

# HP Color LaserJet CM3530 MFP Series Service Manual



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



**Additional product information:**

[www.hp.com/support/cljcm3530mfp](http://www.hp.com/support/cljcm3530mfp)  
[www.hp.com/go/usemyMFP](http://www.hp.com/go/usemyMFP)







# HP Color LaserJet CM3530 MFP Series

## Service Manual



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# Table of contents

## 1 Product basics

Conventions used in this guide .....	2
Product comparison .....	3
Product features .....	4
Product view .....	7
Product front view .....	7
Product back view .....	8
Interface ports .....	9
Serial number and model number location .....	10

## 2 Control panel

Use the control panel .....	12
Control-panel layout .....	12
Home screen .....	14
Buttons on the touchscreen .....	15
Control-panel help system .....	15
Navigate the Administration menu .....	16
Information menu .....	17
Default Job Options menu .....	19
Default Options for Originals .....	19
Image adjustment .....	20
Default Copy Options .....	21
Default Fax Options .....	22
Default E-mail Options .....	23
Default Send to Folder Options .....	24
Default Print Options .....	25
Time/Scheduling menu .....	26
Management menu .....	28
Initial Setup menu .....	31
Networking and I/O .....	31
Fax Setup .....	38
E-mail Setup .....	41
Send Setup menu .....	41
Device Behavior menu .....	42

Print Quality menu .....	46
Troubleshooting menu .....	50
Resets menu .....	53
Service menu .....	54

### 3 Paper and print media

Supported paper and print media .....	56
Supported paper and print media types .....	58
Tray and bin capacity .....	60
Custom paper sizes .....	61
Load paper and print media .....	62
Paper orientation for loading trays .....	62
Tray 1 .....	63
Tray 2 or optional Tray 3 .....	65
Load Tray 1 .....	66
Print envelopes .....	68
Load Tray 2 .....	68
Load the optional 500-sheet paper and heavy media tray (Tray 3) .....	70
Load standard-sized paper into Tray 3 .....	70
Load custom-size paper into Tray 3 .....	72
Configure trays .....	75
Configure a tray when loading paper .....	75
Configure a tray to match print job settings .....	75
Automatic overhead transparency sensing (auto sense mode) .....	75
Auto-sense settings .....	76
Select the paper by source, type, or size .....	76
Source .....	76
Type and Size .....	76
Choose an output bin .....	77

### 4 Manage and maintain

Print information pages .....	80
HP Easy Printer Care .....	82
Open the HP Easy Printer Care software .....	82
HP Easy Printer Care software sections .....	82
Embedded Web server .....	85
Open the embedded Web server by using a network connection .....	85
Embedded Web server sections .....	86
Use HP Web Jetadmin software .....	89
Product security features .....	90
Secure the embedded Web server .....	90
HP Encrypted High Performance Hard Disks .....	90
Secure Disk Erase .....	90

Data affected .....	90
Additional Information .....	91
Job storage .....	91
DSS authentication .....	91
Lock the control-panel menus .....	91
Lock the formatter cage .....	92
Manage supplies .....	93
Print-cartridge storage .....	93
HP policy on non-HP print cartridges .....	93
HP fraud hotline and Web site .....	93
Replace supplies .....	93
Supplies life .....	93
Locate supplies .....	94
Supply replacement guidelines .....	94
Change print cartridges .....	94
Change the toner collection unit .....	98
Install memory .....	100
Install DDR memory DIMMs .....	100
Enable memory for Windows .....	104
Install an HP Jetdirect or EIO print server card or EIO hard disk ...	105
Clean the product .....	108
Clean the outside of the product .....	108
Clean the touchscreen .....	108
Clean the scanner glass .....	108
Clean the document feeder .....	108
Clean the document-feeder backing .....	109
Clean the document-feeder rollers .....	110
Clean the fuser .....	111
Product updates .....	112
Determine the current firmware version .....	112
Download new firmware from the HP Web site .....	112
Transfer the new firmware to the product .....	112
Use the flash executable file to update the firmware .....	112
Use FTP to upload the firmware through a browser .....	113
Use FTP to upgrade the firmware on a network connection .....	113
Use HP Web Jetadmin to upgrade the firmware .....	114
Use Microsoft Windows commands to upgrade the firmware .....	114

