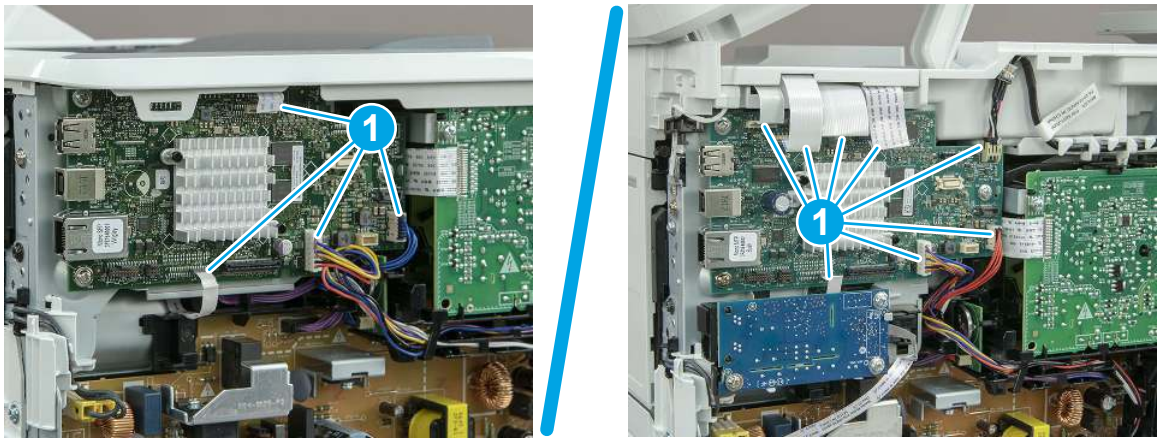
14. Remove the formatter PCA

Follow these steps to remove the formatter PCA.

1. Do one of the following:
   - **SFP**: Disconnect four connectors (callout 1).
   - **MFP**: Disconnect eight connectors (callout 1).

IMPORTANT: Take note of any empty connectors before removing the formatter PCA.

Figure 4-743 **SFP/MFP: Disconnect the connectors**



2. Remove three screws (callout 1), and then remove the formatter PCA.

Figure 4-744 Remove three screws



15. Remove the formatter bracket

Follow these steps to remove the formatter bracket.

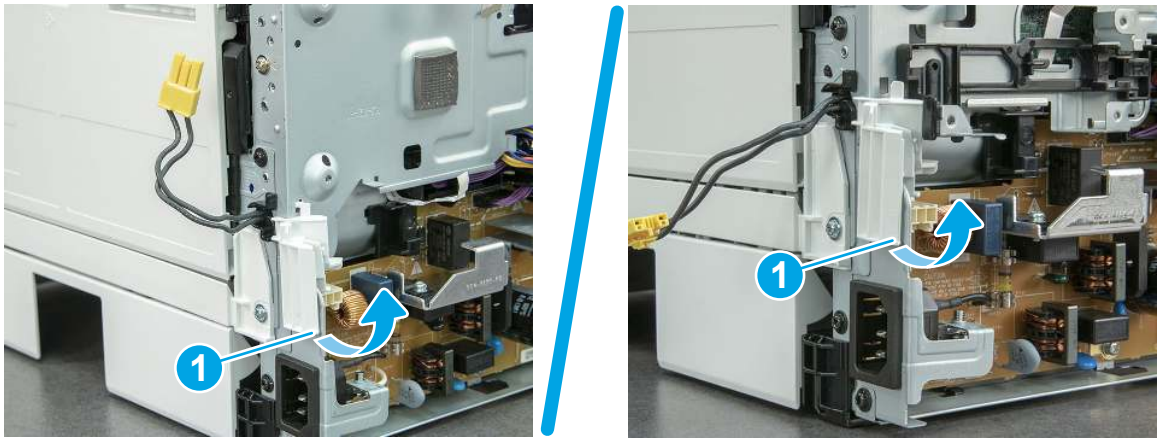
1. Disconnect one connector (callout 1), and then remove the wire harness (callout 2) from the guide (callout 3).

Figure 4-745 SFP/MFP: Remove the wire harness



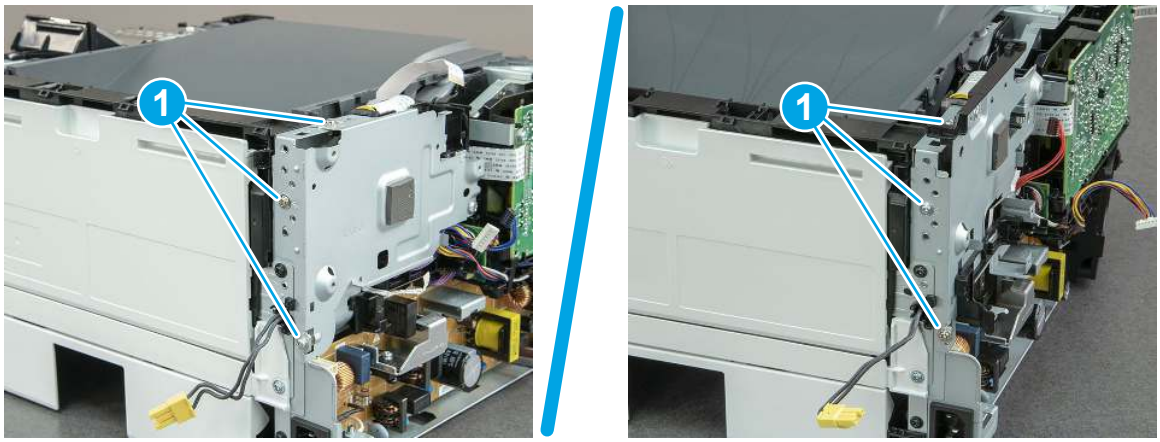
2. Release the front edge (callout 1), and then rotate the wire guide up to remove it.

Figure 4-746 Remove the wire guide



3. Remove three screws (callout 1).

Figure 4-747 Remove three screws

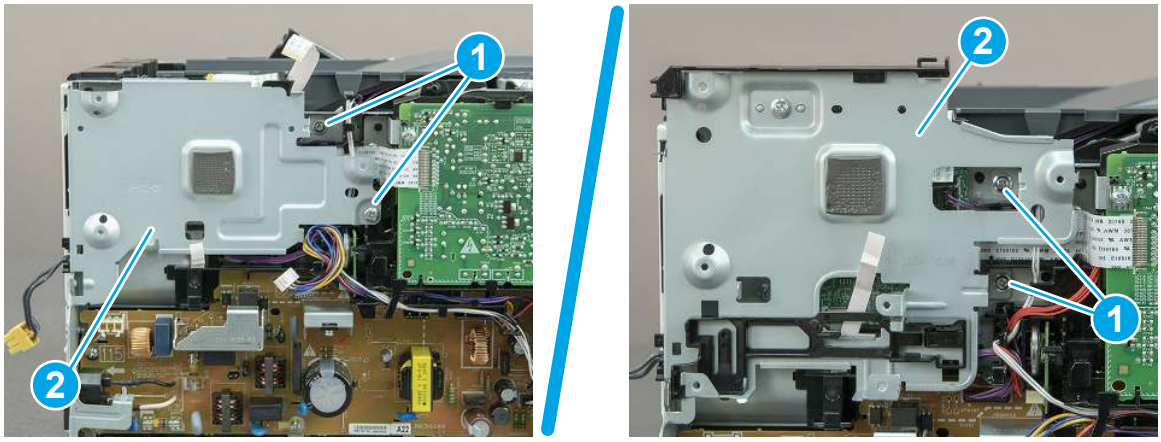


4. Remove two screws (callout 1), and then remove the formatter bracket (callout 2).

Reinstallation tip: Do one of the following:

- **SFP**: One screw is larger than the other screw. Make sure screws are installed in the correct locations.
- **MFP**: These two screws are longer than the previous three screws.

Figure 4-748 Remove two screws

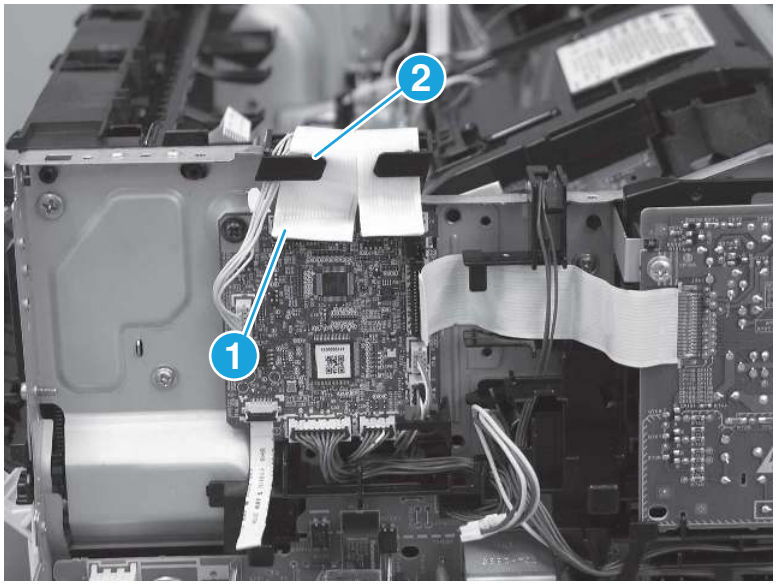


16. Remove the connecting PCA

Follow these steps to remove the connecting PCA.

1. Disconnect one FFC (callout 1) from the DC controller, and then release it from the guide (callout 2).

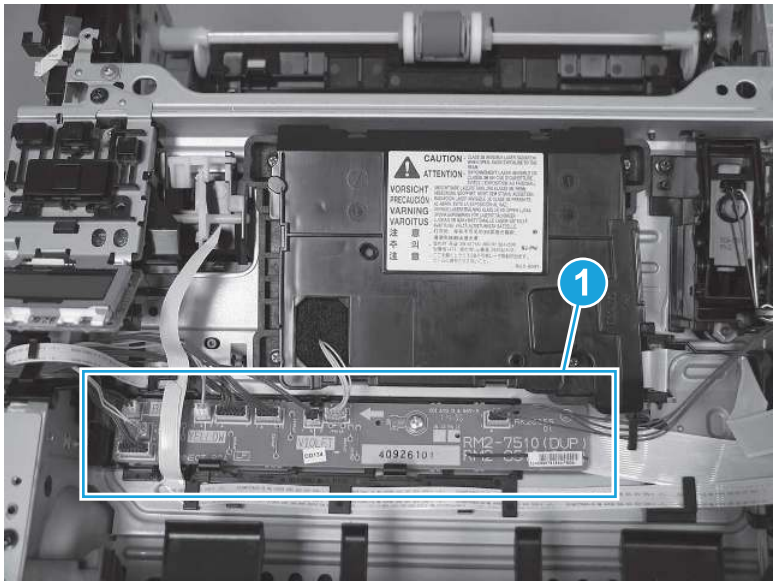
Figure 4-749 Disconnect one FFC



2. Disconnect nine connectors (callout 1).

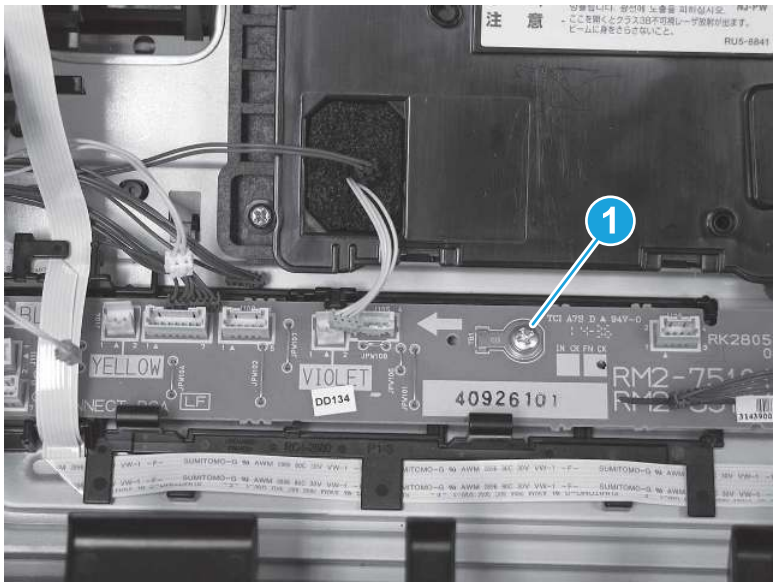
TIP: Some of these connectors might be easier to disconnect if the wire harnesses are removed from the guides.

Figure 4-750 Disconnect nine connectors



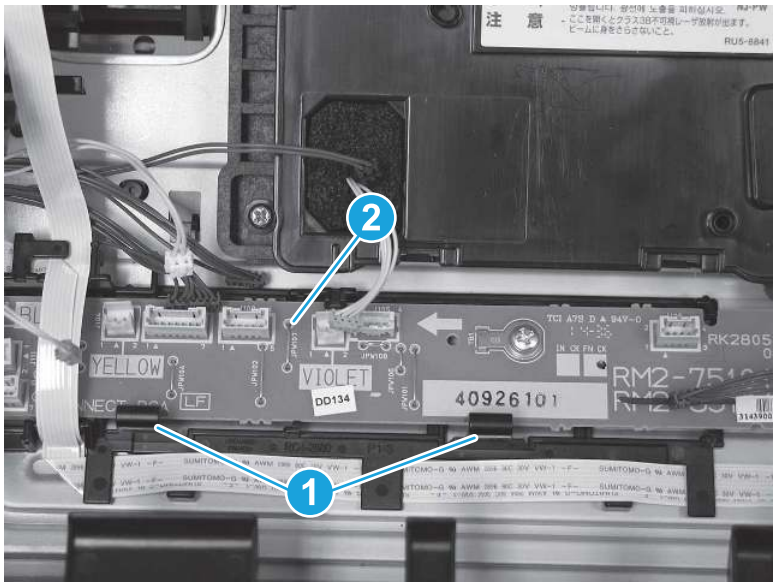
3. Remove one screw (callout 1).

Figure 4-751 Remove one screw



4. Release two holders (callout 1), and then remove the connecting PCA (callout 2).

Figure 4-752 **Remove the connecting PCA**



17. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Laser scanner FFC

Learn how to remove and replace the laser scanner flat-flexible cable (FFC).

View a video of how to remove and replace the SFP laser scanner FFC.

View a video of how to remove and replace the MFP laser scanner FFC.

Mean time to repair: 19 minutes SFP, 41 minutes MFP

Service level: Medium SFP, Medium MFP

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-46 Part information

Part number	Part description
Not orderable	Laser scanner FFC

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length
- – Socket screwdriver 5.5 mm (.216 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-753 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

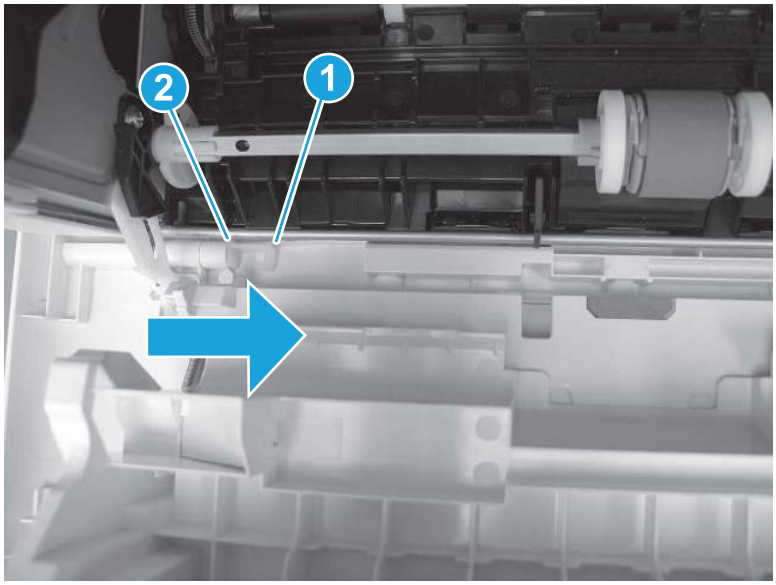
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

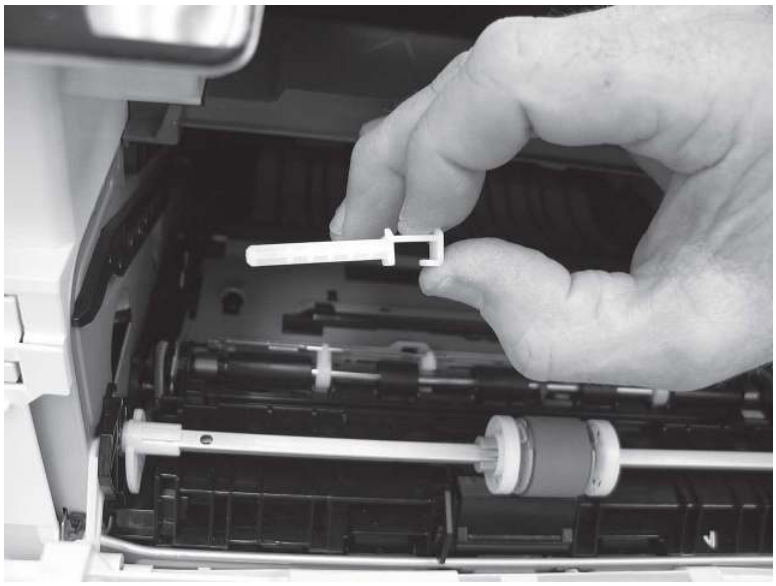
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-754 Release the support shaft



2. Remove the support shaft.

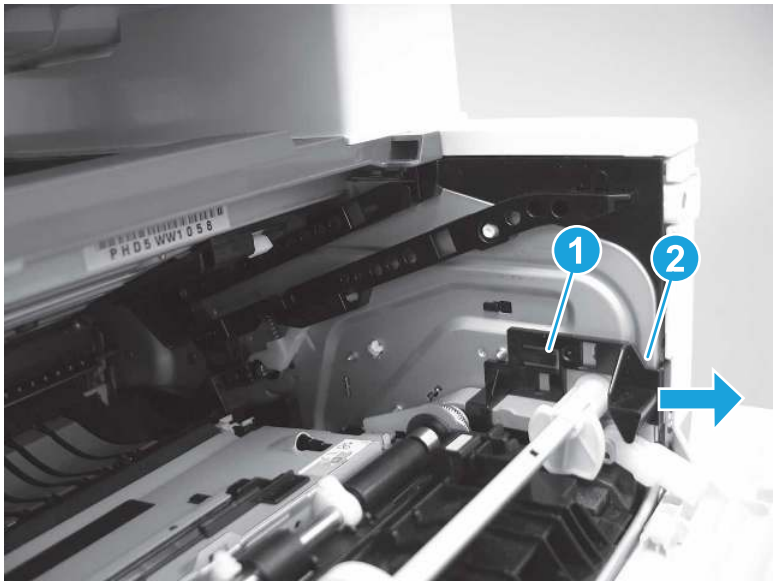
Figure 4-755 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

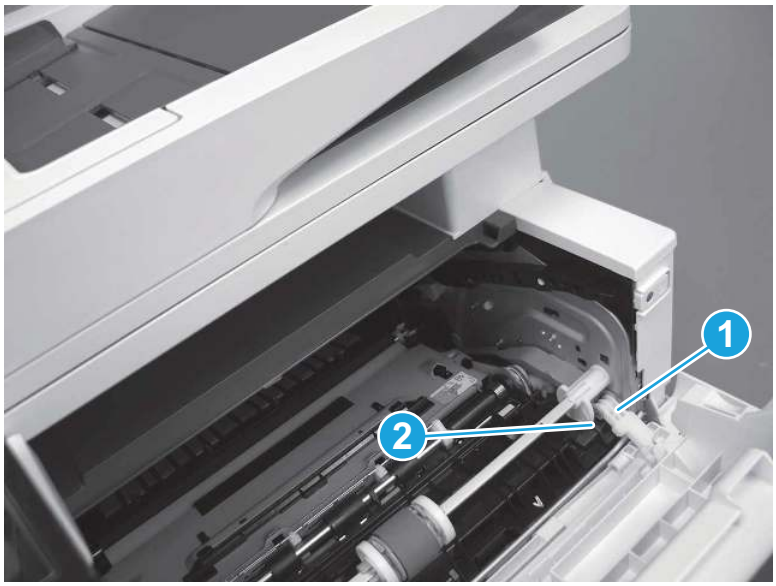
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-756 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-757 Release the pressure-release link

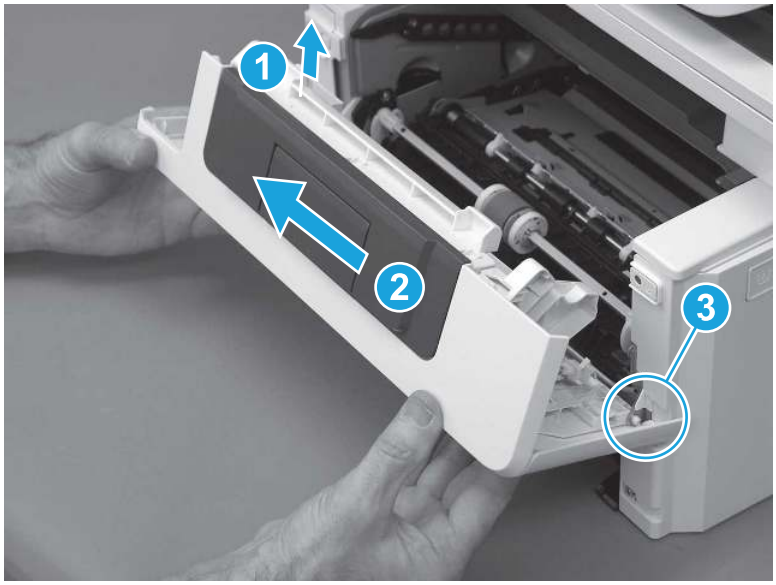


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

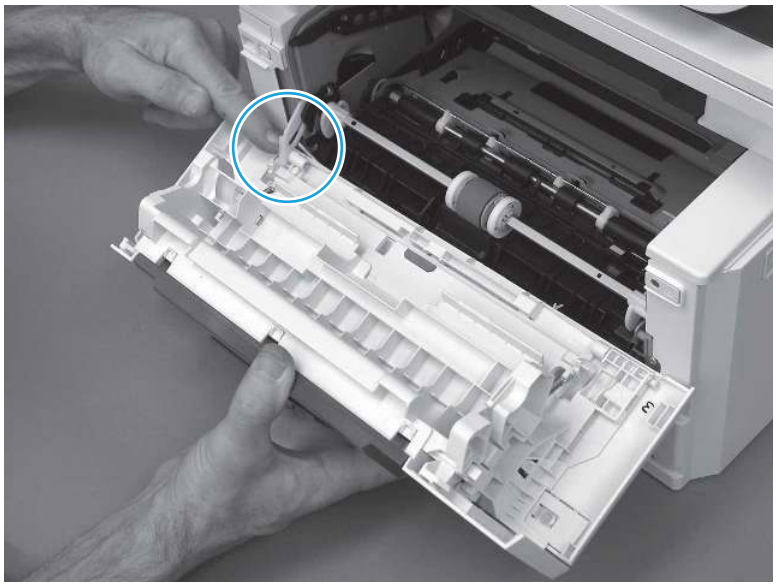
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-758 Release the door



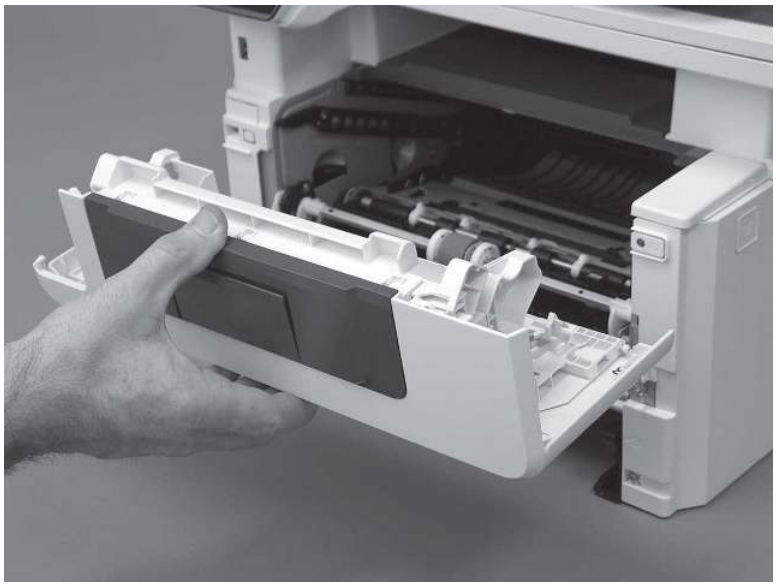
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-759 Release the left-side retainer arm



7. Remove the door.

Figure 4-760 **Remove the door**



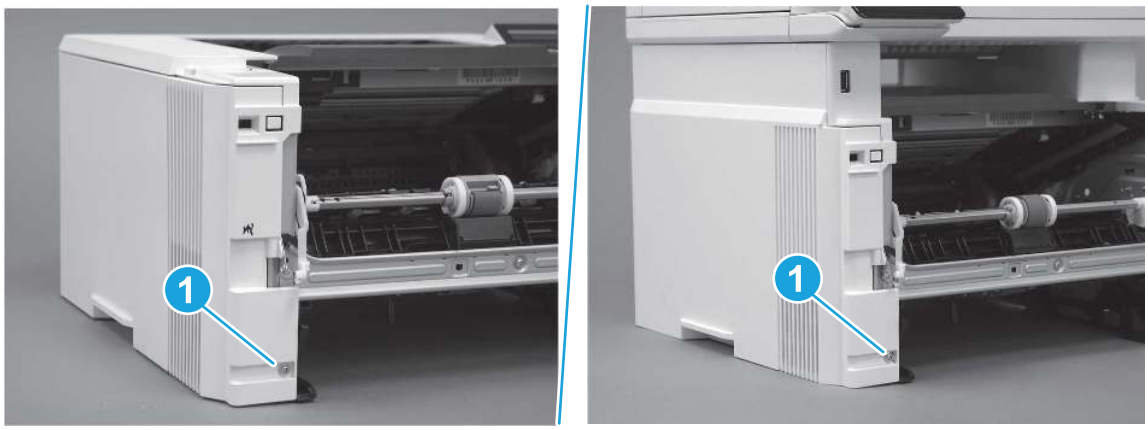
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

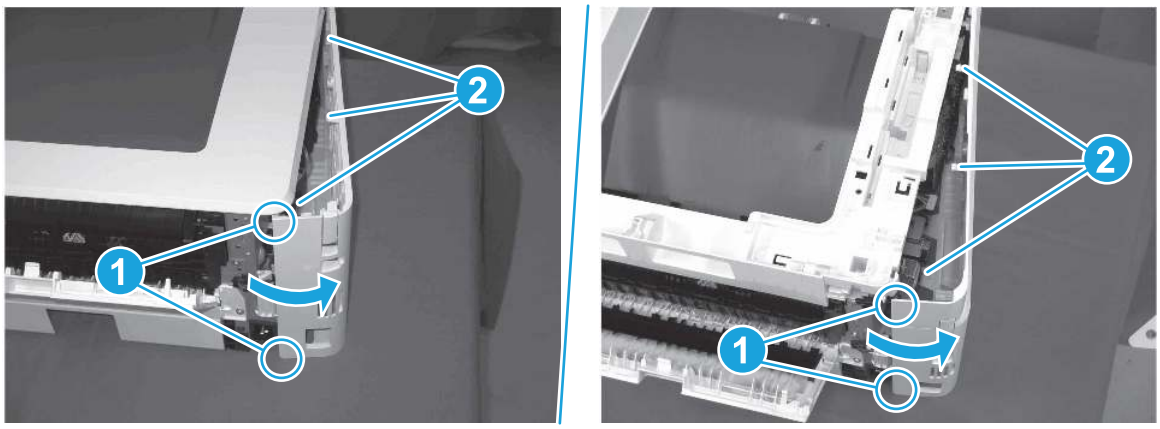
1. Remove one screw (callout 1).

Figure 4-761 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-762 Release two bosses and three tabs

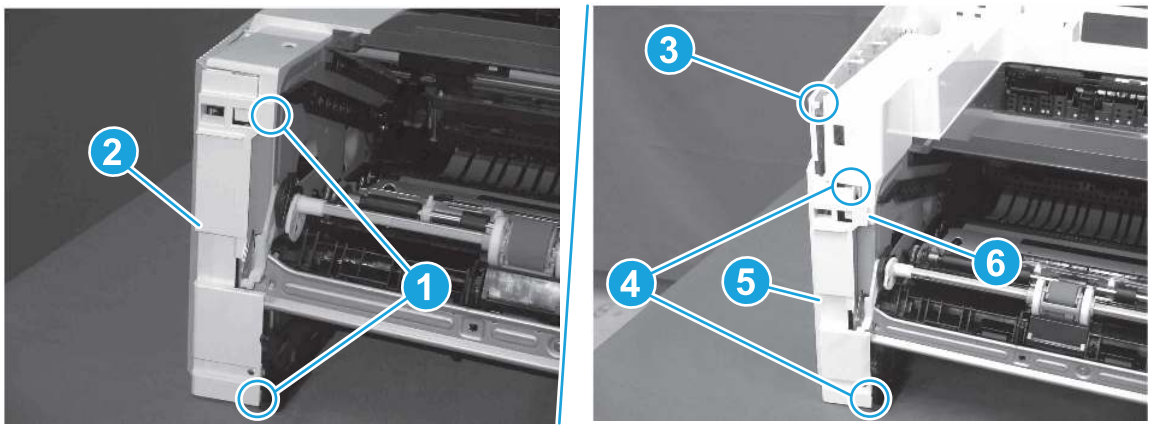


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-763 Remove the cover



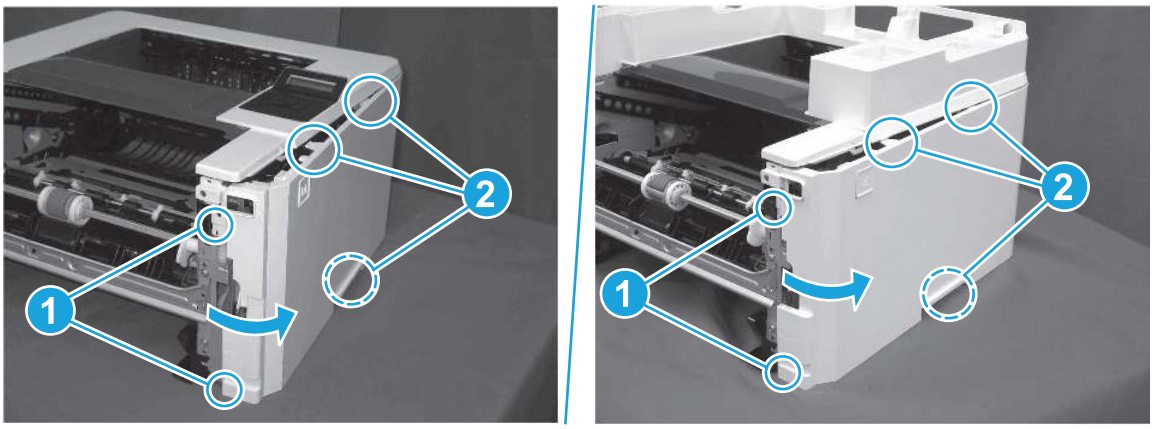
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

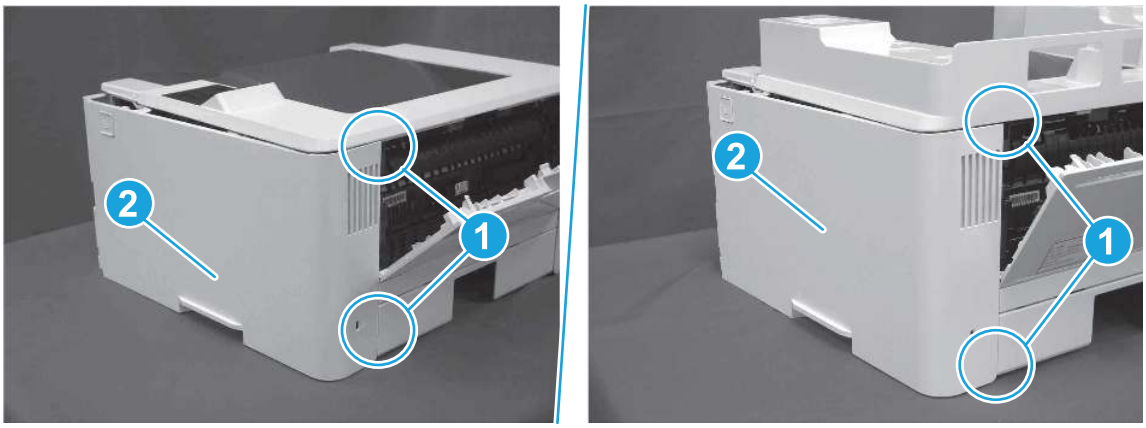
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-764 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-765 Remove the cover



5. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-766 Open the ISA



2. Remove one screw (callout 1).

Figure 4-767 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-768 Release two tabs



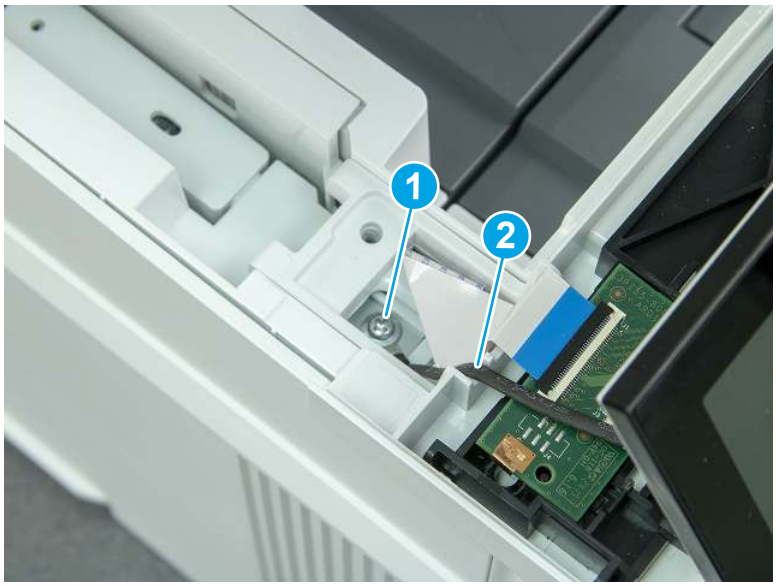
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-769 Remove the cover



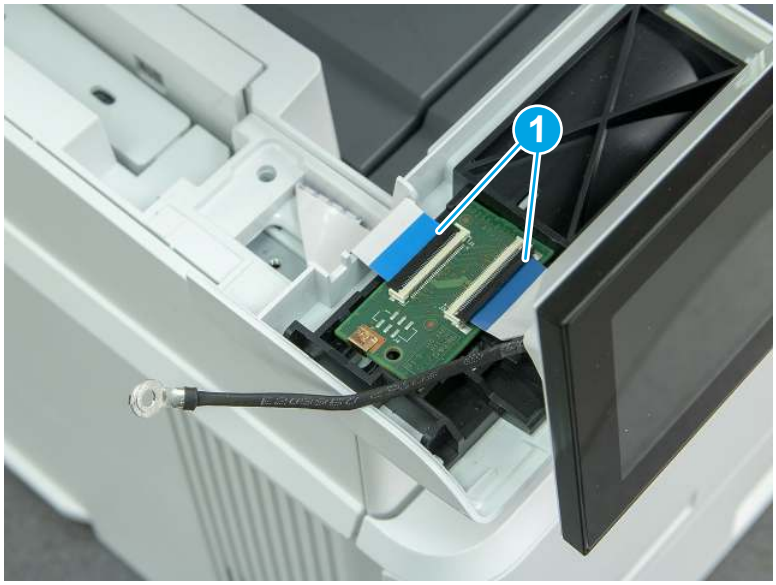
5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-770 Remove one screw



6. Disconnect two FFC (callout 1).

Figure 4-771 Disconnect two FFC



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

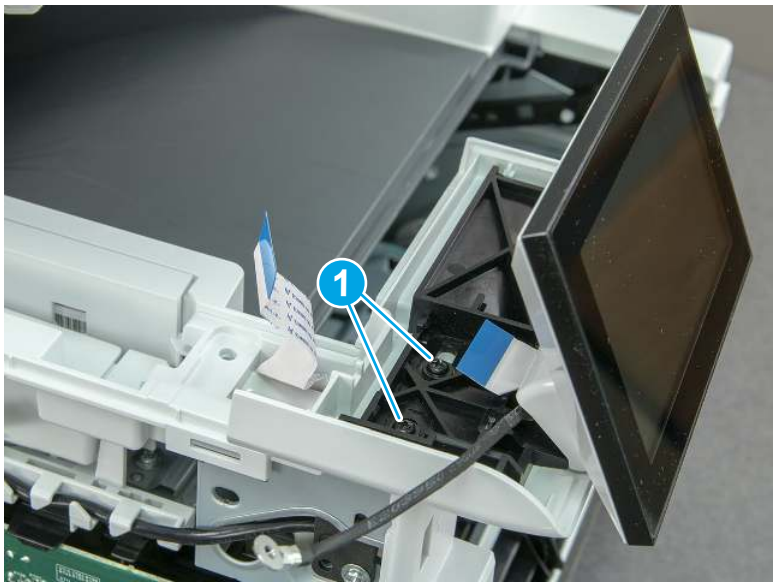
Figure 4-772 **Remove the ICB**



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ CAUTION: Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-773 **Remove two screws and remove the control panel assembly**

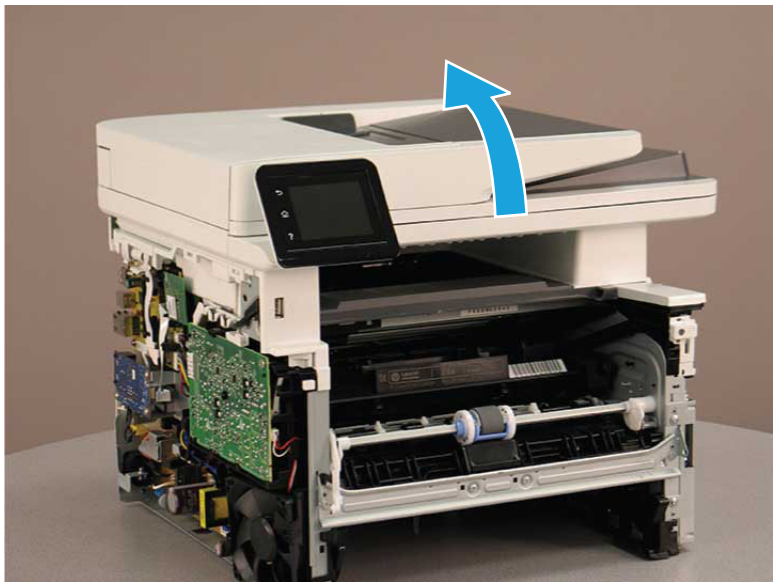


6. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

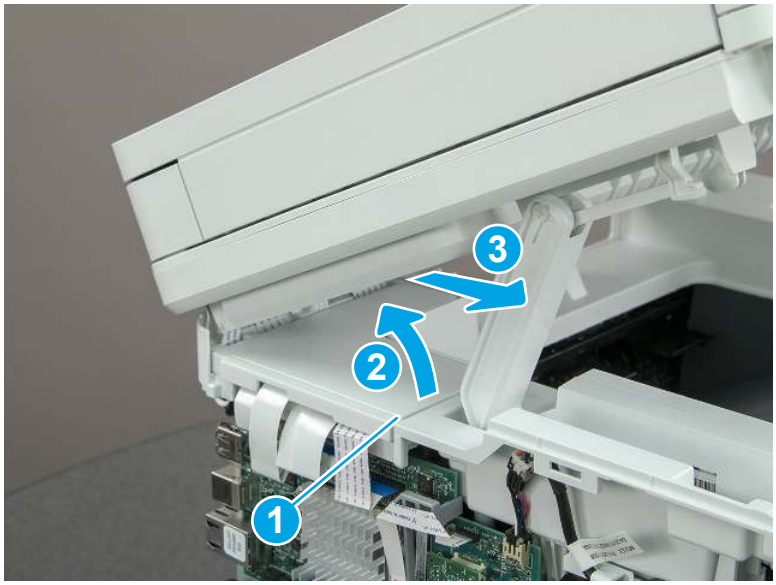
1. If the ISA is not already raised, raise it now.

Figure 4-774 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-775 Remove the ISA FFC cover

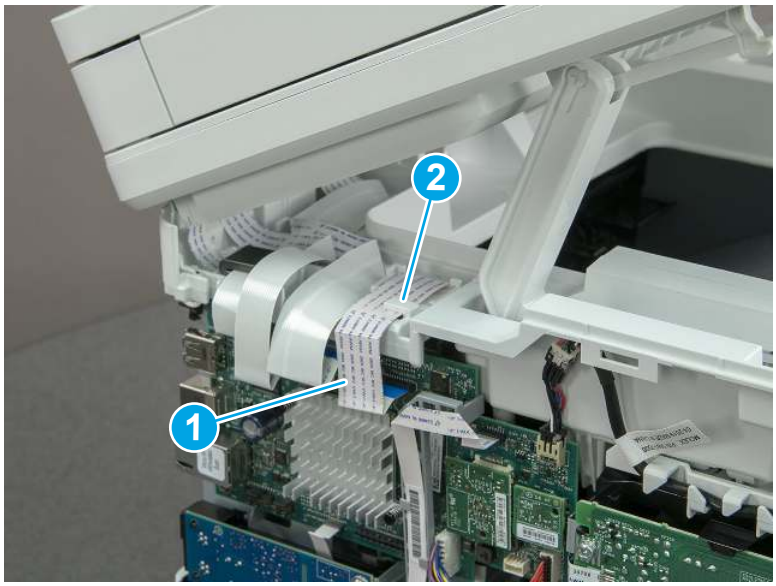


7. Remove the control panel flat cable and cover (MFP only)

Follow these steps to remove the control panel flat cable and cover (MFP only).

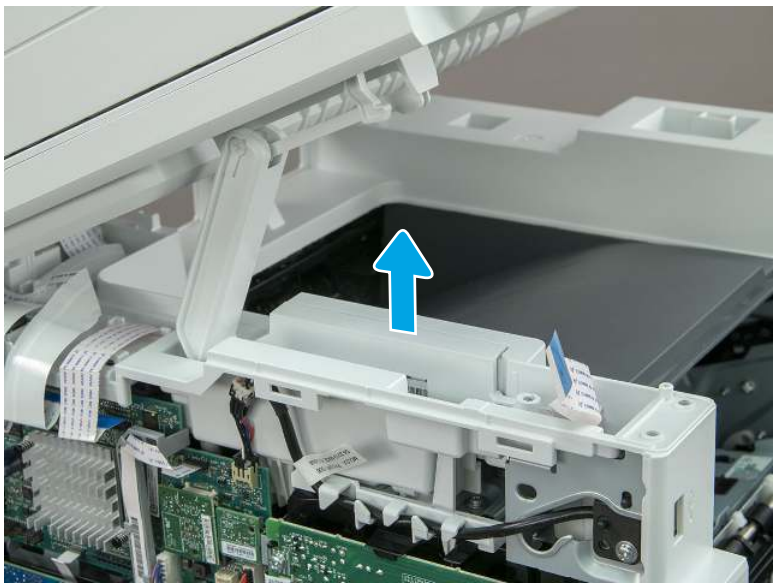
1. Disconnect one FFC (callout 1), and then release the cable from the guides (callout 2).

Figure 4-776 **Disconnect one cable**



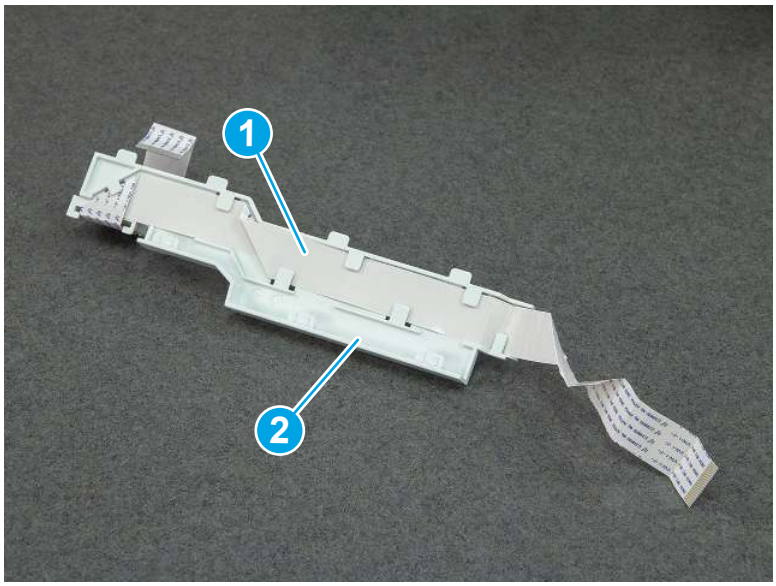
2. Lift up the control-panel FFC cover to remove the cover and cable.

Figure 4-777 **Remove the cover and cable**



3. If you are replacing the FFC or the cover, remove the FFC (callout 1) from the cover (callout 2).

Figure 4-778 Remove the FFC



8. Remove the integrated scanner assembly (MFP only)

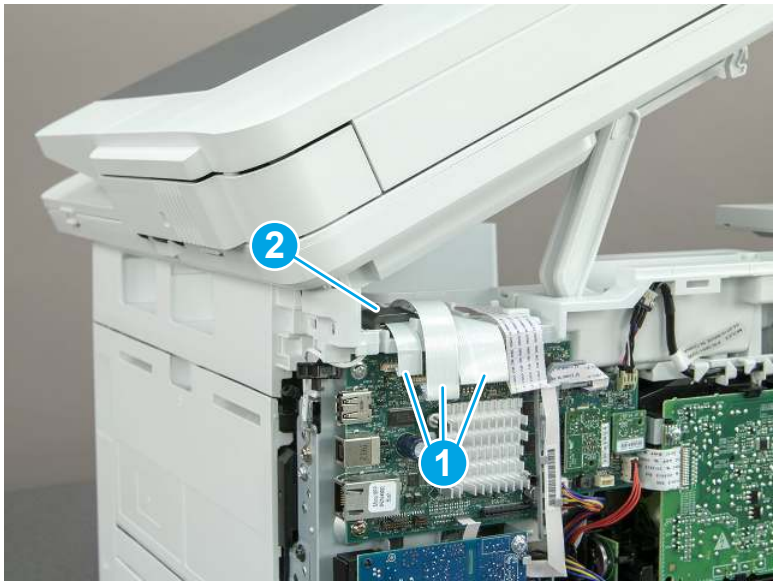
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-779 Disconnect three FFCs



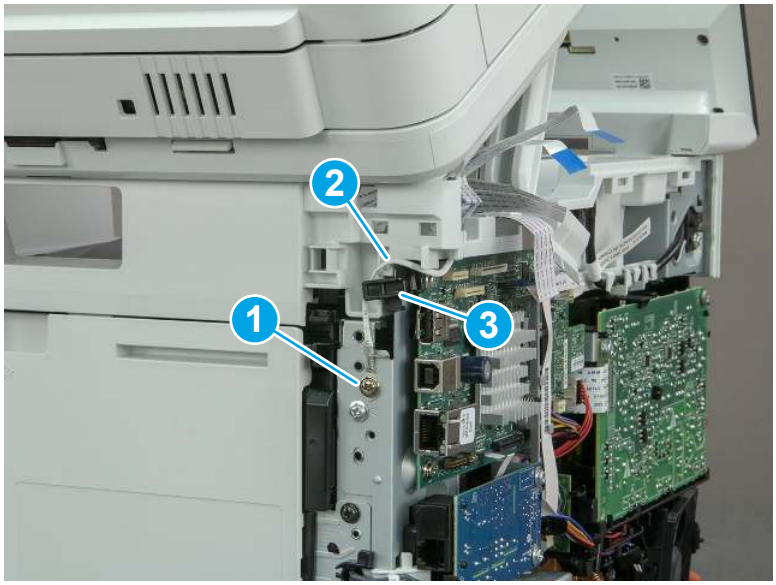
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-780 Release the tape



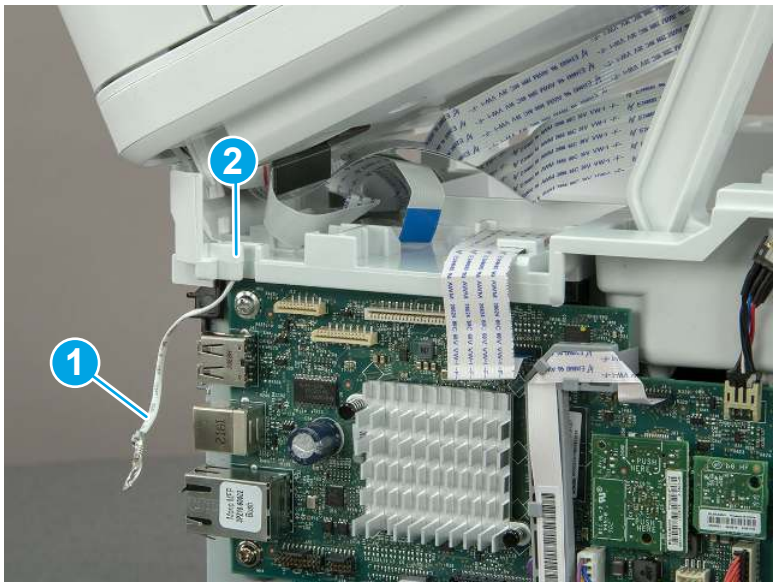
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-781 Release the ground wire



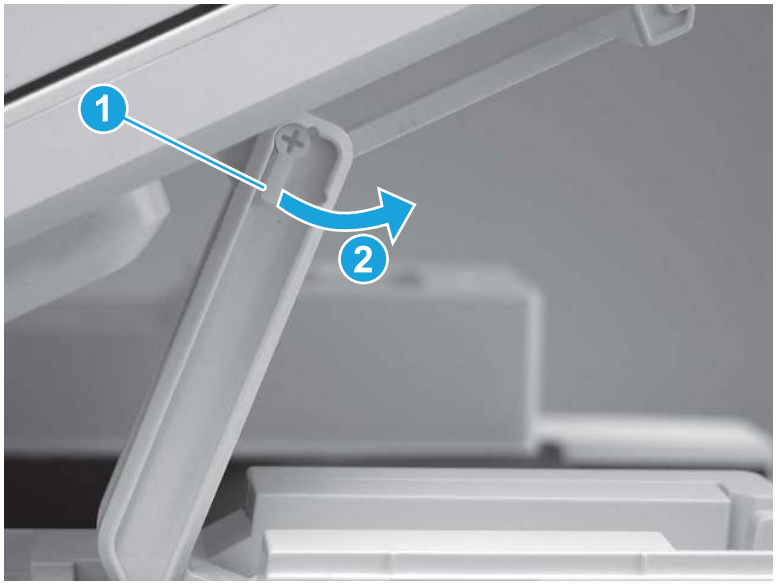
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-782 Release the ground wire



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

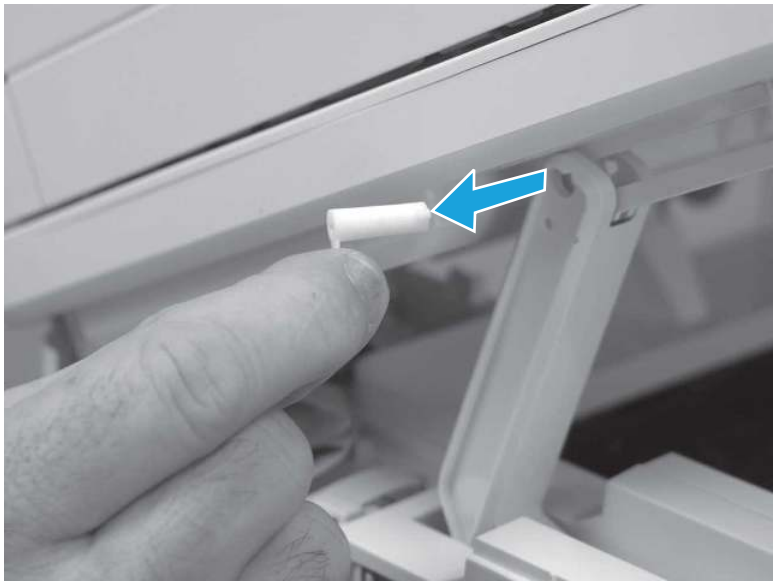
Figure 4-783 Release one tab and rotate the slider pin



6. Remove the slider pin.

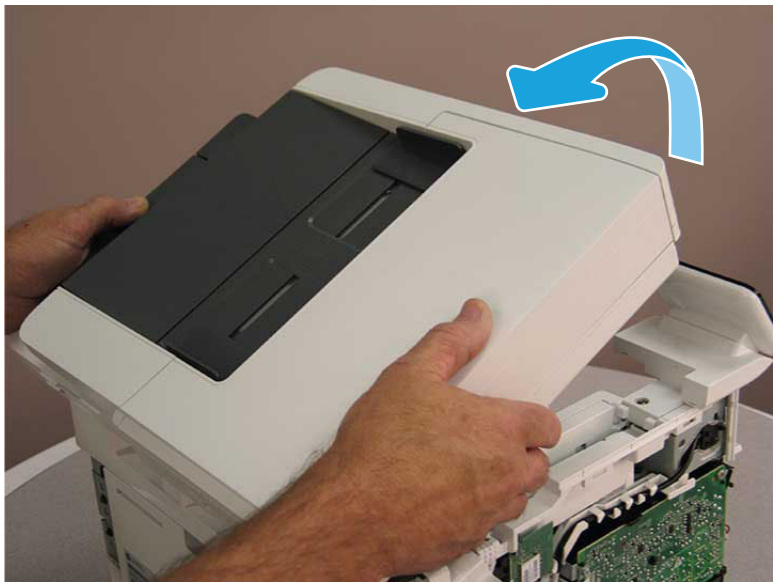
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-784 Remove the slider pin



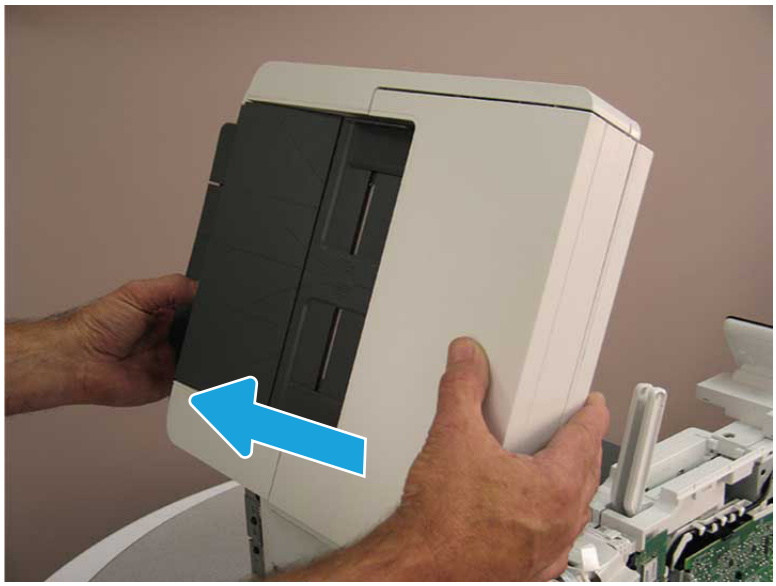
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-785 Rotate the ISA towards the rear of the printer



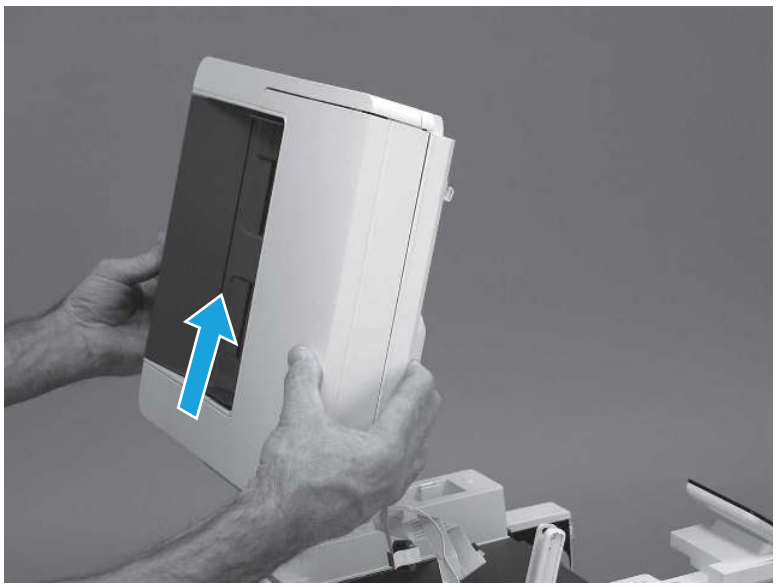
8. Slide the ISA as shown to release it.

Figure 4-786 Release the ISA



9. Remove the ISA.

Figure 4-787 Remove the ISA

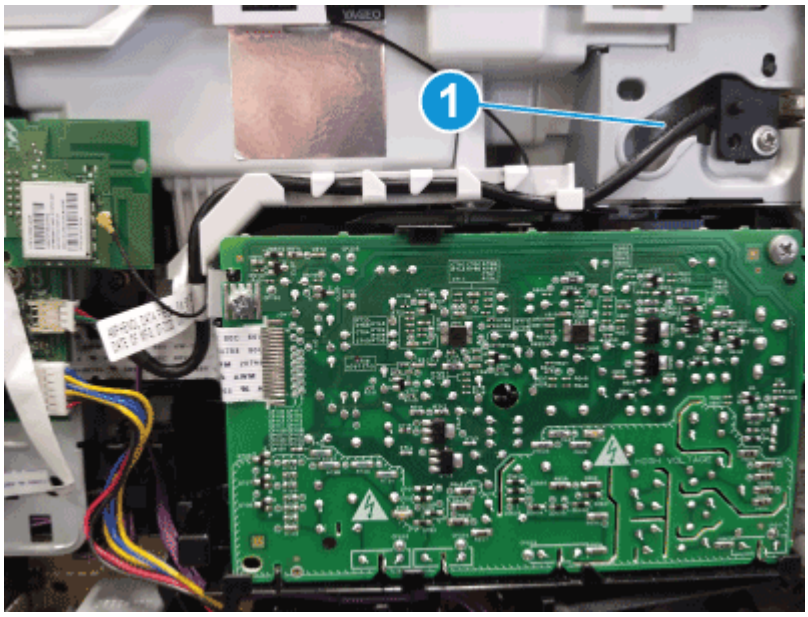


9. Remove the top cover (MFP)

Follow these steps to remove the top cover (MFP).

1. Release the USB cable (callout 1) from the cable guide.

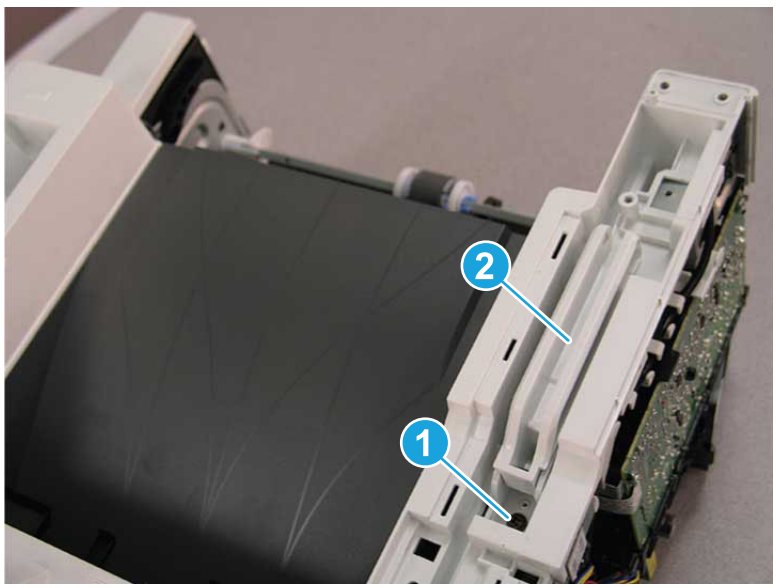
Figure 4-788 Release the USB cable



2. Remove one screw (callout 1), and then remove the support arm (callout 2).

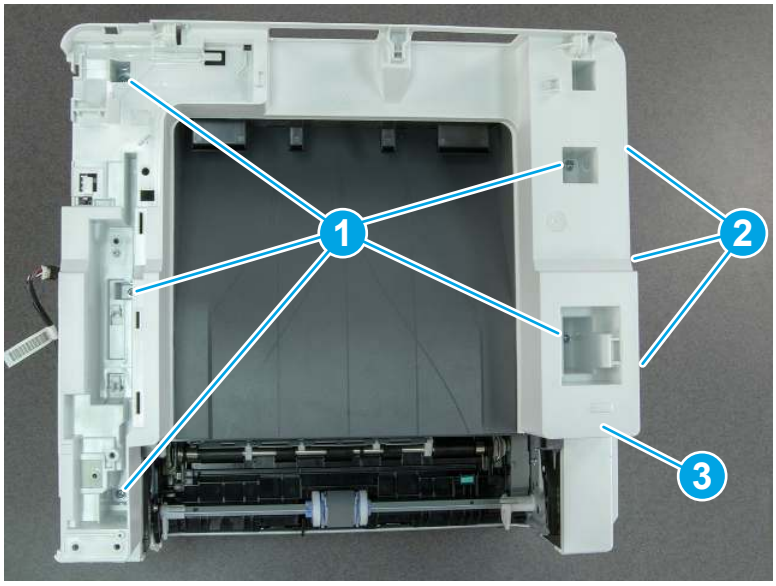
⚠ CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-789 Remove the support arm



3. Remove five screws (callout 1), release three bosses (callout 2), and then remove the top cover (callout 3).

Figure 4-790 Remove the top cover



10. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

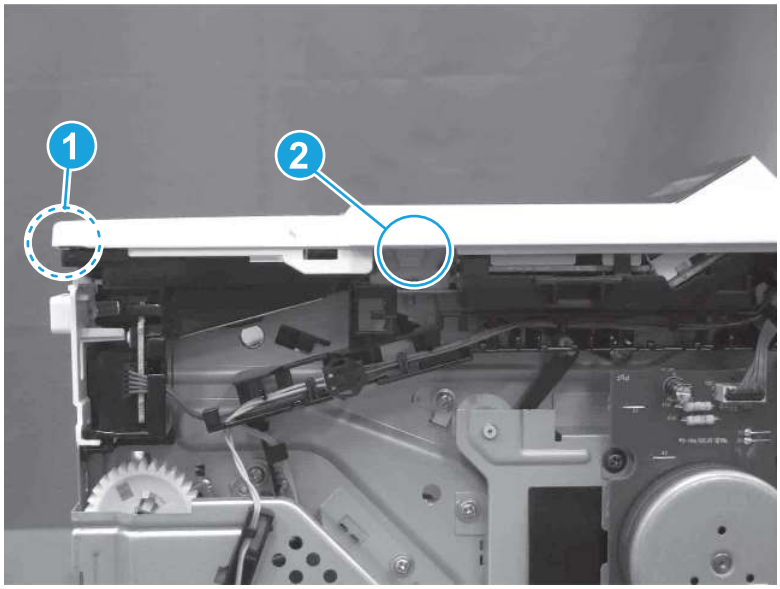
1. Remove one screw.

