

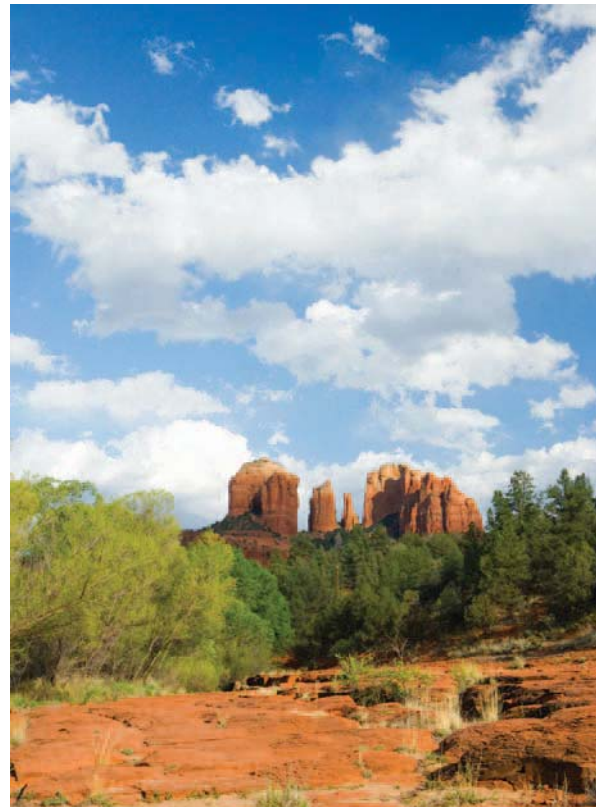
# HP Color LaserJet CP3525 Series Printer Service Manual



**Theory of operation**  
**Removal and replacement**  
**Solve problems**  
**Parts list**



[www.hp.com/support/cljcp3525](http://www.hp.com/support/cljcp3525)







# HP Color LaserJet CP3525 Series Printers

## Service Manual



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# 1 Product basics

- [Product comparison](#)
- [Product features](#)
- [Product view](#)

# Product comparison

Model	Features
<p>HP Color LaserJet CP3525</p> 	<ul style="list-style-type: none"> <li>• 100-sheet multipurpose input tray (Tray 1)</li> <li>• 250-sheet input tray (Tray 2)</li> <li>• 250-sheet, face-down output bin</li> <li>• Hi-speed USB 2.0 port</li> <li>• 256 megabytes (MB) of random access memory (RAM)</li> </ul>
<p>HP Color LaserJet CP3525n</p> 	<ul style="list-style-type: none"> <li>• 100-sheet multipurpose input tray (Tray 1)</li> <li>• 250-sheet input tray (Tray 2)</li> <li>• 250-sheet, face-down output bin</li> <li>• Hi-speed USB 2.0 port</li> <li>• HP Jetdirect embedded print server for connecting to a 10/100Base-TX network</li> <li>• 256 megabytes (MB) of random access memory (RAM)</li> </ul>
<p>HP Color LaserJet CP3525dn</p> 	<ul style="list-style-type: none"> <li>• 100-sheet multipurpose input tray (Tray 1)</li> <li>• 250-sheet input tray (Tray 2)</li> <li>• 250-sheet, face-down output bin</li> <li>• Hi-speed USB 2.0 port</li> <li>• HP Jetdirect embedded print server for connecting to a 10/100Base-TX network</li> <li>• 384 megabytes (MB) of random access memory (RAM)</li> <li>• Automatic two-sided printing</li> </ul>
<p>HP Color LaserJet CP3525x</p> 	<ul style="list-style-type: none"> <li>• 100-sheet multipurpose input tray (Tray 1)</li> <li>• 250-sheet input tray (Tray 2)</li> <li>• 250-sheet, face-down output bin</li> <li>• 500-sheet paper and heavy media tray (Tray 3), including HP postcard media insert for 101.6 x 152.4 mm (4 x 6 in) paper</li> <li>• Hi-speed USB 2.0 port</li> <li>• HP Jetdirect embedded print server for connecting to a 10/100Base-TX network</li> <li>• 512 megabytes (MB) of random access memory (RAM)</li> <li>• Automatic two-sided printing</li> </ul>



# Product features

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<b>Speed and throughput</b>	<ul style="list-style-type: none"><li>• Prints up to 30 pages per minute (ppm) on letter-size paper and 30 ppm on A4-size paper</li><li>• As quick as 12 seconds to print the first page</li><li>• Recommended maximum monthly print volume of 5,000 pages</li><li>• A 515 megahertz (MHz) microprocessor</li></ul>
<b>Resolution</b>	<ul style="list-style-type: none"><li>• 600 dots per inch (dpi) with Image Resolution Enhancement technology 3600 for optimum overall imaging</li><li>• 1200 x 600 dpi for detailed line work and small text</li></ul>
<b>Memory</b>	<ul style="list-style-type: none"><li>• HP Color LaserJet CP3525 and HP Color LaserJet CP3525n: 256 MB and of random-access memory (RAM), expandable to 1 gigabyte (GB) by adding into the open DIMM slot 200-pin small outline dual inline memory modules (DDR2 SODIMM) that support 128 MB, 256 MB, 512 MB, or 1 GB of RAM.  <b>NOTE:</b> If you install a 1 GB DIMM in the open slot, the total amount of memory available is 1 GB.</li><li>• HP Color LaserJet CP3525dn: 384 MB of random-access memory (RAM), expandable to 1 gigabyte (GB) by replacing the original DIMM with 200-pin small outline dual inline memory modules (DDR2 SODIMM) that support 128 MB, 256 MB, 512 MB, or 1 GB of RAM.  <b>NOTE:</b> If you install a 1 GB DIMM, the total amount of memory available is 1 GB. For the HP Color LaserJet CP3525dn model, you must replace the original 128 MB DIMM with a 1 GB DIMM to increase memory to 1 GB.</li><li>• HP Color LaserJet CP3525x: 512 MB of random-access memory (RAM), expandable to 1 gigabyte (GB) by replacing the original DIMM with 200-pin small outline dual inline memory modules (DDR2 SODIMM) that support 128 MB, 256 MB, 512 MB, or 1 GB of RAM.  <b>NOTE:</b> If you install a 1 GB DIMM, the total amount of memory available is 1 GB. For the HP Color LaserJet CP3525x model, you must replace one of the original 256 MB DIMMs with a 1 GB DIMM to increase memory to 1 GB.</li><li>• Memory Enhancement technology (MEt) automatically compresses data to use RAM more efficiently.</li></ul>
<b>User interface</b>	<ul style="list-style-type: none"><li>• Four-line color graphical display on the control panel</li><li>• An embedded Web server to gain access to support and order supplies (for network-connected products)</li><li>• HP Easy Printer Care software (a Web-based status and troubleshooting tool)</li><li>• Internet-enabled supply-ordering capabilities through HP Easy Printer Care software and embedded Web server</li></ul>
<b>Paper handling</b>	<ul style="list-style-type: none"><li>• <b>Tray 1 (multipurpose tray):</b> A multipurpose tray for paper, transparencies, labels, envelopes, and other paper types. The tray holds up to 100 sheets of paper, 50 transparencies, or 10 envelopes</li><li>• <b>Tray 2:</b> 250-sheet tray.</li><li>• <b>Optional Tray 3:</b> 500-sheet paper and heavy media tray, and an optional HP Postcard media insert. (Both are included with the HP Color LaserJet CP3525x printer.) Holds standard and custom-size paper. This tray automatically detects common paper sizes.</li></ul>

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- **Two-sided printing:** The HP Color LaserJet CP3525dn printer and HP Color LaserJet CP3525x printer support automatic two-sided printing. The other models support manual two-sided printing.
  - **Standard output bin:** The standard output bin is located on the top of the product. This bin can hold up to 250 sheets of paper. The product has a sensor that indicates when the bin is full.

For information about supported paper sizes, see [Supported paper and print media sizes on page 44](#).

For information about supported paper types, see [Supported paper and print media types on page 47](#).

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**Languages and fonts**

- HP Printer Control Language PCL 5, PCL 6, and HP postscript level 3 emulation
- Direct PDF
- 80 scalable TrueType PS typefaces

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**Print cartridges**

- For information regarding print cartridges, see [www.hp.com/go/learnaboutsupplies](http://www.hp.com/go/learnaboutsupplies).
- Authentic HP print cartridge detection
- Automatic toner strip remover
- This product uses the following consumable supplies:
  - Standard black print cartridge: CE250A
  - High-capacity black print cartridge: CE250X
  - Cyan print cartridge: CE251A
  - Yellow print cartridge: CE252A
  - Magenta print cartridge: CE253A
  - Toner collection unit: CE254A

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**Supported operating systems**

- Microsoft® Windows® 2000, Windows® XP, Windows Vista™, Windows® Server 2003, and Windows® Server 2008
- Macintosh OS X V10.3.9, V10.4, V10.5, and later
- Novell NetWare
- Unix®
- Linux

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**Connectivity**

- USB 2.0 connection
- Host USB 2.0-like port for third-party connection
- Local area network (LAN) connector (RJ-45) for the embedded HP Jetdirect print server (not included with the HP Color LaserJet CP3525 printer)
- One enhanced input/output (EIO) slot

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**Environment**

- Sleep setting saves energy
  - High content of recyclable components and materials
  - Instant-on fuser saves energy
-

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**Security**

- Secure Disk Erase
- Security lock (optional)
- Job retention
- User PIN authentication for stored jobs
- IPsec security
- HP encrypted High Performance EIO hard drive (optional)

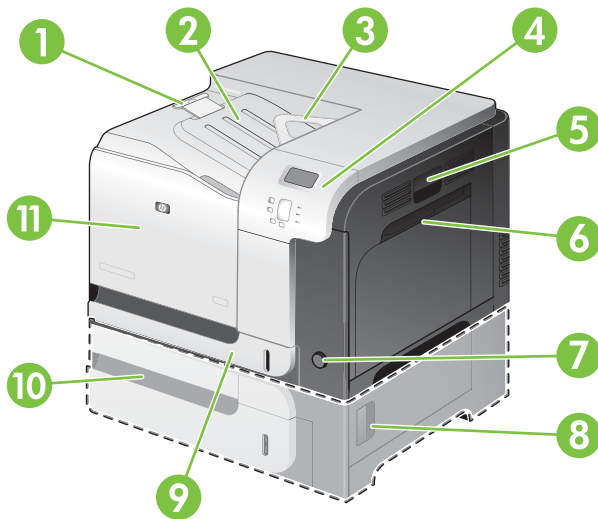
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**Self-help**

- Show-me-how pages that you can print from the control panel
  - Job aids for specific tasks available from [www.hp.com/support/cljcp3525](http://www.hp.com/support/cljcp3525).
  - Animations and help on the control panel
  - Animations on the CD
-

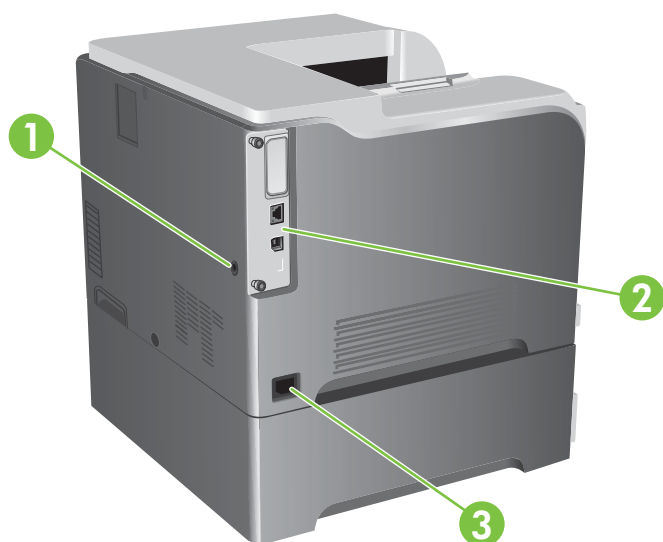
# Product view

## Front view



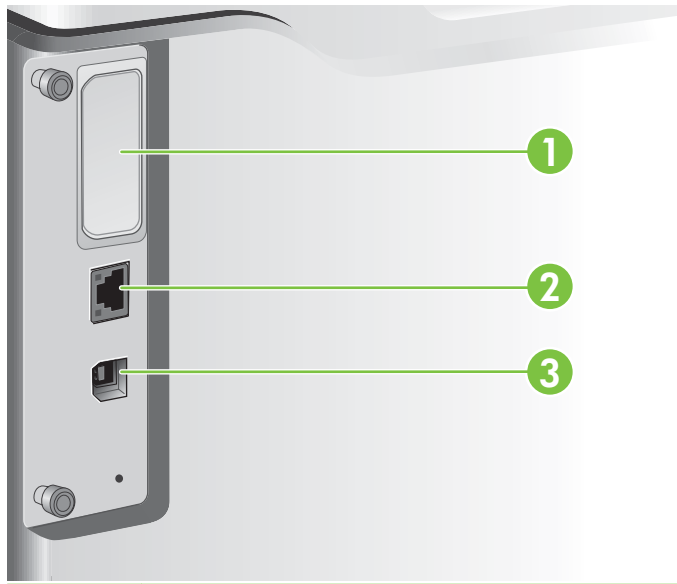
1	Output-bin extension
2	Standard output bin
3	Duplex switchback guide (HP Color LaserJet CP3525dn printer and HP Color LaserJet CP3525x printer only)
4	Control panel
5	Right door (access for clearing jams)
6	Tray 1 (pull the handle to open the tray)
7	Power button (illuminates when turned on)
8	Lower-right door (access for clearing jams)
9	Tray 2
10	Optional Tray 3 (included with the HP Color LaserJet CP3525x printer)
11	Front door (access to print cartridges and toner collection unit)

## Back view



1	Slot for a cable-type security lock
2	Interface ports
3	Power connection

## Interface ports



1	EIO interface expansion slot
2	RJ-45 network port (not activated with the HP Color LaserJet CP3525 printer)
3	Hi-speed USB 2.0 printing port

## Serial number and model number location

The model number and serial number are listed on an identification label located on the back of the product. The serial number contains information about the country/region of origin, the product version, production code, and the production number of the product.

Model name	Model number
HP Color LaserJet CP3525	CC468A
HP Color LaserJet CP3525n	CC469A
HP Color LaserJet CP3525dn	CC470A
HP Color LaserJet CP3525x	CC471A

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## 2 Control panel

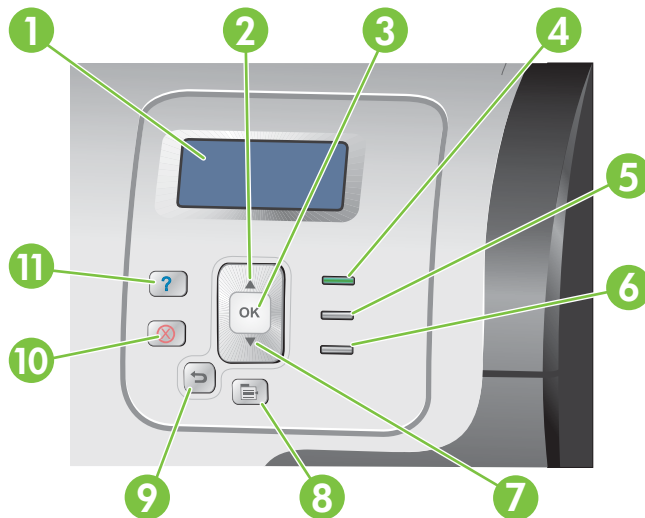
- [Use the control panel](#)
- [Control panel menus](#)
- [Menu hierarchy](#)
- [Show Me How menu](#)
- [Retrieve job menu](#)
- [Information menu](#)
- [Paper handling menu](#)
- [Configure device menu](#)
- [Diagnostics menu](#)
- [Service menu](#)




## Use the control panel

The control panel has a color, graphical and text display that provides access to all product functions. Use the buttons to control jobs and the product status. The lights indicate overall product status.

### Control-panel layout

The control panel includes a color, graphical and text display, job-control buttons, and three light-emitting diode (LED) status lights.



1	Control panel display	Shows status information, menus, help information, and error messages.
2	Up arrow button ▲	Navigates menus and text, and increases the values of numerical items in the display.
3	OK button	Makes selections, resumes printing after continuable errors, and overrides a non-HP print cartridge.
4	Ready light	The Ready light indicates that the product is ready to begin processing any job.
5	Data light	The Data light indicates that the product is receiving data.
6	Attention light	The Attention light indicates that the product has a condition that requires intervention. Examples include an empty paper tray or an error message on the display.
7	Down arrow button ▼	Navigates menus and text, and decreases the values of numerical items in the display.
8	Menu button 	Opens and closes menus.
9	Back arrow button 	Navigates backward in nested menus.
10	Stop button 	Halts the current job, presents a choice to resume or cancel the current job, clears paper from the product, and clears any continuable errors that are associated with the halted job. If the product is not printing a job, pressing Stop pauses the product.
11	Help button ?	Provides detailed information, including animations, about product messages or menus.



## Interpreting control panel indicator lights



Indicator	On	Off	Flashing
Ready (green)	Product is online (able to accept and process data).	Product is offline or is turned off.	Product is attempting to stop printing and go offline.
Data (green)	Processed data is present in the product, but more data is needed to complete the job.	Product is not processing or receiving data.	Product is processing and receiving data.
Attention (amber)	A critical error has occurred. Product requires attention.	No conditions exist that require attention.	An error has occurred. Product requires attention.

## Control panel menus

You can perform most routine printing tasks from the computer through the printer driver or software application. This is the most convenient way to control the product, and will override the product control-panel settings.

You can also control the product by changing settings in the product's control panel. Use the control panel to access features not supported by the printer driver or software application, and to configure trays for paper size and type.

### Use the menus

- Enter and exit the menus by pressing the **Menu** button .
- Select a menu item by using the **OK** button as well as select numerical values when configuring the product.
- Use the up or down arrows **▲▼** to navigate through the menus. In addition to menu navigation, the up and down arrows can increase and decrease numerical value selections. Hold down the up or down arrows to scroll faster.
- The back button  allows you to move back in menu selections.
- If no key is pressed for 60 seconds, the product exits the menus.


## Menu hierarchy

The following top-level menus are available:

- **SHOW ME HOW.** See [Show Me How menu on page 14](#) for more information.
- **RETRIEVE JOB.** See [Retrieve job menu on page 15](#) for more information.
- **INFORMATION.** See [Information menu on page 17](#) for more information.
- **PAPER HANDLING.** See [Paper handling menu on page 18](#) for more information.
- **CONFIGURE DEVICE.** See [Configure device menu on page 19](#) for more information.
- **DIAGNOSTICS.** See [Diagnostics menu on page 40](#) for more information.
- **SERVICE.** See [Service menu on page 42](#) for more information.

## Show Me How menu


The **SHOW ME HOW** menu prints pages that provide more information about the product.


**To display:** Press the **Menu** button , and then select the **SHOW ME HOW** menu.

Item	Explanation
<b>CLEAR JAMS</b>	Provides instructions for clearing jams on the product.
<b>LOAD TRAYS</b>	Provides instructions for loading and configuring trays.
<b>LOAD SPECIAL MEDIA</b>	Provides instructions for loading special print media such as envelopes, transparencies, and labels.
<b>PRINT BOTH SIDES</b>	Provides instructions for printing on both sides of the paper (duplex printing).
<b>SUPPORTED PAPER</b>	Provides a list of the supported paper and print media.
<b>PRINT HELP GUIDE</b>	Prints a page that shows links to additional help on the Web.

# Retrieve job menu

The **RETRIEVE JOB** menu allows you to view listings of all stored jobs.

**To display:** Press the **Menu** button , and then select the **RETRIEVE JOB** menu.


 **NOTE:** Values that have an asterisk (\*) are the factory-default values. Some menu items have no default.

Item	Sub-item	Options	Description
<USER NAME>			Each user who has stored jobs is listed by name. Select the appropriate user name to see a list of stored jobs.
	<b>ALL JOBS (NO PIN)</b>	<b>PRINT</b> <b>PRINT AND DELETE</b> <b>DELETE</b>	This message is displayed if a user has two or more stored jobs that do not require a PIN.  Either the <b>PRINT</b> option or the <b>PRINT AND DELETE</b> option displays, depending on the type of jobs listed.  Use the <b>COPIES</b> option to specify the number of copies of the job to be printed.
	<b>ALL JOBS (WITH PIN)</b>	<b>PRINT</b> <b>PRINT AND DELETE</b> <b>DELETE</b>	This message is displayed if a user has two or more stored jobs that require a PIN.  Either the <b>PRINT</b> option or the <b>PRINT AND DELETE</b> option displays, depending on the type of jobs listed.  Use the <b>COPIES</b> option to specify the number of copies of the job to be printed.
	<JOB NAME X>	<b>PRINT</b> <b>PRINT AND DELETE</b> <b>DELETE</b>	Each job is listed by name.  Either the <b>PRINT</b> option or the <b>PRINT AND DELETE</b> option displays, depending on the type of jobs listed.  Use the <b>COPIES</b> option to specify the number of copies of the job to be printed.
		<b>COPIES</b>	Specifies the number of copies of the job to be printed. The default is 1.  If you select the <b>JOB</b> option, the number of copies specified in the driver are printed.  If you select the <b>CUSTOM</b> menu, another setting displays where you can specify the number of copies of the job to be printed. The number of copies that were specified in the driver are multiplied by the number of copies specified on the control panel. For example, if you specified two

Item	Sub-item	Options	Description
			copies in the driver and specify two copies on the control panel, a total of four copies of the job are printed.

# Information menu


Use the **INFORMATION** menu to access and print specific product information.


**To display:** Press the **Menu** button , and then select the **INFORMATION** menu.

Item	Description
<b>PRINT MENU MAP</b>	Prints the control-panel menu map, which shows the layout and current settings of the control-panel menu items.
<b>PRINT CONFIGURATION</b>	Prints the product configuration pages, which show the printer settings and installed accessories.
<b>PRINT SUPPLIES STATUS PAGE</b>	Prints 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.
<b>SUPPLIES STATUS</b>	Displays the approximate status of the print cartridges, fuser kit, and toner-collection unit in a scrollable list. For each item, press the <b>OK</b> button to open help for the item.
<b>PRINT USAGE PAGE</b>	Prints a count of all paper sizes that have passed through the product; lists whether they were simplex, duplex, monochrome, or color; and reports the page count.
<b>PRINT COLOR USAGE JOB LOG</b>	Prints the color-use statistics for the printer.
<b>PRINT DEMO</b>	Prints a demonstration page.
<b>PRINT RGB SAMPLES</b>	Prints color samples for different RGB values. Use the samples as a guide for matching printed colors.
<b>PRINT CMYK SAMPLES</b>	Prints color samples for different CMYK values. Use the samples as a guide for matching printed colors.
<b>PRINT FILE DIRECTORY</b>	Prints the name and directory of files stored in the product.
<b>PRINT PCL FONT LIST</b>	Prints the available PCL fonts.
<b>PRINT PS FONT LIST</b>	Prints the available PS fonts.

# Paper handling menu

Use this menu to configure input trays by size and type. It is important to correctly configure the trays with this menu before you print for the first time.

**To display:** Press the **Menu** button , and then select the **PAPER HANDLING** menu.

 **NOTE:** If you have used other HP LaserJet product models, you might be accustomed to configuring Tray 1 to **First** mode or **Cassette** mode. On HP Color LaserJet CP3525 Series printers, setting Tray 1 to **ANY SIZE** and **ANY TYPE** is equivalent to **First** mode. Setting Tray 1 to a setting other than **ANY SIZE** or **ANY TYPE** is equivalent to **Cassette** mode.

Menu item	Value	Description
<b>TRAY 1 SIZE</b>	A list of available sizes appears.	Allows you to configure the paper size for Tray 1. The default is <b>ANY SIZE</b> . See <a href="#">Supported paper and print media sizes on page 44</a> for a complete list of available sizes.
<b>TRAY 1 TYPE</b>	A list of available types appears.	Allows you to configure the paper type for Tray 1. The default is <b>ANY TYPE</b> . See <a href="#">Supported paper and print media types on page 47</a> for a complete list of available types.
<b>TRAY &lt;X&gt; SIZE</b> X = 2 or optional 3	A list of available sizes appears.	Allows you to configure the paper size for Tray 2 or optional Tray 3. The default size is <b>LETTER</b> or <b>A4</b> , depending on your country/region. Tray 2 does not detect the paper size by the guides in the tray. Tray 3 detects some paper sizes by the guides in the tray. See <a href="#">Supported paper and print media sizes on page 44</a> for a complete list of available sizes.
<b>TRAY &lt;X&gt; TYPE</b> X = 2 or optional 3	A list of available types appears.	Allows you to configure the paper type for Tray 2 or optional Tray 3. The default is <b>PLAIN</b> . See <a href="#">Supported paper and print media types on page 47</a> for a complete list of available types.





# Configure device menu

The **CONFIGURE DEVICE** menu allows you to change the default printing settings, adjust the print quality, change the system configuration and I/O options, and reset the default settings.

## Printing menu

These settings affect only jobs without identified properties. Most jobs identify all of the properties and override the values set from this menu.

**To display:** Press the **Menu** button , select the **CONFIGURE DEVICE** menu, and then select the **PRINTING** menu.


 **NOTE:** Values that have an asterisk (\*) are the factory-default values. Some menu items have no default.


Menu item	Values	Description
<b>COPIES</b>	Range: 1 - 32000	Allows you to set the default number of copies for print jobs. The default number is <b>1</b> .
<b>DEFAULT PAPER SIZE</b>	A list of available sizes appears.	Allows you to set the default paper size.
<b>DEFAULT CUSTOM PAPER SIZE</b>	<ul style="list-style-type: none"><li>• <b>UNIT OF MEASURE</b></li><li>• <b>X DIMENSION</b></li><li>• <b>Y DIMENSION</b></li></ul>	Allows you to set the default size for any custom print job. The default unit of measure is <b>MILLIMETERS</b> .
<b>DUPLEX</b>	<b>OFF*</b> <b>ON</b>	Allows you to enable or disable two-sided printing.  <b>NOTE:</b> This menu is available only on the HP Color LaserJet CP3525dn printer and the HP Color LaserJet CP3525x printer
<b>DUPLEX BINDING</b>	<b>LONG EDGE*</b> <b>SHORT EDGE</b>	Allows you to change the binding edge for two-sided printing.  <b>NOTE:</b> This menu is available only on the HP Color LaserJet CP3525dn printer and the HP Color LaserJet CP3525x printer
<b>OVERRIDE A4/LETTER</b>	<b>NO</b> <b>YES*</b>	Allows you to set the product to print an A4 job on letter-size paper when no A4 paper is loaded.
<b>MANUAL FEED</b>	<b>OFF*</b> <b>ON</b>	Setting this option to <b>ON</b> makes <b>MANUAL FEED</b> the default for jobs that do not select a tray.
<b>COURIER FONT</b>	<b>REGULAR*</b> <b>DARK</b>	Allows you to select a version of the Courier font.  The <b>DARK</b> setting is an internal Courier font available on HP LaserJet Series III printers and older.
<b>WIDE A4</b>	<b>NO *</b> <b>YES</b>	Allows you to change the printable area of A4 paper. If you select <b>NO</b> , the printable area is seventy-eight 10-pitch characters on a single line. If you select <b>YES</b> , the

Menu item	Values	Description
		printable area is eighty 10-pitch characters on a single line.
<b>PRINT PS ERRORS</b>	<b>OFF*</b> <b>ON</b>	Allows you to select to print PS error pages.
<b>PRINT PDF ERRORS</b>	<b>OFF*</b> <b>ON</b>	Allows you to select to print PDF error pages.

## PCL sub-menu

This menu configures settings for the printer control language.


**To display:** Press the **Menu** button , select the **CONFIGURE DEVICE** menu, select the **PRINTING** menu, and then select the **PCL** menu.


 **NOTE:** Values that have an asterisk (\*) are the factory-default values. Some menu items have no default.

Item	Values	Description
<b>FORM LENGTH</b>		Sets vertical spacing from 5 to 128 lines for default paper size. The default is 60.
<b>ORIENTATION</b>	<b>PORTRAIT*</b> <b>LANDSCAPE</b>	Allows you to set the default page orientation to portrait or landscape.
<b>FONT SOURCE</b>	A list of available font sources displays.	Selects the font source. The default is <b>INTERNAL</b> .
<b>FONT NUMBER</b>		The product assigns a number to each font and lists the numbers on the PCL font list. The range is 0 to 102. The default is 0.
<b>FONT PITCH</b>		Selects the font pitch. This item might not appear, depending on the font selected. The range is 0.44 to 99.99. The default is 10.00.
<b>FONT POINT SIZE</b>		Selects the font point size. The range is 4.00 to 999.75. The default is 12.00.
<b>SYMBOL SET</b>	A list of available symbol sets displays.	Selects any one of several available symbol sets at the product control panel. A symbol set is a unique grouping of all the characters in a font. <b>PC-8</b> or <b>PC-850</b> is recommended for line-draw characters. The default is <b>PC-8</b> .
<b>APPEND CR TO LF</b>	<b>NO*</b> <b>YES</b>	Select <b>YES</b> to append a carriage return to each line-feed that is encountered in backward-compatible PCL jobs (pure text, no job control). Some environments indicate a new line by only the line-feed control code. Use this option to append the required carriage return to each line feed.
<b>SUPPRESS BLANK PAGES</b>	<b>NO*</b> <b>YES</b>	When generating your own PCL, extra form feeds are included that would cause a blank page to be printed. Select <b>YES</b> for form feeds to be ignored if the page is blank.

Item	Values	Description
<b>MEDIA SOURCE MAPPING</b>		The PCL5 <b>MEDIA SOURCE MAPPING</b> command selects an input tray by a number that maps to the various available trays and feeders.
	<b>STANDARD*</b>	The numbering is based on newer HP LaserJet printers with updated changes to the numbering of trays and feeders.
	<b>CLASSIC</b>	The numbering is based on HP LaserJet 4 printers and earlier models.

## Print Quality menu

**To display:** Press the **Menu** button , select the **CONFIGURE DEVICE** menu, and then select the **PRINT QUALITY** menu.

 **NOTE:** Values that have an asterisk (\*) are the factory-default values. Some menu items have no default.


Item	Sub-item	Values	Description
<b>ADJUST COLOR</b>	<b>HIGHLIGHTS</b>	Range from +5 to -5. Default is 0.	Adjust the darkness or lightness of highlights on a printed page. Lower values represent lighter highlights on a printed page, and higher values represent darker highlights on a printed page.
	• <b>CYAN DENSITY</b>		
	• <b>MAGENTA DENSITY</b>		
	• <b>YELLOW DENSITY</b>		
	• <b>BLACK DENSITY</b>		
	<b>MIDTONES</b>	Range from +5 to -5. Default is 0.	Adjust the darkness or lightness of midtones on a printed page. Lower values represent lighter midtones on a printed page, and higher values represent darker midtones on a printed page.
	• <b>CYAN DENSITY</b>		
	• <b>MAGENTA DENSITY</b>		
	• <b>YELLOW DENSITY</b>		
	• <b>BLACK DENSITY</b>		
	<b>SHADOWS</b>	Range from +5 to -5. Default is 0.	Adjust the darkness or lightness of shadows on a printed page. Lower values represent lighter shadows on a printed page, and higher values represent darker shadows on a printed page.
	• <b>CYAN DENSITY</b>		
	• <b>MAGENTA DENSITY</b>		
• <b>YELLOW DENSITY</b>			
• <b>BLACK DENSITY</b>			
	<b>RESTORE COLOR VALUES</b>		Restore the color settings by resetting the density values of each color.
<b>SET REGISTRATION</b>			For each tray, setting the registration shifts 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.
	<b>ADJUST TRAY &lt;X&gt;</b>	Shift from -20 to 20 along the X or Y axes. 0 is the default.	Perform the alignment procedure for each tray.  When it creates an image, the product scans across the page from side to side as the sheet feeds from top to bottom into the product.
	<b>PRINT TEST PAGE</b>		Print a test page for setting the registration.
	<b>X1 SHIFT</b>		The scan direction is referred to as X. X1 is the scan direction for a single-sided page or for the first side of a two-sided page. X2 is the scan direction for the second side of a two-sided page.
	<b>Y1 SHIFT</b>		
	<b>X2 SHIFT</b>		
	<b>Y2 SHIFT</b>		The feed direction is referred to as Y. Y1 is the feed direction for a single-sided page or for the first side of a two-sided page. Y2 is the feed direction for the second side of a two-sided page.


Item	Sub-item	Values	Description
<b>AUTO SENSE MODE</b>	<b>TRAY 1 SENSING</b>	<b>FULL SENSING</b> (default)	Sets the sensing option for Tray 1 for paper types using <b>AUTO SENSE</b> mode.
		<b>TRANSPARENCY ONLY</b>	When <b>FULL SENSING</b> is selected, the product senses every page and switches modes accordingly. The product can distinguish transparencies from other paper types.  When <b>TRANSPARENCY ONLY</b> is selected, the product senses only the first page. The product can distinguish transparencies from other paper types.
<b>ADJUST PAPER TYPES</b>	A list of paper types displays.	A list of print modes displays.	Configure the print mode that is associated with each media type.
	<b>RESTORE MODES</b>		Use this feature to return all paper type-mode settings to the factory-default settings.
<b>OPTIMIZE</b>	A list of available options displays.		Allows you to optimize various print modes to address print quality issues.
	<b>RESTORE OPTIMIZE</b>		Use this feature to return all the settings in the <b>OPTIMIZE</b> menu to the factory-default values.
<b>QUICK CALIBRATE NOW</b>			Performs a partial product calibration.
<b>FULL CALIBRATE NOW</b>			Performs all product calibrations.
<b>DELAY CALIBRATION AT WAKE/POWER-ON</b>		<b>NO</b>	This menu controls the timing of the calibration when the product wakes up or is turned on.  <ul style="list-style-type: none"> <li>Select <b>NO</b> to have the product calibrate immediately when it wakes up or is turned on. The product will not print any jobs until it finishes calibrating.</li> <li>Select <b>YES</b> to enable a product that is asleep to accept print jobs before it calibrates. It may start calibrating before it has printed all the jobs it has received. This option allows quicker printing when coming out of sleep mode or when you turn the product on, but print quality might be reduced.</li> </ul> <p><b>NOTE:</b> For best results, allow the product to calibrate before printing. Print jobs performed before calibration might not be of the highest quality.</p>
		<b>YES*</b>	
<b>RESOLUTION</b>		<b>Image REt 3600*</b> <b>1200x600 dpi</b>	Sets the resolution at which the product prints. The default value is <b>Image REt 3600</b> . Try the <b>1200x600 dpi</b> setting to improve printing for detailed line work or small text.
<b>EDGE CONTROL</b>		<b>OFF</b> <b>LIGHT</b> <b>NORMAL*</b> <b>MAXIMUM</b>	The Edge Control setting determines how edges are rendered. Edge control has two components: adaptive halftoning and trapping. Adaptive halftoning increases edge sharpness. Trapping

Item	Sub-item	Values	Description
			<p>reduces the effect of color-plane misregistration by overlapping the edges of adjacent objects slightly.</p> <ul style="list-style-type: none"> <li>● <b>OFF</b> turns off both trapping and adaptive halftoning.</li> <li>● <b>LIGHT</b> sets trapping at a minimal level, and adaptive halftoning is on.</li> <li>● <b>NORMAL</b> is the default trapping setting. Trapping is at a medium level and adaptive halftoning is on.</li> <li>● <b>MAXIMUM</b> is the most aggressive trapping setting. Adaptive halftoning is on.</li> </ul>
<b>AUTO CLEANING</b>		<b>OFF*</b> <b>ON</b>	When auto-cleaning is on, the product prints a cleaning page when the page count reaches the <b>CLEANING INTERVAL</b> setting.
<b>CLEANING INTERVAL</b>		<b>500*</b> <b>1000</b> <b>2000</b> <b>5000</b> <b>10000</b> <b>20000</b>	When <b>AUTO CLEANING</b> is on, this option specifies the number of pages that are printed before a cleaning page is automatically printed.
<b>AUTO CLEANING SIZE</b>		<b>LETTER*</b> <b>A4</b>	When <b>AUTO CLEANING</b> is on, this option specifies the paper size that is used to print the cleaning page.
<b>CREATE CLEANING PAGE</b>			<p>Prints a page of instructions for cleaning excess toner off the pressure roller in the fuser.</p> <p><b>NOTE:</b> This option is available only for the HP Color LaserJet CP3525 printer and the HP Color LaserJet CP3525n printer.</p>
<b>PROCESS CLEANING PAGE</b>			<p>Allows you to create and process a cleaning page for cleaning the pressure roller in the fuser. When the cleaning process runs, a cleaning page is printed. This page can be discarded.</p> <p><b>NOTE:</b> For the HP Color LaserJet CP3525 printer and the HP Color LaserJet CP3525n printer, you must first select the <b>CREATE CLEANING PAGE</b> option.</p>

## System setup menu

Use the **SYSTEM SETUP** menu to change product- configuration defaults such as sleep mode, product personality (language), and jam recovery.

**To display:** Press the **Menu** button , select the **CONFIGURE DEVICE** menu, and then select the **SYSTEM SETUP** menu.

 **NOTE:** Values that have an asterisk (\*) are the factory-default values. Some menu items have no default.

Item	Sub-item	Values	Description
<b>DATE/TIME</b>	<b>DATE</b>	- - - - /[MMM]/[DD] YEAR = [YYYY]/- - -/[DD] MONTH= [YYYY]/[MMM]/- - DAY=	Allows you to set the correct date. The range for the year is 2008 to 2037.
	<b>DATE FORMAT</b>	YYYY/MMM/DD* MMM/DD/YYYY DD/MMM/YYYY	Allows you to choose the order in which the year, month, and day appear in the date.
	<b>TIME</b>	- - :[MM] [PM] HOUR = [HH]: - - [PM] MINUTE= [HH]:[MM] - - AM/PM=	Allows you to select from various configurations for the <b>TIME</b> format. Different wizards appear depending on the <b>TIME FORMAT</b> selected.
	<b>TIME FORMAT</b>	12 HOUR* 24 HOUR	Allows you to select <b>12 HOUR</b> or <b>24 HOUR</b> format.
<b>JOB STORAGE LIMIT</b>		Continuous value Range: 1–100 Default = 32	Allows you to specify the number of Quick Copy jobs that can be stored on the product. The default value is 32. The maximum allowed value is 100.
<b>JOB HELD TIMEOUT</b>		OFF* 1 HOUR 4 HOURS 1 DAY 1 WEEK	Allows you to set the amount of time that Quick Copy jobs are kept before being automatically deleted from the queue. This menu item only appears when a hard disk is installed.
<b>SHOW ADDRESS</b>		AUTO OFF*	This item determines whether the product's IP address is shown on the display with the <b>Ready</b> message.
<b>RESTRICT COLOR USE</b>		ENABLE COLOR* COLOR IF ALLOWED DISABLE COLOR	Disables or restricts color use. To use the <b>COLOR IF ALLOWED</b> setting, set up user permissions through the embedded Web server, HP Easy Printer Care, or Web Jetadmin.

Item	Sub-item	Values	Description
COLOR/BLACK MIX		<b>AUTO*</b>	<p>This menu item establishes how the product switches from color to monochrome (black and white) mode for maximum performance and for extending print cartridge life.</p> <p><b>AUTO</b> resets the product to the factory default setting.</p> <p>Select <b>MOSTLY COLOR PAGES</b> if nearly all of your print jobs are color with high page coverage.</p> <p>Select <b>MOSTLY BLACK PAGES</b> if you print mostly monochrome print jobs, or a combination of color and monochrome print jobs.</p>
		<b>MOSTLY COLOR PAGES</b>	
		<b>MOSTLY BLACK PAGES</b>	
TRAY BEHAVIOR			Use this menu to control how the product handles paper trays and related prompts at the control panel.
	<b>USE REQUESTED TRAY</b>	<b>EXCLUSIVELY*</b>  <b>FIRST</b>	<p><b>USE REQUESTED TRAY</b> handles jobs that have specified a specific input tray. Two options are available:</p> <ul style="list-style-type: none"> <li>● <b>EXCLUSIVELY:</b> The product never selects a different tray when the user has indicated that a specific tray should be used, even if that tray is empty.</li> <li>● <b>FIRST:</b> The product can pull from another tray if the specified tray is empty, even though the user specifically indicated a tray for the job.</li> </ul>
	<b>MANUALLY FEED PROMPT</b>	<b>ALWAYS*</b>  <b>UNLESS LOADED</b>	<p>This option controls whether a manual feed message should appear when the type or size for a job does not match the size or type configured for Tray 1. Two options are available:</p> <ul style="list-style-type: none"> <li>● <b>ALWAYS:</b> A prompt always appears before printing a manual-feed job.</li> <li>● <b>UNLESS LOADED:</b> A message appears only if the multipurpose tray is empty or does not match the size or type of the job.</li> </ul>



Item	Sub-item	Values	Description
	<b>PS DEFER MEDIA</b>	<b>ENABLED*</b> <b>DISABLED</b>	<p>This option affects how paper is handled when printing from an Adobe PS print driver.</p> <ul style="list-style-type: none"> <li>● <b>ENABLED</b> uses HP's paper-handling model.</li> <li>● <b>DISABLED</b> uses the Adobe PS paper-handling model.</li> </ul>
	<b>SIZE/TYPE PROMPT</b>	<b>DISPLAY*</b> <b>DO NOT DISPLAY</b>	<p>This option controls whether the tray configuration message appears whenever a tray is closed. Two options are available:</p> <ul style="list-style-type: none"> <li>● <b>DISPLAY:</b> This option shows the tray configuration message when a tray is closed. You can configure the tray size or type directly from this message.</li> <li>● <b>DO NOT DISPLAY:</b> This option prevents the tray configuration message from automatically appearing.</li> </ul>
	<b>USE ANOTHER TRAY</b>	<b>ENABLED*</b> <b>DISABLED</b>	<p>This option turns on or off the control-panel prompt to select another tray when the specified tray is empty. Two options are available:</p> <ul style="list-style-type: none"> <li>● <b>ENABLED:</b> When this option is selected, the user is prompted either to add paper to the selected tray or to choose a different tray.</li> <li>● <b>DISABLED:</b> When this option is selected, the user is not given the option of selecting a different tray. The product prompts the user to add paper to the tray that was initially selected.</li> </ul>
	<b>ALTERNATIVE LETTERHEAD MODE</b>	<b>ON</b> <b>OFF*</b>	<p>This option allows you to load letterhead or preprinted paper the same way for every job, whether printing on one or both sides of the page. For more information, see <a href="#">Paper orientation for loading trays on page 50</a>.</p>
	<b>DUPLEX BLANK PAGES</b>	<b>AUTO*</b> <b>YES</b>	<p>This option controls how the product handles two-sided jobs</p>

Item	Sub-item	Values	Description
			<p>(duplexing). Two options are available:</p> <ul style="list-style-type: none"> <li>• <b>AUTO</b> enables Smart Duplexing, which instructs the product not to process both sides if the second side is blank. This can improve print speed.</li> <li>• <b>YES</b> disables Smart Duplexing and forces the duplexer to flip the sheet of paper even if it is printed on only one side.</li> </ul> <p><b>NOTE:</b> This option is available only for the HP Color LaserJet CP3525dn printer or the HP Color LaserJet CP3525x printer.</p>
<b>SLEEP DELAY</b>		<b>1 MINUTE</b> <b>15 MINUTES*</b> <b>30 MINUTES</b> <b>45 MINUTES</b> <b>60 MINUTES</b> <b>90 MINUTES</b> <b>2 HOURS</b> <b>4 HOURS</b>	Reduces power consumption when the product has been inactive for the selected period.
<b>WAKE TIME</b>	<DAY OF THE WEEK>	<b>OFF*</b> <b>CUSTOM</b>	Allows you to configure the daily wake time for the product to avoid warm-up or calibration time. Select a day of the week and then select <b>CUSTOM</b> . Set the wake time for that day, and then choose whether the wake time should be applied to all days of the week.
<b>OPTIMUM SPEED/ENERGY USAGE</b>		<b>FASTER FIRST PAGE*</b> <b>SAVE ENERGY</b>	<p>Controls the fuser cool down behavior.</p> <p>If <b>FASTER FIRST PAGE</b> is selected, the fuser is not allowed to cool down, and the first page processes faster for any new job that is sent to the printer.</p> <p>If <b>SAVE ENERGY</b> is selected, the fuser is allowed to cool down naturally. The speed penalty on the first page depends on how long the fuser has been sitting idle.</p>
<b>DISPLAY BRIGHTNESS</b>		Range is –10 through 10.	Sets the brightness of the control panel display. The default is <b>0</b> .


Item	Sub-item	Values	Description
<b>PERSONALITY</b>		<b>AUTO*</b>	Sets the default personality to automatic switching, PCL, PDF, or PS modes.
		<b>PCL</b>	
		<b>PDF</b>	
		<b>PS</b>	
<b>CLEARABLE WARNINGS</b>		<b>JOB*</b>	Sets whether a warning is cleared on the control panel or when another job is sent.
		<b>ON</b>	
<b>AUTO CONTINUE</b>		<b>OFF</b>	Determines product behavior when the system generates an Auto Continuable error.
		<b>ON*</b>	
<b>REPLACE SUPPLIES</b>			<p>Sets the product behavior for when a supply item is low.</p> <p>The product displays an "Order supplies" message when a supply item is running low and a "Replace supplies" message when a supply item has reached its estimated end of life. To ensure optimal print quality, HP recommends replacing a supply item when the "Replace supplies" message is displayed. The supply does not have to be replaced at this point unless the print quality is no longer acceptable. Printing beyond this point is possible using <b>VERRIDE AT OUT 1</b> or <b>VERRIDE AT OUT 2</b>. The Override options allow the product to continue using a supply item that has reached its estimated end of life.</p>
		<b>STOP AT LOW*</b>	Choose <b>STOP AT LOW</b> to stop printing when a supply reaches a low condition.
		<b>STOP AT OUT</b>	Choose <b>STOP AT OUT</b> to stop printing when the estimated end of life has been reached for a supply. Printing beyond this point is possible using <b>VERRIDE AT OUT 1</b> or <b>VERRIDE AT OUT 2</b> . The supply does not need to be replaced now unless the print quality is no longer acceptable.
		<b>VERRIDE AT OUT 1</b> <b>VERRIDE AT OUT 2</b>	Choose <b>VERRIDE AT OUT 1</b> to allow the product to continue printing when supply items, other than the toner collection unit, have reached the end of their estimated life. Using this option will eventually result in unacceptable print quality. Consider having a replacement cartridge available for when the print quality becomes unacceptable.


Item	Sub-item	Values	Description
			<p>Choose <b>OVERRIDE AT OUT 2</b> to allow the product to continue printing when any color supply is past the end of its estimated capacity, including the toner collection unit. This option is not recommended because of the risk of overfilling the toner collection unit, which could result in the need to service your printer.</p> <p>Information about the remaining toner is not available when printing in Override mode.</p> <p>Once an HP supply has reached the end of its estimated life, HP's Premium Protection Warranty on that supply has ended. For Warranty information, see <a href="#">HP's Premium Protection Warranty: LaserJet print cartridge limited warranty statement on page 509</a>.</p> <p>The Override options can be enabled or disabled at any time, and do not have to be re-enabled for each supply item. The product automatically continues printing when a supply item reaches the end of its estimated life. The message "Replace supply Override in use" displays on the control panel while a supply is used in Override mode. When the supply item is replaced with a new supply, Override is de-activated until another supply item reaches the end of its estimated life.</p>
		<p><b>PAGE LIMIT</b> Range of 0 to 100000</p>	<p>This menu displays if you select <b>YES, USE OVERRIDE</b> for either Override option. Select the number of pages the product continues to print while in override mode. The default is 1500.</p>
<b>SUPPLY INFORMATION</b>	<p><b>PAGES REMAINING</b></p> <p><b>ORDER MESSAGES</b></p> <p><b>LEVEL GAUGE</b></p>	<p><b>ON*</b></p> <p><b>OFF</b></p>	<p>When <b>PAGES REMAINING</b> is set to <b>OFF</b>, the pages remaining portion of the supplies message is suppressed.</p> <p>When <b>ORDER MESSAGES</b> is set to <b>OFF</b>, the supplies order message is not displayed.</p> <p>When <b>LEVEL GAUGE</b> is set to <b>OFF</b>, the supplies gauge is not displayed.</p>
<b>ORDER AT</b>		RANGE=0-100%	<p>The user can set the supply percentage remaining at which the "Order" message appears.</p>

Item	Sub-item	Values	Description
			The default depends on which black print cartridge is installed. If the standard-capacity black print cartridge is installed, the default is 8%. If the high-capacity black print cartridge is installed, the default is 7%.
<b>COLOR SUPPLY OUT</b>		<b>STOP*</b> <b>AUTOCONTINUE BLACK</b>	<p>Sets the product behavior when a color supply has reached its estimated end of life.</p> <p>When the product is set to <b>STOP</b>, the <b>REPLACE &lt;COLOR&gt; CARTRIDGE</b> or <b>REPLACE SUPPLIES</b> message is displayed when one or more color supplies reach the out condition.</p> <p>When the product is set to <b>AUTOCONTINUE BLACK</b>, the product continues printing with black toner only.</p>
<b>JAM RECOVERY</b>		<b>AUTO*</b> <b>OFF</b> <b>ON</b>	Sets whether the product will attempt to reprint pages after a jam. If you select <b>AUTO</b> , the product reprints pages if enough memory is available for full-speed two-sided printing.
<b>RAM DISK</b>		<b>AUTO*</b> <b>OFF</b>	<p>Sets how the RAM disk feature is configured. This is only available if there is no hard disk installed and the printer has at least 8 MB of memory.</p> <p>If the <b>AUTO</b> setting is enabled, the product determines the optimal RAM disk size based on the amount of available memory.</p> <p>If the <b>OFF</b> setting is enabled, the RAM disk is disabled, but a minimal RAM disk is still active.</p>
<b>LANGUAGE</b>		A listing of available languages appears.	Sets the default language. The default language is <b>ENGLISH</b> .

## I/O menu

Items on the I/O (input/output) menu affect the communication between the product and the computer. If the product contains an HP Jetdirect print server, you can configure basic networking parameters by using this submenu. You can also configure these and other parameters through HP Web Jetadmin or the embedded Web server.

**To display:** Press the **Menu** button , select the **CONFIGURE DEVICE** menu, and then select the **I/O** menu.

 **NOTE:** Values that have an asterisk (\*) are the factory-default values. Some menu items have no default.

Item	Sub-item	Values	Description
I/O TIMEOUT		Range: 5 - 300	Allows you to set the product <b>I/O TIMEOUT</b> in seconds. The default is 15 seconds.  Use this setting to adjust timeout for the best performance. If data from other ports appears in the middle of your print job, increase the timeout value.

**EMBEDDED JETDIRECT MENU** See the next table for a list of options.

**Table 2-1** Embedded Jetdirect and EIO <X> Jetdirect menus

Item	Sub-item	Sub-item	Values	Description
INFORMATION	PRINT PROTOCOLS		YES	Use this item to print a page that lists the configuration of the following protocols: IPX/SPX, Novell NetWare, AppleTalk, DLC/LLC.
			NO*	
	PRINT SEC PAGE		YES*	<b>YES:</b> Prints a page that contains the current security settings on the HP Jetdirect print server.
			NO	<b>NO:</b> A security settings page is not printed.
TCP/IP	ENABLE		ON*	<b>ON:</b> Enable the TCP/IP protocol.
			OFF	<b>OFF:</b> Disable the TCP/IP protocol.
	HOST NAME			An alphanumeric string, up to 32 characters, used to identify the product. This name is listed on the HP Jetdirect configuration page. The default host name is NP1xxxxxx, where xxxxxx is the last six digits of the LAN hardware (MAC) address.
	IPV4 SETTINGS	CONFIG METHOD	BOOTP	Specifies the method that TCP/IPv4 parameters will be configured on the HP Jetdirect print server.  Use <b>BOOTP</b> (Bootstrap Protocol) for automatic configuration from a BootP server.  Use <b>DHCP</b> (Dynamic Host Configuration Protocol) for automatic configuration from a DHCPv4 server. If selected and a DHCP
			DHCP	
			AUTO IP	
			MANUAL	

**Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)**

Item	Sub-item	Sub-item	Values	Description
				<p>lease exists, <b>DHCP RELEASE</b> and <b>DHCP RENEW</b> menus are available to set DHCP lease options.</p> <p>Use <b>AUTO IP</b> for automatic link-local IPv4 addressing. An address in the form 169.254.x.x is assigned automatically.</p> <p>If you set this option to <b>MANUAL</b>, use the <b>MANUAL SETTINGS</b> menu to configure TCP/IPv4 parameters.</p>
		<b>MANUAL SETTINGS</b>	<b>IP ADDRESS</b> <b>SUBNET MASK</b> <b>DEFAULT GATEWAY</b>	<p>(Available only if <b>CONFIG METHOD</b> is set to <b>MANUAL</b>) Configure parameters directly from the product control panel:</p> <p><b>IP ADDRESS:</b> The unique IP address (n.n.n.n) of the product, where n is a value from 0 to 255.</p> <p><b>SUBNET MASK:</b> The subnet mask (n.n.n.n) for the product, where n is a value from 0 to 255.</p> <p><b>DEFAULT GATEWAY:</b> The IP address of the gateway or router used for communications with other networks.</p>
		<b>DEFAULT IP</b>	<b>AUTO IP*</b> <b>LEGACY</b>	<p>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).</p> <p><b>NOTE:</b> This feature assigns a static IP address that might interfere with a managed network.</p> <p><b>AUTO IP:</b> A link-local IP address 169.254.x.x is set.</p> <p><b>LEGACY:</b> The address 192.0.0.192 is set, consistent with older HP Jetdirect products.</p>
		<b>DHCP RELEASE</b>	<b>NO*</b> <b>YES</b>	<p>This menu appears if <b>CONFIG METHOD</b> is set to <b>DHCP</b> and a DHCP lease for the print server exists.</p> <p><b>NO:</b> The current DHCP lease is saved.</p> <p><b>YES:</b> The current DHCP lease and the leased IP address are released.</p>
		<b>DHCP RENEW</b>	<b>NO*</b> <b>YES</b>	<p>This menu appears if <b>CONFIG METHOD</b> is set to <b>DHCP</b> and a DHCP lease for the print server exists.</p> <p><b>NO:</b> The print server does not request to renew the DHCP lease.</p> <p><b>YES:</b> The print server requests to renew the current DHCP lease.</p>

**Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)**

Item	Sub-item	Sub-item	Values	Description
		<b>PRIMARY DNS</b>		Specify the IP address (n.n.n.n) of a Primary DNS Server.
		<b>SECONDARY DNS</b>		Specify the IP address (n.n.n.n) of a Secondary Domain Name System (DNS) Server.
	<b>IPV6 SETTINGS</b>	<b>ENABLE</b>	<b>ON</b> <b>OFF*</b>	Use this item to enable or disable IPv6 operation on the print server. <b>OFF:</b> IPv6 is disabled. <b>ON:</b> IPv6 is enabled.
		<b>ADDRESS</b>	<b>MANUAL SETTINGS</b> <ul style="list-style-type: none"><li>● <b>ENABLE</b></li><li>● <b>ADDRESS</b></li></ul>	Use this item to enable and manually configure a TCP/IPv6 address. <b>ENABLE:</b> Choose <b>ON</b> to enable manual configuration, or <b>OFF</b> to disable manual configuration. The default is <b>OFF</b> . <b>ADDRESS:</b> Use this item to type a 32 hexadecimal digit IPv6 node address that uses the colon hexadecimal syntax.
		<b>DHCPV6 POLICY</b>	<b>ROUTER SPECIFIED*</b> <b>ROUTER UNAVAILABLE</b> <b>ALWAYS</b>	<b>ROUTER SPECIFIED:</b> 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. <b>ROUTER UNAVAILABLE:</b> If a router is not available, the print server should attempt to obtain its stateful configuration from a DHCPv6 server. <b>ALWAYS:</b> Whether or not a router is available, the print server always attempts to obtain its stateful configuration from a DHCPv6 server.
		<b>PRIMARY DNS</b>		Use this item to specify an IPv6 address for a primary DNS server that the print server should use.
		<b>SECONDARY DNS</b>		Use this item to specify an IPv6 address for a secondary DNS server that the print server should use.
	<b>PROXY SERVER</b>			Specifies the proxy server to be used by embedded applications in the product. 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.



**Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)**

Item	Sub-item	Sub-item	Values	Description
	<b>PROXY PORT</b>			Type 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.
	<b>IDLE TIMEOUT</b>			<b>IDLE TIMEOUT:</b> The time period, in seconds, after which an idle TCP print data connection is closed (default is 270 seconds, 0 disables the timeout).
<b>IPX/SPX</b>	<b>ENABLE</b>		<b>ON*</b>	<b>ON:</b> Enable the IPX/SPX protocol.
			<b>OFF</b>	<b>OFF:</b> Disable the IPX/SPX protocol.
	<b>FRAME TYPE</b>		<b>AUTO*</b>	Selects the frame-type setting for your network.
			<b>EN_8023</b>	<b>AUTO:</b> Automatically sets and limits the frame type to the first one detected.
		<b>EN_II</b>		
	<b>EN_8022</b>	<b>EN_8023, EN_II, EN_8022, and EN_SNAP</b> are frame-type selections for Ethernet networks		
	<b>EN_SNAP</b>			
<b>APPLETALK</b>	<b>ENABLE</b>		<b>ON*</b>	Configures an AppleTalk network.
			<b>OFF</b>	
<b>DLC/LLC</b>	<b>ENABLE</b>		<b>ON*</b>	<b>ON:</b> Enable the DLC/LLC protocol.
			<b>OFF</b>	<b>OFF:</b> Disable the DLC/LLC protocol.
<b>SECURITY</b>	<b>SECURE WEB</b>		<b>HTTPS REQUIRED*</b>	For configuration management, specify whether the embedded Web server will accept communications using HTTPS (Secure HTTP) only, or both HTTP and HTTPS.
			<b>HTTPS OPTIONAL</b>	
				<b>HTTPS REQUIRED:</b> For secure, encrypted communications, only HTTPS access is accepted. The print server will appear as a secure site. <b>HTTPS OPTIONAL:</b> Access using either HTTP or HTTPS is permitted.
	<b>IPSEC</b>		<b>KEEP</b>	Specify the IPsec status on the print server. <b>KEEP:</b> IPsec status remains the same as currently configured. <b>DISABLE:</b> IPsec operation on the print server is disabled.
			<b>DISABLE*</b>	
	<b>802.1X</b>		<b>RESET</b>	Specify whether the 802.1X settings on the print server are reset to the factory defaults. <b>RESET:</b> The 802.1X settings are reset to the factor defaults. <b>KEEP:</b> The current 802.1X settings are maintained.
			<b>KEEP*</b>	

**Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)**

Item	Sub-item	Sub-item	Values	Description
	<b>RESET SECURITY</b>		<b>YES</b> <b>NO*</b>	Specify whether the current security settings on the print server will be saved or reset to factory defaults.  <b>YES:</b> Security settings are reset to factory defaults.  <b>NO:</b> The current security settings are maintained.
<b>DIAGNOSTICS</b>	<b>EMBEDDED TESTS</b>			This menu provides tests to help diagnose network hardware or TCP/IP network connection problems.  Embedded tests help to identify whether a network fault is internal or external to the product. Use an embedded test to check hardware and communication paths on the print server. After you select and enable a test and set the execution time, you must select <b>EXECUTE</b> to initiate the test.  Depending on the execution time, a selected test runs continuously until either the product is turned off, or an error occurs and a diagnostic page is printed.
		<b>LAN HW TEST</b>	<b>YES</b> <b>NO*</b>	<b>CAUTION:</b> Running this embedded test will erase your TCP/IP configuration.  This test performs an internal loopback test. An internal loopback test will send and receive packets only on the internal network hardware. There are no external transmissions on your network.  Select <b>YES</b> to choose this test, or <b>NO</b> to not choose it.
		<b>HTTP TEST</b>	<b>YES</b> <b>NO*</b>	This test checks operation of HTTP by retrieving predefined pages from the product, and tests the embedded Web server.  Select <b>YES</b> to choose this test, or <b>NO</b> to not choose it.
		<b>SNMP TEST</b>	<b>YES</b> <b>NO*</b>	This test checks operation of SNMP communications by accessing predefined SNMP objects on the product.  Select <b>YES</b> to choose this test, or <b>NO</b> to not choose it.
		<b>DATA PATH TEST</b>	<b>YES</b> <b>NO*</b>	This test helps to identify data path and corruption problems on an HP postscript level 3 emulation product. It sends a predefined PS file to the product. However, the test is paperless; the file will not print.  Select <b>YES</b> to choose this test, or <b>NO</b> to not choose it.
		<b>SELECT ALL TESTS</b>	<b>YES</b>	Use this item to select all available embedded tests.

**Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)**

Item	Sub-item	Sub-item	Values	Description
			<b>NO*</b>	Select <b>YES</b> to choose all tests. Select <b>NO</b> to select individual tests.
		<b>EXECUTION TIME [M]</b>		Use this item to specify the length of time (in minutes) that an embedded test will be run. You can select a value from 0 to 24 minutes. If you select zero (0), the test runs indefinitely until an error occurs or the product is turned off.  Data gathered from the HTTP, SNMP, and Data Path tests is printed after the tests have completed.
		<b>EXECUTE</b>	<b>YES</b> <b>NO*</b>	<b>NO:</b> Do not initiate the selected tests. <b>YES:</b> Initiate the selected tests.
	<b>PING TEST</b>			This test is used to check network communications. This test sends link-level packets to a remote network host, then waits for an appropriate response. To run a ping test, set the following items:
		<b>DEST TYPE</b>	<b>IPV4</b> <b>IPV6</b>	Specify whether the target product is an IPv4 or IPv6 node.
		<b>DEST IPV4</b>		Type the IPv4 address.
		<b>DEST IPV6</b>		Type the IPv6 address.
		<b>PACKET SIZE</b>		Specify the size of each packet, in bytes, to be sent to the remote host. The minimum is 64 (default) and the maximum is 2048.
		<b>TIMEOUT</b>		Specify the length of time, in seconds, to wait for a response from the remote host. The default is 1 and the maximum is 100.
		<b>COUNT</b>		Specify the number of ping test packets to send for this test. Select a value from 0 to 100. The default is 4. To configure the test to run continuously, select 0.
		<b>PRINT RESULTS</b>	<b>YES</b> <b>NO*</b>	If the ping test was not set for continuous operation, you can choose to print the test results. Select <b>YES</b> to print results. If you select <b>NO</b> , results are not printed.
		<b>EXECUTE</b>	<b>YES</b> <b>NO*</b>	Specify whether to initiate the ping test. Select <b>YES</b> to initiate the test, or <b>NO</b> to not run the test.
	<b>PING RESULTS</b>			Use this item to view the ping test status and results using the control panel display. You can select the following items:
		<b>PACKETS SENT</b>		Shows the number of packets (0 - 65535) sent to the remote host since the most recent test was initiated or completed. The default is 0.
		<b>PACKETS RECEIVED</b>		Shows the number of packets (0 - 65535) received from the remote host since the most

**Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)**


Item	Sub-item	Sub-item	Values	Description
				recent test was initiated or completed. The default is 0.
		<b>PERCENT LOST</b>		Shows the percent (0 to 100) of ping test packets that were sent with no response from the remote host since the most recent test was initiated or completed. The default is 0.
		<b>RTT MIN</b>		Shows the minimum detected roundtrip- time (RTT), from 0 to 4096 milliseconds, for packet transmission and response. The default is 0.
		<b>RTT MAX</b>		Shows the maximum detected roundtrip- time (RTT), from 0 to 4096 milliseconds, for packet transmission and response. The default is 0.
		<b>RTT AVERAGE</b>		Shows the average round-trip-time (RTT), from 0 to 4096 milliseconds, for packet transmission and response. The default is 0.
		<b>PING IN PROGRESS</b>	<b>YES</b> <b>NO*</b>	Shows whether a ping test is in progress. <b>YES</b> indicates a test in progress, and <b>NO</b> indicates that a test completed or was not run.
		<b>REFRESH</b>	<b>YES</b> <b>NO*</b>	When viewing the ping test results, this item updates the ping test data with current results. Select <b>YES</b> to update the data, or <b>NO</b> to maintain the existing data. However, a refresh automatically occurs when the menu times out or you manually return to the main menu.
<b>LINK SPEED</b>			<b>AUTO*</b> <b>10T HALF</b> <b>10T FULL</b> <b>100TX HALF</b> <b>100TX FULL</b> <b>100TX AUTO</b> <b>1000TX FULL</b>	<p>The link speed and communication mode of the print server must match the network. The available settings depend on the product and installed print server. Select one of the following link configuration settings:</p> <p><b>CAUTION:</b> If you change the link setting, network communications with the print server and network product might be lost.</p> <p><b>AUTO:</b> The print server uses auto-negotiation to configure itself with the highest link speed and communication mode allowed. If auto-negotiation fails, either <b>100TX HALF</b> or <b>10T HALF</b> is set depending on the detected link speed of the hub/switch port. (A 1000T half-duplex selection is not supported.)</p> <p><b>10T HALF:</b> 10 Mbps, half-duplex operation.</p> <p><b>10T FULL:</b> 10 Mbps, Full-duplex operation.</p> <p><b>100TX HALF:</b> 100 Mbps, half-duplex operation.</p> <p><b>100TX FULL:</b> 100 Mbps, full-duplex operation.</p> <p><b>100TX AUTO:</b> Limits auto-negotiation to a maximum link speed of 100 Mbps.</p>


**Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)**

Item	Sub-item	Sub-item	Values	Description
				<b>1000TX FULL:</b> 1000 Mbps, full-duplex operation.

## Resets menu

The **RESETS** menu allows you to reset factory settings, disable and enable sleep mode, and update the product after new supplies are installed.


**To display:** Press the **Menu** button , select the **CONFIGURE DEVICE** menu, and then select the **RESETS** menu.


 **NOTE:** Values that have an asterisk (\*) are the factory-default values. Some menu items have no default.

Item	Sub-item	Values	Description
<b>RESTORE FACTORY SETTINGS</b>			Allows you to clear the page buffer, remove all perishable personality data, reset the printing environment, and return all default settings to factory defaults.
<b>CALIBRATION RESET</b>			Resets calibration values on the formatter.
<b>RESET SUPPLIES</b>	<b>NEW FUSER KIT</b>	<b>NO*</b> <b>YES</b>	Allows you to reset the fuser maintenance count after installing a new fuser.
<b>SLEEP MODE</b>		<b>OFF</b> <b>ON*</b>	If <b>SLEEP MODE</b> is <b>OFF</b> , the product will never enter power save mode and no asterisk will appear next to any item when the user enters the menu item <b>SLEEP DELAY</b> .

## Diagnostics menu

The **DIAGNOSTICS** menu allows you to run tests that can help you identify and solve problems with the product.

**To display:** Press the **Menu** button , and then select the **DIAGNOSTICS** menu.

 **NOTE:** Values that have an asterisk (\*) are the factory-default values. Some menu items have no default.

Item	Sub-item	Values	Description
<b>PRINT EVENT LOG</b>			Prints a report containing the last 50 entries in the product's event log, starting with the most recent.
<b>SHOW EVENT LOG</b>			Displays the last 50 events, starting with the most recent.
<b>PQ TROUBLESHOOTING</b>			Prints a page that includes instructions, pages for each color, a demo page, and a configuration page. These pages can help isolate print-quality problems.
<b>PRINT DIAGNOSTICS PAGE</b>			Prints a page that can assist in diagnosing product problems.
<b>DISABLE CARTRIDGE CHECK</b>			This item allows you to remove a print cartridge to help determine which cartridge is the source of a problem.
<b>PAPER PATH SENSORS</b>			Performs a test on each of the product's sensors to determine if they are working correctly and displays the status of each sensor.
<b>PAPER PATH TEST</b>			Tests the paper-handling features of the product, such as the configuration of the trays.
	<b>PRINT TEST PAGE</b>		Generates a page for testing the paper-handling features. You must define the path for the test in order to test specific paper paths.
	<b>SOURCE</b>	<b>ALL TRAYS</b> <b>TRAY 1</b> <b>TRAY 2*</b> <b>TRAY 3</b>	Specifies whether the test page is printed from all trays or from a specific tray.
	<b>DUPLEX</b>	<b>OFF</b> <b>ON</b>	Determines whether the duplexer is included in the test.  <b>NOTE:</b> This option is available only for the HP Color LaserJet CP3525dn printer and the HP Color LaserJet CP3525x printer.

Item	Sub-item	Values	Description
	<b>COPIES</b>	1* 10 50 100 500	Determines how many pages should be sent from the specified source as part of the test.
<b>MANUAL SENSOR TEST</b>			Performs tests to determine whether the paper path sensors are operating correctly.
<b>MANUAL SENSOR TEST 2</b>			Performs additional tests to determine whether the paper path sensors are operating correctly.
<b>COMPONENT TEST</b>	A list of available components appears.		Activate individual parts independently to isolate noise, leaking, and other hardware issues.
<b>PRINT/STOP TEST</b>		Range is 0 - 60,000 milliseconds. The default is 0.	Isolates print quality faults more accurately by stopping the product in mid-print cycle, which allows you to see where the image begins to degrade. This causes a jam message that might need to be manually cleared. A service representative should perform this test.
<b>COLOR BAND TEST</b>	<b>PRINT TEST PAGE</b>		Prints a color band test page that is used to identify arcing in the high-voltage power supply.
	<b>COPIES</b>	Range is 1 to 30. The default value is 1.	Allows the user to determine how many copies of the internal page are printed.

## Service menu

The **SERVICE** menu is locked and requires a personal identification number (PIN; 09352508) for access. This menu is intended for use by authorized service personnel.



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## 3 Paper and print media

- [Supported paper and print media sizes](#)
- [Custom paper sizes](#)
- [Supported paper and print media types](#)
- [Tray and bin capacity](#)
- [Special paper or print media guidelines](#)
- [Load trays](#)
- [Configure trays](#)

# Supported paper and print media sizes

This product supports a number of paper sizes, and it adapts to various media.

 **NOTE:** To obtain best results, select the correct paper size and type in the printer driver before printing.

**Table 3-1 Supported paper and print media sizes**

Size and dimensions	Tray 1	Tray 2	Tray 3 (optional)
Letter 216 x 279 mm (8.5 x 11 in)	✓	✓	✓
Legal 216 x 356 mm (8.5 x 14 in)	✓		✓
A4 210 x 297 mm (8.27 x 11.69 in)	✓	✓	✓
RA4 215 x 305 mm (8.5 x 12.0 in)	✓		✓
A5 148 x 210 mm (5.83 x 8.27 in)	✓	✓	✓
B5 (JIS) 182 x 257 mm (7.17 x 10.12 in)	✓	✓	✓
B6 (JIS) 128 x 182 mm (5.04 x 7.17 in)	✓		
Executive 184 x 267 mm (7.24 x 10.51 in)	✓	✓	✓
Statement 140 x 216 mm (5.5 x 8.5 in)	✓		
4x6 101.6 x 152.4 mm (4 x 6 in)	✓		✓ The HP postcard media insert must be installed.
10 x 15 cm 101.6 x 152.4 mm (4 x 6 in)	✓		✓ The HP postcard media insert must be installed.
5x7 127 x 178 mm (5 x 7 in)	✓		
5x8 127 x 203 mm (5 x 8 in)	✓		
A6 105 x 148 mm (4.13 x 5.83 in)	✓		

**Table 3-1 Supported paper and print media sizes (continued)**

Size and dimensions	Tray 1	Tray 2	Tray 3 (optional)
Postcard (JIS) 100 x 148 mm (3.9 x 5.8 in)	✓		
Double Postcard (JIS) 148 x 200 mm (5.8 x 7.9 in)	✓		
16K 184 x 260 mm (7.2 x 10.2 in)	✓	✓	✓
16K 195 x 270 mm (7.7 x 10.6 in)	✓	✓	✓
16K 197 x 273 mm (7.8 x 10.8 in)	✓	✓	✓
8.5 x 13 216 x 330 mm (8.5 x 13 in)	✓		✓
Envelope Commercial #10 105 x 241 mm (4.13 x 9.49 in)	✓		
Envelope #9 100 mm x 226 mm (3.9 x 8.9 in)	✓		
Envelope B5 176 x 250 mm (6.93 x 9.84 in)	✓		
Envelope C5 ISO 162 x 229 mm (6.38 x 9.01 in)	✓		
Envelope C6 114 x 162 mm (4.49 x 6.38 in)	✓		
Envelope DL ISO 110 x 220 mm (4.33 x 8.66 in)	✓		
Envelope Monarch 98 x 191 mm (3.9 x 7.5 in)	✓		
Custom 98.4 x 148 mm to 216 x 356 mm (3.9 x 5.8 in to 8.5 x 14 in)	✓		
Custom 148 x 210 mm to 216 x 297 mm (5.83 x 8.27 in to 8.5 x 11.69 in)		✓	
Custom 148 x 210 mm to 216 x 356 mm (5.83 x 8.27 in to 8.5 x 14 in)			✓

## Custom paper sizes

This product supports a variety of custom paper sizes. Supported custom sizes are sizes that are within the minimum- and maximum-size guidelines for the product but are not listed in the supported paper sizes table. When using a supported custom size, specify the custom size in the print driver, and load the paper in a tray that supports custom sizes.

## Supported paper and print media types

For a complete list of specific HP-brand paper that this product supports, go to [www.hp.com/support/cljcp3525](http://www.hp.com/support/cljcp3525).

Paper type	Tray 1	Tray 2	Tray 3 (optional)
Plain Paper	✓	✓	✓
Light 60–74 g/m <sup>2</sup>	✓	✓	✓
Midweight (96–110 g/m <sup>2</sup> )	✓	✓	✓
Heavy (111–130 g/m <sup>2</sup> )	✓	✓	✓
Extra Heavy (131–175 g/m <sup>2</sup> )	✓		✓
Color Transparency	✓	✓	✓
Labels	✓		✓
Letterhead	✓	✓	✓
Preprinted	✓	✓	✓
Prepunched	✓	✓	✓
Colored	✓	✓	✓
Rough	✓	✓	✓
Bond	✓	✓	✓
Recycled	✓	✓	✓
Envelope	✓		
Cardstock	✓		✓
Mid-weight glossy (96–110 g/m <sup>2</sup> )	✓	✓	✓
Heavy glossy (111–130 g/m <sup>2</sup> )	✓	✓	✓
Extra-heavy glossy (131–175 g/m <sup>2</sup> )	✓	✓	✓
Card glossy (176–220 g/m <sup>2</sup> )	✓	✓	✓
Opaque film	✓	✓	✓
HP Tough Paper	✓	✓	✓
HP Matte (105 g/m <sup>2</sup> )	✓	✓	✓
HP Matte (120 g/m <sup>2</sup> )	✓	✓	✓
HP Matte (160 g/m <sup>2</sup> )	✓	✓	✓
HP Matte (200 g/m <sup>2</sup> )	✓		✓
HP Soft Gloss (120 g/m <sup>2</sup> )	✓	✓	✓
HP Glossy (130 g/m <sup>2</sup> )	✓	✓	✓
HP Glossy (160 g/m <sup>2</sup> )	✓	✓	✓
HP Glossy (220 g/m <sup>2</sup> )	✓	✓	✓

# Tray and bin capacity

Tray or bin	Paper type	Specifications	Quantity
Tray 1	Paper	Range: 60 g/m <sup>2</sup> (16 lb) bond to 216 g/m <sup>2</sup> (58 lb) bond	Maximum stack height: 10 mm (0.39 in) Equivalent to 100 sheets of 75 g/m <sup>2</sup> (20 lb) bond
	Envelopes	Less than 60 g/m <sup>2</sup> (16 lb) bond to 90 g/m <sup>2</sup> (24 lb) bond	Up to 10 envelopes
	Labels	Maximum 0.102 mm (0.004 in) thick	Maximum stack height: 10 mm (0.39 in)
	Transparencies	Minimum 0.102 mm (0.004 in) thick	Maximum stack height: 10 mm (0.39 in) Up to 50 sheets
	Glossy paper	Range: 105 g/m <sup>2</sup> (28 lb) bond to 220 g/m <sup>2</sup> (58 lb) bond	Maximum stack height: 10 mm (0.39 in) Up to 50 sheets
Tray 2	Paper	Range: 60 g/m <sup>2</sup> (16 lb) bond to 163 g/m <sup>2</sup> (43 lb) bond	Maximum stack height: 25 mm (0.98 in) Equivalent to 250 sheets of 75 g/m <sup>2</sup> (20 lb) bond Maximum stack height for A6 paper: 15 mm (0.59 in)
	Transparencies	Minimum 0.102 mm (0.004 in) thick	Maximum stack height: 25 mm (0.98 in)
	Glossy paper	Range: 105 g/m <sup>2</sup> (28 lb) bond to 220 g/m <sup>2</sup> (58 lb) bond	Maximum stack height: 25 mm (0.98 in)
Tray 3 (optional)	Paper	Range: 60 g/m <sup>2</sup> (16 lb) bond to 176 g/m <sup>2</sup> (47 lb) bond	Equivalent to 500 sheets of 75 g/m <sup>2</sup> (20 lb) bond Maximum stack height: 56 mm (2.2 in)
	Transparencies	Minimum 0.102 mm (0.004 in) thick	Maximum stack height: 56 mm (2.2 in)
	Glossy paper	Range: 105 g/m <sup>2</sup> (28 lb) bond to 220 g/m <sup>2</sup> (58 lb) bond	Maximum stack height: 56 mm (2.2 in)
Output bin	Paper		Up to 250 sheets of 75 g/m <sup>2</sup> (20 lb) bond

# Special paper or print media guidelines

This product supports printing on special media. Use the following guidelines to obtain satisfactory results. When using special paper or print media, be sure to set the type and size in your print driver to obtain the best print results.

△ **CAUTION:** HP LaserJet printers use fusers to bond dry toner particles to the paper in very precise dots. HP laser paper is designed to withstand this extreme heat. Using inkjet paper not designed for this technology could damage your printer.

Media type	Do	Do not
Envelopes	<ul style="list-style-type: none"> <li>• Store envelopes flat.</li> <li>• Use envelopes where the seam extends all the way to the corner of the envelope.</li> <li>• Use peel-off adhesive strips that are approved for use in laser printers.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not use envelopes that are wrinkled, nicked, stuck together, or otherwise damaged.</li> <li>• Do not use envelopes that have clasps, snaps, windows, or coated linings.</li> <li>• Do not use self-stick adhesives or other synthetic materials.</li> </ul>
Labels	<ul style="list-style-type: none"> <li>• Use only labels that have no exposed backing between them.</li> <li>• Use Labels that lie flat.</li> <li>• Use only full sheets of labels.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not use labels that have wrinkles or bubbles, or are damaged.</li> <li>• Do not print partial sheets of labels.</li> </ul>
Transparencies	<ul style="list-style-type: none"> <li>• Use only transparencies that are approved for use in color laser printers.</li> <li>• Place transparencies on a flat surface after removing them from the product.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not use transparent print media not approved for color laser printers.</li> </ul>
Letterhead or preprinted forms	<ul style="list-style-type: none"> <li>• Use only letterhead or forms approved for use in laser printers.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not use raised or metallic letterhead.</li> </ul>
Heavy paper	<ul style="list-style-type: none"> <li>• Use only heavy paper that is approved for use in laser printers and meets the weight specifications for this product.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not use paper that is heavier than the recommended media specification for this product unless it is HP paper that has been approved for use in this product.</li> </ul>
Glossy or coated paper	<ul style="list-style-type: none"> <li>• Use only glossy or coated paper that is approved for use in laser printers.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not use glossy or coated paper designed for use in inkjet products.</li> </ul>

# Load trays

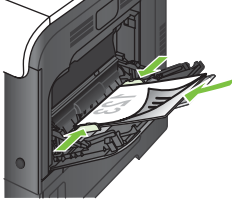

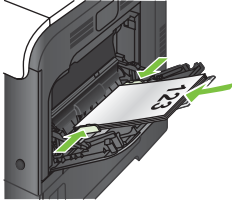
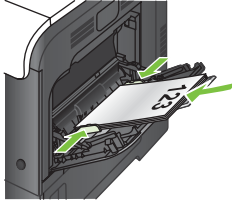
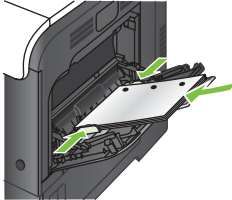
You can load different media in the trays and then request media by type or size by using the control panel.

## Paper orientation for loading trays

If you are using paper that requires a specific orientation, load it according to the information in the following tables.

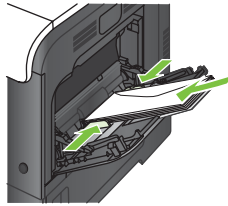
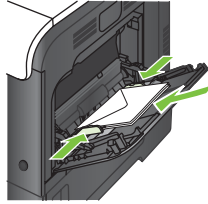
**NOTE:** The **ALTERNATIVE LETTERHEAD MODE** setting affects the way you load letterhead or preprinted paper. This setting is turned off by default. For more information, see [System setup menu on page 25](#).

### Tray 1

Paper type	Image orientation	Duplex mode	How to load paper	How to load paper
			ALTERNATIVE LETTERHEAD MODE = Off	ALTERNATIVE LETTERHEAD MODE = On
Preprinted or letterhead	Portrait	1-sided printing	Face down Top edge leading into the product 	Face up Bottom edge leading into the product 
		2-sided printing	Face up Bottom edge leading into the product 	Face up Bottom edge leading into the product 
Prepunched	Portrait	1- or 2-sided printing	Holes toward the back of the product 	Not applicable

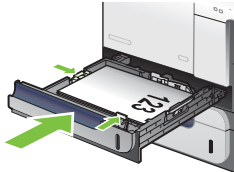
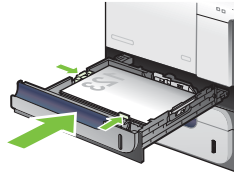
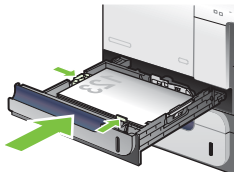
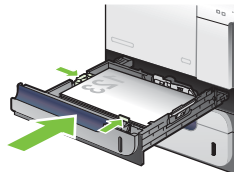
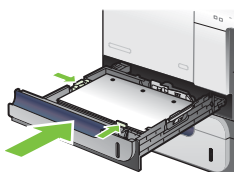


Paper type	Image orientation	Duplex mode	How to load paper ALTERNATIVE LETTERHEAD MODE = Off	How to load paper ALTERNATIVE LETTERHEAD MODE = On
Envelopes	Long edge of the envelope feeding into the product	1-sided printing	Face down Top edge leading into the product	Not applicable
	Short edge of the envelope feeding into the product	1-sided printing	Face down Top edge toward the back of the product	Not applicable





 **NOTE:** ALTERNATIVE LETTERHEAD MODE will print in duplex mode automatically.

## Tray 2 or optional Tray 3

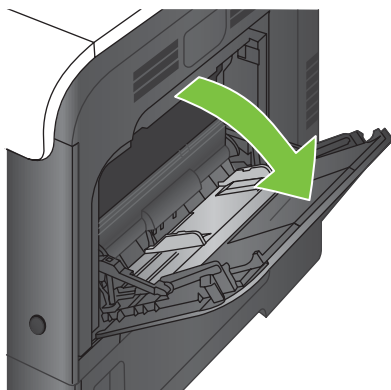
Paper type	Image orientation	Duplex mode	How to load paper	How to load paper
			ALTERNATIVE LETTERHEAD MODE = Off	ALTERNATIVE LETTERHEAD MODE = On
Preprinted or letterhead	Portrait	1-sided printing	Face up  Top edge at the right side of the tray	Face down  Top edge at the left side of the tray
				
		2-sided printing	Face down  Top edge at the left side of the tray	Face down  Top edge at the left side of the tray
				
Prepunched	Portrait or landscape	1- or 2-sided printing	Holes toward the back of the product	Not applicable
				

## Load Tray 1

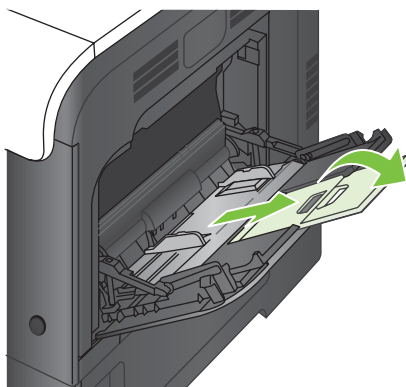
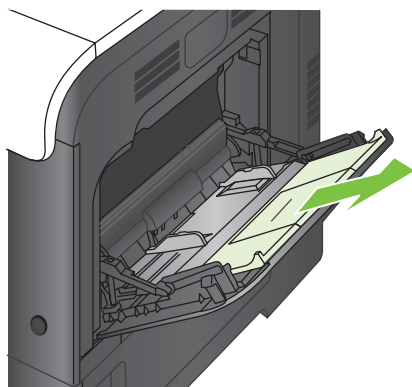
 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-load-tray1](http://www.hp.com/go/cljcp3525-load-tray1).

 **CAUTION:** To avoid jams, never add or remove paper from Tray 1 during printing.

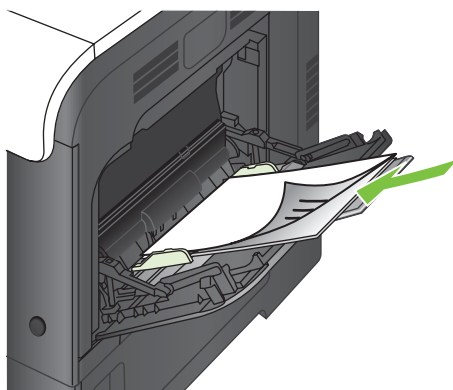
1. Open Tray 1.



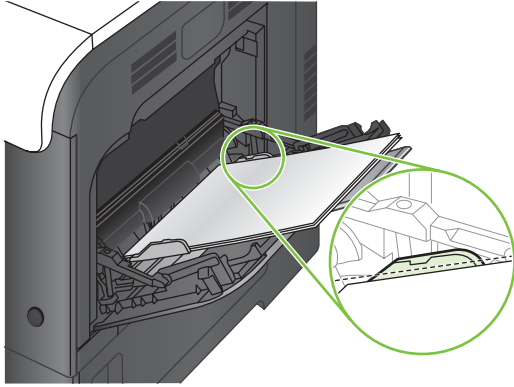
2. Fold out the tray extension to support the paper and set the side guides to the correct width.



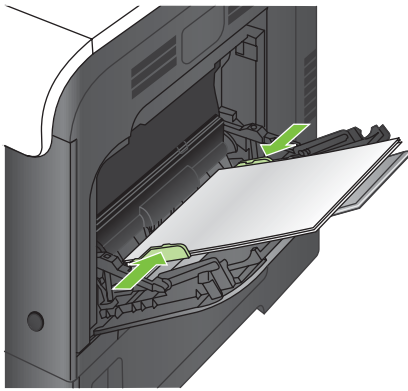
3. Load paper in the tray face down and the short, top edge going into the product first.



4. Make sure the stack fits under the tabs on the guides and does not exceed the load-level indicators.



5. Adjust the side guides so that they lightly touch the paper stack but do not bend it.



## Print envelopes

If your software does not automatically format an envelope, specify **Landscape** for page orientation in your software program or printer driver. Use the following guidelines to set margins for return and destination addresses on Commercial #10 or DL envelopes:

Address type	Left margin	Top margin
Return	15 mm (0.6 in)	15 mm (0.6 in)
Destination	102 mm (4 in)	51 mm (2 in)

For envelopes of other sizes, adjust the margin settings accordingly.

## Load Tray 2

This tray holds up to 250 sheets of 75 g/m<sup>2</sup> (20 lb) paper. If the paper is heavier, the tray does not hold as many sheets. Do not overfill the tray.

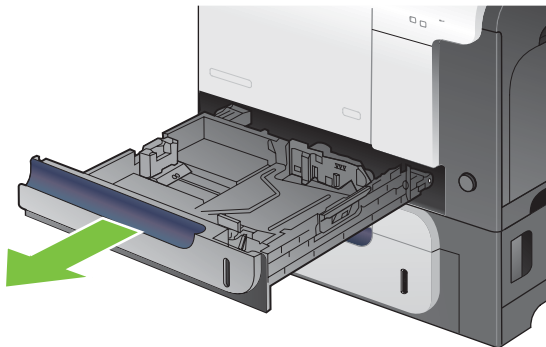
△ **CAUTION:** Do not print envelopes, labels, postcards, or unsupported sizes of paper from the Tray 2. Print these types of paper only from Tray 1.

💡 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-load-tray2](http://www.hp.com/go/cljcp3525-load-tray2).

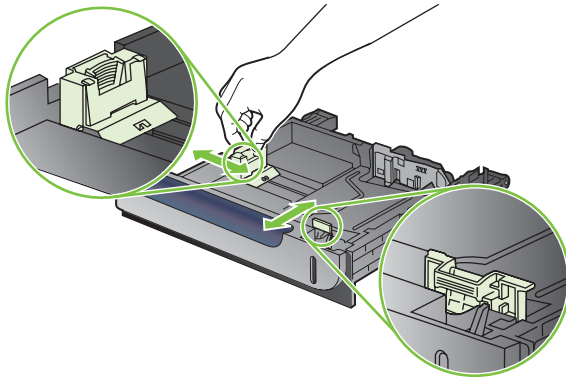
△ **CAUTION:** Overfilling Tray 2 can cause paper corners to fold, resulting in a paper jam.

1. Slide open the tray.


📄 **NOTE:** Do not open the tray while it is in use.



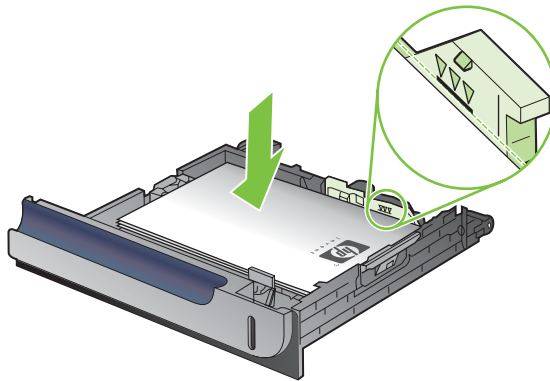
2. Adjust the paper-length and paper-width guides by squeezing the adjustment latch and sliding the guides to the size of the paper being used.




3. Load paper into the tray face up. Check the paper to verify the guides lightly touch the stack, but do not bend it.

 **NOTE:** To prevent jams, do not overfill the tray. Be sure the top of the stack is below the tray full indicator.

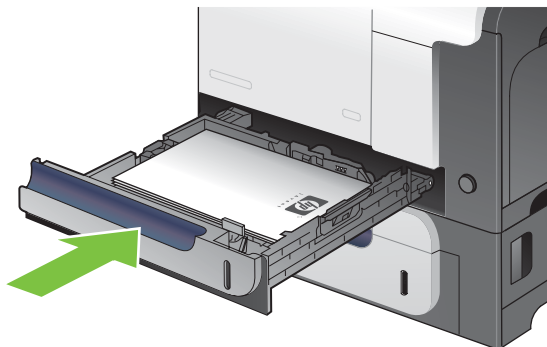
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 **NOTE:** If the tray is not adjusted correctly, an error message might appear during printing or the paper might jam.

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4. Slide the tray into the product.



5. The control panel shows the tray's paper type and size. If the configuration is not correct, follow the instructions on the control panel to change the size or type.



## Load the optional 500-sheet paper and heavy media tray (Tray 3)

Tray 3 holds up to 500 sheets of standard paper.

The product automatically detects the following standard sizes of paper in Tray 3: Letter, Legal, Executive, A4, A5, and B5 (JIS).

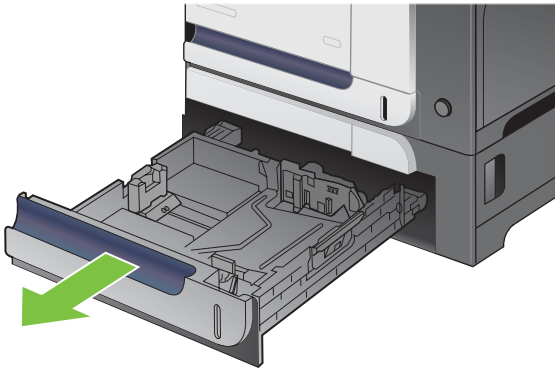
- △ **CAUTION:** Do not print envelopes or unsupported sizes of paper from Tray 3. Print these types of paper only from Tray 1.

## Load standard-sized paper into Tray 3

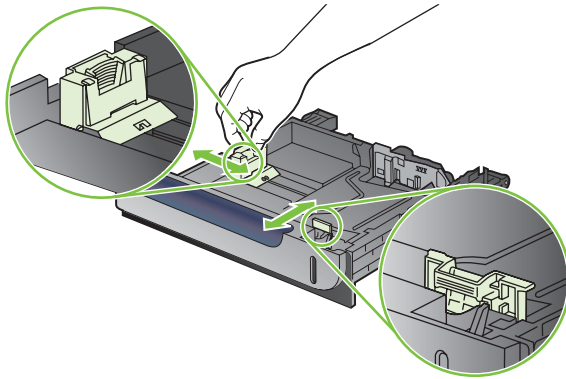
- 💡 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-load-tray3](http://www.hp.com/go/cljcp3525-load-tray3).

1. Slide open the tray.


- 📄 **NOTE:** Do not open the tray while it is in use.



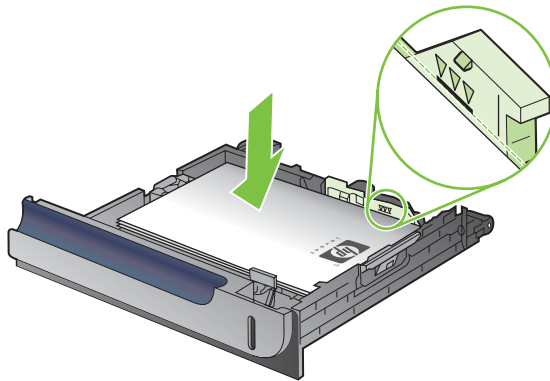
2. Adjust the paper-length and paper-width guides by squeezing the adjustment latches and sliding the guides to the size of the paper being used.




3. Load paper into the tray face up. Check the paper to verify the guides lightly touch the stack, but do not bend it.

 **NOTE:** To prevent jams, do not overfill the tray. Be sure the top of the stack is below the tray full indicator.

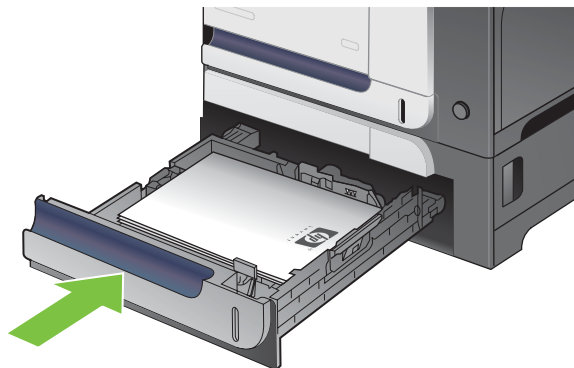
---



 **NOTE:** If the tray is not adjusted correctly, an error message might appear during printing or the paper might jam.

---

4. Slide the tray into the product.





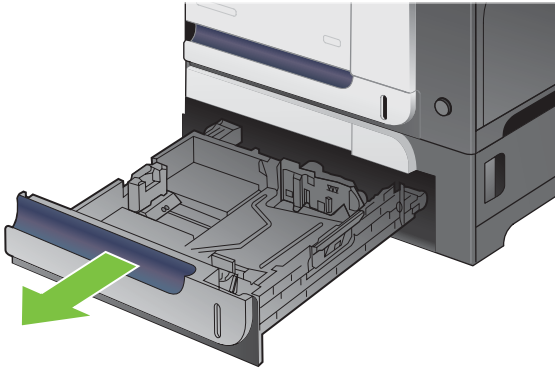
5. The control panel shows the tray's paper type and size. If the configuration is not correct, follow the instructions on the control panel to change the size or type.



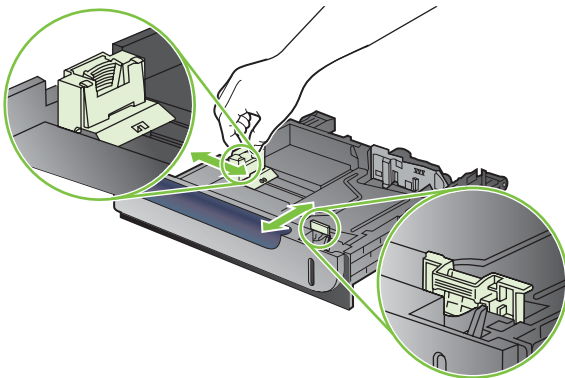
### Load custom-size paper into Tray 3

To use custom media, change the size setting on the control panel to **CUSTOM** and set the unit of measure, **X DIMENSION** and **Y DIMENSION**.

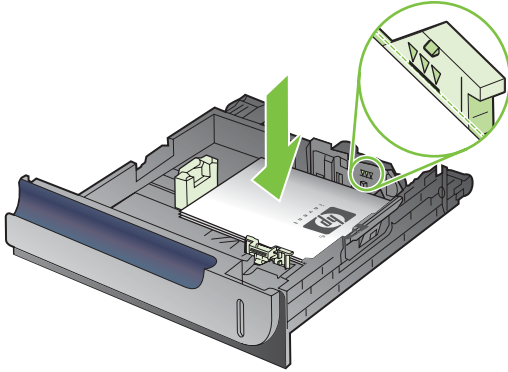
1. Slide open the tray.



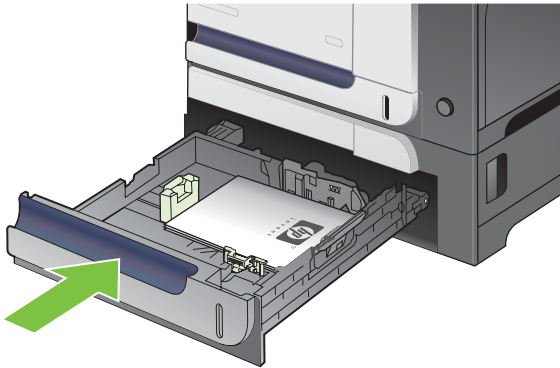
2. Adjust the paper-length and paper-width guides by squeezing the adjustment latches and sliding the guides to the size of the paper being used.



3. Load paper into the tray face up. Check the paper to verify the guides lightly touch the stack, but do not bend it.




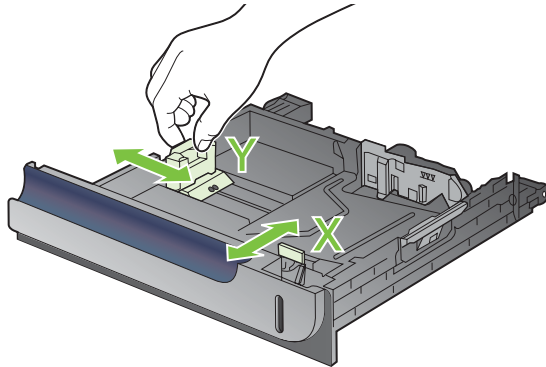
4. Slide the tray into the product. The control panel shows the paper type and size.




5. The control panel prompts you to set the paper size and type. Select the **CUSTOM** setting, and then configure the X and Y dimensions of the custom paper size.



 **NOTE:** See the label in the paper tray, or the following illustration, to determine the X and Y dimensions.

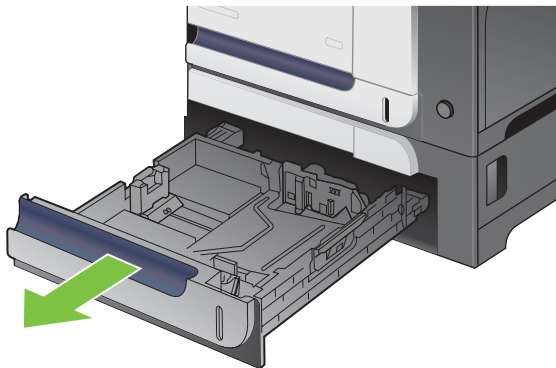


### Load 4 x 6 inch (10 x 15 cm) size paper into Tray 3

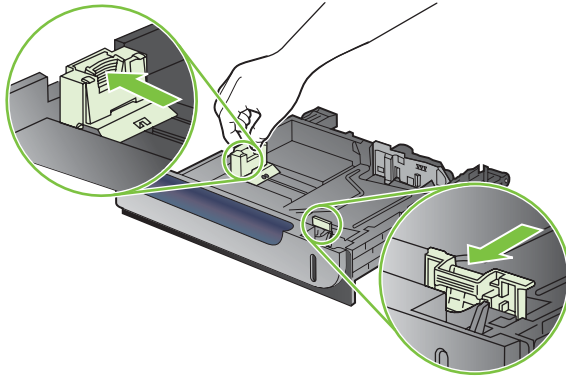
 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-load-tray3-4x6](http://www.hp.com/go/cljcp3525-load-tray3-4x6).

Loading paper size 4 x 6 inch (10 x 15 cm) into Tray 3 requires installing the HP postcard media insert.

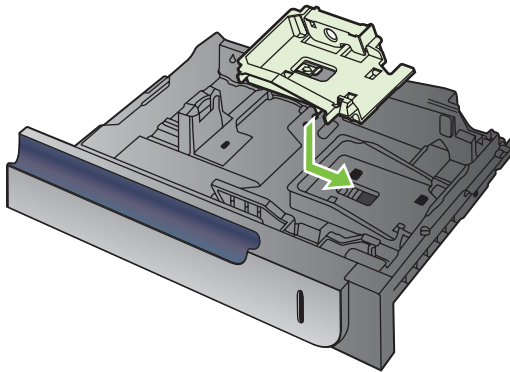
1. Slide open the tray.



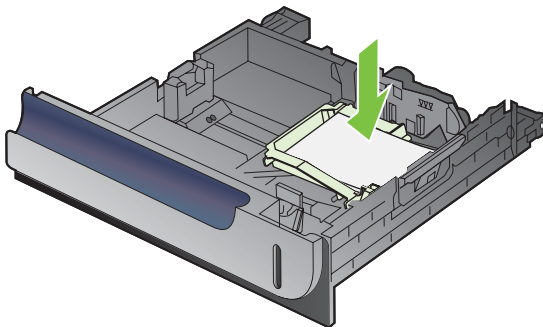
2. Adjust the paper-length and paper-width guides by squeezing the adjustment latches and adjusting the guides to the fully opened position.



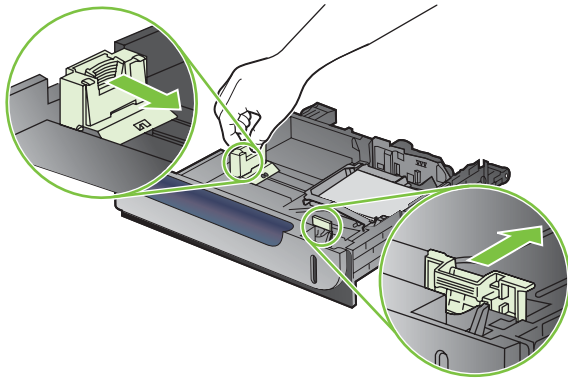
3. Fit the HP postcard media insert into Tray 3 and then slide the insert to the right until it snaps into place.



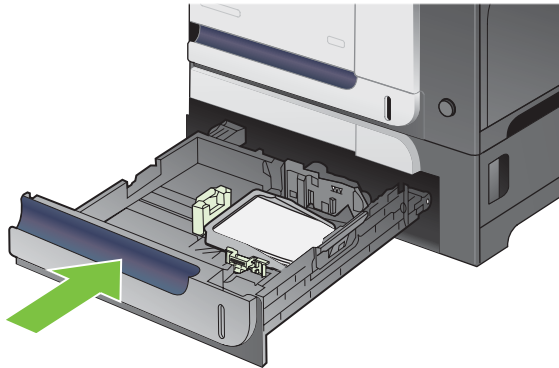
4. Load 4 x 6 inch (10 x 15 cm) paper into the tray face up.



5. Adjust the paper-length and paper-width guides by squeezing the adjustment latches and adjusting the guides to the fully closed position.



6. Slide the tray into the product.

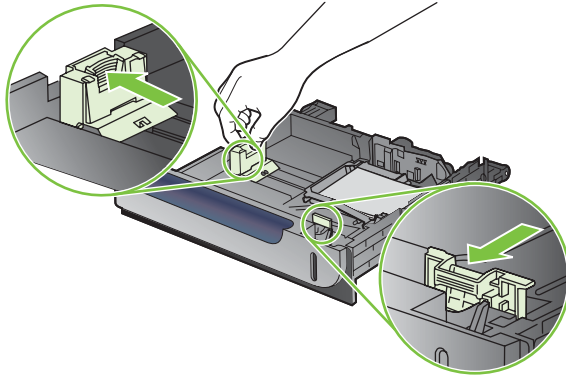


7. The control panel prompts you to set the paper size and type. Select either 4 x 6 inch or 10 x 15 cm size paper.

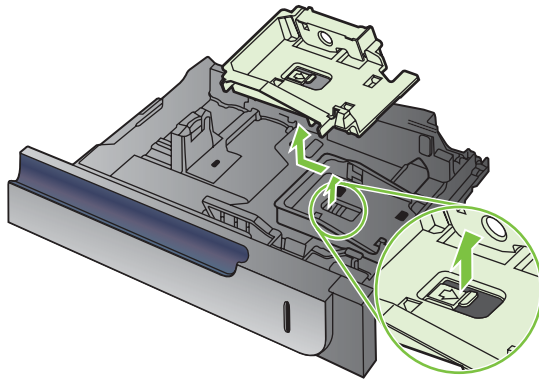


## Remove the HP postcard media insert

1. Adjust the paper-length and paper-width guides by squeezing the adjustment latches and adjusting the guides to the fully opened position.



2. To remove the HP postcard media insert, lift the tab, slide the insert toward the center of the tray, and then lift the insert to remove.




# Configure trays

The product automatically prompts you to configure a tray for type and size in the following situations:

- When you load paper into the tray
- When you specify a particular tray or media type for a print job through the printer driver or a software program and the tray is not configured to match the print-job's settings

The following message appears on the control panel: **TRAY <X> [TYPE] [SIZE] To change size or type press OK. To accept settings press ↵.**

 **NOTE:** The prompt does not appear if you are printing from Tray 1, and it is configured for the **ANY SIZE** and **ANY TYPE** settings.

**NOTE:** If you have used other HP LaserJet product models, you might be accustomed to configuring Tray 1 to **First** mode or **Cassette** mode. For this product, setting **TRAY 1 SIZE** to the **ANY SIZE** setting and setting **TRAY 1 TYPE** to **ANY TYPE** is equivalent to **First** mode. Setting **TRAY 1 SIZE** and **TRAY 1 TYPE** to any other settings is equivalent to **Cassette** mode.

## Configure a tray when loading paper



1. Load paper in the tray. Close the tray if you are using Tray 2 or 3.
2. The tray configuration message appears.
3. Press the back arrow ↵ to accept the size and type, or press the **OK** button to choose a different paper size or paper type.
4. If you are modifying the tray size configuration, press the down arrow ▼ to highlight the correct size, and then press the **OK** button.
5. If you are modifying the tray type configuration, press the down arrow ▼ to highlight the correct type, and then press the **OK** button.

## Configure a tray to match print job settings

1. In the software program, specify the source tray, the paper size, and the paper type.
2. Send the job to the product.  
If the tray needs to be configured, the **LOAD TRAY <X> [TYPE] [SIZE]** message appears.
3. Load the tray with the specified type and size of paper, and then close the tray.
4. When the **TRAY <X> SIZE = <Size>** message appears, press the **OK** button to confirm the size.  
To specify a custom size, first press the down arrow ▼ to highlight the correct unit of measure. Then use the up or down arrows ▲▼ to set the X and Y dimensions, and then press the **OK** button.
5. When the **TRAY<X> TYPE=<TYPE>** message appears, press the **OK** button to confirm the type and continue with the job.

## Configure a tray by using the Paper Handling menu

You can also configure the trays for type and size without a prompt from the product.

1. Press the **Menu** button .
2. Press the down arrow ▼ to highlight the **PAPER HANDLING** menu, and then press the **OK** button.
3. Press the down arrow ▼ to highlight the size or type setting for the desired tray, and then press the **OK** button.
4. Press the up arrow ▲ or the down arrow ▼ to highlight the size or type. If you select a custom size, select the unit of measure, and then set the X dimension and the Y dimension.
5. Press the **OK** button to save your selection.
6. Press the **Menu** button  to exit the menus.

## Automatic overhead transparency sensing (auto sense mode)

The automatic media type sensor functions only when that tray is configured to the **ANY TYPE** setting. Configuring a tray to any other type, such as Bond or Glossy, deactivates the media sensor in that tray.

The HP Color LaserJet CP3525 Series printers can automatically classify paper types into one of two categories:

- Non-transparency
- Transparency

For more control, a specific type must be selected in the job or configured in a tray.

### Auto-sense settings

#### Full sensing (Tray 1 only)

- The product distinguishes between transparencies (Transparency mode) and paper (Normal mode).
- Each time the product prints a page, it senses transparencies or non-transparencies.
- This is the slowest mode.

#### Transparency only

- The product distinguishes between transparencies (Transparency mode) and paper (Normal mode).
- The product assumes that the second and all subsequent pages are of the same media type as the first page.
- This is the fastest mode and is useful for high-volume printing in Normal mode.

For more information about setting these options, see [Print Quality menu on page 22](#).



## Select the media by source, type, or size

In the Microsoft Windows operating system, three settings affect how the printer driver tries to pull media when you send a print job. *Source*, *Type*, and *Size* settings appear in the **Page Setup**, **Print**, or **Print Properties** dialog boxes in most software programs. Unless you change these settings, the product automatically selects a tray using the default settings.

### Source

To print by *Source* select a specific tray for the product to pull from. If you select a tray that is configured for a type or size that does not match your print job, the product prompts you to load the tray with the type or size of print media for your print job before printing it. When you load the tray, the product begins printing.

### Type and Size

Printing by *Type* or *Size* means that you want the product to pull from the tray that is loaded with the correct type and size of media. Selecting media by type rather than source is similar to locking out trays and helps protect special media from accidental use. For example, if a tray is configured for letterhead and you select plain paper, the product will not pull the letterhead from that tray. Instead, it will pull from a tray that has plain paper loaded and is configured for plain paper on the product control panel. Selecting media by Type and Size results in significantly better print quality for heavy paper, glossy paper, and transparencies. Using the wrong setting might result in unsatisfactory print quality. Always print by Type for special print media, such as labels or transparencies. Print by Size for envelopes, if possible.

- To print by Type or Size, select the type or size from the **Page Setup** dialog box, the **Print** dialog box, or the **Print Properties** dialog box, depending on the software program.
- If you often print on a certain type or size of media, configure a tray for that type or size. Then, when you select that type or size as you print a job, the product automatically pulls media from the tray that is configured for that type or size.




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## 4 Manage and maintain the product

- [Information pages](#)
- [HP Easy Printer Care](#)
- [Embedded Web server](#)
- [Use HP Web Jetadmin software](#)
- [Security features](#)
- [Manage supplies](#)
- [Clean the product](#)
- [Product updates](#)

## Information pages

Information pages provide details about the product and its current configuration.

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight the **INFORMATION** menu, and then press the **OK** button.
3. Press the down arrow ▼ to highlight the required information, and then press the **OK** button to print.

For more information about the available information pages, see [Information menu on page 17](#).

# HP Easy Printer Care

## Open the HP Easy Printer Care software


Use one of the following methods to open the HP Easy Printer Care software:


- On the **Start** menu, select **Programs**, select **Hewlett-Packard**, select **HP Easy Printer Care**, and then click **Start HP Easy Printer Care**.
- In the Windows system tray (in the lower-right corner of the desktop), double-click the HP Easy Printer Care icon.
- Double-click the desktop icon.

## HP Easy Printer Care software sections

HP Easy Printer Care software can provide information about multiple HP products that are on your network as well as any products that are directly connected to your computer. Some of the items that are in the following table might not be available for every product.

The Help button (?) in the upper-right corner of each page provides more detailed information about the options on that page.

Section	Options
<b>Device List</b> tab  When you open the software, this is the first page that appears.  <b>NOTE:</b> To return to this page from any tab, click <b>My HP Printers</b> in the left side of the window.	<ul style="list-style-type: none"><li>● <b>Devices</b> list: Shows the products that you can select.</li></ul> <b>NOTE:</b> The product information appears either in list form or as icons, depending on the setting for the <b>View as</b> option. <ul style="list-style-type: none"><li>● The information on this tab includes current alerts for the product.</li><li>● If you click a product in the list, the HP Easy Printer Care opens the <b>Overview</b> tab for that product.</li></ul>
<b>Compatible Printers</b>	Provides a list of all the HP products that support HP Easy Printer Care software.
<b>Find Other Printers</b> window  Add more products to the <b>My HP Printers</b> list	Click the <b>Find Other Printers</b> link in the <b>Devices</b> list to open the <b>Find Other Printers</b> window. The <b>Find Other Printers</b> window provides a utility that detects other network printers so that you can add them to the <b>My HP Printers</b> list and then monitor those products from your computer.
<b>Overview</b> tab  Contains basic status information for the product	<ul style="list-style-type: none"><li>● <b>Device Status</b> section: This section shows product-identification information and the product status. It indicates product-alert conditions, such as when a print cartridge has reached its estimated end of life. After you correct a problem with the product, click the refresh button  in the upper-right corner of the window to update the status.</li><li>● <b>Supplies Status</b> section: Shows detailed supplies status, such as the estimated life remaining in the print cartridge and the status of the paper that is loaded in each tray.</li><li>● <b>Supplies Details</b> link: Opens the supplies status page to view more detailed information about product supplies, ordering information, and recycling information.</li></ul>

Section	Options
<p><b>Support tab</b></p> <p>Provides links to support information</p>	<ul style="list-style-type: none"> <li>● <b>Device Status</b> section: This section shows product-identification information and the product status. It indicates product-alert conditions, such as a print cartridge that is at its estimated end of life. After you correct a problem with the product, click the refresh button  in the upper-right corner of the window to update the status.</li> <li>● <b>Device Management</b> section: Provides links to information about HP Easy Printer Care, to advanced product settings, and to product usage reports.</li> <li>● <b>Troubleshooting and Help</b>: Provides links to tools that you can use to resolve problems, to online product support information, and to online HP experts.</li> </ul>
<p><b>Settings tab</b></p> <p>Configure product settings, adjust print-quality settings, and find information about specific product features</p> <p><b>NOTE:</b> This tab is not available for some products.</p>	<ul style="list-style-type: none"> <li>● <b>About</b>: Provides general information about this tab.</li> <li>● <b>General</b>: Provides information about the product, such as the model number, serial number, and the settings for date and time, if they are available.</li> <li>● <b>Information Pages</b>: Provides links to print the information pages that are available for the product.</li> <li>● <b>Capabilities</b>: Provides information about product features, such as duplexing, the available memory, and the available printing personalities. Click <b>Change</b> to adjust the settings.</li> <li>● <b>Print Quality</b>: Provides information about print-quality settings. Click <b>Change</b> to adjust the settings.</li> <li>● <b>Trays / Paper</b>: Provides information about the trays and how they are configured. Click <b>Change</b> to adjust the settings.</li> <li>● <b>Restore Defaults</b>: Provides a way to restore the product settings to the factory defaults. Click <b>Restore</b> to restore the settings to the defaults.</li> </ul>
<p><b>HP Proactive Support</b></p> <p><b>NOTE:</b> This item is available from the <b>Overview</b> and <b>Support</b> tabs.</p>	<p>When enabled, HP Proactive Support routinely scans your printing system to identify potential problems. Click the <b>more info</b> link to configure how frequently the scans occur. This page also provides information about available updates for product software, firmware, and HP printer drivers. You can accept or decline each recommended update.</p>
<p><b>Supplies Ordering</b> button</p> <p>Click the <b>Supplies Ordering</b> button on any tab to open the <b>Supplies Ordering</b> window, which provides access to online supplies ordering.</p> <p><b>NOTE:</b> This item is available from the <b>Overview</b> and <b>Support</b> tabs.</p>	<ul style="list-style-type: none"> <li>● <b>Ordering list</b>: Shows the supplies that you can order for each product. To order a certain item, click the <b>Order</b> check box for that item in the supplies list. You can sort the list by product, or by the supplies that need to be ordered the soonest. The list contains supplies information for every product that is in the <b>My HP Printers</b> list.</li> <li>● <b>Shop Online for Supplies</b> button: Opens the HP SureSupply Web site in a new browser window. If you have checked the <b>Order</b> check box for any items, the information about those items can be transferred to the Web site, where you will receive information on options for purchasing your selected supplies.</li> <li>● <b>Print Shopping List</b> button: Prints the information for the supplies that have the <b>Order</b> check box selected.</li> </ul>

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Section	Options
<b>Alert Settings</b> link  <b>NOTE:</b> This item is available from the <b>Overview</b> and <b>Support</b> tabs.	Click <b>Alert Settings</b> to open the Alert Settings window, in which you can configure alerts for each product. <ul style="list-style-type: none"><li>● Alerting is on or off: Activates or deactivates the alerts feature.</li><li>● <b>Printer Alerts:</b> Select the option to receive alerts for critical errors only, or for any error.</li><li>● <b>Job Alerts:</b> For products that support it, you can receive alerts for specific print jobs.</li></ul>
<b>Color Access Control</b>  <b>NOTE:</b> This item is available only for HP color products that support Color Access Control.  <b>NOTE:</b> This item is available from the <b>Overview</b> and <b>Support</b> tabs.	Use this feature to permit or restrict color printing.

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## Embedded Web server

Use the embedded Web server to view product status, configure product network settings, and to manage printing functions from your computer instead of from the product control panel. The following are examples of what you can do using the embedded Web server:

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 **NOTE:** When the product is directly connected to a computer, use the HP Easy Printer Care to view the product status instead of the embedded Web server.


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

To use the embedded Web server, you must have Microsoft Internet Explorer 5.01 or later or Netscape 6.2 or later for Windows, Mac OS, and Linux (Netscape only). Netscape Navigator 4.7 is required for HP-UX 10 and HP-UX 11. The embedded Web server works when the product is connected to an IP-based network. The embedded Web server does not support IPX-based product connections. You do not have to have Internet access to open and use the embedded Web server.

When the product is connected to the network, the embedded Web server is automatically available.

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 **NOTE:** For complete information about using the embedded Web server, see the *Embedded Web Server User Guide*, which is on the CD that came with the product.

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## Open the embedded Web server by using a network connection

1. In a supported Web browser on your computer, type the product IP address or host name in the address/URL field. To find the IP address or host name, print a configuration page. See [Information pages on page 70](#).

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 **NOTE:** After you open the URL, you can bookmark it so that you can return to it quickly in the future.

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2. The embedded Web server has the following tabs that contain settings and information about the product:
  - **Information** tab
  - **Settings** tab
  - **Networking** tab

See [Embedded Web server sections on page 75](#) for more information about each tab.



## Embedded Web server sections

Tab or section	Options
<p><b>Information tab</b></p> <p>Provides product, status, and configuration information</p>	<ul style="list-style-type: none"> <li>● <b>Device Status:</b> Shows the product status and shows the estimated life remaining of HP supplies. The page also shows the type and size of print paper set for each tray. To change the default settings, click <b>Change Settings</b>.</li> <li>● <b>Configuration Page:</b> Shows the information found on the configuration page.</li> <li>● <b>Supplies Status:</b> Shows the estimated life remaining of HP supplies. This page also provides supplies part numbers. To order new supplies, click <b>Shop for Supplies</b> in the <b>Other Links</b> area on the left side of the window.</li> <li>● <b>Event Log:</b> Shows a list of all product events and errors. Use the <b>hp instant support</b> link (in the <b>Other Links</b> area on all embedded Web server pages) to connect to a set of dynamic Web pages that help you solve <b>Event Log</b> issues and other problems. These pages also show additional services available for the product.</li> <li>● <b>Usage Page:</b> Shows a summary of the number of pages the product has printed, grouped by size, type, and paper print path.</li> <li>● <b>Diagnostics Page:</b> Provides the time of the last calibration and the electro-photographic (EP) parameters that can be used to diagnose some print quality problems. For more information, contact HP Support. See <a href="#">Customer support on page 514</a>.</li> <li>● <b>Device Information:</b> Shows the product network name, address, and model information. To customize these entries, click <b>Device Information</b> on the <b>Settings</b> tab.</li> <li>● <b>Control Panel:</b> Shows messages from the control panel, such as <b>Ready</b> or <b>Sleep mode on</b>.</li> <li>● <b>Color Usage Job Log:</b> Shows the total pages printed, the number of pages printed in color, and the number of pages printed in black only.</li> <li>● <b>Print:</b> Allows you to send print-ready jobs to the product.</li> </ul>
<p><b>Settings tab</b></p> <p>Provides the ability to configure the product from your computer</p>	<ul style="list-style-type: none"> <li>● <b>Configure Device:</b> Allows you to configure product default settings. This page contains the traditional menus found on the control-panel display.</li> <li>● <b>Tray Sizes/Types:</b> Shows the size and type of paper and print media allowed for each input tray.</li> <li>● <b>E-mail Server:</b> Network only. Used in conjunction with the <b>Alerts</b> page to set up e-mail alerts.</li> <li>● <b>Alerts:</b> Network only. Allows you to set up to receive e-mail alerts for various product and supplies events.</li> <li>● <b>AutoSend:</b> Allows you to configure the product to send automated e-mails regarding product configuration and supplies to specific e-mail addresses.</li> <li>● <b>Security:</b> Allows you to set a password that must be entered to gain access to the <b>Settings</b> and <b>Networking</b> tabs as well as portions of the product's control panel and HP Jetdirect networking. Enable and disable certain features of the product.</li> <li>● <b>Edit Other Links:</b> Allows you to add or customize a link to another Web site. This link is displayed in the <b>Other Links</b> area on all embedded Web server pages.</li> <li>● <b>Device Information:</b> Allows you to name the product and assign an asset number to it. Enter the name and e-mail address for the primary contact who will receive information about the product.</li> </ul>

Tab or section	Options
	<ul style="list-style-type: none"> <li>● <b>Language:</b> Allows you to determine the language in which to display the embedded Web server information.</li> <li>● <b>Date &amp; Time:</b> Allows time synchronization with a network time server.</li> <li>● <b>Wake Time:</b> Allows you to set or edit a wake time for the product to become ready.</li> <li>● <b>Restrict Color:</b> Allows you to permit or restrict color printing. You can specify permissions for individual users or for jobs that are sent from specific software programs.</li> </ul> <p><b>NOTE:</b> The <b>Settings</b> tab can be password-protected. If this product is on a network, always consult with the system administrator before changing settings on this tab.</p>
<p><b>Networking tab</b></p> <p>Provides the ability to change network settings from your computer</p>	<p>Network administrators can use this tab to control network-related settings for the product when it is connected to an IP-based network. This tab does not appear if the product is directly connected to a computer, or if the product is connected to a network using anything other than an HP Jetdirect print server.</p> <p><b>NOTE:</b> The <b>Networking</b> tab can be password-protected.</p>
<p><b>Other Links</b></p> <p>Contains links that connect you to the Internet</p>	<ul style="list-style-type: none"> <li>● <b>hp instant support:</b> Connects you to the HP Web site to help you find solutions to product problems.</li> <li>● <b>Shop for Supplies:</b> Connects to the HP SureSupply Web site, where you will receive information on options for purchasing original HP supplies, such as print cartridges and paper.</li> <li>● <b>Product Support:</b> Connects to the support site for the product, from which you can find help regarding various topics.</li> <li>● <b>Show Me How:</b> Connects to information that demonstrates specific tasks for the product, such as clearing jams and printing on various types of paper.</li> </ul> <p><b>NOTE:</b> You must have Internet access in order to use any of these links. If you use a dial-up connection and did not connect when you first opened the embedded Web server, you must connect before you can visit these Web sites. Connecting might require that you close the embedded Web server and reopen it.</p>

## Use HP Web Jetadmin software

HP Web Jetadmin is a Web-based software solution for remotely installing, monitoring, and troubleshooting network-connected peripherals. Management is proactive, allowing network administrators the ability to resolve issues before users are affected. Download this free, enhanced-management software at [www.hp.com/go/webjetadmin](http://www.hp.com/go/webjetadmin).

Device plug-ins can be installed into HP Web Jetadmin to provide support for specific product features. The HP Web Jetadmin software can automatically notify you when new plug-ins are available. On the **Product Update** page, follow the directions to automatically connect to the HP Web site and install the latest device plug-ins for your product.



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**NOTE:** Browsers must be Java™-enabled. Browsing from an Apple PC is not supported.

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# Security features

## Secure the embedded Web server

Assign a password for access to the embedded Web server so that unauthorized users cannot change the product settings.

1. Open the embedded Web server. See [Embedded Web server on page 74](#).
2. Click the **Settings** tab.
3. On the left side of the window, click the **Security** menu.
4. Click the **Device Security Settings** button.
5. In the **Device Password** area, type the password next to **New Password**, and type it again next to **Verify Password**.
6. Click **Apply**. Make note of the password and store it in a safe place.

## Secure Disk Erase (optional EIO hard drive)

To protect deleted data from unauthorized access on the product hard drive, use the Secure Disk Erase feature in the HP Web Jetadmin software. This feature can securely erase print jobs from the optional hard drive.


Secure Disk Erase offers the following levels of disk security:

- **Non-Secure Fast Erase.** This is a simple file-table erase function. Access to the file is removed, but actual data is retained on the disk until it is overwritten by subsequent data-storage operations. This is the fastest mode. Non-Secure Fast Erase is the default erase mode.
- **Secure Fast Erase.** Access to the file is removed, and the data is overwritten with a fixed identical character pattern. This is slower than Non-Secure Fast Erase, but all data is overwritten. Secure Fast Erase meets the U.S. Department of Defense 5220-22.M requirements for the clearing of disk media.
- **Secure Sanitizing Erase.** This level is similar to the Secure Fast Erase mode. In addition, data is repetitively overwritten by using an algorithm that prevents any residual data persistence. This mode will impact performance. Secure Sanitizing Erase meets the U.S. Department of Defense 5220-22.M requirements for the sanitization of disk media.

## Data affected

Data affected (covered) by the Secure Disk Erase feature includes temporary files that are created during the print process, stored jobs, proof and hold jobs, disk-based fonts, disk-based macros (forms), address books, and HP and third-party applications.

---

 **NOTE:** Stored jobs will be securely overwritten only when they have been deleted through the **RETRIEVE JOB** menu on the product after the appropriate erase mode has been set.

---

This feature will not impact data that is stored on flash-based product non-volatile RAM (NVRAM) that is used to store default settings, page counts, and similar data. This feature does not affect data that is stored on a system RAM disk (if one is used). This feature does not impact data that is stored on the flash-based system boot RAM.

Changing the Secure Disk Erase mode does not overwrite previous data on the disk, nor does it immediately perform a full-disk sanitization. Changing the Secure Disk Erase mode changes how the product cleans up temporary data for jobs after the erase mode has been changed.

## Additional Information

For additional information about the HP Secure Disk Erase feature, see the HP support flyer or go to [www.hp.com/go/webjetadmin](http://www.hp.com/go/webjetadmin).

## Job storage

To securely print a private job, use the personal job option. The job can only be printed when the correct PIN is entered at the control panel.

To use the **Personal Job** option, the job-storage feature must be enabled.

When you select **Personal Job**, the print job is sent to the product, but is not printed until you request the job at the product control panel. Selecting **Personal Job** activates the **PIN** group box. If **PIN to print** is selected, the print job can be printed only after you type the correct PIN at the control panel. After the job is printed, the job is immediately deleted from the product. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing.

The Private Job/PIN coupling has a PIN restriction of four ASCII numeric characters (0 through 9). If you type non-numeric characters, they are removed immediately. If you type more than four characters, the characters past the fourth are truncated. The text box temporarily accepts fewer than four digits in the string, but when the text box loses focus, the zeroes pad the left end until the PIN contains exactly four digits. The default initialized value for the PIN is 0000 for **Personal Job**.

After it is released for printing, the private job is immediately deleted from the product. If more copies are needed, you must reprint the job from the software program. If you send a second private job that has the same user name and job name as an existing private job (and you have not released the original job for printing), the job overwrites the existing job, regardless of the PIN. Private jobs are deleted if you turn off the product.

## HP Encrypted High Performance Hard Disks

This product supports an optional encrypted hard disk that you can install in the EIO accessory slot. This hard disk provides hardware-based encryption so you can securely store sensitive print, copy, and scan data without impacting product performance. This hard disk uses the latest Advanced Encryption Standard (AES) and has versatile time-saving features and robust functionality.

For information about ordering these accessories see [Part numbers on page 447](#).

## Lock the control-panel menus

To prevent someone from changing the product configuration, you can lock the control-panel menus. This prevents unauthorized users from changing the configuration settings such as the SMTP server.

You can use HP Web Jetadmin to lock the control-panel menus on several products simultaneously. Browse to [www.hp.com/go/webjetadmin](http://www.hp.com/go/webjetadmin) to access white papers discussing security features, such as control-panel lock, that allow you to secure the product against unwanted access.

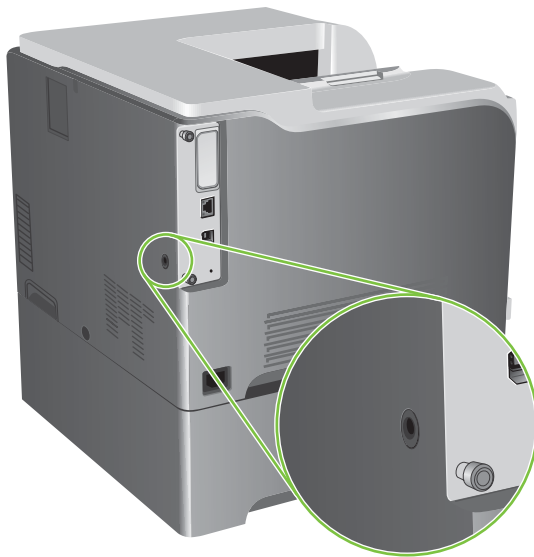
1. Open the HP Web Jetadmin program.
2. Open the **DEVICE MANAGEMENT** folder in the drop-down list in the **Navigation** panel. Navigate to the **DEVICE LISTS** folder.

3. Select the product.
4. In the **Device Tools** drop-down list, select **Configure**.
5. Select **Security** from the **Configuration Categories** list.
6. Type a **Device Password**.
7. In the **Control Panel Access** section, select **Maximum Lock**. This prevents unauthorized users from gaining access to configuration settings.

## Lock the formatter cage

The formatter cage, on the back of the product, has a slot that you can use to attach a security cable. Locking the formatter cage prevents someone from removing valuable components from the formatter.

**Figure 4-1** Slot for the security cable



# Manage supplies

Use genuine HP print cartridges for the best printing results.

## Print-cartridge storage

Do not remove the print cartridge from its package until you are ready to use it.

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△ **CAUTION:** To prevent damage to the print cartridge, do not expose it to light for more than a few minutes.

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## HP policy on non-HP print cartridges

Hewlett-Packard Company cannot recommend the use of non-HP print cartridges, either new or remanufactured.

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 **NOTE:** Any damage caused by a non-HP print cartridge is not covered under the HP warranty and service agreements.

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To install a new HP print cartridge, see [Change print cartridges on page 83](#). To recycle the used cartridge, follow the instructions included with the new cartridge. For more information about recycling, see the product user guide.

## HP fraud hotline and Web site

Call the HP fraud hotline (1-877-219-3183, toll-free in North America) or go to [www.hp.com/go/anticounterfeit](http://www.hp.com/go/anticounterfeit) when you install an HP print cartridge and the control-panel message says the cartridge is non-HP. HP will help determine if the cartridge is genuine and take steps to resolve the problem.

Your print cartridge might not be a genuine HP print cartridge if you notice the following:

- You are experiencing a high number of problems with the print cartridge.
- The cartridge does not look like it usually does (for example, the orange pull tab is missing, or the packaging differs from HP packaging).

## Replace supplies

You can configure the product to stop when the supply level reaches its estimated end of life. However, the supply might still be able to produce acceptable print quality. To continue printing, either replace the supply or reconfigure the printer by using the **REPLACE SUPPLIES** menu on the control panel. For more information about ordering supplies, see [Parts and diagrams on page 445](#). For more information about the **REPLACE SUPPLIES** menu, see [System setup menu on page 25](#).

## Supplies life

For information regarding specific product yield, see [www.hp.com/go/learnaboutsupplies](http://www.hp.com/go/learnaboutsupplies).

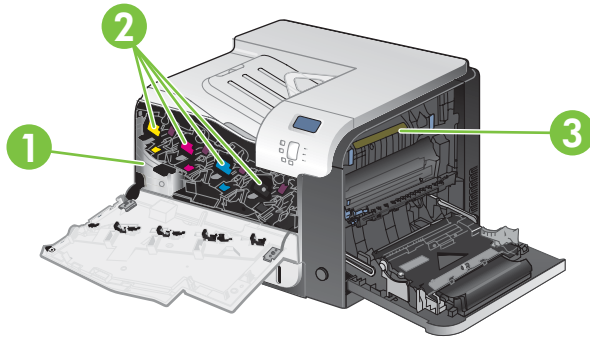
To order supplies, see [Parts and diagrams on page 445](#).

## Locate supplies

Supplies are identified by their labeling and their blue plastic handles.

The following figure illustrates the location of each supply item.

**Figure 4-2** Supply item locations



1	Toner collection unit
2	Print cartridges
3	Fuser

## Supply replacement guidelines

To facilitate the replacement of supplies, keep the following guidelines in mind when setting up the product.

- Allow sufficient space in the front and on the right side of the product for removing supplies.
- The product should be located on a flat, sturdy surface.

For instructions on installing supplies, see the label on each supply item or see [www.hp.com/go/learnaboutsupplies](http://www.hp.com/go/learnaboutsupplies).



## Change print cartridges

When a print cartridge approaches the end of its estimated useful life, the control panel displays a message recommending that you order a replacement. The product can continue to print using the current print cartridge until the control panel displays a message instructing you to replace the cartridge, unless you have selected the option to override the message by using the **REPLACE SUPPLIES** menu. For more information about the **REPLACE SUPPLIES** menu, see [System setup menu on page 25](#).

The product uses four colors and has a different print cartridge for each color: black (K), magenta (M), cyan (C), and yellow (Y).

You can replace a print cartridge when the control panel displays a **REPLACE <COLOR> CARTRIDGE** message. The control panel display also indicates the color of the cartridge that has reached the end of its estimated useful life (if a genuine HP cartridge is currently installed). Replacement instructions are provided on the label on the print cartridge.

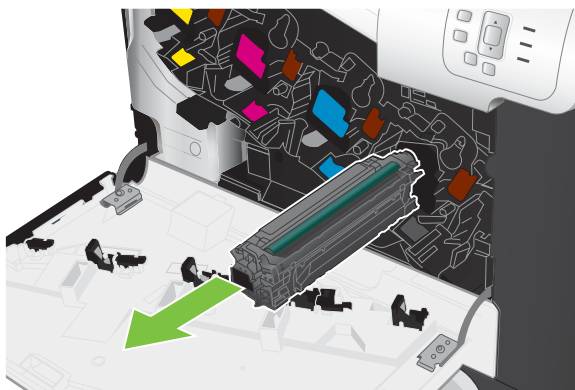
- △ **CAUTION:** If toner gets on clothing, wipe it off with a dry cloth and wash the clothes in cold water. Hot water sets toner into fabric.
- 📄 **NOTE:** Attach the orange protective cover to the used print cartridge before returning to HP for recycling. Additional information about recycling used print cartridges is on the print-cartridge box.
- 💡 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-replace-print-cartridges](http://www.hp.com/go/cljcp3525-replace-print-cartridges).

## Replace print cartridges

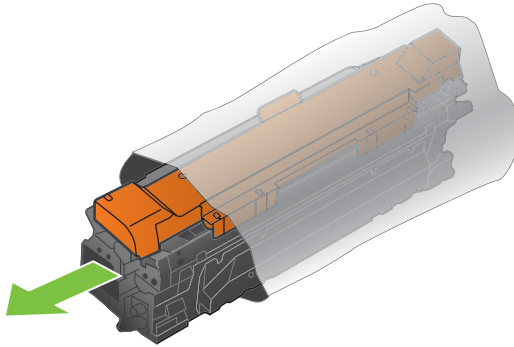
1. Open the front door. Make sure that the door is completely open.