Figure 4-791 Remove one screw



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

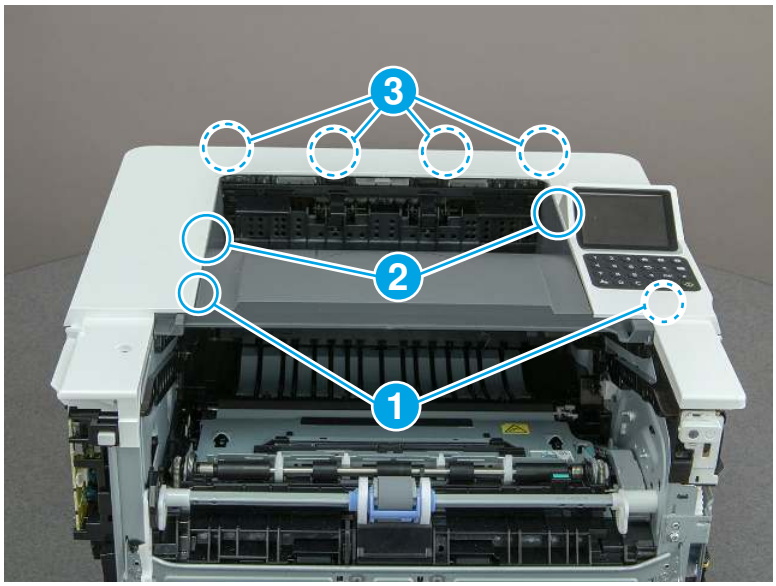
Figure 4-792 **Release one boss and one tab**



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-793 **Remove the cover**

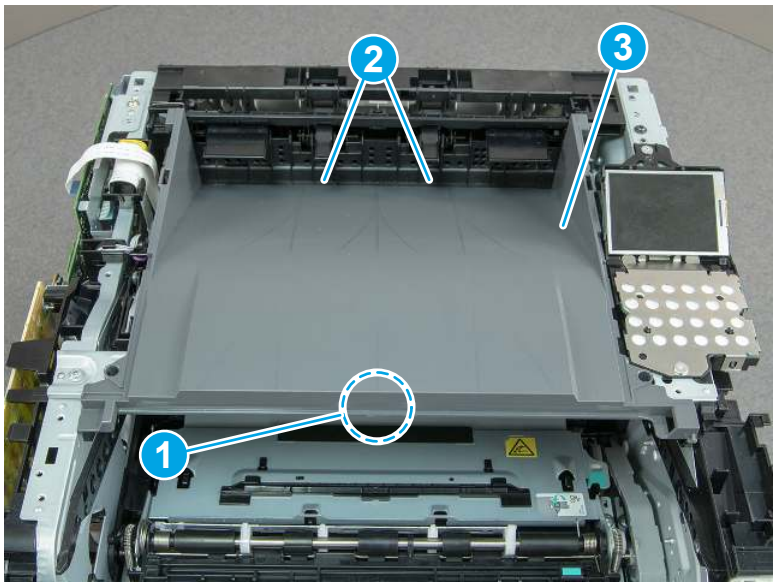


11. Remove the paper delivery tray (output bin)

Follow these steps to remove the paper delivery tray (output bin).

- Release one tab (callout 1), release two bosses (callout 2), and then remove the paper delivery tray (output bin; callout 3).

Figure 4-794 Remove the cover

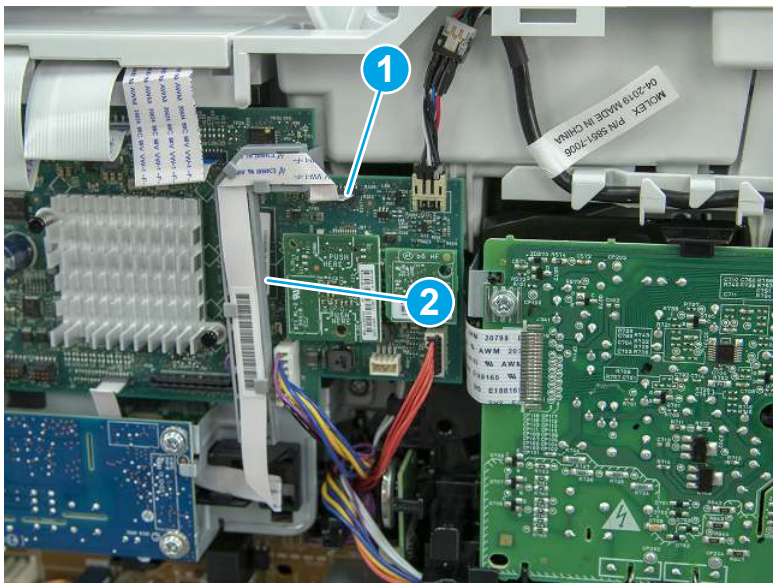


12. Remove the fax cable guide and fax PCA (fax models only)

Follow these steps to remove the fax cable guide and fax PCA (fax models only).

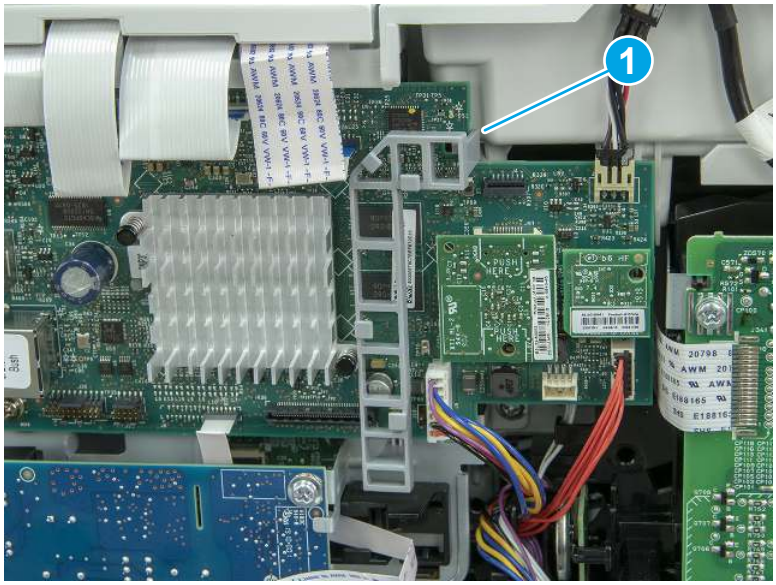
1. Disconnect one connector (callout 1), and then remove the cable from the guide (callout 2).

Figure 4-795 **Remove the cable from the guide**



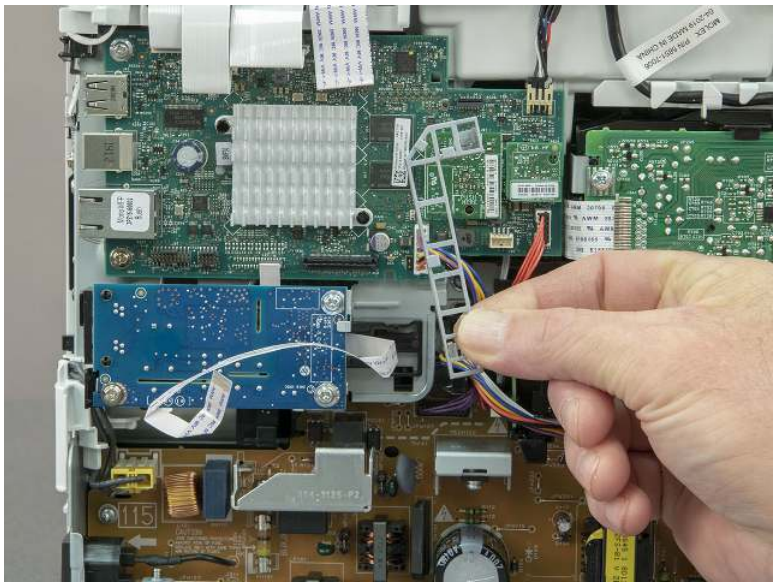
2. Release one tab (callout 1).

Figure 4-796 **Release one tab**



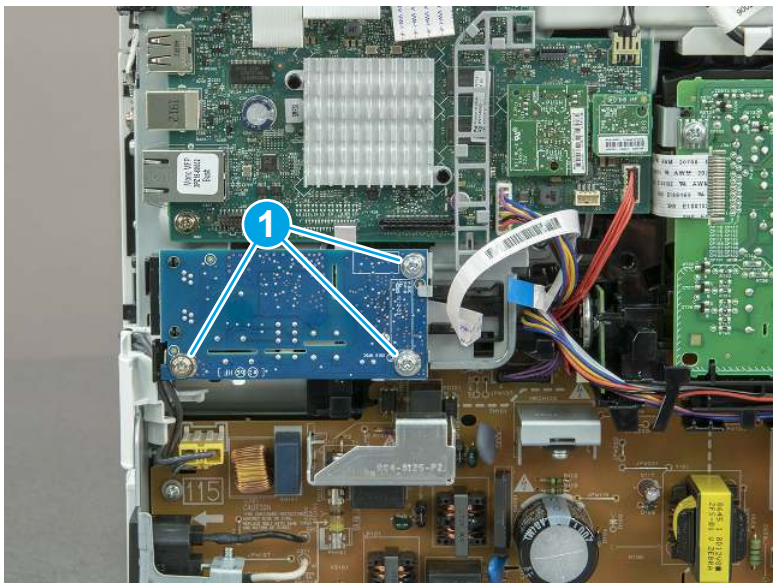
3. Lower the guide to release it from the formatter.

Figure 4-797 Lower the guide



4. Remove three screws (callout 1), and then remove the fax PCA and cable.

Figure 4-798 Remove three screws



13. Remove the Trusted Platform Module (TPM)

Follow these steps to remove the Trusted Platform Module (TPM).

- Carefully pull the TPM (callout 1) away from the formatter to remove it.

Figure 4-799 **Remove the TPM**



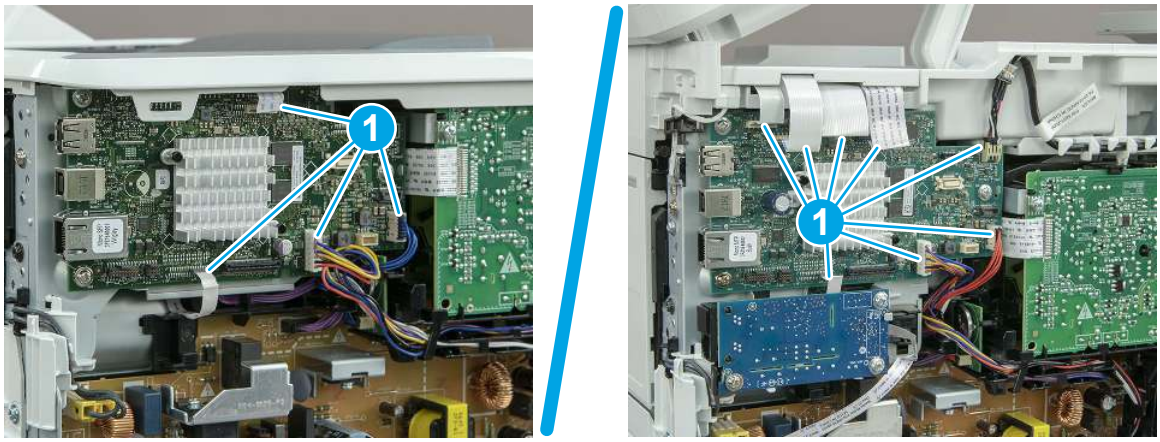
14. Remove the formatter PCA

Follow these steps to remove the formatter PCA.

1. Do one of the following:
   - **SFP**: Disconnect four connectors (callout 1).
   - **MFP**: Disconnect eight connectors (callout 1).

IMPORTANT: Take note of any empty connectors before removing the formatter PCA.

Figure 4-800 **SFP/MFP: Disconnect the connectors**



2. Remove three screws (callout 1), and then remove the formatter PCA.

Figure 4-801 Remove three screws



15. Remove the formatter bracket

Follow these steps to remove the formatter bracket.

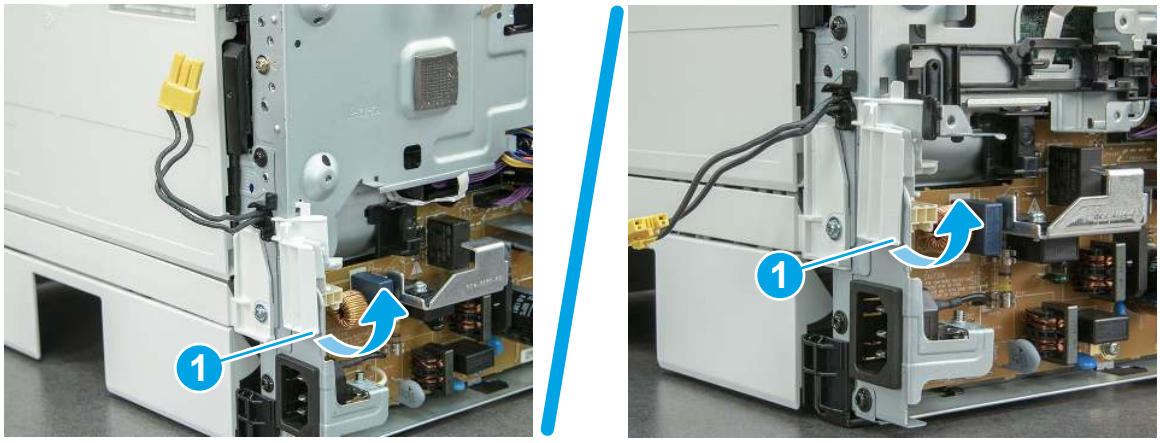
1. Disconnect one connector (callout 1), and then remove the wire harness (callout 2) from the guide (callout 3).

Figure 4-802 SFP/MFP: Remove the wire harness



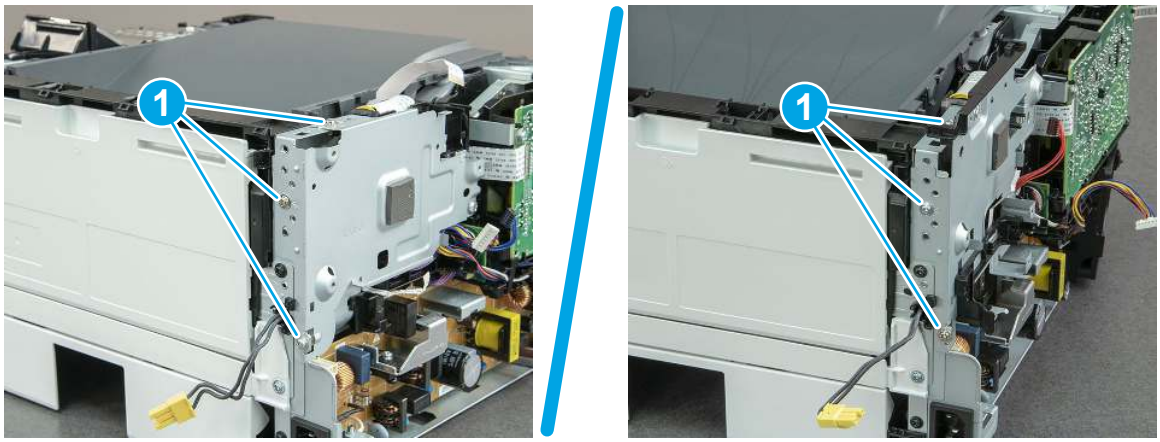
2. Release the front edge (callout 1), and then rotate the wire guide up to remove it.

Figure 4-803 **Remove the wire guide**



3. Remove three screws (callout 1).

Figure 4-804 **Remove three screws**

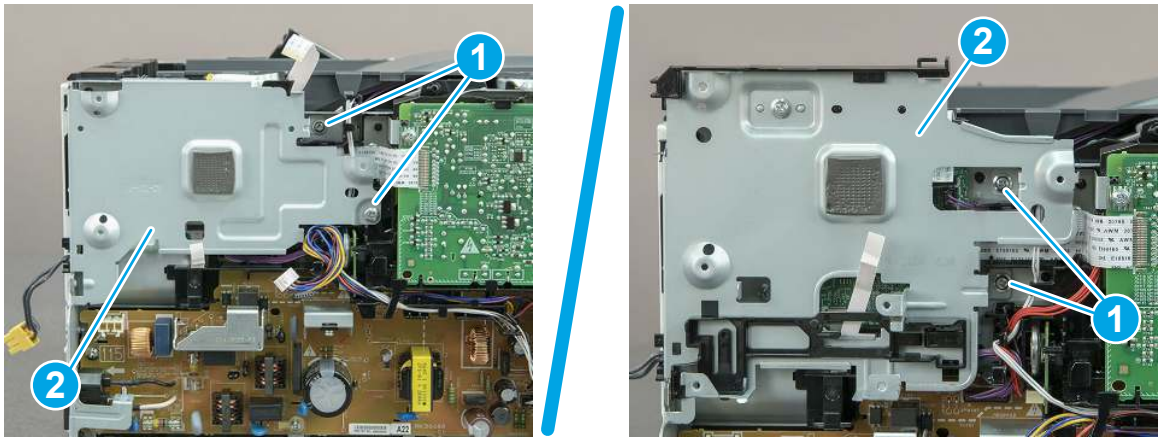


4. Remove two screws (callout 1), and then remove the formatter bracket (callout 2).

Reinstallation tip: Do one of the following:

- **SFP**: One screw is larger than the other screw. Make sure screws are installed in the correct locations.
- **MFP**: These two screws are longer than the previous three screws.

Figure 4-805 Remove two screws

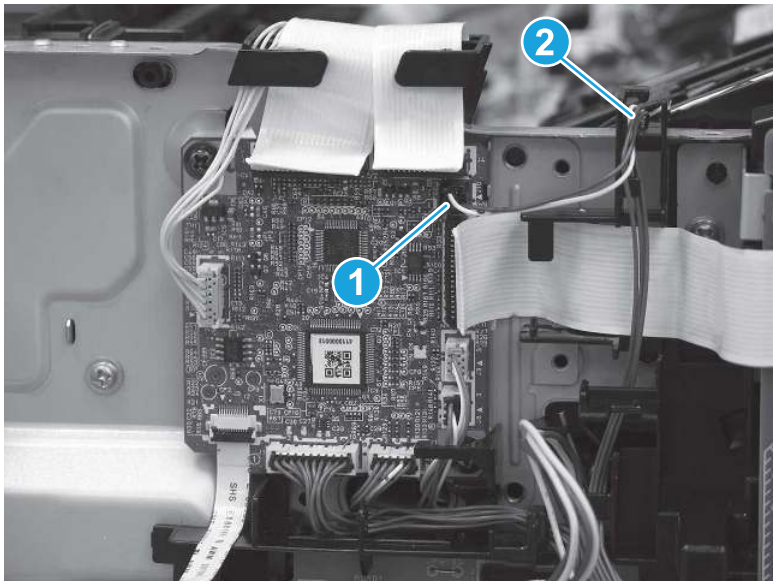


16. Remove the tag-cable assembly (toner-cartridge memory)

Follow these steps to remove the tag-cable assembly (toner-cartridge memory).

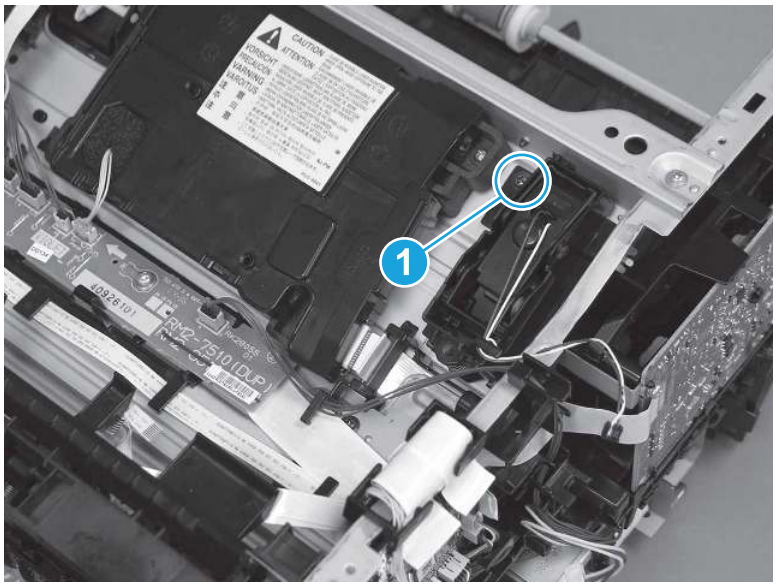
1. Disconnect one connector (callout 1), and then release the wire harness from the guide (callout 2).

Figure 4-806 Disconnect one connector



2. Remove one screw (callout 1).

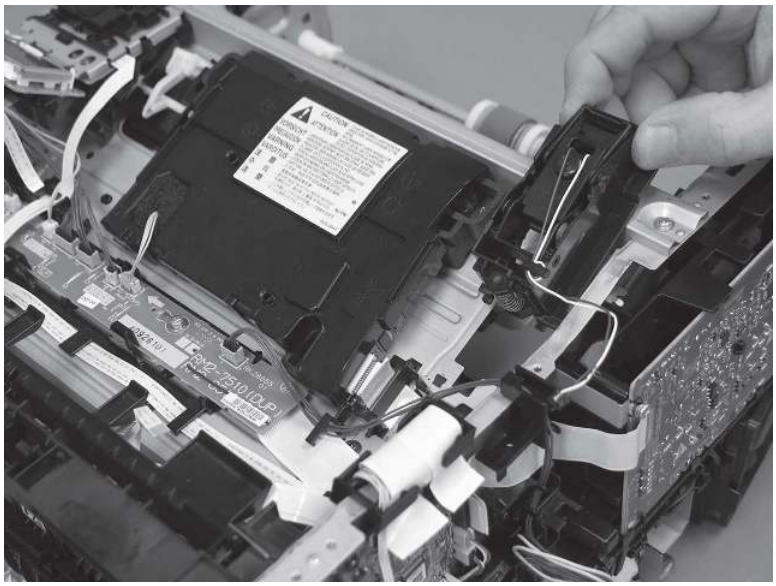
Figure 4-807 Remove one screw



3. Remove the tag-cable assembly.

Reinstallation tip: Make sure that the assembly is flat against the chassis. If the assembly is not correctly installed, it might not make proper contact with the toner cartridge.

Figure 4-808 Remove the tag-cable assembly

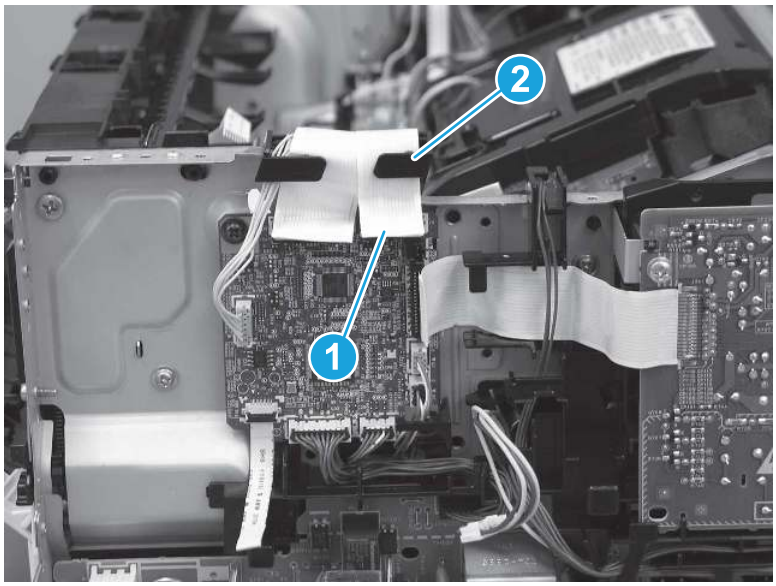


17. Remove the laser scanner FFC

Follow these steps to remove the laser scanner FFC.

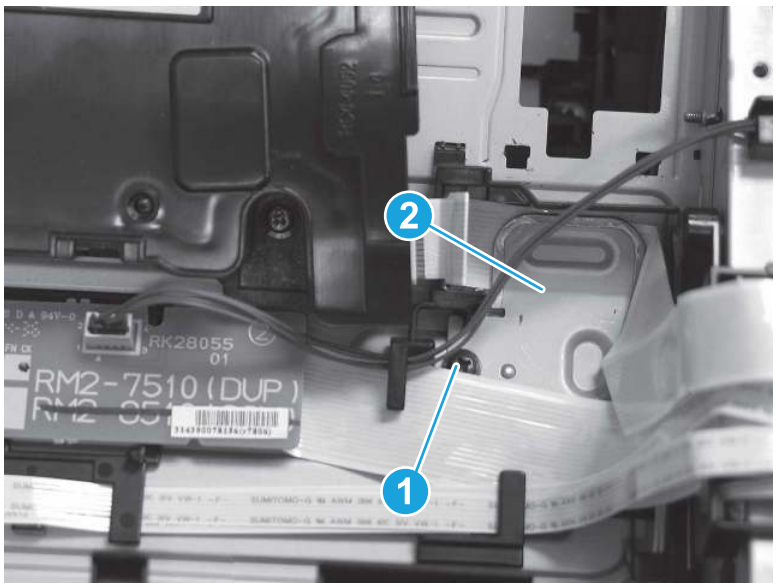
1. Disconnect one FFC (callout 1), and then release it from the guide (callout 2).

Figure 4-809 Disconnect one FFC



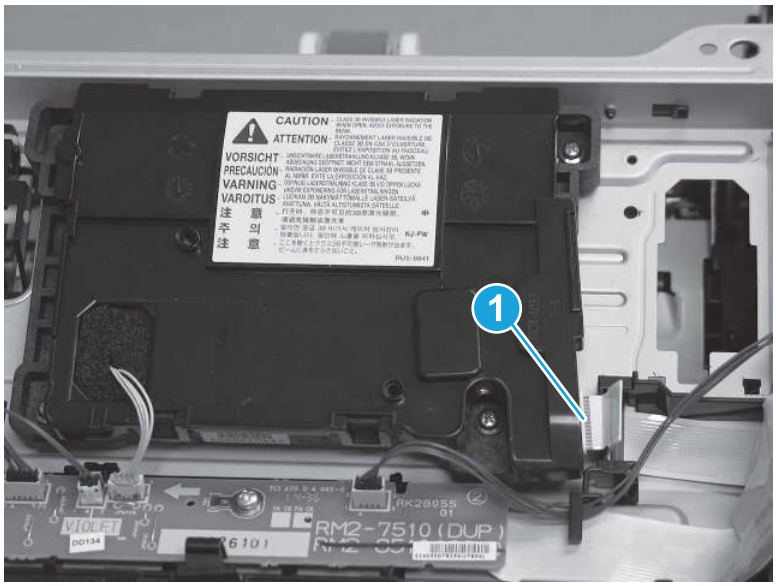
2. Remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-810 Remove one screw and the sheet-metal plate



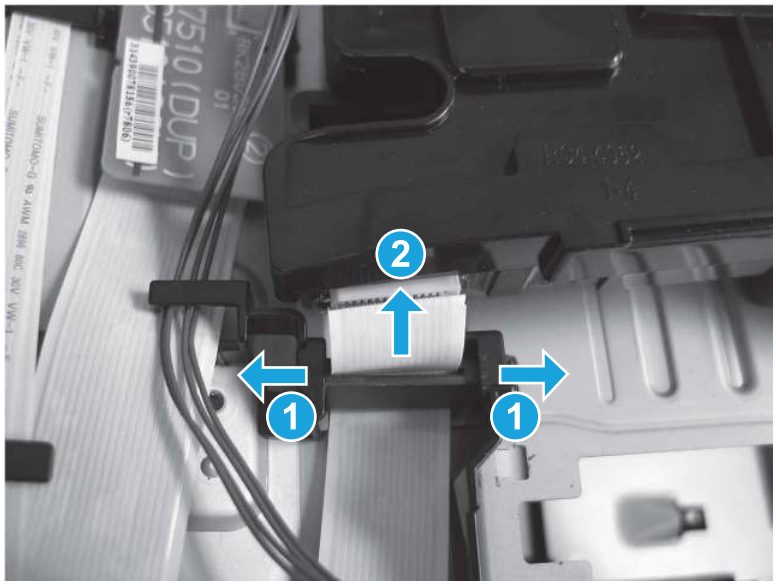
3. Disconnect one FFC (callout 1).

Figure 4-811 Disconnect one FFC



4. Slightly flex the holder (callout 1), and then release the FFC ferrite (callout 2).

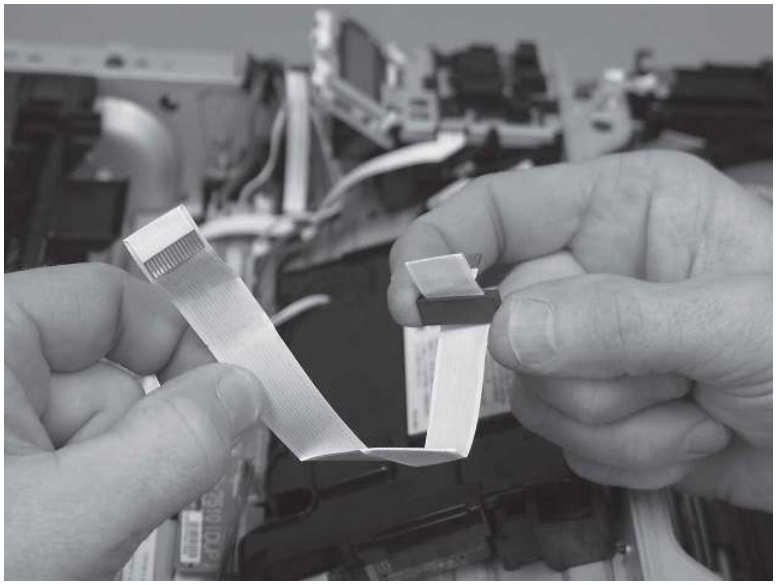
Figure 4-812 Release the ferrite



5. Remove the FFC.

Reinstallation tip: Install the ferrite on the replacement FFC.

Figure 4-813 Remove the FFC



18. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: High-voltage power supply

Learn how to remove and replace the high-voltage power supply (HVPS).

View a video of how to remove and replace the SFP HVPS.

View a video of how to remove and replace the MFP HVPS.

Mean time to repair: 28 minutes SFP, 55 minutes MFP

Service level: Medium SFP, Difficult MFP

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-47 Part information

Part number	Part description
RM2-7508-000CN	High-voltage power supply PCA

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-814 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

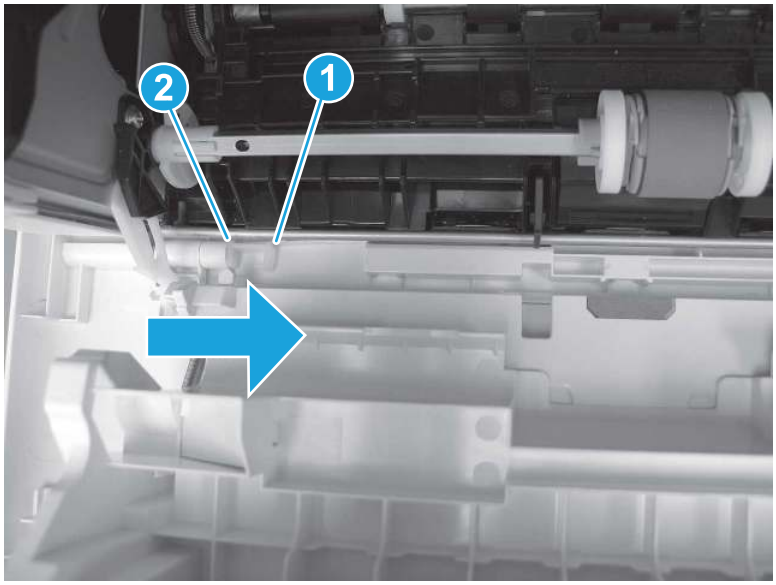
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

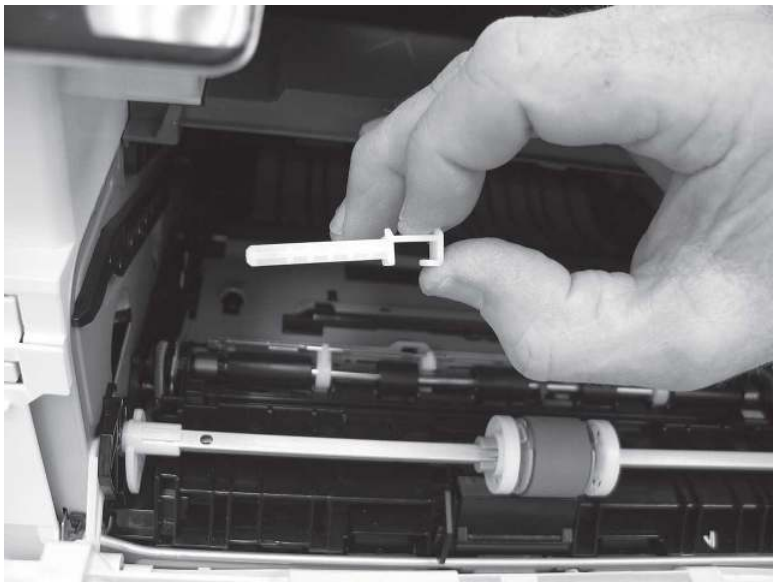
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-815 Release the support shaft



2. Remove the support shaft.

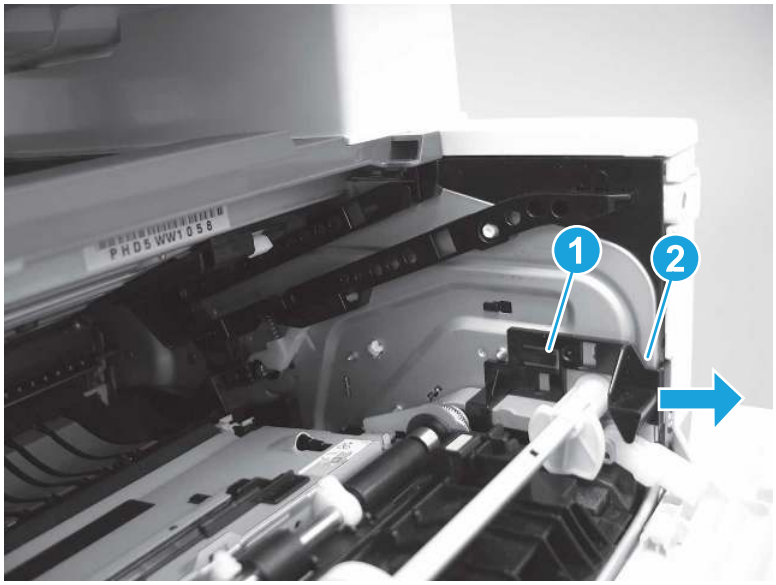
Figure 4-816 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

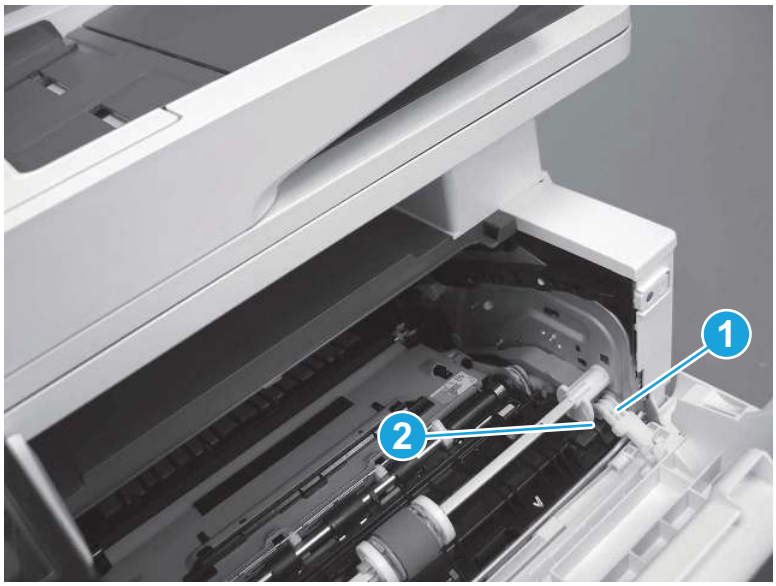
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-817 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-818 Release the pressure-release link

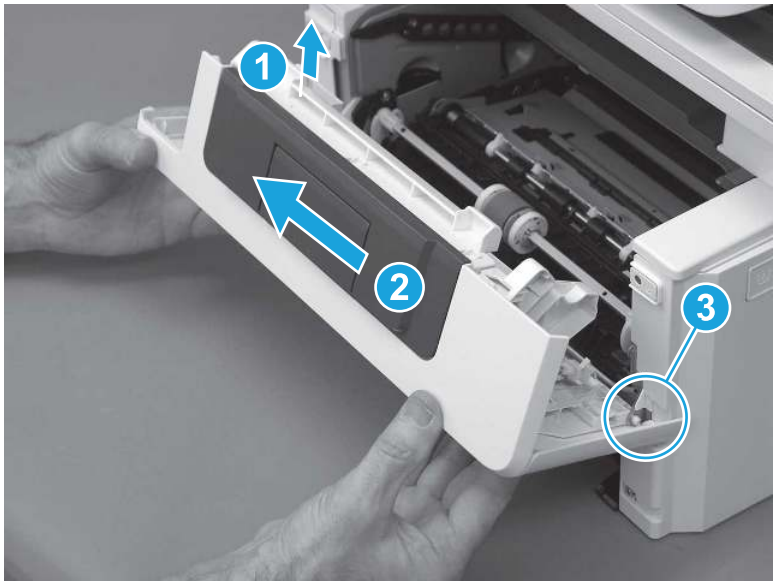


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

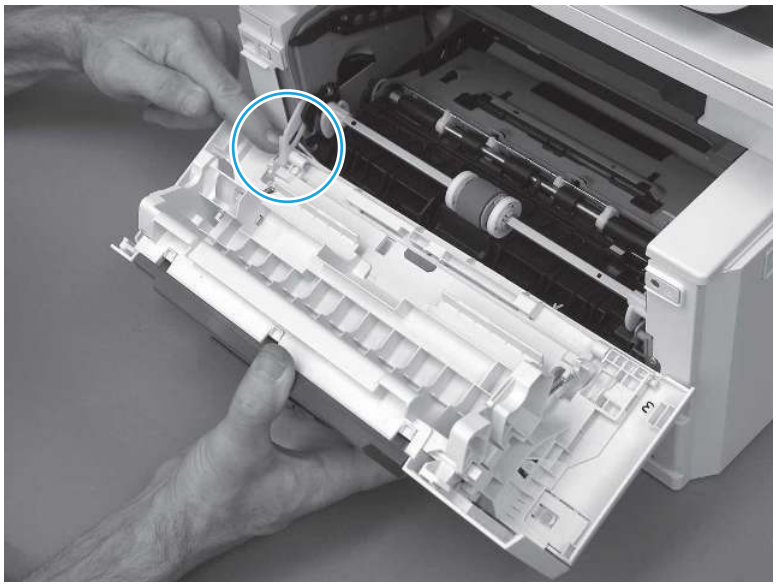
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-819 Release the door



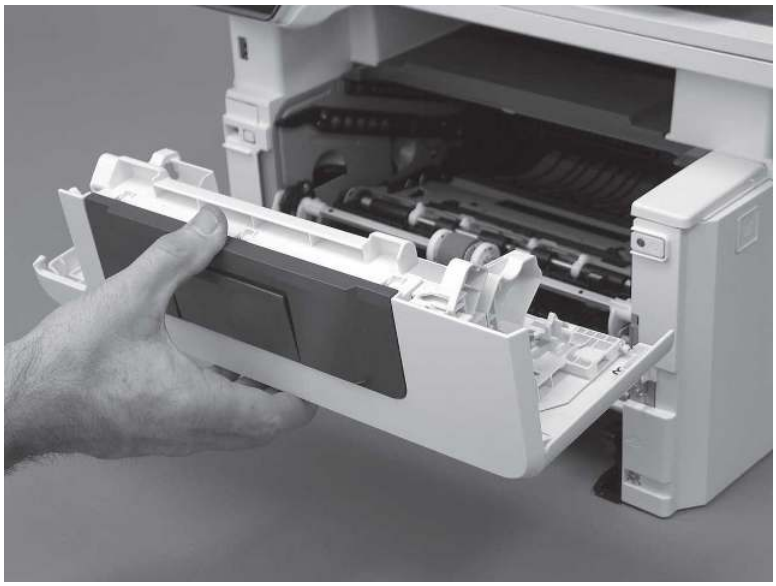
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-820 Release the left-side retainer arm



7. Remove the door.

Figure 4-821 **Remove the door**



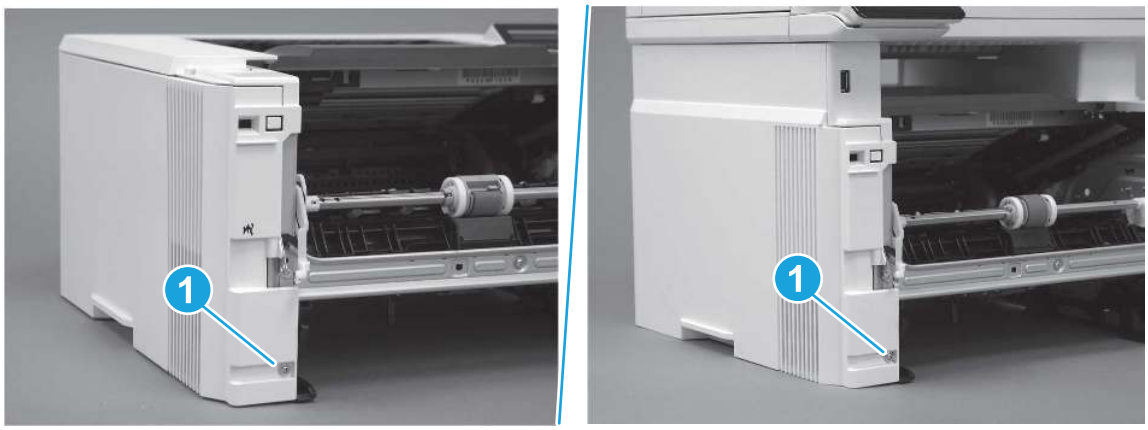
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

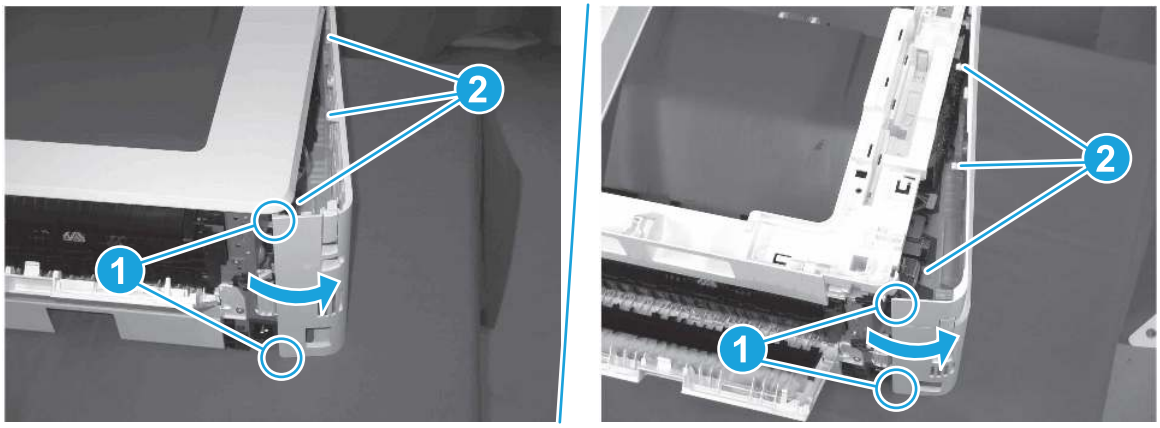
1. Remove one screw (callout 1).

Figure 4-822 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-823 **Release two bosses and three tabs**

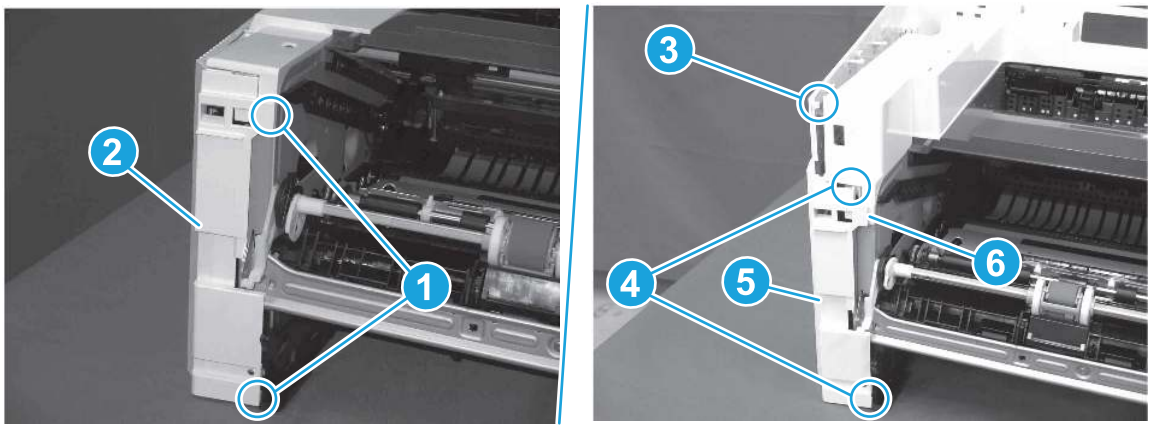


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-824 **Remove the cover**



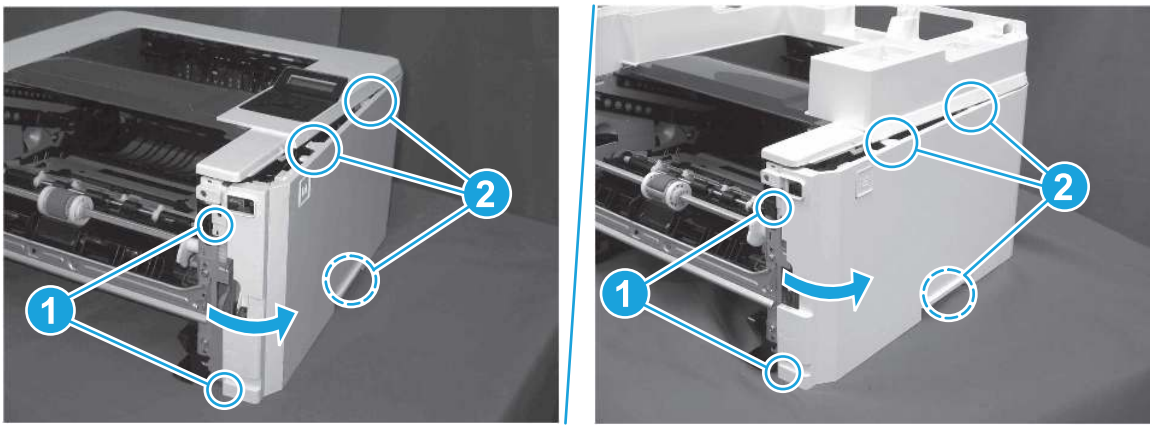
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

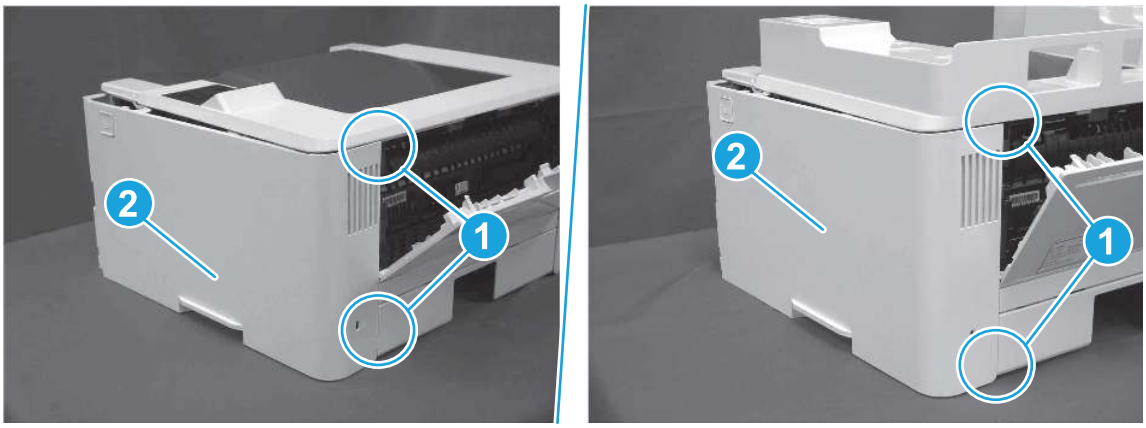
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-825 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-826 Remove the cover



5. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-827 Open the ISA



2. Remove one screw (callout 1).

Figure 4-828 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-829 Release two tabs



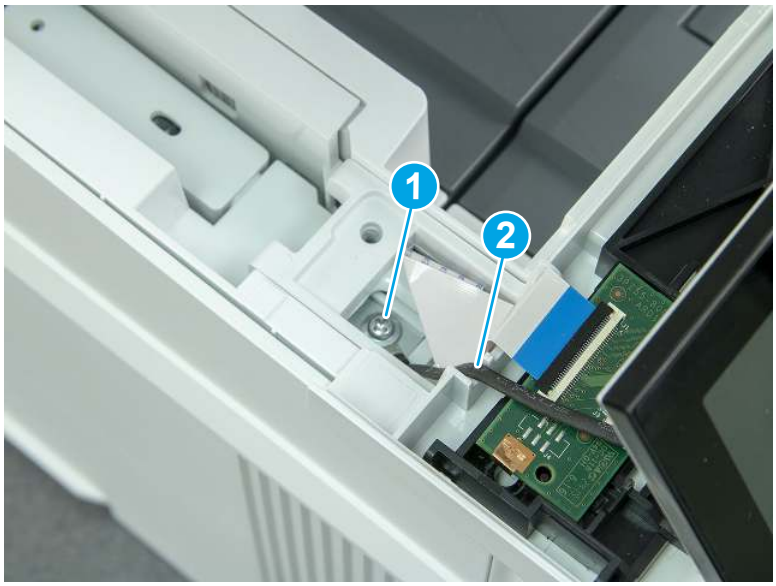
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-830 Remove the cover



5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-831 **Remove one screw**



6. Disconnect two FFC (callout 1).

Figure 4-832 **Disconnect two FFC**



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

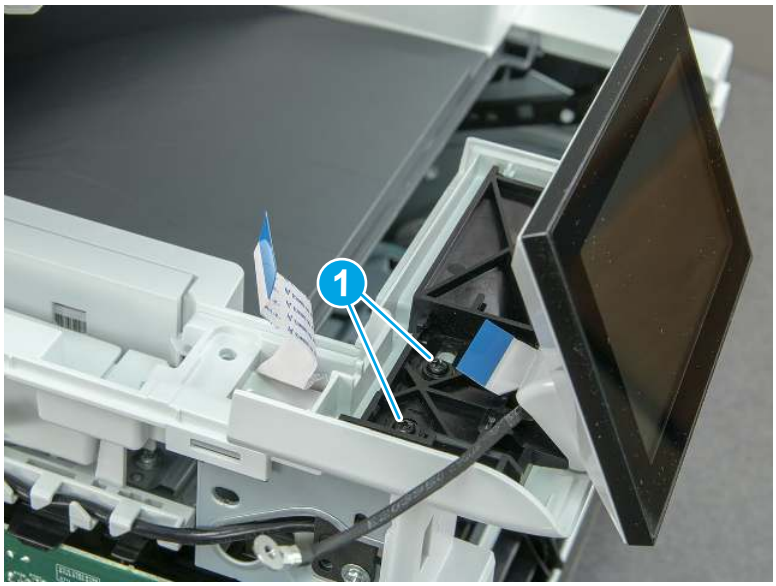
Figure 4-833 Remove the ICB



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ CAUTION: Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-834 Remove two screws and remove the control panel assembly

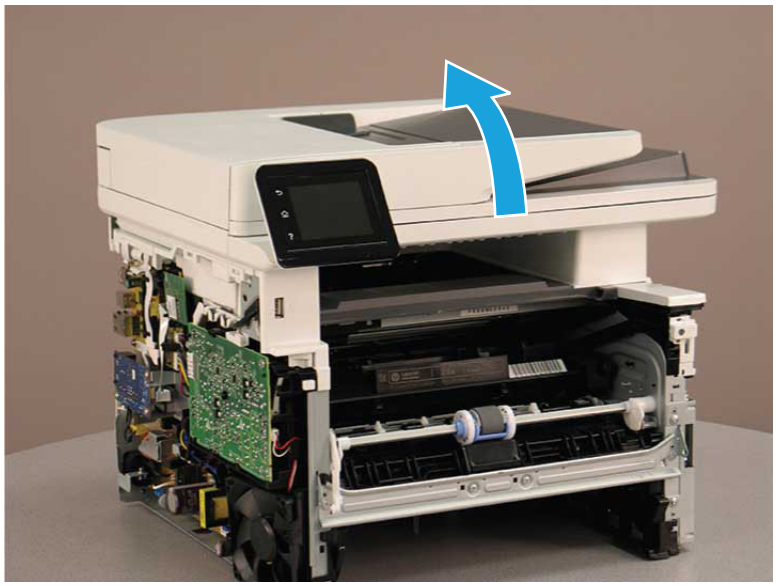


6. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

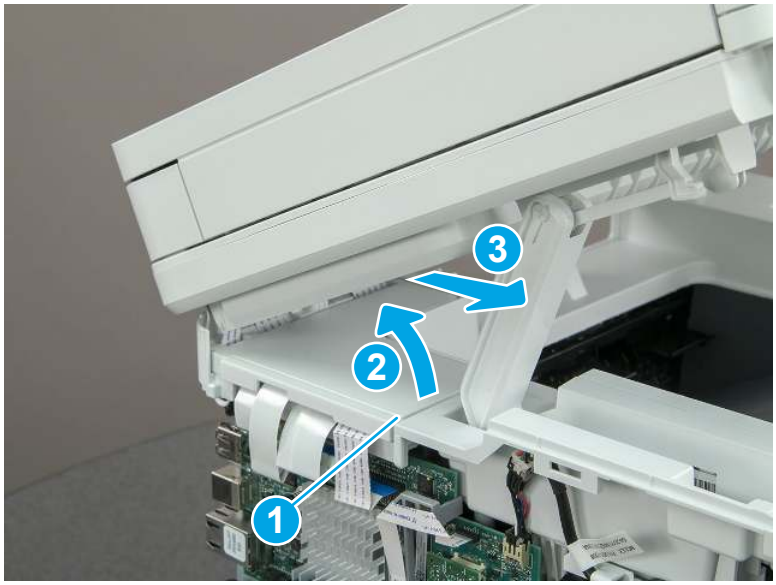
1. If the ISA is not already raised, raise it now.

Figure 4-835 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-836 Remove the ISA FFC cover

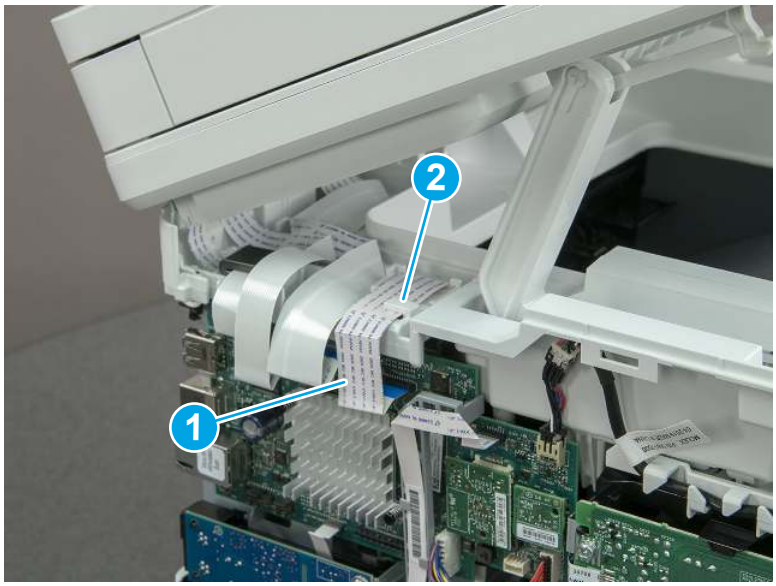


7. Remove the control panel flat cable and cover (MFP only)

Follow these steps to remove the control panel flat cable and cover (MFP only).

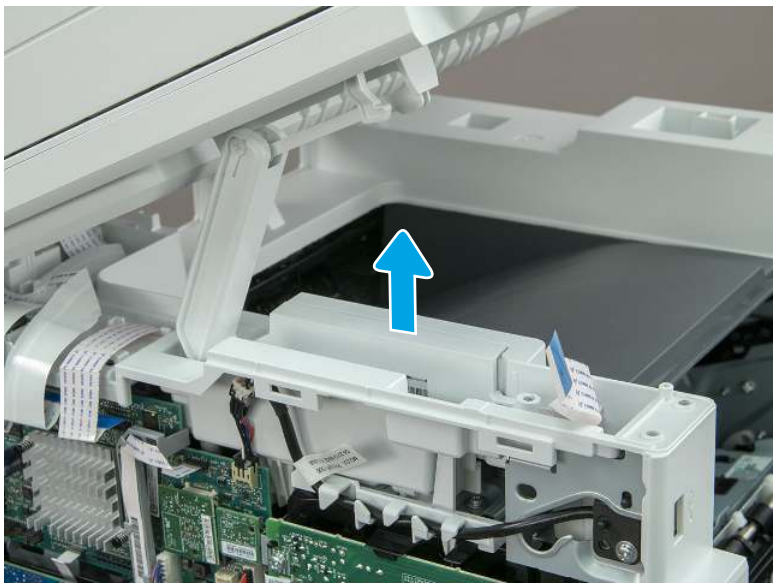
1. Disconnect one FFC (callout 1), and then release the cable from the guides (callout 2).

Figure 4-837 Disconnect one cable



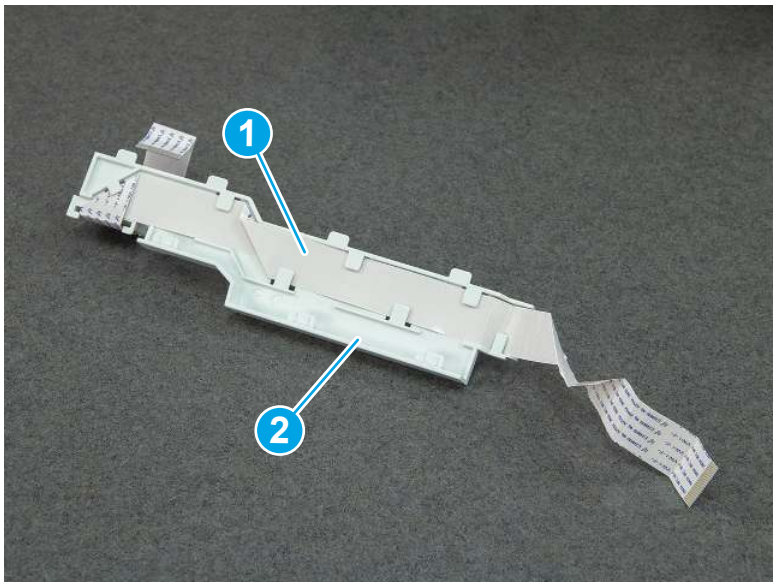
2. Lift up the control-panel FFC cover to remove the cover and cable.