2. Grasp the handle of the used print cartridge and pull out to remove.



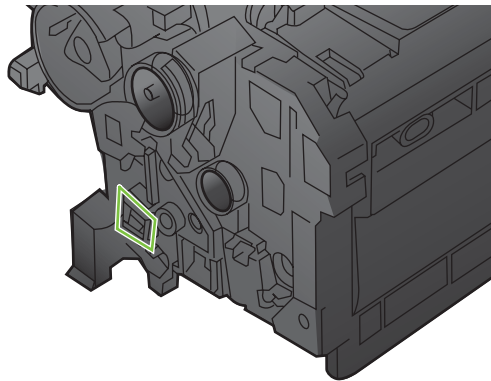
3. Store the used print cartridge in a protective bag. Information about recycling used print cartridges is on the print-cartridge box.
4. Remove the new print cartridge from its protective bag.



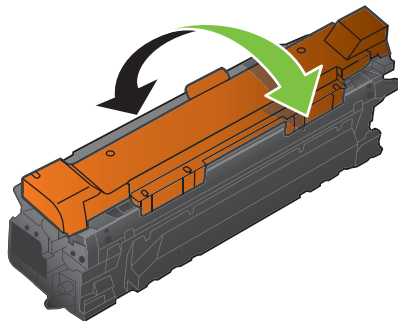
---

 **NOTE:** Be careful not to damage the memory tag on the print cartridge.

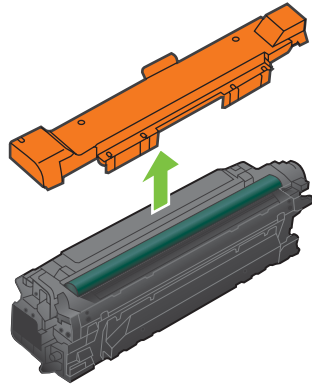
---



5. Grasp both sides of the print cartridge and distribute the toner by gently rocking the print cartridge.



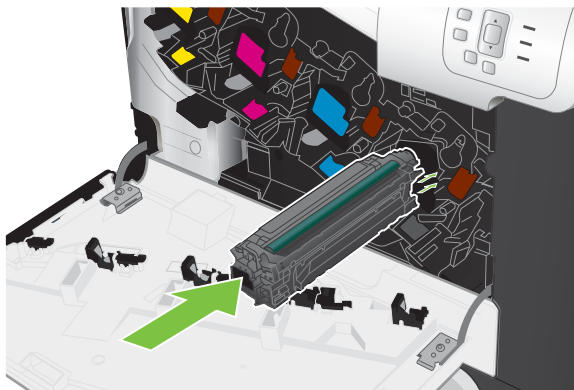
6. Remove the orange protective cover from the print cartridge.



△ **CAUTION:** Avoid prolonged exposure to light.

**CAUTION:** Do not touch the green roller. Doing so can damage the cartridge.

7. Align the print cartridge with its slot and insert the print cartridge until it clicks into place.





8. Close the front door.



## Change the toner collection unit

Replace the toner collection unit when the control panel prompts you.

 **NOTE:** The toner collection unit is designed for a single use. Do not attempt to empty the toner collection unit and reuse it. Doing so could lead to toner being spilled inside the product, which could result in reduced print quality. After use, return the toner collection unit to HP's Planet Partners program for recycling.

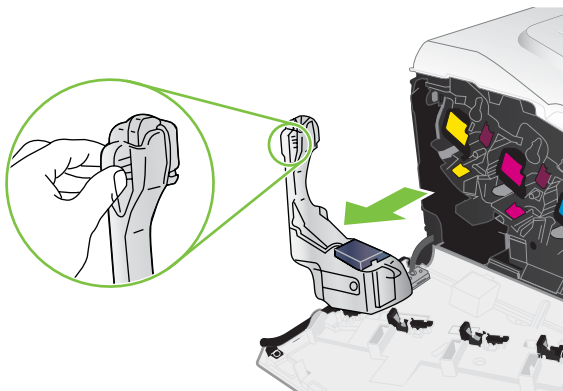
 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-replace-toner-collection-unit](http://www.hp.com/go/cljcp3525-replace-toner-collection-unit).

### Replace the toner collection unit

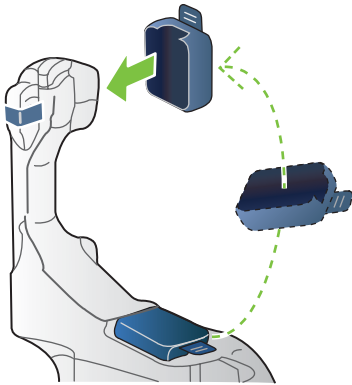
1. Open the front door. Make sure that the door is completely open.



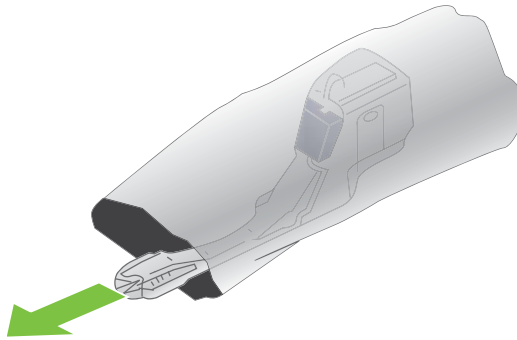
2. Grasp the blue label at the top of the toner collection unit and remove it from the product.



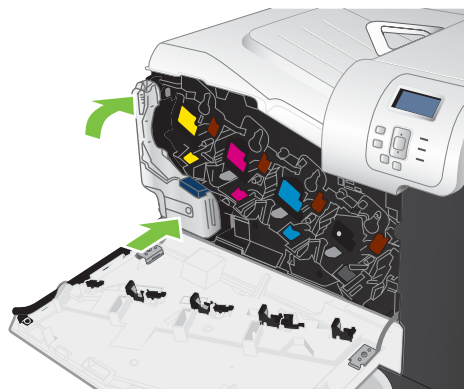
3. Place the attached blue cap over the blue opening at the top of the unit.



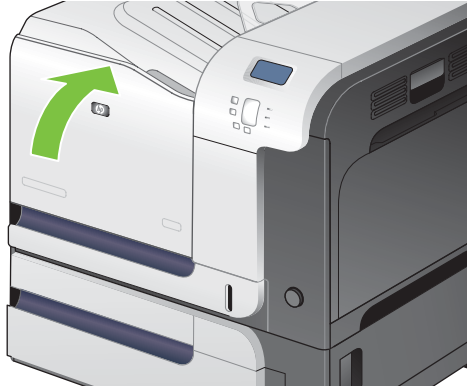
4. Remove the new toner collection unit from its packaging.




5. Insert the bottom of the new unit into the product first and then push the top of the unit until it clicks into place.



6. Close the front door.



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 **NOTE:** If the toner collection unit is not installed correctly, the front door does not close completely.

---

To recycle the used toner collection unit, follow the instructions included with the new toner collection unit.

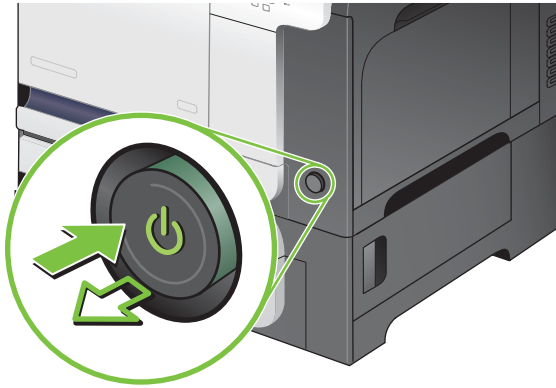
## Install memory

You can install more memory for the product by adding a dual inline memory module (DIMM).


- △ **CAUTION:** Static electricity can damage DIMMs. When handling DIMMs, either wear an antistatic wrist strap, or frequently touch the surface of the DIMM antistatic package and then touch bare metal on the product.

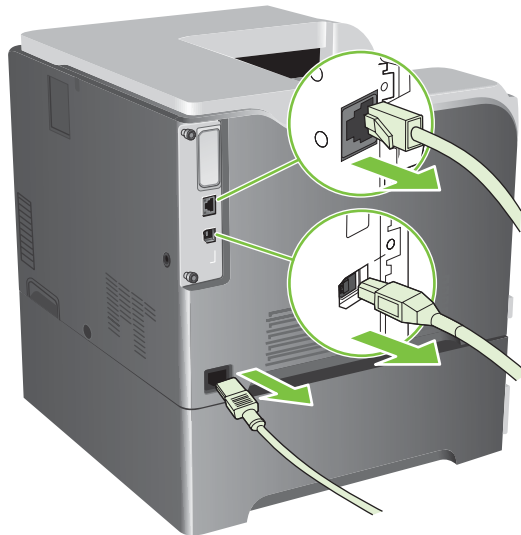
### Install DDR2 memory DIMMs

1. Turn the product off.

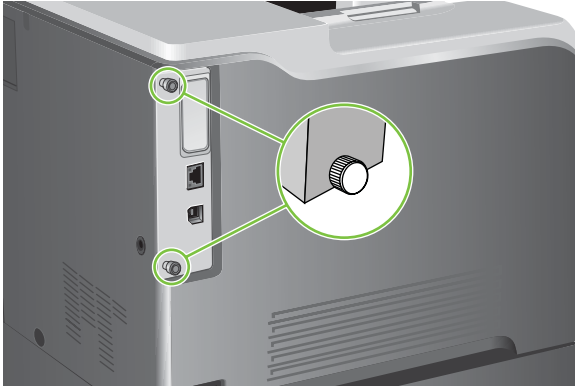


2. Disconnect all power and interface cables.

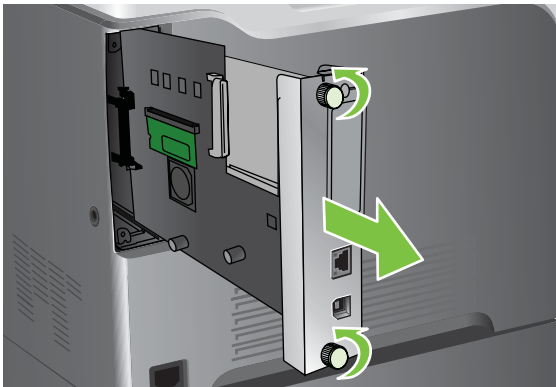
 **NOTE:** This illustration might not show all the cables.



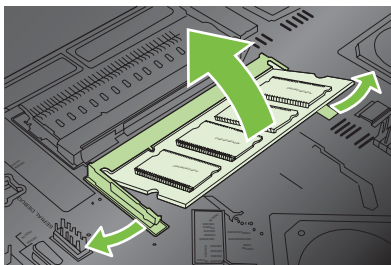
3. Locate the thumb screws on the formatter board in the rear of the product.



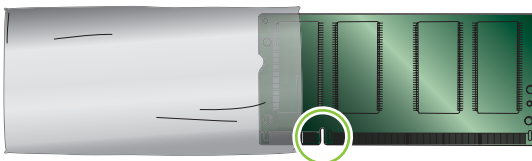
4. Unscrew the thumb screws and then pull the formatter board from the product. Place the formatter board on a clean, flat, grounded surface.



5. To replace a DIMM that is currently installed, spread the latches on each side of the DIMM slot, lift the DIMM up at an angle, and pull it out.

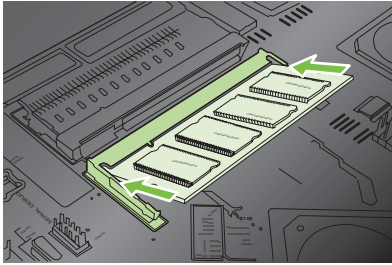


6. Remove the new DIMM from the antistatic package. Locate the alignment notch on the bottom edge of the DIMM.

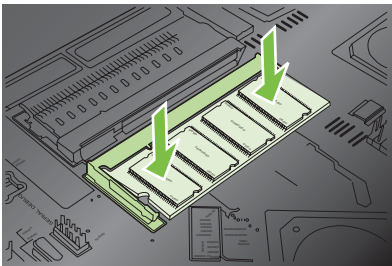





7. Holding the DIMM by the edges, align the notch on the DIMM with the bar in the DIMM slot at an angle and firmly press the DIMM into the slot until it is fully seated. When installed correctly, the metal contacts are not visible.




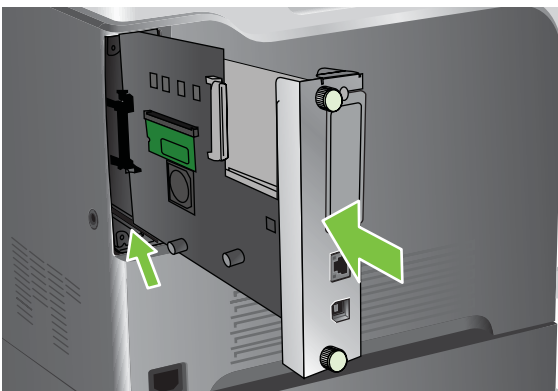
8. Push down on the DIMM until both latches engage the DIMM.



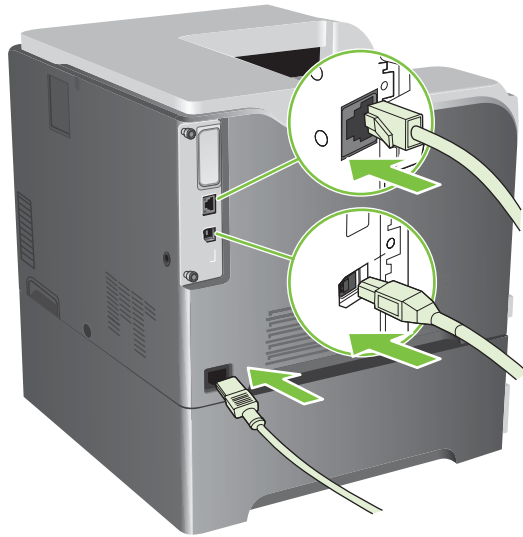
 **NOTE:** If you have difficulty inserting the DIMM, make sure the notch on the bottom of the DIMM is aligned with the bar in the slot. If the DIMM still does not go in, make sure you are using the correct type of DIMM.

9. Align the formatter board in the tracks at the bottom of the slot, and then slide the board back into the product.

 **NOTE:** To prevent damage to the formatter board, ensure the formatter board is aligned in the tracks at the top and the bottom of the opening.



10. Reconnect the power cable and interface cables, and turn the product on.



### Enable memory for Windows

1. **Windows XP, Windows Server 2003, and Windows Server 2008 (using the default Start menu view):** Click **Start**, click **Settings**, and then click **Printers and Faxes**.

-or-

**Windows XP, Windows Server 2003, and Windows Server 2008 (using the Classic Start menu view):** Click **Start**, click **Settings**, and then click **Printers**.

-or-

**Windows Vista:** Click **Start**, click **Control Panel**, and then in the category for **Hardware and Sound** click **Printer**.

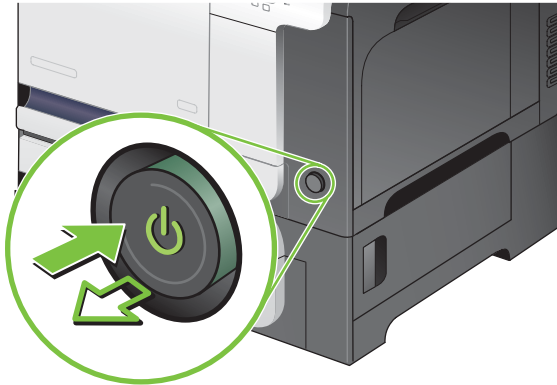
2. Right-click the driver icon, and then select **Properties**.
3. Click the **Device Settings** tab.
4. Expand the area for **Installable Options**.
5. Select the total amount of memory installed in the product.
6. Next to **Automatic Configuration**, select **Update Now**.
7. Click **OK**.

### Install an HP Jetdirect or EIO print server card or EIO hard disk

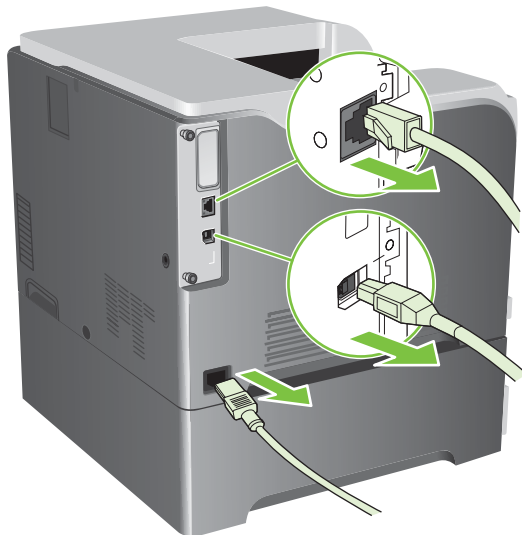
This product is equipped with an external I/O (EIO) slot. You can install an additional HP Jetdirect print server card or external EIO hard drive in the available EIO slot.

 **NOTE:** This example shows installing an HP Jetdirect print server card.

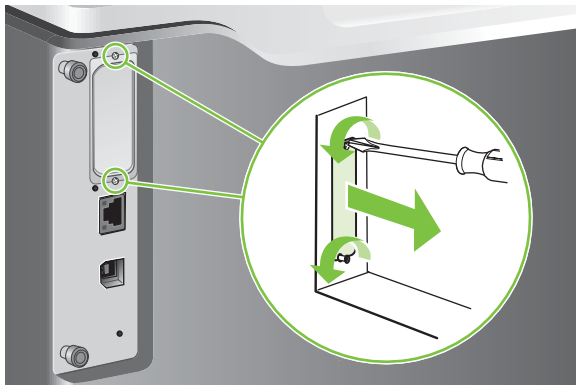
1. Turn the product off.



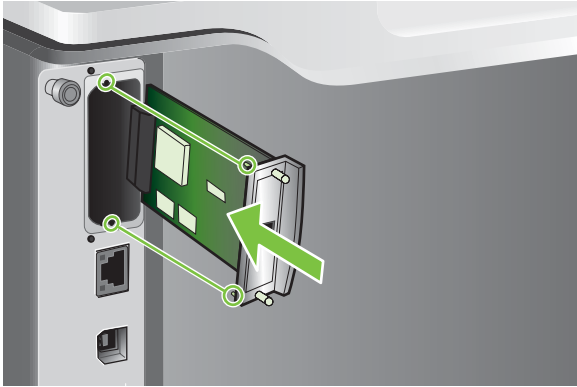
2. Disconnect all power and interface cables.



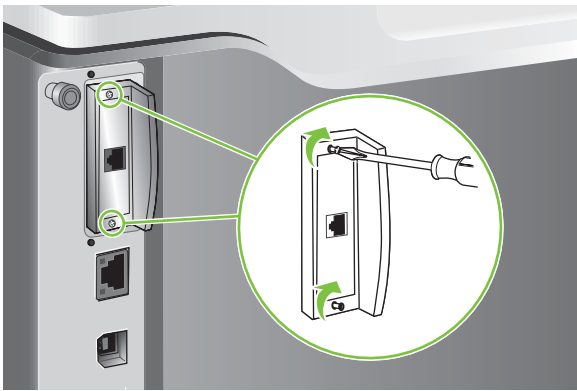
3. Loosen and remove the two retaining screws holding the cover for the EIO slot, and then remove the cover. You will not need these screws and the cover again. They can be discarded.



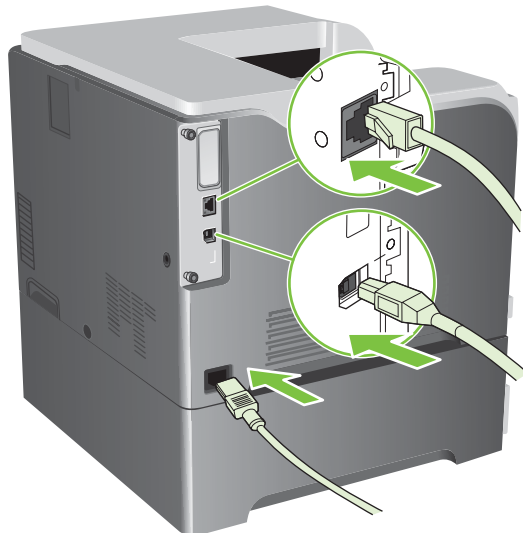
4. Firmly insert the HP Jetdirect print server card into the EIO slot.



5. Insert and tighten the retaining screws that came with the print server card.



6. Reconnect the power cable and remaining interface cables, and turn the product on.



7. Print a configuration page. An HP Jetdirect configuration page that contains network configuration and status information should also print.

If it does not print, turn the product off, and then uninstall and reinstall the print server card to ensure that it is completely seated in the slot.

8. Perform one of these steps:

- Choose the correct port. See the computer or operating system documentation for instructions.
- Reinstall the software, choosing the network installation this time.

## Clean the product

Over time, particles of toner and paper accumulate inside the product. This can cause print-quality problems during printing. Cleaning the product eliminates or reduces these problems.

Clean the paper path and print-cartridge areas every time that you change the print cartridge or whenever print-quality problems occur. As much as possible, keep the product from dust and debris.

## Clean the exterior

Use a soft, damp, lint-free cloth to wipe dust, smudges, and stains off of the exterior of the product.

## Clean spilled toner

If you get any toner on your clothes or hands, wash them in *cold* water. Hot water will set the toner into the fabric.

## Clean the fuser

Run the product cleaning page to keep the fuser free of toner and paper particles that can sometimes accumulate. Accumulation of toner and particles can cause specks to appear on the front or back side of your print jobs.

HP recommends that you use the cleaning page when there is a print quality issue.


A **CLEANING** message appears on the product control panel display while the cleaning is taking place.

In order for the cleaning page to work correctly, print the page on copier-grade paper (not bond, heavy, or rough paper). A page will be printed when the task is complete. Discard the page.

# Product updates

This product has remote firmware update (RFU) capability. Use this information to upgrade the product firmware.

## Determine the current firmware version

1. Press the **Menu** button .
2. Press the down arrow ▼ to highlight the **INFORMATION** menu, and then press the **OK** button.
3. Press the down arrow ▼ to highlight the **PRINT CONFIGURATION** option, and then press the **OK** button to print.

The firmware datecode is listed on the Configuration page in the section called **Device Information**. The firmware datecode has this format: YYYYMMDD XX.XXX.X.

- The first string of numbers is the date, where YYYY represents the year, MM represents the month, and DD represents the date. For example, a firmware datecode that begins with 20061125 represents November 25, 2006.
- The second string of numbers is the firmware version number, in decimal format.

## Download new firmware from the HP Web site

To find the most recent firmware upgrade for the product, go to [www.hp.com/go/cljcp3525\\_firmware](http://www.hp.com/go/cljcp3525_firmware). This page provides instructions for downloading the new firmware version.

## Transfer the new firmware to the product

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 **NOTE:** The product can receive an .RFU file update when it is in a "ready" state.

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The following conditions can affect the time required to transfer the file.

- The speed of the host computer that is sending the update.
- Any jobs that are ahead of the .RFU job in the queue are completed before the update is processed.
- If the process is interrupted before the firmware is downloaded, you must send the firmware file again.
- If power is lost during the firmware update, the update is interrupted and the message **Resend upgrade** appears (in English only) on the control-panel display. In this case, you must send the upgrade by using the USB port.


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 **NOTE:** The firmware update involves a change in the format of nonvolatile random-access memory (NVRAM). Any menu settings that are changed from the default settings might return to default settings and must be changed again if you want settings that are different from the defaults.

---

## Use the HP Easy Firmware Upgrade utility to update the firmware


This product has flash-based memory, so you can use the .EXE file to upgrade the firmware. Download this file from [www.hp.com/go/cljcp3525\\_firmware](http://www.hp.com/go/cljcp3525_firmware).

 **NOTE:** To use this method, install the printer driver for this product on your computer and then connect the product directly to your computer through a USB cable. Alternatively, have the customer download the utility, so they can use it whether the product is directly connected to their PC or connected through the network.

---


Depending on the speed of your PC, the firmware upgrade process can be complete on the product, before the progress bar on the screen completes. Once the upgrade process has started, do not use your PC for other activity until the process is complete.

1. Download the HP Easy Firmware Upgrade utility file to the desktop.
2. Click the HP Easy Firmware Upgrade utility file. A dialog box with the name of the printer opens.
3. Ensure the product to be upgraded is in a **Ready** state.
4. Select the product to upgrade. If the product is not listed, install a print driver for the product and make sure you can print to the product using the printer driver before continuing.
5. Click the **Send Firmware** button. The progress bar moves to the right indicating information is being transferred.

 **NOTE:** Do not turn off the product or the PC during this process, or the product may become unstable and unusable. Be aware that an upgrade may require more than ten minutes to complete.

---

6. On the PC, a smiling face icon displays in the HP Easy Firmware Upgrade utility dialog box upon a successful firmware download.

 **NOTE:** Depending on the speed of your PC, the firmware upgrade may complete before the progress bar on the screen completes. When the upgrade process is complete, the product will reboot.

---


7. When the product is back online, print a configuration page to verify that the new firmware has been installed.

## Use FTP to upload the firmware through a browser

1. Make sure the Internet browser you are using is configured for viewing folders from FTP sites. These instructions are for Microsoft Internet Explorer.
  - a. Open the browser and click **Tools**, and then click **Internet Options**.
  - b. Click the **Advanced** tab.
  - c. Select the box labeled **Enable folder view for FTP sites**.
  - d. Click **OK**.
2. Print a configuration page and note the TCP/IP address.
3. Open a browser window.
4. In the address line of the browser, type `ftp://<ADDRESS>`, where `<ADDRESS>` is the address of the product. For example, if the TCP/IP address is 192.168.0.90, type `ftp://192.168.0.90`.
5. Locate the downloaded .RFU file for the product.
6. Drag and drop the .RFU file onto the **PORT** icon in the browser window.



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 **NOTE:** The product turns off and then on automatically to activate the update. When the update process is complete, a **Ready** message displays on the product control panel.

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## Use FTP to upgrade the firmware on a network connection

1. Take note of the IP address on the HP Jetdirect page. The HP Jetdirect page is the second page that prints when you print the configuration page.


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 **NOTE:** Before upgrading the firmware, make sure that the product is not in Sleep mode. Also make sure that any error messages are cleared from the control-panel display.

---

2. Click **Start**, click **Run**, and then type `cmd` to open the command window.
3. Type: `ftp <TCP/IP ADDRESS>`. For example, if the TCP/IP address is 192.168.0.90, type `ftp 192.168.0.90`.
4. Go to the folder where the firmware file is stored.
5. Press **Enter** on the keyboard.
6. When prompted for the user name, press **Enter**.
7. When prompted for the password, press **Enter**.
8. Type `bin` at the command prompt.
9. Press **Enter**. The message **200 Types set to I, Using binary mode to transfer files** appears in the command window.
10. Type `put` and then the file name. For example, if the file name is `cljcp3525.rfu`, type `put cljcp3525.rfu`.
11. The download process begins and the firmware is updated on the product. This can take several minutes. Let the process finish without further interaction with the product or computer.

---

 **NOTE:** The product automatically turns off and then on again after processing the upgrade.

---

12. At the command prompt, type: `bye` to exit the ftp command.
13. At the command prompt, type: `exit` to return to the Windows interface.

## Use HP Web Jetadmin to upgrade the firmware


To learn how to use HP Web Jetadmin to upgrade the product firmware, go to [www.hp.com/go/webjetadmin](http://www.hp.com/go/webjetadmin)

## Use Microsoft Windows commands to upgrade the firmware

To update the firmware by using a network connection, follow these instructions.

1. Click **Start**, click **Run**, and then type `cmd` to open the command window.
2. Type the following: `copy /B <FILENAME> \\<COMPUTERNAME>\<SHARENAME>`, where `<FILENAME>` is the name of the .RFU file (including the path), `<COMPUTERNAME>` is the name of the computer from which the product is being shared, and `<SHARENAME>` is the product share name. For example: `C:\>copy /b C:\cljcp3525.rfu \\YOUR_SERVER\YOUR_COMPUTER.`

---

 **NOTE:** If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type: `C:\>copy /b "C:\MY DOCUMENTS\cljcp3525.rfu" \\YOUR_SERVER\YOUR_COMPUTER.`

---

3. Press **Enter** on the keyboard. The control panel shows a message that indicates the progress of the firmware upgrade. At the end of the upgrade process, the control panel shows the **Ready** message. The message **One File Copied** appears on the computer screen.

## Upgrade the HP Jetdirect firmware

The HP Jetdirect network interface in the product has firmware that can be upgraded separately from the product firmware. This procedure requires that you install HP Web Jetadmin Version 8.x or later on your computer. See [Use HP Web Jetadmin software on page 77](#). Complete the following steps to update the HP Jetdirect firmware by using HP Web Jetadmin.

1. Open the HP Web Jetadmin program.
2. Open the **Device Management** folder in the drop-down list in the **Navigation** panel. Navigate to the **Device Lists** folder.
3. Select the product that you want to update.
4. In the **Device Tools** drop-down list, select the **Jetdirect Firmware Update** option.
5. Under the **Jetdirect Firmware Version** heading the HP Jetdirect model number and current firmware version are listed. Make a note of these.
6. Go to [http://www.hp.com/go/wja\\_firmware](http://www.hp.com/go/wja_firmware).
7. Scroll down to the list of HP Jetdirect model numbers and find the model number you wrote down.
8. Look at the current firmware version for the model, and see if it is later than the version you wrote down. If it is, right-click on the firmware link, and follow the instructions on the Web page to download the new firmware file. The file must be saved into the `<drive>:\PROGRAM FILES\HP WEB JETADMIN\DOC\PLUGINS\HPWJA\FIRMWARE\JETDIRECT` folder on the computer that is running the HP Web Jetadmin software.
9. In HP Web Jetadmin, return to the main product list and select the digital sender again.
10. In the **Device Tools** drop-down list, select the **Jetdirect Firmware Update** option again.
11. On the HP Jetdirect firmware page, the new firmware version is listed under the **Jetdirect Firmware Available on HP Web Jetadmin** heading. Click the **Update Firmware Now** button to update the Jetdirect firmware.

---

 **NOTE:** You can also use FTP or the HP Jetdirect Embedded Web Server to update the HP Jetdirect firmware. For more information, go to [http://www.hp.com/go/wja\\_firmware](http://www.hp.com/go/wja_firmware).

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# 5 Theory of operation

- [Basic operation](#)
- [Engine-control system](#)
- [Laser/scanner system](#)
- [Image-formation system](#)
- [Pickup, feed, and delivery system](#)
- [Jam detection](#)
- [Optional paper feeder](#)

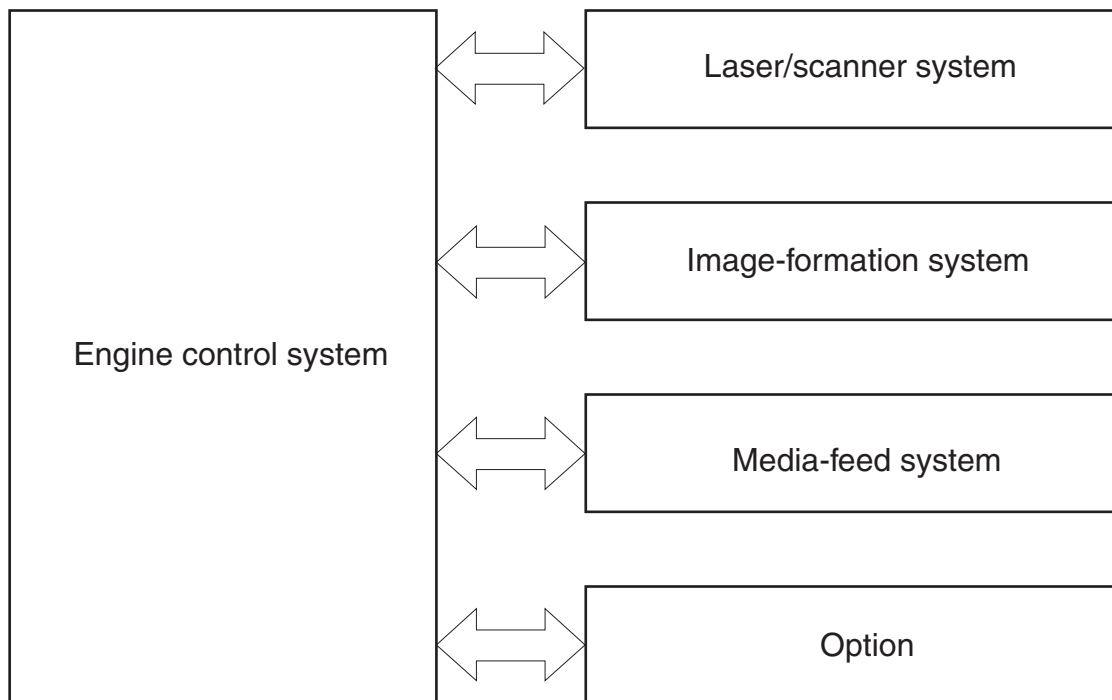
## Basic operation

The product routes all high-level processes through the formatter, which stores font information, processes the print image, and communicates with the host computer.

The basic product operation comprises the following systems:

- The engine-control system, which includes the power supply and the DC controller printed circuit assembly (PCA)
- The laser/scanner system, which forms the latent image on the photosensitive drum
- The image-formation system, which transfers a toner image onto the paper
- The media feed system, which uses a system of rollers and belts to transport the paper through the product
- Option (optional paper feeder)

**Figure 5-1** Relationship between the main product systems



## Sequence of operation

The DC controller PCA controls the operating sequence, as described in the following table.

**NOTE:** The terms fusing and fixing are synonymous.

**Table 5-1 Sequence of operation**

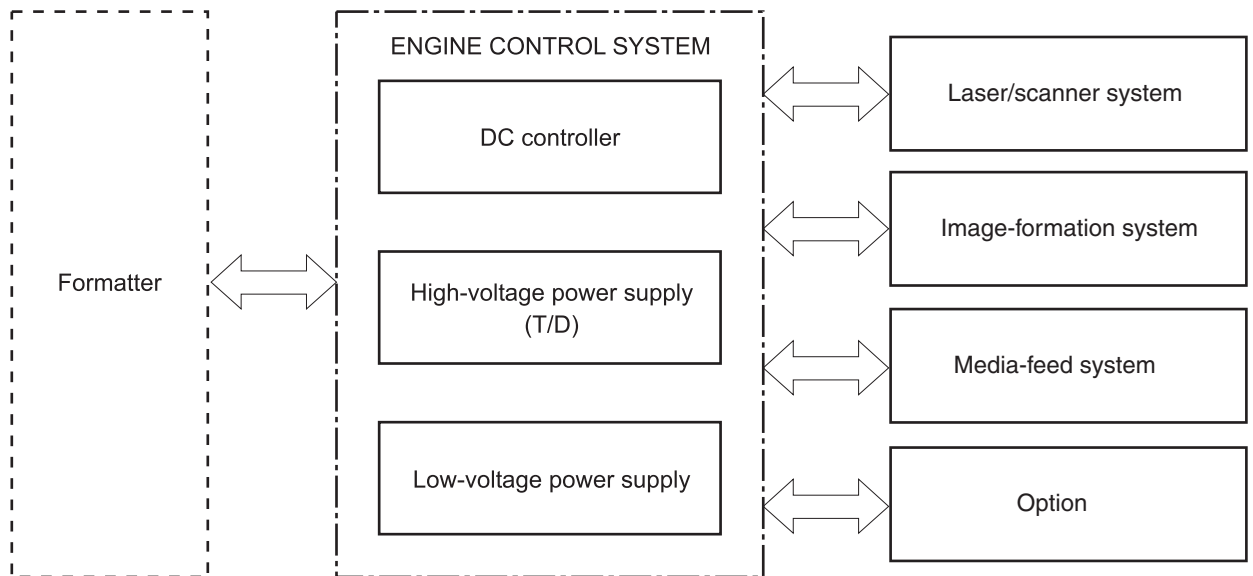
Period	Duration	Description
Waiting	From the time the power is turned on, the door is closed, or when the product exits Sleep mode until the product is ready for printing	<ul style="list-style-type: none"><li>• Heats the fuser sleeve</li><li>• Pressurizes the fuser pressure roller</li><li>• Detects the print cartridges</li><li>• Detects the home position for the primary transfer roller and the developing unit</li><li>• Cleans the secondary transfer roller</li></ul>
Standby	From the end of the waiting sequence or the last rotation until the formatter receives a print command or until the product is turned off	<ul style="list-style-type: none"><li>• The product is in the <b>READY</b> state.</li><li>• The product enters Sleep mode after the specified length of time.</li><li>• The product calibrates if it is time for an automatic calibration.</li></ul>
Initial rotation	From the time the formatter receives a print command until the paper enters the paper path	<ul style="list-style-type: none"><li>• Activates the high-voltage power supply</li><li>• Prepares each laser/scanner unit</li><li>• Warms the fuser to the correct temperature</li></ul>
Printing	From the time the first sheet of paper enters the paper path until the last sheet has passed through the fuser	<ul style="list-style-type: none"><li>• Forms the image on the photosensitive drums</li><li>• Transfers the toner to the paper</li><li>• Fuses the toner image onto the paper</li><li>• Performs calibration after a specified number of pages</li></ul>
Last rotation	From the time the last sheet of paper exits the fuser until the motors stop rotating	<ul style="list-style-type: none"><li>• Moves the last printed sheet into the output bin</li><li>• Stops each laser/scanner unit</li><li>• Discharges the bias from the high-voltage power supply</li></ul>

# Engine-control system

The engine-control system receives commands from the formatter and interacts with the other main systems to coordinate all product functions. The engine-control system consists of the following components:

- DC controller
- High-voltage power supply
- Low-voltage power supply

**Figure 5-2** Engine-control system

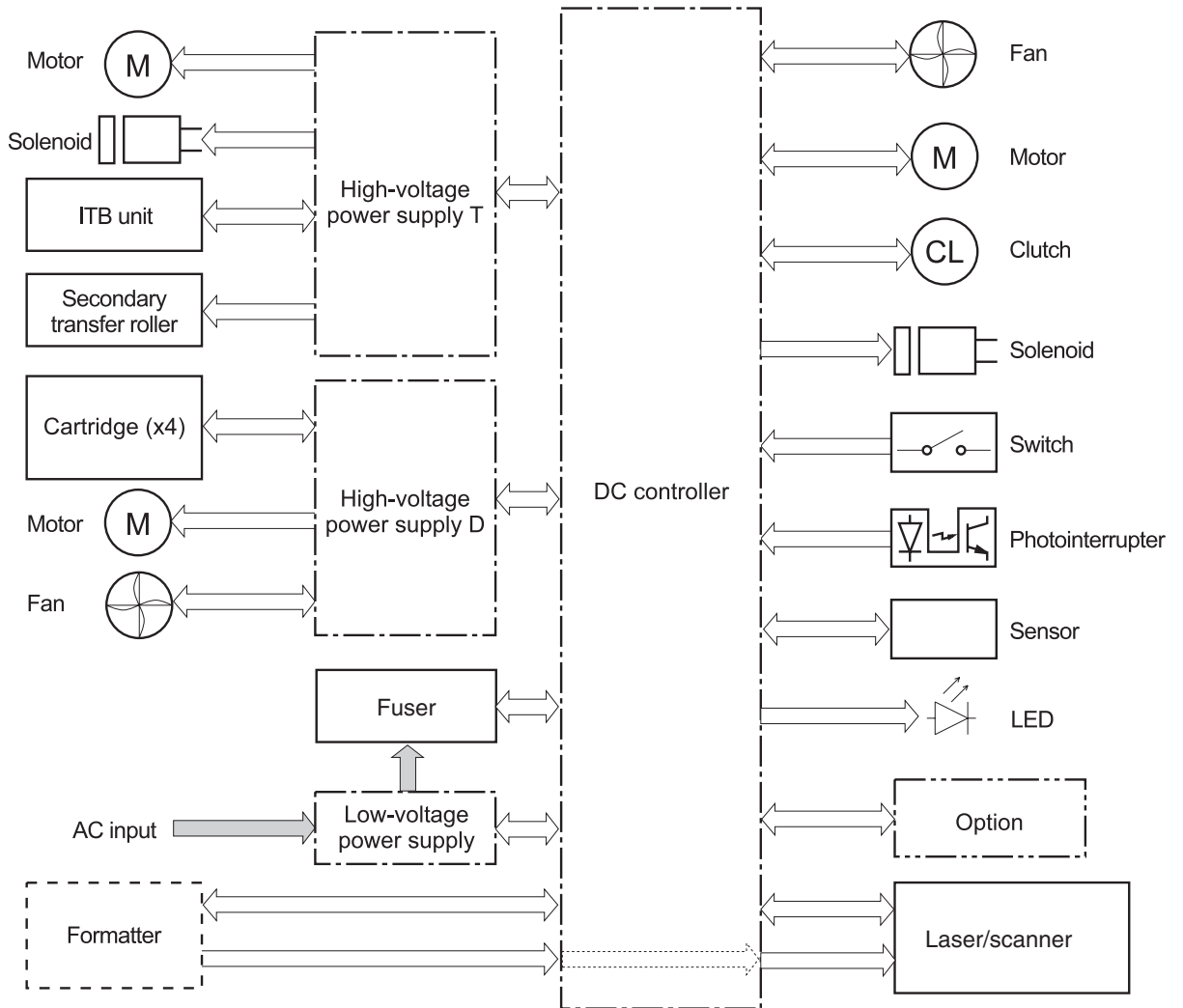




## DC controller

The DC controller controls the operational sequence of the printer.

**Figure 5-3** DC controller block diagram



## Solenoids

**Table 5-2** Solenoids

Component abbreviation	Component name
SL1	Primary transfer roller disengagement solenoid
SL2	Duplex reverse solenoid (HP Color LaserJet CP3525dn and HP Color LaserJet CP3525x only)
SL3	Multipurpose-tray pickup solenoid
SL4	Cassette pickup solenoid

## Clutches

Component abbreviation	Component name
CL1	Duplex re-pickup clutch (HP Color LaserJet CP3525dn and HP Color LaserJet CP3525x only)

## Switches

**Table 5-3 Switches**

Component abbreviation	Component name
SW1, SW2	5V interlock switch
SW3	24V interlock switch
SW4	Power switch
	Test print switch

## Sensors

**Table 5-4 Sensors**

Component abbreviation	Component name
SR1	Drum home position sensor 1
SR2	Drum home position sensor 2
SR3	Drum home position sensor 3
SR5	Fuser (fixing) delivery sensor
SR6	Delivery tray media full sensor
SR7	Fuser (fixing) pressure release sensor
SR8	TOP (top of page) sensor
SR9	Cassette-media-stack surface sensor
SR11	Developing home position sensor
SR13	Cassette presence sensor
SR14	Loop sensor 1
SR15	Loop sensor 2
SR17	Primary-transfer-roller disengagement sensor
SR20	Cassette-media presence sensor
SR21	MP-tray-media-presence sensor
SR22	Duplex re-pickup sensor (HP Color LaserJet CP3525dn and HP Color LaserJet CP3525x only)
	OHT sensor (in)
	OHT sensor (out)
	RD sensor (front)
	RD sensor (rear)
	Environmental sensor (temperature and humidity)
	Yellow toner-level sensor
	Magenta toner-level sensor
	Cyan toner-level sensor
	Black toner-level sensor
	Toner collection-box-full sensor
	Fuser (fixing) home-position sensor

## Motors and fans

The product has 11 motors and three fan motors. The motors drive the components in the paper-feed and image-formation systems. The fan motors cool the product's inside.

**Table 5-5 Motors**

Abbreviation	Name	Purpose	Type	Failure detection
M2	Fuser (fixing) motor	Drives the Fuser (fixing) roller, the delivery roller, and the Fuser (fixing) pressure roller	DC motor	Yes
M3	Drum motor 1	Drives the photosensitive drum (yellow/magenta), developing unit (yellow), and primary charging roller (yellow/magenta)	DC motor	Yes
M4	Drum motor 2	Drives the photosensitive drum (cyan), developing unit (magenta/cyan), and primary charging roller (cyan)	DC motor	Yes
M5	Drum motor 3	Drives the photosensitive drum (black), developing unit (black), and ITB drive roller, and secondary transfer roller	DC motor	Yes
M7	Lifter motor	Drives the lifter for the cassette	DC motor	Yes
M8	Cyan/black scanner motor	Drives the scanner mirror in the cyan/black laser scanner	DC motor	Yes
M9	Yellow/magenta scanner motor	Drives the scanner mirror in the yellow/magenta laser scanner	DC motor	Yes
M10	Developing disengagement motor	Drives the developing unit disengagement	Stepping motor	No
M11	Duplex reverse motor (HP Color LaserJet CP3525dn and HP Color LaserJet CP3525x only)	Drives the duplex reverse roller and duplex feed roller	Stepping motor	No
M12	Residual toner-feed motor	Drives the residual toner feed screw	DC motor	Yes
M13	Pickup motor	Drives the cassette pickup roller, MP tray pickup roller, feed roller, registration roller, and re-pickup roller	Stepping motor	No

**Table 5-6 Fans**

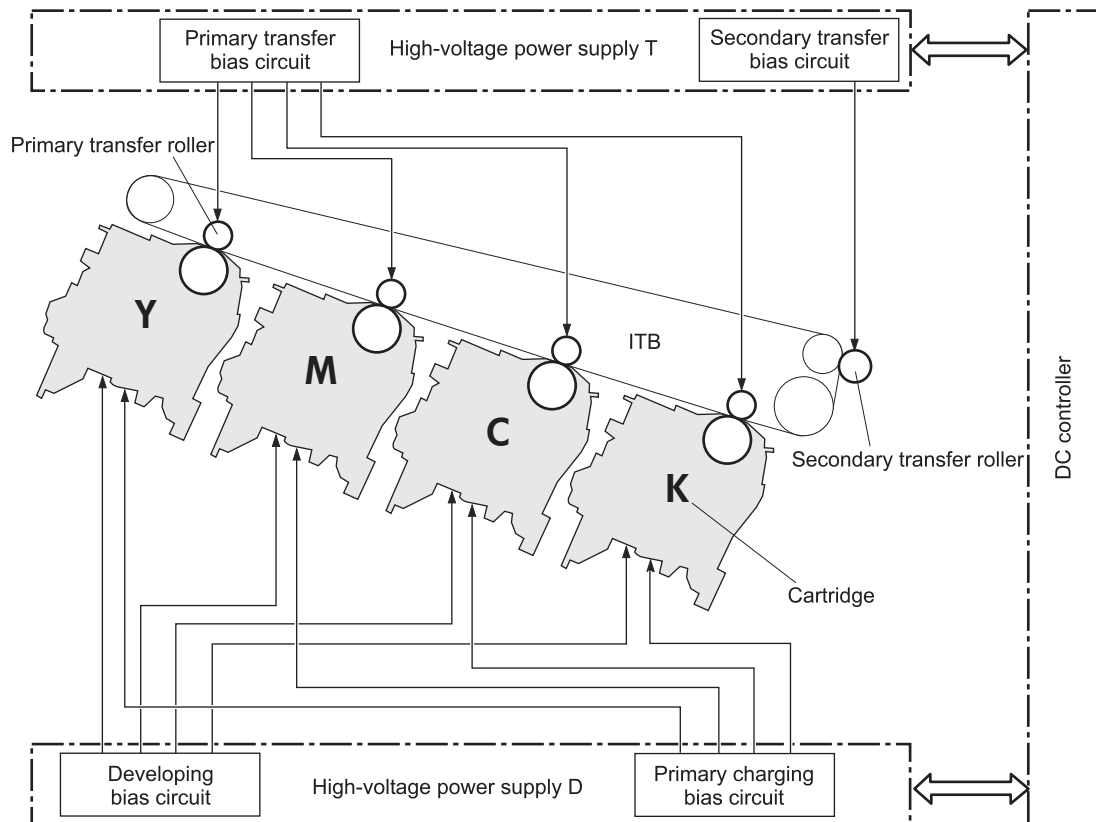
Abbreviation	Name	Cooling area	Type	Speed
FM1	Power supply fan	Around the power supply unit	Intake	Full/half
FM2	Cartridge fan	Around the cartridges	Intake	Full/half
FM3	Delivery fan	Around the delivery unit	Intake	Full/half

## High-voltage power supply

The high-voltage power supply delivers the high-voltage biases to the following components used to transfer toner during the image-formation process:

- Primary-charging roller (in the cartridge)
- Developing roller (in the cartridge)
- Primary-transfer roller
- Secondary-transfer roller

**Figure 5-4** High-voltage power supply circuits



The high-voltage power supply contains several separate circuits.

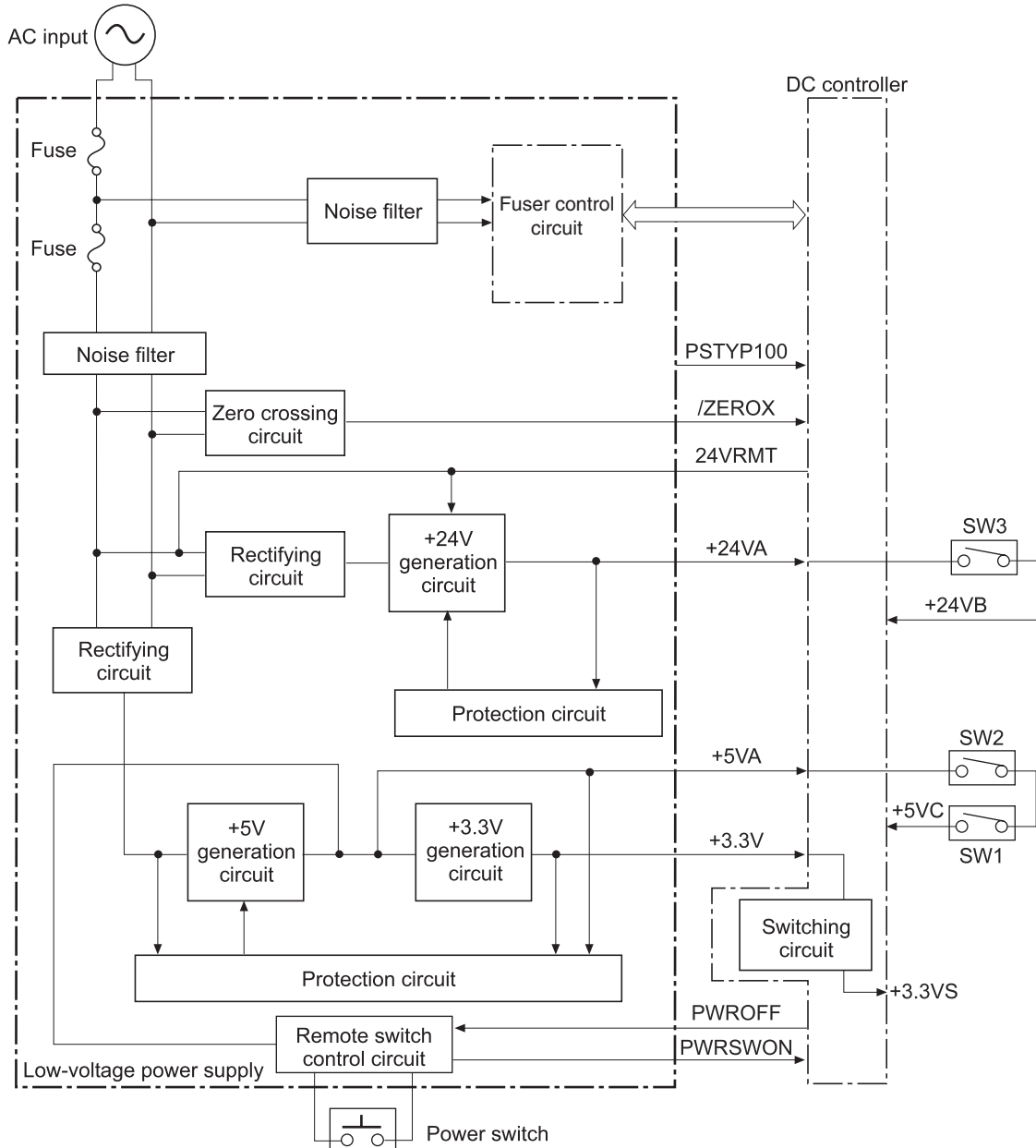
**Table 5-7 High-voltage power supply circuits**

Circuit	Description
Primary-charging-bias generation	DC negative bias is applied to the surface of the photosensitive drum to prepare it for image formation.
Developing-bias generation	DC negative bias adheres the toner to each photosensitive drum during the image-formation process.
Primary-transfer-bias generation	DC positive bias transfers the latent toner image from each photosensitive drum onto the ITB.
Secondary-transfer-bias generation	Two DC biases, one positive and one negative, transfer the toner from the ITB onto the paper.

## Low-voltage power supply

The low-voltage power-supply circuit converts the AC power from the wall receptacle into the DC voltage that the product components use. The product has two low-voltage power-supplies for 110 Volt or 220 Volt input.

**Figure 5-5** Low-voltage power-supply circuit



The low-voltage power supply converts the AC power into three DC voltages, which it then subdivides, as described in the following table.

**Table 5-8** Converted DC voltages

Main DC voltage	Sub-voltage	Behavior
+24 V	+24VA	Constantly supplied

**Table 5-8 Converted DC voltages (continued)**

Main DC voltage	Sub-voltage	Behavior
	+24VB	Interrupted when the front door or right door open  Stopped during Sleep (powersave) mode
+5 V	+5VA	Constantly supplied
	+5VC	Interrupted when the front door or right door open
+3.3 V	3.3V	Constantly supplied
	3.3VS	Stopped during Sleep (powersave) mode

### Overcurrent/overvoltage protection

The low-voltage power supply stops supplying the DC voltage to the product components whenever it detects excessive current or abnormal voltage from the power source.

### Safety

For personal safety, the low-voltage power supply interrupts power to the fuser, the high-voltage power supply, and the motors when the front door or right door open.

### Voltage detection

The printer detects the power supply voltage that is connected to the printer. The DC controller monitors the input voltage from the power source so it can control the voltage to the fuser.

### Sleep (powersave) mode

Sleep mode conserves energy by stopping the power to several components when the product is idle. If the DC controller detects voltage that is too high when the product is in Sleep mode, it determines that the low-voltage power supply has failed, and it notifies the formatter.

### Low-voltage power supply failure

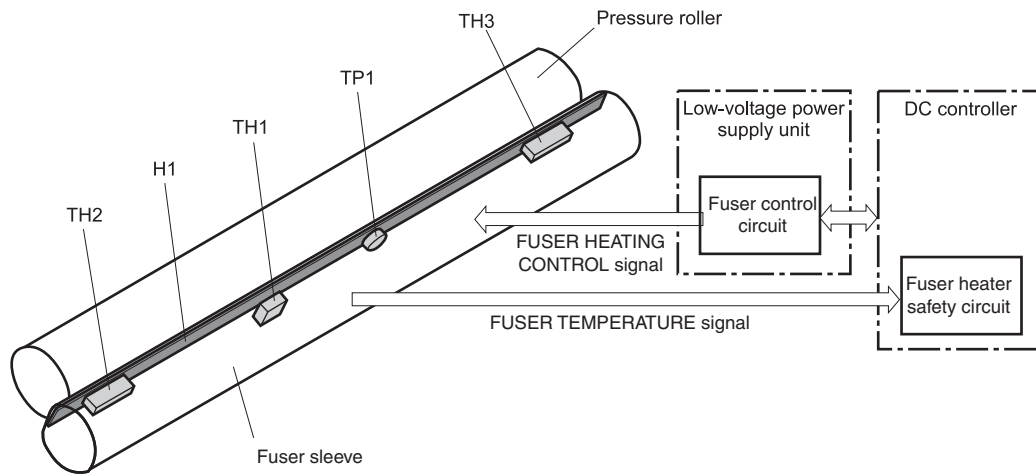
The DC controller determines a low-voltage power supply failure and notifies the formatter when the low-voltage power supply does not supply +24 V.



## Fuser (fixing) control

The fuser-control circuit controls the fuser temperature. The product uses an on-demand fusing method.

**Figure 5-6** Fuser (fixing) components



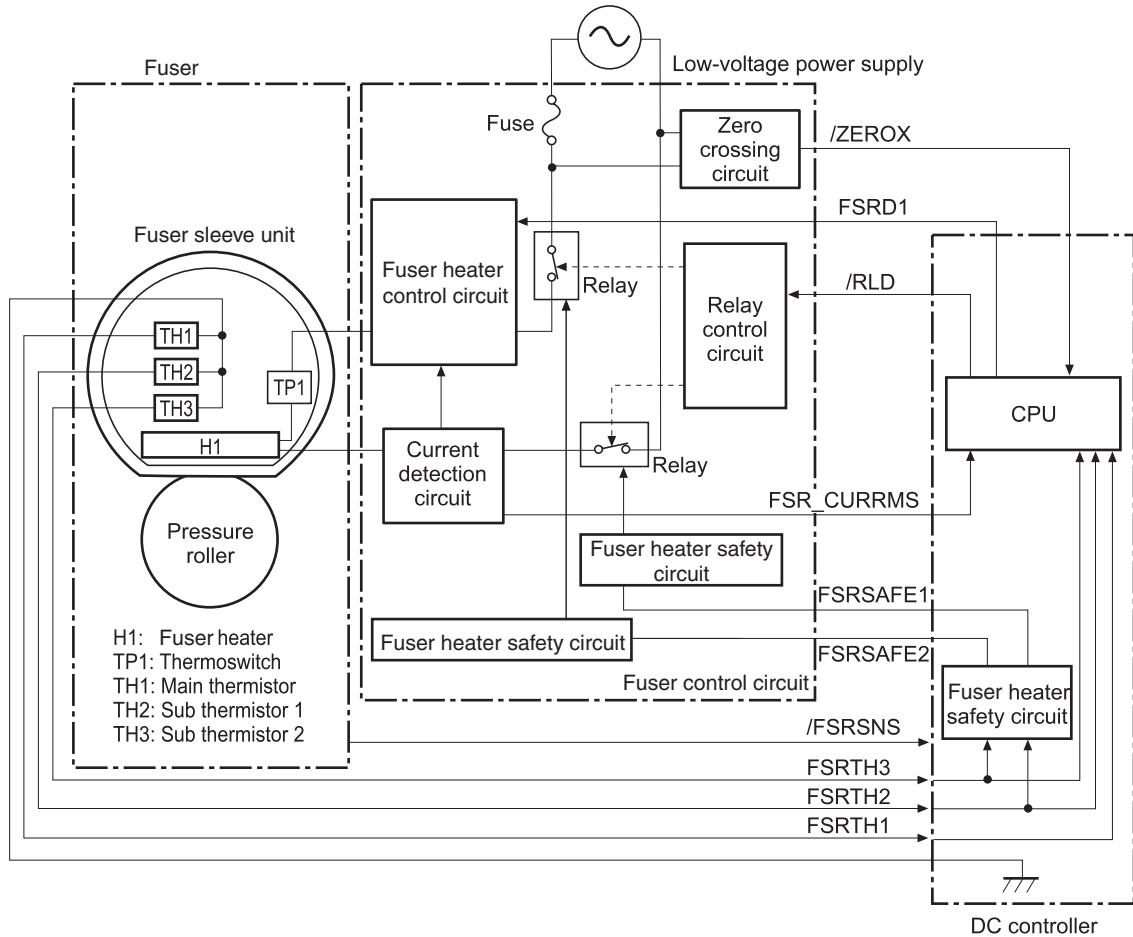
**Table 5-9** Fuser (fixing) components

Type of component	Abbreviation	Name	Function
Heaters	H1	Fuser heater	Heats the fuser sleeve.
Thermistors (Contact type)	TH1	Main thermistor	Each thermistor detects the center temperature of the fuser sleeve.
	TH2	Sub thermistor	Each thermistor detects the side temperature of the fuser heater.
	TH3		
Thermoswitches (Non-contact type)	TP1	For the fuser heater	Controls the fuser-roller main heater

## Fuser (fixing) temperature-control circuit

The temperatures of the two rollers in the fuser fluctuate according to the stage of the printing process. The DC controller sends commands to the fuser-control circuit to adjust temperatures.

**Figure 5-7** Fuser temperature-control circuit




## Fuser (fixing) over-temperature protection

To protect the fuser from excessive temperatures, the product has four layers of protective functions. If one function fails, the subsequent functions should detect the problem.

- **DC controller:** When a thermistor or thermopile detects a temperature above a certain threshold, the DC controller interrupts power to the specific heater. Following are the thresholds for each component:
  - TH1: 230° C (446° F) or higher
  - TH2: 285° C (545° F) or higher
  - TH3: 285° C (545° F) or higher
- **Fuser (fixing)-heater safety circuit:** If the DC controller fails to interrupt the power to the heaters at the prescribed temperatures, the fuser-heater safety circuit deactivates the triac-drive circuit and releases the relay, which causes the heaters to stop at slightly higher temperature thresholds.
  - TH2: 290° C (554° F) or higher
  - TH3: 290° C (554° F) or higher
- **Current-detection protection circuit:** If current flowing in each triac exceeds a specific value, the current-detection protection circuit deactivates the triac-drive circuit and releases the relay, which interrupts the power supply to the heaters.
- **Thermoswitch:** If the temperature in the heaters is abnormally high, and the temperature in the thermoswitches exceeds a specified value, the contact to the thermoswitch breaks. Breaking this contact deactivates the triac-drive circuit and releases the relay, which interrupts the power supply to the heaters. Following are the thresholds for each thermoswitch:
  - TP1: 270° C (518° F) or higher

---

 **NOTE:** When the thermoswitches reach this temperature, the temperature on the fuser rollers is about 320° C (608° F).

---

## Fuser (fixing)-failure detection

When the DC controller detects any of the following conditions, it determines that the fuser has failed. The DC controller then interrupts power to the fuser heaters and notifies the formatter.

- **Abnormally high temperatures:** Temperatures are too high for any of the following components, at any time:
  - TH1: 230° C (446° F) or higher
  - TH2: 285° C (545° F) or higher
  - TH3: 285° C (545° F) or higher
- **Abnormally low temperatures:** Temperatures are too low at any of the following components after the product has initialized.
  - TH1: 120° C (248° F) or lower
  - TP2 or TP3: 100° C (212° F) or lower

Or, the temperature drops in either of the thermopiles (TP1 and TP2) by 30° C (86° F) or more within a specified length of time.

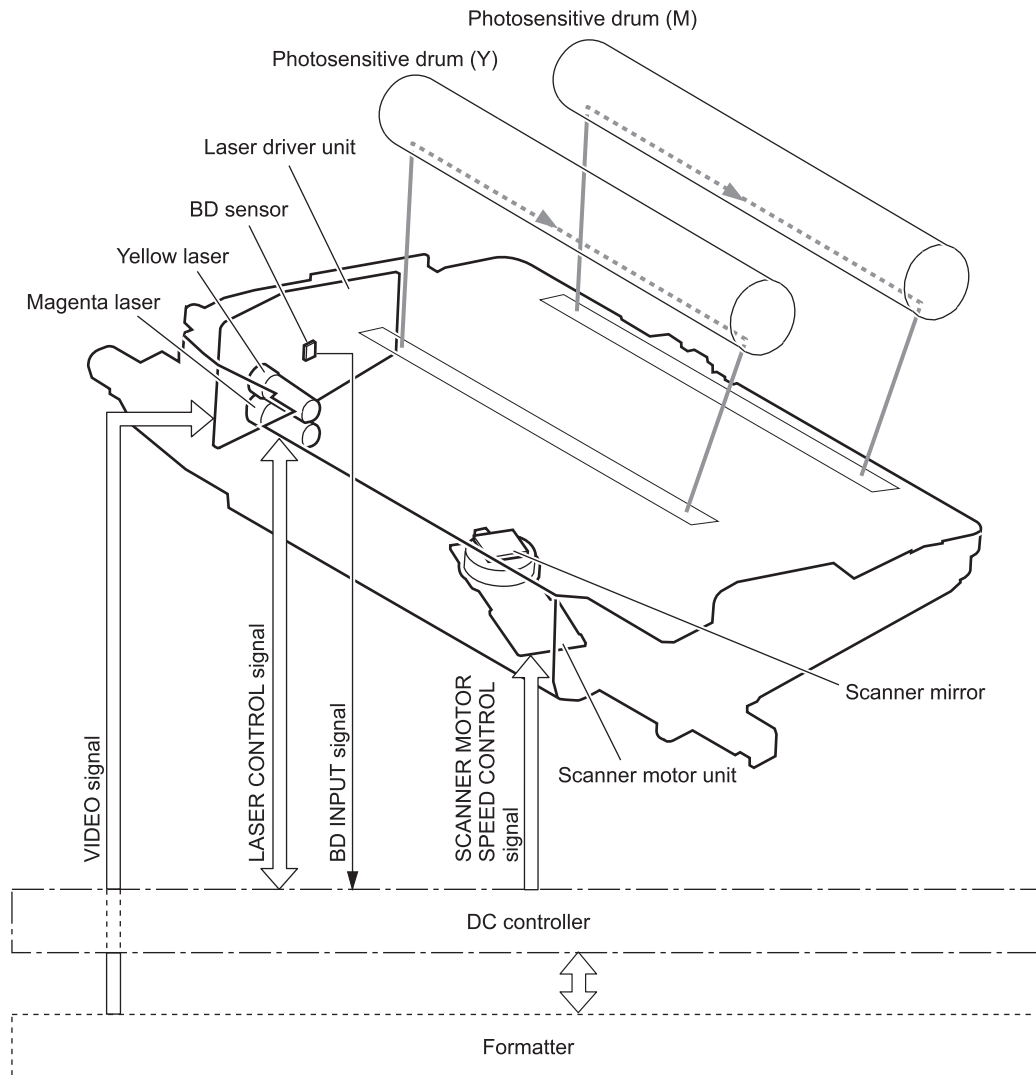
- **Abnormal temperature rise:** The DC controller determines an abnormal temperature rise if the detected temperature of TH1 does not rise 2° C within a specified time period after the fuser (fixing) motor is turned on, or if the detected temperature of the thermistors does not rise to a specified temperature for a specified time after the fuser (fixing) motor is turned on.
- **Thermistor open:** The DC controller determines a thermistor open if:
  - The detected temperature of TH1 is kept at 12° C (53° F) or lower for a specified time after the fuser (fixing) motor is turned on.
  - The detected temperature of TH2 is kept at 4° C (39° F) or lower for a specified time.
  - The detected temperature of TH3 is kept at 4° C (39° F) or lower for a specified time.
- **Drive-circuit failure:** The DC controller determines a drive-circuit failure:
  - If the detected power supply frequency is out of a specified range when the printer is turned on or during the standby period
  - If the current detection circuit detects an out of specified current value
- **Fuser (fixing) discrepancy:** The DC controller determines a fuser type mismatch when it detects an unexpected fuser (fixing) unit presence signal. The product has two fusers for 110 V or 220 V input power.

# Laser/scanner system

The laser/scanner system forms the latent electrostatic image on the photosensitive drums according to the VIDEO signals sent from the formatter. The product has two laser/scanners: one for yellow and magenta and the other for cyan and black.

The formatter sends the DC controller instructions for the image of the page to be printed. The DC controller signals the lasers to emit light, and the laser beams pass through lenses and onto the scanner mirror, which rotates at a constant speed. The mirror reflects the beam onto the photosensitive drum in the pattern necessary for the image, exposing the surface of the drum so it can receive toner.

Figure 5-8 Laser/scanner system



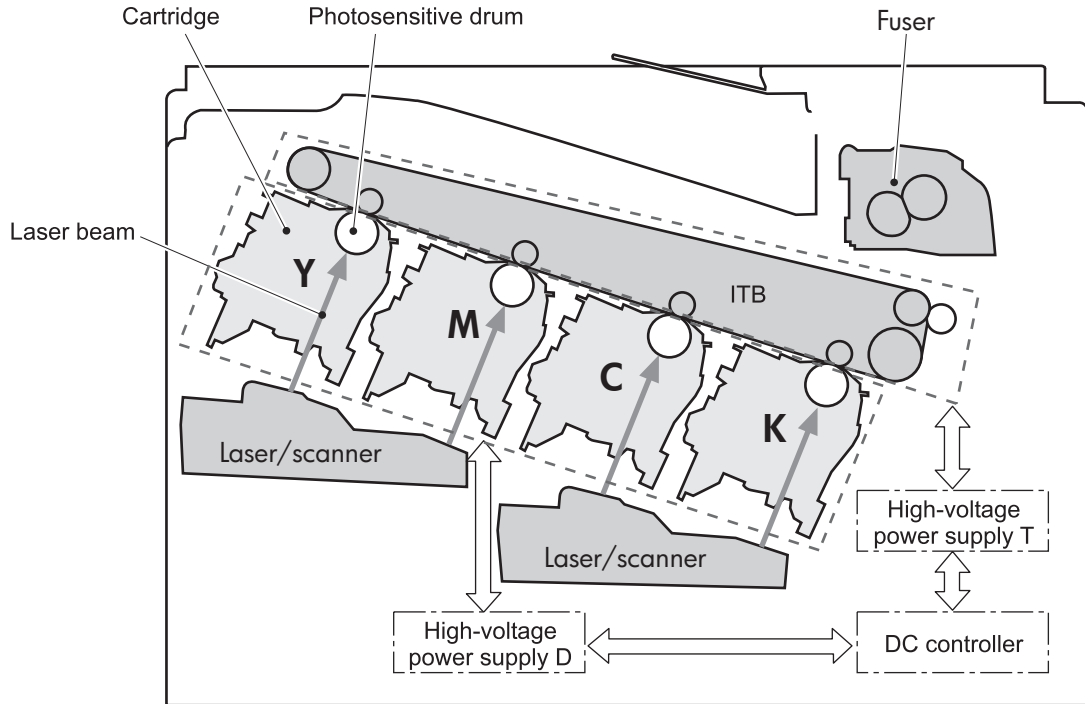
The DC controller determines that a laser/scanner has failed when any of the following conditions occurs:

- **Laser failure:** The detected laser intensity does not match a specified value when the product initializes.
- **Beam-detect (BD) failure:** The BD interval is outside a specified range during printing.
- **Scanner-motor failure:** The scanner motor does not reach a specified rotation speed within a certain time after it begins rotating.

# Image-formation system

The image-formation system creates the printed image on the paper. The system consists of the laser/scanners, print cartridges, imaging drums, ITB, and fuser.

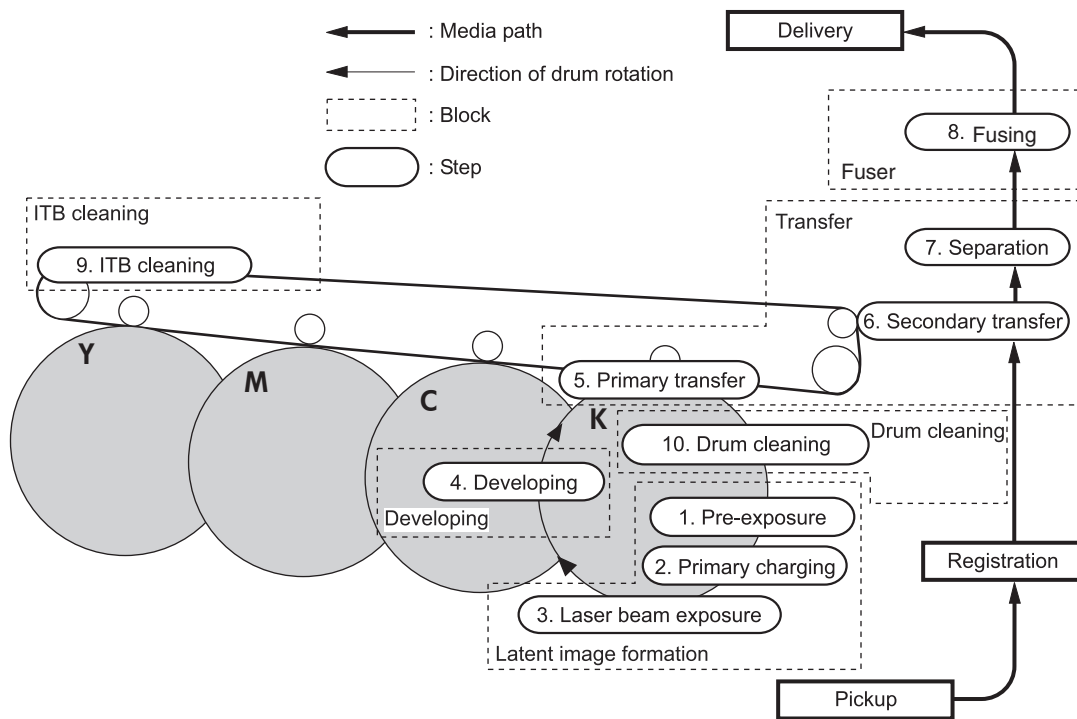
**Figure 5-9** Image-formation system



## Image-formation process

The image-formation system consists of ten steps divided into six functional blocks.

**Figure 5-10** Image-formation process



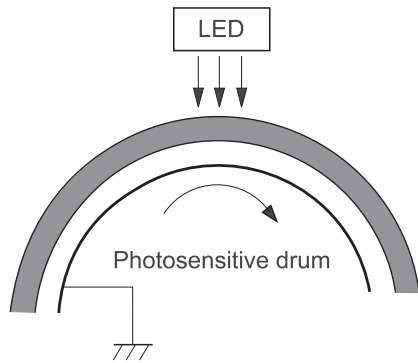
Functional block	Steps	Description
Latent image formation	1. Pre-exposure 2. Primary charging 3. Laser-beam exposure	An invisible latent image forms on the surface of the photosensitive drums.
Development	4. Development	Toner adheres to the electrostatic latent image on the photosensitive drums.
Transfer	5. Primary transfer 6. Secondary transfer 7. Separation	The toner image transfers to the ITB and subsequently to the paper.
Fusing	8. Fusing	The toner fuses to the paper to make a permanent image.
ITB cleaning	9. ITB cleaning	Residual toner is removed from the ITB.
Drum cleaning	10. Drum cleaning	Residual toner is removed from the photosensitive drums.



## Step 1: Pre-exposure

Light from the pre-exposure LED strikes the surface of the photosensitive drum to remove any residual electrical charges from the drum surface.

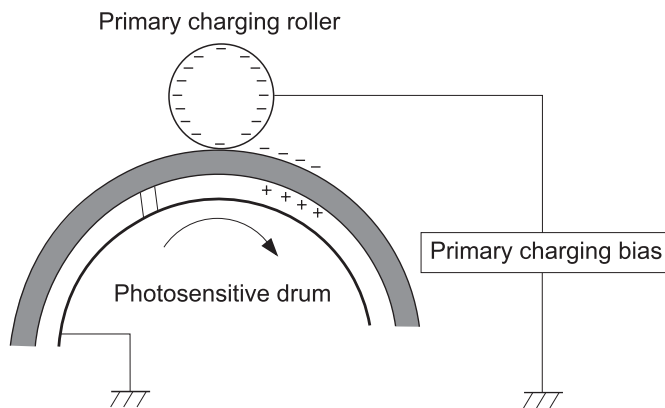
**Figure 5-11** Pre-exposure



## Step 2: Primary charging

The primary-charging roller contacts the photosensitive drum and charges the drum with negative potential.

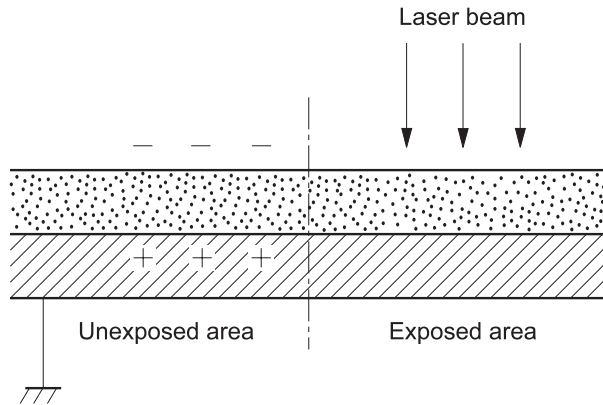
**Figure 5-12** Primary charging



### Step 3: Laser-beam exposure

The laser beam strikes the surface of the photosensitive drum in the areas where the image will form. The negative charge neutralizes in those areas, which are then ready to accept toner.

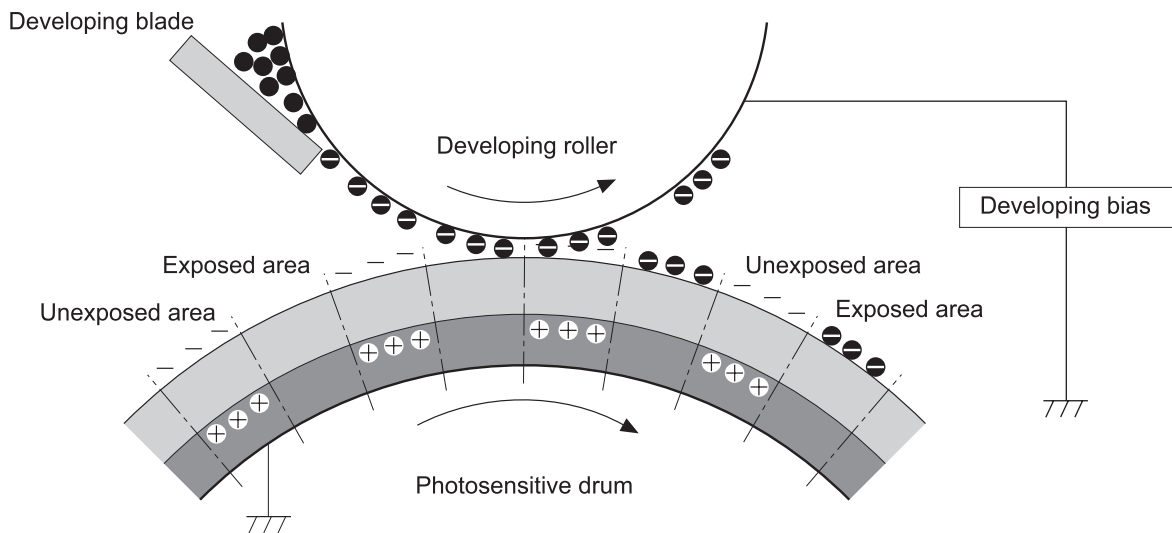
Figure 5-13 Laser-beam exposure



### Step 4: Development

Toner acquires a negative charge as the developing cylinder contacts the developing blade. Because the negatively charged surface of the photosensitive drums have been neutralized where they have been struck by the laser beam, the toner adheres to those areas on the drums. The latent image becomes visible on the surface of each drum.

Figure 5-14 Development

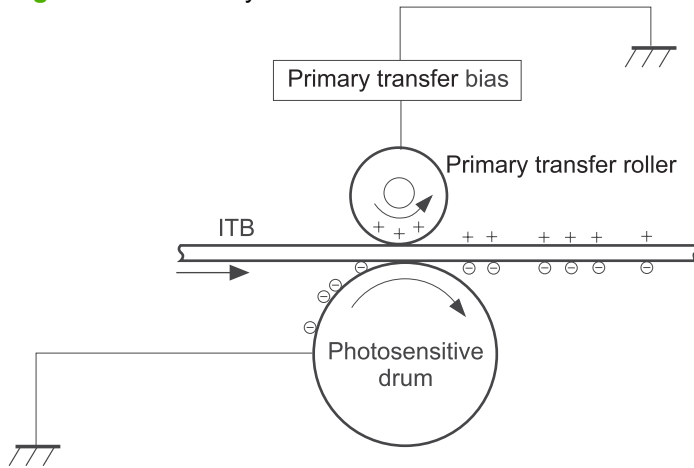


### Step 5: Primary transfer

The positively charged primary-transfer rollers contact the ITB, giving the ITB a positive charge. The ITB attracts the negatively charged toner from the surface of each photosensitive drum, and the

complete toner image transfers onto the ITB, beginning with yellow, followed by magenta, cyan, and black.

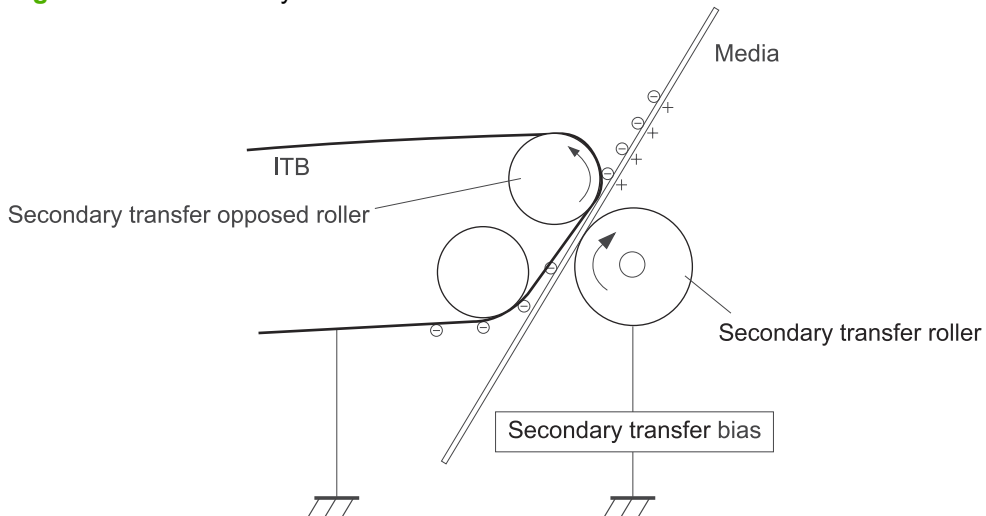
**Figure 5-15** Primary transfer



### Step 6: Secondary transfer

The paper acquires a positive charge from the secondary-transfer roller, and so it attracts the negatively charged toner from the surface of the ITB. The complete toner image transfers onto the paper.

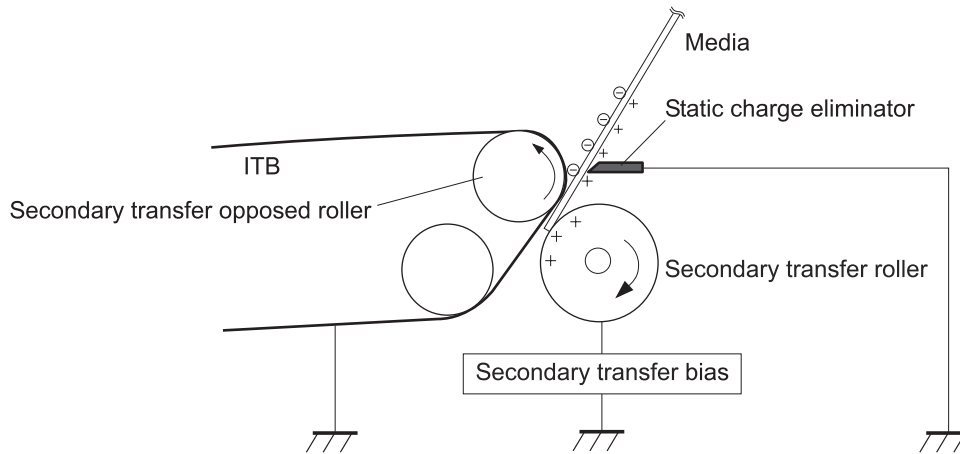
**Figure 5-16** Secondary transfer



## Step 7: Separation

The stiffness of the paper causes it to separate from the ITB as the ITB bends. The static-charge eliminator removes excess charge from the paper to ensure that the toner fuses correctly.

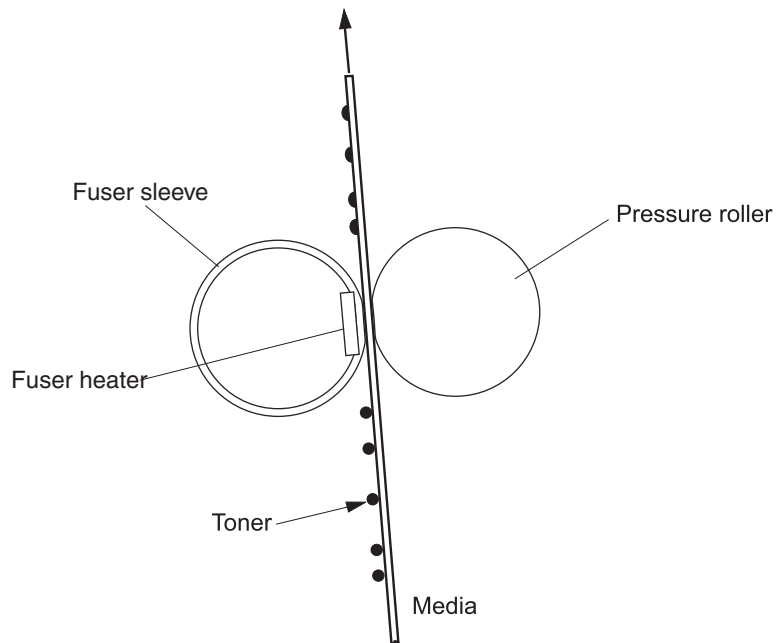
**Figure 5-17** Separation



## Step 8: Fusing

To create the permanent image, the paper passes through heated, pressurized rollers to melt the toner onto the page.

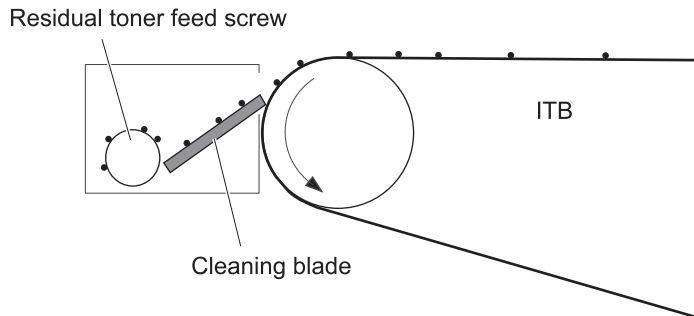
**Figure 5-18** Fusing



## Step 9: ITB cleaning

The cleaning blade scrapes the residual toner off the surface of the ITB. The residual toner feed screw deposits residual toner in the toner collection box.

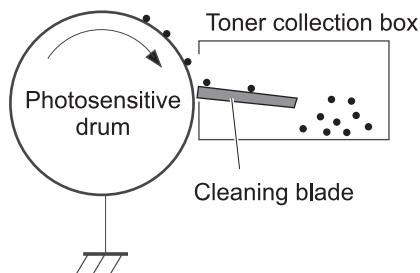
**Figure 5-19** ITB cleaning



## Step 10: Drum cleaning

Inside the print cartridge, the cleaning blade removes residual toner from the surface of the drum to prepare it for the next image. The waste toner falls into the hopper in the print cartridge.

**Figure 5-20** Drum cleaning



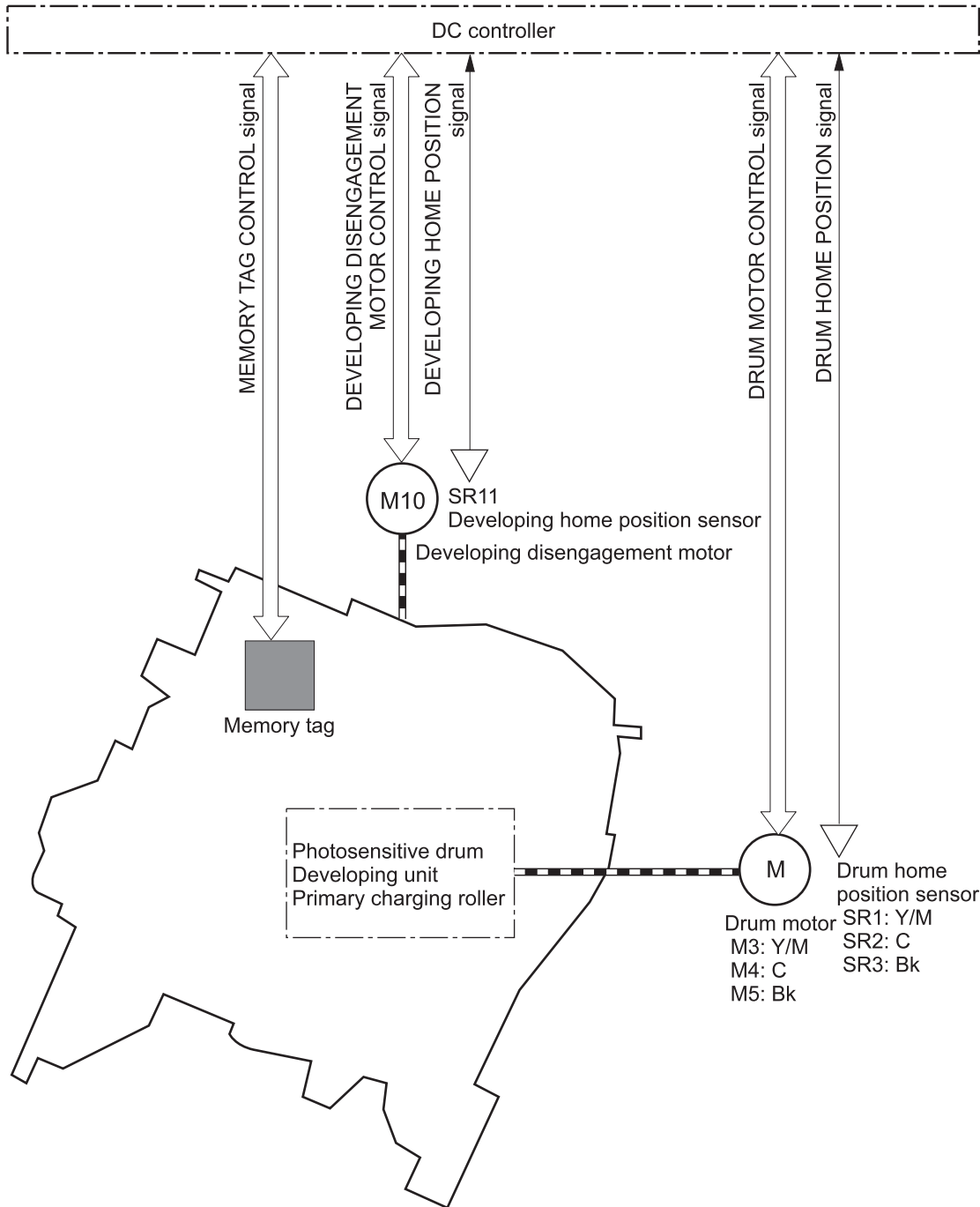
## Print cartridge

The product has four print cartridges, one for each color. Each print cartridge contains a reservoir of toner and the following components:

- Photosensitive drum
- Developing roller
- Primary-charging roller

The DC controller rotates the drum motor to drive the photosensitive drum, developing roller, and the primary-charging roller.

**Figure 5-21** Print-cartridge system



The DC controller rotates the drum motor to drive the photosensitive drum, developing unit, and primary charging roller.

The memory tag is a non-volatile memory chip that stores information about the usage for the print cartridge.

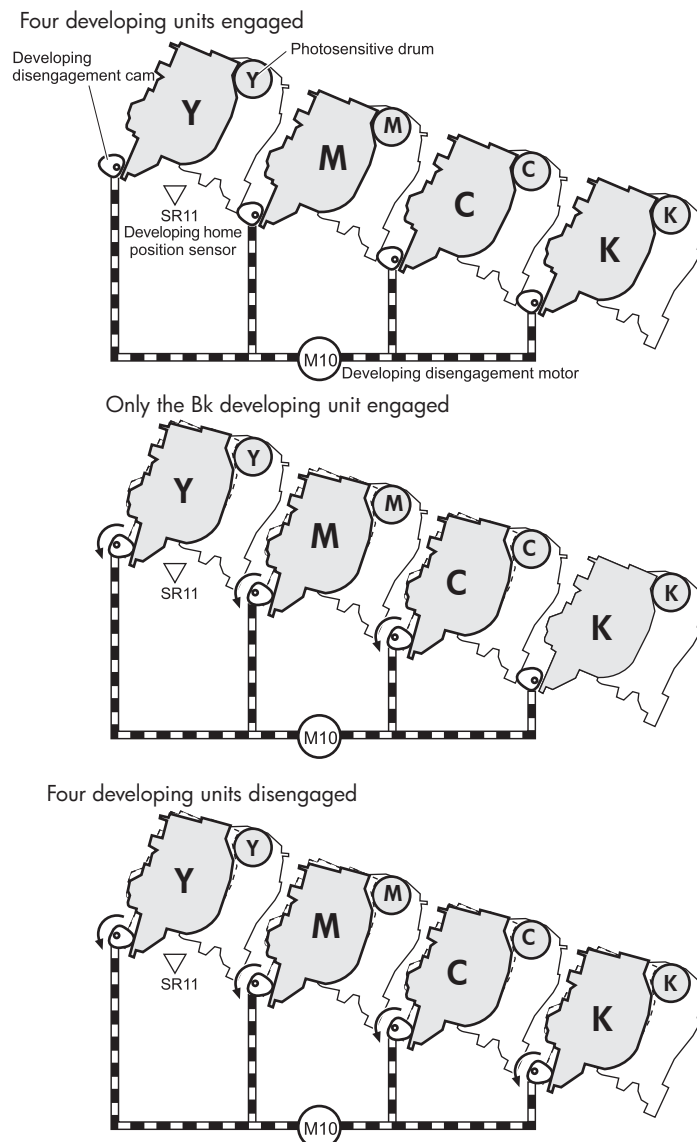
The DC controller notifies the formatter of an error if any of the following conditions exist:

- The memory tag fails to either read to or write from the DC controller
- The RD sensors detect a missing or incorrectly installed print cartridge.
- The accumulated print time reaches a specified time period or the cartridge runs out of toner.
- The toner level in any of the print cartridges drops below a certain level

## Developing-roller engagement and disengagement

The product can print in full-color mode or in black-only mode. To print in black-only mode, the product disengages the developing rollers in the cyan, magenta, and yellow print cartridges. This maximizes the life of the cartridges.

**Figure 5-22** Developing-roller engagement and disengagement control



The DC controller rotates the developing disengagement motor and changes the direction of the cam according to the instructions from the formatter for each print job.

When the product is turned on and at the end of each print job, all four of the developing rollers disengage from the photosensitive drums. If the next print job is full-color mode, each of the developing rollers engage. If the next print job is black-only mode, only the black developing roller engages.

If the DC controller does not detect any output from the developing home-position sensor, it determines that the developing-disengagement motor has failed.

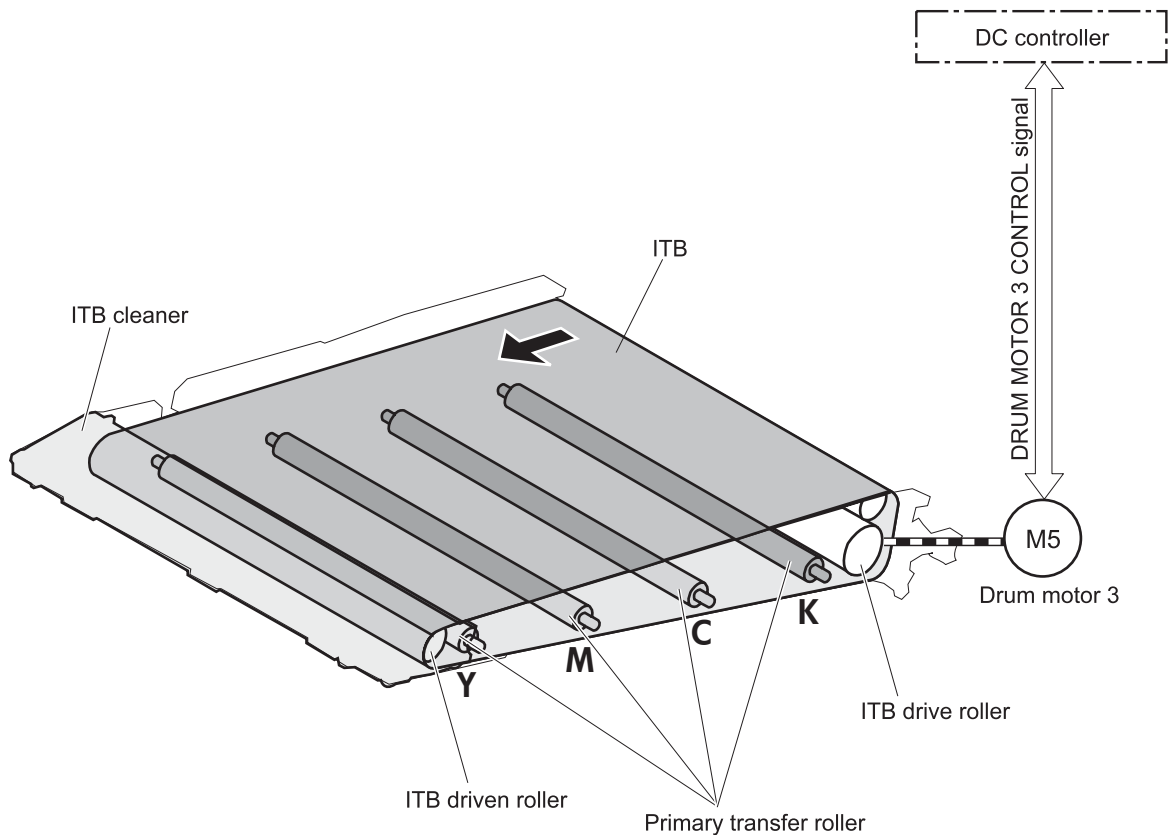
## Intermediate transfer belt (ITB) unit

The ITB unit accepts the toner images from the photosensitive drums and transfers the completed image to the paper. The ITB unit has these main components:

- ITB
- ITB drive roller
- ITB-driven roller
- Primary-transfer rollers
- ITB cleaner

The ITB motor drives the ITB drive roller, which rotates the ITB. The motion of the ITB causes the primary transfer rollers to rotate. The ITB cleaner cleans the ITB surface.

**Figure 5-23** ITB unit





## Primary-transfer-roller engagement and disengagement

Depending on the requirements of the print job, the primary-transfer rollers engage with the ITB so it can receive toner from the photosensitive drums.

**Table 5-10 Primary-transfer-roller engagement states**

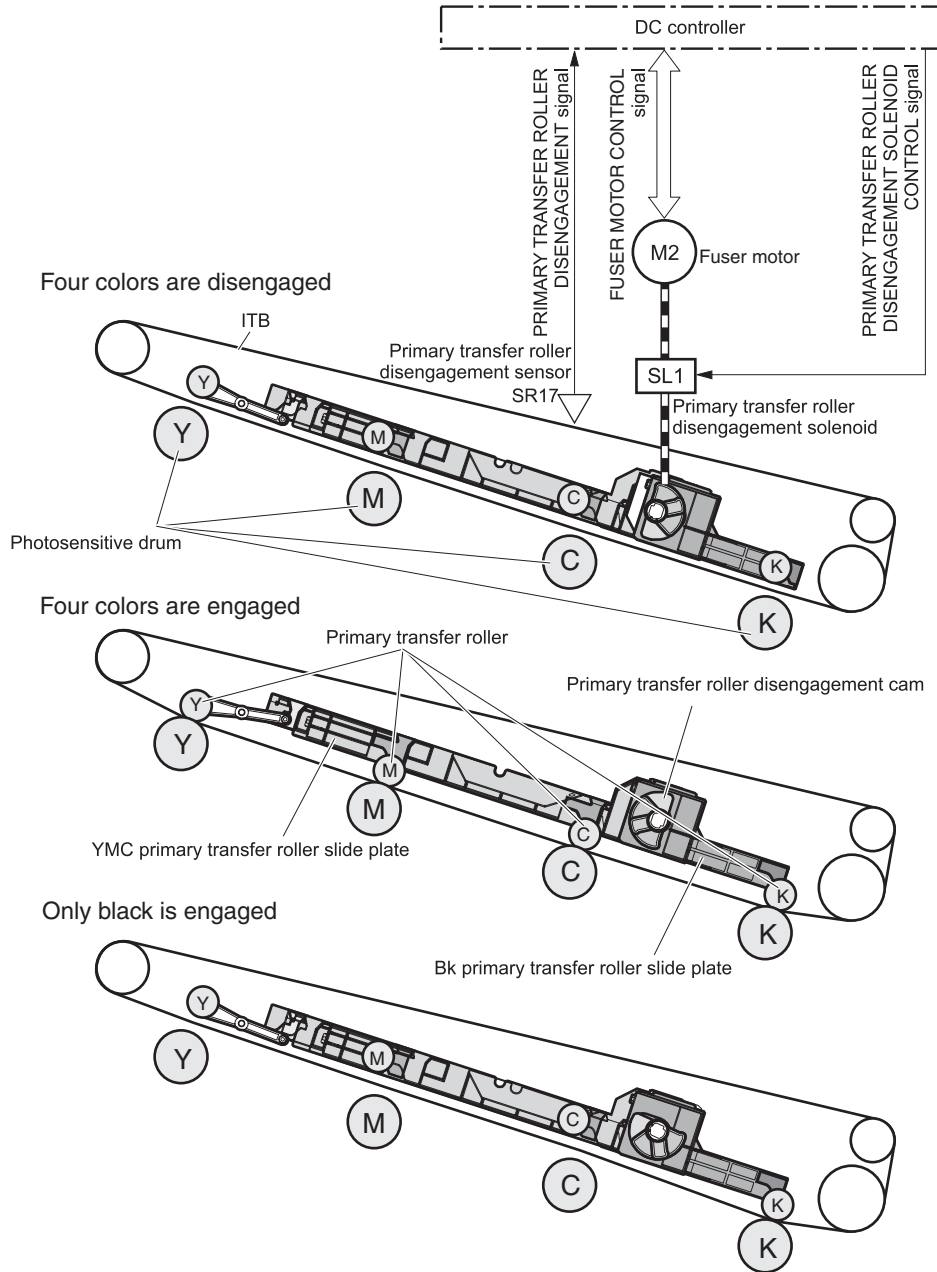
All rollers disengaged	The home position for the ITB unit
All rollers engaged	The state for a full-color print job
Black roller engaged	The state for a black-only print job

The primary-transfer-roller disengagement motor rotates or reverses to place the primary-transfer-roller disengagement cam into one of three positions. The cam causes the transfer-roller slide plate to move to the right or left. This movement causes the primary-transfer rollers to move up to engage the ITB with the photosensitive drum or down to disengage it.

If the DC controller does not receive the expected signal from the ITB home-position sensor when the primary-transfer-roller engages or disengages, but the primary-transfer-roller disengagement motor is

rotating, the DC controller determines that the primary-transfer-disengagement mechanism has failed, and notifies the formatter.

**Figure 5-24** Three states of primary-transfer-roller engagement and disengagement

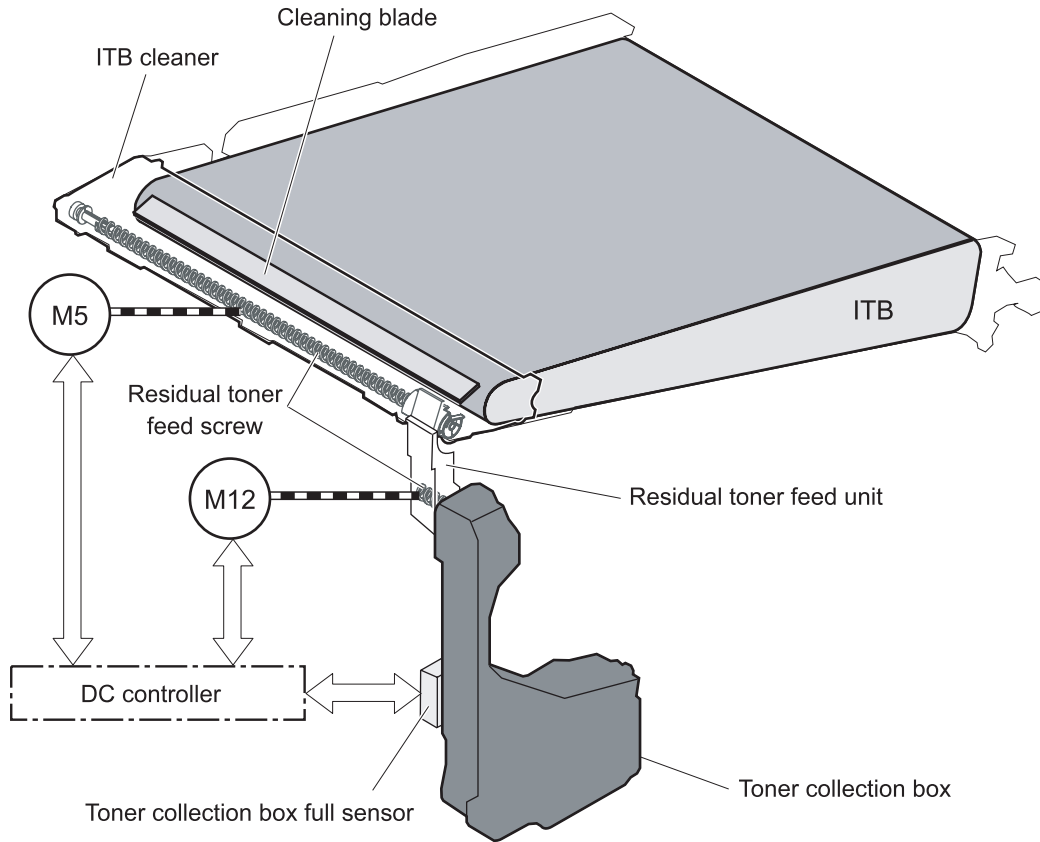


### ITB cleaning

The cleaning blade in the ITB cleaner scrapes the residual toner off the ITB surface. The drum motor (M5) drives the residual toner feed screw. The screw feeds the residual toner to the residual toner feed unit. The residual toner feed motor (M12) drives the residual toner feed screw. The residual toner feed

screw deposits the residual toner in the toner collection box. The DC control detects whether the toner collection box is full, using the toner collection-box-full sensor, and then notifies the formatter.

**Figure 5-25** ITB cleaning process

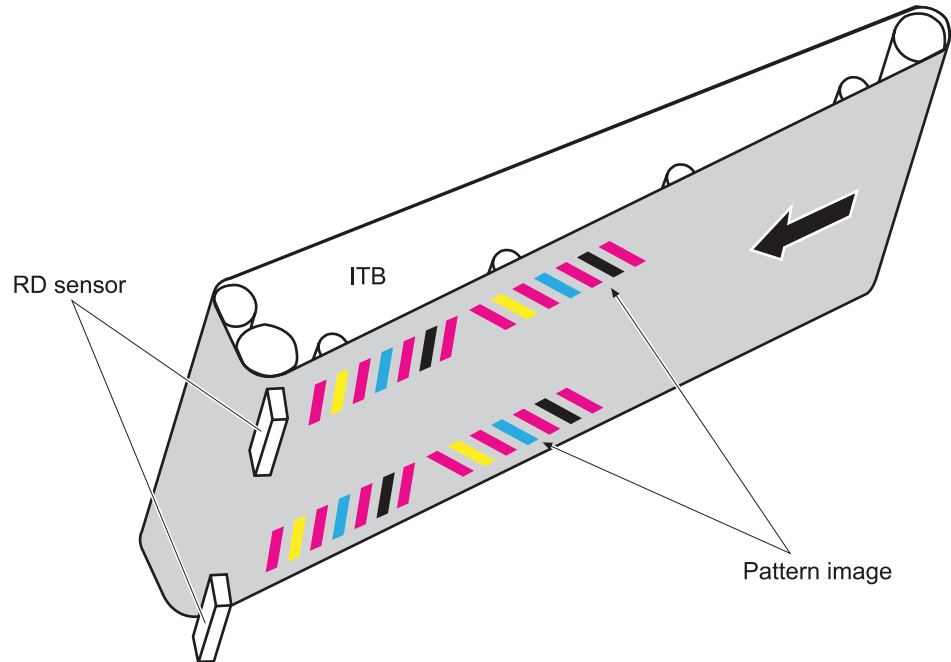


## Calibration

The product calibrates itself to maintain excellent print quality. Calibration corrects color-misregistration and color-density variation.

During calibration, the product places a specific pattern of toner on the surface of the ITB. Sensors at the end of the ITB read the toner pattern to determine if adjustments are necessary.

**Figure 5-26** Toner patterns for calibration



## Color-misregistration control

Internal variations in the laser/scanners can cause the toner images to become misaligned. The color-misregistration control corrects the following problems:

- Horizontal scanning start position
- Horizontal scanning magnification
- Vertical scanning start position

The calibration occurs when any of the following occurs:

- A cartridge is replaced
- The temperature of the sub thermistor is 50 C (122 F) or lower when the product recovers from sleep mode after a specific number of pages print.
- A specified number of pages have printed.
- The formatter sends a command.
- The user requests a calibration by using the control-panel menus.

If data from the color-misregistration and image-density sensors is outside a specified range when the product is turned on or when it is beginning the calibration sequence, the DC controller determines that these sensors have failed, and it notifies the formatter.

## Image-stabilization control

Environmental changes or deterioration of the photosensitive drums and toner can cause variations in the image density. The image-stabilization control reduces these fluctuations.

**Table 5-11 Image-stabilization controls**

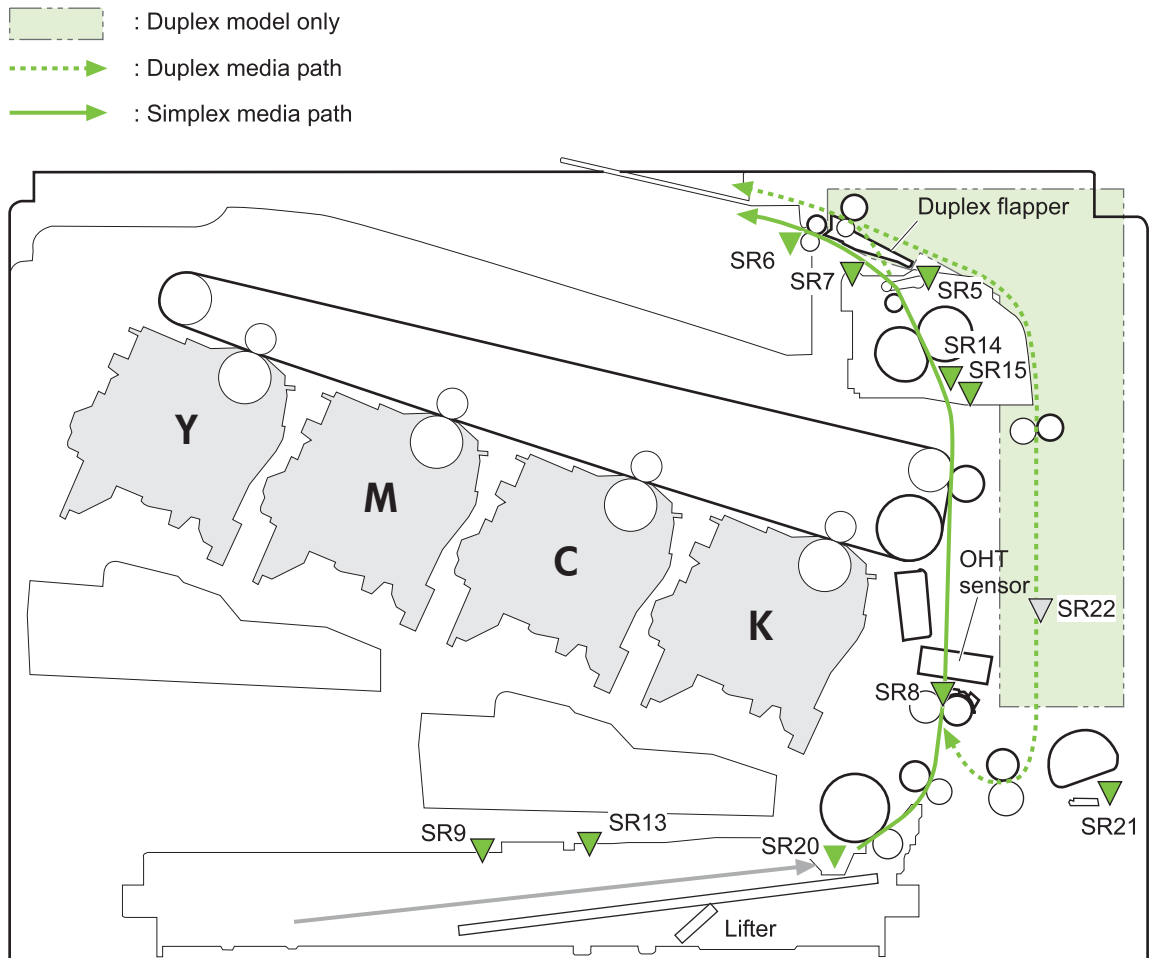
Environment change control	<p>The DC controller monitors environmental information from internal temperature and humidity sensors. The DC controller adjusts the high-voltage bias to accommodate environmental changes. This control occurs under the following circumstances:</p> <ul style="list-style-type: none"><li>• The product is turned on.</li><li>• The print cartridge is replaced.</li><li>• A change in environmental conditions occurs.</li></ul> <p>The DC controller notifies the formatter when it encounters a communication error with the environmental sensor.</p>
Image density control (DMAX)	<p>This control corrects variations in image density related to deterioration of the photosensitive drum or the toner. The DC controller adjusts the high-voltage biases to correct the problem under the following conditions:</p> <ul style="list-style-type: none"><li>• The sub thermistor detects a temperature that is too low when the product is turned on.</li><li>• A print cartridge is replaced.</li><li>• A specified number of pages print after replacing the print cartridge.</li><li>• A specified number of pages have printed.</li><li>• The formatter sends a command</li><li>• The product recovers from sleep mode</li><li>• After a specific period of the completion of a print operation</li><li>• The environment is relatively charged.</li></ul>
Image halftone control (DHALF)	<p>The formatter performs this control to calibrate the halftone, based on the halftone-density measurements, under the following conditions:</p> <ul style="list-style-type: none"><li>• The formatter sends a command.</li><li>• DMAX is completed.</li></ul>

The DC controller determines a RD sensor failure and notifies the formatter if it detects an out-of-specified-data value from the RD sensor when the product is turned on or when the color misregistration control starts.

# Pickup, feed, and delivery system

The pickup, feed, and delivery system uses a series of rollers to move the paper through the product.

**Figure 5-27** Switches and sensors for the pickup, feed, and delivery system



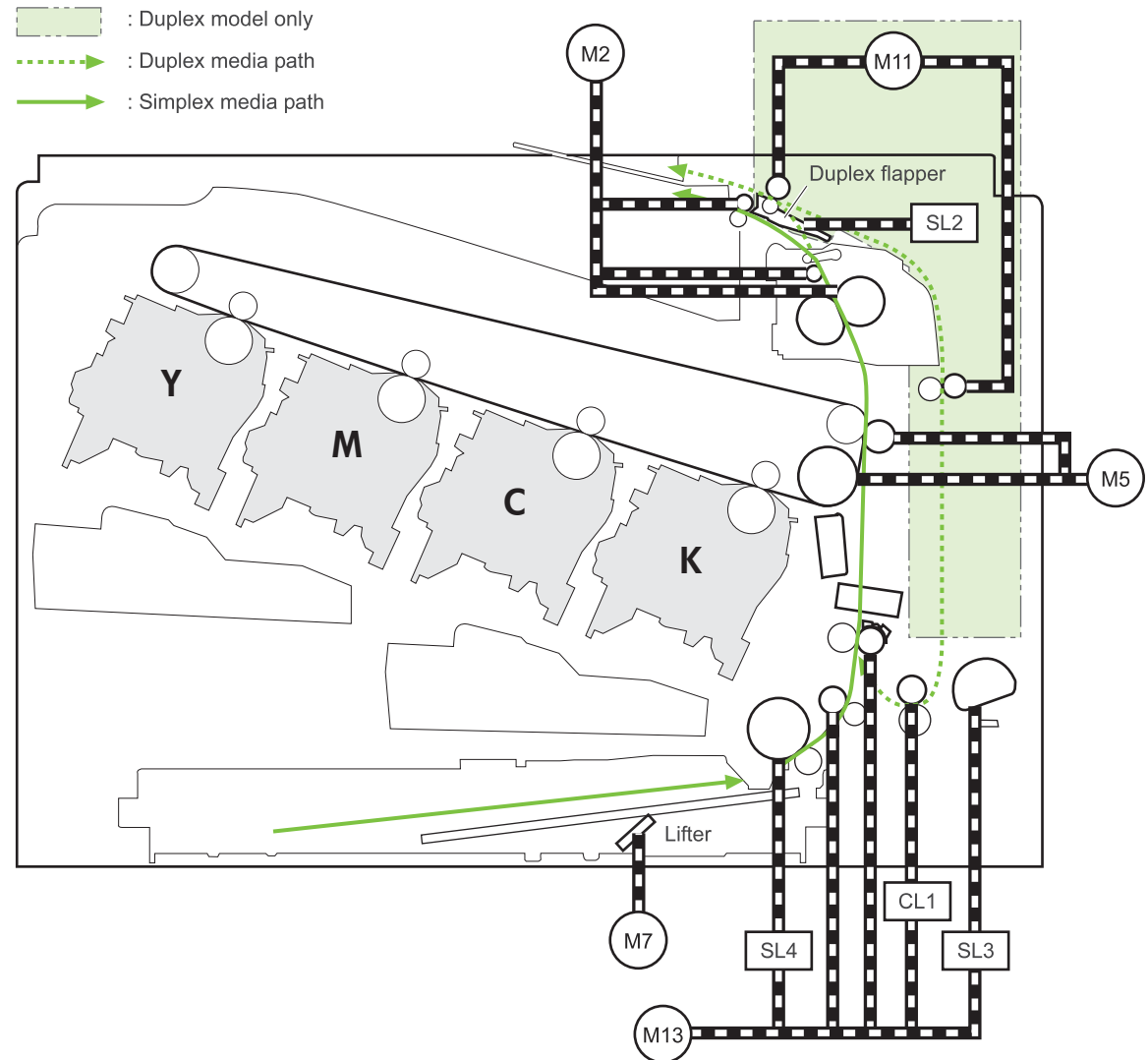
**Table 5-12** Switches and sensors for the pickup, feed, and delivery system

Abbreviation	Component
SR5	Fuser (fixing) delivery sensor
SR6	Delivery tray media full sensor
SR7	Fuser (fixing) pressure release sensor
SR8	TOP (top of page) sensor
SR9	Cassette-media stack-surface sensor
SR13	Cassette presence sensor
SR14	Loop sensor 1
SR15	Loop sensor 2
SR20	Cassette media-presence sensor

**Table 5-12** Switches and sensors for the pickup, feed, and delivery system (continued)

Abbreviation	Component
SR21	MP tray media-presence sensor
SR22	Duplex re-pickup sensor (duplex models only)

**Figure 5-28** Motors and solenoids for the pickup, feed, and delivery system



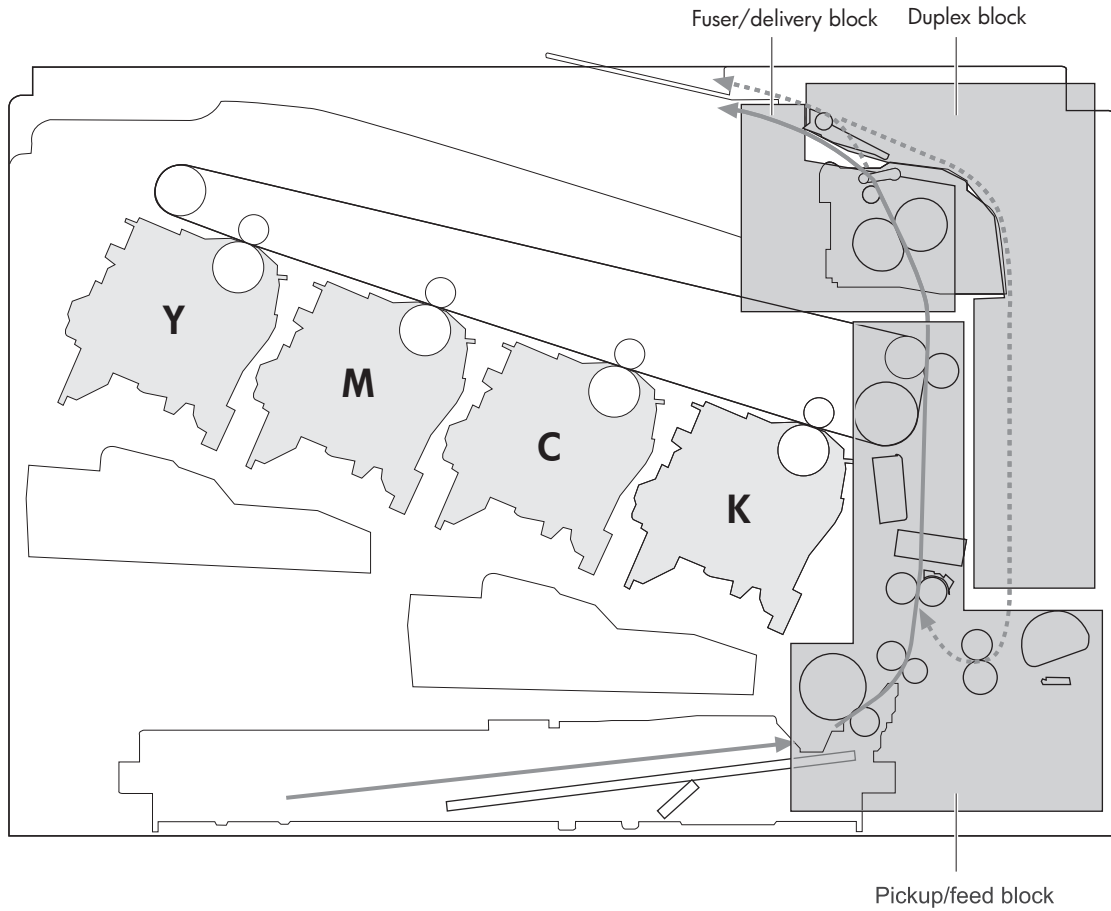
**Table 5-13** Motors and solenoids for the pickup, feed, and delivery system

Abbreviation	Component
M2	Fuser (fixing) motor
M5	Drum motor 3
M7	Lifter motor
M11	Duplex reverse motor (duplex models only)
M13	Pickup motor
CL1	Duplex re-pickup clutch (duplex models only)

**Table 5-13 Motors and solenoids for the pickup, feed, and delivery system (continued)**

Abbreviation	Component
SL2	Duplex reverse solenoid (duplex models only)
SL3	Multipurpose tray pickup solenoid
SL4	Cassette pickup solenoid

**Figure 5-29 Three main units of the pickup, feed, and delivery system**

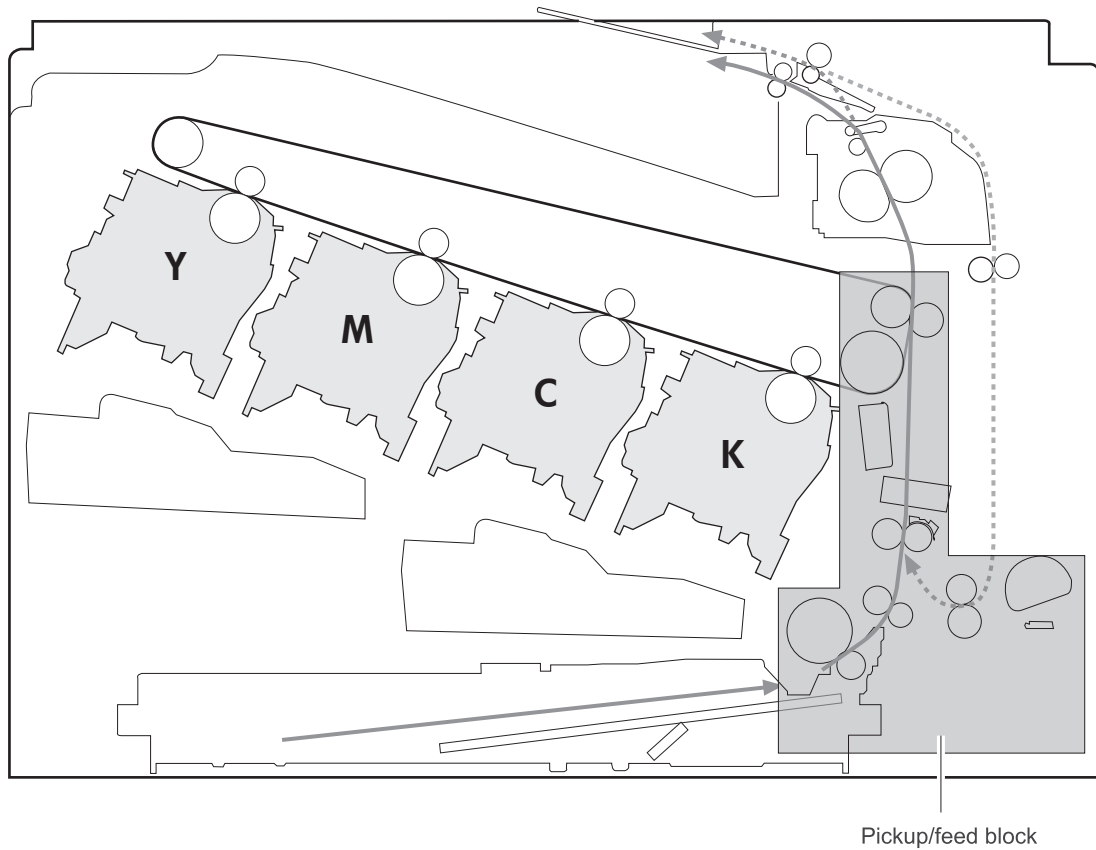




## Pickup-and-feed unit

The pickup-and-feed unit picks an individual sheet of paper from the multipurpose tray or the cassettes, carries it through the secondary-transfer unit, and feeds it into the fuser.

Figure 5-30

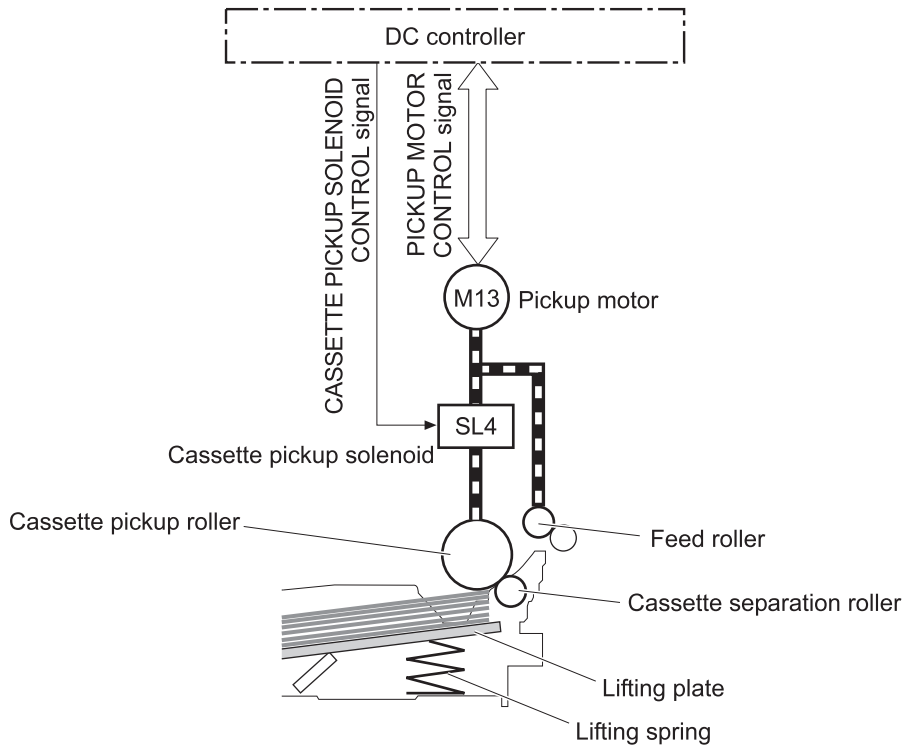


## Cassette pickup

The sequence of steps for the cassette-tray pickup operation is the following:

1. When the product starts or the tray closes, the lifting mechanism lifts the paper stack so it is ready.
2. After receiving a print command from the formatter, the DC controller rotates the pickup motor, which causes the cassette pickup roller, cassette feed roller, and cassette separation roller to rotate.
3. The DC controller drives the cassette pickup solenoid, which rotates the cassette pickup cam. As the pickup cam rotates, the pickup arm moves down, and the cassette pickup roller touches the surface of the paper stack. The cassette pickup roller then picks up one sheet of paper.

**Figure 5-31** Cassette-pickup mechanism

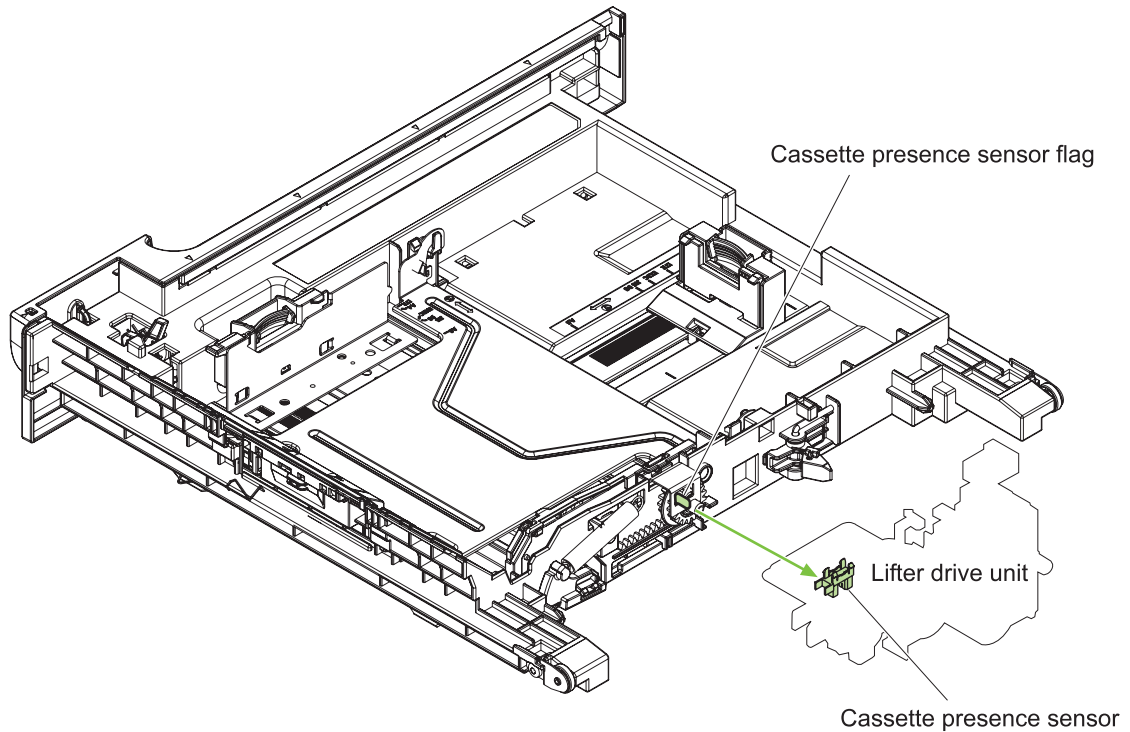


**NOTE:** The lift-up operation lifts the lifting plate to keep the stack surface of the media at a pickup position. The lifting spring helps support the lifting plate depending on the media size and amount.

### Cassette-presence detection

The cassette presence sensor is in the lifter drive unit. The sensor detects the cassette-presence sensor flag and determines whether the cassette is installed correctly.

**Figure 5-32** Cassette presence sensor



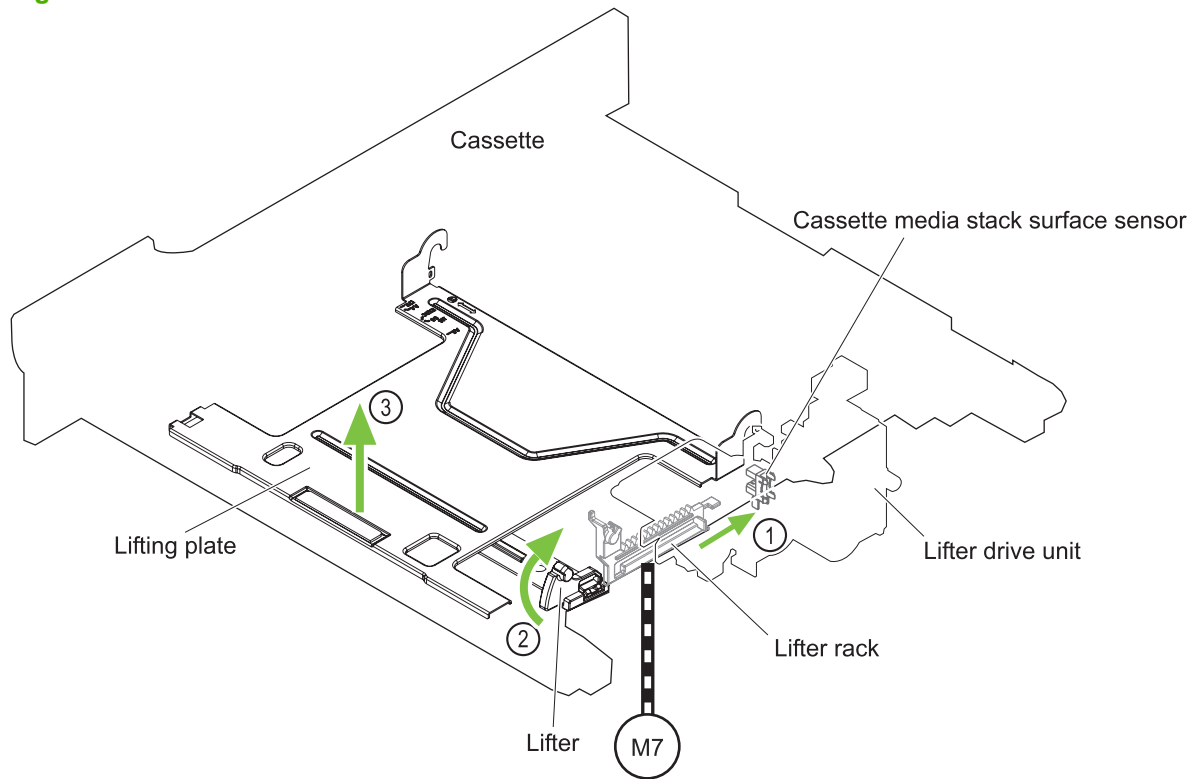
### Cassette lift operation

The DC controller rotates the lifter motor (M7) and moves the lifter rack until the cassette media-stack surface sensor (SR9) detects it. The lifter lifts, and the lifting plate moves up to the position where the media can be picked up. The lift operation is performed by monitoring the cassette media-stack-surface sensor when the printer is turned on, when the cassette is installed, or as needed during a print operation.

If the paper-stack surface sensor does not detect the paper within a specified time after the lifter motor begins rotating, the DC controller notifies the formatter that the lifter motor has failed.

The DC controller lowers the lifting plate when no printing occurs to prevent media damage and pickup failure. If a print operation does not occur for a specified time, the DC controller reverses the lifter motor and moves the lifter rack until the cassette media-stack surface sensor stops detecting it.

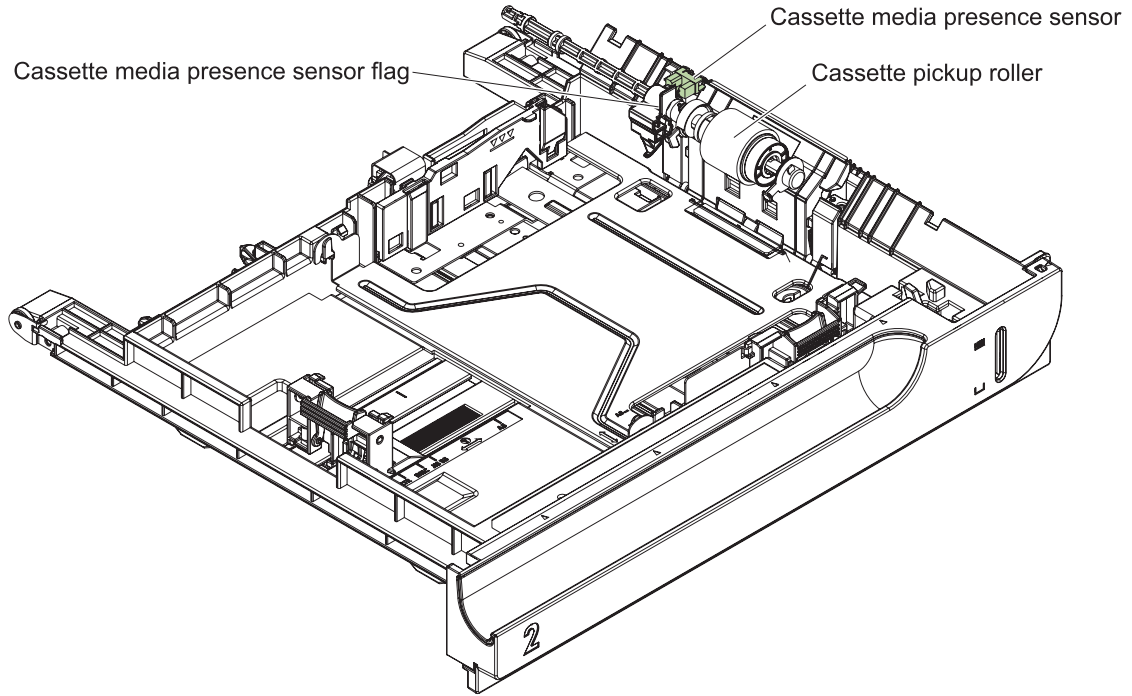
**Figure 5-33** Cassette lift mechanism



### Cassette paper-presence detection

The cassette media-presence sensor detects whether paper is in the cassette.

**Figure 5-34** Paper-level-detection mechanism

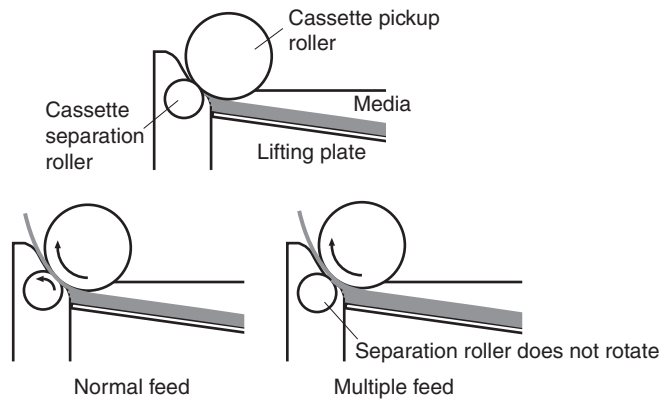


### Multifeed prevention

In the cassette, a separation roller prevents multiple sheets of paper from entering the paper path. The cassette pickup roller drives the separation roller through a sheet of paper.

The low friction force between the sheets weakens the driving force from the cassette pickup roller. Because some braking force is applied to the cassette separation roller, the weak rotational force of the pickup roller is not enough to rotate the separation roller. Therefore, the separation roller holds back any multiple-fed sheets, and one sheet of media is fed into the printer.

**Figure 5-35** Multifeed prevention



## Multipurpose tray pickup

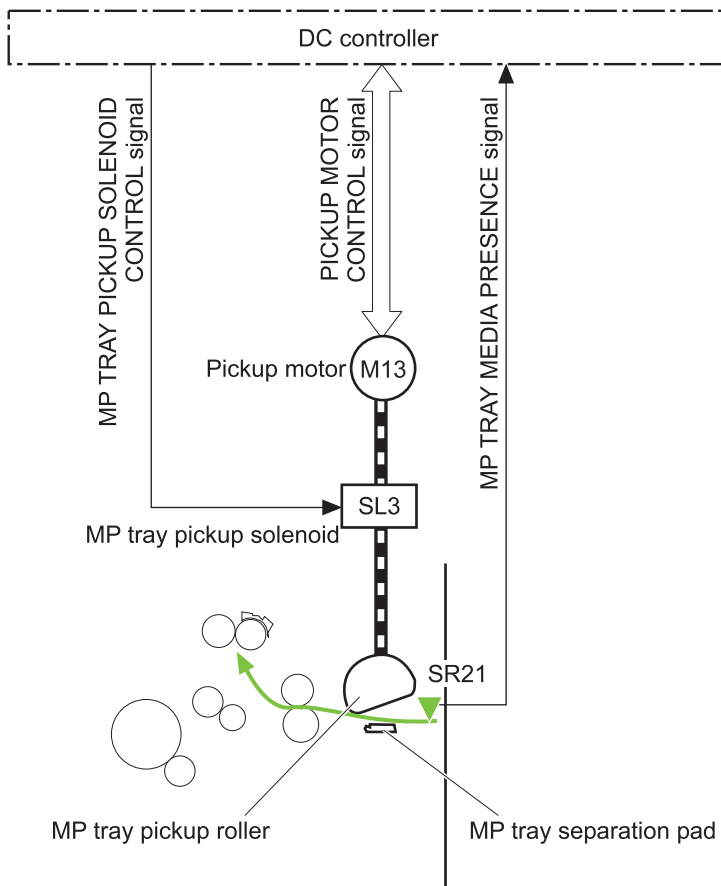
The multipurpose tray paper-presence sensor detects whether paper is in the tray. If no paper is present, the DC controller notifies the formatter. Printing does not occur until paper is in the tray.

The sequence of steps for the multipurpose tray pickup operation as follows:

1. After receiving a print command from the formatter, the DC controller reverses the pickup motor, which causes the multipurpose tray separation roller to rotate.
2. The DC controller turns on the multipurpose tray pickup solenoid (SL3), causing the multipurpose tray pickup roller to rotate.
3. The multipurpose tray separation roller isolates a single sheet of paper in case more than one sheet was picked. The single sheet of paper feeds into the product.

The MP-tray media-presence sensor (SR21) detects whether the media is present in the MP tray. No printing occurs if no media is loaded.

**Figure 5-36** Multipurpose tray pickup mechanism

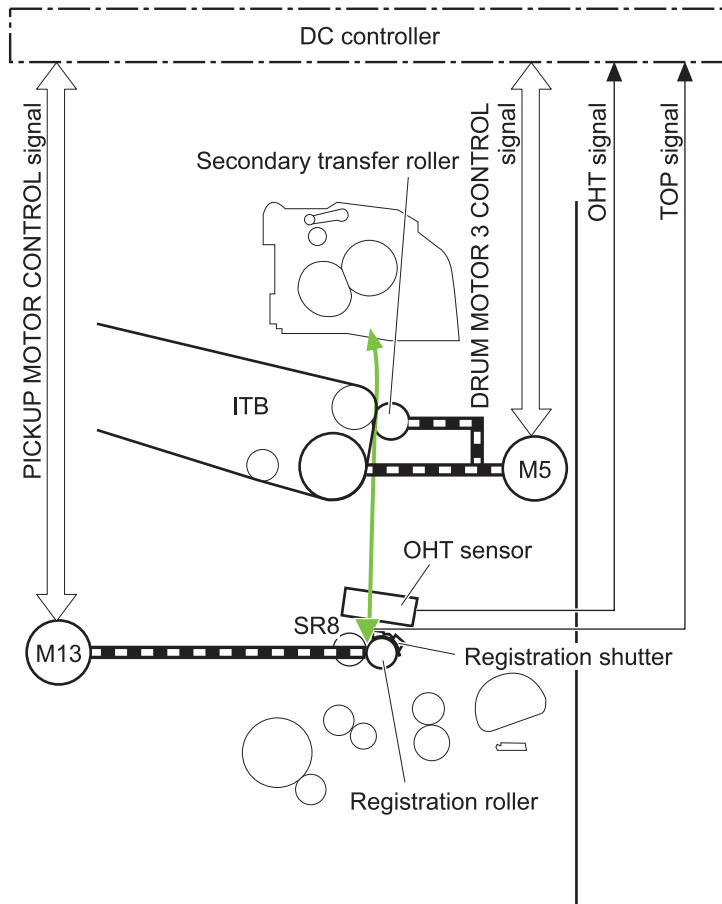


## Paper feed

After the pickup operation, the paper feeds through the product and into the fuser.

1. The paper passes through the feed rollers. The registration shutter aligns the paper correctly to prevent skewed printing.
2. The DC controller detects the leading edge of paper by the Top sensor (SR8) and controls the rotational speed of the pickup motor to align with the leading edge of image on the ITB.
3. The DC controller detects whether or not the media is overhead transparency, using the OHT sensor.
4. The toner image on the ITB transfers onto the media, which feeds to the fuser.

**Figure 5-37** Paper-feed mechanism

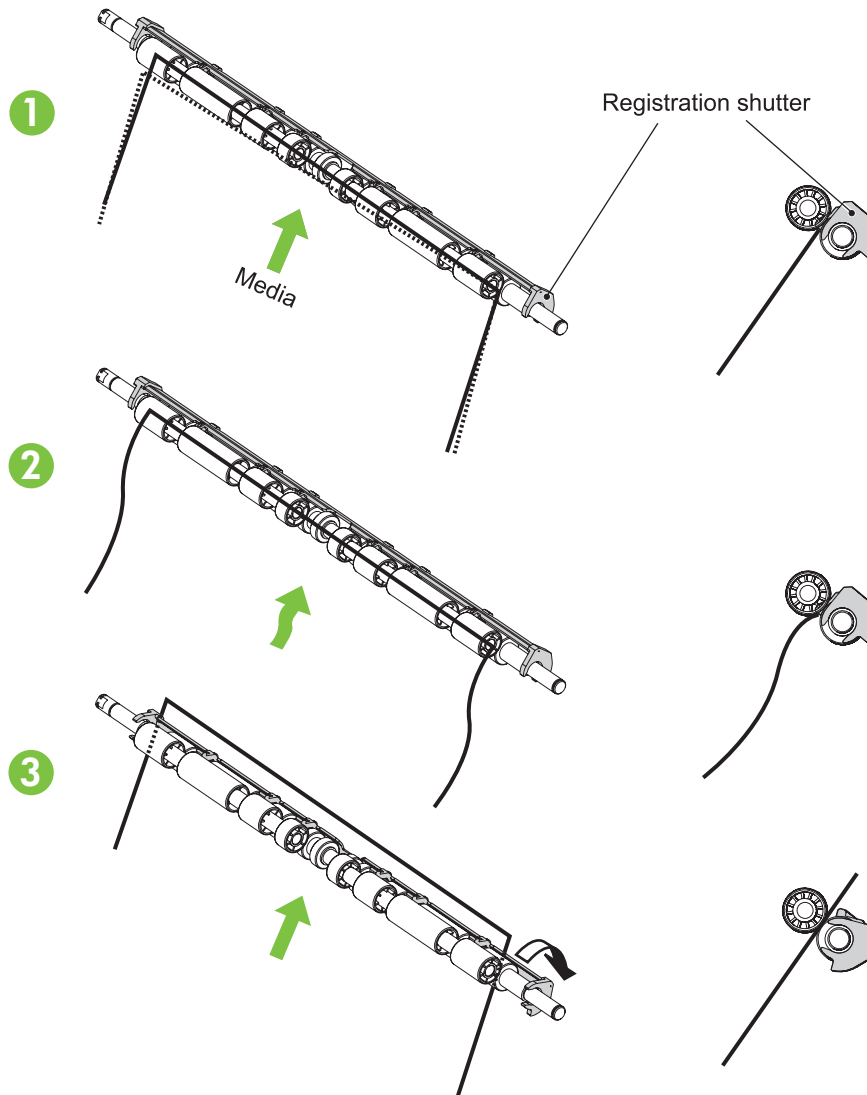


## Skew-feed prevention

The product can straighten the paper without slowing the feed operation.

1. As the paper enters the paper path, the leading edge strikes the registration shutter, which straightens the paper. The paper does not pass through the shutter.
2. The feed rollers keep pushing the paper, which creates a force on the leading edge against the registration shutter.
3. When the force is great enough, the registration shutter opens and the paper passes through.

**Figure 5-38** Skew-feed prevention



## OHT detection

The OHT sensor detects overhead transparencies. The OHT sensor is a transmission sensor that uses an LED. The DC controller determines a media mismatch and notifies the formatter when the media type differs from the media type detected by the OHT sensor. The DC controller turns the LED in the



OHT sensor on and off during the wait or initial rotation period. If the intensity of the light does not match the specified value, the DC controller determines that the OHT sensor has failed.

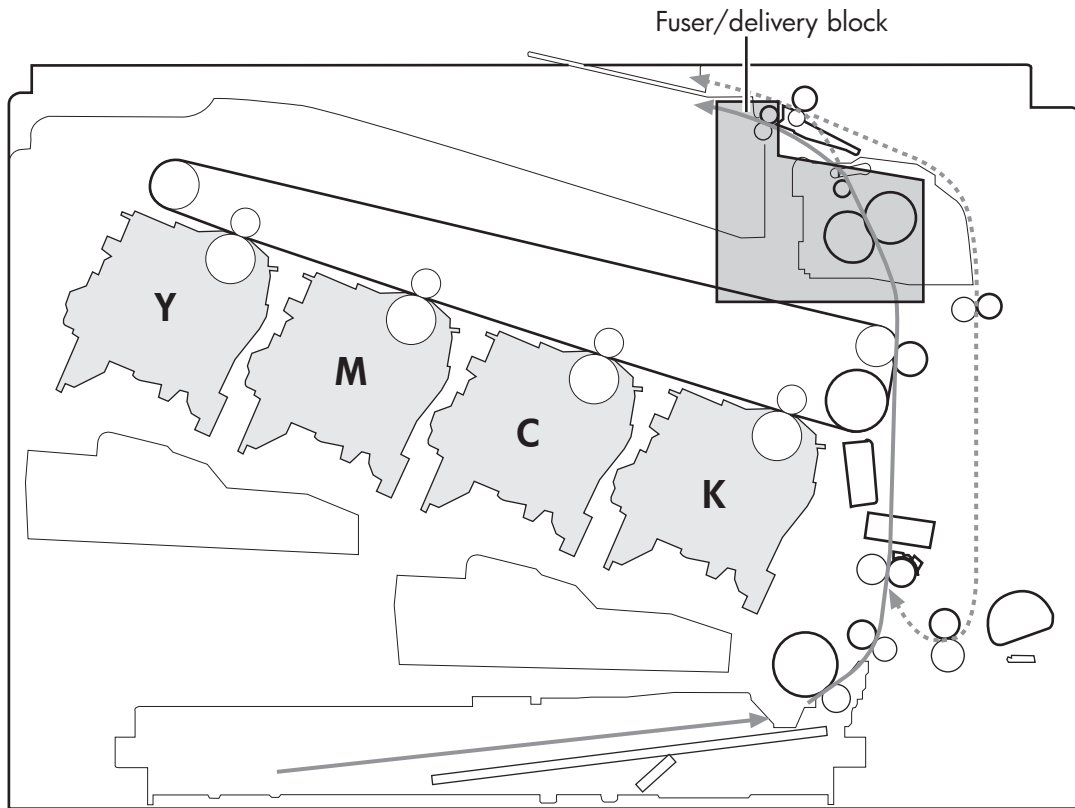
## Fusing and delivery unit

The fusing and delivery unit fuses the toner onto the paper and delivers the printed page into the output bin. The following controls ensure optimum print quality:

- Loop control
- Pressure roller pressurization/depressurization control

A sensor detects when the output bin is full, and the DC controller notifies the formatter.

**Figure 5-39** Fuser and delivery unit



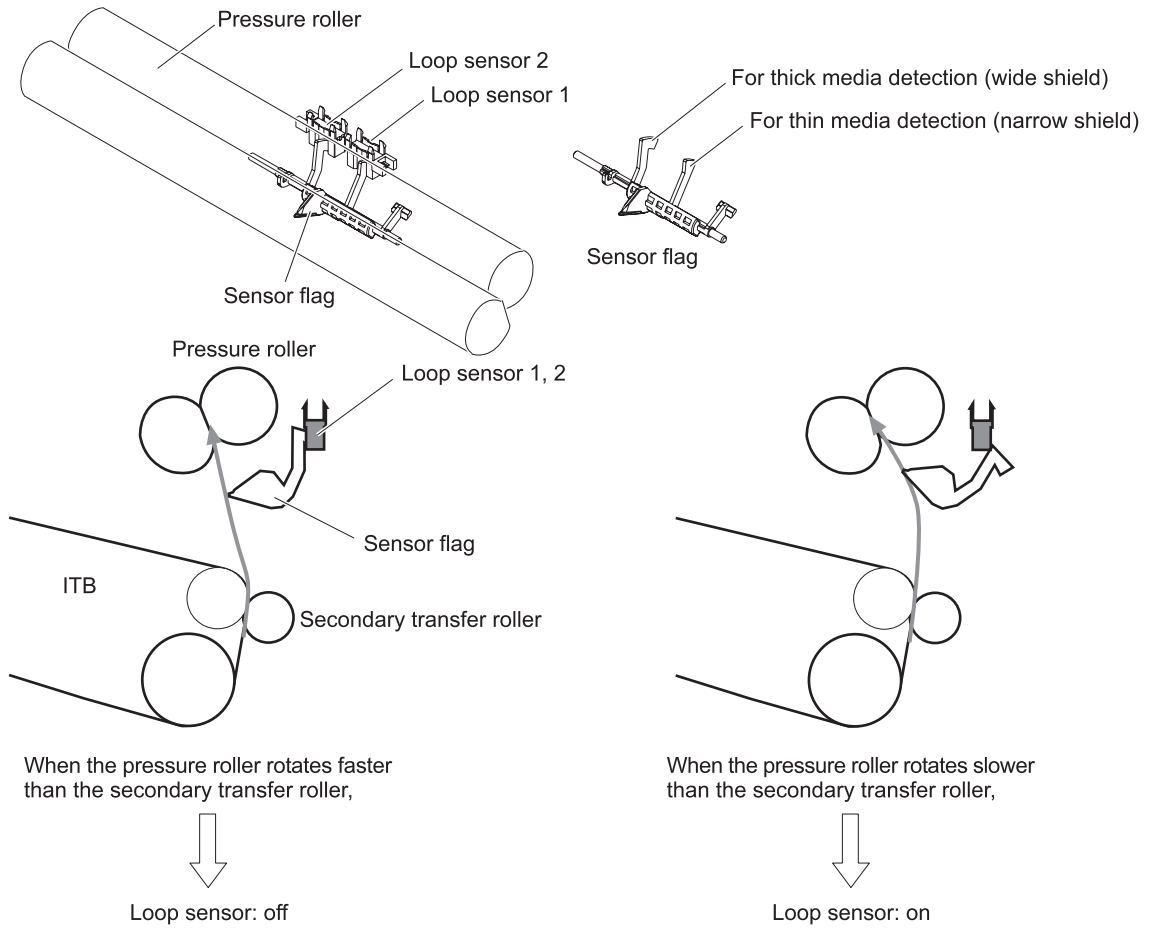
## Loop control

The loop control monitors the tension of the paper between the second-transfer roller and the fuser.

- If the fuser rollers rotate more slowly than the secondary transfer rollers, the paper warp increases and an image defect or paper crease occurs.
- If the fuser rollers rotate faster than the secondary transfer rollers, the paper warp decreases and the toner image fails to transfer to the paper correctly, causing color misregistration.

To prevent these problems, the loop sensors, which are located between the secondary transfer rollers and the fuser rollers, detect whether the paper is sagging or is too taut. The DC controller adjusts the speed of the fuser motor.

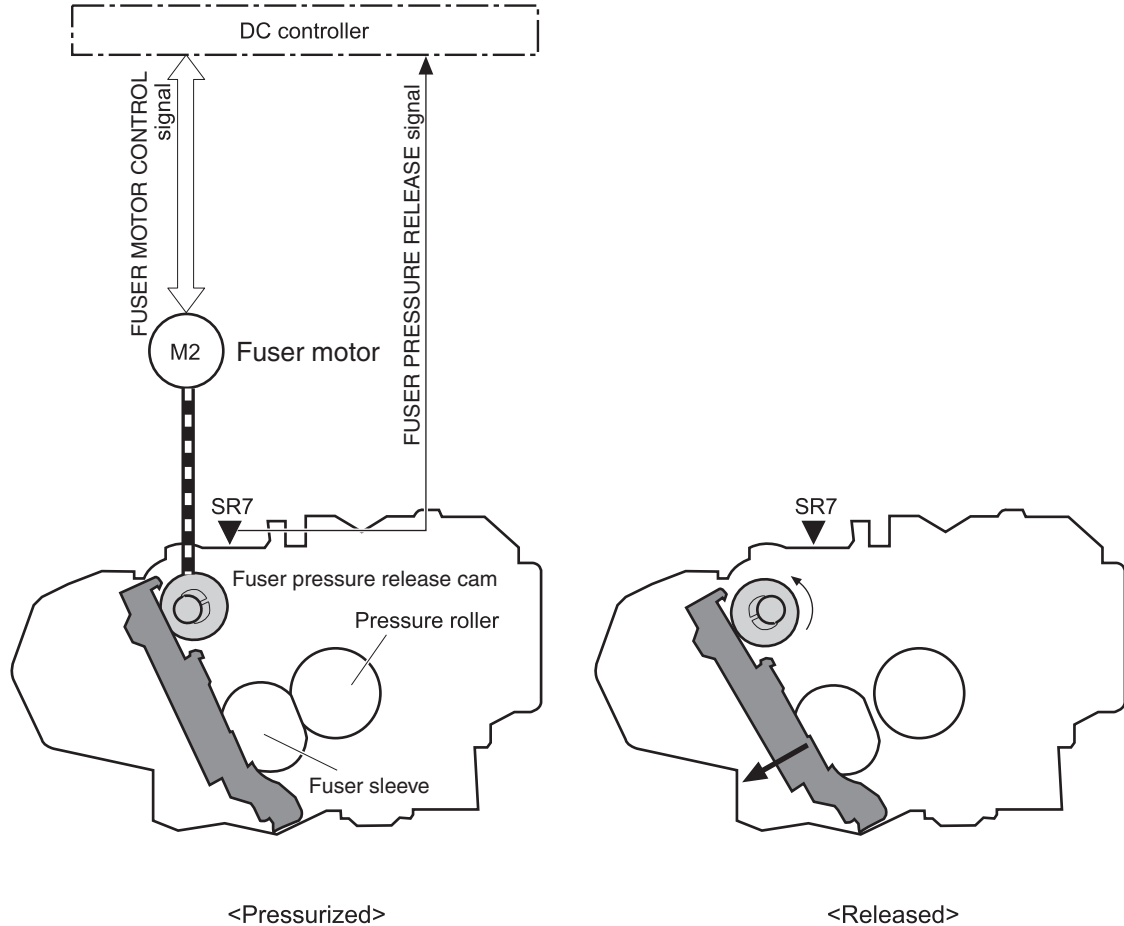
**Figure 5-40** Loop-control mechanism



## Pressure-roller pressurization control

To prevent excessive wear on the pressure roller and help with jam-clearing procedures, the pressure roller pressurizes only during printing and standby. The DC controller reverses the fuser motor. The fuser motor rotates the fuser pressure-release cam.

**Figure 5-41** Pressure-roller pressurization control



The pressure roller depressurizes under the following conditions:

- The product is turned off with the on/off switch
- Any failure occurs other than a fuser pressure-release mechanism failure
- During powersave mode
- When a paper jam is detected

If the DC controller does not sense the fuser pressure-release sensor for a specified period after it reverses the fuser motor, it notifies the formatter that a fuser pressure-release mechanism failure has occurred.

**NOTE:** The fuser remains pressurized if the power is interrupted when the power cord is removed or the surge protector is turned off, or if the fuser is removed without turning off the product.

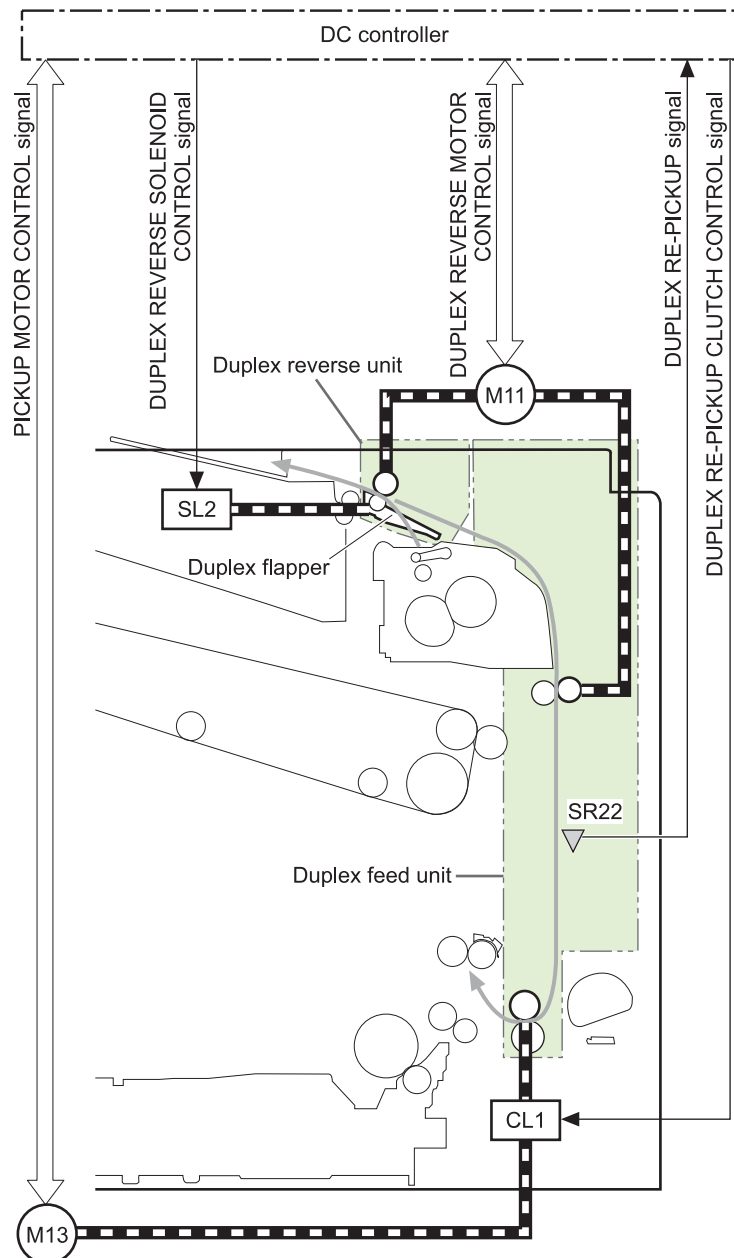
## Duplexing unit (HP Color LaserJet CP3525dn and HP Color LaserJet CP3525x only)

For supported models, the duplexing unit reverses the paper and feeds it through the paper path to print the second side. The duplexing unit consists of the following components:

- **Duplexing-reverse unit:** Installed on top of the product
- **Duplexing-feed unit:** Along the right side

The DC controller controls the operational sequence of the duplex block. The DC controller drives each load, such as motors, solenoid, and clutch, depending on the duplex reverse unit and duplex feed unit controls.

**Figure 5-42** Duplexing unit



## Duplexing reverse and feed control

The duplexing reverse procedure pulls the paper into the duplexing unit after it exits the fuser. The duplexing feed procedure moves the paper through the duplexer so it can enter the product paper path to print the second side of the page.

1. After the first side has printed, the duplexing flapper solenoid opens, which creates a paper path into the duplexing-reverse unit.
2. After the paper has fully entered the duplexing-reverse unit, the duplexing-reverse motor reverses and directs the paper into the duplexing-feed unit.
3. The duplexing re-pickup motor and duplexing feed motor move the paper into the duplexing re-pickup unit.
4. To align the paper with the toner image on the ITB, the duplexing re-pickup motor stops and the paper pauses.
5. The paper re-enters the paper path, and the second side prints.

## Duplex pickup operation

The product has the following two duplex-media-feed modes depending on the media sizes:

- One-sheet mode: Prints one sheet that is printed on two sides in one duplex print operation
- Two-sheet mode: Prints two sheets that are printed on two-sides in one duplex print operation (maximum paper size is A4)

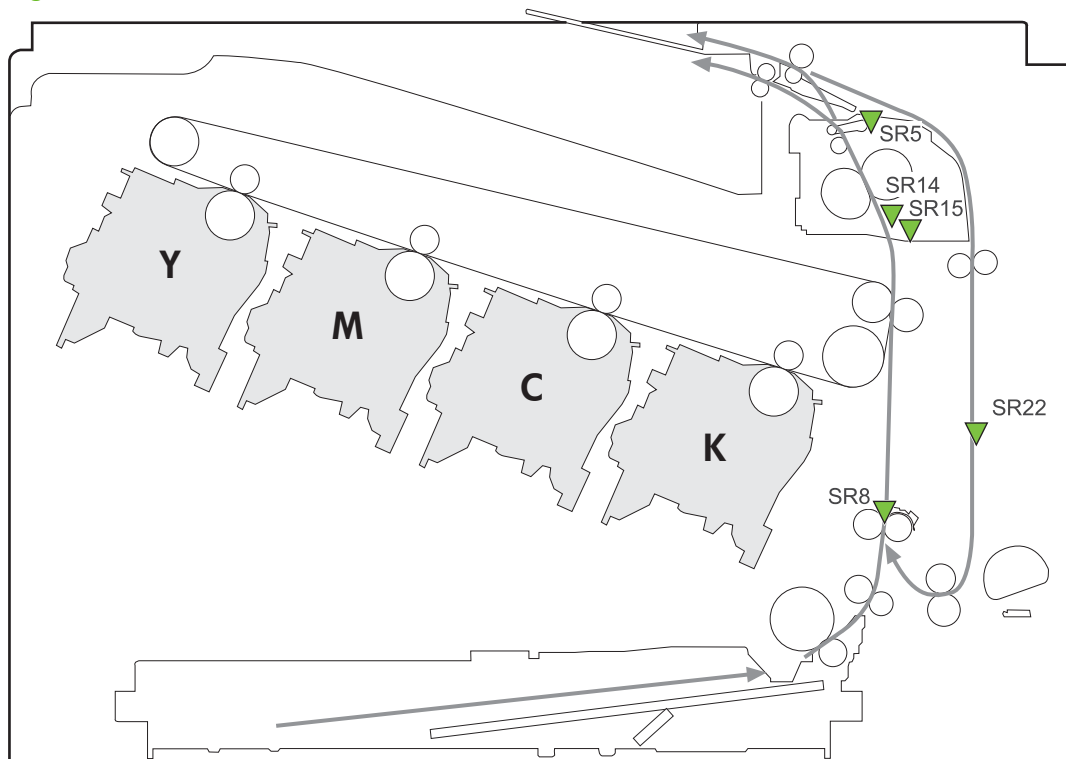
The formatter specifies the duplex-media-feed mode.

## Jam detection

The product uses the following sensors to detect the paper as it moves through the paper path and to report to the DC controller if the paper has jammed.

- Fuser (fixing) delivery sensor (SR5)
- TOP (top of page) sensor (SR8)
- Loop sensor 1 (SR14)
- Loop sensor 2 (SR15)
- Duplex re-pickup sensor (SR22)

**Figure 5-43** Jam detection sensors



The product determines that a jam has occurred if one of these sensors detects paper at an inappropriate time. The DC controller stops the print operation and notifies the formatter.

**Table 5-14** Jams that the product detects

Jam	Description
Pickup delay jam 1	<p><b>Cassette pickup:</b> The TOP sensor does not detect the leading edge of the paper within a specified period after the cassette pickup solenoid has turned on.</p> <p><b>Multipurpose tray pickup:</b> The TOP sensor does not detect the leading edge of the paper within a specified period after the multipurpose tray solenoid has turned on.</p>
Pickup stationary jam	The TOP sensor does not detect the trailing edge of the paper within a specified time from when it detects the leading edge.
Fuser delivery delay jam	The fuser delivery paper-feed sensor does not detect the leading edge of the paper within a specified period after the TOP sensor detects the leading edge.


**Table 5-14 Jams that the product detects (continued)**

Jam	Description
Fuser delivery stationary jam	The fuser delivery paper-feed sensor does not detect the trailing edge of the paper within a specified period after it detects the leading edge.
Wrapping jam	After detecting the leading edge of the paper, the fuser delivery paper-feed sensor detects the absence of paper, and it has not yet detected the trailing edge.
Residual paper jam	One of the following sensors detects paper presence during the initialization sequence: <ul style="list-style-type: none"><li>● Fuser delivery paper-feed sensor</li><li>● TOP sensor</li><li>● Loop sensor 1</li><li>● Loop sensor 2</li></ul>
Door open jam	A door is open while paper is moving through the product.
Duplexing re-pickup jam 1	The duplex re-pickup sensor does not detect the leading edge of the paper within a specified period after the media reverse operation starts in the duplex reverse unit.
Duplexing re-pickup jam 2	The TOP sensor does not detect the leading edge of the paper within a specified period after the paper is re-picked.

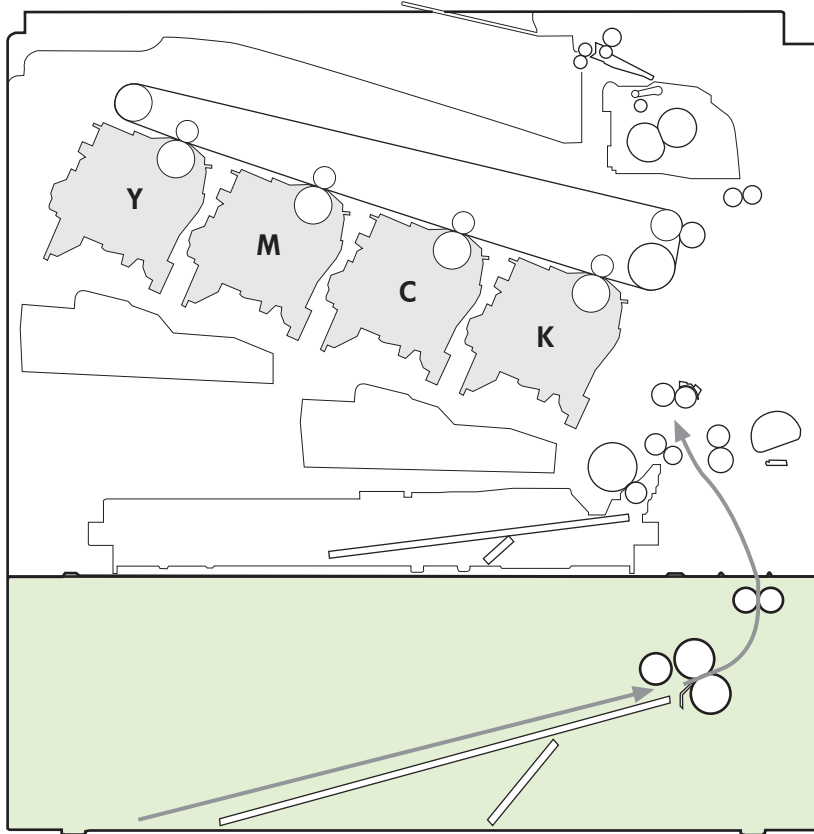
After a jam, some sheets of paper might remain inside the product. If the DC controller detects residual paper after a door closes or after the product is turned on, the product automatically clears itself of those residual sheets.

## Optional paper feeder

The 1x500-sheet paper feeder is optionally installed at bottom of the printer. The paper feeder picks up the print media and feeds it to the printer.

 **NOTE:** These optional trays are *not* identical to the main cassette (Tray 2).

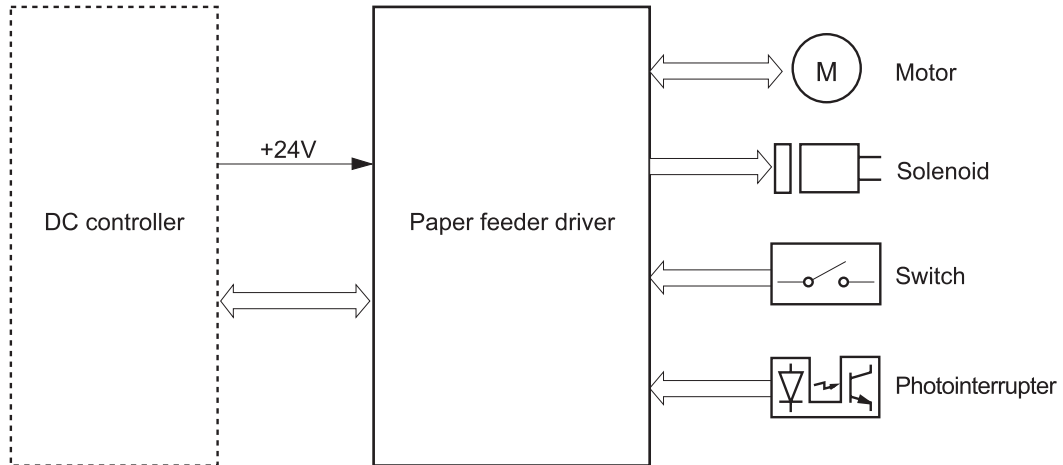
**Figure 5-44** Optional paper feeder



The paper-deck drivers contain a microcomputer and control the paper feeder. The paper-deck drivers receive commands from the DC controller. If the DC controller is unable to communicate with a paper-deck driver, it notifies the formatter that the optional paper feeders is not connected correctly.



**Figure 5-45** Signals for the paper feeder



The input trays contain several motors, solenoids, sensors, and switches, as described in the following table.

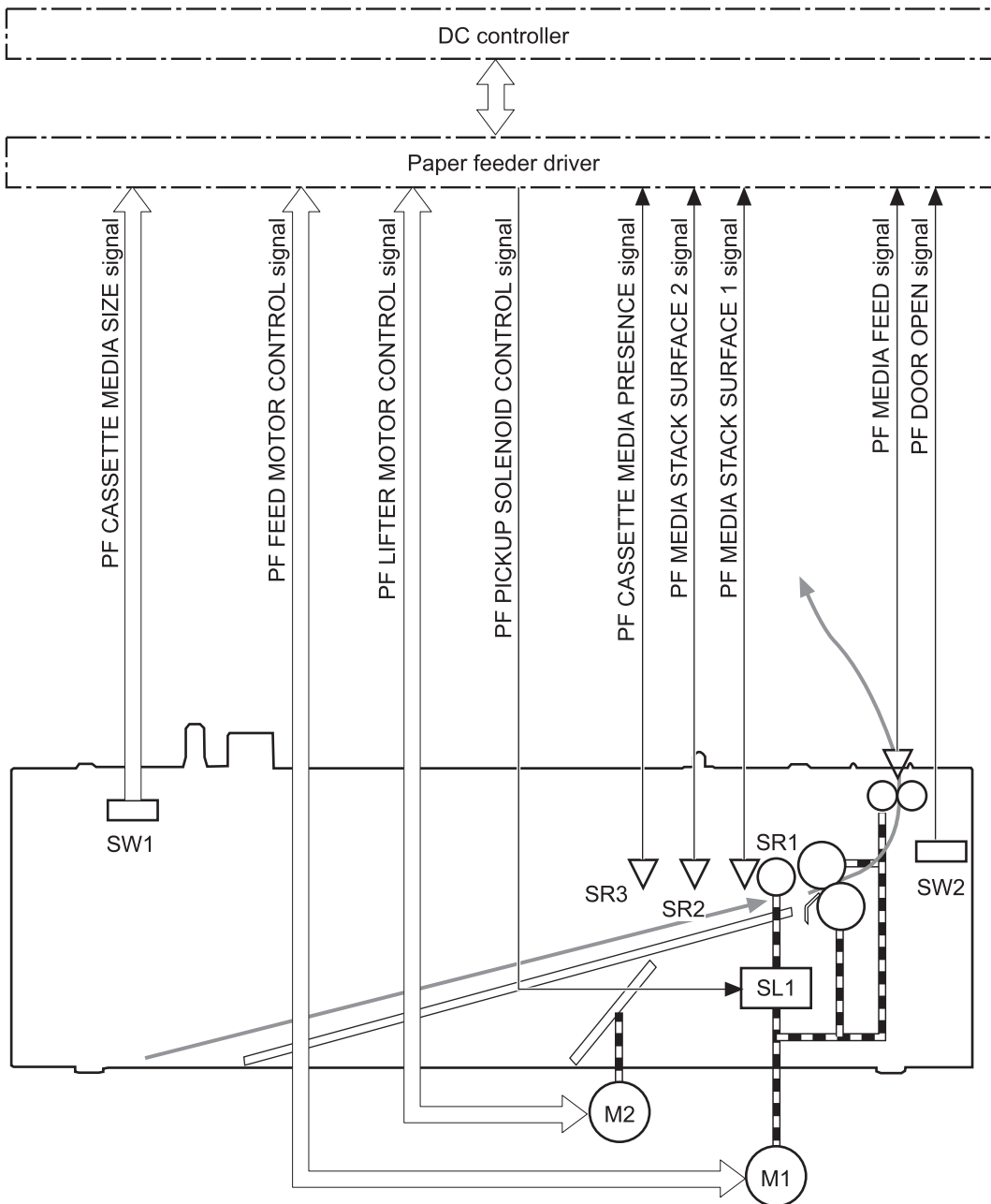
**Table 5-15** Electrical components for the paper feeder

Component type	Abbreviation	Component name
Motors	M1	Paper feeder motor
	M2	Paper feeder lift motor
Solenoids	SL1	Paper feeder pickup solenoid
Sensors	SR1	Paper-feeder media-stack surface sensor 1
	SR2	Paper-feeder media-stack surface sensor 2
	SR3	Paper-feeder cassette media-presence sensor
	SR4	Paper-feeder media-feed sensor
Switches	SW1	Paper feeder cassette media-size switch
	SW2	Paper-feeder door switch

## Paper-feeder pickup and feed operation

The paper feeder picks up one sheet from the paper-feeder cassette and feeds it to the product.

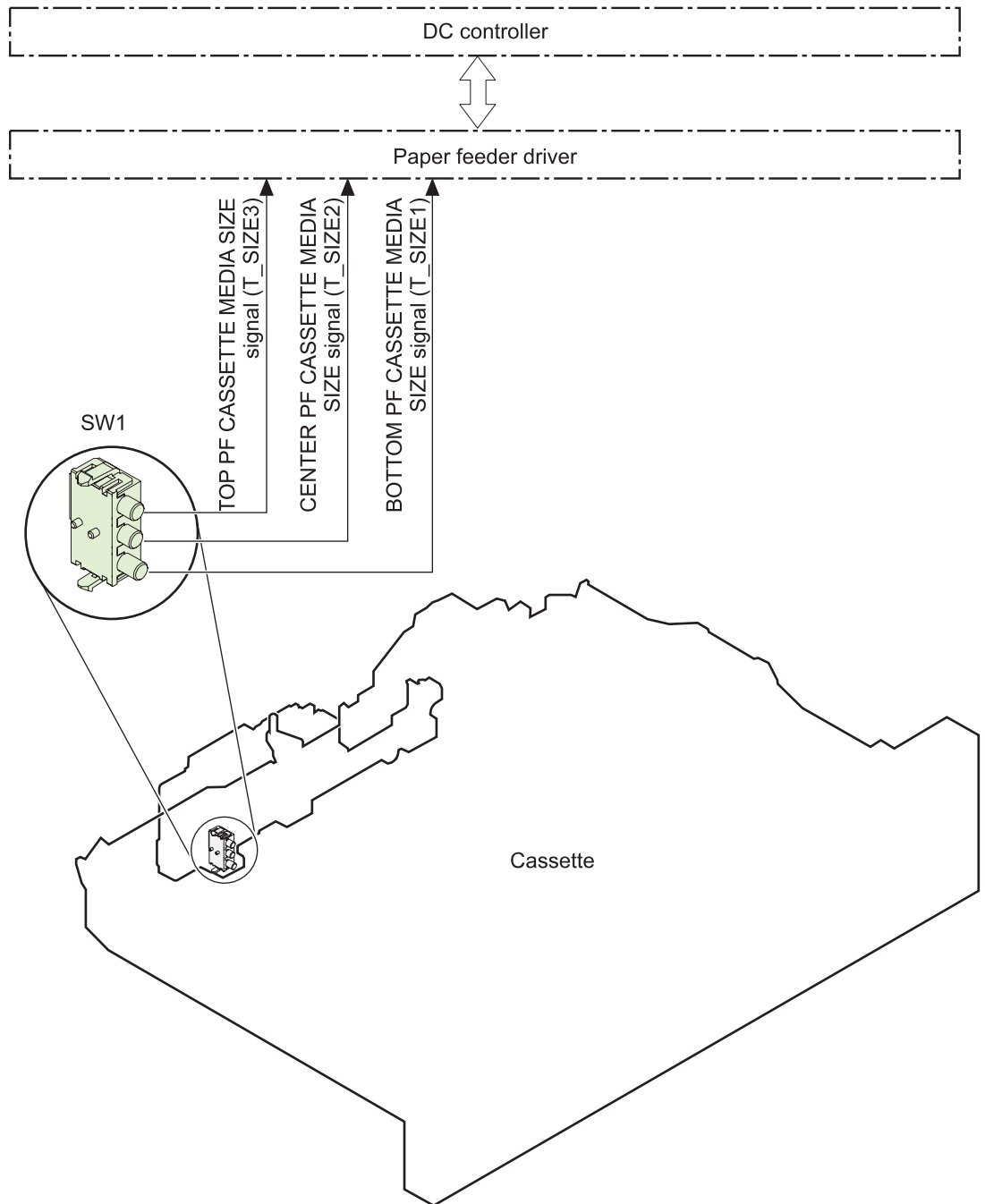
**Figure 5-46** Paper-feeder pickup and feed operation



## Paper-size detection and cassette-presence detection

The paper-feeder cassette media-size switch (SW1) detects the size of paper loaded in the paper-feeder cassette. The paper-feeder driver determines the media size by monitoring the combination of the switches.

**Figure 5-47** Paper size detection



Paper size	Paper-feeder cassette media-size switch settings		
	Top switch	Center switch	Bottom switch
Universal	ON	ON	ON

Paper size	Paper-feeder cassette media-size switch settings		
	Top switch	Center switch	Bottom switch
A5	ON	OFF	OFF
B5	OFF	ON	ON
Executive	ON	OFF	ON
Letter	OFF	ON	OFF
A4	OFF	OFF	ON
Legal	ON	ON	OFF
No cassette	OFF	OFF	OFF

The paper-feeder cassette media size switch (SW1) detects whether the paper-feeder cassette is installed correctly. The paper-feeder driver determines if a cassette is absent when all three switches are turned off. The paper-feeder driver determines a cassette presence when one of the switches is turned on.

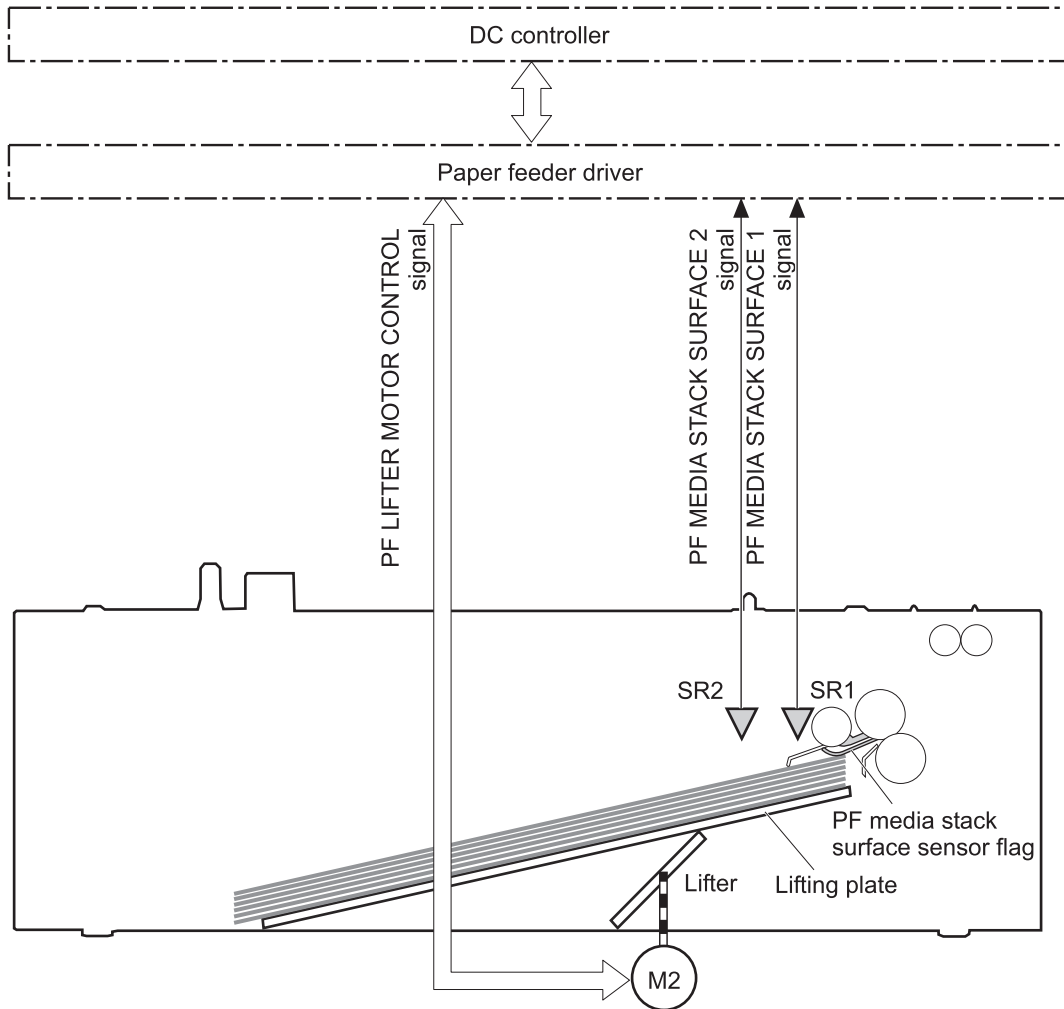
## Paper-feeder cassette lift operation

The cassette lift operation keeps the stack surface of paper at a specified height to maintain stable media feeding. The paper-feeder driver controls the paper-feeder lifter motor (M2) and monitors the paper-feeder media stack surface sensors (SR1, SR2) to adjust the stack height when the printer is turned on, when the printer recovers from sleep mode, when the paper-feeder cassette is installed or as needed during a print operation. The paper feeder has two paper-feeder media-stack surface sensors. The paper-feeder media stack surface sensor 1 detects the stack height during a print operation. The paper-feeder media-stack surface sensor 2 detects the stack height when the printer is turned on, when the

printer recovers from sleep mode and when the paper-feeder cassette is installed. The operational sequence of the lift operation is as follows:

1. The paper-feeder driver rotates the paper-feeder lifter motor to lift the lifting plate.
2. The paper-feeder driver stops the paper-feeder lifter motor when the paper-feeder media-stack surface sensor 2 detects the stack surface.
3. The paper-feeder driver rotates the lifter motor again when paper-feeder media stack surface 1 detects that the media surface is lowered during a print operation.

**Figure 5-48** Paper-feeder cassette lift



The paper-feeder driver notifies the formatter if either of the paper-feeder media-stack surface sensors fails to detect the stack surface within a specified period from when a lift-up operation starts.

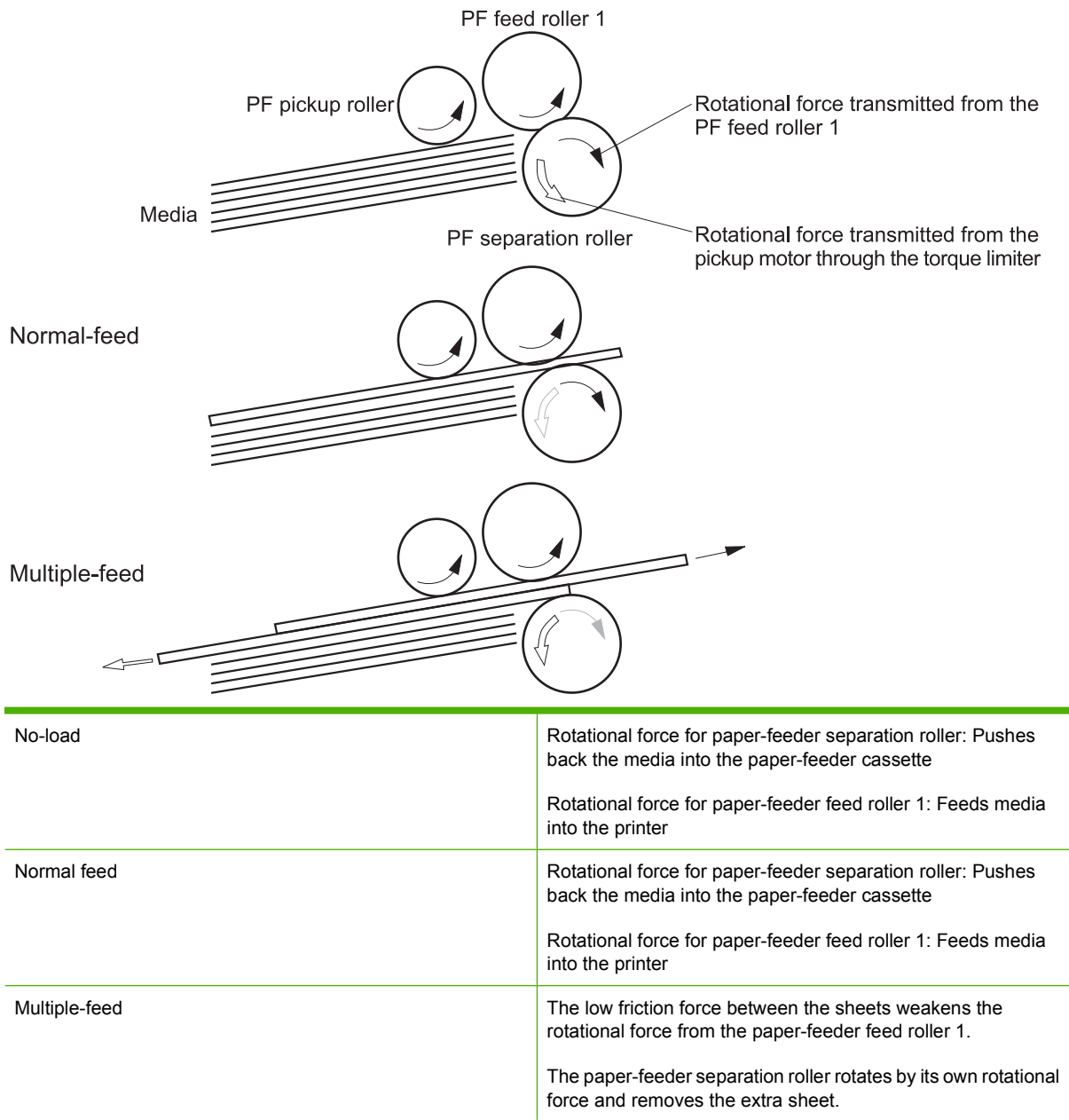
## Paper-feeder presence detection

The paper-feeder cassette media-presence sensor (SR3) detects whether the paper is present in the paper-feeder cassette.

## Paper-feeder multiple feed prevention

The paper-feeder uses a separation roller to prevent multiple sheets of paper from entering the printer. The separation roller prevents multiple feeds of paper by allowing the paper-feeder separation roller to rotate in the same direction as the paper-feeder feed roller 1. The paper-feeder separation roller is equipped with the torque limiter. If multiple sheets of paper are picked up, the torque limiter takes control of the paper-feeder separation roller, and pushes the extra sheets back to the paper-feeder cassette. That way, only the top sheet is fed to the printer.

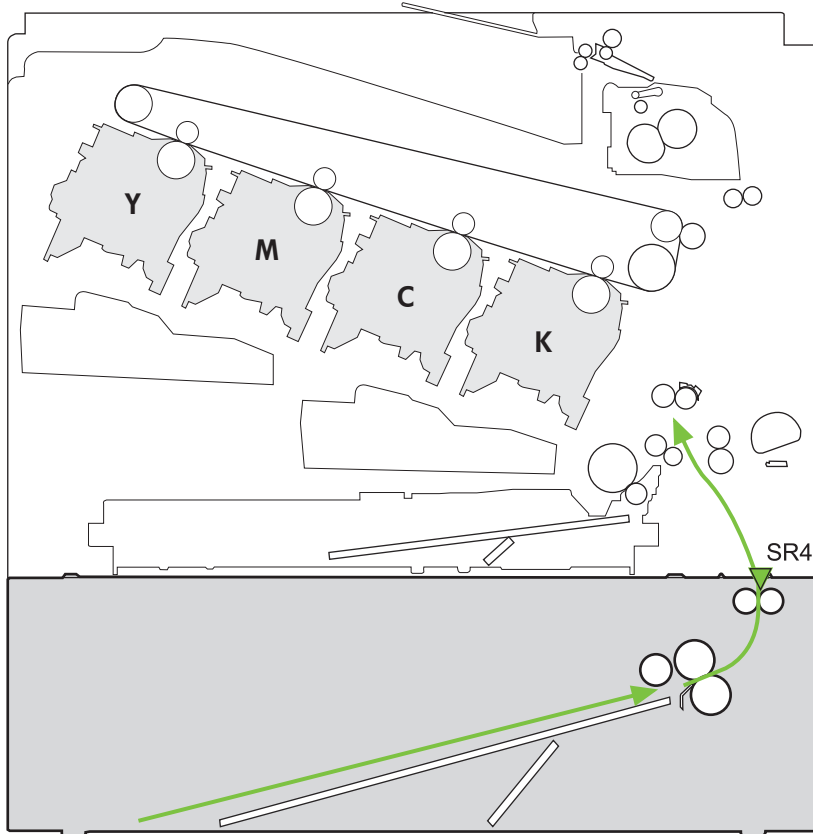
**Figure 5-49** Paper-feeder multiple feed prevention



## Paper feeder jam detection

The paper feeder uses the paper-feeder media-feed sensor (SR4) to detect the presence of paper and to check whether paper has jammed.

**Figure 5-50** Jam detection



The paper-feeder driver identifies a jam if the sensor detects paper at a specified timing stored in the paper-feeder driver. The paper-feeder driver stops printing and notifies the formatter through the DC controller of the jam. The paper feeder detects the following jams:

- Pickup delay jam: The paper-feeder media-feed sensor does not detect the leading edge of media within a specified period from when the paper-feeder pickup solenoid is turned on.
- Pickup stationary jam: The paper-feeder media-feed sensor does not detect the trailing edge of media within a specified time period from when the sensor detects the leading edge.





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# 6 Removal and replacement

- [Introduction](#)
- [Removal and replacement strategy](#)
- [Electrostatic discharge](#)
- [Required tools](#)
- [Before performing service](#)
- [After performing service](#)
- [Post-service test](#)
- [DC controller connector locations](#)
- [Parts removal order](#)
- [Customer self repair \(CSR\) components](#)
- [External panels, covers, and doors](#)
- [Internal assemblies](#)
- [Optional paper feeder assembly \(Tray 3\)](#)

## Introduction

This chapter describes the removal and replacement of field-replaceable units (FRUs) only.

Replacing FRUs is generally the reverse of removal. Occasionally, notes and tips are included to provide directions for difficult or critical replacement procedures.

HP does *not* support repairing individual subassemblies or troubleshooting to the component level.

Note the length, diameter, color, type, and location of each screw. Be sure to return each screw to its original location during reassembly.

Incorrectly routed or loose wire harnesses can interfere with other internal components and can become damaged or broken. Frayed or pinched harness wires can be difficult to find. When replacing wire harnesses, always use the provided wire loops, lance points, or wire-harness guides and retainers.

## Removal and replacement strategy

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⚠ **WARNING!** Turn the product off, wait 5 seconds, and then remove the power cord before attempting to service the product. If this warning is not followed, severe injury can result, in addition to damage to the product. The power must be on for certain functional checks during troubleshooting. However, disconnect the power supply during parts removal.

Never operate or service the product with the protective cover removed from the laser/scanner assembly. The reflected beam, although invisible, can damage your eyes.

The sheet-metal parts can have sharp edges. Be careful when handling sheet-metal parts.

⚠ **CAUTION:** Do not bend or fold the flat flexible cables (FFCs) during removal or installation. Also, do not straighten pre-folds in the FFCs. You *must* fully seat all FFCs in their connectors. Failure to fully seat an FFC into a connector can cause a short circuit in a PCA.


🔧 **NOTE:** To install a self-tapping screw, first turn it counterclockwise to align it with the existing thread pattern, and then carefully turn it clockwise to tighten. Do not overtighten. If a self-tapping screw-hole becomes stripped, repair the screw-hole or replace the affected assembly.

💡 **TIP:** For clarity, some photos in this chapter show components removed that would not be removed to service the product. If necessary, remove the components listed at the beginning of a procedure before proceeding to service the product.

---

## Electrostatic discharge

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⚠ **CAUTION:**  Some parts are sensitive to electrostatic discharge (ESD). Look for the ESD reminder when removing product parts. Always perform service work at an ESD-protected workstation or mat, or use an ESD strap. If an ESD workstation, mat, or strap is not available, ground yourself by touching the sheet-metal chassis *before* touching an ESD-sensitive part.

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

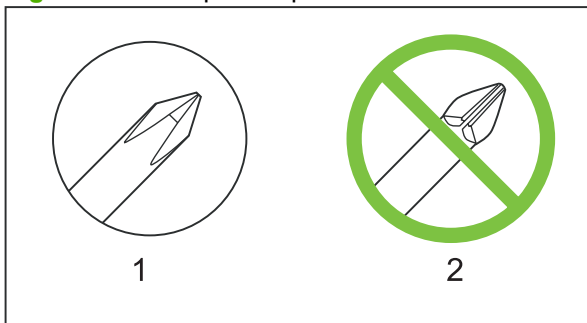
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## Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152-mm (6-inch) shaft length
- Small flat blade screwdriver
- Needle-nose pliers
- ESD mat or ESD strap (if one is available)
- Penlight (optional)

△ **CAUTION:** Always use a Phillips screwdriver (callout 1). Do not use a pozidrive screwdriver (callout 2) or any motorized screwdriver. These can damage screws or screw threads.

**Figure 6-1** Phillips and pozidrive screwdriver comparison



## Before performing service

- Remove all media from the product.
- Turn off the power using the power switch.
- Unplug the power cable and interface cable or cables.
- Place the product on an ESD workstation or mat, or use an ESD strap (if one is available). If an ESD workstation, mat, or strap is not available, ground yourself by touching the sheet-metal chassis *before* touching an ESD-sensitive part.
- Remove the print cartridges. See [Print cartridges on page 170](#).
- Remove the tray cassette or cassettes. See [Tray cassette on page 178](#).
- If the optional paper feeder is installed, separate the product from the feeder.

△ **WARNING!** The product is heavy. Do not attempt to separate the product from the optional paper feeder by yourself. Three people should lift the product off of the feeder.

## After performing service

- Plug in the power cable.
- Reinstall the print cartridges.
- Reinstall the tray cassette or cassettes.
- If the optional paper feeder was installed, place the product on the feeder.

⚠ **WARNING!** The product is heavy. Do not attempt to separate the product from the optional paper feeder by yourself. Three people should lift the product off of the feeder.

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## Post-service test

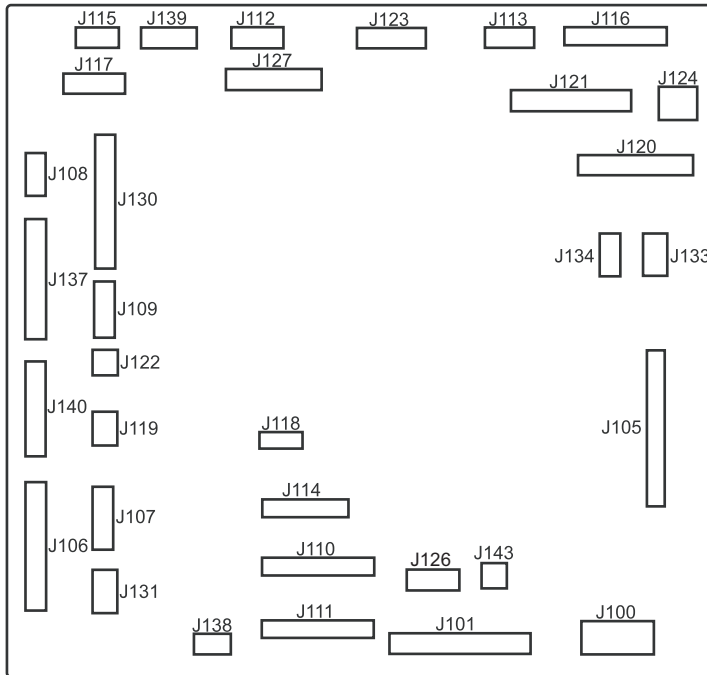
Perform the following test to verify that the repair or replacement was successful.

### Print-quality test

1. Verify that you have completed the necessary reassembly steps.
2. Make sure that the tray contains clean, unmarked paper.
3. Attach the power cord and interface cable or interface cables, and then turn on the product.
4. Verify that the expected startup sounds occur.
5. Print a configuration page, and then verify that the expected printing sounds occur.
6. Print a demo page, and then verify that the print quality is as expected.
7. Send a print job from the host computer, and then verify that the output meets expectations.
8. If necessary, restore any customer-specified settings.
9. Clean the outside of the product with a damp cloth.

# DC controller connector locations

**Figure 6-2** DC controller connector locations



**Table 6-1** DC controller connectors

<b>J100:</b> 24 v from low-voltage power supply (LVPS) and interlock	<b>J114:</b> HVPS lower	<b>J126:</b> memory tag connector
<b>J101:</b> LVPS	<b>J115:</b> fuser sensors	<b>J127:</b> pre-exposure LEDs (rear), SR17, SL1
<b>J105:</b> interconnect board (ICB)	<b>J116:</b> HVPS upper	<b>J130:</b> registration density (RD) sensors (front and rear)
<b>J106:</b> 500-sheet feeder, developing home position, laser motors	<b>J117:</b> fuser motor	<b>J131:</b> pickup motor
<b>J107:</b> duplex sensor, tray 1 solenoid, paper present sensor	<b>J118:</b> 5 v interlock	<b>J133:</b> not used
<b>J108:</b> environmental sensor	<b>J119:</b> LVPS fan	<b>J134:</b> not used
<b>J109:</b> duplex clutch, overhead transparency (OHT) in, top-of-page sensor	<b>J120:</b> drum motor 1 and drum motor 2	<b>J137:</b> toner collection unit (TCU) full, TCU motor, toner level detection
<b>J110:</b> YM laser	<b>J121:</b> drum motor 3, drum position 1,2,3	<b>J138:</b> 24 v to HVPS lower
<b>J111:</b> CK laser	<b>J122:</b> OHT out	<b>J139:</b> fuser sensors
<b>J112:</b> pre-exposure LEDs (front)	<b>J123:</b> pressure release, bin full, fuser delivery	<b>J140:</b> lift motor, tray present, stack surface
<b>J113:</b> 24 v to high-voltage power supply (HVPS) upper	<b>J124:</b> not used	<b>J143:</b> 24 v present from LVPS

# Parts removal order

Figure 6-3 Parts removal order (1 of 2)

Component	Remove	Remove	Remove	Remove	Remove	Remove
Print cartridges						
Toner collection unit (TCU)						
Formatter						
Memory DIMMS						
Fuser						
Tray 1 pickup roller	Roller cover					
Tray 2 pickup and separation rollers						
Tray 3 pickup feed, and separation rollers						
Transfer roller						
Front-door assy						
Right-door assy						
Right-rear cover						
Left Cover						
Control panel						
Right-front cover	Control panel					
Front-top cover	Left cover	Control panel				
Rear cover	Right-rear cover	Left cover				
Upper-rear cover	Right-rear cover	Left cover	Rear cover			
Rear-top cover	Left cover	Control panel	Front -top cover	Rear cover and upper-rear cover		
Secondary transfer assy (T2)						
Intermediate transfer belt (ITB)						
Residual-toner feed motor	TCU	ITB	Left cover			
Registration density (RD) sensor	Right-rear cover	Left cover	Rear cover and upper-rear cover	T2	ITB	
Power-supply (PS) fan and fan duct	Right-rear cover	Left cover	Rear cover and upper-rear cover			
Interconnect board (ICB)	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover		
DC controller (DCC)	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	
Low-voltage power supply (LVPS)	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	
Registration assy	Right-rear cover	Left cover	Rear cover and upper-rear cover	T2	ITB	RD Sensor
High-voltage power supply (HVPS)-lower	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	LVPS
High-voltage power supply (HVPS)-upper	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	DCC
Developing-disengagement motor	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	LVPS
Pickup motor	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	LVPS
Lifter-drive assy	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	LVPS
Cassette-pickup drive assy	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	LVPS
Cassette-pickup assy	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	Registration assy	ICB
Delivery fan, cartridge fan and environmental sensor	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	LVPS
Laser scanner (Y/M)	TCU	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB
Laser Scanner (C/Bk)	TCU	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB
Drum Motor 1	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	LVPS	HVPS-upper
Drum motor 2 or drum motor 3	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	LVPS	HVPS-upper
Main-drive assy	Formatter	T2	ITB	Right-rear cover	Left cover	Rear cover and upper-rear cover
Fuser motor	Formatter	Right-rear cover	Left cover	Rear cover and upper-rear cover	ICB	DCC and tray
Fuser-drive assy	Formatter	Fuser	T2	Right-rear cover	Left cover	Control panel
Delivery assy	Fuser	T2	Right-rear cover	Left cover	Control panel	Rear cover and upper-rear cover
Duplex-drive assy	Fuser	T2	Right-rear cover	Left cover	Control panel	Rear cover and upper-rear cover

**Figure 6-4** Parts removal order (2 of 2)

Remove      Remove      Remove      Remove      Remove      Remove      Remove      Remove      Remove

PS fan and fan duct

LVPS

HVPS-lower

HVPS-lower

HVPS-lower

HVPS-lower

LVPS      HVPS-lower      Cassette pick-up drive Assy

HVPS-lower

LVPS      HVPS-lower

LVPS      HVPS-lower      Lifter-drive Assy      Laser/scanner Assy (Y/M)

PS fan and fan duct      ICB      DCC and tray      LVPS      HVPS-lower and upper

LVPS      HVPS-upper

Rear cover and upper-rear cover      Front-top cover      Rear-top cover      PS fan and fan duct      ICB      DCC and tray      LVPS      HVPS-upper      Main-drive Assy

Front-top cover      Rear-top cover      PS fan and fan duct      ICB      LVPS      HVPS-lower and upper      Main-drive Assy      Fuser-drive Assy

Front-top cover      Rear-top cover      PS fan and fan duct      ICB      LVPS      HVPS-lower and upper      Main-drive Assy      Fuser-drive Assy      Delivery Assy

# Customer self repair (CSR) components

## Print cartridges

△ **CAUTION:** If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. *Hot water sets toner into fabric.*

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1. Open the front door. Make sure that the door is completely open.

**Figure 6-5** Remove the print cartridge (1 of 2)



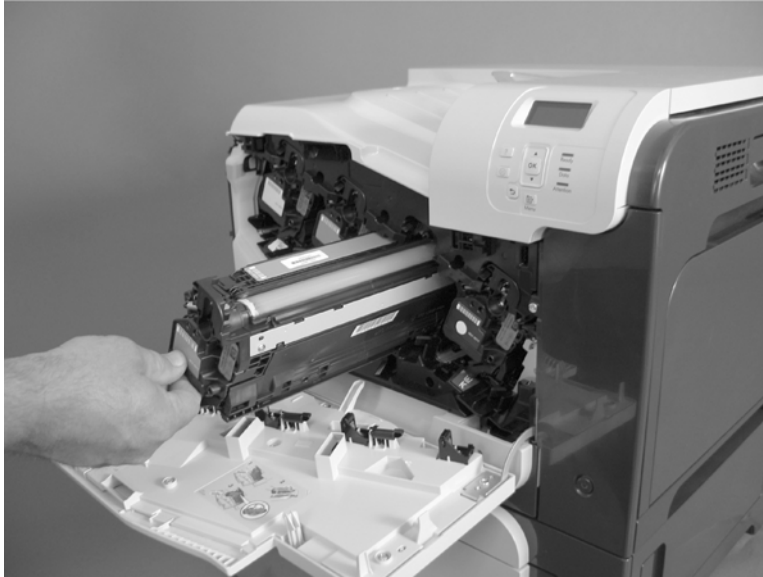


2. Grasp the print-cartridge handle and pull out to remove.

△ **CAUTION:** Do not touch the green roller. Doing so can damage the cartridge. Do not expose the cartridge to strong light. Cover the cartridge with a sheet of paper to protect it from light.

💡 **Reinstallation tip** Align the print cartridge with its slot and insert the print cartridge until it clicks into place.

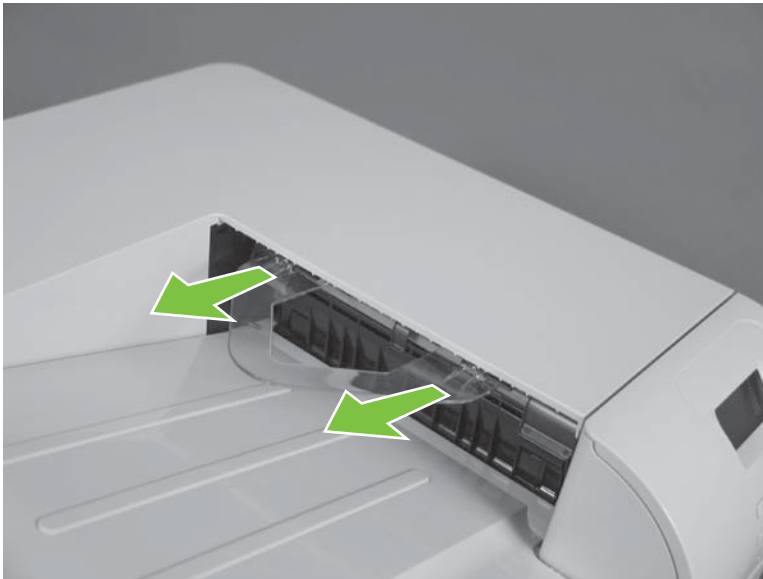
**Figure 6-6** Remove the print cartridge (2 of 2)



## Duplex-reverse guide

1. Grasp the duplex-reverse guide and pull it away from the product to release it.

**Figure 6-7** Remove the duplex-reverse guide (1 of 2)




2. Remove the guide.

**Figure 6-8** Remove the duplex-reverse guide (2 of 2)



## Toner-collection unit


 **NOTE:** The toner-collection unit is designed for a single use. Do not try to empty the toner-collection unit and reuse it. Doing so could cause toner to spill inside the product and result in reduced print quality. For recycling information, see the product user guide.

1. Open the front door. Make sure that the door is completely open.

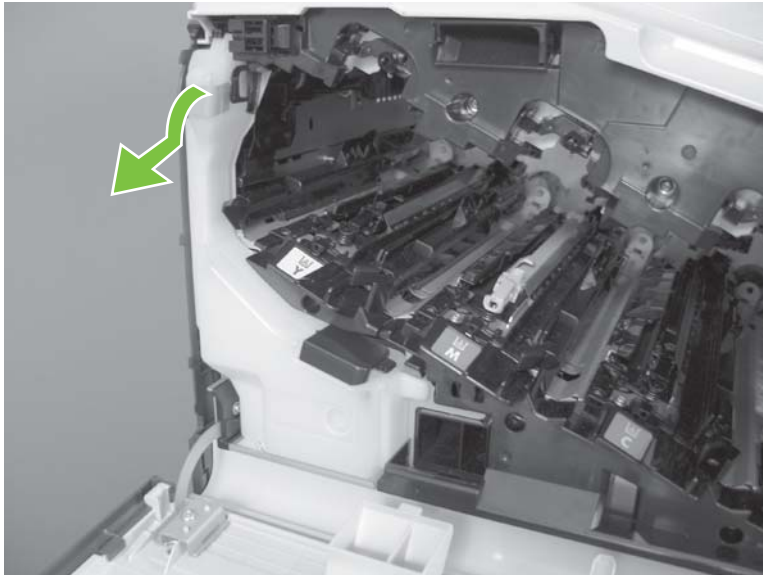
**Figure 6-9** Remove the toner-collection unit (1 of 4)



2. Grasp the blue label at the top of the toner-collection unit and remove it from the product.

 **Reinstallation tip** Insert the bottom of the replacement unit into the product first and then push the top of the unit until it clicks into place. If the toner-collection unit is installed incorrectly, the front door will not close completely.

**Figure 6-10** Remove the toner-collection unit (2 of 4)

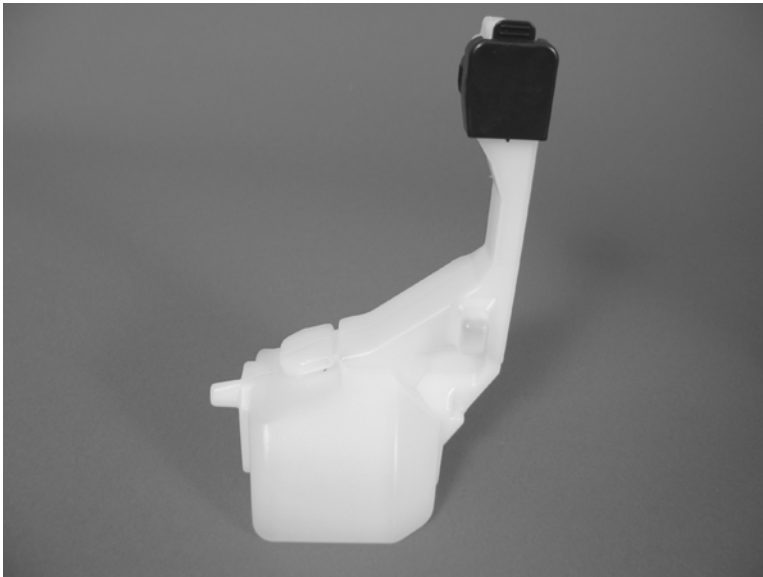


3. To prevent toner spills, place the blue cap (callout 1) over the blue opening at the top of the unit (callout 2).

**Figure 6-11** Remove the toner-collection unit (3 of 4)




**Figure 6-12** Remove the toner-collection unit (4 of 4)



## Formatter PCA



**CAUTION:**  ESD sensitive component.

1. Turn the product off and disconnect the power and interface cable or interface cables.
2. Unscrew the formatter thumb screws, and then firmly pull the formatter from the product. Place the formatter on a clean, flat, grounded surface.

**Figure 6-13** Remove the formatter



**NOTE:** When reinstalling the formatter, push firmly on the right side to make sure the formatter is seated.


## Memory DIMM

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 175](#).

### Remove the memory DIMM



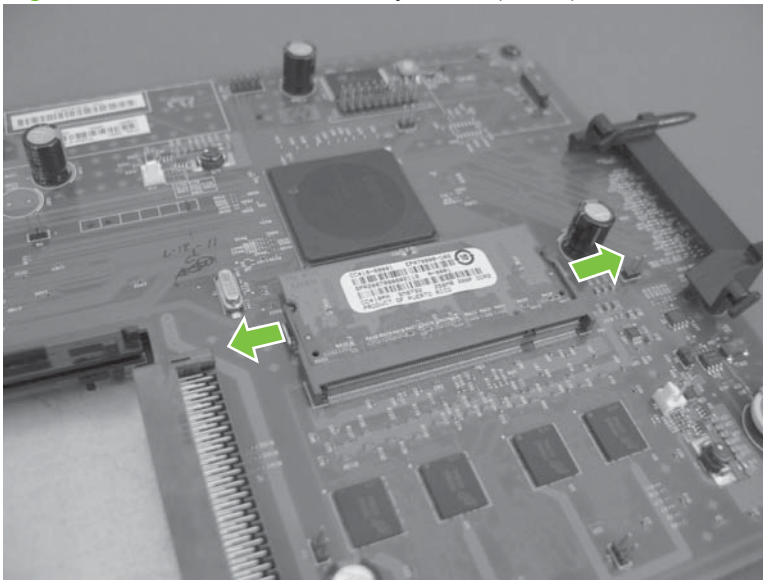
**CAUTION:**  ESD sensitive component.




**NOTE:** See [Enable memory for Windows on page 177](#) after installing a new memory DIMM.

1. Place the formatter on a clean, flat, grounded surface, and then spread the latches apart on each side of the DIMM slot.

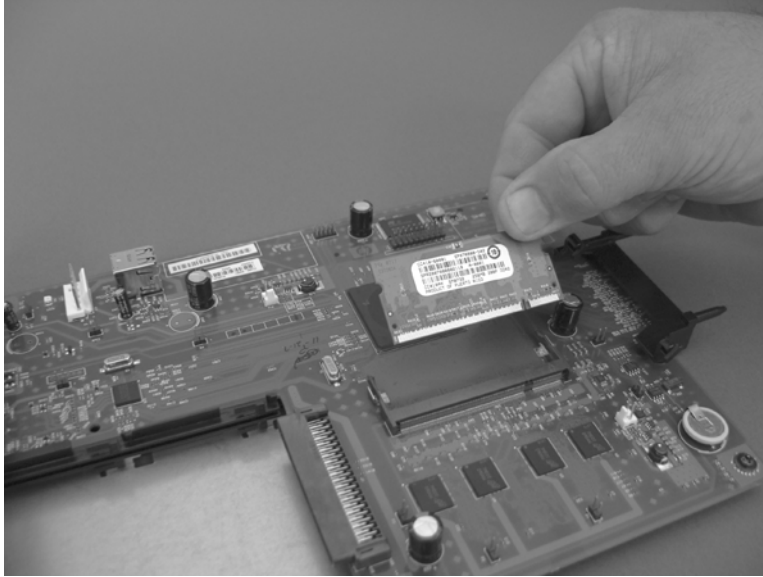
**Figure 6-14** Remove the memory DIMM (1 of 2)



2. Lift the DIMM up at an angle, and pull it out.

 **Reinstallation tip** Hold the DIMM by the edges. Align the notch on the DIMM with the bar in the DIMM slot at an angle and firmly press the DIMM into the slot until it is fully seated. When installed correctly, the metal contacts are not visible. Push down on the DIMM until both latches engage the DIMM.

**Figure 6-15** Remove the memory DIMM (2 of 2)




### Enable memory for Windows

Use the following procedure to enable the memory if you are installing a new DIMM.

1. **Windows XP, Windows Server 2003, and Windows Server 2008 (using the default Start menuview):** Click **Start**, click **Settings**, and then click **Printers and Faxes**.  
**-or-**  
**Windows XP, Windows Server 2003, and Windows Server 2008 (using the Classic Start menuview):** Click **Start**, click **Settings**, and then click **Printers**.  
**-or-**  
**Windows Vista:** Click **Start**, click **Control Panel**, and then in the category for **Hardware and Sound** click **Printer**.
2. Right-click the driver icon, and then select **Properties**.
3. Click the **Device Settings** tab.
4. Expand the area for **Installable Options**.
5. Select the total amount of memory installed in the product.
6. Next to **Automatic Configuration**, select **Update Now**.
7. Click **OK**.

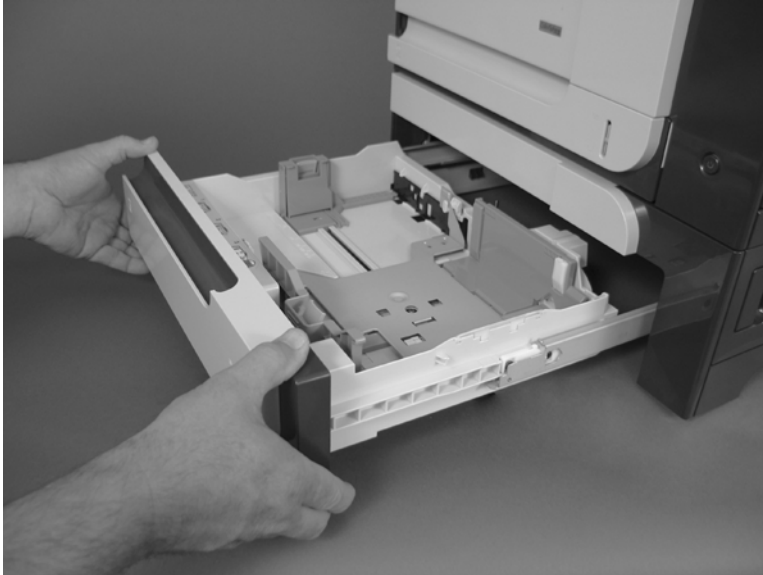
## Tray cassette

 **NOTE:** Use this procedure to remove the Tray 2 or optional Tray 3 cassette.

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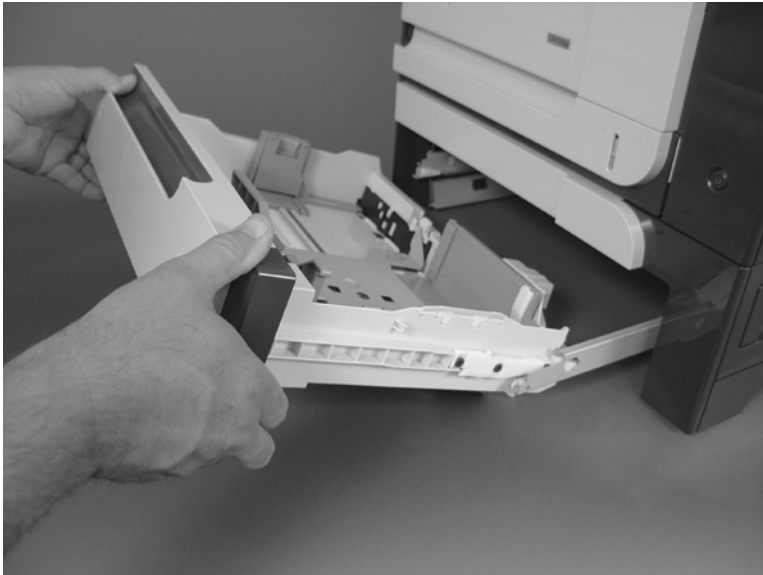
1. Pull the tray straight out of the product until it stops.

**Figure 6-16** Remove the tray cassette (1 of 2)



2. Carefully lift up on the tray to release it, and then remove the tray.

**Figure 6-17** Remove the tray cassette (2 of 2)





## Fuser

△ **CAUTION:** The fuser might be hot. Allow enough time after turning off the product power for the fuser to cool.

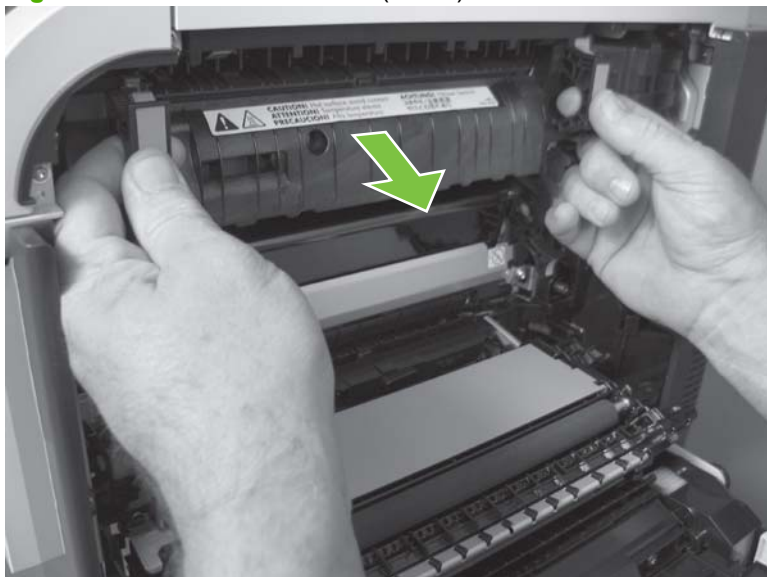
1. Open the right-door assembly.

**Figure 6-18** Remove the fuser (1 of 2)



2. Grasp the handles and squeeze the blue release levers.  
Pull the fuser straight out of the product to remove it.

**Figure 6-19** Remove the fuser (2 of 2)



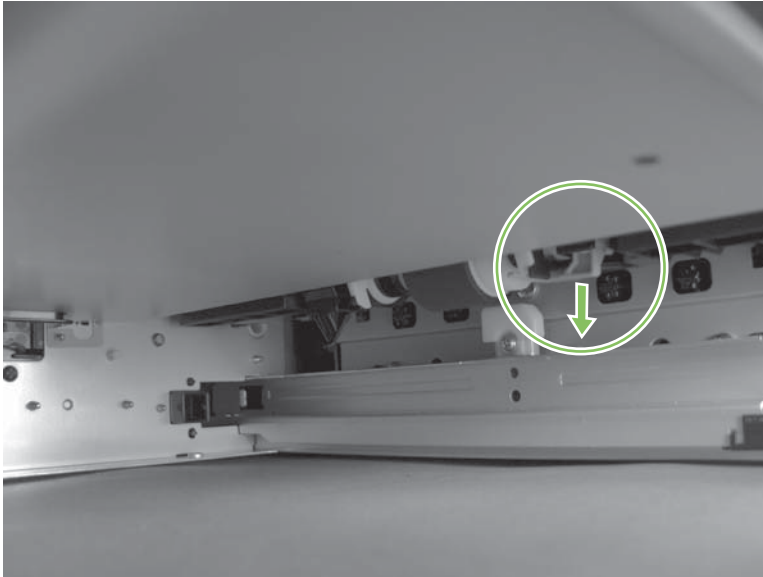
## Pickup roller (Tray 2)

△ **CAUTION:** Do not touch the spongy roller surface unless you are replacing the roller. Skin oils on the roller can cause paper pickup problems.

1. Look up into the Tray 2 cavity (where the cassette would be installed), and pull down to release the blue roller-locking lever.

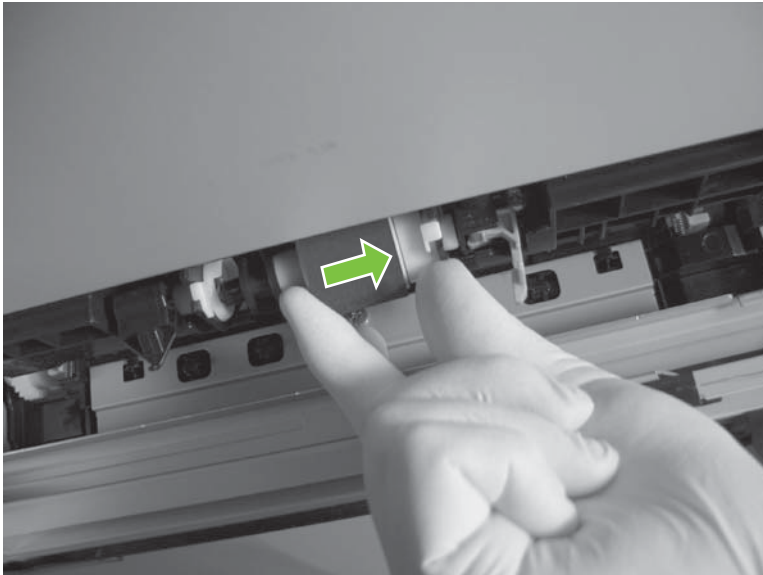
💡 **Reinstallation tip** When the roller is reinstalled, rotate the roller shaft several times to make sure that the shaft correctly engages the drive mechanism. You should hear a click when the shaft engages the drive mechanism.

**Figure 6-20** Remove the pickup roller (Tray 2) (1 of 4)



2. Pull the roller toward the front of the product to release the rear of the roller shaft.

**Figure 6-21** Remove the pickup roller (Tray 2) (2 of 4)




3. Rotate the roller shaft down and away from the product, and then slide the roller toward the rear of the product to release the front of the roller shaft.

**Figure 6-22** Remove the pickup roller (Tray 2) (3 of 4)



4. Remove the pickup roller.

 **Reinstallation tip** Make sure that the roller is orientated correctly when it is reinstalled (the large white collar should be positioned toward the front of the product).

**Figure 6-23** Remove the pickup roller (Tray 2) (4 of 4)



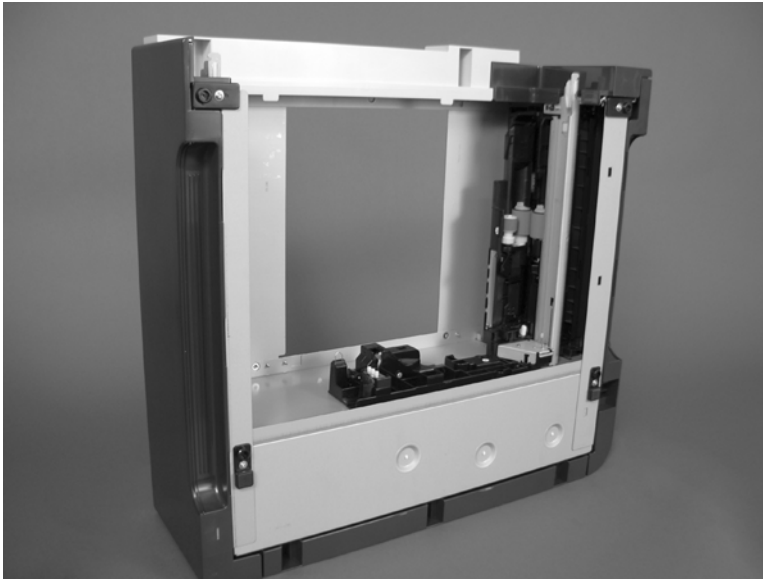
## Pickup and feed rollers (Tray 3)

△ **CAUTION:** Do not touch the spongy roller surface unless you are replacing the roller. Skin oils on the roller can cause paper pickup problems.

1. Locate the Tray 3 pickup and feed rollers.

💡 **TIP:** The feeder is shown front side up in this procedure for clarity. You do not have to separate the product from the feeder to remove these rollers. Remove the cassette, and then reach up into the cavity to remove the rollers.

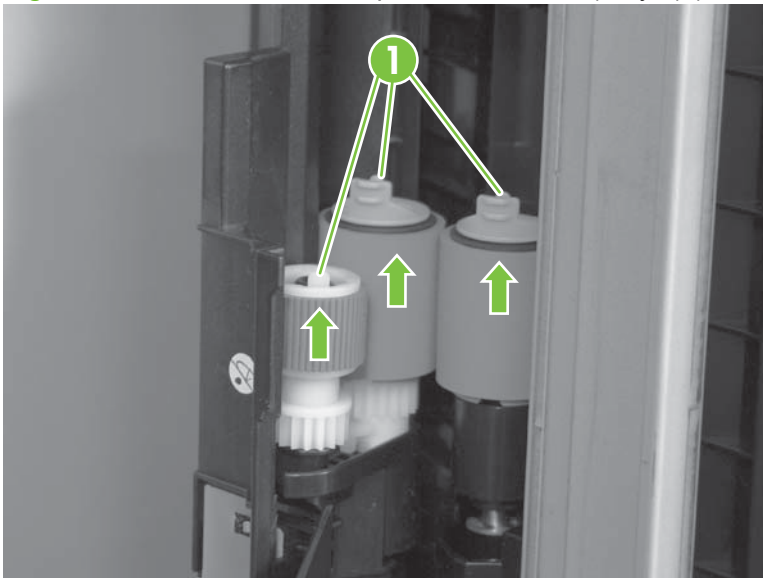
**Figure 6-24** Remove the Pickup and feed rollers (Tray 3) (1 of 2)



2. Release three tabs (callout 1), and then remove the rollers.

💡 **Reinstallation tip** When you reinstall the rollers, make sure that the rollers snap into place.

**Figure 6-25** Remove the Pickup and feed rollers (Tray 3) (2 of 2)



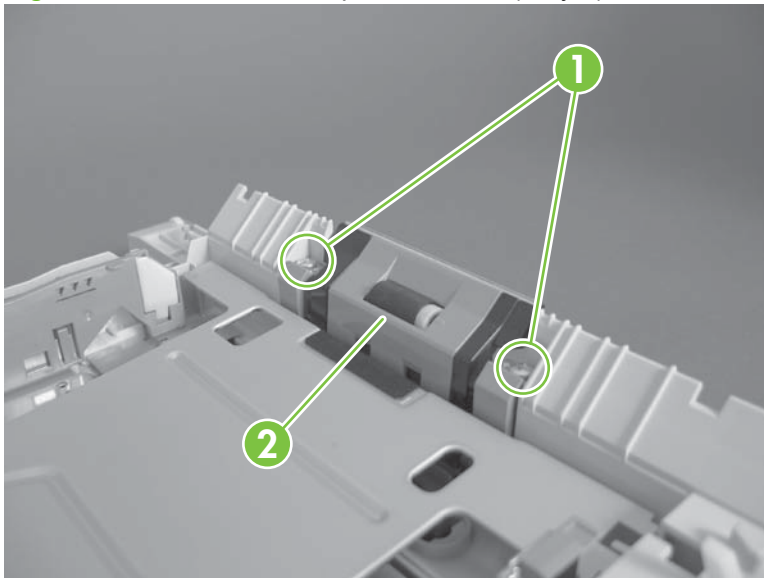
## Separation roller (Tray 2)

△ **CAUTION:** Do not touch the spongy roller surface unless you are replacing the roller. Skin oils on the roller can cause paper pickup problems.

📄 **NOTE:** Remove the Tray 2 cassette if not already removed for service. See [Tray cassette on page 178](#).

Remove two screws (callout 1), and then remove the separation roller assembly (callout 2).

**Figure 6-26** Remove the separation roller (Tray 2)



## Secondary transfer roller

△ **CAUTION:** Do not touch the spongy roller surface unless you are replacing the roller. Skin oils on the roller can cause image quality problems.

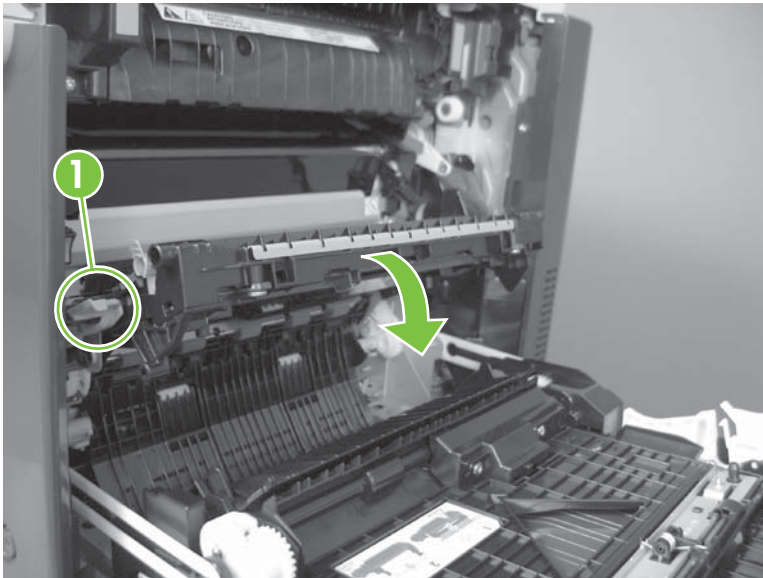
1. Open the right-door assembly.

**Figure 6-27** Remove the transfer roller (1 of 3)



2. Use the blue lever (callout 1) to lower the secondary transfer assembly.

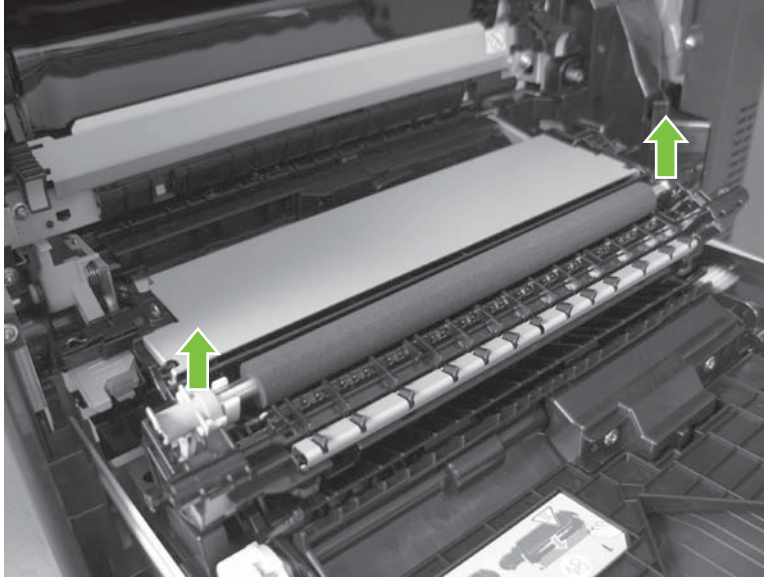
**Figure 6-28** Remove the transfer roller (2 of 3)





3. Grasp the roller shaft collars, and lift the transfer roller off of the product.

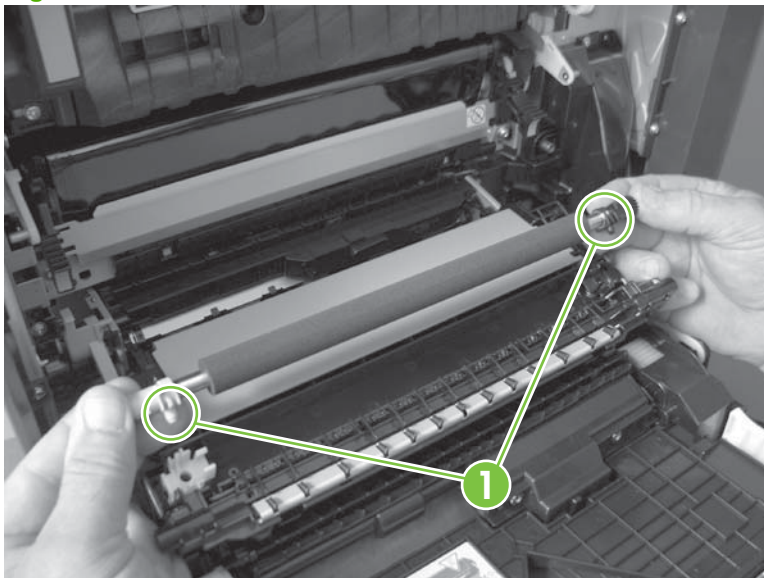
**Figure 6-29** Remove the transfer roller (3 of 3)



### Reinstall the transfer roller

When you reinstall the transfer roller, make sure that the pins on the shaft collars (callout 1) align with the holes in the mounting assembly.

**Figure 6-30** Reinstall the transfer roller

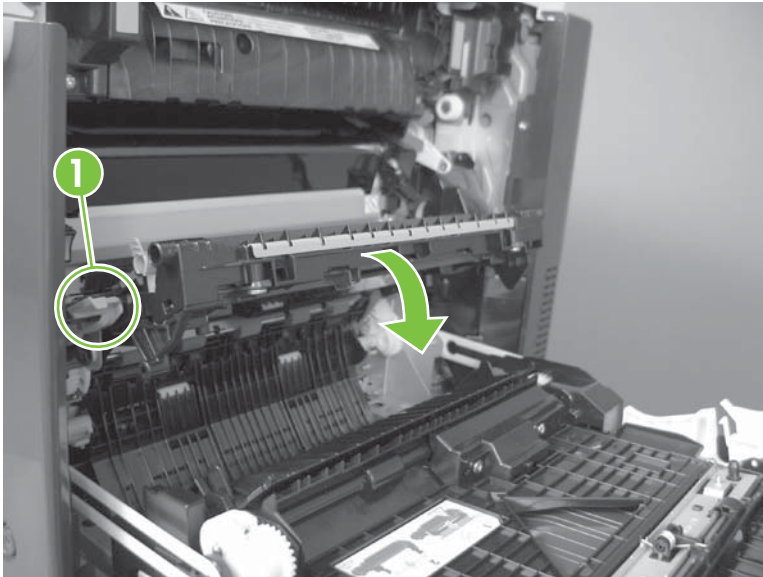


## Secondary transfer assembly

The secondary transfer assembly includes the transfer roller.

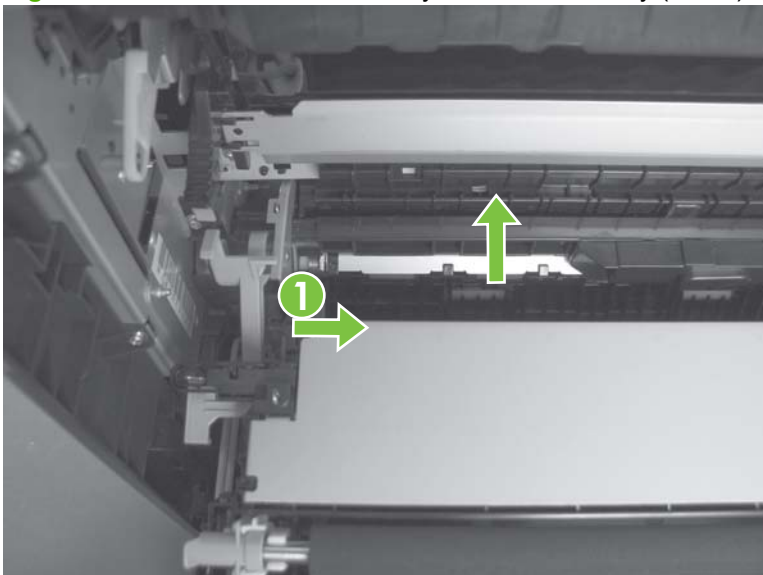
1. Open the right-door assembly.
2. Use the blue lever (callout 1) to lower the secondary transfer assembly.

**Figure 6-31** Remove the transfer roller (2 of 3)



3. Push the pin on the release-lever side of the assembly toward the inside of the product to release it, and then lift the assembly up.

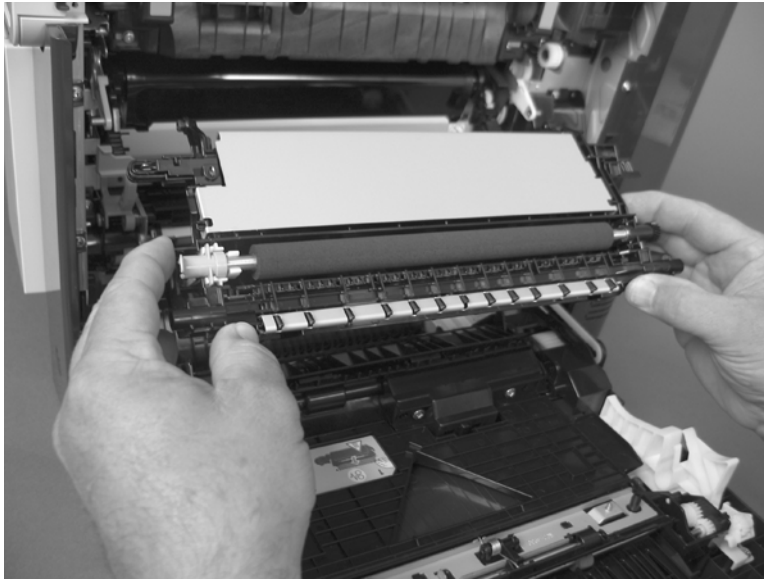
**Figure 6-32** Remove the secondary transfer assembly (1 of 2)





4. Pull the assembly straight out of the product to remove it.

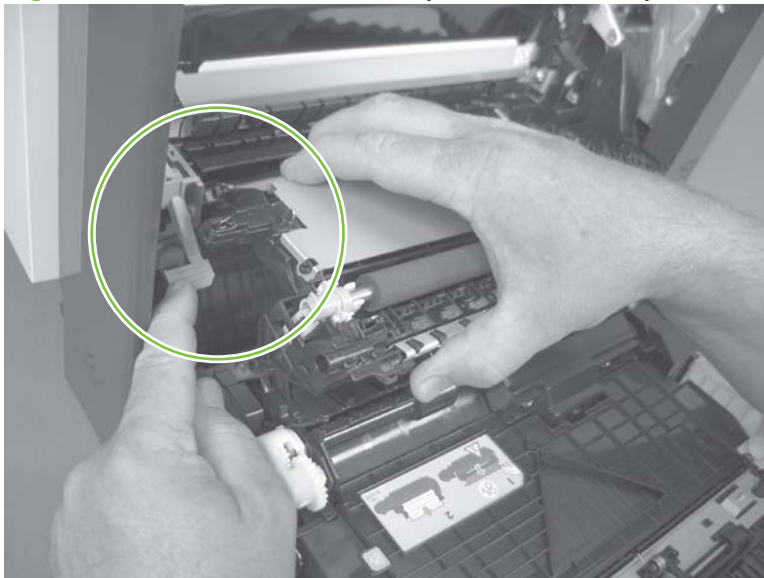
**Figure 6-33** Remove the secondary transfer assembly (2 of 2)



### Reinstall the secondary transfer assembly

Press and hold down the blue release lever when you reinstall the assembly.

**Figure 6-34** Reinstall the secondary transfer assembly

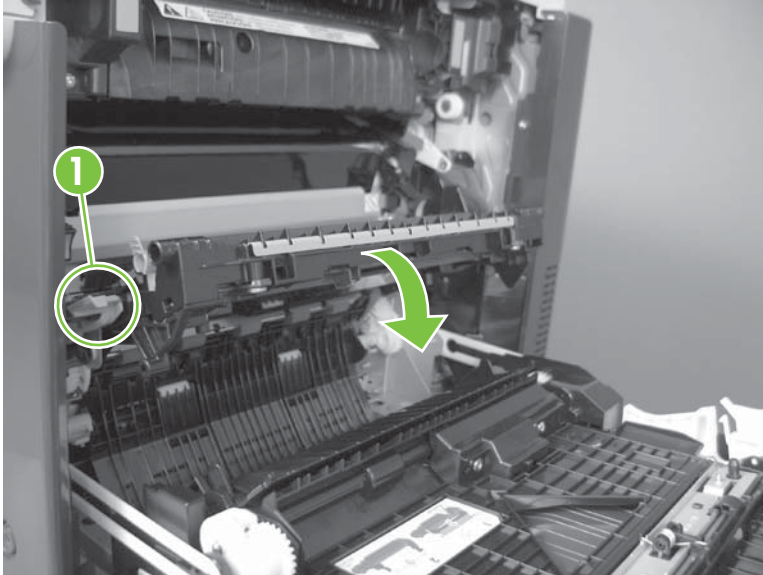


## Intermediate transfer belt (ITB)

△ **CAUTION:** Do not touch the black-plastic belt. Skin oils and fingerprints on the belt can cause print-quality problems. Always place the ITB on a flat surface in a safe and protected location.

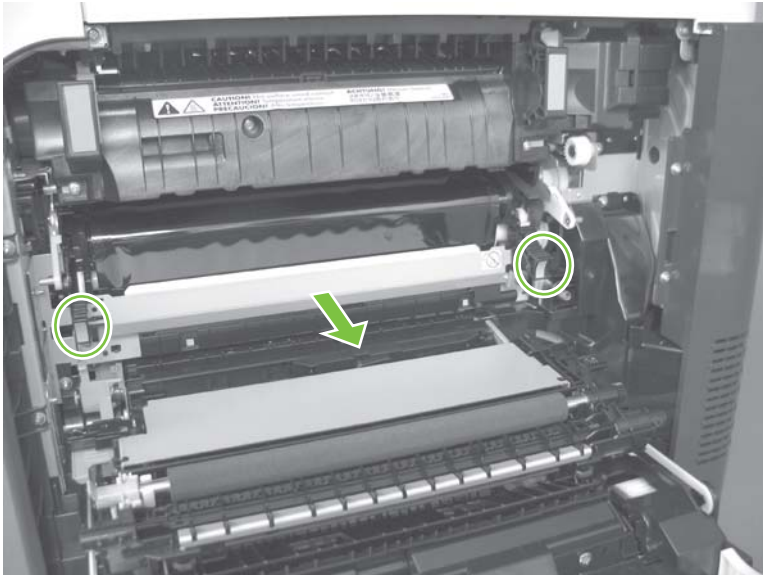
1. Open the right-door assembly.
2. Use the blue lever (callout 1) to lower the secondary transfer assembly.

**Figure 6-35** Remove the intermediate transfer belt (1 of 3)



3. Grasp the small handles on the ITB and then pull the ITB out of the product until two large handles expand along the right- and left-side of the ITB.

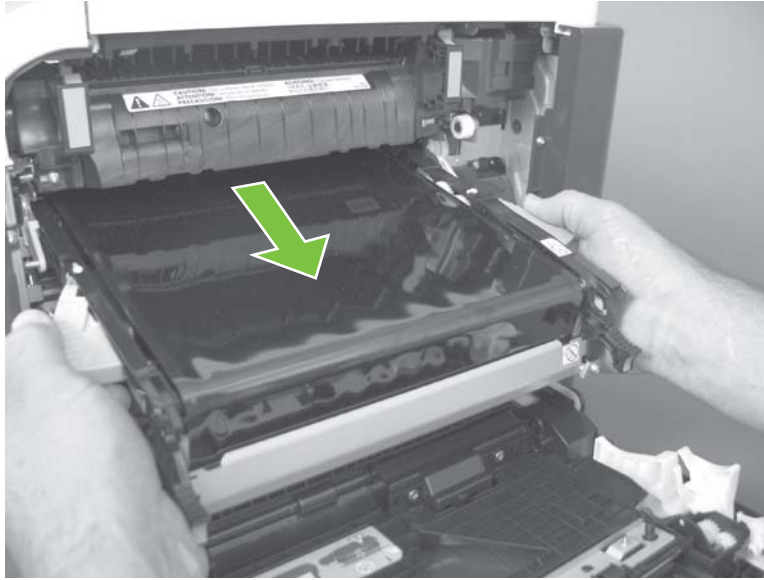
**Figure 6-36** Remove the intermediate transfer belt (2 of 3)



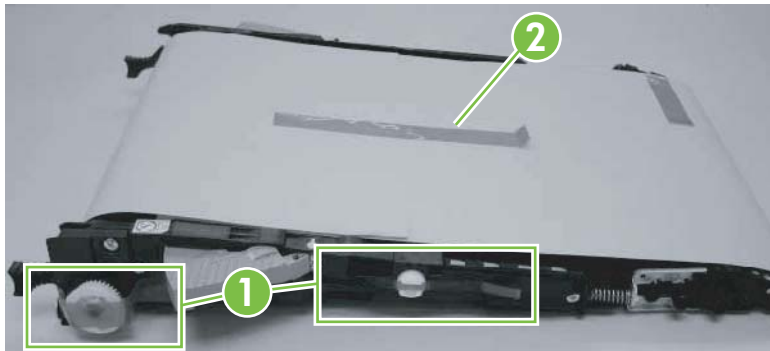
4. Grasp the large handles on the ITB and then pull the ITB straight out of the product to remove it.

△ **CAUTION:** The ITB is a sensitive component. Be careful when handling the ITB so that it is not damaged. Always place the ITB in a safe and protected location.

**Figure 6-37** Remove the intermediate transfer belt (3 of 3)



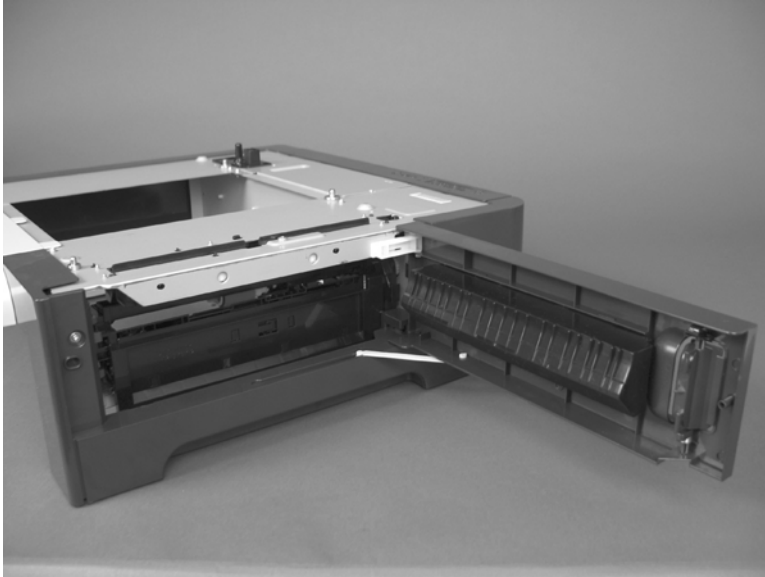
💡 **Reinstallation tip** If you are installing a replacement ITB, make sure that you remove all of the packing tape (callout 1) and the protective cover sheet (callout 2).



## Right door (optional paper feeder)

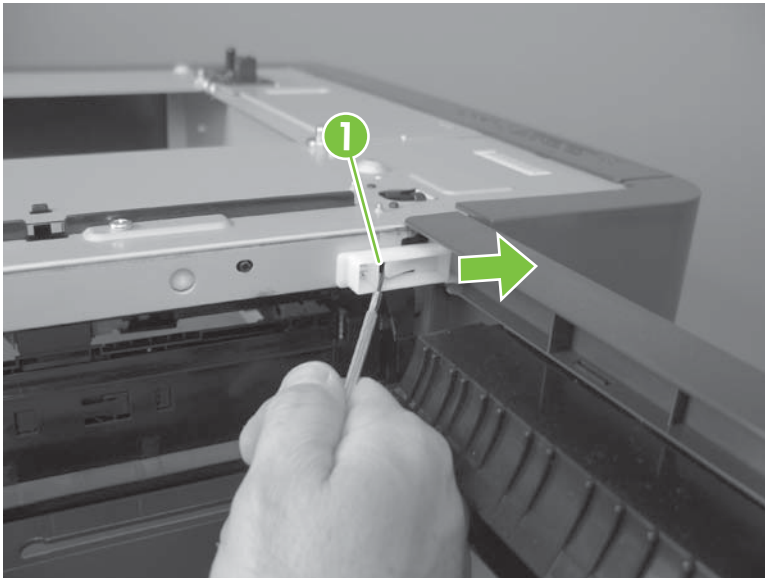
1. Open the right door.

**Figure 6-38** Remove the right door; optional paper feeder (1 of 3)



2. Release one tab (callout 1), and then slide the stopper toward the right side of the product to remove it.

**Figure 6-39** Remove the right door; optional paper feeder (2 of 3)



3. Support the door, and then release the door-retainer arm at the bottom of the door. Raise the door to release the lower hinge pin, and then remove the door.

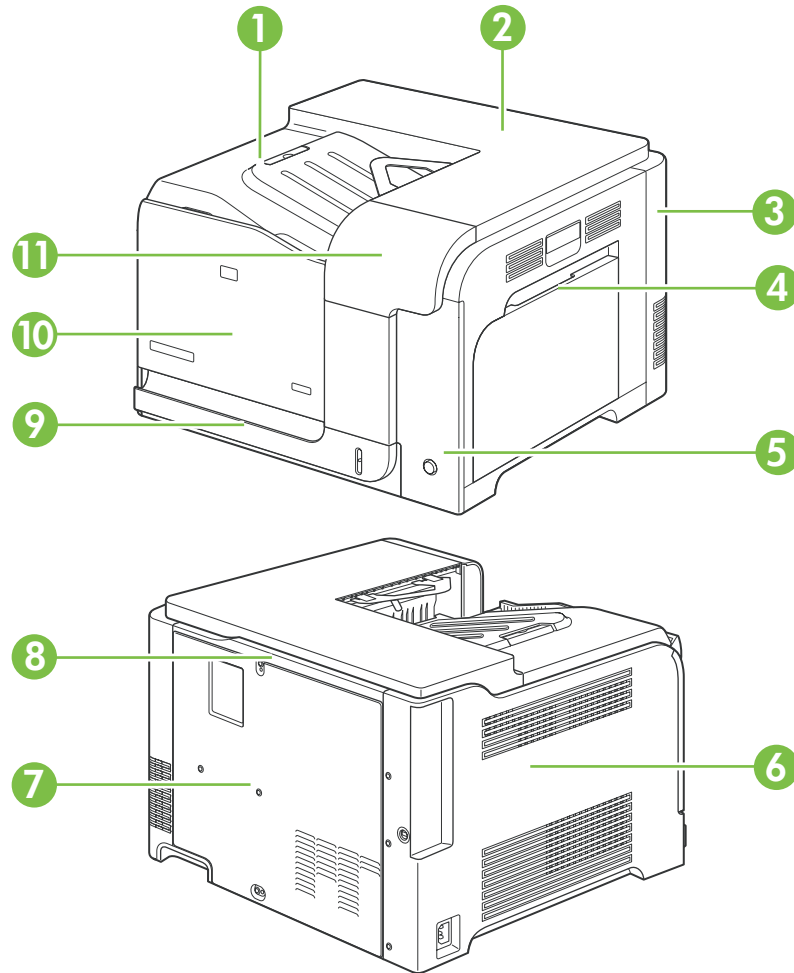
**Figure 6-40** Remove the right door; optional paper feeder (3 of 3)



# External panels, covers, and doors

## Identification and location

Figure 6-41 External panels, covers, and doors; identification and location



Item	Description	Item	Description
1	Front-top cover (see <a href="#">Front-top cover on page 208</a> )	7	Rear cover (see <a href="#">Rear cover and upper-rear cover on page 209</a> )
2	Rear-top cover (see <a href="#">Rear-top cover on page 211</a> )	8	Upper-rear cover (see <a href="#">Rear cover and upper-rear cover on page 209</a> )
3	Rear-right cover (see <a href="#">Right-rear cover on page 198</a> )	9	Tray cassette (see <a href="#">Tray cassette on page 178</a> )
4	Right-door assembly (see <a href="#">Right-door assembly on page 194</a> )	10	Front-door assembly (see <a href="#">Front-door assembly on page 193</a> )
5	Right-front cover (see <a href="#">Right-front cover on page 205</a> )	11	Control-panel assembly (see <a href="#">Control-panel assembly on page 203</a> )
6	Left cover (see <a href="#">Left cover on page 200</a> )		


## Front-door assembly

1. Open the front door.

**Figure 6-42** Remove the front-door assembly (1 of 2)



2. Remove two screws (callout 1), and then remove the front-door assembly.

 **NOTE:** A small sheet-metal bracket on the left side of the door is not captive. Do not lose the bracket when you remove the screw.

**Figure 6-43** Remove the front-door assembly (2 of 2)





## Right-door assembly

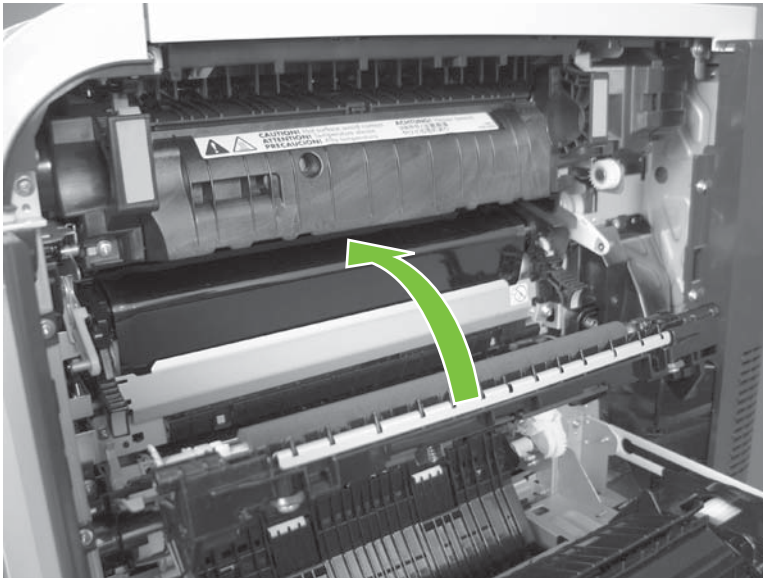
1. Open the right-door assembly

**Figure 6-44** Remove the right-door assembly (1 of 8)



2. Close the secondary transfer assembly.

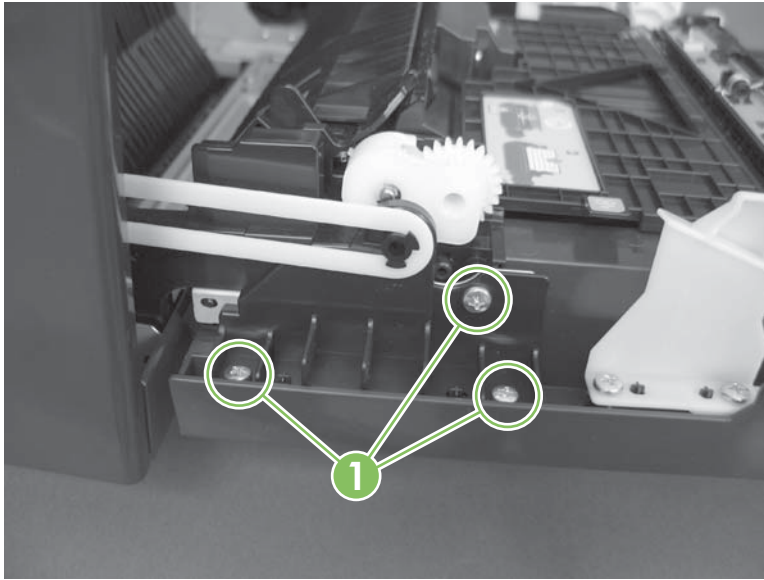
**Figure 6-45** Remove the right-door assembly (2 of 8)





3. Remove three screws (callout 1).

**Figure 6-46** Remove the right-door assembly (3 of 8)



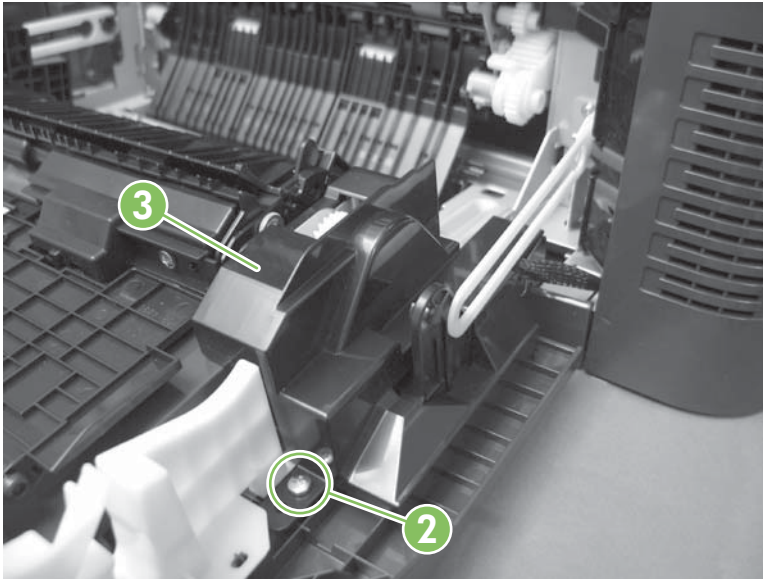
4. Carefully release one link arm.

**Figure 6-47** Remove the right-door assembly (4 of 8)




5. Remove one screw (callout 2), and then remove the cover (callout 3).

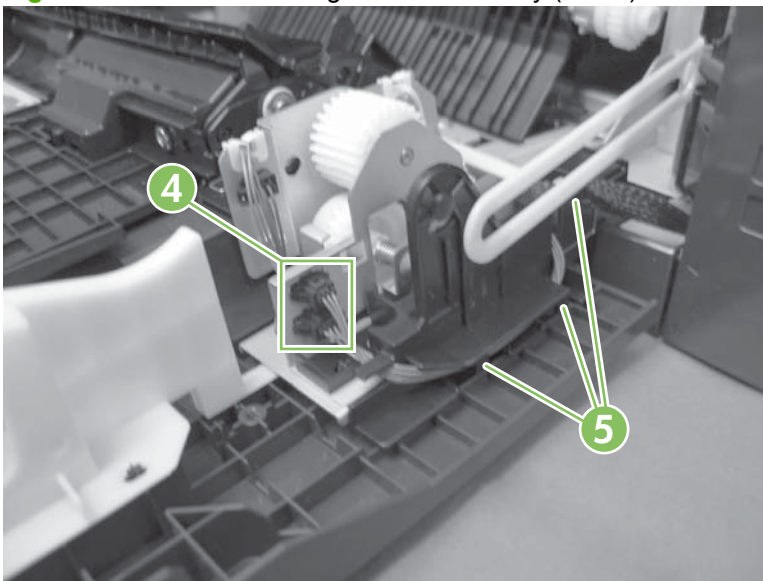
**Figure 6-48** Remove the right-door assembly (5 of 8)



6. Disconnect two connectors (callout 4), and then release the wire harness from the guide (callout 5).

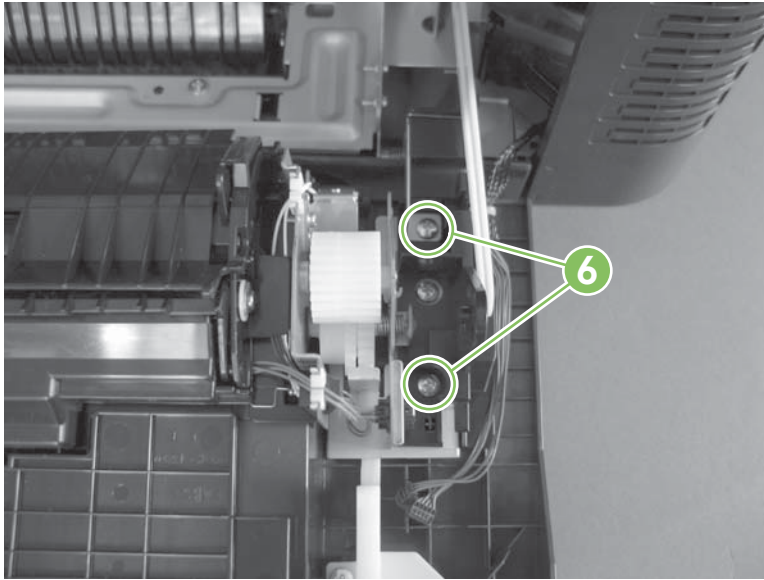
 **TIP:** It is easier to disconnect the lower connector if you first remove the wire harnesses from the guide.

**Figure 6-49** Remove the right-door assembly (6 of 8)



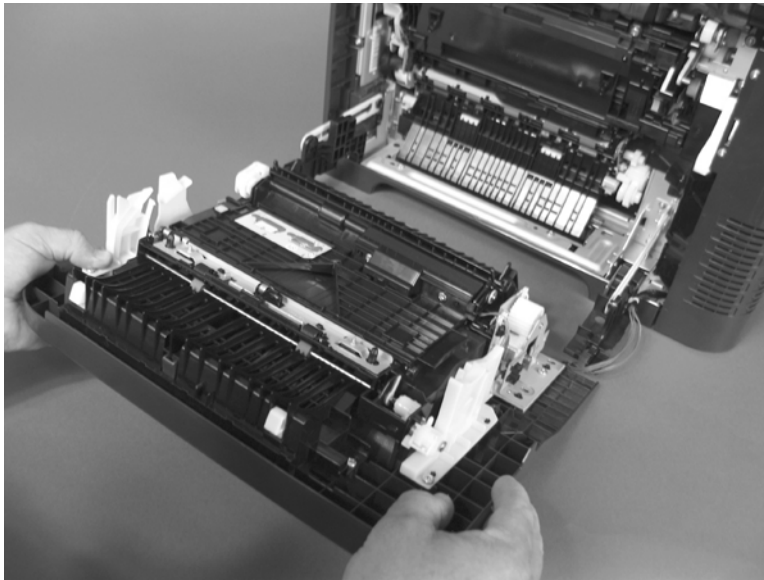
7. Remove two screws (callout 6).

**Figure 6-50** Remove the right-door assembly (7 of 8)



8. Remove the right-door assembly.

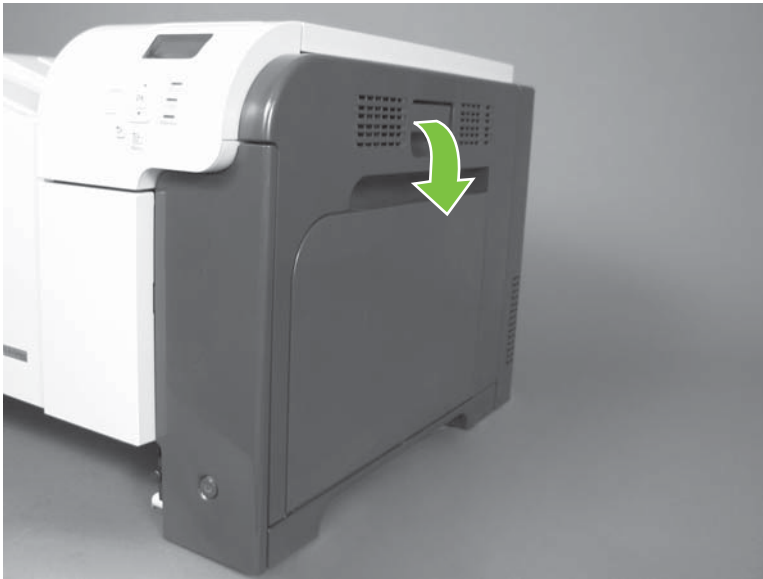
**Figure 6-51** Remove the right-door assembly (8 of 8)



## Right-rear cover

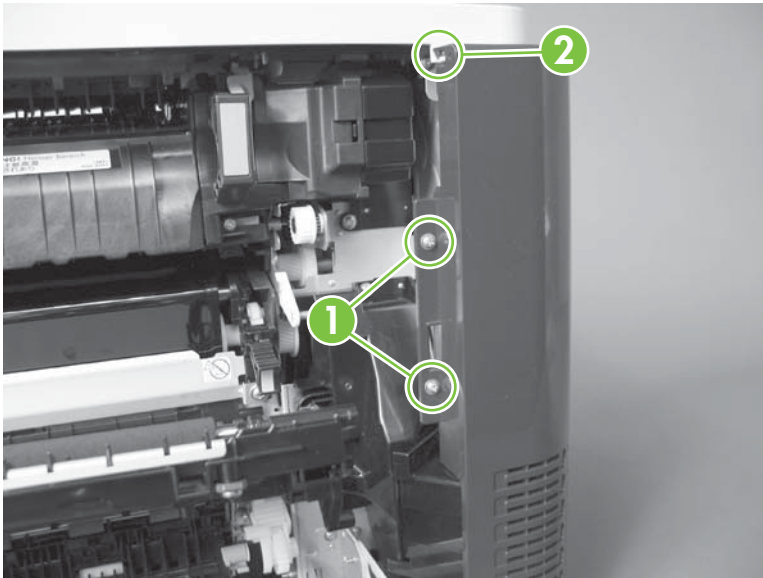
1. Open the right-door assembly.

**Figure 6-52** Remove the right-rear cover (1 of 3)



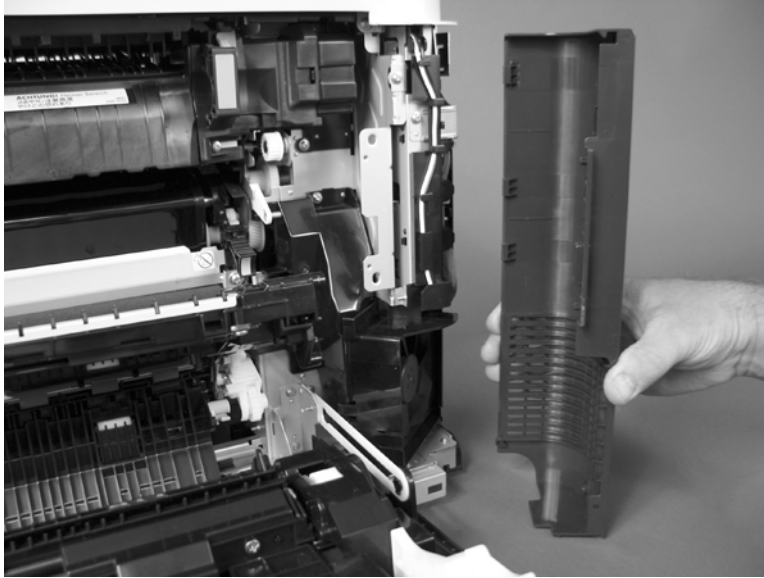
2. Remove two screws (callout 1) and release one tab (callout 2).

**Figure 6-53** Remove the right-rear cover (2 of 3)



3. Rotate the bottom of the cover away from the product, and then remove the cover.

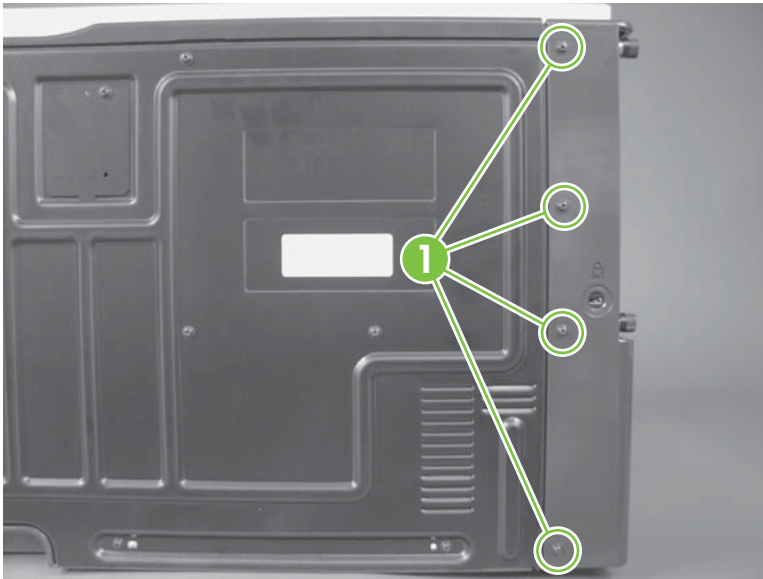
**Figure 6-54** Remove the right-rear cover (3 of 3)



## Left cover

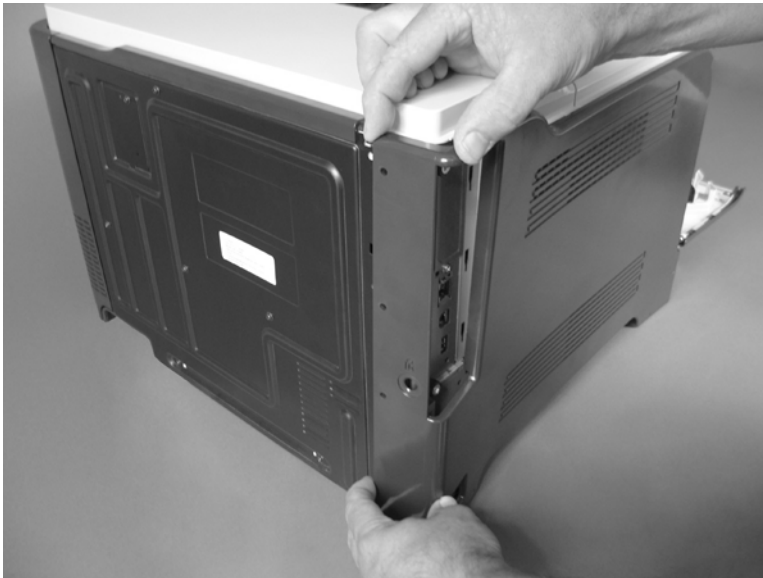
1. Remove four screws (callout 1).