Figure 4-838 Remove the cover and cable



3. If you are replacing the FFC or the cover, remove the FFC (callout 1) from the cover (callout 2).

Figure 4-839 **Remove the FFC**



8. Remove the integrated scanner assembly (MFP only)

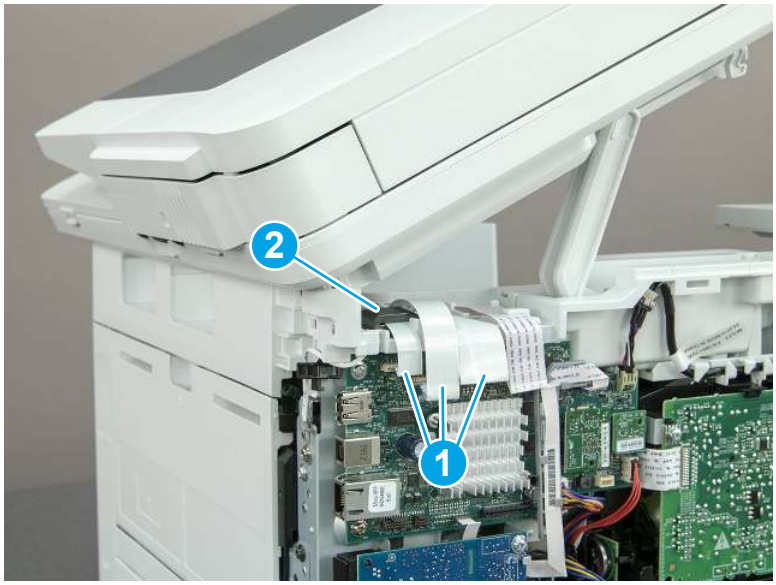
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-840 **Disconnect three FFCs**



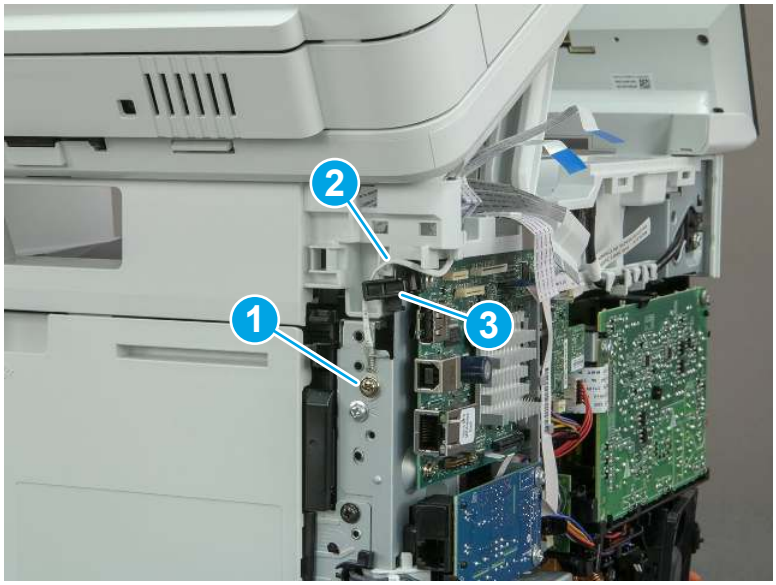
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-841 Release the tape



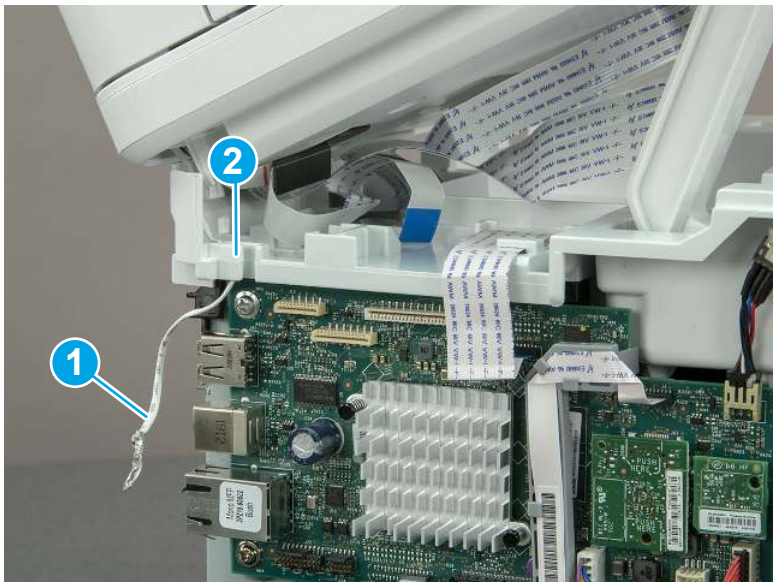
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-842 Release the ground wire



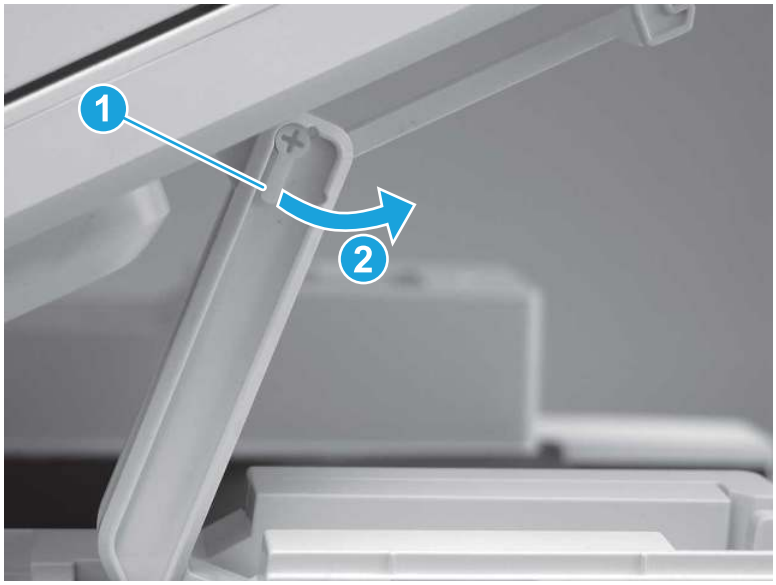
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-843 Release the ground wire



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

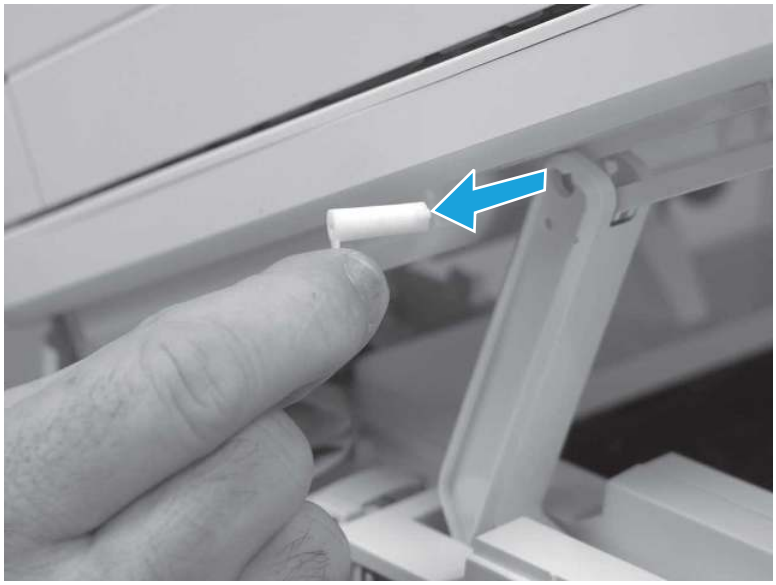
Figure 4-844 Release one tab and rotate the slider pin



6. Remove the slider pin.

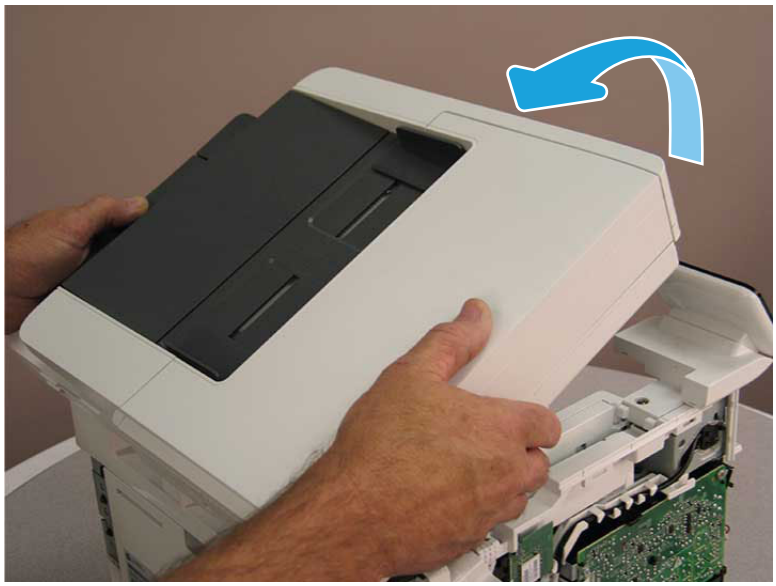
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-845 Remove the slider pin



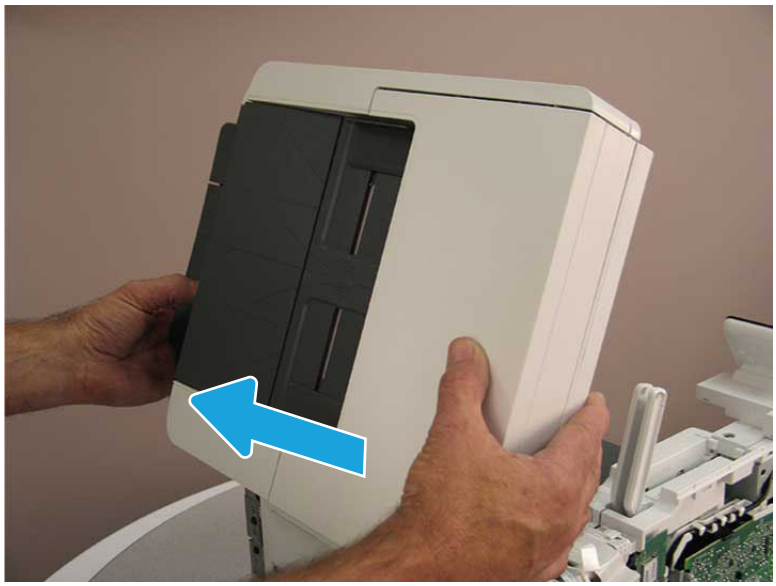
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-846 Rotate the ISA towards the rear of the printer



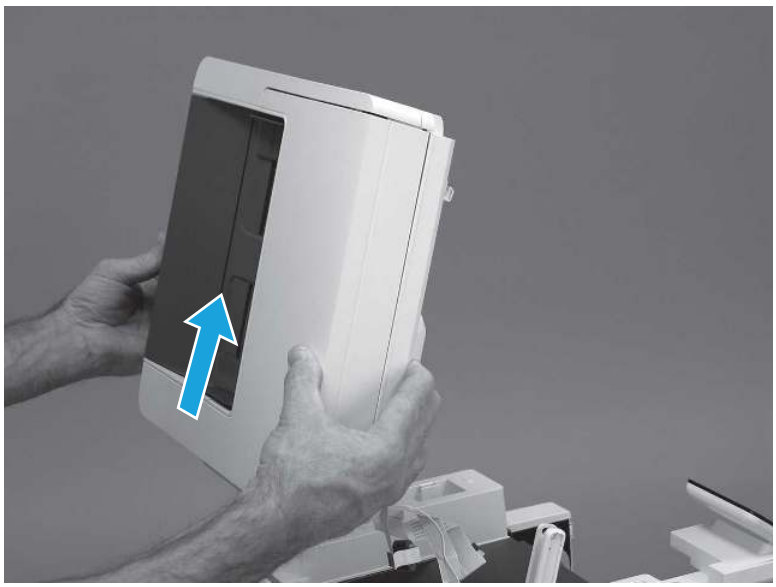
8. Slide the ISA as shown to release it.

Figure 4-847 Release the ISA



9. Remove the ISA.

Figure 4-848 Remove the ISA

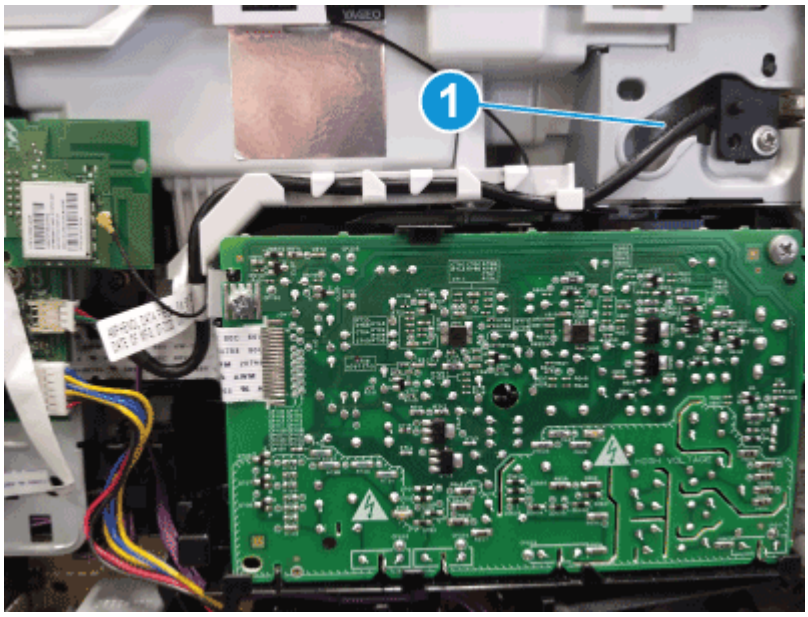


9. Remove the top cover (MFP)

Follow these steps to remove the top cover (MFP).

1. Release the USB cable (callout 1) from the cable guide.

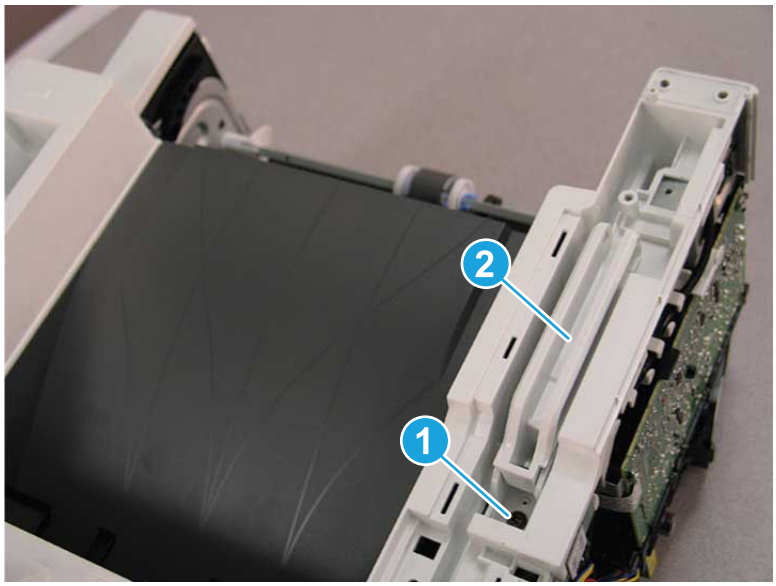
Figure 4-849 Release the USB cable



2. Remove one screw (callout 1), and then remove the support arm (callout 2).

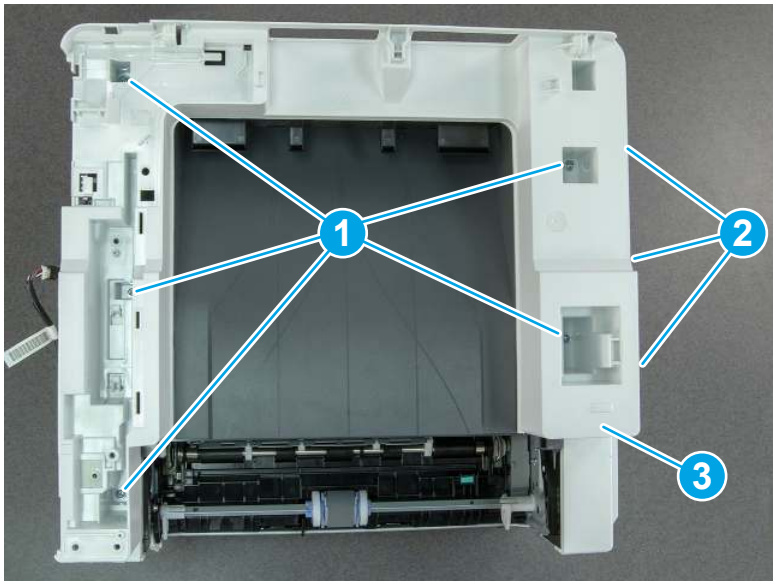
⚠ CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-850 Remove the support arm



3. Remove five screws (callout 1), release three bosses (callout 2), and then remove the top cover (callout 3).

Figure 4-851 Remove the top cover



10. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

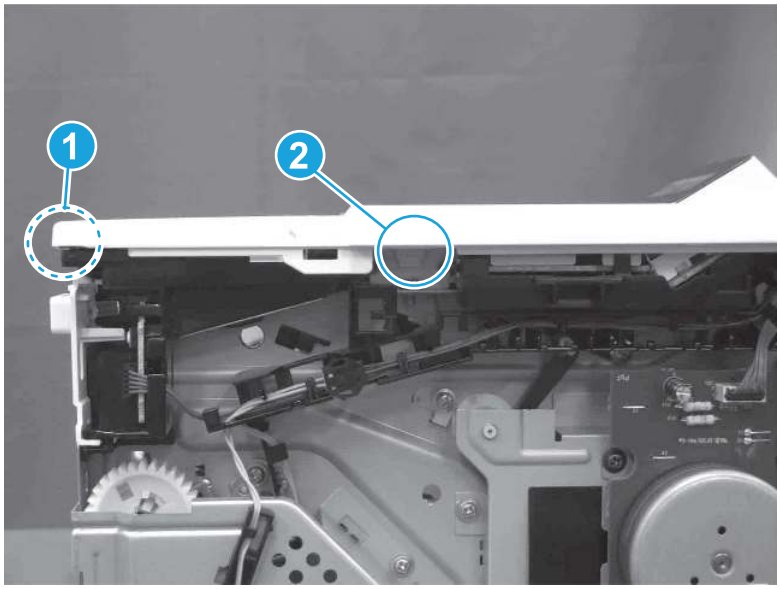
1. Remove one screw.

Figure 4-852 Remove one screw



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

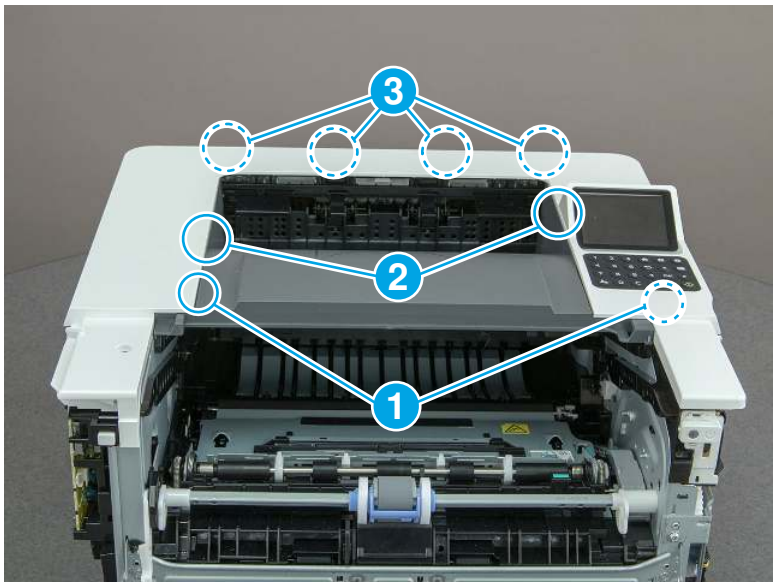
Figure 4-853 Release one boss and one tab



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-854 Remove the cover

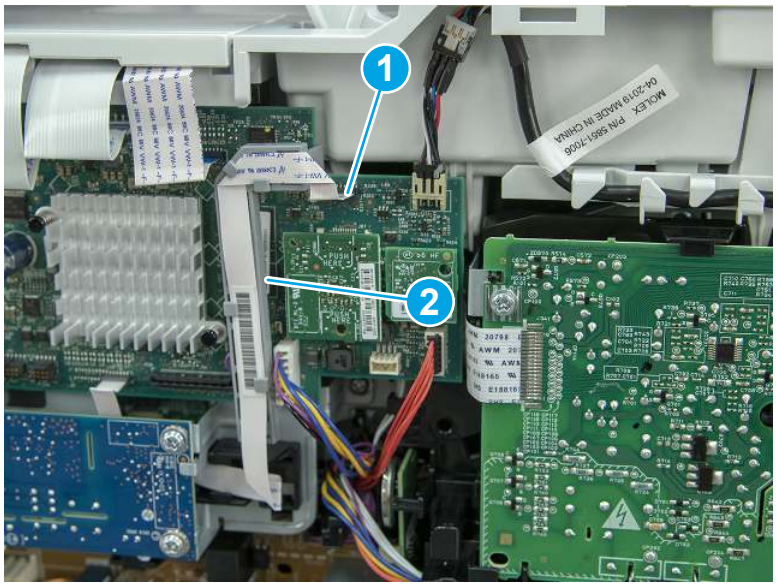


11. Remove the fax cable guide and fax PCA (fax models only)

Follow these steps to remove the fax cable guide and fax PCA (fax models only).

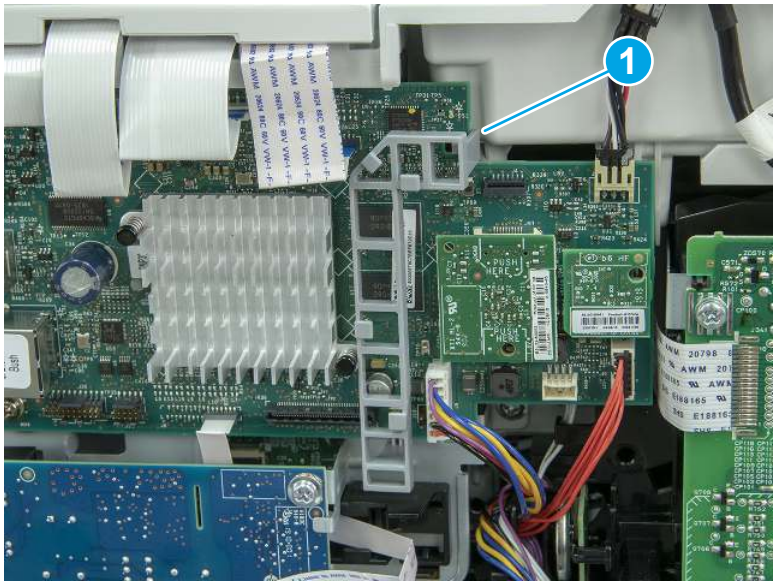
1. Disconnect one connector (callout 1), and then remove the cable from the guide (callout 2).

Figure 4-855 Remove the cable from the guide



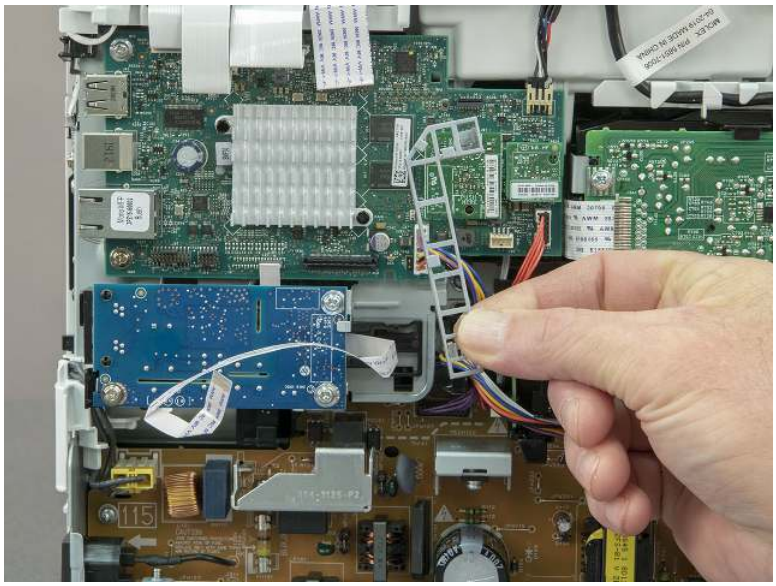
2. Release one tab (callout 1).

Figure 4-856 Release one tab



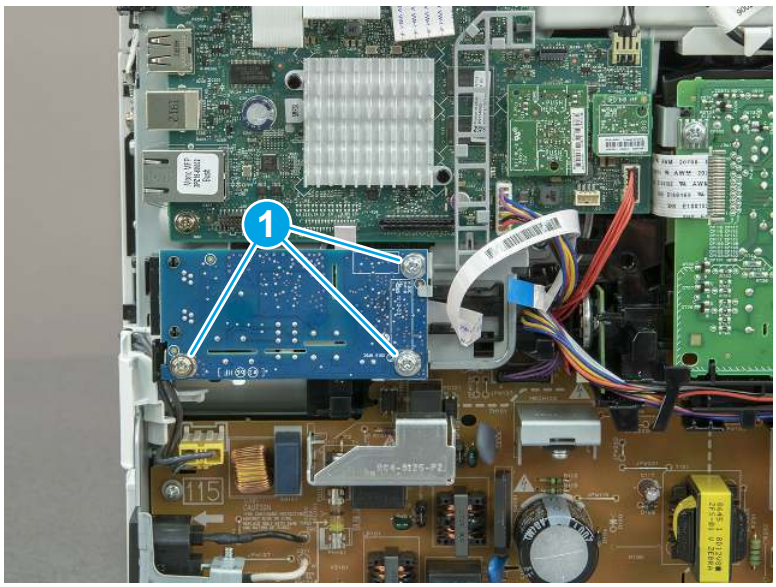
3. Lower the guide to release it from the formatter.

Figure 4-857 Lower the guide



4. Remove three screws (callout 1), and then remove the fax PCA and cable.

Figure 4-858 Remove three screws



12. Remove the Trusted Platform Module (TPM)

Follow these steps to remove the Trusted Platform Module (TPM).

- Carefully pull the TPM (callout 1) away from the formatter to remove it.

Figure 4-859 **Remove the TPM**



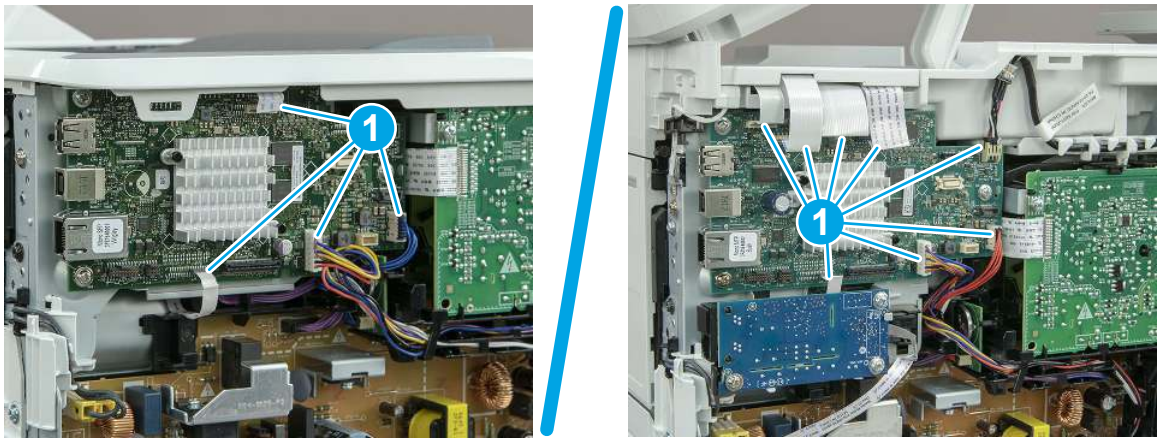
13. Remove the formatter PCA

Follow these steps to remove the formatter PCA.

1. Do one of the following:
   - **SFP**: Disconnect four connectors (callout 1).
   - **MFP**: Disconnect eight connectors (callout 1).

IMPORTANT: Take note of any empty connectors before removing the formatter PCA.

Figure 4-860 **SFP/MFP: Disconnect the connectors**



2. Remove three screws (callout 1), and then remove the formatter PCA.

Figure 4-861 Remove three screws



14. Remove the formatter bracket

Follow these steps to remove the formatter bracket.

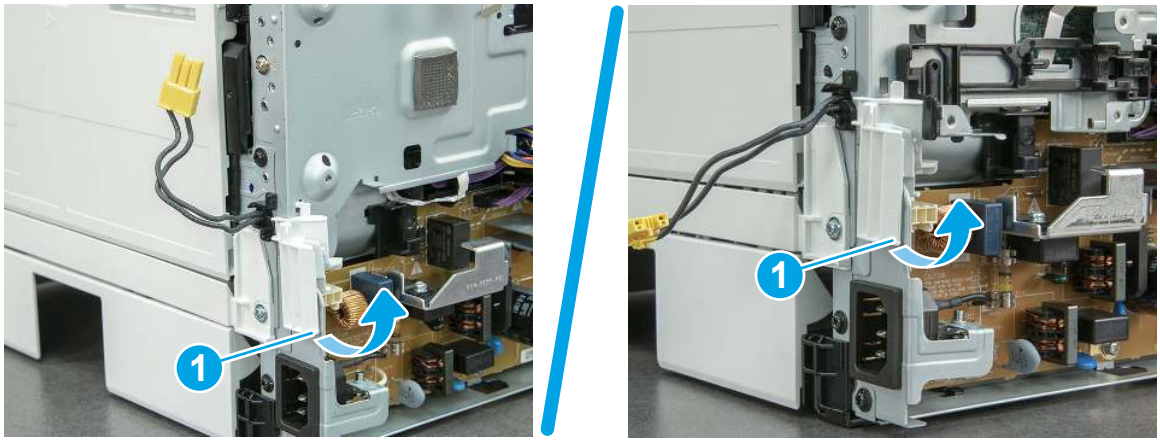
1. Disconnect one connector (callout 1), and then remove the wire harness (callout 2) from the guide (callout 3).

Figure 4-862 SFP/MFP: Remove the wire harness



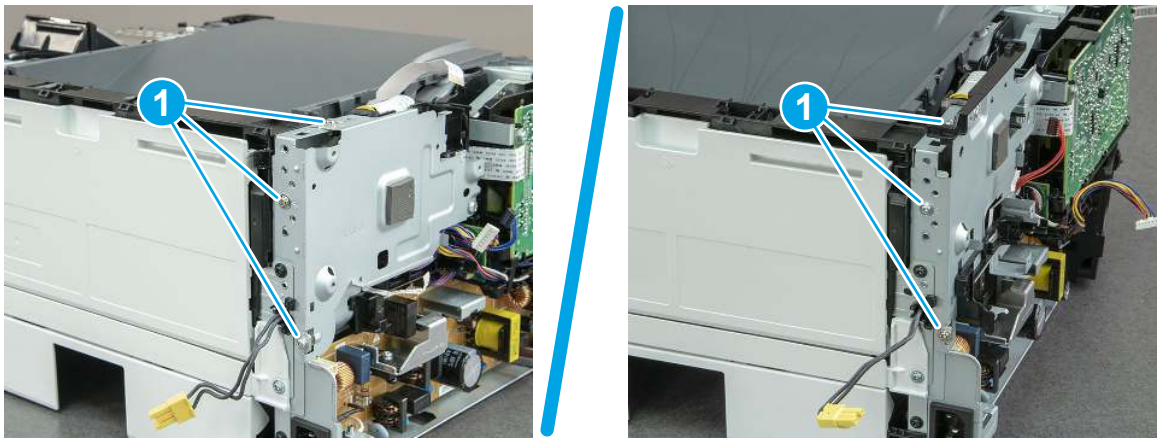
2. Release the front edge (callout 1), and then rotate the wire guide up to remove it.

Figure 4-863 Remove the wire guide



3. Remove three screws (callout 1).

Figure 4-864 Remove three screws

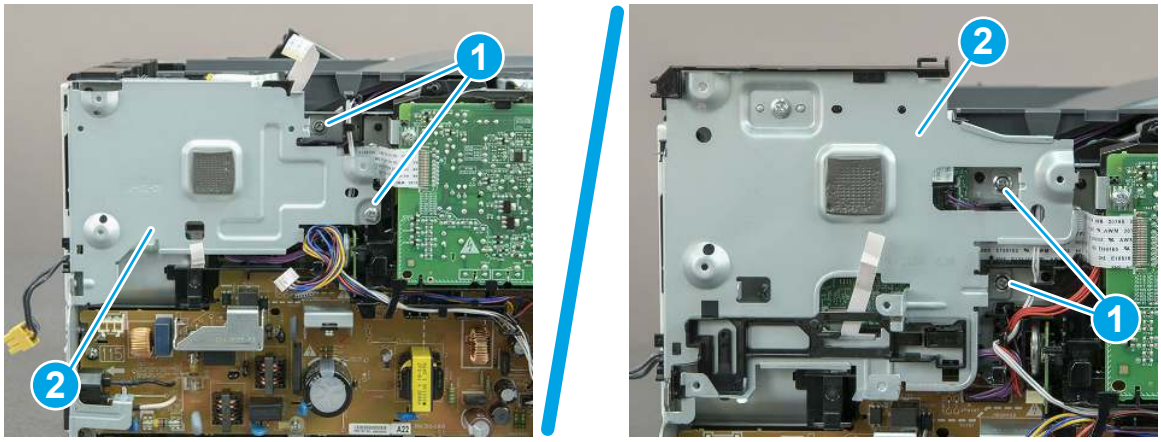


4. Remove two screws (callout 1), and then remove the formatter bracket (callout 2).

Reinstallation tip: Do one of the following:

- **SFP**: One screw is larger than the other screw. Make sure screws are installed in the correct locations.
- **MFP**: These two screws are longer than the previous three screws.

Figure 4-865 Remove two screws

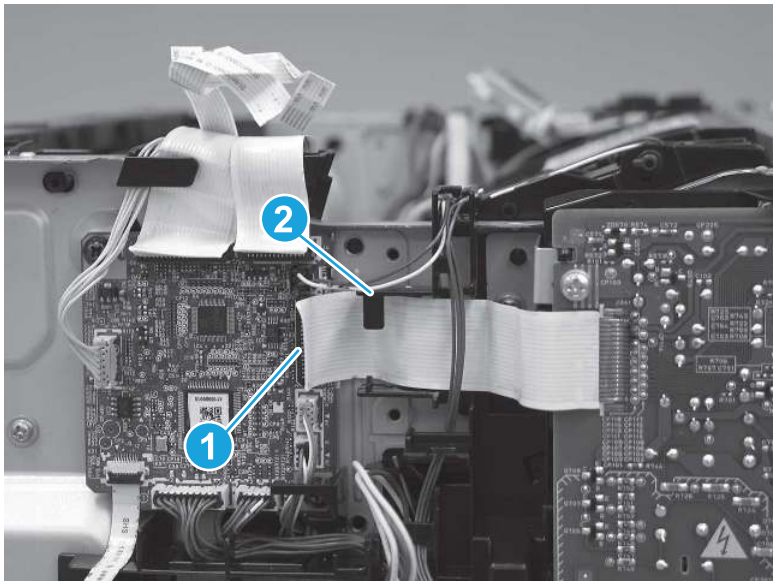


15. Remove the HVPS

Follow these steps to remove the HVPS.

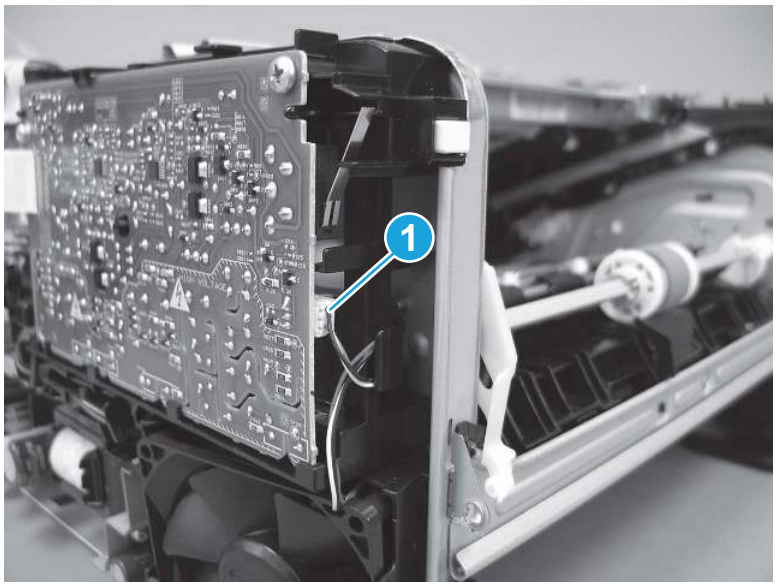
1. Disconnect one FFC (callout 1) on the DC controller, and then release it from the guide (callout 2).

Figure 4-866 Disconnect one FFC



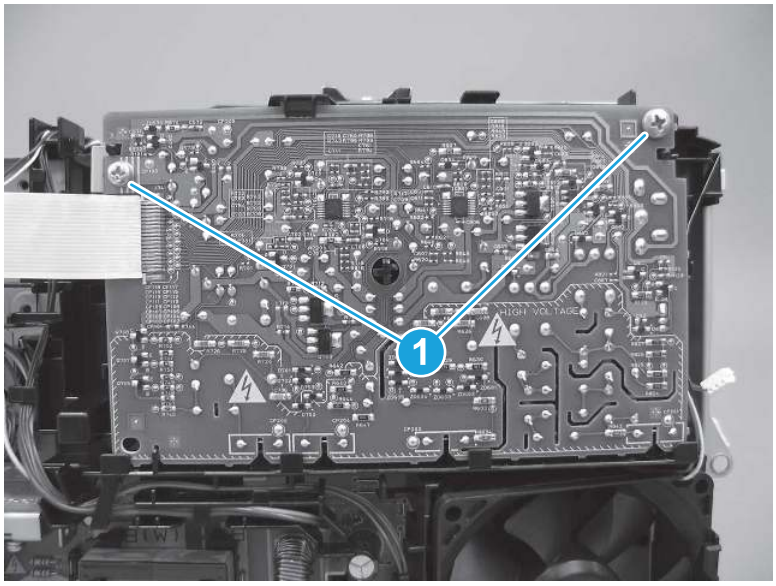
2. Disconnect one connector (callout 1).

Figure 4-867 Disconnect one connector



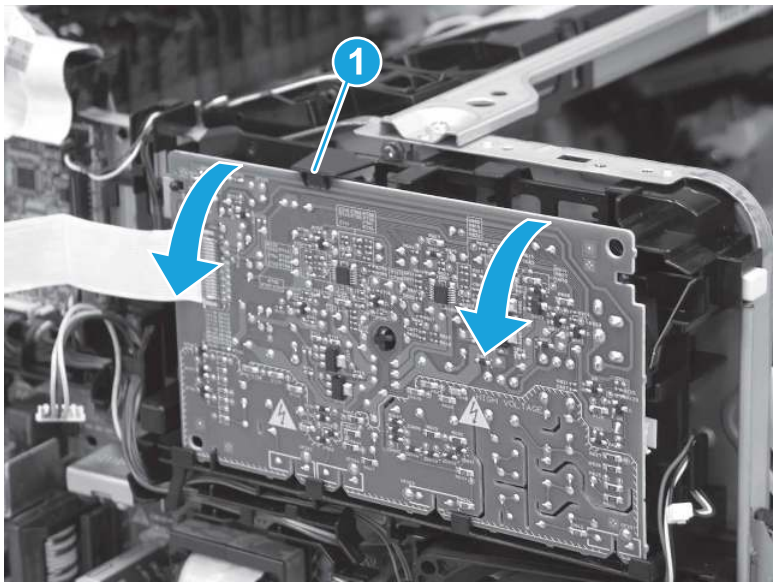
3. Remove two screws (callout 1).

Figure 4-868 Remove two screws



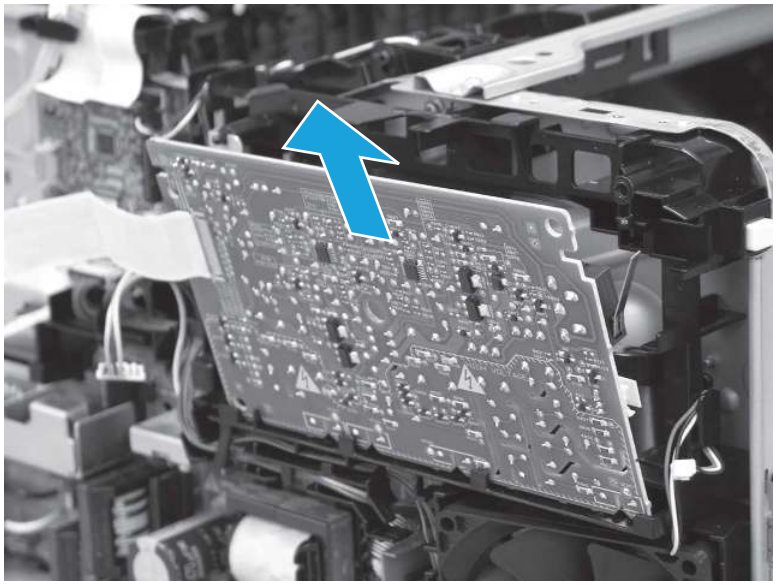
4. Release one tab (callout 1), and then rotate the top of the HVPS away from the printer.

Figure 4-869 Release one tab



5. Slide the HVPS up and away from the holder to remove it.

Figure 4-870 Remove the HVPS



TIP: For reinstallation, the loop on the end of the springs needs to fit into the slots on the bottom of the board. When properly installed, the springs will touch the metal contacts on back side of the HVPS PCA.

16. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Low-voltage power supply

Learn how to remove and replace the low-voltage power supply (LVPS).

View a video of how to remove and replace the SFP LVPS.

View a video of how to remove and replace the MFP LVPS.

Mean time to repair: 34 minutes SFP, 61 minutes MFP

Service level: Medium SFP, Difficult MFP

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-48 Part information

Part number	Part description
RM3-7417-000CN	LV power supply PCA (110-127V)
RM3-7418-000CN	LV power supply PCA (220-240V)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-871 Remove the tray



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

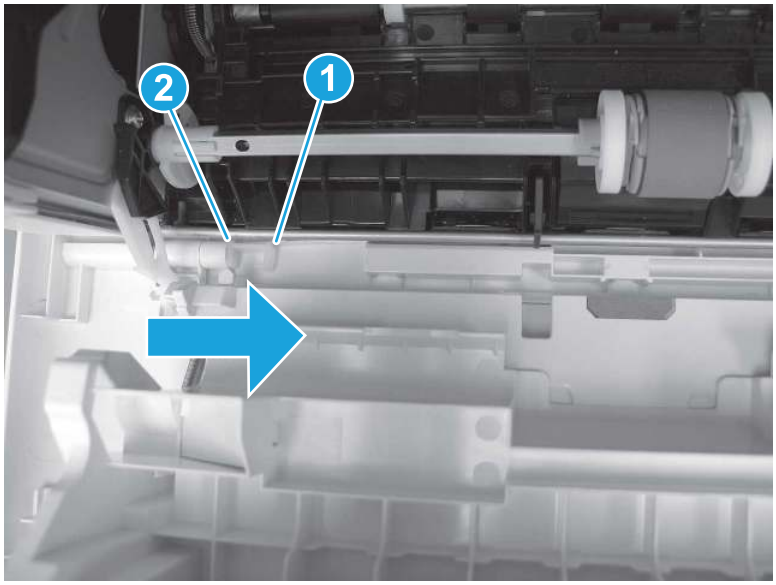
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

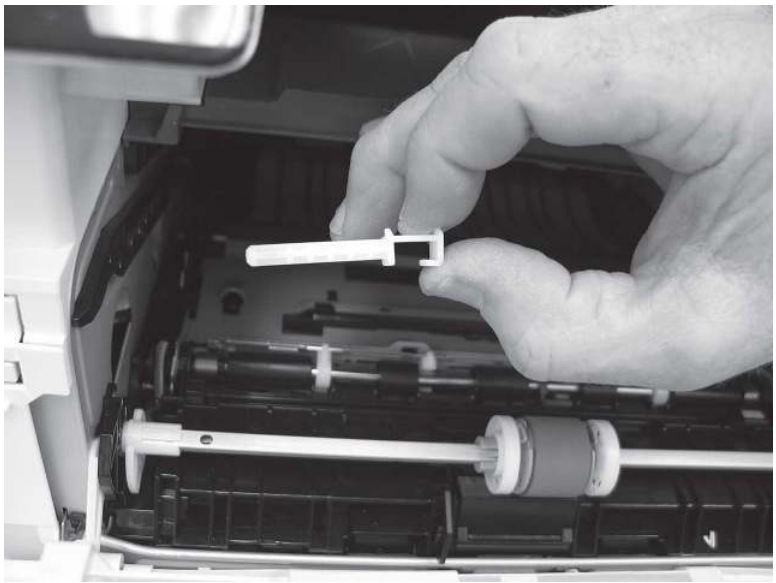
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-872 Release the support shaft



2. Remove the support shaft.

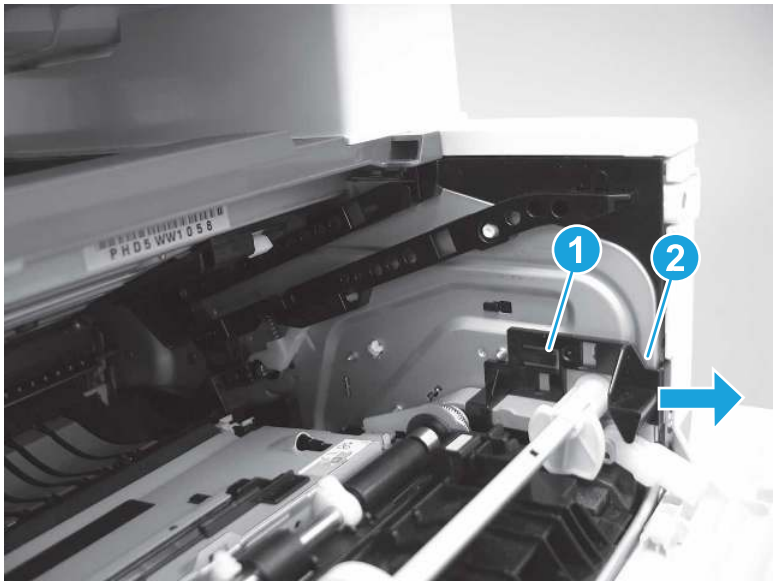
Figure 4-873 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

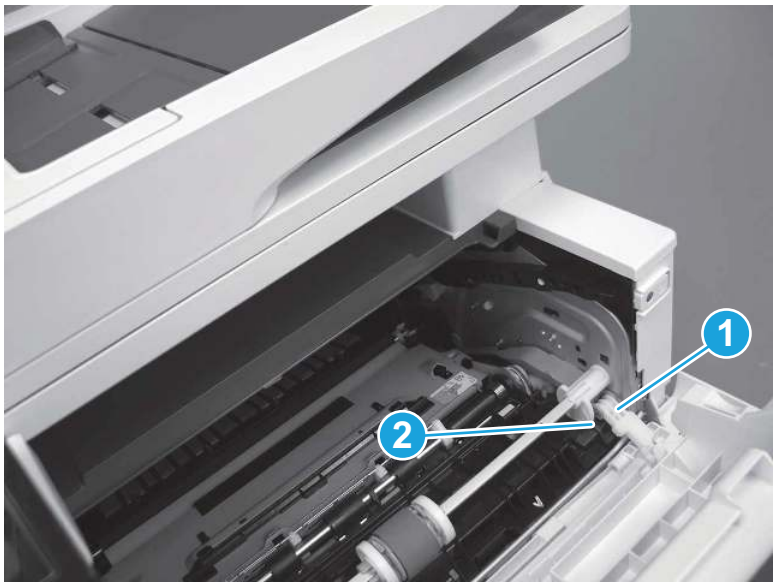
⚠ **CAUTION:** Be careful, the tab (callout 1) can be easily broken.

Figure 4-874 **Remove the guide**



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-875 **Release the pressure-release link**

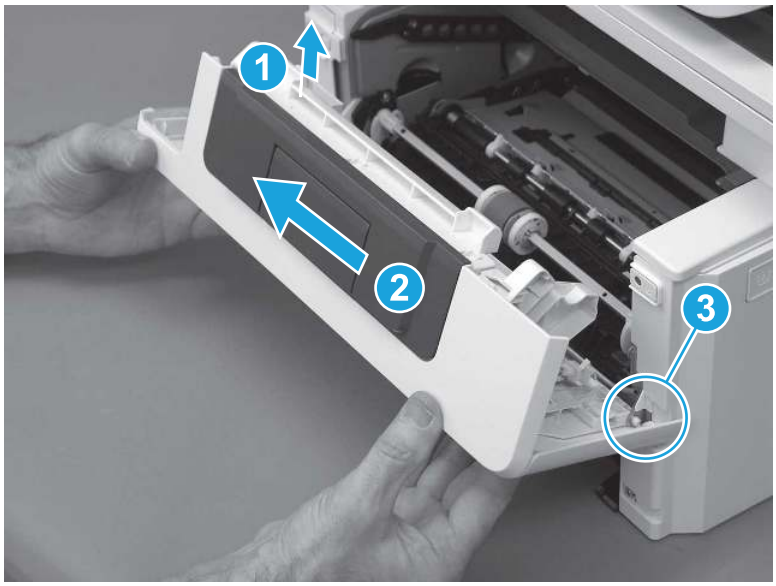


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ **CAUTION:** The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

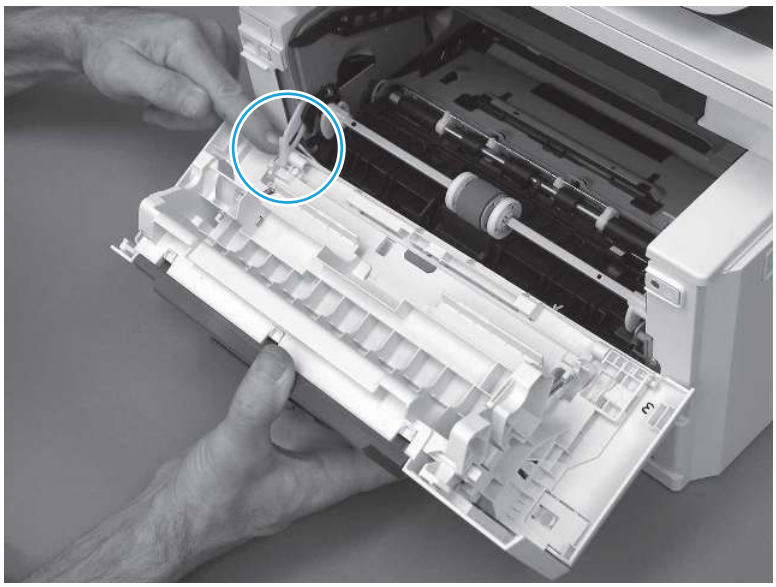
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-876 Release the door



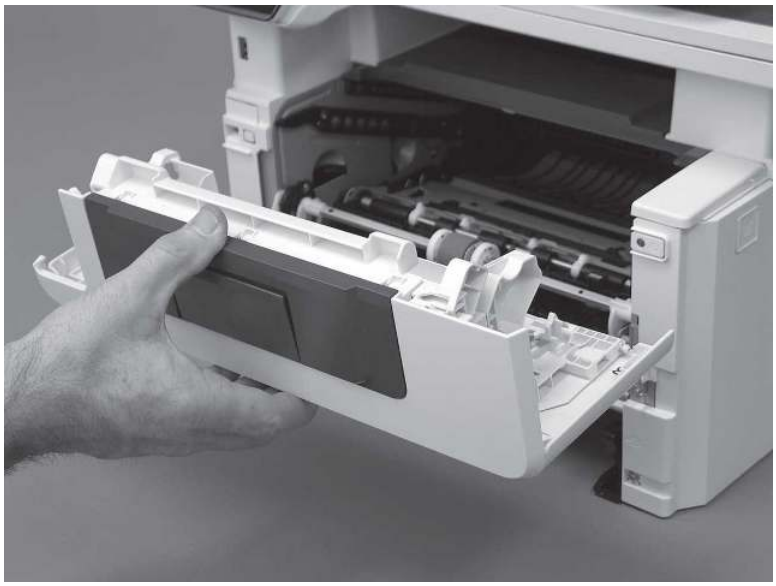
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-877 Release the left-side retainer arm



7. Remove the door.

Figure 4-878 **Remove the door**



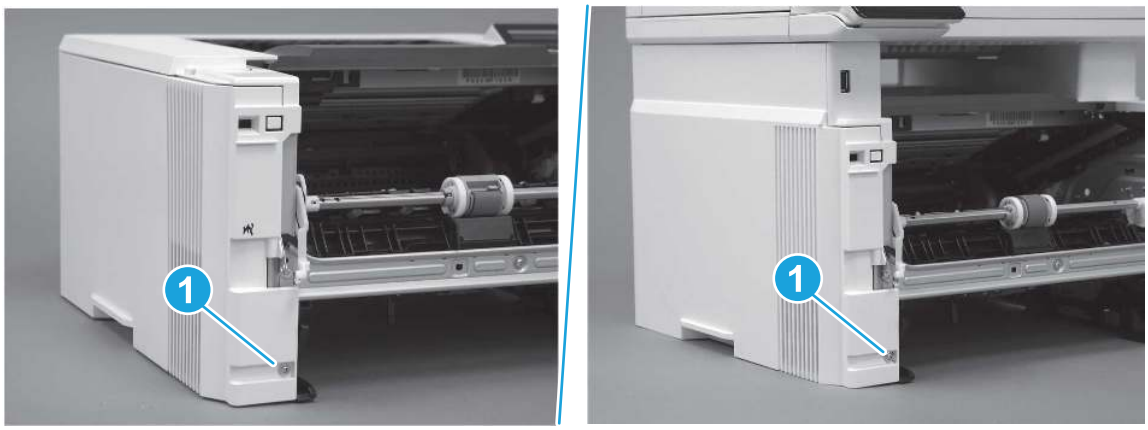
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

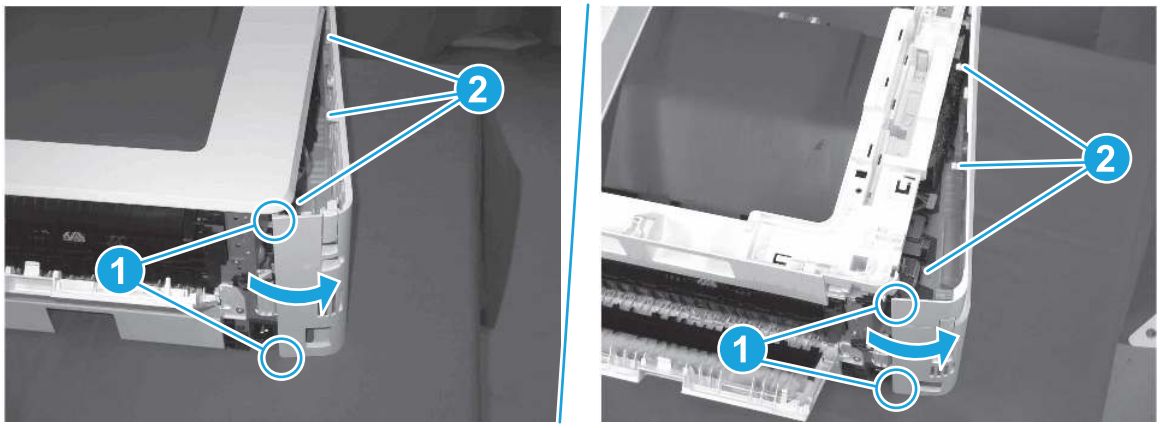
1. Remove one screw (callout 1).

Figure 4-879 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-880 **Release two bosses and three tabs**

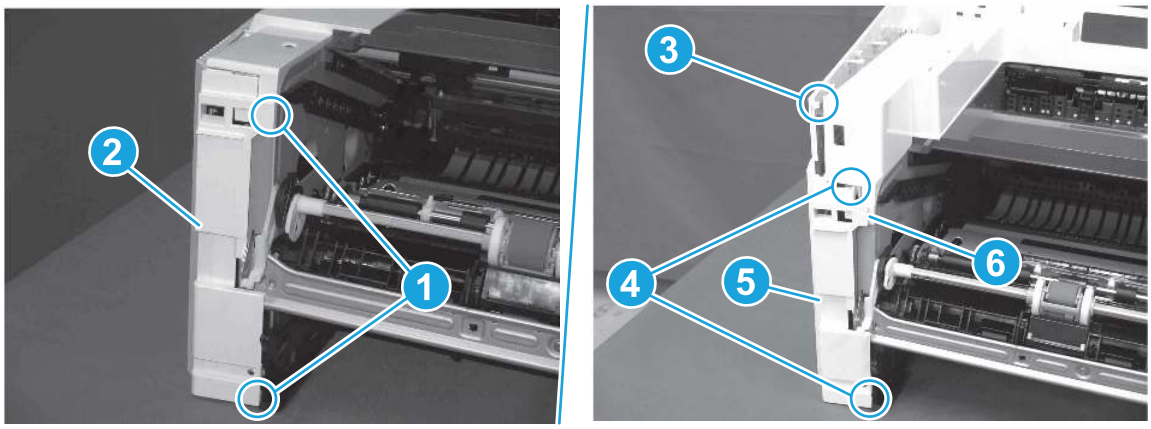


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-881 **Remove the cover**



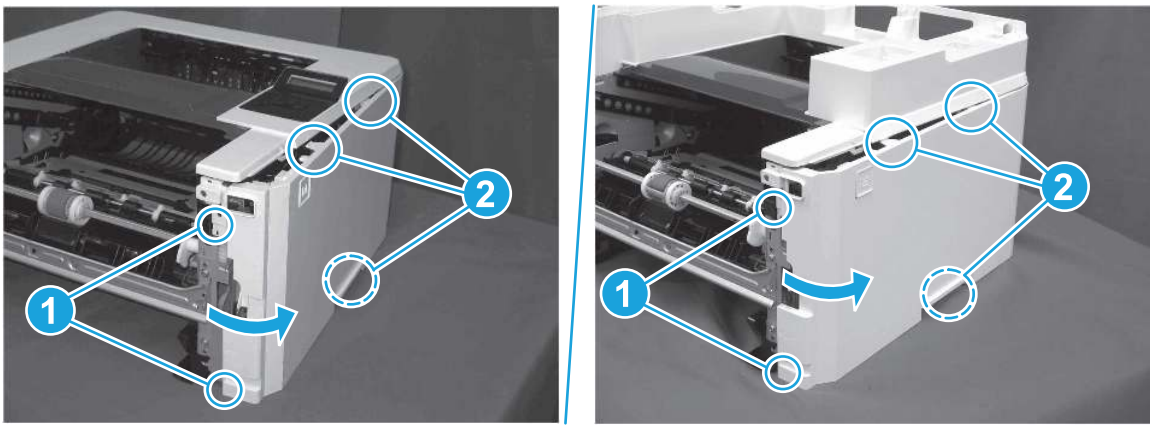
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

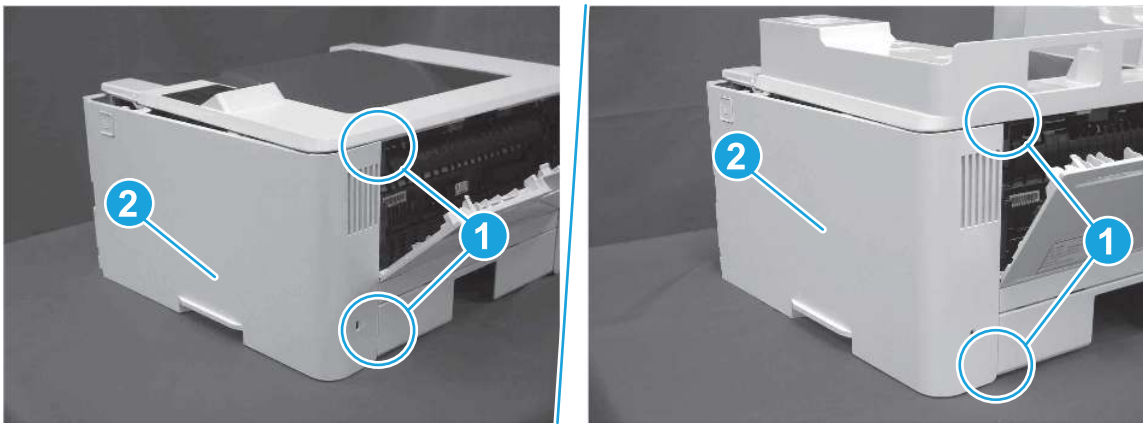
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-882 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-883 Remove the cover



5. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-884 Open the ISA



2. Remove one screw (callout 1).

Figure 4-885 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-886 Release two tabs



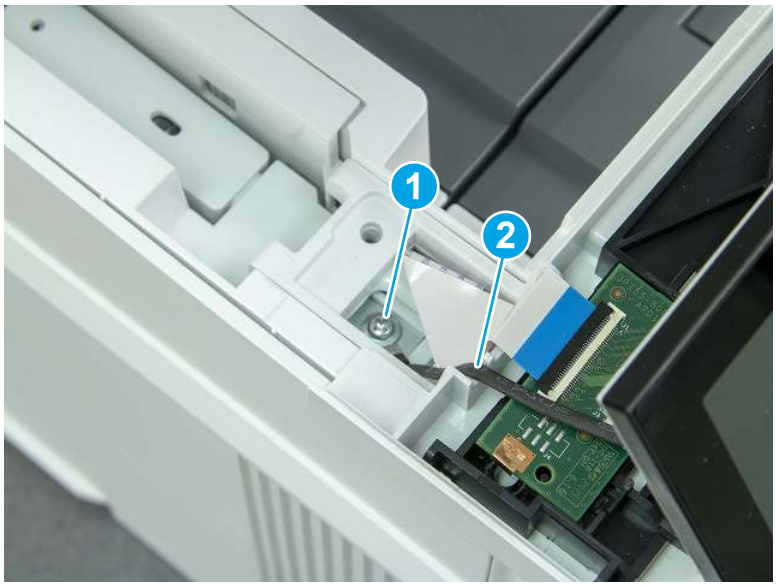
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-887 Remove the cover



5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-888 Remove one screw



6. Disconnect two FFC (callout 1).

Figure 4-889 Disconnect two FFC



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

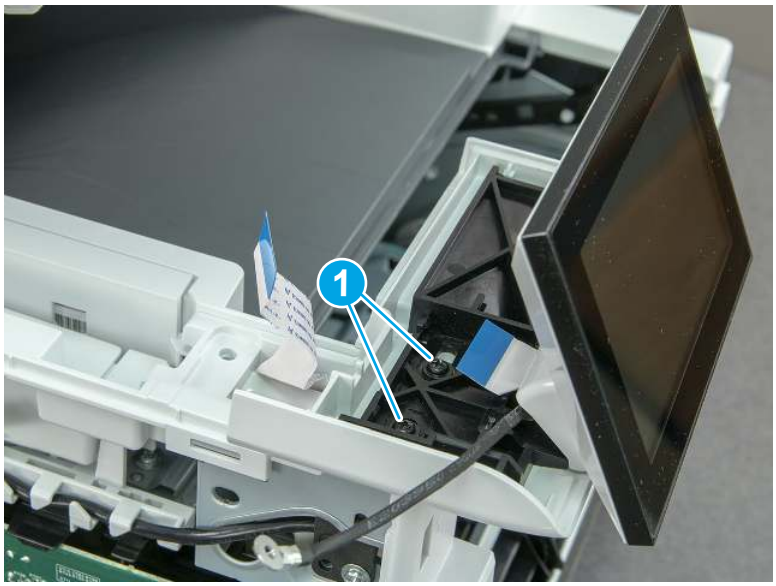
Figure 4-890 Remove the ICB



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ CAUTION: Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-891 Remove two screws and remove the control panel assembly

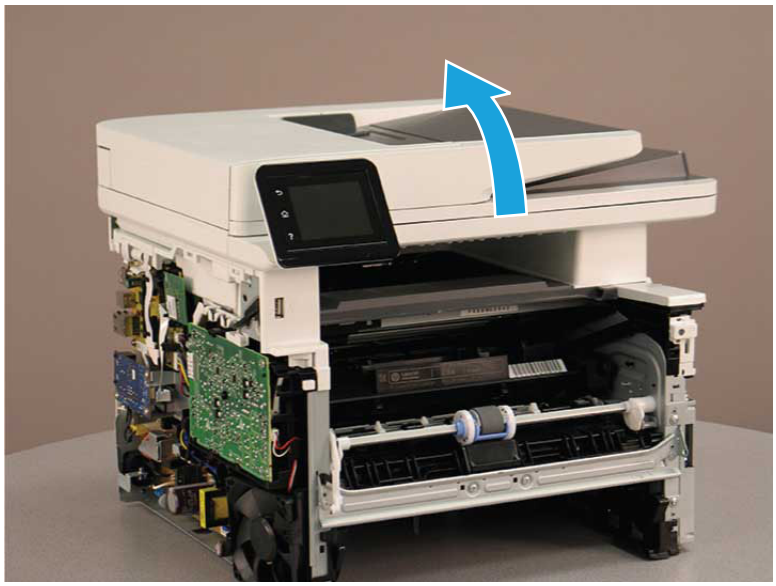


6. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

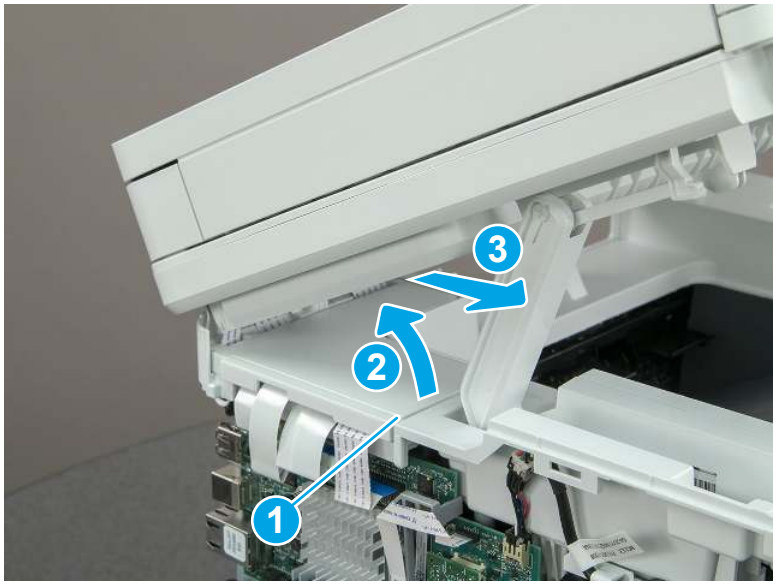
1. If the ISA is not already raised, raise it now.