**Figure 6-55** Remove the left cover (1 of 5)



2. Release the rear edge of the cover, and slightly separate the cover from the product.

**Figure 6-56** Remove the left cover (2 of 5)

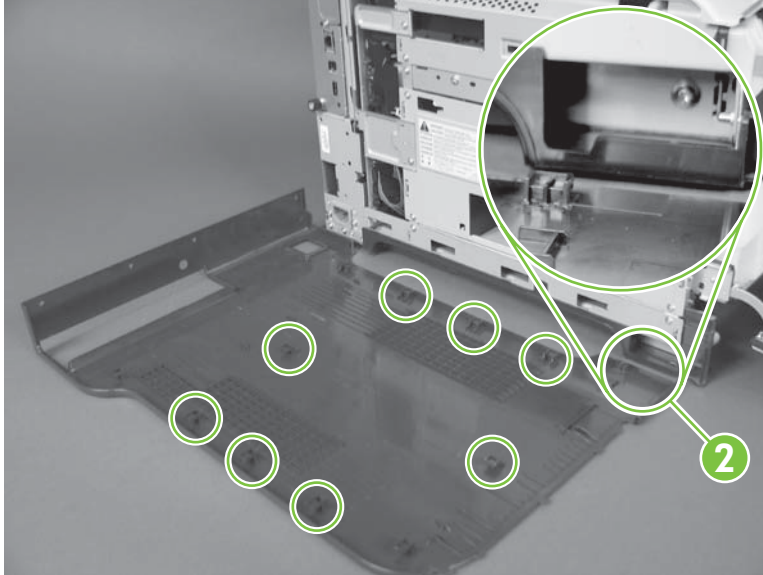




3. The figure below shows the cover removed so that you can see the tab locations. **Before proceeding**, note the location of the mounting tabs.

△ **CAUTION:** One tab (callout 2) is easily damaged when removing the cover. Be careful when removing the cover.

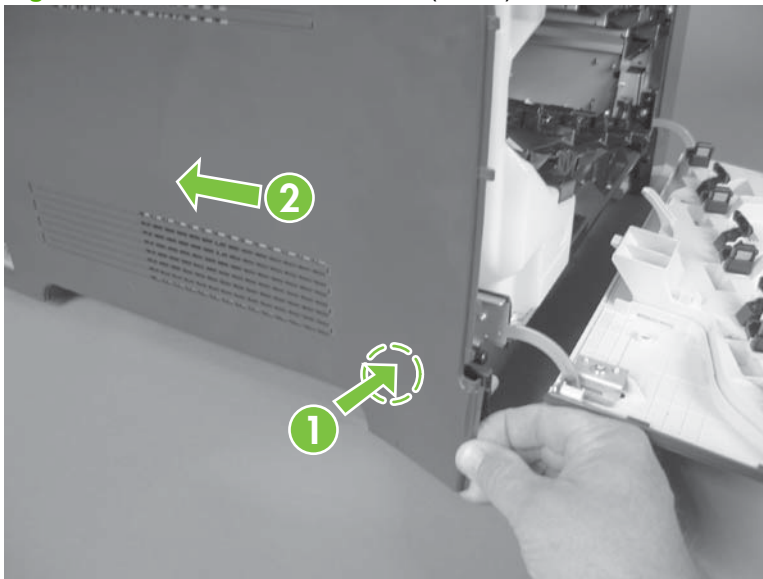
**Figure 6-57** Remove the left cover (3 of 5)



4. Use your thumb to press in on the lower-front portion of the cover (near the dashed circle in the figure below), and then slightly slide the cover away from the front door to release one tab.

△ **CAUTION:** You must flex the cover enough to release the front edge of the cover, but do not damage the tab at the bottom-front edge of the cover. See callout 2 in [Figure 6-57 Remove the left cover \(3 of 5\) on page 201](#).

**Figure 6-58** Remove the left cover (4 of 5)



5. Slide the cover toward the rear of the product and rotate it away from the product and then remove the cover.

**Figure 6-59** Remove the left cover (5 of 5)

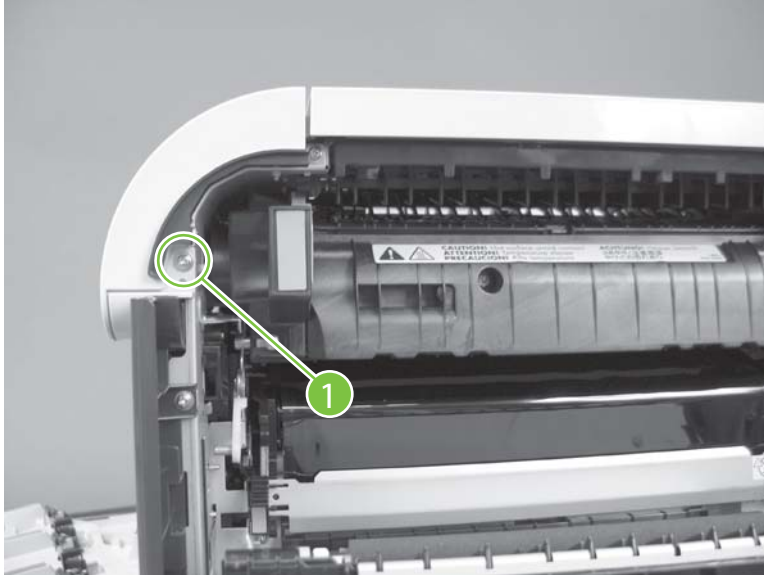




## Control-panel assembly

1. Open the front door and the right door.
2. Remove one screw (callout 1).

**Figure 6-60** Remove the control-panel assembly (1 of 4)



3. Remove one screw (callout 2).

**Figure 6-61** Remove the control-panel assembly (2 of 4)



4. Lift the control-panel assembly up, and then rotate the top of the assembly away from the product.

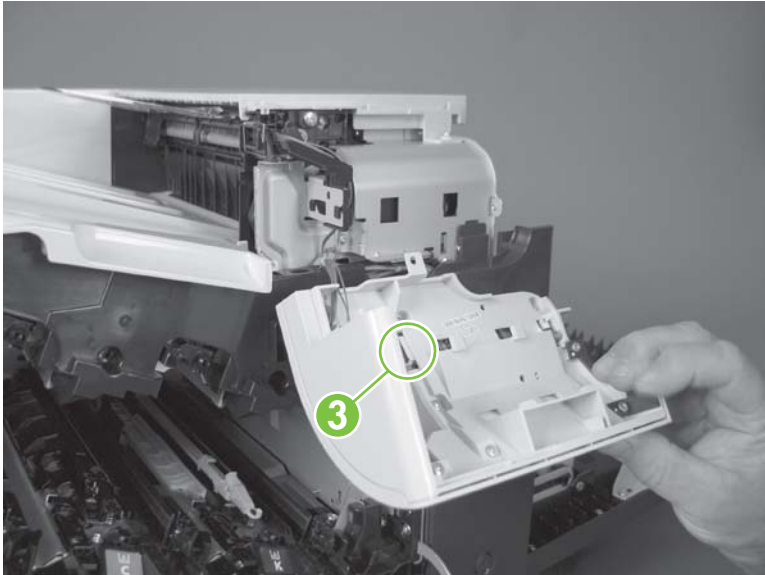
△ **CAUTION:** The control-panel assembly is attached to the product by the wire-harness connector.

**Figure 6-62** Remove the control-panel assembly (3 of 4)



5. Disconnect one connector (callout 3), and then remove the control-panel assembly.

**Figure 6-63** Remove the control-panel assembly (4 of 4)




## Right-front cover

Before proceeding, remove the following components:

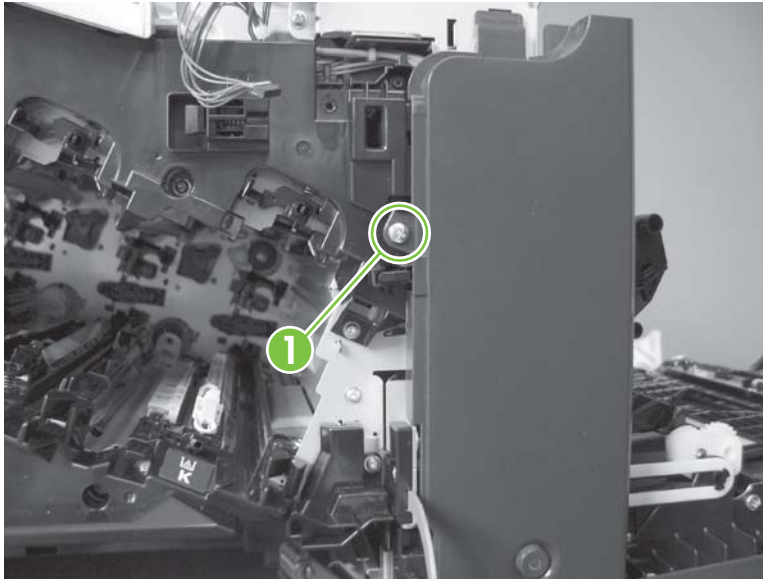
- Control-panel assembly. See [Control-panel assembly on page 203](#).

### Remove the right-front cover

 **NOTE:** Be careful. When removing the cover, do not dislodge the power button. If the button is dislodged, see [Reinstall the power button on page 207](#) to reinstall it.

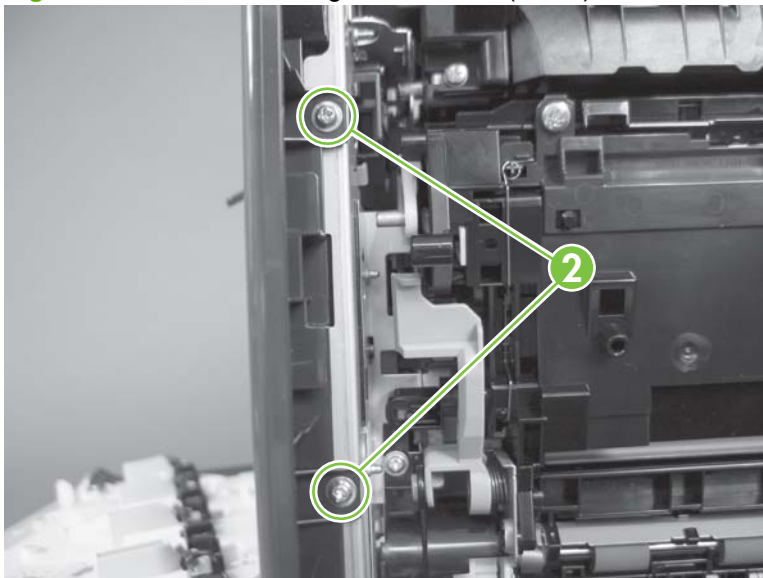
1. Remove one screw (callout 1).

**Figure 6-64** Remove the right-front cover (1 of 5)



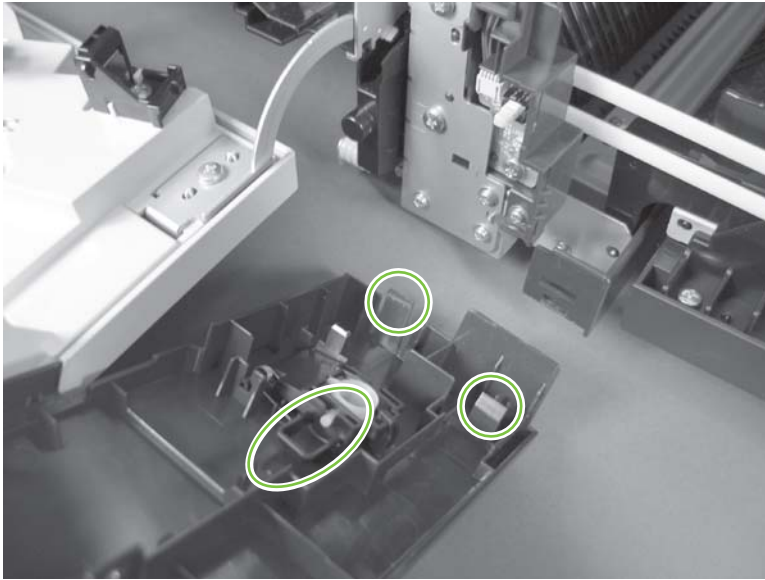
2. Remove two screws (callout 2).

**Figure 6-65** Remove the right-front cover (2 of 5)




3. Before you proceed, take note of the tab locations at the bottom of the cover.

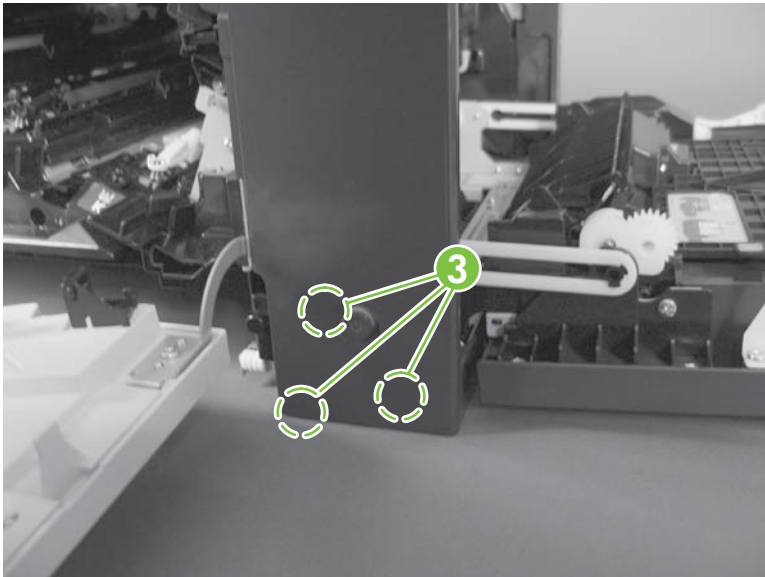
**Figure 6-66** Remove the right-front cover (3 of 5)



4. Pull down on the cover to release three tabs (callout 3).

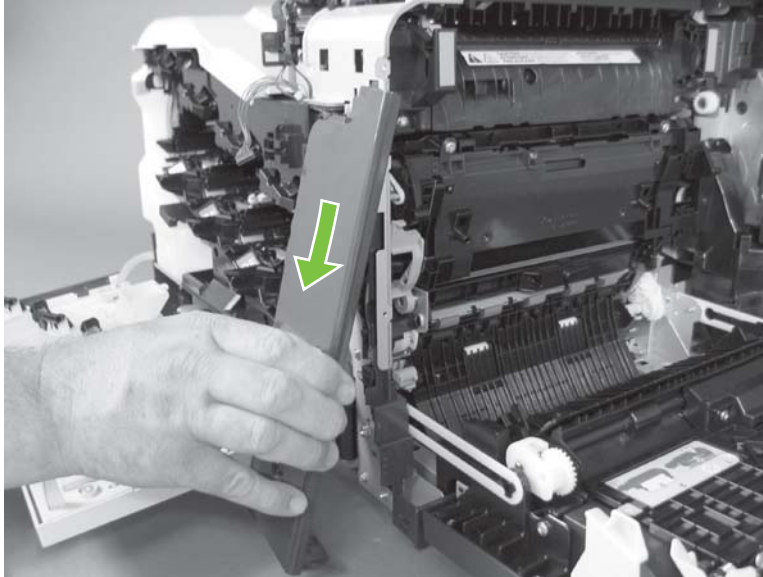
 **TIP:** It might be easier if you position the product at the edge of the work surface so that there is a space for the cover to slide downward. Or, you might try inserting a small flat blade screwdriver behind the cover, and carefully pry the cover away from the product as you pull down on the cover to release the tabs.

**Figure 6-67** Remove the right-front cover (4 of 5)



5. Rotate the bottom of the cover away from the product, and then pull down on the cover to remove it.

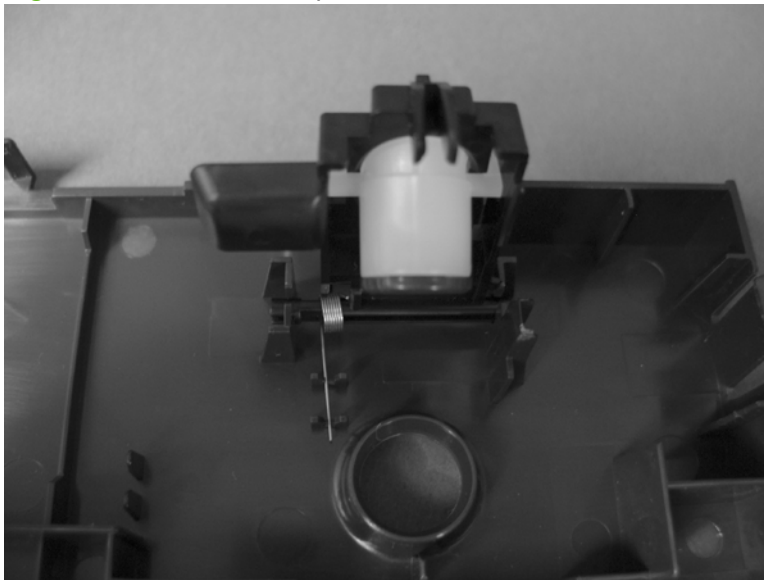
**Figure 6-68** Remove the right-front cover (5 of 5)



### Reinstall the power button

Snap the power button into the holders on the cover. Make sure that the spring is correctly installed.

**Figure 6-69** Reinstall the power button



## Front-top cover

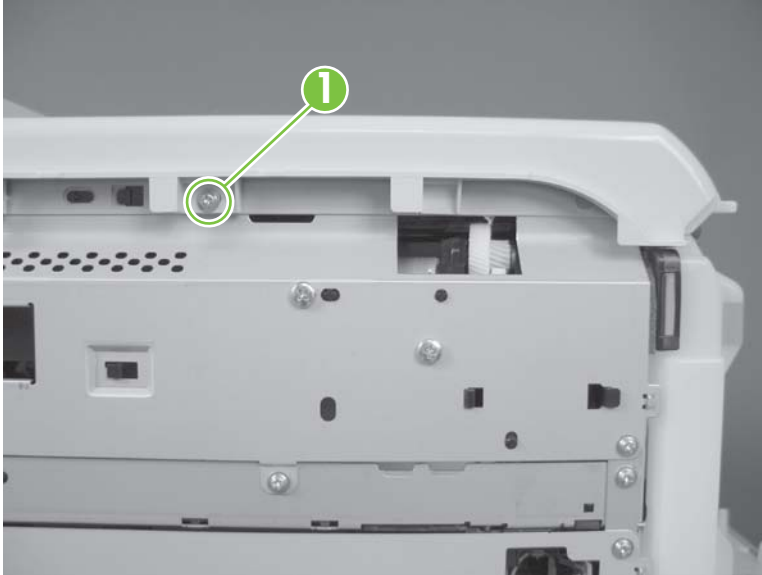
Before proceeding, remove the following components:

- Left cover. See [Left cover on page 200](#).
- Control-panel assembly. See [Control-panel assembly on page 203](#).

### Remove the front-top cover

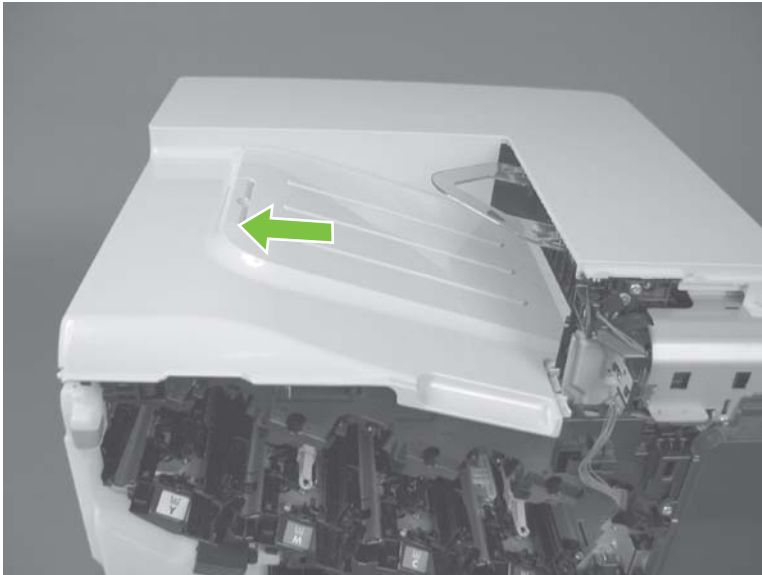
1. Remove one screw (callout 1).

**Figure 6-70** Remove the front-top cover (1 of 2)



2. Slide the cover toward the left side of the product to release it, and then remove the cover.

**Figure 6-71** Remove the front-top cover (2 of 2)





## Rear cover and upper-rear cover

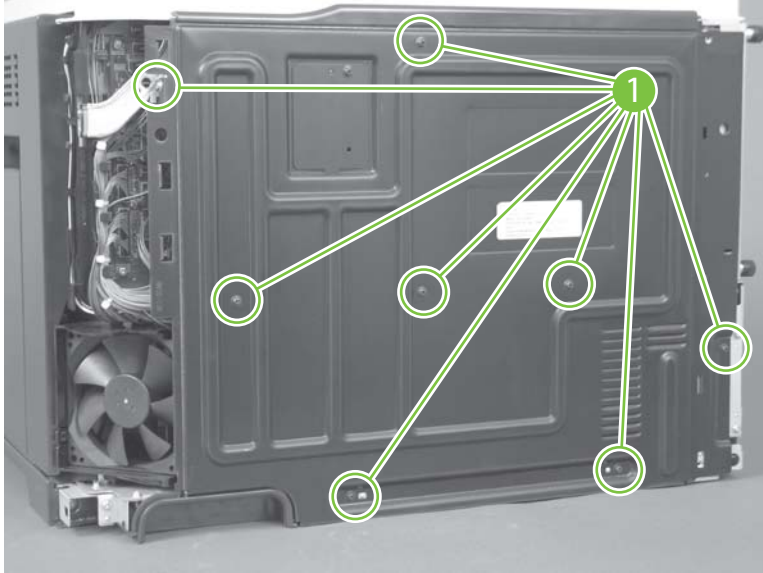
Before proceeding, remove the following components:

- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).

### Remove the rear cover and upper-rear cover

1. Remove eight screws (callout 1).

**Figure 6-72** Remove the rear cover and upper-rear cover (1 of 4)



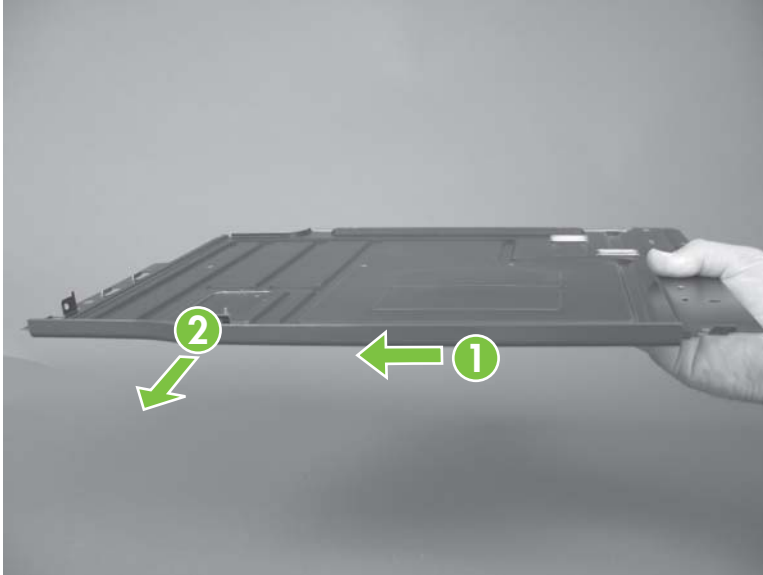
2. Slide the cover toward the fan side of the product to remove it.

**Figure 6-73** Remove the rear cover and upper-rear cover (2 of 4)

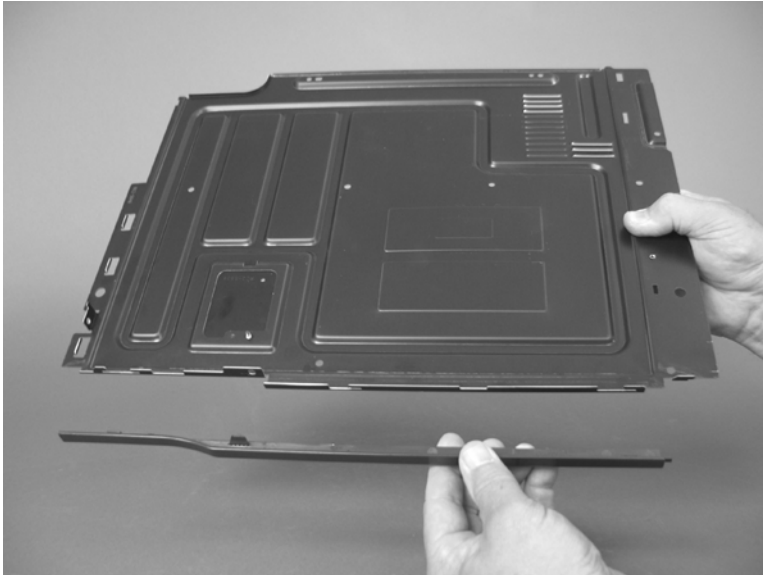


3. Slide the upper-rear cover toward the left to release it, and then separate the upper-rear cover from the rear cover.

**Figure 6-74** Remove the rear cover and upper-rear cover (3 of 4)



**Figure 6-75** Remove the rear cover and upper-rear cover (4 of 4)





## Rear-top cover

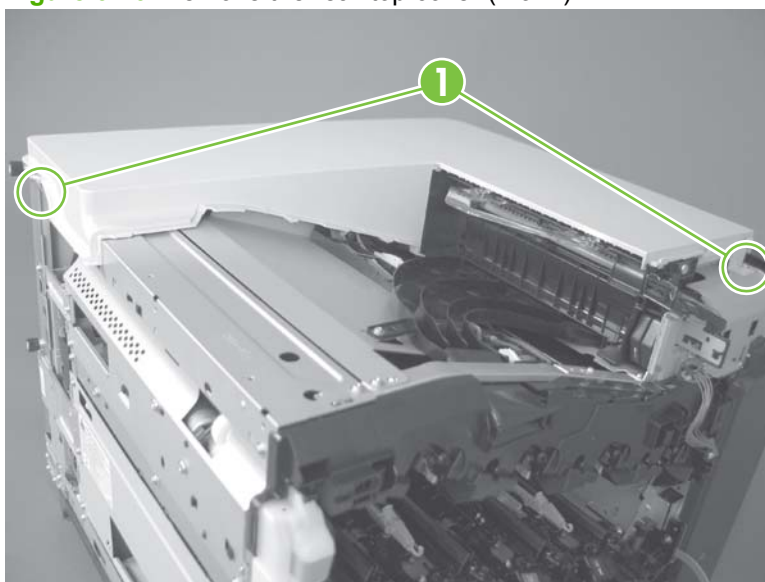
Before proceeding, remove the following components:

- Left cover. See [Left cover on page 200](#).
- Control-panel assembly. See [Control-panel assembly on page 203](#).
- Front-top cover. See [Front-top cover on page 208](#).
- Rear cover and rear-upper cover. See [Rear cover and upper-rear cover on page 209](#).

### Remove the rear-top cover

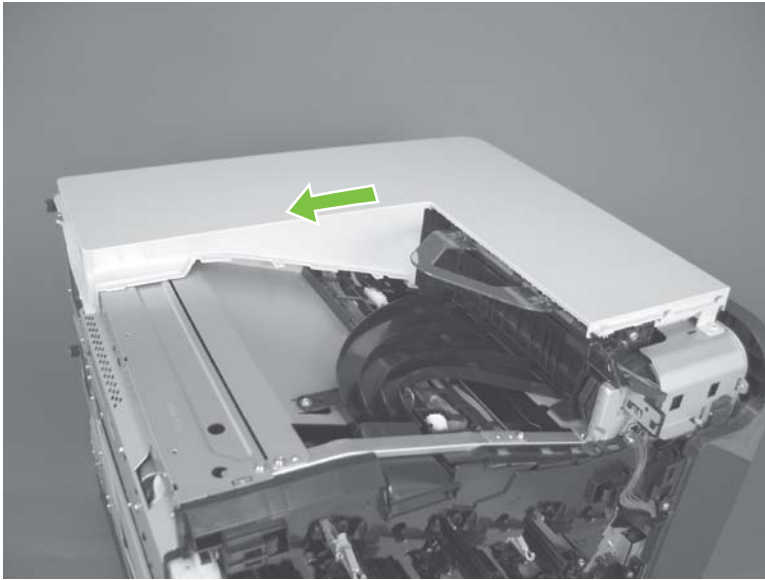
1. Remove two screws (callout 1).

**Figure 6-76** Remove the rear-top cover (1 of 2)



2. Slide the cover toward the left side of the product to release it, and then remove the cover.

**Figure 6-77** Remove the rear-top cover (2 of 2)



## Internal assemblies

**TIP:** For clarity, some photos in this chapter show components removed that would not be removed to service the product. If necessary, remove the components listed at the beginning of a procedure before proceeding to service the product.

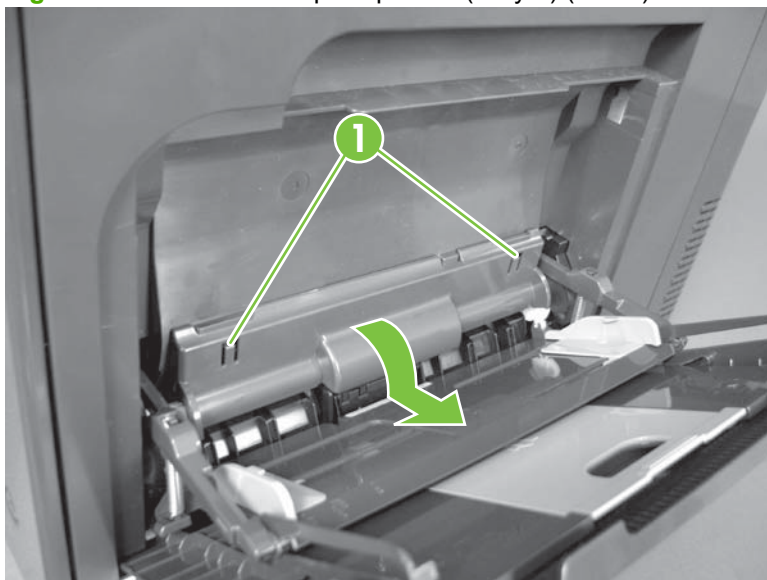
### Pickup roller (Tray 1)

**CAUTION:** Do not touch the spongy roller surface unless you are replacing the roller. Skin oils on the roller can cause paper pickup problems.

1. Open Tray 1, release two tabs (callout 1), and then rotate the roller cover away from the product to remove it.

**TIP:** Push down along the top edge of the cover to easily release the tabs.

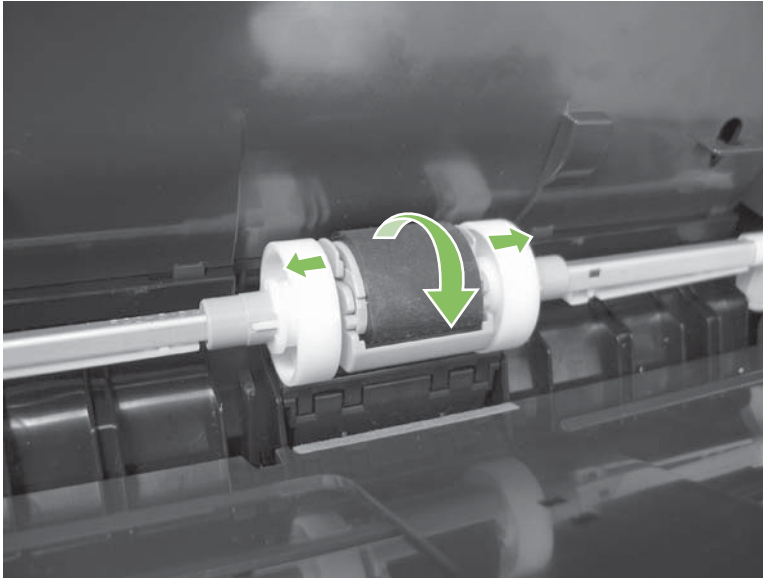
**Figure 6-78** Remove the pickup roller (Tray 1) (1 of 2)



2. Release two tabs and rotate the roller body away from the product to remove it.

☞ **TIP:** It might be easier to release the Tray 1 pickup-roller solenoid plate, and then manually rotate the roller into the correct position to remove the roller.

**Figure 6-79** Remove the pickup roller (Tray 1) (2 of 2)



## Delivery fan, cartridge fan, and environmental sensor

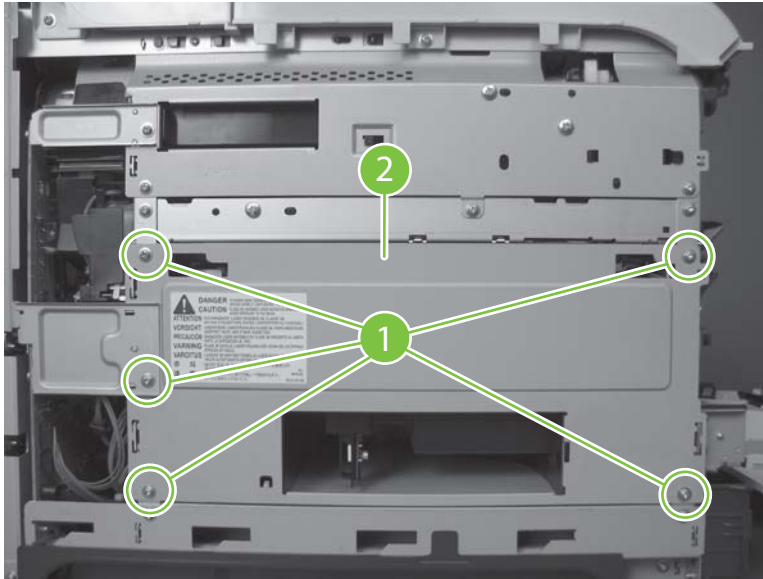
Before proceeding, remove the following components:

- Left cover. See [Left cover on page 200](#).


### Remove the delivery fan, cartridge fan, and environmental sensor

1. Remove five screws (callout 1), and then remove the sheet-metal plate (callout 2).

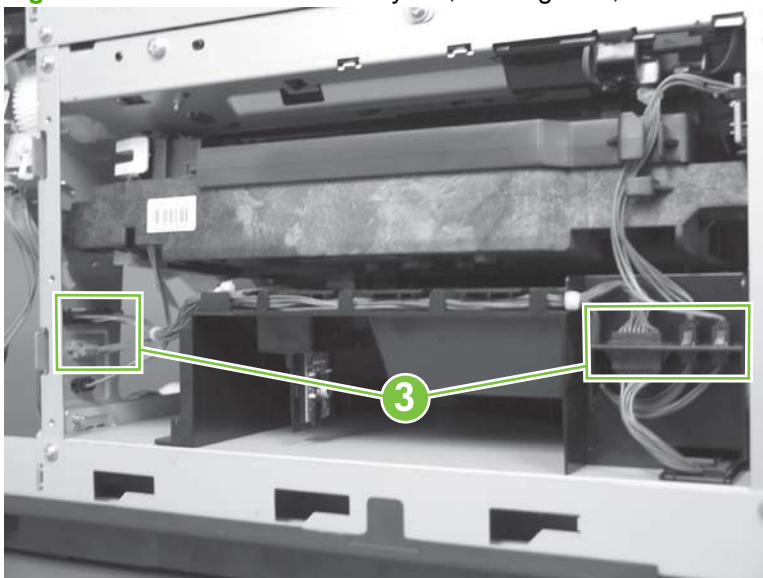
**Figure 6-80** Remove the delivery fan, cartridge fan, and environmental sensor (1 of 9)



2. Disconnect five connectors (callout 3).

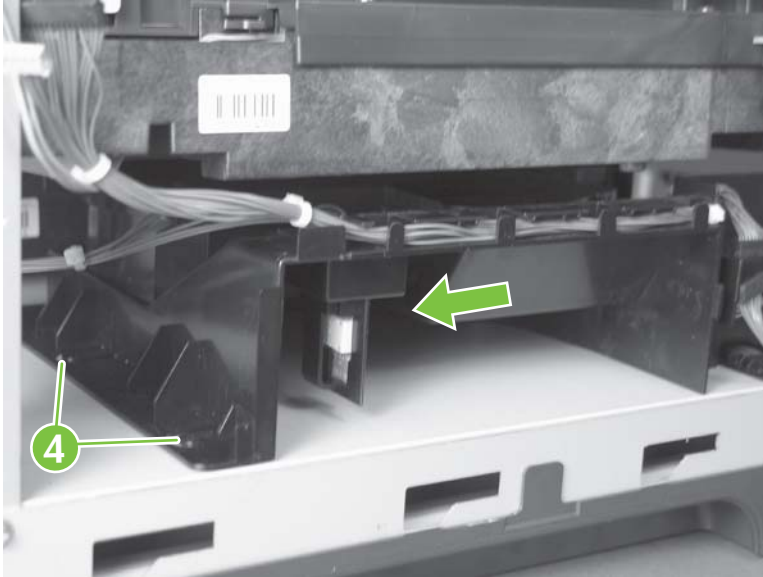
 **NOTE:** Disconnect the larger connector on the right side from the bottom. Disconnect the two smaller connectors on the right side from the top.

**Figure 6-81** Remove the delivery fan, cartridge fan, and environmental sensor (2 of 9)



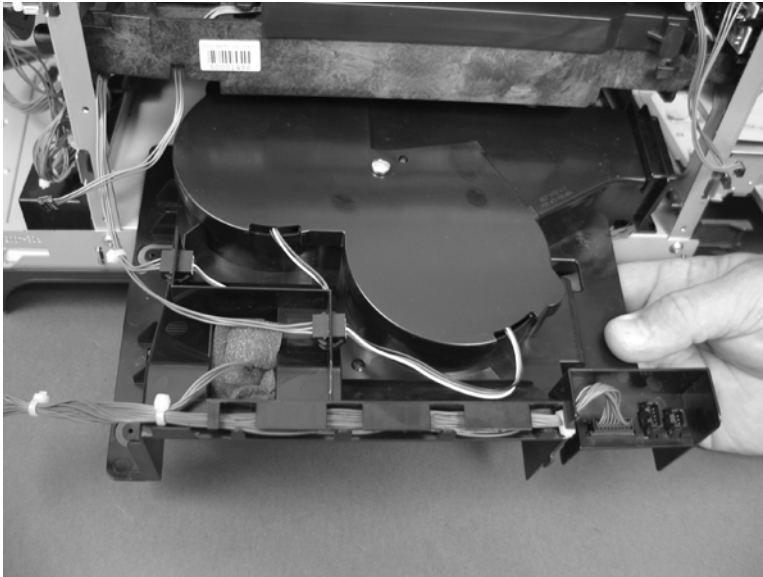
3. Release two tabs (callout 4), and then slide the delivery-fan and cartridge-fan assembly toward the power-supply side of the product to release it.

**Figure 6-82** Remove the delivery fan, cartridge fan, and environmental sensor (3 of 9)



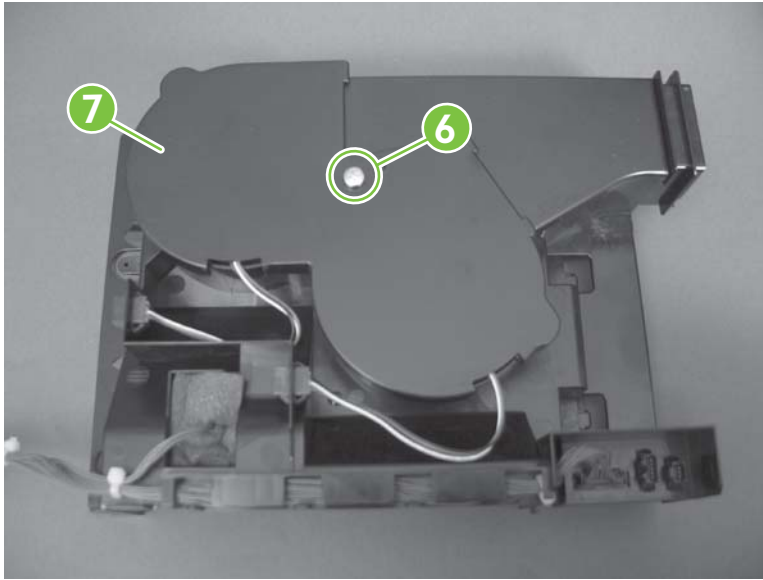
4. Pull the assembly slightly out of the product, disconnect two connectors (callout 5), and then to remove the assembly.

**Figure 6-83** Remove the delivery fan, cartridge fan, and environmental sensor (4 of 9)



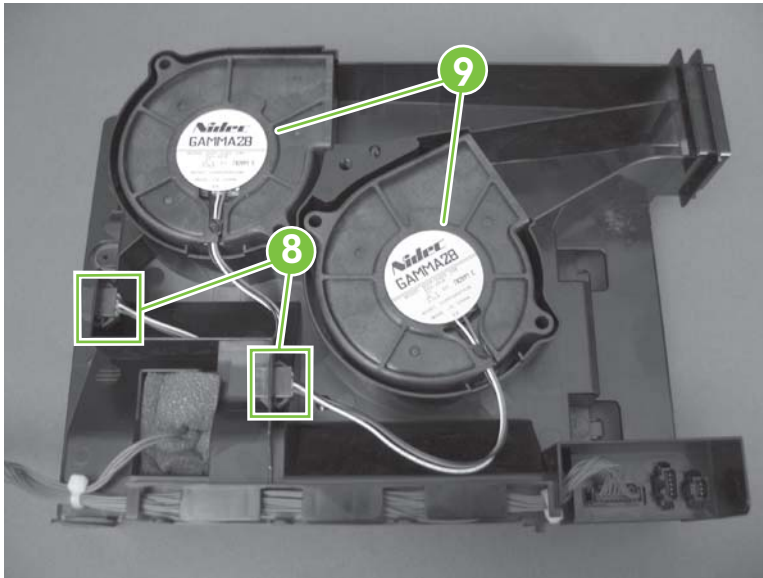
5. Remove one screw (callout 6), and then remove the cover (callout 7).

**Figure 6-84** Remove the delivery fan, cartridge fan, and environmental sensor (5 of 9)



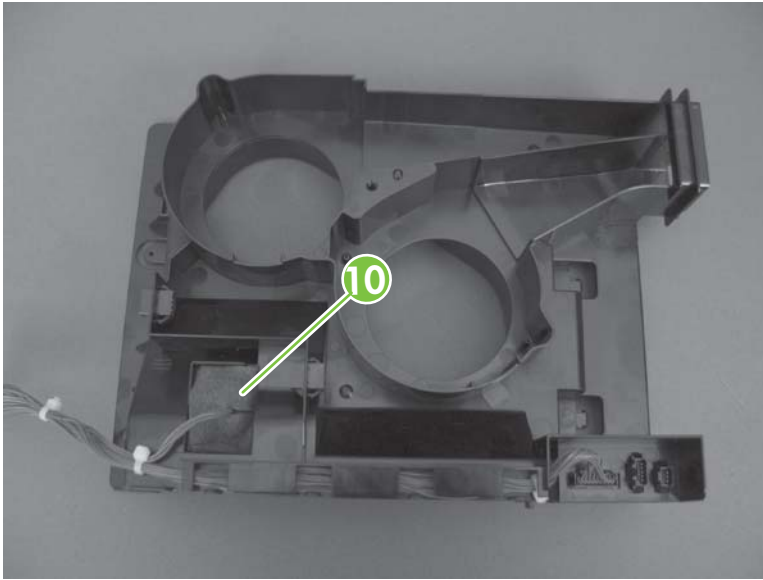
6. Disconnect two connectors (callout 8), and then remove the fans (callout 9).

**Figure 6-85** Remove the delivery fan, cartridge fan, and environmental sensor (6 of 9)



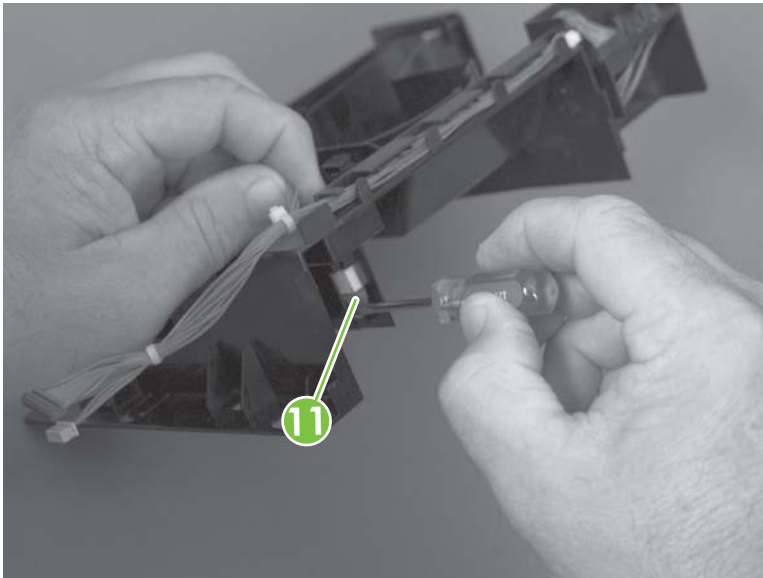
7. Remove the antistatic foam (callout 10).

**Figure 6-86** Remove the delivery fan, cartridge fan, and environmental sensor (7 of 9)



8. Release one tab (callout 11).

**Figure 6-87** Remove the delivery fan, cartridge fan, and environmental sensor (8 of 9)



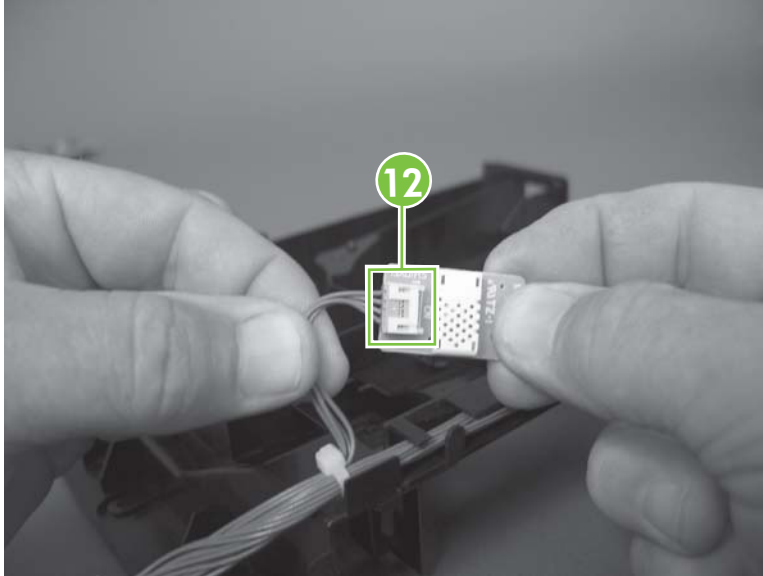


9. Disconnect one connector (callout 12), and then remove the environmental sensor.



**CAUTION:**  ESD-sensitive part.

**Figure 6-88** Remove the delivery fan, cartridge fan, and environmental sensor (9 of 9)



## Toner-collection sensor

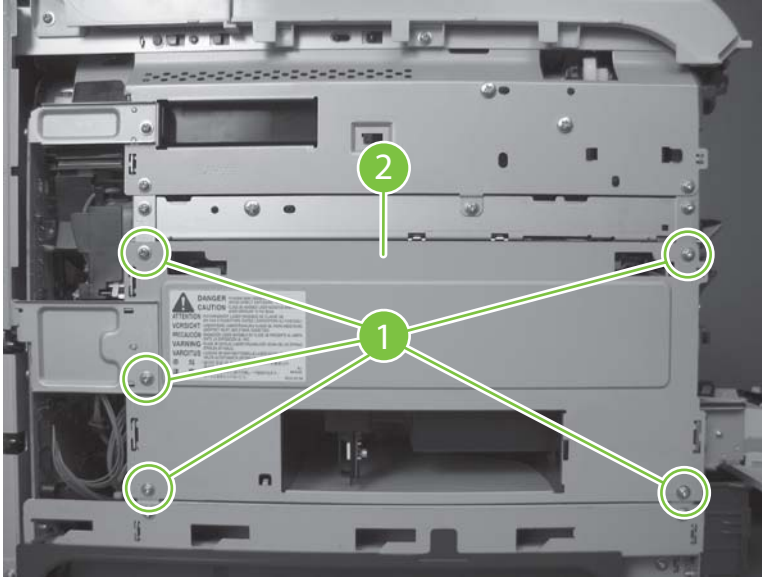
Before proceeding, remove the following components:

- Toner-collection unit. See [Toner-collection unit on page 173](#).
- Left cover. See [Left cover on page 200](#).

### Remove the toner-collection sensor

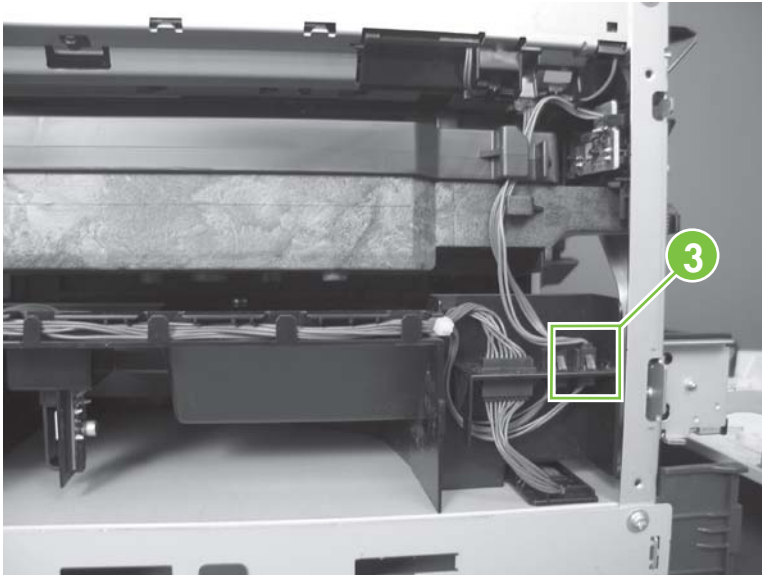
1. Remove five screws (callout 1), and then remove the sheet-metal plate (callout 2).

**Figure 6-89** Remove the toner-collection sensor (1 of 4)




2. Disconnect one connector (callout 3).

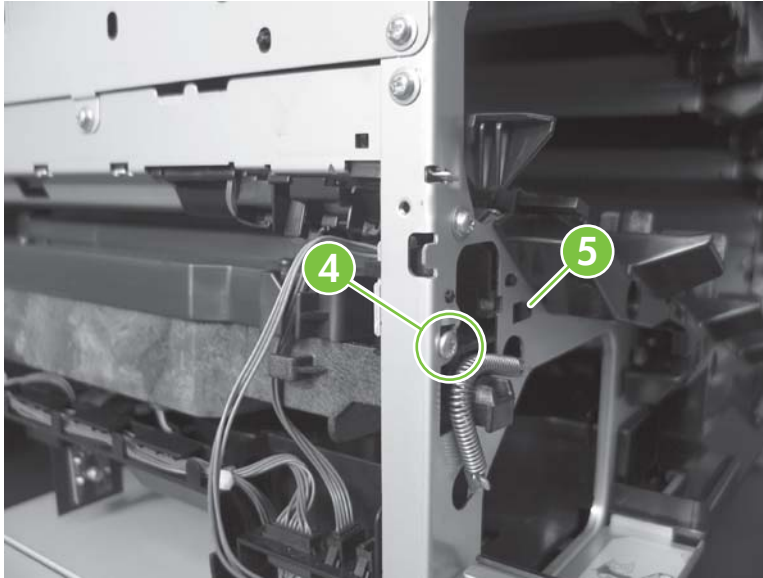
**Figure 6-90** Remove the toner-collection sensor (2 of 4)



3. Remove one screw (callout 4).

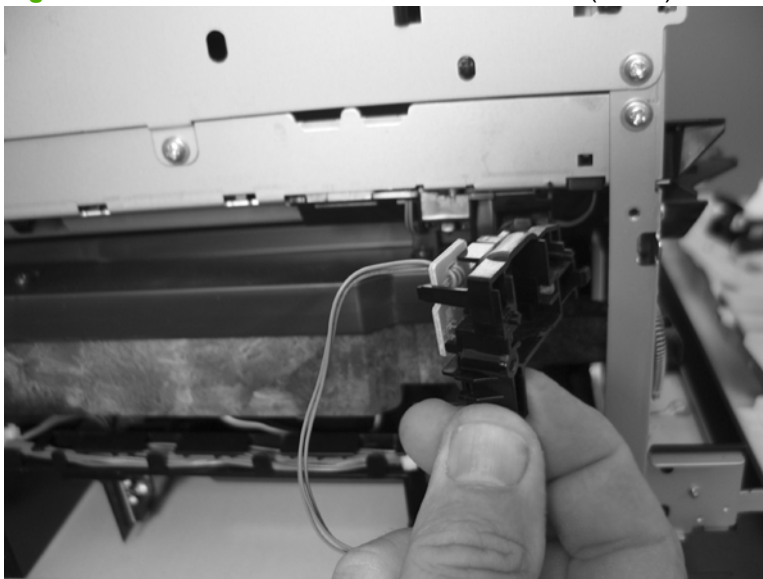
 **Reinstallation tip** When you reinstall the sensor, make sure that the tab (callout 5) on the sensor body completely engages the slot in the product chassis.

**Figure 6-91** Remove the toner-collection sensor (3 of 4)



4. Remove the toner-collection sensor.

**Figure 6-92** Remove the toner-collection sensor (4 of 4)




## Residual-toner-feed motor

Before proceeding, remove the following components:

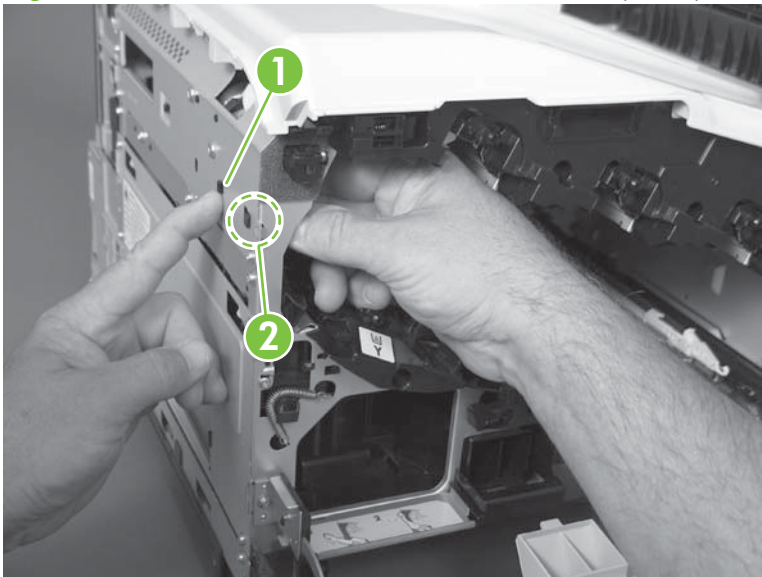
- Toner-collection unit. See [Toner-collection unit on page 173](#).
- Intermediate transfer belt (ITB). See [Intermediate transfer belt \(ITB\) on page 188](#).
- Left cover. See [Left cover on page 200](#).

### Remove the residual-toner-feed motor

 **NOTE:** Be careful. Do not dislodge the residual-toner collection door when you remove the assembly. If the door becomes dislodged, see [Reinstall the residual-toner collection door on page 226](#) to reinstall it.

1. Release one tab (callout 1) while you support the cover (callout 2).

**Figure 6-93** Remove the residual-toner-feed motor (1 of 7)



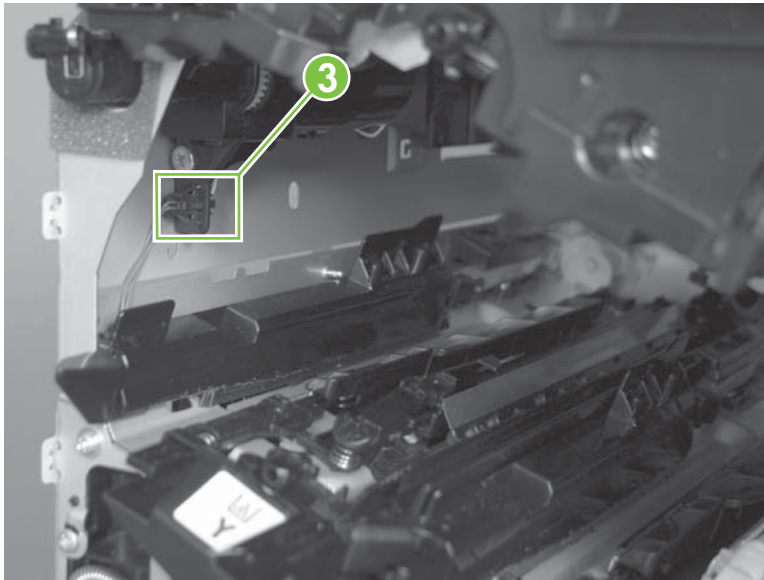
2. Remove the cover.

**Figure 6-94** Remove the residual-toner-feed motor (2 of 7)



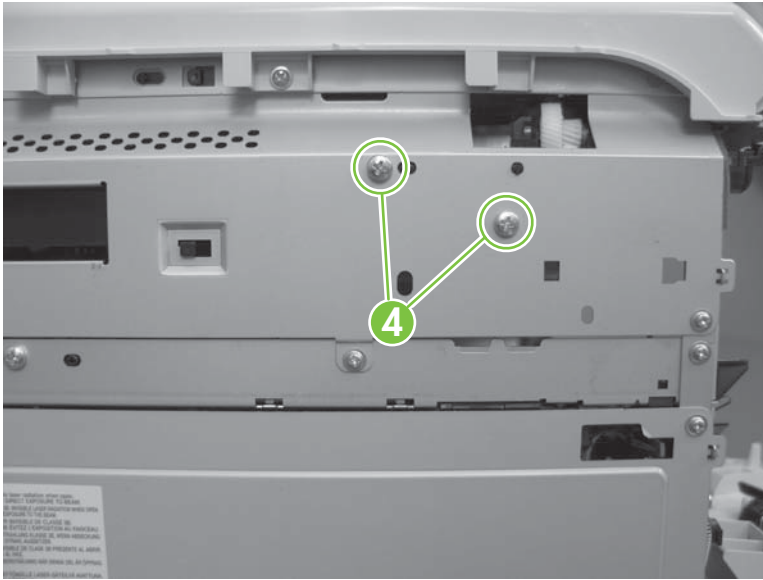
3. Disconnect one connector (callout 3).

**Figure 6-95** Remove the residual-toner-feed motor (3 of 7)



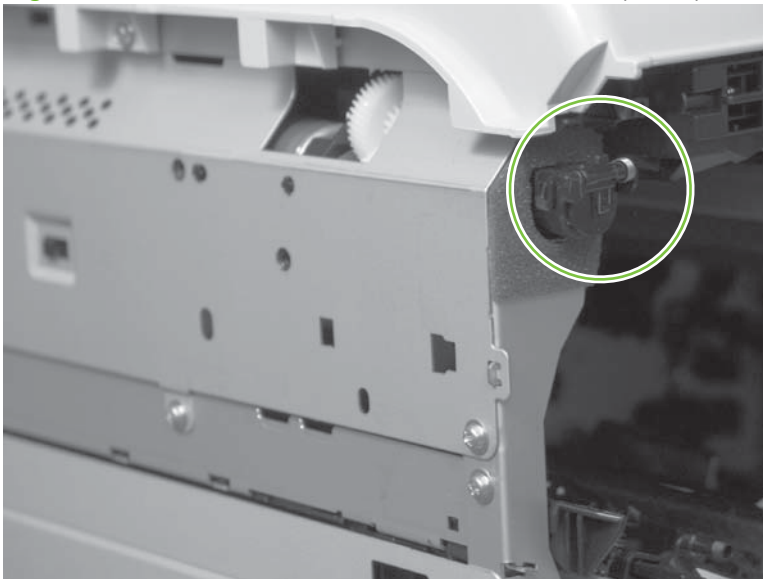
4. Support the assembly, and then remove two screws (callout 4).

**Figure 6-96** Remove the residual-toner-feed motor (4 of 7)



5. Be careful. Do not dislodge the residual-toner collection door when you remove the assembly. If the door becomes dislodged, see [Reinstall the residual-toner collection door on page 226](#) to reinstall it.

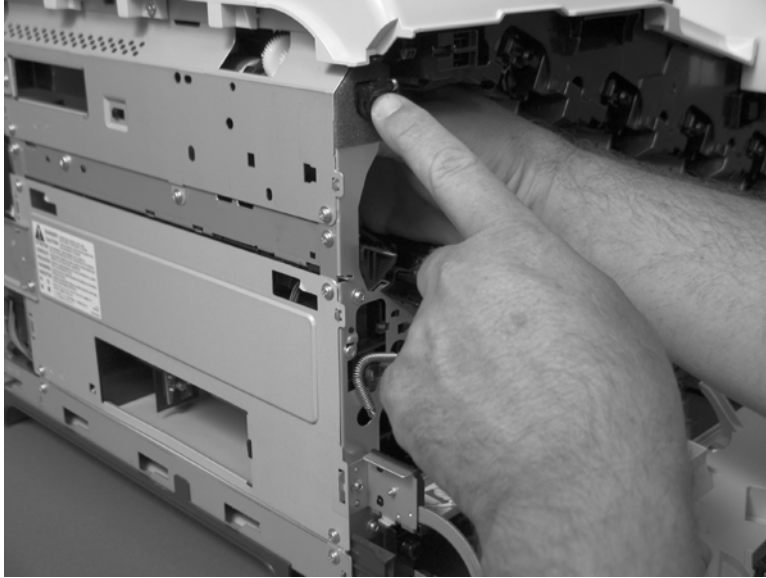
**Figure 6-97** Remove the residual-toner-feed motor (5 of 7)





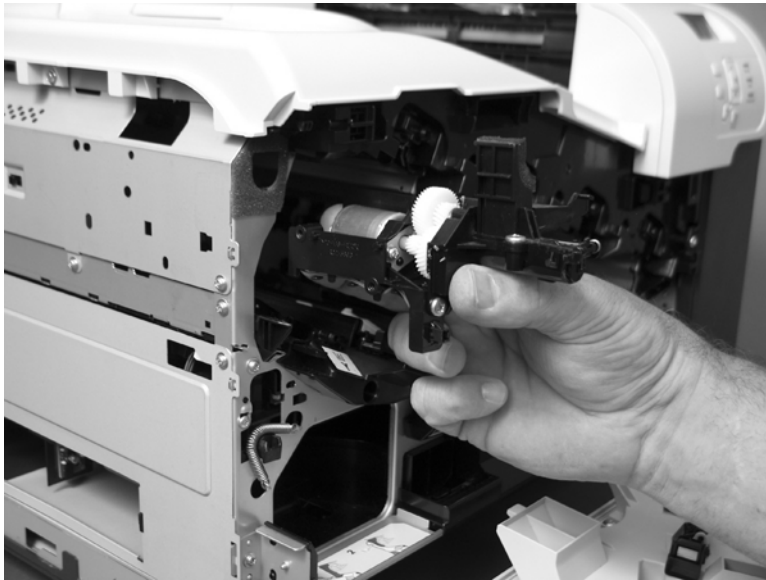
6. Push the assembly into the product to release it.

**Figure 6-98** Remove the residual-toner-feed motor (6 of 7)



7. Remove the motor.

**Figure 6-99** Remove the residual-toner-feed motor (7 of 7)



### Reinstall the residual-toner collection door

Snap the residual-toner collection door into the holders on the assembly. Make sure that the spring is correctly installed.

**Figure 6-100** Reinstall the residual-toner collection door





## Registration density (RD) sensor assembly

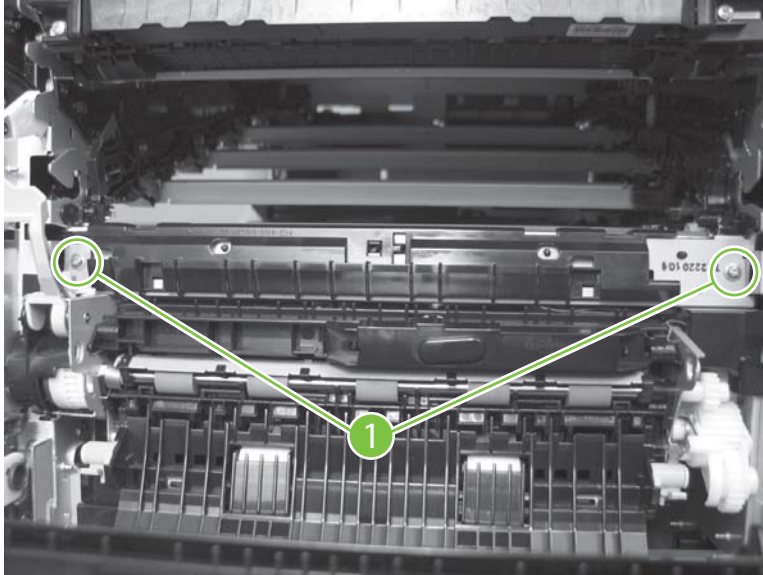
Before proceeding, remove the following components:

- Secondary transfer assembly. See [Secondary transfer assembly on page 186](#).
- Intermediate transfer belt (ITB). See [Intermediate transfer belt \(ITB\) on page 188](#).

### Remove the RD sensor assembly

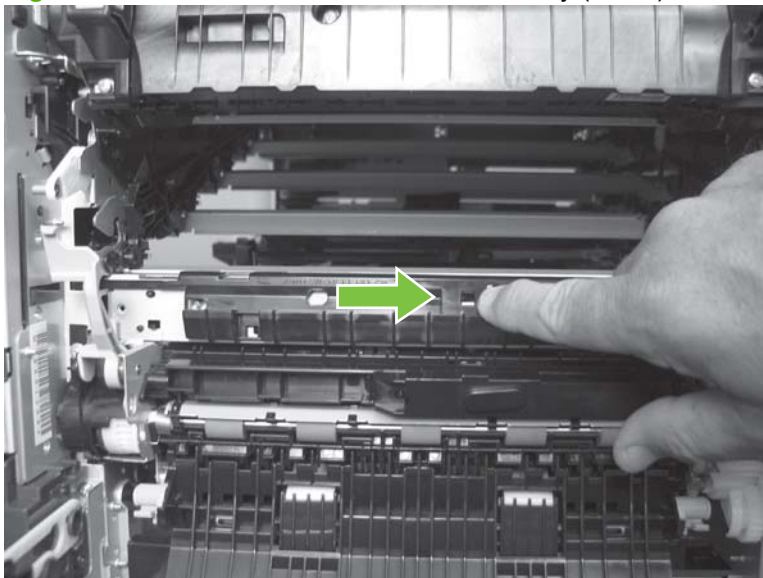
1. Remove two screws (callout 1).

**Figure 6-101** Remove the RD sensor assembly (1 of 6)



2. Slide the shutter toward the right side of the product. Keep the shutter in this position for the following step.

**Figure 6-102** Remove the RD sensor assembly (2 of 6)



- Carefully separate the assembly from the product. The assembly wire harnesses are still attached to the product.

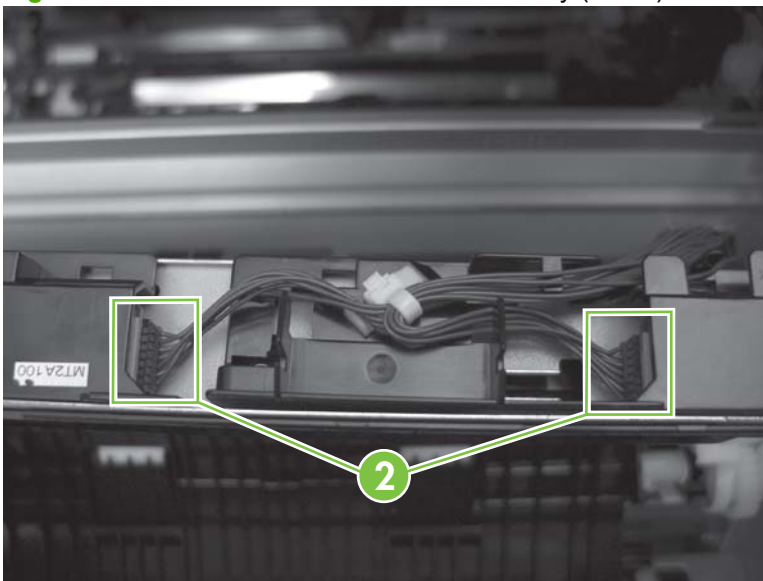
△ **CAUTION:** Do not damage the shutter as it passes through the chassis.

**Figure 6-103** Remove the RD sensor assembly (3 of 6)




- Disconnect two connectors (callout 2) on the back side of the assembly.

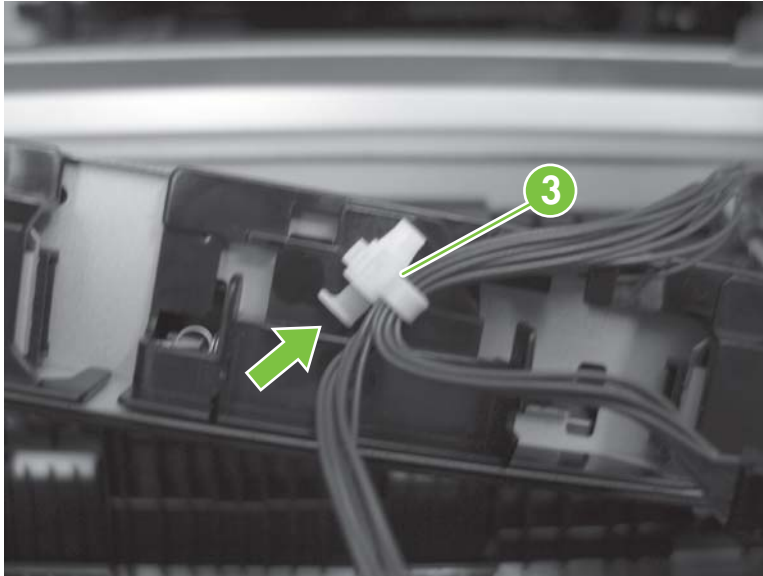
**Figure 6-104** Remove the RD sensor assembly (4 of 6)



5. Push in on the locking tab to release the retainer (callout 3), and then separate the retainer from the assembly.

 **NOTE:** The retainer remains attached to the wire harness, and disengages from the assembly.

**Figure 6-105** Remove the RD sensor assembly (5 of 6)



6. Remove the assembly.


**Figure 6-106** Remove the RD sensor assembly (6 of 6)



## Power-supply fan and fan duct


Before proceeding, remove the following components:

- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

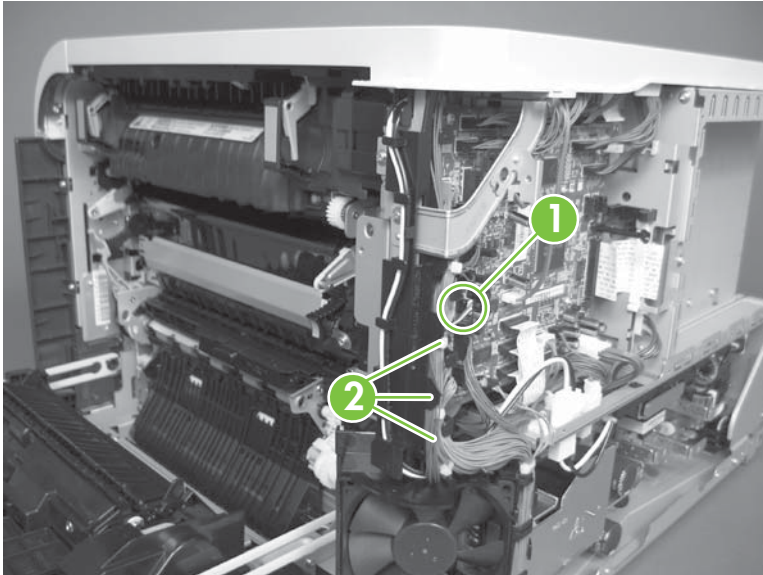
 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the power-supply fan.

### Remove the power-supply fan and fan duct

1. Disconnect one connector (callout 1; J119) and release the wire harnesses from the guide (callout 2).


 **NOTE:** To locate DC controller connector locations, see [DC controller connector locations on page 167](#).

**Figure 6-107** Remove the power-supply fan (1 of 4)

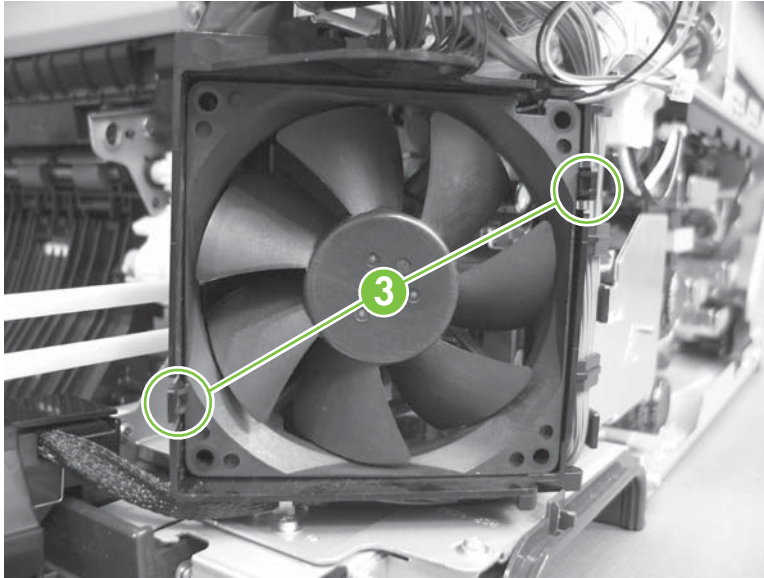




- 2. To remove the fan only:** Release two tabs (callout 3), and then remove the fan from the fan duct.

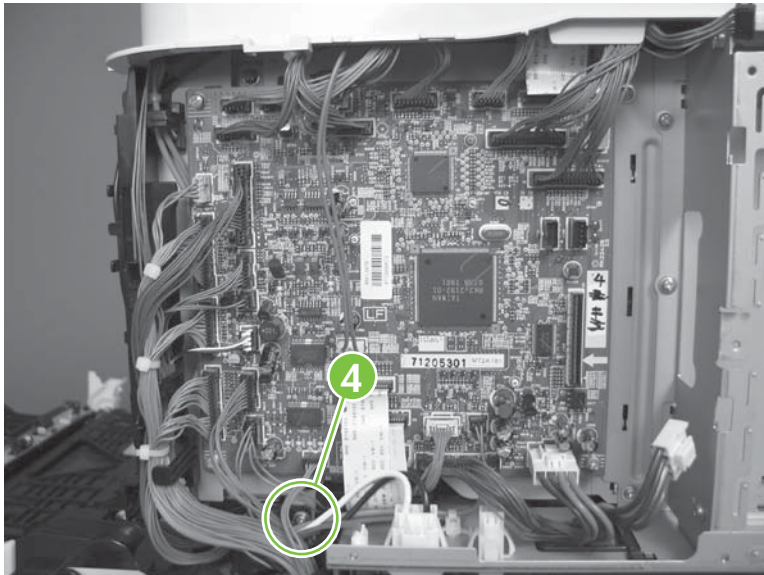
 **Reinstallation tip** When the fan is reinstalled, the air must flow into the product. Look at the arrows embossed on the fan frame that indicate air flow direction.

**Figure 6-108** Remove the power-supply fan (2 of 4)



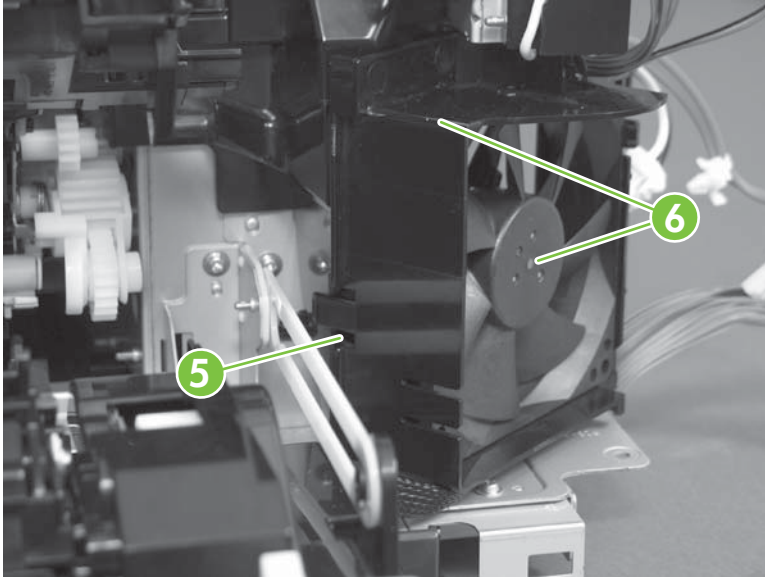
- 3. To remove the fan and fan duct:** Remove one screw (callout 4), and then release the wire harnesses from the guides on the fan duct.

**Figure 6-109** Remove the power-supply fan (3 of 4)



4. **To remove the fan and fan duct:** Release one tab (callout 5), and then remove the fan and fan duct (callout 6).

**Figure 6-110** Remove the power-supply fan (4 of 4)




## Registration assembly

Before proceeding, remove the following components:

- Secondary transfer assembly. See [Secondary transfer assembly on page 186](#).
- Intermediate transfer belt (ITB). See [Intermediate transfer belt \(ITB\) on page 188](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).


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 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the registration assembly.

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- RD sensor assembly. See [Registration density \(RD\) sensor assembly on page 227](#).

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 **TIP:** Removing the RD sensor assembly makes it much easier to reinstall the registration assembly.

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- Power-supply fan and fan duct. See [Power-supply fan and fan duct on page 230](#).

## Remove the registration assembly

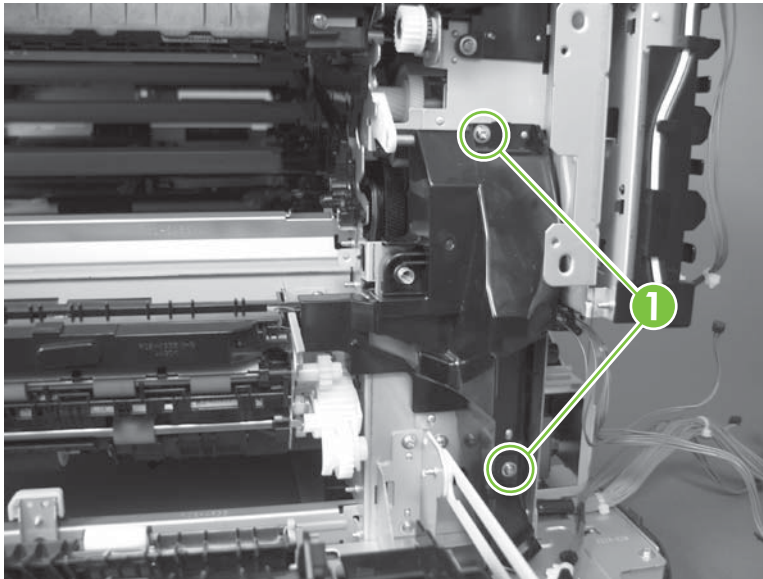
---

 **NOTE:** If a replacement registration assembly is installed, you must use the control-panel menus to reset the registration-roller count.

---

1. Remove two screws (callout 1).

**Figure 6-111** Remove the registration assembly (1 of 8)




2. Pull down on the cover to release one tab, and then rotate the cover away from the product to remove it.

**Figure 6-112** Remove the registration assembly (2 of 8)

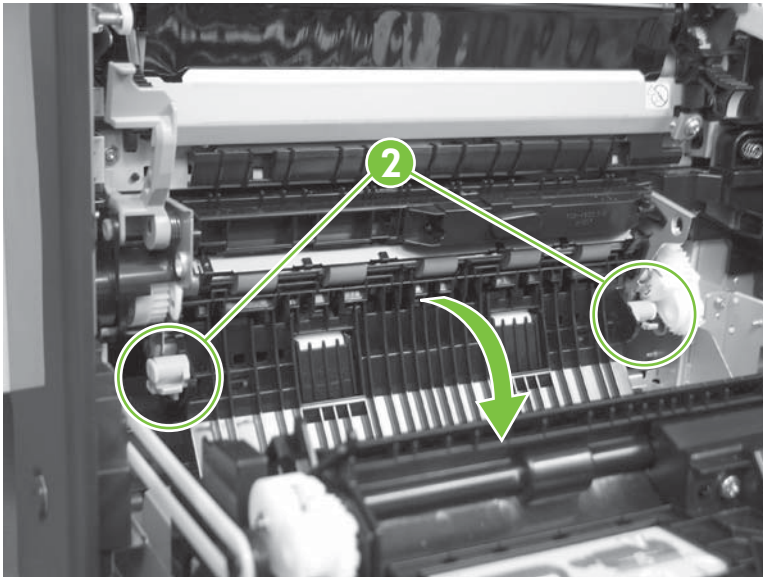


3. Release two green latches (callout 2), and then lower the feed guide.

 **Reinstallation tip** Make sure that the feed guide snaps into the closed position when you reinstall the registration assembly.

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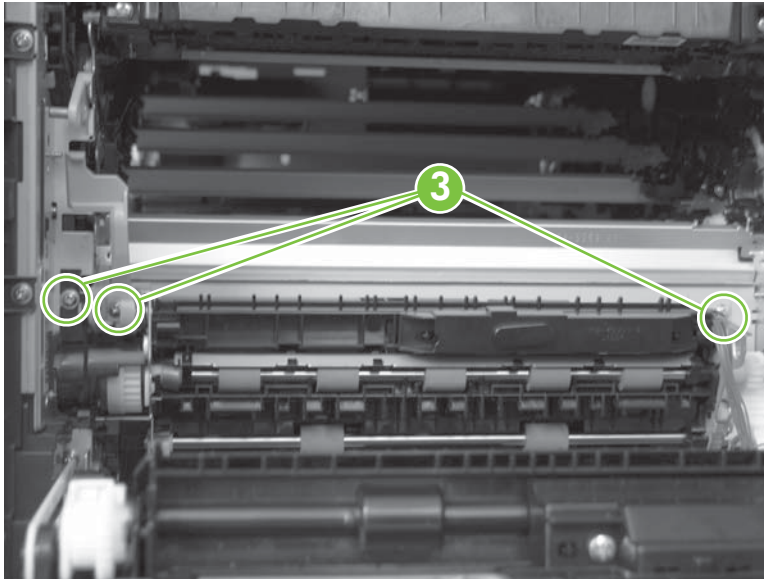
**Figure 6-113** Remove the registration assembly (3 of 8)





4. Remove three screws (callout 3).

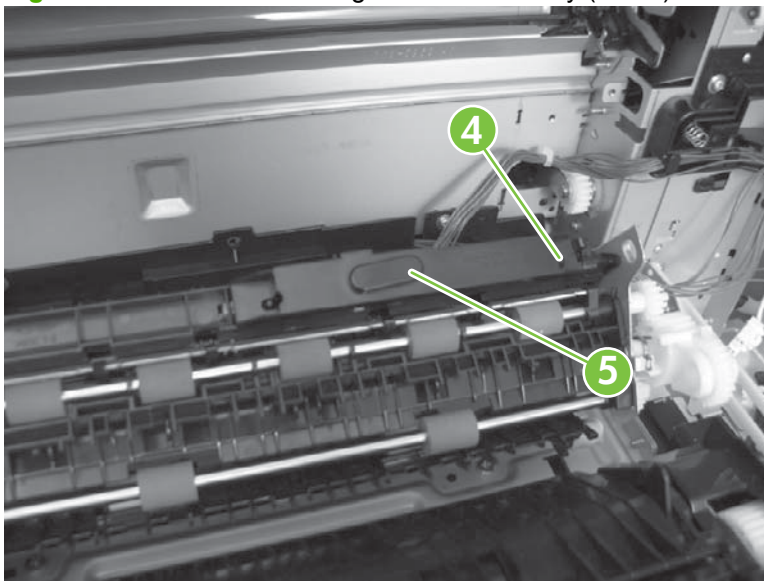
**Figure 6-114** Remove the registration assembly (4 of 8)



5. Separate the assembly from the product, release one tab (callout 4), and then remove the cover (callout 5).

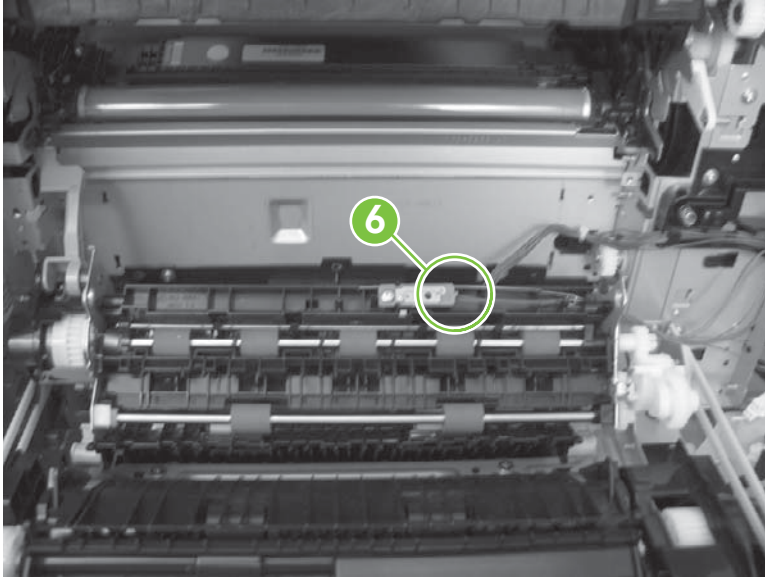
△ **CAUTION:** The assembly is still attached to the product by the wire harnesses.

**Figure 6-115** Remove the registration assembly (5 of 8)



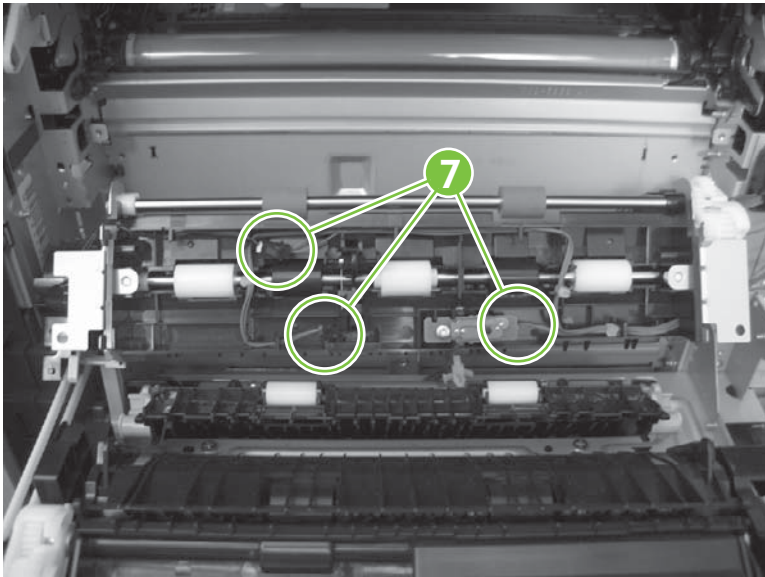
6. Disconnect one connector (callout 6), and then release the wire harness from the retainer.

**Figure 6-116** Remove the registration assembly (6 of 8)




7. Disconnect three connectors (callout 7) on the back side of the assembly, and then release the wires from the retainers.

**Figure 6-117** Remove the registration assembly (7 of 8)



8. Remove the assembly.

 **Reinstallation tip** When you reinstall the registration assembly, make sure that it is correctly positioned in the product. The tabs on the assembly must fit into the slots in the product chassis and the assembly should fit securely up against the product chassis.


**Figure 6-118** Remove the registration assembly (8 of 8)




## Interconnect board (ICB)

Before proceeding, remove the following components:

- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).


 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the interconnect board (ICB).

### Remove the ICB

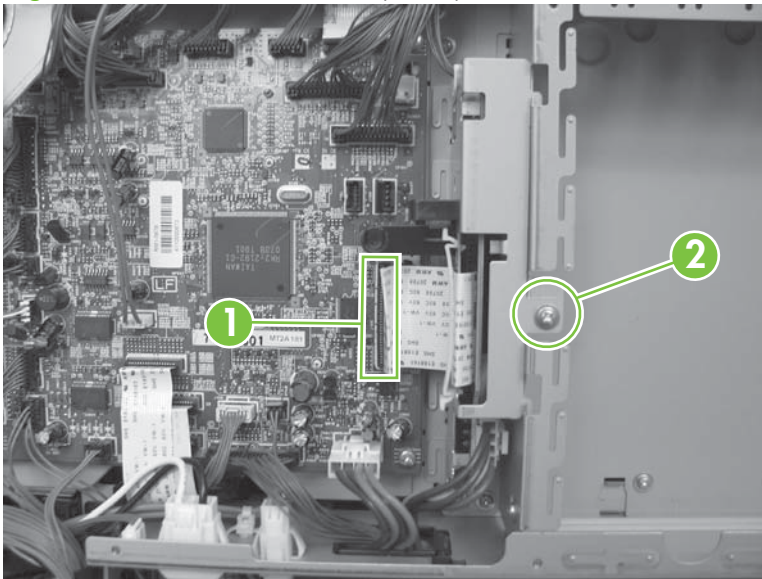
 **WARNING!** Do not remove the ICB from a product and then install it into a **different** product. Failure to follow this warning will result in severe damage to that product and cause it to be unusable. HP recommends that if you remove and replace the ICB, you should destroy the discarded ICB so that it can not accidentally be installed in a different product.

 **CAUTION:**  ESD-sensitive part.

1. Disconnect one connector (callout 1; J105), and then remove one screw (callout 2).

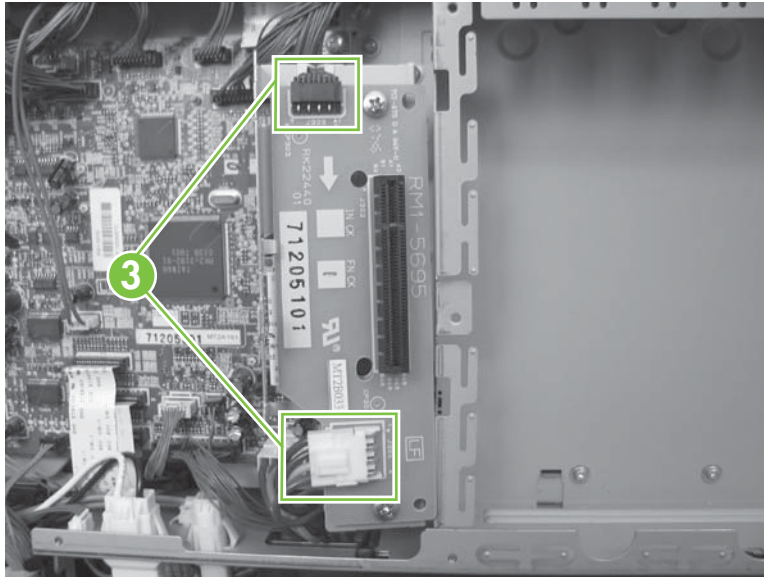
 **NOTE:** To locate DC controller connector locations, see [DC controller connector locations on page 167](#).

**Figure 6-119** Remove the ICB (1 of 3)



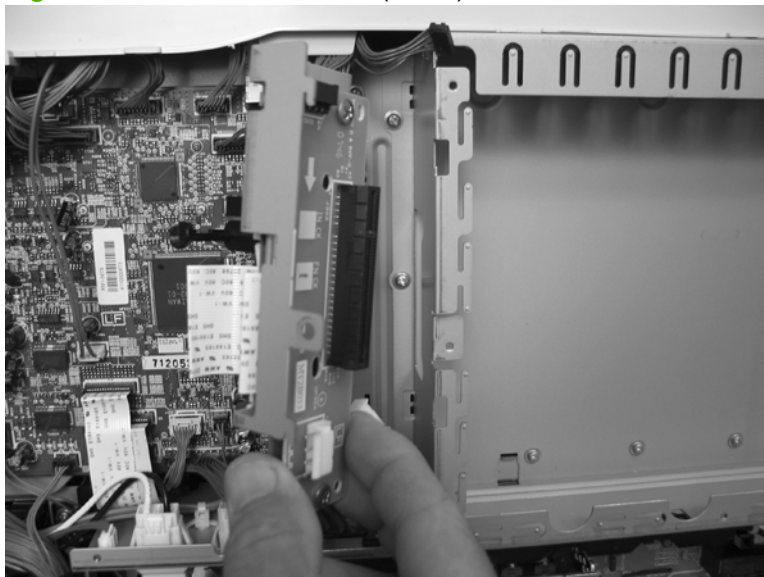
- Carefully rotate and slide the ICB up and away from the chassis, and then disconnect two connectors (callout 3).

**Figure 6-120** Remove the ICB (2 of 3)



- Remove the ICB.

**Figure 6-121** Remove the ICB (3 of 3)






## DC controller PCA and tray

Before proceeding, remove the following components:


- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

---

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the DC controller PCA.

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- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).
- Low-voltage power supply. See [Low-voltage power supply on page 243](#).

 **NOTE:** If removing the DC controller to access another component, skip the third step and leave the DC controller attached to the sheet-metal tray.

---

## Remove the DC controller PCA

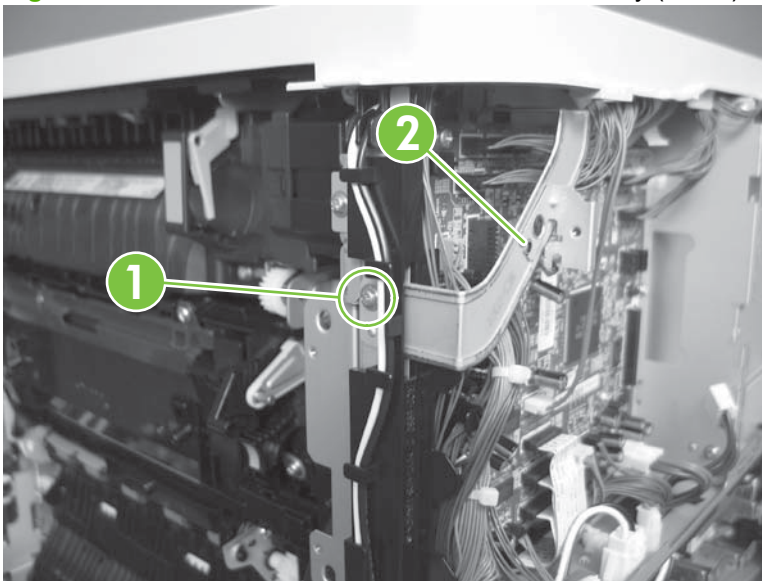
△

**CAUTION:**  ESD-sensitive part.


---

1. Remove one screw (callout 1), and then remove the sheet-metal bracket (callout 2).

**Figure 6-122** Remove the DC controller PCA and tray (1 of 4)



2. Disconnect all the connectors.

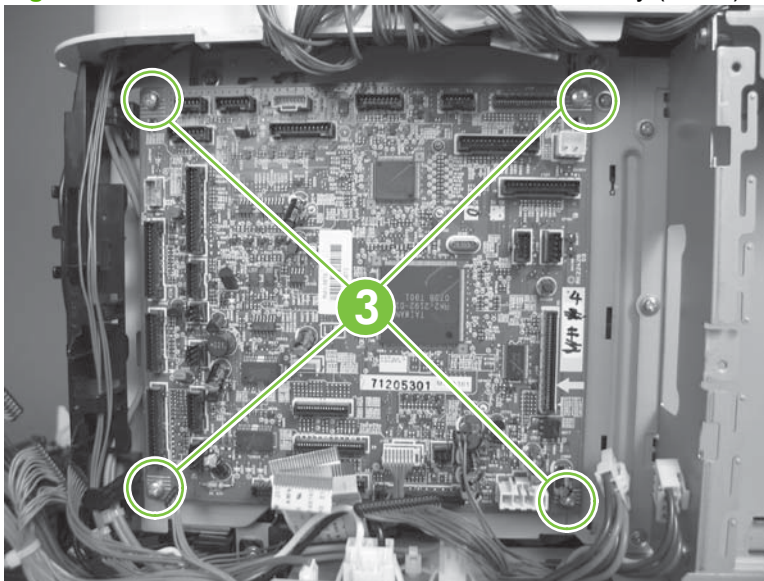
 **Reinstallation tip** The connector locations J124, J133, and J134 are not used.


**Figure 6-123** Remove the DC controller PCA and tray (2 of 4)



3. Remove four screws (callout 3), and then remove the DC controller PCA.

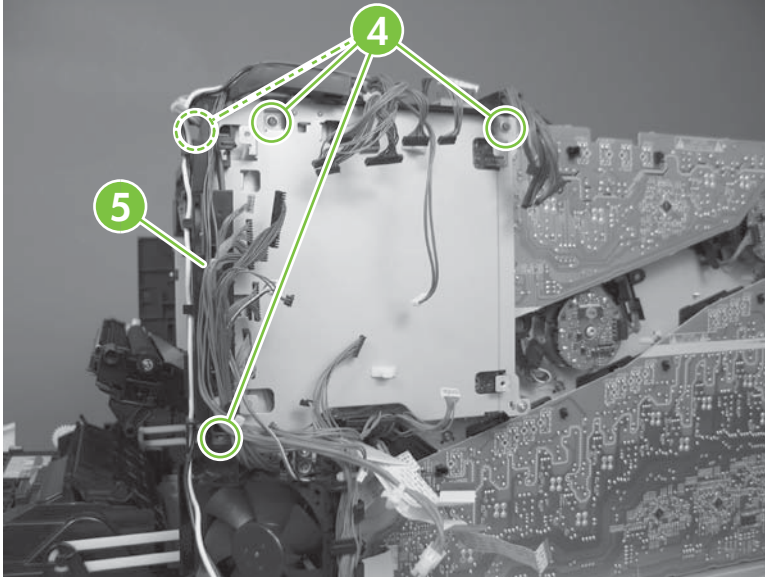
**Figure 6-124** Remove the DC controller PCA and tray (3 of 4)



 **NOTE:** If removing the DC controller to access another component, skip this step and leave the DC controller attached to the sheet-metal tray.

4. If necessary, remove four screws (callout 4), remove the wire guide (callout 5), and then remove the sheet-metal tray.

**Figure 6-125** Remove the DC controller PCA and tray (4 of 4)







## Low-voltage power supply


Before proceeding, remove the following components:

- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the low-voltage power supply.

- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

 **NOTE:** Removing the ICB as a separate component is only necessary if you are replacing the power supply. If you are removing the power supply for internal product access, it is recommended that you leave the ICB installed on the power supply assembly.


 **NOTE:** The formatter cage is attached to the LVPS. Remove both components as an assembly. You can then remove the formatter cage from the LVPS.

## Remove the low-voltage power supply



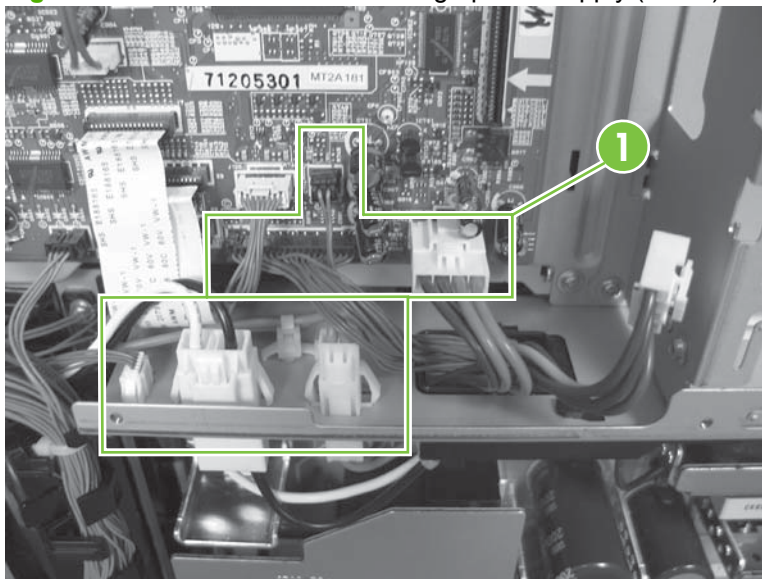
**CAUTION:**  ESD-sensitive part.

1. Disconnect six connectors (callout 1; J100, J101, J143 on the DC controller PCA).


 **NOTE:** To locate DC controller connector locations, see [DC controller connector locations on page 167](#).

**NOTE:** If the ICB is removed with the power supply, as noted in the above bulleted list, also disconnect one FFC (J105) on the DC controller and the connector on the top of the ICB.

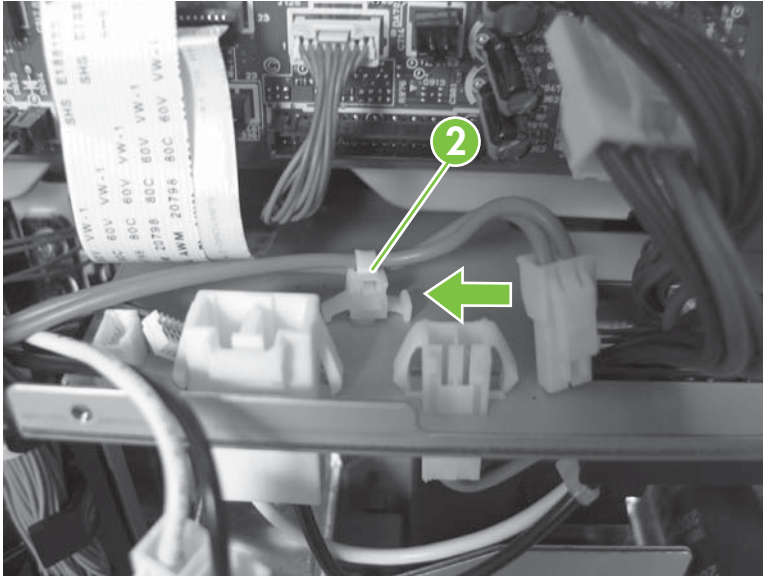
**Figure 6-126** Remove the low-voltage power supply (1 of 8)



2. Push in on the locking tab to release the retainer (callout 2), and then separate the retainer from the assembly.

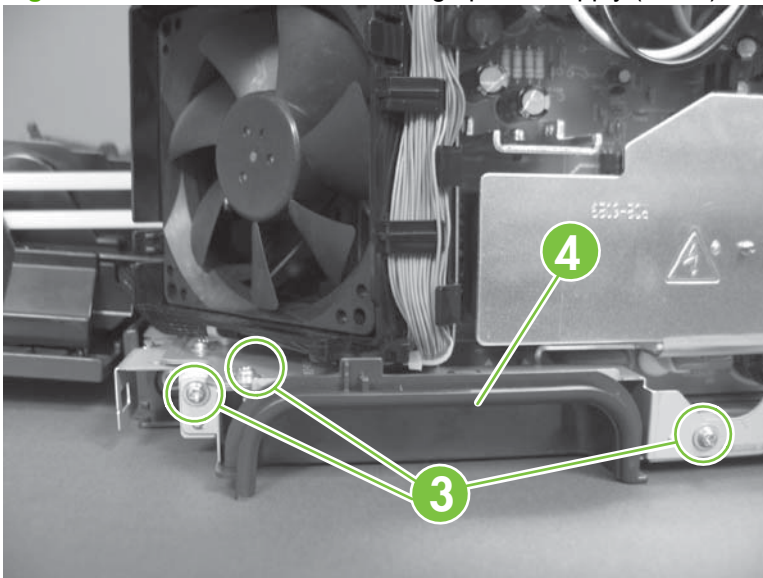
 **NOTE:** The retainer remains attached to the wire harness, and disengages from the assembly.

**Figure 6-127** Remove the low-voltage power supply (2 of 8)



3. Remove three screws (callout 3), and then remove the handle (callout 4).

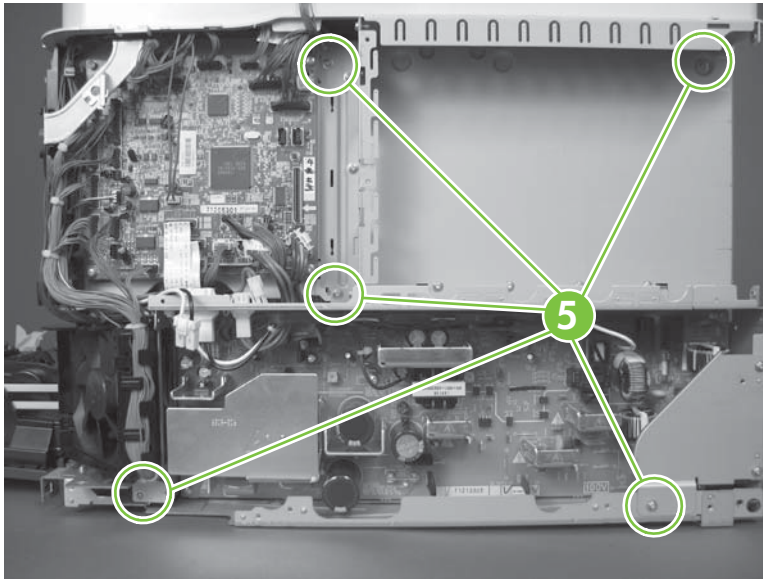
**Figure 6-128** Remove the low-voltage power supply (3 of 8)



4. Remove five screws (callout 5).

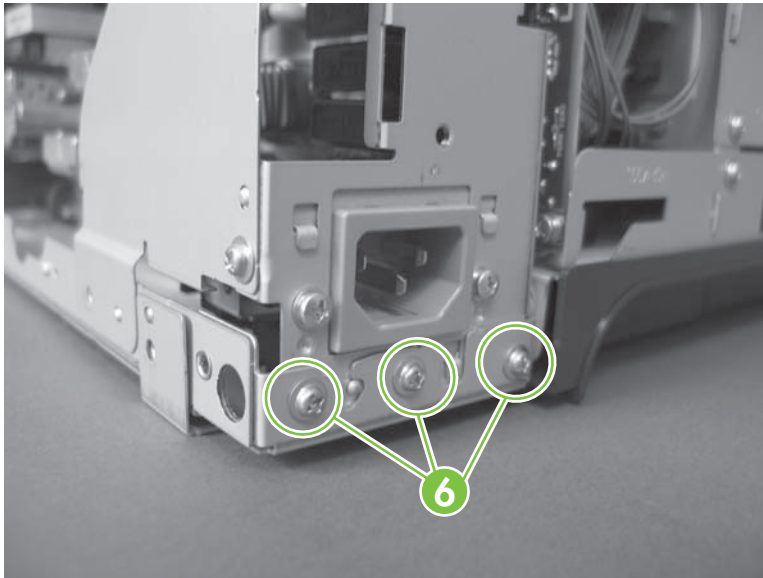
 **NOTE:** The illustration below shows the ICB removed.

**Figure 6-129** Remove the low-voltage power supply (4 of 8)



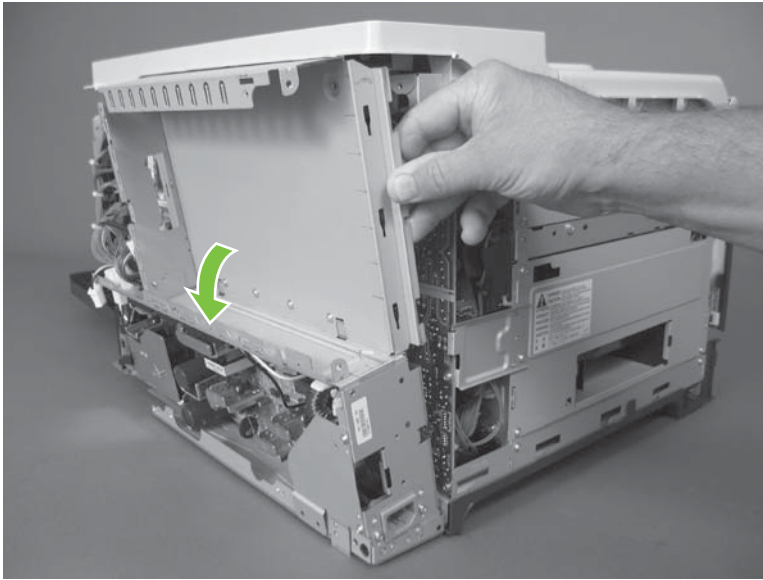
5. Remove three screws (callout 6).

**Figure 6-130** Remove the low-voltage power supply (5 of 8)



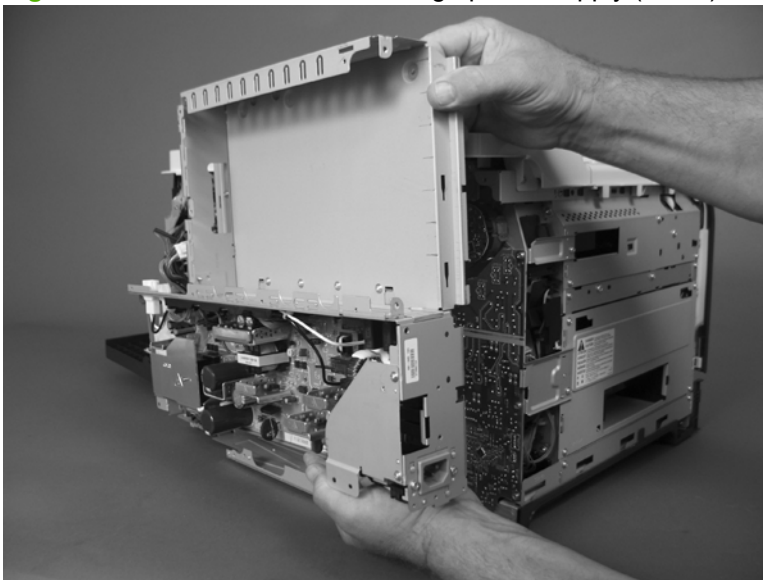
6. Rotate the formatter cage away from the top of the product.

**Figure 6-131** Remove the low-voltage power supply (6 of 8)




7. Remove the assembly.

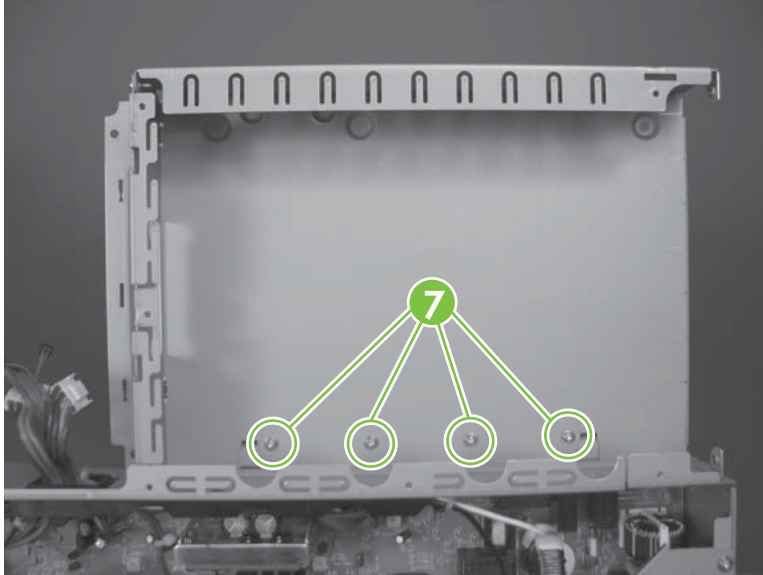
**Figure 6-132** Remove the low-voltage power supply (7 of 8)



8. Remove four screws (callout 7), and then separate the formatter cage from the low-voltage power supply.

 **NOTE:** If you are removing the power supply for internal product access, you can leave the formatter cage installed on the power supply chassis.

**Figure 6-133** Remove the low-voltage power supply (8 of 8)







## High-voltage power supply lower (HVPS-D)

Before proceeding, remove the following components:

- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the high-voltage power supply lower.

- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- Low-voltage power supply. See [Low-voltage power supply on page 243](#).

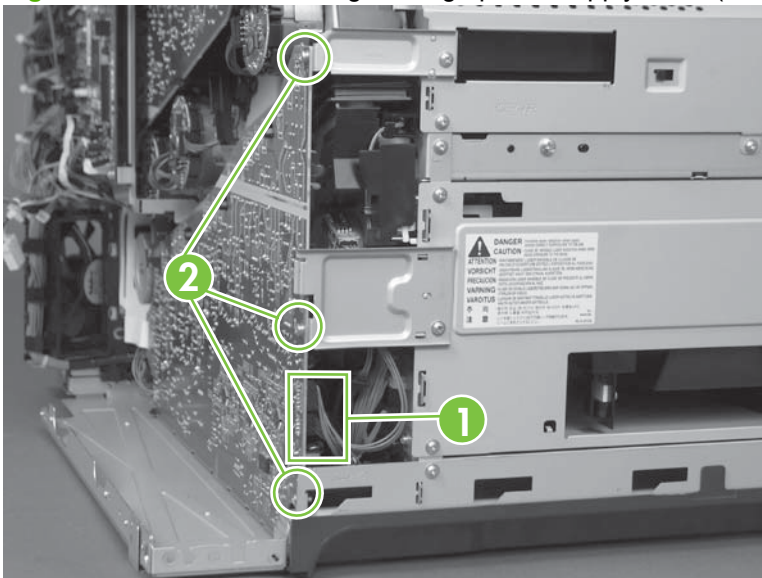
## Remove the high-voltage power supply lower



**CAUTION:**  ESD-sensitive part.

1. Disconnect two connectors (callout 1), and then remove three screws (callout 2).

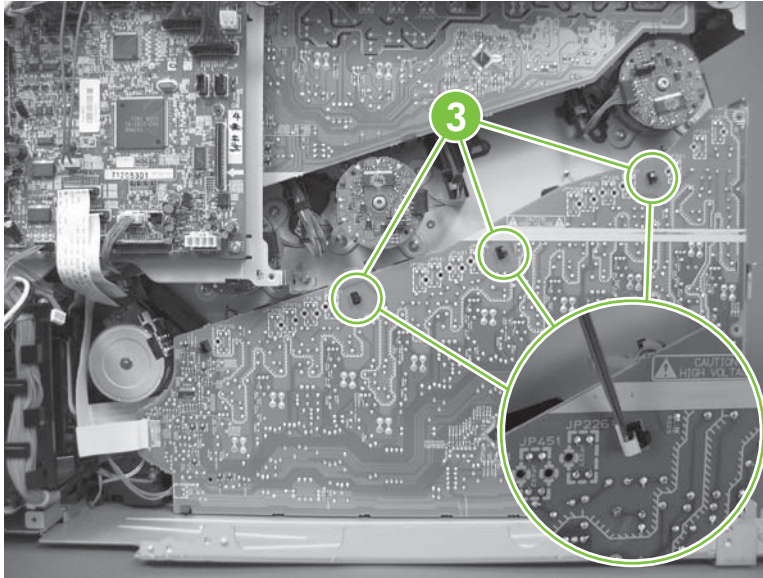
**Figure 6-134** Remove the high-voltage power supply lower (1 of 4)



2. Use a small flat blade screwdriver to carefully remove three locking clips (callout 3).

△ **CAUTION:** Do not damage the PCA with the screwdriver.

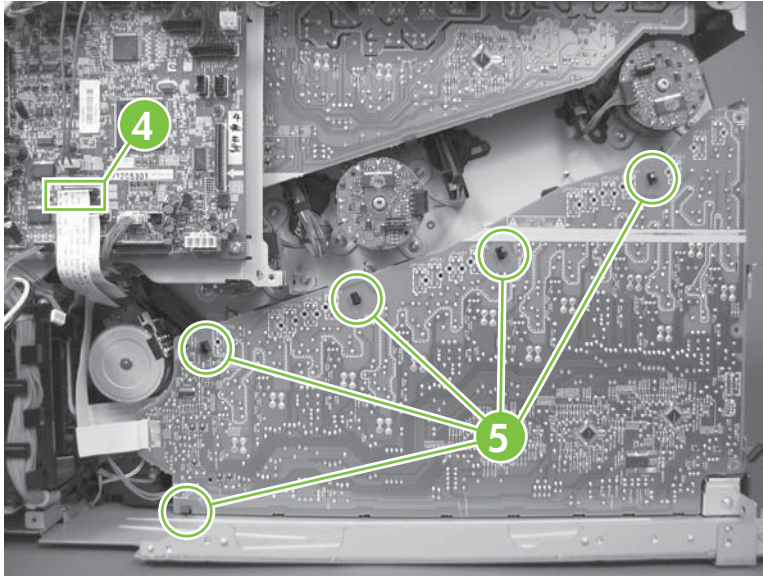
**Figure 6-135** Remove the high-voltage power supply lower (2 of 4)



3. Disconnect one connector (callout 4; J114), and then release five clips (callout 5).

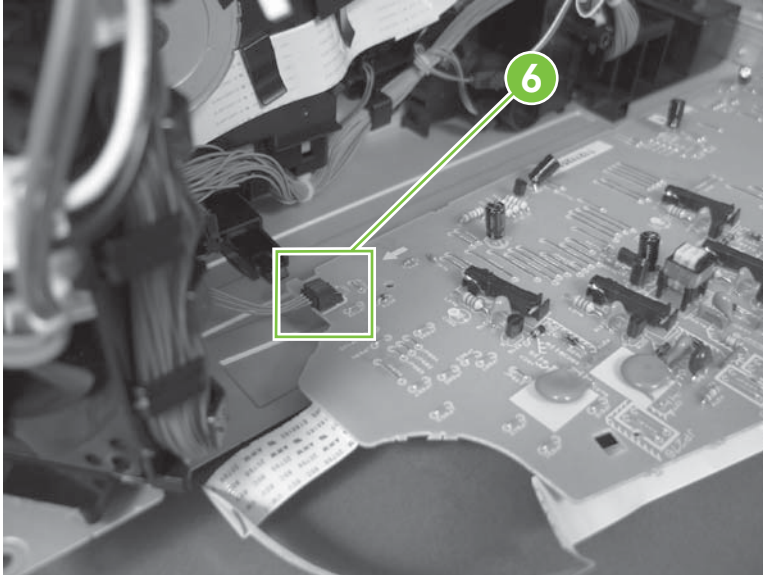
📄 **NOTE:** To locate DC controller connector locations, see [DC controller connector locations on page 167](#).

**Figure 6-136** Remove the high-voltage power supply lower (3 of 4)



4. Rotate the top of the power supply away from the chassis, and then disconnect one connector (callout 6). Remove the power supply

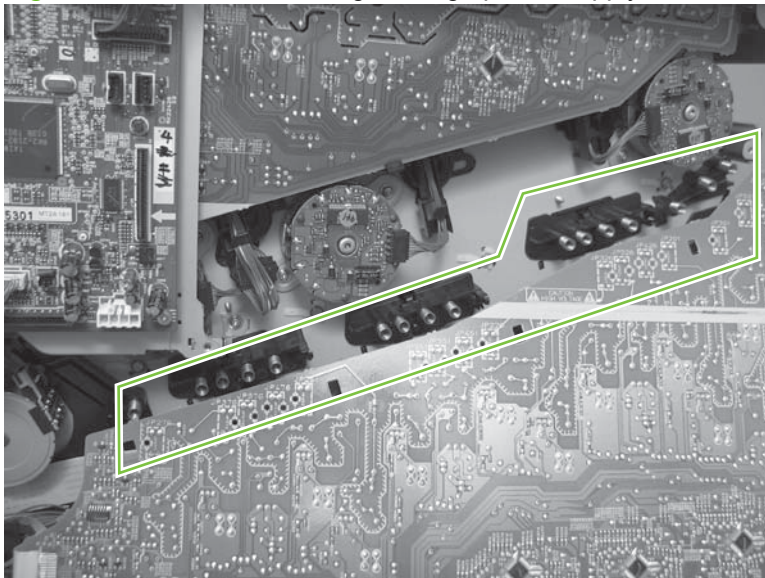
**Figure 6-137** Remove the high-voltage power supply lower (4 of 4)



### Reinstall the high-voltage power supply lower

When you reinstall the power supply, look through the holes in the PCA and make sure that the high-voltage contact springs are correctly seated against the PCA.

**Figure 6-138** Reinstall the high-voltage power supply lower






## Developing-disengagement motor

Before proceeding, remove the following components:

- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).


---

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the developing-disengagement motor.

---

- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

---

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

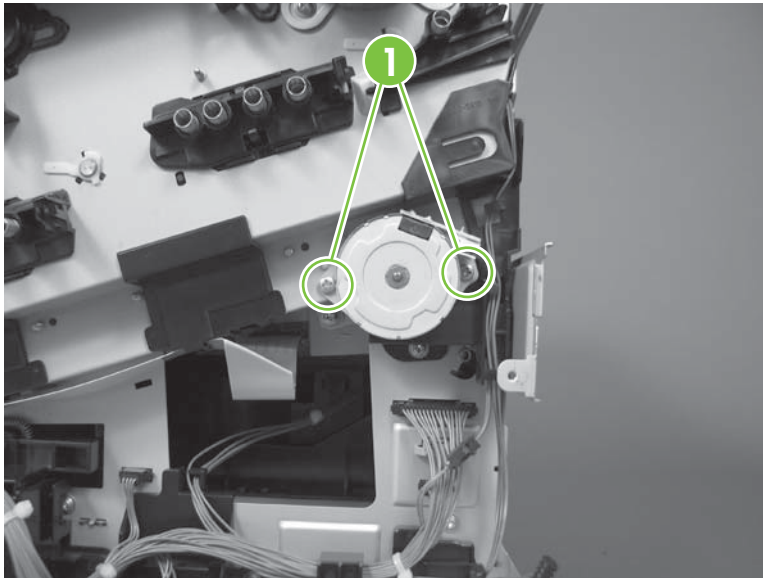
---

- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply lower. See [High-voltage power supply lower \(HVPS-D\) on page 248](#).

## Remove the developing-disengagement motor

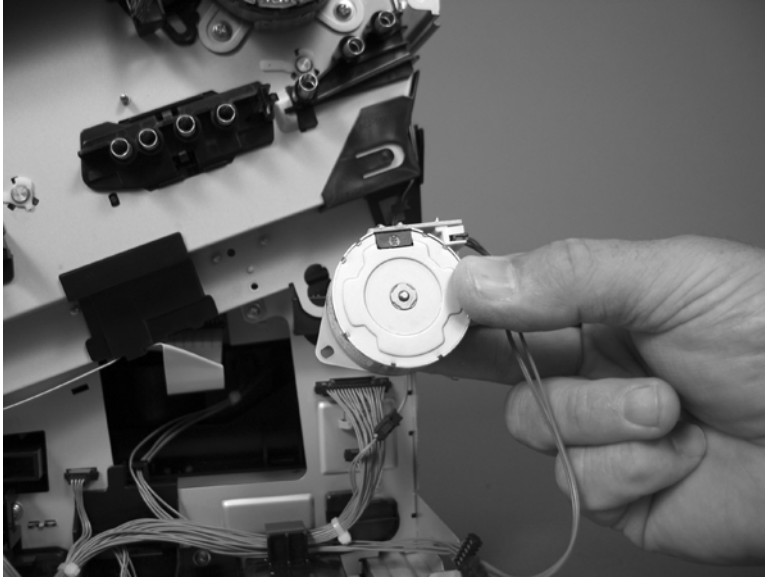
1. Remove two screws (callout 1).

**Figure 6-139** Remove the developing-disengagement motor (1 of 2)



2. Remove the motor.

**Figure 6-140** Remove the developing-disengagement motor (2 of 2)




## Pickup motor

Before proceeding, remove the following components:

- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).


---

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the pickup motor.

---

- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

---

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

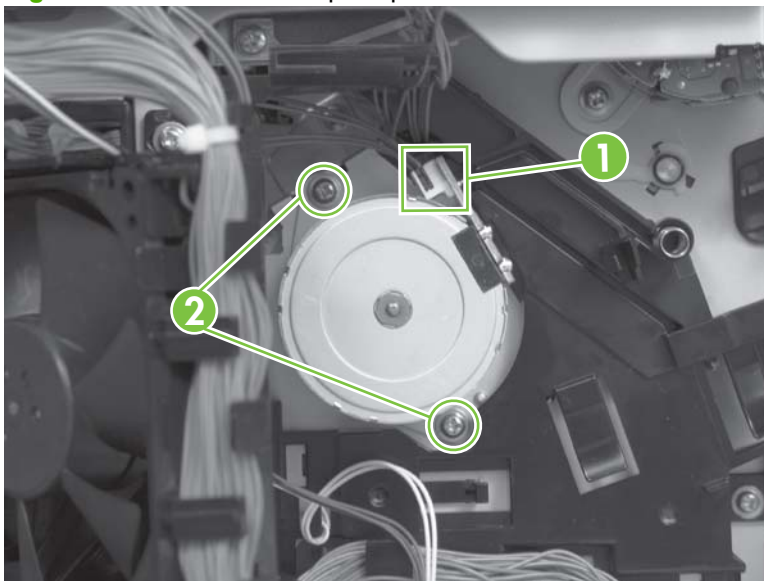
---

- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply lower. See [High-voltage power supply lower \(HVPS-D\) on page 248](#).

## Remove the pickup motor

Disconnect one connector (callout 1), remove two screws (callout 2), and then remove the motor.

**Figure 6-141** Remove the pickup motor




## Lifter-drive assembly

Before proceeding, remove the following components:


- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

---

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the lifter drive assembly.

---

- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

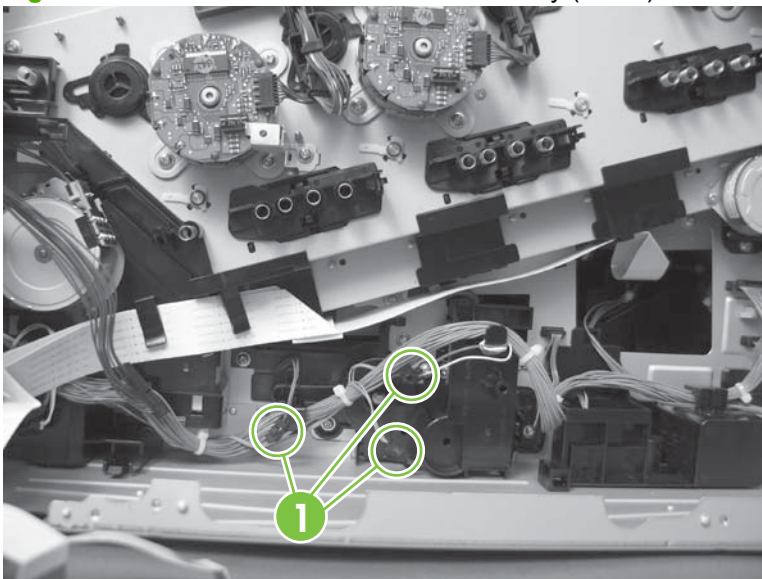
---

- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply lower. See [High-voltage power supply lower \(HVPS-D\) on page 248](#).

## Remove the lifter-drive assembly

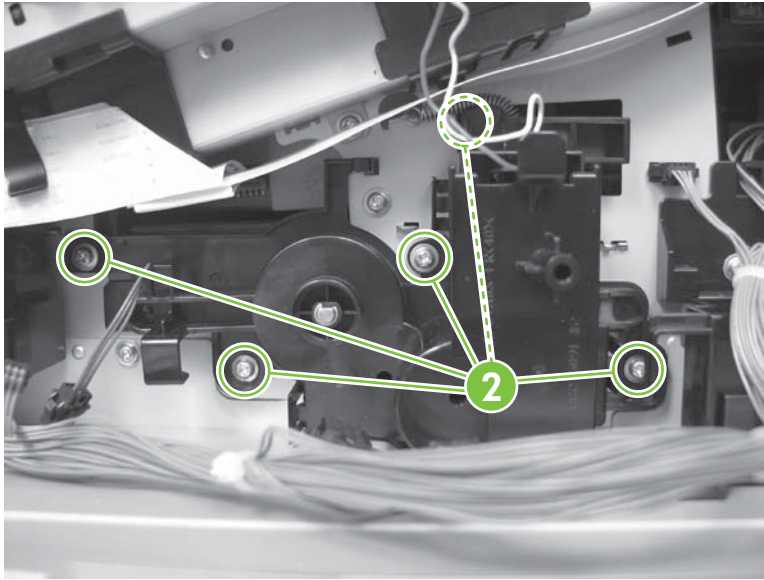
1. Disconnect three connectors (callout 1), and then release the wire harness from the retainers.

**Figure 6-142** Remove the lifter-drive assembly (1 of 2)



2. Remove five screws (callout 2), and then remove the assembly.

**Figure 6-143** Remove the lifter-drive assembly (2 of 2)




## Cassette-pickup drive assembly

Before proceeding, remove the following components:


- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

---

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the cassette-pickup drive assembly.

---

- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).


 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

---

- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply lower. See [High-voltage power supply lower \(HVPS-D\) on page 248](#).

## Remove the cassette-pickup drive assembly

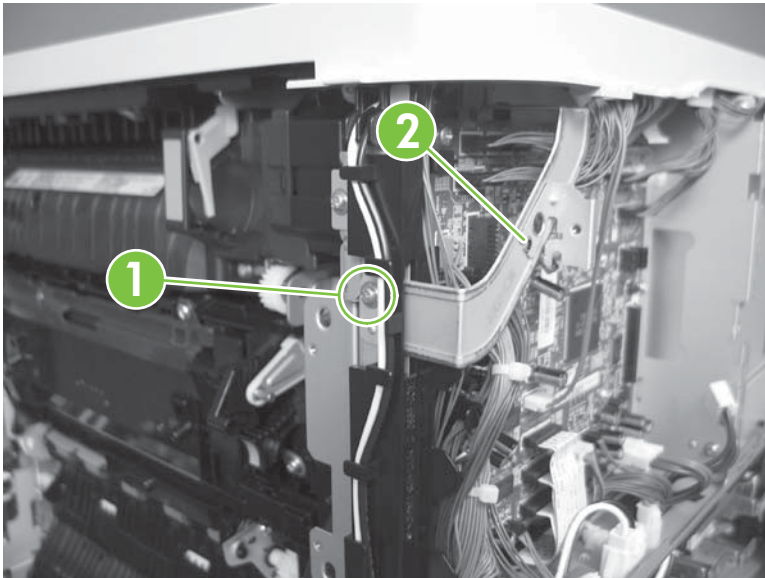
---

 **NOTE:** To remove the pickup motor only, see [Pickup motor on page 253](#).

---


1. Remove one screw (callout 1), and then remove the sheet-metal bracket (callout 2).

**Figure 6-144** Remove the cassette-pickup drive assembly (1 of 10)

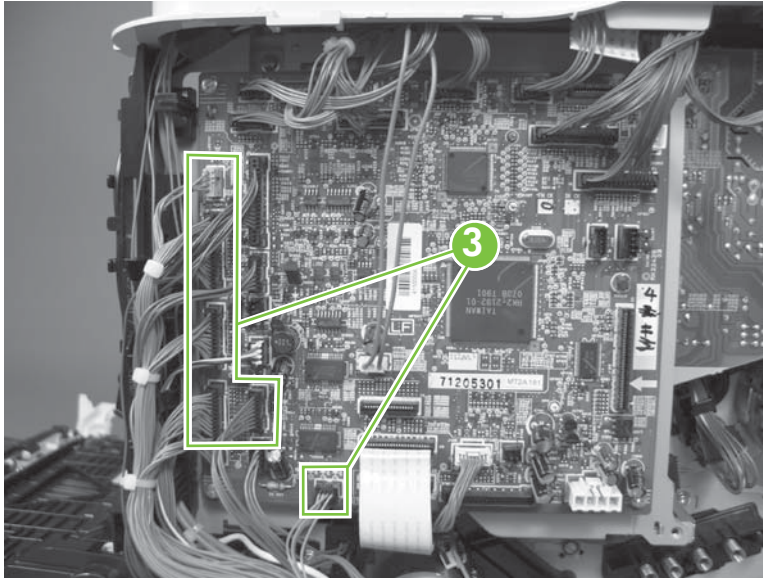





2. Disconnect six connectors (callout 3; J106, J107, J108, J137, J138, J140).

 **NOTE:** To locate DC controller connector locations, see [DC controller connector locations on page 167](#).

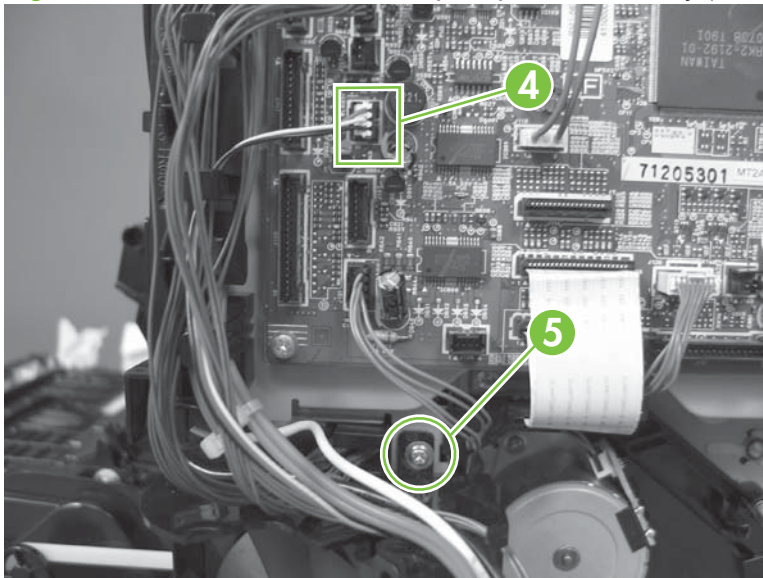
**Figure 6-145** Remove the cassette-pickup drive assembly (2 of 10)



3. Disconnect one connector (callout 4; J119), remove one screw (callout 5), and then release the wire harness from the guides.

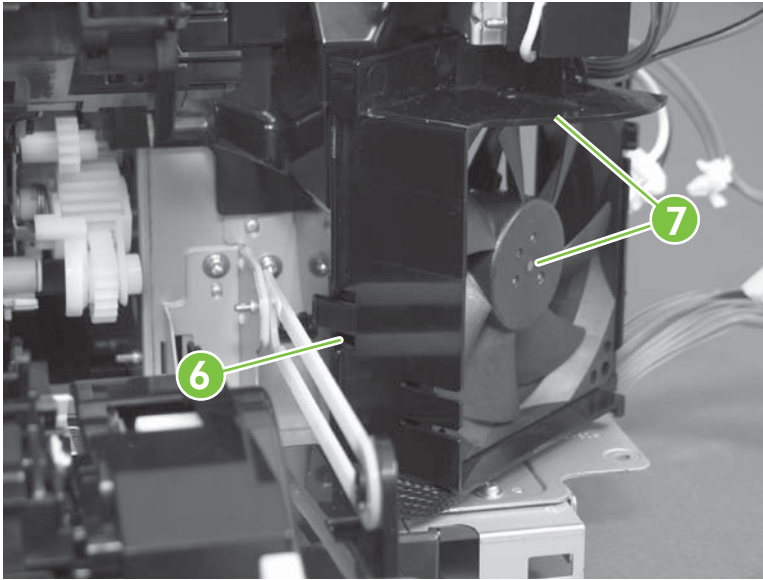
 **NOTE:** To locate DC controller connector locations, see [DC controller connector locations on page 167](#).

**Figure 6-146** Remove the cassette-pickup drive assembly (3 of 10)




4. Release one tab (callout 6), and then remove the fan and fan duct (callout 7).

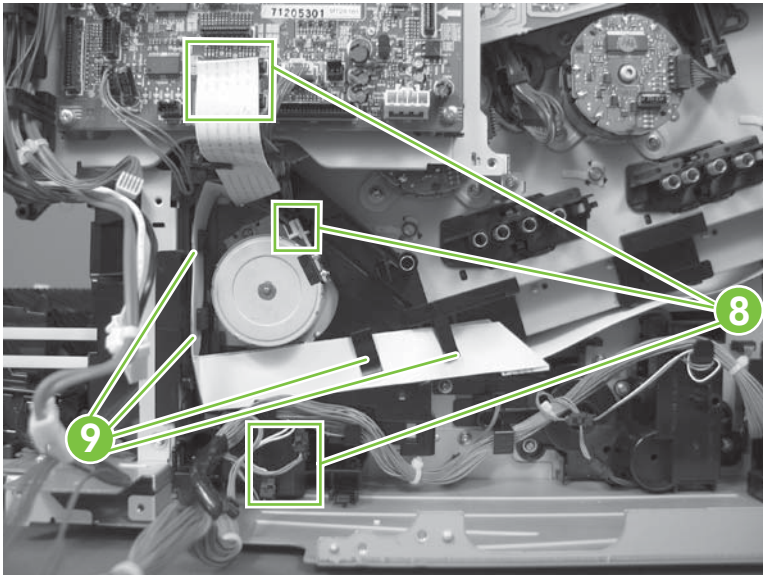
**Figure 6-147** Remove the cassette-pickup drive assembly (4 of 10)



5. Disconnect five connectors (callout 8; J110, J111 on the DC controller PCA), release the FFCs from the guide (callout 9), and then release the wire harnesses from the guides.

 **NOTE:** To locate DC controller connector locations, see [DC controller connector locations on page 167](#).

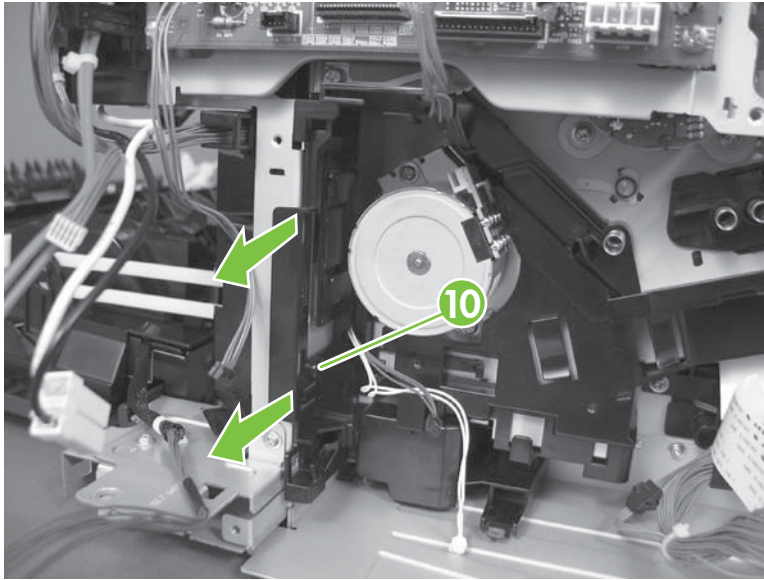
**Figure 6-148** Remove the cassette-pickup drive assembly (5 of 10)





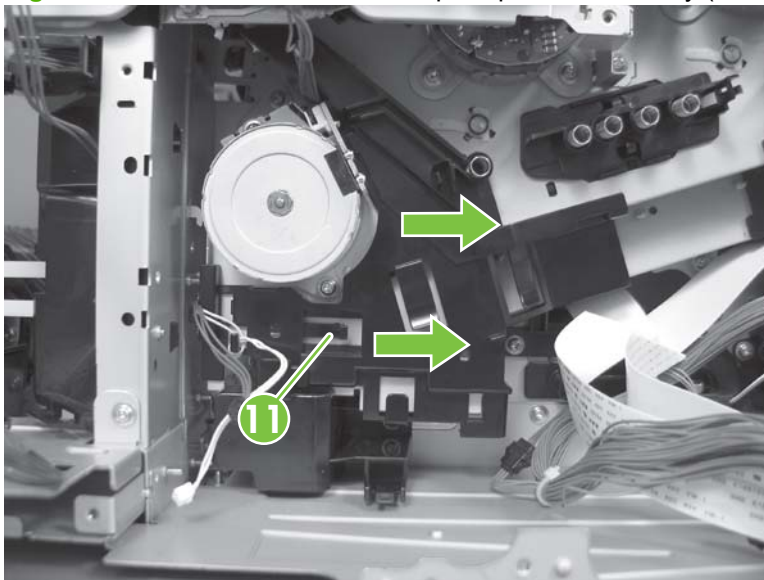
6. Release one tab (callout 10), and then remove the guide.

**Figure 6-149** Remove the cassette-pickup drive assembly (6 of 10)



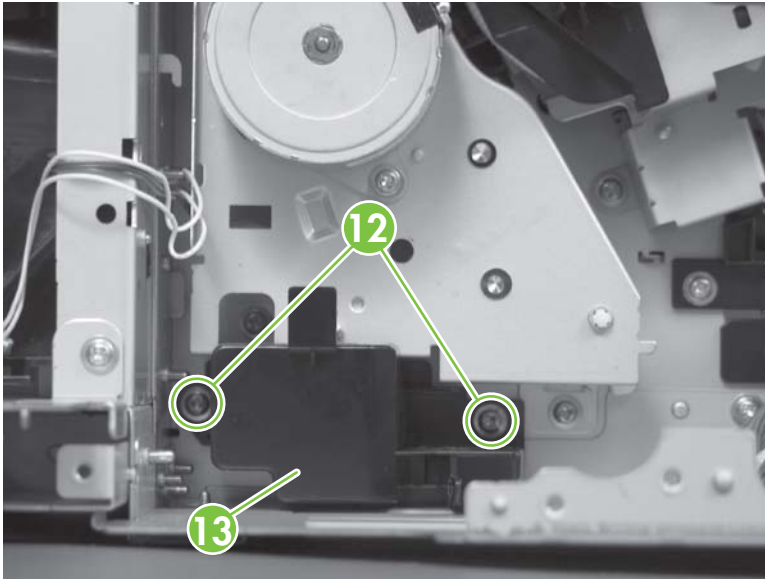
7. Release one tab (callout 11), and then remove the guide.

**Figure 6-150** Remove the cassette-pickup drive assembly (7 of 10)



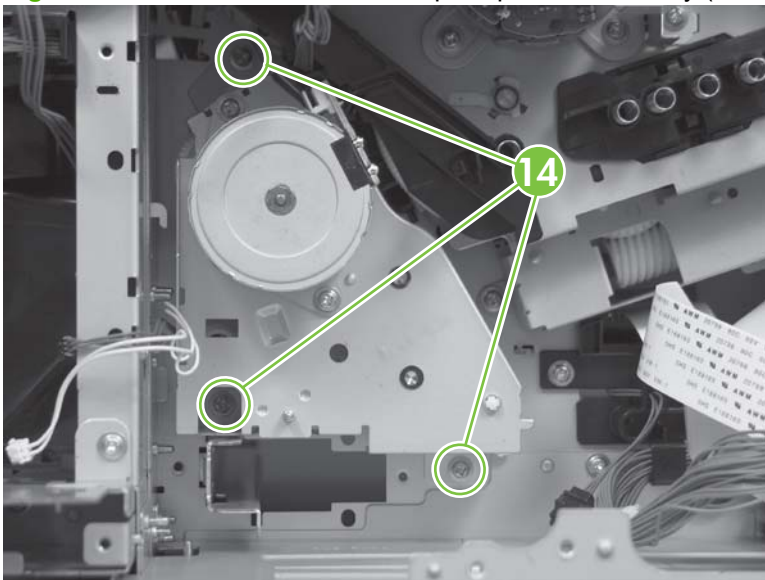
8. Remove two screws (callout 12), and then remove the high-voltage bracket (callout 13).

**Figure 6-151** Remove the cassette-pickup drive assembly (8 of 10)



9. Remove three screws (callout 14).

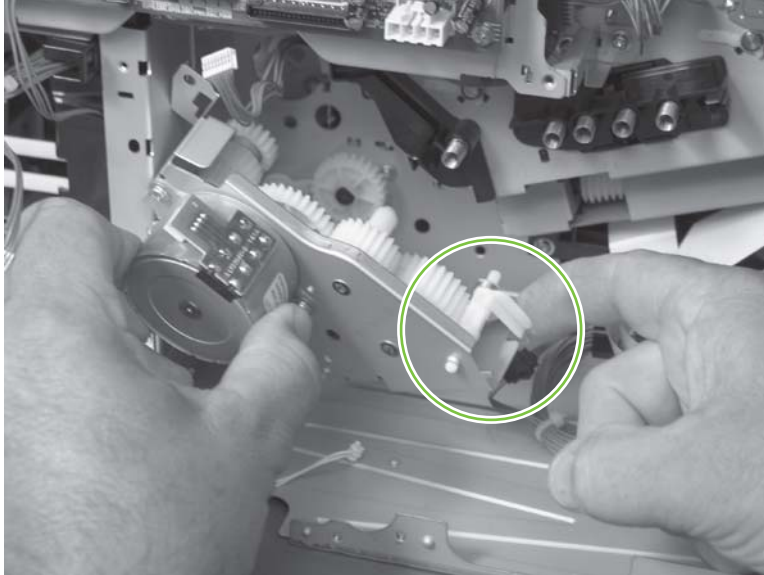
**Figure 6-152** Remove the cassette-pickup drive assembly (9 of 10)



10. Carefully remove the assembly.

△ **CAUTION:** The gears, arm, and spring on the assembly are not captive. Use your finger to secure the arm and spring as you remove the assembly. If the gears, arm, or spring become dislodged, see [Reinstall the cassette-pickup drive assembly on page 261](#).

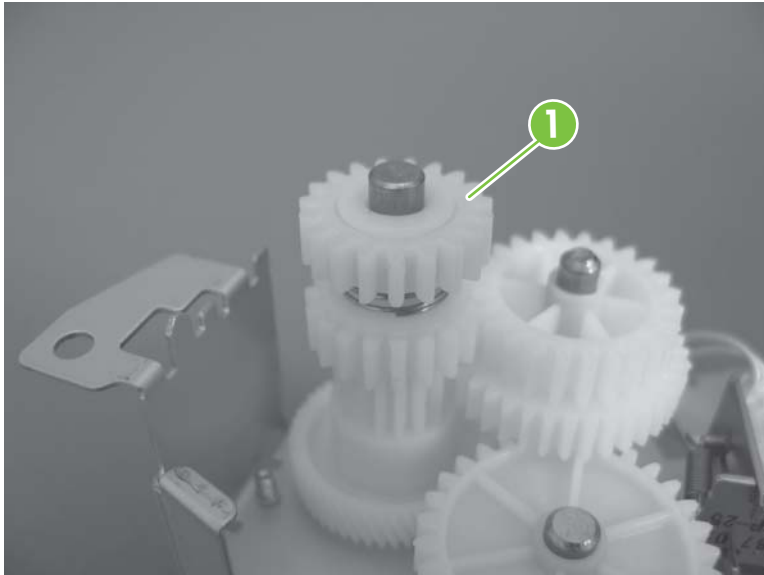
**Figure 6-153** Remove the cassette-pickup drive assembly (10 of 10)



### Reinstall the cassette-pickup drive assembly

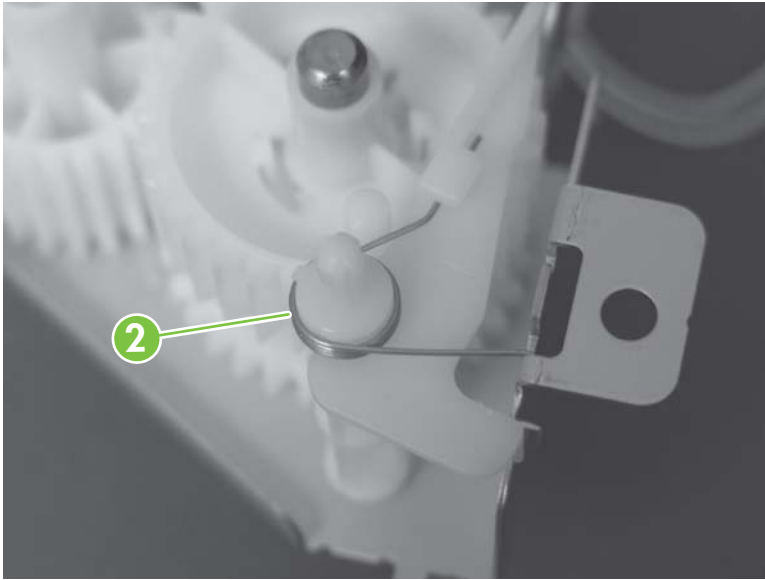
1. Make sure that the spring-loaded gear (callout 1) is correctly installed.

**Figure 6-154** Reinstall the cassette-pickup drive assembly (1 of 3)



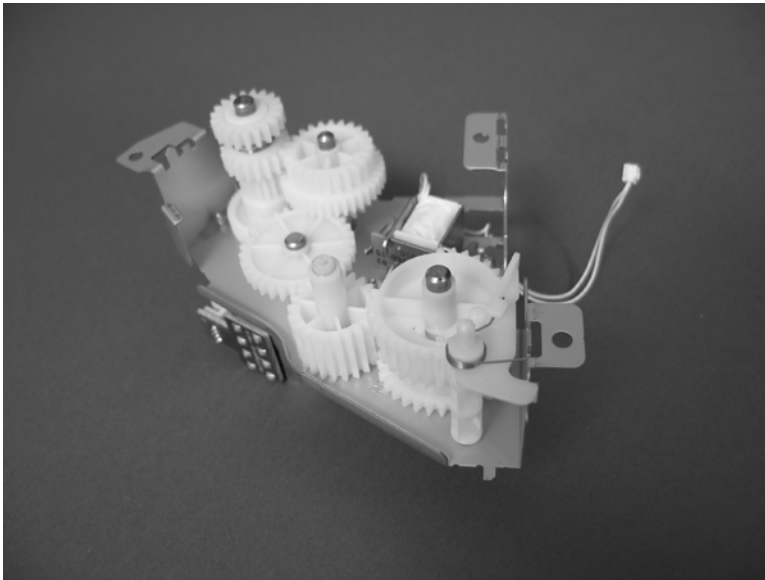
2. Make sure that the spring (callout 2) is correctly installed.

**Figure 6-155** Reinstall the cassette-pickup drive assembly (2 of 3)



3. Make sure that the gears, arm, and spring are correctly installed.

**Figure 6-156** Reinstall the cassette-pickup drive assembly (3 of 3)




## Cassette-pickup assembly

Before proceeding, remove the following components:

- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).


---

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the cassette-pickup assembly.

---

- Registration assembly. See [Registration assembly on page 233](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

---

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

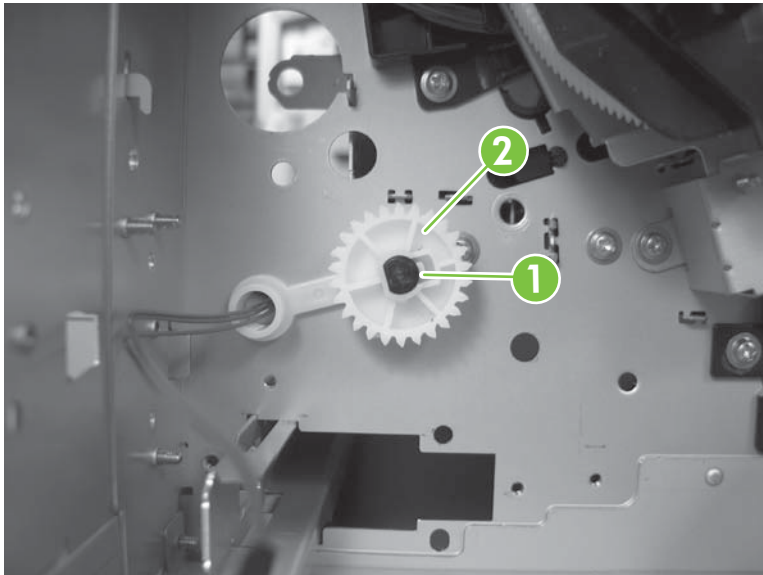
---

- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply lower. See [High-voltage power supply lower \(HVPS-D\) on page 248](#).
- Cassette-pickup drive assembly. See [Cassette-pickup drive assembly on page 256](#).

## Remove the cassette-pickup assembly

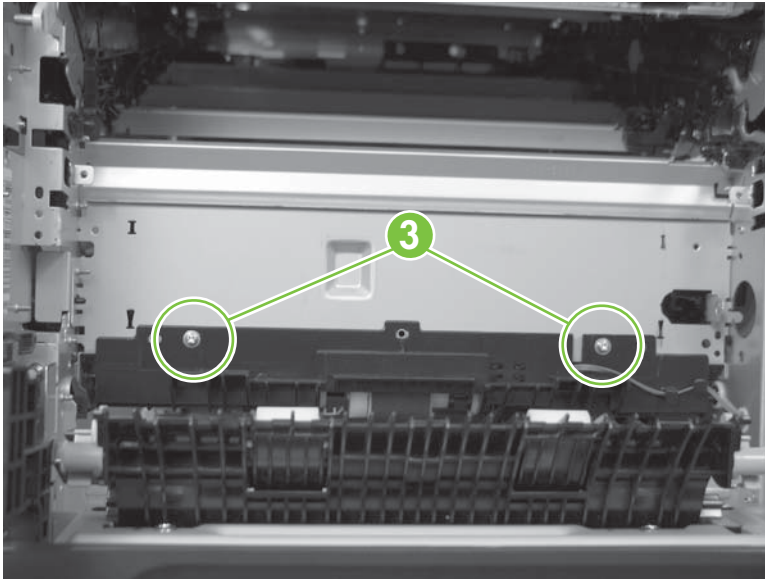
1. Release one tab (callout 1), and then remove the gear (callout 2).

**Figure 6-157** Remove the cassette-pickup assembly (1 of 3)



2. Remove two screws (callout 3).

**Figure 6-158** Remove the cassette-pickup assembly (2 of 3)



3. Remove the assembly.

**Figure 6-159** Remove the cassette-pickup assembly (3 of 3)







## Laser/scanner assembly (Y/M)

Before proceeding, remove the following components:

- Toner collection unit. See [Toner-collection unit on page 173](#).
- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the laser/scanner assembly (Y/M).

- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

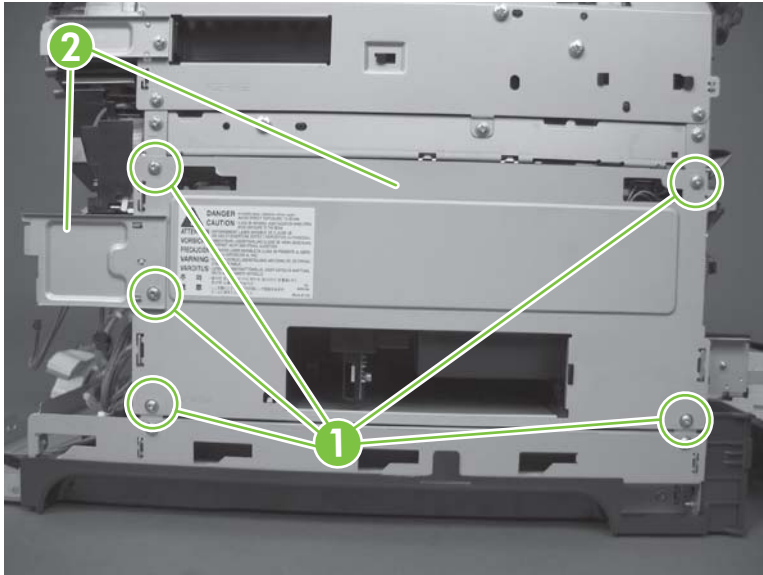
 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply lower. See [High-voltage power supply lower \(HVPS-D\) on page 248](#).

## Remove the laser/scanner assembly (Y/M)

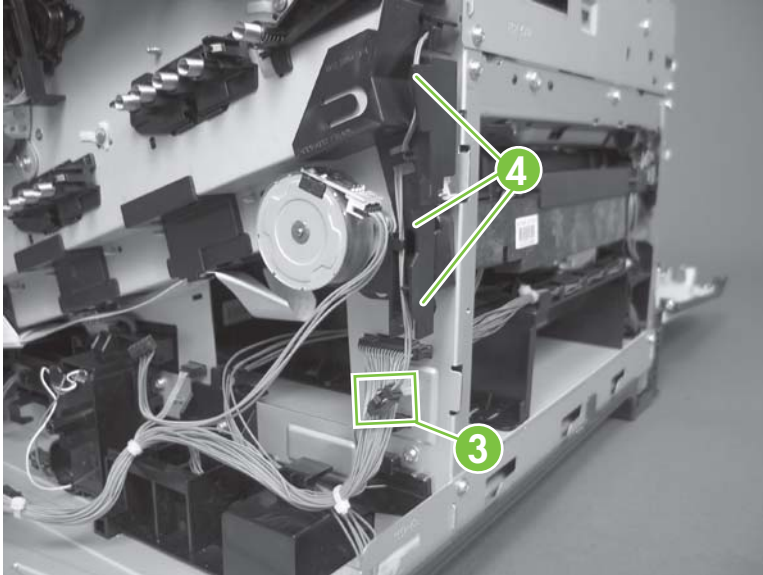
1. Remove five screws (callout 1), and then remove the sheet-metal plate (callout 2).

**Figure 6-160** Remove the laser/scanner assembly (Y/M) (1 of 12)



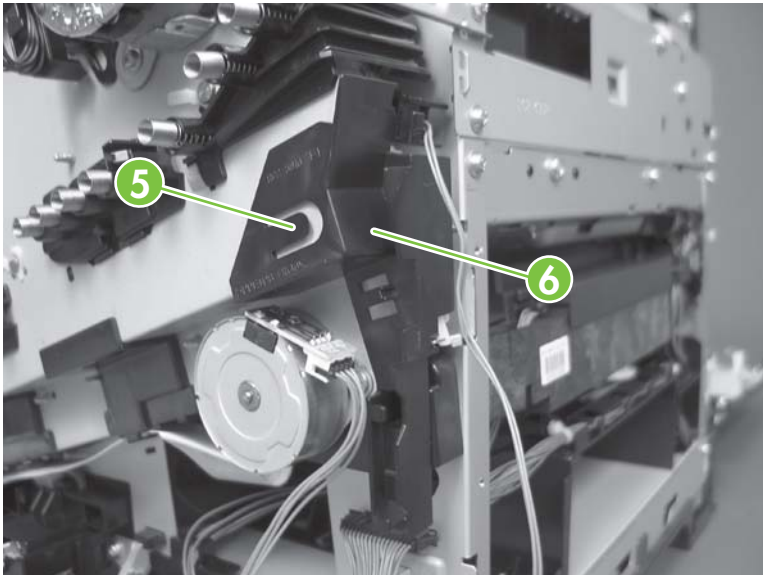
2. Disconnect in-line one connector (callout 3), and then release the wire harnesses from the guide (callout 4).

**Figure 6-161** Remove the laser/scanner assembly (Y/M) (2 of 12)



3. Release one tab (callout 5), and then remove the guide (callout 6).

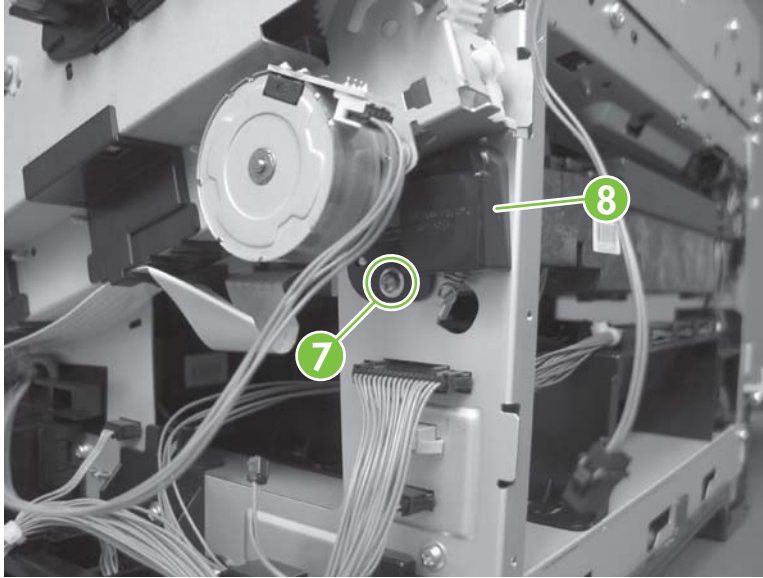
**Figure 6-162** Remove the laser/scanner assembly (Y/M) (3 of 12)





4. Remove one screw (callout 7), and then remove the cover (callout 8).

**Figure 6-163** Remove the laser/scanner assembly (Y/M) (4 of 12)

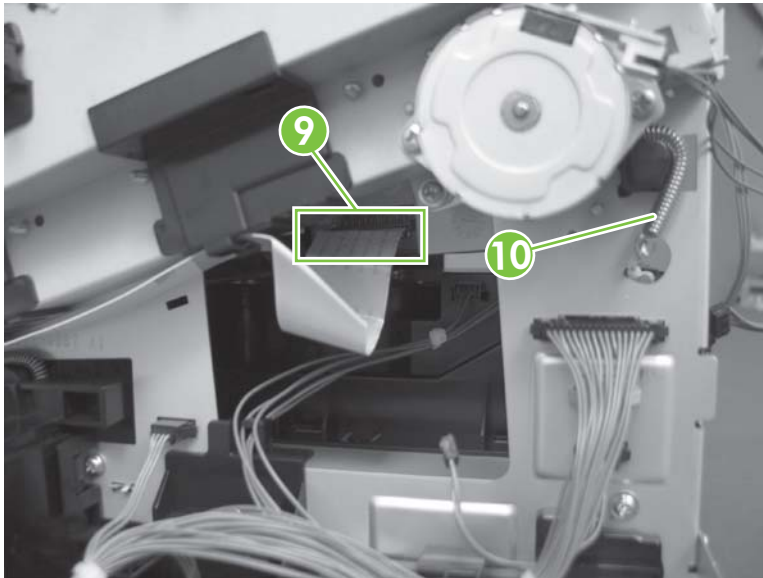


5. Disconnect one FFC (callout 9), and then release one spring (callout 10).


△ **CAUTION:** The spring is not captive. Do not lose the spring when it is removed. Use a pair of needle-nose pliers to safely retain the spring when it is removed. Do not use a flat blade screwdriver to remove the spring; the spring could forcibly leave the product and strike you.

💡 **Reinstallation tip** When you reinstall the spring, make sure that the laser/scanner fits tightly up against the product chassis, and make sure that the FFC is fully seated in the connector. The locator tabs on the front and rear of the scanner must be firmly seated in the slots in the chassis.

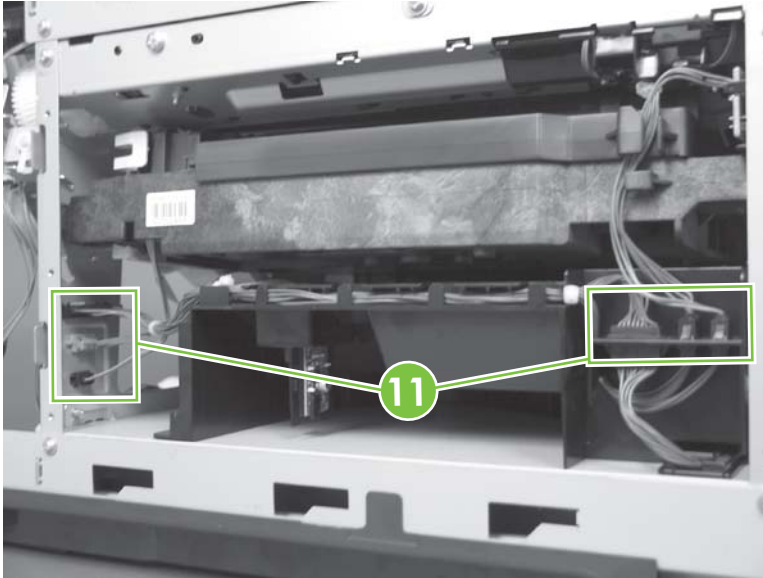
**Figure 6-164** Remove the laser/scanner assembly (Y/M) (5 of 12)



6. Disconnect six connectors (callout 11).

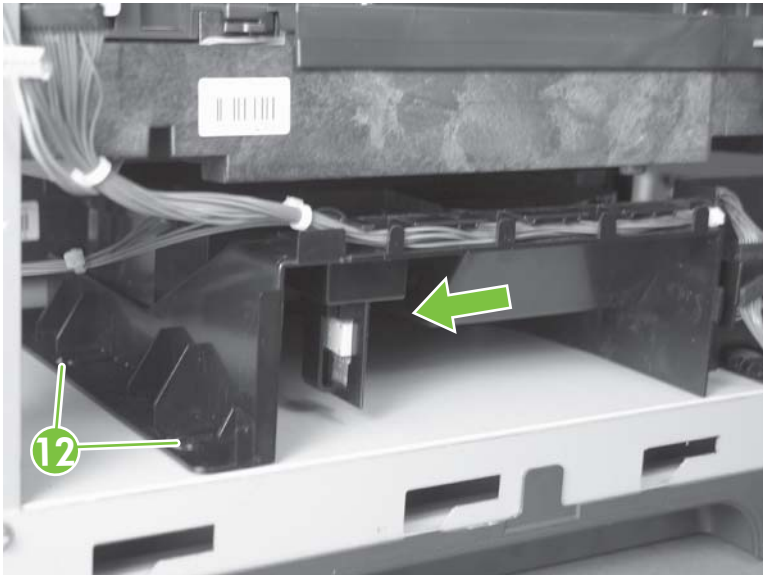
 **NOTE:** Disconnect the larger connector on the right side from the bottom. Disconnect the two smaller connectors on the right side from the top.

**Figure 6-165** Remove the laser/scanner assembly (Y/M) (6 of 12)



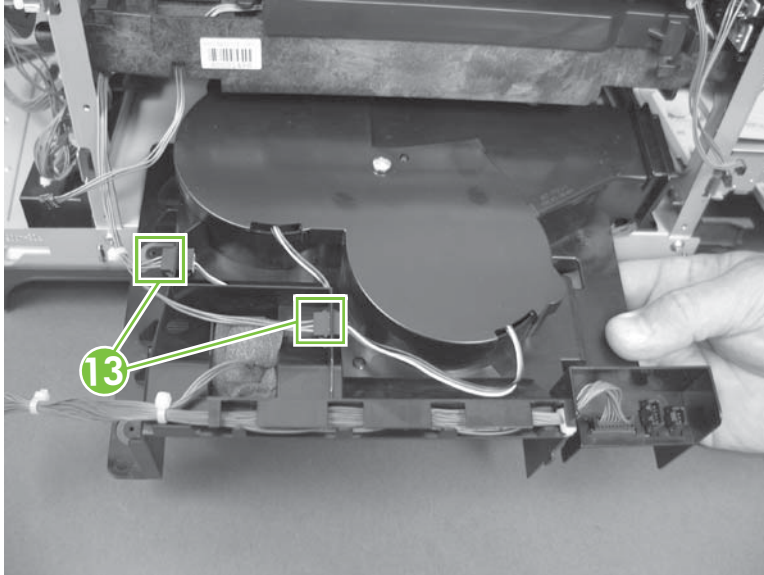
7. Release two tabs (callout 12), and then slide the fan assembly toward the power-supply side of the product to release it.

**Figure 6-166** Remove the laser/scanner assembly (Y/M) (7 of 12)



8. Pull the fan assembly slightly out of the product, disconnect two connectors (callout 13), and then remove the assembly.

**Figure 6-167** Remove the laser/scanner assembly (Y/M) (8 of 12)

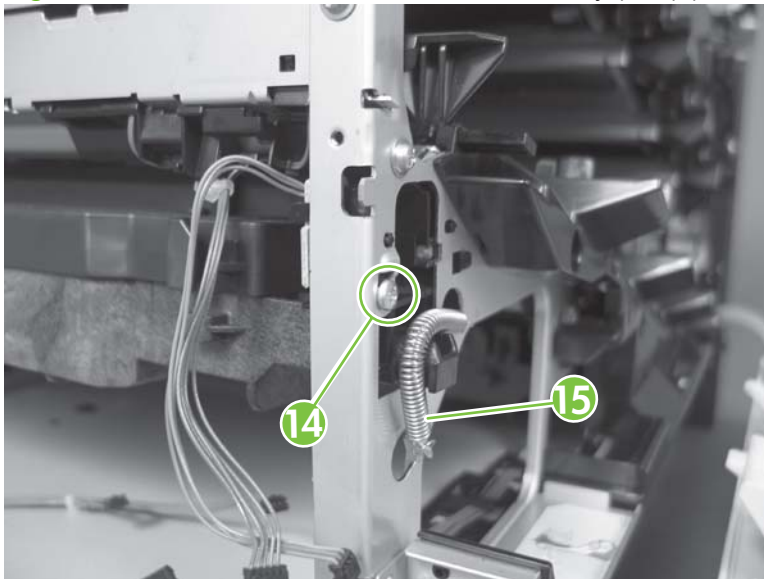


9. Remove one screw (callout 14), and then release one spring (callout 15).

△ **CAUTION:** The spring is not captive. Do not lose the spring when it is removed. Use a pair of needle-nose pliers to safely retain the spring when it is removed. Do not use a flat blade screwdriver to remove the spring; the spring could forcibly leave the product and strike you.

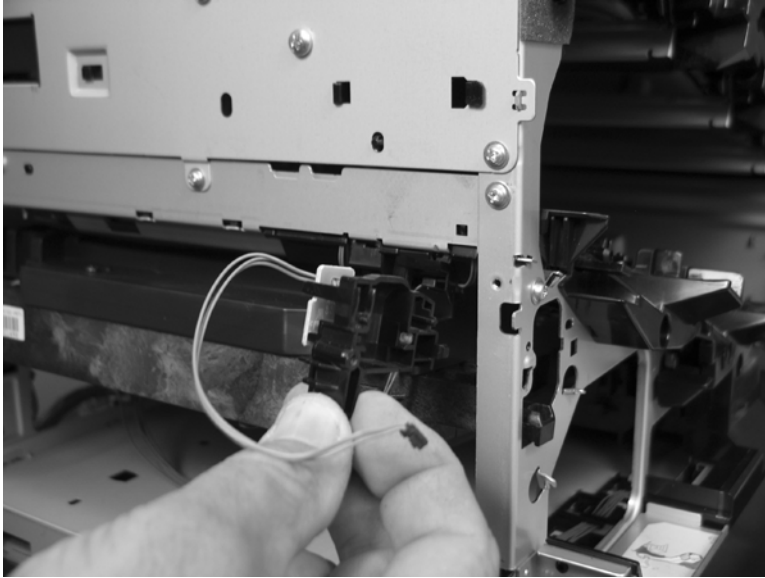
💡 **Reinstallation tip** When the laser/scanner is properly positioned in the chassis, the plastic parts which protrude at the front and rear of the product will be firmly seated against the locator tabs on the chassis. Verify that the assembly is correctly seated, and then install the spring.

**Figure 6-168** Remove the laser/scanner assembly (Y/M) (9 of 12)



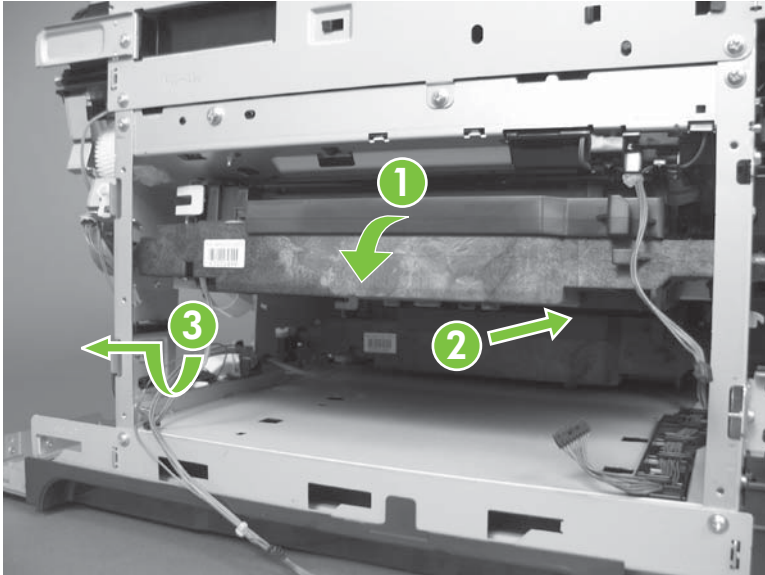
10. Remove the toner collection sensor.

**Figure 6-169** Remove the laser/scanner assembly (Y/M) (10 of 12)



11. Rotate the front of the laser/scanner assembly down (callout 1), and then slide it toward the right (callout 2). Lower the left corner, and then rotate the left corner out of the product (callout 3).

**Figure 6-170** Remove the laser/scanner assembly (Y/M) (11 of 12)



12. Pull the laser/scanner assembly straight out of the product to remove it.

**Figure 6-171** Remove the laser/scanner assembly (Y/M) (12 of 12)




## Laser/scanner assembly (C/Bk)

Before proceeding, remove the following components:

- Toner collection unit. See [Toner-collection unit on page 173](#).
- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).


---

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the laser/scanner assembly (C/Bk).

---

- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

---

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

---

- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply lower. See [High-voltage power supply lower \(HVPS-D\) on page 248](#).
- Lifter drive assembly. See [Lifter-drive assembly on page 254](#).
- Laser/scanner assembly (Y/M). See [Laser/scanner assembly \(Y/M\) on page 265](#).



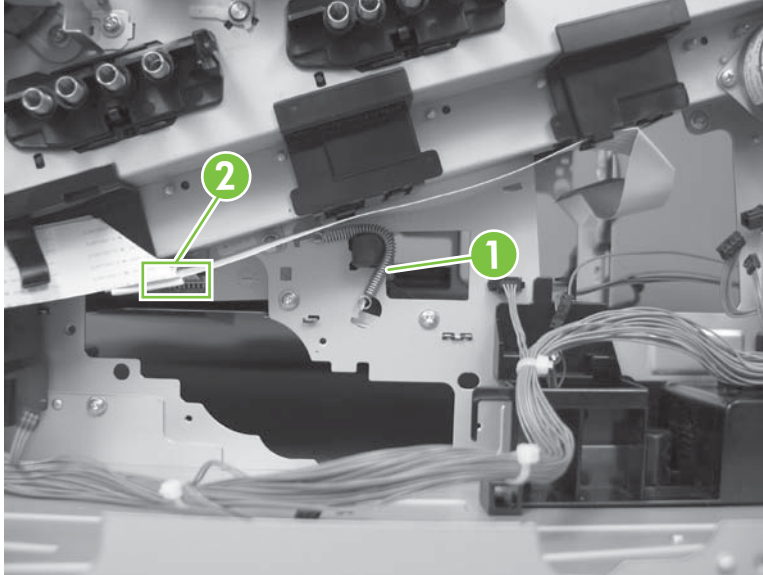
## Remove the laser/scanner assembly (C/Bk)

1. Release one spring (callout 1), and then disconnect one connector (callout 2).

△ **CAUTION:** The spring is not captive. Do not lose the spring when it is removed. Use a pair of needle-nose pliers to safely retain the spring when it is removed. Do not use a flat blade screwdriver to remove the spring; the spring could forcibly leave the product and strike you.

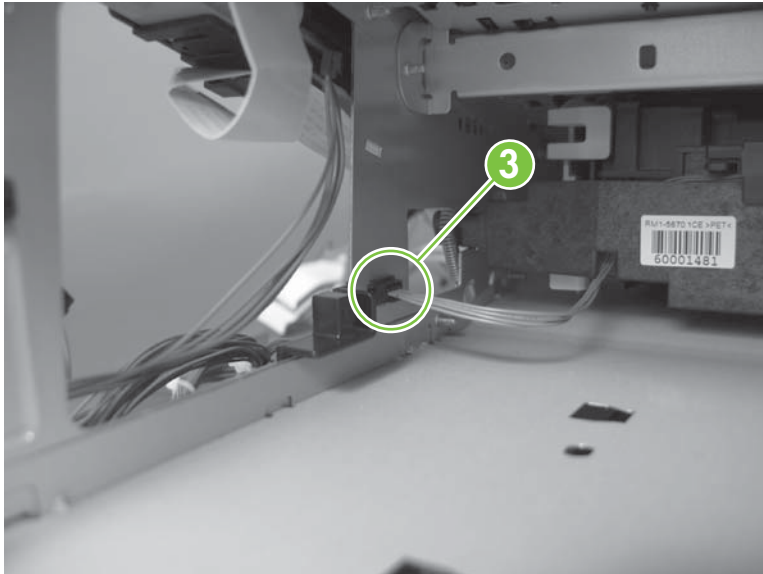
💡 **Reinstallation tip** When you reinstall the spring, make sure that the laser/scanner fits tightly up against the product chassis, and make sure that the FFC is fully seated in the connector. The locator tabs on the front of the scanner must be firmly seated in the slots in the chassis.

**Figure 6-172** Remove the laser/scanner assembly (C/Bk) (1 of 7)



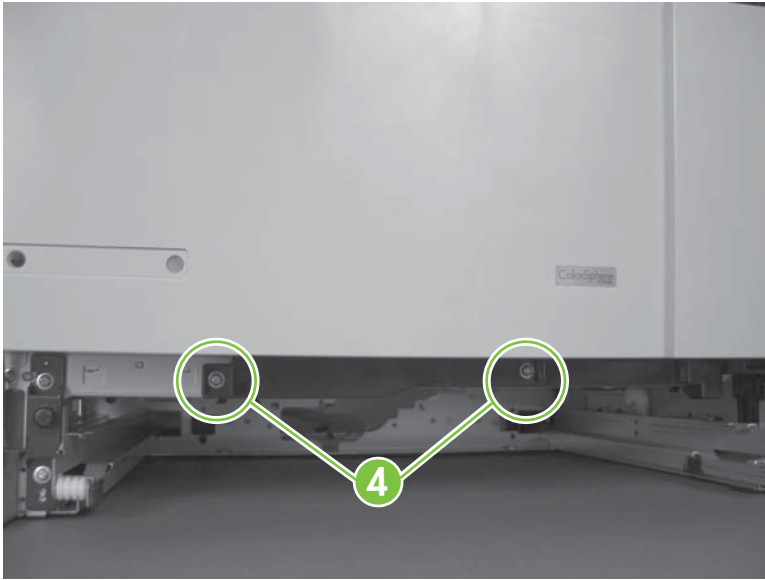
2. Disconnect one connector (callout 3).

**Figure 6-173** Remove the laser/scanner assembly (C/Bk) (2 of 7)



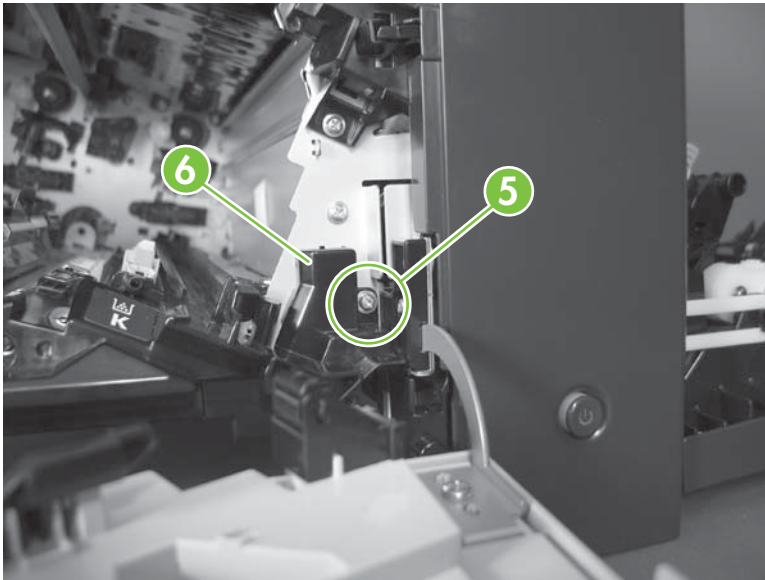
3. Remove two screws (callout 4) located below the front door.

**Figure 6-174** Remove the laser/scanner assembly (C/Bk) (3 of 7)



4. Open the front door, and then remove one screw (callout 5) and the cover (callout 6).

**Figure 6-175** Remove the laser/scanner assembly (C/Bk) (4 of 7)

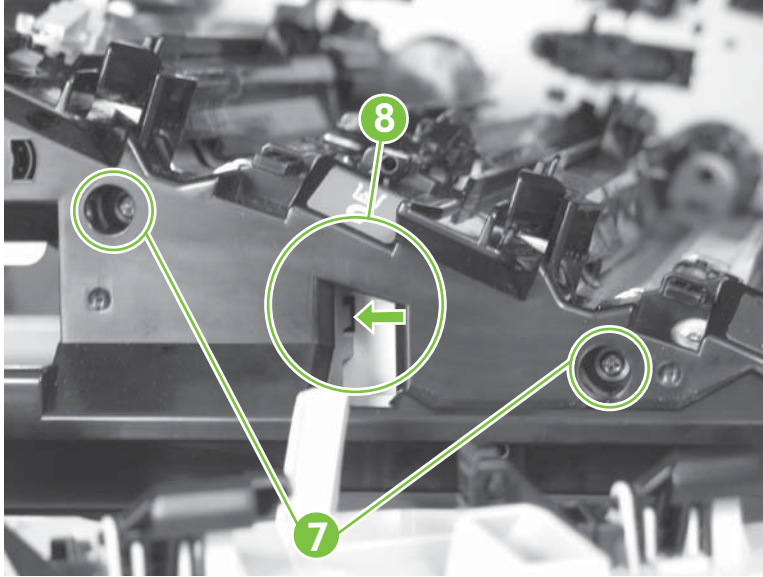




5. Remove two screws (callout 7). Use your finger to release the locking tab (callout 8), and then remove the cover.

△ **CAUTION:** Be careful. The PGC actuators are easily dislodged when the cover is removed. See [Figure 6-179 Reinstall the PGC actuators \(1 of 5\) on page 276](#). To reinstall the actuators, see [Reinstall the protective glass cleaner \(PGC\) actuators on page 276](#).

**Figure 6-176** Remove the laser/scanner assembly (C/Bk) (5 of 7)

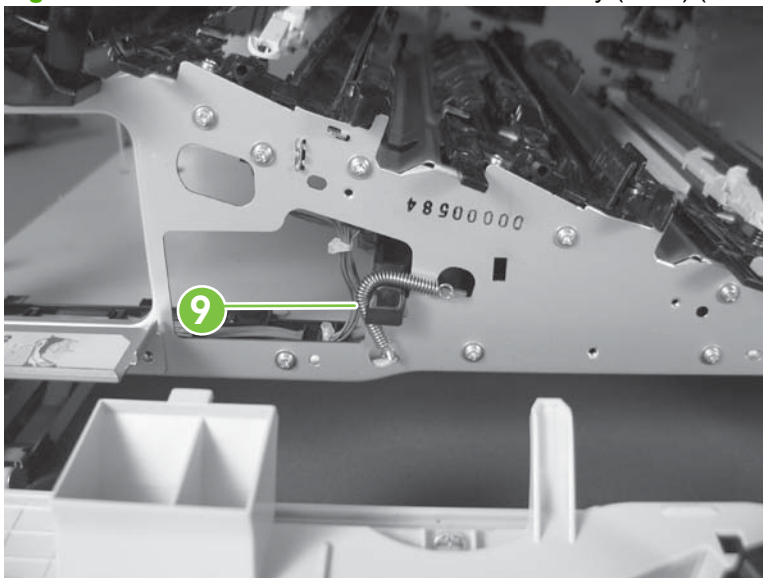


6. Release one spring (callout 9).

△ **CAUTION:** The spring is not captive. Do not lose the spring when it is removed. Use a pair of needle-nose pliers to safely retain the spring when it is removed. Do not use a flat blade screwdriver to remove the spring; the spring could forcibly leave the product and strike you.

💡 **Reinstallation tip** When you reinstall the spring, make sure that the laser/scanner fits tightly up against the product chassis.

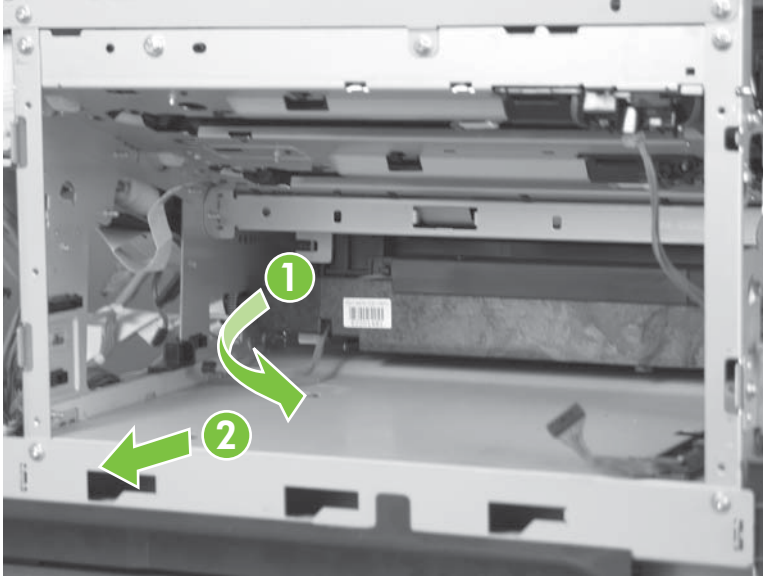
**Figure 6-177** Remove the laser/scanner assembly (C/Bk) (6 of 7)



7. Rotate the corner of the assembly away from the product until you can see the PCA, and then remove the assembly from the product.

☞ **Reinstallation tip** When the laser/scanner is properly positioned in the chassis, the plastic parts which protrude at the front and rear of the product will be firmly seated against the locator tabs on the chassis. Verify that the assembly is correctly seated, and then install the spring.

**Figure 6-178** Remove the laser/scanner assembly (C/Bk) (7 of 7)

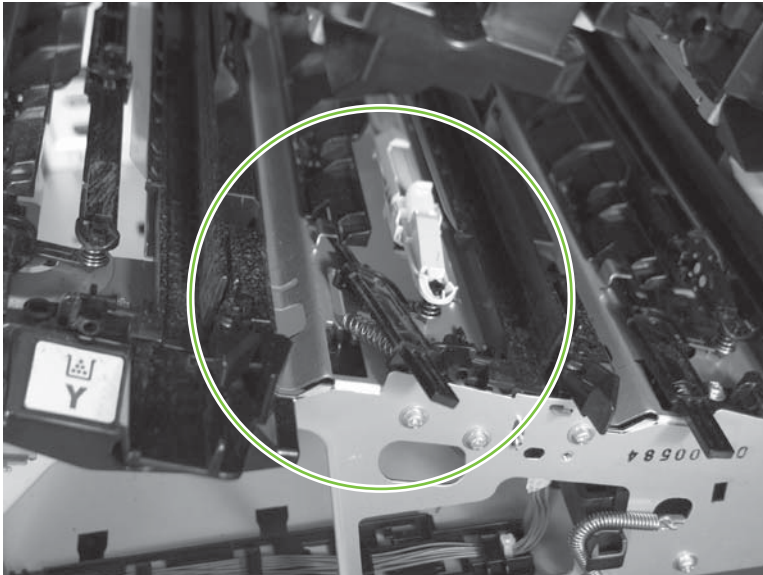


### Reinstall the protective glass cleaner (PGC) actuators

1. The following figure shows a dislodged PGC actuator.

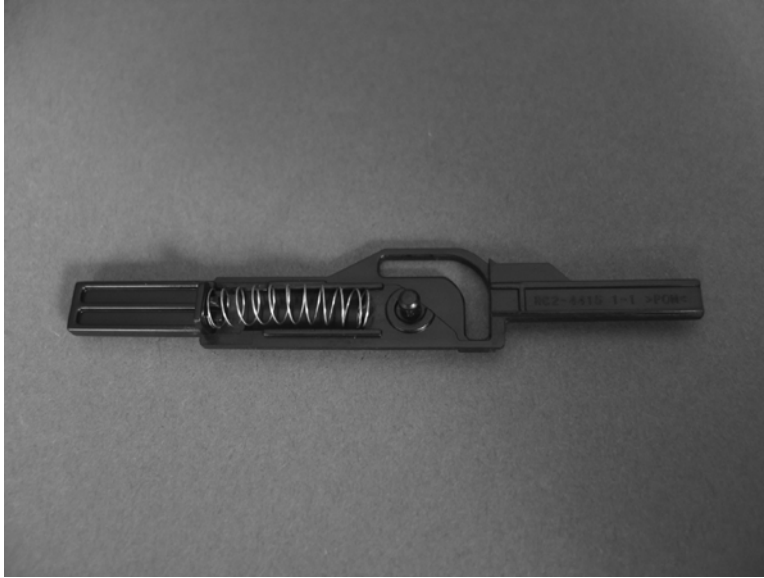
☞ **TIP:** If the actuator and spring are only slightly dislodged, you might be able to easily push them back into place.

**Figure 6-179** Reinstall the PGC actuators (1 of 5)



2. Remove the actuator and spring from the product. Install the spring on the actuator.

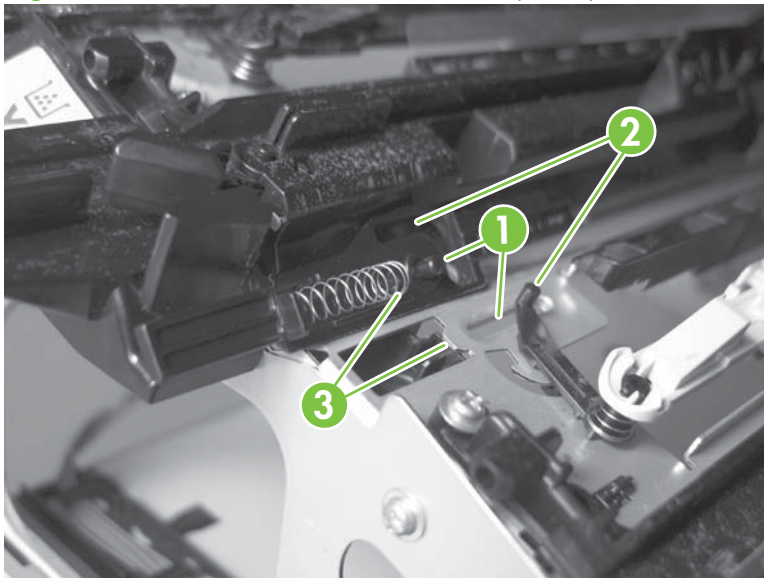
**Figure 6-180** Reinstall the PGC actuators (2 of 5)



3. Before proceeding, take note of the following:

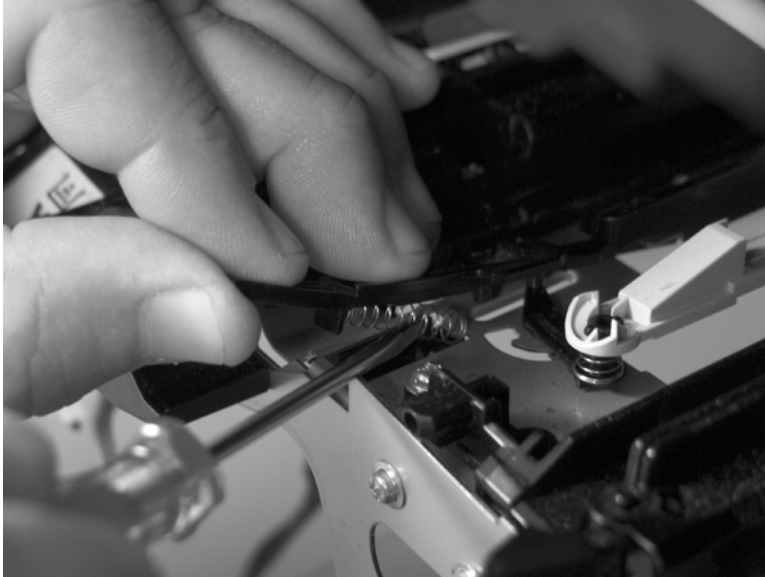
- **Callout 1:** The pin on the actuator will be installed into the slot in the chassis.
- **Callout 2:** The pin on the pivot arm will be installed into the slot on the actuator.
- **Callout 3:** The end of the spring will be installed onto the tab on the chassis.

**Figure 6-181** Reinstall the PGC actuators (3 of 5)



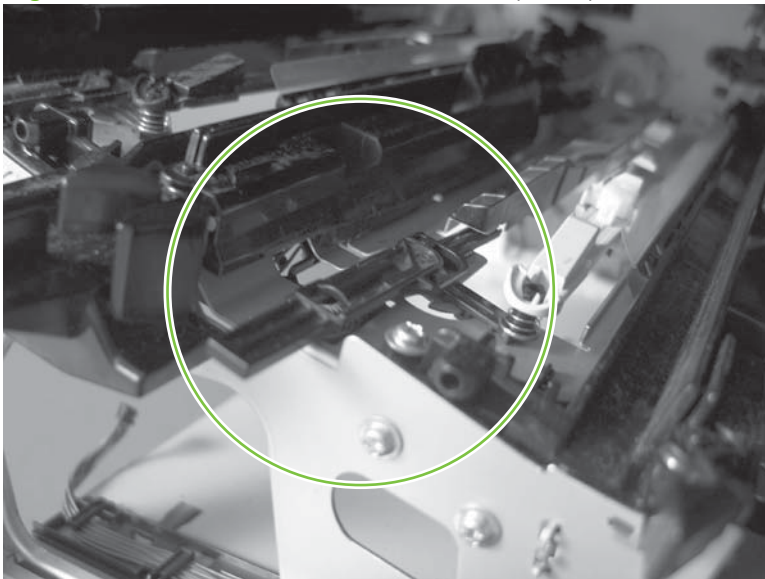
4. Place the end of the actuator into the PGC rod, and then use a small flat blade screw driver to fasten the end of the spring on the tab on the chassis.

**Figure 6-182** Reinstall the PGC actuators (4 of 5)



5. Push down on the actuator to seat it into place. Verify that the actuators is correctly installed. The PGC actuator should freely move when you push in on the actuator.

**Figure 6-183** Reinstall the PGC actuators (5 of 5)







## High-voltage power supply upper (HVPS-T)

Before proceeding, remove the following components:

- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the high-voltage power supply upper.

- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- DC controller. See [DC controller PCA and tray on page 240](#).
- Low-voltage power supply. See [Low-voltage power supply on page 243](#).

### Remove the high-voltage power supply upper



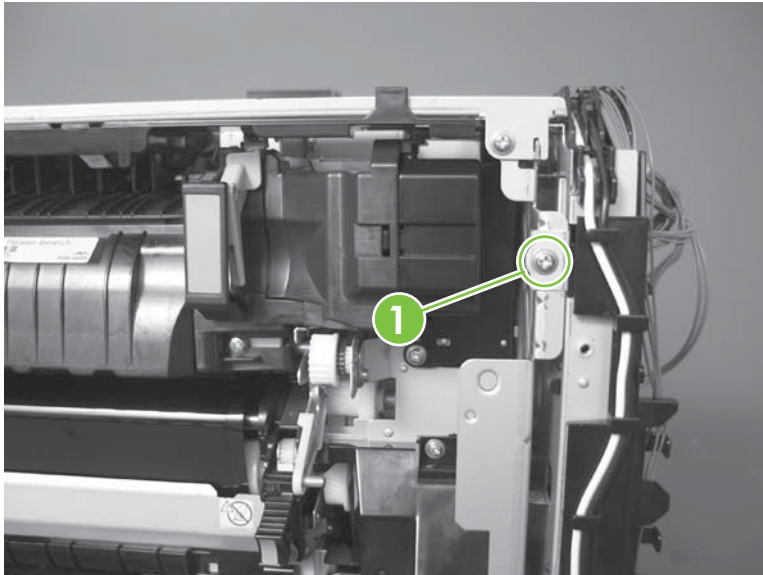
**CAUTION:**  ESD-sensitive part.




**NOTE:** If the sheet-metal tray was removed with the DC controller, begin at step 3.

1. Remove one screw (callout 1).

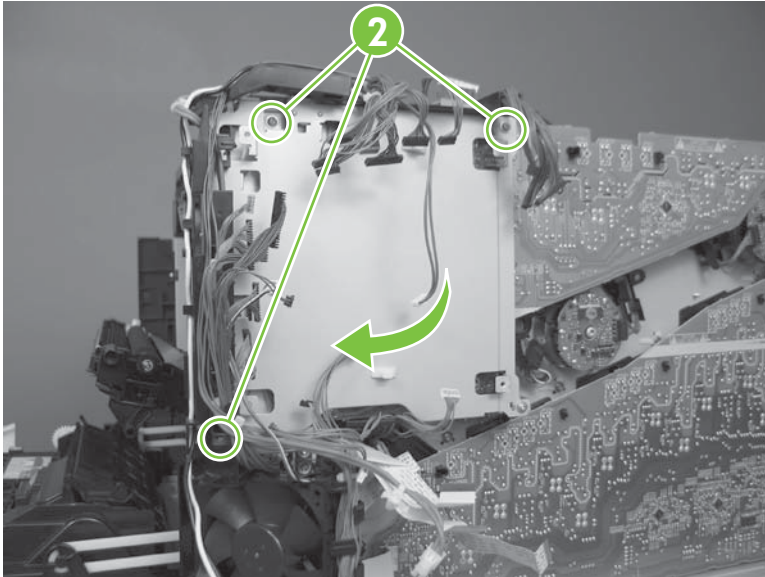
**Figure 6-184** Remove the high-voltage power supply upper (1 of 5)



2. Remove three screws (callout 2), and then rotate the sheet-metal plate away from the power supply.

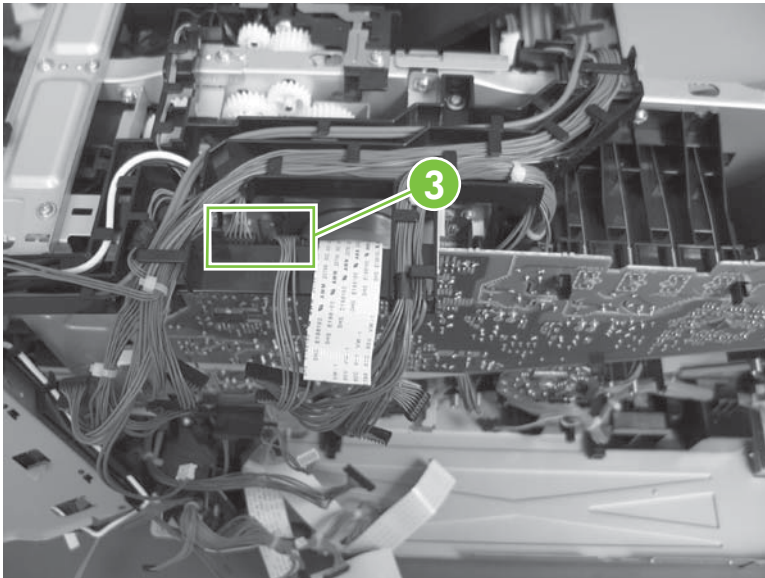
 **NOTE:** You do not need to completely remove the sheet-metal plate to access the power supply.

**Figure 6-185** Remove the high-voltage power supply upper (2 of 5)



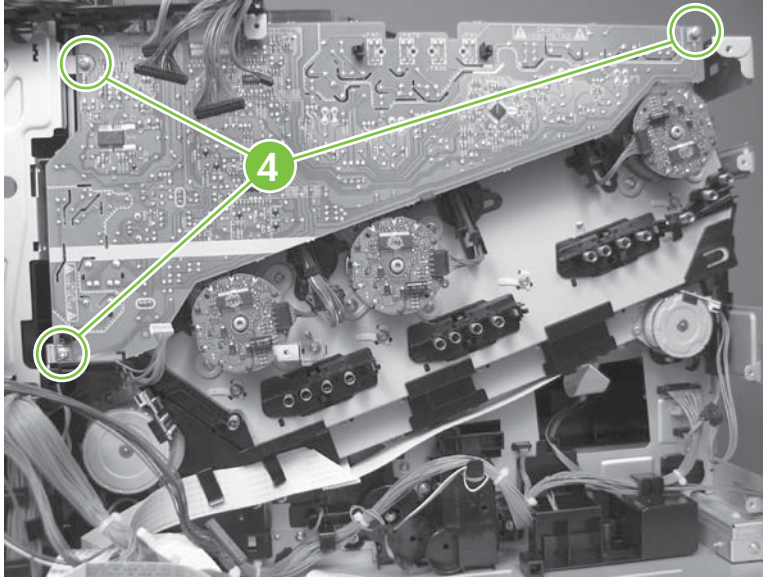
3. **Duplex models only:** Disconnect one connector (callout 3).

**Figure 6-186** Remove the high-voltage power supply upper (3 of 5)



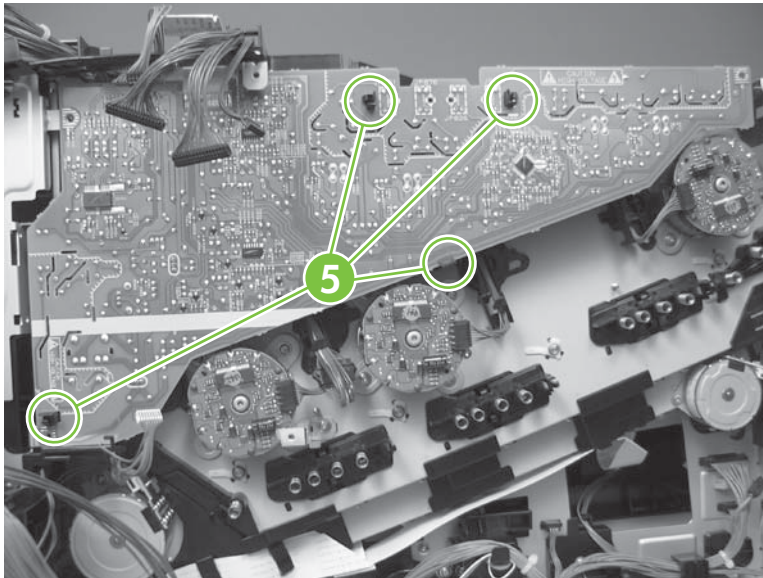
4. Remove three screws (callout 4).

**Figure 6-187** Remove the high-voltage power supply upper (4 of 5)




5. Release four tabs (callout 5), and then remove the power supply.

**Figure 6-188** Remove the high-voltage power supply upper (5 of 5)

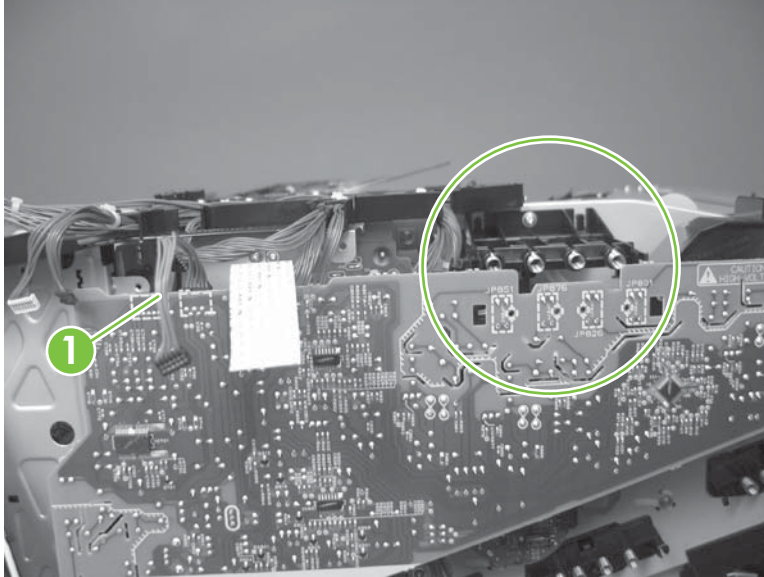


## Reinstall the high-voltage power supply upper

When you reinstall the power supply, look through the holes in the PCA and make sure that the high-voltage contact springs are correctly seated against the PCA.

 **NOTE:** For a replacement power supply, remove one wire harness (callout 1) and then install it on the replacement power supply.

**Figure 6-189** Reinstall the high-voltage power supply upper







## Drum motor 1

Before proceeding, remove the following components:

- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove drum motor 1.

- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

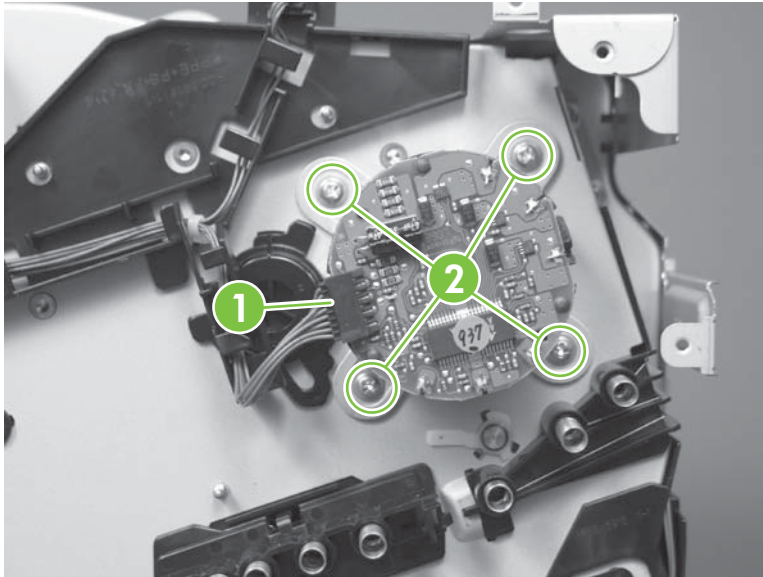
 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply upper. See [High-voltage power supply upper \(HVPS-T\) on page 279](#).

### Remove the drum motor 1

- ▲ Disconnect one connector (callout 1), remove four screws (callout 2), and then remove the motor.


**Figure 6-190** Remove the drum motor 1




## Drum motor 2 or drum motor 3

Before proceeding, remove the following components:

- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove drum motor 2 or drum motor 3.

- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

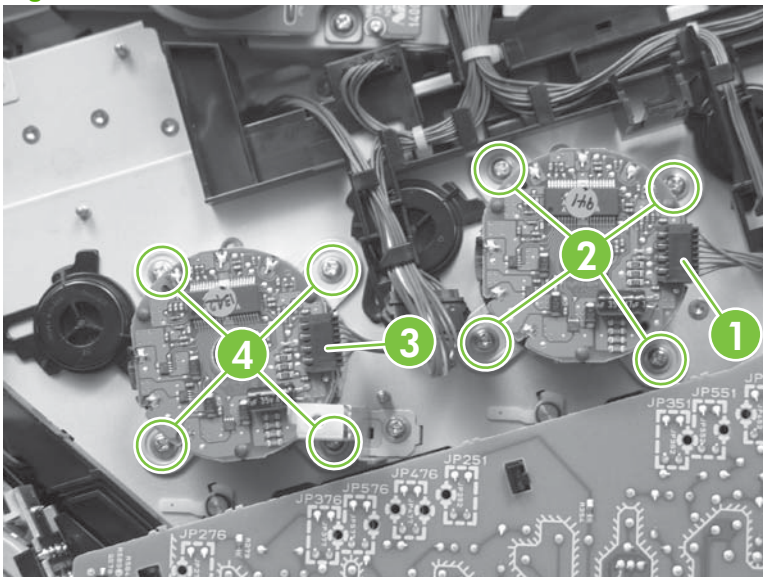
- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply upper. See [High-voltage power supply upper \(HVPS-T\) on page 279](#).

## Remove the drum motor 2 or drum motor 3

▲ Do one of the following:

- Remove drum motor 2: Disconnect one connector (callout 1), remove four screws (callout 2), and then remove the motor.
- Remove drum motor 3: Disconnect one connector (callout 3), remove four screws (callout 4), and then remove the motor.

**Figure 6-191** Remove the drum motor 2 or drum motor 3




## Fuser motor

Before proceeding, remove the following components:


- Formatter. See [Formatter PCA on page 175](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

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 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the fuser motor.

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- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

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- DC controller PCA. See [DC controller PCA and tray on page 240](#).
- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply upper. See [High-voltage power supply upper \(HVPS-T\) on page 279](#).

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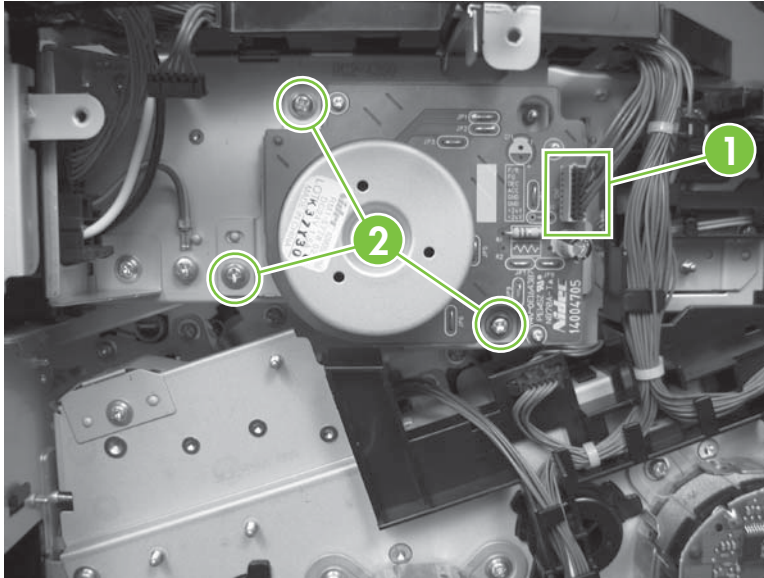
 **NOTE:** The terms fusing and fixing are synonymous.

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## Remove the fuser motor

Disconnect one connector (callout 1), remove three screws (callout 2), and then remove the motor.

**Figure 6-192** Remove the fuser motor




## Main-drive assembly

Before proceeding, remove the following components:

- Print cartridges. See [Print cartridges on page 170](#).
- Formatter. See [Formatter PCA on page 175](#).
- Secondary transfer assembly. See [Secondary transfer assembly on page 186](#).
- Intermediate transfer belt (ITB). See [Intermediate transfer belt \(ITB\) on page 188](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).


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 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the main-drive assembly.

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- Power-supply fan and fan duct. See [Power-supply fan and fan duct on page 230](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

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 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

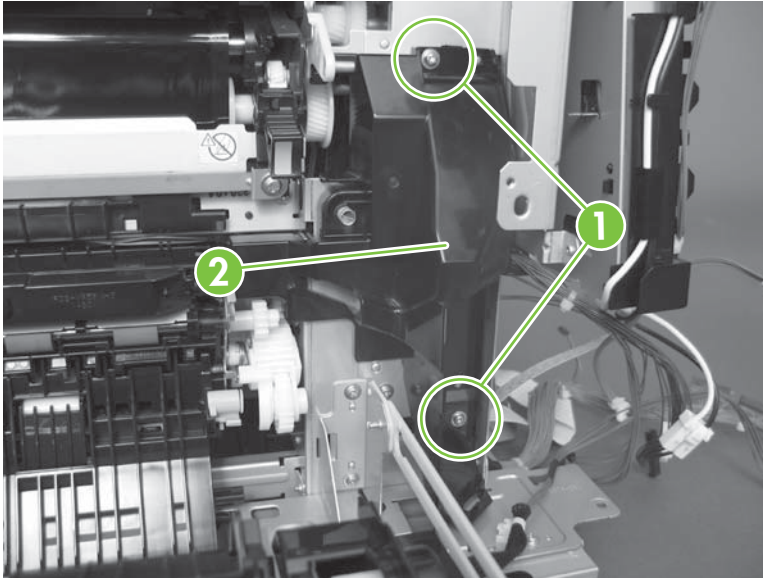
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- DC controller PCA. See [DC controller PCA and tray on page 240](#).
- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply lower. See [High-voltage power supply lower \(HVPS-D\) on page 248](#).
- High-voltage power supply upper. See [High-voltage power supply upper \(HVPS-T\) on page 279](#).

## Remove the main-drive assembly

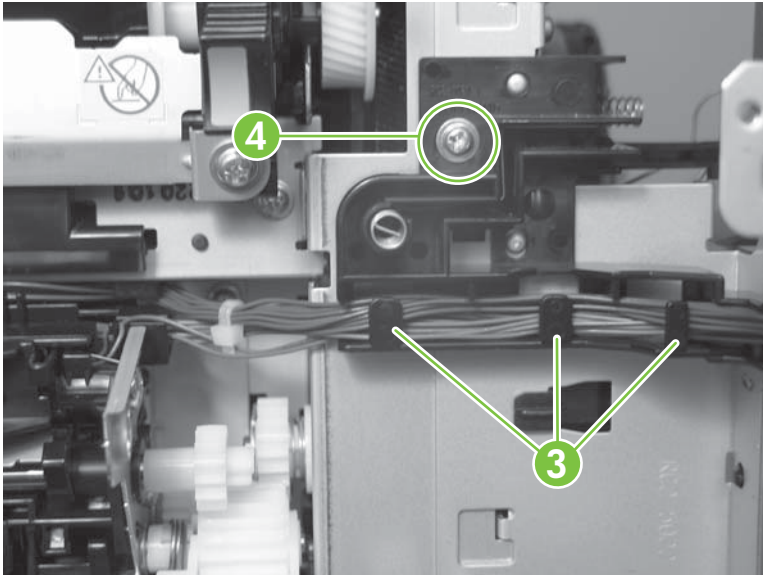
1. Remove two screws (callout 1), and then remove the cover (callout 2).

**Figure 6-193** Remove the main-drive assembly (1 of 7)



2. Release the wire harnesses from the guide (callout 3), and then remove one screw (callout 4).

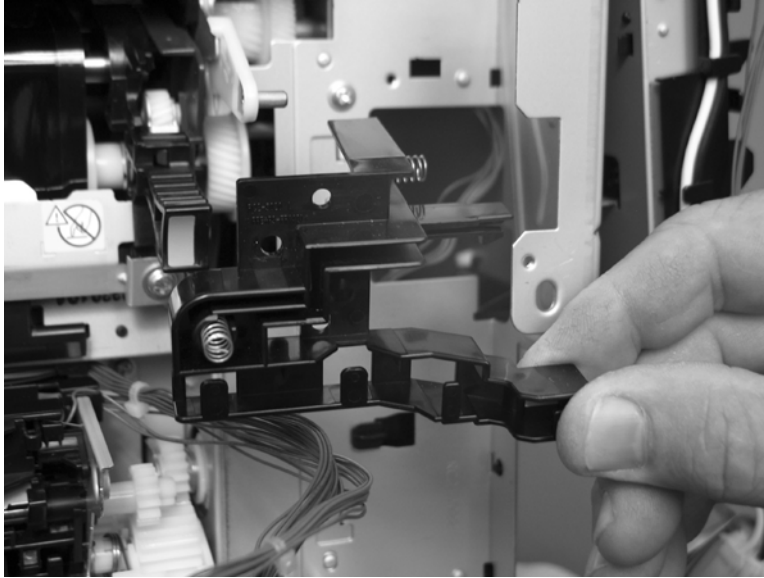
**Figure 6-194** Remove the main-drive assembly (2 of 7)





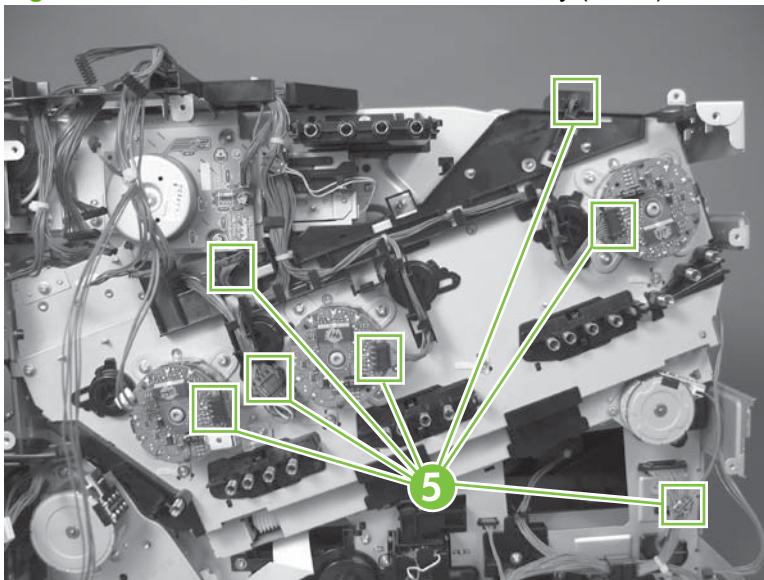
3. Lift the high-voltage bracket up to release it, and then remove the bracket.

**Figure 6-195** Remove the main-drive assembly (3 of 7)



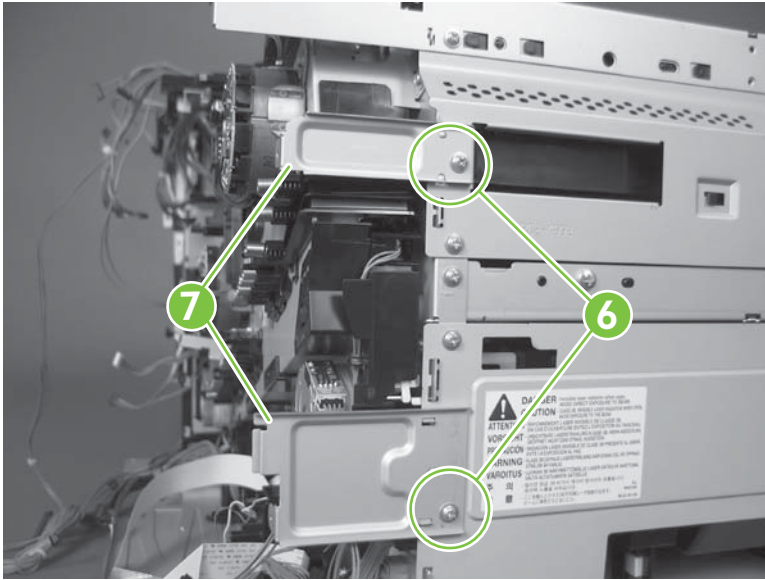
4. Disconnect seven connectors (callout 5), and then release the wire harnesses from the guides.

**Figure 6-196** Remove the main-drive assembly (4 of 7)



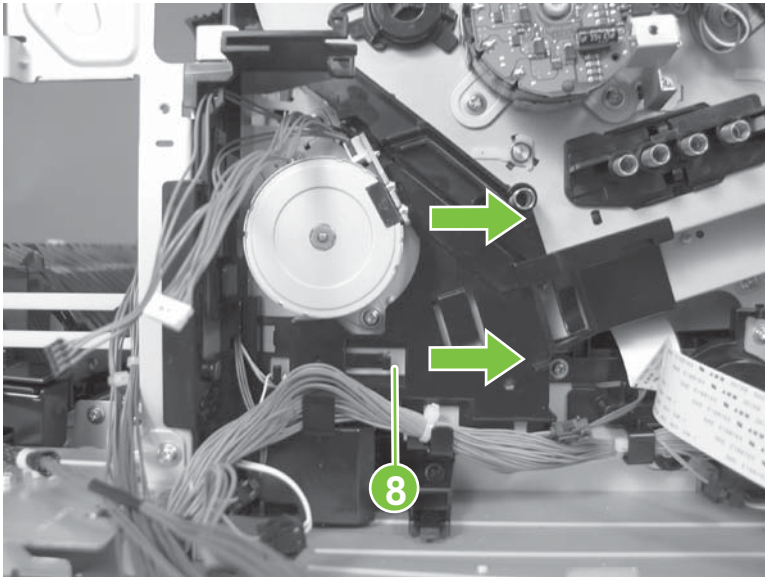
5. Remove two screws (callout 6), and then remove the sheet-metal plates (callout 7).

**Figure 6-197** Remove the main-drive assembly (5 of 7)



6. Release the FFCs and lower wiring harness from the guide, and then release one tab (callout 8) and remove the guide.

**Figure 6-198** Remove the main-drive assembly (6 of 7)



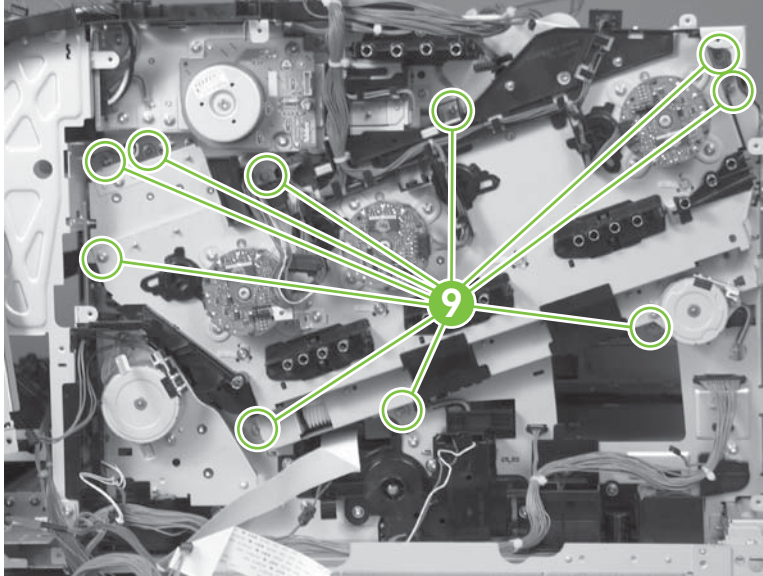


7. Remove ten screws (callout 9), and then carefully remove the assembly.

△ **CAUTION:** Be careful when you remove the assembly. The cams on the backside of the assembly can be dislodged. If the cams become dislodged, install them on the shafts as shown in [Figure 6-201 Reinstall the main-drive assembly \(2 of 11\) on page 292](#).

The black cam must be installed on the shaft furthest away from the developing-disengagement motor. The white cams are interchangeable.


**Figure 6-199** Remove the main-drive assembly (7 of 7)



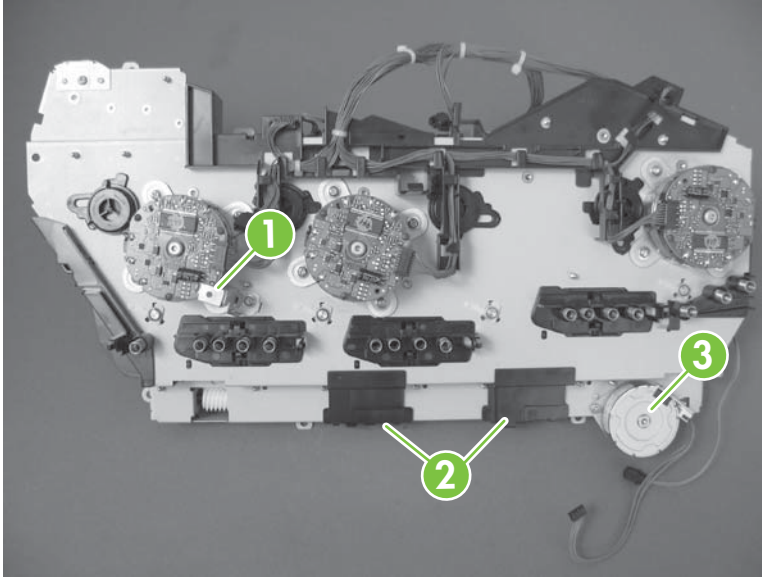
## Reinstall the main-drive assembly

1. Remove the bracket (callout 1), two guides (callout 2), and the developing-disengagement motor (callout 3).

Install the bracket and guides on the replacement main-drive assembly.

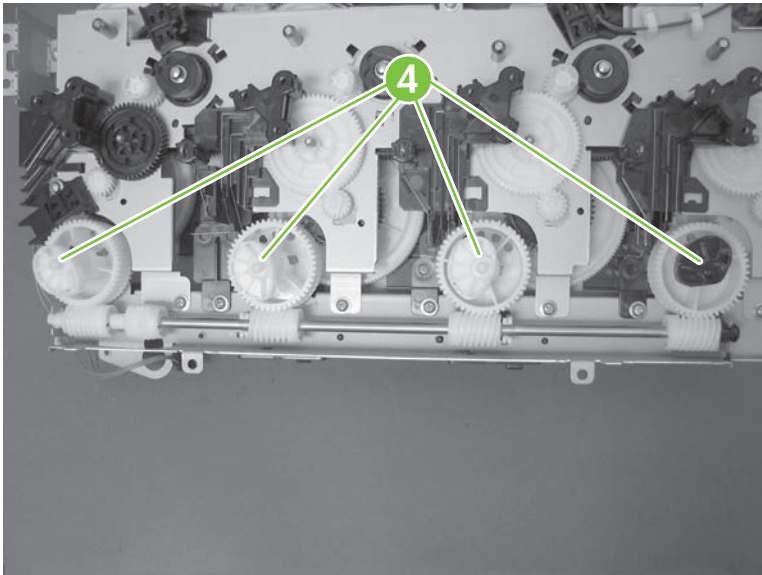
 **NOTE:** Do not install the developing-disengagement motor on the assembly (this motor must be removed from the assembly to align the main-drive cams).

**Figure 6-200** Reinstall the main-drive assembly (1 of 11)



2. Locate the cams (callout 4) on the back side of the assembly.

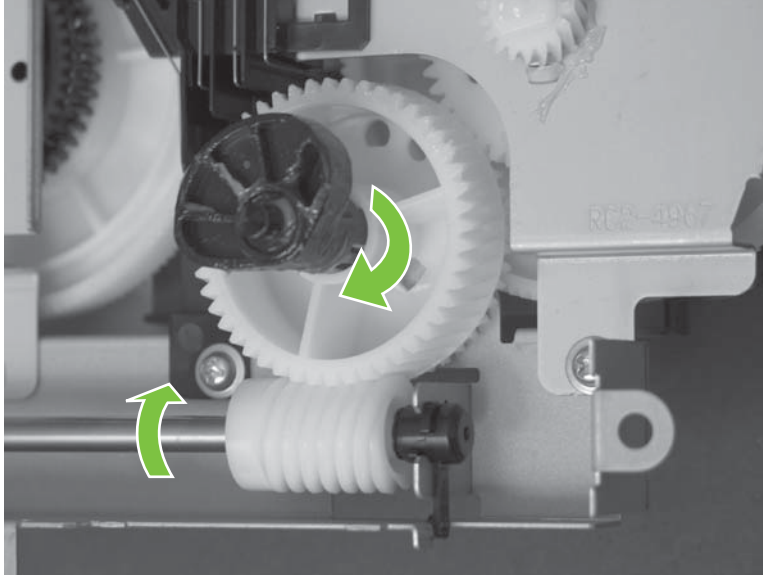
**Figure 6-201** Reinstall the main-drive assembly (2 of 11)



3. Slowly rotate the shaft near the black cam.

**⚠ WARNING!** Do not touch the plastic gears or cams. You must not wipe away any of the grease that is applied to these components. Always rotate the gears and cams by rotating the metal drive shaft.

**Figure 6-202** Reinstall the main-drive assembly (3 of 11)

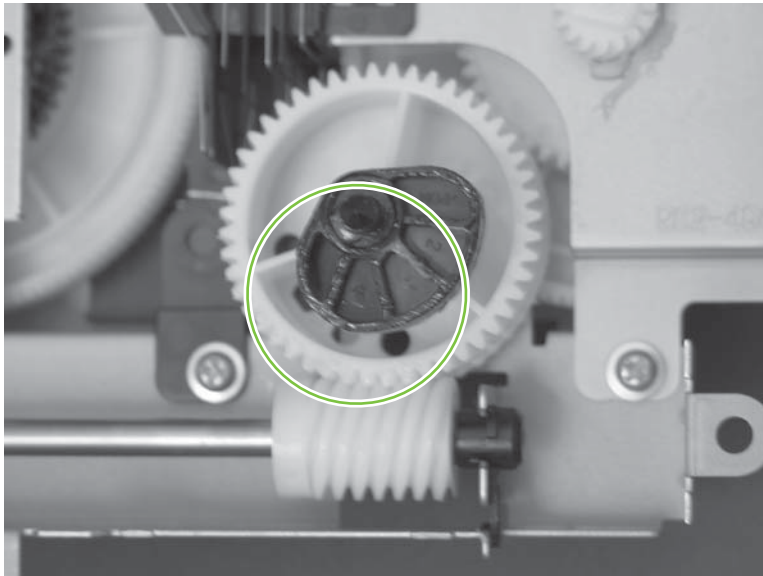


4. Continue to rotate the shaft until the holes in the black-cam gear align as shown below.


When correctly aligned, the *bottom-most* hole in the gear is aligned with a hole in the sheet-metal chassis.

**📝 NOTE:** The holes in the other cam gears have a different alignment. You must make sure that the holes in the black-cam gear are correctly aligned.

**Figure 6-203** Reinstall the main-drive assembly (4 of 11)



5. Verify that the cams (callout 5) align correctly.

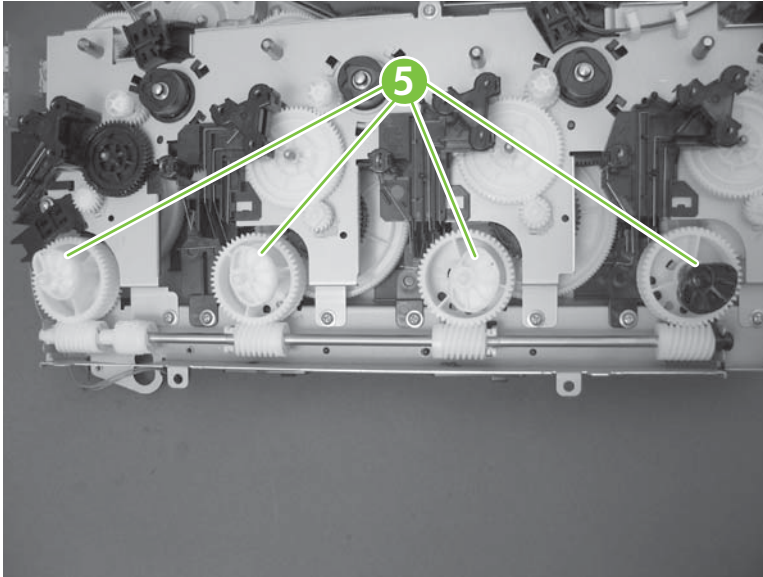
 **TIP:** The second cam in from the right (the white cam to the left of the black cam), should have the *second* hole aligned with the hole in the sheet-metal chassis.

The third cam in from the right, should have the *third* hole aligned with the hole in the sheet-metal chassis.

The fourth cam in from the right (the cam nearest the developing-disengagement motor), should have the *fourth* hole aligned with the hole in the sheet-metal chassis.

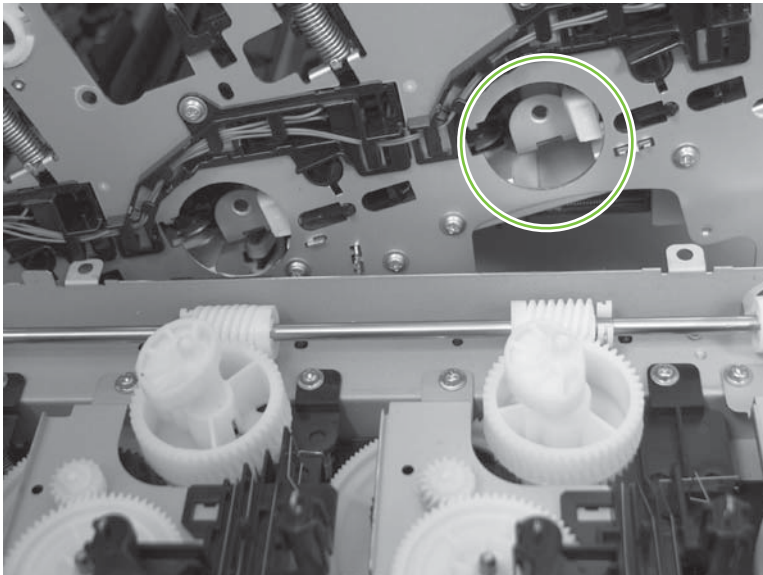
If the second, third, or fourth cams do not correctly align, do the following. Hold the long drive shaft, gently tilt the cam and gear away from the shaft to allow clearance to rotate the gear until the correct hole in the gear aligns with the hole in the chassis.

**Figure 6-204** Reinstall the main-drive assembly (5 of 11)



6. When the cams align correctly, they easily fit into the holes in the chassis.

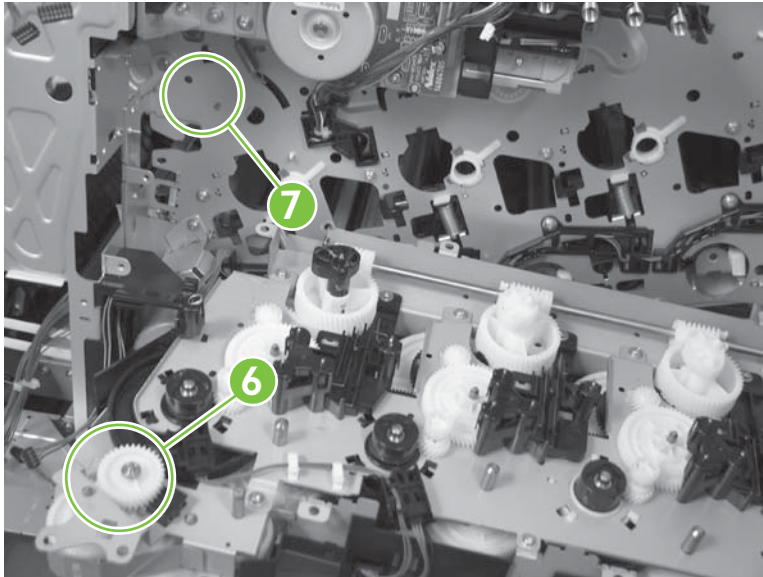
**Figure 6-205** Reinstall the main-drive assembly (6 of 11)





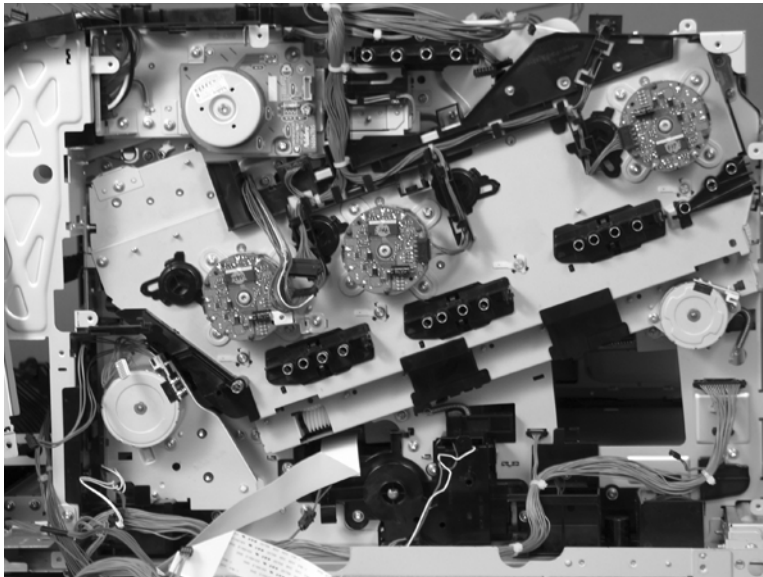
7. When the assembly is placed on the chassis, the pin on the swing gear and on the bracket (callout 6), must align with the holes in the chassis (callout 7).

**Figure 6-206** Reinstall the main-drive assembly (7 of 11)



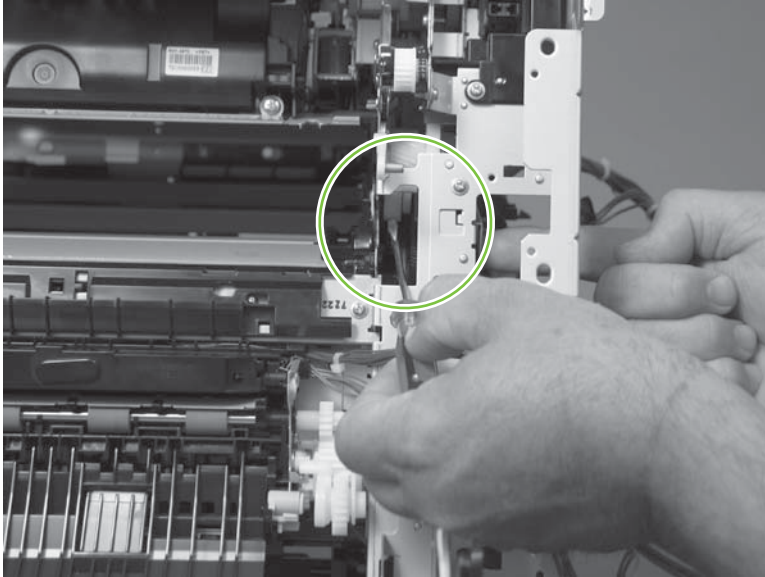
8. Position the assembly on the chassis.

**Figure 6-207** Reinstall the main-drive assembly (8 of 11)



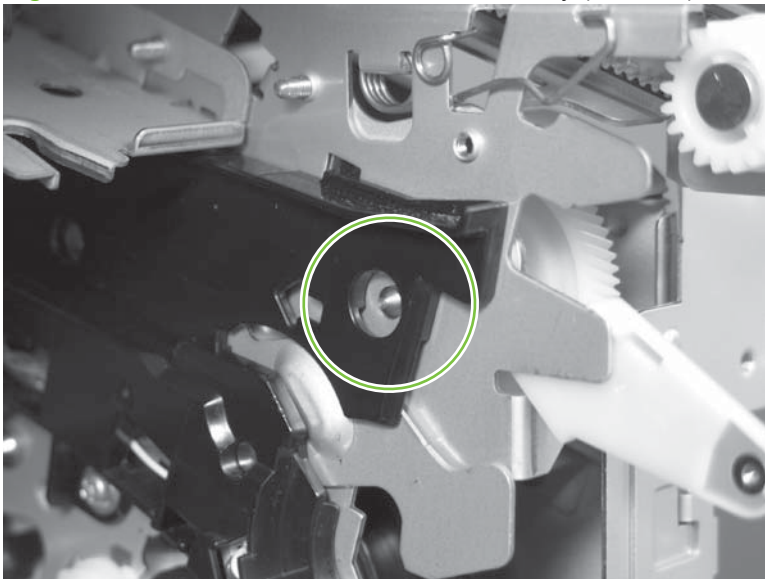
9. Use your finger to push in on the assembly, and use a small flat blade screwdriver to align the pin on the swing gear with the hole in the chassis.

**Figure 6-208** Reinstall the main-drive assembly (9 of 11)




10. When the assembly is correctly installed against the chassis, the pin above the swing gear protrudes through the hole in the chassis.

**Figure 6-209** Reinstall the main-drive assembly (10 of 11)

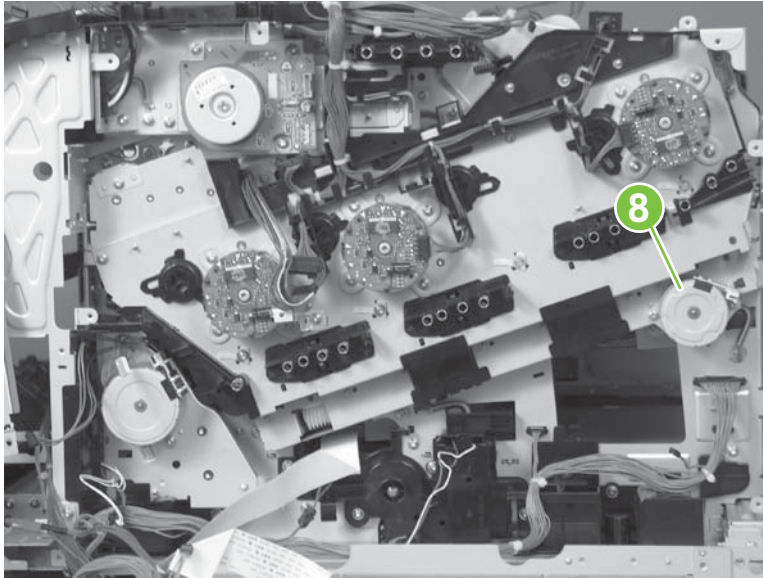


11. Install the main-drive assembly mounting screws, and then reinstall the developing-disengagement motor (callout 8).

 **TIP:** After reassembling the product, use the **DIAGNOSTICS** menu to print a **COLOR BAND TEST** page.

If the test page shows one or more color planes are not printing (usually in the upper left corner of the page), the cam or cams for the missing color plane are not correctly aligned. Repeat the reinstall the main-drive assembly procedure.

**Figure 6-210** Reinstall the main-drive assembly (11 of 11)




## Fuser-drive assembly

Before proceeding, remove the following components:

- Formatter. See [Formatter PCA on page 175](#).
- Fuser. See [Fuser on page 179](#).
- Secondary transfer assembly. See [Secondary transfer assembly on page 186](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Control-panel assembly. See [Control-panel assembly on page 203](#).
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).


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 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the fuser-drive assembly.

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- Front-top cover. See [Front-top cover on page 208](#).
- Rear-top cover. See [Rear-top cover on page 211](#).
- Power-supply fan and fan duct. See [Power-supply fan and fan duct on page 230](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).

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 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

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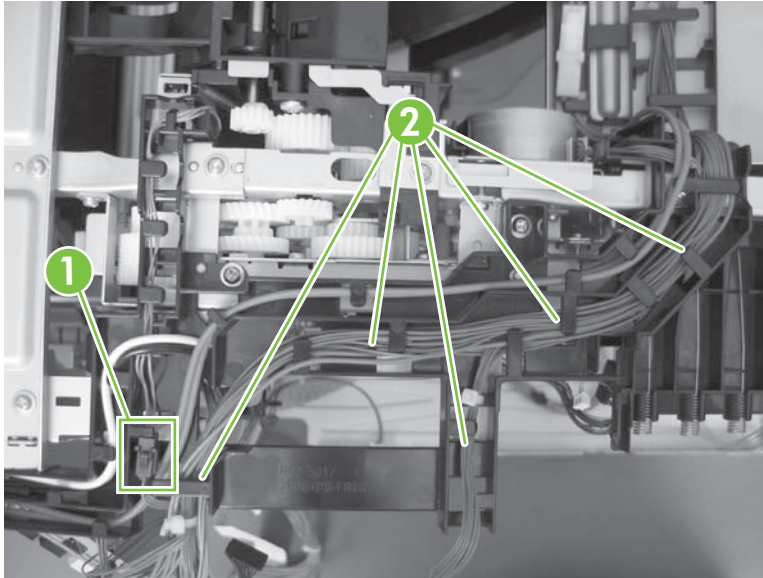
- DC controller PCA. See [DC controller PCA and tray on page 240](#).
- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply lower. See [High-voltage power supply lower \(HVPS-D\) on page 248](#).
- High-voltage power supply upper. See [High-voltage power supply upper \(HVPS-T\) on page 279](#).
- Main-drive assembly. See [Main-drive assembly on page 287](#).



## Remove the fuser-drive assembly

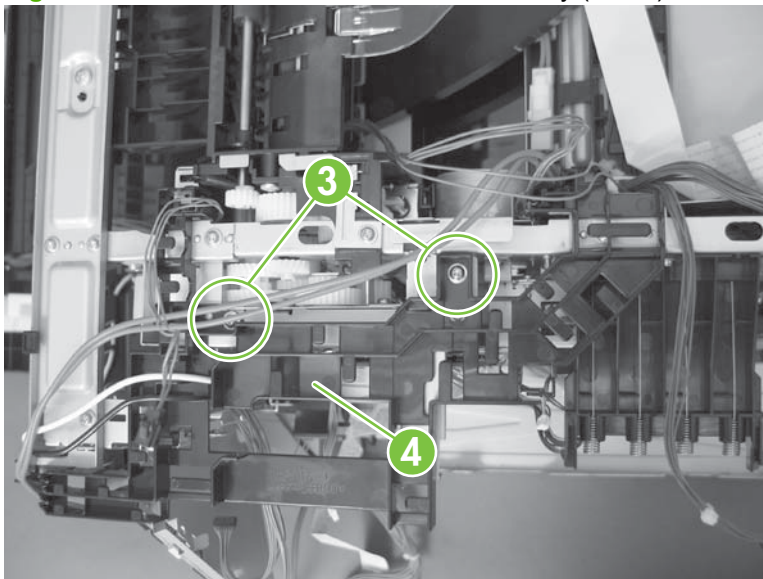
1. Disconnect one connector (callout 1), and then release the wire harnesses from the guide (callout 2).

**Figure 6-211** Remove the fuser-drive assembly (1 of 6)



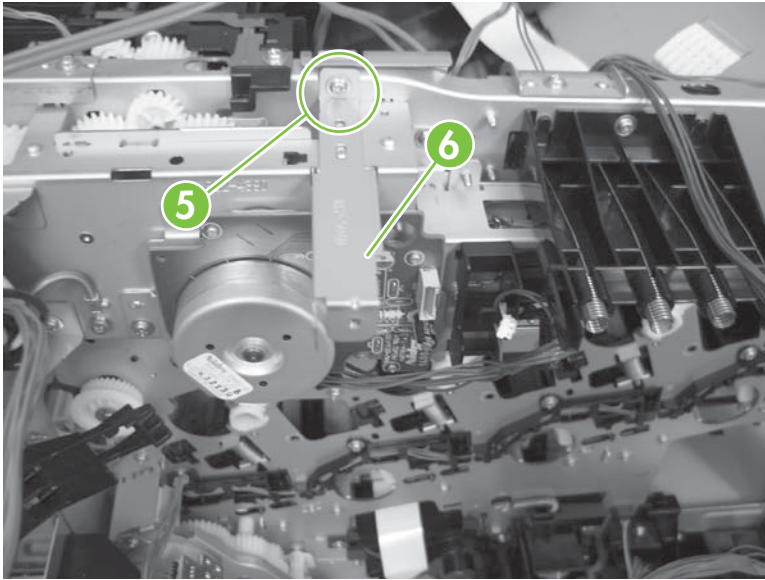
2. Remove two screws (callout 3), and then remove the guide (callout 4).

**Figure 6-212** Remove the fuser-drive assembly (2 of 6)



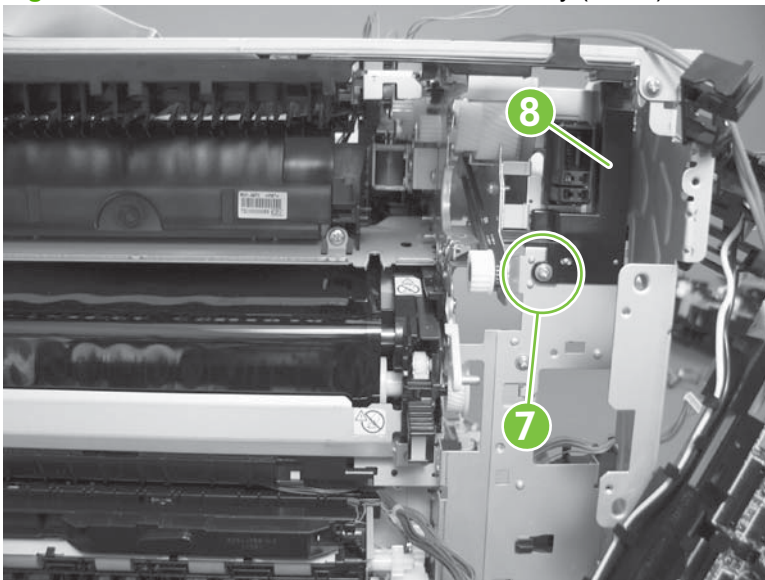
3. Remove one screw (callout 5), and then remove the sheet-metal plate (callout 6).

**Figure 6-213** Remove the fuser-drive assembly (3 of 6)



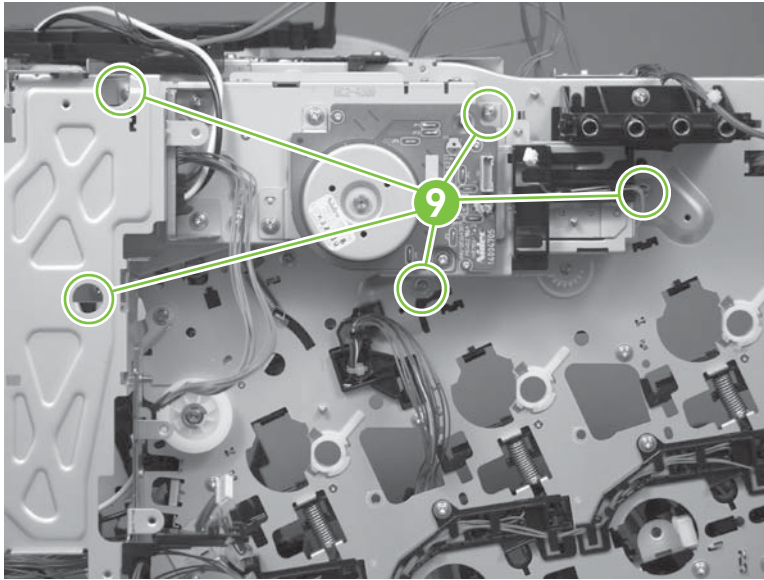
4. Remove one screw (callout 7), and then remove the cover (callout 8).

**Figure 6-214** Remove the fuser-drive assembly (4 of 6)



5. Remove five screws (callout 9).

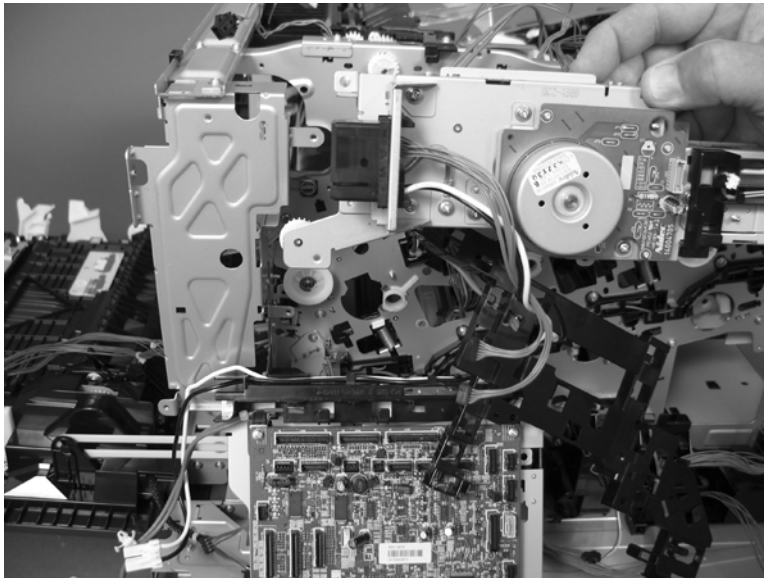
**Figure 6-215** Remove the fuser-drive assembly (5 of 6)



6. Carefully remove the assembly.

△ **CAUTION:** A gear on the assembly is not captive. Do not lose the gear when you remove the assembly. If the gear becomes dislodged, see [Reinstall the fuser-drive assembly on page 302](#).

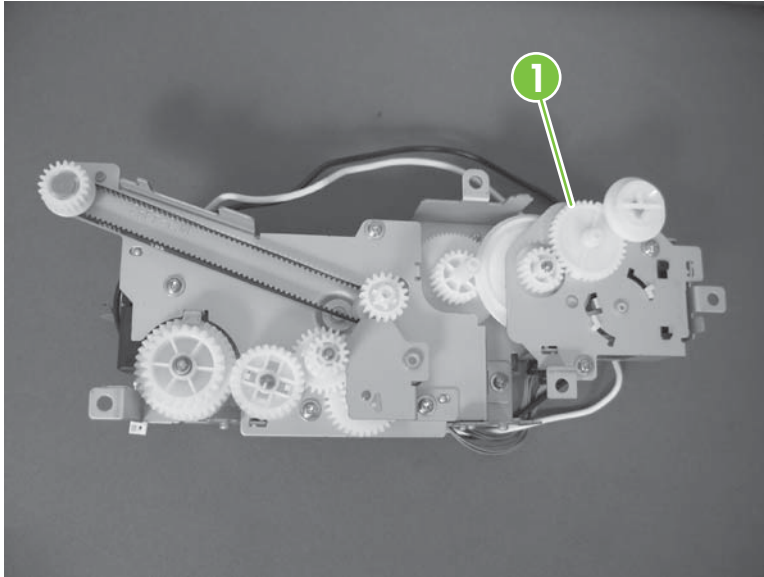
**Figure 6-216** Remove the fuser-drive assembly (6 of 6)



### Reinstall the fuser-drive assembly

If the gear (callout 1) is dislodged when the assembly is removed, use the figure below to correctly install it on the assembly.

**Figure 6-217** Reinstall the fuser-drive assembly




## Delivery assembly

Before proceeding, remove the following components:

- Fuser. See [Fuser on page 179](#).
- Secondary transfer assembly. See [Secondary transfer assembly on page 186](#).
- Intermediate transfer belt (ITB). See [Intermediate transfer belt \(ITB\) on page 188](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Control-panel assembly. See [Control-panel assembly on page 203](#)
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

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 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the delivery assembly.

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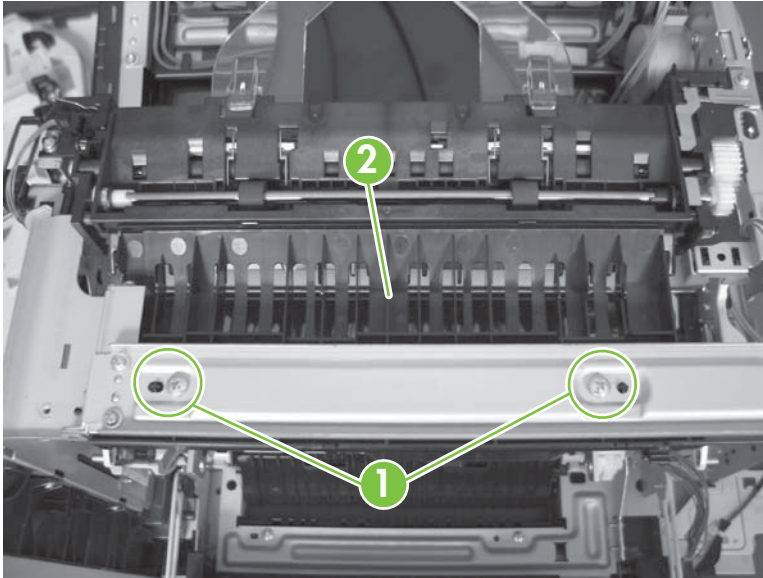
- Front-top cover. See [Front-top cover on page 208](#).
- Rear-top cover. See [Rear-top cover on page 211](#).
- Power-supply fan and fan duct. See [Power-supply fan and fan duct on page 230](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).
- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply lower. See [High-voltage power supply lower \(HVPS-D\) on page 248](#).
- High-voltage power supply upper. See [High-voltage power supply upper \(HVPS-T\) on page 279](#).
- Main-drive assembly. See [Main-drive assembly on page 287](#).
- Fuser-drive assembly. See [Fuser-drive assembly on page 298](#).



## Remove the delivery assembly

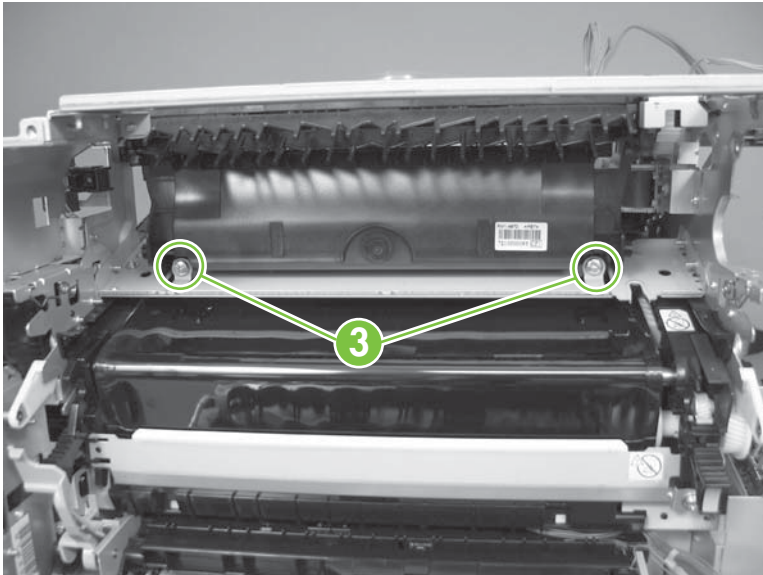
1. Remove two screws (callout 1), and then remove the guide (callout 2).

**Figure 6-218** Remove the delivery assembly (1 of 5)



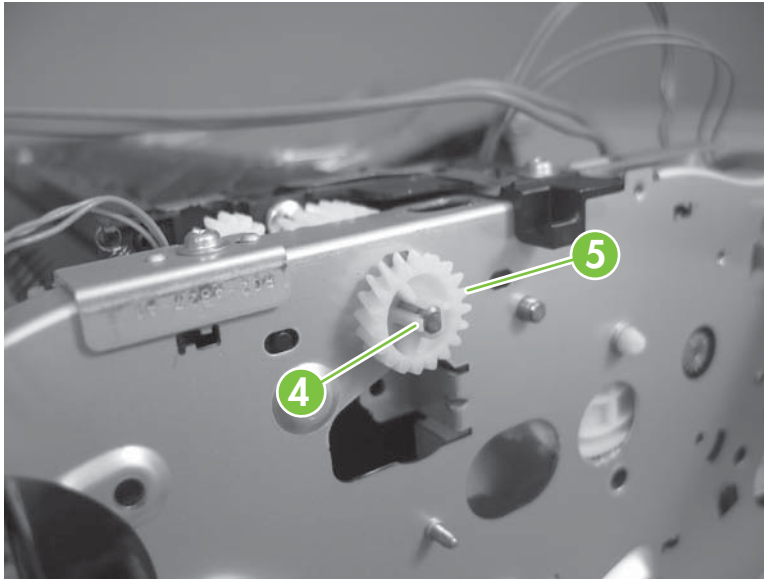
2. Remove two screws (callout 3).

**Figure 6-219** Remove the delivery assembly (2 of 5)



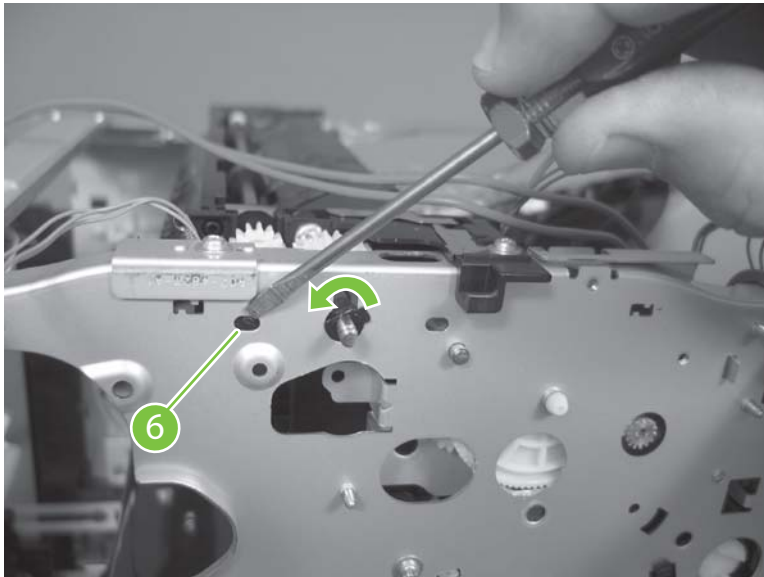
3. Release one tab (callout 4), and then remove the gear (callout 5).

**Figure 6-220** Remove the delivery assembly (3 of 5)



4. Release one tab (callout 6), and then rotate the locking clip until the tab on the clip aligns with the slot in the chassis.

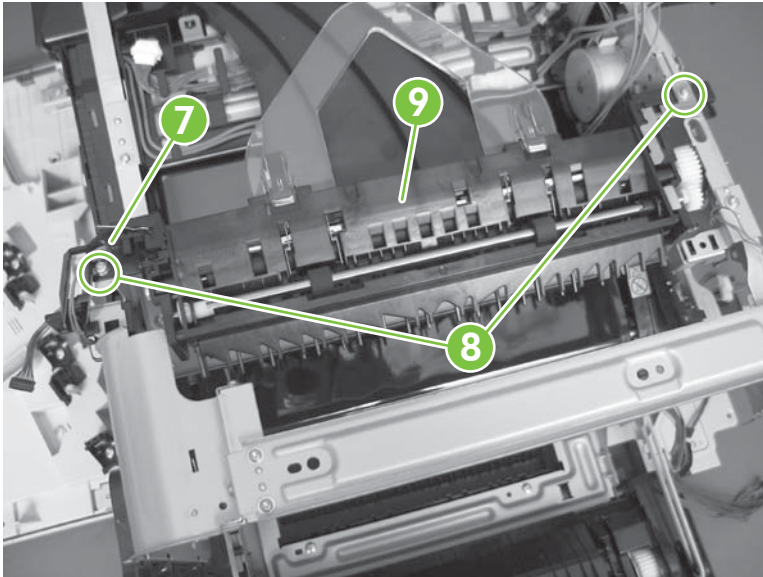
**Figure 6-221** Remove the delivery assembly (4 of 5)



5. Disconnect one connector (callout 7), remove two screws (callout 8), and then carefully lift the assembly (callout 9) off of the product to remove it.

△ **CAUTION:** A solenoid arm (duplex models only; on the right side) and a spring (on the left side) on the assembly are not captive. Do not lose the solenoid arm or spring when you remove the assembly. If the solenoid arm or spring become dislodged, see [Reinstall the delivery assembly on page 307](#).

**Figure 6-222** Remove the delivery assembly (5 of 5)

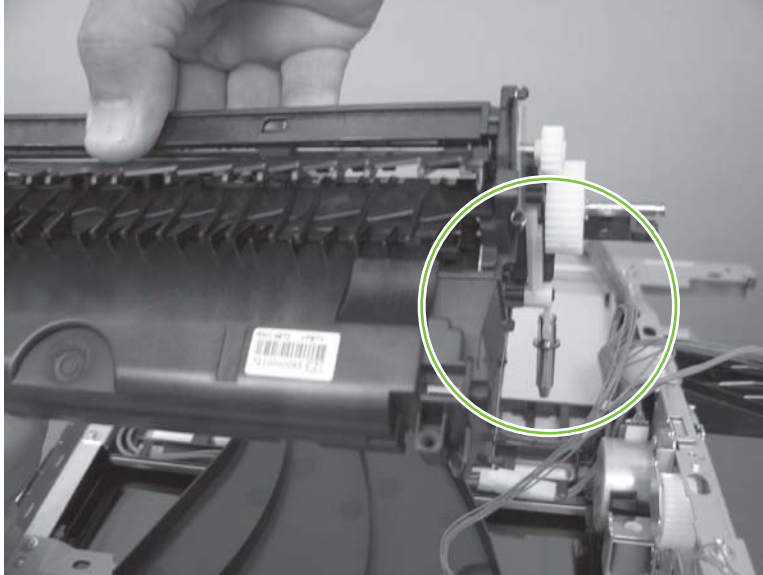




## Reinstall the delivery assembly

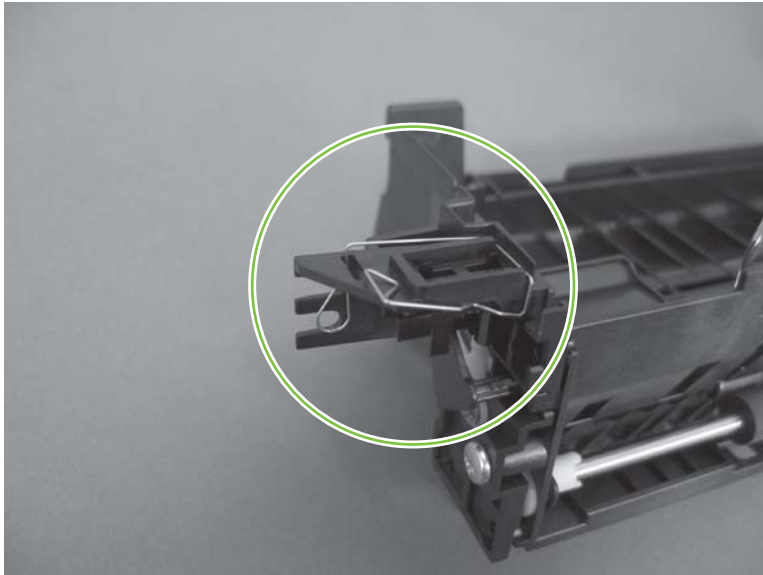
1. **Duplex models only:** Make sure that the solenoid arm is correctly installed on the assembly.

**Figure 6-223** Reinstall the delivery assembly (1 of 2)



2. Make sure that the spring is correctly installed on the assembly.

**Figure 6-224** Reinstall the delivery assembly (2 of 2)




## Duplex-drive assembly

Before proceeding, remove the following components:

- Fuser. See [Fuser on page 179](#).
- Secondary transfer assembly. See [Secondary transfer assembly on page 186](#).
- Intermediate transfer belt (ITB). See [Intermediate transfer belt \(ITB\) on page 188](#).
- Right-rear cover. See [Right-rear cover on page 198](#).
- Left cover. See [Left cover on page 200](#).
- Control-panel assembly. See [Control-panel assembly on page 203](#)
- Rear cover and upper-rear cover. See [Rear cover and upper-rear cover on page 209](#).

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 **NOTE:** It is not necessary to separate the upper-rear cover from the rear cover to remove the duplex-drive assembly.

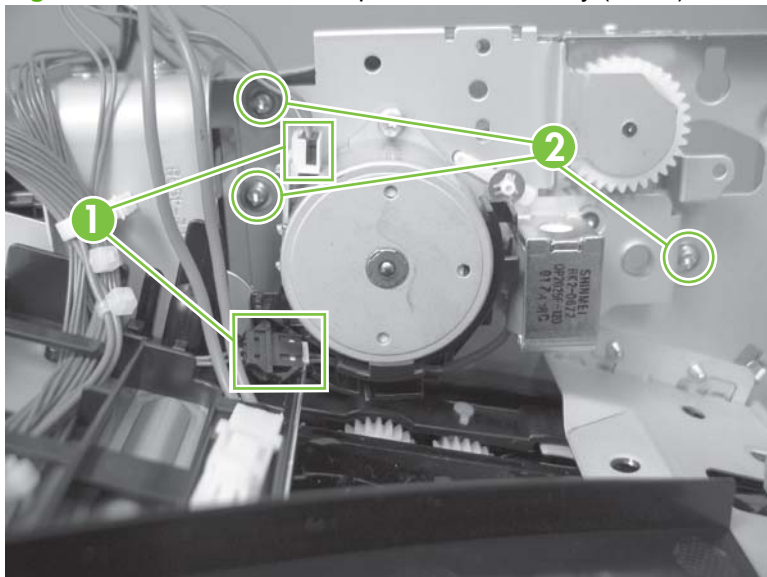
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- Front-top cover. See [Front-top cover on page 208](#).
- Rear-top cover. See [Rear-top cover on page 211](#).
- Power-supply fan and fan duct. See [Power-supply fan and fan duct on page 230](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 238](#).
- Low-voltage power supply. See [Low-voltage power supply on page 243](#).
- High-voltage power supply lower. See [High-voltage power supply lower \(HVPS-D\) on page 248](#).
- High-voltage power supply upper. See [High-voltage power supply upper \(HVPS-T\) on page 279](#).
- Main-drive assembly. See [Main-drive assembly on page 287](#).
- Fuser-drive assembly. See [Fuser-drive assembly on page 298](#).
- Delivery assembly. See [Delivery assembly on page 303](#).

## Remove the duplex-drive assembly

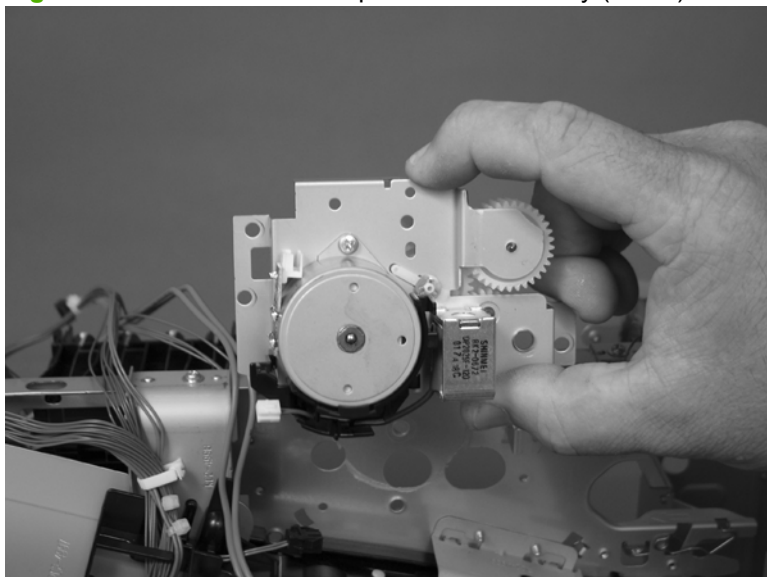
1. Disconnect two connectors (callout 1), and then remove three screws (callout 2).

**Figure 6-225** Remove the duplex-drive assembly (1 of 2)




2. Remove the assembly.

**Figure 6-226** Remove the duplex-drive assembly (2 of 2)



## Optional paper feeder assembly (Tray 3)

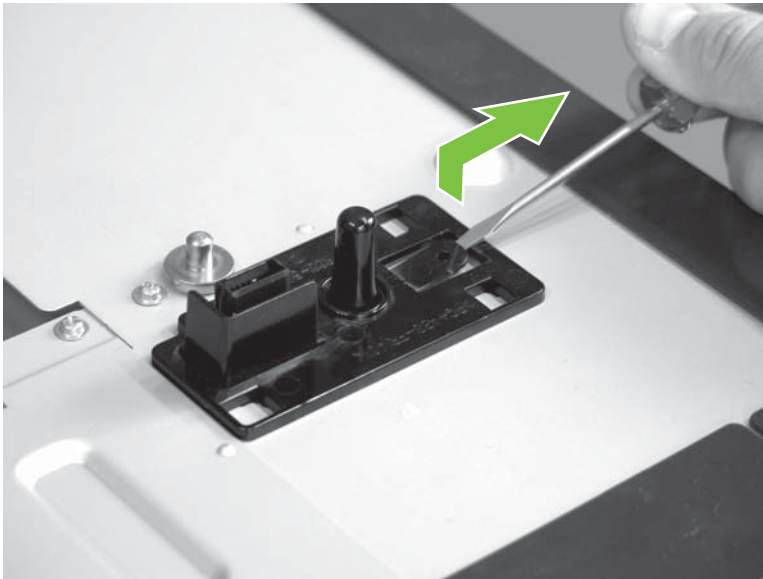
 **NOTE:** For information about removing the Tray 3 pickup roller, see [Pickup and feed rollers \(Tray 3\) on page 182](#).

For information about removing the Tray 3 cassette, see [Tray cassette on page 178](#).

For information about removing the right door (optional paper feeder), see [Right door \(optional paper feeder\) on page 190](#)

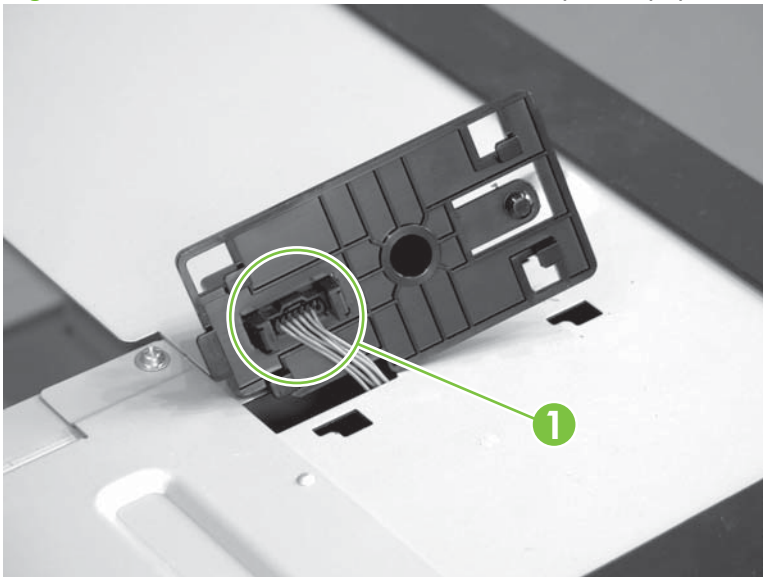
### Drawer connector

1. With a small screwdriver, lift one tab and then slide the drawer connector to release.



2. Remove one connector (callout 1).


**Figure 6-227** Remove the drawer connector; optional paper feeder



---

# 7 Solve problems

To use the information in this chapter, you should have a basic understanding of the HP LaserJet printing process. Explanations of each mechanical assembly, the printer systems, and the basic theory of operation are contained in [Theory of operation on page 103](#). Do not perform any of these troubleshooting processes unless you understand the function of each product component.

 **NOTE:** To perform diagnostic and configuration procedures (for example, resetting page counts) for the HP Color LaserJet CP3525, you must install the CP1210 Service Config Tool (available at your HP authorized repair center).