Figure 4-892 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-893 Remove the ISA FFC cover



7. Remove the integrated scanner assembly (MFP only)

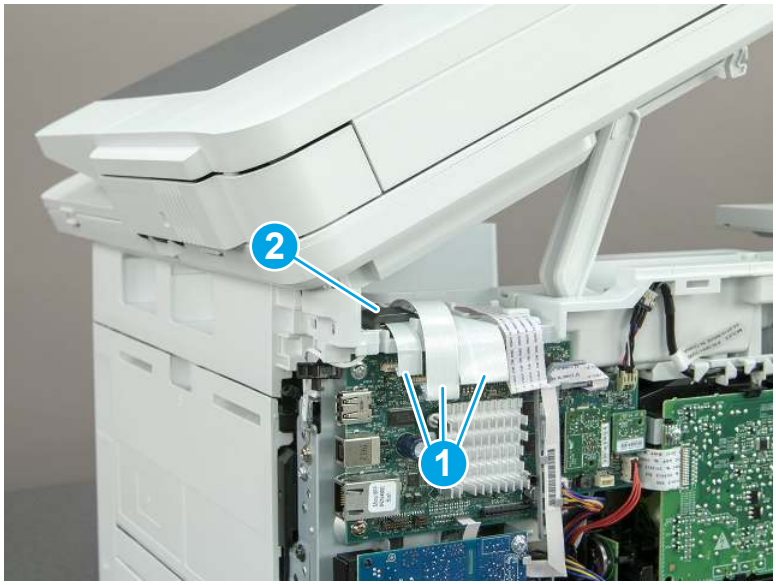
Follow these steps to remove the integrated scanner assembly (MFP only).

NOTE: MFP models only. The integrated scanner assembly (ISA) includes the sub-scanner assembly (SSA) and the automatic document feeder (ADF).

1. Disconnect three FFCs (callout 1), and then remove the ferrite (callout 2) from the holder.

CAUTION: The ferrite is not captive on the FFC. Do not lose the ferrite while handling the ISA.

Figure 4-894 Disconnect three FFCs



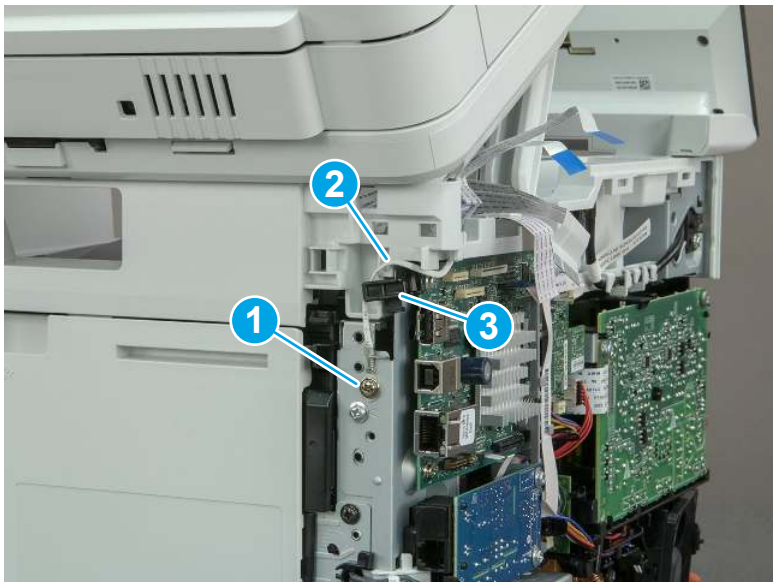
2. Release the tape (callout 1) that holds the flat cables to the top cover.

Figure 4-895 Release the tape



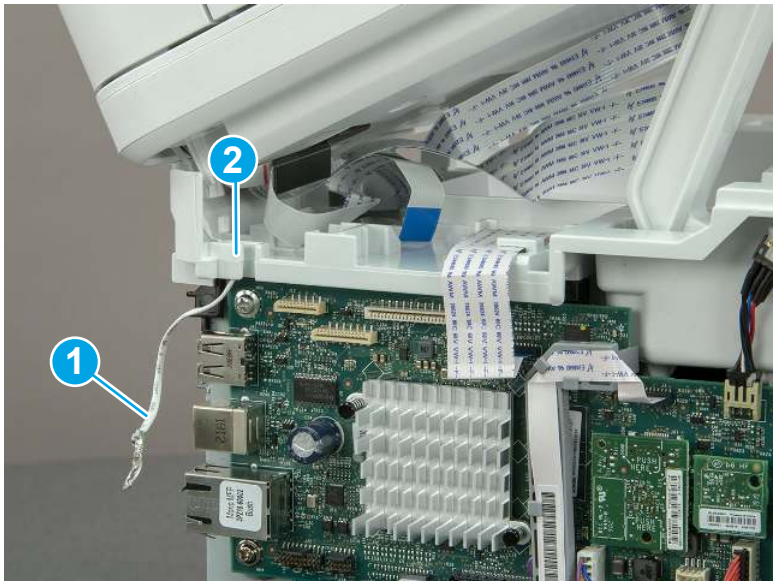
3. Remove one screw (callout 1), and then release the ground wire (callout 2) from the guide (callout 3).

Figure 4-896 **Release the ground wire**



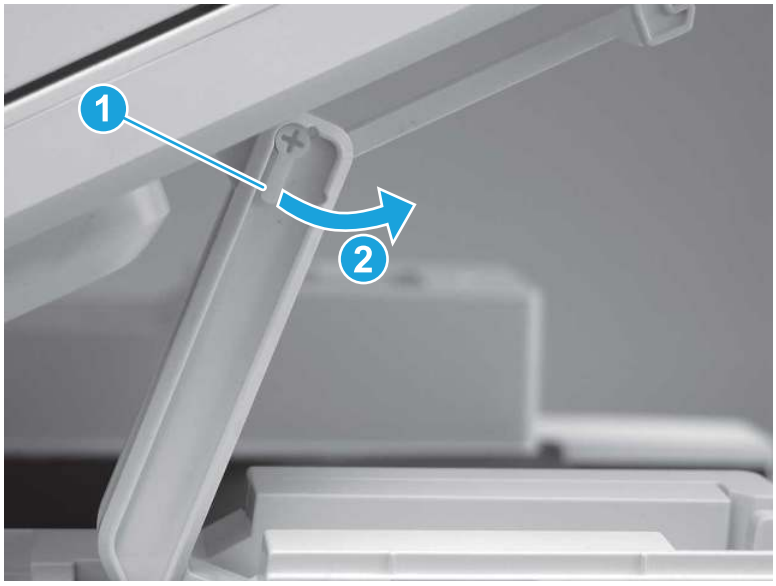
4. Release the ground wire (callout 1) from the guide (callout 2).

Figure 4-897 **Release the ground wire**



5. Release one tab (callout 1), and then rotate the ISA slider pin (callout 2) towards the front of the printer to release it.

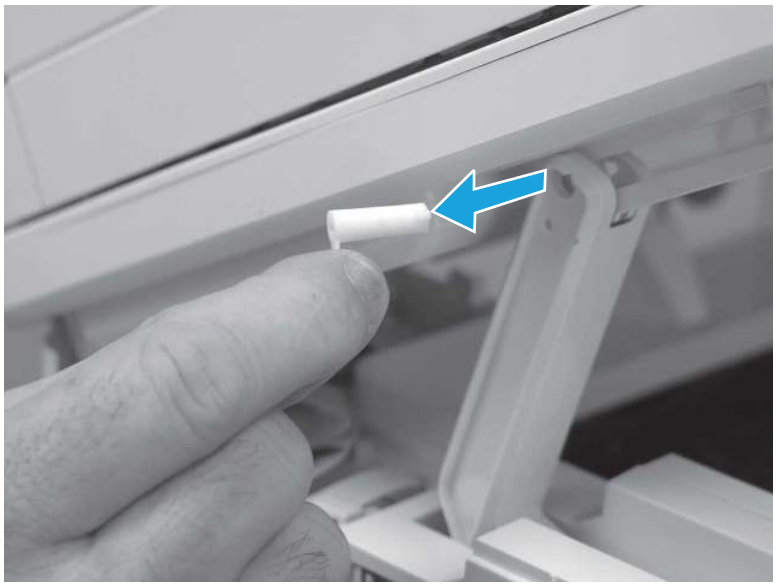
Figure 4-898 Release one tab and rotate the slider pin



6. Remove the slider pin.

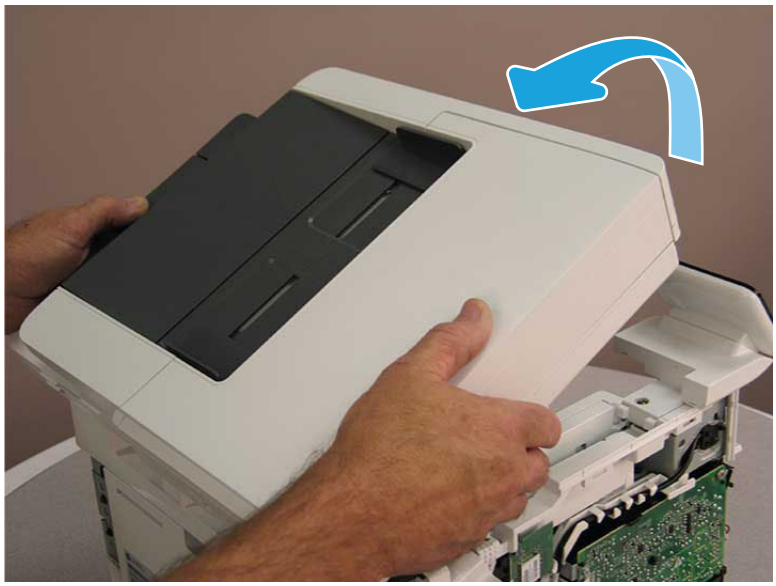
Reinstallation tip: Align the keyed portion of the locking pin with the slot and hole in the support arm.

Figure 4-899 Remove the slider pin



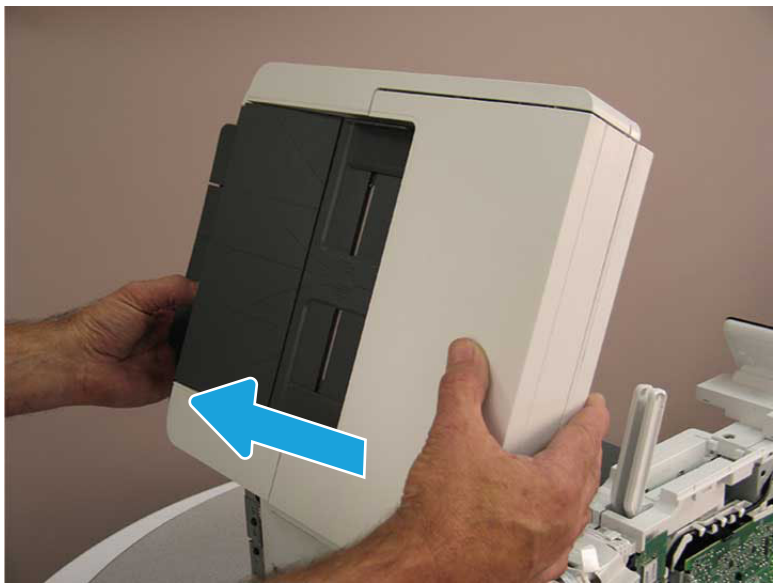
7. Rotate the ISA towards the rear of the printer until it stops.

Figure 4-900 **Rotate the ISA towards the rear of the printer**



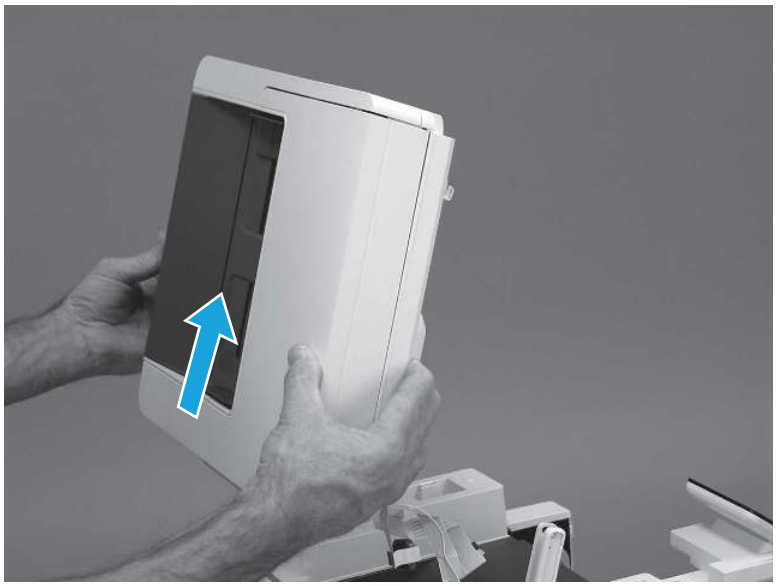
8. Slide the ISA as shown to release it.

Figure 4-901 **Release the ISA**



9. Remove the ISA.

Figure 4-902 Remove the ISA

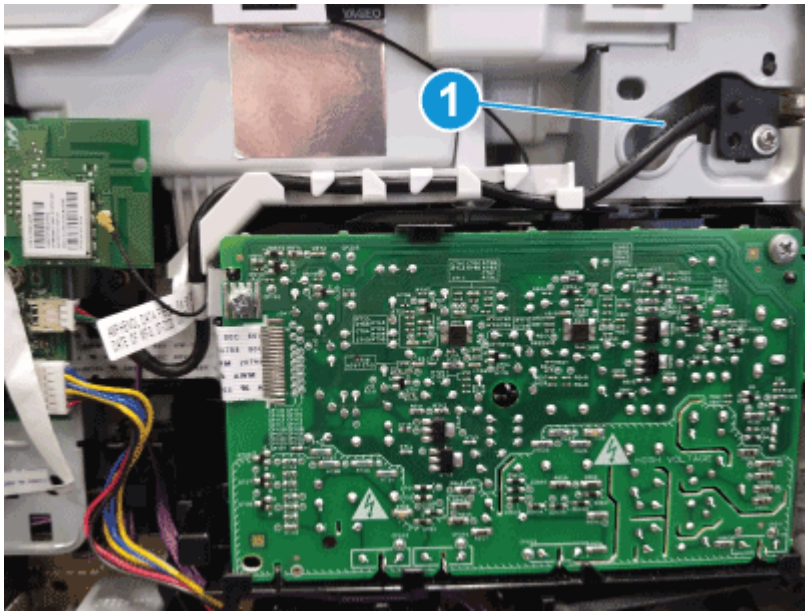


8. Remove the top cover (MFP)

Follow these steps to remove the top cover (MFP).

1. Release the USB cable (callout 1) from the cable guide.

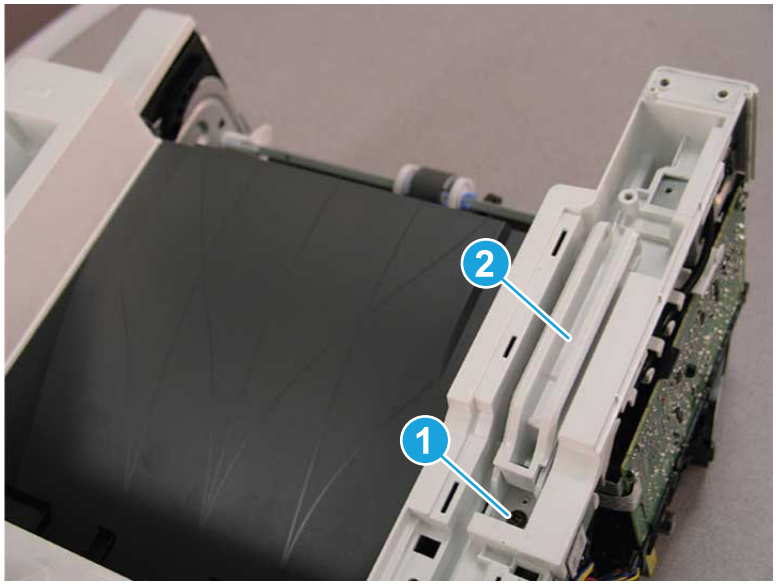
Figure 4-903 Release the USB cable



2. Remove one screw (callout 1), and then remove the support arm (callout 2).

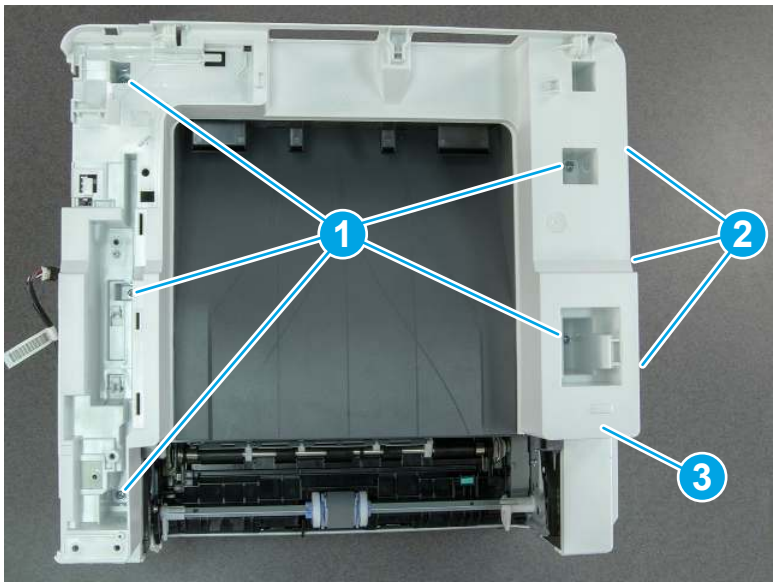
⚠ CAUTION: The support arm is spring loaded and can unexpectedly spring into the open position. To avoid injury, do not place a finger in the screw well when the support arm is in the closed position.

Figure 4-904 Remove the support arm



3. Remove five screws (callout 1), release three bosses (callout 2), and then remove the top cover (callout 3).

Figure 4-905 Remove the top cover



9. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

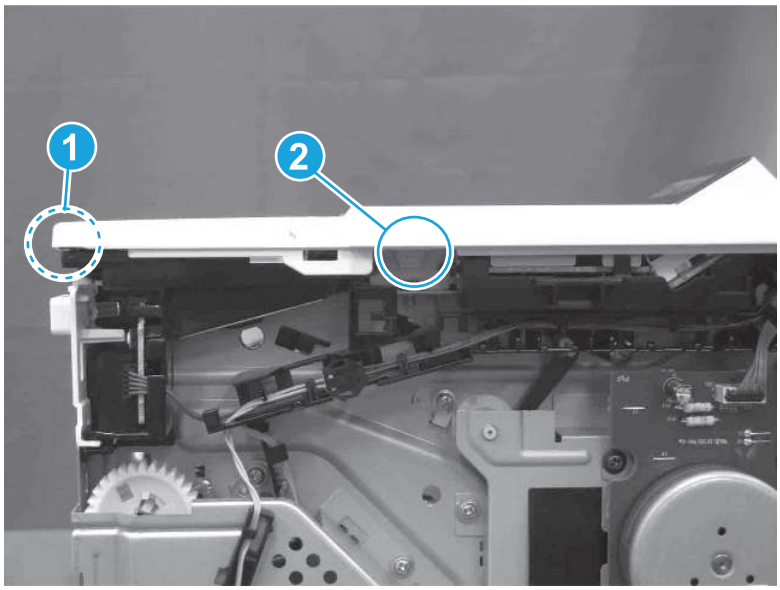
1. Remove one screw.

Figure 4-906 Remove one screw



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

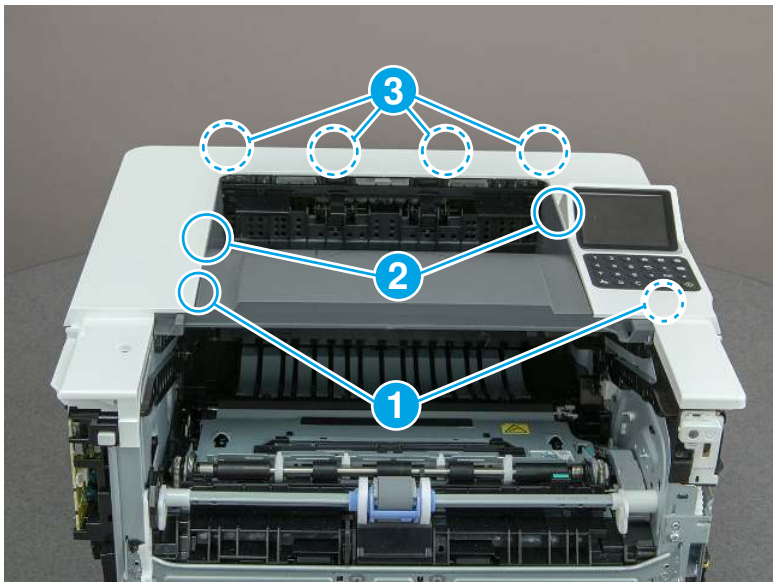
Figure 4-907 Release one boss and one tab



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-908 Remove the cover

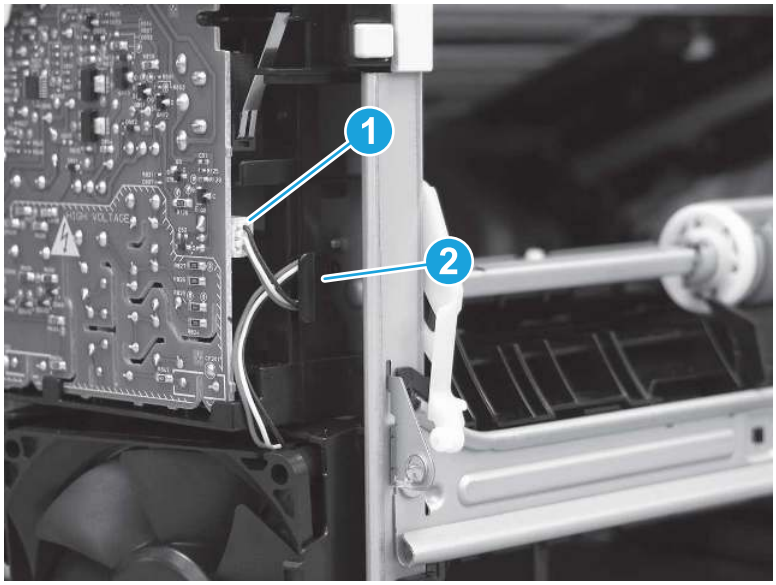


10. Remove the fan (FM1)

Follow these steps to remove the fan (FM1).

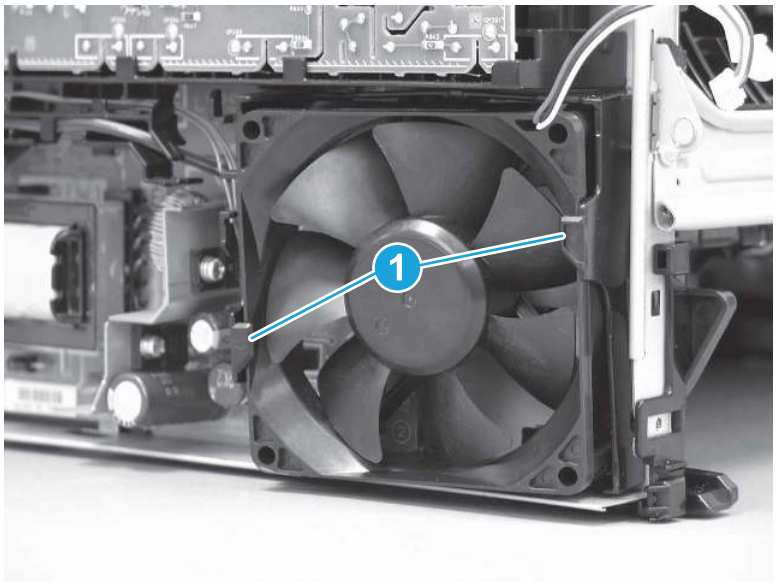
1. Disconnect one connector (callout 1), and then release the wire harness from the retainer (callout 2).

Figure 4-909 Disconnect one connector



2. Release two tabs (callout 1).

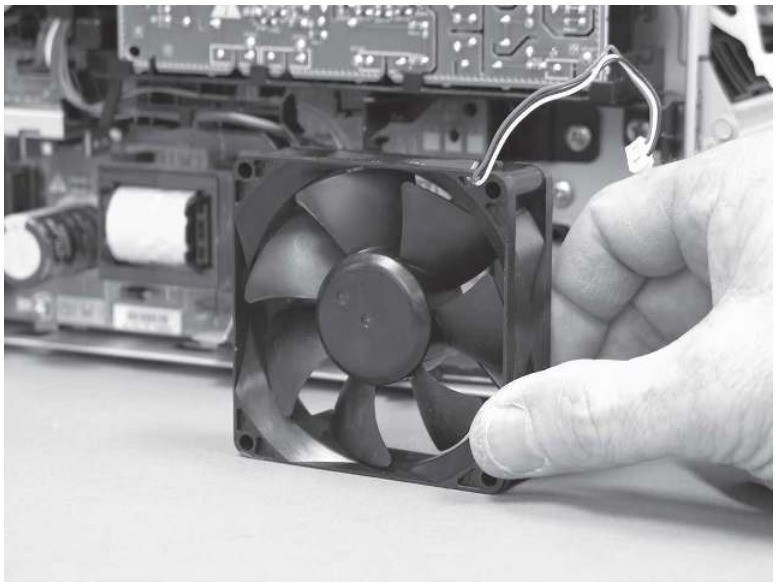
Figure 4-910 Release two tabs



3. Remove the fan.

Reinstallation tip: The fan must be correctly installed so that air is drawn into the printer. Make sure that the two arrows embossed on the right-side of the fan body—which indicate air flow direction—face upward and into the printer.

Figure 4-911 Remove the fan

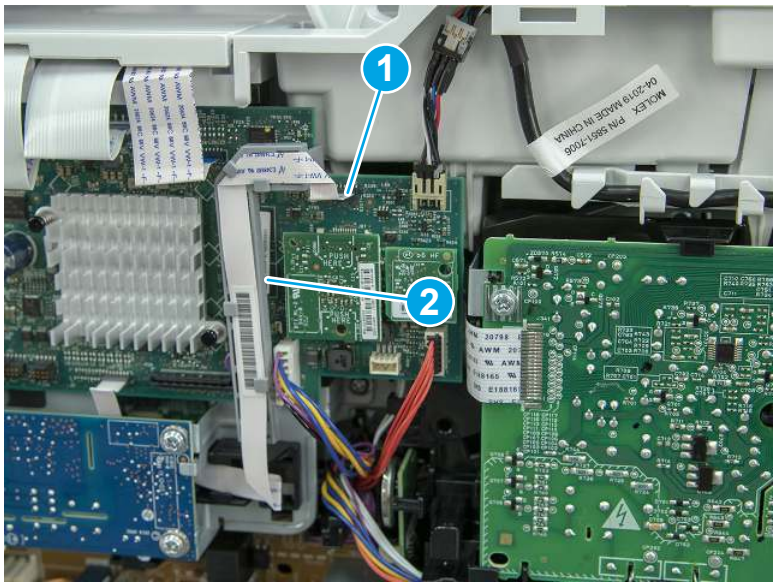


11. Remove the fax cable guide and fax PCA (fax models only)

Follow these steps to remove the fax cable guide and fax PCA (fax models only).

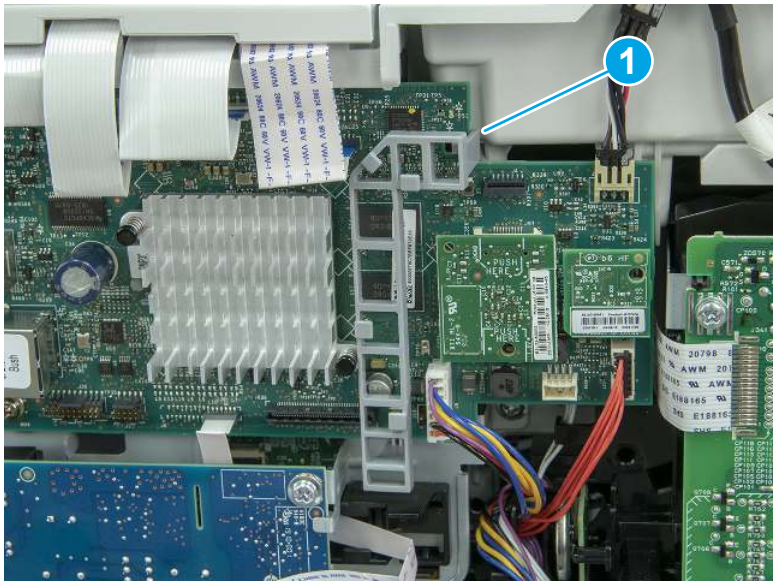
1. Disconnect one connector (callout 1), and then remove the cable from the guide (callout 2).

Figure 4-912 Remove the cable from the guide



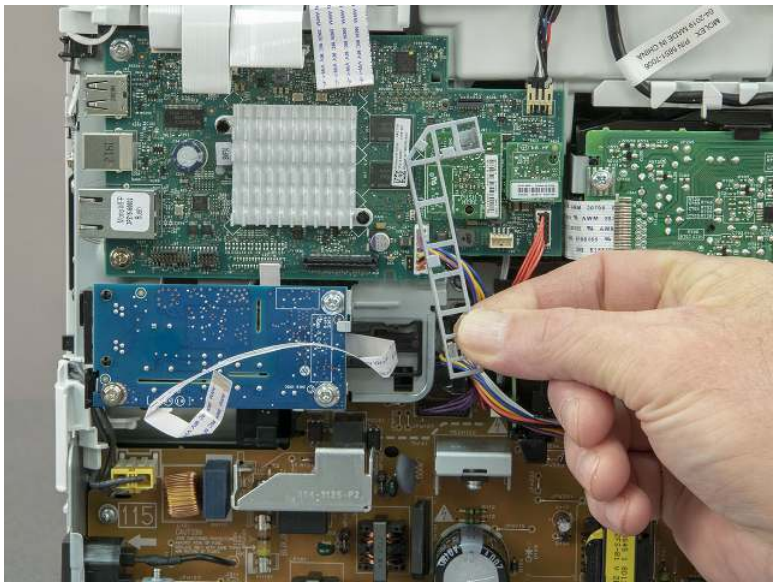
2. Release one tab (callout 1).

Figure 4-913 Release one tab



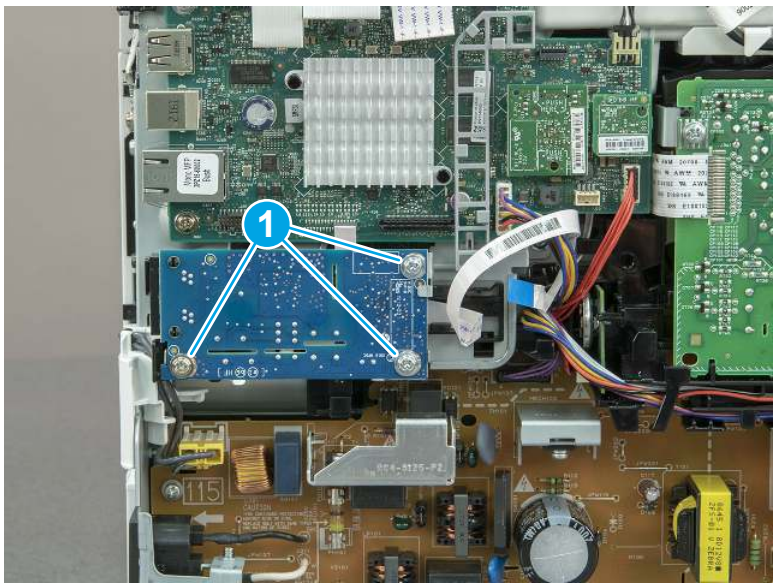
3. Lower the guide to release it from the formatter.

Figure 4-914 Lower the guide



4. Remove three screws (callout 1), and then remove the fax PCA and cable.

Figure 4-915 Remove three screws



12. Remove the Trusted Platform Module (TPM)

Follow these steps to remove the Trusted Platform Module (TPM).

- Carefully pull the TPM (callout 1) away from the formatter to remove it.

Figure 4-916 **Remove the TPM**



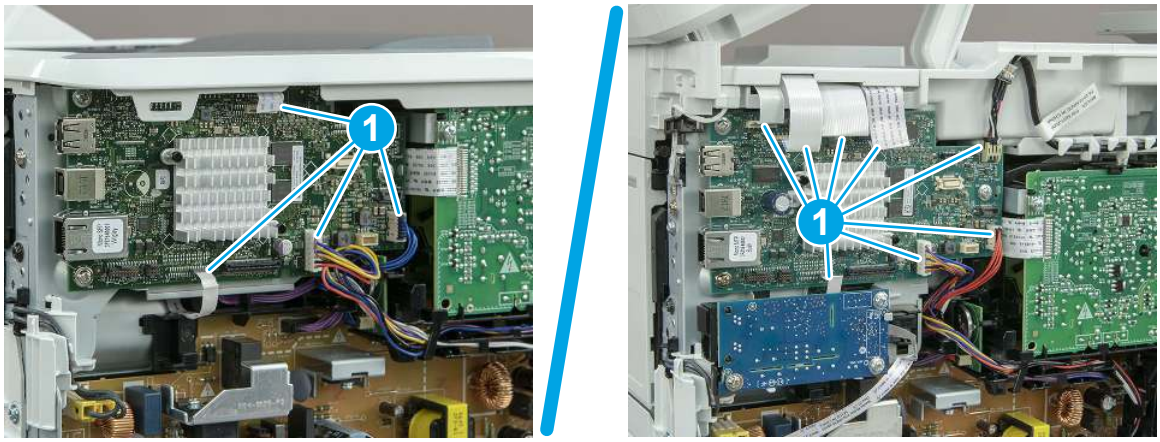
13. Remove the formatter PCA

Follow these steps to remove the formatter PCA.

1. Do one of the following:
   - **SFP**: Disconnect four connectors (callout 1).
   - **MFP**: Disconnect eight connectors (callout 1).

IMPORTANT: Take note of any empty connectors before removing the formatter PCA.

Figure 4-917 **SFP/MFP: Disconnect the connectors**



2. Remove three screws (callout 1), and then remove the formatter PCA.

Figure 4-918 Remove three screws



14. Remove the formatter bracket

Follow these steps to remove the formatter bracket.

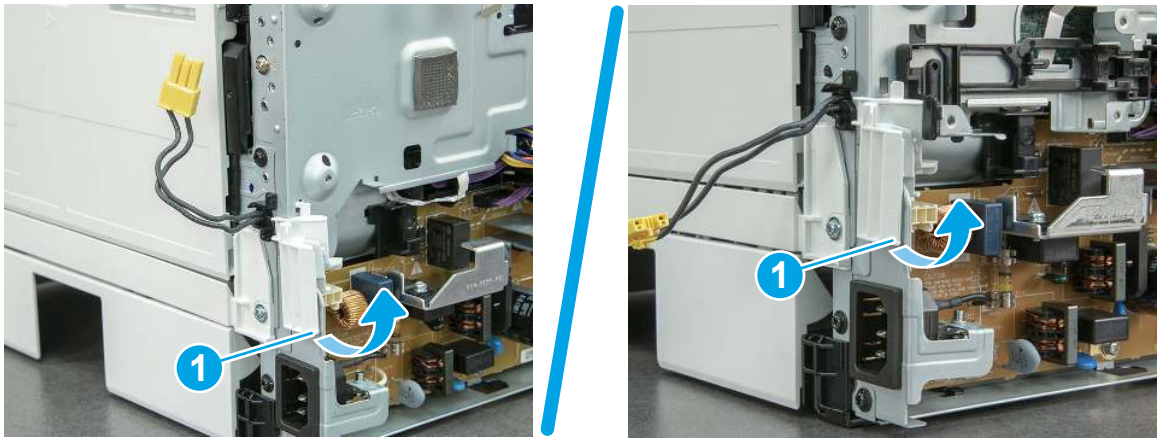
1. Disconnect one connector (callout 1), and then remove the wire harness (callout 2) from the guide (callout 3).

Figure 4-919 SFP/MFP: Remove the wire harness



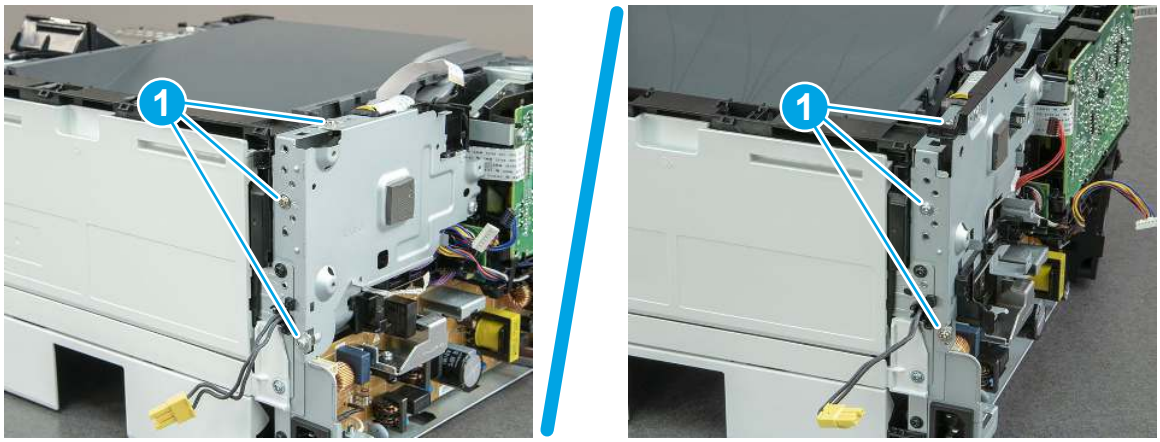
2. Release the front edge (callout 1), and then rotate the wire guide up to remove it.

Figure 4-920 **Remove the wire guide**



3. Remove three screws (callout 1).

Figure 4-921 **Remove three screws**

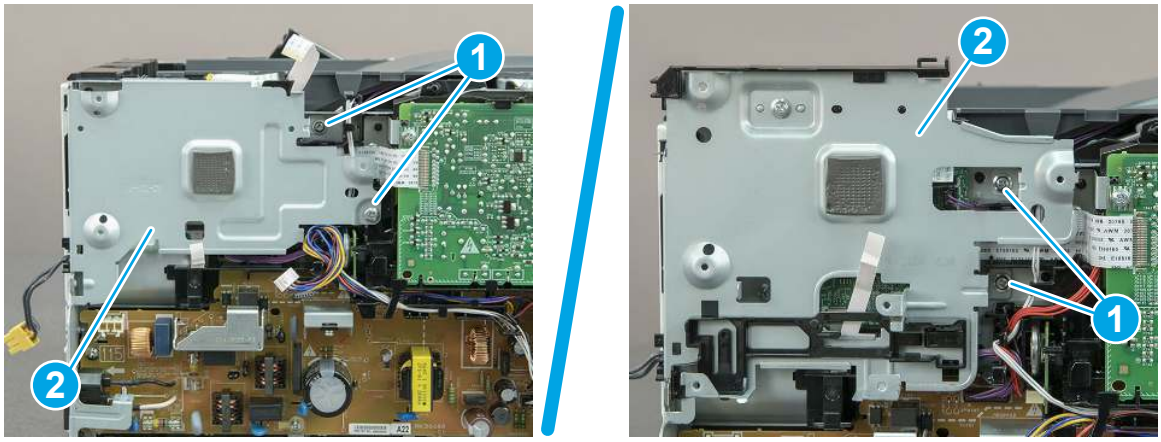


4. Remove two screws (callout 1), and then remove the formatter bracket (callout 2).

Reinstallation tip: Do one of the following:

- **SFP**: One screw is larger than the other screw. Make sure screws are installed in the correct locations.
- **MFP**: These two screws are longer than the previous three screws.

Figure 4-922 Remove two screws

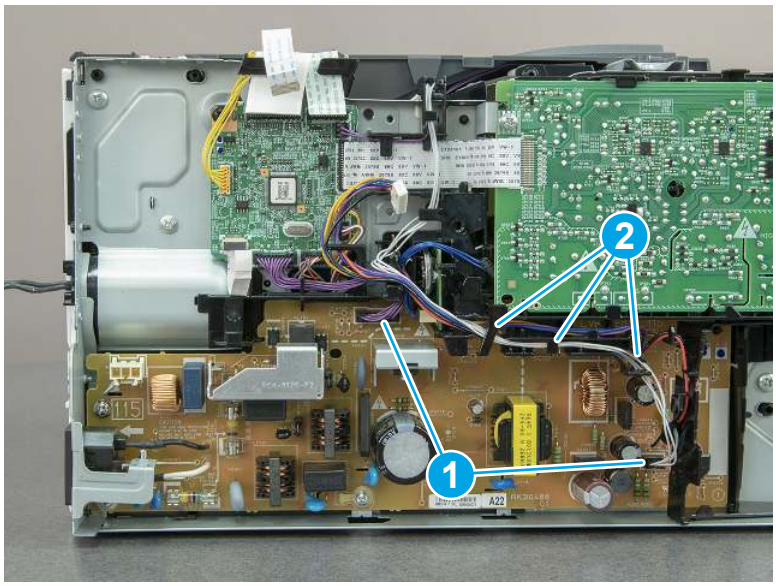


15. Remove the LVPS

Follow these steps to remove the LVPS.

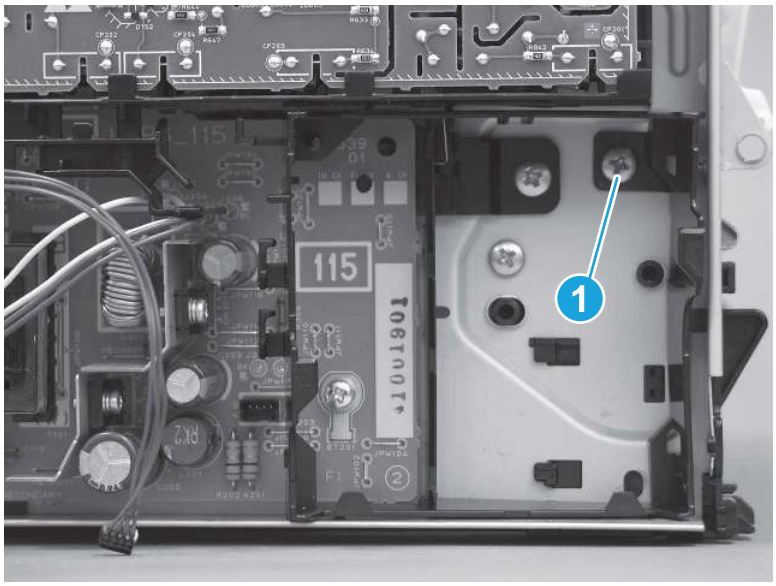
1. Disconnect two connectors (callout 1) on the LVPS, and then release the wire harnesses from the guides (callout 2).

Figure 4-923 Disconnect two connectors



2. Remove one screw (callout 1).

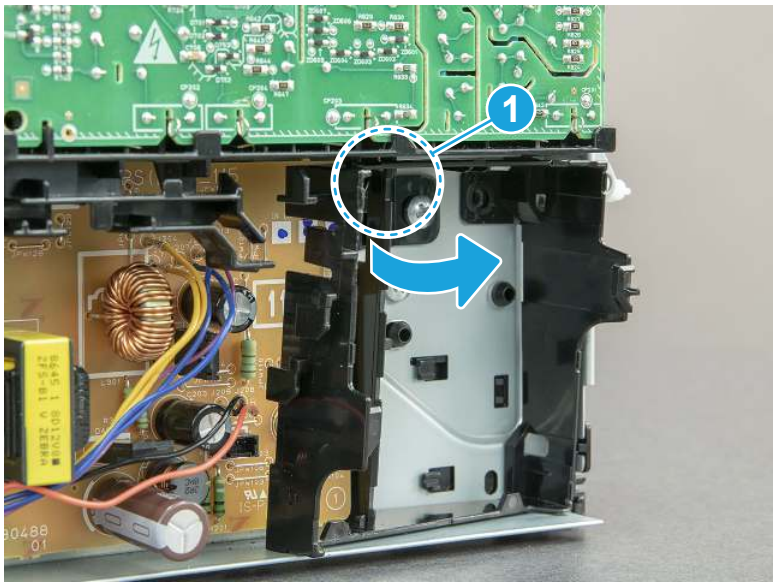
Figure 4-924 Remove one screw



3. Release one tab at the top-left side of the fan holder (callout 1), and then rotate the top-left side corner of the holder away from the printer.

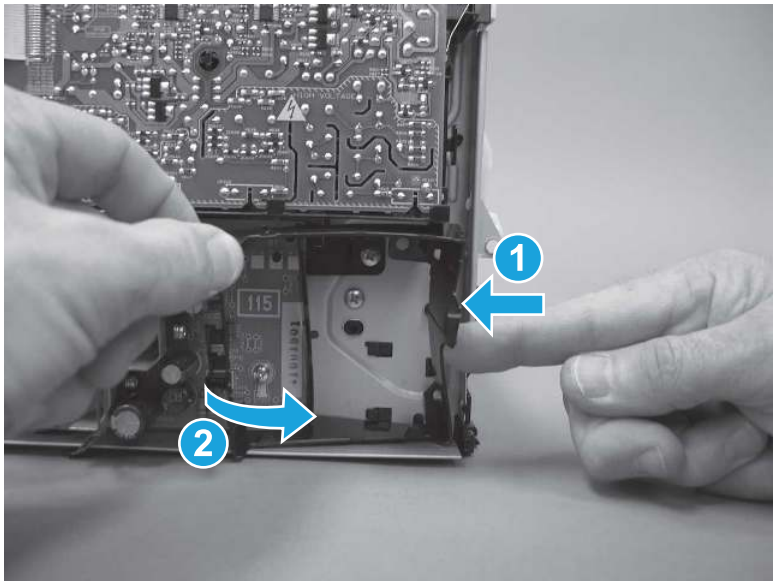
Reinstallation tip: Use a flat blade screwdriver to slightly flex the top of the holder down to make it easier to disengage this tab.

Figure 4-925 Release one tab



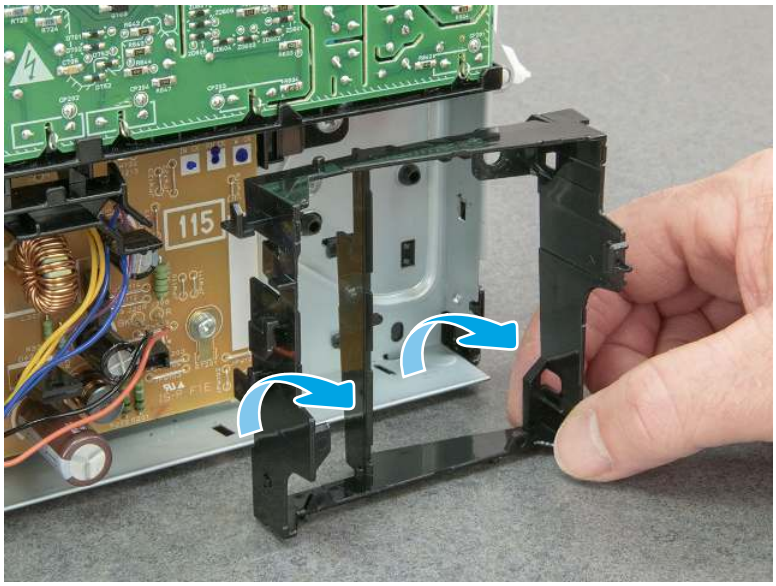
4. Slightly flex the right side of the holder to release one tab (callout 1), and then rotate the top of the holder away from the printer (calout 2).

Figure 4-926 Release one tab



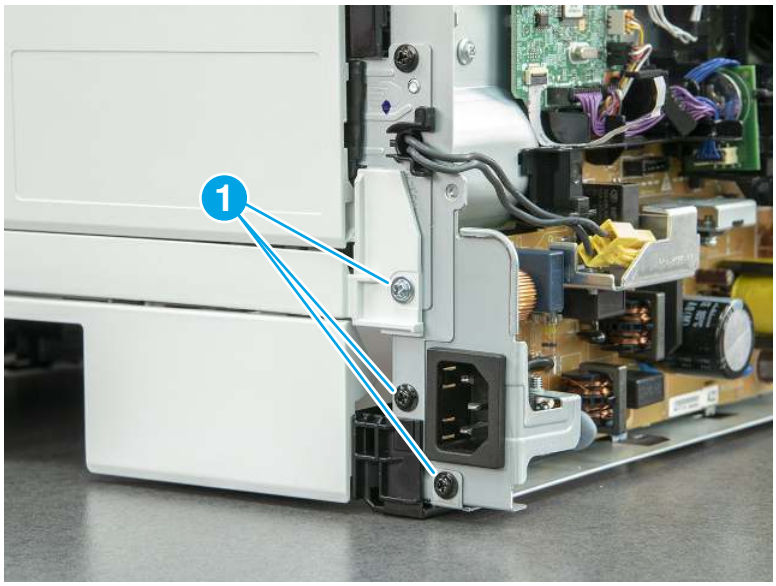
5. Lift the holder up to release two alignment tabs on the bottom of the holder, and then remove the holder.

Figure 4-927 Remove the holder



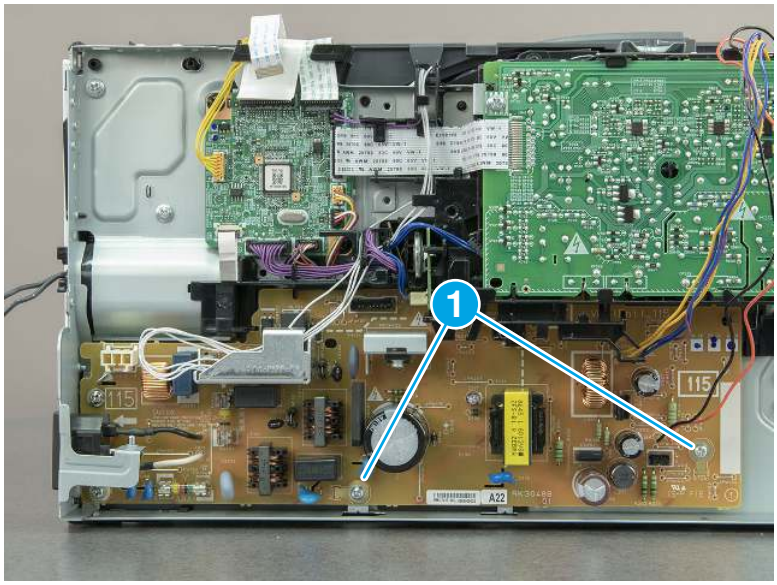
6. Remove three screws (callout 1).

Figure 4-928 **Remove three screws**



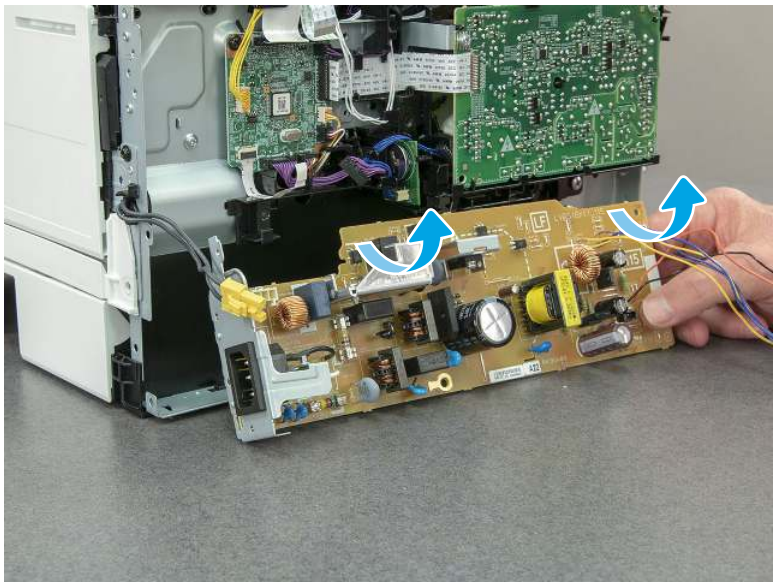
7. Remove two screws (callout 1).

Figure 4-929 **Remove two screws**



8. Rotate the bottom of the LVPS away from the printer, and then remove the LVPS.

Figure 4-930 Remove the LVPS



16. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Control-panel assembly (SFP)

Learn how to remove and replace the control-panel assembly (SPF).

View a video of how to remove and replace the control-panel assembly

Mean time to repair: 19 minutes

Service level: Medium

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-49 Part information

Part number	Part description
RM2-2959-000CN	Control panel kypd/FFC assembly

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-931 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

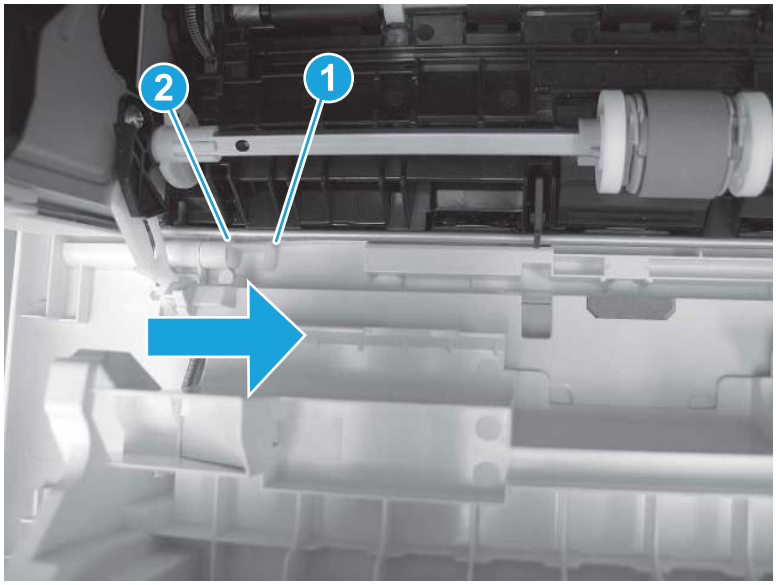
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

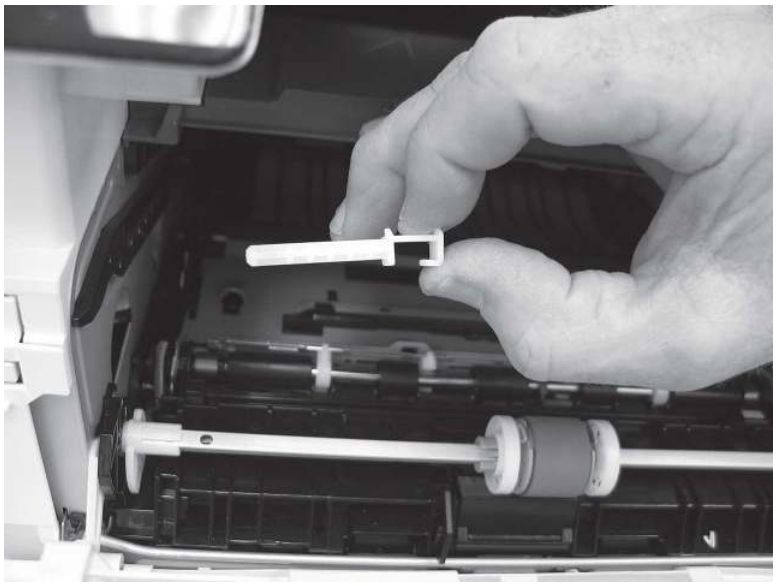
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-932 Release the support shaft



2. Remove the support shaft.

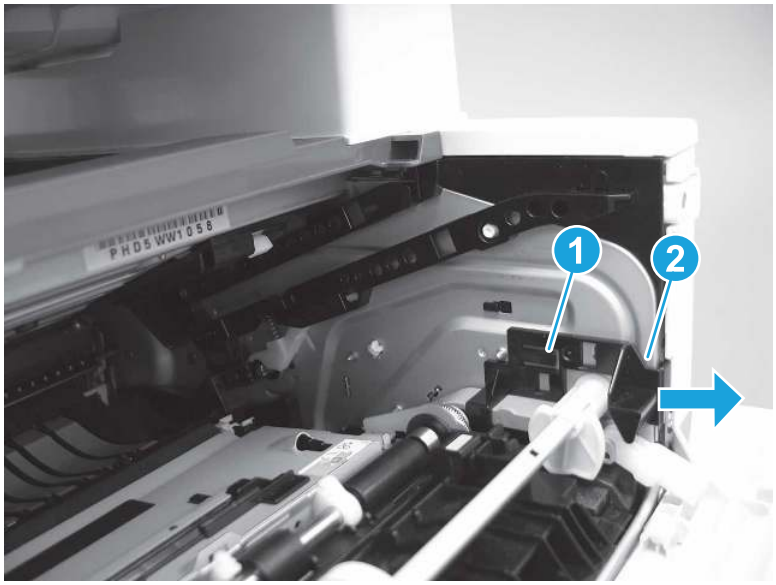
Figure 4-933 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

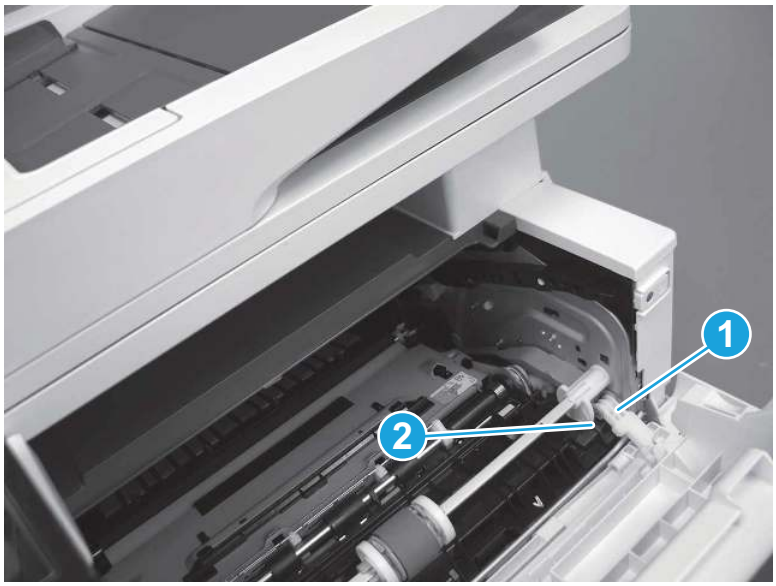
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-934 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-935 Release the pressure-release link

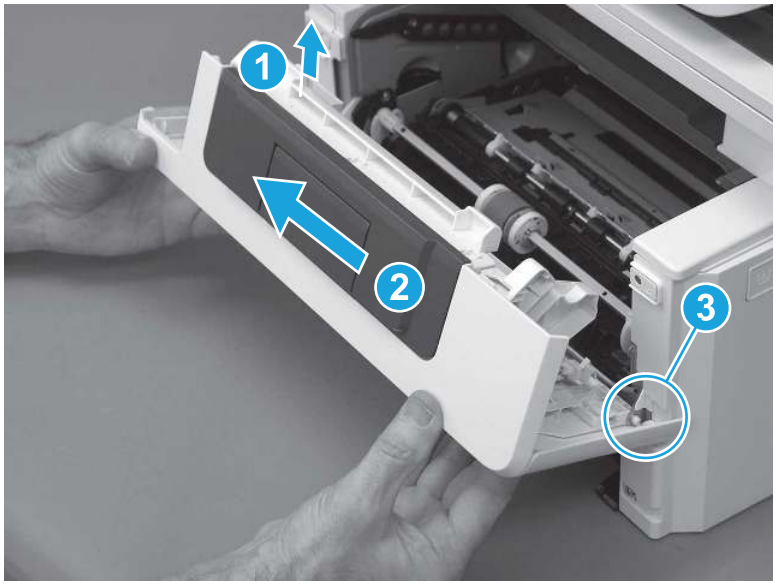


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

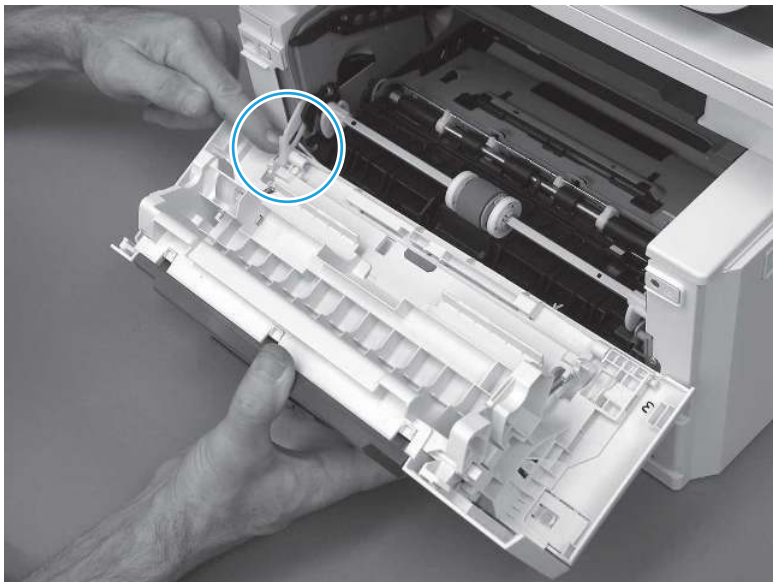
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-936 Release the door



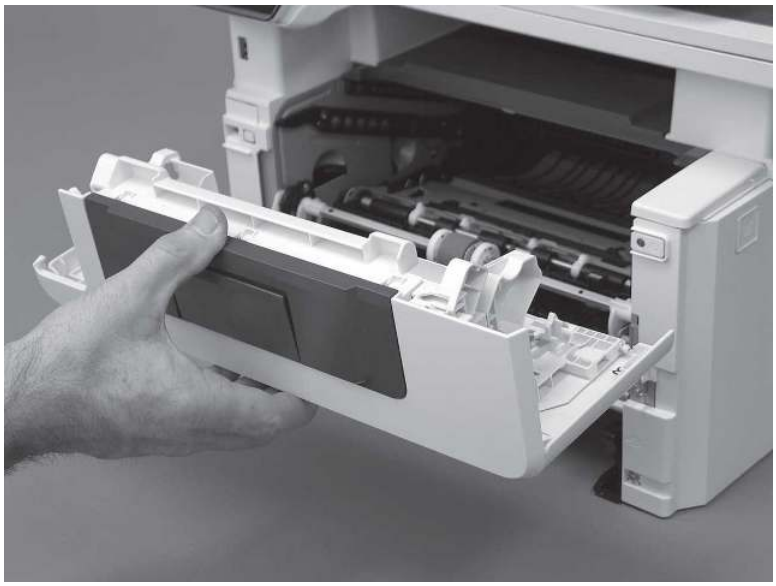
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-937 Release the left-side retainer arm



7. Remove the door.

Figure 4-938 **Remove the door**



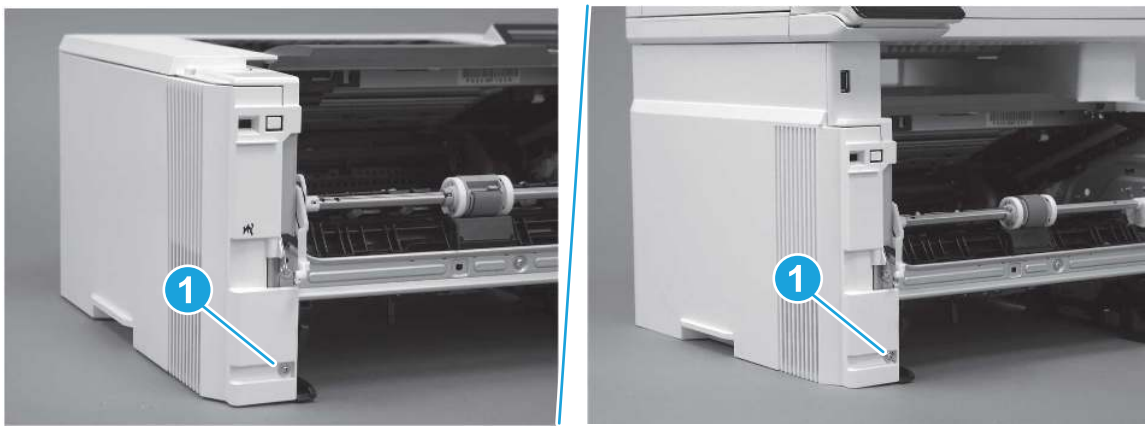
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

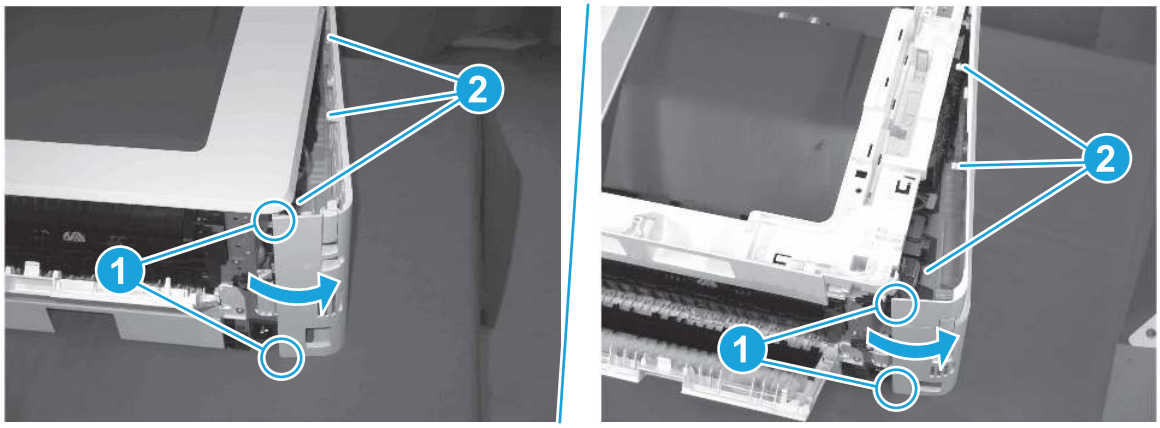
1. Remove one screw (callout 1).