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- [Solve problems checklist](#)
- [Menu map](#)
- [Troubleshooting process](#)
- [Tools for troubleshooting](#)
- [Control-panel messages table](#)
- [Event log messages](#)
- [Clear paper jams](#)
- [Solve paper-handling problems](#)
- [Use manual print modes](#)
- [Solve image-quality problems](#)
- [Solve performance problems](#)
- [Solve connectivity problems](#)
- [Service mode functions](#)

## Solve problems checklist

If the product is not responding correctly, complete the steps in the following checklist, in order. If the product does not pass a step, follow the corresponding troubleshooting suggestions. If a step resolves the problem, you can stop without performing the other steps on the checklist.

1. Make sure one of the following messages display on the control panel: **Ready**, **PAUSED**, or **SLEEP MODE ON**. If no lights are on or the display does not say **Ready**, **PAUSED**, or **SLEEP MODE ON**, see [Power subsystem on page 317](#).
2. Check the cables.
  - a. Check the cable connection between the product and the computer or network port. Make sure that the connection is secure.
  - b. Make sure that the cable itself is not faulty by using a different cable, if possible.
  - c. Check the network connection. See [Solve connectivity problems on page 439](#).
3. Ensure that the print media that you are using meets specifications.
4. Print a configuration page. If the product is connected to a network, an HP Jetdirect page also prints.
  - a. If the pages do not print, check that at least one tray contains print media.
  - b. If the page jams in the product, see [Clear paper jams on page 404](#).
5. If the configuration page prints, check the following items.
  - a. If the page prints correctly, the product hardware is working. The problem is with the computer you are using, with the printer driver, or with the program.
  - b. If the page does not print correctly, the problem is with the product hardware.
6. Does the image quality meet the user's requirements? If yes, see step 7. If no, check the following items:
  - Print the print-quality (PQ) troubleshooting pages. See [Print-quality-troubleshooting pages on page 359](#) in this chapter.
  - Solve the print-quality problems, and then see step 7.
7. At the computer, check to see if the print queue is stopped, paused, or set to print offline.

**Windows:** Click **Start**, click **Settings**, and then click **Printers** or **Printers and Faxes**. Double-click **HP Color LaserJet CP3525**.

-or-

**Mac OS X:** Open **Printer Setup Utility**, and then double-click the line for the **HP Color LaserJet CP3525**.

8. Verify that you have installed the HP Color LaserJet CP3525 Series printer driver. Check the program to make sure that you are using the HP Color LaserJet CP3525 Series printer driver.
9. Print a short document from a different program that has worked in the past. If this solution works, the problem is with the program that you are using. 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 product software installed.
  - b. If you connected the product to the network, connect the product directly to a computer with a USB cable. Redirect the product to the correct port, or reinstall the software, selecting the new connection type that you are using.

# Menu map

## Print a menu map

1. Press **OK** to open the menus.
2. Use the arrow buttons to navigate to the **INFORMATION** submenu, and then press **OK**.
3. Use the arrow buttons to navigate to the **PRINT MENU MAP** submenu, and then press **OK** to print the menu structure.
4. Press **X** to exit the menus.



# Troubleshooting process

## Determine the problem source


When the product malfunctions or encounters an unexpected situation, the product control panel alerts you to the situation. This section contains a pre-troubleshooting checklist to filter out many possible causes of the problem. A troubleshooting flowchart helps you diagnose the root cause of the problem. The remainder of this chapter provides steps for correcting problems.

- Use the pre-troubleshooting checklist to evaluate the source of the problem and to reduce the number of steps that are required to fix the problem.
- 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:** The customer is responsible for checking supplies and for using supplies that are in good condition.

---

## Pre-troubleshooting checklist

The list below describes basic questions to ask the customer to help quickly define the problem or problems.

**Table 7-1 Pre-troubleshooting checklist**

Environment	<ul style="list-style-type: none"><li>● Is the product installed on a solid, level surface?</li><li>● Is the product exposed to particle matter or dust?</li><li>● Is the power-supply voltage within <math>\pm 10</math> volts of the specified power source?</li><li>● Is the power supply plug inserted in the product and directly to the wall outlet (not a power strip)?</li><li>● Is the operating environment within the specified parameters, as listed in chapter 1 of this manual?</li><li>● Is the product exposed to ammonia gas, such as that produced by diazo copiers or office cleaning materials?</li><li>● Is the product exposed to direct sunlight?</li></ul>
Media	<ul style="list-style-type: none"><li>● Does the customer use only supported media?</li><li>● Is the media in good condition (contains no curls, folds, and so forth)?</li><li>● Is the media stored correctly and within environmental limits?</li></ul>
Input trays	<ul style="list-style-type: none"><li>● Is the amount of media in the tray within specifications?</li><li>● Is the media correctly placed in the tray?</li></ul>

**Table 7-1 Pre-troubleshooting checklist (continued)**

	<ul style="list-style-type: none"> <li>• Are the paper guides aligned with the stack?</li> <li>• Is the paper tray correctly installed in the product?</li> </ul>
Print cartridges	<ul style="list-style-type: none"> <li>• Is each print cartridge installed correctly?</li> <li>• Are original HP print cartridges installed?</li> <li>• Are the cartridges damaged?</li> </ul>
ITB and fuser	<ul style="list-style-type: none"> <li>• Are the ITB and fuser correctly installed?</li> <li>• Is the ITB or fuser damaged?</li> </ul>
Covers	<ul style="list-style-type: none"> <li>• Are the right and front doors closed?</li> </ul>
Condensation	<ul style="list-style-type: none"> <li>• Does condensation occur following a temperature change (particularly in winter following cold storage)? If so, wipe the affected area dry or leave the product on for 10 to 20 minutes.</li> <li>• Was a print cartridge installed soon after being moved from a cold to a warm room? If so, allow the product to sit at room temperature for one to two hours.</li> </ul>
Miscellaneous	<ul style="list-style-type: none"> <li>• Check for and remove any non-HP components (print cartridges, memory modules, and EIO cards) from the product.</li> <li>• If the hardware or software configuration has not changed or the problem is not associated with any specific software, contact the Customer Care Center.</li> <li>• Remove the product from the network, and make sure that the failure is with the product before beginning troubleshooting.</li> <li>• For any print-quality issues, calibrate the product. See <a href="#">Calibrate the product on page 359</a>.</li> </ul>

## Troubleshooting flowchart

This flowchart highlights the general processes that you can follow to quickly isolate and solve product hardware problems.

Each row depicts a major troubleshooting step. A “yes” answer to a question allows you 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.

**Table 7-2 Troubleshooting flowchart**

1 Power on	Is the product on and does a readable message display?	Follow the power-on troubleshooting checks. See <a href="#">Power subsystem on page 317</a> .
	Yes ↓      No →	After the control panel display is functional, see step 2.
2 Control panel messages	Does the message <b>Ready</b> display on the control panel?	If an error message displays, see <a href="#">Control-panel messages table on page 369</a> .
	Yes ↓      No →	After the errors have been corrected, go to step 3.

**Table 7-2 Troubleshooting flowchart (continued)**

<b>3</b> <b>Event log</b>	Open the <b>DIAGNOSTICS</b> menu and print an event log to see the history of errors with this product.		If the event log does not print, see <a href="#">Print an event log on page 395</a> .  If paper jams inside the product, see <a href="#">Clear paper jams on page 404</a> .
	Does the event log print?		
	Yes ↓	No →	If error messages display on the control panel when you try to print an event log, see <a href="#">Control-panel messages table on page 369</a> .  After successfully printing and evaluating the event log, see step 4.
<b>4</b> <b>Information pages</b>	Open the <b>INFORMATION</b> menu and print the configuration pages to verify that all the accessories are installed.		
	Are all the accessories installed?		
	Yes ↓	No →	
<b>5</b> <b>Image quality</b>	Does the print quality meet the customer's requirements?		Compare the images with the sample defects in the image defect tables. See <a href="#">Image defects table on page 432</a> .  After the print quality is acceptable, see step 6.
	Yes ↓	No →	
<b>6</b> <b>Interface</b>	Can the customer print successfully from the host computer?		Verify that all I/O cables are connected correctly and that a valid IP address is listed on the Jetdirect configuration page.  If error messages display on the control panel, see <a href="#">Control-panel messages table on page 369</a> .  When the customer can print from the host computer, this is the end of the troubleshooting process.
	Yes. This is the end of the troubleshooting process.	No →	

## Power subsystem

### Power-on checks

The basic product functions should start up when the product is plugged into an electrical outlet and the power switch is pushed to the *on* position. If the product does not start, use the information in this section to isolate and solve the problem.

### Power-on troubleshooting overview

Turn on the product power. If the control panel display remains blank, random patterns display, or asterisks remain on the control panel display, perform power-on checks to find the cause of the problem.

During normal operation, the main cooling fan begins to spin briefly after the product power is turned on. Place your hand over the holes in the left-side cover, near the formatter. If the fan is operating, you will feel air passing out of the product. You can also lean close to the product and hear the fan operating. You can also place your hand over the hole in the right-rear lower corner. If the fan is operating, you should feel air being drawn into the product. When this fan is operational, the DC side of the power supply is functioning correctly.

After the fan is operating, the main motor turns on (unless the right or front cover is open, a jam condition is sensed, or the paper-path sensors are damaged). You might be able to visually and audibly determine if the main motor is turned on.


If the fan and main motor are operating correctly, the next troubleshooting step is to isolate print engine, formatter, and control panel problems. Perform an engine test (see [Engine-test button on page 323](#)).

If the formatter is damaged, it might interfere with the engine test. If the engine-test page does not print, try removing the formatter and then performing the engine test again. If the engine test is then successful, the problem is almost certainly with the formatter, the control panel, or the cable that connects them.

If the control panel is blank when you turn on the product, check the following items.

1. Make sure that the product is plugged directly into an active electrical outlet (not a power strip) that delivers the correct voltage.
2. Make sure that the power switch is in the *on* position.
3. Make sure that the fan runs briefly, which indicates that the power supply is operational.
4. Make sure that the control panel display wire harness is connected.
5. Make sure that the formatter is seated and operating correctly. Turn off the product and remove the formatter. Reinstall the formatter, and then verify that the heartbeat LED is flashing.
6. Remove any HP Jetdirect or other EIO cards, and then try to turn the product on again.

---

 **NOTE:** If the control panel display is blank, but the main cooling fan runs briefly after the product power is turned on, try printing an engine-test page to determine whether the problem is with the control-panel display, formatter, or other product components.

---

# Tools for troubleshooting

The section describes the tools that can help you solve problems with your device.

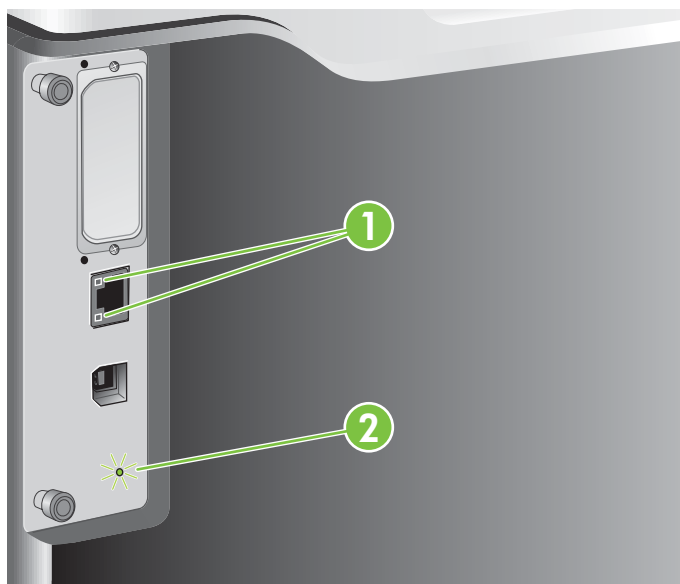
## Individual component diagnostics

### LED diagnostics

LED, engine, and individual diagnostics can identify and troubleshoot product problems.

#### Understand lights on the formatter

Three LEDs on the formatter indicate that the product is functioning correctly.




1	HP Jetdirect LEDs
2	Heartbeat LED

#### HP Jetdirect LEDs

The embedded HP Jetdirect print server has two LEDs. The yellow LED indicates network activity, and the green LED indicates the link status. A blinking yellow LED indicates network traffic. If the green LED is off, a link has failed.

For link failures, check all the network cable connections. In addition, you can try to manually configure the link settings on the embedded print server by using the product control-panel menus.

1. Press the **Menu** button .
2. Press the down arrow ▼ to highlight the **CONFIGURE DEVICE** menu, and then press the **OK** button.
3. Press the down arrow ▼ to highlight the **I/O** menu, and then press the **OK** button.
4. Press the down arrow ▼ to highlight the **EMBEDDED JETDIRECT MENU** option, and then press the **OK** button.

5. Press the down arrow ▼ to highlight the **LINK SPEED** menu, and then press the **OK** button.
6. Select the appropriate link speed, and then press the **OK** button.

### Heartbeat LED

The heartbeat LED indicates that the formatter is functioning correctly. While the product is initializing after you turn it on, the LED blinks rapidly, and then turns off. When the product has finished the initialization sequence, the heartbeat LED pulses on and off.

### Engine diagnostics

This section provides an overview of the engine diagnostics that are available in the HP Color LaserJet CP3525 Series product. The product contains extensive internal diagnostics that help in troubleshooting print quality, paper path, noise, component, and timing issues.

### Diagnostics menu

The menu allows you to run tests that can help you identify and solve problems with the product.

Menu item	Description
<b>PRINT EVENT LOG</b>	This item prints an event log that displays the last 50 entries in the printer's event log, starting with the most recent.
<b>SHOW EVENT LOG</b>	This item displays the last 50 events on the control panel display, starting with the most recent.
<b>PQ TROUBLESHOOTING</b>	This item prints a series of eight pages that include instructions, pages for each color, demo page, and configuration page. These pages can help isolate print-quality problems.
<b>PRINT DIAGNOSTICS PAGE</b>	This item allows you to print a page that can assist in diagnosing printer problems.
<b>DISABLE CARTRIDGE CHECK</b>	This item allows you to remove a print cartridge to help determine which cartridge is the source of a problem.
<b>PAPER PATH SENSORS</b>	This item performs a test on each of the printer's sensors to determine if they are working correctly and displays the status of each sensor.
<b>PAPER PATH TEST</b>	This item is useful for testing the paper handling features of the printer, such as the configuration of the trays.
<b>MANUAL SENSOR TEST</b>	This item performs tests to determine whether the paper-path sensors are operating correctly.
<b>MANUAL SENSOR TEST 2</b>	This item performs tests to determine whether the paper-path sensors are operating correctly.
<b>COMPONENT TEST</b>	This item activates individual parts independently to isolate noise, leaking, and other hardware issues.
<b>PRINT/STOP TEST</b>	This item isolates print-quality faults more accurately by stopping the printer in mid-print cycle. Stopping the printer in mid-print cycle allows you to see where the image begins to degrade. Stopping the printer in mid-print cycle causes a jam that may need to be manually removed. A service representative performs this test.
<b>COLOR BAND TEST</b>	Use this page to print a color-band test page that is used to identify arcing in the high-voltage power supply.

## Diagnostics mode

Some of the diagnostic tests automatically put the printer into a special diagnostics mode. During the special diagnostics mode the printer can perform actions that would normally cause the printer to enter an error state. Always follow the control panel directions in the **DIAGNOSTICS** menu to exit the special diagnostics mode correctly and return the printer to a normal state.

### Diagnostics that put the engine into the special diagnostics mode

Five diagnostic tests put the engine into a special state:

- Disable-cartridge check
- Paper-path sensors
- Manual sensor test
- Manual sensor test 2
- Component test


While the printer is in the special diagnostics mode, the following message appears:

**READY DIAGNOSTICS MODE**

**TO EXIT PRESS STOP**

When the printer is in the special diagnostics mode, these five tests display in the menu and are available to be run. To gain access into other diagnostic tests or to leave the special state, press **Stop**, and then select **EXIT**. The printer resets itself, and then returns to the normal state.

---


 **NOTE:** You need to have a good understanding of how the printer operates to use the engine diagnostics successfully. Before proceeding with these diagnostic tests, make sure that you understand the information in chapter 5 of this manual.

---

### Defeating interlocks

Different tests can be used to isolate different types of issues. For component or noise isolation, you can run the diagnostic test when the front and right doors are open. To operate the product with the doors open, the door switch levers must be depressed to simulate a closed-door position.

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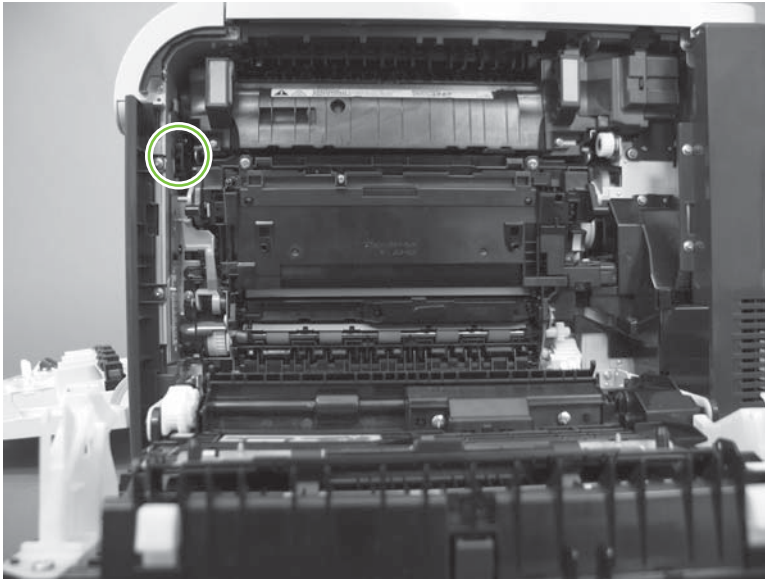
 **WARNING!** Be careful when performing printer diagnostics to avoid risk of injury. Only trained service personnel should open and run the diagnostics with the covers removed. Never touch any of the power supplies when the printer is turned on.

---

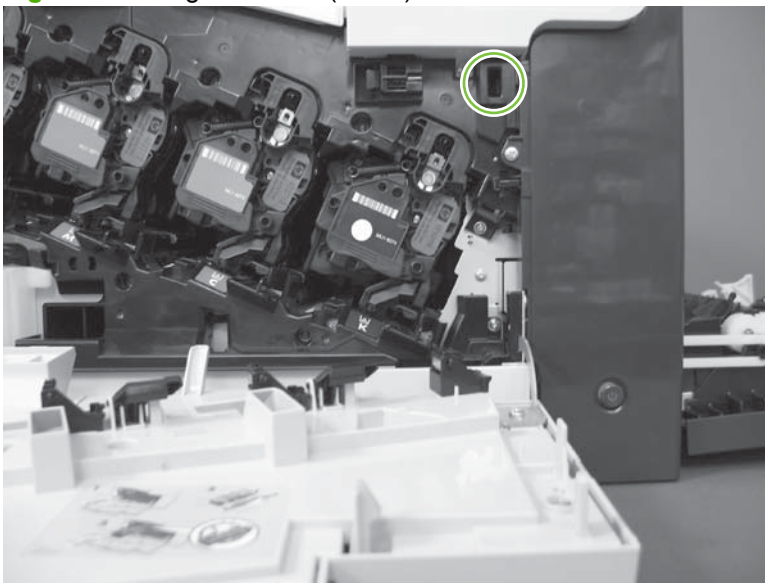
1. Open the right and front doors.

2. Locate the slots on the right and front of the product.

**Figure 7-1** Diagnostic test (1 of 3)



**Figure 7-2** Diagnostic test (2 of 3)





3. Insert a folded piece of paper into each slot at the same time until the product is in a **Ready** state.


**Figure 7-3** Diagnostic test (3 of 3)



### Disable cartridge check


Use this diagnostic test to print internal pages or send an external job to the product when one or more print cartridges are removed or exchanged. Consumable supply errors are ignored while the product is in this mode. When the product is in this mode, you can navigate the menus and print internal pages or send an external print job to the product. This test can be used isolate problems, such as noise, and to isolate print-quality problems that are related to individual print cartridges.

---

 **NOTE:** Color cartridges are not keyed and can be interchanged. The black print cartridge is keyed and cannot fit into any other position. An error will display on the control panel if a print cartridge is installed in the wrong position. The **SUPPLIES STATUS** menu will explain which print cartridge is misplaced.

**NOTE:** Do not remove or exchange print cartridges and image drums until after you start the disable cartridge check diagnostic.

---

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press the **OK** button.
3. Press the down arrow ▼ to highlight **DISABLE CARTRIDGE CHECK**, and then press the **OK** button.

To exit this diagnostic test, press **Stop** and then select **EXIT DIAGNOSTICS**.

### Engine-test button

To verify that the product engine is functioning, print an engine test page. Use a small pointed object to depress the test-page switch located on the rear of the product. The test page should have a series of

horizontal lines. The test page can use only Tray 2 as the paper source, so make sure that paper is loaded in Tray 2.


**Figure 7-4** Engine-test button



## Paper-path test


This diagnostic test generates one or more test pages that you can use to isolate the cause of jams.

To isolate a problem, specify which input tray to use, specify whether to use the duplex path, and specify the number of copies to print. Multiple copies can be printed to help isolate intermittent problems. The following options become available after you start 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.** Select Tray 1, Tray 2, or the optional tray.
  - **DUPLEX.** Enable or disable two-sided printing.
  - **COPIES.** Set the numbers of copies to be printed; the choices are 1, 10, 50, 100, or 500.
1. Press the **Menu**  button.
  2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press the **OK** button.
  3. Press the down arrow ▼ to highlight **PAPER PATH TEST**, and then press the **OK** button.
  4. Select the paper-path test options for the test you want to run.

## Manual sensor test (special-mode test)

Use this diagnostic test to manually test the product sensors and switches. Each sensor is represented by a letter and number on the control panel display.

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press the **OK** button.
3. Press the down arrow ▼ to highlight **MANUAL SENSOR TEST**, and then press the **OK** button.

To exit this diagnostic, press the **Stop** key, and then select **EXIT DIAGNOSTICS**.

Menus cannot be opened during this test, so the **OK** button serves the same function as the **Stop** button.

**Table 7-3 Manual sensor diagnostic tests**

Sensor or switch name	Sensor or switch number
A TOP (top of page) sensor	SR8
B loop 1 sensor	SR14
C loop 2 sensor	SR15
D fuser (fixing) delivery sensor	SR5
E duplex re-pick up sensor	SR22
F output bin full sensor	SR6
G OHT sensor	OHT
H fuser (fixing) pressure-release sensor	SR7
I primary transfer-roller-disengagement sensor	SR17
K front door switch	SW1, SW2

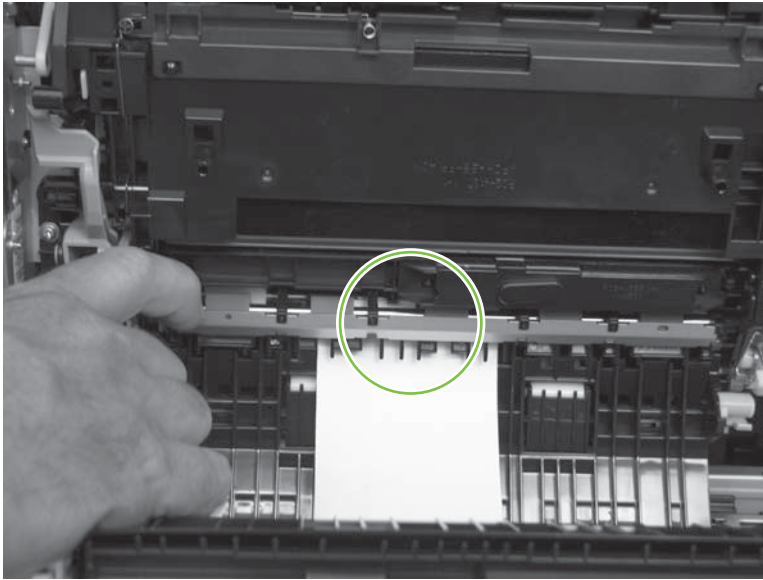
 **NOTE:** The terms fusing and fixing are synonymous.

### A TOP (top of page) sensor

1. Open the right door.
2. Lower the secondary transfer assembly.
3. Open the registration shutter.

4. Insert a piece of paper to activate the TOP sensor.

**Figure 7-5** Test the TOP sensor

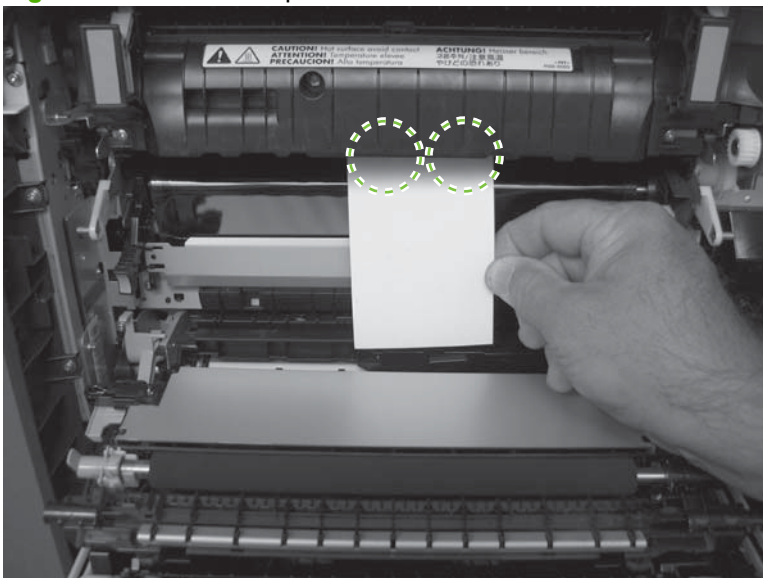


5. Check the control-panel display for sensor response.
6. If no response, replace the registration assembly.

### **B and C loop sensors**

1. Open the right door.
2. Lower the secondary transfer assembly.
3. Slowly insert a piece of paper to activate the B and C loop sensors underneath the fuser.

**Figure 7-6** Test the loop sensors

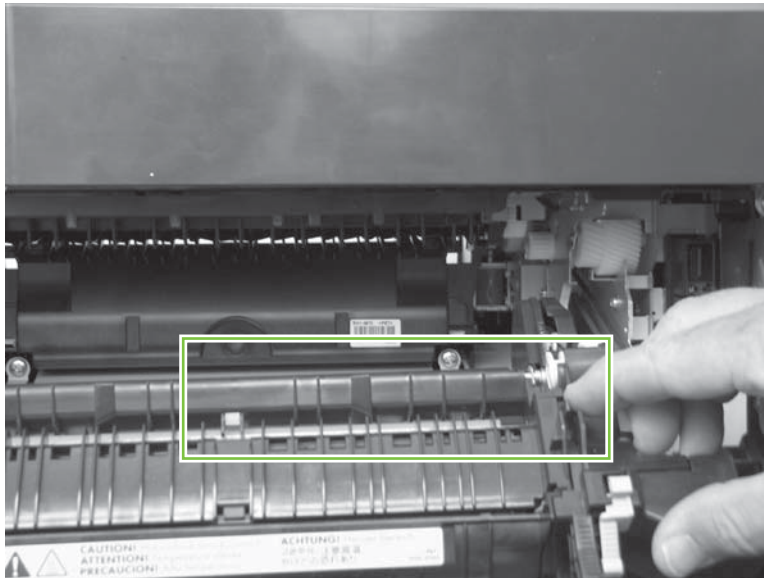


4. Check the control-panel display for a sensor response.
5. If there is no response, replace fuser. See [Fuser on page 179](#).

#### D fuser (fixing) delivery sensor

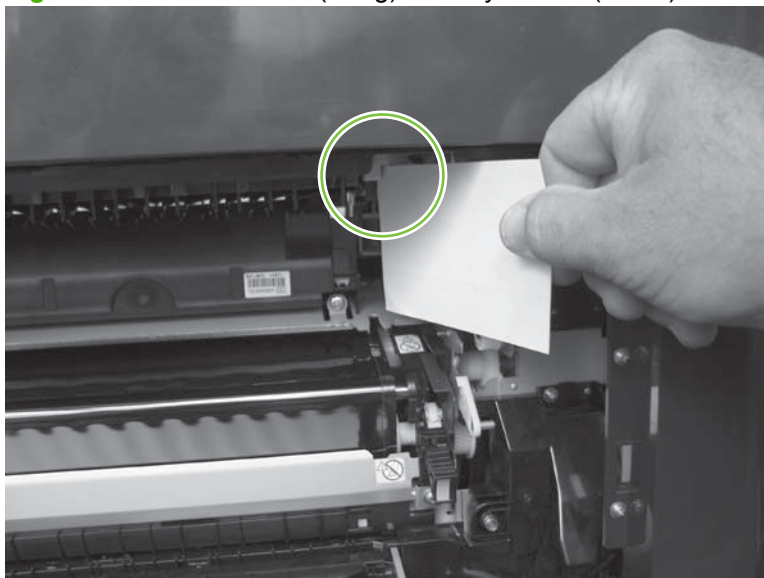
1. Open the right door.
2. Lower the secondary transfer assembly.
3. Remove the fuser assembly, and then verify that the sensor flag on the fuser assembly moves freely. If the sensor flag does not move freely, replace the fuser. See [Fuser on page 179](#).

**Figure 7-7** Test the fuser delivery sensor (1 of 2)



4. Insert a piece of paper to activate the fuser (fixing) delivery sensor.

**Figure 7-8** Test the fuser (fixing) delivery sensor (2 of 2)

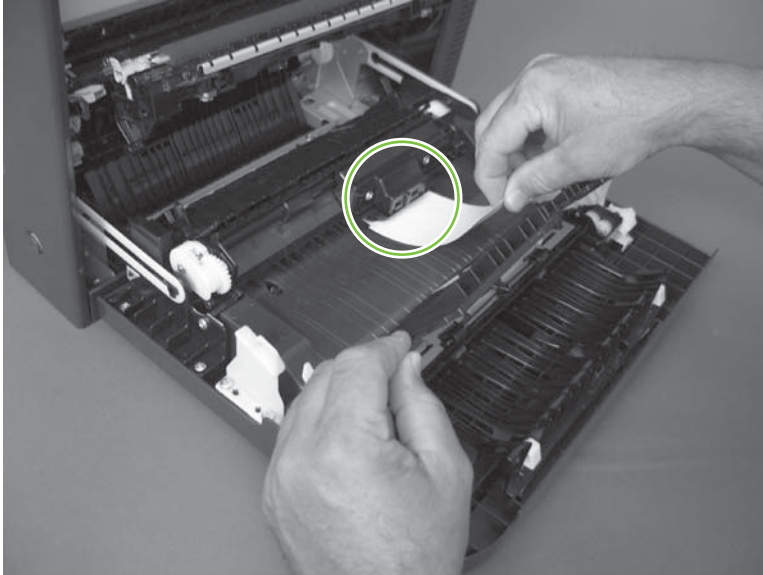


5. Check the control-panel display for a sensor response.
6. If there is no response, replace the fuser (fixing) delivery sensor.

### E duplex re-pickup sensor


1. Open the right door.
2. Use the green handle to lift the duplex jam cover.
3. Insert a piece of paper to activate the duplex re-pickup sensor (8492).

**Figure 7-9** Test the duplex re-pickup sensor



4. Check the control-panel display for sensor response.
5. If no response, replace the right door assembly. See [Right-door assembly on page 194](#).

### F output bin full sensor

 **NOTE:** Upper-front cover has been removed for clarity.

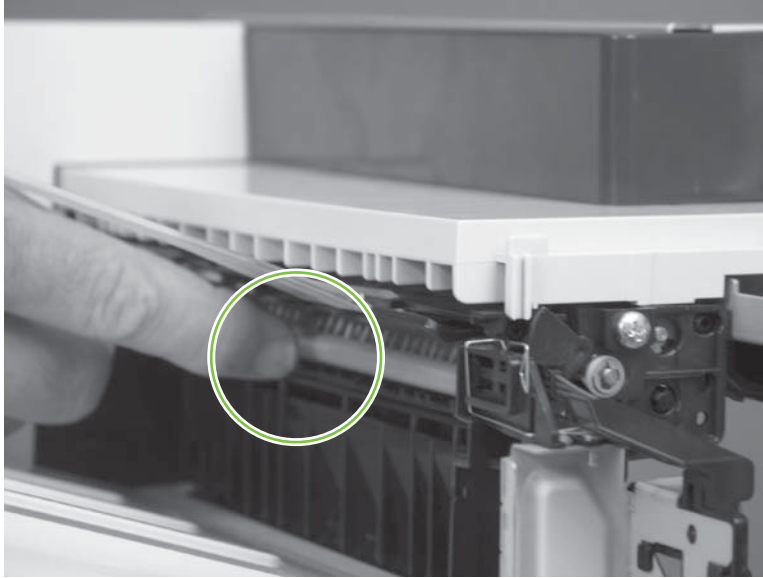
---

1. Open the right door.
2. Lower the secondary transfer assembly.
3. Remove the fuser.



4. Move the output-bin full sensor flag.

**Figure 7-10** Test the output-bin-full sensor

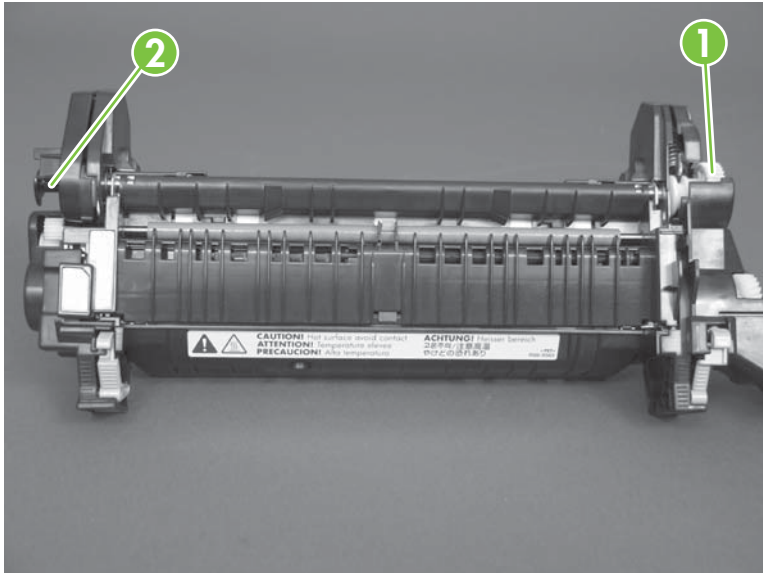


5. Check the control-panel display for sensor response.
6. If no response, remove the control panel and verify that the flag is moving. If not, replace the delivery assembly. See [Delivery assembly on page 303](#).

#### H fuser (fixing) pressure-release sensor

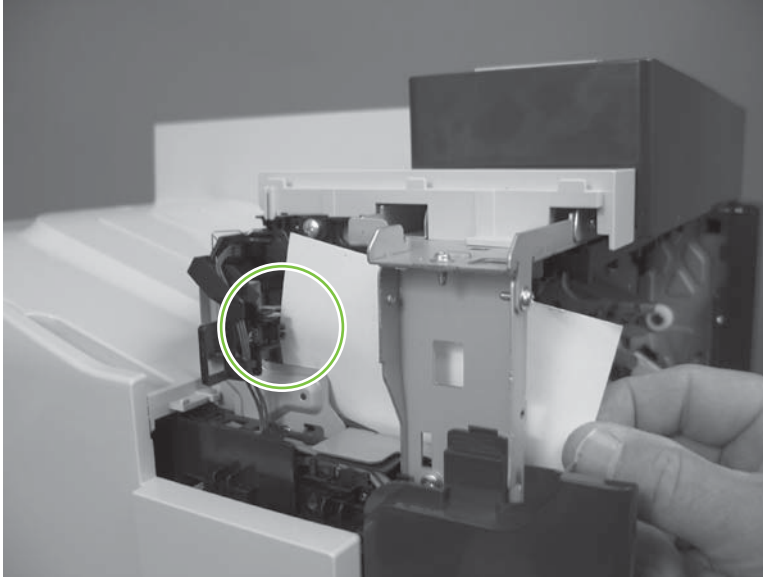
1. Open the right door.
2. Lower the secondary transfer assembly.
3. Remove the fuser, and then rotate the gear (callout 1) to move the flag (callout 2). If the flag does not actuate, replace the fuser. See [Fuser on page 179](#).

**Figure 7-11** Test the fuser (fixing) pressure-release sensor (1 of 2)



4. Insert a piece of paper to activate the fuser (fixing) pressure-release sensor.

**Figure 7-12** Test the fuser (fixing) pressure-release sensor (2 of 2)

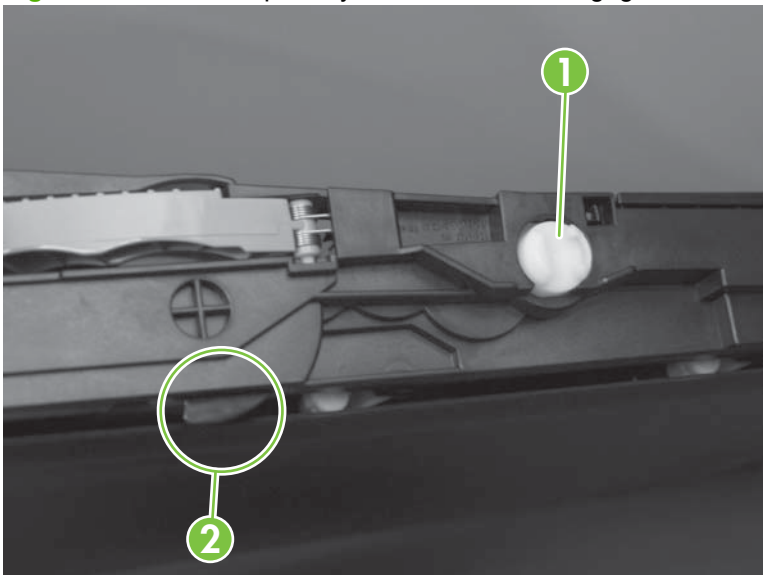


5. Check the control-panel display for sensor response.
6. If there is no response, replace fuser (fixing) pressure-release sensor.

#### I primary transfer-roller disengagement sensor

1. Open the right door.
2. Lower the secondary transfer assembly.
3. Remove the ITB.
4. Rotate the gear (callout 1) to move the flag (callout 2). If the flag does not actuate, replace the ITB. See [Intermediate transfer belt \(ITB\) on page 188](#).

**Figure 7-13** Test the primary transfer-roller disengagement sensor (1 of 2)





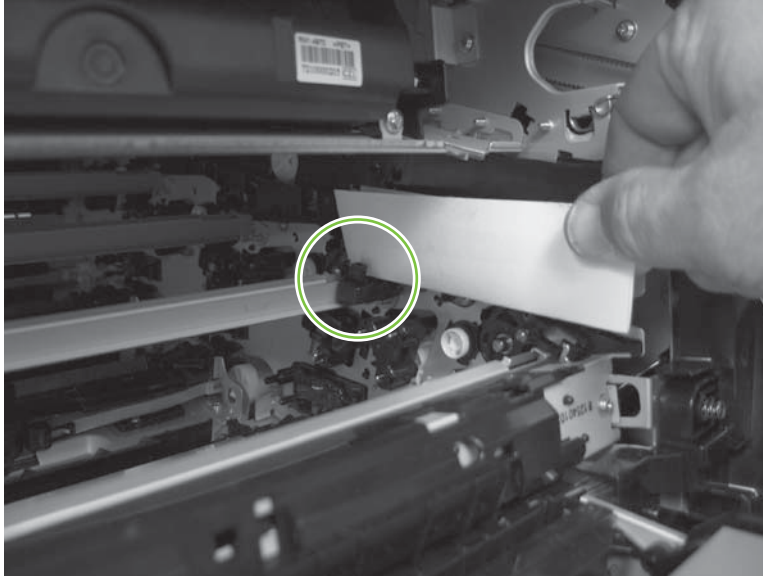
5. Remove all print cartridges.

 **NOTE:** Cover all removed print cartridges with paper.

---

6. Locate the sensor behind the cyan OPC drum position.
7. Insert a piece of paper to activate the primary transfer-roller disengagement sensor.

**Figure 7-14** Test the primary transfer-roller disengagement sensor (2 of 2)

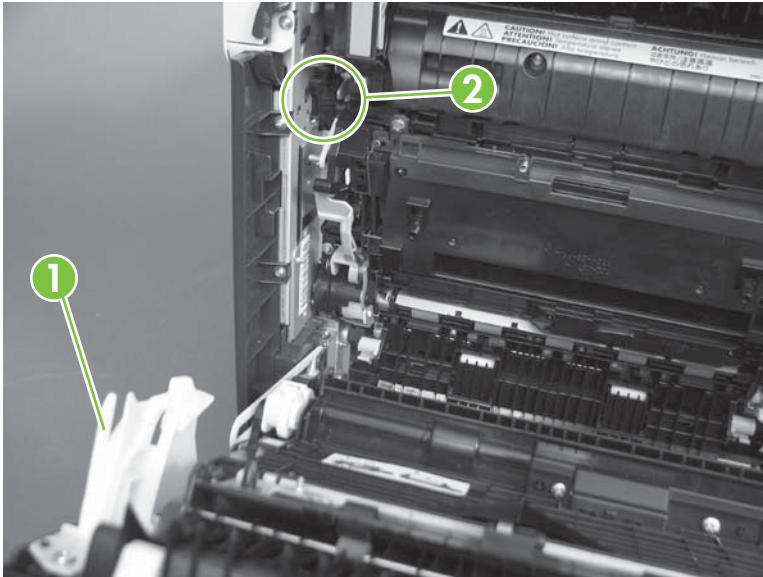


8. Check the control-panel display for sensor response.
9. If no response, replace the sensor.

## K right and front door interlock switches

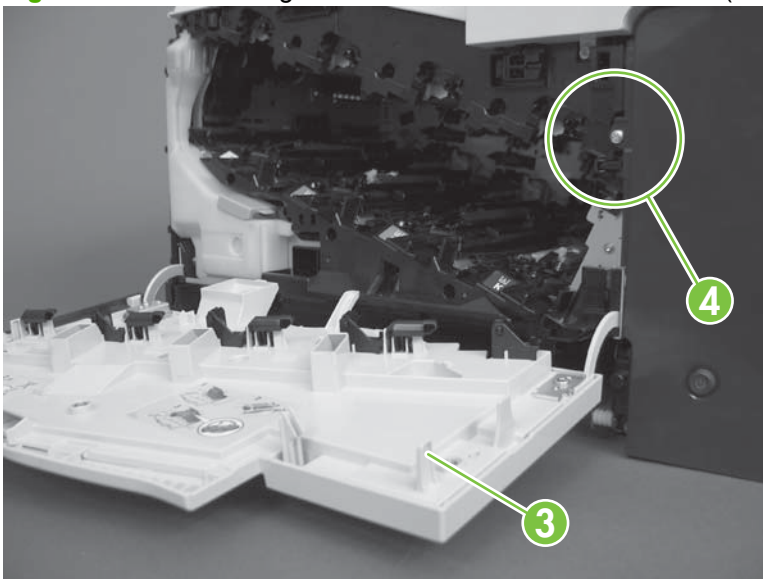
1. Open the right door (callout 1) to disengage the right-door switch (callout 2).

**Figure 7-15** Test the right- and front-door interlock switches (1 of 4)



2. Close the right door and check the control panel on the product for sensor response.
3. Open the front door (callout 3) to disengage the front-door switch (callout 4).

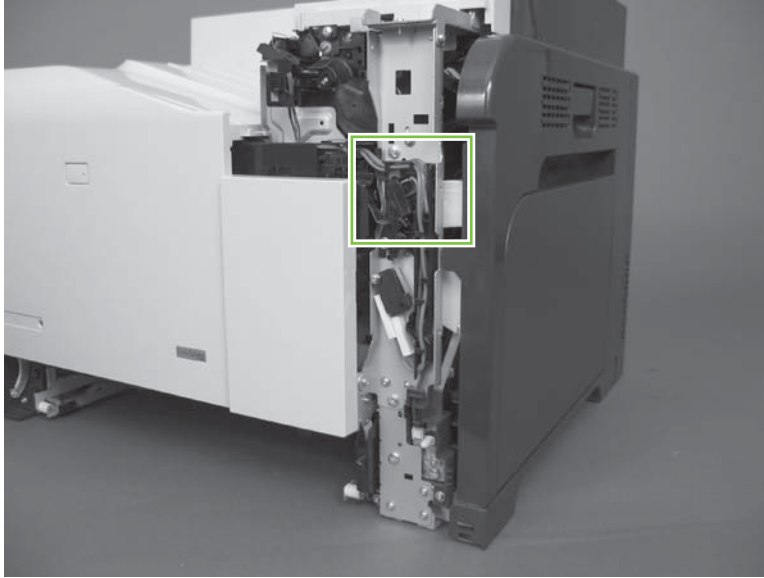
**Figure 7-16** Test the right- and front-door interlock switches (2 of 4)



4. Close the front door and check the control panel on the product for sensor response.
5. If either interlock switch failed to respond, remove the upper-front cover and right-front cover. By removing the right-front cover, you can tell if the linkages are properly closing the switches.

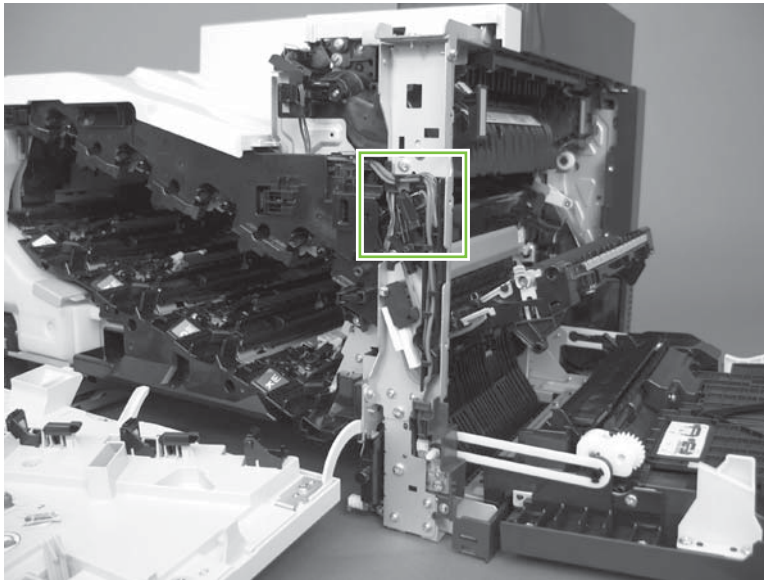
6. Close the right door and front door to verify that the switches close.

**Figure 7-17** Test the right- and front-door interlock switches (3 of 4)



7. Open the right door and front door to verify that the switches open.


**Figure 7-18** Test the right- and front-door interlock switches (4 of 4)



8. If the switches do not close, check the connectors on the DC controller PCA.
9. If the switches are opening/closing correctly when either door is open or closed, then check J118 on the DC controller.
10. If the connectors are securely connected to the DC controller PCA and the switches still do not close, replace the DC controller PCA. See [DC controller PCA and tray on page 240](#).

## Manual sensor test 2 (special-mode test)

Use this test to test paper-path sensors and the paper-size switches manually. The following illustrations and table show the locations of these sensors.

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press the **OK** button.
3. Press the down arrow ▼ to highlight **MANUAL SENSOR TEST 2**, and then press the **OK** button.

**Table 7-4 Manual sensor test 2 diagnostic tests**

Sensor or switch name	Sensor or switch number
L MP Tray 1 paper present	SR9
M Tray 2 paper present	SR3
N Tray 2 installed	SR4
O Tray 2 lift motor	SR1
P Tray 3 paper present	SR3
Q Tray 3 feed	SR4
R Tray 3 installed	SR1
S Tray 3 size switch (top) button	SW1
T Tray 3 size switch (middle) button	
U Tray 3 size switch (bottom) button	

To perform an end-plate (left-side set of switches) or side-plate (right-side set of switches) switch test, do the following:

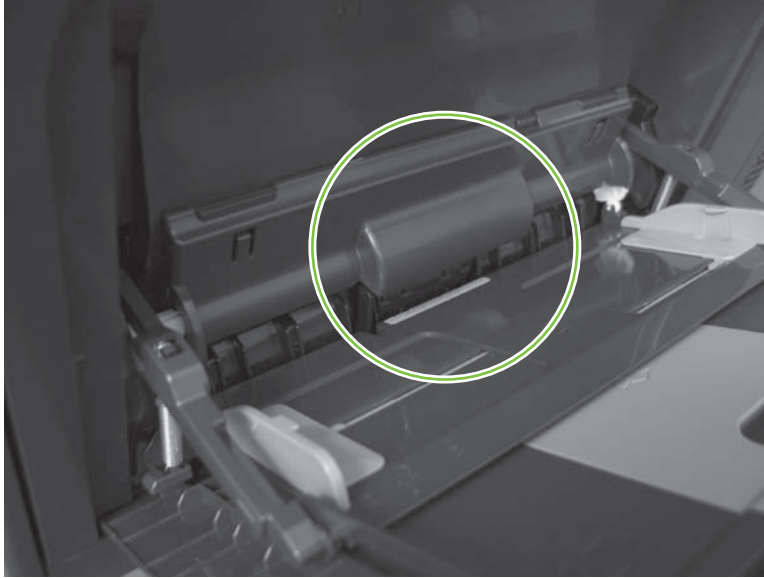
- Remove the appropriate tray (for example, if you want to test SR3 or SR4, remove Tray 2).
- Watch for the corresponding bit to toggle from 1 to 0. It can take a few seconds for bits to toggle.
- Test each switch individually to see if the corresponding bit toggles from 0 to 1.

### L Tray 1 media present sensor

1. Open Tray 1.

2. Move the Tray 1 media-present sensor flag.

**Figure 7-19** Test the Tray 1 media-present sensor

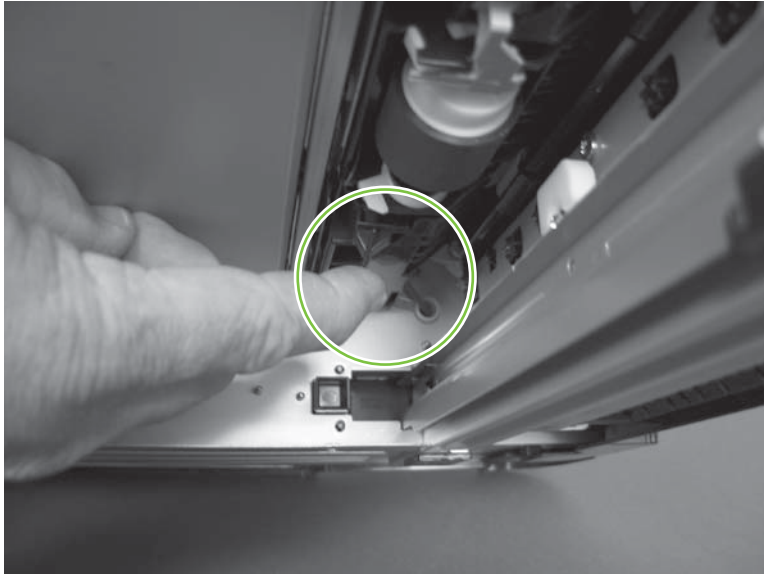


3. Check the control-panel display for sensor response.
4. If no response, replace Tray 1.

#### **M Tray 2 paper out sensor**

1. Remove Tray 2.
2. Move the tray 2 paper-out sensor flag.


**Figure 7-20** Test the tray 2 paper-out sensor



3. Check the control-panel display for sensor response.
4. If there is no response, replace the tray 2 paper-out sensor.

## N Tray 2 closed sensor

1. Remove Tray 2.

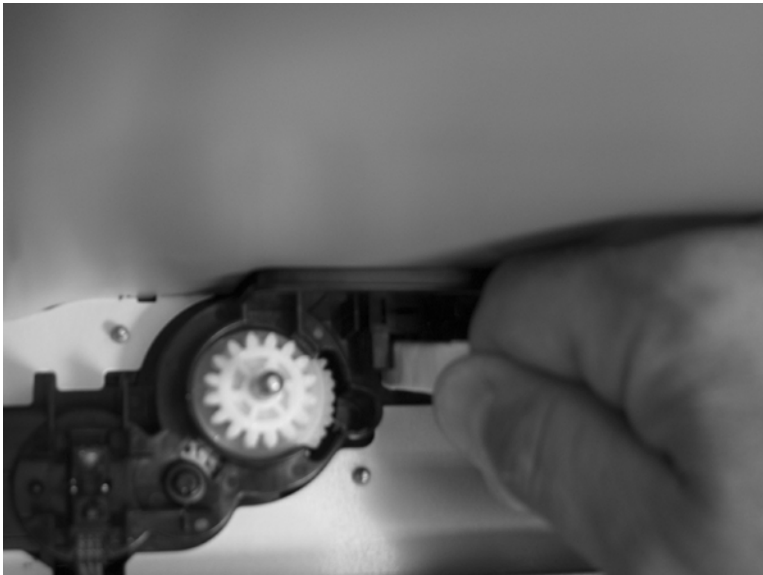
 **NOTE:** The Tray 2 closed sensor flag is on the back of Tray 2. Inspect the flag to verify that it is aligned correctly. If it is bent upward, it might miss the sensor when installed.

**Figure 7-21** Test the Tray 2 closed sensor (1 of 2)



2. Insert a piece of paper in the Tray 2 closed sensor.

**Figure 7-22** Test the Tray 2 closed sensor (2 of 2)



3. Check the control-panel display for sensor response.
4. If there is no response, replace the lifter-drive assembly. See [Lifter-drive assembly on page 254](#).

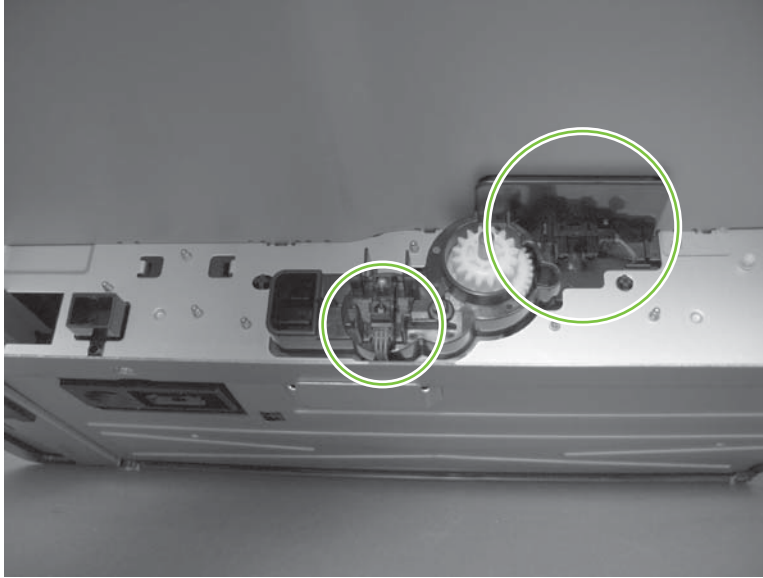
## O Tray 2 stack-surface sensor

1. Remove Tray 2.



2. Move the Tray 2 stack-surface sensor flag.

**Figure 7-23** Test the Tray 2 stack-surface sensor

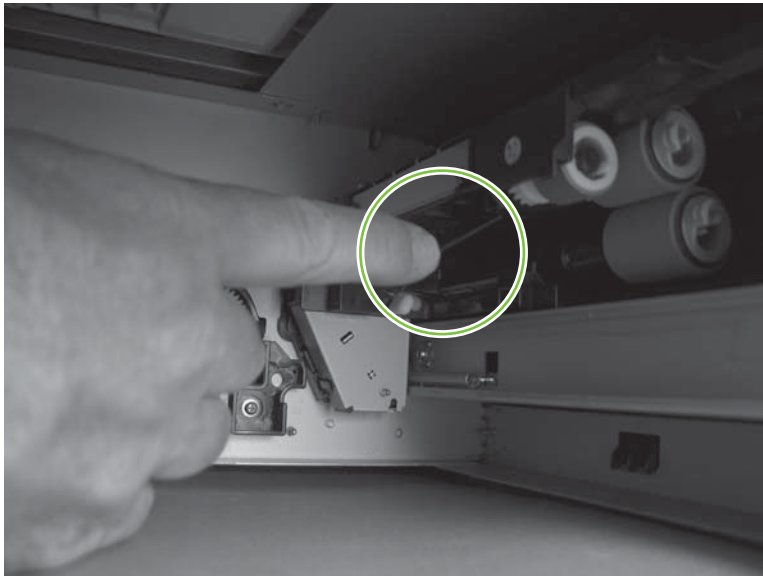


3. Check the control-panel display for sensor response.
4. If no response, replace the lifter-drive assembly. See [Lifter-drive assembly on page 254](#).

#### **P optional Tray 3-empty sensor**

1. Remove the optional Tray 3 cassette.
2. Move the optional Tray 3-empty sensor flag.

**Figure 7-24** Test the optional Tray 3-empty sensor

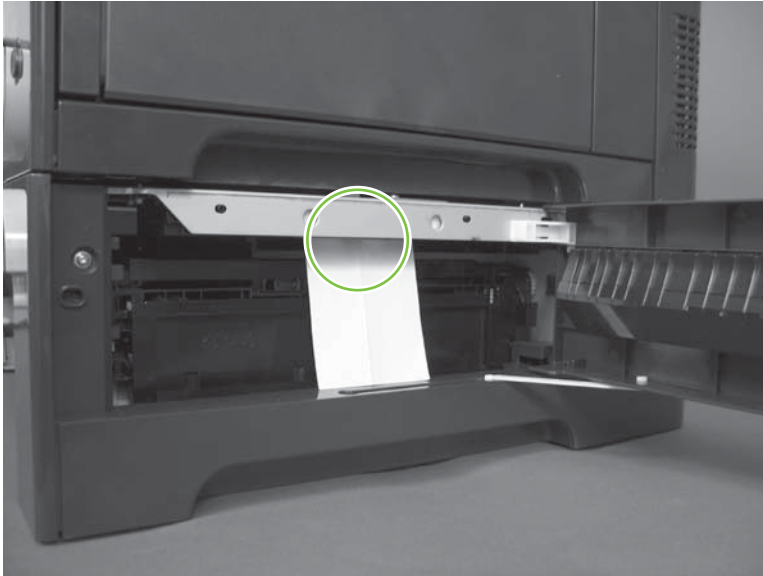


3. Check the control-panel display for sensor response.
4. If no response, replace the optional Tray 3.

### Q optional Tray 3 media-feed sensor (Q)

1. Open the right door on optional Tray 3.
2. Insert a piece of paper to activate the optional Tray 3 media-feed sensor

**Figure 7-25** Test the optional Tray 3 media-feed sensor



3. Check the control-panel display for sensor response.
4. If there is no response, replace the optional Tray 3.

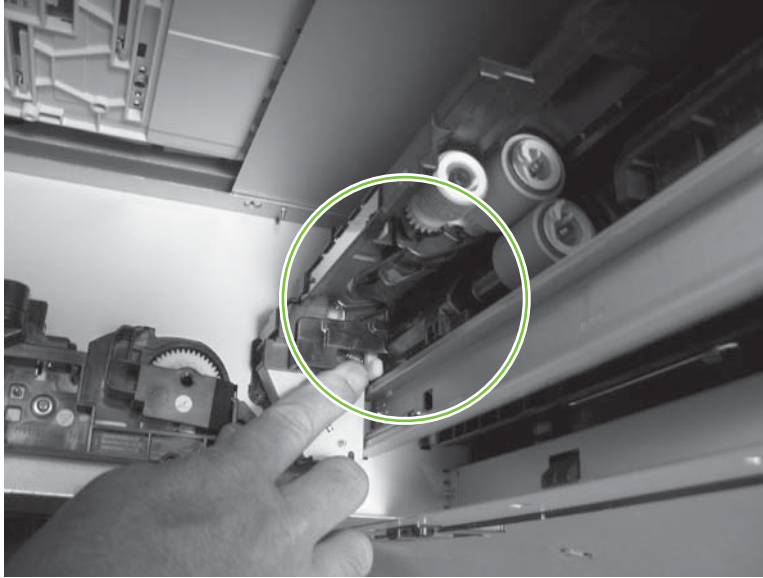
### R optional Tray 3 stack-surface sensor (R)

1. Remove the optional Tray 3 cassette.



2. Push the lever to activate the sensor arms.

**Figure 7-26** Test the optional Tray 3 stack-surface sensor

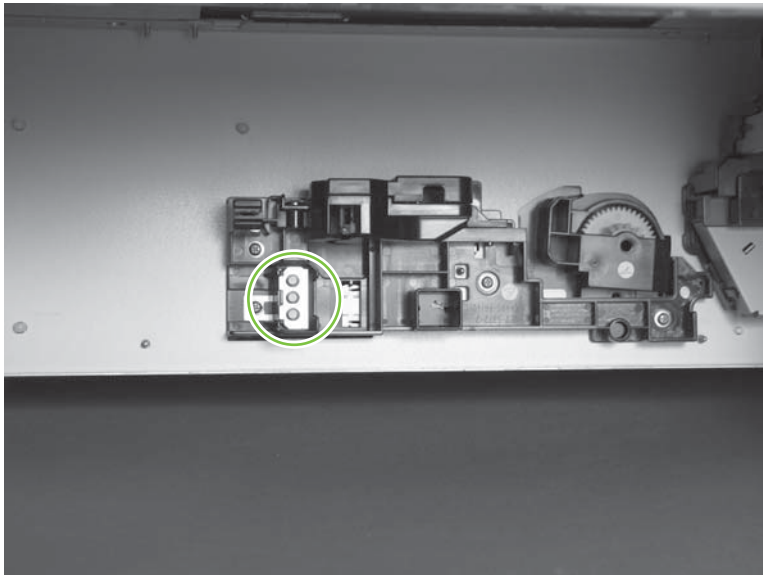


3. If there is no response, replace the optional Tray 3.

### **S, T, and U optional Tray 3 media-size sensors**

1. Push any of the three buttons to see if the control panel changes for sensors S, T or U.
  - S: top button on size switch
  - T: middle button on size switch
  - U: bottom button on size switch


**Figure 7-27** Test the optional Tray 3 media-size sensors



2. If any of the tests fail, replace the 500-sheet feeder

## Paper-path sensors test

This test displays the status of each paper-path sensor and allows viewing of sensor status while printing internal pages.

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press the **OK** button.
3. Press the down arrow ▼ to highlight **PAPER PATH SENSORS**, and then press the **OK** button.
4. Select the paper-path test options for the test you want to run.

 **NOTE:** Print an internal page to view sensor activity.

**Table 7-5 Paper-path sensors diagnostic tests**


Sensor name	Sensor number
A TOP (top of page)	SR8
B loop 1	SR14
C loop 2	SR15
D fusing (fixing) delivery	SR5
E duplex re-pick up	SR22
F output bin full	SR6
G media sensor	OHT
H fuser (fixing) pressure release	SR7
I primary roller disengagement	SR17
K front-door switch	SW1, SW2
L MP Tray 1	SR21
M Tray 2 paper present	SR20
N Tray 2 installed	SR13
O Tray 2 lift motor	SR9
P Tray 3 paper present	SR3
Q Tray 3 feed	SR4
R Tray 3 installed	SR1
S Tray 3 size (top) button	SW1
T Tray 3 (middle) button	
U Tray 3 (bottom) button	


## Print/stop test

Use this diagnostic test to isolate the cause of problems such as image-formation defects and jams within the engine. During this test you can stop the paper anywhere along the product 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, you can recover the product in one of two ways.

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

When the timer trips, the control panel display shows the message **PRINTING STOPPED To continue press OK**. Pressing **Menu**  will print the previously selected job. If you do not want the previous job to print, press **Stop** first, and then press **Menu**.


 **NOTE:** Do not try to perform a print/stop test while the product is calibrating, because you be required to power-cycle the product. If a jam message displays on the control panel during testing, activate the door switch.


## Component tests

### Component test (special-mode test)

This test activates individual parts independently to isolate problems.

Each component test can be performed once or repeatedly. If you select **CONTINUOUS** from the drop-down menu as the repeat option, the test cycles the component on and off. This process continues for two minutes, and then the test terminates.

 **NOTE:** The front or side door interlocks must be defeated to run the component tests. Some tests may require that the ITB and print cartridges be removed. The control panel display prompts you to remove some or all cartridges during certain tests.

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press the **OK** button.
3. Press the down arrow ▼ to highlight **COMPONENT TEST**, and then press the **OK** button.
4. Select the component test options for the test you want to run.

**Table 7-6 Component test details**

Component test	Motor or solenoid number	Comments
<b>TRANSFER MOTORS</b>	M5	All motors related to cartridges and belts
<b>BELT ONLY</b>	M10	Remove all print cartridges to perform this test. Rotates the ITB belt. You can hear the auger motor running.
<b>CARTRIDGE MOTORS</b>	<ul style="list-style-type: none"> <li>• M3: yellow</li> <li>• M4: magenta and cyan</li> <li>• M5: black</li> </ul>	Activates three drum motors at a specified speed for 10 seconds.
<b>BLACK LASER SCANNER</b>	M8	Activates the black/cyan scanner motor for 10 seconds.
<b>CYAN LASER SCANNER</b>	M8	Activates the black/cyan scanner motor for 10 seconds.

**Table 7-6 Component test details (continued)**

<b>Component test</b>	<b>Motor or solenoid number</b>	<b>Comments</b>
<b>MAGENTA LASER SCANNER</b>	M9	Activates the yellow/magenta scanner motor for 10 seconds.
<b>YELLOW LASER SCANNER</b>	M9	Activates the yellow/magenta scanner motor for 10 seconds.
<b>FUSER (FIXING) MOTOR</b>	M2	Activate the fuser motor at a specified speed for 10 seconds.
<b>FUSER (FIXING) PRESSURE RELEASE MOTOR</b>	M2 reverse	Reverses the fuser motor and pressurizes or depressurizes the pressure release motor.
<b>ALIENATION MOTOR</b>	M10	Activates CMYK developer alienation in the following sequence: All colors engaged, all colors alienated, K-only engaged, and K alienated.
<b>ITB CONTACT ALIENATION MOTOR</b>	M2	Activates the ITB drive motor at a specified speed for 10 seconds.
<b>TCU MOTOR</b>	M12	Activates the motor at a specified speed for 10 seconds.
<b>TRAY 1 PICKUP SOLENOID</b>	SL3	Activates the solenoid for 10 seconds.
<b>TRAY 2 PICKUP MOTOR</b>	M13	Activates the pickup motor, pickup roller, separation roller, and registration roller at a specified speed for 10 seconds.
<b>TRAY 2 PICKUP SOLENOID</b>	SL4	Activates the solenoid for 10 seconds.
<b>TRAY 3 PICKUP MOTOR</b>	<ul style="list-style-type: none"> <li>● M1: paper feeder motor</li> <li>● M2: paper feeder lift motor</li> </ul>	Activates the motors at a specified speed for 10 seconds.
<b>TRAY 3 PICKUP SOLENOID</b>	SL1	Activates the solenoid for 10 seconds.
<b>DUPLEX PICKUP MOTOR</b>	M11: Duplex reverse motor	Activates the motor at a specified speed for 10 seconds.
<b>DUPLEX REFEED CLUTCH SOLENOID</b>	<ul style="list-style-type: none"> <li>● CL1: duplex re-pickup clutch</li> <li>● SL2: duplex reverse solenoid</li> </ul>	Activates the clutch and solenoid for 10 seconds.

## Diagrams

### Formatter PCA

Figure 7-28 Formatter PCA

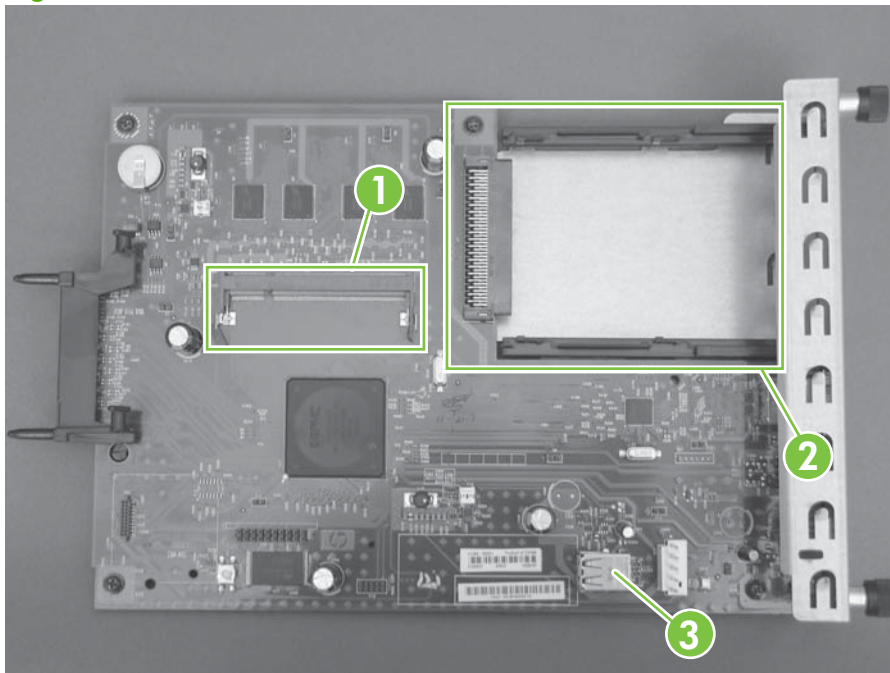


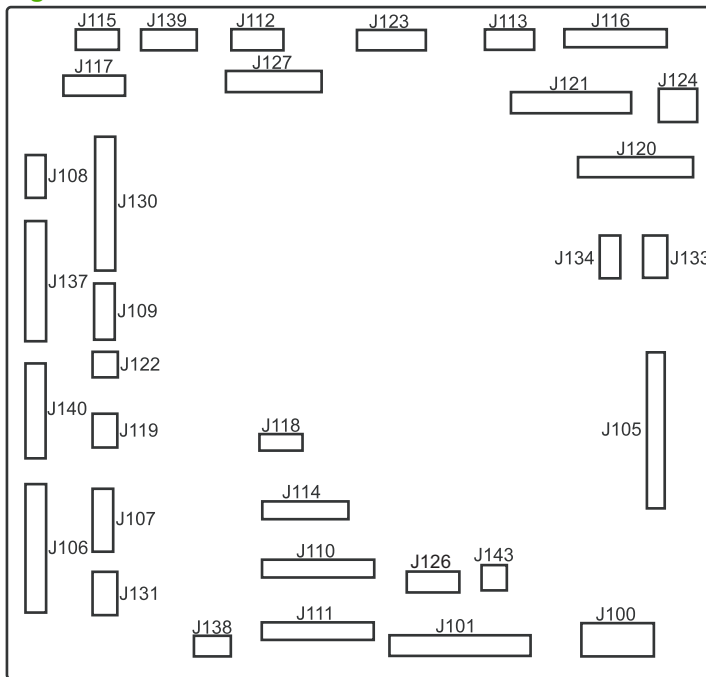
Table 7-7 Formatter PCA

Item	Description
1	DIMM slot
2	EIO slot
3	Internal USB ports

## Location of connectors

### DC controller PCA

**Figure 7-29** DC controller PCA

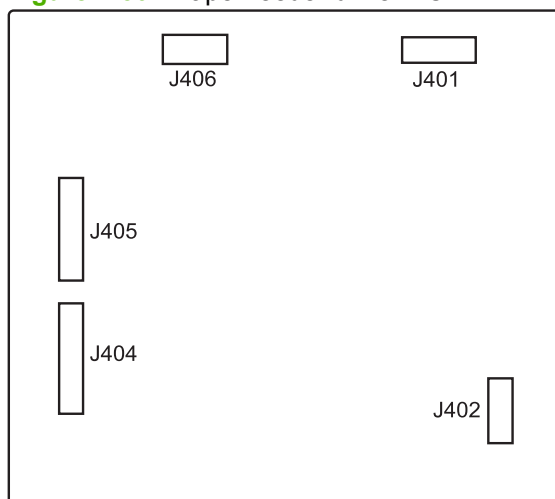


**Table 7-8** DC controller connectors

<b>J100:</b> 24 v from low-voltage power supply (LVPS) and interlock	<b>J114:</b> HVPS lower	<b>J126:</b> memory tag connector
<b>J101:</b> LVPS	<b>J115:</b> fuser sensors	<b>J127:</b> pre-exposure LEDs (rear), SR17, SL1
<b>J105:</b> interconnect board (ICB)	<b>J116:</b> HVPS upper	<b>J130:</b> registration density (RD) sensors (front and rear)
<b>J106:</b> 500-sheet feeder, developing home position, laser motors	<b>J117:</b> fuser motor	<b>J131:</b> pickup motor
<b>J107:</b> duplex sensor, tray 1 solenoid, paper present sensor	<b>J118:</b> 5 v interlock	<b>J133:</b> not used
<b>J108:</b> environmental sensor	<b>J119:</b> LVPS fan	<b>J134:</b> not used
<b>J109:</b> duplex clutch, overhead transparency (OHT) in, top-of-page sensor	<b>J120:</b> drum motor 1 and drum motor 2	<b>J137:</b> toner collection unit (TCU) full, TCU motor, toner level detection
<b>J110:</b> YM laser	<b>J121:</b> drum motor 3, drum position 1,2,3	<b>J138:</b> 24 v to HVPS lower
<b>J111:</b> CK laser	<b>J122:</b> OHT out	<b>J139:</b> fuser sensors
<b>J112:</b> pre-exposure LEDs (front)	<b>J123:</b> pressure release, bin full, fuser delivery	<b>J140:</b> lift motor, tray present, stack surface
<b>J113:</b> 24 v to high-voltage power supply (HVPS) upper	<b>J124:</b> not used	<b>J143:</b> 24 v present from LVPS

## Paper feeder driver PCA

**Figure 7-30** Paper feeder driver PCA



**Table 7-9** Paper feeder driver PCA connectors

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**J401:** engine connector

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**J402:** not used

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**J404:** SW1, SW2, lifter motor

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**J405:** SR1, SR2, SR3, SR4, SL1

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**J406:** feed motor

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## PCAs, motors, fans, switches, solenoids, and clutches

Use the diagrams to locate components. For a list of components, see [Table 7-10 PCAs, motors, fans, switches, solenoids, and clutches on page 350](#)

**Base product**

**Figure 7-31** Component locations (1 of 5)

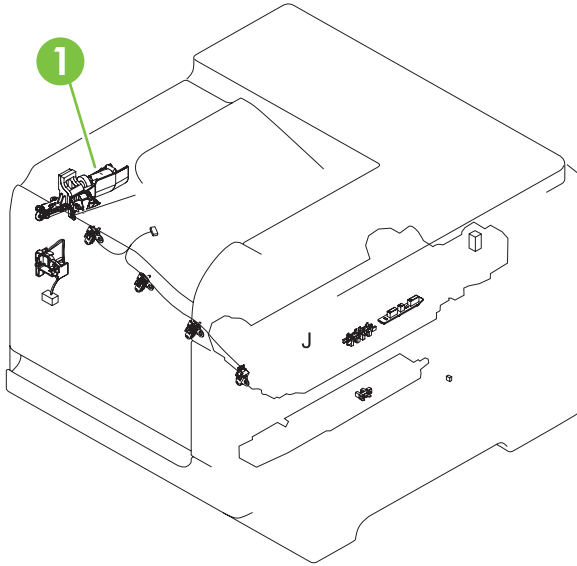
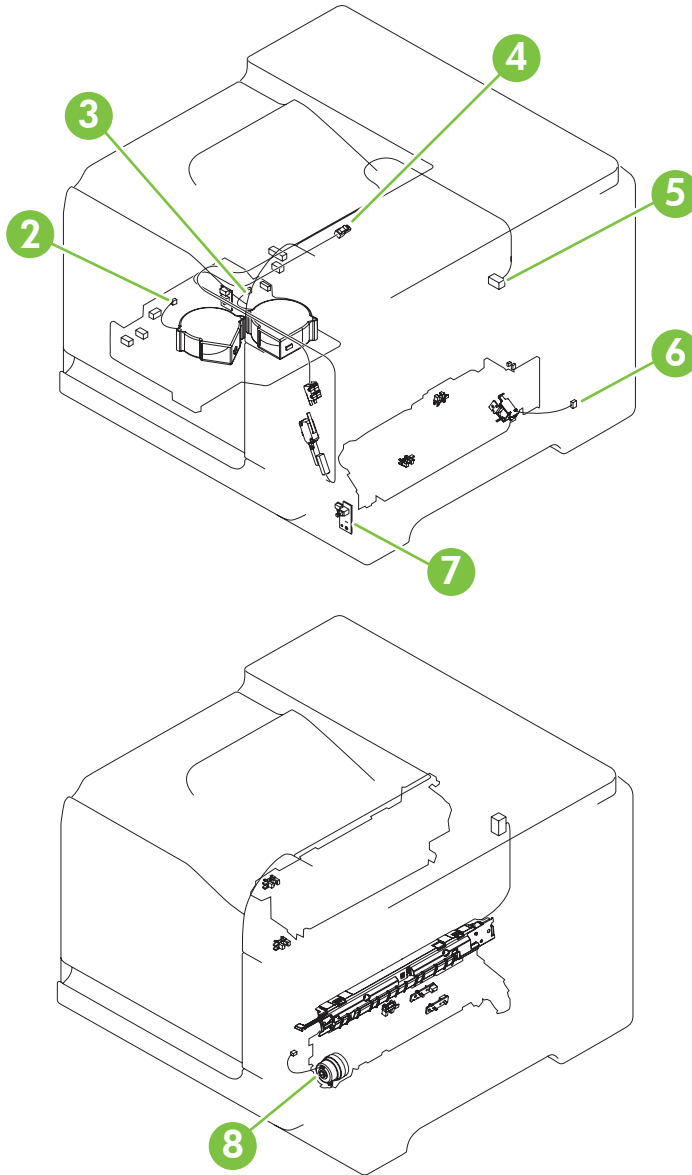
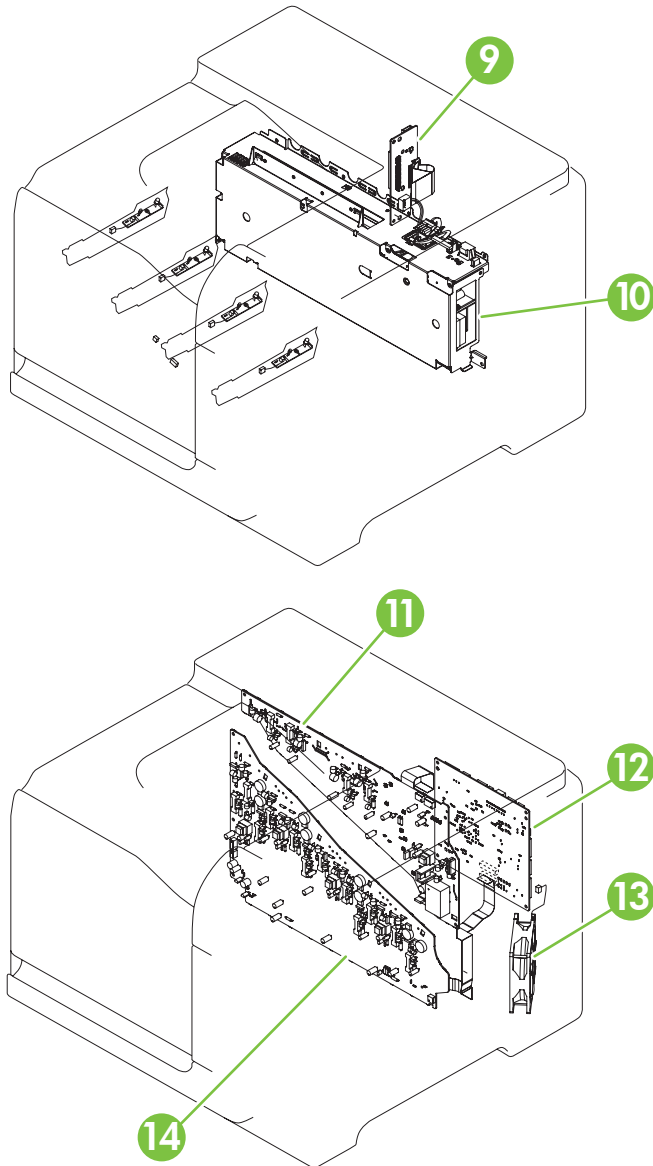




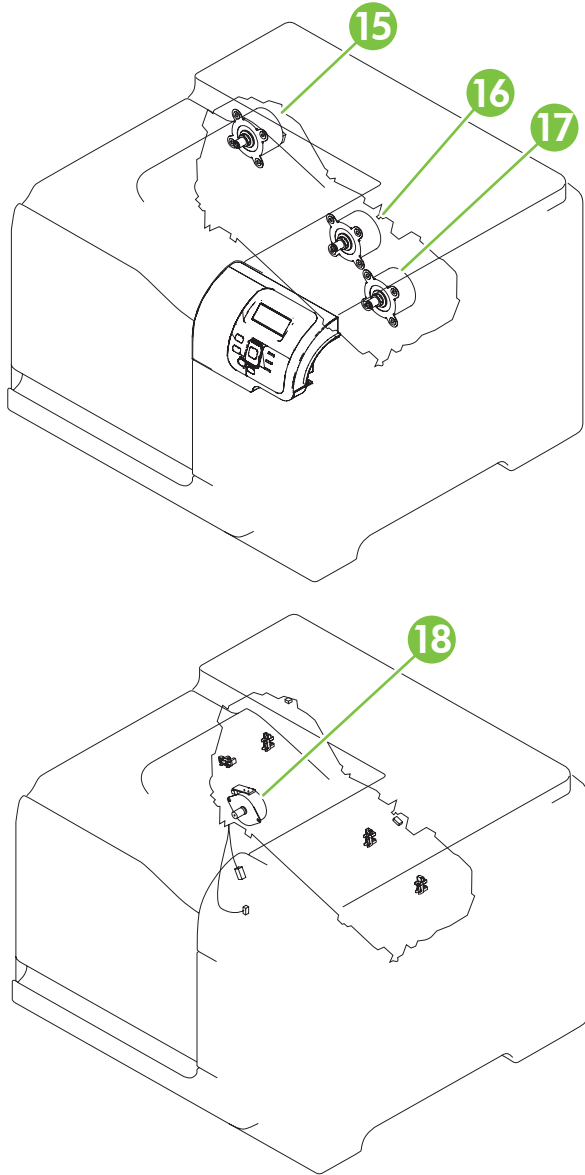
Figure 7-32 Component locations (2 of 5)



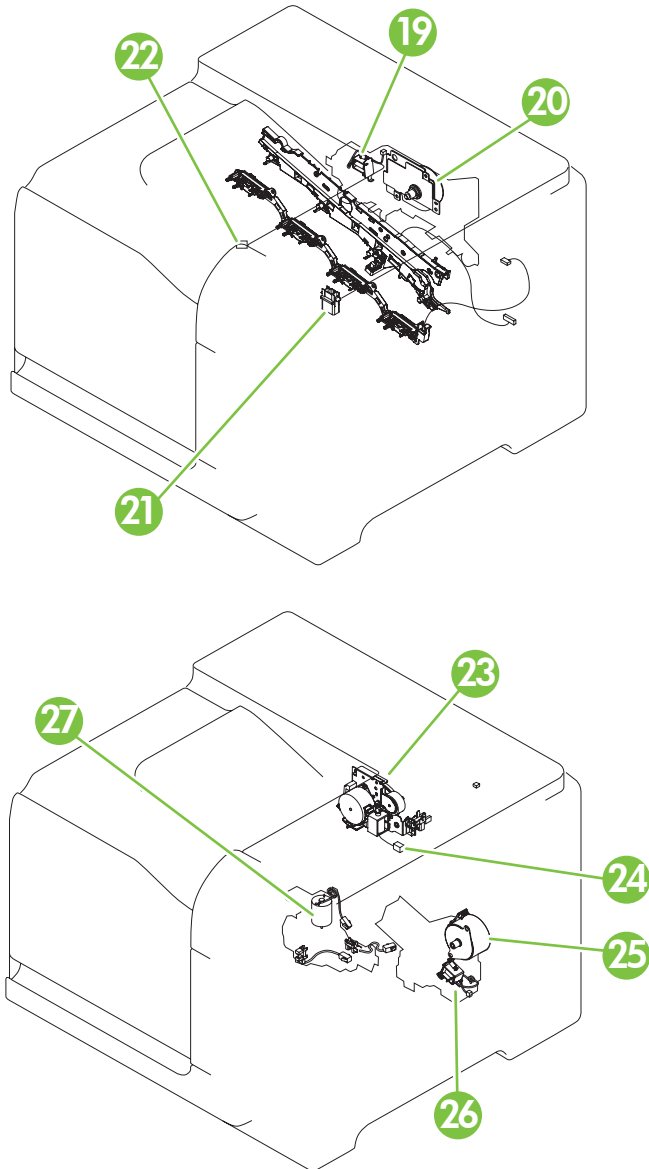
**Figure 7-33** Component locations (3 of 5)



**Figure 7-34** Component locations (4 of 5)



**Figure 7-35** Component locations (5 of 5)



**Table 7-10** PCAs, motors, fans, switches, solenoids, and clutches

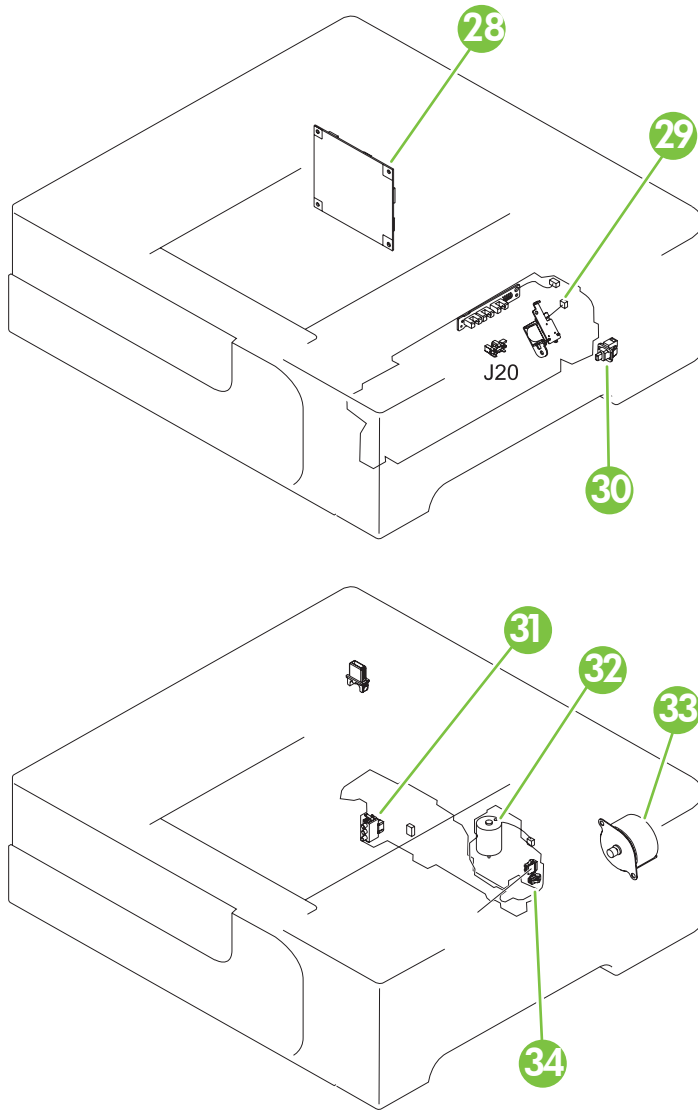
Location	Connector	Component abbreviation	Component name
1	J89	M12	Residual toner-feed motor
2	J26	FM2	Cartridge fan
3	J27	FM3	Delivery fan
4	J62	SW3	24V interlock switch
5	J118	SW1, SW2	5V interlock switch
6	J84	SL3	Multipurpose-tray pickup solenoid
7	J780	SW4	Power switch
8	J86	CL1	Duplex re-pick clutch

**Table 7-10 PCAs, motors, fans, switches, solenoids, and clutches (continued)**

Location	Connector	Component abbreviation	Component name
9		ICB	Interconnect board (ICB)
10		LVPS	Low-voltage power supply
11		HVPS (t)	HVPS-T upper
12		DCC	DC Controller
13	J119	FM1	Power-supply fan
14		HVPS (d)	HVPS-D (lower)
15	J41	M3	Drum motor 1
16	J40	M4	Drum motor 2
17	J42	M5	Drum motor 3
18	J25	M10	Development-disengagement motor
19	J8	SL1	Primary transfer roller disengagement solenoid
20	J15	M2	Fuser motor
21	J55	M9	Yellow/magenta scanner motor
22	J56	M8	Cyan/black scanner motor
23	J20	M11	Duplex reverse motor (HP Color LaserJet CP3525dn and HP Color LaserJet CP3525x only)
24	J21	SL2	Duplex reverse solenoid (HP Color LaserJet CP3525dn and HP Color LaserJet CP3525x only)
25	J6	M13	Pickup motor
26	J83	SL4	Cassette-pickup solenoid
27	J79	M7	Tray 2 lifter motor

1 x 500 paper feeder

Figure 7-36 1 x 500 paper feeder

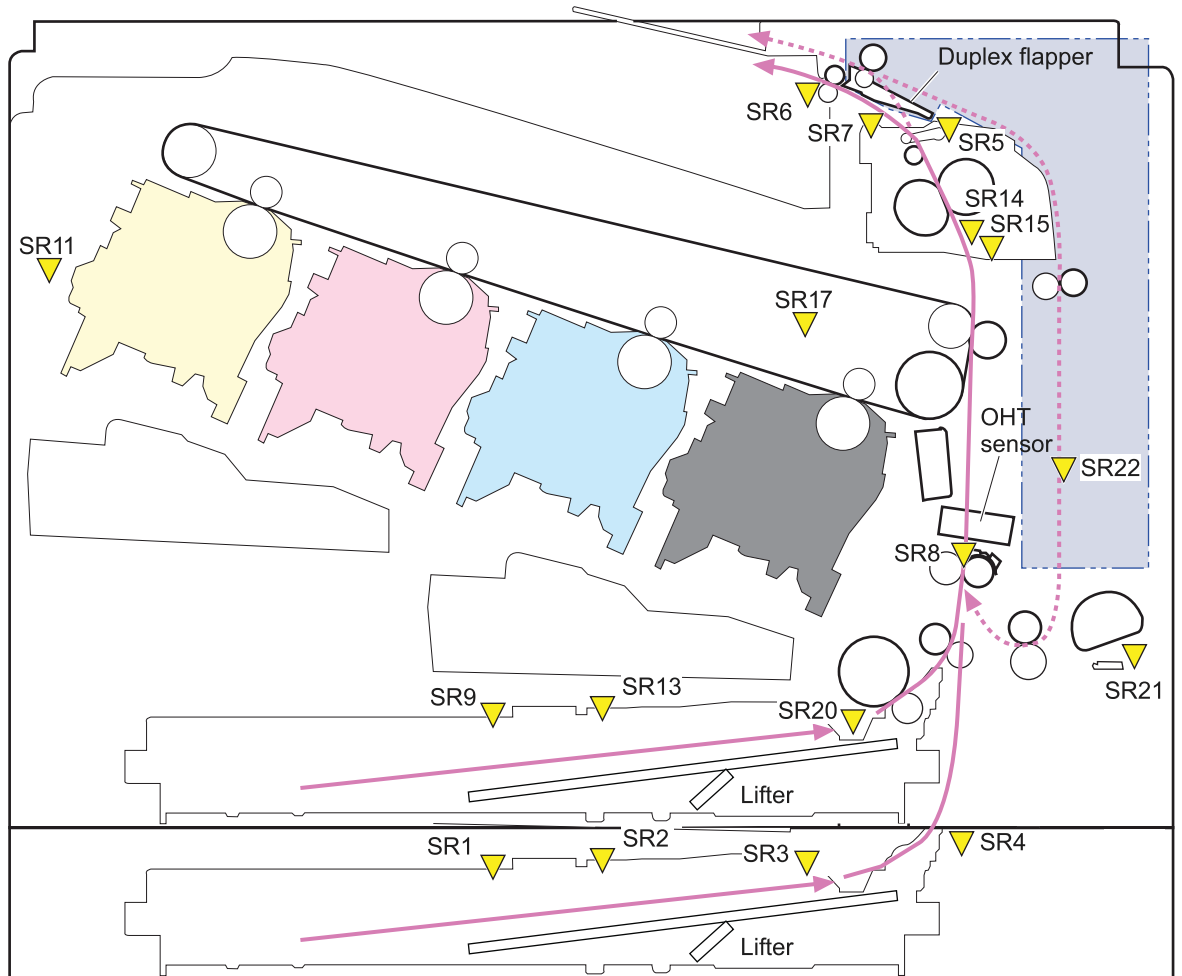


Location	Connector	Component abbreviation	Component name
28		PF PCA	Paper-feeder driver PCA
29, 34	J18	SL1	Paper-feeder pickup solenoid
30	J21	SW2	Paper-feeder door switch
31	J16	SW1	Paper feeder cassette media size switch
32	J15	M2	Paper-feeder lifter motor
33	J14	M1	Paper-feeder motor

## Sensors

**Figure 7-37** Sensors

- : Duplex model only
- : Duplex media path
- : Simplex media path



**Table 7-11** Sensors

Component abbreviation	Component name
SR1	Tray 3 paper surface sensor 1
SR2	Tray 3 paper surface sensor 2
SR3	Tray 3 paper sensor
SR4	Tray 3 feed sensor
SR5	Fuser (fixing) output sensor
SR6	Output bin full sensor
SR7	Fuser (fixing) pressure release sensor
SR8	TOP sensor

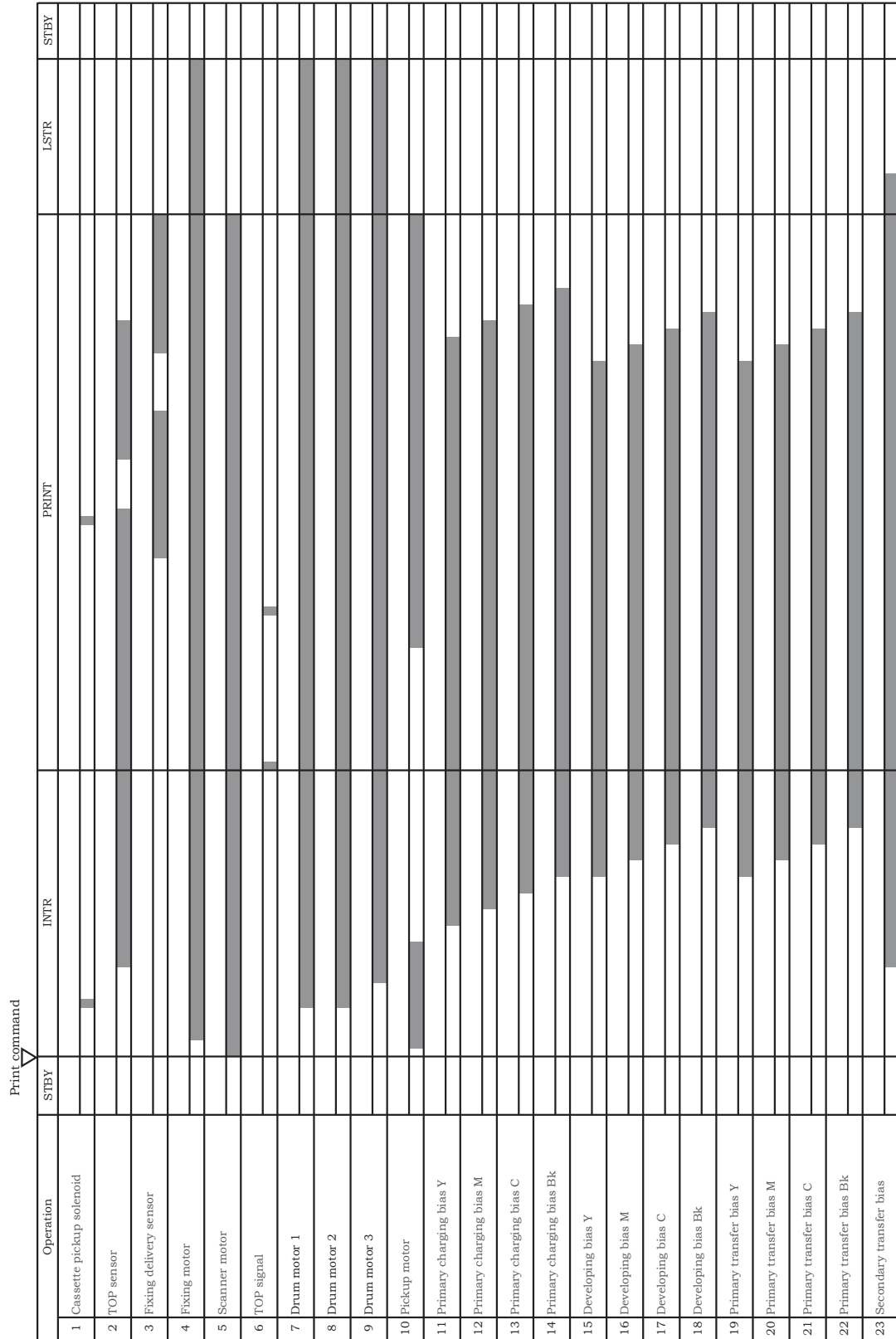
**Table 7-11 Sensors (continued)**

<b>Component abbreviation</b>	<b>Component name</b>
SR9	Tray 2 lift sensor
SR11	Developing home position sensor
SR13	Cassette presence sensor
SR14	Loop sensor 1
SR15	Loop sensor 2
SR17	ITB disengagement sensor
SR20	Cassette-media presence sensor
SR21	MP-tray-media-presence sensor
SR22	Duplex re-pickup sensor (HP Color LaserJet CP3525dn and HP Color LaserJet CP3525x only)



# General timing chart

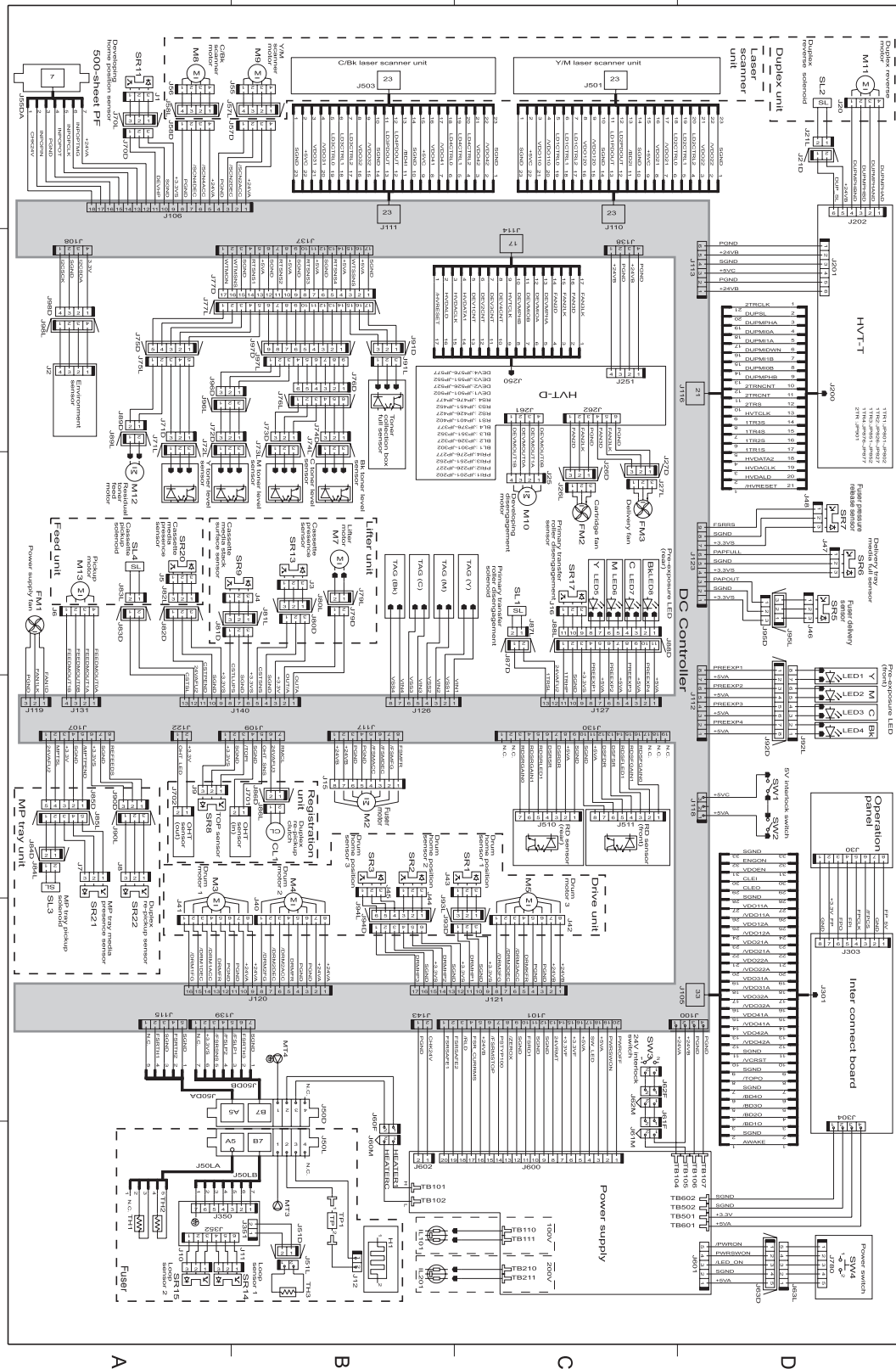
Figure 7-38 General timing chart



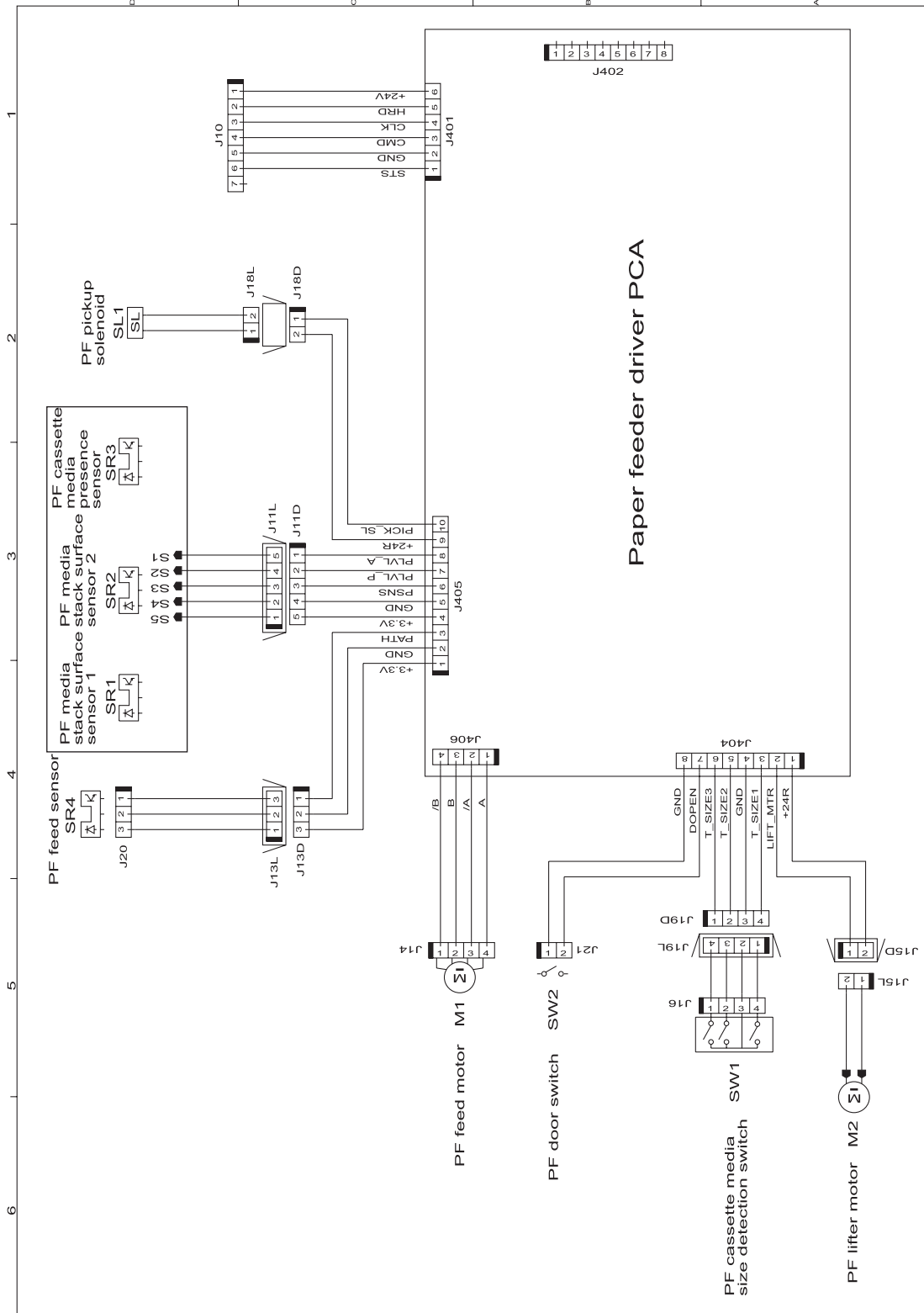
Timing chart is two consecutive print jobs on letter-size paper (full color using one-to-one speed mode)

# Circuit diagrams

Figure 7-39 General circuit diagram



**Figure 7-40** Paper feeder circuit diagram

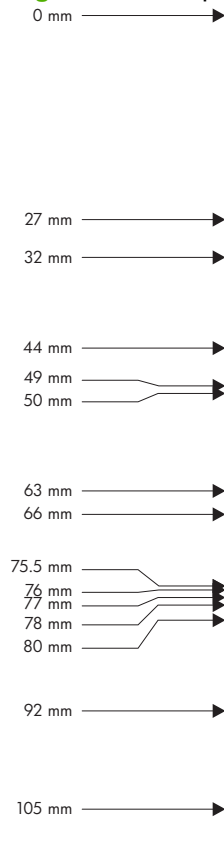


## Print-quality troubleshooting tools

### Repetitive defects ruler

If defects repeat at regular intervals on the page, use this ruler to identify the cause of the defect. Place the top of the ruler at the first defect. The marking that is beside the next occurrence of the defect indicates which component needs to be replaced.

**Figure 7-41** Repetitive defects ruler




Distance between defects	Product components that cause the defect
27 mm	Print cartridge: primary charge roller
32 mm	Print cartridge: developer roller
44 mm	Printer: primary transfer roller
49 mm	Print cartridge: RS roller
50 mm	Printer: secondary transfer roller
63 mm	ITB: secondary transfer backing roller
66 mm	Printer: distance from secondary transfer roller to fuser
75.5 mm	Print cartridge: OPC drum
76 mm	ITB: driven roller
77 mm	Fuser sleeve
78 mm	Fuser pressure roller

Distance between defects	Product components that cause the defect
80 mm	Printer: distance from primary transfer roller to secondary transfer roller for black
92 mm	Print cartridge station to station pitch: distance from the centerline of one OPC to the centerline of the adjacent OPC  ITB: drive roller
105 mm	Printer: distance from registration to secondary transfer roller

## Calibrate the product


Calibration is a product function that optimizes print quality. If you experience any image-quality problems, calibrate the product.

1. Press the **Menu** button .
2. Press the down arrow ▼ to highlight the **CONFIGURE DEVICE** menu, and then press the **OK** button.
3. Press the down arrow ▼ to highlight the **PRINT QUALITY** menu, and then press the **OK** button.
4. Press the down arrow ▼ to highlight the **FULL CALIBRATE NOW** setting, and then press the **OK** button.

## Internal print-quality test pages

### Print-quality-troubleshooting pages

Use the built-in print-quality-troubleshooting pages to help diagnose and solve print-quality problems.

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press the **OK** button.
3. Press the down arrow ▼ to highlight **PQ TROUBLESHOOTING**, and then press the **OK** button to print the pages.

The product returns to the **Ready** state after printing the print-quality-troubleshooting pages. Follow the instructions on the pages that print out.

**Figure 7-42** Print-quality troubleshooting procedure



**Figure 7-43** Yellow print-quality troubleshooting page

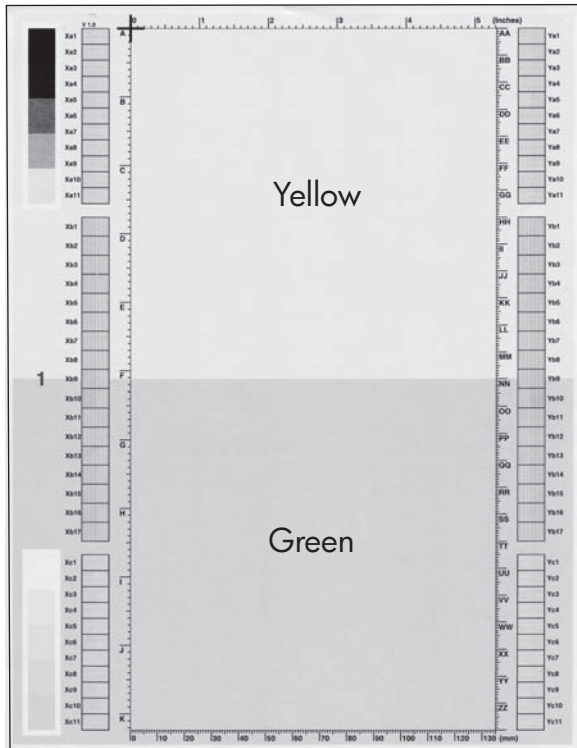
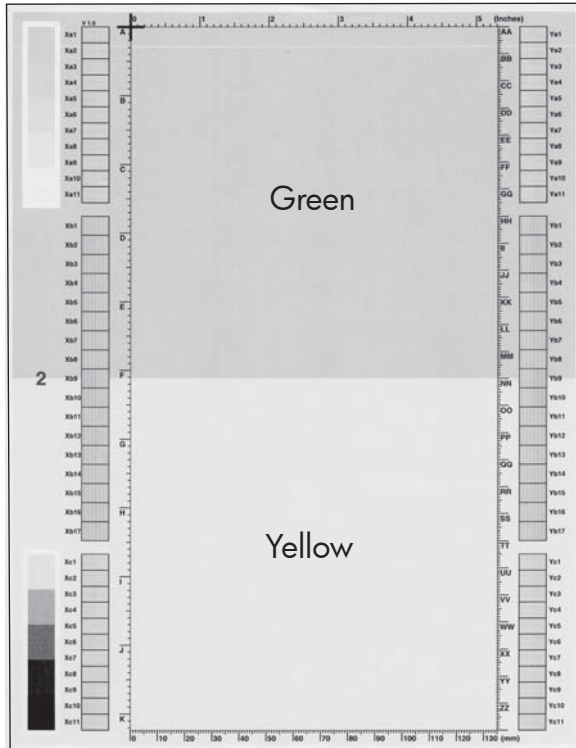
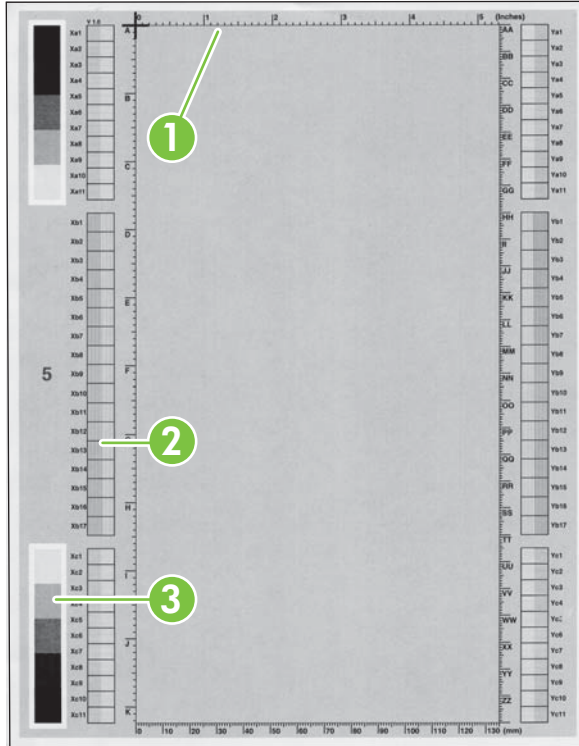


Figure 7-44 Yellow comparison page




Yellow cannot be easily seen unless combined with cyan, so half of each page is yellow and the other half is an amplified version of yellow problems (green half). Compare the yellow on page one with the corresponding green on page two for defects. You can also check the cyan page for defects.

**Figure 7-45** Black print-quality troubleshooting page






<p>1. Grids</p>	<p>The grids are in inches and millimeters. They are label with letters and numbers so that defects can be described by position and by distance between repeats.</p>
<p>2. Color plane registration (CPR) bars</p>	<p>After printing, the box with no extra color in each area on each page shows how far off the CPR of that color is. Each page has two process direction areas and three scan direction areas that are labeled x and y and 1–11. The page should be fed by the long edge. Each square from the center equals 42 microns.</p>
<p>3. Color ramp patches</p>	<p>Used to detect offset for the OPC or developer in the image drum or offset in the fuser.</p>

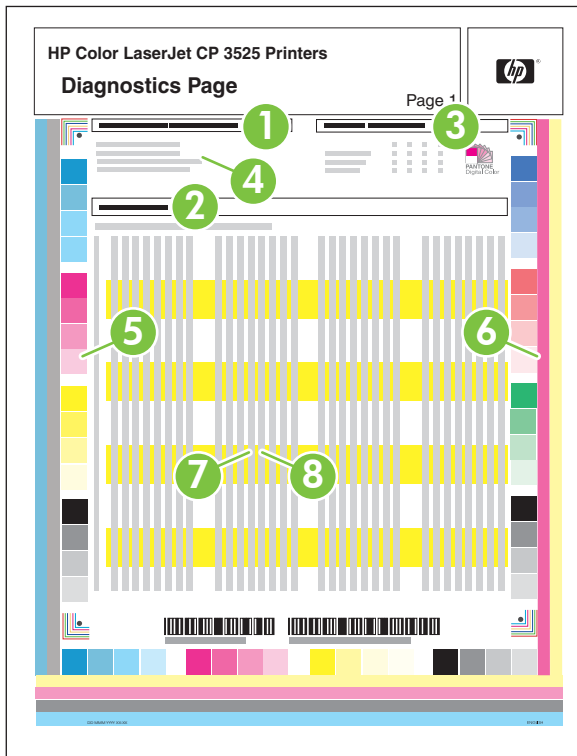
 **NOTE:** To get further assistance in print quality troubleshooting, go to [www.hp.com/support/cljcp3525](http://www.hp.com/support/cljcp3525) and select PQ Troubleshooting Tools.

## Diagnostics page

Use the diagnostics page to evaluate problems with color plane registration, EP parameters, and print quality.

1. Press the **Menu**  button.
2. Press the down arrow  to highlight **DIAGNOSTICS**, and then press the **OK** button.
3. Press the down arrow  to highlight **PRINT DIAGNOSTICS PAGE**, and then press the **OK** button to print the page.






1	Calibration information
2	Parameters
3	Color density
4	Color plane registration
5	Primary colors
6	Secondary colors
7	Temperature values (22M)
8	Humidity values (22N)

## Cleaning page

### Create and use the cleaning page

1. Press the **Menu** button .
2. Press the up arrow or down arrow **▲/▼** to highlight the **CONFIGURE DEVICE** menu, and then press the **OK** button.
3. Press the up arrow or down arrow **▲/▼** to highlight the **PRINT QUALITY** menu, and then press the **OK** button.
4. If the product does not have automatic two-sided printing, press the up arrow or down arrow **▲/▼** to highlight the **CREATE CLEANING PAGE** option, and then press the **OK** button. If the product has automatic two-sided printing, go to step 5.


5. Press the up arrow or down arrow ▲/▼ to highlight the **PROCESS CLEANING PAGE** option, and then press the **OK** button.
6. Discard the printed page. The task is complete.

## Configuration page


Depending on the model, up to three pages print when you select **PRINT CONFIGURATION**. In addition to the main configuration page, an embedded Jetdirect configuration page prints.

### Configuration page

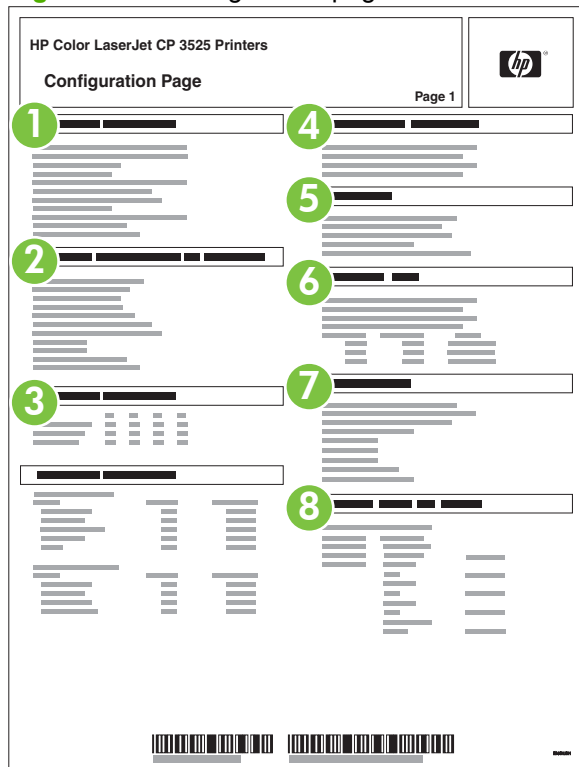
Use the configuration page to view current product settings, to help troubleshoot product problems, or to verify installation of optional accessories, such as memory (DIMMs), paper trays, and printer languages.

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight **INFORMATION**, and then press the **OK** button.
3. Press the down arrow ▼ to highlight **PRINT CONFIGURATION**, and then press the **OK** button.

The message **PRINTING CONFIGURATION** displays on the control panel until the product finishes printing the configuration page. The product returns to the **Ready** state after printing the configuration page.

 **NOTE:** If the product is configured with EIO cards (for example, an HP Jetdirect Print Server) or an optional hard-disk drive, an additional configuration page will print that provides information about those devices.

**Figure 7-46** Configuration page



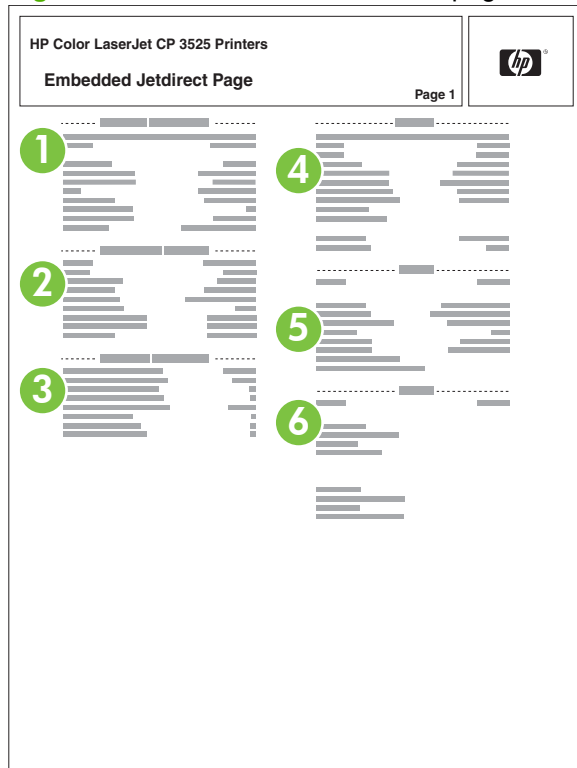
1 | Printer information

2	Installed personalities and options
3	Color density
4	Calibration information
5	Memory
6	Event log
7	Security
8	Paper trays and options

## HP embedded Jetdirect page

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

**Figure 7-47** HP embedded Jetdirect page



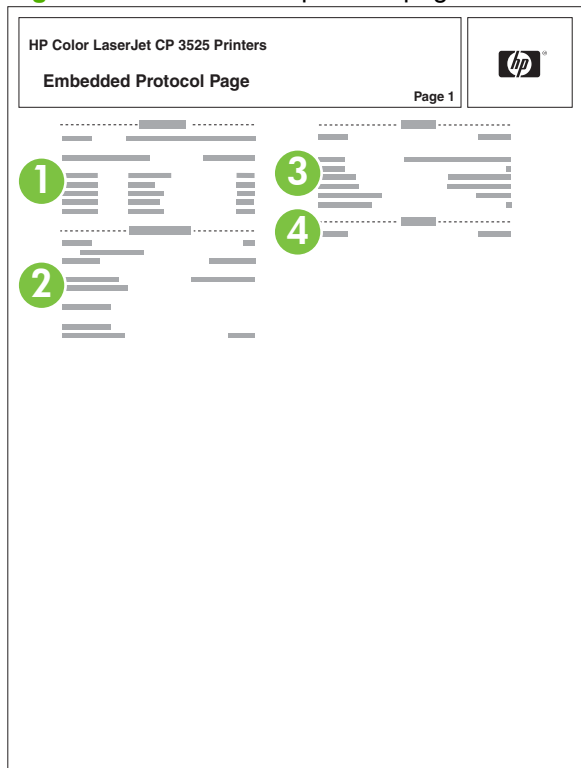
1	<b>HP Jetdirect Configuration</b> indicates the product status, model number, hardware firmware version, port select, port configuration, auto negotiation, manufacturing identification, and manufactured date.
2	<b>Security Settings</b> information
3	<b>Network Statistics</b> indicates the total packets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

Always make sure the status line under the HP Jetdirect configuration lines indicates "I/O Card Ready".

## Embedded protocol page

The embedded protocol page contains the following information:

**Figure 7-48** Embedded protocol page



1	IPX/SPX
2	Novell/NetWare
3	AppleTalk
4	DLC/LLC

## Finding important information on the configuration pages


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

**Table 7-12 Important information on the configuration pages**

Type of information	Specific information	Configuration page
<b>Firmware date codes</b>  When you use the remote firmware upgrade procedure, all of these firmware components are upgraded.	DC controller	Look on the main configuration page, under "Device Information."
	Firmware datecode	Look on the main configuration page, under "Device Information."
	Embedded Jetdirect firmware version	Look on the embedded Jetdirect page, under "HP Jetdirect Configuration."
<b>Accessories and internal storage</b>  All optional devices that are installed on the product should be listed on the main configuration page.  In addition, separate pages print for the optional paper handling devices and the fax accessory. These pages list more-detailed information for those devices.	External disk (optional)	Look on the main configuration page, under "Installed Personalities and Options." Shows model and capacity.
	Embedded HP Jetdirect	Look on the main configuration page, under "Installed Personalities and Options." Shows model and ID.
	Total RAM	Look on the main configuration page, under "Memory."
	Duplex unit	Look on the main configuration page, under "Paper Trays and Options."
Additional 500-sheet feeders	Additional 500-sheet feeders	Look on the main configuration page, under "Paper Trays and Options."
<b>Engine cycles and event logs</b>  Total page counts and maintenance kit counts are important for ongoing product maintenance.  The configuration page lists only the three most recent errors. To see a list of the 50 most recent errors, print an event log from the <b>DIAGNOSTICS</b> menu.	Engine cycles	Look on the main configuration page, under "Device Information."
	Pages since last maintenance (print engine maintenance count)	Pages since last maintenance (print engine maintenance count)
Event-log information	Event-log information	Look on the main configuration page, under "Event log."

## Color-band test

The color-band test page shows bands of colors that can indicate whether or not the product is producing colors correctly.

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press the **OK** button.
3. Press the down arrow ▼ to highlight **COLOR BAND TEST**, and then press the **OK** button.
4. Press the down arrow ▼ to highlight **PRINT TEST PAGE**, and then press the **OK** button.

# Control-panel messages table

**Table 7-13 Control-panel messages**

Control panel message	Description	Recommended action
<b>10.32.00 UNAUTHORIZED SUPPLY IN USE</b>	The product is using a non-HP supply.	<p>If you believe you purchased a genuine HP supply, go to <a href="http://www.hp.com/go/anticounterfeit">http://www.hp.com/go/anticounterfeit</a>. Any product repair required as a result of using non-HP or unauthorized supplies is not covered under warranty. HP cannot ensure the accuracy or the availability of certain features.</p> <p>Press the <b>OK</b> button to continue with this cartridge.</p>
<b>10.90.XY REPLACE &lt;COLOR&gt; CARTRIDGE</b>	<p>A toner-replenishment malfunction has occurred.</p> <ul style="list-style-type: none"> <li>● 00=Black</li> <li>● 01=Cyan</li> <li>● 02=Magenta</li> <li>● 03=Yellow</li> <li>● 10=Missing e-label</li> </ul>	Replace the print cartridge.
<p><b>10.91.00 PRINT CARTRIDGE ERROR</b></p> <p>For help press ? (Help button)</p> <p><b>REPLACE BLACK PRINT CARTRIDGE</b></p> <p>To continue turn off then on</p>	There is an error with the black-toner feed motor.	<p>The black print cartridge is defective and needs to be replaced. Please record message and contact support. After replacing the defective cartridge turn the power off then on to continue.</p> <ol style="list-style-type: none"> <li>1. Reconnect the connectors for the black-toner feed-motor rotational-count sensor (J2024), intermediate (J1930), and the DC controller PCA (J131).</li> <li>2. Reconnect the connectors for the color/black I/F PCA (J2201B), cartridge driver PCA (J403, J404, and J405), and the DC controller PCA (J141).</li> <li>3. Replace the black-toner feed motor.</li> </ol>
<p><b>10.91.09 PRINT CARTRIDGE ERROR</b></p> <p>For help press ? (Help button)</p> <p><b>REPLACE BLACK PRINT CARTRIDGE</b></p> <p>To continue turn off then on</p>	There is an error with the color-toner feed motor.	One of the cyan, magenta, or yellow print cartridges is defective and needs to be replaced. Record the message and contact support. After replacing the defective

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		<p>cartridge, turn the power off and then on to continue.</p> <ol style="list-style-type: none"> <li>1. Reconnect the connectors for the color-toner feed-motor rotational-count sensor (J2023), intermediate (J1929), and the DC controller PCA (J131).</li> <li>2. Reconnect the connectors for the yellow/magenta cartridge I/F PCA (J2201A), the cyan/black cartridge I/F PCA (J2201B), the cartridge driver PCA (J402, J403, J406, and J408), and the DC controller PCA (J142).</li> <li>3. Replace the color-toner feed motor.</li> </ol>
<b>10.92 CARTRIDGE NOT ENGAGED</b>	This error can occur after the front door is opened and might not be related to the user interacting with the print cartridge.	Open and close the front door to engage the print cartridges.
<b>10.XX.YY SUPPLY MEMORY ERROR</b>	The product cannot read or write to at least one print cartridge memory tag or a memory tag is missing from a print cartridge.	Reinstall the print cartridge, or install a new print cartridge.
	<p><b>XX values</b></p> <ul style="list-style-type: none"> <li>• 00 = Memory tag memory error</li> <li>• 10 = Memory tag missing</li> </ul> <p><b>YY values</b></p> <ul style="list-style-type: none"> <li>• 00 = Black</li> <li>• 01 = Cyan</li> <li>• 02 = Magenta</li> <li>• 03 = Yellow</li> </ul>	
<b>11.XX Internal clock error</b> <b>To continue press OK</b>	The product real time clock has experienced an error.	Whenever the product is turned off and then turned on again, set the time and date at the control panel. See <a href="#">Use the control panel on page 10</a> .
	<ul style="list-style-type: none"> <li>• 01=dead clock</li> <li>• 02=dead real time clock</li> </ul>	If the error persists, you might need to replace the formatter.
<b>13.01.00 JAM IN TRAY 3</b>	The product attempted to feed paper from Tray 3 (paper feeder), but the leading edge did not reach the TOP sensor in time.	<ol style="list-style-type: none"> <li>1. Make sure the pick roller is installed correctly.</li> <li>2. For transparency, labels, or 120 g/m<sup>2</sup> media, follow the restricted loading procedures (only 200 sheets of transparency/labels or 300 sheets of 120 g/m<sup>2</sup> media can be loaded at one time).</li> <li>3. Check the Tray 3 paper-present sensor to make sure it is not stuck in the up position. Rotate the sensor upward and</li> </ol>



**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		release. If it drops back down without hesitation, it is operating correctly.
<b>13.02.00 JAM IN RIGHT DOOR</b>	The product fed a sheet of paper from one of the trays and it reached the TOP sensor, but stayed there too long.	This jam is commonly caused by multiple sheets being fed into the paper path at one time. Printing glossy media in a humid environment can cause this jam.
<b>13.04.00 JAM IN RIGHT DOOR</b>	The product fed a sheet of paper from one of the trays, and it made it to the PF media feed sensor, but the paper stayed there too long.	This jam is commonly caused by multiple sheets being fed into the paper path at one time. Printing glossy media in a humid environment can cause this jam.
<b>13.05.00 FUSER AREA JAM</b>	The product fed a sheet of paper from one of the trays, and it made it to the TOP Sensor, but did not reach the fuser delivery sensor in time.	<ol style="list-style-type: none"> <li>1. Check the paper path for damage. This is a delay jam. Although the paper stopped at or in the fuser, the root cause is more likely a paper feed/pick-up issue.</li> <li>2. Check the fuser for damage to the pressure-roll cover.</li> </ol>
<b>13.06.00 FUSER AREA JAM</b>	The product fed a sheet of paper from one of the trays and it made it past the TOP sensor and to the fuser delivery sensor in time, but it stayed in the fuser too long.	<ol style="list-style-type: none"> <li>1. Check for the presence of paper in the fuser.</li> <li>2. Curled sheets in the output bin might cause jams to occur, which is especially true if using light media (less than 75 g/m<sup>2</sup>).</li> <li>3. Check the fuser for damage to the pressure roll cover.</li> </ol>
<b>13.12.00 JAM IN RIGHT DOOR</b>	The product fed a sheet of paper from one of the trays, and it made it to the fuser delivery sensor in time, but did not make it to the duplex re-pickup sensor in time (HP Color LaserJet CP3525dn printer and HP Color LaserJet CP3525x printer only).	<ol style="list-style-type: none"> <li>1. Make sure the loaded paper is not skewed.</li> <li>2. Check the media weight to make sure it is within specification. If it is not, the customer must manually duplex.</li> </ol>
<b>13.13.00 JAM IN RIGHT DOOR</b>	The product fed a sheet of paper from one of the trays, and it made it to the duplex re-pickup sensor in time, but it did not make it to the TOP sensor in time when printing the second side of a duplex print job (HP Color LaserJet CP3525dn printer and HP Color LaserJet CP3525x printer only).	Check the media weight to make sure it is within specification. If it is not, the customer must manually duplex.
<b>13.1C.00 FUSER WRAP JAM</b>	During printing, the fuser delivery sensor detected paper wrapping around the fuser film.	Inspect the fuser for damage.
<b>13.20.00 JAM IN RIGHT DOOR</b>	During a checking-printer cycle, the product detected the presence of paper at the PF media-feed sensor, TOP sensor, loop sensor 1, fuser delivery sensor, and duplex re-pickup sensor.	<ol style="list-style-type: none"> <li>1. Open the right door and check for the presence of paper. Remove any that is present.</li> <li>2. Check the TOP sensor, loop sensor 1, fuser delivery sensor, and duplex re-pickup sensor for proper operation.</li> <li>3. If the paper feeder (Tray 3) is connected, open the lower-right door</li> </ol>

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		and check for the presence of paper. Remove any that is present .  4. Check the PF media feed sensor for proper operation.
13.21.00 DOOR OPEN JAM	Either the right door or front door was open during printing.	Close both doors.
13.30.00 JAM IN TRAY 1	The product attempted to feed paper from Tray 1, but the leading edge did not reach the TOP sensor in time.	<ol style="list-style-type: none"> <li>1. If paper is not loaded in Tray 1, but an error is displayed, check the MP tray paper-present sensor by pushing the sensor and releasing it. If the sensor springs back, it is operating correctly. If sensor does not spring back, check the spring on the sensor.</li> <li>2. Inspect the paper guides for damage. Replace damaged guides if possible.</li> </ol>
13.30.00 JAM IN TRAY 2	The product attempted to feed paper from Tray 2, but the leading edge did not reach the TOP sensor in time.	<ol style="list-style-type: none"> <li>1. Make sure Tray 2 is not overloaded. The maximum amount of paper allowed is 25 mm (0.98 inches), which is the equivalent to 250 sheets of 75 g/m<sup>2</sup> (20 lb) bond.</li> <li>2. Make sure the media basis weight does not exceed 163 g/m<sup>2</sup>. If it does, run media from Tray 1.</li> <li>3. Glossy media up to 220 g/m<sup>2</sup> can be loaded in this tray; however, the quantity is limited to 100 sheets. For 130 g/m<sup>2</sup> glossy media, 300 sheets can be loaded at one time, 163 g/m<sup>2</sup> glossy media, up to 250 sheets can be loaded at one time.</li> </ol>
13.XX.YY FUSER AREA JAM	A jam has occurred in the fuser area.	<p><b>CAUTION:</b> The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.</p> <p>For instructions on clearing the jam, see <a href="#">Clear jams in the right door on page 406</a>.</p>
13.XX.YY FUSER WRAP JAM	A jam has occurred in the fuser.	<p><b>CAUTION:</b> The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.</p> <p>For instructions on clearing the jam, see <a href="#">Clear jams in the right door on page 406</a>.</p>
13.XX.YY JAM ABOVE TOP OUTPUT BIN	A jam has occurred in the output area.	For instructions on clearing the jam, see <a href="#">Clear jams in the output bin area on page 410</a> .
13.XX.YY JAM IN LOWER RIGHT DOOR	A jam has occurred in the lower-right door (optional Tray 3).	For instructions on clearing the jam, see <a href="#">Clear jams in the lower right door (Tray 3) on page 414</a> .
13.XX.YY JAM IN RIGHT DOOR	A jam has occurred in the duplex and feed area inside the right door.	For instructions on clearing the jam, see <a href="#">Clear jams in the right door on page 406</a> .
13.XX.YY JAM IN TRAY 1	A jam has occurred in Tray 1.	For instructions on clearing the jam, see <a href="#">Clear jams in Tray 1 on page 411</a> .

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
13.XX.YY JAM IN TRAY 3	A jam has occurred in the indicated tray.	For instructions on clearing the jam, see <a href="#">Clear jams in Tray 2 on page 413</a> or <a href="#">Clear jams in the optional 500-sheet paper and heavy media tray (Tray 3) on page 414</a> .
13.XX.YY JAMS IN RIGHT DOOR	A jam has occurred in the fuser area.	<b>CAUTION:</b> The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.  For instructions on clearing the jam, see <a href="#">Clear jams in the right door on page 406</a> .
20 INSUFFICIENT MEMORY To continue press OK	The product received more data than can fit in the available memory. You might have tried to transfer too many macros, soft fonts, or complex graphics.	Press the <b>OK</b> button to print the transferred data (some data might be lost), and then simplify the print job or install additional memory.
22 EIO X BUFFER OVERFLOW To continue press OK	Too much data was sent to the EIO card in the specified slot (x). An incorrect communications protocol might be in use.	Press the <b>OK</b> button to print the transferred data. (Some data might be lost.)
22 EMBEDDED I/O BUFFER OVERFLOW To continue press OK	Too much data was sent to the embedded HP Jetdirect print server.	Press the <b>OK</b> button to print the transferred data. (Some data might be lost.)
22 USB I/O BUFFER OVERFLOW To continue press OK	The product's USB buffer has overflowed.	Press the <b>OK</b> button to print the transferred data. (Some data might be lost.)
40 EIO X BAD TRANSMISSION To continue press OK	The connection between the product and the EIO card in the specified slot has been broken.	Press the <b>OK</b> button to clear the error message and continue printing.  Try to reinstall the EIO card.
40 EMBEDDED I/O BAD TRANSMISSION To continue press OK	A temporary printing error has occurred.	Press the <b>OK</b> button to clear the error message. (Data will be lost.)
41.3 UNEXPECTED SIZE IN TRAY <X> LOAD TRAY <X> [TYPE] [SIZE] To use another tray press OK	The product detected a different paper size than expected.  The prompt to use another tray displays only if another tray has paper loaded.	Load the tray with the size and type of paper indicated, or use another tray.
41.5 UNEXPECTED TYPE IN TRAY <X> LOAD TRAY <X> [TYPE] [SIZE] To use another tray press OK	The product detected a different paper type than expected.	Load the tray with the size and type of paper indicated, or use another tray if available.  If the error persists: <ol style="list-style-type: none"> <li>1. Reinstall the ITB unit.</li> <li>2. Reconnect the connectors (J109, J122) on the DC controller PCA.</li> <li>3. If the problem persists, replace the registration unit. See <a href="#">Registration assembly on page 233</a>.</li> </ol>
41.7 ERROR To continue press OK	A temporary printing error has occurred.	Try using different paper.  If the error does not clear, turn the product off and then on.
41.X ERROR	A temporary printing error has occurred. <ul style="list-style-type: none"> <li>● X=1: Unknown misprint error</li> <li>● X=2: Beam detected misprint area</li> </ul>	Press ? to see details.

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
FOR HELP PRESS ? To continue press OK	<ul style="list-style-type: none"> <li>• X=4: No VSYNC error</li> <li>• X=6: ITB detection error</li> <li>• X=7: Feed delay error</li> <li>• X=8: Fuser too hot</li> <li>• X=9: Noisy VDREQ</li> </ul>	Turn the product off then on.
48.01 TRANSFER UNIT ERROR	The transfer belt has dislocated during printing.	Turn the product off and then on.
49.XXXX ERROR To continue turn off then on	A firmware error has occurred.	<p>This error can be caused by corrupted print jobs, software applications issues, non-product specific printer drivers, poor-quality USB or network cables, bad network connections or incorrect configurations, invalid firmware operations, or unsupported accessories.</p> <ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. If the error returns, the error might be caused by a network connectivity problem, such as a bad interface cable, a bad USB port, or an invalid network configuration setting. For more information about solving network problems, see <a href="#">Solve connectivity problems on page 439</a>.</li> <li>3. If the error returns, the error might be caused by the print job, such as an invalid printer driver, a problem with the software, or a problem with the file you are printing.</li> <li>4. If the error returns, upgrading the product firmware might help resolve the error. For more information about upgrading the firmware, see <a href="#">Product updates on page 97</a>.</li> <li>5. If error returns, replace formatter.</li> </ol>
50.1 FUSER ERROR	The fuser has experienced a low-temperature error.	<ol style="list-style-type: none"> <li>1. Remove any paper jams from the fuser area.</li> <li>2. Remove the fuser. Check the connector (J50) between the fuser and the product. Replace the cable or fuser if the connector is damaged.</li> <li>3. If the problem persists, replace the fuser. See <a href="#">Fuser on page 179</a>.</li> </ol>

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>50.2 FUSER ERROR</b>	The fuser has experienced a warm-up error.	<ol style="list-style-type: none"> <li>1. Reinstall the fuser. Check the connector (J50) between the fuser and the product. Replace the cable or fuser if the connector is damaged.</li> <li>2. Reconnect the connectors (J138, J115) of the DC controller PCA. Reconnect connector (J60), on the power line between the low voltage power supply and the fuser.</li> <li>3. If the problem persists, replace the fuser. See <a href="#">Fuser on page 179</a>.</li> </ol>
<b>50.3 FUSER ERROR</b>	The fuser has experienced a high-temperature error.	<ol style="list-style-type: none"> <li>1. Reinstall the fuser. Check the connector (J50) between the fuser and the product. Replace the cable or fuser if the connector is damaged.</li> <li>2. If the problem persists, replace the fuser. See <a href="#">Fuser on page 179</a>.</li> </ol>
<b>50.4 FUSER ERROR</b>	The fuser driver circuit has experienced an error.	<ol style="list-style-type: none"> <li>1. Check the power source. If a power generator is used, improve the situation.  <b>NOTE:</b> If the product does not meet the power requirement of 43 to 67Hz frequency, the fuser temperature control does not work, which causes a malfunction.</li> <li>2. Reconnect connector (J101) on the DC controller PCA.</li> <li>3. If the problem persists, replace the low-voltage power supply. See <a href="#">Low-voltage power supply on page 243</a>.</li> </ol>
<b>50.5 FUSER ERROR</b>	The fuser has experienced a type-mismatch error.	<ol style="list-style-type: none"> <li>1. Reinstall the fuser. Check the connector (J50) between the fuser and the product. Replace the cable or fuser if the connector is damaged.</li> <li>2. Reconnect the connector (J139) on the DC controller PCA.</li> <li>3. If the problem persists, replace the fuser. See <a href="#">Fuser on page 179</a>.</li> </ol>
<b>50.7 FUSER ERROR</b>	The fuser has experienced a pressure release mechanism error.	<ol style="list-style-type: none"> <li>1. Reconnect the connectors (J117, J123) on the DC controller PCA.</li> <li>2. Run the sensor test to test the fuser pressure-release sensor (H) SR7. If the sensor is defective, replace the fuser. See <a href="#">Fuser on page 179</a>.</li> </ol>

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<p><b>50.8 FUSER ERROR</b></p>	The fuser has experienced a low-temperature error.	<ol style="list-style-type: none"> <li>1. Remove any paper jams from the fuser area.</li> <li>2. Reinstall the fuser. Check the connector (J50) between the fuser and the product. Replace the cable or fuser if the connector is damaged.</li> <li>3. If the problem persists, replace the fuser. See <a href="#">Fuser on page 179</a>.</li> </ol>
<p><b>50.9 FUSER ERROR</b></p>	The fuser has experienced a high-temperature error.	<ol style="list-style-type: none"> <li>1. Reinstall the fuser. Check the connector (J150) between the fuser and the product. Replace the cable or fuser if the connector is damaged.</li> <li>2. If the problem persists, replace the fuser. See <a href="#">Fuser on page 179</a>.</li> </ol>
<p><b>50.X FUSER ERROR</b></p>	A fuser error has occurred.	Make sure you have the correct fuser. Re-seat the fuser. Turn the product off, and then turn the product on.
<p><b>51.20 ERROR</b> To continue turn off then on</p> <p><b>51.21 ERROR</b> To continue turn off then on</p>	The black laser (51.20) or cyan laser (51.21) has experienced an error.	<ol style="list-style-type: none"> <li>1. Reconnect the connectors of the laser driver PCA (J503) and the DC controller PCA (J111).</li> <li>2. Replace the cyan/black laser scanner. See <a href="#">Laser/scanner assembly (C/Bk) on page 272</a>.</li> </ol>
<p><b>51.22 ERROR</b> To continue turn off then on</p> <p><b>51.23 ERROR</b> To continue turn off then on</p>	The magenta laser (51.22) or yellow laser (51.23) has experienced an error.	<ol style="list-style-type: none"> <li>1. Reconnect the connectors of the laser driver PCA (J501) and the DC controller PCA (J110).</li> <li>2. Replace the yellow/magenta laser-scanner. See <a href="#">Laser/scanner assembly (Y/M) on page 265</a>.</li> </ol>
<p><b>51.XY ERROR</b> To continue turn off then on</p>	A printer error has occurred.	Turn the product off then on.
<p><b>52.00 ERROR</b> To continue turn off then on</p>	The scanner has experienced a startup error.	<ol style="list-style-type: none"> <li>1. Perform the laser scanner component tests in the <b>DIAGNOSTICS</b> menu.</li> <li>2. Depending on the test results, perform one of the following steps: <ul style="list-style-type: none"> <li>◦ If the cyan or black component tests showed a startup failure, reconnect the connectors (J503) on the laser PCA and (J106 and J111) on DC controller PCA .</li> <li>◦ If the yellow or magenta component tests showed a startup failure, reconnect the connectors (J501) on the laser PCA and (J106</li> </ul> </li> </ol>

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		and J110) on the DC controller PCA.
		<ol style="list-style-type: none"> <li>3. Replace the cyan/black laser scanner or the yellow/magenta laser-scanner. See <a href="#">Laser/scanner assembly (C/Bk) on page 272</a> or <a href="#">Laser/scanner assembly (Y/M) on page 265</a>.</li> </ol>
<b>52.20 ERROR</b> To continue turn off then on	The scanner has experienced a rotational error.	<ol style="list-style-type: none"> <li>1. Perform the laser scanner component tests in the <b>DIAGNOSTICS</b> menu.</li> <li>2. Depending on the test results, perform one of the following steps:                             <ul style="list-style-type: none"> <li>◦ If the cyan or black component tests showed a startup failure, reconnect the connectors (J503) on the laser PCA and (J106 and J111) on DC controller PCA .</li> <li>◦ If the yellow or magenta component tests showed a startup failure, reconnect the connectors (J501) on the laser PCA and (J106 and J110) on the DC controller PCA.</li> </ul> </li> <li>3. Replace the cyan/black laser scanner or the yellow/magenta laser scanner. See <a href="#">Laser/scanner assembly (C/Bk) on page 272</a> or <a href="#">Laser/scanner assembly (Y/M) on page 265</a>.</li> </ol>
<b>52.XY ERROR</b> To continue turn off then on	A printer error has occurred.	Turn the power off then on.
<b>53.XY.ZZ CHECK RAM DIMM SLOT X</b>	A RAM DIMM error has occurred. X=1 slot toward the outside of the formatter board. X=2 is the slot closest to the hard disc.	Reseat the RAM DIMM in slot <X>. Replace the RAM DIMM if the error persists.
<b>54.01 ERROR</b> To continue turn off then on	The environment sensor has experienced an error.	<ol style="list-style-type: none"> <li>1. Reconnect the connector of the DC controller PCA (J115).</li> <li>2. Replace the environmental sensor. See <a href="#">Delivery fan, cartridge fan, and environmental sensor on page 215</a>.</li> </ol>
<b>54.XX ERROR</b> To continue turn off then on	Error requires that the product be turned off then on.	Turn the product off, and then turn the product on.
<b>55.00.00 DC CONTROLLER ERROR</b> To continue turn off then on	The DC controller has experienced a communication error.	<ol style="list-style-type: none"> <li>1. Turn the product off, and then turn the product on.</li> <li>2. If this message persists, replace the DC controller PCA. See <a href="#">DC controller PCA and tray on page 240</a>.</li> </ol>

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>55.01.YY DC CONTROLLER ERROR</b> To continue turn off then on	The DC controller has experienced a memory error.	<ol style="list-style-type: none"> <li>1. Turn the product off, and then turn the product on.</li> <li>2. If this message persists, replace the DC controller PCA. See <a href="#">DC controller PCA and tray on page 240</a>.</li> </ol>
<b>55.XX.YY DC CONTROLLER ERROR</b> To continue turn off then on	The engine is not communicating with the formatter. <ul style="list-style-type: none"> <li>• 55.02.YY: Outgoing parity error</li> <li>• 55.03.YY: No engine response</li> <li>• 55.04.YY: Communications time out</li> <li>• 55.05.YY: Printer error</li> </ul>	<ol style="list-style-type: none"> <li>1. Turn the product off, and then turn the product on.</li> <li>2. If the error persists, replace the DC Controller. See <a href="#">DC controller PCA and tray on page 240</a>.</li> </ol>
<b>56.01 ILLEGAL INPUT PRINTER ERROR</b>	The product has performed an illegal input.	Turn the product off, and then turn the product on.
<b>56.02 ERROR</b> To continue turn off then on	The product has experienced an output error.	<ol style="list-style-type: none"> <li>1. Follow the solutions for <b>BAD DUPLEXER CONNECTION</b> or <b>BAD OPTIONAL TRAY CONNECTION</b>.</li> </ol>
<b>56.X ERROR</b> To continue turn off then on	A temporary printing error has occurred.	Turn the product off, and then turn the product on.
<b>57.03 ERROR</b> To continue turn off then on	The delivery fan (FM3) has experienced an error.	<ol style="list-style-type: none"> <li>1. Reconnect the connectors J27 to J262 on the high-voltage power supply and J138 on the DC controller PCA.</li> <li>2. Measure the voltage between the connector J262-1 and J262-3 on the high-voltage power supply (lower) soon after the product is turned on. If the voltage changes from 0 V to approximately 24 V, replace the delivery fan.</li> </ol>
<b>57.04 ERROR</b> To continue turn off then on	The power supply fan (FM1) is defective.	<ol style="list-style-type: none"> <li>1. Reconnect the connectors J119 on the DC controller PCA.</li> <li>2. Measure the voltage between the connector J262-1 and J262-3 on the high-voltage power supply (lower) soon after the product is turned on. If the voltage changes from 0 V to approximately 24 V, replace the power supply fan. See <a href="#">Power-supply fan and fan duct on page 230</a>.</li> </ol>
<b>57.07 ERROR</b> To continue turn off then on	The cartridge fan (fm2) has experienced an error.	<ol style="list-style-type: none"> <li>1. Reconnect the connectors J26 to J262 on the high-voltage power supply (lower).</li> <li>2. Measure the voltage between the connector J262-1 and J262-3 on the high-voltage power supply (lower) right after the product is turned on. If the voltage changes from 0 V to approximately 24 V, replace the cartridge fan. See <a href="#">Delivery fan, cartridge</a></li> </ol>



**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		<a href="#">fan, and environmental sensor on page 215.</a>
<b>57.XX ERROR</b> To continue turn off then on	A temporary printing error has occurred.	Turn the product off, and then turn the product on.
<b>57.XX ERROR</b> To continue turn off then on	A fan has experienced an error. <ul style="list-style-type: none"> <li>● XX=01: Delivery fan</li> <li>● XX=02: Cartridge fan</li> <li>● XX=03: Power-supply fan</li> </ul>	<ol style="list-style-type: none"> <li>1. Reconnect the connectors for FM1 (J119), FM2 (J138), and FM3 (J138) on the DCC.</li> <li>2. If the problem persists, replace the appropriate fan.</li> </ol>
<b>58.03 ERROR</b> To continue turn off then on	The DC controller PCA is defective.	<ol style="list-style-type: none"> <li>1. Turn the product off then on.</li> <li>2. If the problem persists, replace the DC controller PCA. See <a href="#">DC controller PCA and tray on page 240.</a></li> </ol>
<b>58.04 ERROR</b> To continue turn off then on	The low-voltage power supply has experienced an error.	<ol style="list-style-type: none"> <li>1. Check the connector J1143 on the DC controller PCA.</li> <li>2. If the problem persists, replace the low-voltage power supply. See <a href="#">Low-voltage power supply on page 243.</a></li> </ol>
<b>58.XX ERROR</b>	A temporary printing error has occurred.	Turn the product off, and then turn the product on.
<b>59.00 ERROR</b> To continue turn off then on	The toner residual feed motor (M12) is defective.	<ol style="list-style-type: none"> <li>1. Perform a motor test to check for a motor failure.</li> <li>2. Reconnect J89 of the residual feed motor, intermediate connectors (J75 and J77), and J137 on the DC controller PCA.</li> <li>3. If the problem persists, replace the residual feed motor (M12). See <a href="#">Residual-toner-feed motor on page 222.</a></li> </ol>
<b>59.30 ERROR</b> To continue turn off then on	The fuser motor (M2) has experienced a startup error.	<ol style="list-style-type: none"> <li>1. Perform the fuser motor component test in the <b>DIAGNOSTICS</b> menu.</li> <li>2. Reconnect the connector on the DC controller PCA (J117).</li> <li>3. If the problem persists, replace the fuser motor (M2). See <a href="#">Fuser motor on page 285.</a></li> </ol>
<b>59.40 ERROR</b> To continue turn off then on	The fuser motor (M2) has experienced a rotational error.	<ol style="list-style-type: none"> <li>1. Perform the fuser motor component test in the <b>DIAGNOSTICS</b> menu.</li> <li>2. Reconnect the connectors J117 on the DC controller PCA.</li> <li>3. If the problem persists, replace the fuser motor (M2). See <a href="#">Fuser motor on page 285.</a></li> </ol>

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>59.5Y ERROR</b>  <b>To continue turn off then on</b>	<p>A drum motor has experienced a startup error.</p> <ul style="list-style-type: none"> <li>● Y=0: Black (drum motor 3) (M5) (J121)</li> <li>● Y=1: Cyan (drum motor 2) (M4) (J120)</li> <li>● Y=2: Magenta (drum motor 1) (M3) (M4) (J120)</li> <li>● Y=3: Yellow (drum motor 1) (M3) (J120)</li> </ul>	<ol style="list-style-type: none"> <li>1. Perform the drum-motors component test in the <b>DIAGNOSTICS</b> menu.</li> <li>2. Reconnect the connectors J120 or J121 on the DC controller PCA.</li> <li>3. Replace the appropriate drum motor. See <a href="#">Drum motor 1 on page 283</a> or <a href="#">Drum motor 2 or drum motor 3 on page 284</a>.</li> </ol>
<b>59.6Y ERROR</b>  <b>To continue turn off then on</b>	<p>A drum motor has experienced a rotational error.</p> <ul style="list-style-type: none"> <li>● Y=0: Black (drum motor 3) (M5) (J121)</li> <li>● Y=1: Cyan (drum motor 2) (M4) (J120)</li> <li>● Y=2: Magenta (drum motor 1) (M3) (M4) (J120)</li> <li>● Y=3: Yellow (drum motor 1) (M3) (J120)</li> </ul>	<ol style="list-style-type: none"> <li>1. Perform the drum-motors component test in the <b>DIAGNOSTICS</b> menu.</li> <li>2. Reconnect the connectors J120 or J121 on the DC controller PCA.</li> <li>3. Replace the appropriate drum motor. See <a href="#">Drum motor 1 on page 283</a> or <a href="#">Drum motor 2 or drum motor 3 on page 284</a>.</li> </ol>
<b>59.B0 ERROR</b>  <b>To continue turn off then on</b>	<p>The toner-collection unit is full.</p>	<p>Replace the toner-collection unit. See <a href="#">Toner-collection unit on page 173</a></p>
<b>59.BO CLEANING MOTOR ERROR</b>  <b>REPLACE TONER COLLECTION UNIT</b>	<p>This message displays for one of the following reasons:</p> <ul style="list-style-type: none"> <li>● The cleaning motor is stuck.</li> <li>● The toner-collection unit is full.</li> <li>● The chute at the top of the toner collection unit is clogged.</li> </ul>	<p>Replace the toner-collection unit. See <a href="#">Change the toner collection unit on page 86</a>.</p>
<b>59.C0 ERROR</b>  <b>To continue turn off then on</b>	<p>The developing-disengagement motor is defective.</p>	<ol style="list-style-type: none"> <li>1. Perform the disengagement motor component tests in the <b>DIAGNOSTICS</b> menu.</li> <li>2. Reconnect the connectors J25 and J138 on the DC controller and J261 on the high-voltage power supply (lower).</li> <li>3. Run the sensor test to monitor for developing home position (SR11) to test whether the sensor is functioning. If not, replace the sensor.</li> <li>4. Replace the developing-disengagement motor. See <a href="#">Developing-disengagement motor on page 251</a>.</li> </ol>
<b>59.F0 ERROR</b>  <b>To continue turn off then on</b>	<p>The primary transfer-alienation motor has experienced an error.</p>	<ol style="list-style-type: none"> <li>1. Check to ensure the ITB is installed correctly.</li> <li>2. Run a sensor test to verify that the primary transfer disengagement roller is functioning. If not replace the sensor (SR17).</li> <li>3. Run the primary transfer drive test in actuator drive mode. If not functioning,</li> </ol>

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 188</a> .
<b>59.XY ERROR</b> To continue turn off then on	A temporary printing error has occurred.	Turn the product off then on.
<b>60.03 ERROR</b> To continue turn off then on	The Tray 2 lifter motor (M7) (SR13) has experienced an error.	<ol style="list-style-type: none"> <li>1. Check the Tray 2 paper-surface sensor (u) in the <b>MANUAL SENSOR TEST 2 (O)</b> submenu in the <b>DIAGNOSTICS</b> menu.</li> <li>2. Reconnect the connectors of the lifter motor (J140) and the DC controller PCA (J112).</li> <li>3. If the problem persists, replace the lifter drive assembly. See <a href="#">Lifter-drive assembly on page 254</a>.</li> </ol>
<b>60.04 ERROR</b> To continue turn off then on	The Tray 3 lifter motor (M2) has experienced an error.	<ol style="list-style-type: none"> <li>1. Check the Tray 3 paper-surface sensor (y) in the <b>MANUAL SENSOR TEST 2 (P)</b> submenu in the <b>DIAGNOSTICS</b> menu.</li> <li>2. Reconnect the connector J405 and the J11 on the intermediate connector.</li> <li>3. Reconnect connector J15 of the Tray 3 lifter motor (M2) and connector J404 of the pickup-feeder driver PCA.</li> <li>4. If the problem persists, replace the optional paper feeder.</li> </ol>
<b>60.X ERROR</b> To continue turn off then on	The tray specified by X is not lifting correctly.	Follow the instructions on the product control panel.
	<p><b>X values</b></p> <ul style="list-style-type: none"> <li>• 2 = Tray 2</li> <li>• 3 = Tray 3</li> </ul>	
<b>62 NO SYSTEM</b> To continue turn off then on	The product has an internal problem.	Turn the product off and then on.
<b>68.X PERMANENT STORAGE FULL</b> To continue press OK	The product NVRAM is full. Some settings saved in the NVRAM might have been reset to the factory defaults. Printing can continue, but some unexpected functions might occur if an error occurred in permanent storage.	Press the <b>OK</b> button to clear the message. If the message is not cleared, turn the product off, and then turn the product on.
	<p><b>X values</b></p> <ul style="list-style-type: none"> <li>• 0 = Internal memory</li> <li>• 1 = Removable disk</li> </ul>	
<b>68.X PERMANENT STORAGE WRITE FAIL</b> To continue press OK	The product NVRAM is failing to write. Printing can continue, but some unexpected functions might occur if an error occurred in permanent storage.	Press the <b>OK</b> button to clear the message. If the message is not cleared, turn the product off, and then turn the product on.

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
	<p><b>X values</b></p> <ul style="list-style-type: none"> <li>0 = Internal memory</li> <li>1 = Removable disk</li> </ul>	<p>Replace the removable disk or memory DIMM. See <a href="#">Memory DIMM on page 176</a>.</p> <p>If the problem persists, replace the formatter. See <a href="#">Formatter PCA on page 175</a>.</p>
<p><b>68.X STORAGE ERROR SETTINGS CHANGED</b></p> <p>To continue press OK</p>	<p>One or more product settings are invalid and have been reset to the factory-default settings. Printing can continue, but some unexpected functions might occur if an error occurred in permanent storage.</p>	<p>Press the <b>OK</b> button to clear the message. If the message is not cleared, turn the product off, and then turn the product on.</p> <p>Replace the removable disk or memory DIMM. See <a href="#">Memory DIMM on page 176</a>.</p> <p>If the problem persists, replace the formatter. See <a href="#">Formatter PCA on page 175</a>.</p>
<p><b>69.X ERROR</b></p> <p>To continue turn off then on</p>	<p>A temporary printing error occurred.</p> <ul style="list-style-type: none"> <li>x = 0 duplex mechanical failure</li> <li>x = 1 duplex side-adjust failure</li> </ul>	<p>Turn the product off, and then turn the product on.</p>
<p><b>79.XXXX ERROR</b></p> <p>To continue turn off then on</p>	<p>An internal product error has occurred.</p>	<p>Turn the product off and then on.</p>
<p><b>8X.YYYY EIO ERROR</b></p>	<p>This message displays in English only. It indicates that the EIO card in slot X has failed.</p>	<p>Replace the EIO card.</p>
<p><b>8X.YYYY EMBEDDED JETDIRECT ERROR</b></p>	<p>This message appears in English only. It indicates that the embedded HP Jetdirect card has failed.</p>	<p>Contact HP support. See <a href="#">Customer support on page 514</a>.</p>
<p><b>Access denied MENUS LOCKED</b></p>	<p>The control-panel menu that you tried to select is currently locked.</p>	<p>Consult with the person who administers the product.</p>
<p><b>Action not currently available for tray x Tray size cannot be ANY SIZE/ANY CUSTOM</b></p>	<p>Duplex registration is not available when the size is set to <b>ANY SIZE</b> or <b>ANY CUSTOM</b>.</p>	<p>Configure the tray to a specific size, and then set the registration for that tray.</p>
<p><b>BAD OPTIONAL TRAY CONNECTION</b></p>	<p>The optional tray is not connected.</p>	<ol style="list-style-type: none"> <li>Turn the product off.</li> <li>Remove and then reinstall the optional Tray 3.</li> <li>Reconnect connectors J401 and J106.</li> <li>If the problem persist, replace the connector for Tray 3.</li> </ol>
<p><b>Calibrating...</b></p>	<p>Displays during calibration.</p>	<p>No action is necessary.</p>
<p><b>CALIBRATION RESET PENDING</b></p> <p><b>Processing...</b></p>	<p>A calibration reset occurs when all jobs are processed.</p>	<p>To begin the reset sooner, cancel all jobs by pressing the Stop button .</p>
<p><b>Canceling...</b></p>	<p>The product is canceling the current job.</p>	<p>No action is necessary.</p>
<p><b>CARD SLOT &lt;X&gt; NOT FUNCTIONAL</b></p>	<p>The DIMM card in slot &lt;X&gt; is not working correctly.</p>	<p>Remove the card from the slot indicated, and replace with a new card.</p>
<p><b>CARD SLOT DEVICE FAILURE</b></p> <p>To clear press OK</p>	<p>The specified device has failed.</p>	<p>Press the <b>OK</b> button to clear.</p>

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>CARD SLOT FILE OPERATION FAILED</b> To clear press OK	A PJL file system command attempted to perform an illogical operation.	Press the OK button to clear.
<b>CARD SLOT FILE SYSTEM IS FULL</b> To clear press OK	A PJL file system command could not store something on the file system because the file system was full.	Press the OK button to clear.
<b>CARD SLOT IS WRITE PROTECTED</b> To clear press OK	The file system device is protected and no new files can be written to it.	Press the OK button to clear.
<b>CARD SLOT NOT INITIALIZED</b>	This file-storage component must be initialized before use.	Use the embedded Web server or HP Web Jetadmin to initialize the component.
<b>CARTRIDGES IN WRONG POSITIONS</b>	Two or more print-cartridge slots contain the wrong color print cartridge.  From left to right, install the print cartridges in this order: <ul style="list-style-type: none"> <li>● Yellow</li> <li>● Magenta</li> <li>● Cyan</li> <li>● Black</li> </ul>	Install the correct color cartridge in each slot.
<b>CHECKING PAPER PATH</b>	The product is checking for possible paper jams.	No action is necessary.
<b>CHECKING PRINTER</b>	The product is conducting an internal test.	No action is necessary.
<b>CHOSEN PERSONALITY NOT AVAILABLE</b> To continue press OK	A print job requested a product language (personality) that is not available for this product. The job will not print and will be cleared from memory.	Print the job by using a printer driver for a different printer language, or add the requested language to the product (if possible). To see a list of available personalities, print a configuration page.
<b>CLEANING DISK &lt;X&gt;% COMPLETE</b> Do not power off	The product is cleaning the hard disk.	Do not turn off. The product automatically restarts when cleaning is complete. Product functions are unavailable.
<b>CLEANING...</b>	The product is performing an automatic cleaning cycle. Printing will continue after the cleaning is complete.	No action is necessary.
<b>CLEARING EVENT LOG</b>	This message is displayed while the event log is cleared. The product exits the menus when the event log has been cleared.	No action is necessary.
<b>CLEARING PAPER PATH</b>	The product is attempting to eject jammed paper.	Close the front or right doors.
<b>CLOSE LOWER RIGHT DOOR</b>	The lower-right door on the optional paper feeder is open.	<ol style="list-style-type: none"> <li>1. Close the door.</li> <li>2. If the message persists, check the right door-open-detection sensor, using the sensor monitor mode.</li> <li>3. If the message persists, check the door sensor flag. Replace the flag if damaged.</li> </ol>

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>CLOSE RIGHT DOOR</b>	A door on the right side of the product is open.	<ol style="list-style-type: none"> <li>1. Close the door.</li> <li>2. If the message persists, check the right-door sensor flag.</li> <li>3. Replace the right door. See <a href="#">Right-door assembly on page 194</a>.</li> </ol>
<b>Cooling engine</b>	The product is cooling.	No action is necessary.
<b>Creating...</b>	A cleaning page is being generated.	No action is necessary.
<b>CLEANING PAGE</b>		
<b>DATA RECEIVED</b> To print last page press OK	The product is waiting for the command to print the last page.	Press the <b>OK</b> button to print the last page.
<b>DATE/TIME = YYYY/MMMM/DD HH:MM</b> To change press OK To skip press ⊗	The current date and time set for the product.	Press the <b>OK</b> button to set the date and time, or press the stop button ⊗ to skip setup.
<b>Deleting private jobs</b>	The product is deleting a private stored job.	No action is necessary.
<b>Deleting...</b>	The product is deleting the stored job.	No action is necessary.
<b>EIO &lt;X&gt; DISK INITIALIZING</b>	The specified EIO disk device is initializing.	No action is necessary.
<b>EIO &lt;X&gt; DISK NOT FUNCTIONAL</b>	The EIO disk in slot <X> is not working correctly.	<ol style="list-style-type: none"> <li>1. Turn the product off.</li> <li>2. Remove the disk from the slot indicated.</li> <li>3. Replace with a new disk.</li> <li>4. Turn the product on.</li> </ol>
<b>EIO &lt;X&gt; DISK SPINNING UP</b>	EIO disk device in slot <X> is spinning up its platter. Jobs that require disk access must wait.	No action is necessary.
<b>EIO DEVICE FAILURE</b> To clear press OK	The specified device has failed.	Press the <b>OK</b> button to clear.
<b>EIO FILE OPERATION FAILED</b> To clear press OK	A PJJ file system command attempted to perform an illogical operation.	Press the <b>OK</b> button to clear.
<b>EIO FILE SYSTEM IS FULL</b> To clear press OK	A PJJ file system command could not store something on the file system because the file system was full.	Press the <b>OK</b> button to clear.
<b>EIO IS WRITE PROTECTED</b> To clear press OK	The file system device is protected and no new files can be written to it.	Press the <b>OK</b> button to clear.
<b>EIO NOT INITIALIZED</b>	This file-storage component must be initialized before use.	Use the embedded Web server or HP Web Jetadmin to initialize the component.
<b>Event log empty</b>	No product events are in the log.	No action is necessary.
<b>EXPECTED DRIVE MISSING</b>	The product cannot find an external hard drive.	Insert the hard drive or see the embedded Web server for more information.

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>FUSER LOW OR OUT</b>	The fuser needs to be replaced.	Replace the fuser. See <a href="#">Fuser on page 179</a> .
<b>Genuine HP supplies installed</b>	You have installed more than one new print cartridge that was manufactured by HP.	No action is necessary.
<b>HP ENCRYPTED DRIVE DISABLED</b>	The drive has been encrypted for another product.	Remove the drive or see the embedded Web server for more information.
<b>INCOMPATIBLE &lt;COLOR&gt; CARTRIDGE</b>	The indicated color print cartridge is not compatible with this product.	Replace the print cartridge with one that is designed for this product.
<b>INCOMPATIBLE FUSER</b>	The incorrect fuser was installed.	<p><b>CAUTION:</b> The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.</p> <ol style="list-style-type: none"> <li>1. Open the right door.</li> <li>2. Remove the incompatible fuser.</li> <li>3. Install the correct fuser.</li> <li>4. Close the right door.</li> </ol>
<b>INCOMPATIBLE SUPPLIES</b>	Print cartridges or other supply items are installed that were not designed for this product. The product cannot print with these supplies installed.	Install supplies designed for this product.
<b>Incorrect</b>	The PIN is incorrect.	Use the up arrow ▲ and down arrow ▼ buttons to enter the correct PIN.
<b>Initializing</b>	The product is starting.	No action is necessary. Please wait until the <b>Ready</b> message appears on the display.
<b>Initializing permanent storage</b>	Displayed when the product is turned on to show that permanent storage is being initialized.	No action is necessary.
<b>Insert or close tray &lt;X&gt;</b>	The indicated tray is open, and it is interfering with paper being fed from another tray.	Close the tray so that printing can continue.
<b>INSTALL &lt;COLOR&gt; CARTRIDGE</b>	The print cartridge has been removed or has been installed incorrectly.	Replace or reinstall the print cartridge correctly to continue printing. See <a href="#">Change print cartridges on page 83</a> .
<b>INSTALL FUSER</b>	The fuser has been removed or installed incorrectly.	<p><b>CAUTION:</b> The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.</p> <ol style="list-style-type: none"> <li>1. Open the right door.</li> <li>2. Install or adjust the fuser.</li> <li>3. Close the right door.</li> </ol>
<b>INSTALL SUPPLIES</b> <b>For status press OK</b>	Press the <b>OK</b> button to identify which supplies need to be replaced. Press the <b>OK</b> button a second time for more information about the specific supply.	Insert the supply item or make sure the installed supply item is fully seated.
<b>INSTALL TRANSFER ROLLER</b>	The secondary transfer roller has experienced an error.	Reinstall the secondary-transfer roller.

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>INSUFFICIENT MEMORY TO LOAD FONTSDATA</b>	<p>The product does not have enough memory to load the data (for example, fonts or macros) from the place specified.</p> <ul style="list-style-type: none"> <li>20.1: Internal: Fonts on ROM directly on formatter</li> <li>20.2: Cart slot &lt;x&gt; fonts: Fonts on DIMM slot</li> <li>20.4: EIO&lt;X&gt; disk: Fonts on the removable hard disk installed in the EIO slot</li> <li>20.5: External source or USB: Fonts on the USB where the number is the device number</li> </ul>	To continue without this information press the <b>OK</b> button. If the message persists, add more memory.
<b>LOAD TRAY 1 [TYPE] [SIZE]</b> To continue press <b>OK</b>	The indicated tray is loaded and configured for a type and size other than the one specified in the job.	<ol style="list-style-type: none"> <li>If the correct paper is loaded, press the <b>OK</b> button.</li> <li>Otherwise, remove the incorrect paper and load the tray with the specified paper.</li> <li>If prompted, confirm the size and type of paper loaded.</li> <li>Confirm that the paper guides are in the correct position.</li> <li>To use another tray, remove paper from the tray and then press the <b>OK</b> button.</li> </ol>
<b>LOAD TRAY 3 [TYPE] [SIZE]</b> Media insert required in tray To use another tray press <b>OK</b>	This message appears when printing 4 x 6 in or 100 x 150 mm size paper, which requires the HP postcard media insert in Tray 3.	Install the HP postcard media insert in Tray 3, and load the requested paper.
<b>LOAD TRAY &lt;X&gt; [TYPE] [SIZE]</b>	This message appears when the indicated tray is selected but is not loaded, and no other paper trays are available for use.	Load the tray with requested paper and then press the <b>OK</b> button to continue.
<b>LOAD TRAY &lt;X&gt; [TYPE] [SIZE]</b> To use another tray press <b>OK</b>	This message appears when the indicated tray is selected but is not loaded, and other paper trays are available for use.	<ol style="list-style-type: none"> <li>Load the correct paper in the tray.</li> <li>If prompted, confirm the size and type of paper loaded.</li> <li>Otherwise, press the <b>OK</b> button to select another tray.</li> </ol>
<b>LOADING PROGRAM &lt;XX&gt;</b> Do not power off	Programs and fonts can be stored on the product's file system and are loaded into RAM when the product is turned on. The number XX specifies a sequence number indicating the current program being loaded.	No action necessary. Do not turn the product off.
<b>MANUALLY FEED &lt;TYPE&gt; &lt;SIZE&gt;</b>	This message displays when Tray 1 is selected but is not loaded, and other paper trays are available for use.	Load tray with requested paper. If paper is already in tray, press the help button ? to exit message and then press the <b>OK</b> button to print. To use another tray, clear paper from Tray 1, press the help button ? to exit the message and then press the <b>OK</b> button.



**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>MANUALLY FEED &lt;TYPE&gt; &lt;SIZE&gt;</b> To continue press OK	This message displays when Tray 1 is selected but is not loaded, and other paper trays are available for use.	Load tray with requested paper.  To override the message, press the <b>OK</b> button to use a type and size of paper that is available in another tray.
<b>MANUALLY FEED &lt;TYPE&gt; &lt;SIZE&gt;</b> To use another tray press OK	The specified job requires a manual feed.	Load tray with requested paper. If paper is already in tray, press the help button ? to exit the message and then press the <b>OK</b> button to print. To use another tray, clear paper from Tray 1, press the help button ? to exit the message and then press the <b>OK</b> button.
<b>MANUALLY FEED OUTPUT STACK</b> Then press OK to print second side	The product has printed the first side of a manual duplex job and is waiting for the user to insert the output stack to print the second side.	<ol style="list-style-type: none"> <li>1. Maintaining the same orientation, remove document from the output bin.</li> <li>2. Flip document printed side up.</li> <li>3. Load document in Tray 1.</li> <li>4. Press the <b>OK</b> button to print.</li> </ol>
<b>MOVING SOLENOID</b> To exit press ⊗	The solenoid is moving as part of a component test.	No action is necessary.
<b>MOVING SOLENOID AND MOTOR</b> To exit press ⊗	The solenoid and a motor are moving as part of a component test.	No action is necessary.
<b>No job to cancel</b>	You have pressed the stop button ⊗ but the product is not actively processing any jobs.	No action is necessary.
<b>No stored jobs</b>	Displayed when the user enters the <b>RETRIEVE JOB</b> menu and there are no jobs to retrieve.	No action is necessary.
<b>NON HP SUPPLY IN USE</b>	A non-HP supply is in use.	A user authorized the use of non-HP supplies when the HP supply was replaced. Any product repair required as a result of using non-HP or unauthorized supplies is not covered under warranty. HP cannot ensure the accuracy or the availability of certain features.
<b>NON HP SUPPLY INSTALLED</b>	The product is using a non-HP supply.	If you believe you purchased a genuine HP supply, go to <a href="http://www.hp.com/go/anticounterfeit">www.hp.com/go/anticounterfeit</a> . Any product repair required as a result of using non-HP or unauthorized supplies is not covered under warranty. HP cannot ensure the accuracy or the availability of certain features.
<b>ORDER &lt;COLOR&gt; CARTRIDGE</b>	The identified print cartridge is nearing the end of its estimated useful life.  Printing will continue until a supply needs to be replaced.	Order a replacement print cartridge.
<b>ORDER &lt;COLOR&gt; CARTRIDGE LESS THAN XXXX PAGES</b>	The identified cartridge is nearing the end of its estimated useful life. Estimated pages remaining is based on the historical page coverage of this product.	Order a replacement cartridge.

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>ORDER FUSER KIT</b> <b>LESS THAN XXXX PAGES</b>	The fuser is near end of life. The product is ready and will continue for the estimated number of pages indicated. Printing will continue until a supply needs to be replaced.	Order a replacement fuser kit.
<b>ORDER SUPPLIES</b>	More than one supply is nearing the end of its estimated useful life.	Order the necessary supplies.
<b>ORDER TONER COLLECTION UNIT</b>	The toner-collection unit is nearly full.	Order a replacement toner-collection unit now. Printing can continue.
<b>PAPERLESS MODE</b>	This message displays when the motors in the paper path do not rotate. Customers do not see this message unless there is a production problem.	Customers do not see this message unless there is a production problem.
<b>Paused</b> <b>To return to Ready press</b> ⊗	The product is paused, and there are no error messages pending at the display. The I/O continues receiving data until memory is full.	Press the stop button ⊗.
<b>Performing upgrade</b> <b>&lt;X:YYY&gt; % complete</b> <b>Do not power off</b>	The product is upgrading the firmware.	Wait until the upgrade is complete.
<b>Performing... COLOR BAND TEST</b>	The color-band test is being performed.	No action is necessary.
<b>Performing... PAPER PATH TEST</b>	The product is performing a paper path test.	No action is necessary.
<b>Please wait</b>	The product is clearing data.	No action is necessary.
<b>Powering off...</b>	The product is shutting down.	Wait until the product shuts down.
<b>Printing &lt;REPORT&gt;</b>	The product is printing an internal page. The product returns to the online Ready state when the page is completed.	No action is necessary.
<b>PRINTING STOPPED</b> <b>To continue press OK</b>	Time has expired on the Print/Stop test.	Press the <b>OK</b> button to continue.
<b>PRINTING....ENGINE TEST</b>	The product is generating the specified report and will return to a <b>Ready</b> state.	No action necessary.
<b>Processing duplex job</b> <b>Do not grab paper until job completes</b>	Paper temporarily comes into the output bin while printing a duplex job. Do not try to remove the pages until the job is complete.	Do not grab paper as it temporarily comes into the output bin. The message disappears when the job is finished.
<b>Processing...</b>	The product is processing a job but is not yet picking pages. When paper motion begins, this message is replaced by a message that indicates which tray the job is being printed from.	No action is necessary.
<b>Processing...</b> <b>CLEANING PAGE</b>	The product is processing a cleaning page.	No action is necessary.
<b>Processing... from tray &lt;X&gt;</b>	The product is processing a job from the designated tray.	No action is necessary.
<b>RAM DISK DEVICE FAILURE</b> <b>To clear press OK</b>	The specified device has failed.	Press the <b>OK</b> button to clear.

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>RAM DISK FILE OPERATION FAILED</b> To clear press OK	A PJL file system command attempted to perform an illogical operation.	Press the <b>OK</b> button to clear.
<b>RAM DISK FILE SYSTEM IS FULL</b> To clear press OK	A PJL file system command could not store something on the file system because the file system was full.	Press the <b>OK</b> button to clear.
<b>RAM DISK IS WRITE PROTECTED</b> To clear press OK	The file system device is protected and no new files can be written to it.	Press the <b>OK</b> button to clear.
<b>RAM DISK NOT INITIALIZED</b>	This file-storage component must be initialized before use.	Use the embedded Web server or HP Web Jetadmin to initialize the component.
<b>Ready</b>	The product is online and ready for data. No status or product attendance messages are pending at the display.	No action is necessary.
<b>Ready</b>	The product is online and ready.	No action is necessary.
<b>IP ADDRESS</b>		
<b>Ready Diagnostics mode</b> To exit press ⊗	The product is in Diagnostics mode.	To stop Diagnostic mode, press the Stop button ⊗.
<b>Receiving Upgrade</b>	A firmware upgrade is in progress.	Do not turn the product off until the product returns to <b>Ready</b> .
<b>Remove all print cartridges</b> To exit press ⊗	The product is testing the transfer unit assembly.	To perform the test, remove all the print cartridges. To cancel the test, press the stop button ⊗.
<b>Remove at least one print cartridge</b> To exit press ⊗	The product is testing the print-cartridge motor.	To perform the test, remove at least one print cartridge. To cancel the test, press the stop button ⊗.
<b>REMOVE CARTRIDGE LOCKS</b>	The product has at least one cartridge shipping-lock installed.	Open the front door and remove any cartridge locks.
<b>REPLACE &lt;COLOR&gt; CARTRIDGE</b>	The product indicates when a supply level is at its estimated end of life. The actual life remaining might be different than the estimation. Have a replacement supply available to install when print quality is no longer acceptable. The supply does not need to be replaced now unless the print quality is no longer acceptable. After an HP supply has reached its approximated end of life, HP's premium Protection Warranty on that supply ends. You can configure the product to continue printing by using the <b>REPLACE SUPPLIES</b> menu. For more information about the <b>REPLACE SUPPLIES</b> menu, see <a href="#">System setup menu on page 25</a> .	Replace the specified color cartridge. <a href="#">Change print cartridges on page 83</a>  Or, configure the product to continue printing by using the <b>REPLACE SUPPLIES</b> menu. For more information about the <b>REPLACE SUPPLIES</b> menu, see <a href="#">System setup menu on page 25</a> .

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>REPLACE FUSER KIT</b>	The fuser is nearing the end of its useful life. Printing can continue.	<p><b>CAUTION:</b> The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.</p> <ol style="list-style-type: none"> <li>1. Open the right door.</li> <li>2. Grasp the blue handles on both sides of the fuser and pull straight out to remove it.</li> <li>3. Install the new fuser.</li> <li>4. Close the right door.</li> </ol>
<b>REPLACE FUSER KIT</b> To continue press OK	The <b>REPLACE SUPPLIES</b> menu is set to the <b>STOP AT LOW</b> setting. The fuser kit has reached the low threshold.	<p><b>CAUTION:</b> The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.</p> <p>Press the <b>OK</b> button to continue printing until the fuser reaches the end of life, or replace the fuser now.</p> <p><b>Replace the fuser</b></p> <ol style="list-style-type: none"> <li>1. Open the right door.</li> <li>2. Grasp the blue handles on each side of the fuser, and pull it straight out to remove it.</li> <li>3. Install the new fuser.</li> <li>4. Close the right door.</li> </ol>
<b>REPLACE SUPPLIES</b> For status press OK	Two or more supplies are at the estimated end of life. The actual life remaining might be different than the estimation. Have a replacement supply available to install when print quality is no longer acceptable. The supply does not need to be replaced now unless the print quality is no longer acceptable. After an HP supply has reached its approximated end of life, HP's premium Protection Warranty on that supply ends. You can configure the product to continue printing by using the <b>REPLACE SUPPLIES</b> menu. For more information about the <b>REPLACE SUPPLIES</b> menu, see <a href="#">System setup menu on page 25</a> .	<p>Press the <b>OK</b> button to see which supplies need to be replaced.</p> <p>Or, configure the product to continue printing by using the <b>REPLACE SUPPLIES</b> menu. For more information about the <b>REPLACE SUPPLIES</b> menu, see <a href="#">System setup menu on page 25</a>.</p>
<b>REPLACE SUPPLIES</b> To continue press OK	Pages remaining for at least two supplies have reached the low threshold. The product was set to stop printing when a supply needs to be ordered.	<p>Press the <b>OK</b> button to continue printing until the supply reaches its estimated end of life.</p> <p>Or, configure the product to continue printing by using the <b>REPLACE SUPPLIES</b> menu. For more information about the <b>REPLACE SUPPLIES</b> menu, see <a href="#">System setup menu on page 25</a>.</p>
<b>REPLACE SUPPLIES - OVERRIDE IN USE</b>	The product indicates when a supply level is at its estimated end of life. The actual life remaining might be different than the estimation. Have a replacement supply available to install when print quality is no	Open the <b>SUPPLIES STATUS</b> menu for information about each supply. Press the <b>OK</b> button for detailed information.

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
	<p>longer acceptable. The supply does not need to be replaced now unless the print quality is no longer acceptable. Once an HP supply has reached its estimated end of life, HP's premium Protection Warranty on that supply has ended. Printing can continue using override (see <b>REPLACE SUPPLIES</b> menu item).</p> <p><b>NOTE:</b> Printing while in Override mode eventually results in unsatisfactory print quality.</p>	
<b>REPLACE SUPPLIES - Using black only</b>	<p>You can configure the product to print using only black when the level of a color supply has reached its estimated end of life. However, the color supply might still be able to produce acceptable print quality. To print in color, either replace the color supply or reconfigure the printer by using the <b>REPLACE SUPPLIES</b> menu on the control panel. For more information about the <b>REPLACE SUPPLIES</b> menu, see <a href="#">System setup menu on page 25</a>.</p> <p>The supply life remaining is used to determine if a supply is very low. The supply life remaining is an approximation only and varies depending on the types of documents printed and other factors.</p>	<p>No user input is required for printing to continue in black. To continue printing in color, either replace the supply or reconfigure the printer by using the <b>REPLACE SUPPLIES</b> menu on the control panel. For more information about ordering supplies, see <a href="#">Parts and diagrams on page 445</a>. For more information about the <b>REPLACE SUPPLIES</b> menu, see <a href="#">System setup menu on page 25</a>.</p>
<b>REPLACE TONER COLLECTION UNIT</b>	<p>The toner collection unit has reached its estimated capacity.</p>	<p>Replace the toner collection unit or, if you wish to have the toner collection unit operate past its estimated capacity, reconfigure the printer to use <b>VERRIDE AT OUT 2</b> in the <b>REPLACE SUPPLIES</b> menu. For more information about the <b>REPLACE SUPPLIES</b> menu, see <a href="#">System setup menu on page 25</a>.</p> <p>This is not a recommended option because of the risk of overfilling the toner collection unit, which could result in the need to service the product.</p>
<b>REPLACE TONER COLLECTION UNIT</b> <b>To continue press OK</b>	<p>The toner collection unit is approaching its estimated capacity.</p>	<p>Order a new toner collection unit now.</p> <p>You can press the <b>OK</b> button to continue printing. You can continue printing until the continue prompt no longer appears.</p>
<b>Request accepted please wait</b>	<p>The product has accepted a request to print an internal page, but the current job must finish printing before the internal page prints.</p>	<p>No action is necessary.</p>
<b>Resend Upgrade</b>	<p>The firmware upgrade was not completed successfully.</p>	<p>Attempt upgrade again.</p>
<b>Resetting kit count</b>	<p>You have selected the option to reset the count for a new supply item.</p>	<p>No action is necessary.</p>
<b>Restoring factory settings</b>	<p>The product is restoring factory settings.</p>	<p>No action is necessary.</p>

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
Restoring...	The product is restoring settings. This message is displayed during the execution of a restore action, such as <b>RESTORE COLOR VALUES</b> .	Wait until the process is complete.
<b>RESTRICTED FROM PRINTING IN COLOR</b>	This message displays when color printing is disabled for the product or when it is disabled for a particular user or print job.	To enable color printing for the product, change the <b>RESTRICT COLOR USE</b> setting in the <b>SYSTEM SETUP</b> menu.
Rotating <color> Motor To exit press ⊗	A component test is in progress; the component selected is the <color> cartridge motor.	Press the stop button ⊗ when ready to stop this test.
Rotating Motor To exit press ⊗	The product is executing a component test and the component selected is a motor.	Press the stop button ⊗ when ready to stop this test.
<b>SANITIZING DISK &lt;X&gt;% COMPLETE</b> Do not power off	The hard disk is being cleaned.	Contact the network administrator.
<b>SIZE MISMATCH IN TRAY XX</b>	The paper in the listed tray does not match the size specified for that tray.	<ol style="list-style-type: none"> <li>1. Load the correct paper.</li> <li>2. Verify the paper is positioned correctly.</li> <li>3. Verify size and type are correctly configured to the specific tray.</li> </ol>
Sleep mode on	The product is in sleep mode. A button press, receipt of printable data, or an error condition will clear this message.	No action is necessary.
<b>STANDARD TOP BIN FULL</b> Remove all paper from bin	The output bin is full.	Empty the bin and continue printing.
<b>SUPPLIES IN WRONG POSITION</b>	One or more supplies are in the wrong position.	Check the position of the supplies and insert in the correct position.
TRAY <X> [TYPE] [SIZE] To change size or type press OK To accept settings press ↵	This message states the current type and size configuration of the tray.	To change size or type press the <b>OK</b> button. To accept settings press the back arrow ↵.
TRAY <X> EMPTY [TYPE] [SIZE]	The specified tray is empty and the current job does not need this tray to print.	Refill the tray at a convenient time.  <b>NOTE:</b> This could be a false message. If the tray is loaded without removing the shipping lock, the product does not sense that the paper is loaded. Remove the shipping lock and then load the tray.
TRAY <X> OPEN	The specified tray is open or not closed completely.	Close the tray.
TRAY <X> OVERFILLED Remove excess paper	The tray is filled above the stack-height marking.	Remove enough paper so that the paper stack does not exceed the limit for the tray.
TRAY <X> OVERFILLED To use another tray press OK	The tray is not available for printing because it contains too many sheets of paper.	Remove excess paper or use another tray.

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>TRAY &lt;X&gt; SIZE = &lt;Size&gt;</b> Media insert required in tray	The product is set to print on a small paper size that requires the HP postcard media-insert to be installed in this tray.	To use this size paper, install the media insert before loading the paper. See <a href="#">Load trays on page 50</a>
<b>TYPE MISMATCH IN TRAY X</b>	The specified tray contains a paper type that does not match the configured type.	The specified tray cannot be used until this condition is addressed. Printing can continue from other trays.  <ol style="list-style-type: none"> <li>1. Load the correct paper in the specified tray.</li> <li>2. Verify the type configuration.</li> </ol>
<b>UNABLE TO MOPY JOB</b>	The product does not have enough memory to produce multiple original prints of this job. One copy will be printed.	Add more memory to the product. See <a href="#">Install memory on page 89</a> .
<b>UNABLE TO STORE JOB</b>	A job cannot be stored because of a memory or configuration problem.	Install additional memory in the product.
<b>UNAUTHORIZED SUPPLY IN USE</b>	The product is using a non-HP supply.	If you believe you purchased a genuine HP supply, go to <a href="http://www.hp.com/go/anticounterfeit">www.hp.com/go/anticounterfeit</a> . Any product repair required as a result of using non-HP or unauthorized supplies is not covered under warranty. HP cannot ensure the accuracy or the availability of certain features.
<b>Unsupported data on [FS] DIMM in slot x</b> To clear press OK	The data on the DIMM for the indicated file system is not a type that the product supports. [FS] can be either a ROM or Flash file system.	Press the <b>OK</b> button to clear the message.  Replace the DIMM. See <a href="#">Install memory on page 89</a> .
<b>UNSUPPORTED DRIVE INSTALLED</b>	A non-supported hard drive has been installed.	Turn off the product, remove the hard drive, and then turn on the product.
<b>USB ACCESSORY ERROR</b>	This message displays when a connected USB accessory draws too much power. When this happens, the ACC port is disabled and printing stops.	Printing can continue. Remove the USB device.
<b>USB storage &lt;X&gt; initializing</b>	One of the parameters of the USB storage device is initializing.	No action is necessary.
<b>USB STORAGE &lt;X&gt; IS NOT FUNCTIONAL</b>	A parameter in the USB storage is not working correctly.	<ol style="list-style-type: none"> <li>1. Turn product off.</li> <li>2. Disconnect the USB storage accessory, and replace with a new USB storage accessory.</li> </ol>
<b>USB STORAGE &lt;X&gt; IS REMOVED</b>	A USB storage accessory has been disconnected.	<ol style="list-style-type: none"> <li>1. Turn product off.</li> <li>2. Reconnect the USB storage accessory.</li> <li>3. Turn product on.</li> </ol>
<b>USB STORAGE DEVICE FAILURE</b> To clear press OK	The specified device has failed.	Press the <b>OK</b> button to clear.
<b>USB STORAGE FILE OPERATION FAILED</b> To clear press OK	A PJL file system command attempted to perform an illogical operation.	Press the <b>OK</b> button to clear.

**Table 7-13 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>USB STORAGE FILE SYSTEM IS FULL</b> To clear press OK	A PJJ file system command could not store something on the file system because the file system was full.	Press the OK button to clear.
<b>USB STORAGE IS WRITE PROTECTED</b> To clear press OK	The file system device is protected and no new files can be written to it.	Press the OK button to clear.
<b>USB STORAGE NOT INITIALIZED</b>	This file-storage component must be initialized before use.	Use the embedded Web server or HP Web Jetadmin to initialize the component.
<b>USED SUPPLY IN USE</b>	One or more used supplies have been installed. The supplies may be non-HP products.	Any product repair required as a result of using non-HP or unauthorized supplies is not covered under warranty. HP cannot ensure the accuracy or the availability of certain features.
<b>USED SUPPLY INSTALLED</b> To continue press OK	One or more used supplies have been installed. The supplies might be non-HP products.	Any product repair required as a result of using non-HP or unauthorized supplies is not covered under warranty. HP cannot verify the accuracy or the availability of certain features.
<b>WAIT FOR PRINTER TO REINITIALIZE</b>	This message can appear for a variety of reasons: The RAM DISK settings changed before the product has rebooted. The product is restarting after changing external device modes. The user has exited Diagnostics. A new formatter has been installed with an old engine or a new engine has been installed with an old formatter.	No action is necessary.
<b>WAITING FOR TRAY &lt;X&gt; TO LIFT</b>	The specified tray is lifting paper for feeding.	No action is necessary.
<b>WARMING UP</b>	The product is coming out of Sleep mode.	No action is necessary.
<b>WRONG CARTRIDGE IN &lt;COLOR&gt; SLOT</b>	The indicated slot for a print cartridge contains a cartridge that is not the correct color. From left to right, install the print cartridges in this order: <ul style="list-style-type: none"><li>● Yellow</li><li>● Magenta</li><li>● Cyan</li><li>● Black</li></ul>	Remove the print cartridge from that slot, and install a cartridge that is the correct color.




# Event log messages

This section describes the event log messages.


## Print an event log

Use the event log to help diagnose and solve product problems.

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press the **OK** button.
3. Press the down arrow ▼ to highlight **PRINT EVENT LOG**, and then press the **OK** button to print the pages.

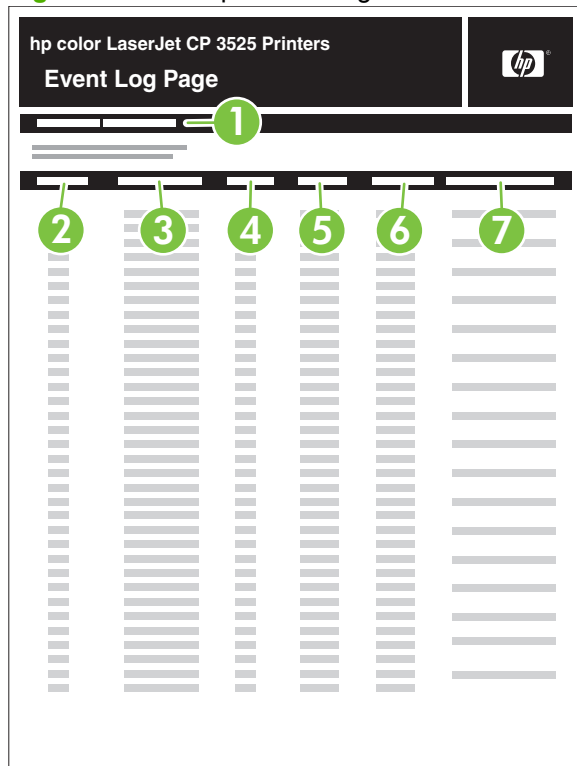
## Show an event log

Use the control panel to view the event log.

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press the **OK** button.
3. Press the down arrow ▼ to highlight **SHOW EVENT LOG**, and then press the **OK** button to print the pages.

## Sample event log


Figure 7-49 Sample event log



1	Product information
2	Event number
3	Date and time
4	Engine cycles
5	Event log code
6	Firmware version number
7	Description of personality

## Clear the event log

Use the **SERVICE** menu to clear the event log.

1. Press the **Menu**  button.
2. Press the down arrow ▼ to highlight **SERVICE**, and then press the **OK** button.
3. Press the down arrow ▼ to highlight **CLEAR EVENT LOG**, and then press the **OK** button to print the pages.

## Event log message table

Event log message	Description	Comments
10.40.00	Genuine HP Supplies Installed	Transition from at least one non-HP to all genuine HP supplies. (no control panel message)
10.50.23	Fuser kit life reset above order threshold.	For products without fusible link
10.80.YY	Override not in use due to user limit <ul style="list-style-type: none"> <li>● YY = 00 black print cartridge (K)</li> <li>● YY = 01 cyan print cartridge (C)</li> <li>● YY = 02 magenta print cartridge (M)</li> <li>● YY = 03 yellow print cartridge (Y)</li> </ul>	The cartridge out override is deactivated because the user limit was reached on at least one cartridge.
10.81.00	Not printing black only	Printing monochrome after the color cartridge out was deactivated
10.88.YY	Override not in use	The cartridge out override was deactivated because the limit was reached on at least one cartridge.
10.89.YY	<ul style="list-style-type: none"> <li>● YY = 00 black print cartridge (K)</li> <li>● YY = 01 cyan print cartridge (C)</li> <li>● YY = 02 magenta print cartridge (M)</li> <li>● YY = 03 yellow print cartridge (Y)</li> </ul>	
13.00.00	NON-SPECIFIC PAPER JAM	
13.01.00	PAPER FEED 1, PAPER LATE JAM	
13.02.00	PAPER FEED 1, PAPER STOPPED JAM	
13.03.00	PAPER FEED 2, PAPER LATE JAM	
13.04.00	PAPER FEED 2, PAPER STOPPED JAM	
13.05.00	FUSER OUTPUT, PAPER LATE JAM	
13.06.00	FUSER OUTPUT, PAPER STOPPED JAM	
13.07.00	NON-SPECIFIC PAPER JAM	
13.08.00	NON-SPECIFIC PAPER JAM	
13.09.00	TOP OUTPUT BIN, PAPER LATE JAM	
13.0A.00	TOP OUTPUT BIN, PAPER STOPPED JAM	
13.0B.00	NON-SPECIFIC PAPER JAM	
13.0C.00	FUSER OUTPUT, PAPER LATE JAM	
13.0D.00	NON-SPECIFIC PAPER JAM	
13.0E.00	NON-SPECIFIC PAPER JAM	
13.0F.00	NON-SPECIFIC PAPER JAM	

Event log message	Description	Comments
13.10.00	DUPLEX TURN AROUND, PAPER LATE JAM	
13.11.00	DUPLEX TURN AROUND, PAPER STOPPED JAM	
13.12.00	DUPLEX PATH, PAPER LATE JAM	
13.12.01	EXTERNAL OUTPUT DEVICE PAPER JAM	The paper reaches the entrance sensor earlier than expected.
13.12.02	EXTERNAL OUTPUT DEVICE PAPER JAM	The paper does not reach the entrance sensor.
13.12.03	EXTERNAL OUTPUT DEVICE PAPER JAM	The paper does not exit the entrance sensor.
13.12.04	EXTERNAL OUTPUT DEVICE PAPER JAM	The entrance sensor detects paper when turned on or when the door was opened and closed.
13.12.05	EXTERNAL OUTPUT DEVICE PAPER JAM	The paper does not reach the discharge sensor.
13.12.06	EXTERNAL OUTPUT DEVICE PAPER JAM	The paper does not exit the discharge sensor
13.12.07	EXTERNAL OUTPUT DEVICE PAPER JAM	
13.12.08	EXTERNAL OUTPUT DEVICE PAPER JAM	
13.12.09	EXTERNAL OUTPUT DEVICE PAPER JAM	
13.12.17	When the stapler is driven, HP (home position) sensor does not detect its returning of HP. The stapler returned to its HP by reversing the motion.	
13.12.08	NON-SPECIFIC PAPER JAM	
13.13.00	DUPLEX PATH, PAPER STOPPED JAM	
13.14.00	NON-SPECIFIC PAPER JAM	
13.15.00	NON-SPECIFIC PAPER JAM	
13.16.00	NON-SPECIFIC PAPER JAM	
13.17.00	NON-SPECIFIC PAPER JAM	
13.18.00	NON-SPECIFIC PAPER JAM	
13.19.00	NON-SPECIFIC PAPER JAM	
13.1A.00	NON-SPECIFIC PAPER JAM	
13.1B.00	NON-SPECIFIC PAPER JAM	
13.1C.00	FUSER ACCORDION JAM	
13.1D.00	ITB PATH, PAPER STOPPED JAM	
13.1E.00	NON-SPECIFIC PAPER JAM	

Event log message	Description	Comments
13.1F.00	NON-SPECIFIC PAPER JAM	
13.20.00	PRINTER COULD NOT AUTOMATICALLY EJECT PAPER	
13.21.00	DOOR OPEN JAM	
13.22.00	NON-SPECIFIC PAPER JAM	
13.23.00	OHT TYPE ERROR	
13.24.00	PAPER JAM, TOO SHORT	
13.25.00	PAPER JAM, TOO LONG	
13.26.00	NON-SPECIFIC PAPER JAM	
13.27.00	NON-SPECIFIC PAPER JAM	
13.28.00	NON-SPECIFIC PAPER JAM	
13.29.00	DUPLEX PATH (reefed), PAPER STOPPED JAM	
13.2A.00	NON-SPECIFIC PAPER JAM	
13.2B.00	NON-SPECIFIC PAPER JAM	
13.2C.00	NON-SPECIFIC PAPER JAM	
13.2D.00	NON-SPECIFIC PAPER JAM	
13.2E.00	NON-SPECIFIC PAPER JAM	
13.2F.00	NON-SPECIFIC PAPER JAM	
13.30.00	PAPER FEED 1, PAPER LATE JAM	
13.31.00	FUSER OUTPUT, PAPER LATE JAM	
13.32.00	PAPER FEED 2, PAPER STOPPED JAM	
13.3E.00	PAPER FEED 3, PAPER STOPPED JAM	
13.90.00	Paper jam, incompatible transparency	The media sensor stops incompatible transparencies if <b>INK TRANSPARENCY</b> is set to <b>REJECT-GUARD FUSER</b> .
13.99.00	NON-SPECIFIC PAPER JAM	
14.X	Feed roller error	Feed roller life warning
	<ul style="list-style-type: none"> <li>● X = 2 Tray 2 (upper cassette)</li> <li>● X = 3 Tray 3 (lower cassette)</li> </ul>	
41.XX.00	<ul style="list-style-type: none"> <li>● X=11 Yellow laser scanner</li> <li>● X=12 Magenta laser scanner</li> <li>● X=13 Cyan laser scanner</li> <li>● X=14. Black laser scanner</li> </ul>	

Event log message	Description	Comments
	<ul style="list-style-type: none"> <li>• X=15. Main drive</li> <li>• X=16. Main drive</li> <li>• X=17. Main drive scanner</li> <li>• X=18. Scanner inclination adjustment</li> <li>• X=19. T2 roller</li> </ul>	
54.01	The humidity-environment sensor is abnormal.	Ensure the product is in a supported environment. If the error persists, replace the CN1 environment sensor.
54.02	Printer error	Developer failure
54.03	Printer error	Density sensor failure.
54.05	Printer error	Waste toner sensor failure
	OHT sensor out of range	
	Media sensor out of range	
54.06	The DMAX density sensor is out of range.	<ol style="list-style-type: none"> <li>1. Press the <b>Menu</b>  button.</li> <li>2. Press the down arrow ▼ to highlight <b>CONFIGURE DEVICE</b>, and then press the <b>OK</b> button.</li> <li>3. Press the down arrow ▼ to highlight <b>PRINT QUALITY</b>, and then press the <b>OK</b> button.</li> <li>4. Press the down arrow ▼ to highlight <b>QUICK CALIBRATE NOW</b>, and then press the <b>OK</b> button.</li> </ol>
54.07	Printer error	Rotary motor error
54.0C.06	The engine reported a neutral calibration error.	<ol style="list-style-type: none"> <li>1. Press the <b>Menu</b>  button.</li> <li>2. Press the down arrow ▼ to highlight <b>CONFIGURE DEVICE</b>, and then press the <b>OK</b> button.</li> <li>3. Press the down arrow ▼ to highlight <b>PRINT QUALITY</b>, and then press the <b>OK</b> button.</li> <li>4. Press the down arrow ▼ to highlight <b>CALIBRATE NEUTRALS</b>, and then press the <b>OK</b> button.</li> </ol>
54.0D.XX	<ul style="list-style-type: none"> <li>• XX=00: Black density-measurement abnormality</li> <li>• XX=01: Cyan density-measurement abnormality</li> </ul>	<ol style="list-style-type: none"> <li>1. Press the <b>Menu</b>  button.</li> <li>2. Press the down arrow ▼ to highlight <b>CONFIGURE DEVICE</b>, and then press the <b>OK</b> button.</li> </ol>

Event log message	Description	Comments
	<ul style="list-style-type: none"> <li>● XX=02: Magenta density-measurement abnormality</li> <li>● XX=03: Yellow density-measurement abnormality</li> </ul>	<ol style="list-style-type: none"> <li>3. Press the down arrow ▼ to highlight <b>PRINT QUALITY</b>, and then press the <b>OK</b> button.</li> <li>4. Press the down arrow ▼ to highlight <b>QUICK CALIBRATE NOW</b>, and then press the <b>OK</b> button.</li> </ol>
54.0E.01 Media sensor replace registration-second-transfer assembly	The registration unit is abnormal.	Ensure the product is in a supported environment. If the error persists, replace the registration-second-transfer assembly. See <a href="#">Secondary transfer assembly on page 186</a> .
54.0E.02 Replace transfer kit	The ITB unit is abnormal.	Ensure the product is in a supported environment. If the error persists, replace the ITB. <a href="#">Intermediate transfer belt (ITB) on page 188</a> .
54.0E.03 Media sensor clean registration second-transfer assembly	The media-sensor window is contaminated.	Clean the media-sensor window.
54.0F.XX	<ul style="list-style-type: none"> <li>● XX=00: Black misregistration is out of range.</li> <li>● XX=01: Cyan misregistration is out of range.</li> <li>● XX=02: Magenta misregistration is out of range.</li> <li>● XX=03: Yellow misregistration is out of range.</li> </ul>	<ol style="list-style-type: none"> <li>1. Press the <b>Menu</b>  button.</li> <li>2. Press the down arrow ▼ to highlight <b>CONFIGURE DEVICE</b>, and then press the <b>OK</b> button.</li> <li>3. Press the down arrow ▼ to highlight <b>PRINT QUALITY</b>, and then press the <b>OK</b> button.</li> <li>4. Press the down arrow ▼ to highlight <b>FULL CALIBRATE NOW</b>, and then press the <b>OK</b> button.</li> </ol>
54.14	CPR sensor abnormality	<ol style="list-style-type: none"> <li>1. Press the <b>Menu</b>  button.</li> <li>2. Press the down arrow ▼ to highlight <b>CONFIGURE DEVICE</b>, and then press the <b>OK</b> button.</li> <li>3. Press the down arrow ▼ to highlight <b>PRINT QUALITY</b>, and then press the <b>OK</b> button.</li> <li>4. Press the down arrow ▼ to highlight <b>FULL CALIBRATE NOW</b>, and then press the <b>OK</b> button.</li> <li>5. If the error persists, replace the CPR sensor assembly.</li> <li>6. Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 188</a>.</li> </ol>
54.19	The ITB top sensor is abnormal.	<ol style="list-style-type: none"> <li>1. Press the <b>Menu</b>  button.</li> <li>2. Press the down arrow ▼ to highlight <b>CONFIGURE DEVICE</b>, and then press the <b>OK</b> button.</li> </ol>

Event log message	Description	Comments
		<ol style="list-style-type: none"> <li>Press the down arrow ▼ to highlight <b>PRINT QUALITY</b>, and then press the <b>OK</b> button.</li> <li>Press the down arrow ▼ to highlight <b>FULL CALIBRATE NOW</b>, and then press the <b>OK</b> button.</li> <li>If the error persists, replace the CPR sensor assembly.</li> <li>Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 188</a>.</li> </ol>
55.06.01	The DC controller NVRM has an abnormal read/write.	<ol style="list-style-type: none"> <li>Turn the product off then on.</li> <li>If the error persists, replace the DC Controller. See <a href="#">DC controller PCA and tray on page 240</a>.</li> </ol>
55.06.02	The DC controller NVRM is not accessible.	<ol style="list-style-type: none"> <li>Turn the product off then on.</li> <li>If the error persists, replace the DC Controller. See <a href="#">DC controller PCA and tray on page 240</a>.</li> </ol>
55.901C	DCC restored	DCC NVRAM was restored from the formatter.
61.00.01	Color table error	This event occurs when the color table cannot read a table from the disk and the component reverts to the version in RAM. The file could be corrupt, missing, or the disk could have failed. No messages display on the control panel.
67.XX.00		A system variable (XX) is out of range.
68 8X04	The permanent storage date does not match the engine.	
68 8X05	The permanent storage date does match the engine.  Disk error: either the number does not match or the write failed	
99.00.01	No control panel message displays.	
99.00.02	The firmware image has a CRC error.	
99.00.03	A IO timeout occurred when reading the header number and size.	
99.00.04	A disk error occurred.	
99.00.05	A IO timeout occurred when reading the remaining header.	
99.00.06	A IO timeout occurred when reading image data.	
99.00.07	An unexpected read error occurred when reading the header number and size.	



Event log message	Description	Comments
99.00.08	An unexpected read error occurred when reading the remainder of the header.	
99.00.09	Unexpected read error occurred when reading image data.	
99.00.10	Job canceled when reading header number and size	
99.00.11	The job was cancelled when reading the remainder of the header.	
99.00.12	The header number is one, but the header size does not match the version one size.	
99.00.13	The header number is two, but the header size does not match the version two size.	

# Clear paper jams

## Common causes of jams


The product is jammed.

Cause	Solution
The paper does not meet specifications.	Use only paper that meets HP specifications. See <a href="#">Supported paper and print media sizes on page 44</a> .
A component is installed incorrectly.	Verify that the transfer belt and transfer roller are correctly installed.
You are using paper that has already passed through a product or copier.	Do not use paper that has been previously printed on or copied.
An input tray is loaded incorrectly.	Remove any excess paper from the input tray. Make sure that the stack is below the maximum stack height mark in the tray. See <a href="#">Load trays on page 50</a> .
The paper is skewed.	The input-tray guides are not adjusted correctly. Adjust them so they hold the stack firmly in place without bending it.
The paper is binding or sticking together.	Remove the paper, flex it, rotate it 180°, or flip it over. Reload the paper into the input tray.
The paper is removed before it settles into the output bin.	Reset the product. Wait until the page completely settles in the output bin before removing it.
During two-sided printing, you removed the paper before the second side of the document was printed.	Reset the product and print the document again. Wait until the page completely settles in the output bin before removing it.
The paper is in poor condition.	Replace the paper.
The internal tray rollers are not picking up the paper.	If the paper is heavier than 220 g/m <sup>2</sup> (58 lb), it might not be picked from the tray.  The rollers are worn. Replace the rollers.
The paper has rough or jagged edges.	Replace the paper.
The paper is perforated or embossed.	Perforated or embossed paper does not separate easily. Feed single sheets from Tray 1.
Paper was not stored correctly.	Replace the paper in the trays. Paper should be stored in the original packaging in a controlled environment.
Not all product packing material was removed.	Verify that the packing tape, cardboard, and plastic shipping locks have been removed from the product.

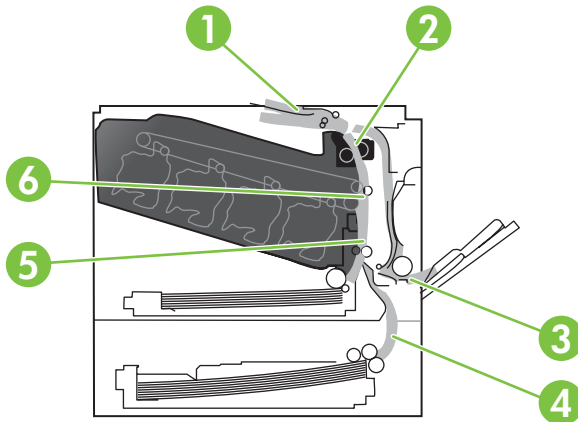
If the product still continues to jam, contact HP Customer Support or your authorized HP service provider.

## Jam locations

Use this illustration to identify locations of jams. In addition, instructions appear on the control panel to direct you to the location of jammed paper and how to clear it.

 **NOTE:** Internal areas of the product that might need to be opened to clear jams have green handles or green labels.


**Figure 7-50** Jam locations



1	Output-bin area
2	Fuser area
3	Tray 1 area
4	Optional 500-sheet paper and heavy media tray (Tray 3)
5	Registration area
6	Transfer area

## Clear jams

When a jam occurs, a message appears on the control-panel display that describes the location of the jam. The following table lists the messages that can appear and provides links to the procedures for clearing the jam.

 **WARNING!** To avoid electrical shock, remove any necklaces, bracelets, or other metal items before reaching into the inside the product.

Type of jam	Procedure
13.XX.YY JAM IN RIGHT DOOR	See <a href="#">Clear jams in the right door on page 406</a> .
13.XX.YY JAMS IN RIGHT DOOR	
13.XX.YY FUSER AREA JAM	
13.XX.YY FUSER WRAP JAM	
13.XX.YY JAM ABOVE TOP OUTPUT BIN	See <a href="#">Clear jams in the output bin area on page 410</a> .

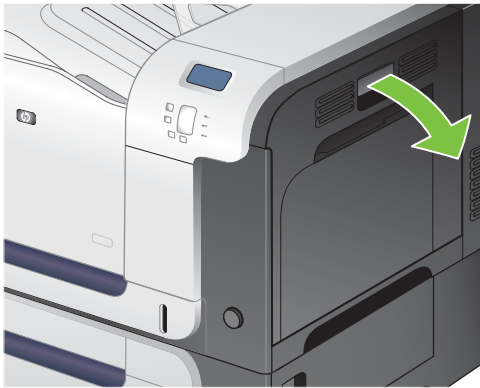
Type of jam	Procedure
13.XX.YY JAM IN TRAY 1	See <a href="#">Clear jams in Tray 1 on page 411</a> .
13.XX.YY JAM IN TRAY 2	See <a href="#">Clear jams in Tray 2 on page 413</a> .
13.XX.YY JAM IN TRAY 3	See <a href="#">Clear jams in the optional 500-sheet paper and heavy media tray (Tray 3) on page 414</a> .
13.XX.YY JAM IN LOWER RIGHT DOOR	See <a href="#">Clear jams in the lower right door (Tray 3) on page 414</a> .

## Clear jams in the right door

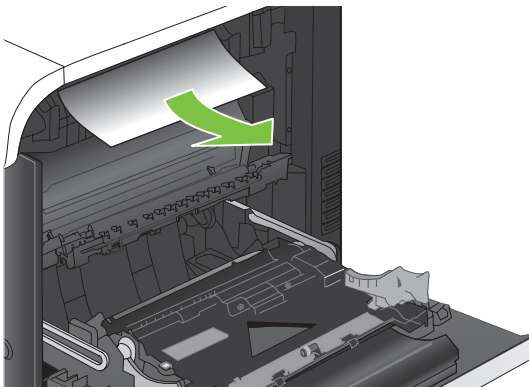
△ **CAUTION:** The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.

💡 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-right-door-jams](http://www.hp.com/go/cljcp3525-right-door-jams).

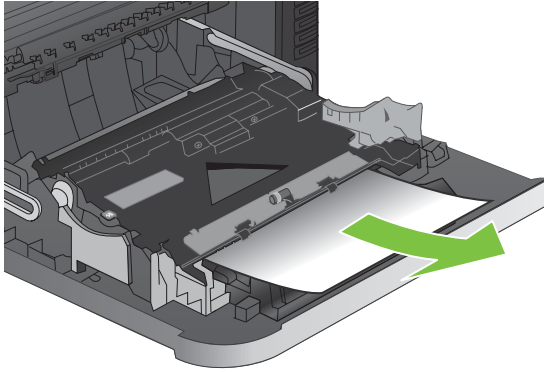
1. Open the right door.



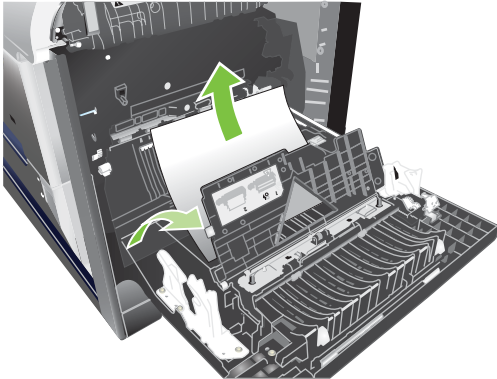
2. If paper is jammed as it enters the output bin, gently pull the paper downward to remove it.



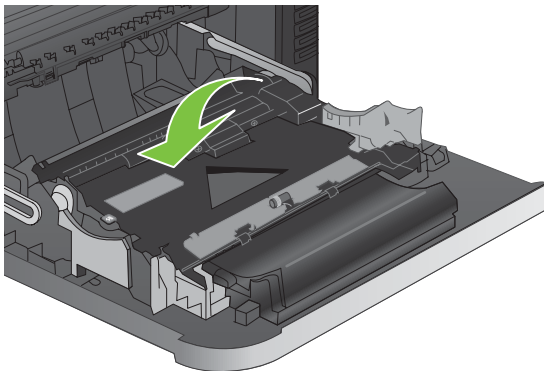
3. If paper is jammed inside the right door, gently pull the paper to remove it.



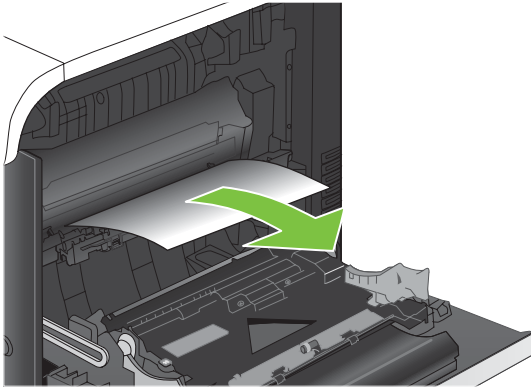
4. Lift the paper-feed cover on the inside of the right door. If jammed paper is present, gently pull the paper straight out to remove it.



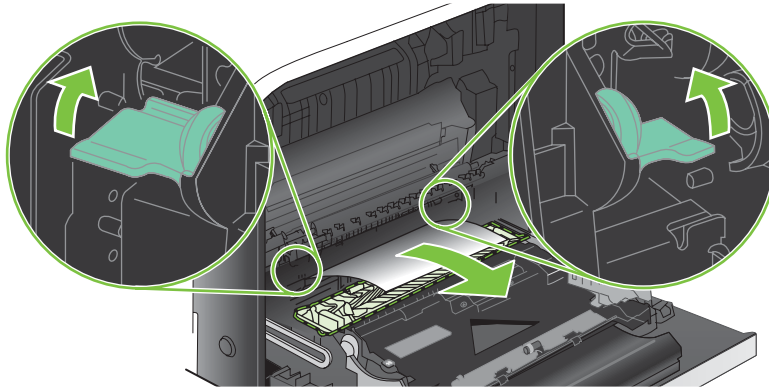
5. Close the paper-feed cover.



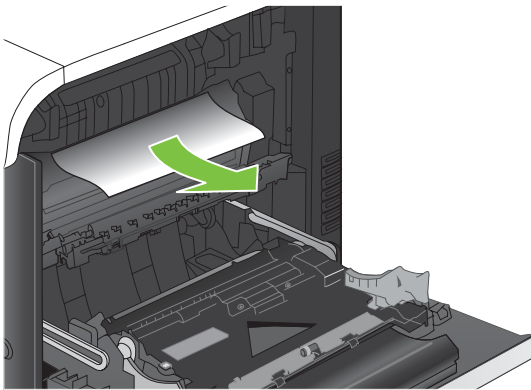
6. Gently pull the paper out of the pickup area.



7. Look for paper in the Tray 2 roller area. Near the bottom of the right side, squeeze the two white levers upward to release the jam-access door. Remove any jammed paper, and close the door.



8. If paper is visible entering the bottom of the fuser, gently pull downward to remove it.

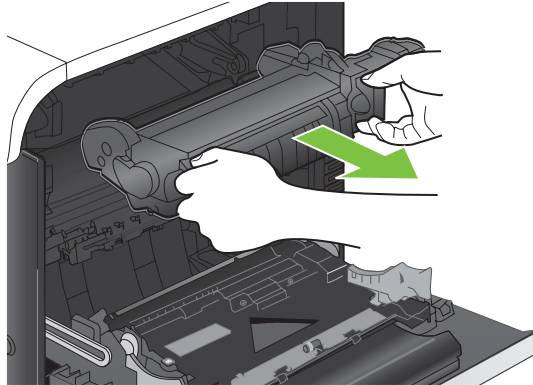


△ **CAUTION:** Do not touch the rollers on the transfer roller. Contaminates can affect print quality.

9. Paper could be jammed inside the fuser where it would not be visible. Remove the fuser to check for jammed paper inside.

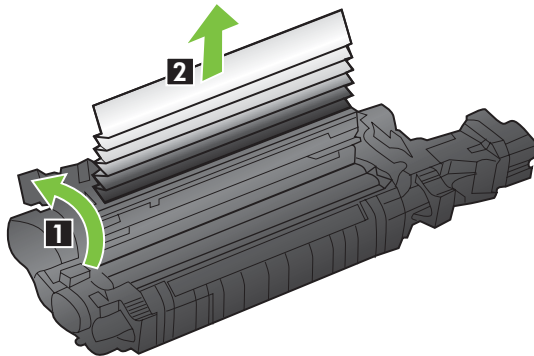
△ **CAUTION:** The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.

- a. Grasp the fuser handles, lift up slightly, and pull straight out to remove the fuser.



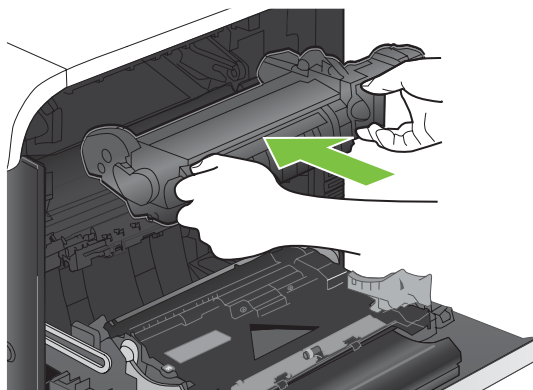
- b. Open the jam-access door. If paper is jammed inside the fuser, gently pull it straight up to remove it. If the paper tears, remove all paper fragments.

△ **CAUTION:** Even if the body of the fuser has cooled, the rollers that are inside could still be hot. Do not touch the fuser rollers until they have cooled.

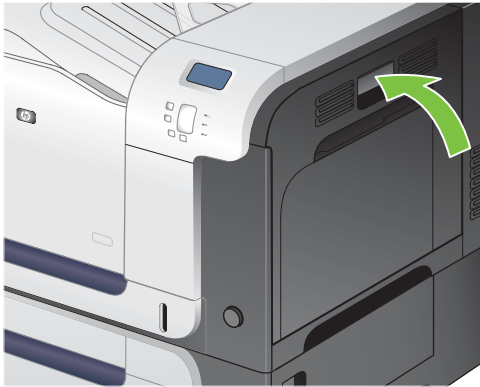


1	Open the jam-access door.
2	Remove the jammed paper.


- c. Close the jam-access door, and push the fuser completely into the product.



10. Close the right door.



### Clear jams in the output bin area

 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-output-jams](http://www.hp.com/go/cljcp3525-output-jams).

1. If paper is visible from the output bin, grasp the leading edge and remove it.




2. If jammed paper is visible in the duplex output area, gently pull it to remove it.

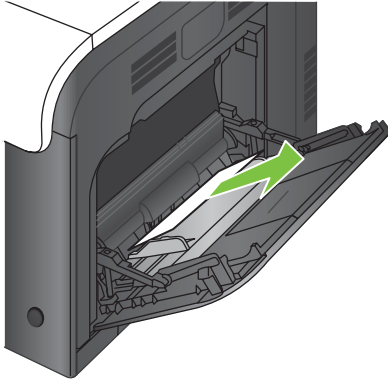




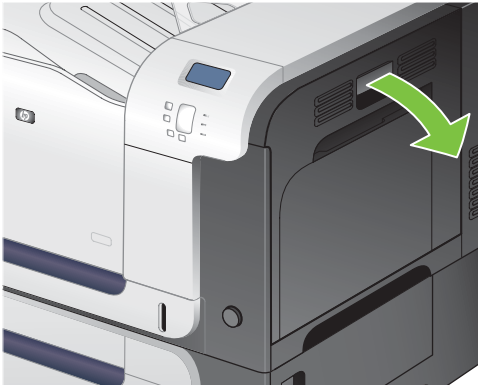
## Clear jams in Tray 1

 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-tray1-jams](http://www.hp.com/go/cljcp3525-tray1-jams).

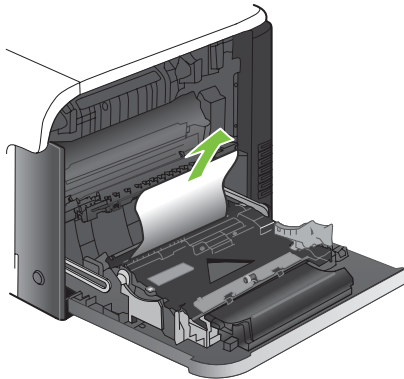
1. If jammed paper is visible in Tray 1, clear the jam by gently pulling the paper straight out. Press the **OK** button to clear the message.



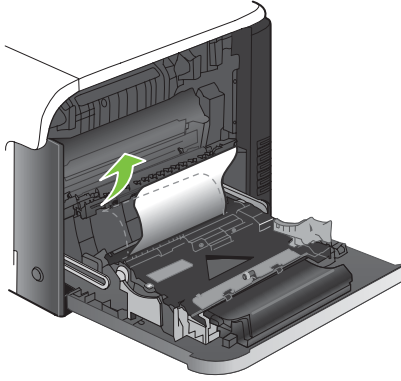
2. If you cannot remove the paper, or if no jammed paper is visible in Tray 1, close Tray 1 and open the right door.



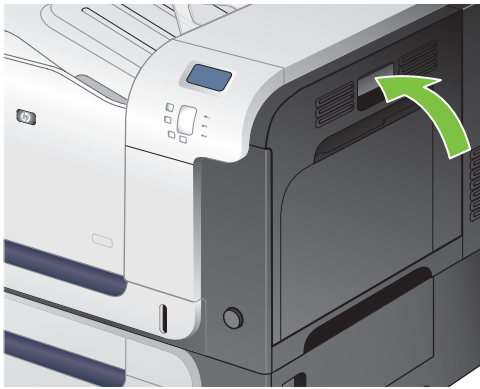
3. If paper is visible inside the right door, gently pull the trailing edge to remove it.



4. Gently pull the paper out of the pick up area.



5. Close the right door.

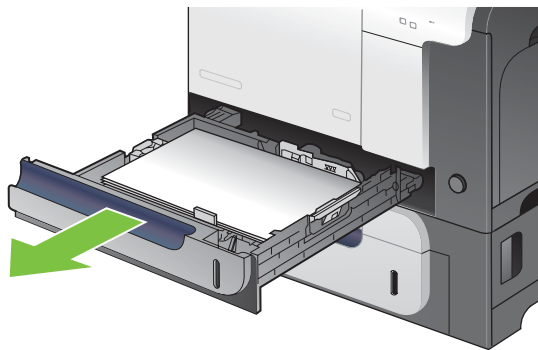


## Clear jams in Tray 2

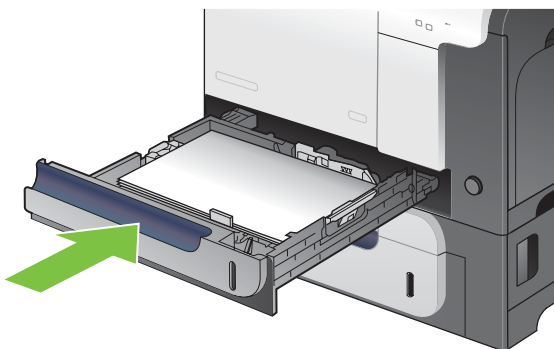
△ **CAUTION:** Opening a tray when paper is jammed can cause the paper to tear and leave pieces of paper in the tray, which might cause another jam. Be sure to clear jams before opening the tray.

💡 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-tray2-jams](http://www.hp.com/go/cljcp3525-tray2-jams).


1. Open Tray 2 and make sure that the paper is stacked correctly. Remove any jammed or damaged sheets of paper.



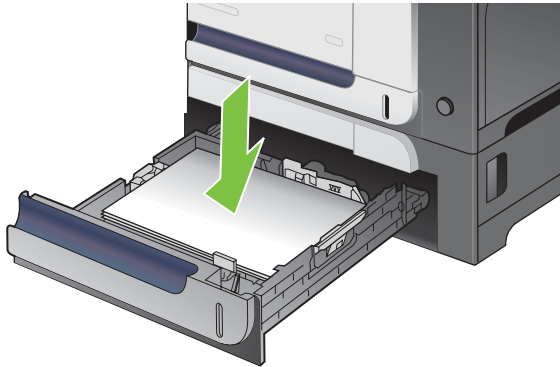
2. Close the tray.



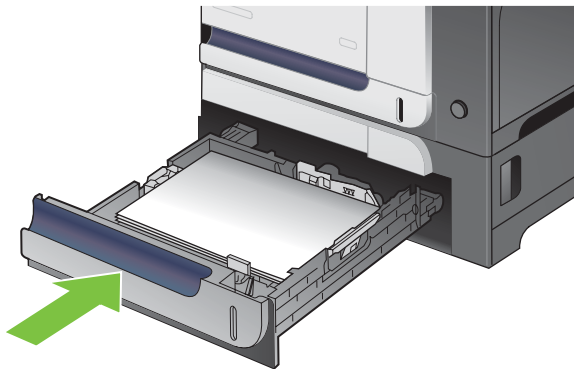
## Clear jams in the optional 500-sheet paper and heavy media tray (Tray 3)

 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-tray3-jams](http://www.hp.com/go/cljcp3525-tray3-jams).


1. Open Tray 3 and make sure that the paper is stacked correctly. Remove any damaged or jammed sheets of paper.



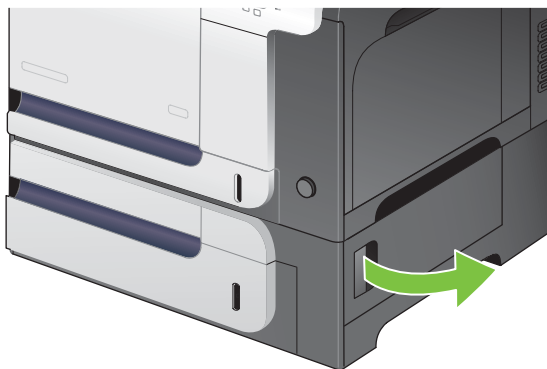
2. Close Tray 3.



## Clear jams in the lower right door (Tray 3)

 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcp3525-lower-right-door-jams](http://www.hp.com/go/cljcp3525-lower-right-door-jams).

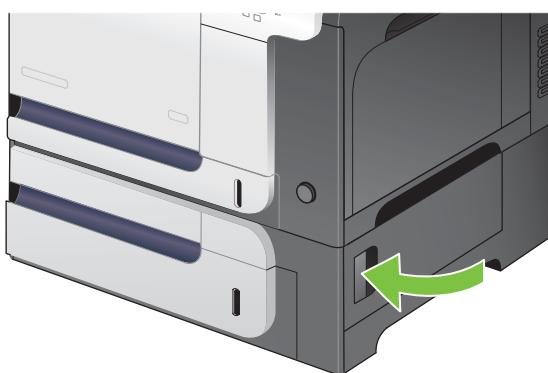
1. Open the lower right door.



2. If paper is visible, gently pull the jammed paper up or down to remove it.



3. Close the lower right door.



## Jam causes and solutions

For locations of jam sensors, see [Sensors on page 353](#).

### Jams in the output bin

**Table 7-14 Causes and solutions for delivery delay jam**

Cause	Solution
The output-bin media-full sensor lever is damaged	Replace the paper delivery assembly. See <a href="#">Delivery assembly on page 303</a> .
Poor contact of the output-bin media-full sensor connector	Reconnect the connectors of the output bin full sensor (SR6) (J47) to DCC PCA (J123).
The output-bin media-full sensor is defective	Check the output bin full media sensor (SR6) by using the manual sensor test. See <a href="#">Manual sensor test (special-mode test) on page 325</a> . Output bin full media sensor is letter F in the sensor test. Toggle the sensor to determine if the value changes for "F". If the value does not change, replace paper delivery assembly. See <a href="#">Delivery assembly on page 303</a> .
Poor contact of the fuser-motor (M2) connector	Reconnect the connectors of the fuser motor (J117), (J15), and the DC controller PCA (J105).
The fuser (fixing) motor (M2) is defective	Execute the fuser-motor driving test in the actuator-drive mode. If the motor is defective, replace the fuser motor (M2).

## Jams in the fuser and transfer area

**Table 7-15 Causes and solutions for fuser delivery delay jams**

Cause	Solution
The lever for the loop-sensors (loop 1 and loop 2) is not set correctly.	Check the loop-sensor lever and place it in the correct position. If the jam persists, replace the fuser. See <a href="#">Fuser on page 179</a> .
The spring of the fuser-delivery-sensor lever is unhooked.	Check the spring of the fuser and right-door sensor levers and place them in the correct position. If the jam persists, replace the fuser. See <a href="#">Fuser on page 179</a> .
The fuser-delivery-sensor lever is damaged	Replace the fuser. See <a href="#">Fuser on page 179</a> .
Poor contact with the fuser-delivery connector	Reconnect the connectors of the fuser-delivery media-feed sensor (SR5) (J45), intermediate (J95) and the DC controller PCA (J123).
The fuser-delivery sensor is defective	Check the fuser-delivery sensor with the sensor monitor mode. If the sensor is defective, replace the sensor (SR5).
Poor contact of the fuser-motor connector (M2)	Reconnect the connectors of the fuser motor (J15) and the DC controller PCA (J117).
The fuser motor is defective	Execute the fuser-motor driving test in the actuator-drive mode. If the motor is defective, replace the fuser motor (M2).
The fuser pressure release sensor (SR7) is defective.	Execute a manual sensor test to verify the sensor is working by manually toggling the sensor. Check "H" to see if the value changes. If not, replace the sensor. See <a href="#">Manual sensor test (special-mode test) on page 325</a> .

**Table 7-16 Causes and solutions for wrapping jams**

Cause	Solution
The fuser roller or pressure roller is dirty	Execute a fuser roller cleaning.
The guide of the fuser delivery unit is dirty	Clean the guide.
The fuser roller or the pressure roller is worn or deformed	Replace the fuser. See <a href="#">Fuser on page 179</a> .

**Table 7-17 Causes and solutions for fuser delivery stationary jams**

Cause	Solution
The fuser roller or pressure roller is worn or deformed	Replace the fuser. See <a href="#">Fuser on page 179</a> .
The fuser delivery roller is deformed	
The gear of the fuser delivery roller is damaged	
The fuser delivery sensor lever is set incorrectly or damaged	Check the sensor lever to make sure it is set correctly. If it is damaged, replace the fuser. See <a href="#">Fuser on page 179</a> .
The spring of the fuser delivery sensor lever is unhooked	Check the spring and place it in correct position.

**Table 7-17 Causes and solutions for fuser delivery stationary jams (continued)**

Cause	Solution
Poor contact of the fuser delivery sensor connector	Reconnect the intermediate connector (J95) of the fuser delivery sensor and the connector (J123) on the DC controller PCA.
The fuser delivery sensor is defective	Run the sensor test in the sensor monitor mode to verify that the fuser delivery sensor is functioning properly. If it is not replace the fuser delivery sensor.

**Table 7-18 Causes and solutions for residual media jams**

Cause	Solution
The loop sensor is defective	Check the loop sensor via the sensor monitor mode. If the sensor is defective, replace the fuser. See <a href="#">Fuser on page 179</a> .
The spring of the fuser-delivery-sensor lever is unhooked	Check the spring of the fuser and place it in the correct position.
The fuser-delivery-sensor lever is damaged	Replace the sensor (SR5).
Poor contact of the fuser-delivery-sensor connector	Reconnect the connectors of the fuser-delivery media-feed sensor (J46), intermediate (J95) and the DC controller PCA (J123).
The fuser-delivery sensor is defective	Check the fuser-delivery media-feed sensor via the sensor monitor mode. If the sensor is defective, replace the sensor (SR5).
Poor contact of the duplexing repick sensor connector	Reconnect the connectors of the duplexing media-reverse sensor (J8 and J9) and the duplexing driver PCA (J107).
The duplexing media-re-pick is defective	Check the duplexing re-pick sensor via the sensor monitor mode. If the sensor is defective, replace the right door. See <a href="#">Right-door assembly on page 194</a> .
The sensor detecting a residual media jam is set incorrectly or damaged.	Run the sensor test in the sensor monitor mode to verify which sensor detects the media. Check the sensor lever to make sure it is set correctly. If it is damaged, replace the following corresponding part: <ul style="list-style-type: none"> <li>• TOP sensor (SR8): Replace the registration assembly. See <a href="#">Registration assembly on page 233</a>.</li> <li>• Fuser delivery sensor (SR5): Replace the fuser. See <a href="#">Fuser on page 179</a>.</li> <li>• Loop sensor 1 or 2 (SR14 and SR15): Replace the fuser. See <a href="#">Fuser on page 179</a>.</li> <li>• Duplex re-pickup sensor (SR22): Replace the MP tray pickup assembly. See <a href="#">Right-door assembly on page 194</a>.</li> </ul>
The spring of the residual media jam detective sensor lever is unhooked.	Run the sensor test in the sensor monitor mode to verify which sensor detects the media. Check the spring of the sensor lever to make sure it is set correctly.

**Table 7-18 Causes and solutions for residual media jams (continued)**

Cause	Solution
Poor contact of the residual media jam detectable sensor connector	<p>Run the sensor test in the sensor monitor mode to verify which sensor detects the media. Reconnect the following corresponding sensor connector:</p> <ul style="list-style-type: none"> <li>• TOP sensor (SR8): Connector (J109) on the DC controller PCA</li> <li>• Fuser delivery sensor (SR5): Intermediate connector (J95) and connector (J123) on the DC controller PCA</li> <li>• Loop sensor 1 or 2 (SR14 and SR15): Connector (J139) on the DC controller PCA</li> <li>• Duplex re-pickup sensor (SR22): Connector (J107) on the DC controller PCA.</li> </ul>
The residual media jam detectable sensor is defective.	<p>Run the sensor test in the sensor monitor mode to verify which sensor detects the media. Replace the following corresponding part:</p> <ul style="list-style-type: none"> <li>• TOP sensor (SR8): Replace the registration assembly. See <a href="#">Registration assembly on page 233</a>.</li> <li>• Fuser delivery sensor (SR5): Replace the fuser. See <a href="#">Fuser on page 179</a>.</li> <li>• Loop sensor 1 or 2 (SR14 and SR15): Replace the fuser. See <a href="#">Fuser on page 179</a>.</li> <li>• Duplex re-pickup sensor (SR22): Replace the MP tray pickup assembly. See <a href="#">Right-door assembly on page 194</a>.</li> </ul>

**Table 7-19 Causes and solutions for pickup delay jams 2**

Cause	Solution
The registration roller is worn or deformed.	Replace the secondary-transfer unit.
The spring of the registration shutter is unhooked.	Check the spring and place it in correct position.
Poor contact of the pickup motor drive connector	Reconnect the connectors of the registration motor (J6), intermediate, and the DC controller PCA (J131).
The pickup motor is defective.	Execute the pickup-motor driving test in the actuator-drive mode. If the motor is defective, replace the pickup motor. See <a href="#">Pickup motor on page 253</a> .
The cassette pickup roller is worn or deformed.	Replace the cassette pickup roller. See <a href="#">Pickup roller (Tray 2) on page 180</a> .
The cassette separation roller is worn or deformed	Replace the cassette separation roller. See <a href="#">Separation roller (Tray 2) on page 183</a> .
Poor contact of the TOP sensor connector	Reconnect the connector (J109) on the DC controller PCA.
The TOP sensor is defective.	Run the sensor test in the sensor monitor mode to verify that the TOP sensor is functioning properly. If it is not, replace the registration assembly. See <a href="#">Registration assembly on page 233</a> .
Poor contact of the cassette pickup solenoid drive connector	Reconnect the connector (J140) on the DC controller PCA.
The cassette pickup solenoid is defective	Run the solenoid drive test in the actuator drive mode to verify that the cassette pickup solenoid is functioning properly. If it is not, replace the cassette-pickup drive assembly. See <a href="#">Cassette-pickup drive assembly on page 256</a> .



**Table 7-19 Causes and solutions for pickup delay jams 2 (continued)**

Cause	Solution
Poor contact of the pickup motor drive connector	Reconnect the connector (J131) on the DC controller PCA.
The pickup motor is defective.	Run the pickup motor drive test in the actuator drive mode to verify that the pickup motor is functioning properly. If it is not, replace the pickup motor. See <a href="#">Pickup motor on page 253</a> .

**Table 7-20 Causes and solutions for pickup stationary jams**

Cause	Solution
Multiple feed of media	<p>Replace any worn or deformed parts (tray separation roller, tray feed roller, MP-tray pickup roller or MP-tray separation roller).</p> <p>Check the separation roller and MP-tray separation roller to see if they are firmly seated and coupled with the torque limiter.</p> <p>Replace the separation roller and feed roller in Tray 2.</p> <p>Replace the MP-tray pickup roller and MP-tray separation roller.</p>
The secondary transfer roller is not set correctly	Place the secondary-transfer-roller unit in the correct position.
The secondary transfer roller is worn or deformed	Replace the secondary-transfer-roller unit.
Poor contact of the drum motor3 drive connector	Reconnect the connectors of the drum motor 3 (J42) and the DC controller PCA (J121).
The drum motor 3 is defective	Execute the drum motor 3 driving test in the actuator-drive mode. If the motor is defective, replace the drum motor 3. See <a href="#">Drum motor 2 or drum motor 3 on page 284</a> .
The ITB does not rotate smoothly	Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 188</a> .
Multiple-feed of media	If the Tray 2 pickup roller or separation roller are worn or deformed, replace any defective parts. If the Tray 1 pickup roller or separation pad are worn or deformed, replace any defective parts.
The TOP sensor lever is set incorrectly or damaged	Check the sensor lever to make sure it is set correctly. If it is damaged, replace the registration assembly. See <a href="#">Registration assembly on page 233</a> .
The spring of the TOP sensor lever is unhooked	Check the spring and place it in correct position.
Poor contact of the TOP sensor connector	Reconnect the connector (J109) on the DC controller PCA.
The TOP sensor is defective	Run the sensor test in the sensor monitor mode to verify that the TOP sensor is functioning properly. If it is not, replace the registration assembly. See <a href="#">Registration assembly on page 233</a> .

**Jams in the duplex area (HP Color LaserJet CP3525dn and HP Color LaserJet CP3525x only)****Table 7-21 Causes and solutions for duplexing reverse jams**

Cause	Solution
The duplex reverse roller is worn or deformed.	Replace the delivery assembly. See <a href="#">Delivery assembly on page 303</a>
The duplex feed roller is worn or deformed	Replace the duplex feed unit.

**Table 7-21 Causes and solutions for duplexing reverse jams (continued)**

Cause	Solution
Poor contact of the duplex reverse-motor connector	Reconnect the connectors (J202 and J201) on the high-voltage power supply (upper) PCA and connector (J113) on the DC controller PCA.
The duplex reverse motor is defective	Replace the duplex drive assembly. See <a href="#">Duplex-drive assembly on page 308</a> .
Poor contact of the duplexing reverse-motor connector	Reconnect the connectors of the duplexing reverse motor (J20) and the duplexing driver PCA (J202).
The duplexing reverse motor is defective	Replace the right door assembly. See <a href="#">Right-door assembly on page 194</a> .

**Table 7-22 Causes and solutions for duplex repick jams**


Cause	Solution
The duplex re-pickup sensor lever is set incorrectly or damaged	Check the sensor lever to make sure it is set correctly. If it is damaged, replace the right door assembly. See <a href="#">Right-door assembly on page 194</a> .
The spring of the duplex re-pickup sensor lever is unhooked	Check the spring and place it in correct position.
Poor contact of the duplex re-pickup sensor connector	Reconnect the intermediate connector (J90) and connector (J107) on the DC controller PCA.
The duplex re-pickup sensor is defective	Run the sensor test in the sensor monitor mode to verify that the duplex re-pickup sensor is functioning properly. If it is not, replace the right door assembly. See <a href="#">Right-door assembly on page 194</a> .
The spring of the duplex-repick-sensor lever is unhooked	Check the spring and place it in the correct position.
The duplex-repick-sensor lever is damaged	Replace the duplex repick sensor.
Poor contact of the duplex-repick-sensor connector	Reconnect the intermediate connector (J90) and connector (J107) on the DC controller PCA. If the problem persists, replace duplex repick sensor.
The duplex-repick sensor is defective	Check the duplexing media-repickup sensor by the sensor monitor mode. If the sensor is defective, replace the duplexing repick sensor.
Poor contact of the duplex reverse connector	Reconnect the connectors of the duplex repick motor (J20), intermediate (J202 and J201) and the duplex driver PCA (J113).
The duplex-repick motor is defective	Replace the duplex drive assembly. See <a href="#">Duplex-drive assembly on page 308</a> .

**Table 7-23 Causes and solutions for residual media jams**

Cause	Solution
Poor contact of the loop-sensor connector and loop sensor 1 and 2	Reconnect the connectors of the loop 1 sensor (1 and 2): <ul style="list-style-type: none"> <li>● Loop 1 (J11, J352, J350, J50) and the DC controller (J139)</li> <li>● Loop 2 (J10, J352, J350, J50) and the DC controller (J139)</li> </ul>
The loop sensor is defective	Check the loop sensor via the sensor monitor mode. If the sensor is defective, replace fuser. See <a href="#">Fuser on page 179</a> .
The spring of the fuser-delivery-sensor lever is unhooked	Check the spring of the fuser and right door and place it in the correct position.

**Table 7-23 Causes and solutions for residual media jams (continued)**

Cause	Solution
The fuser-delivery-sensor lever is damaged	Replace the sensor (SR5).
Poor contact of the fuser-delivery sensor connector	Reconnect the connectors of the fuser-delivery sensor (J46), intermediate (J95) and the DC controller PCA (J123).
The fuser-delivery repick sensor is defective	Check the fuser-delivery sensor via the sensor monitor mode. If the sensor is defective, replace the fuser. See <a href="#">Fuser on page 179</a> .
The spring of the duplexing repick sensor lever is unhooked	Check the spring and place it in the correct position. The sensor is located in the right door behind the cover close to the engine side.
The duplexing repick sensor lever is damaged	Replace the right door assembly. See <a href="#">Right-door assembly on page 194</a> .
Poor contact of the duplexing media-reverse-sensor connector	Reconnect the connectors of the duplexing media-reverse sensor (J8) and (J90) and the duplexing driver PCA (J107).
The duplexing repick sensor is defective	Check the duplexing media-reverse sensor via the sensor monitor mode. If the sensor is defective, replace the duplexing repick sensor.

 **NOTE:** Even if jammed paper is visible in Tray 1, clear the jam from the inside of the product by opening the right door.

### Jams in Tray 1, Tray 2 and internal paper path

**Table 7-24 Causes and solutions for pickup delay jam 1: tray pickup**

Cause	Solution
The MP tray pick up roller or the MP tray separation pad is worn or deformed.	Replace the MP tray pick up roller and separation pad. See <a href="#">Pickup roller (Tray 1) on page 213</a> . Replace the right door. See <a href="#">Right-door assembly on page 194</a> .
Poor contact of the tray 1 media-presence-sensor connector (SR21)	Reconnect the connectors of the tray media-feed sensor (J7), intermediate (J85), and DC controller (J107).
The MP media-presence sensor is defective (SR21).	Check the tray media-feed presence sensor in sensor-monitor mode. If the sensor is defective, replace the right door assembly. See <a href="#">Right-door assembly on page 194</a> .
The arm spring of the MP pickup solenoid is unhooked	Check the spring and place it in the correct position.
Poor contact of the MP-pickup-solenoid drive connector	Reconnect the connectors of the tray pickup solenoid (J84) and the DC controller PCA (J107).
The MP-pickup solenoid is defective	Execute the tray-pickup-solenoid driving test in the actuator-drive mode. If the solenoid is defective, replace the right door assembly. See <a href="#">Right-door assembly on page 194</a> .
Poor contact of the pickup-motor drive connector (M13)	Reconnect the connectors of the pickup motor (J1705), intermediate (J6) and the DC controller PCA (J131).
The pickup motor (M13) is defective.	Execute the pickup-motor driving test in the actuator-drive mode. If the motor is defective, replace the pickup motor. See <a href="#">Pickup motor on page 253</a> .

**Table 7-25 Causes and solutions for pickup stationary jams**

Cause	Solution
Multiple feed of media	<p>Replace any worn or deformed parts (tray separation pad, tray feed roller, MP tray pickup roller or MP tray separation pad). If replacing the MP tray separation pad, you must replace the right door assembly. See <a href="#">Right-door assembly on page 194</a>.</p> <p>Check the separation pad and MP tray separation pad to see if they are firmly seated and coupled with the torque limiter.</p> <p>Replace the separation pad and feed roller for Tray 2 and Tray 3.</p> <p>If the MP tray pickup roller is defective, replace the roller. See <a href="#">Pickup roller (Tray 1) on page 213</a>. If the MP tray separation pad is defective, replace the right door assembly. See <a href="#">Right-door assembly on page 194</a>.</p>
The secondary transfer roller is not set correctly	Place the secondary-transfer-roller unit in the correct position.
The secondary-transfer roller is worn or deformed	Replace the secondary-transfer-roller assembly. See <a href="#">Secondary transfer assembly on page 186</a> .
Poor contact of the drum 3 drive connector	Reconnect the connectors of the ITB motor (J42) and the DC controller PCA (J121).
The drum motor 3 is defective	Execute the drum 3 driving test in the actuator-drive mode. If the motor is defective, replace the ITB motor.
The ITB does not rotate smoothly	Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 188</a> .

**Table 7-26 Causes and solutions for pickup delay jam 1; MP tray pickup**

Cause	Solution
The MP tray pickup roller or MP tray separation pad is worn or deformed	If the MP tray pickup roller is defective, replace the roller. See <a href="#">Pickup roller (Tray 1) on page 213</a> . If the MP tray separation pad is defective, replace the right door assembly. See <a href="#">Right-door assembly on page 194</a> .
Poor contact of the MP tray media-presence-sensor connector (SR21)	Reconnect the connectors of the MP tray media-presence sensor (J2007), intermediate (J85) and the DC controller PCA (J1071).
The MP tray media-feed sensor is defective (SR21)	Check the MP tray media-feed sensor via the sensor monitor mode. If the sensor is defective, replace the right door assembly. See <a href="#">Right-door assembly on page 194</a> .
The arm spring of the MP tray pickup solenoid is unhooked	Check the spring and place it in the correct position.
Poor contact of the MP tray-pickup-solenoid drive connector	Reconnect the connectors of the MP tray pickup solenoid (J84) and the DC controller PCA (J107).
The MP tray pickup solenoid is defective	Execute the MP tray-pickup-solenoid driving test in the actuator-drive mode. If the solenoid is defective, replace the right door assembly. See <a href="#">Right-door assembly on page 194</a> .
Poor contact of the pickup-motor (M13) drive connector	Reconnect the connectors of the pickup motor (J1705), intermediate (J6) and the DC controller PCA (J131).
The pickup motor (M13) is defective	Execute the pickup-motor (M13) driving test in the actuator-drive mode. If the motor is defective, replace the pickup motor.

## Jams in Tray 3

**Table 7-27 Causes and solutions for pickup delay and pickup stationary jams**


Cause	Solution
The paper-feeder pickup roller is worn or deformed	Replace the Tray 3 pickup roller. See <a href="#">Pickup and feed rollers (Tray 3) on page 182</a> .
The paper-feeder separation roller is worn or deformed	Replace the Tray 3 separation roller. See <a href="#">Pickup and feed rollers (Tray 3) on page 182</a> .
The paper-feeder feed roller 1 is worn or deformed	Replace the Tray 3 feed roller. See <a href="#">Pickup and feed rollers (Tray 3) on page 182</a> .
Poor contact of the paper-feeder media-feed sensor connector	Reconnect the connector (J405) on the paper feeder driver PCA, intermediate connector (J13) and connector (J20) of the paper-feeder media feed sensor.
The paper-feeder media-feed sensor is defective	Run the sensor test in the sensor monitor mode to verify that the paper-feeder media feed sensor is functioning properly. If it is not, replace the paper-feeder feed assembly.
Poor contact of the paper-feeder pickup solenoid drive connector	Reconnect the connector (J405) on the paper feeder driver PCA and connector (J18). Replace the paper feeder assembly.
The paper-feeder pickup solenoid is defective	Run the solenoid drive test in the actuator drive mode to verify that the paper-feeder pickup solenoid is functioning properly. If it is not, replace the paper feeder assembly.
Poor contact of paper-feeder pickup motor drive connector	Reconnect the connector (J406) on the paper feeder driver PCA and connector (J14). Replace the paper feeder assembly.
The paper-feeder pickup motor is defective	Run the pickup motor drive test in the actuator drive mode to verify that the paper-feeder pickup motor is functioning properly. If it is not, replace the paper-feeder assembly.
Multiple feed of media	If the Tray 3 pickup roller, separation roller or feed roller is worn or deformed, replace any defective parts. See <a href="#">Pickup and feed rollers (Tray 3) on page 182</a> .
The paper-feeder media-feed sensor lever is set incorrectly or damaged	Check the sensor lever to make sure it is set correctly. If it is damaged, replace the paper-feeder assembly.
The spring of the paper-feeder media-feed sensor lever is unhooked	Check the spring and place it in correct position.
Poor contact of the paper-feeder media-feed sensor connector	Reconnect the connector (J405) on the paper feeder driver PCA intermediate connector (J13) and connector (J20) of the paper-feeder media feed sensor.
The paper-feeder media-feed sensor is defective	Run the sensor test in the sensor monitor mode to verify that the paper-feeder media feed sensor is functioning properly. If it is not, replace the paper-feeder assembly.

## Change jam recovery

This product provides a jam recovery feature that reprints jammed pages. The following options are available:

- **AUTO** — The product attempts to reprint jammed pages when enough memory is available. This is the default setting.
- **OFF** — The product does not try to reprint jammed pages. Because no memory is used to store the most recent pages, performance is optimal.



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 **NOTE:** When using this option, if the product runs out of paper and the job is being printed on both sides, some pages can be lost.

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- **ON** — The product always reprints jammed pages. Additional memory is allocated to store the last few pages printed. This might cause overall performance to suffer.

### Set the jam recovery feature

1. Press the **Menu** button .
2. Press the down arrow ▼ to highlight the **CONFIGURE DEVICE** menu, and then press the **OK** button.
3. Press the down arrow ▼ to highlight the **SYSTEM SETUP** menu, and then press the **OK** button.
4. Press the down arrow ▼ to highlight the **JAM RECOVERY** menu, and then press the **OK** button.
5. Press the down arrow or up arrow ▼/▲ to highlight the appropriate setting, and then press the **OK** button.
6. Press the **Menu** button  to return to the **Ready** state.

# Solve paper-handling problems

## Product feeds multiple sheets

### Product feeds multiple sheets

Cause	Solution
The input tray is overfilled. Open the tray and verify that the paper stack is below the maximum stack height mark.	Remove excess paper from the input tray.
Print paper is sticking together.	Remove paper, flex it, rotate it 180 degrees or flip it over, and then reload it into the tray.  <b>NOTE:</b> Do not fan paper. Fanning can cause static electricity, which can cause paper to stick together.
Paper does not meet the specifications for this product.	Use only paper that meets HP paper specifications for this product.
Trays are not properly adjusted.	Make sure that the paper guides match the size of paper being used.
Tray 2 feeds multiple sheets.	Make sure Tray 2 is not overfilled. Open the tray and verify that the paper stack is below the maximum stack height mark. Remove paper from Tray 2 to avoid jams.

## Product feeds incorrect page size

### Product feeds incorrect page size

Cause	Solution
The correct size paper is not loaded in the tray.	Load the correct size paper in the tray.
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 product 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 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 paper guides are touching the paper.

## Product pulls from incorrect tray

### Product pulls from incorrect tray

Cause	Solution
You are using a driver for a different product.	Use a driver for this product.
The specified tray is empty.	Load paper in the specified tray.

### Product pulls from incorrect tray

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 guides are touching the paper.

## Paper does not feed automatically

### 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 checkmark 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 product and remove any paper in the paper path.
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.
The manual-feed prompt is set to <b>ALWAYS</b> . The product always prompts for manual feed, even if the tray is loaded.	Open the tray, reload the media, and then close the tray. Or, change the manual-feed prompt setting to <b>UNLESS LOADED</b> , so that the product prompts for manual feed only when the tray is empty.
The <b>USE REQUESTED TRAY</b> setting on the product is set to <b>EXCLUSIVELY</b> , and the requested tray is empty. The product will not use another tray.	Load the requested tray. Or, change the setting from <b>EXCLUSIVELY</b> to <b>FIRST</b> on the <b>CONFIGURE DEVICE</b> menu. The product can use other trays if no media is loaded in the specified tray.

## Paper does not feed from Tray 2 or 3

### Paper does not feed from Tray 2 or 3

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 product control panel.	From the product control panel, select the correct paper type for the input tray.
Paper from a previous jam has not been completely removed.	Open the product 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



### Paper does not feed from Tray 2 or 3

Cause	Solution
	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 product.
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.

## Transparencies or glossy paper will not feed

### Transparencies or glossy paper will not feed

Cause	Solution
The correct paper type is not specified in the software or printer driver.	Verify that the correct paper type is selected in the software or printer driver.
The input tray is overfilled.	Remove excess paper from the input tray. Do not exceed the maximum stack height marks for the tray.
Paper in another input tray is the same size as the transparencies, and the product is defaulting to the other tray.	Make sure that the input tray containing the transparencies or glossy paper is selected in the software program or printer driver. Use the product control panel to configure the tray to the paper type loaded.
The tray containing the transparencies or glossy paper is not configured correctly for type.	Make sure that the input tray containing the transparencies or glossy paper is selected in the software program or printer driver. Use the product control panel to configure the tray to the paper type loaded.
Transparencies or glossy paper might not meet supported paper specifications.	Use only paper that meets the HP paper specifications for this product.
High-humidity environments may cause glossy paper not to feed, or to feed too many sheets.	Avoid printing glossy paper in high humidity conditions. When printing glossy paper, removing the paper from the wrapper and letting it rest for a few hours can improve feeding into the product. However, letting paper rest in humid environments may also cause blisters.

## Envelopes jam or will not feed in the product

### Envelopes jam or will not feed in the product

Cause	Solution
Envelopes are loaded in an unsupported tray. Only Tray 1 can feed envelopes.	Load envelopes into Tray 1.
Envelopes are curled or damaged.	Try using different envelopes. Store envelopes in a controlled environment.
Envelopes are sealing because the moisture content is too high.	Try using different envelopes. Store envelopes in a controlled environment.

### Envelopes jam or will not feed in the product

Cause	Solution
Envelope orientation is incorrect.	Verify that the envelope is loaded correctly.
This product does not support the envelopes being used.	Refer to the <i>HP LaserJet Printer Family Print Media Guide</i> .
Tray 1 is configured for a size other than envelopes.	Configure Tray 1 size for envelopes.

## Output is curled or wrinkled

### Output is curled or wrinkled

Cause	Solution
Paper does not meet the specifications for this product.	Use only paper that meets the HP paper specifications for this product.
Paper is damaged or in poor condition.	Remove paper from the input tray and load paper that is in good condition.
Product speed needs to be reduced.	Set the <b>PAPER CURL</b> option in the Print Quality menu to <b>REDUCED</b> to decrease full speed to 10 ppm (instead of 40 ppm) and 3/4 speed to 7.5 ppm (instead of 30 ppm).
Product is operating in an excessively humid environment.	Verify that the printing environment is within humidity specifications.
You are printing 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.
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, see <a href="#">Load trays on page 50</a> .
The paper has previously been used for a print job.	Do not re-use paper.

## Product will not duplex or duplexes incorrectly

### Product will not duplex (print 2-sided jobs) or duplexes incorrectly

Cause	Solution
You are trying to duplex on 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 product. For Tray 2 and 3, load the paper printed side up with the top of the page toward the right of the product.

### Product will not duplex (print 2-sided jobs) or duplexes incorrectly

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Cause	Solution
The product model does not support automatic 2-sided printing.	The HP Color LaserJet CP3525 and HP Color LaserJet CP3525n models do not support automatic 2-sided printing.
The product configuration is not set for duplexing.	In Windows, run the automatic configuration feature: <ol style="list-style-type: none"><li>1. Click the <b>Start</b> button, point to <b>Settings</b>, and then click <b>Printers</b> (for Windows 2000) or <b>Printers and Faxes</b> (for Windows XP).</li><li>2. Right-click the HP product icon, and then click <b>Properties</b> or <b>Printing Preferences</b>.</li><li>3. Click the <b>Device Settings</b> tab.</li><li>4. Under <b>Installable Options</b>, click <b>Update Now</b> in the <b>Automatic Configuration</b> list.</li></ol>

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## Use manual print modes

Try the following multi-purpose (MP) modes to see if they solve the image-quality problems. These options can be found in the **ADJUST PAPER TYPES** and **OPTIMIZE** submenus under the **PRINT QUALITY** menu on the control panel.

**Table 7-28** MP modes under the **ADJUST PAPER TYPES** sub menu

<b>PRINT MODE</b>	<ul style="list-style-type: none"><li>• <b>AUTOSENSE MODE</b></li><li>• <b>NORMAL MODE</b></li><li>• <b>LIGHT MODE</b></li><li>• <b>LIGHT ROUGH MODE</b></li><li>• <b>HEAVY MODE</b></li><li>• <b>EXTRA HEAVY MODE</b></li><li>• <b>CARDSTOCK MODE</b></li><li>• <b>HEAVYGLOSSY MODE</b></li><li>• <b>X-HVYGLOSSY MODE</b></li><li>• <b>CARD GLOSSY MODE</b></li><li>• <b>ROUGH MODE</b></li><li>• <b>TRANSPARENCY MODE</b></li><li>• <b>4MM TRNS MODE</b></li><li>• <b>TRANSPARENCY2 MODE</b></li><li>• <b>TOUGH MODE</b></li><li>• <b>LABEL MODE</b></li><li>• <b>ENVELOPE MODE</b></li></ul>
	<b>NOTE:</b> Not all print modes are available for all paper types.
<b>RESISTANCE MODE</b>	Set to <b>UP</b> to resolve print-quality issues caused by poor secondary transfer in low-humidity environments with resistive or rough surface media.
<b>HUMIDITY MODE</b>	<p>With glossy film, set to <b>HIGH</b> when the product is in a high-humidity environment and print-quality defects occur on HP Tough Paper or Opaque film.</p> <p>With transparencies, set to <b>HIGH</b> when the product is in a high-humidity environment and print-quality defects occur on color transparencies on the first page of a print job.</p> <p>With all other paper types, set to <b>HIGH</b> when the product is in a high-humidity environment and light density occurs on the first page of a print job.</p>
<b>PRE-ROTATION MODE</b>	Set this feature to <b>ON</b> if horizontal banding occurs on pages.
<b>FUSER TEMP MODE</b>	If you are seeing a faint image of the page repeated at the bottom of the page or on the following page, first make sure the Paper Type and Print Mode settings are correct for the type of paper you are using. If you continue to see ghost images on

**Table 7-28 MP modes under the ADJUST PAPER TYPES sub menu (continued)**

	your print jobs, set the Fuser Temp feature to one of the Alternate settings . Try the <b>ALTERNATE 1</b> setting first and see if it solves the problem. If you continue to see the problem, try <b>ALTERNATE 2</b> and then <b>ALTERNATE 3</b> . Using the <b>ALTERNATE 2</b> and <b>ALTERNATE 3</b> settings might cause an extra delay between jobs.
<b>PAPER CURL MODE</b>	Use in high-humidity and high-temperature environments. The <b>REDUCED</b> setting decreases fuser temperature and increases the interpage gap.

**Table 7-29 MP modes under the OPTIMIZE submenu**





<b>NORMAL PAPER</b>	Set to <b>SMOOTH</b> when printing on smooth paper of normal weight.
<b>BEST PRINT MODE</b>	Set to <b>ON</b> to improve print quality.
<b>HEAVY PAPER</b>	Set to <b>SMOOTH</b> when printing on smooth, heavy media types.
<b>ENVELOPE MODE</b>	Set to <b>REDUCED TEMP</b> if envelopes are sticking due to moisture in the envelop adhesive.
<b>ENVIRONMENT</b>	Set to <b>LOW TEMP</b> if the product is operating in a low-temperature environment and you are having problems with print quality such as blisters in the printed image.
<b>LINE VOLTAGE</b>	Set to <b>LOW VOLTAGE</b> if the product is operating in a low-voltage environment and you are having problems with print quality such as blisters in the printed image.
<b>TRAY1</b>	Set the mode to <b>ALTERNATE</b> if you are seeing marks on the back side of the paper when printing from Tray 1. This sets the product to initiate a clean sequence every time a job finishes when the product is set for <b>ANY SIZE</b> and <b>ANY TYPE</b> for Tray 1.
<b>BACKGROUND</b>	Set to <b>ALTERNATIVE 1</b> when a background occurs all over the page. Set to <b>ALTERNATIVE 2</b> when thin vertical lines appear on the page. Set to <b>ALTERNATIVE 3</b> when the other alternatives do not correct the problem.
<b>UNIFORMITY CONTROL</b>	Set to <b>ALTERNATIVE 1</b> to improve uniformity on any paper type. Set to <b>ALTERNATIVE 2</b> to improve uniformity on normal and light paper types. Set to <b>ALTERNATIVE 3</b> when the other alternatives do not correct the problem.
<b>TRACKING CONTROL</b>	Improves color stability by adjusting the bias voltage. Make sure this mode is set to <b>ON</b> .
<b>REGISTRATION</b>	Set to <b>ALTERNATIVE</b> when color misregistration occurs.
<b>TRANSFER CONTROL</b>	Set to <b>ALTERNATIVE 1</b> to reduce primary transfer bias and to resolve low density or blotchy images. Set to <b>ALTERNATIVE 2</b> to resolve ghosting outlines that look like a finger or fingers. Set to <b>ALTERNATIVE 3</b> when the other alternatives do not correct the problem.
<b>PROCESS CLEANING PAGE</b>	Generates and processes a fuser cleaning page for the dn printer and HP Color LaserJet CP3525x printer only.


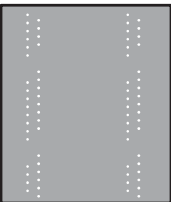

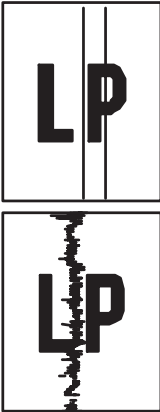
# Solve image-quality problems

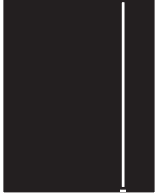



This section helps you define print-quality problems and what to do to correct them. Often print-quality problems can be handled easily by making sure that the product is maintained, using paper that meets HP specifications, or running a cleaning page.

## Image defects table

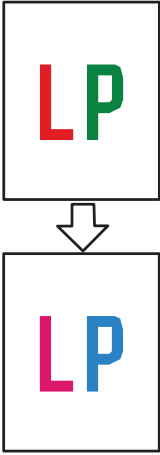


The following examples depict letter-size paper that has passed through the product short-edge first. These examples illustrate problems that would affect all the pages that you print, whether you print in color or in black only. The topics that follow list the typical cause and solution for each of these examples.


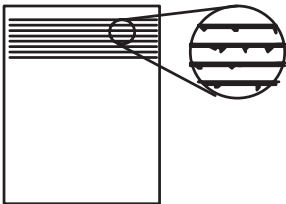


Problem	Sample	Cause	Solution
Print is light or faded on entire page.		Poor contacts exist on the ITB unit and the product grounding unit.	Clean the grounding contacts. If the problem remains after cleaning, check the contacts for damage. Replace any deformed or damaged parts.
		Poor secondary transfer contacts exist on the secondary transfer roller and the ITB.	Clean the contacts. If the problem remains after cleaning, check the contacts for damage. Replace any deformed or damaged parts.
Print is light or faded in a particular color.		Poor primary transfer bias contacts on the ITB unit and product.	Clean the contacts of the color that produces the light print. If the problem remains after cleaning, check the contacts for damage. Replace any deformed or damaged parts.
		Poor primary charging bias contacts with the print cartridge and product.	
		Poor developing bias contacts with the print cartridge and product.	
Image is too dark.		The RD sensor is defective.	Replace the RD sensor. See <a href="#">Registration density (RD) sensor assembly on page 227</a> .
Page is blank.		The high-voltage power-supply lower is defective (no developing bias output).	Replace the high-voltage power-supply lower. See <a href="#">High-voltage power supply lower (HVPS-D) on page 248</a> .



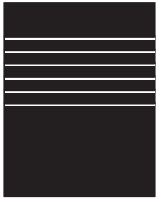
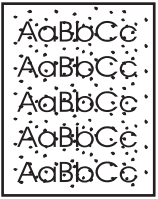
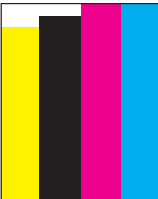
Problem	Sample	Cause	Solution
The page is all black or a solid color.		Poor contact exists in the primary charging bias or developing bias contacts between the print cartridge and the product.	Clean each contact of the color that produces the all black or solid color. If the problem remains after cleaning, check the contacts for damage. Replace any deformed or damaged parts. Replace the affected print cartridge.
White spots appear in an image		<p>The primary transfer roller is deformed or has deteriorated.</p> <p>The secondary transfer roller is deformed or has deteriorated.</p>	<p>Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 188</a>.</p> <p>Replace the secondary-transfer-roller. See <a href="#">Secondary transfer roller on page 184</a>.</p>
The back of the page is dirty.		<p>The secondary transfer roller is dirty.</p> <p>The fuser inlet guide or separation guide is dirty.</p> <p>The pressure roller is dirty.</p>	<p>Replace the secondary transfer roller. See <a href="#">Secondary transfer roller on page 184</a>.</p> <p>Clean the dirty parts. If the dirt does not come off, replace the guide.</p> <p>Run the cleaning page several times. If the dirt does not come off, send a fuser cleaning kit. If the issue persists, replace the fuser. See <a href="#">Fuser on page 179</a>.</p>
Vertical streaks or bands appear on the page.		<p>Scratches are present on the circumference of the photosensitive drum.</p> <p>Scratches are present on the circumference of the fuser roller.</p> <p>Scratches are present on the circumference of the ITB.</p> <p>The ITB drive roller is deformed or has deteriorated.</p> <p>The ITB cleaning mechanism is malfunctioning.</p>	<p>Replace the print cartridge of the color that matches the defect.</p> <p>Replace the fuser. See <a href="#">Fuser on page 179</a>.</p> <p>Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 188</a>.</p>

Problem	Sample	Cause	Solution
Vertical white lines appear in a particular color.		<p>The laser beam window is dirty.</p> <p>Scratches are present on the circumference of the developing cylinder or photosensitive drum.</p> <p>White scratch down the page could mean the scanner glass needs to be cleaned.</p>	<p>Clean the window and remove any foreign substances.</p> <p>Remove the affected print cartridge and re-install. The PGCs will clean the glass.</p> <p>If the problem persists, replace the affected print cartridge.</p>
Vertical white lines appear in all colors.		<p>Horizontal scratches on the fuser roller.</p> <p>Scratches are present on the circumference of the ITB.</p> <p>White scratch down the page could mean the scanner glass needs to be cleaned.</p>	<p>Replace the fuser. See <a href="#">Fuser on page 179</a>.</p> <p>Remove the affected print cartridge and re-install. The PGCs will clean the glass.</p> <p>Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 188</a>.</p>
Horizontal lines appear on the page.		<p>Repetitive horizontal lines appear.</p> <p>Horizontal scratches are present on the photosensitive drum.</p> <p>Horizontal scratches are present on the fuser roller.</p>	<p>Use the repetitive defects ruler to identify the dirty roller. Clean the roller. If the roller cannot be cleaned, replace the fuser. See <a href="#">Fuser on page 179</a>.</p> <p>Replace the print cartridge of the color that matches the defect.</p> <p>Replace the fuser. See <a href="#">Fuser on page 179</a>.</p>
A horizontal white line appears on the page.		<p>Repetitive horizontal white lines appear.</p> <p>Horizontal scratches are present on the photosensitive drum.</p> <p>Scratches are present on the circumference of the ITB.</p>	<p>Use the repetitive defects ruler to identify the dirty roller. Clean the roller. If the roller cannot be cleaned, replace the roller.</p> <p>Replace the print cartridge of the color that matches the defect.</p> <p>Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 188</a>.</p>



Problem	Sample	Cause	Solution
Image in a particular color does not print in the correct color.		Poor contact exists in the primary charging bias or developing bias contacts between the print cartridge and the product.	Clean each contact of the color that produces the missing color. If the problem remains after cleaning, check the contacts for damage. Replace any deformed or damaged parts.
		The print cartridge (primary charging roller, developing roller, or photosensitive drum) is defective.	Replace the print cartridge of the color that matches the defect.
		The high-voltage power-supply lower is defective (no primary charging bias or developing bias output).	Replace the high-voltage power-supply lower. See <a href="#">High-voltage power supply lower (HVPS-D) on page 248</a> .
		The laser/scanner unit is defective.	Replace the laser/scanner assembly. See <a href="#">Laser/scanner assembly (Y/M) on page 265</a> or <a href="#">Laser/scanner assembly (C/Bk) on page 272</a> .
Dropouts appear.		The secondary transfer roller is deformed or has deteriorated.	Replace the secondary-transfer-roller. See <a href="#">Secondary transfer roller on page 184</a> .
		The primary charging roller, developing roller, or photosensitive drum is deformed or has deteriorated.	Replace the print cartridge of the color that matches the defect.
		The fuser roller is deformed or has deteriorated.	Replace the fuser.
		The high-voltage power-supply T PCA is defective (no transfer bias output).	Replace the high-voltage power-supply upper. See <a href="#">High-voltage power supply upper (HVPS-T) on page 279</a> .
The toner is not fully fused to the paper.		The fuser roller or pressure roller is scarred or deformed.	Replace the fuser. See <a href="#">Fuser on page 179</a> .
		The thermistor is defective.	Replace the fuser. See <a href="#">Fuser on page 179</a> .
		The fuser heater is defective.	