Figure 4-939 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-940 **Release two bosses and three tabs**

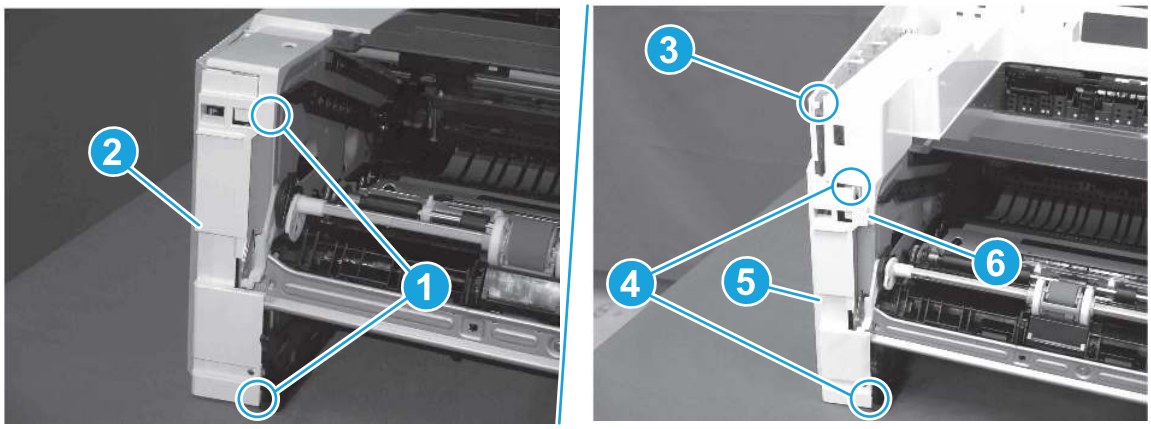


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-941 **Remove the cover**



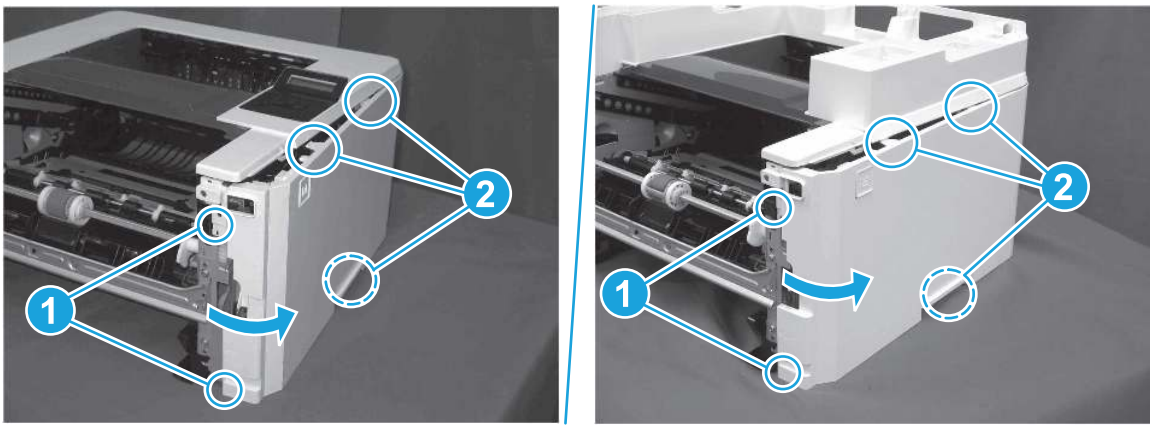
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

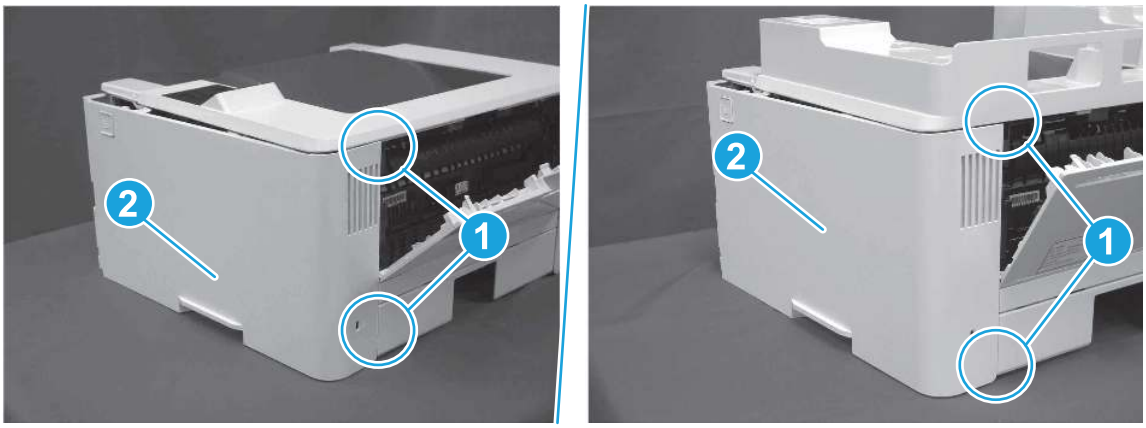
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-942 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-943 Remove the cover



5. Remove the top cover (SFP only)

Follow these steps to remove the top cover (SFP only).

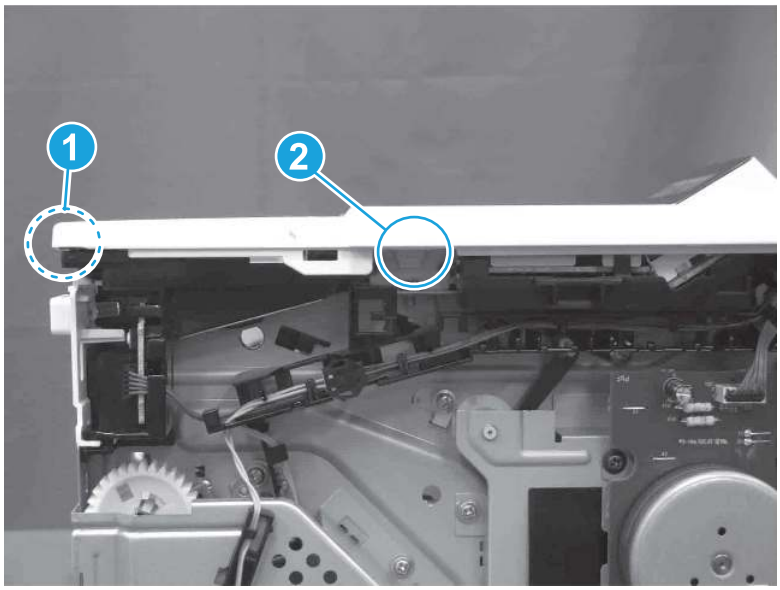
1. Remove one screw.

Figure 4-944 Remove one screw



2. At the right side of the printer, release the one boss (callout 1), and then release one tab (callout 2).

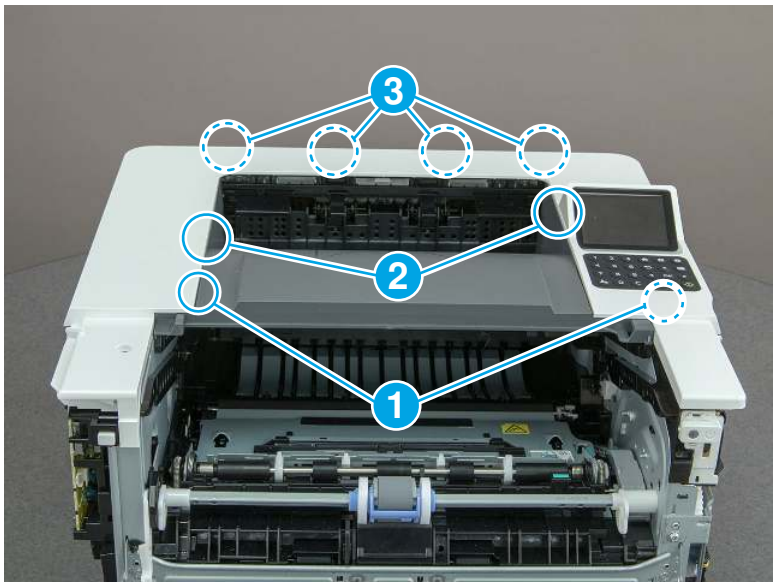
Figure 4-945 Release one boss and one tab



3. Starting at the front of the printer, lift the cover to release two tabs (callout 1), release two tabs along the center of the cover (callout 2), and then release four bosses (callout 3) to remove the top cover.

TIP: Open the rear door to make releasing the bosses (callout 3) easier.

Figure 4-946 Remove the cover

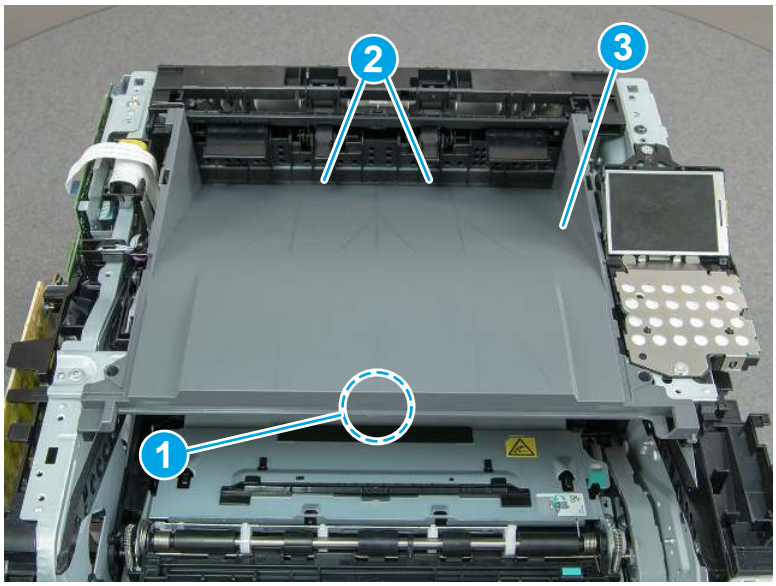


6. Remove the paper delivery tray (output bin)

Follow these steps to remove the paper delivery tray (output bin).

- Release one tab (callout 1), release two bosses (callout 2), and then remove the paper delivery tray (output bin; callout 3).

Figure 4-947 Remove the cover

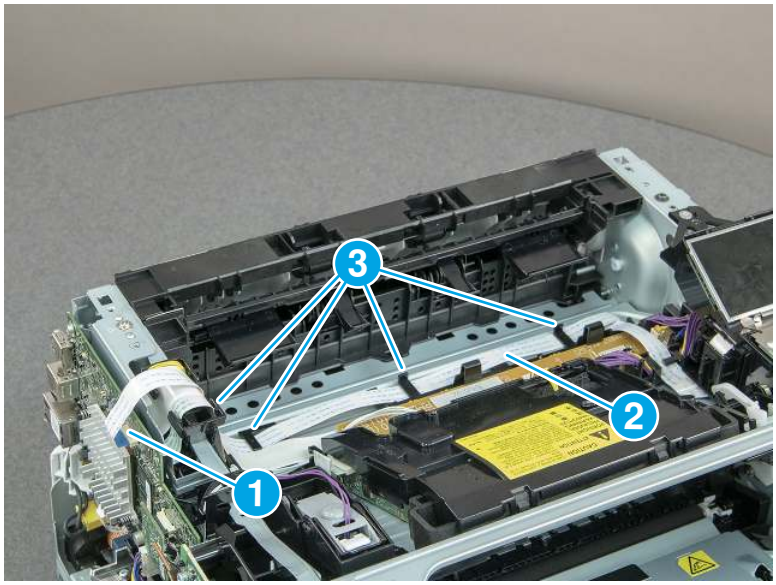


7. Remove the control-panel assembly (SFP)

Follow these steps to remove the control-panel assembly (SFP).

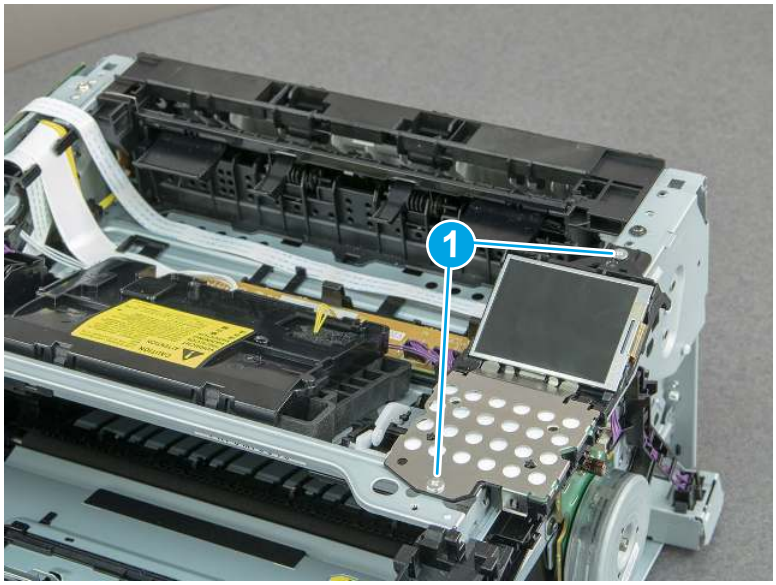
1. Disconnect one FFC (callout 1), and then remove the FFC (callout 2) from the guide (callout 3).

Figure 4-948 **Remove the FFC from the guide**



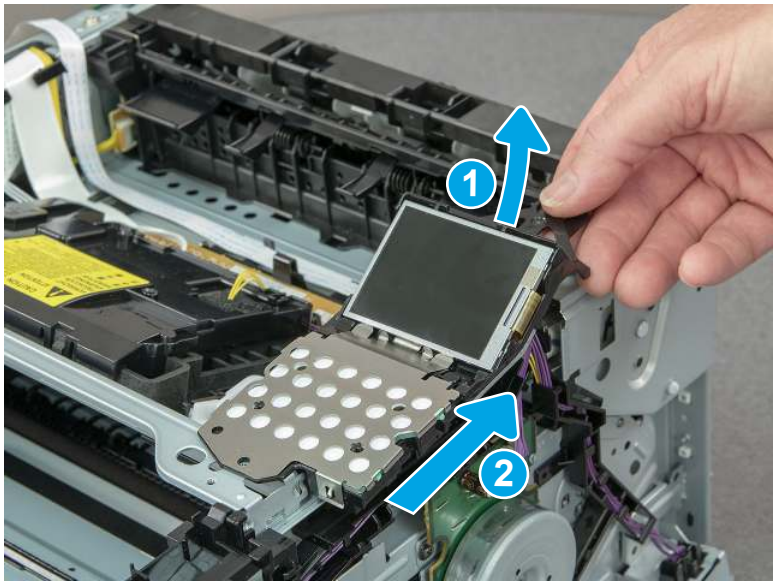
2. Remove two screws (callout 1).

Figure 4-949 **Remove two screws**



3. Lift the back edge of the control panel assembly (callout 1), and then slide it toward the rear of the printer to remove it (callout 2).

Figure 4-950 Remove the control panel assembly



8. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Control panel assembly (MFP) and control panel sub assemblies

Learn how to remove and replace the control panel assembly (MFP).

View a video of how to remove and replace the control-panel assembly.

Mean time to repair: 4 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-50 Part information

Part number	Part description
3PZ55-67901	Control panel assembly

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove the control panel mount cover (MFP only)

Follow these steps to remove the control panel mount cover (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-951 Open the ISA



2. Remove one screw (callout 1).

Figure 4-952 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-953 Release two tabs



4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-954 Remove the cover



5. Remove the control-panel mount cover.

Figure 4-955 **Remove the cover**

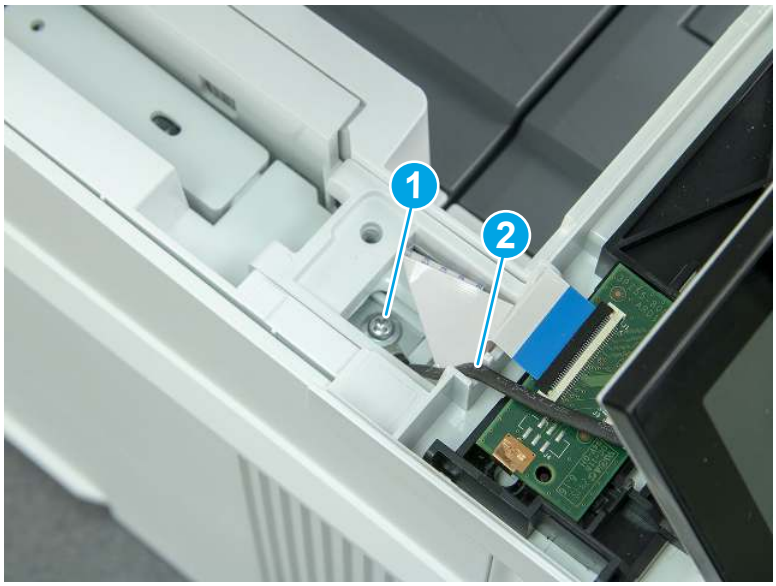


2. Remove the control panel (MFP only)

Follow these steps to remove the control panel (MFP only).

1. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-956 **Remove one screw**



2. Lift the latch to disconnect one FFC (callout 1).

Figure 4-957 Disconnect one flat cable



3. Slide the control panel assembly to the right.

Figure 4-958 Slide the control panel display



4. Rotate the assembly toward the front of the printer, and then remove the assembly.

Figure 4-959 **Remove the control-panel assembly**



3. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

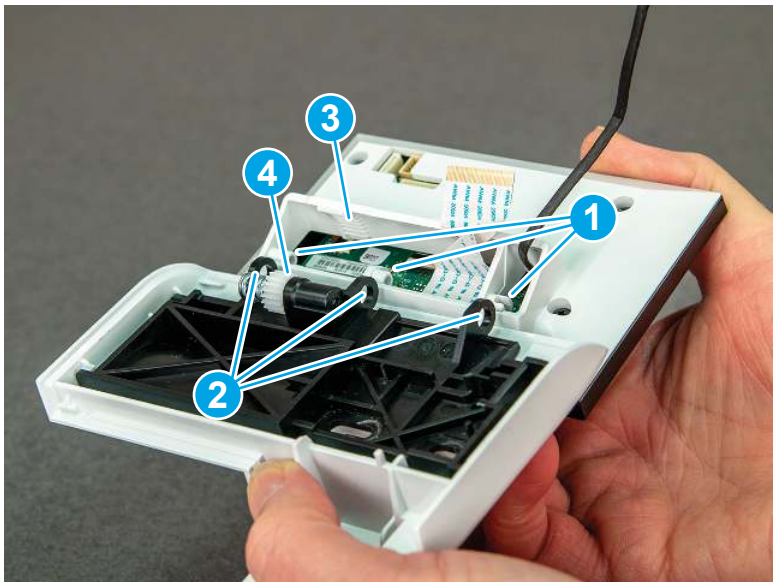
4. Reverse the removal steps to install the assembly

Also use the following**special installation instructions**.

Install the control panel assembly.

- When installing the MFP control panel assembly, align the hinge pins (callout 1) on the assembly with the hinge guides (callout 2) on the control panel base, and then align the grooves (callout 3) on the control panel assembly with the teeth (callout 4) on the gear on the control panel base.

Figure 4-960 **Install the control panel assembly**



Removal and replacement: Control panel interconnect board (MFP)

Learn how to remove and replace the MFP control panel interconnect board (ICB).

View a video of how to remove and replace the control panel ICB.

Mean time to repair: 4 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-51 Part information

Part number	Part description
3PZ55-67903	CP interconnect board and ground clip kit

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove the control panel mount cover (MFP only)

Follow these steps to remove the control panel mount cover (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-961 Open the ISA



2. Remove one screw (callout 1).

Figure 4-962 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-963 Release two tabs



4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-964 Remove the cover



5. Remove the control-panel mount cover.

Figure 4-965 Remove the cover

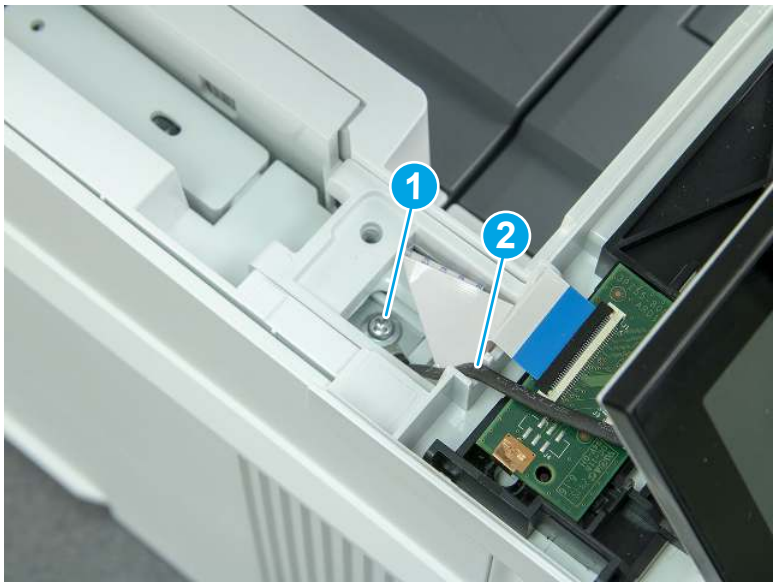


2. Remove the control panel interconnect board (ICB)

Follow these steps to remove the control panel interconnect board (ICB).

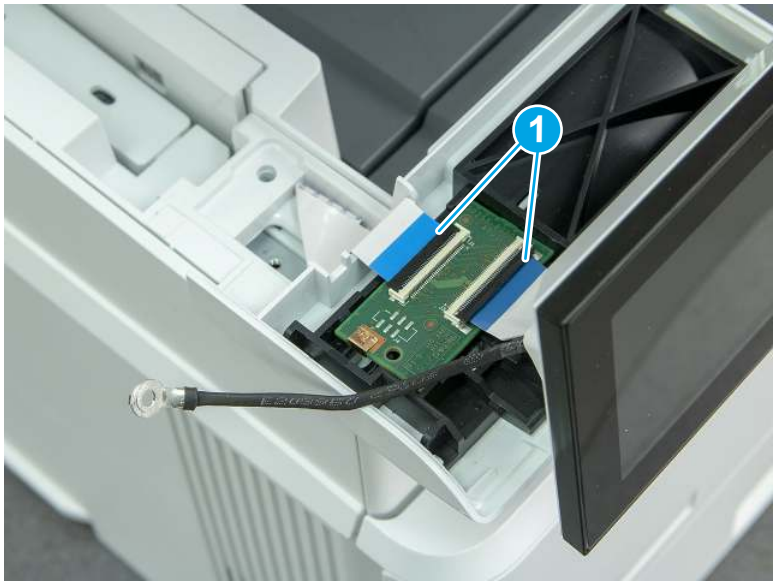
1. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-966 Remove one screw



2. Disconnect two FFC (callout 1).

Figure 4-967 Disconnect two FFC



3. Release one tab (callout 1), and then remove the ICB.

Figure 4-968 **Remove the ICB**



3. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

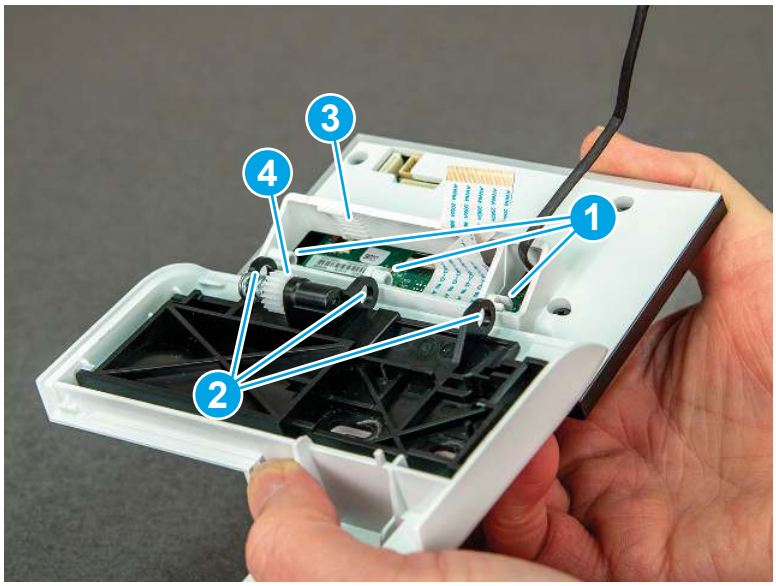
4. Reverse the removal steps to install the assembly

Also use the following**special installation instructions**.

Install the control panel assembly.

- When installing the MFP control panel assembly, align the hinge pins (callout 1) on the assembly with the hinge guides (callout 2) on the control panel base, and then align the grooves (callout 3) on the control panel assembly with the teeth (callout 4) on the gear on the control panel base.

Figure 4-969 **Install the control panel assembly**



Removal and replacement: Control panel mount base and interconnect board chassis (MFP)

Learn how to remove and replace the MFP control panel mount base and the interconnect board (ICB) chassis mount.

View a video of how to remove and replace the control panel mount base and the ICB chassis mount.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-52 Part information

Part number	Part description
3PZ55-67904	Control panel ICB chassis mount
3PZ55-67984	Control panel mount base

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove the control panel mount cover (MFP only)

Follow these steps to remove the control panel mount cover (MFP only).

1. Open the integrated scanner assembly (ISA).

> **NOTE:** If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-970 Open the ISA



2. Remove one screw (callout 1).

Figure 4-971 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-972 **Release two tabs**



4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-973 **Remove the cover**



5. Remove the control-panel mount cover.

Figure 4-974 Remove the cover

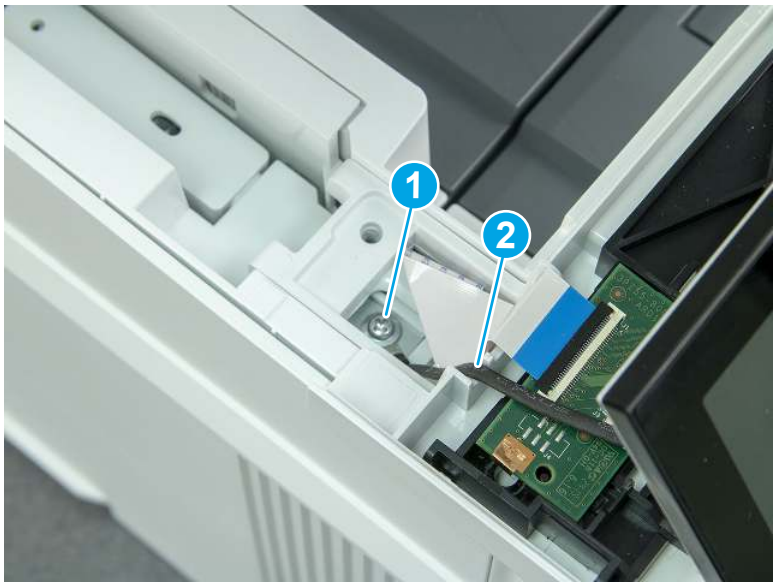


2. Remove the control panel (MFP only)

Follow these steps to remove the control panel (MFP only).

1. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-975 Remove one screw



2. Lift the latch to disconnect one FFC (callout 1).

Figure 4-976 **Disconnect one flat cable**



3. Slide the control panel assembly to the right.

Figure 4-977 **Slide the control panel display**



4. Rotate the assembly toward the front of the printer, and then remove the assembly.

Figure 4-978 Remove the control-panel assembly

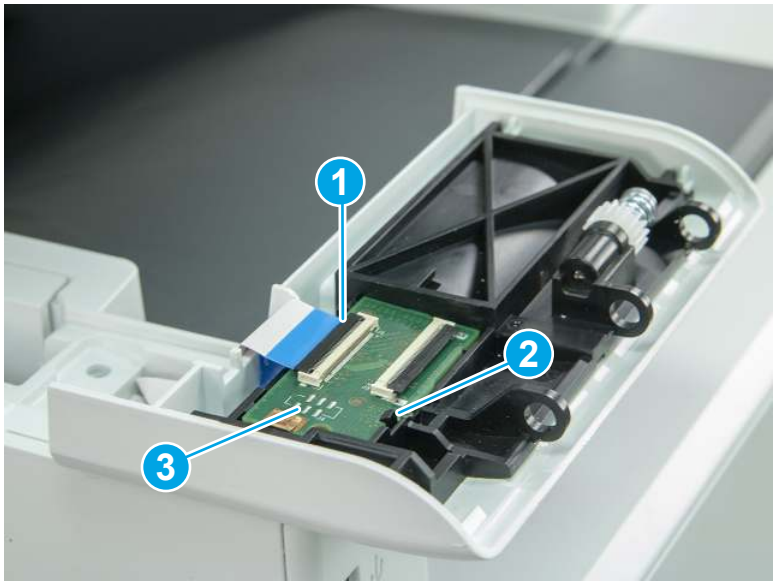


3. Remove the control panel mount base (MFP only)

Follow these steps to remove the control panel mount base (MFP only).

1. Release one connector (callout 1), release one tab (callout 2), and then remove the interconnect board (ICB) (callout 3).

Figure 4-979 Remove the ICB



2. Remove two screws (callout 1).

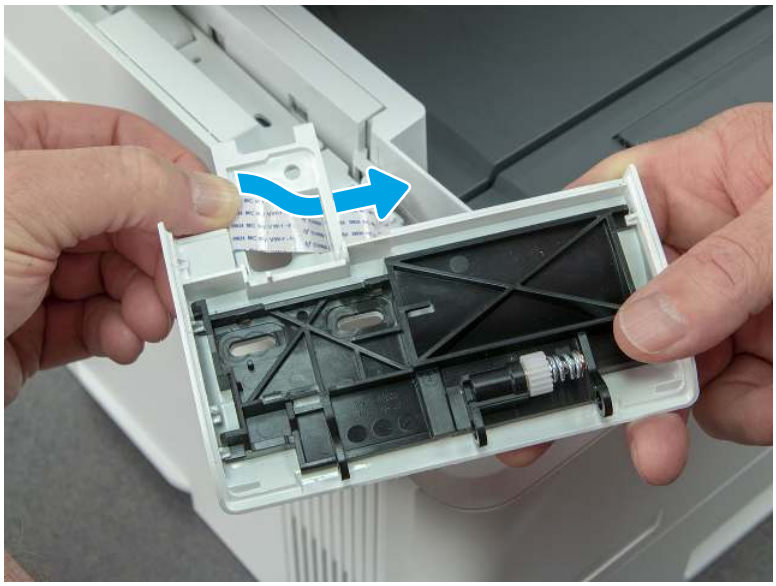
Figure 4-980 Remove two screws



3. Lift the control panel mount base to remove it.

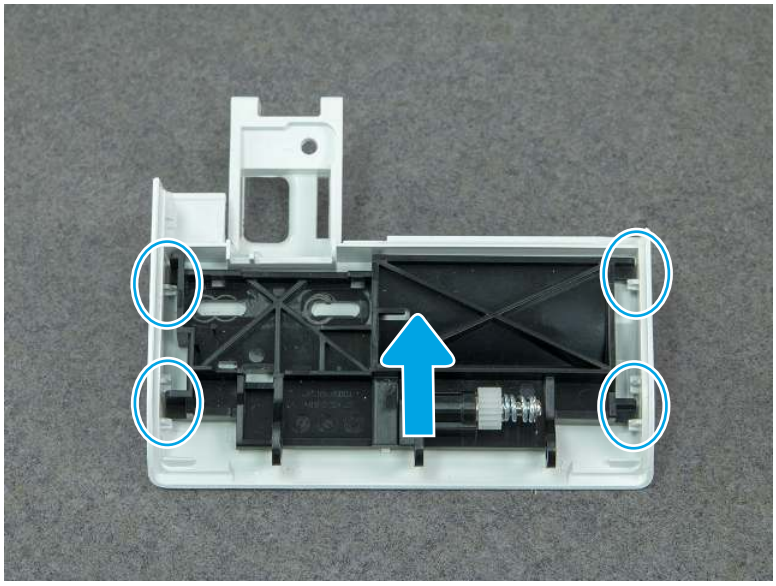
⚠ CAUTION: Carefully unfold the flat cables and release them through the opening in the mount base.

Figure 4-981 Remove control panel mount base



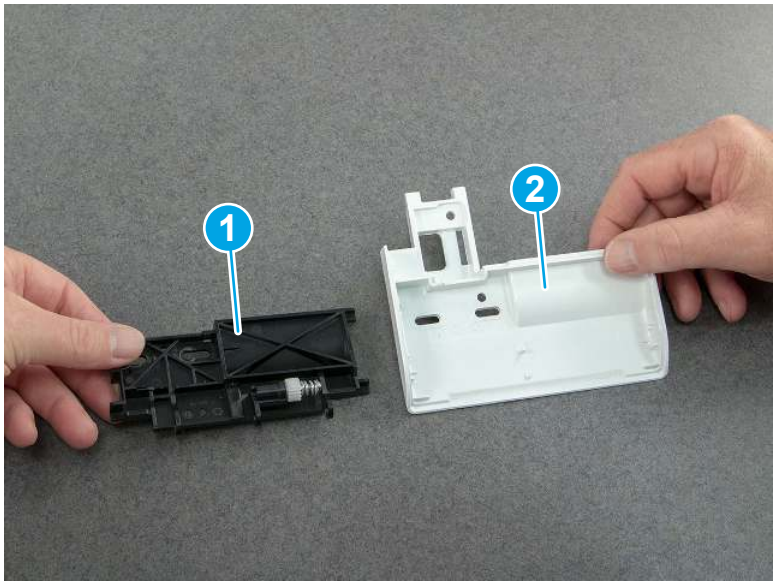
4. Slide the chassis mount assembly toward the back of the control panel base to release it from four bosses.

Figure 4-982 Release the chassis mount assembly



5. Separate the chassis mount assembly (callout 1) from the mount base (callout 2).

Figure 4-983 Remove the chassis mount assembly



4. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: 

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

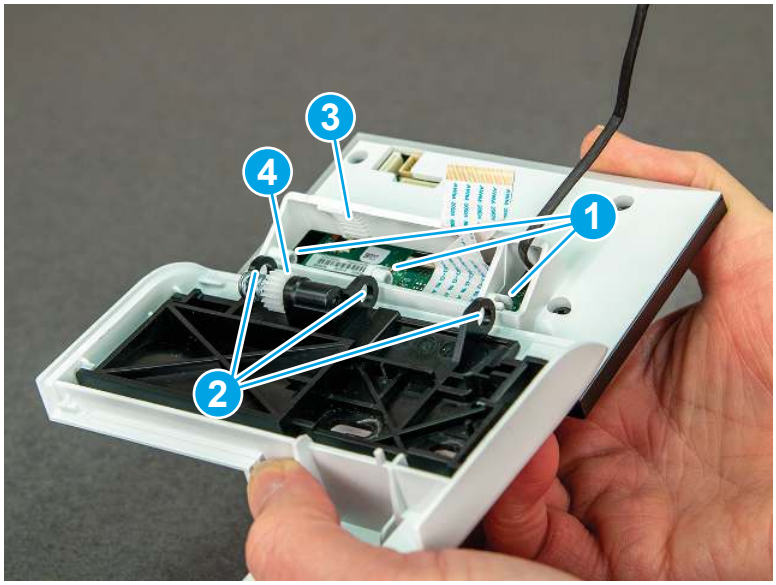
5. Reverse the removal steps to install the assembly

Also use the following**special installation instructions**.

Install the control panel assembly.

- When installing the MFP control panel assembly, align the hinge pins (callout 1) on the assembly with the hinge guides (callout 2) on the control panel base, and then align the grooves (callout 3) on the control panel assembly with the teeth (callout 4) on the gear on the control panel base.

Figure 4-984 Install the control panel assembly



Removal and replacement: Control panel cable and cable cover (MFP)

Learn how to remove and replace the MFP control panel cable and cover.

View a video of how to remove and replace the control panel cable and cover.

Mean time to repair: 19 minutes

Service level: Medium

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-53 Part information

Part number	Part description
3PZ55-67910	Cable, flexible flat control panel to frmtr
3PZ55-67905	Cover, control-panel FFC

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-985 **Remove the tray**



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

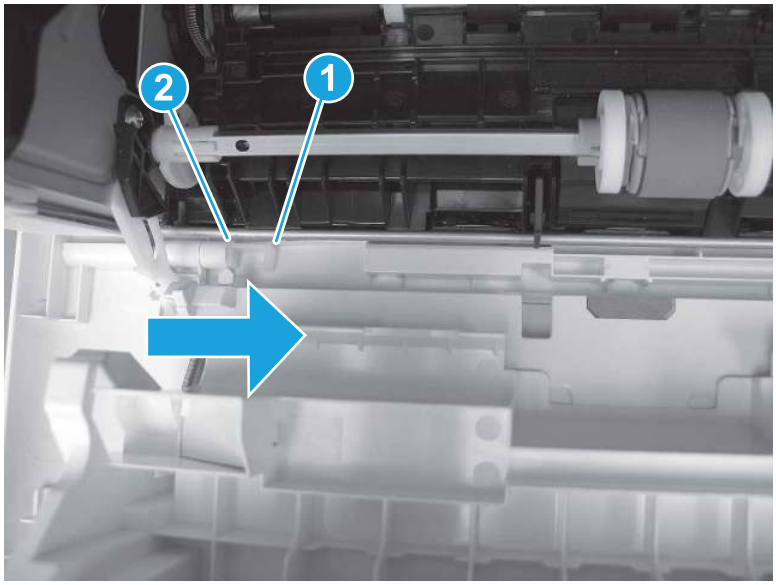
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

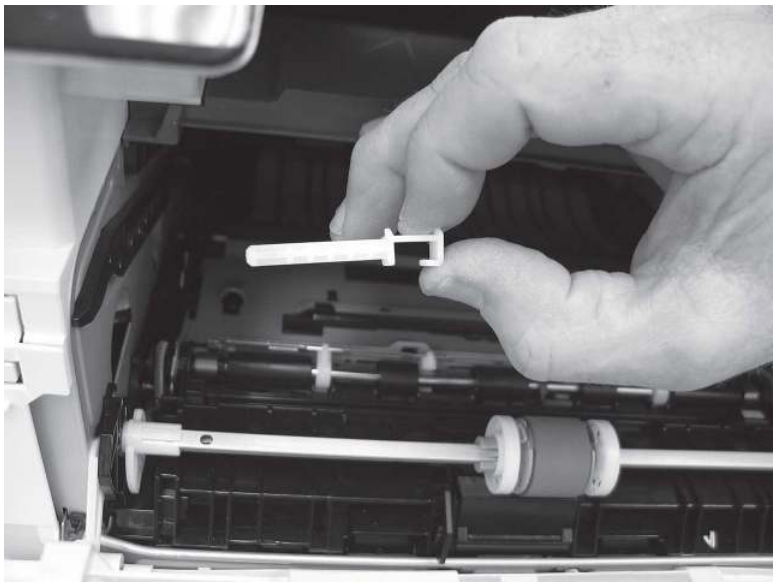
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-986 Release the support shaft



2. Remove the support shaft.

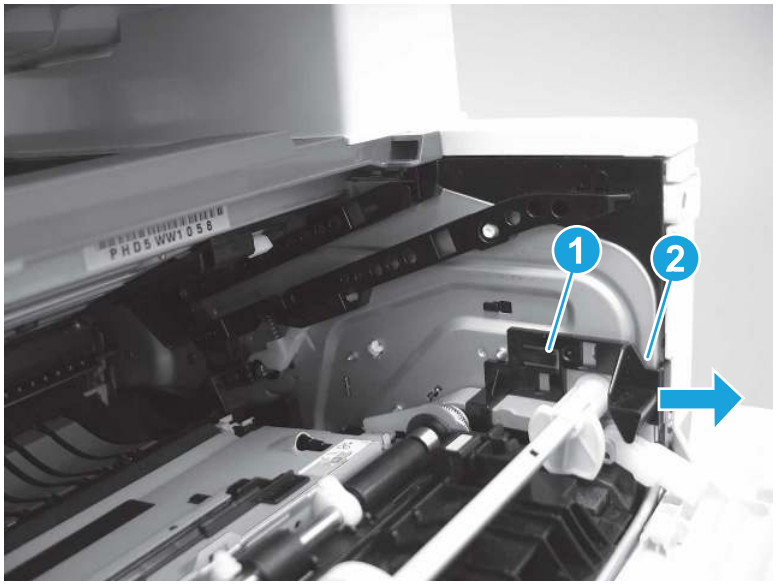
Figure 4-987 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

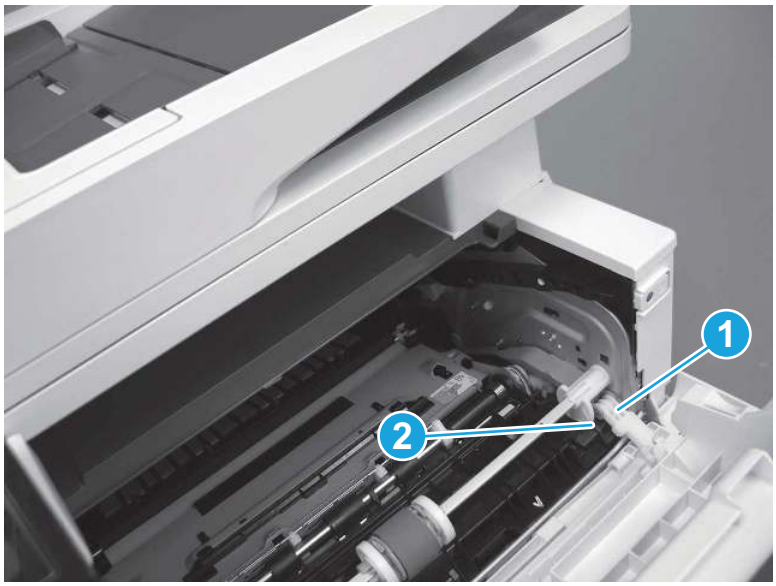
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-988 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-989 Release the pressure-release link

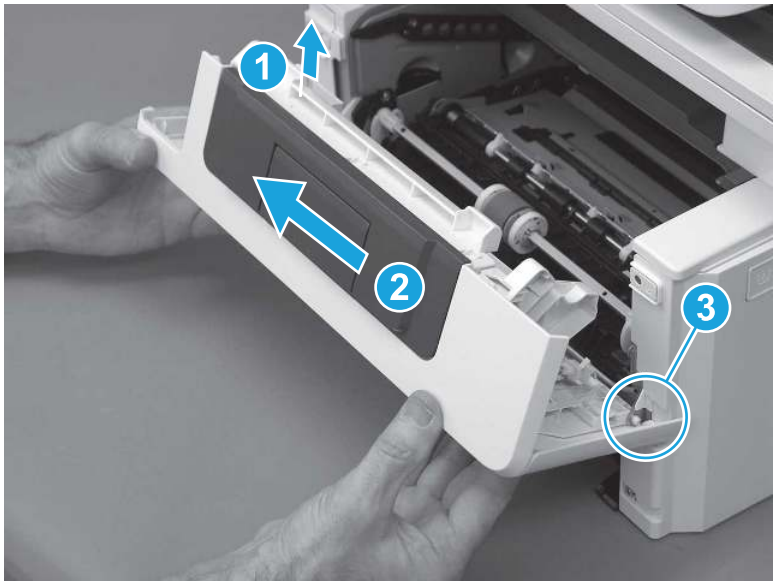


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

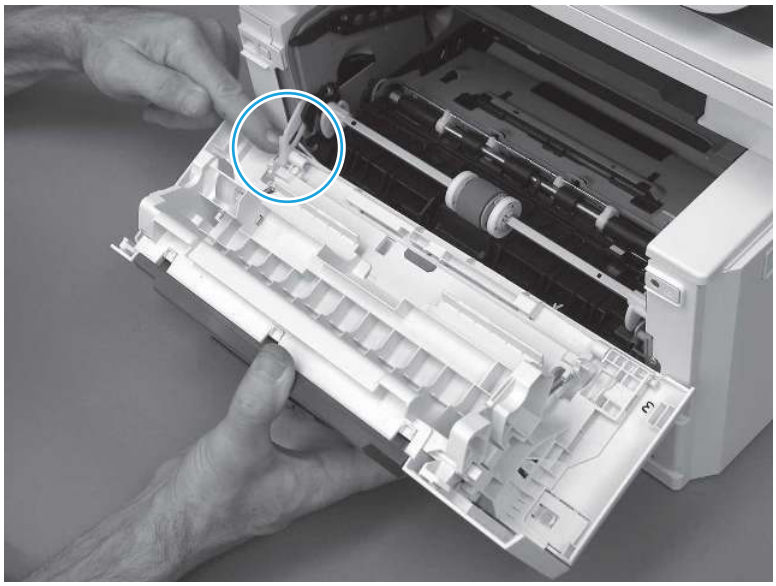
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-990 Release the door



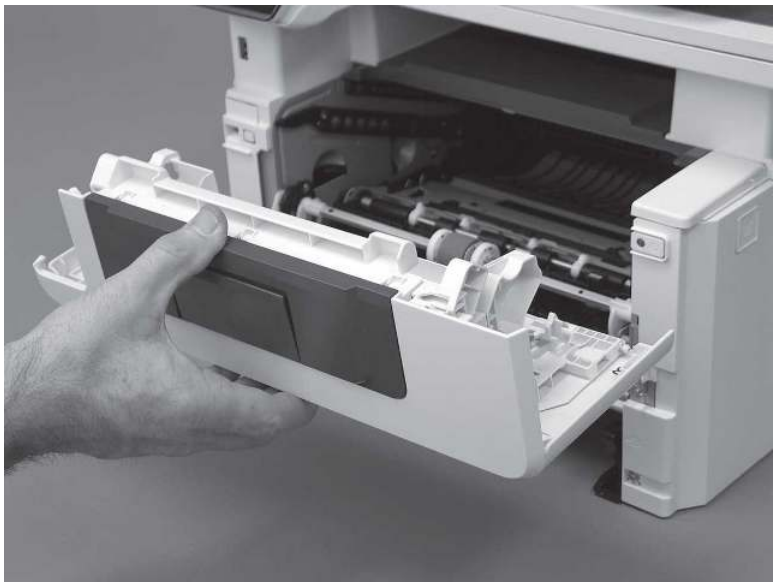
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-991 Release the left-side retainer arm



7. Remove the door.

Figure 4-992 **Remove the door**



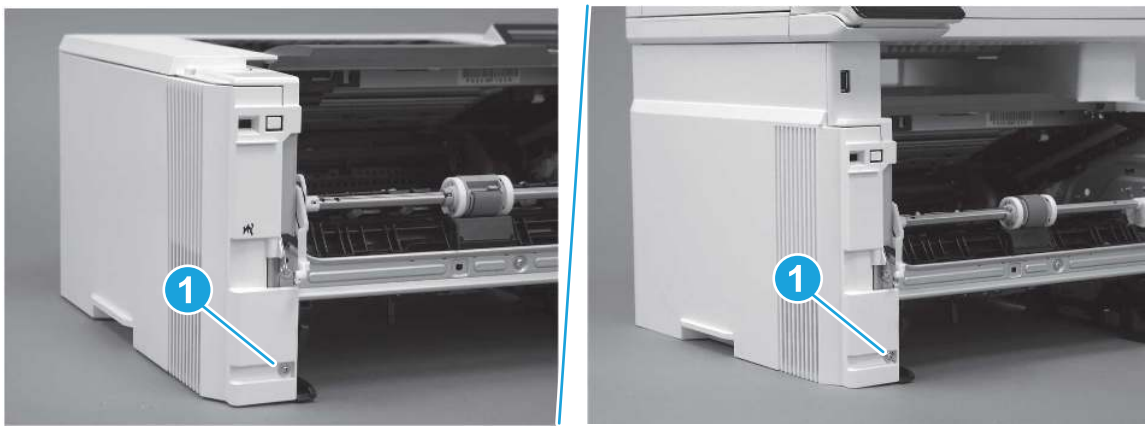
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

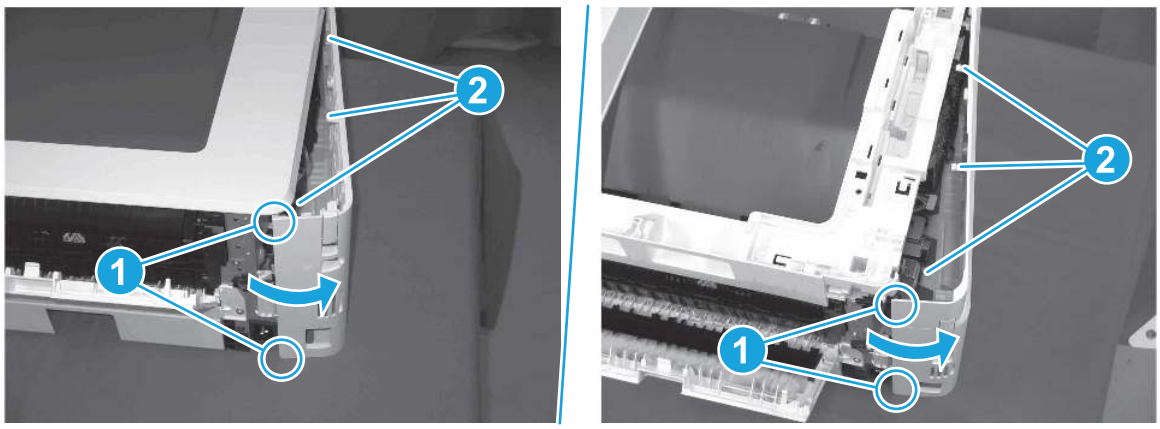
1. Remove one screw (callout 1).

Figure 4-993 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-994 Release two bosses and three tabs

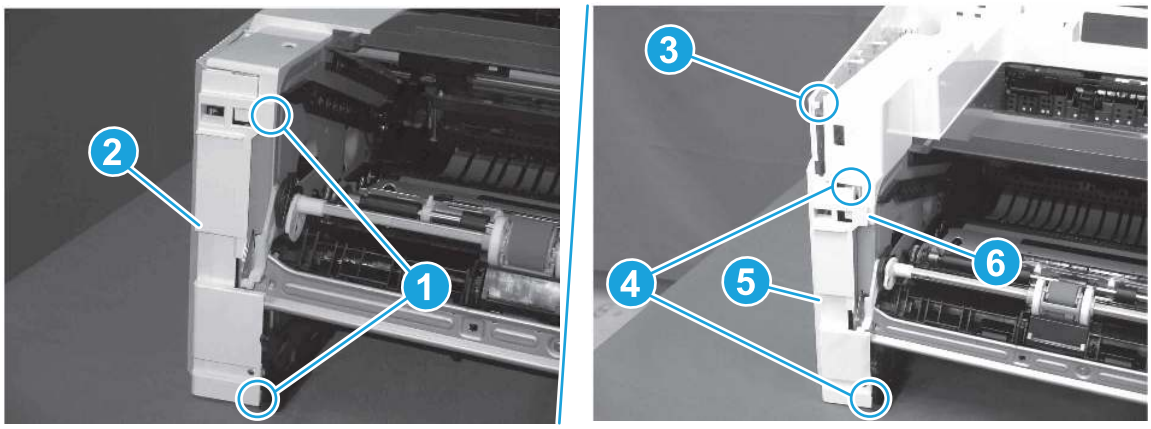


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ CAUTION: Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-995 Remove the cover



4. Remove the control panel display and mount base (MFP only)

Follow these steps to remove the control panel display and mount base (MFP only).

1. Open the integrated scanner assembly (ISA).

NOTE: The ISA might already have been removed. If so, skip ISA related steps.

If the control panel is not fully tilted forward, tilt it forward now until it stops.

Figure 4-996 Open the ISA



2. Remove one screw (callout 1).

Figure 4-997 Remove one screw



3. Use a small flat-blade screwdriver to release two tabs (callout 1) on the control-panel mount cover.

Figure 4-998 Release two tabs



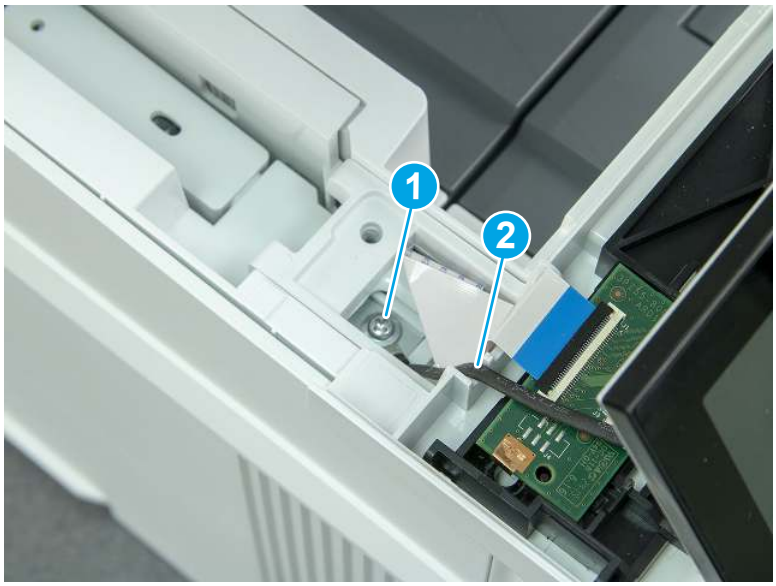
4. Rotate the control-panel mount cover up towards the control panel to release it, and then remove the cover.

Figure 4-999 Remove the cover



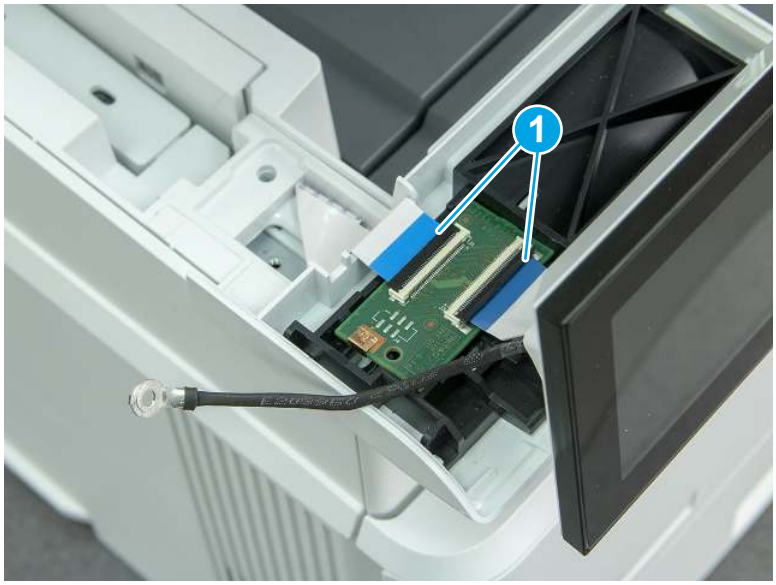
5. Remove one grounding screw (callout 1), and then move the ground cable (callout 2) out of the way.

Figure 4-1000 **Remove one screw**



6. Disconnect two FFC (callout 1).

Figure 4-1001 **Disconnect two FFC**



7. Release one tab (callout 1), and then remove the interconnect board (ICB).

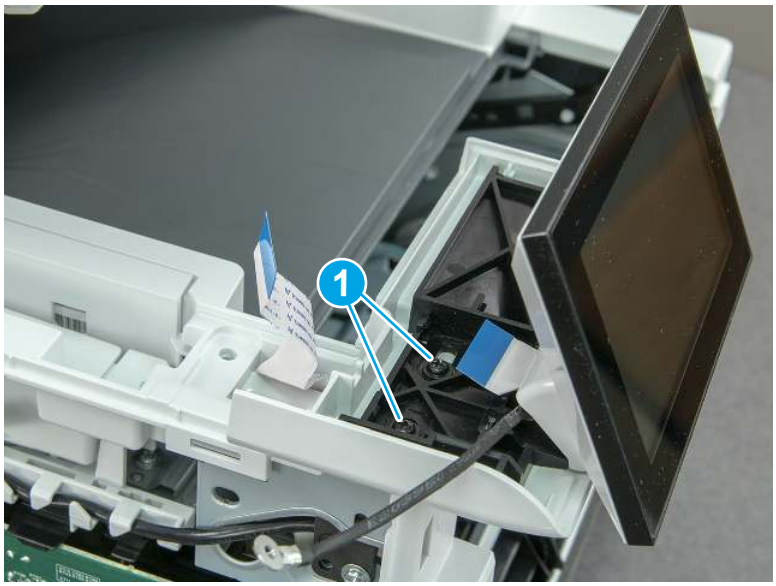
Figure 4-1002 Remove the ICB



8. Remove two screws (callout 1), and then lift the control panel display and mount base together to remove them.

⚠ CAUTION: Carefully unfold the FFC and release it through the opening in the mount base.

Figure 4-1003 Remove two screws and remove the control panel assembly

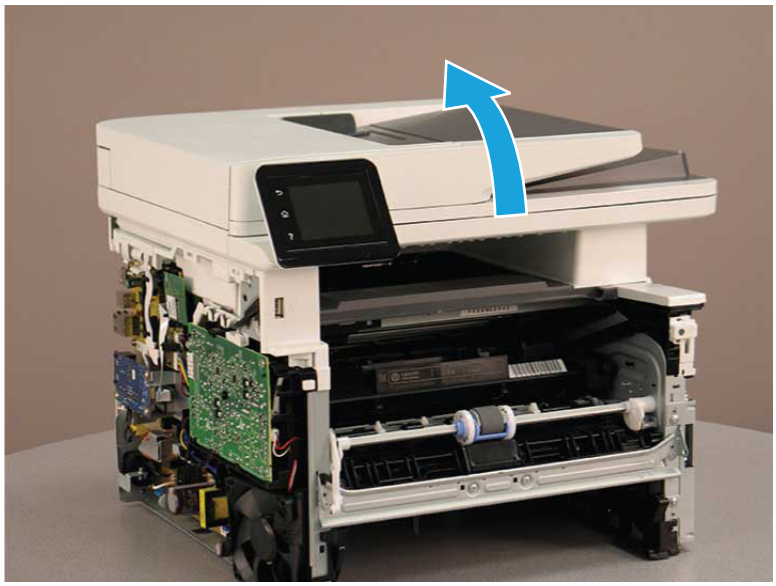


5. Remove the integrated scanner assembly (ISA) FFC cover (MFP only)

Follow these steps to remove the integrated scanner assembly (ISA) FFC cover (MFP only).

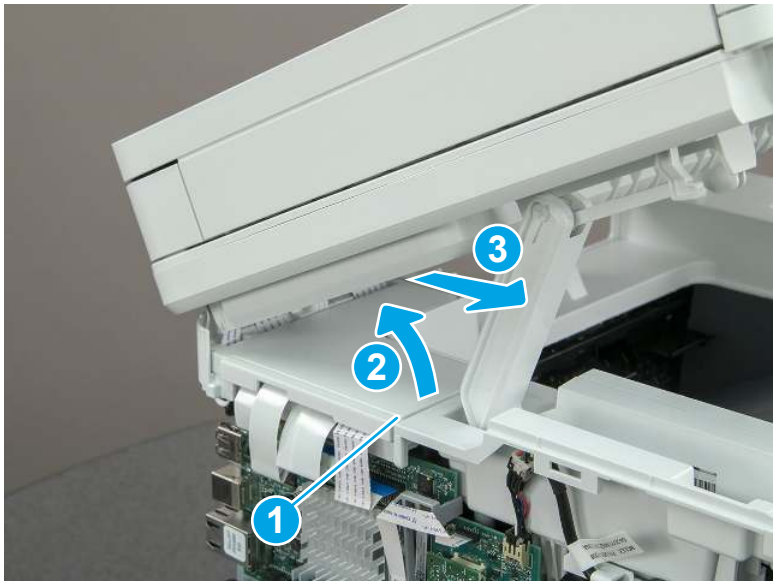
1. If the ISA is not already raised, raise it now.

Figure 4-1004 Raise the ISA



2. Release the tab (callout 1), rotate the front edge of the cover up (callout 2), and then slide it toward the front of the printer to remove it (callout 3).

Figure 4-1005 Remove the ISA FFC cover

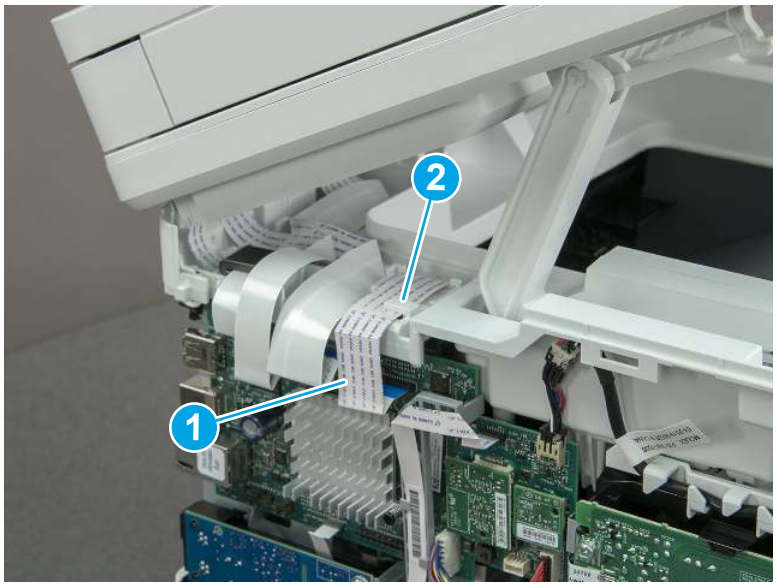


6. Remove the control panel flat cable and cover (MFP only)

Follow these steps to remove the control panel flat cable and cover (MFP only).

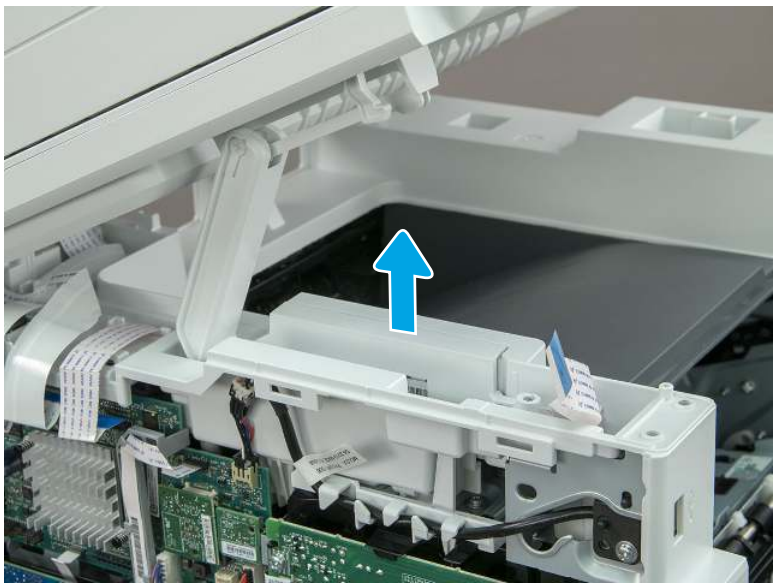
1. Disconnect one FFC (callout 1), and then release the cable from the guides (callout 2).

Figure 4-1006 **Disconnect one cable**



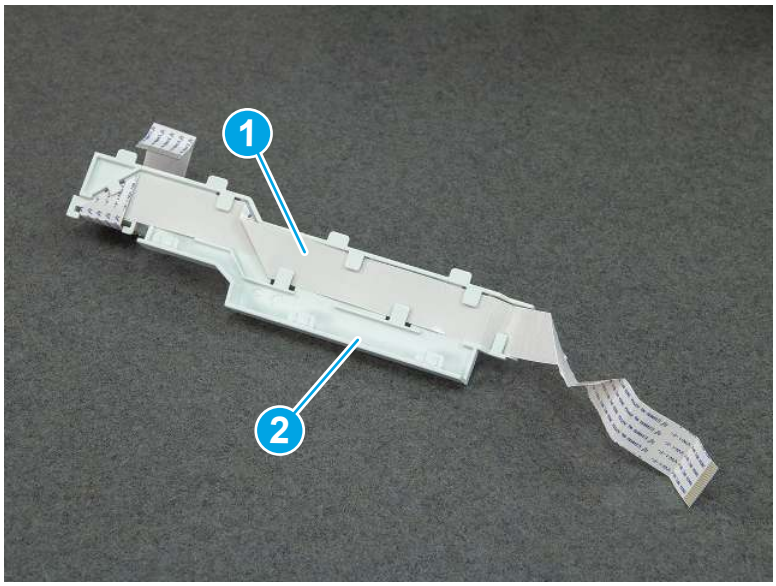
2. Lift up the control-panel FFC cover to remove the cover and cable.

Figure 4-1007 **Remove the cover and cable**



3. If you are replacing the FFC or the cover, remove the FFC (callout 1) from the cover (callout 2).

Figure 4-1008 **Remove the FFC**



7. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

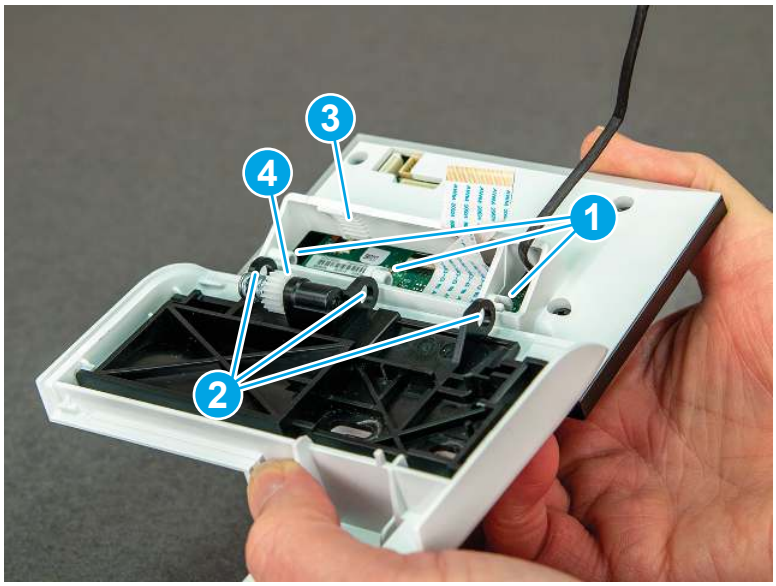
8. Reverse the removal steps to install the assembly

Also use the following**special installation instructions**.

Install the control panel assembly.

- When installing the MFP control panel assembly, align the hinge pins (callout 1) on the assembly with the hinge guides (callout 2) on the control panel base, and then align the grooves (callout 3) on the control panel assembly with the teeth (callout 4) on the gear on the control panel base.

Figure 4-1009 **Install the control panel assembly**



Removal and replacement: RM2-5375-000CN Tray 2 sensor assembly

Learn how to remove and replace the Tray 2 sensor assembly.

View a video of how to remove and replace the Tray 2 sensor assembly.

Mean time to repair: 22 minutes

Service level: Medium

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-54 Part information

Part number	Part description
RM2-5375-000CN	Tray 2 sensor assembly

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that toner toner-cartridge door correctly opens and closes.

Make sure that the printer initializes to a **Ready** state.

1. Remove Tray 2

Follow these steps to remove Tray 2.

- Pull the tray straight out of the printer to remove it.

Figure 4-1010 Remove the tray



2. Remove the cartridge door assembly

Follow these steps to remove the cartridge door assembly.

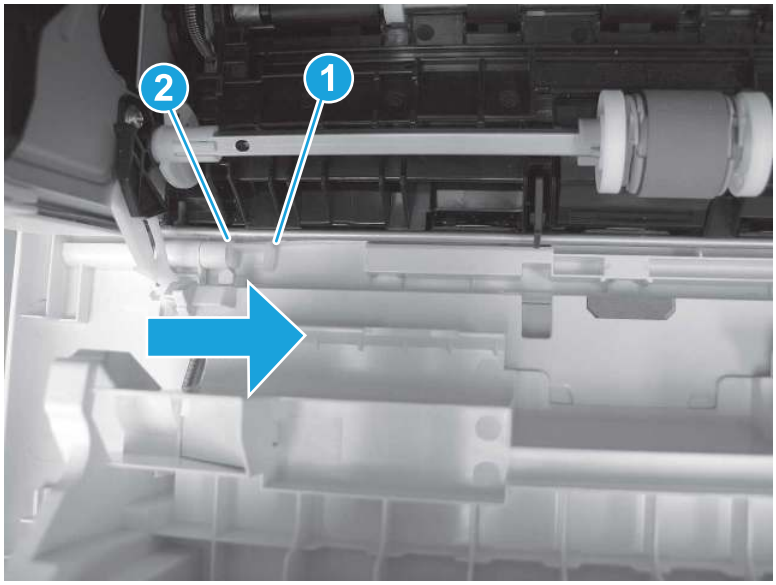
NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

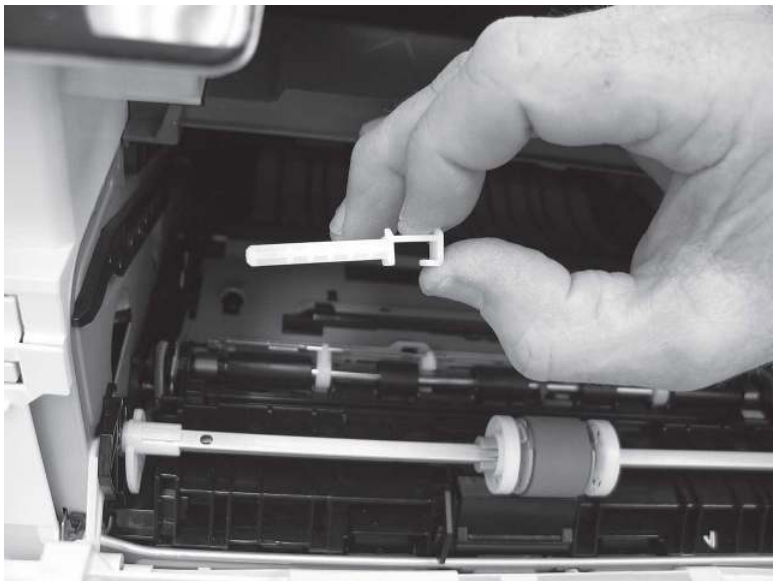
Reinstallation tip: Make sure that the support shaft is fully installed and correctly orientated so that it does not interfere with the door opening and closing.

Figure 4-1011 **Release the support shaft**



2. Remove the support shaft.

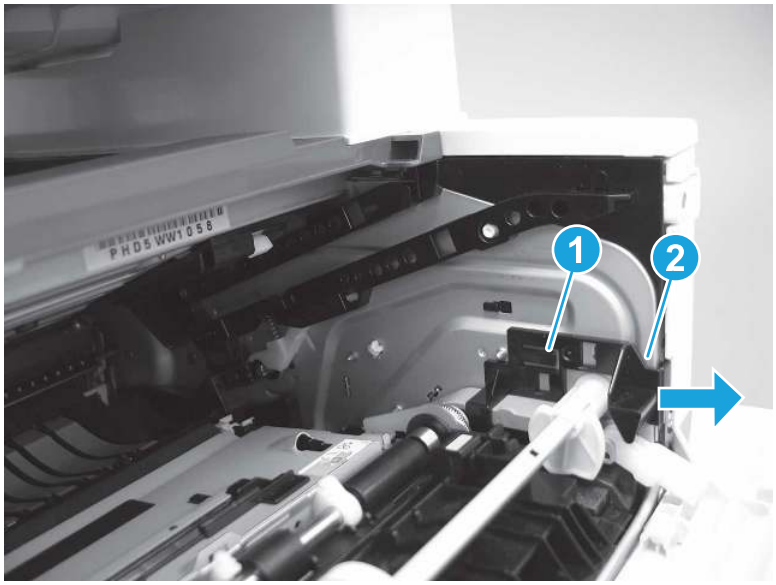
Figure 4-1012 **Remove the support shaft**



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

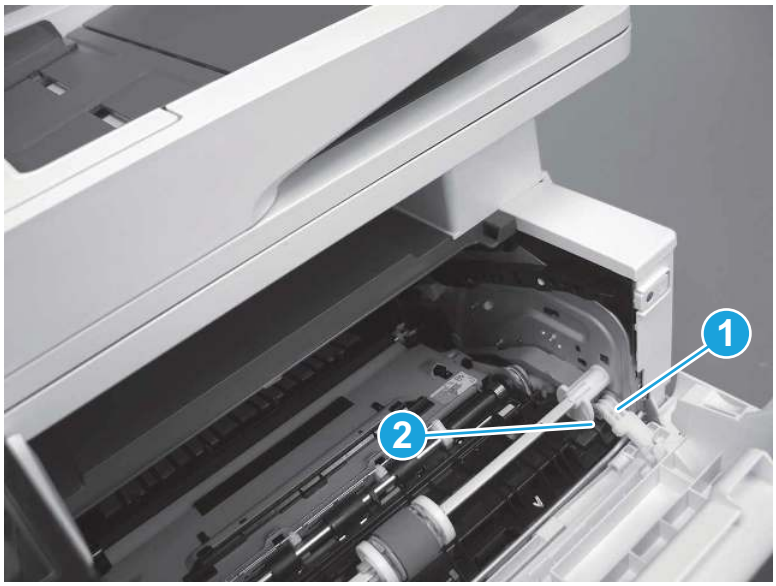
⚠ **CAUTION:** Be careful, the tab (callout 1) can be easily broken.

Figure 4-1013 **Remove the guide**



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-1014 **Release the pressure-release link**

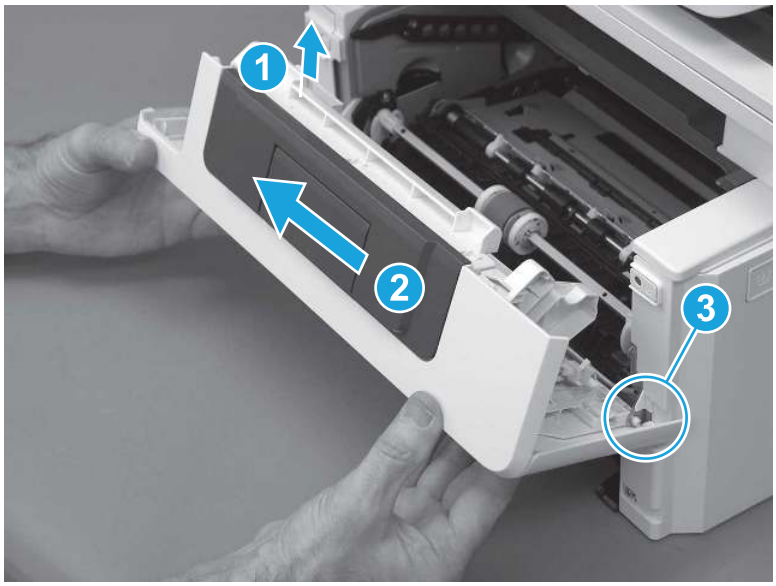


5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ **CAUTION:** The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

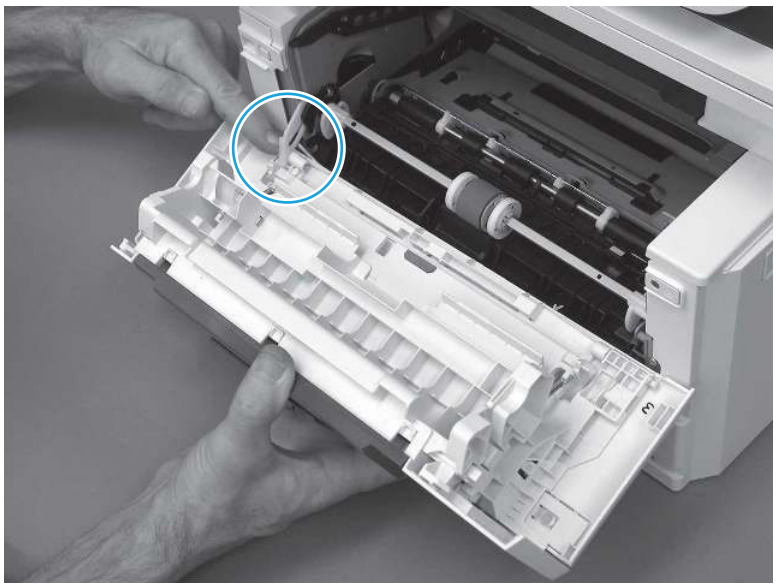
Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3). Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-1015 Release the door



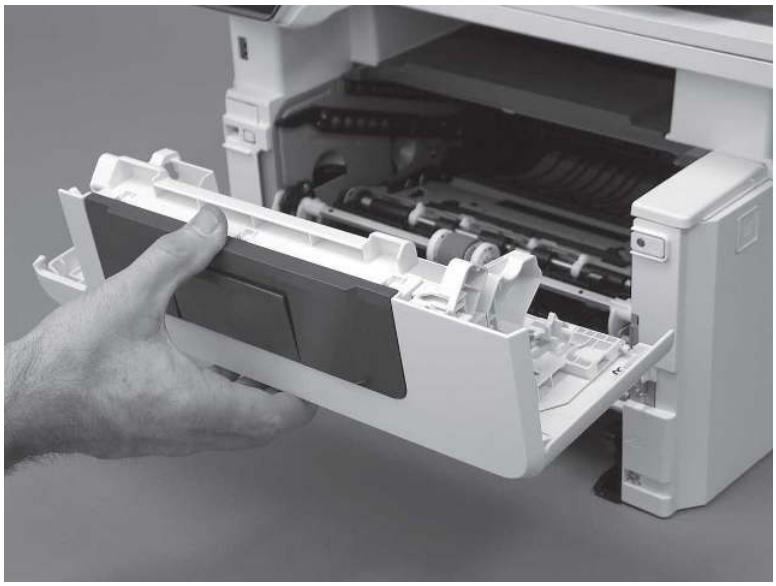
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-1016 Release the left-side retainer arm



7. Remove the door.

Figure 4-1017 **Remove the door**



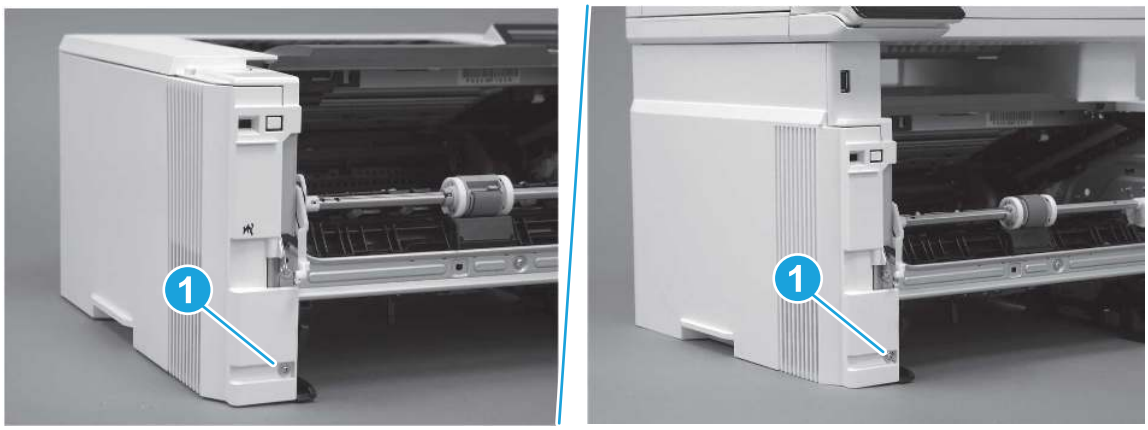
3. Remove the left cover

Follow these steps to remove the left cover.

NOTE: If installed, the rear USB cover and network cover must be removed.

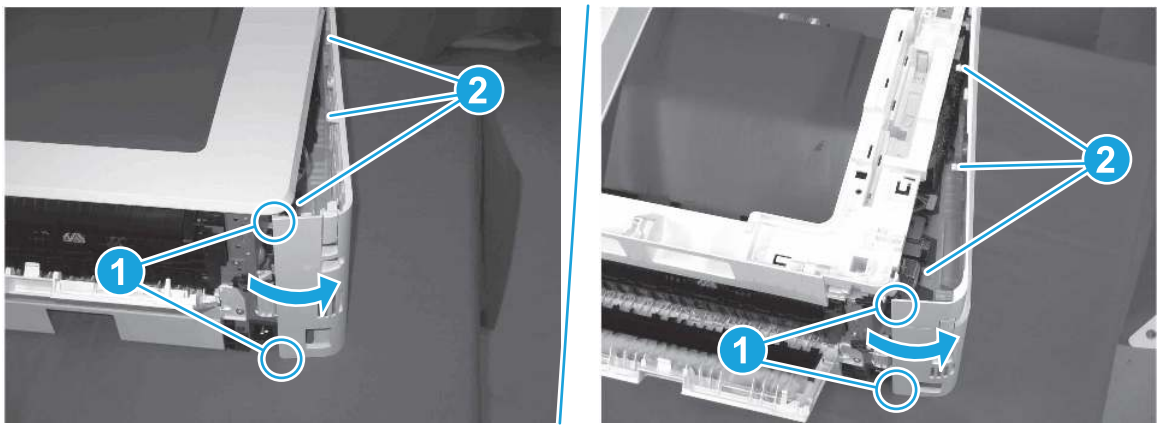
1. Remove one screw (callout 1).

Figure 4-1018 **Remove one screw**



2. Open the rear door, release two bosses (callout 1), and then release three tabs (callout 2).

Figure 4-1019 **Release two bosses and three tabs**

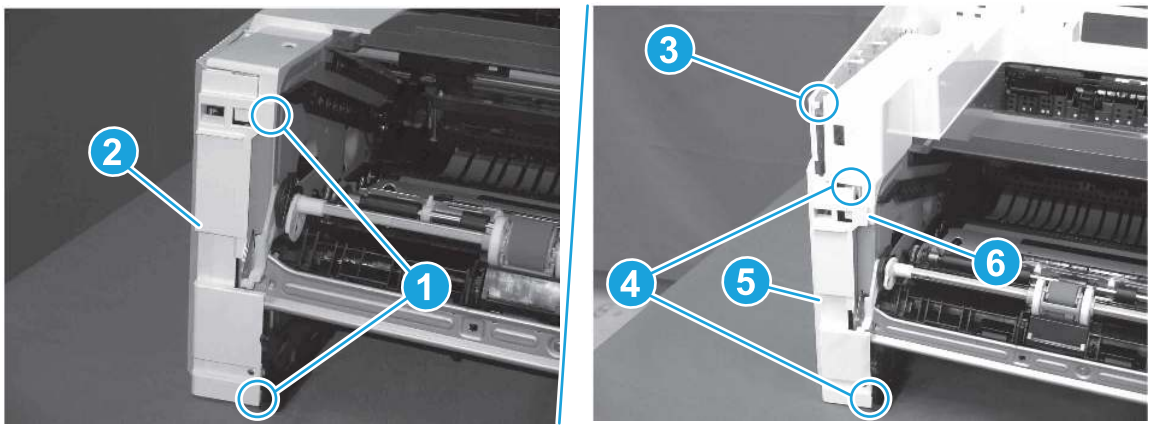


3. At the front of the printer, do one of the following:

- **SFP**: Release two bosses (callout 1), and then remove the cover (callout 2).
- **MFP**: Release one tab (callout 3), two bosses (callout 4), and then remove the cover (callout 5).

⚠ **CAUTION:** Be careful when releasing the upper bosses on the SFP cover. One portion of the cover (callout 6) is fragile and is easily broken.

Figure 4-1020 **Remove the cover**



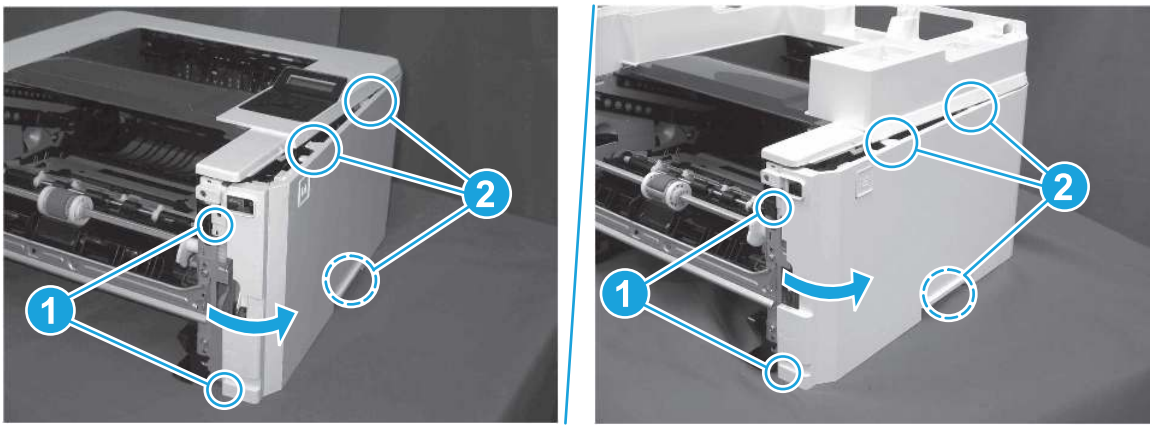
4. Remove the right cover

Follow these steps to remove the right cover.

1. At the front of the printer, release two bosses (callout 1), and then release three tabs (callout 2).

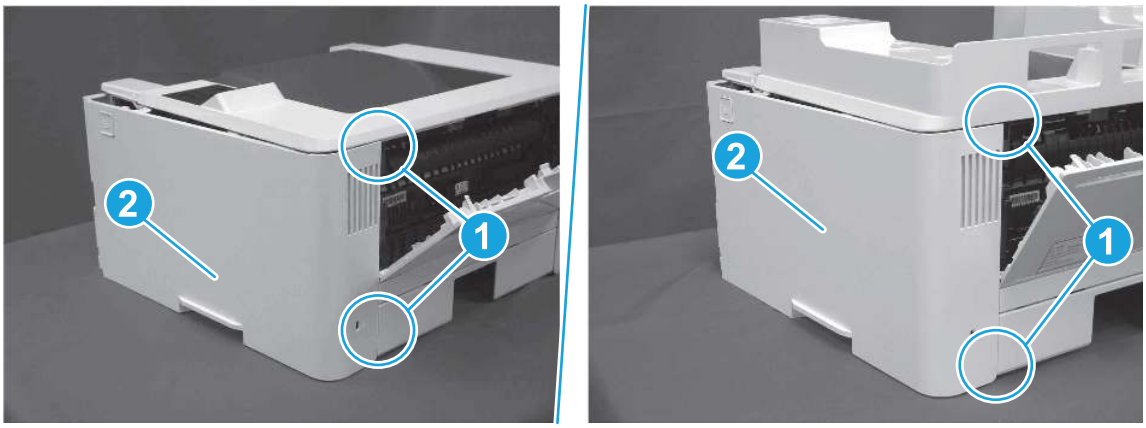
Reinstallation tip: Remove, and then reinstall the cover if the switch or button does not correctly function.

Figure 4-1021 Release two bosses and three tabs



2. Open the rear door, release two bosses (callout 1), and then remove the cover (callout 2).

Figure 4-1022 Remove the cover



5. Remove the Tray 2 sensor assembly

Follow these steps to remove the Tray 2 sensor assembly.

1. Grasp the white flanges on the Tray 1 pickup roller shaft, and then rotate the shaft clockwise (up to 90 degrees) to access the roller holder locking lever

Reinstallation tip: Take note of the original roller position. When the roller is reinstalled, make sure to return the roller to its original position.

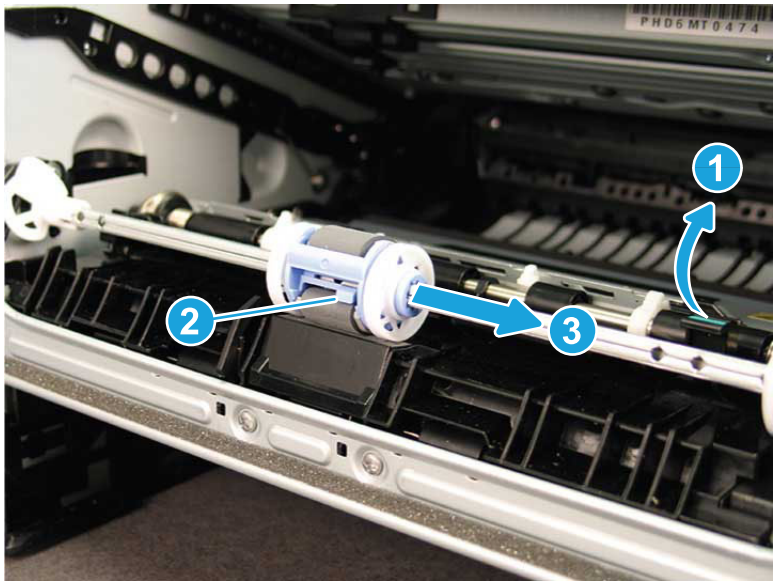
Figure 4-1023 Rotate the Tray 1 pickup roller shaft



2. Raise the jam access door (callout 1), release one tab (callout 2), and then slide the roller and holder as shown (callout 3) to move it out of the way.

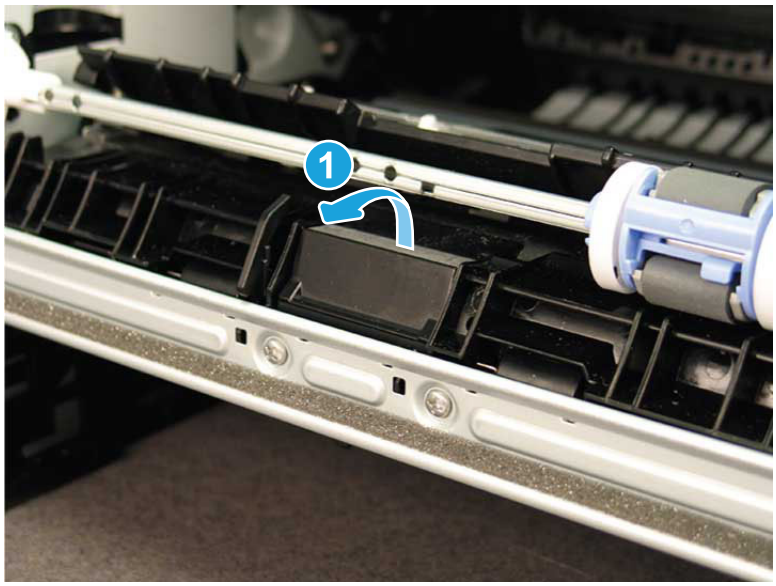
⚠ CAUTION: Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

Figure 4-1024 Slide the roller and holder out of the way



3. Remove the Tray 1 separation pad (callout 1).

Figure 4-1025 **Remove the Tray 1 separation pad**



4. Do the following:

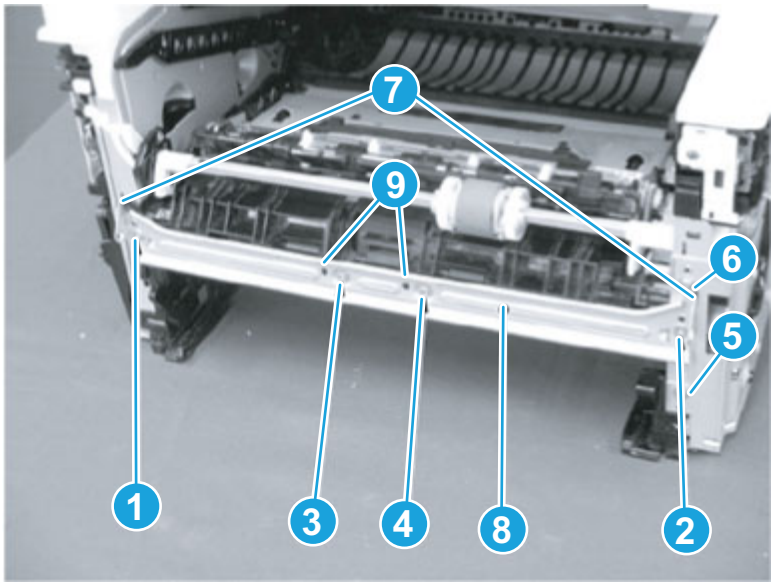
   a. Remove four screws (callout 1/2/3/4).

   IMPORTANT: When the stay is reinstalled, make sure that the screws are installed in the correct order (callout 1/2/3/4 in order).

   b. Release two hooks (callout 5), and then remove the front stay (callout 6).

   Reinstallation tip: When reinstalled, the bosses (callout 7) must engage the holes in the stay. Make sure that the stay is not positioned on top of the bosses.

Figure 4-1026 **Remove the front stay**



5. Rotate each spring (callout 1) down, and then unhook the springs from the hooks (callout 2).

Figure 4-1027 Remove the springs (1 of 2)

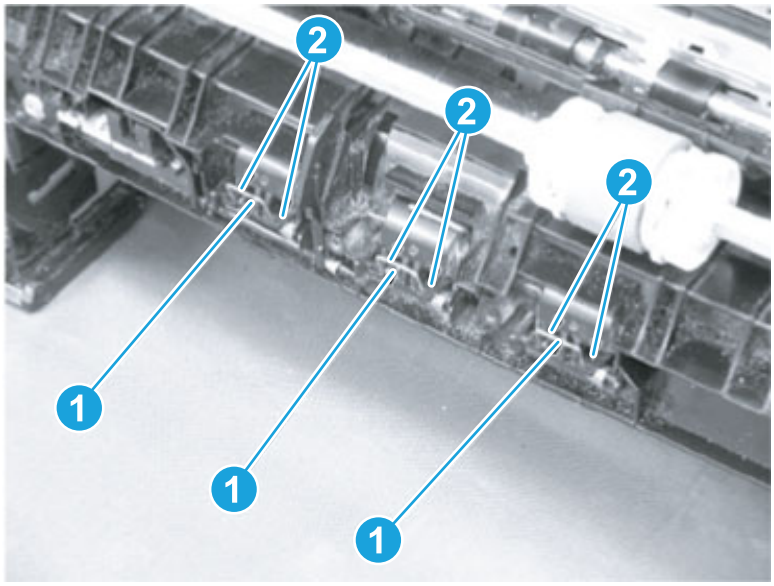
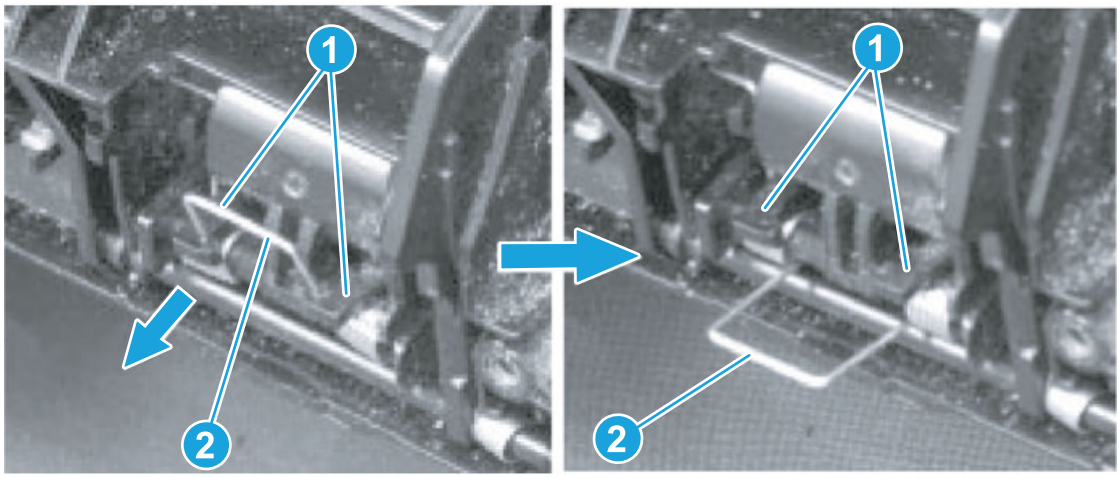
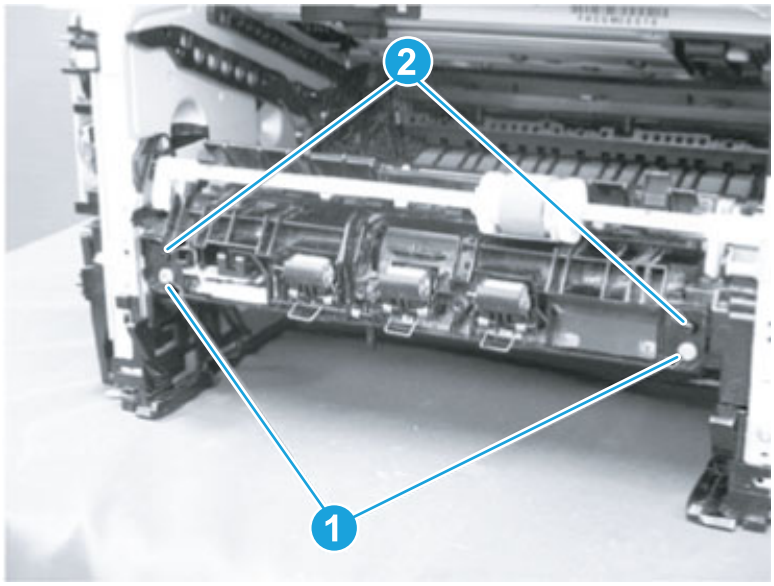


Figure 4-1028 Remove the springs (2 of 2)



6. Remove two screws (M4 tapping; callout 1), and then release two bosses (callout 2).

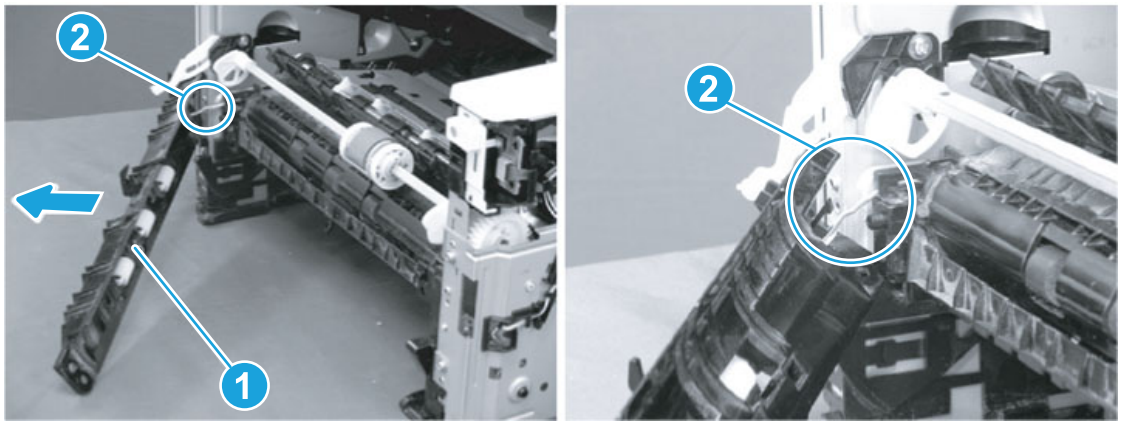
Figure 4-1029 **Remove two screw and release two bosses**



7. Separate the Tray 1 pickup assembly (callout 1) from the printer (as shown below).

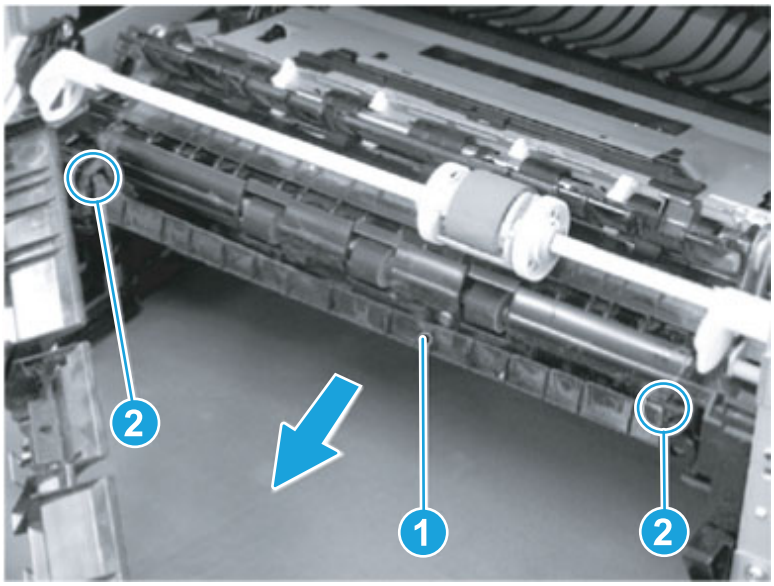
⚠ CAUTION: Do not attempt to completely remove the assembly. The assembly is still connected to the printer by a wire harness (callout 2).

Figure 4-1030 **Separate the Tray 1 pickup assembly from the printer**



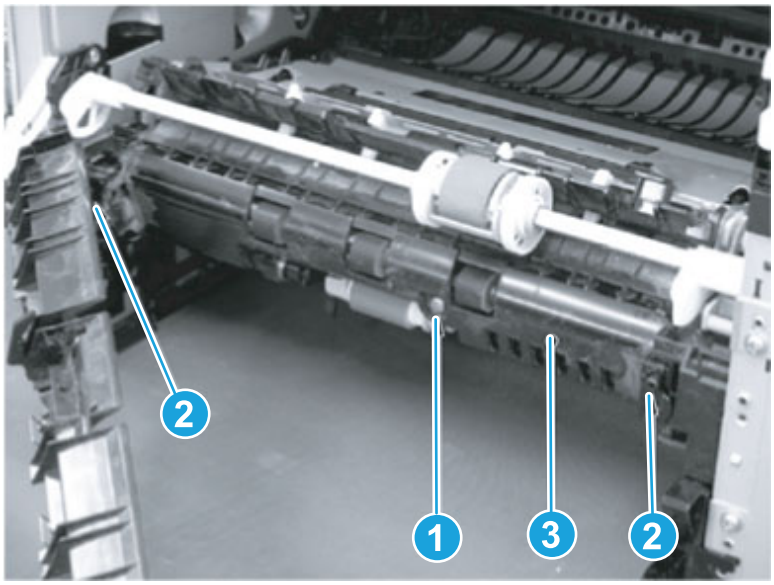
8. Slightly flex the pickup guide (callout 1) to release the left-side and right side bosses (callout 2), and then remove the pickup guide.

Figure 4-1031 Remove the pickup guide



9. Remove one screw (callout 1), release two bosses (callout 2), and then remove the guide and sensor lever (callout 2) assembly.

Figure 4-1032 Remove the guide and sensor lever assembly



10. Slide the sensor lever (callout 1) as shown, and then remove it from the guide (callout 2).

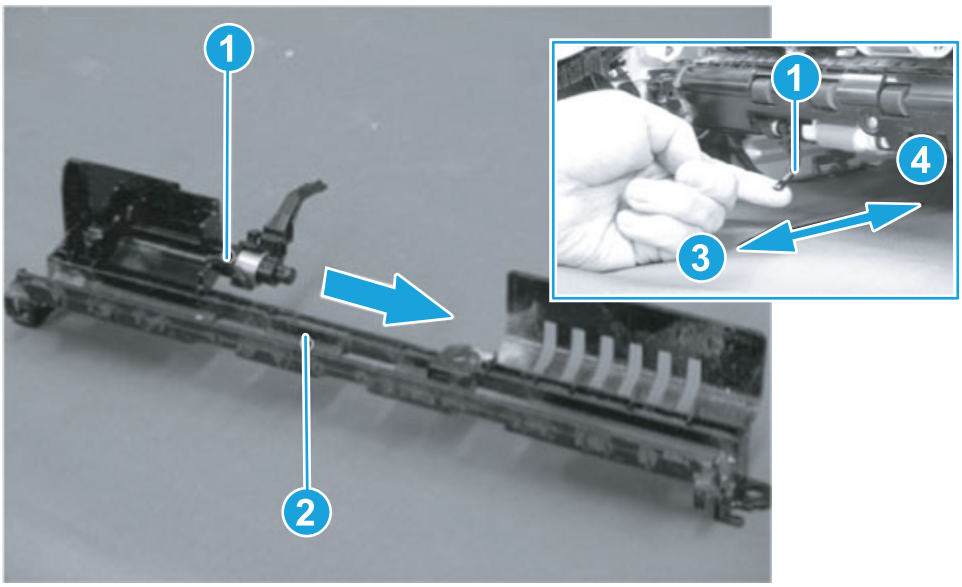
Reinstallation tip: After reinstalling the guide and lever assembly on the printer, check the following:

- Verify that the sensor lever (callout 1) returns to the home position when the lever is manually moved to the forward position and released (sensor lever spring return; callout 3).

- Verify that the sensor lever (callout 1) returns to the home position when the lever is manually moved to the rear position and released (sensor lever weight return; callout 4).

If the sensor lever does not return to the home position, remove the guide and lever assembly, and then remove and reinstall the lever.

Figure 4-1033 **Remove the sensor lever**



6. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using

disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Input device - 550-sheet paper feeder

Learn how to remove and replace the 550-sheet paper feeder parts and assemblies.

Removal and replacement: D9P29-67018 optional 550-sheet paper feeder

Learn how to remove and replace the optional 550-sheet paper feeder.

Mean time to repair: 5 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-55 Part information

Part number	Part description
D9P29-67018	550-sheet paper feeder

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

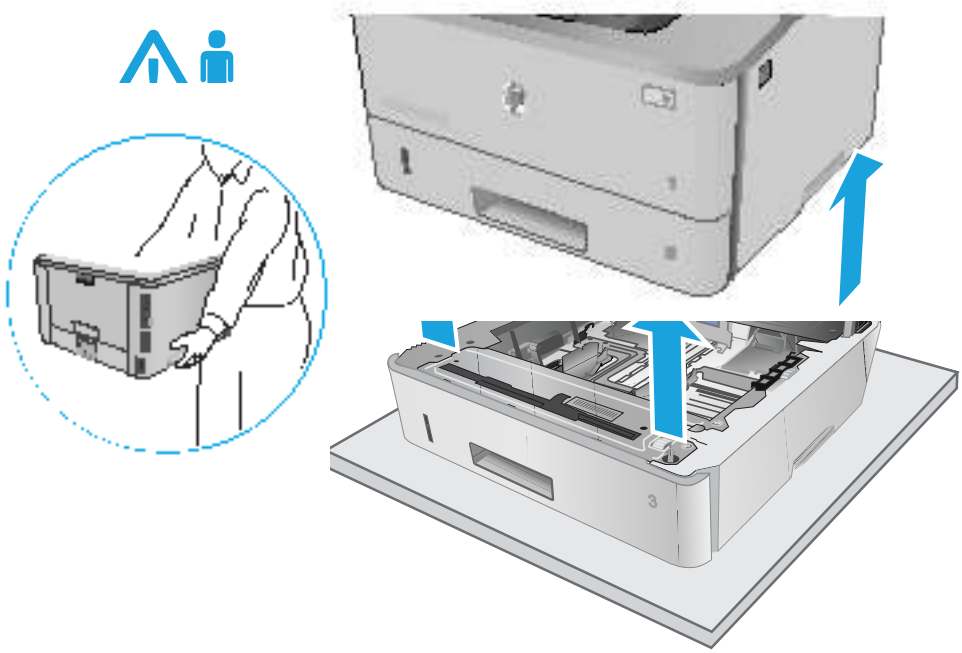
Print any pages necessary to make sure the printer is functioning correctly.

1. Remove the optional 550-sheet feeder Tray 3

Follow these steps to remove the optional 550-sheet feeder Tray 3.

- Carefully lift the printer off of the paper feeder assembly.

  Figure 4-1034 **Remove the printer**



2. Remove the accessory from its package

Follow these steps to remove the accessory from its package.

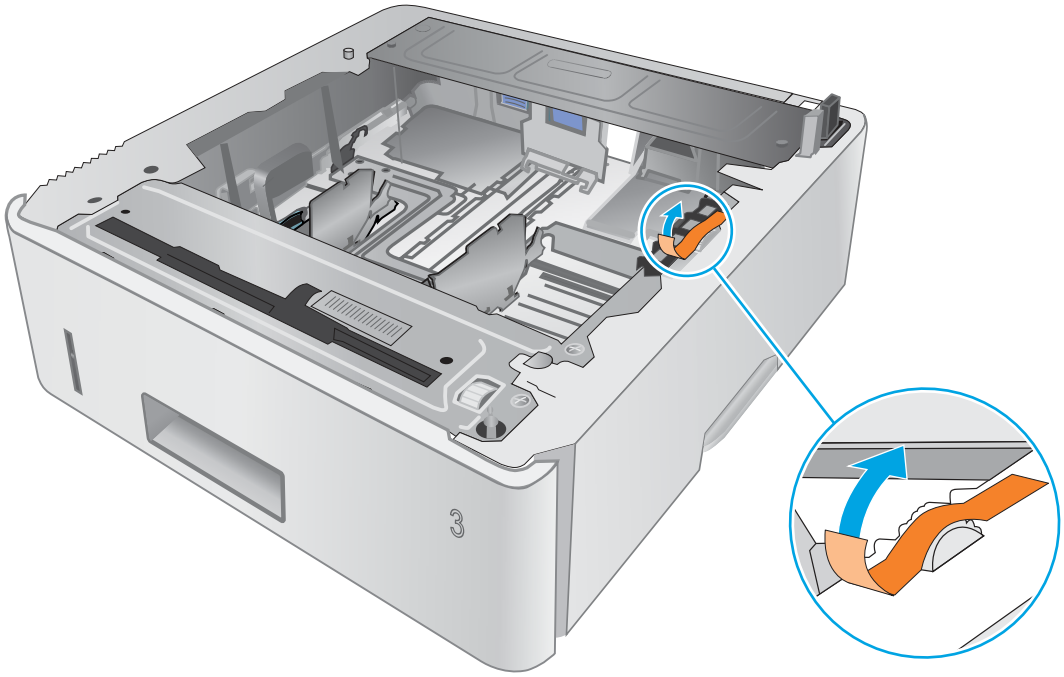
1. Save all packaging for recycling.
2. For complete information about HP recycling programs, go to http://www8.hp.com/us/en/hp-information/environment/product-recycling.html.

3. Install the optional 550-sheet feeder Tray 3

Follow these steps to install the optional 550-sheet feeder Tray 3.

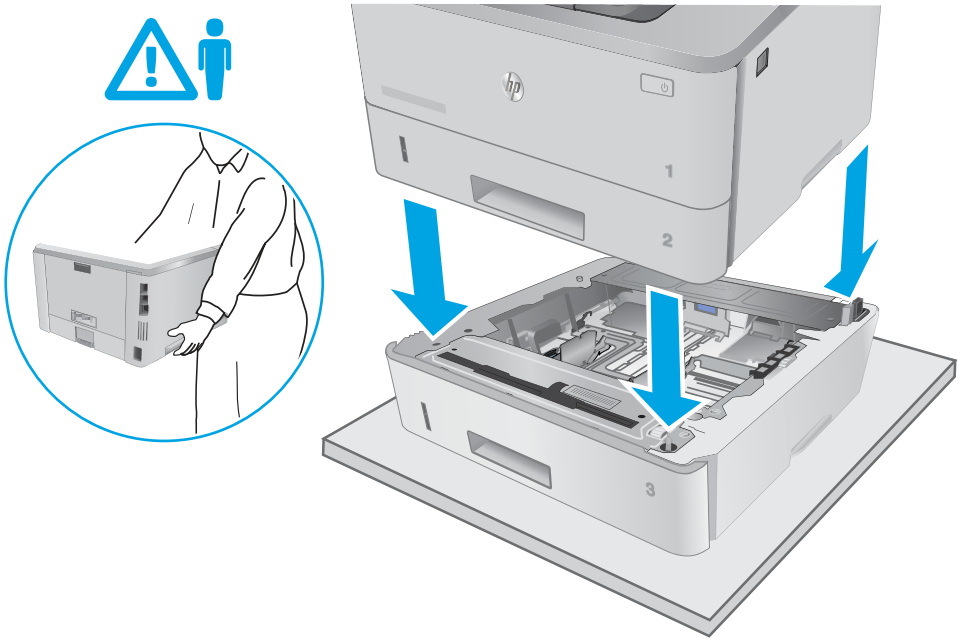
1. Remove the orange shipping tape.

Figure 4-1035 **Remove shipping tape**



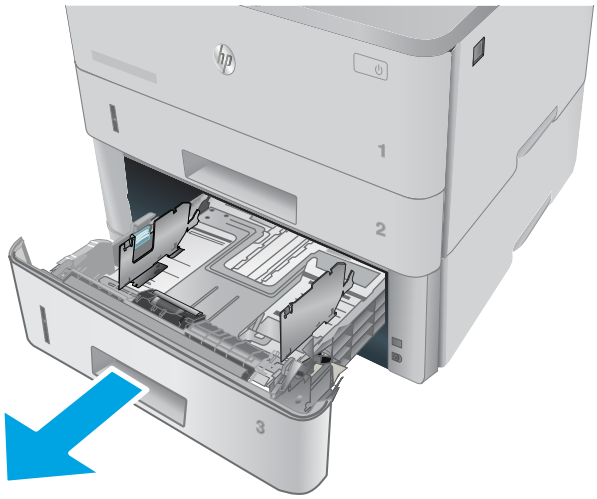
2. Carefully place the printer on the paper feeder assembly.

Figure 4-1036 **Install the printer**



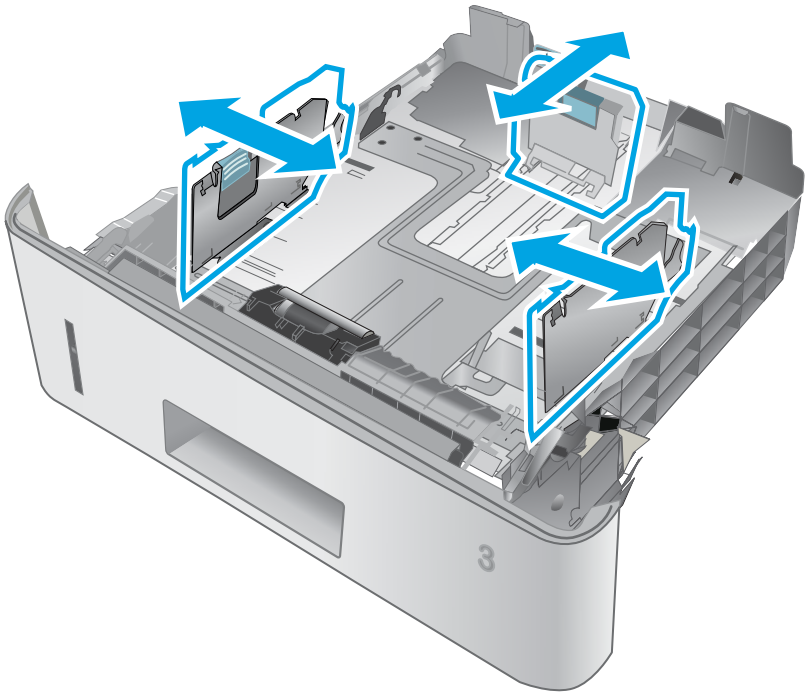
3. Pull Tray 3 out of the paper feeder assembly to remove it.

Figure 4-1037 **Remove Tray 3**



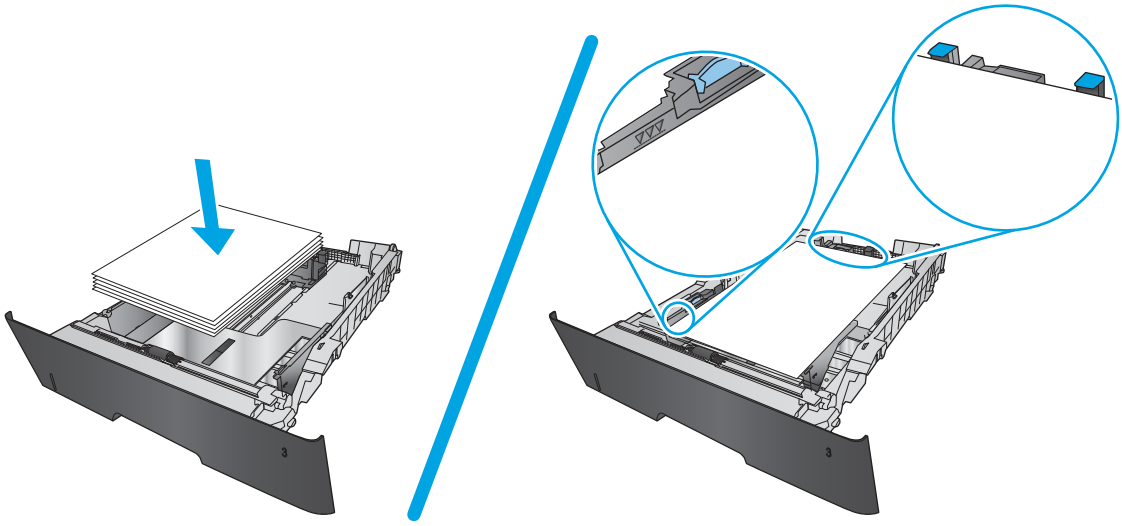
4. Adjust the Tray 3 sliding paper guides.

Figure 4-1038 **Adjust the paper guides**



5. Load paper in Tray 3.

Figure 4-1039 **Load paper**



6. Slide Tray 3 into the paper feeder assembly to install it.

Figure 4-1040 **Install Tray 3**



Removal and replacement: RM2-5413-000CN optional Tray 3 cassette

Learn how to remove and replace the Tray 3 cassette.

View a video of how to remove and replace the Tray 3 cassette.

Mean time to repair: 2 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-56 Part information

Part number	Part description
RM2-5413-000CN	Tray 3

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

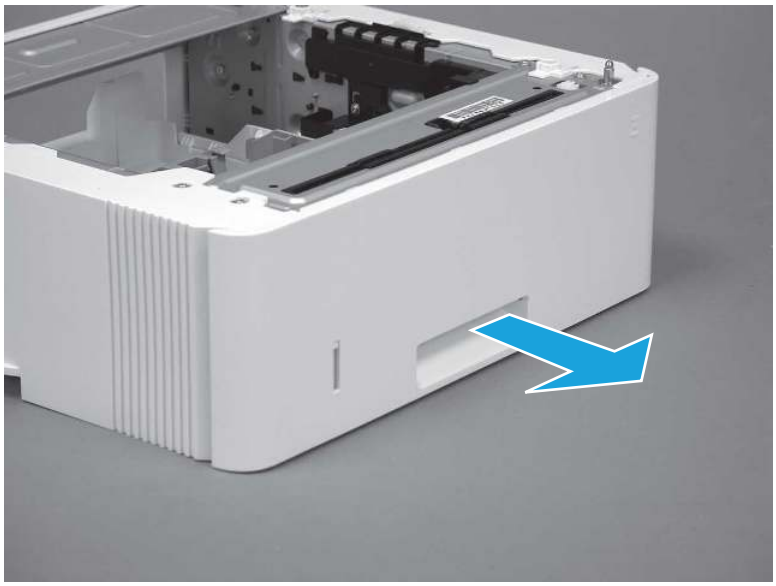
Print any pages necessary to make sure the printer is functioning correctly.

1. Remove optional Tray 3

Follow these steps to remove optional Tray 3.

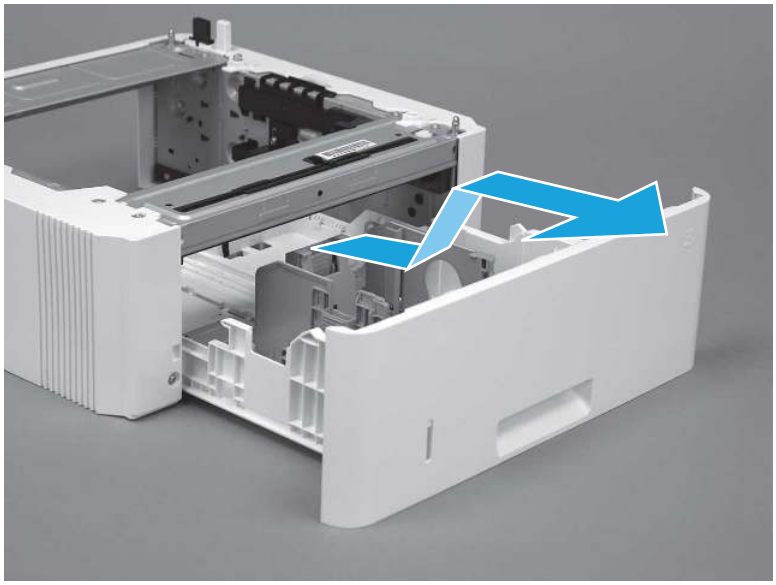
1. Pull the tray straight out of the printer until it stops.

Figure 4-1041 **Pull the tray out of the printer**



2. Slightly lift up on the front of the tray to release it, and then continue to pull the tray out of the accessory to remove it.

Figure 4-1042 **Release and remove the tray**



2. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

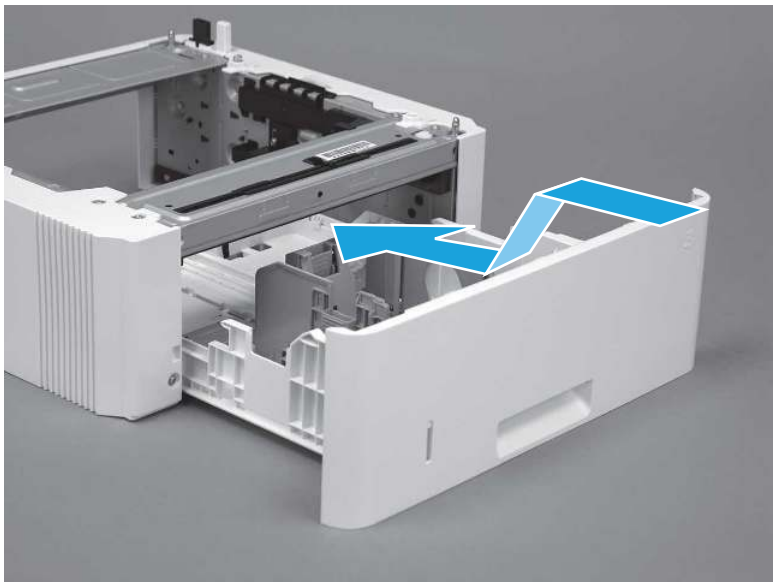
NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

3. Install optional Tray 3

Follow these steps to install optional Tray 3.

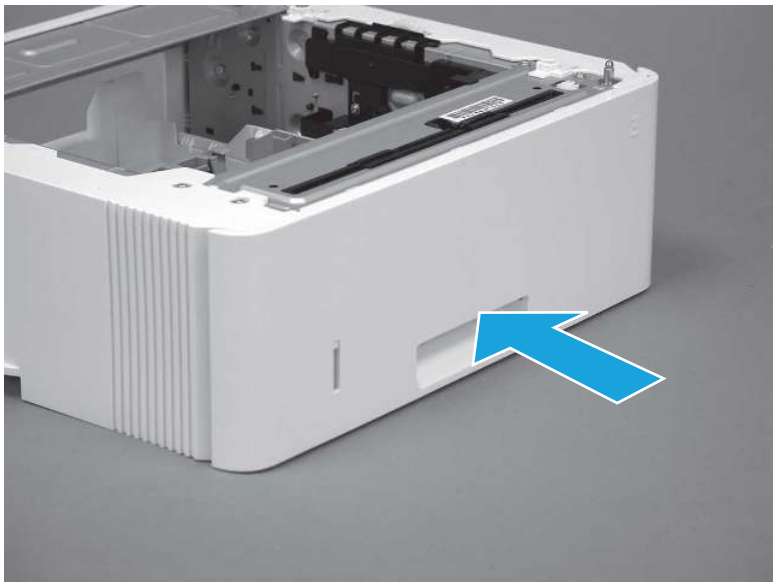
1. With the tray at a slight angle, align the sides of the tray with the rails in the accessory, and then partially slide the tray into the accessory.

Figure 4-1043 **Install the tray**



2. Push the tray straight into the accessory to close it

Figure 4-1044 **Close the tray**



Removal and replacement: 3PZ15-67968 optional Tray 3 paper pickup roller assembly

Learn how to remove and replace the Tray 3 pickup roller.

View a video of how to remove and replace the Tray 3 pickup roller.

Mean time to repair: 2 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-57 **Part information**

Part number	Part description
3PZ15-67968	Tray pickup roller assembly (optional Tray 3)

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Print any pages necessary to make sure the printer is functioning correctly.

1. Remove optional Tray 3

Follow these steps to remove optional Tray 3.

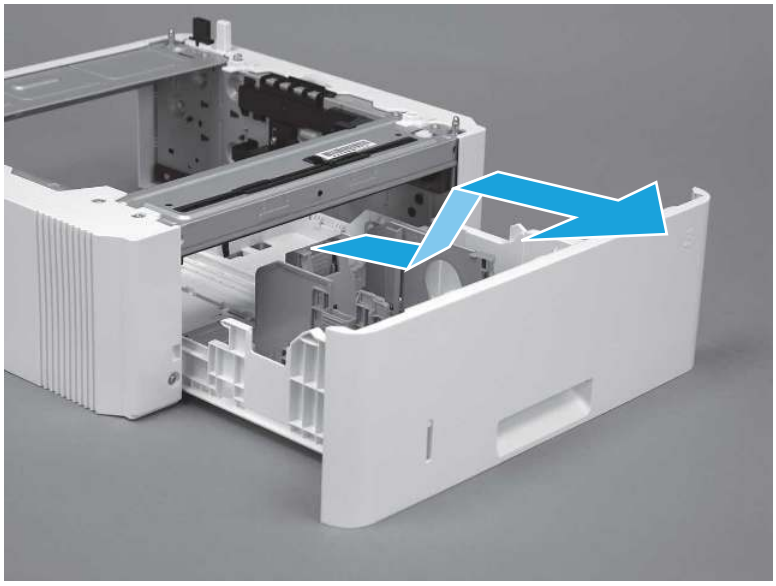
1. Pull the tray straight out of the printer until it stops.