Problem	Sample	Cause	Solution
Some color is misregistered.		The product is incorrectly calibrated.	Calibrate the product.
		The ITB unit is defective.	If the ITB does not rotate smoothly or a cleaning malfunction occurs (ITB is dirty), replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 188</a> .
		The drive gear of the ITB motor is worn or chipped.	Check each drive gear between the ITB drive roller and the ITB motor. If the gear is worn or chipped, replace the drive unit.
		The RD sensor is defective.	Open and close the front door several times to clean the RD sensor. If the problem persists, replace the RD sensor. See <a href="#">Registration density (RD) sensor assembly on page 227</a> .
		The laser/scanner unit is defective.	Replace the laser/scanner assembly. See <a href="#">Laser/scanner assembly (Y/M) on page 265</a> or <a href="#">Laser/scanner assembly (C/Bk) on page 272</a> .
Toner smears appear on the media.		The product has residual media.	Remove the residual media.
		The fuser inlet guide is dirty.	Clean the fuser inlet guide.
The printed page contains misformed characters.		The product is experiencing page skew.	See the "Text or graphics are skewed on the printed page" row in this table.
		The laser/scanner unit is defective.	Replace the laser/scanner assembly. See <a href="#">Laser/scanner assembly (Y/M) on page 265</a> or <a href="#">Laser/scanner assembly (C/Bk) on page 272</a> .
Text or graphics are skewed on the printed page.		The registration shutter spring is unhooked.	Check the spring and place it in the correct position.
		The registration shutter spring is deformed.	Replace the secondary transfer assembly. See <a href="#">Secondary transfer assembly on page 186</a> .

Problem	Sample	Cause	Solution
The printed page contains wrinkles or creases.		<p>The roller or media feed guide is dirty.</p> <p>A feed roller is deformed or has deteriorated.</p> <p>The paper feed guide is damaged.</p>	<p>Clean any dirty components.</p> <p>Replace any deformed or deteriorated rollers.</p> <p>Replace the paper-feed-guide unit.</p>
The front of the page is dirty.		<p>The photosensitive drum is dirty.</p> <p>The fuser roller or pressure roller is dirty.</p>	<p>Replace the print cartridge.</p> <p>Execute a <b>Pressure roller clean mode</b>. If the dirt does not come off, replace the fuser. See <a href="#">Fuser on page 179</a>.</p> <p><b>NOTE:</b> Cleaning the fuser with HP tough paper provides better results than with plain paper. You might need to execute the cleaning process several times to remove all contaminates on the fuser.</p>
Repetitive horizontal lines			<p>See repetitive image defect ruler. Clean the indicated roller. If the contaminate does not come off, replace appropriate roller or assembly.</p>
Pages have flecks of toner			<p>Execute a cleaning page to clean the contaminate off the fuser. The cleaning page may need to be run several time to clean the fuser. Do not replace the fuser.</p> <p><b>NOTE:</b> Cleaning the fuser with HP tough paper provides better results than with plain paper. You might need to execute the cleaning process several times to remove all contaminates on the fuser.</p>
Pages have one or more skewed color planes (can appear on the right or left side of the page)			<p>Remove, and then reinstall the print cartridge associated with the defect.</p>

## Solve performance problems

Problem	Cause	Solution
Pages print but are totally blank.	The document might contain blank pages.	Check the document that you are printing to see if content appears on all of the pages.
	The product might be malfunctioning.	To check the product, print a Configuration page.
Pages print very slowly.	Heavier paper types can slow the print job.	Print on a different type of paper.
	Complex pages can print slowly.	Proper fusing may require a slower print speed to ensure the best print quality.
	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.
Pages did not print.	The product might not be pulling paper correctly.	Make sure paper is loaded in the tray correctly.
	The paper is jamming in the product.	Clear the jam. See <a href="#">Clear paper jams on page 404</a> .
	The USB cable might be defective or incorrectly connected.	<ul style="list-style-type: none"> <li>● Disconnect the USB cable at both ends and reconnect it.</li> <li>● Try printing a job that has printed in the past.</li> <li>● Try using a different USB cable.</li> </ul>
	Other devices are running on your computer.	The product might not share a USB port. If you have an external hard drive or network switchbox that is connected to the same port as the product, the other device might be interfering. To connect and use the product, you must disconnect the other device or you must use two USB ports on the computer.

# Solve connectivity problems

## Solve direct-connect 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 meters (6 feet). Replace the cable if necessary.
- Verify that the cable is working correctly by connecting it to another product. Replace the cable if necessary.

## Solve network problems

Check the following items to verify that the product is communicating with the network. Before beginning, print a configuration page. See [Information pages on page 70](#).

1. Are there any physical connection problems between the workstation or file server and the product?

Verify that the network cabling, connections, and router configurations are correct. Verify that the network cable lengths meet network specifications.

2. Are your network cables connected properly?

Make sure that the product is attached to the network using the appropriate port and cable. Check each cable connection to make sure it is secure and in the right place. If the problem continues, try a different cable or ports on the hub or transceiver. The amber activity light and the green link status light next to the port connection on the back of the product should be lit.

3. Are the link speed and duplex settings set correctly?

Hewlett-Packard recommends leaving this setting in automatic mode (the default setting). See [I/O menu on page 32](#).

4. Can you "ping" the product?

Use the command prompt to ping the product from your computer. For example:

```
ping 192.168.45.39
```

Ensure that the ping displays round-trip times.

If you are able to ping the product, verify that the IP address configuration for the product is correct on the computer. If it is correct, delete and then add the product again.

If the ping command failed, verify that the network hubs are on, and then verify that the network settings, the product, and the computer are all configured for the same network.

5. Have any software applications been added to the network?

Make sure they are compatible and that they are installed correctly with the correct printer drivers.

6. Are other users able to print?

The problem may be workstation-specific. Check the workstation network drivers, printer drivers, and redirection (capture in Novell NetWare).

7. If other users are able to print, are they using the same network operating system?

Check your system for proper network operating system setup.

**8.** Is your protocol enabled?

Check the status of your protocol on the Configuration page. You can also use the embedded Web server to check the status of other protocols. See [Embedded Web server on page 74](#).


**9.** Does the product appear in HP Web Jetadmin or other management application?

- Verify network settings on the Network configuration page.
- Confirm the network settings for the product using the product control panel (for products with control panels).

# Service mode functions

## Service menu

The **SERVICE** menu is PIN-protected for added security. Only authorized service people have access to the **SERVICE** menu. When you select **SERVICE** from the list of menus, the product prompts you to enter an eight-digit PIN number. The PIN for the HP Color LaserJet CP3525 Series is 09352508.

1. Press the **Menu**  button.
2. Press the down arrow **▼** to highlight **SERVICE**, and then press the **OK** button.
3. Enter the eight-digit PIN using the alphanumeric keypad.
4. Press the **OK** button to enter the PIN and open the **SERVICE** menu.

The following menu items appear in the **SERVICE** menu:

<b>CLEAR BOOTLOADER PASSWORD</b>	This menu item allows you to clear the bootloader password if it has been lost.
<b>MONO CYCLE COUNT</b>	After replacing the formatter, use this item to reset the mono page count so that the figure continues to represent the page count for the product engine. The page count that is stored in NVRAM and printed on the configuration page represents the number of pages that the formatter has formatted (not including engine-test prints). If you install a new formatter when repairing a product, use this menu item to reset the page count to the previous value. In this way, the page count reflects the number of pages that the engine has printed rather than restarting the count for the new formatter. The page count is in two categories: total mono pages and total color pages.
<b>COLOR CYCLE COUNT</b>	After replacing the formatter, use this item to reset the color page count so that the figure continues to represent the page count for the product engine. The page count that is stored in NVRAM and printed on the configuration page represents the number of pages that the formatter has formatted (not including engine-test prints). If you install a new formatter when repairing a product, use this menu item to reset the page count to the previous value. In this way, the page count reflects the number of pages that the engine has printed rather than restarting the count for the new formatter. The page count is in two categories: total mono pages and total color pages.
<b>REFURBISH CYCLE COUNT</b>	Use this item to record the page count when the product was refurbished.
<b>SERIAL NUMBER:</b>	After replacing the formatter, use this item to reset the product serial number.
<b>SERVICE ID</b>	Use this item to show the date that the product was first used on the control panel. This eliminates the need for users to keep paper receipts for proof of warranty.  <b>Restore the service ID</b>  If you replace the formatter, the date is lost. Use this menu item to reset the date to the original date that the product was first used. The date format is YYDDD. Use the following formula to

---

calculate the dates. The date 17-October-2002 is used as an example.

1. To calculate YY, subtract 1990 from the calendar year. For instance, if the product was first used in 2002, calculate YY as follows:  $2002 - 1990 = 12$ . YY = 12.
2. Subtract 1 from 10 (October is the tenth month of the year):  $10 - 1 = 9$ .
  - Multiply 9 by 30:  $9 \times 30 = 270$  or add 17 to 270:  $270 + 17 = 287$ . Thus, DDD = 287.

#### Convert the service ID to an actual date

You can use the product Service ID number to determine whether the product is still under warranty. Use the following formula to convert the Service ID into the installation date as follows:

1. Add 1990 to YY to get the actual year that the product 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.

Using the Service ID 12287 as an example, the date conversion is as follows:

1.  $12 + 1990 = 2002$ , so the year is 2002.
2. 287 divided by 30 = 9 with a remainder of 17. Since there is a remainder, add 1 to 9 to get 10, which represents October.
3. The remainder in step 2 is 17, so that is the date.
4. The complete date is 17-October-2002.

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

---

#### 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.

---

#### NEW REGISTRATION ROLLER

Use after installing a new registration roller.

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## Product resets

### Restore factory-set defaults





## Hard disk initialization (optional)

A hard disk initialization will erase and reformat the product's hard disk. Perform hard disk initialization only if an error code displays on the control panel indicating a disk error. Always try initializing the hard disk before replacing it.






1. Turn the product on.
2. As the product performs its power-on sequence, press and hold the **Menu**  button until all three lights on the control panel are lit.
3. Press the back arrow . The message **INITIALIZE DISC** displays on the control panel.
4. Press the down arrow . The product initializes the hard disk and continues its power-on sequence.

## NVRAM initialization

 **CAUTION:** Initializing NVRAM resets the serial number, the event log, the page counts, the calibration settings, and the EIO card. Use the **SERVICE** menu to restore the serial number and page counts. You also need to reconfigure any computers that print to this product to recognize the product. Initialize NVRAM only when absolutely necessary. In most situations, use a cold reset to reset product variables but still retain the needed values in the **SERVICE** menu.








 **NOTE:** Print a configuration page before initializing NVRAM.

From the configuration page and supplies status page, gather the following information:

- Total page count and color page count
  - Serial number
1. Turn the product on and watch the control panel display.
  2. When the display shows the memory count, press and hold the down arrow  until all three lights on the control panel are lit.
  3. Press the up arrow .
  4. Press the **Menu**  button. The message **SKIP DISK LOAD** displays on the control panel.
  5. Press the up arrow  until **NVRAM INIT** is highlighted, and then press the **OK** button . The product initializes NVRAM and then continues its power-on sequence.

## Product cold reset

Before beginning, print a configuration page and supplies status page. Use these pages to verify resets have occurred.

1. Press the  button.
2. Press the down arrow  to highlight the **CONFIGURE DEVICE** menu, and then press the **OK** button .
3. Press the down arrow  to highlight the **RESET** menu, and then press the **OK** button .
4. Press the down arrow  to highlight the **RESTORE FACTORY SETTINGS** menu, and then press the **OK** button .



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# 8 Parts and diagrams

- [Order parts, accessories, and supplies](#)
- [Part numbers](#)
- [Screws](#)
- [How to use the parts lists and diagrams](#)
- [External covers, panels, and doors](#)
- [Right door assembly](#)
- [Internal components](#)
- [Assessories](#)
- [Alphabetical parts list](#)
- [Numerical parts list](#)

## Order parts, accessories, and supplies

You can obtain the following items directly from HP:

- **Replacement parts:** To order replacement parts in the U.S., go to [www.hp.com/go/hpparts/](http://www.hp.com/go/hpparts/). Outside the United States, order parts by contacting your local authorized HP service center.
- **Supplies and accessories:** To order supplies in the U.S., go to [www.hp.com/go/ljsupplies](http://www.hp.com/go/ljsupplies). To order supplies worldwide, go to [www.hp.com/ghp/buyonline.html](http://www.hp.com/ghp/buyonline.html). To order accessories, go to [www.hp.com/support/cljcp3525](http://www.hp.com/support/cljcp3525).

## Part numbers

The following list of accessories was current at the time of printing. Ordering information and availability of the accessories might change during the life of the product.

### Accessories

Product name	Product number	Part number
1x500 optional paper feeder	CE222A	CC468-67905
High performance EIO hard disk	J7989G	
High performance secure EIO hard disk	J8019A	
HP Postcard media insert tray	CC497A	CC497-67902

### Print cartridges and toner collection unit

Product name	Product number	Part number
HP Color LaserJet standard black print cartridge	CE250A	CE250-67901
HP Color LaserJet high capacity black print cartridge	CE250X	CE250-67902
HP Color LaserJet cyan print cartridge	CE251A	CE251-67901
HP Color LaserJet yellow print cartridge	CE253A	CE252-67901
HP Color LaserJet magenta print cartridge	CE2512A	CE253-67901
HP Color LaserJet toner collection unit	CE254A	

<sup>1</sup> For more information, go to [www.hp.com/go/learnaboutsupplies](http://www.hp.com/go/learnaboutsupplies)

### Memory

Product name	Product number	Part number
200-pin DDR2 SODIMM x64 memory modules 128MB	CC409A	CC409-67951
200-pin DDR2 SODIMM x64 memory modules 256MB	CC410A	CC410-67951
200-pin DDR2 SODIMM x64 memory modules 512MB	CC411A	CC411-67951
200-pin DDR2 SODIMM x64 memory modules 1 GB	CC412A	CC412-67951


## Cables and interfaces

Product name	Product number	Part number
HP Jetdirect 635n IPv6/Ipsec print server (EIO)	J7961G	
USB cable 2 meter standard	C6518A	

## Customer self repair (CSR) parts

Product name	Product number	Part number
1x500 paper feeder right door kit		CC468-67906
Duplex reverse guide kit		CC468-67913
Formatter assembly kit		CC460-69001
Front door kit		CC468-67920
Fuser (fixing) cleaning kit (8.5x11)		CC468-67919
Fuser (fixing) 110V service kit		CC519-67901
Fuser (fixing) 220V service kit		CC519-67902
HP postcard media insert replacement		CC497-67902
ITB kit		CC468-67907
Pick/feed and separation roller kit (Tray 2/3)		CC468-67911
Secondary transfer assembly kit (simplex)		CC468-67916
Secondary transfer assembly kit (duplex)		CC468-67915
Secondary transfer (T2) roller kit		CC468-67914
1x500 Paper feeder replacement kit		CC468-67905
128MB DDR2 Memory DIMM replacement kit		CC409-67951
256MB DDR2 Memory DIMM replacement kit		CC410-67951
512MB DDR2 Memory DIMM replacement kit		CC411-67951
11 GB DDR2 Memory DIMM replacement kit		CC412-67951
Toner collection unit replacement kit		CC468-67910
1x500 Paper feeder cassette tray (tray 3)		RM1-6198-000CN
250 cassette tray (tray 2)		RM1-4962-000CN
Control panel overlay ID		CC468-40034
Control panel overlay ZHCN		CC468-40035

Product name	Product number	Part number
Control panel overlay ZHTW		CC468-40036
Control panel overlay JA		CC468-40038
Control panel overlay KO		CC468-40039
Control panel overlay TH		CC468-40040
Control panel overlay HR		CC468-40011
Control panel overlay CS		CC468-40012
Control panel overlay EL		CC468-40013
Control panel overlay HU		CC468-40014
Control panel overlay PL		CC468-40015
Control panel overlay RO		CC468-40016
Control panel overlay RU		CC468-40017
Control panel overlay SK		CC468-40018
Control panel overlay SL		CC468-40019
Control panel overlay TR		CC468-40020
Control panel overlay PT		CC468-40021
Control panel overlay ES		CC468-40022
Control panel overlay CA		CC468-40023
Control panel overlay DA		CC468-40024
Control panel overlay NL		CC468-40025
Control panel overlay FI		CC468-40026
Control panel overlay FR		CC468-40027
Control panel overlay DE		CC468-40028
Control panel overlay IT		CC468-40029
Control panel overlay NO		CC468-40030
Control panel overlay SV		CC468-40031


 **NOTE:** The terms fusing and fixing are synonymous.

## Maintenance kits


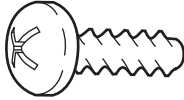

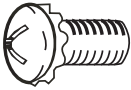
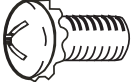
Product name	Product number	Part number
110V fuser (fixing) preventative maintenance kit (PM)	CE484A	
220V fuser (fixing) preventative maintenance kit (PM)	CE506A	

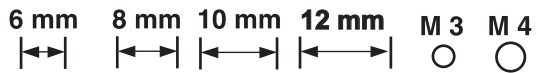


# Screws

 **NOTE:** The screw illustrations in the following table are for reference only. Screws might vary in size and appearance from those shown in this table.

**Table 8-1 Common fasteners**

Example	Description	Size	Part Number
	Screw, with washer	M3X8	XA9-1420-000CN
	Screw, tapping, truss head	M4X10	XB4-7401-005CN
	Screw, tap	M3X6	XA9-1503-000CN
	Screw, D	M3X8	XA9-1671-000CN
	Screw, tooth washer	M4X6	XB2-7400-606CN



## How to use the parts lists and diagrams

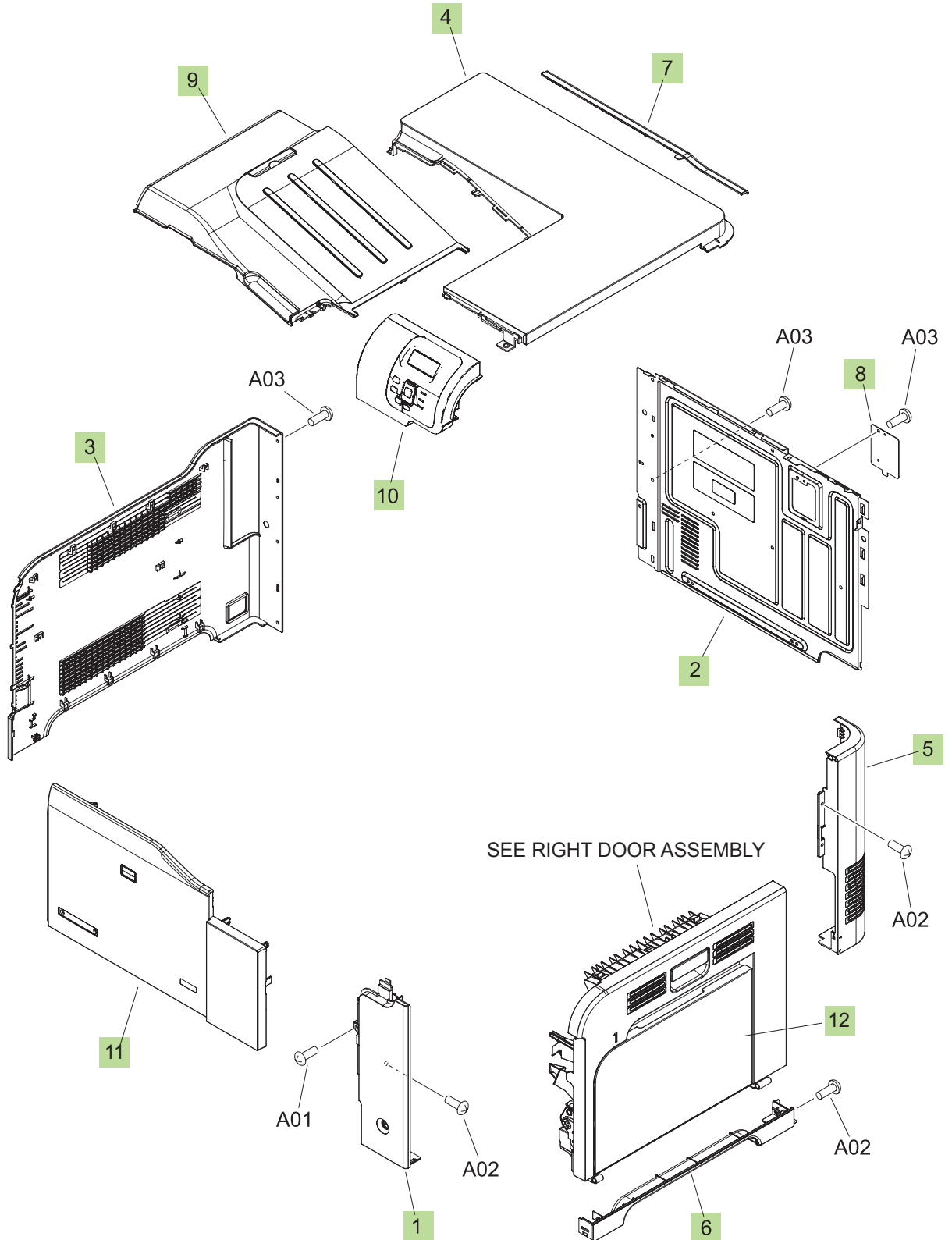
The figures in this chapter show the major subassemblies in the product and their component parts. A parts list table follows each exploded view assembly diagram. Each table lists the item number, the associated part number, and the description of each part. If a part is not listed in the table, then it is not a field replacement unit (FRU).

- 
- △ **CAUTION:** Be sure to order the correct part. When looking for part numbers for electrical components, pay careful attention to the voltage that is listed in the description column. Doing so will ensure that the part number selected is for the correct all-in-one model.
- 📄 **NOTE:** In this manual, 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.
-



# External covers, panels, and doors

Figure 8-1 External covers, panels, and doors

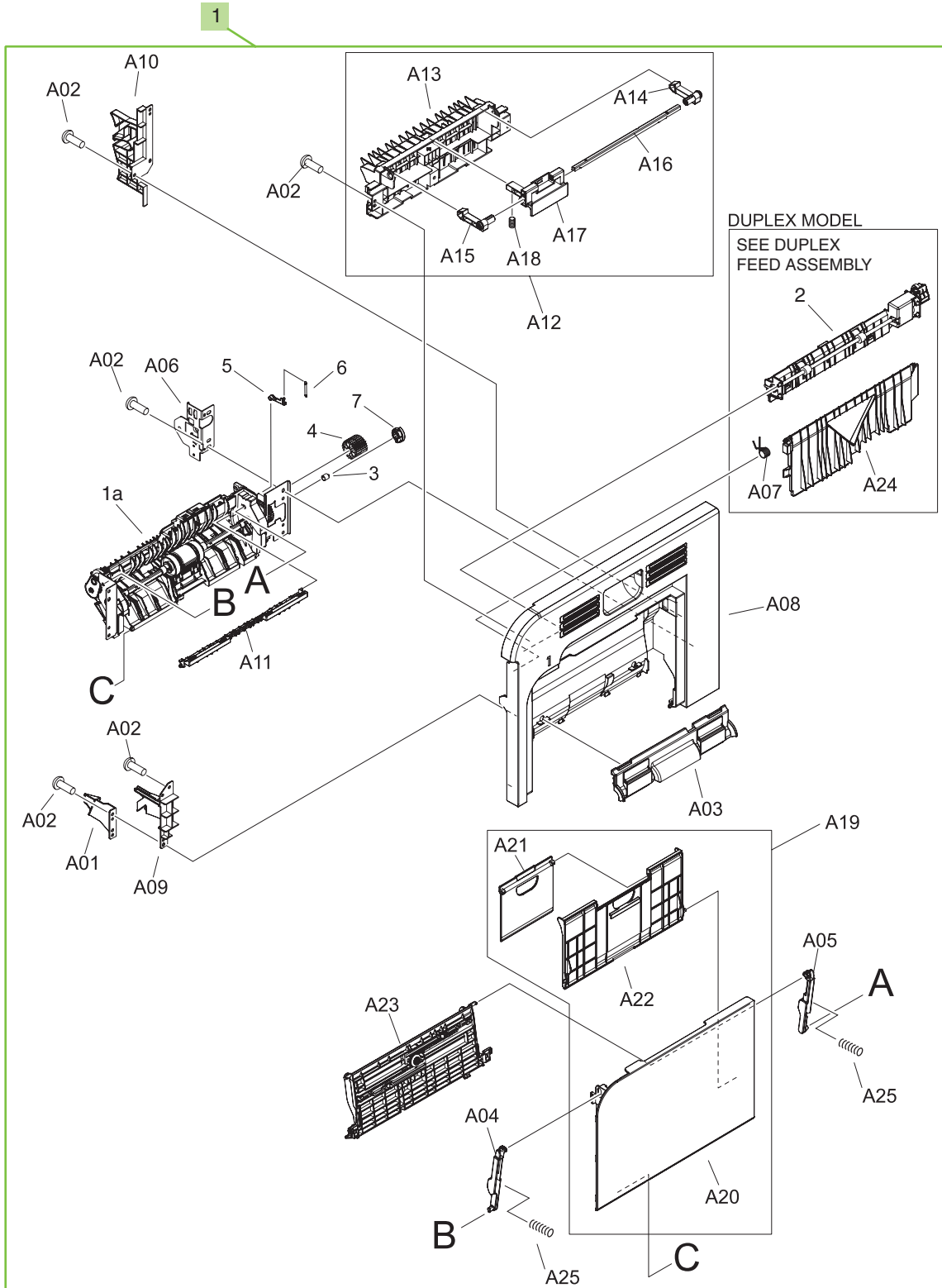


**Table 8-2 External covers, panels, and doors;**

Ref	Description	Part number	Qty
1	Cover, right front	RC2-5056-000CN	1
2	Cover, rear	RC2-5048-000CN	1
3	Cover, left	RC2-5052-000CN	1
4	Cover, upper	RC2-5054-000CN	1
5	Cover, rear right	RC2-5057-000CN	1
6	Cover, right lower	RC2-5059-000CN	1
8	Plate, blanking	RC2-5938-000CN	1
9	Tray, paper delivery	RL1-1941-000CN	1
10	Control panel assembly	RM1-5743-000CN	1
11	Front door assembly	RM1-4986-000CN	1
11	Front door kit	CC468-67920	1
12	Right door assembly (duplex)	RM1-4957-000CN	1
12	Right door assembly (simplex)	RM1-5005-000CN	1

# Right door assembly

Figure 8-2 Right door assembly



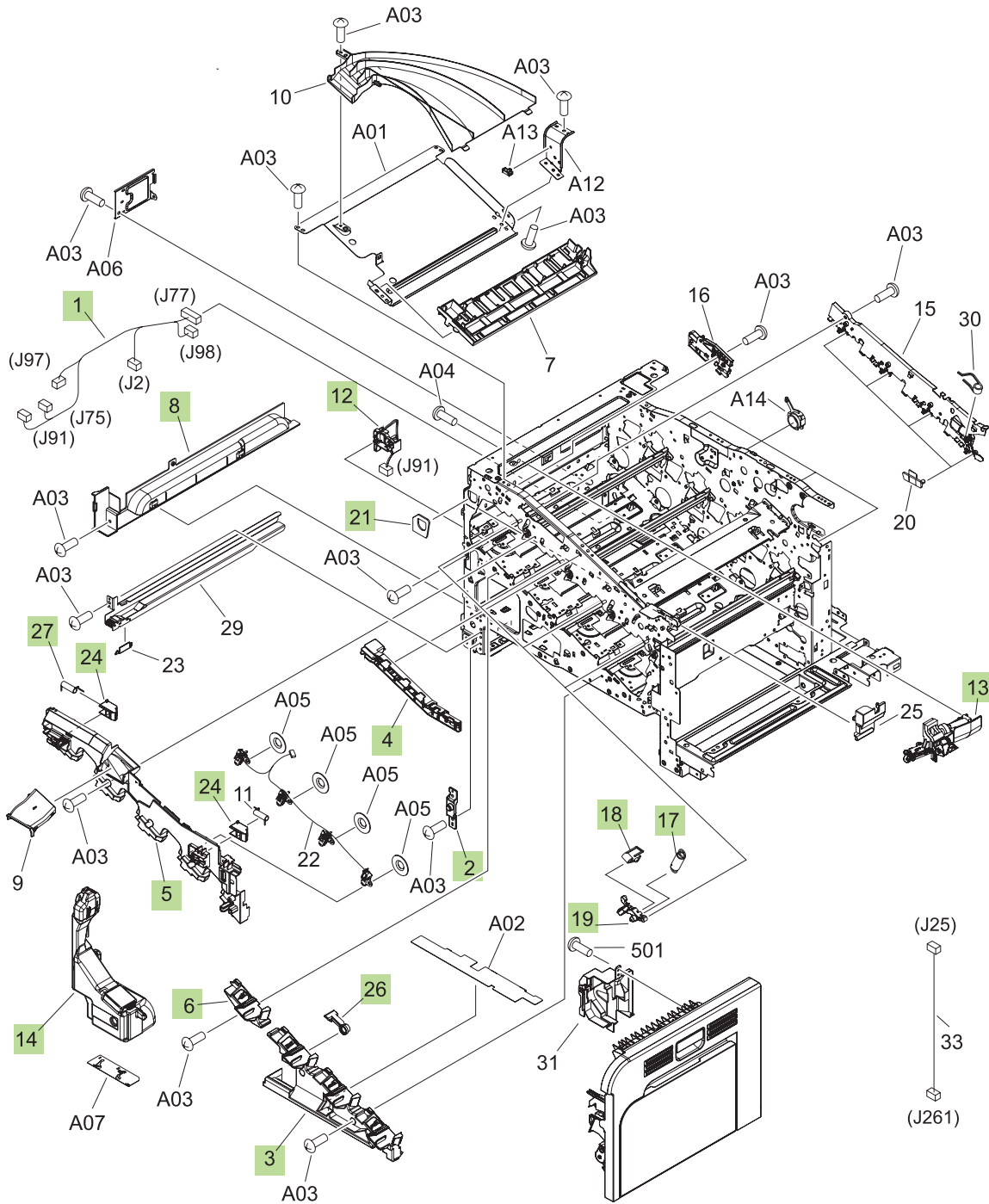
**Table 8-3 Right door assembly**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Right door assembly (duplex)	RM1-4957-000CN	1
1	Right door assembly (simplex)	RM1-5005-000CN	1

# Internal components

## Internal components (1 of 5)

Figure 8-3 Internal components 1 of 5



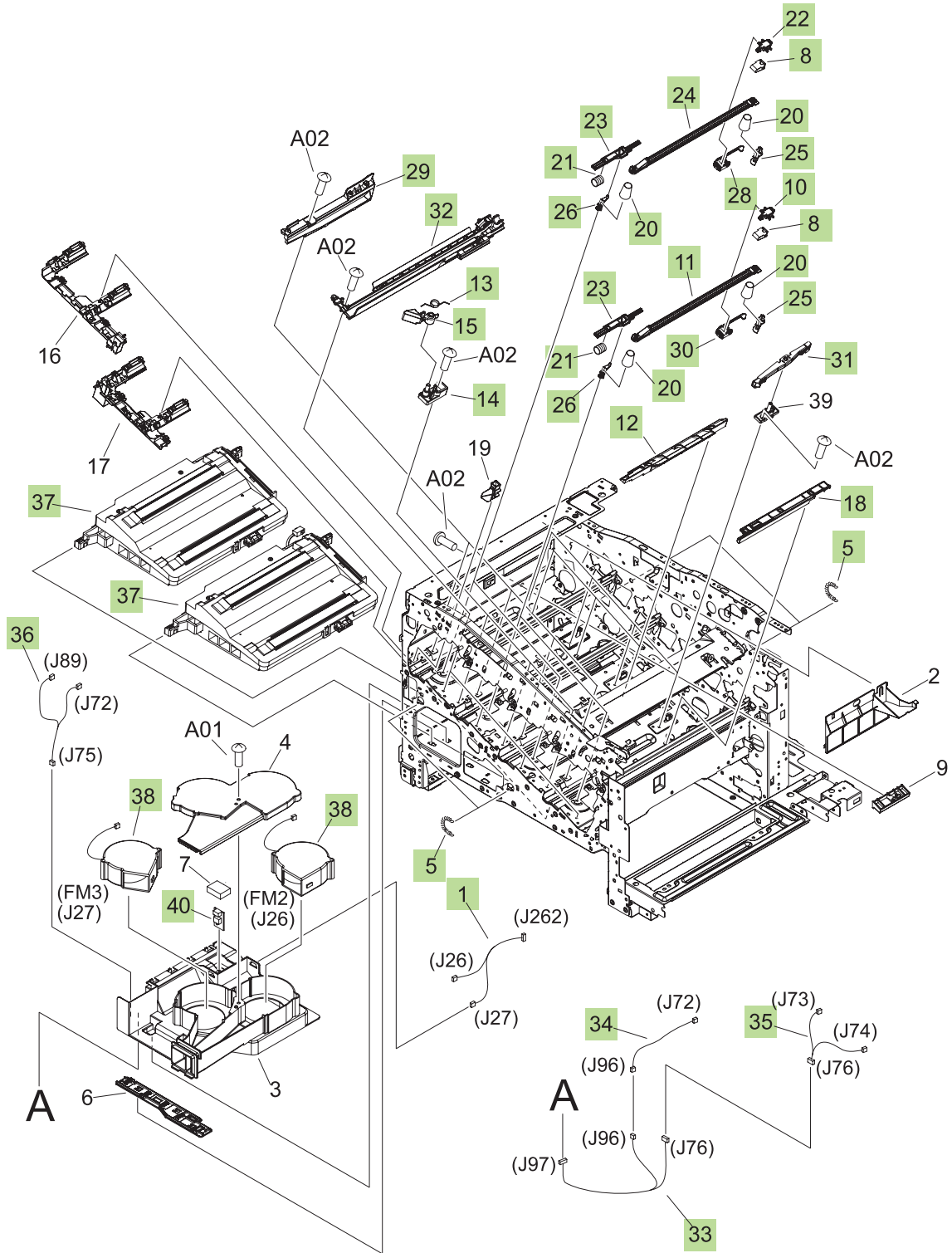


**Table 8-4 Internal components (1 of 5)**

Ref	Description	Part number	Qty
1	Lifter cable assembly	RM1-5742-000CN	1
3	Cover, front inner lower	RL1-1914-000CN	1
5	Cover, front inner upper	RC2-5006-000CN	1
6	Cover, front inner lower	RL1-1915-000CN	1
8	Cover, left lower	RC2-5069-000CN	1
12	Waste toner detect assembly	RM1-5696-000CN	1
13	Waste toner duct assembly	RM1-4977-000CN	1
14	Toner collection unit kit	CC468-67910	1
17	Spring, tension	RU6-2236-000CN	4
18	Spring, ground	RU6-2237-000CN	4
19	Lever, cartridge pressure front	RC2-3983-000CN	4
21	Seal, waste toner box	RC2-4780-000CN	1
24	Lock, door	RC2-5937-000CN	1
26	Lever, box presence detect	RC2-5951-000CN	1
27	Spring, compression	RU6-2568-000CN	1

## Internal components (2 of 5)

Figure 8-4 Internal components 2 of 5



**Table 8-5 Internal components (2 of 5)**

Ref	Description	Part number	Qty
1	Fan cable assembly	RM1-5746-000CN	1
5	Spring, tension	RU6-2436-000CN	4
8	Spring, leaf	RC2-5970-000CN	4
10	Tab	RC2-5909-000CN	2
11	Shutter	RC2-5910-000CN	2
12	Cover	RC2-5912-000CN	3
13	Spring, torsion	RC2-5958-000CN	3
14	Holder, cartridge lock lever	RC2-5955-000CN	3
15	Lever, cartridge lock	RC2-5954-000CN	3
18	Cover	RC2-5962-000CN	1
20	Spring, compression	RU6-2318-000CN	8
21	Spring, compression	RU6-2316-000CN	4
22	Tab	RC2-4428-000CN	2
23	Lever, shutter	RC2-4415-000CN	4
24	Shutter	RC2-4413-000CN	2
25	Shutter rear arm	RC2-4407-000CN	4
26	Shutter front arm	RC2-4406-000CN	4
28	Base	RL1-2144-000CN	2
29	Toner sensor holder assembly	RM1-5700-000CN	4
30	Base	RL1-1923-000CN	2
31	Base assembly	RM1-4979-000CN	4
32	Lower cartridge guide assembly	RM1-4984-000CN	4
33	Connecting cable assembly	RM1-5749-000CN	1
34	Sensor cable assembly	RM1-5740-000CN	1
35	Sensor cable assembly	RM1-5741-000CN	1
36	Motor/sensor cable assembly	RM1-5752-000CN	1
37	Scanner assembly kit (one scanner only)	CC468-67917	1
38	Fan	RK2-2418-000CN	2
40	Sensor unit, Tmp/Hum sensor	RK2-2229-000CN	1

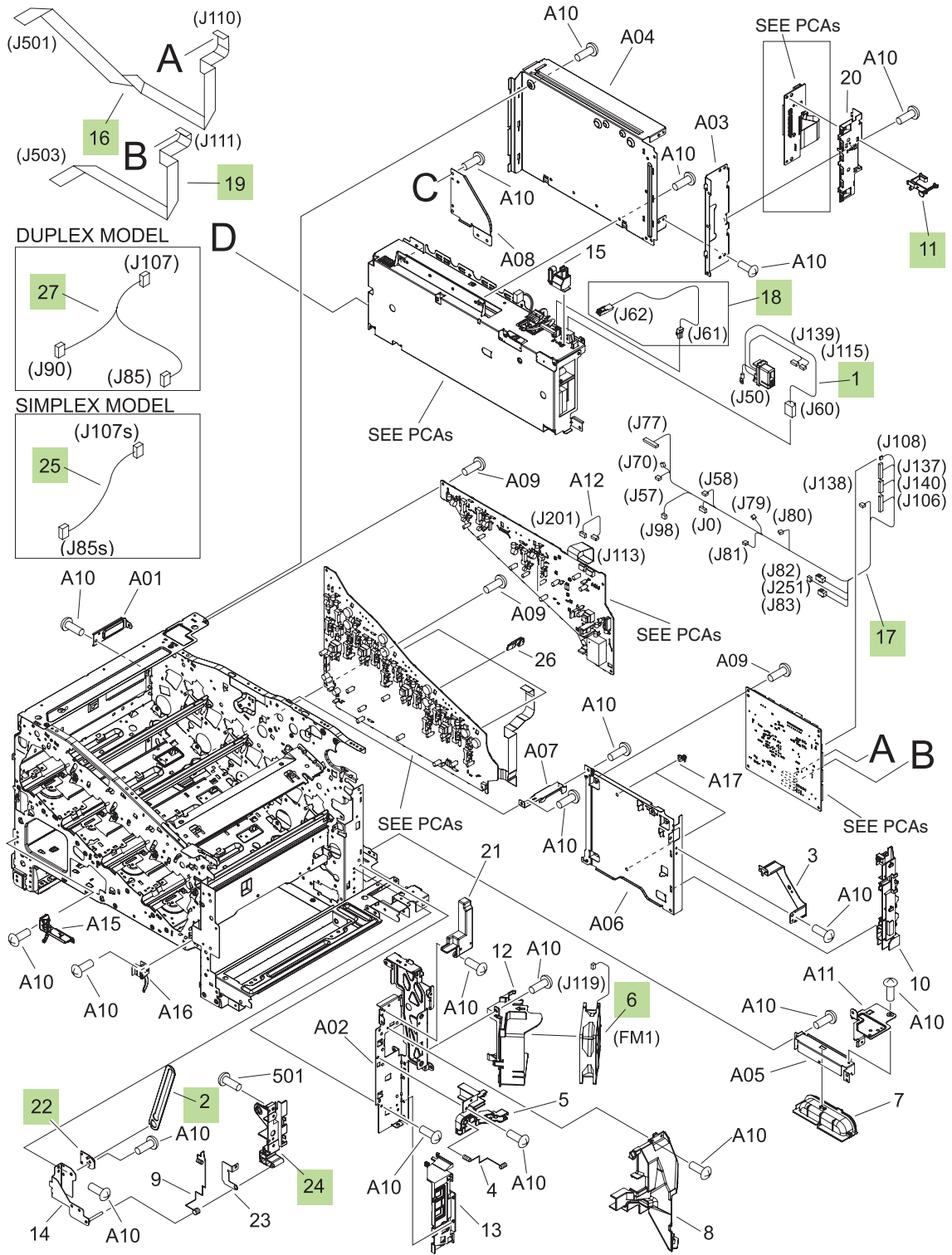


**Table 8-6 Internal components (3 of 5)**

Ref	Description	Part number	Qty
6	Link, door stopper right	RC2-4916-000CN	1
9	Cover, right lower inner	RC2-5019-000CN	1
10	Interlock link	RC2-5120-000CN	1
11	Interlock switch mount	RC2-5123-000CN	1
12	Interlock link switch arm	RC2-5121-000CN	1
14	Interlock link	RC2-5119-000CN	1
15	Interlock link	RC2-5118-000CN	1
17	Switch lever	RC2-5124-000CN	1
18	Shaft	RC2-5913-000CN	1
19	Spring, torsion	RC2-5934-000CN	1
20	Cartridge lock lever	RC2-5954-000CN	1
22	Spring, torsion	RC2-5958-000CN	1
28	Interlock link	RC2-5122-000CN	1
31	Power supply button	RL1-1947-000CN	1
32	Photo interrupter, TLP1243	WG8-5696-000CN	1
36	Density detect sensor assembly	RM1-4953-000CN	1
37	Lower pick up guide assembly	RM1-4980-000CN	1
38	ITB kit	CC468-67907	1
39	Control panel cable assembly	RM1-5743-000CN	1
40	Switch cable assembly	RM1-5718-000CN	1
41	Front cable assembly	RM1-5723-000CN	1
42	Front lock arm assembly	RM1-5532-000CN	1
43	Power supply switch assembly	RM1-5697-000CN	1
44	Door switch assembly	RM1-5732-000CN	1
45	Switch	WC4-5171-000CN	1
46	Secondary transfer (T2) roller kit	CC468-67914	1
47	Rear lock arm assembly	RM1-5533-000CN	1
48	Duplex reverse guide kit	CC468-67913	1

# Internal components (4 of 5)

Figure 8-6 Internal components 4 of 5

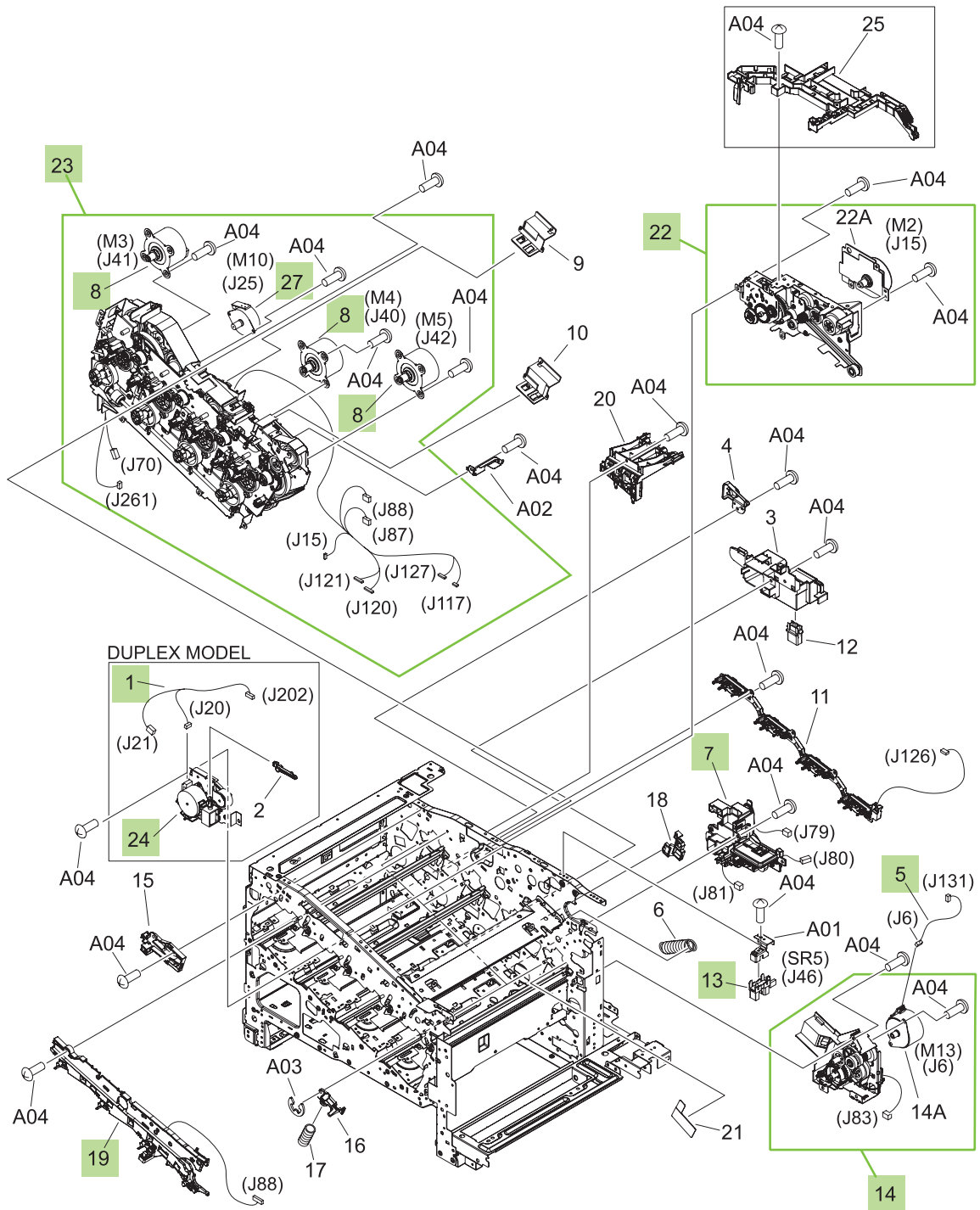


**Table 8-7 Internal components (4 of 5)**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Fusing (fixing) connecting cable assembly	RM1-5714-000CN	1
2	Door stopper right link	RC2-4916-000CN	1
6	Fan	RK2-2416-000CN	1
11	Switch arm	RC2-5943-000CN	1
16	Scanner flat cable	RK2-2506-000CN	1
17	Rear cable assembly	RM1-5721-000CN	1
18	Switch connecting cable assembly	RM1-5719-000CN	1
19	Scanner flat cable	RK2-2508-000CN	1
24	Right door rear hinge	RC2-4895-000CN	1
25	MP sensor cable assembly (simplex)	RM1-5750-000CN	1
27	MP sensor cable assembly (duplex)	RM1-5737-000CN	1

## Internal components (5 of 5)

Figure 8-7 Internal components 5 of 5



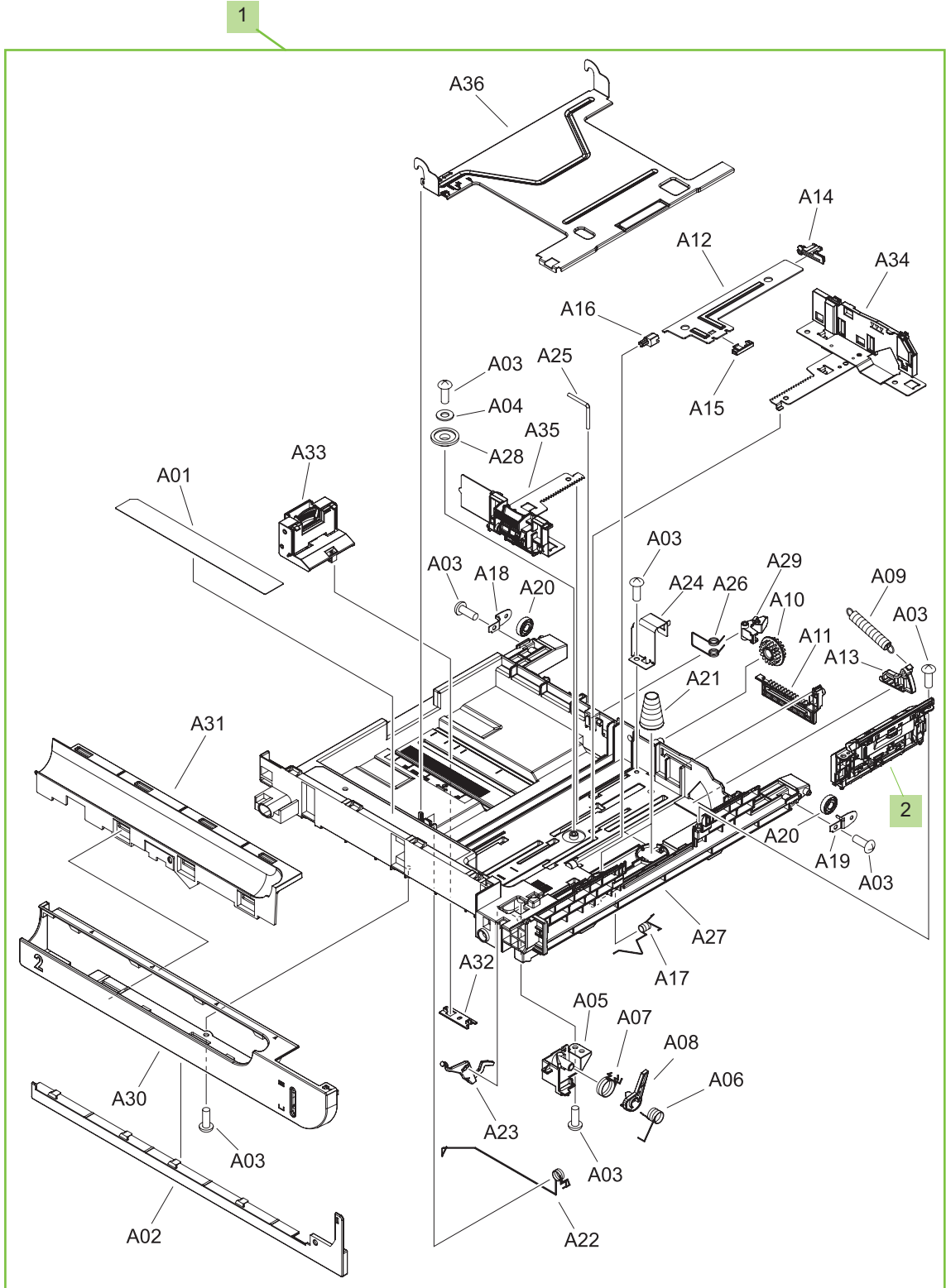


**Table 8-8 Internal components (5 of 5)**

Ref	Description	Part number	Qty
1	Duplexing unit cable assembly	RM1-5730-000CN	1
5	Pick up motor cable assembly	RM1-5731-000CN	1
7	Lifter drive assembly	RM1-4976-000CN	1
8	Drum motor assembly	RM1-4988-000CN	3
13	Photo interrupter, TLP1243	WG8-5696-000CN	1
14	Cassette paper pick up drive assembly with motor	RM1-4975-000CN	1
19	Rear Pre-exposure PCA assembly	RM1-5705-000CN	1
22	Fusing (fixing) drive assembly with motor (duplex)	RM1-4974-000CN	1
22	Fusing (fixing) drive assembly with motor (simplex)	RM1-5001-000CN	1
23	Main drive assembly kit	CC468-67918	1
24	Duplexing drive assembly	RM1-4973-000CN	1
27	Stepping motor, DC (developing disengagement)	RK2-2415-000CN	1

# Cassette

Figure 8-8 Cassette

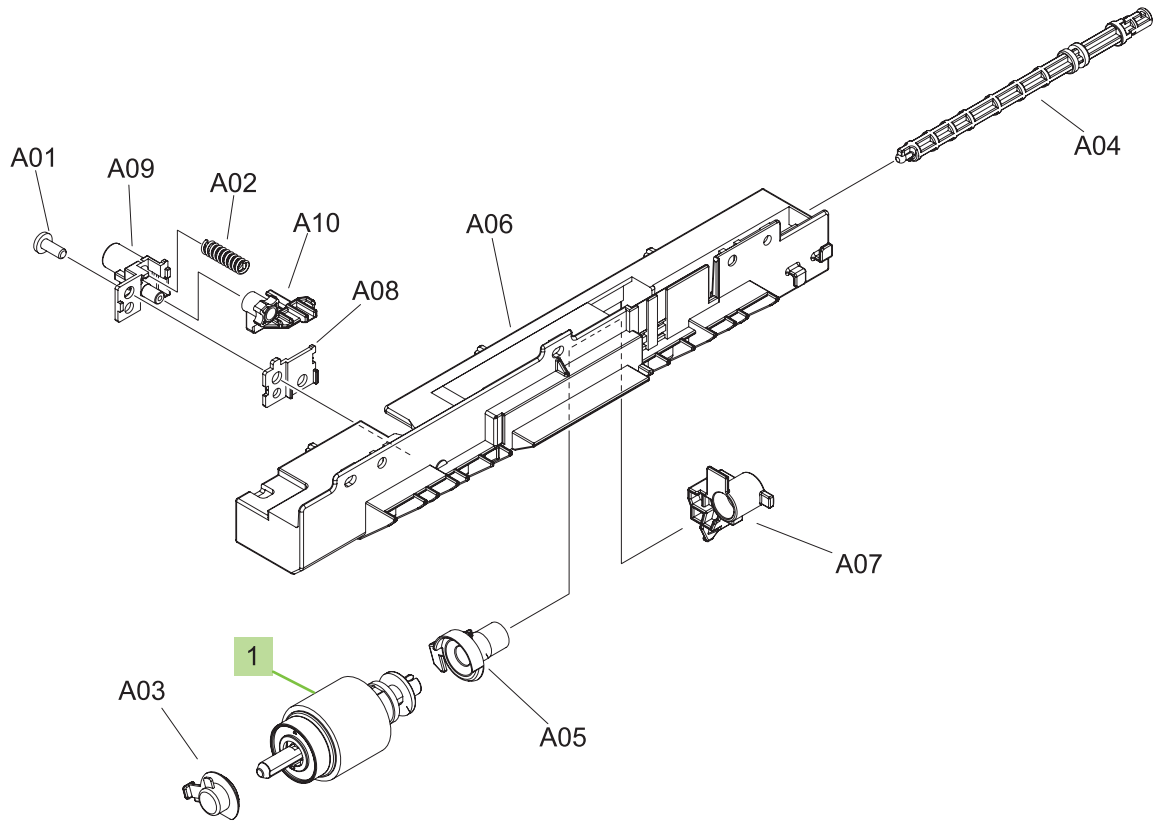


**Table 8-9 Cassette**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	250 sheet cassette	RM1-4962-000CN	1
2	Separation roller assembly (250 tray)	CC468-67911	1

## Cassette paper pickup assembly

Figure 8-9 Cassette paper pickup assembly

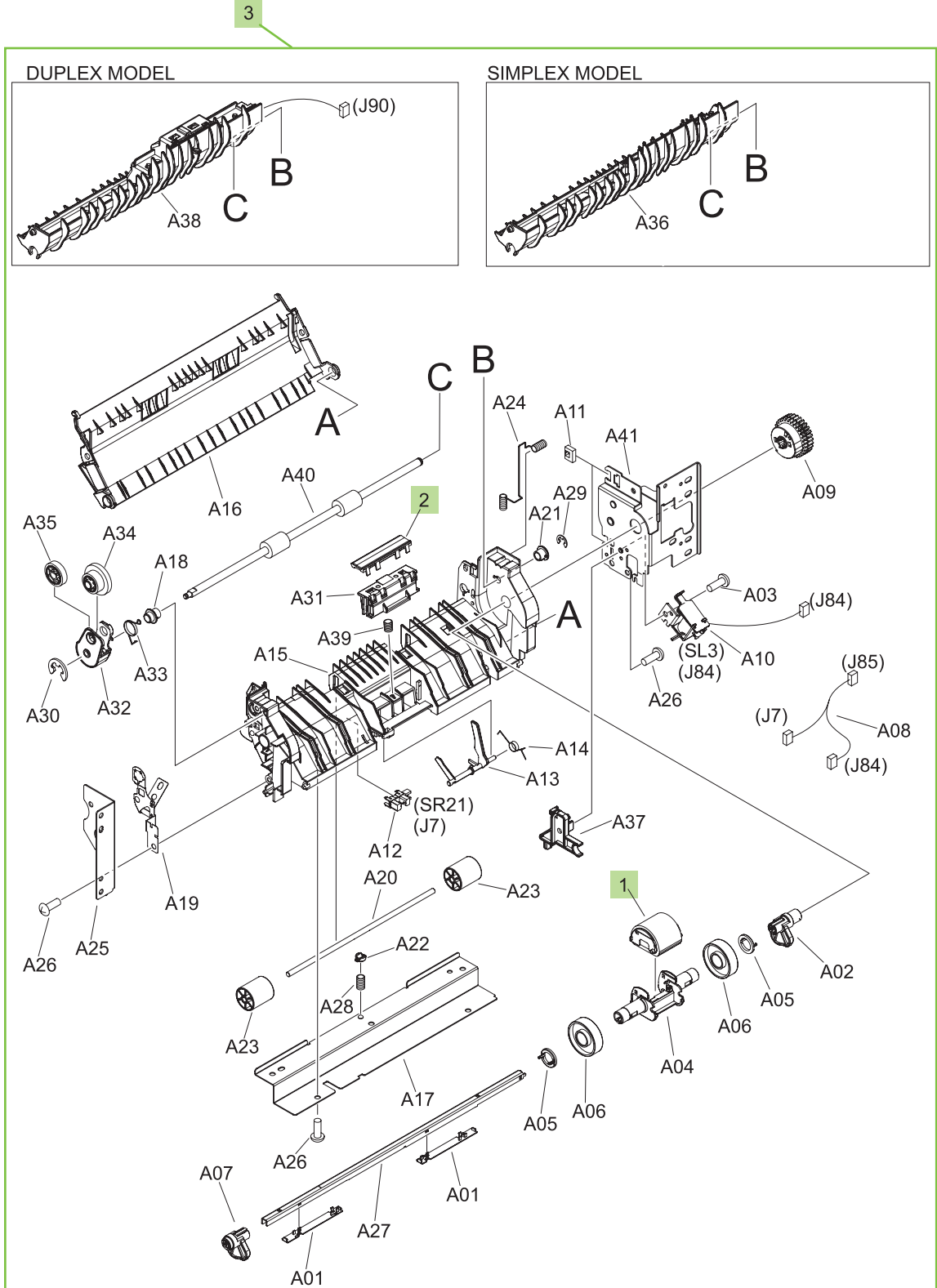


**Table 8-10** Cassette paper pickup assembly

Ref	Description	Part number	Qty
1	Pickup roller (250 cassette)	CC468-67911	1

# MP paper pickup assembly

Figure 8-10 MP paper pickup assembly

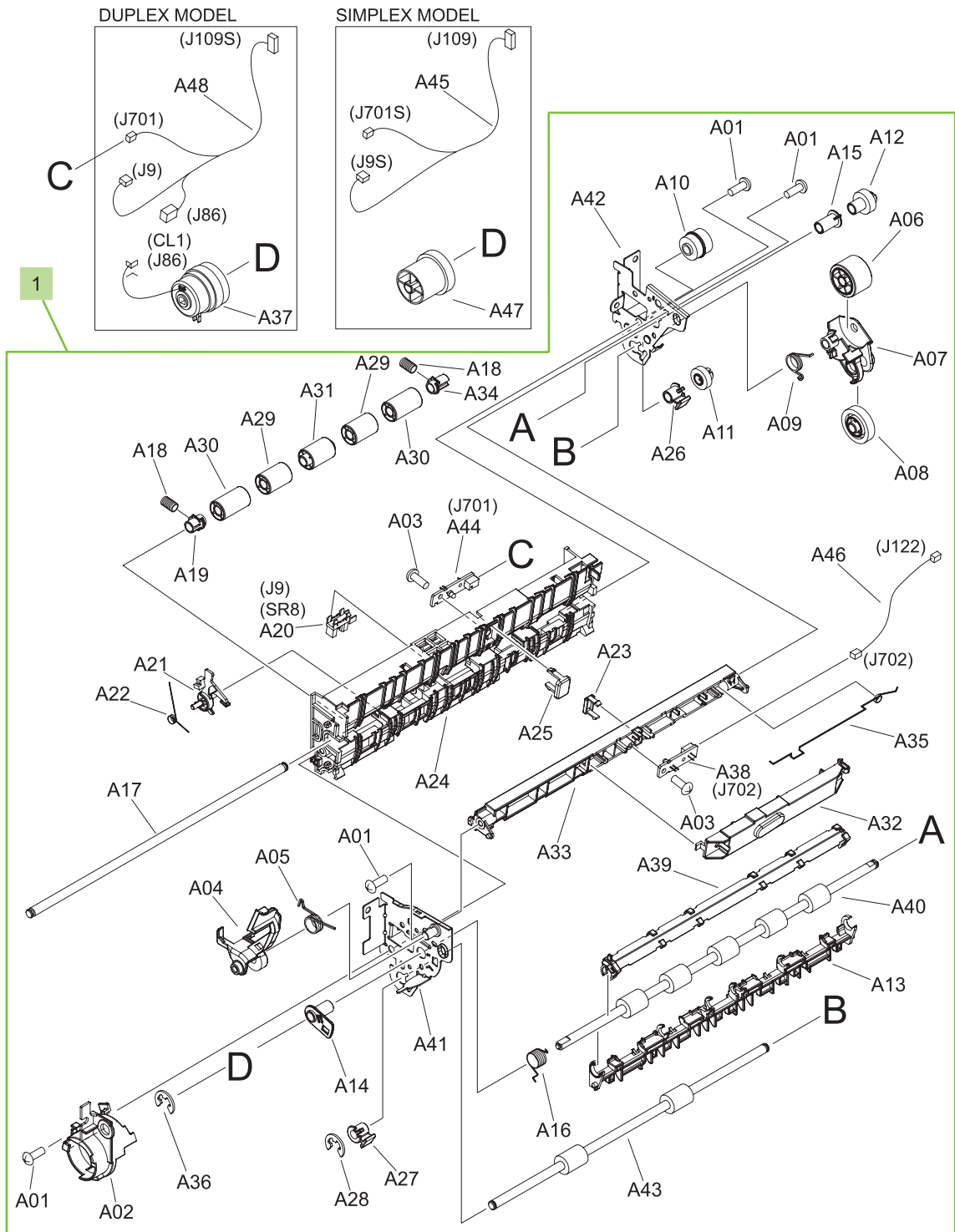


**Table 8-11 MP paper pickup assembly**

Ref	Description	Part number	Qty
1	Pickup roller (MP)	CC468-67911	1

# Registration assembly

Figure 8-11 Registration assembly



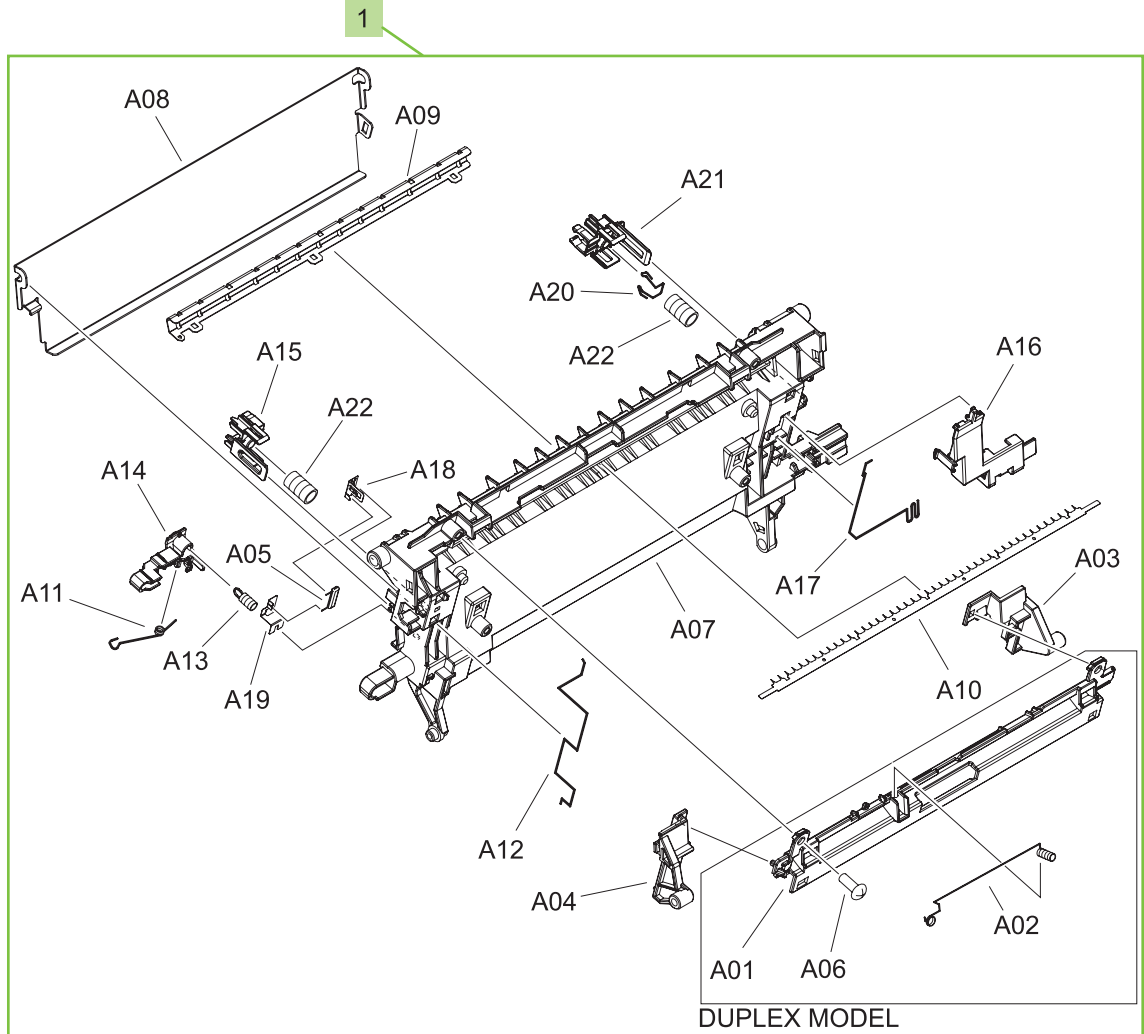


**Table 8-12 Registration assembly**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Registration assembly (simplex)	RM1-5009-000CN	1
1	Registration assembly (duplex)	RM1-4969-000CN	1

## Secondary transfer assembly

Figure 8-12 Secondary transfer assembly

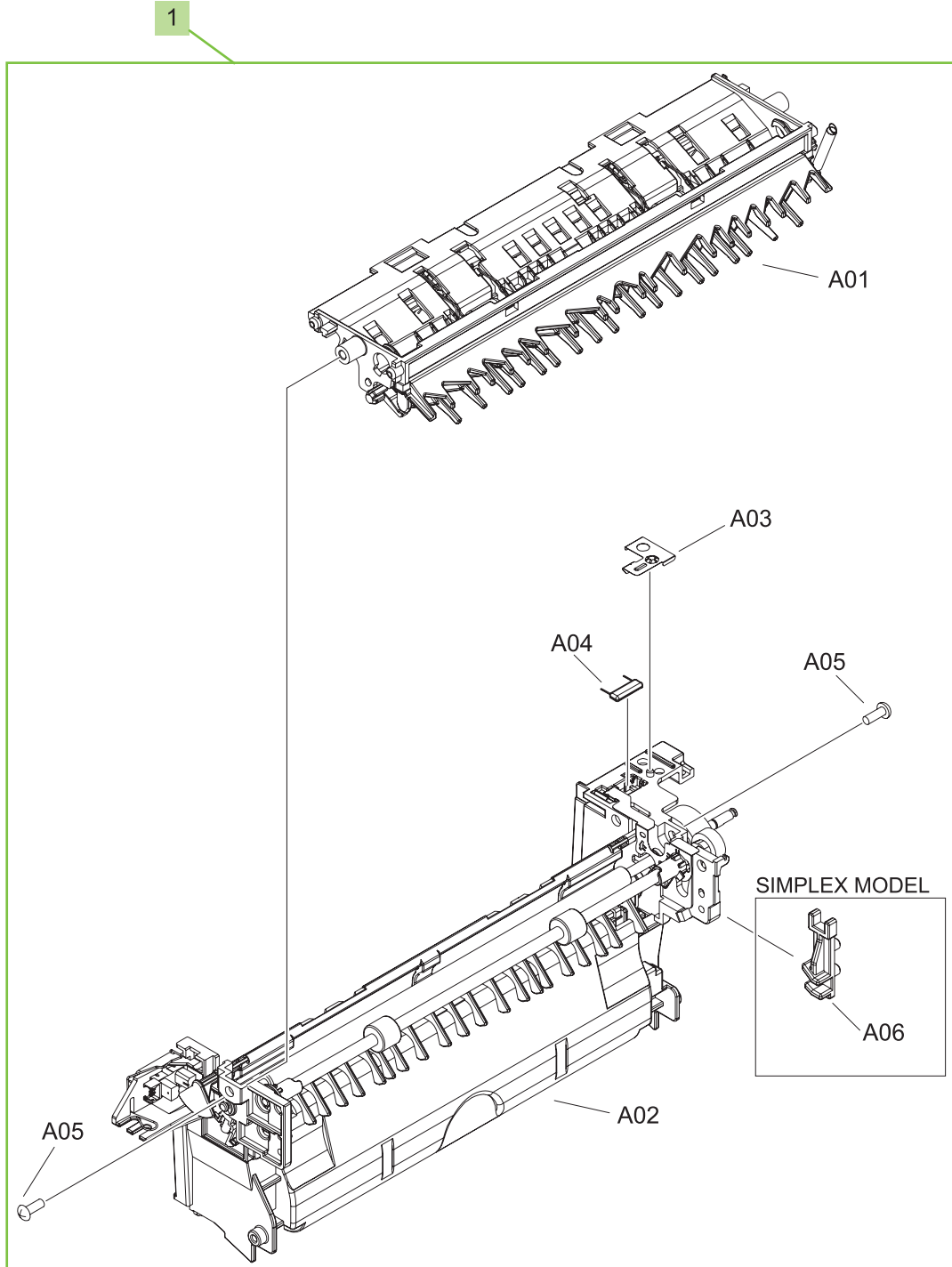


**Table 8-13 Secondary Transfer assembly**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Secondary transfer assembly (simplex) kit	CC468-67916	1
1	Secondary transfer assembly (duplex) kit	CC468-67915	1

## Delivery assembly

Figure 8-13 Delivery assembly

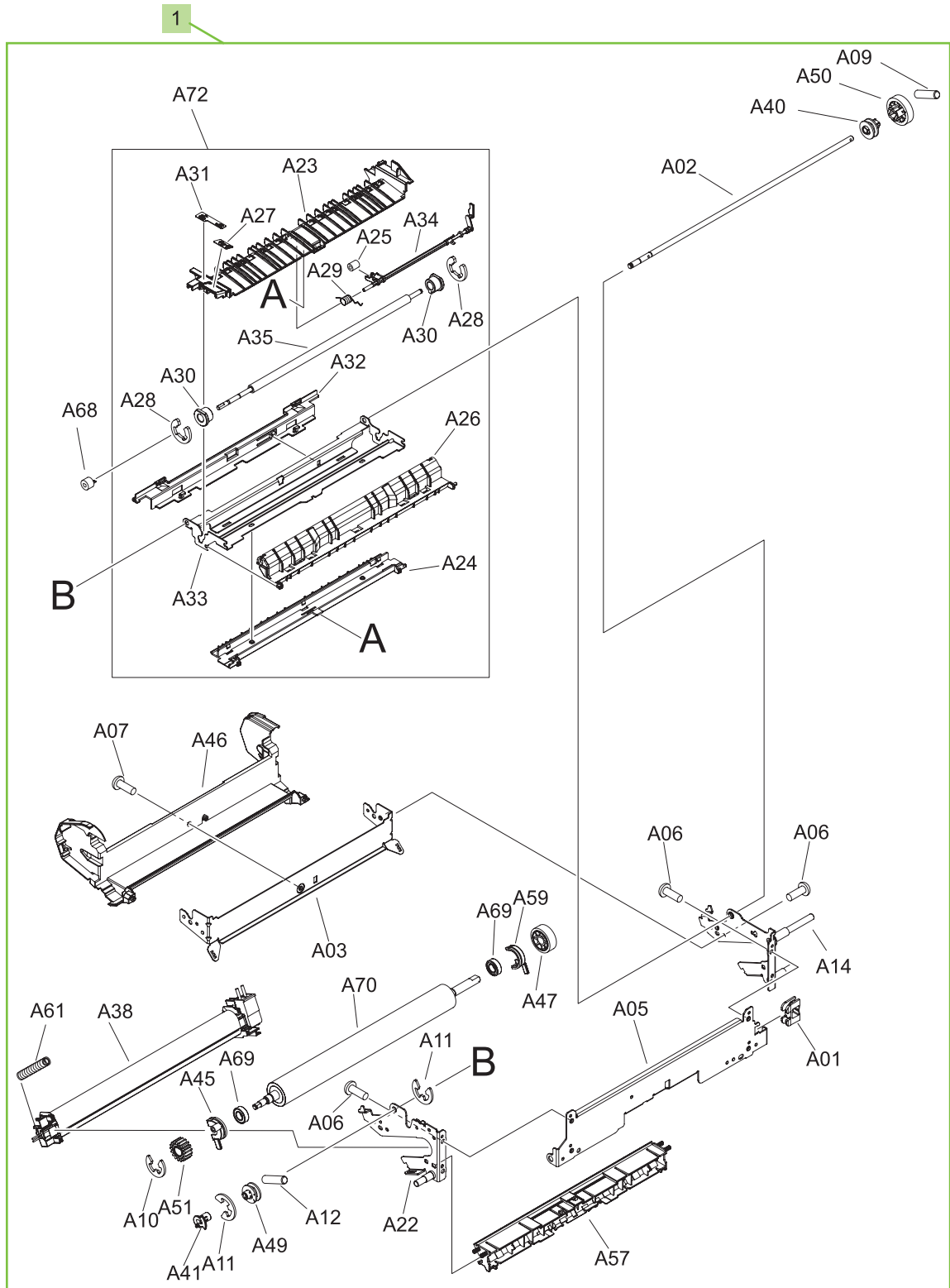


**Table 8-14 Delivery assembly**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Paper delivery assembly (simplex)	RM1-5003-000CN	1
1	Paper delivery assembly (duplex)	RM1-4970-000CN	1

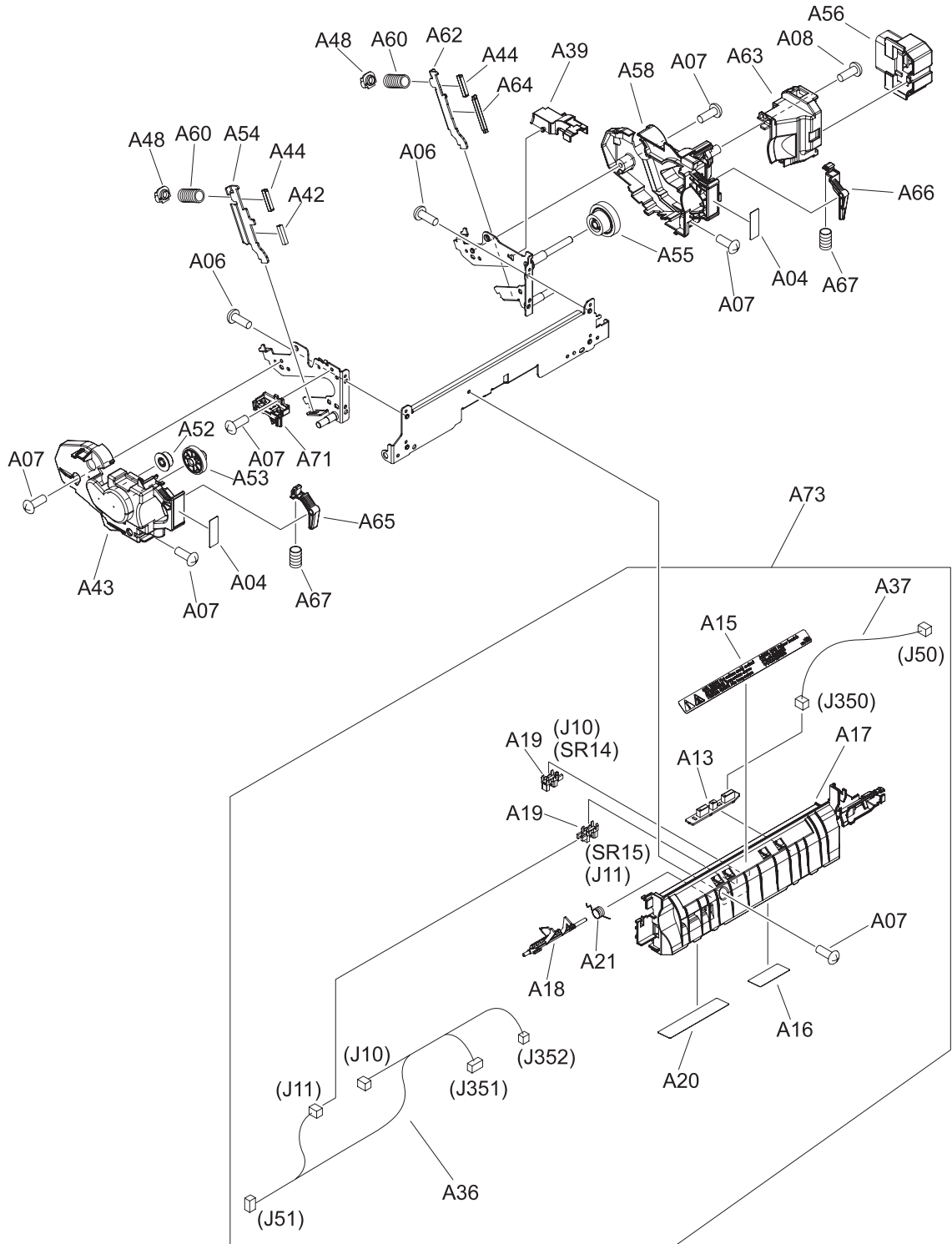
# Fusing (fixing) assembly

Figure 8-14 Fusing (fixing) assembly (1 of 2)





**Figure 8-15** Fusing (fixing) assembly (2 of 2)



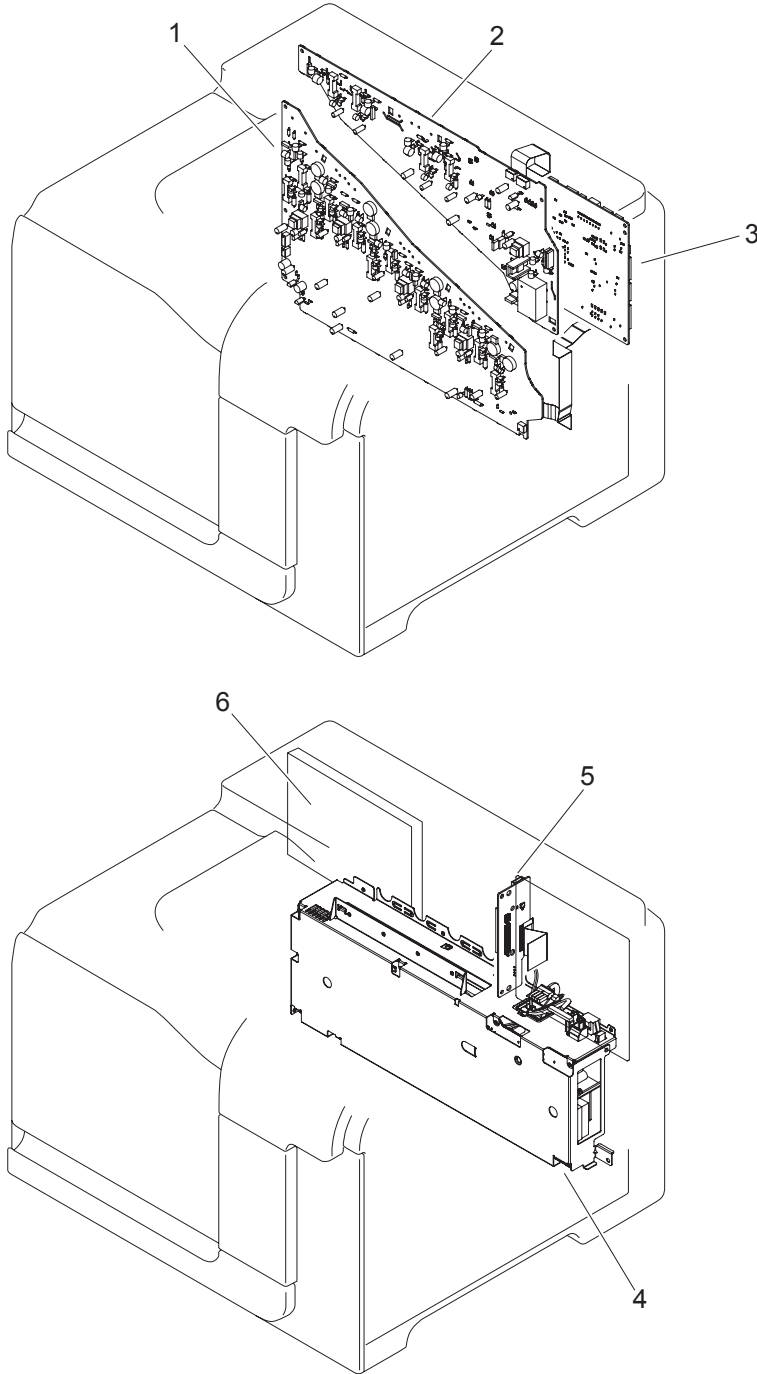


**Table 8-15 Fusing assembly**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Fuser (fixing) 110 V assembly kit	CC519-67901	1
1	Fuser (fixing) 220 V assembly kit	CC519-67902	1

# PCAs

Figure 8-16 PCAs



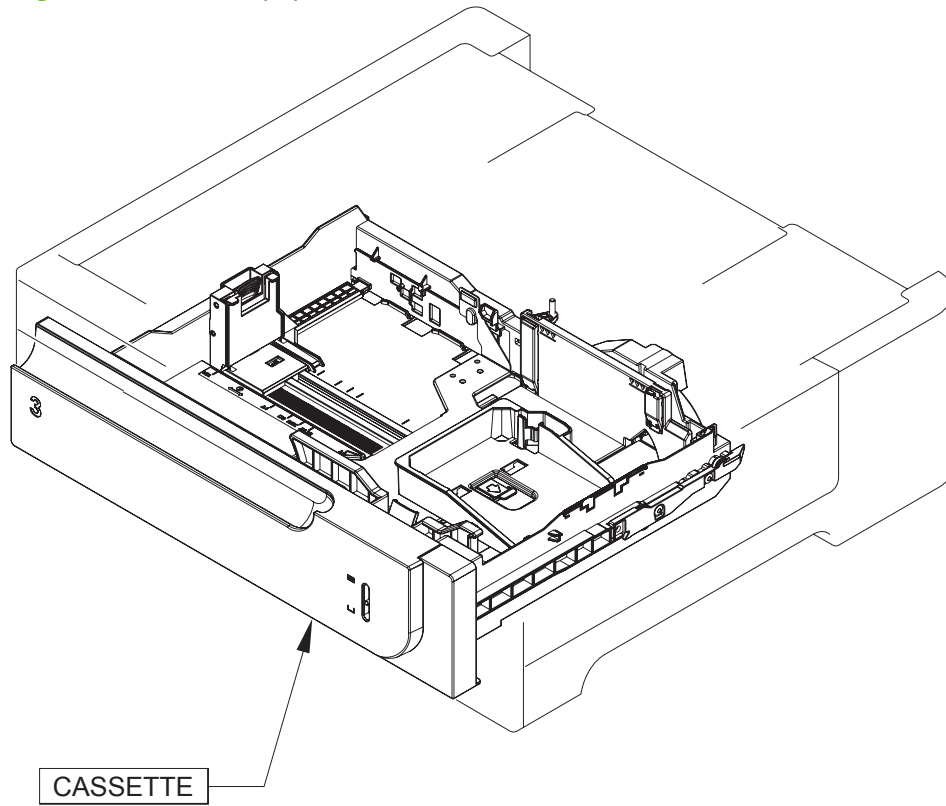
**Table 8-16 PCAs**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Lower HVPS-D PCA assembly	RM1-5680-000CN	1
2	Upper HVPS-T PCA assembly	RM1-5681-000CN	1
3	DC controller PCA assembly	RM1-5678-000CN	1
4	LVPS 110V	RM1-5685-000CN	1
4	LVPS 220V	RM1-5686-000CN	1
5	Inner connecting PCA assembly	RM1-5695-000CN	1
6	Formatter assembly	CE859-69001	1

# Assesories

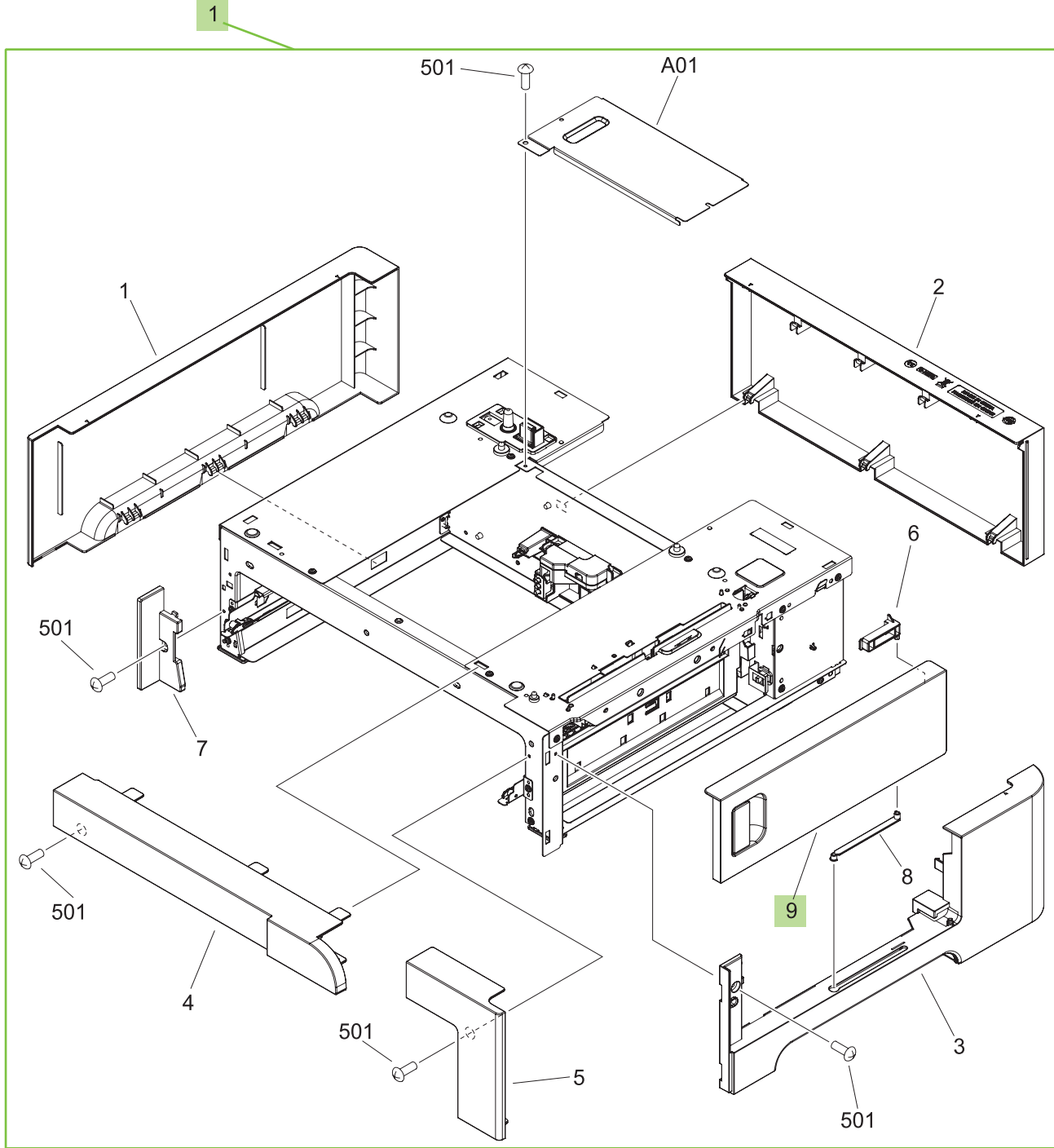
## 1 x 500 paper feeder

Figure 8-17 1 x 500 paper feeder



# 1 x 500 paper feeder

Figure 8-18 1 x 500 paper feeder

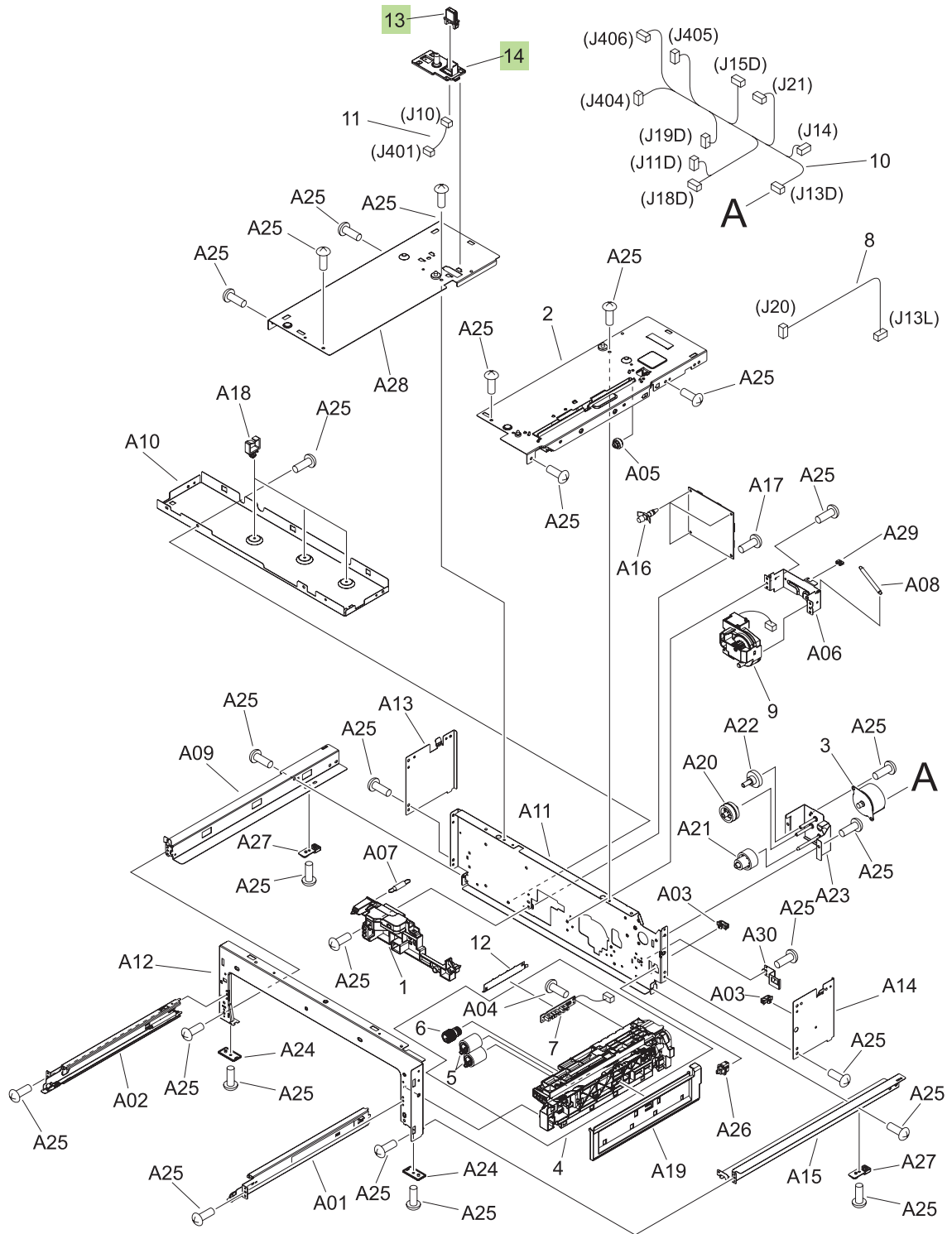


**Table 8-17 1 x 500 paper feeder**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	1 x 500 sheet feeder replacement kit	CC468-67905	1
9	1 x 500 sheet feeder right door kit	CC468-67906	1

# Paper feeder main body

Figure 8-19 Paper feeder main body



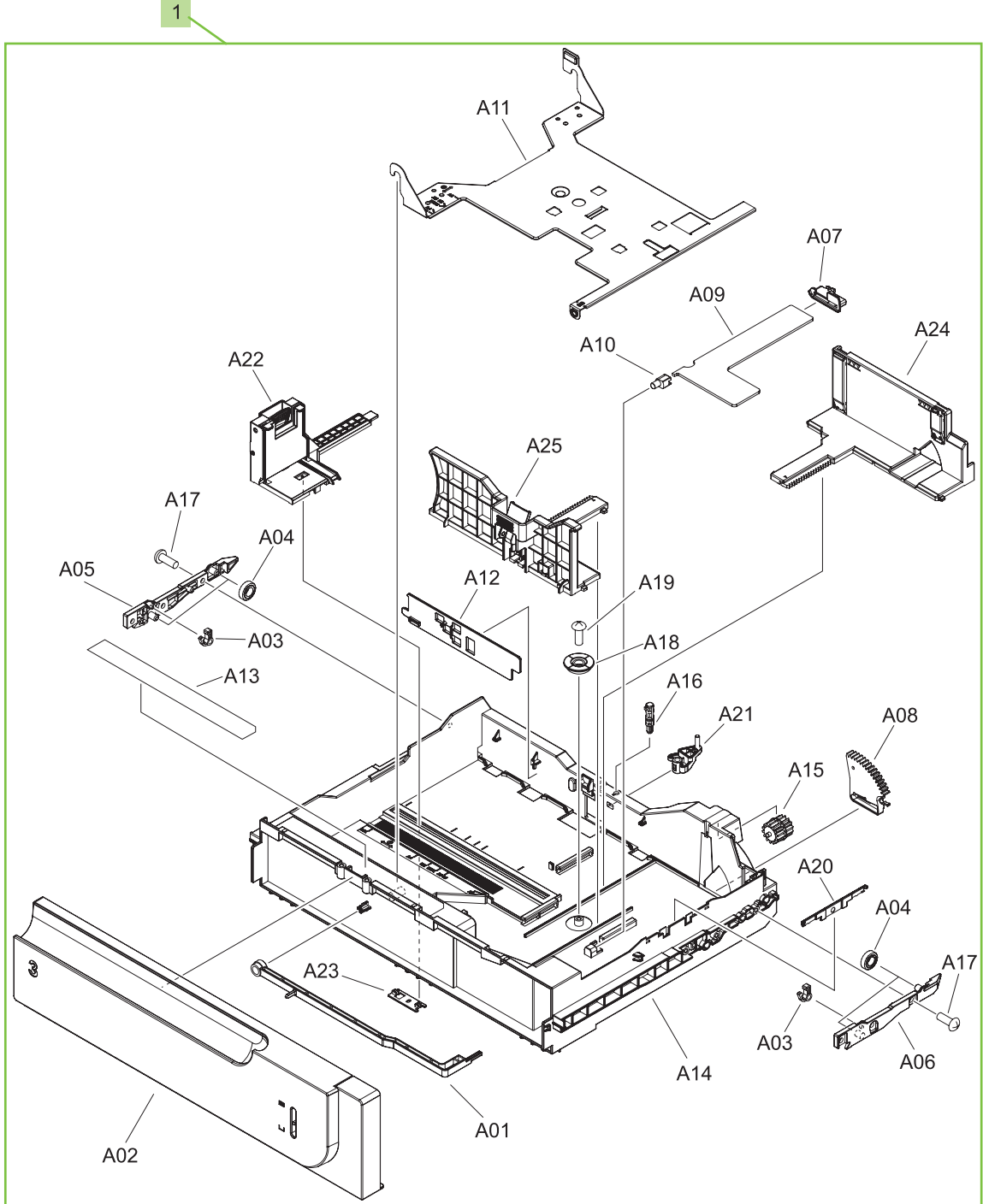
**Table 8-18 Paper feeder main body**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
5	Roller assembly paper feeder (500 SF)	CC468-67911	1
6	Roller, paper pick up (500 SF)	CC468-67911	1
13	Drawer connector	VSI-7257-007-CN	1
14	Drawer connector holder	RC2-5416-000CN	1



# Cassette

Figure 8-20 Cassette



**Table 8-19 Cassette**

Ref	Description	Part number	Qty
1	500 sf cassette	RM1-6198-000CN	1

# Alphabetical parts list

**Table 8-20 Alphabetical parts list**

Description	Part number	Table and page
1 x 500 sheet feeder replacement kit	CC468-67905	<a href="#">1 x 500 paper feeder on page 488</a>
1 x 500 sheet feeder right door kit	CC468-67906	<a href="#">1 x 500 paper feeder on page 488</a>
250 sheet cassette	RM1-4962-000CN	<a href="#">Cassette on page 469</a>
500 sf cassette	RM1-6198-000CN	<a href="#">Cassette on page 492</a>
Base	RL1-2144-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Base	RL1-1923-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Base assembly	RM1-4979-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Cartridge lock lever	RC2-5954-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Cassette paper pick up drive assembly with motor	RM1-4975-000CN	<a href="#">Internal components (5 of 5) on page 467</a>
Connecting cable assembly	RM1-5749-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Control panel assembly	RM1-5743-000CN	<a href="#">External covers, panels, and doors; on page 455</a>
Control panel cable assembly	RM1-5743-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Cover	RC2-5912-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Cover	RC2-5962-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Cover, front inner lower	RL1-1914-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Cover, front inner lower	RL1-1915-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Cover, front inner upper	RC2-5006-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Cover, left	RC2-5052-000CN	<a href="#">External covers, panels, and doors; on page 455</a>
Cover, left lower	RC2-5069-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Cover, rear	RC2-5048-000CN	<a href="#">External covers, panels, and doors; on page 455</a>
Cover, rear right	RC2-5057-000CN	<a href="#">External covers, panels, and doors; on page 455</a>

**Table 8-20 Alphabetical parts list (continued)**

Description	Part number	Table and page
Cover, right front	RC2-5056-000CN	<a href="#">External covers, panels, and doors; on page 455</a>
Cover, right lower	RC2-5059-000CN	<a href="#">External covers, panels, and doors; on page 455</a>
Cover, right lower inner	RC2-5019-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Cover, upper	RC2-5054-000CN	<a href="#">External covers, panels, and doors; on page 455</a>
DC controller PCA assembly	RM1-5678-000CN	<a href="#">PCAs on page 485</a>
Density detect sensor assembly	RM1-4953-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Door stopper right link	RC2-4916-000CN	<a href="#">Internal components (4 of 5) on page 465</a>
Door switch assembly	RM1-5732-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Drawer connector	VSI-7257-007-CN	<a href="#">Paper feeder main body on page 490</a>
Drawer connector holder	RC2-5416-000CN	<a href="#">Paper feeder main body on page 490</a>
Drum motor assembly	RM1-4988-000CN	<a href="#">Internal components (5 of 5) on page 467</a>
Duplex reverse guide kit	CC468-67913	<a href="#">Internal components (3 of 5) on page 463</a>
Duplexing drive assembly	RM1-4973-000CN	<a href="#">Internal components (5 of 5) on page 467</a>
Duplexing unit cable assembly	RM1-5730-000CN	<a href="#">Internal components (5 of 5) on page 467</a>
Fan	RK2-2418-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Fan	RK2-2416-000CN	<a href="#">Internal components (4 of 5) on page 465</a>
Fan cable assembly	RM1-5746-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Formatter assembly	CE859-69001	<a href="#">PCAs on page 485</a>
Front cable assembly	RM1-5723-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Front door assembly	RM1-4986-000CN	<a href="#">External covers, panels, and doors; on page 455</a>
Front door kit	CC468-67920	<a href="#">External covers, panels, and doors; on page 455</a>
Front lock arm assembly	RM1-5532-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Fuser (fixing) 110 V assembly kit	CC519-67901	<a href="#">Fusing assembly on page 483</a>

**Table 8-20 Alphabetical parts list (continued)**

Description	Part number	Table and page
Fuser (fixing) 220 V assembly kit	CC519-67902	<a href="#">Fusing assembly on page 483</a>
Fusing (fixing) connecting cable assembly	RM1-5714-000CN	<a href="#">Internal components (4 of 5) on page 465</a>
Fusing (fixing) drive assembly with motor (duplex)	RM1-4974-000CN	<a href="#">Internal components (5 of 5) on page 467</a>
Fusing (fixing) drive assembly with motor (simplex)	RM1-5001-000CN	<a href="#">Internal components (5 of 5) on page 467</a>
Holder, cartridge lock lever	RC2-5955-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Inner connecting PCA assembly	RM1-5695-000CN	<a href="#">PCAs on page 485</a>
Interlock link	RC2-5120-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Interlock link	RC2-5119-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Interlock link	RC2-5118-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Interlock link	RC2-5122-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Interlock link switch arm	RC2-5121-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Interlock switch mount	RC2-5123-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
ITB kit	CC468-67907	<a href="#">Internal components (3 of 5) on page 463</a>
Lever, box presence detect	RC2-5951-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Lever, cartridge lock	RC2-5954-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Lever, cartridge pressure front	RC2-3983-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Lever, shutter	RC2-4415-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Lifter cable assembly	RM1-5742-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Lifter drive assembly	RM1-4976-000CN	<a href="#">Internal components (5 of 5) on page 467</a>
Link, door stopper right	RC2-4916-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Lock, door	RC2-5937-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Lower cartridge guide assembly	RM1-4984-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Lower HVPS-D PCA assembly	RM1-5680-000CN	<a href="#">PCAs on page 485</a>

**Table 8-20 Alphabetical parts list (continued)**

Description	Part number	Table and page
Lower pick up guide assembly	RM1-4980-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
LVPS 110V	RM1-5685-000CN	<a href="#">PCAs on page 485</a>
LVPS 220V	RM1-5686-000CN	<a href="#">PCAs on page 485</a>
Main drive assembly kit	CC468-67918	<a href="#">Internal components (5 of 5) on page 467</a>
Motor/sensor cable assembly	RM1-5752-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
MP sensor cable assembly (duplex)	RM1-5737-000CN	<a href="#">Internal components (4 of 5) on page 465</a>
MP sensor cable assembly (simplex)	RM1-5750-000CN	<a href="#">Internal components (4 of 5) on page 465</a>
Paper delivery assembly (duplex)	RM1-4970-000CN	<a href="#">Delivery assembly on page 479</a>
Paper delivery assembly (simplex)	RM1-5003-000CN	<a href="#">Delivery assembly on page 479</a>
Photo interrupter, TLP1243	WG8-5696-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Photo interrupter, TLP1243	WG8-5696-000CN	<a href="#">Internal components (5 of 5) on page 467</a>
Pick up motor cable assembly	RM1-5731-000CN	<a href="#">Internal components (5 of 5) on page 467</a>
Pickup roller (250 cassette)	CC468-67911	<a href="#">Cassette paper pickup assembly on page 471</a>
Pickup roller (MP)	CC468-67911	<a href="#">MP paper pickup assembly on page 473</a>
Plate, blanking	RC2-5938-000CN	<a href="#">External covers, panels, and doors; on page 455</a>
Power supply button	RL1-1947-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Power supply switch assembly	RM1-5697-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Rear cable assembly	RM1-5721-000CN	<a href="#">Internal components (4 of 5) on page 465</a>
Rear lock arm assembly	RM1-5533-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Rear Pre-exposure PCA assembly	RM1-5705-000CN	<a href="#">Internal components (5 of 5) on page 467</a>
Registration assembly (duplex)	RM1-4969-000CN	<a href="#">Registration assembly on page 475</a>
Registration assembly (simplex)	RM1-5009-000CN	<a href="#">Registration assembly on page 475</a>
Right door assembly (duplex)	RM1-4957-000CN	<a href="#">External covers, panels, and doors; on page 455</a>

**Table 8-20 Alphabetical parts list (continued)**

Description	Part number	Table and page
Right door assembly (duplex)	RM1-4957-000CN	<a href="#">Right door assembly on page 457</a>
Right door assembly (simplex)	RM1-5005-000CN	<a href="#">External covers, panels, and doors; on page 455</a>
Right door assembly (simplex)	RM1-5005-000CN	<a href="#">Right door assembly on page 457</a>
Right door rear hinge	RC2-4895-000CN	<a href="#">Internal components (4 of 5) on page 465</a>
Roller assembly paper feeder (500 SF)	CC468-67911	<a href="#">Paper feeder main body on page 490</a>
Roller, paper pick up (500 SF)	CC468-67911	<a href="#">Paper feeder main body on page 490</a>
Scanner assembly kit (one scanner only)	CC468-67917	<a href="#">Internal components (2 of 5) on page 461</a>
Scanner flat cable	RK2-2506-000CN	<a href="#">Internal components (4 of 5) on page 465</a>
Scanner flat cable	RK2-2508-000CN	<a href="#">Internal components (4 of 5) on page 465</a>
Seal, waste toner box	RC2-4780-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Secondary transfer (T2) roller kit	CC468-67914	<a href="#">Internal components (3 of 5) on page 463</a>
Secondary transfer assembly (duplex) kit	CC468-67915	<a href="#">Secondary Transfer assembly on page 477</a>
Secondary transfer assembly (simplex) kit	CC468-67916	<a href="#">Secondary Transfer assembly on page 477</a>
Sensor cable assembly	RM1-5740-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Sensor cable assembly	RM1-5741-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Sensor unit, Tmp/Hum sensor	RK2-2229-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Separation roller assembly (250 tray)	CC468-67911	<a href="#">Cassette on page 469</a>
Shaft	RC2-5913-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Shutter	RC2-5910-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Shutter	RC2-4413-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Shutter front arm	RC2-4406-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Shutter rear arm	RC2-4407-000CN	<a href="#">Internal components (2 of 5) on page 461</a>

**Table 8-20 Alphabetical parts list (continued)**

Description	Part number	Table and page
Spring, compression	RU6-2568-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Spring, compression	RU6-2318-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Spring, compression	RU6-2316-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Spring, ground	RU6-2237-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Spring, leaf	RC2-5970-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Spring, tension	RU6-2236-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Spring, tension	RU6-2436-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Spring, torsion	RC2-5958-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Spring, torsion	RC2-5934-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Spring, torsion	RC2-5958-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Stepping motor, DC (developing disengagement)	RK2-2415-000CN	<a href="#">Internal components (5 of 5) on page 467</a>
Switch	WC4-5171-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Switch arm	RC2-5943-000CN	<a href="#">Internal components (4 of 5) on page 465</a>
Switch cable assembly	RM1-5718-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Switch connecting cable assembly	RM1-5719-000CN	<a href="#">Internal components (4 of 5) on page 465</a>
Switch lever	RC2-5124-000CN	<a href="#">Internal components (3 of 5) on page 463</a>
Tab	RC2-5909-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Tab	RC2-4428-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Toner collection unit kit	CC468-67910	<a href="#">Internal components (1 of 5) on page 459</a>
Toner sensor holder assembly	RM1-5700-000CN	<a href="#">Internal components (2 of 5) on page 461</a>
Tray, paper delivery	RL1-1941-000CN	<a href="#">External covers, panels, and doors; on page 455</a>
Upper HVPS-T PCA assembly	RM1-5681-000CN	<a href="#">PCAs on page 485</a>



**Table 8-20 Alphabetical parts list (continued)**

Description	Part number	Table and page
Waste toner detect assembly	RM1-5696-000CN	<a href="#">Internal components (1 of 5) on page 459</a>
Waste toner duct assembly	RM1-4977-000CN	<a href="#">Internal components (1 of 5) on page 459</a>

# Numerical parts list

**Table 8-21 Numerical parts list**

Part number	Description	Table and page
CC468-67905	1 x 500 sheet feeder replacement kit	<a href="#">1 x 500 paper feeder on page 488</a>
CC468-67906	1 x 500 sheet feeder right door kit	<a href="#">1 x 500 paper feeder on page 488</a>
CC468-67907	ITB kit	<a href="#">Internal components (3 of 5) on page 463</a>
CC468-67910	Toner collection unit kit	<a href="#">Internal components (1 of 5) on page 459</a>
CC468-67911	Separation roller assembly (250 tray)	<a href="#">Cassette on page 469</a>
CC468-67911	Pickup roller (250 cassette)	<a href="#">Cassette paper pickup assembly on page 471</a>
CC468-67911	Pickup roller (MP)	<a href="#">MP paper pickup assembly on page 473</a>
CC468-67911	Roller assembly paper feeder (500 SF)	<a href="#">Paper feeder main body on page 490</a>
CC468-67911	Roller, paper pick up (500 SF)	<a href="#">Paper feeder main body on page 490</a>
CC468-67913	Duplex reverse guide kit	<a href="#">Internal components (3 of 5) on page 463</a>
CC468-67914	Secondary transfer (T2) roller kit	<a href="#">Internal components (3 of 5) on page 463</a>
CC468-67915	Secondary transfer assembly (duplex) kit	<a href="#">Secondary Transfer assembly on page 477</a>
CC468-67916	Secondary transfer assembly (simplex) kit	<a href="#">Secondary Transfer assembly on page 477</a>
CC468-67917	Scanner assembly kit (one scanner only)	<a href="#">Internal components (2 of 5) on page 461</a>
CC468-67918	Main drive assembly kit	<a href="#">Internal components (5 of 5) on page 467</a>
CC468-67920	Front door kit	<a href="#">External covers, panels, and doors; on page 455</a>
CC519-67901	Fuser (fixing) 110 V assembly kit	<a href="#">Fusing assembly on page 483</a>
CC519-67902	Fuser (fixing) 220 V assembly kit	<a href="#">Fusing assembly on page 483</a>
CE859-69001	Formatter assembly	<a href="#">PCAs on page 485</a>
RC2-3983-000CN	Lever, cartridge pressure front	<a href="#">Internal components (1 of 5) on page 459</a>
RC2-4406-000CN	Shutter front arm	<a href="#">Internal components (2 of 5) on page 461</a>
RC2-4407-000CN	Shutter rear arm	<a href="#">Internal components (2 of 5) on page 461</a>

**Table 8-21 Numerical parts list (continued)**

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
RC2-4413-000CN	Shutter	<a href="#">Internal components (2 of 5) on page 461</a>
RC2-4415-000CN	Lever, shutter	<a href="#">Internal components (2 of 5) on page 461</a>
RC2-4428-000CN	Tab	<a href="#">Internal components (2 of 5) on page 461</a>
RC2-4780-000CN	Seal, waste toner box	<a href="#">Internal components (1 of 5) on page 459</a>
RC2-4895-000CN	Right door rear hinge	<a href="#">Internal components (4 of 5) on page 465</a>
RC2-4916-000CN	Link, door stopper right	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-4916-000CN	Door stopper right link	<a href="#">Internal components (4 of 5) on page 465</a>
RC2-5006-000CN	Cover, front inner upper	<a href="#">Internal components (1 of 5) on page 459</a>
RC2-5019-000CN	Cover, right lower inner	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-5048-000CN	Cover, rear	<a href="#">External covers, panels, and doors; on page 455</a>
RC2-5052-000CN	Cover, left	<a href="#">External covers, panels, and doors; on page 455</a>
RC2-5054-000CN	Cover, upper	<a href="#">External covers, panels, and doors; on page 455</a>
RC2-5056-000CN	Cover, right front	<a href="#">External covers, panels, and doors; on page 455</a>
RC2-5057-000CN	Cover, rear right	<a href="#">External covers, panels, and doors; on page 455</a>
RC2-5059-000CN	Cover, right lower	<a href="#">External covers, panels, and doors; on page 455</a>
RC2-5069-000CN	Cover, left lower	<a href="#">Internal components (1 of 5) on page 459</a>
RC2-5118-000CN	Interlock link	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-5119-000CN	Interlock link	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-5120-000CN	Interlock link	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-5121-000CN	Interlock link switch arm	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-5122-000CN	Interlock link	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-5123-000CN	Interlock switch mount	<a href="#">Internal components (3 of 5) on page 463</a>

**Table 8-21 Numerical parts list (continued)**

Part number	Description	Table and page
RC2-5124-000CN	Switch lever	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-5416-000CN	Drawer connector holder	<a href="#">Paper feeder main body on page 490</a>
RC2-5909-000CN	Tab	<a href="#">Internal components (2 of 5) on page 461</a>
RC2-5910-000CN	Shutter	<a href="#">Internal components (2 of 5) on page 461</a>
RC2-5912-000CN	Cover	<a href="#">Internal components (2 of 5) on page 461</a>
RC2-5913-000CN	Shaft	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-5934-000CN	Spring, torsion	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-5937-000CN	Lock, door	<a href="#">Internal components (1 of 5) on page 459</a>
RC2-5938-000CN	Plate, blanking	<a href="#">External covers, panels, and doors; on page 455</a>
RC2-5943-000CN	Switch arm	<a href="#">Internal components (4 of 5) on page 465</a>
RC2-5951-000CN	Lever, box presence detect	<a href="#">Internal components (1 of 5) on page 459</a>
RC2-5954-000CN	Lever, cartridge lock	<a href="#">Internal components (2 of 5) on page 461</a>
RC2-5954-000CN	Cartridge lock lever	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-5955-000CN	Holder, cartridge lock lever	<a href="#">Internal components (2 of 5) on page 461</a>
RC2-5958-000CN	Spring, torsion	<a href="#">Internal components (2 of 5) on page 461</a>
RC2-5958-000CN	Spring, torsion	<a href="#">Internal components (3 of 5) on page 463</a>
RC2-5962-000CN	Cover	<a href="#">Internal components (2 of 5) on page 461</a>
RC2-5970-000CN	Spring, leaf	<a href="#">Internal components (2 of 5) on page 461</a>
RK2-2229-000CN	Sensor unit, Tmp/Hum sensor	<a href="#">Internal components (2 of 5) on page 461</a>
RK2-2415-000CN	Stepping motor, DC (developing disengagement)	<a href="#">Internal components (5 of 5) on page 467</a>
RK2-2416-000CN	Fan	<a href="#">Internal components (4 of 5) on page 465</a>
RK2-2418-000CN	Fan	<a href="#">Internal components (2 of 5) on page 461</a>

**Table 8-21 Numerical parts list (continued)**

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
RK2-2506-000CN	Scanner flat cable	<a href="#">Internal components (4 of 5) on page 465</a>
RK2-2508-000CN	Scanner flat cable	<a href="#">Internal components (4 of 5) on page 465</a>
RL1-1914-000CN	Cover, front inner lower	<a href="#">Internal components (1 of 5) on page 459</a>
RL1-1915-000CN	Cover, front inner lower	<a href="#">Internal components (1 of 5) on page 459</a>
RL1-1923-000CN	Base	<a href="#">Internal components (2 of 5) on page 461</a>
RL1-1941-000CN	Tray, paper delivery	<a href="#">External covers, panels, and doors; on page 455</a>
RL1-1947-000CN	Power supply button	<a href="#">Internal components (3 of 5) on page 463</a>
RL1-2144-000CN	Base	<a href="#">Internal components (2 of 5) on page 461</a>
RM1-4953-000CN	Density detect sensor assembly	<a href="#">Internal components (3 of 5) on page 463</a>
RM1-4957-000CN	Right door assembly (duplex)	<a href="#">External covers, panels, and doors; on page 455</a>
RM1-4957-000CN	Right door assembly (duplex)	<a href="#">Right door assembly on page 457</a>
RM1-4962-000CN	250 sheet cassette	<a href="#">Cassette on page 469</a>
RM1-4969-000CN	Registration assembly (duplex)	<a href="#">Registration assembly on page 475</a>
RM1-4970-000CN	Paper delivery assembly (duplex)	<a href="#">Delivery assembly on page 479</a>
RM1-4973-000CN	Duplexing drive assembly	<a href="#">Internal components (5 of 5) on page 467</a>
RM1-4974-000CN	Fusing (fixing) drive assembly with motor (duplex)	<a href="#">Internal components (5 of 5) on page 467</a>
RM1-4975-000CN	Cassette paper pick up drive assembly with motor	<a href="#">Internal components (5 of 5) on page 467</a>
RM1-4976-000CN	Lifter drive assembly	<a href="#">Internal components (5 of 5) on page 467</a>
RM1-4977-000CN	Waste toner duct assembly	<a href="#">Internal components (1 of 5) on page 459</a>
RM1-4979-000CN	Base assembly	<a href="#">Internal components (2 of 5) on page 461</a>
RM1-4980-000CN	Lower pick up guide assembly	<a href="#">Internal components (3 of 5) on page 463</a>
RM1-4984-000CN	Lower cartridge guide assembly	<a href="#">Internal components (2 of 5) on page 461</a>

**Table 8-21 Numerical parts list (continued)**

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
RM1-4986-000CN	Front door assembly	<a href="#">External covers, panels, and doors; on page 455</a>
RM1-4988-000CN	Drum motor assembly	<a href="#">Internal components (5 of 5) on page 467</a>
RM1-5001-000CN	Fusing (fixing) drive assembly with motor (simplex)	<a href="#">Internal components (5 of 5) on page 467</a>
RM1-5003-000CN	Paper delivery assembly (simplex)	<a href="#">Delivery assembly on page 479</a>
RM1-5005-000CN	Right door assembly (simplex)	<a href="#">External covers, panels, and doors; on page 455</a>
RM1-5005-000CN	Right door assembly (simplex)	<a href="#">Right door assembly on page 457</a>
RM1-5009-000CN	Registration assembly (simplex)	<a href="#">Registration assembly on page 475</a>
RM1-5532-000CN	Front lock arm assembly	<a href="#">Internal components (3 of 5) on page 463</a>
RM1-5533-000CN	Rear lock arm assembly	<a href="#">Internal components (3 of 5) on page 463</a>
RM1-5678-000CN	DC controller PCA assembly	<a href="#">PCAs on page 485</a>
RM1-5680-000CN	Lower HVPS-D PCA assembly	<a href="#">PCAs on page 485</a>
RM1-5681-000CN	Upper HVPS-T PCA assembly	<a href="#">PCAs on page 485</a>
RM1-5685-000CN	LVPS 110V	<a href="#">PCAs on page 485</a>
RM1-5686-000CN	LVPS 220V	<a href="#">PCAs on page 485</a>
RM1-5695-000CN	Inner connecting PCA assembly	<a href="#">PCAs on page 485</a>
RM1-5696-000CN	Waste toner detect assembly	<a href="#">Internal components (1 of 5) on page 459</a>
RM1-5697-000CN	Power supply switch assembly	<a href="#">Internal components (3 of 5) on page 463</a>
RM1-5700-000CN	Toner sensor holder assembly	<a href="#">Internal components (2 of 5) on page 461</a>
RM1-5705-000CN	Rear Pre-exposure PCA assembly	<a href="#">Internal components (5 of 5) on page 467</a>
RM1-5714-000CN	Fusing (fixing) connecting cable assembly	<a href="#">Internal components (4 of 5) on page 465</a>
RM1-5718-000CN	Switch cable assembly	<a href="#">Internal components (3 of 5) on page 463</a>
RM1-5719-000CN	Switch connecting cable assembly	<a href="#">Internal components (4 of 5) on page 465</a>
RM1-5721-000CN	Rear cable assembly	<a href="#">Internal components (4 of 5) on page 465</a>
RM1-5723-000CN	Front cable assembly	<a href="#">Internal components (3 of 5) on page 463</a>

**Table 8-21 Numerical parts list (continued)**

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
RM1-5730-000CN	Duplexing unit cable assembly	<a href="#">Internal components (5 of 5) on page 467</a>
RM1-5731-000CN	Pick up motor cable assembly	<a href="#">Internal components (5 of 5) on page 467</a>
RM1-5732-000CN	Door switch assembly	<a href="#">Internal components (3 of 5) on page 463</a>
RM1-5737-000CN	MP sensor cable assembly (duplex)	<a href="#">Internal components (4 of 5) on page 465</a>
RM1-5740-000CN	Sensor cable assembly	<a href="#">Internal components (2 of 5) on page 461</a>
RM1-5741-000CN	Sensor cable assembly	<a href="#">Internal components (2 of 5) on page 461</a>
RM1-5742-000CN	Lifter cable assembly	<a href="#">Internal components (1 of 5) on page 459</a>
RM1-5743-000CN	Control panel assembly	<a href="#">External covers, panels, and doors; on page 455</a>
RM1-5743-000CN	Control panel cable assembly	<a href="#">Internal components (3 of 5) on page 463</a>
RM1-5746-000CN	Fan cable assembly	<a href="#">Internal components (2 of 5) on page 461</a>
RM1-5749-000CN	Connecting cable assembly	<a href="#">Internal components (2 of 5) on page 461</a>
RM1-5750-000CN	MP sensor cable assembly (simplex)	<a href="#">Internal components (4 of 5) on page 465</a>
RM1-5752-000CN	Motor/sensor cable assembly	<a href="#">Internal components (2 of 5) on page 461</a>
RM1-6198-000CN	500 sf cassette	<a href="#">Cassette on page 492</a>
RU6-2236-000CN	Spring, tension	<a href="#">Internal components (1 of 5) on page 459</a>
RU6-2237-000CN	Spring, ground	<a href="#">Internal components (1 of 5) on page 459</a>
RU6-2316-000CN	Spring, compression	<a href="#">Internal components (2 of 5) on page 461</a>
RU6-2318-000CN	Spring, compression	<a href="#">Internal components (2 of 5) on page 461</a>
RU6-2436-000CN	Spring, tension	<a href="#">Internal components (2 of 5) on page 461</a>
RU6-2568-000CN	Spring, compression	<a href="#">Internal components (1 of 5) on page 459</a>
VSI-7257-007-CN	Drawer connector	<a href="#">Paper feeder main body on page 490</a>
WC4-5171-000CN	Switch	<a href="#">Internal components (3 of 5) on page 463</a>

**Table 8-21 Numerical parts list (continued)**

Part number	Description	Table and page
WG8-5696-000CN	Photo interrupter, TLP1243	<a href="#">Internal components (3 of 5) on page 463</a>
WG8-5696-000CN	Photo interrupter, TLP1243	<a href="#">Internal components (5 of 5) on page 467</a>



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# A Service and support

- [Hewlett-Packard limited warranty statement](#)
- [HP's Premium Protection Warranty: LaserJet print cartridge limited warranty statement](#)
- [HP Color LaserJet Fuser Kit Limited Warranty Statement](#)
- [End User License Agreement](#)
- [Customer self-repair warranty service](#)
- [Customer support](#)

# Hewlett-Packard limited warranty statement

HP PRODUCT	DURATION OF LIMITED WARRANTY
HP Color LaserJet CP3525, CP3525n, CP3525dn, CP3525x	One-year on-site warranty

HP warrants to you, the end-user customer, that HP hardware and accessories will be free from defects in materials and workmanship after the date of purchase, for the period specified above. If HP receives notice of such defects during the warranty period, HP will, at its option, either repair or replace products which prove to be defective. Replacement products may be either new or equivalent in performance to new.

HP warrants to you that HP software will not fail to execute its programming instructions after the date of purchase, for the period specified above, due to defects in material and workmanship when properly installed and used. If HP receives notice of such defects during the warranty period, HP will replace software which does not execute its programming instructions due to such defects.

HP does not warrant that the operation of HP products will be uninterrupted or error free. If HP is unable, within a reasonable time, to repair or replace any product to a condition as warranted, you will be entitled to a refund of the purchase price upon prompt return of the product.

HP products may contain remanufactured parts equivalent to new in performance or may have been subject to incidental use.

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To obtain warranty service, please return the product to place of purchase (with a written description of the problem and print samples) or contact HP customer support. At HP's option, HP will either replace products that prove to be defective or refund your purchase price.

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Rev. 11/06

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Based on availability and where geography permits, CSR parts will be shipped for next business day delivery. Same-day or four-hour delivery may be offered at an additional charge where geography permits. If assistance is required, you can call the HP Technical Support Center and a technician will help you over the phone. HP specifies in the materials shipped with a replacement CSR part whether a defective part must be returned to HP. In cases where it is required to return the defective part to HP, you must ship the defective part back to HP within a defined period of time, normally five (5) business days. The defective part must be returned with the associated documentation in the provided shipping material. Failure to return the defective part may result in HP billing you for the replacement. With a customer self repair, HP will pay all shipping and part return costs and determine the courier/carrier to be used.

# Customer support

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Get telephone support, free during your warranty period, for your country/region

Country/region phone numbers are on the flyer that was in the box with your product or at [www.hp.com/support/](http://www.hp.com/support/).

Have the product name, serial number, date of purchase, and problem description ready.

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Get 24-hour Internet support

[www.hp.com/support/cljcp3525](http://www.hp.com/support/cljcp3525)

---

Get support for products used with a Macintosh computer

[www.hp.com/go/macosex](http://www.hp.com/go/macosex)

---

Download software utilities, drivers, and electronic information

[www.hp.com/go/cljcp3525\\_software](http://www.hp.com/go/cljcp3525_software)

---

Order additional HP service or maintenance agreements

[www.hp.com/go/carepack](http://www.hp.com/go/carepack)

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## B Product specifications

- [Physical specifications](#)
- [Performance specifications](#)
- [Electrical specifications](#)
- [Acoustic specifications](#)
- [Environmental specifications](#)
- [Paper and print media specifications](#)
- [Skew specifications](#)

## Physical specifications

**Table B-1 Product dimensions**

Product	Height	Depth	Width	Weight
HP Color LaserJet CP3525n	358 mm (14.1 in)	491 mm (19.3 in)	514 mm (20.2 in)	32.9 kg (72.5 lb)
HP Color LaserJet CP3525dn	358 mm (14.1 in)	491 mm (19.3 in)	514 mm (20.2 in)	32.9 kg (72.5 lb)
HP Color LaserJet CP3525x	520 mm (20.5 in)	491 mm (19.3 in)	514 mm (20.2 in)	40.5 kg (89.3 lb)

**Table B-2 Product dimensions, with all doors and trays fully opened**

Product	Height	Depth	Width
HP Color LaserJet CP3525n	358 mm (14.1 in)	739 mm (29.1 in)	822 mm (32.4 in)
HP Color LaserJet CP3525dn	358 mm (14.1 in)	739 mm (29.1 in)	822 mm (32.4 in)
HP Color LaserJet CP3525x	520 mm (20.5 in)	739 mm (29.1 in)	822 mm (32.4 in)

## Performance specifications

<b>Print speed</b>	<ul style="list-style-type: none"> <li>Prints up to 30 pages per minute (ppm) on letter-size paper and 30 ppm on A4-size paper</li> <li>As quick as 12 seconds to print the first page</li> </ul>
<b>Resolution</b>	<ul style="list-style-type: none"> <li>600 dots per inch (dpi) with Image Resolution Enhancement technology 3600 for optimum overall imaging</li> <li>1200 x 600 dpi for detailed line work and small text</li> </ul>

## Electrical specifications

**⚠ WARNING!** Power requirements are based on the country/region where the product is sold. Do not convert operating voltages. This can damage the product and void the product warranty.

**Table B-3 Power requirements**

Specification	110-volt models	220-volt models
Power requirements	100 to 127 volts (± 10%)	220 to 240 volts (± 10%)
	50/60 Hz (± 2 Hz)	50/60 Hz (± 2 Hz)
Rated current	8.5 Amps	4.5 Amps

**Table B-4 Power consumption (average, in watts)<sup>1246</sup>**

Product model	Printing	Ready	Sleep 1	Sleep 2	Off
HP Color LaserJet CP3525 models	643 W	60 W	35.1 W	10 W	0.48 W

<sup>1</sup> Values subject to change. See [www.hp.com/support/cljcp3525](http://www.hp.com/support/cljcp3525) for current information.

<sup>2</sup> Power numbers are the highest values measured using all standard voltages.

<sup>3</sup> Default time from Ready mode to Sleep 2 = 30 minutes.

<sup>4</sup> Heat dissipation in Ready mode = 204.8 BTU/hour.

<sup>6</sup> HP Color LaserJet CP3525 speed is 30 ppm Letter size.

## Acoustic specifications

**Table B-5 HP Color LaserJet CP3525 Series<sup>13</sup>**

Sound power level	Declared per ISO 9296
Printing	$L_{WA_d} = 6.8$ Bels (A) [68 dB(A)]
Ready	$L_{WA_d} = 4.7$ Bels (A) [47 dB(A)]
Sound pressure level - bystander position	Declared per ISO 9296
Printing	$L_{pAm} = 53$ dB (A)
Ready	$L_{pAm} = 34$ dB (A)

<sup>1</sup> Values are based on preliminary data. See [www.hp.com/support/cljcp3525](http://www.hp.com/support/cljcp3525) for current information.

<sup>3</sup> Configuration tested: HP Color LaserJet CP3525 printer printing on A4-size paper in simplex mode

## Environmental specifications

Environmental condition	Recommended	Allowed
Temperature (product and print cartridge)	15° to 27°C (59° to 80.6°F)	10° to 30°C (50° to 86°F)
Relative humidity	10% to 70% relative humidity (RH)	10% to 80% RH
Altitude	N/A	0 meters (0 feet) to 2500 meters (8000 feet)

## Paper and print media specifications

For information about the supported paper and print media, see [Paper and print media on page 43](#).

## Skew specifications

**Table B-6 Media registration and image placement accuracy**

	Cut sheet simplex and automatic duplex <sup>1</sup>	Envelopes and postcards
Skew - vertical	$\leq 1.5$ mm / 260 mm <sup>2</sup>	$\leq 3.3$ mm / 220 mm

**Table B-6 Media registration and image placement accuracy (continued)**

First line / leading edge position	5.0 mm ± 2.0 mm	10.0 mm ± 3.0 mm
Left margin accuracy	5.0 mm ± 2.0 mm	10 mm ± 2.5 mm
Parallelism	≤ 0.75%	N/A
Image or text stretching - vertical	≤ 1.0 %	N/A
Image or text stretching - horizontal	≤ 1.0 %	N/A
Duplex registration - vertical, horizontal	≤ 2.0 mm	N/A

<sup>1</sup> Xerox 4024 (#20) should be used for measurement.

<sup>2</sup> Performance for 4x6 media fed from Tray 3 using adapter is 1.0 mm / 130 mm

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## C Regulatory information


- [FCC regulations](#)
- [Declaration of Conformity](#)
- [Certificate of volatility](#)
- [Safety statements](#)

## FCC regulations

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If this equipment is not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase separation between equipment and receiver.
- Connect equipment to an outlet on a circuit different from that to which the receiver is located.
- Consult your dealer or an experienced radio/TV technician.

---

 **NOTE:** Any changes or modifications to the printer that are not expressly approved by HP could void the user's authority to operate this equipment.

Use of a shielded interface cable is required to comply with the Class B limits of Part 15 of FCC rules.

# Declaration of Conformity

## Declaration of Conformity

according to ISO/IEC 17050-1 and EN 17050-1, DoC#: BOISB-0802-00-rel.1.0

**Manufacturer's Name:** Hewlett-Packard Company  
**Manufacturer's Address:** 11311 Chinden Boulevard,  
Boise, Idaho 83714-1021, USA

**declares that the product**

**Product Name:** HP Color LaserJet CP3525 series  
**Regulatory Model Number:<sup>2)</sup>** BOISB-0802-00

**Product Options:** Including: CE522A — Optional 500-Sheet Paper and Heavy Media Tray  
ALL


Print Cartridges: CE250X, CE250A, CE251A, CE252A, CE253A

**conforms to the following Product Specifications:**

**Safety:** IEC 60950-1:2001 / EN60950-1: 2001 + A11  
IEC 60825-1:1993 +A1 +A2 / EN 60825-1:1994 +A1 +A2 (Class 1 Laser/LED Product)  
GB4943-2001

**EMC:** CISPR 22:2005 / EN 55022:2006 – Class B<sup>1)</sup>  
EN 61000-3-2:2000 +A2  
EN 61000-3-3:1995 + A1  
EN 55024:1998 +A1 + A2  
FCC Title 47 CFR, Part 15 Class B/ ICES-003, Issue 4  
GB9254-1998, GB17625.1-2003

**Supplementary Information:**

The product herewith complies with the requirements of the EMC Directive 2004/108/EC and the Low Voltage Directive 2006/95/EC, and carries the CE-Marking  accordingly.

This Device complies with Part 15 of the FCC Rules. Operation is subject to the following two Conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

1) The product was tested in a typical configuration with Hewlett-Packard Personal Computer Systems.

2) For regulatory purposes, this product is assigned a Regulatory model number. This number should not be confused with the product name or the product number(s).

Boise, Idaho , USA

**December 19, 2007**

**For regulatory topics only:**

**European Contact:** Your Local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department HQ-TRE / Standards Europe, Herrenberger Straße 140, D-71034 Böblingen, Germany, (FAX: +49-7031-14-3143), <http://www.hp.com/go/certificates>

**USA Contact:** Product Regulations Manager, Hewlett-Packard Company, PO Box 15, Mail Stop 160, Boise, Idaho 83707-0015, USA, (Phone: 208-396-6000)

## Certificate of volatility

This is a statement of volatility regarding customer stored data in the memory devices of the HP Color LaserJet CP3525 Series printer.

The product can have an optional HP High-Performance Secure Hard Disk either internally or as part of the EIO. Information on the hard disk will not be erased when the product is turned off.

The product has 32 KB of NVRAM on the formatter and 32 KB of NVRAM on the interconnect board (ICB), which is used for page count and configuration information. No customer print data is retained in NVRAM. NVRAM can be erased and restored to factory default values using the **RESTORE FACTORY SETTINGS** option from the **RESETS** menu.

The product has a 64 MB NAND, which contains the firmware image.

The product bundles have SDRAM DDR, which includes 256 MB on board and a slot for additional memory. The total can differ by bundle. This RAM contains job specific information and information stored in the RAM disk. The information is fixed and can be cleared by turning the product off then on.



# Safety statements

## Laser safety

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration has implemented regulations for laser products manufactured since August 1, 1976. Compliance is mandatory for products marketed in the United States. The device is certified as a "Class 1" laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. Since radiation emitted inside the device is completely confined within protective housings and external covers, the laser beam cannot escape during any phase of normal user operation.

△ **WARNING!** Using controls, making adjustments, or performing procedures other than those specified in this user guide may result in exposure to hazardous radiation.

## Canadian DOC regulations

Complies with Canadian EMC Class B requirements.

« Conforme à la classe B des normes canadiennes de compatibilité électromagnétiques. « CEM ». »

## VCCI statement (Japan)

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。  
取扱説明書に従って正しい取り扱いをして下さい。

## Power cord statement (Japan)

製品には、同梱された電源コードをお使い下さい。  
同梱された電源コードは、他の製品では使用出来ません。

## EMC statement (Korea)

B급 기기 (가정용 방송통신기기)	이 기기는 가정용(B급)으로 전자파적합등록을 한 기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.
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## Laser statement for Finland

### Luokan 1 laserlaite

Klass 1 Laser Apparät

HP Color LaserJet CP3525, CP3525n, CP3525dn, CP3525x, laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalisissa käytössä kirjoittimen suojakotelointi estää lasersäteiden pääsyn laitteen ulkopuolelle. Laitteen turvallisuusluokka on määritetty standardin EN 60825-1 (1994) mukaisesti.

## VAROITUS !

Laitteen käyttäminen muulla kuin käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

## VARNING !

Om apparaten används på annat sätt än i bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

## HUOLTO

HP Color LaserJet CP3525, CP3525n, CP3525dn, CP3525x - kirjoittimen sisällä ei ole käyttäjän huollettavissa olevia kohteita. Laitteen saa avata ja huoltaa ainoastaan sen huoltamiseen koulutettu henkilö. Tällaiseksi huoltotoimenpiteeksi ei katsota väriainekasetin vaihtamista, paperiradan puhdistusta tai muita käyttäjän käsikirjassa lueteltuja, käyttäjän tehtäväksi tarkoitettuja ylläpitotoimia, jotka voidaan suorittaa ilman erikoistyökaluja.

## VARO !

Mikäli kirjoittimen suojakotelo avataan, olet alltiina näkymättömälle lasersäteilylle laitteen ollessa toiminnassa. Älä katso säteeseen.

## VARNING !

Om laserprinterns skyddshölje öppnas då apparaten är i funktion, utsättas användaren för osynlig laserstrålning. Betrakta ej strålen. Tiedot laitteessa käytettävän laserdiodin säteilyominaisuuksista: Aallonpituus 775-795 nm Teho 5 m W Luokan 3B laser.

## Substances Table (China)

### 有毒有害物质表

根据中国电子信息产品污染控制管理办法的要求而出台

部件名称	有毒有害物质和元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
打印引擎	X	0	X	0	0	0
控制面板	0	0	0	0	0	0
塑料外壳	0	0	0	0	0	0
格式化板组件	X	0	0	0	0	0
碳粉盒	X	0	0	0	0	0

3685

0 : 表示在此部件所用的所有同类材料中, 所含的此有毒或有害物质均低于 SJ/T11363-2006 的限制要求。

X : 表示在此部件所用的所有同类材料中, 至少一种所含的此有毒或有害物质高于 SJ/T11363-2006 的限制要求。

注 : 引用的“环保使用期限”是根据在正常温度和湿度条件下操作使用产品而确定的。

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