Figure 4-1045 Pull the tray out of the printer



2. Slightly lift up on the front of the tray to release it, and then continue to pull the tray out of the accessory to remove it.

Figure 4-1046 Release and remove the tray



2. Remove the pickup roller assembly (optional Tray 3)

Follow these steps to remove the pickup roller assembly (optional Tray 3).

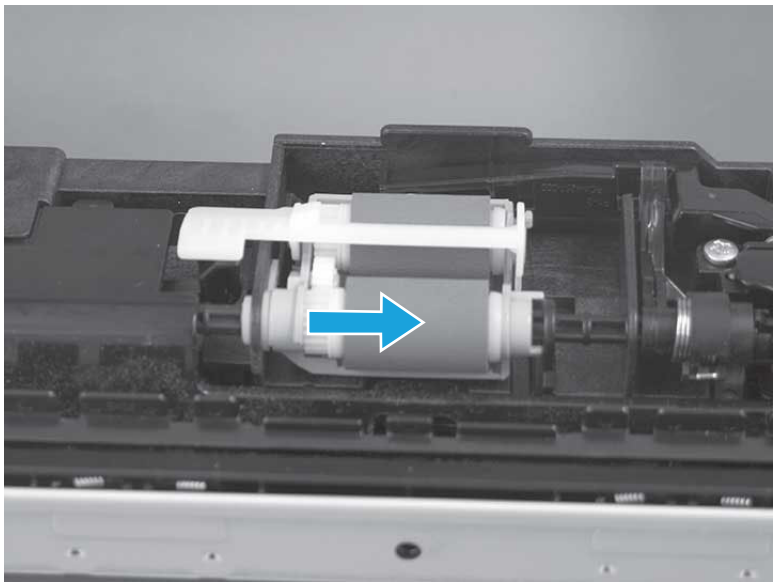
1. Carefully turn the accessory over to expose the roller assembly.

Figure 4-1047 Turn the accessory over



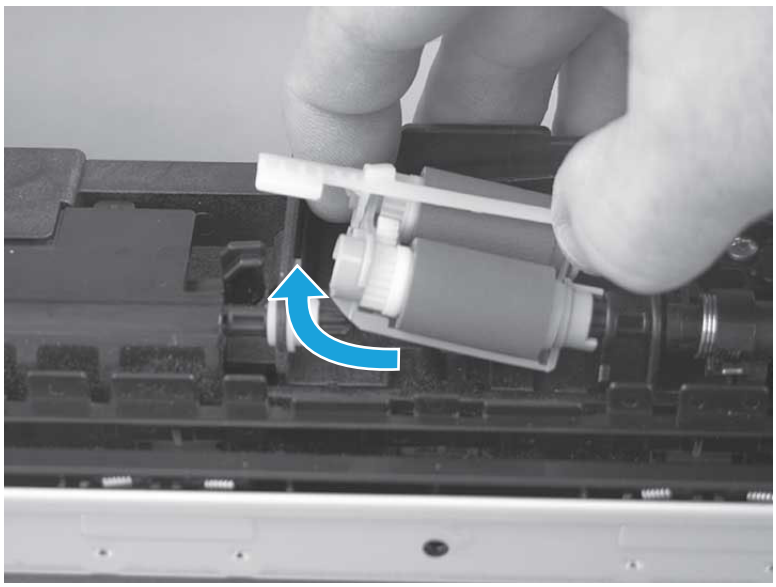
2. Slide the roller holder to the right to compress the spring-loaded shaft and release the assembly.

Figure 4-1048 **Release the roller assembly**



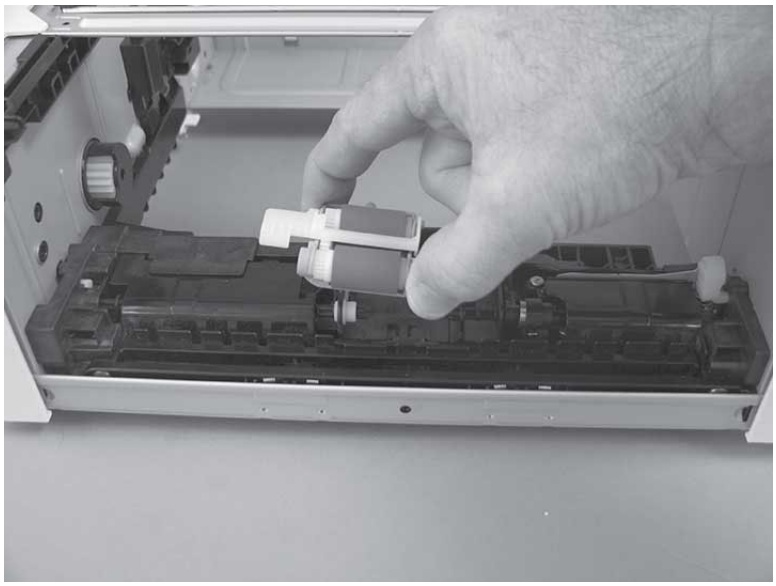
3. Rotate the end of the assembly up and away from the accessory.

Figure 4-1049 **Rotate the assembly up**



4. Remove the roller assembly.

Figure 4-1050 **Remove the roller assembly**



3. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

4. Install the pickup roller assembly (optional Tray 3)

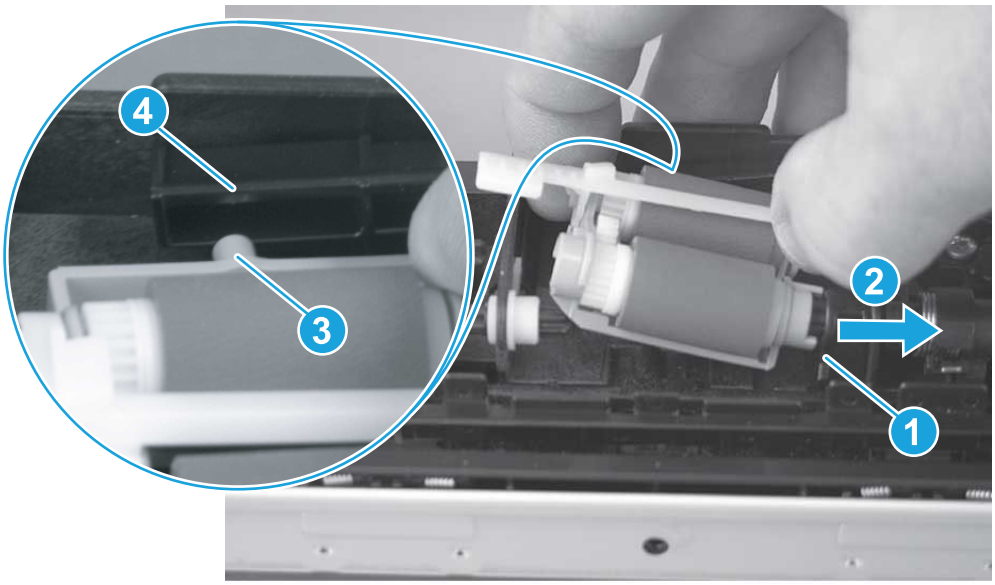
Follow these steps to install the pickup roller assembly (optional Tray 3).

CAUTION: Do not touch the spongy portion of the roller. Skin oils on the roller can cause paper-handling and print-quality problems. HP recommends using disposable gloves or thoroughly washing your hands before handling the assembly.

1. Install the right end of the assembly on the spring-loaded shaft (callout 1), and then slide it to the right to compress the shaft (callout 2).

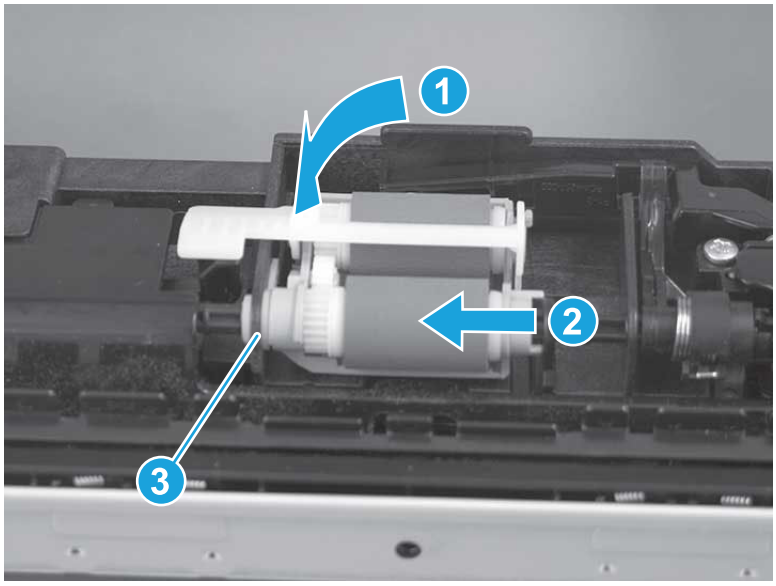
IMPORTANT: Make sure that the pin on the back of the holder (callout 3) is inserted in the slot (callout 4) in the lever arm. If the pin is not correctly installed, the accessory will not pick paper.

Figure 4-1051 **Install the roller assembly**



2. Rotate the left end of the assembly down and into place (callout 1), and then slide the assembly to the left (callout 2) to engage the drive end of the assembly with the drive shaft (callout 3).

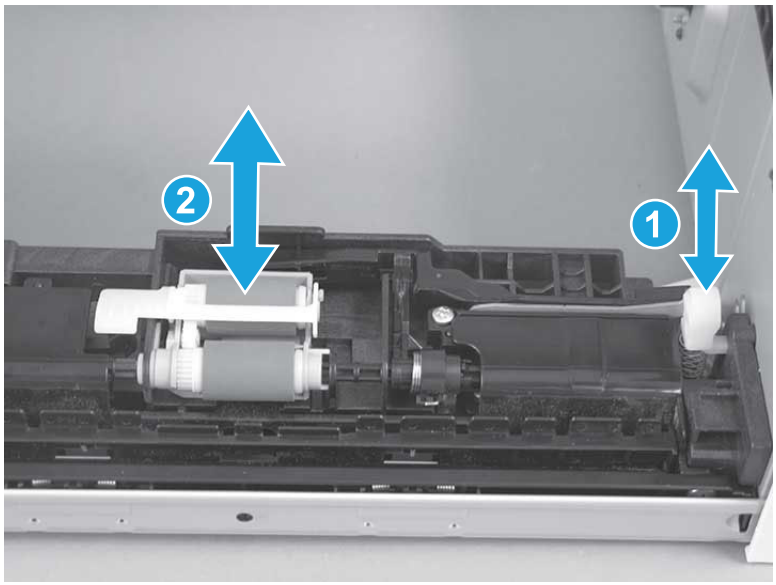
Figure 4-1052 Engage the assembly



3. Push down and then release the tray-roller actuator (callout 1) and observe the roller assembly. It should move up and down (callout 2) in response to the actuator.

NOTE: If it does not, remove the roller assembly and reinstall it making sure that the pin on the back of the assembly is in the lever arm. See the previous steps in this section.

Figure 4-1053 Check the installation

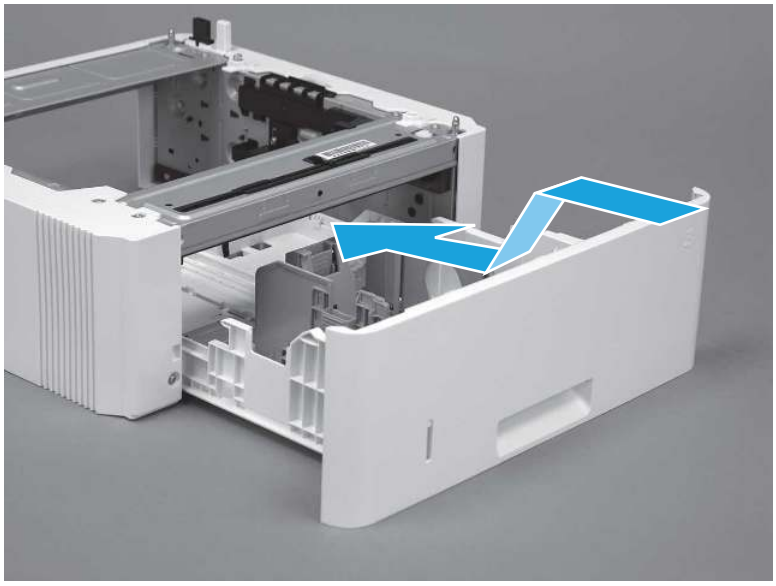


5. Install optional Tray 3

Follow these steps to install optional Tray 3.

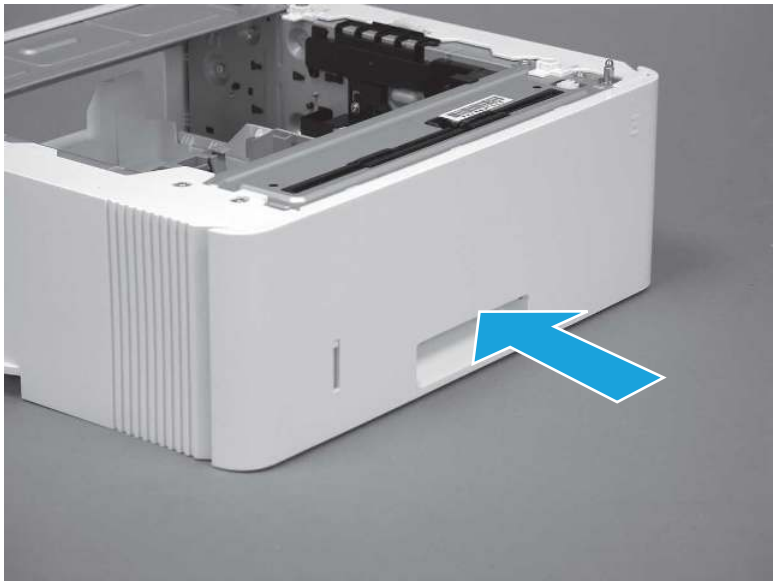
1. With the tray at a slight angle, align the sides of the tray with the rails in the accessory, and then partially slide the tray into the accessory.

Figure 4-1054 Install the tray



2. Push the tray straight into the accessory to close it

Figure 4-1055 Close the tray



Removal and replacement: 3PZ15-67967 optional Tray 3 separation roller assembly

Learn how to remove and replace the Tray 3 separation roller.

View a video of how to remove and replace the Tray 3 separation roller.

Mean time to repair: 2 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-58 Part information

Part number	Part description
3PZ15-67967	Tray 3 Separation Pad

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

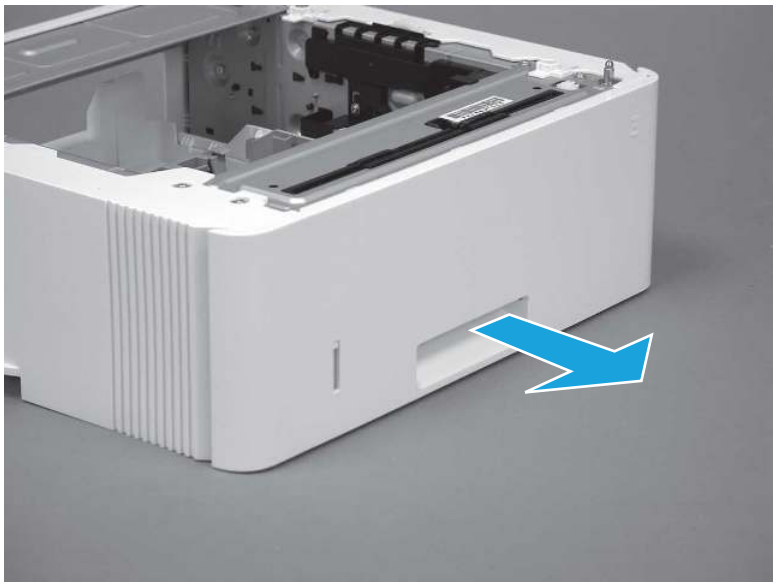
Print any pages necessary to make sure the printer is functioning correctly.

1. Remove optional Tray 3

Follow these steps to remove optional Tray 3.

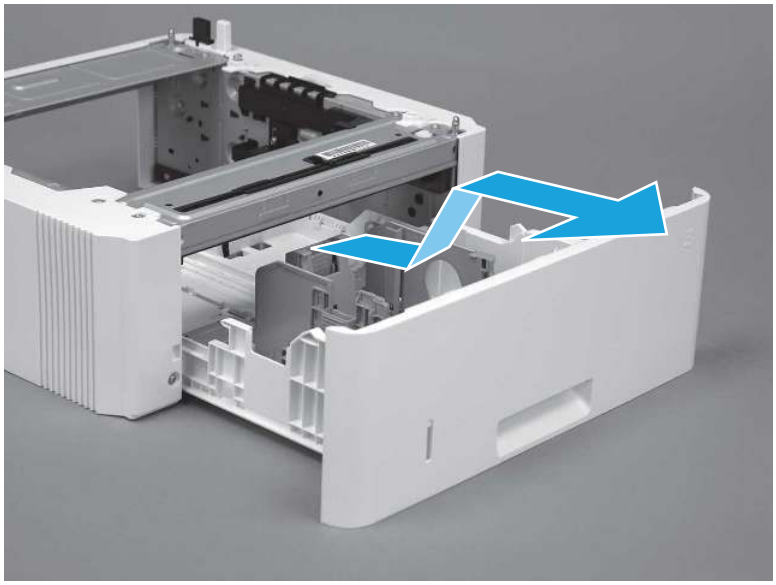
1. Pull the tray straight out of the printer until it stops.

Figure 4-1056 **Pull the tray out of the printer**



2. Slightly lift up on the front of the tray to release it, and then continue to pull the tray out of the accessory to remove it.

Figure 4-1057 **Release and remove the tray**

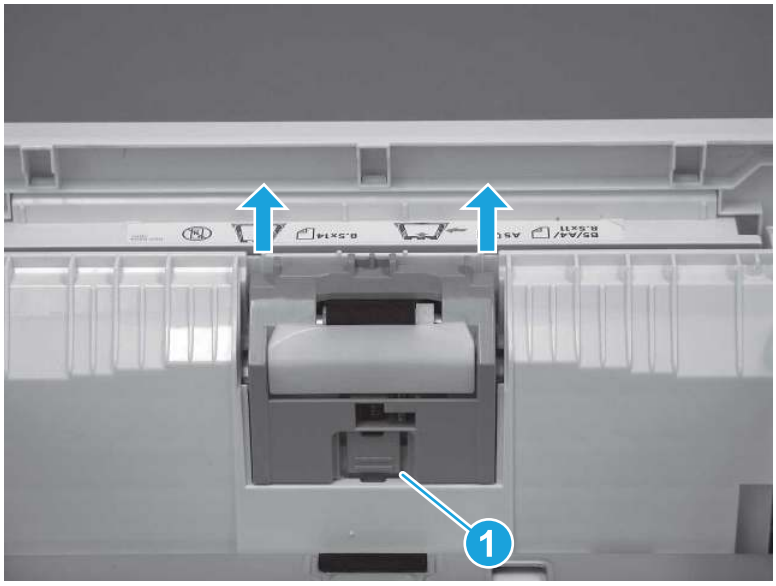


2. Remove the separation roller assembly (optional Tray 3)

Follow these steps to remove the separation roller assembly (optional Tray 3).

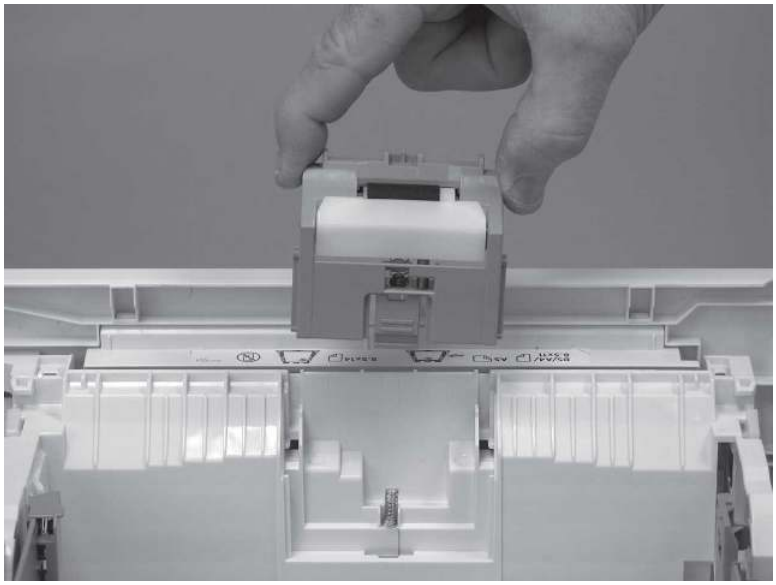
1. Press the locking lever (callout 1), and then pull the separation roller assembly straight up to release it.

Figure 4-1058 Release the assembly



2. Remove the assembly.

Figure 4-1059 Remove the assembly



3. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

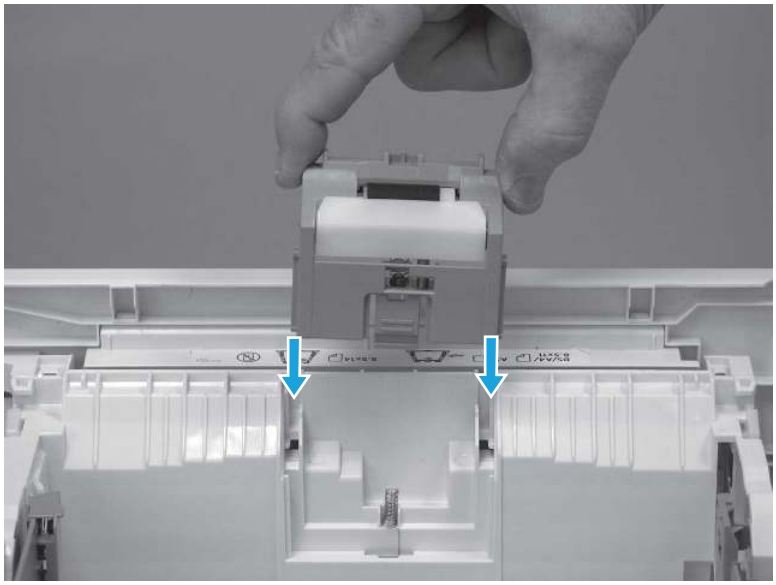
NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

4. Install the separation pad roller assembly (optional Tray 3)

Follow these steps to install the separation pad roller assembly (optional Tray 3).

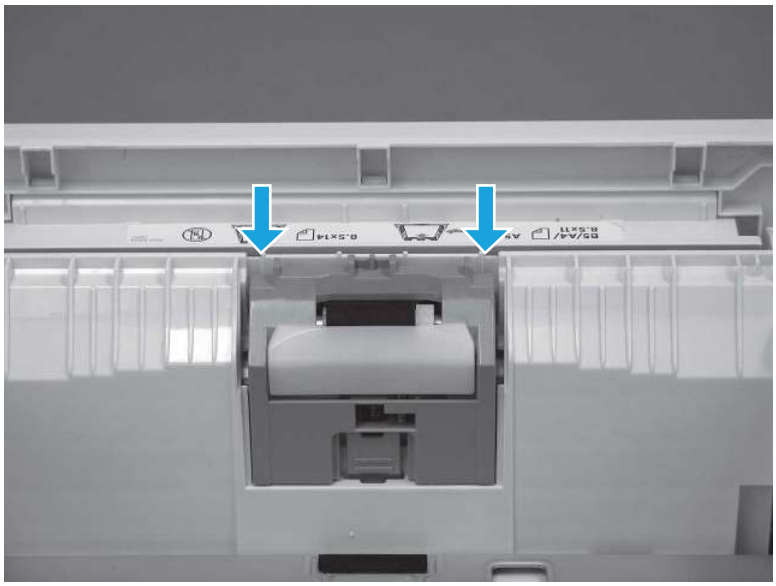
1. Install the assembly in the slots in the cassette.

Figure 4-1060 **Install the assembly (1 of 2)**



2. Push the separation roller assembly straight down until it snaps into place.

Figure 4-1061 Install the assembly (2 of 2)

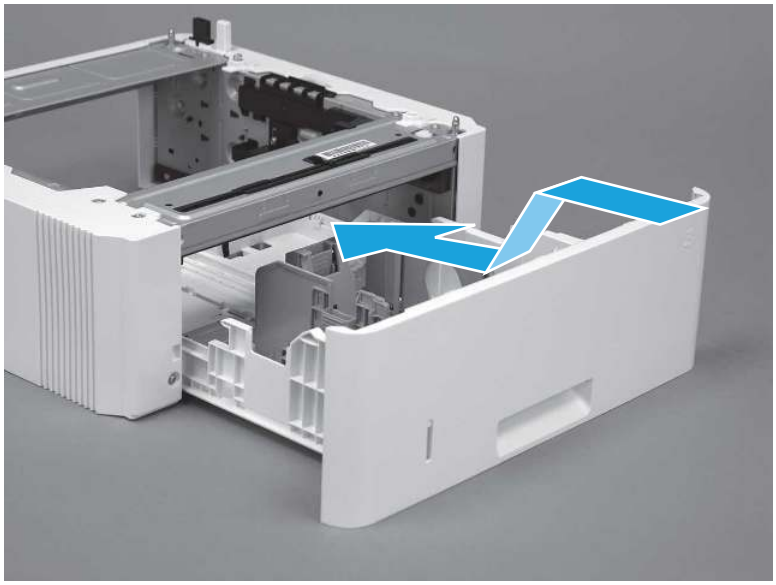


5. Install optional Tray 3

Follow these steps to install optional Tray 3.

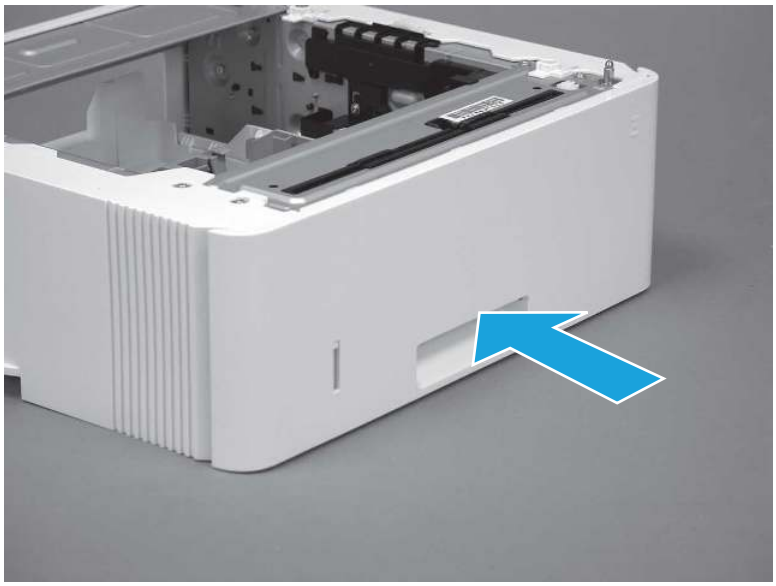
1. With the tray at a slight angle, align the sides of the tray with the rails in the accessory, and then partially slide the tray into the accessory.

Figure 4-1062 Install the tray



2. Push the tray straight into the accessory to close it

Figure 4-1063 **Close the tray**



5 Parts and diagrams

Printer parts information including exploded assembly diagrams and part number lists.

Order parts by authorized service providers

Find information about ordering parts and supplies for the printer.

Ordering

Order parts by authorized service providers.

Table 5-1 Ordering

Item or provider	Description
Order supplies and paper	www.hp.com/go/suresupply
Order parts from authorized service providers	www.hp.com/buy/parts or partsurfer.hp.com
Order through service or support providers	Contact an HP-authorized service or support provider.
Order using the HP Embedded Web Server (EWS)	To access, in a supported web browser on your computer, enter the printer IP address or host name in the address/URL field. The EWS contains a link to the HP SureSupply web site, which provides options for purchasing Original HP supplies.

Orderable parts

Not all of the parts shown in the exploded assembly diagrams are orderable parts.

Refer to the tables following the diagrams or the alphabetical/numerical parts lists to determine if a part is orderable.

Supplies and accessories

Learn about the supplies and accessories that are available for the printer.

To order cartridges, visit http://www.hp.com (some portions of the HP Web site are available in English only). Ordering cartridges online is not supported in all countries/regions. However, many countries/regions have information about ordering by telephone, locating a local store, and printing a shopping list. In addition, go to hp.com/supplies to obtain information about purchasing HP products in your country/region.

Use only the replacement cartridges that have the same cartridge number as the cartridge that is being replaced. Find the cartridge number in the following places:

- On the label of the cartridge that is being replaced.
- On a sticker inside the printer. Open the cartridge door to locate the sticker.
- Open the printer software (**HP Printer Assistant**), and then click **Shop** > **Shop For Supplies Online**.
- Open the HP Embedded Web Server (EWS), and then click **Tools** > **Supply Status** (under the **Product Information** item).

Table 5-2 **Supplies part numbers**

Item	Description	Part number (service)	Product number (new)
Toner cartridge	HP 414A Black Original LaserJet Toner Cartridge	W2020-67901	W2020A
Toner cartridge	HP 414X High Yield Black Original LaserJet Toner Cartridge	W2020-67902	W2020X
Toner cartridge	HP 414X High Yield (Contract) Black Original LaserJet Toner Cartridge	W2020-67903	W2020XC
Toner cartridge	HP 414A Cyan Original LaserJet Toner Cartridge	W2021-67901	W2021A
Toner cartridge	HP 414X High Yield Cyan Original LaserJet Toner Cartridge	W2021-67902	W2021X
Toner cartridge	HP 414X High Yield (Contract) Cyan Original LaserJet Toner Cartridge	W2021-67903	W2021XC
Toner cartridge	HP 414A Yellow Original LaserJet Toner Cartridge	W2022-67901	W2022A
Toner cartridge	HP 414X High Yield Yellow Original LaserJet Toner Cartridge	W2022-67902	W2022X
Toner cartridge	HP 414X High Yield (Contract) Yellow Original LaserJet Toner Cartridge	W2022-67903	W2022XC
Toner cartridge	HP 414A Magenta Original LaserJet Toner Cartridge	W2023-67901	W2023A
Toner cartridge	HP 414X High Yield Magenta Original LaserJet Toner Cartridge	W2023-67902	W2023X
Toner cartridge	HP 414X High Yield (Contract) Magenta Original LaserJet Toner Cartridge	W2023-67903	W2023XC
Toner cartridge	HP 415A Black Original LaserJet Toner Cartridge	W2030-67901	W2030A
Toner cartridge	HP 415X High Yield Black Original LaserJet Toner Cartridge	W2030-67902	W2030X

Table 5-2 Supplies part numbers (continued)

Item	Description	Part number (service)	Product number (new)
Toner cartridge	HP 415X High Yield (Contract) Black Original LaserJet Toner Cartridge	W2030-67903	W2030XC
Toner cartridge	HP 415A Cyan Original LaserJet Toner Cartridge	W2031-67901	W2031A
Toner cartridge	HP 415X High Yield Cyan Original LaserJet Toner Cartridge	W2031-67902	W2031X
Toner cartridge	HP 415X High Yield (Contract) Cyan Original LaserJet Toner Cartridge	W2031-67903	W2031XC
Toner cartridge	HP 415A Yellow Original LaserJet Toner Cartridge	W2032-67901	W2032A
Toner cartridge	HP 415X High Yield Yellow Original LaserJet Toner Cartridge	W2032-67902	W2032X
Toner cartridge	HP 415X High Yield (Contract) Yellow Original LaserJet Toner Cartridge	W2032-67903	W2032XC
Toner cartridge	HP 415A Magenta Original LaserJet Toner Cartridge	W2033-67901	W2033A
Toner cartridge	HP 415X High Yield Magenta Original LaserJet Toner Cartridge	W2033-67902	W2033X
Toner cartridge	HP 415X High Yield (Contract) Magenta Original LaserJet Toner Cartridge	W2033-67903	W2033XC
Toner cartridge	HP 416A Black Original LaserJet Toner Cartridge	W2040-67901	W2040A
Toner cartridge	HP 416X High Yield Black Original LaserJet Toner Cartridge	W2040-67902	W2040X
Toner cartridge	HP 416X High Yield (Contract) Black Original LaserJet Toner Cartridge	W2040-67903	W2040XC
Toner cartridge	HP 416A Cyan Original LaserJet Toner Cartridge	W2041-67901	W2041A
Toner cartridge	HP 416X High Yield Cyan Original LaserJet Toner Cartridge	W2041-67902	W2041X
Toner cartridge	HP 416X High Yield (Contract) Cyan Original LaserJet Toner Cartridge	W2041-67903	W2041XC
Toner cartridge	HP 416A Yellow Original LaserJet Toner Cartridge	W2042-67901	W2042A
Toner cartridge	HP 416X High Yield Yellow Original LaserJet Toner Cartridge	W2042-67902	W2042X

Table 5-2 Supplies part numbers (continued)

Item	Description	Part number (service)	Product number (new)
Toner cartridge	HP 416X High Yield (Contract) Yellow Original LaserJet Toner Cartridge	W2042-67903	W2042XC
Toner cartridge	HP 416A Magenta Original LaserJet Toner Cartridge	W2043-67901	W2043A
Toner cartridge	HP 416X High Yield Magenta Original LaserJet Toner Cartridge	W2043-67902	W2043X
Toner cartridge	HP 416X High Yield (Contract) Magenta Original LaserJet Toner Cartridge	W2043-67903	W2043XC

Table 5-3 Accessories

Description	Part number (service)	Product number
550-sheet paper feeder	CF404-67901	CF404A
HP JetDirect 3100w BLE/NFC/Wireless accessory	3JN69-61001	3JN69A
HP Accessibility Kit	2TD64-61001	2TD64A
HP Accessibility Assistant	2MU47-61001	2MU47A
Locking Tray Guides (managed printers only)	3PZ95-67906	NA
HP Jetdirect LAN Accessory Module	5851-8004	8FP31A

Customer self-repair parts

Learn about printer customer self-repair parts.

Customer self-repair (CSR) parts are available for many HP LaserJet printers to reduce repair time.

NOTE: More information about the CSR program and benefits can be found at www.hp.com/go/csr-support and www.hp.com/go/csr-faq.

Genuine HP replacement parts can be ordered at www.hp.com/buy/parts or by contacting an HP-authorized service or support provider. When ordering, one of the following will be needed: part number, serial number (found on back of printer), product number, or printer name.

- Parts listed as **A**: Easy
- Parts listed as **B**: Difficult and/or require tools
- Parts listed as **Mandatory**: Customer installed self-replacement parts (unless the customer is willing to pay for HP service personnel to perform the repair). For these parts, on-site or return-to-depot support is not provided under the HP printer warranty.
- Parts listed as **Optional**: HP service personnel installed self-replacement parts by customer request for no additional charge during the printer warranty period.

Table 5-4 **Customer self-repair (CSR) parts**

Kit name	Description	CSR level	Self-replacement options	Part number
Tray 2	Cassette (Tray 2) assembly	A	Mandatory	RM2-6377-000CN
Tray 3	Cassette assembly, Tray 3 (550-sheet paper feeder)	A	Mandatory	RM2-6486-000CN
Tray 3 assembly (whole unit)	550-sheet paper feeder	A	Mandatory	CF404-67901
Toner cartridge	HP 414A Black Original LaserJet Toner CartridgeHP 414X High Yield Black Original LaserJet Toner CartridgeHP 414X High Yield (Contract) Black Original LaserJet Toner Cartridge	A	Mandatory	W2020A/W2020X/ W2020XC
Toner cartridge	HP 414A Cyan Original LaserJet Toner CartridgeHP 414X High Yield Cyan Original LaserJet Toner CartridgeHP 414X High Yield (Contract) Cyan Original LaserJet Toner Cartridge	A	Mandatory	W2021A/W2021X/ W2021XC
Toner cartridge	HP 414A Yellow Original LaserJet Toner CartridgeHP 414X High Yield Yellow Original LaserJet Toner CartridgeHP 414X High Yield (Contract) Yellow Original LaserJet Toner Cartridge	A	Mandatory	W2022A/W2022X/ W2022XC
Toner cartridge	HP 414A Magenta Original LaserJet Toner CartridgeHP 414X High Yield Magenta Original LaserJet Toner CartridgeHP 414X High Yield (Contract) Magenta Original LaserJet Toner Cartridge	A	Mandatory	W2023A/W2023X/ W2023XC
Toner cartridge	HP 415A Black Original LaserJet Toner CartridgeHP 415X High Yield Black Original LaserJet Toner CartridgeHP 415X High Yield (Contract) Black Original LaserJet Toner Cartridge	A	Mandatory	W2030A/W2030X/ W2030XC
Toner cartridge	HP 415A Cyan Original LaserJet Toner CartridgeHP 415X High Yield Cyan Original LaserJet Toner CartridgeHP 415X High Yield (Contract) Cyan Original LaserJet Toner Cartridge	A	Mandatory	W2031A/W2031X/ W2031XC
Toner cartridge	HP 415A Yellow Original LaserJet Toner CartridgeHP 415X High Yield Yellow Original LaserJet Toner CartridgeHP 415X High Yield (Contract) Yellow Original LaserJet Toner Cartridge	A	Mandatory	W2032A/W2032X/ W2032XC

Table 5-4 Customer self-repair (CSR) parts (continued)

Kit name	Description	CSR level	Self-replacement options	Part number
Toner cartridge	HP 415A Magenta Original LaserJet Toner CartridgeHP 415X High Yield Magenta Original LaserJet Toner CartridgeHP 415X High Yield (Contract) Magenta Original LaserJet Toner Cartridge	A	Mandatory	W2033A/W2033X/ W2033XC
Toner cartridge	HP 416A Black Original LaserJet Toner CartridgeHP 416X High Yield Black Original LaserJet Toner CartridgeHP 416X High Yield (Contract) Black Original LaserJet Toner Cartridge	A	Mandatory	W2040A/W2040X/ W2040XC
Toner cartridge	HP 416A Cyan Original LaserJet Toner CartridgeHP 416X High Yield Cyan Original LaserJet Toner CartridgeHP 416X High Yield (Contract) Cyan Original LaserJet Toner Cartridge	A	Mandatory	W2041A/W2041X/ W2041XC
Toner cartridge	HP 416A Yellow Original LaserJet Toner CartridgeHP 416X High Yield Yellow Original LaserJet Toner CartridgeHP 416X High Yield (Contract) Yellow Original LaserJet Toner Cartridge	A	Mandatory	W2042A/W2042X/ W2042XC
Toner cartridge	HP 416A Magenta Original LaserJet Toner CartridgeHP 416X High Yield Magenta Original LaserJet Toner CartridgeHP 416X High Yield (Contract) Magenta Original LaserJet Toner Cartridge	A	Mandatory	W2043A/W2043X/ W2043XC

How to use parts lists and diagrams

Learn how to use the parts lists and diagrams.

The figures in this chapter show the major sub-assemblies in the printer and their component parts. A parts list table follows each exploded view assembly diagram. The table lists the item number, the associated part number, and the description of each part. If a part is not listed in the table, then it is not a field replacement unit (FRU).

NOTE: Be sure to order the correct part. When looking for part numbers for electrical parts, pay careful attention to the voltage that is listed in the part description. Doing so will make sure that the selected part number is for the correct printer model.

NOTE: The abbreviation “PCA” stands for “printed circuit-board assembly.” Components described as a PCA might consist of a single circuit board or a circuit board plus other parts, such as cables and sensors.

Integrated scanner assembly

Parts diagram and part list for the integrated scanner assembly (ISA).

Figure 5-1 Integrated scanner assembly

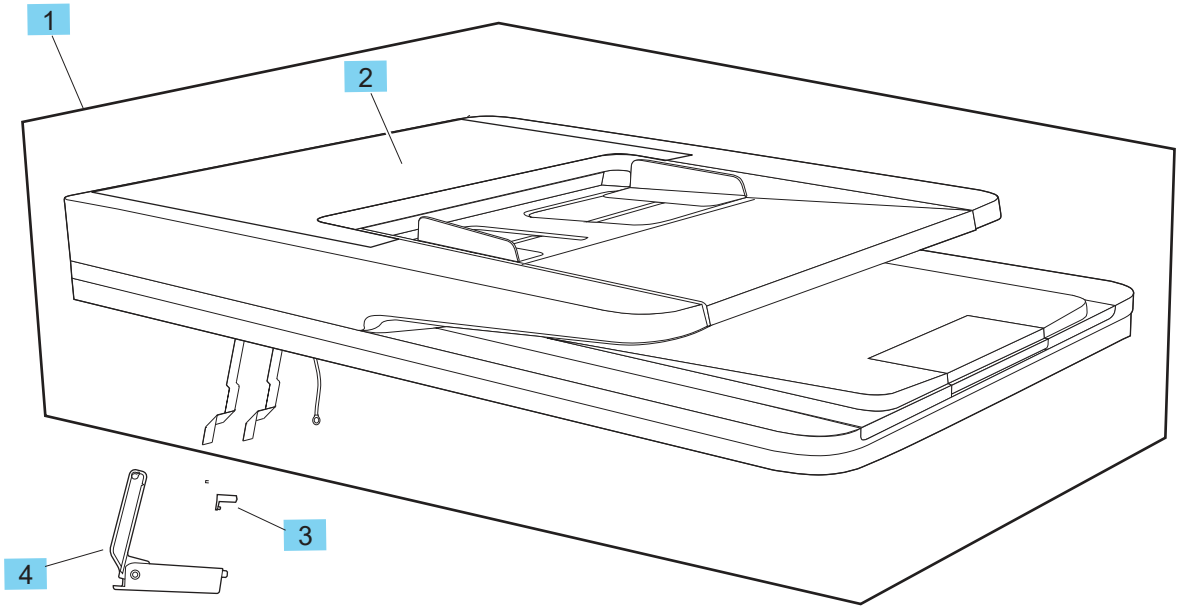


Table 5-5 Integrated scanner assembly

Ref No	Part number	Description	Qty
1	3PZ55-60116	Assy-duplex GSO (ISA/ADF assembly)	1
2	W1A77-67903	ADF top cover assembly (includes rollers)	1
3	B3Q10-40041	ISA lift slider pin	1
4	B3Q10-60128	ISA lift assembly	1

Parts and diagrams: Covers (M455/E45028)

Parts diagram and parts list for the SFP printer covers.

Figure 5-2 Covers (M455/E45028)

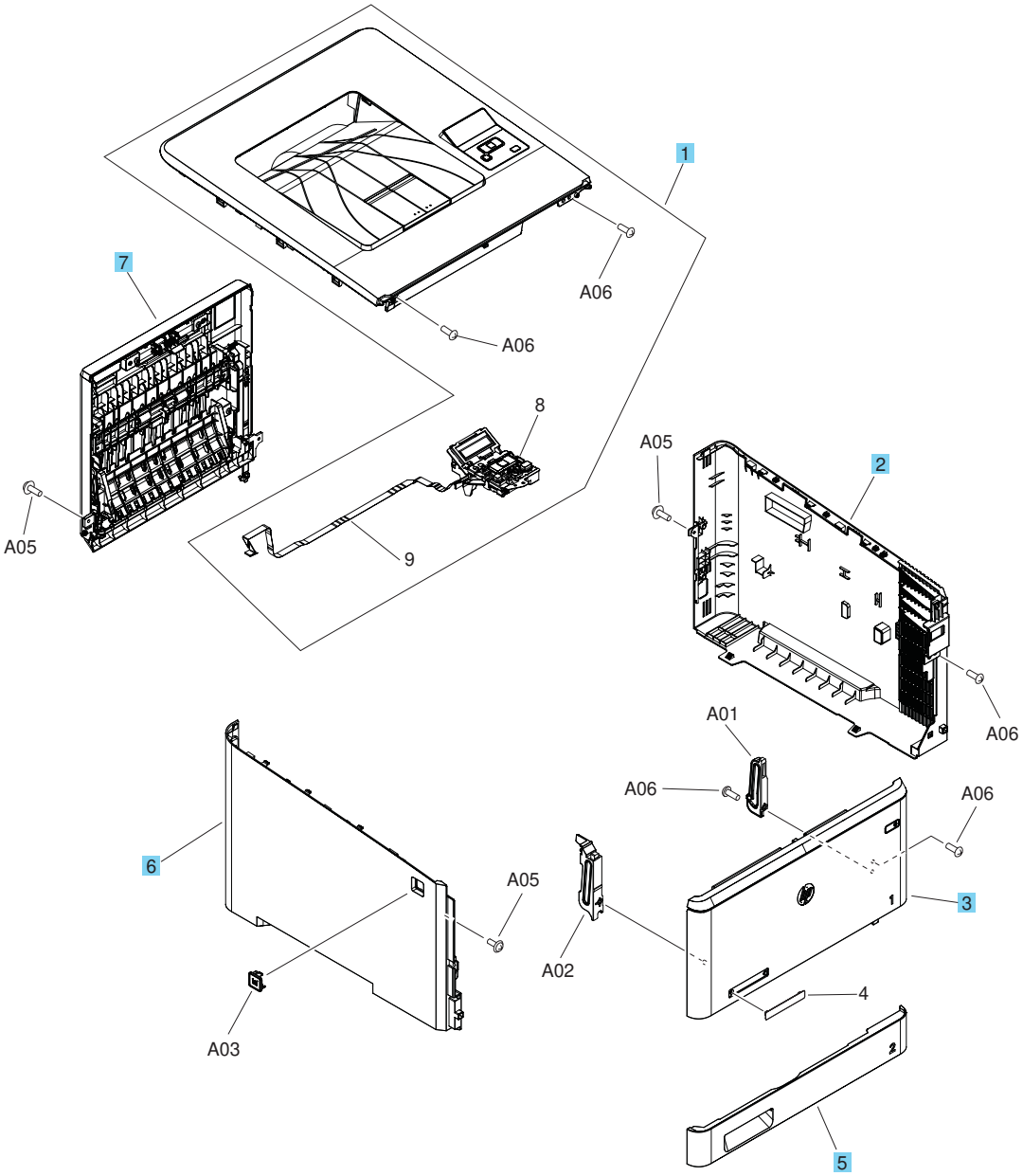


Table 5-6 Covers (M455/E45028)

Ref No	Part number	Description	Qty
1	RM2-3088-000CN	Cover, top assembly (SFP) (includes control panel and FFC)	1
2	RC4-4853-000CN	Cover, right (SFP)	1
3	RM2-1823-000CN	Front (cartridge) door assembly (SFP)	1

Table 5-6 Covers (M455/E45028) (continued)

Ref No	Part number	Description	Qty
5	RC4-5334-000CN	Cover, cassette	1
6	RC4-4854-000CN	Cover, left (SFP)	1
7	RM2-1838-000CN	Duplexing door assembly	1
Not shown	7121-8684	HP logo jewel	1

Parts and diagrams: Covers (M480/E47528)

Parts diagram and parts list for the MFP printer covers.

Figure 5-3 Covers (M480/E47528)

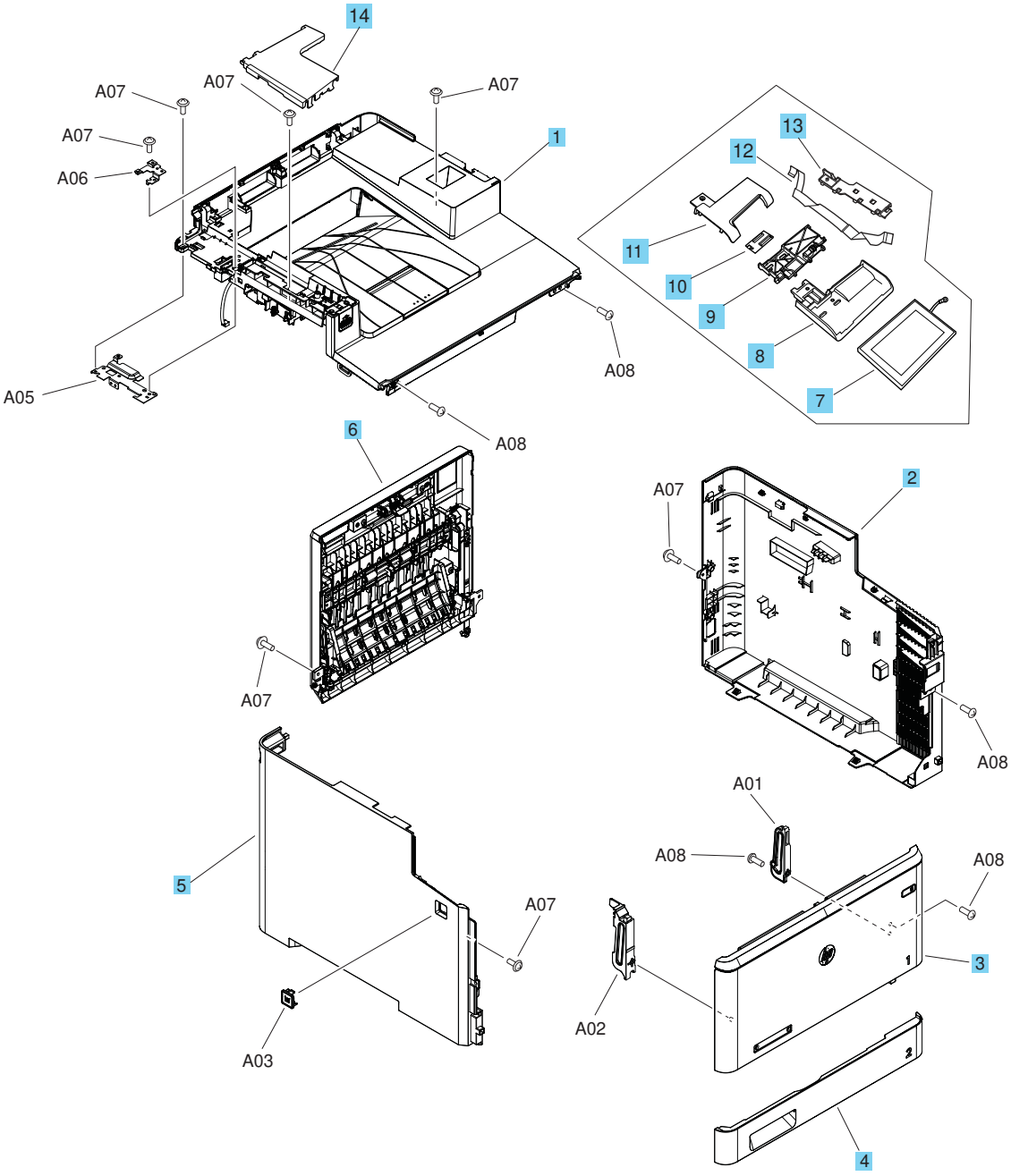


Table 5-7 Covers (M480/E47528)

Ref No	Part number	Description	Qty
1	RM2-3091-000CN	Cover, top assembly (MFP)	1
2	RC4-6044-000CN	Cover, right (MFP)	1

Table 5-7 Covers (M480/E47528) (continued)

Ref No	Part number	Description	Qty
3	RM2-1824-000CN	Front (cartridge) door assembly (MFP)	1
4	RC4-5334-000CN	Cover, cassette	1
5	RC4-6045-000CN	Cover, left (MFP)	1
6	RM2-1838-000CN	Duplexing door assembly	1
7	3PZ55-67901	Control panel assembly	1
8	3PZ55-67984	Control panel mount base	1
9	3PZ55-67904	Control panel ICB chassis mount	1
10	3PZ55-67903	CP interconnect board and ground clip kit	1
11	3PZ55-67902	Cover, top control panel mount	1
12	3QA55-67903	Cable, flexible flat control panel to frmtr	1
13	CF377-40005	Guide, control panel FFC and USB cable	1
14	CF377-40004	Cover, ISA FFCs	1
Not shown	7121-8684	HP logo jewel	1

Parts and diagrams: Internal assemblies (1 of 5)

Parts diagram and parts list for the internal printer assemblies.

Figure 5-4 Internal assemblies (1 of 5)

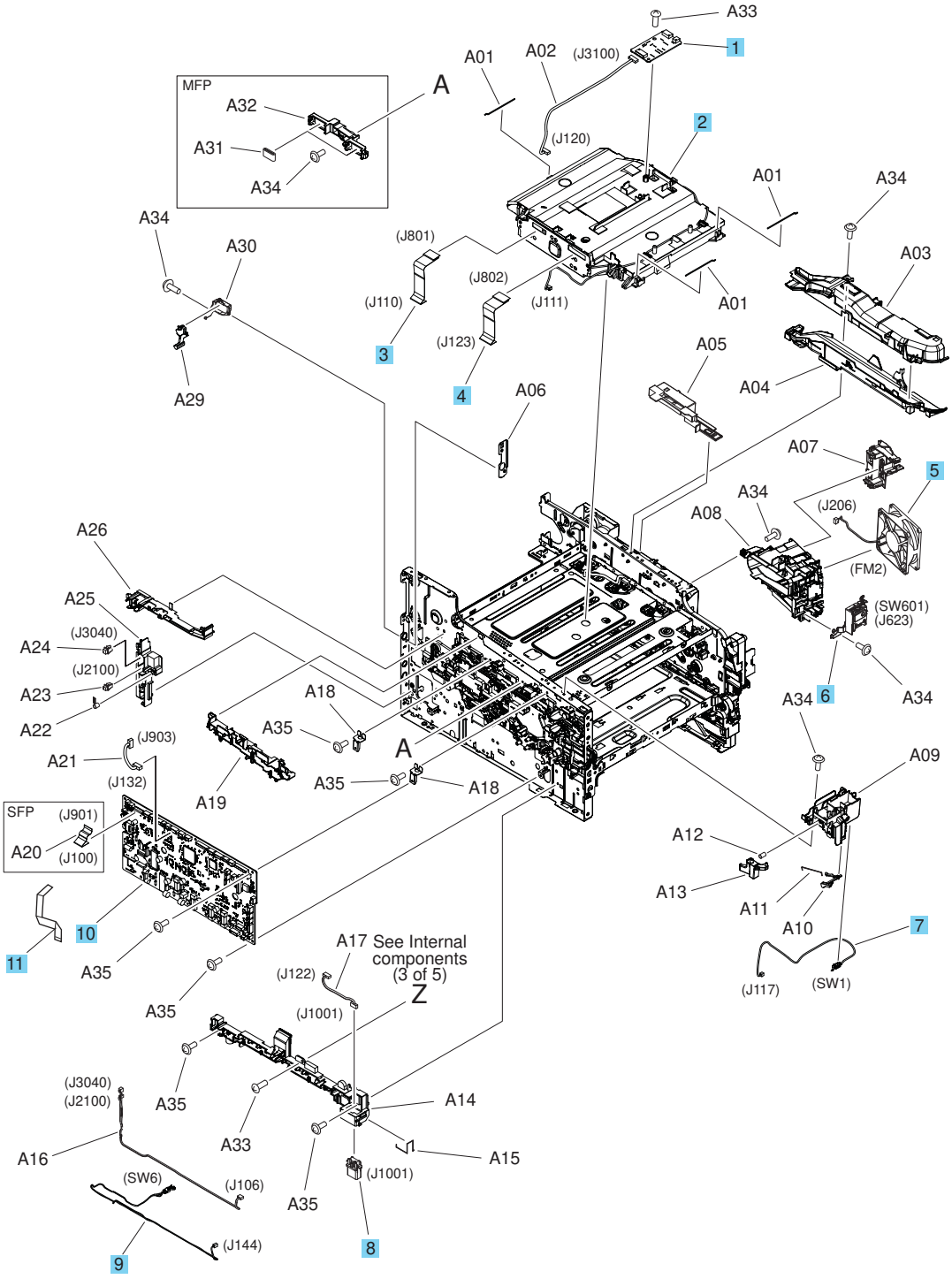


Table 5-8 Internal assemblies (1 of 5)

Ref No	Part number	Description	Qty
1	RM3-7245-000CN	Memory PCA	1
2	RM2-5612-000CN	Laser scanner assembly	1
3	RM2-8662-000CN	Cable, flexible flat scanner	1
4	RM2-8663-000CN	Cable, flexible flat scanner	1
5	RK2-6270-000CN	Fan assembly	1
6	RM2-6373-000CN	Power switch (SW601) assembly	1
7	RM3-7227-000CN	Front door switch cable assembly	1
8	VS1-7258-007CN	Connector, drawer	1
9	RM2-7896-000CN	Cassette switch cable assembly	1
10	RM3-7272-000CN	DC controller	1
11	CF388-60116	Cable, flexible flat DC controller to frmtr	1

Parts and diagrams: Internal assemblies (2 of 5)

Parts diagram and parts list for the internal printer assemblies.

Figure 5-5 Internal assemblies (2 of 5)

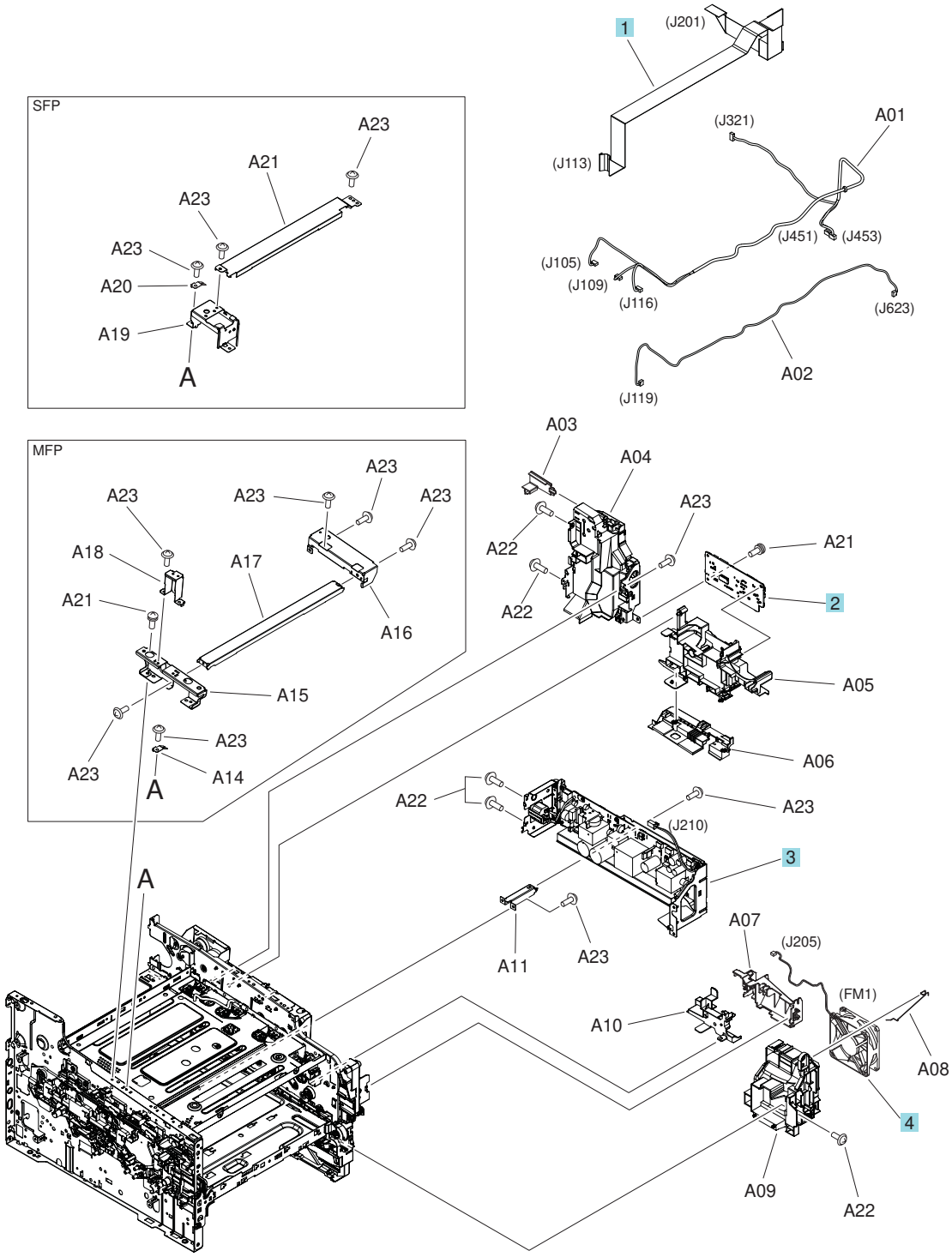


Table 5-9 Internal assemblies (2 of 5)

Ref No	Part number	Description	Qty
1	RM2-8661-000CN	Cable, flexible flat (DCC to driver PCA)	1
2	RM2-7369-000CN	Driver PCA assembly	1
3	RM3-7278-000CN	LV power supply PCA (110-127V)	1
3	RM3-7279-000CN	LV power supply PCA (220-240V)	1
4	RK2-6270-000CN	Fan assembly	1

Parts and diagrams: Internal assemblies (3 of 5)

Parts diagram and parts list for the internal printer assemblies.

Figure 5-6 Internal assemblies (3 of 5)

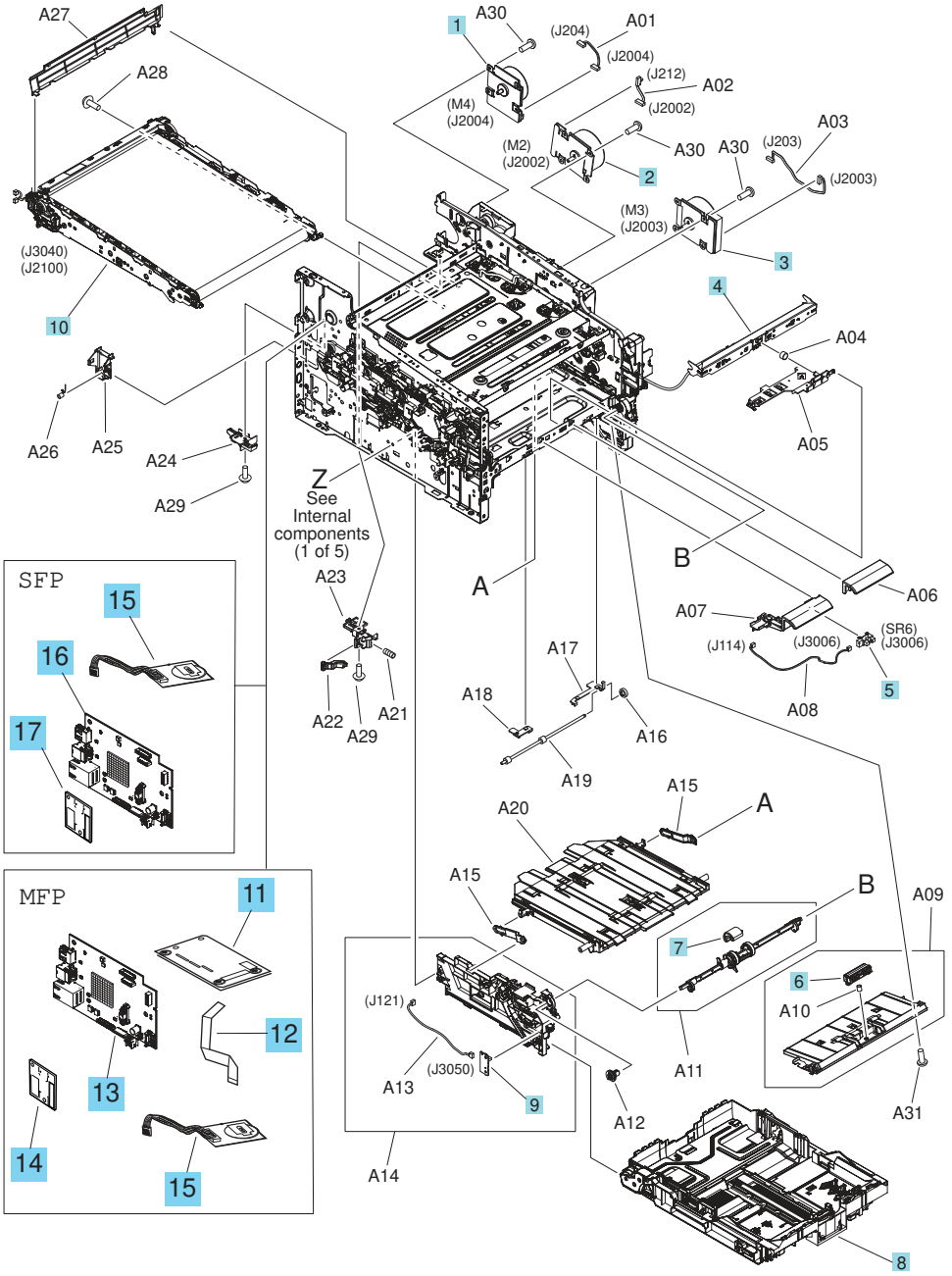


Table 5-10 Internal assemblies (3 of 5)

Ref No	Part number	Description	Qty
1	RM2-7349-000CN	Assembly, fixing motor	1
2	RM2-7342-000CN	Drum motor (M2)	1

Table 5-10 Internal assemblies (3 of 5) (continued)

Ref No	Part number	Description	Qty
3	RM2-7344-000CN	Developing motor (M3)	1
4	RM2-7399-000CN	Density detect sensor	1
5	WG8-5935-000CN	Photointerrupter, IC	1
6	RM2-6406-000CN	Separation pad assembly	1
7	RL1-2593-000CN	Roller, paper pickup	1
8	RM2-6377-000CN	Cassette (Tray 2) assembly	1
9	RM3-7236-000CN	Environment sensor PCB assembly	1
10	RM2-6454-000CN	Intermediate transfer belt (ITB) assembly	1
11	3PZ55-67980	Fax PCA with plug kit (USA)	1
11	3PZ55-67981	Fax PCA with plug kit (EURO)	1
11	3PZ55-67982	Fax PCA with plug kit (BRAZIL)	1
11	3PZ55-67983	Fax PCA with plug kit (AP)	1
12	3QA55-67904	Cable, FFC fax to formatter	1
13	3QA55-67901	Formatter (MFP)	1
13	3QA55-67902	Formatter (China/India; MFP)	1
14	B5L32-60002	eMMC 16GB (MFP)	1
15	3PZ15-67908	Island of Data (IOD)	1
16	3PZ95-67903	Formatter (SFP)	1
16	3PZ95-67904	Formatter (China/India; SFP)	1
17	3PZ15-67905	eMMC 4GB (SFP)	1
Not shown	3PZ95-67906	Locking Tray Guides (managed printers only)	1

Parts and diagrams: Internal assemblies (4 of 5)

Parts diagram and parts list for the internal printer assemblies.

Figure 5-7 **Internal assemblies (4 of 5)**

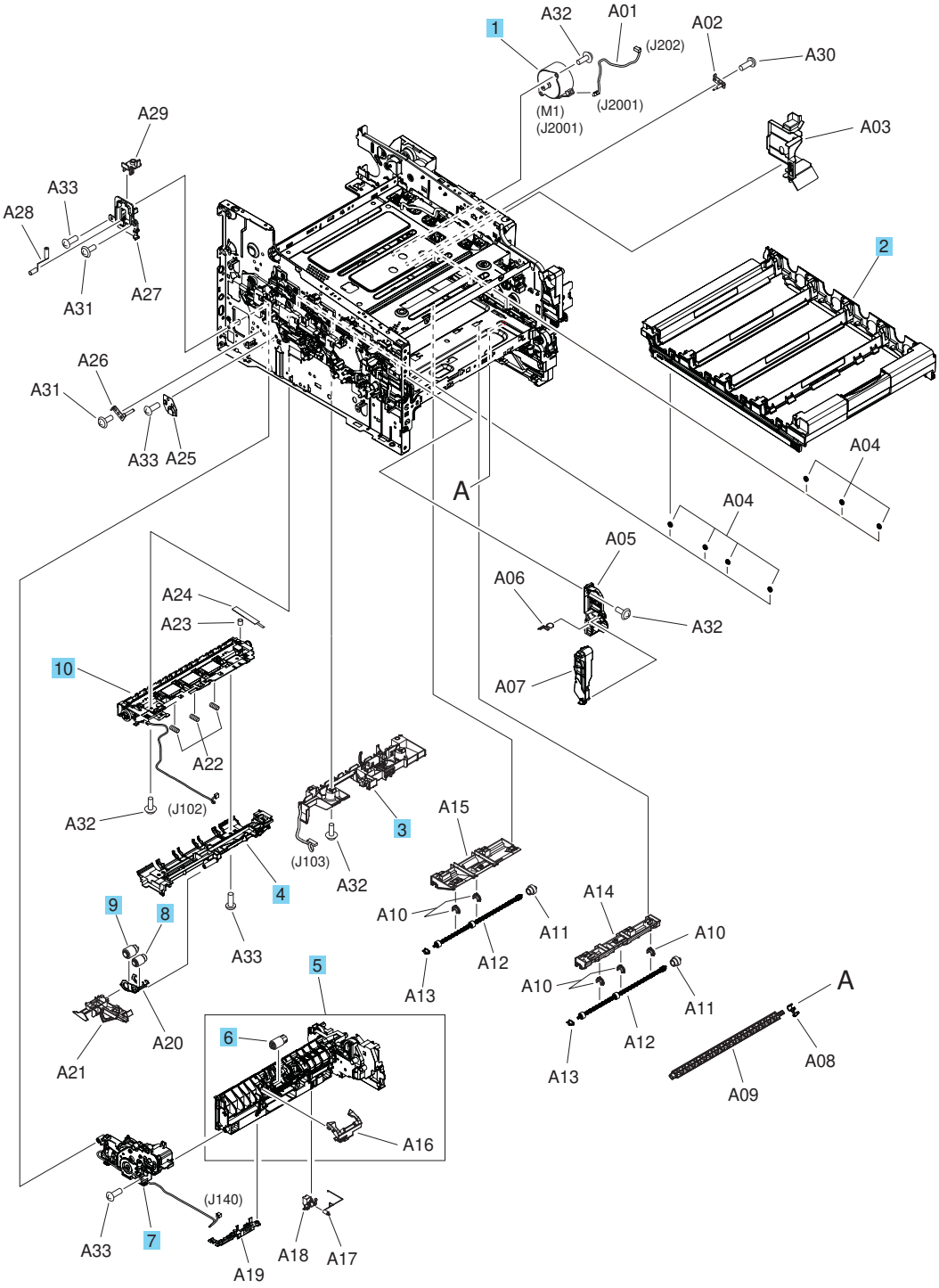


Table 5-11 Internal assemblies (4 of 5)

Ref No	Part number	Description	Qty
1	RM2-7350-000CN	Pickup motor assembly	1
2	RM2-1807-000CN	Cartridge (toner) tray assembly	1
3	RM2-6368-000CN	Feed guide assembly (front)	1
4	RM2-6366-000CN	Feed guide assembly (rear)	1
5	RM2-6372-000CN	Paper pickup assembly	1
6	RM2-5881-000CN	Roller, separation assembly	1
7	RM2-6370-000CN	Lifter drive assembly	1
8	RM2-5576-000CN	Roller, paper pickup assembly	1
9	RM2-5577-000CN	Roller, feed assembly	1
10	RM2-1839-000CN	Registration assembly	1

Parts and diagrams: Internal assemblies (5 of 5)

Parts diagram and parts list for the internal printer assemblies.

Figure 5-8 Internal assemblies (5 of 5)

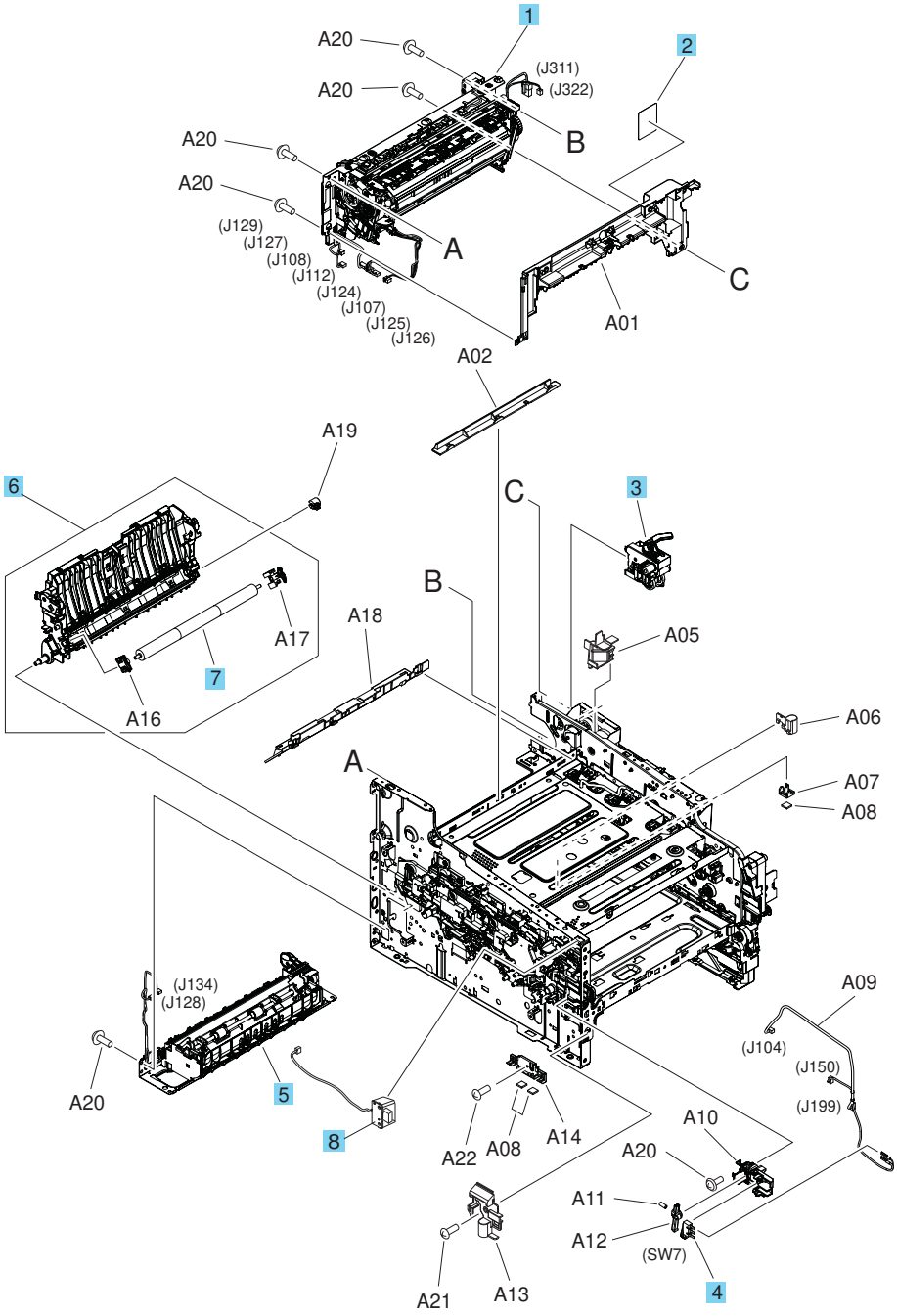


Table 5-12 Internal assemblies (5 of 5)

Ref No	Part number	Description	Qty
1	RM2-6460-000CN	Fuser assembly (110-127V)	1

Table 5-12 Internal assemblies (5 of 5) (continued)

Ref No	Part number	Description	Qty
1	RM2-6461-000CN	Fuser assembly (220-240V)	1
2	RU7-8613-000CN	Label, high-temperature caution	1
3	RM2-6389-000CN	Reverse drive assembly	1
4	RK2-0534-000CN	Door open switch (SW7, SW501)	1
5	RM2-6387-000CN	Paper re-pickup assembly	1
6	RM2-6397-000CN	Secondary transfer assembly	1
7	RM2-6455-000CN	Roller, secondary transfer assembly	1
8	5851-7008	USB connector (walk-up) and cable	1

Parts and diagrams: 550-sheet paper feeder covers

Parts diagram and part list for the 550-sheet paper feeder covers.

Figure 5-9 550-sheet paper feeder covers

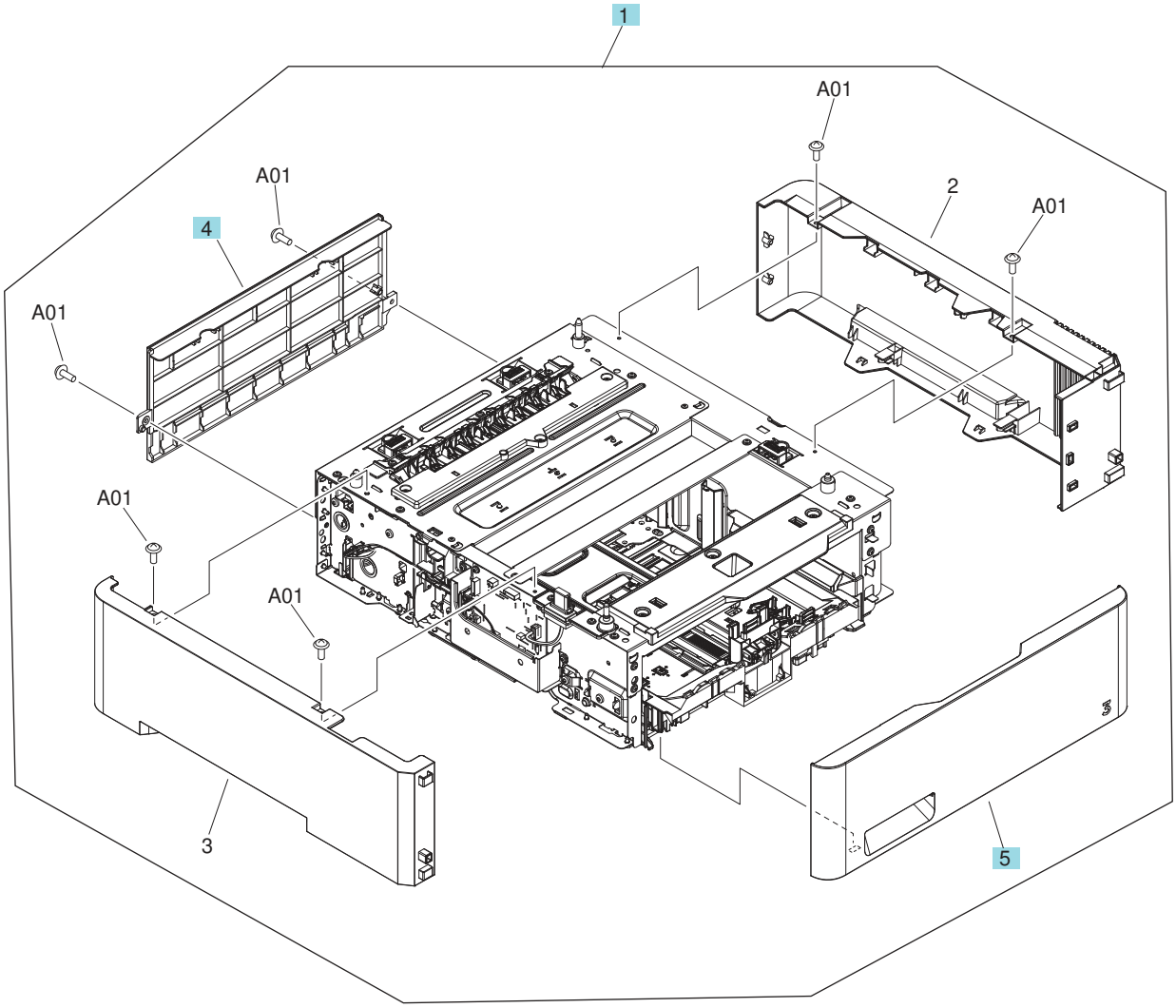


Table 5-13 550-sheet paper feeder covers

Ref No	Part number	Description	Qty
1	CF404-67901	550-sheet paper feeder	1
4	RC4-2203-000CN	Cover, rear (550-sheet paper feeder)	1
5	RC4-2224-000CN	Cover, cassette (550-sheet paper feeder)	1

Parts and diagrams: 550-sheet paper feeder main body (1 of 2)

Parts diagram and part list for the 550-sheet paper feeder main body.

Figure 5-10 **550-sheet paper feeder main body (1 of 2)**

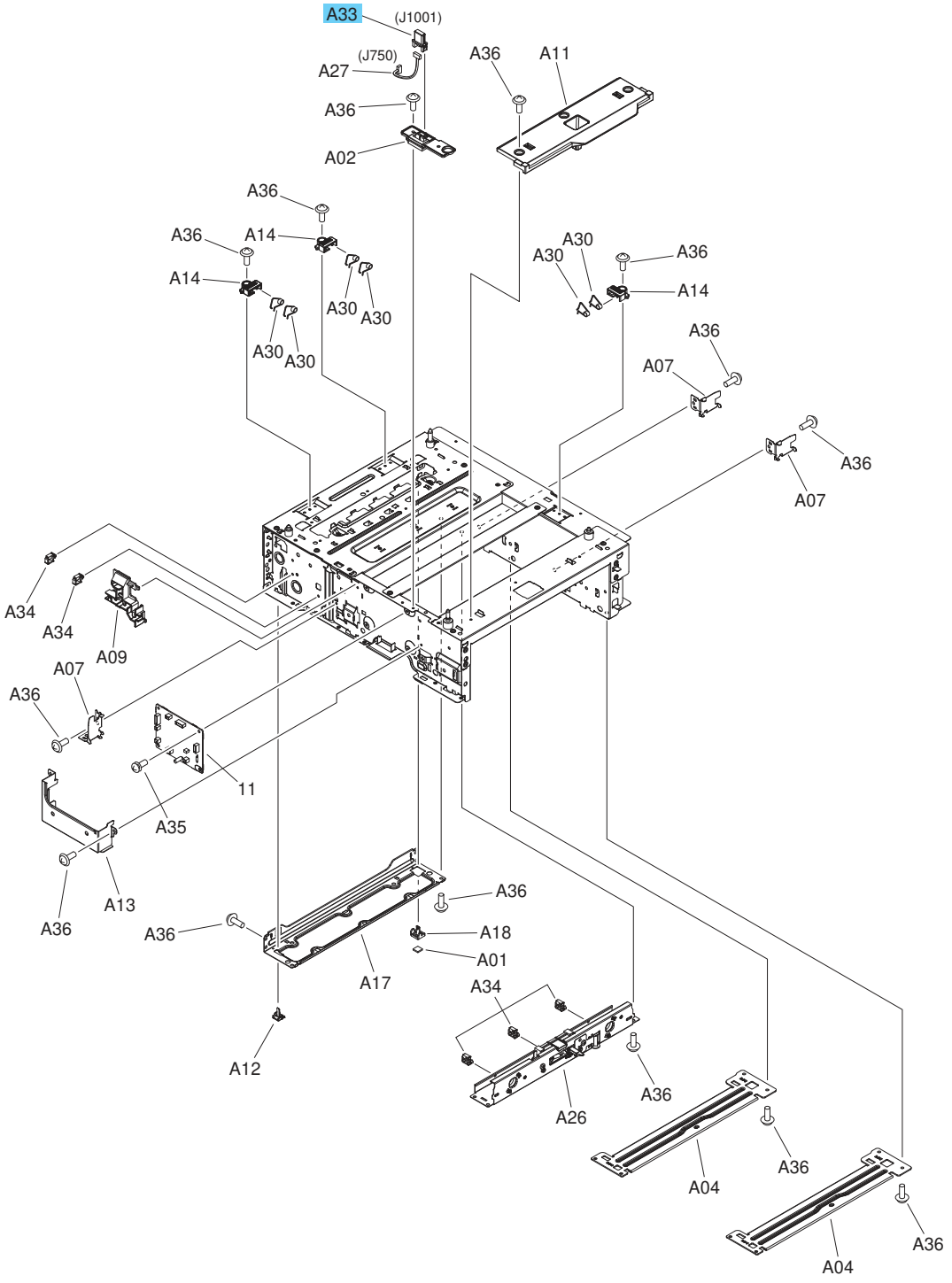


Table 5-14 550-sheet paper feeder main body (1 of 2)

Ref No	Part number	Description	Qty
A33	VS1-7257-007CN	Connector, drawer Tray 3 (550-sheet paper feeder)	1

Parts and diagrams: 550-sheet paper feeder main body (2 of 2)

Parts diagram and part list for the 550-sheet paper feeder main body.

Figure 5-11 550-sheet paper feeder main body (2 of 2)

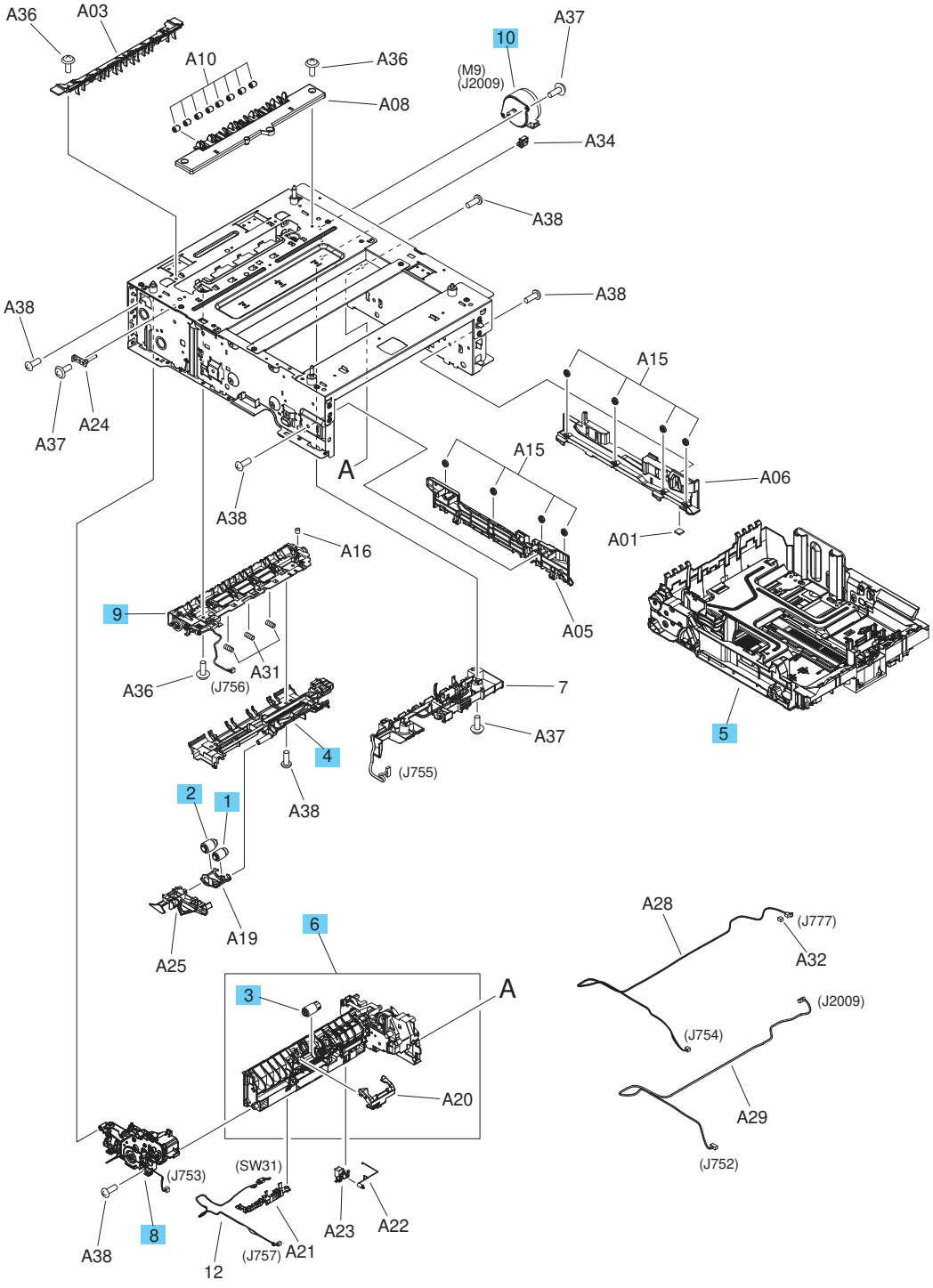


Table 5-15 550-sheet paper feeder main body (2 of 2)

Ref No	Part number	Description	Qty
1	RM2-5576-000CN	Roller, paper pickup assembly	1
2	RM2-5577-000CN	Roller, feed assembly	1
3	RM2-5881-000CN	Roller, separation assembly	1
4	RM2-6366-000CN	Feed guide assembly (rear)	1
5	RM2-6486-000CN	Cassette assembly, Tray 3 (550-sheet paper feeder)	1
6	RM2-6490-000CN	Paper pickup assembly (550-sheet paper feeder)	1
8	RM2-6493-000CN	Lifter drive assembly (550-sheet paper feeder)	1
9	RM2-1840-000CN	Paper feed assembly (550-sheet paper feeder)	1
10	RM2-7350-000CN	Pickup motor assembly (M9; 550-sheet paper feeder)	1

Alphabetical parts list

Table 5-16 Alphabetical parts list

Description	Part number	Table and page
550-sheet paper feeder	CF404-67901	550-sheet paper feeder covers on page 956
ADF top cover assembly (includes rollers)	W1A77-67903	Integrated scanner assembly on page 941
Assembly, fixing motor	RM2-7349-000CN	Internal assemblies (3 of 5) on page 950
Assy-duplex GSO (ISA/ADF assembly)	3PZ55-60116	Integrated scanner assembly on page 941
CP interconnect board and ground clip kit	3PZ55-67903	Covers (M480/E47528) on page 944
Cable, FFC fax to formatter	3QA55-67904	Internal assemblies (3 of 5) on page 950
Cable, flexible flat (DCC to driver PCA)	RM2-8661-000CN	Internal assemblies (2 of 5) on page 949
Cable, flexible flat DC controller to frmtr	CF388-60116	Internal assemblies (1 of 5) on page 947
Cable, flexible flat control panel to frmtr	3QA55-67903	Covers (M480/E47528) on page 944
Cable, flexible flat scanner	RM2-8662-000CN	Internal assemblies (1 of 5) on page 947
Cable, flexible flat scanner	RM2-8663-000CN	Internal assemblies (1 of 5) on page 947
Cartridge (toner) tray assembly	RM2-1807-000CN	Internal assemblies (4 of 5) on page 953
Cassette (Tray 2) assembly	RM2-6377-000CN	Internal assemblies (3 of 5) on page 950
Cassette assembly, Tray 3 (550-sheet paper feeder)	RM2-6486-000CN	550-sheet paper feeder main body (2 of 2) on page 960
Cassette switch cable assembly	RM2-7896-000CN	Internal assemblies (1 of 5) on page 947
Connector, drawer	VS1-7258-007CN	Internal assemblies (1 of 5) on page 947
Connector, drawer Tray 3 (550-sheet paper feeder)	VS1-7257-007CN	550-sheet paper feeder main body (1 of 2) on page 958
Control panel ICB chassis mount	3PZ55-67904	Covers (M480/E47528) on page 944
Control panel assembly	3PZ55-67901	Covers (M480/E47528) on page 944
Control panel mount base	3PZ55-67984	Covers (M480/E47528) on page 944
Cover, ISA FFCs	CF377-40004	Covers (M480/E47528) on page 944

Table 5-16 Alphabetical parts list (continued)

Description	Part number	Table and page
Cover, cassette	RC4-5334-000CN	Covers (M455/E45028) on page 942
Cover, cassette	RC4-5334-000CN	Covers (M480/E47528) on page 944
Cover, cassette (550-sheet paper feeder)	RC4-2224-000CN	550-sheet paper feeder covers on page 956
Cover, left (MFP)	RC4-6045-000CN	Covers (M480/E47528) on page 944
Cover, left (SFP)	RC4-4854-000CN	Covers (M455/E45028) on page 942
Cover, rear (550-sheet paper feeder)	RC4-2203-000CN	550-sheet paper feeder covers on page 956
Cover, right (MFP)	RC4-6044-000CN	Covers (M480/E47528) on page 944
Cover, right (SFP)	RC4-4853-000CN	Covers (M455/E45028) on page 942
Cover, top assembly (MFP)	RM2-3091-000CN	Covers (M480/E47528) on page 944
Cover, top assembly (SFP) (includes control panel and FFC)	RM2-3088-000CN	Covers (M455/E45028) on page 942
Cover, top control panel mount	3PZ55-67902	Covers (M480/E47528) on page 944
DC controller	RM3-7272-000CN	Internal assemblies (1 of 5) on page 947
Density detect sensor	RM2-7399-000CN	Internal assemblies (3 of 5) on page 950
Developing motor (M3)	RM2-7344-000CN	Internal assemblies (3 of 5) on page 950
Door open switch (SW7, SW501)	RK2-0534-000CN	Internal assemblies (5 of 5) on page 954
Driver PCA assembly	RM2-7369-000CN	Internal assemblies (2 of 5) on page 949
Drum motor (M2)	RM2-7342-000CN	Internal assemblies (3 of 5) on page 950
Duplexing door assembly	RM2-1838-000CN	Covers (M455/E45028) on page 942
Duplexing door assembly	RM2-1838-000CN	Covers (M480/E47528) on page 944
Environment sensor PCB assembly	RM3-7236-000CN	Internal assemblies (3 of 5) on page 950
Fan assembly	RK2-6270-000CN	Internal assemblies (1 of 5) on page 947
Fan assembly	RK2-6270-000CN	Internal assemblies (2 of 5) on page 949

Table 5-16 Alphabetical parts list (continued)

Description	Part number	Table and page
Fax PCA with plug kit (AP)	3PZ55-67983	Internal assemblies (3 of 5) on page 950
Fax PCA with plug kit (BRAZIL)	3PZ55-67982	Internal assemblies (3 of 5) on page 950
Fax PCA with plug kit (EURO)	3PZ55-67981	Internal assemblies (3 of 5) on page 950
Fax PCA with plug kit (USA)	3PZ55-67980	Internal assemblies (3 of 5) on page 950
Feed guide assembly (front)	RM2-6368-000CN	Internal assemblies (4 of 5) on page 953
Feed guide assembly (rear)	RM2-6366-000CN	Internal assemblies (4 of 5) on page 953
Feed guide assembly (rear)	RM2-6366-000CN	550-sheet paper feeder main body (2 of 2) on page 960
Formatter (China/India; MFP)	3QA55-67902	Internal assemblies (3 of 5) on page 950
Formatter (China/India; SFP)	3PZ95-67904	Internal assemblies (3 of 5) on page 950
Formatter (MFP)	3QA55-67901	Internal assemblies (3 of 5) on page 950
Formatter (SFP)	3PZ95-67903	Internal assemblies (3 of 5) on page 950
Front (cartridge) door assembly (MFP)	RM2-1824-000CN	Covers (M480/E47528) on page 944
Front (cartridge) door assembly (SFP)	RM2-1823-000CN	Covers (M455/E45028) on page 942
Front door switch cable assembly	RM3-7227-000CN	Internal assemblies (1 of 5) on page 947
Fuser assembly (110-127V)	RM2-6460-000CN	Internal assemblies (5 of 5) on page 954
Fuser assembly (220-240V)	RM2-6461-000CN	Internal assemblies (5 of 5) on page 954
Guide, control panel FFC and USB cable	CF377-40005	Covers (M480/E47528) on page 944
HP logo jewel	7121-8684	Covers (M455/E45028) on page 942
HP logo jewel	7121-8684	Covers (M480/E47528) on page 944
ISA lift assembly	B3Q10-60128	Integrated scanner assembly on page 941
ISA lift slider pin	B3Q10-40041	Integrated scanner assembly on page 941
Intermediate transfer belt (ITB) assembly	RM2-6454-000CN	Internal assemblies (3 of 5) on page 950

Table 5-16 Alphabetical parts list (continued)

Description	Part number	Table and page
Island of Data (IOD)	3PZ15-67908	Internal assemblies (3 of 5) on page 950
LV power supply PCA (110-127V)	RM3-7278-000CN	Internal assemblies (2 of 5) on page 949
LV power supply PCA (220-240V)	RM3-7279-000CN	Internal assemblies (2 of 5) on page 949
Label, high-temperature caution	RU7-8613-000CN	Internal assemblies (5 of 5) on page 954
Laser scanner assembly	RM2-5612-000CN	Internal assemblies (1 of 5) on page 947
Lifter drive assembly	RM2-6370-000CN	Internal assemblies (4 of 5) on page 953
Lifter drive assembly (550-sheet paper feeder)	RM2-6493-000CN	550-sheet paper feeder main body (2 of 2) on page 960
Locking Tray Guides (managed printers only)	3PZ95-67906	Internal assemblies (3 of 5) on page 950
Memory PCA	RM3-7245-000CN	Internal assemblies (1 of 5) on page 947
Paper feed assembly (550-sheet paper feeder)	RM2-1840-000CN	550-sheet paper feeder main body (2 of 2) on page 960
Paper pickup assembly	RM2-6372-000CN	Internal assemblies (4 of 5) on page 953
Paper pickup assembly (550-sheet paper feeder)	RM2-6490-000CN	550-sheet paper feeder main body (2 of 2) on page 960
Paper re-pickup assembly	RM2-6387-000CN	Internal assemblies (5 of 5) on page 954
Photointerrupter, IC	WG8-5935-000CN	Internal assemblies (3 of 5) on page 950
Pickup motor assembly	RM2-7350-000CN	Internal assemblies (4 of 5) on page 953
Pickup motor assembly	RM2-7350-000CN	550-sheet paper feeder main body (2 of 2) on page 960
Power switch (SW601) assembly	RM2-6373-000CN	Internal assemblies (1 of 5) on page 947
Registration assembly	RM2-1839-000CN	Internal assemblies (4 of 5) on page 953
Reverse drive assembly	RM2-6389-000CN	Internal assemblies (5 of 5) on page 954
Roller, feed assembly	RM2-5577-000CN	Internal assemblies (4 of 5) on page 953
Roller, feed assembly	RM2-5577-000CN	550-sheet paper feeder main body (2 of 2) on page 960
Roller, paper pickup	RL1-2593-000CN	Internal assemblies (3 of 5) on page 950

Table 5-16 Alphabetical parts list (continued)

Description	Part number	Table and page
Roller, paper pickup assembly	RM2-5576-000CN	Internal assemblies (4 of 5) on page 953
Roller, paper pickup assembly	RM2-5576-000CN	550-sheet paper feeder main body (2 of 2) on page 960
Roller, secondary transfer assembly	RM2-6455-000CN	Internal assemblies (5 of 5) on page 954
Roller, separation assembly	RM2-5881-000CN	Internal assemblies (4 of 5) on page 953
Roller, separation assembly	RM2-5881-000CN	550-sheet paper feeder main body (2 of 2) on page 960
Secondary transfer assembly	RM2-6397-000CN	Internal assemblies (5 of 5) on page 954
Separation pad assembly	RM2-6406-000CN	Internal assemblies (3 of 5) on page 950
USB connector (walk-up) and cable	5851-7008	Internal assemblies (5 of 5) on page 954
eMMC 16GB	B5L32-60002	Internal assemblies (3 of 5) on page 950
eMMC 4GB	3PZ15-67905	Internal assemblies (3 of 5) on page 950

Numerical parts list

Table 5-17 **Numerical parts list**

Part number	Description	Table and page
3PZ15-67905	eMMC 4GB	Internal assemblies (3 of 5) on page 950
3PZ15-67908	Island of Data (IOD)	Internal assemblies (3 of 5) on page 950
3PZ55-60116	Assy-duplex GSO (ISA/ADF assembly)	Integrated scanner assembly on page 941
3PZ55-67901	Control panel assembly	Covers (M480/E47528) on page 944
3PZ55-67902	Cover, top control panel mount	Covers (M480/E47528) on page 944
3PZ55-67903	CP interconnect board and ground clip kit	Covers (M480/E47528) on page 944
3PZ55-67904	Control panel ICB chassis mount	Covers (M480/E47528) on page 944
3PZ55-67980	Fax PCA with plug kit (USA)	Internal assemblies (3 of 5) on page 950
3PZ55-67981	Fax PCA with plug kit (EURO)	Internal assemblies (3 of 5) on page 950
3PZ55-67982	Fax PCA with plug kit (BRAZIL)	Internal assemblies (3 of 5) on page 950
3PZ55-67983	Fax PCA with plug kit (AP)	Internal assemblies (3 of 5) on page 950
3PZ55-67984	Control panel mount base	Covers (M480/E47528) on page 944
3PZ95-67903	Formatter (SFP)	Internal assemblies (3 of 5) on page 950
3PZ95-67904	Formatter (China/India; SFP)	Internal assemblies (3 of 5) on page 950
3PZ95-67906	Locking Tray Guides (managed printers only)	Internal assemblies (3 of 5) on page 950
3QA55-67901	Formatter (MFP)	Internal assemblies (3 of 5) on page 950
3QA55-67902	Formatter (China/India; MFP)	Internal assemblies (3 of 5) on page 950
3QA55-67903	Cable, flexible flat control panel to frmtr	Covers (M480/E47528) on page 944
3QA55-67904	Cable, FFC fax to formatter	Internal assemblies (3 of 5) on page 950
5851-7008	USB connector (walk-up) and cable	Internal assemblies (5 of 5) on page 954
7121-8684	HP logo jewel	Covers (M455/E45028) on page 942

Table 5-17 **Numerical parts list (continued)**

Part number	Description	Table and page
7121-8684	HP logo jewel	Covers (M480/E47528) on page 944
B3Q10-40041	ISA lift slider pin	Integrated scanner assembly on page 941
B3Q10-60128	ISA lift assembly	Integrated scanner assembly on page 941
B5L32-60002	eMMC 16GB	Internal assemblies (3 of 5) on page 950
CF377-40004	Cover, ISA FFCs	Covers (M480/E47528) on page 944
CF377-40005	Guide, control panel FFC and USB cable	Covers (M480/E47528) on page 944
CF388-60116	Cable, flexible flat DC controller to frmtr	Internal assemblies (1 of 5) on page 947
CF404-67901	550-sheet paper feeder	550-sheet paper feeder covers on page 956
RC4-2203-000CN	Cover, rear (550-sheet paper feeder)	550-sheet paper feeder covers on page 956
RC4-2224-000CN	Cover, cassette (550-sheet paper feeder)	550-sheet paper feeder covers on page 956
RC4-4853-000CN	Cover, right (SFP)	Covers (M455/E45028) on page 942
RC4-4854-000CN	Cover, left (SFP)	Covers (M455/E45028) on page 942
RC4-5334-000CN	Cover, cassette	Covers (M455/E45028) on page 942
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RK2-0534-000CN	Door open switch (SW7, SW501)	Internal assemblies (5 of 5) on page 954
RK2-6270-000CN	Fan assembly	Internal assemblies (1 of 5) on page 947
RK2-6270-000CN	Fan assembly	Internal assemblies (2 of 5) on page 949
RL1-2593-000CN	Roller, paper pickup	Internal assemblies (3 of 5) on page 950
RM2-1807-000CN	Cartridge (toner) tray assembly	Internal assemblies (4 of 5) on page 953
RM2-1823-000CN	Front (cartridge) door assembly (SFP)	Covers (M455/E45028) on page 942

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RM2-1838-000CN	Duplexing door assembly	Covers (M480/E47528) on page 944
RM2-1839-000CN	Registration assembly	Internal assemblies (4 of 5) on page 953
RM2-1840-000CN	Paper feed assembly (550-sheet paper feeder)	550-sheet paper feeder main body (2 of 2) on page 960
RM2-3088-000CN	Cover, top assembly (SFP) (includes control panel and FFC)	Covers (M455/E45028) on page 942
RM2-3091-000CN	Cover, top assembly (MFP)	Covers (M480/E47528) on page 944
RM2-5576-000CN	Roller, paper pickup assembly	Internal assemblies (4 of 5) on page 953
RM2-5576-000CN	Roller, paper pickup assembly	550-sheet paper feeder main body (2 of 2) on page 960
RM2-5577-000CN	Roller, feed assembly	Internal assemblies (4 of 5) on page 953
RM2-5577-000CN	Roller, feed assembly	550-sheet paper feeder main body (2 of 2) on page 960
RM2-5612-000CN	Laser scanner assembly	Internal assemblies (1 of 5) on page 947
RM2-5881-000CN	Roller, separation assembly	Internal assemblies (4 of 5) on page 953
RM2-5881-000CN	Roller, separation assembly	550-sheet paper feeder main body (2 of 2) on page 960
RM2-6366-000CN	Feed guide assembly (rear)	Internal assemblies (4 of 5) on page 953
RM2-6366-000CN	Feed guide assembly (rear)	550-sheet paper feeder main body (2 of 2) on page 960
RM2-6368-000CN	Feed guide assembly (front)	Internal assemblies (4 of 5) on page 953
RM2-6370-000CN	Lifter drive assembly	Internal assemblies (4 of 5) on page 953
RM2-6372-000CN	Paper pickup assembly	Internal assemblies (4 of 5) on page 953
RM2-6373-000CN	Power switch (SW601) assembly	Internal assemblies (1 of 5) on page 947
RM2-6377-000CN	Cassette (Tray 2) assembly	Internal assemblies (3 of 5) on page 950
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RM2-6454-000CN	Intermediate transfer belt (ITB) assembly	Internal assemblies (3 of 5) on page 950
RM2-6455-000CN	Roller, secondary transfer assembly	Internal assemblies (5 of 5) on page 954
RM2-6460-000CN	Fuser assembly (110-127V)	Internal assemblies (5 of 5) on page 954
RM2-6461-000CN	Fuser assembly (220-240V)	Internal assemblies (5 of 5) on page 954
RM2-6486-000CN	Cassette assembly, Tray 3 (550-sheet paper feeder)	550-sheet paper feeder main body (2 of 2) on page 960
RM2-6490-000CN	Paper pickup assembly (550-sheet paper feeder)	550-sheet paper feeder main body (2 of 2) on page 960
RM2-6493-000CN	Lifter drive assembly (550-sheet paper feeder)	550-sheet paper feeder main body (2 of 2) on page 960
RM2-7342-000CN	Drum motor (M2)	Internal assemblies (3 of 5) on page 950
RM2-7344-000CN	Developing motor (M3)	Internal assemblies (3 of 5) on page 950
RM2-7349-000CN	Assembly, fixing motor	Internal assemblies (3 of 5) on page 950
RM2-7350-000CN	Pickup motor assembly	Internal assemblies (4 of 5) on page 953
RM2-7350-000CN	Pickup motor assembly	550-sheet paper feeder main body (2 of 2) on page 960
RM2-7369-000CN	Driver PCA assembly	Internal assemblies (2 of 5) on page 949
RM2-7399-000CN	Density detect sensor	Internal assemblies (3 of 5) on page 950
RM2-7896-000CN	Cassette switch cable assembly	Internal assemblies (1 of 5) on page 947
RM2-8661-000CN	Cable, flexible flat (DCC to driver PCA)	Internal assemblies (2 of 5) on page 949
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RM3-7278-000CN	LV power supply PCA (110-127V)	Internal assemblies (2 of 5) on page 949
RM3-7279-000CN	LV power supply PCA (220-240V)	Internal assemblies (2 of 5) on page 949
RU7-8613-000CN	Label, high-temperature caution	Internal assemblies (5 of 5) on page 954
VS1-7257-007CN	Connector, drawer Tray 3 (550-sheet paper feeder)	550-sheet paper feeder main body (1 of 2) on page 958
VS1-7258-007CN	Connector, drawer	Internal assemblies (1 of 5) on page 947
W1A77-67903	ADF top cover assembly (includes rollers)	Integrated scanner assembly on page 941
WG8-5935-000CN	Photointerrupter, IC	Internal assemblies (3 of 5) on page 950

Glossary of terms

802.11

802.11 is a set of standards for wireless local area network (WLAN) communication, developed by the IEEE LAN/MAN Standards Committee (IEEE 802).

802.11b/g/n

802.11b/g/n can share the same hardware and use the 2.4 GHz band. 802.11b supports bandwidth up to 11 Mbps, 802.11n supports bandwidth up to 150 Mbps. 802.11b/g/n devices might occasionally suffer interferences from microwave ovens, cordless telephones, and Bluetooth devices.

AC

An electric current that reverses its direction many times a second at regular intervals. For example, the 110V line current found in a typical US electrical wall receptacle.

AC Control Module (PageWide)

The AC Control Module controls the heating elements in the airflow assembly. Functions include voltage monitoring (ensuring correct operation in a low-quality-power environment), isolation (low voltage heater control signals are isolated from the high voltage AC power for safety), AC switching (power is switched on/off to the heater), and heating element configuration (heating element configuration is changed between series and parallel for temperature predictability).

ADF

An Automatic Document Feeder (ADF) is a device that automatically feeds an original sheet (or multiple sheets) of paper into the image scanner. The document feeder is a component of the integrated scanner assembly (ADF and image scanner).

Airflow System (PageWide)

The airflow system conditions the printed pages to avoid page curling due to the ink on the page. The airflow system functionally consists of a fan and heating elements. The pressurized air is blown on the page through the nozzles that are placed on the paper path of the airflow system between print and eject zone.

BOOTP

Bootstrap Protocol. A network protocol used by a network client to obtain its IP address automatically. This is usually done in the bootstrap process of computers or operating systems running on them. The BOOTP servers assigns an IP address from a pool of addresses to each client. BOOTP enables “diskless workstation” computers to obtain an IP address prior to loading any advanced operating system.

CCD

A Charged Coupled Device (CCD) is the scanner module which enables a scan job. A CCD locking mechanism is used to hold the CCD module to prevent any damage when the printer is moved.

CIS

A Contact Image Sensor (CIS) scanner captures an image using the printer's optical path. Red, green, and blue LEDs sequentially illuminate a small strip of the document (often called a raster line), and the optical system captures each color in a single row of Charged Coupled Device (CCD) sensors that cover the entire page width.

Collation

Collation is a process of printing a multiple-copy job in sets. When collation is selected, the device prints an entire set before printing additional copies.

Control Panel

The control panel is a flat, typically vertical panel or screen where the user can control and/or monitor the printer. The control panel is found on the front of the printer.

Coverage

Coverage is the printing term used for a toner usage measurement on printing. For example, 5% coverage means that an A4 sided paper has about 5% image or text on it. If the paper or original has complicated images or a large amount of text, the coverage will be higher and at the same time, a toner usage will be as much as the coverage.

DC

An electric current flowing in one direction only. Typically, a low voltage load current supplied to an electrical assembly.

DCC

The DC controller (DCC) controls the operation of the printer sub-systems and electrical components. the DCC sends out various signals to operate motors, solenoids, and other printer components based on the print command and image data that the host computer sends the formatter.

Default

The value or setting that is in effect when a printer is unboxed, reset, or initialized.

DHCP

Dynamic Host Configuration Protocol (DHCP) is a client-server networking protocol. A DHCP server provides configuration parameters specific to the DHCP client host requesting, generally, information required by the client host to participate on an IP network. The DHCP also provides a mechanism for allocation of IP addresses to client hosts.

Digital Send Software

Digital send software allows a mufti-function printer (MFP) to scan and send information quickly and securely to email, network folders, other printers, and fax services.

DIMM

A Dual Inline Memory Module (DIMM) is a small circuit board that holds memory. The DIMM stores all data within the printer, such as printing data and received fax data.

DPI

Dots Per Inch (DPI) is a measurement of resolution that is used for scanning and printing. Generally, higher DPI results in a higher resolution (more visible detail in the image and a larger file size).

Duplex

A mechanism that automatically turns over a sheet of paper so that the printer can print (or scan) on both sides of the paper. A printer equipped with a duplex unit can print on both sides of the paper during one print cycle.

Duty Cycle

Duty cycle is the page quantity which does not affect printer performance for a month. Generally, the printer has the lifespan limitation such as pages per year. The lifespan means the average capacity of print-outs, usually within the warranty period. For example, if the duty cycle is 48,000 pages per month the printer limit is 2,400 pages a day (assuming 20 working days/month).

Dynamic Security

Dynamic Security is a toner cartridge design and process for authenticating genuine HP supplies. HP printers use toner cartridges that have security chips or electronic circuitry. Cartridges using a non-HP chip, or modified chip, or non-HP circuitry might not work (now or in the future).

e-Duplex

Single-pass electronic duplex (e-Duplex) printer use two separate scan modules to scan the front-side and back-side of an e-duplex copy job page in a single pass through the document feeder.

EMC

EMC is a measure of a device's ability to operate as intended in its shared operating environment while, at the same time, not affecting the ability of other equipment within the same environment to operate as intended.

EMI

EMI is the electromagnetic energy which affects the functioning of an electronic device. Electronic devices (like printers) are a source of EMI. Because it is rare for electronics to operate in isolation, products are generally engineered to function in the presence of some amount of EMI.

eMMC

An embedded Multi-Media Card is a compact memory device consisting of NAND flash memory and a simple storage controller.

Emulation

Emulation is a technique of one machine obtaining the same results as another. An emulator duplicates the functions of one system with a different system, so that the second system behaves like the first system. Emulation focuses on exact reproduction of external behavior. This is different from simulation, which concerns an abstract model of the system being simulated, often considering its internal state.

EPS

Encapsulated PostScript (EPS) is a PostScript (PS) code file which is used for storing font and vector graphic image information.

ESD

An electrostatic discharge (ESD) is a sudden flow of electricity between two electrically charged objects caused by contact, an electrical short, or dielectric breakdown. Discharge of built up static electricity.

Ethernet

Ethernet is a frame-based computer networking technology for local area networks (LANs). It defines wiring and signaling for the physical layer, and frame formats and protocols for the media access control (MAC)/data link layer of the OSI model. Ethernet is mostly standardized as IEEE 802.3. Ethernet has become the most widespread LAN technology in use during the 1990s to present.

Ferrite

A ferrite is used to reduce the amount of radio frequency noise (or interference) in a wire or cable. A ferrite enables proper EMC/EMI performance for regulatory purposes.

FFC

Flat Flexible Cables (FFCs) are designed for Printed Circuit Assembly (PCA) to PCA connections (for example, connecting a fax PCA to the formatter).

FIH

A Foreign Interface Harness (FIH) is a port that enables HP multifunction printers (MFPs) to use third-party devices to extend the capabilities of the MFP.

Firmware

The formatter stores the printer firmware. A remote firmware upgrade process is used to overwrite and upgrade the firmware.

Flash memory

Flash memory is non-volatile, meaning it retains stored data even when the power is turned off.

Flow integrated scanner assembly

A printer scanner assembly that includes a slide-out external physical keyboard.

Formatter (LaserJet)

The formatter controls printer functions like receiving and processes print data, developing and coordinating data placement and timing with the DC controller PCA, storing font and customer configuration information, communicating with the host computer, and monitoring control panel functions and relaying printer status information through the control panel.

FTP

FTP stands for File Transfer Protocol. FTP is a protocol designed for transferring files over the Internet. Files stored on an FTP server can be accessed using an FTP client, such as a web browser, FTP software program, or a command line interface.

Fuser Unit

The fuser unit is part of a laser printer that adheres the toner onto the printed page. It consists of a heat roller and a pressure roller. After toner is transferred onto the paper, the fuser unit applies heat and pressure to make sure that the toner stays on the paper permanently (which is why paper is warm when it comes out of a laser printer).

Gateway

A connection between computer networks, or between a computer network and a telephone line. A gateway is used to connect two different computer networks, especially a connection to the Internet.

Grayscale

Shades of gray that represent light and dark portions of a color image printed in monochrome. Colors are represented by a range of gray shades from white to black.

Halftone

Halftone is a way of reproducing a photograph or other image in which the various tones of gray or color are produced by variously sized dots of ink or toner. Halftone simulates grayscale by varying the number of dots. Highly colored areas consist of a large number of dots, while lighter areas consist of a smaller number of dots.

HDD

A Hard-Disk Drive (HDD) (commonly referred to as a hard drive or hard disk) is a non-volatile storage device which stores digitally-encoded data on rapidly rotating platters with magnetic surfaces.

IEEE

The Institute of Electrical and Electronics Engineers (IEEE) is an international non-profit, professional organization for the advancement of technology related to electricity.

Image scanner

The image scanner (or Sub Scanner Assembly) contains the components to digitally scan an original source document. The image scanner is a component of the integrated scanner assembly (ADF and image scanner).

IP address

An Internet Protocol (IP) address is a unique number that a device uses in order to identify and communicate with other devices on a network utilizing the Internet Protocol standard.

IPM

The Images Per Minute (IPM) is a method of measuring the speed of a printer. An IPM rate indicates the number of single-sided sheets a printer can complete in one minute.

IPP

The Internet Printing Protocol (IPP) defines a standard protocol for printing and managing print jobs, media size, resolution, etc. IPP can be used locally, or over the internet to reach hundreds of printers. IPP also supports access control, authentication, and encryption, making it a capable and secure printing solution.

ISA

The Integrated Scanner Assembly (ISA) includes the document feeder and image scanner.

ISO

The International Organization for Standardization (ISO) is an international standard-setting body composed of representatives from national standards bodies. In produces world-wide industrial and commercial standards.

JBIG

Joint Bi-level Image Experts Group (JBIG) is an image compression standard with no loss of accuracy or quality. It was designed for compression of binary images, particularly for faxes, but can also be used for other images.

JPEG

Joint Photographic Experts Group (JPEG) is a commonly used standard method of loss compression for photographic images. It is the format used for storing and transmitting photographs on the World Wide Web.

LDAP

The Lightweight Directory Access Protocol (LDAP) is a networking protocol for querying and modifying directory services running over TCP/IP.

LED

A Light-Emitting Diode (LED) is a semiconductor device that can indicate the status of a printer (formatter LEDs) or a component in a contact image sensor (CIS) scanner that helps capture an image.

LEDM

Low end data model (LEDM) provides one consistent data representation method and defines the dynamic and capabilities tickets shared between clients and devices, as well as the access protocol, event, security, and discovery methods.

LPDC

Late point differentiation configuration (LPDC) allows the channel partner to configure the speed to the printer depending on the customer's order. LPDC configuration is stored on the Trusted Platform Module (TPM).

LVPS - SMPS

Low Voltage Power Supplies (LVPS) and Switching Mode Power Supplies (SMPS) supply direct current (DC) voltages to various printer components and assemblies.

MAC address

Media Access Control (MAC) address is a unique identifier associated with a network adapter. MAC address is a unique 48-bit identifier usually written as 12 hexadecimal characters grouped in pairs (for example, 00-00-0c-34-11-4e). This address is usually hard-coded into a Network Interface Card (NIC) by the manufacturer and used as an aid for routers trying to locate machines on a large network.

MEt

HP Memory Enhancement technology (MEt) effectively doubles the standard memory through a variety of font- and data-compression methods. MEt is available only in Printer Command Language (PCL) mode; it is not functional when printing in PostScript (PS) mode.

MFP

A Multi Function Printer (MFP) is a printer that incorporates multiple functionalities in a single physical body. For example, an MFP printer can scan, digitally send, fax, copy, and print.

MHV

Miniature High Voltage (MHV) is designed for high voltage applications of BNC connectors (DC voltage between 500 V and 5 kV).

Modem

A device that modulates a carrier signal to encode digital information, and also demodulates such a carrier signal to decode transmitted information.

MPCA (PageWide)

The MPCA integrates both formatter (LaserJet) and engine control electronics (DC controller) into a single assembly. The Main PCA (MPCA) controls printer functions like receiving and processes print data, developing and coordinating data placement, storing font and customer configuration information, communicating with the host computer, and monitoring control panel functions and relaying printer status information through the control panel.

NAND

NAND is not an acronym (the term is short for **NOT AND** a Boolean operator and logic gate). NAND (flash) memory is non-volatile, meaning it retains stored data even when the power is turned off.

NVRAM

Nonvolatile random access memory (NVRAM) is used to store I/O and information about the print environment configuration (stored data even when the power is turned off).

OPC

Organic Photo Conductor (OPC) is a mechanism that makes a virtual image for print using a laser beam emitted from a laser printer. It is usually green or rust colored and has a cylinder shape. An imaging unit containing a drum slowly wears the drum surface during its usage in the printer, and it should be replaced appropriately due to wear from contact with the cartridge development brush, cleaning mechanism, and paper.

Originals

The first example of something, such as a document, photograph, or text which is copied, reproduced, or translated to produce additional copies. The original itself is not copied or derived from something else.

PCA

Printed Circuit Assembly (PCA). Once the printed circuit board (PCB) is complete, electronic components must be assembled to form a functional printed circuit assembly or PCA.

PCL

Printer Command Language (PCL) is a Page Description Language (PDL) developed by HP as a printer protocol. PCL has become an industry standard. Originally developed for early Inkjet printers, PCL has been released in varying levels for thermal, dot matrix printers and laser printers.

PDF

Portable Document Format (PDF) is a proprietary file format developed by Adobe Systems. A PDF represents two dimension documents in a device independent and resolution independent format.

PJL

Printer job language (PJL) is an integral part of printer configuration, in addition to the standard PCL and PostScript (PS). With standard cabling, the printer can use PJL to perform a variety of functions like dynamic I/O switching, context-sensitive switching, and isolation of print environment settings from one print job to the next.

PML

Printer management language (PML) allows remote configuration of the printer and status read-back from the printer through the I/O ports.

PostScript (PS)

PostScript (PS) is a Page Description Language (PDL) and programming language used primarily in electronic and desktop publishing. PostScript is run in an interpreter to generate an image.

PPM

Pages Per Minute (PPM) is a method of measurement for determining how fast a printer works, meaning the number of pages a printer can produce in one minute.

Print Media

Media like paper, envelopes, labels, and transparencies which can be used in a printer, scanner, fax, or copier.

Printer Driver

A program used to send commands and transfer data from the computer to the printer.

Printhead (PageWide)

The printhead converts the digital firing instructions from the printer electronics into properly formed and timed microscopic drops of the four ink colors.

Printhead Wiper (PageWide)

The printhead wiper system keeps the printhead nozzles firing correctly throughout the life of the printer as it performs the wiping and capping functions. The wiping function cleans the nozzles of ink residue and particulates. The capping function keeps the nozzles moist during storage and when the printer is idle.

Protocol

A convention or standard that controls or enables the connection, communication, and data transfer between two computing endpoints.

RAM

Random Access Memory (RAM) is the printer memory device where the data in current use is kept so it can be quickly retrieved by the device's processor. This memory is an important factor in avoiding errors and printing documents properly. Printer memory is used to store, and process print jobs as they are sent to the printer from a computer. After printing, the job is cleared from the memory to make room for more print jobs. Printer memory is directly linked to two print characteristics: speed and print quality. More memory allows you to print faster and print larger, high-quality graphics.

REDI sensor

An optical reflective edge detection interrupter (REDI) sensor. Usually used in conjunction with mirrors to sense the presence or absence of paper in the paper path. These sensors are carefully aligned and calibrated at the factory, so care must be taken when servicing these sensors.

Resolution

The sharpness of an image is measured in Dots Per Inch (DPI). The higher the DPI, the greater the resolution.

SCB

The Scanner Control Board (SCB) controls the functions of the image scanner components in the Sub Scanner Assembly (SSA).

Service fluid and aerosol management systems (PageWide)

There are two types of service fluid, shipping fluid and ink. The service fluid management system is contained entirely within the duplex module. Service fluid is discharged as droplets from the printhead, and then collected in a container inside the duplex module. Some of the droplets are called aerosol because they are lighter than air. Aerosol can float inside the printer and collect on the lens of optical sensors, producing false failures. The aerosol management system transports the aerosol and collects it in a safe place. Aerosol management consists of an aerosol fan, mounted on the rear wall of the air flow assembly, which creates air flow that pulls the aerosol through the holes in the platen and into the aerosol filter inside the duplex module.

SFP

A single-function printer only processes print jobs sent from a host computer or from an USB port on the printer.

SMB

Server Message Block (SMB) is a network protocol mainly applied to share files, printers, serial ports, and miscellaneous communications between nodes on a network. SMB also provides an authenticated inter-process communication mechanism.

SMTP

Simple Mail Transfer Protocol (SMTP) is the standard for email transmissions across the internet. SMTP is a relatively simple, text-based protocol, where one or more recipient of a message is specified, and the message text is transferred. It is a client server protocol where the client transmits an email message to the server.

SODIMM

Small outline dual in-line memory module (SODIMM) is a thin profile memory storage device (a smaller alternative to a standard DIMM device).

SSA

The Sub-Scanner Assembly is the image scanner component of the Integrated Scanner Assembly (ISA, which includes the document feeder and the image scanner).

Subnet Mask

The subnet mask is used in conjunction with the network address to determine which part of the address is the network address and which part is the host address.

TCP/IP

The Transmission Control Protocol (TCP) and the Internet Protocol (IP) are the set of communications protocols that implement the protocol stack on which the internet and most commercial networks run.

TIFF

Tagged Image File Format (TIFF) is a variable-resolution bit mapped image format. TIFF describes image data that typically come from scanners. TIFF images use tags, keywords defining the characteristics of the image that is included in the file. This flexible and platform-independent format can be used for pictures that have been made by various image processing applications.

Toner Cartridge

A bottle or container that holds toner, which is used in a machine like a printer. Toner is a powder used in laser printers and photocopiers. The toner forms the text and images on printed paper. Toner can be fused by a combination of heat/pressure from the fuser, causing it to bind the fibers in the paper.

TPM

The HP Trusted Platform Module (TPM) is a security accessory for printers. The TPM strengthens protection of encrypted credentials and data stored on your printer. Certificate private keys are both generated by and protected by the TPM. Once installed, the printer and the TPM are sealed, and the printer owns the TPM. The TPM may not be moved to another device without losing its ownership from the original printer. Installing a TPM accessory might necessitate a firmware upgrade. The TPM prevents the printer from starting if the TPM is missing. If the TPM is removed from the printer, a control-panel error message appears indicating that the TPM is missing.

NOTE: The TPM is not a service part for some printer models. Check the printer service manual to determine if the TPM is a replaceable service part.

TWAIN

An industry standard for scanners and software. By using a TWAIN compliant scanner with TWAIN-compliant software, a scan can be initiated from the program. TWAIN is an image capture API for Microsoft Windows and Apple Macintosh operating systems.

URL

Uniform Resource Locator (URL) is the global address of documents and resources on the internet. The first part of the address indicates what protocol to use. The second part specifies the IP address or the domain name where the resource is located.

USB

Universal Serial Bus (USB) is a standard that was developed by the USB Implementers Forum, Inc., to connect computers and peripherals. Unlike the parallel port, USB is designed to concurrently connect a single computer USB port to multiple peripherals.

Walk-up USB

Some printers support direct printing from a USB flash drive (the walk-up USB port is usually near the control panel).

Watermark

A watermark is a recognizable image or pattern in paper that appears lighter when viewed by transmitted light. Watermarks were first introduced in Bologna, Italy in 1282. Watermarks have been used by paper makers to identify their product, and also on postage stamps, currency, and other government documents to discourage counterfeiting.

XPS

XML Paper Specification (XPS) is a specification for a Page Description Language (PDL) and a new document format developed by Microsoft. This has benefits for portable document and electronic documents. It is an XML-based specification based on a new print path and vector-based, device-independent document format.

ZIF Connector

Zero insertion force (ZIF) connectors use a mechanical locking method to secure Flat Flexible Cables (FFCs) to a Printed Circuit Assembly (PCA).

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