## 5 Theory of operation

Basic operation .....	116
Sequence of operation .....	116
Engine-control system .....	118
DC controller .....	119



Solenoids .....	119
Clutches .....	120
Switches .....	120
Sensors .....	121
Motors and fans .....	122
High-voltage power supply .....	123
Low-voltage power supply .....	125
Overcurrent/overvoltage protection .....	126
Safety .....	126
Voltage detection .....	126
Sleep (powersave) mode .....	126
Low-voltage power supply failure .....	126
Fuser (fixing) control .....	127
Fuser (fixing) temperature-control circuit .....	128
Fuser (fixing) over-temperature protection .....	128
Fuser (fixing)-failure detection .....	129
Laser/scanner system .....	131
Image-formation system .....	133
Image-formation process .....	134
Step 1: Pre-exposure .....	135
Step 2: Primary charging .....	135
Step 3: Laser-beam exposure .....	136
Step 4: Development .....	136
Step 5: Primary transfer .....	136
Step 6: Secondary transfer .....	137
Step 7: Separation .....	138
Step 8: Fusing .....	138
Step 9: ITB cleaning .....	139
Step 10: Drum cleaning .....	139
Print cartridge .....	139
Developing-roller engagement and disengagement .....	141
Intermediate transfer belt (ITB) unit .....	142
Primary-transfer-roller engagement and disengagement .....	143
ITB cleaning .....	144
Calibration .....	145
Color-misregistration control .....	146
Image-stabilization control .....	147
Pickup, feed, and delivery system .....	148
Pickup-and-feed unit .....	151
Cassette pickup .....	151
Cassette-presence detection .....	153
Cassette lift operation .....	153
Cassette paper-presence detection .....	154
Multifeed prevention .....	155

Multipurpose tray pickup .....	156
Paper feed .....	157
Skew-feed prevention .....	158
OHT detection .....	158
Fusing and delivery unit .....	159
Loop control .....	159
Pressure-roller pressurization control .....	160
Duplexing unit .....	162
Duplexing reverse and feed control .....	163
Duplex pickup operation .....	163
Jam detection .....	164
Optional paper feeder .....	166
Paper-feeder pickup and feed operation .....	168
Paper-size detection and cassette-presence detection .....	168
Paper-feeder cassette lift operation .....	170
Paper-feeder presence detection .....	171
Paper-feeder multiple feed prevention .....	172
Paper feeder jam detection .....	173
Scanning/image capture system system .....	174
Optical assembly .....	174
Automatic document feed system .....	174
Control panel .....	174
Sensors in the ADF .....	174
ADF paper path .....	175
Stapler .....	176

## 6 Removal and replacement

Introduction .....	178
Removal and replacement strategy .....	178
Electrostatic discharge .....	178
Required tools .....	179
Before performing service .....	180
After performing service .....	181
Post-service test .....	182
Print-quality test .....	182
Copy-quality test .....	182
DC controller PCA .....	183
Parts removal order .....	184
Customer self repair (CSR) components .....	186
Print cartridges .....	186
Stapler cartridge .....	188
Duplex-reverse guide .....	189
Toner-collection unit .....	190

Formatter PCA .....	192
Memory DIMM .....	193
Remove the memory DIMM .....	193
Enable memory for Windows .....	194
Hard drive and Serial Advanced Technology Attachment (SATA) cable .....	195
Remove the hard drive and SATA cable .....	195
Fax PCA and cable .....	197
Remove the fax PCA and cable .....	197
Tray cassette .....	199
Fuser .....	200
Pickup roller (Tray 2) .....	201
Pickup and feed rollers (Tray 3) .....	203
Separation roller (Tray 2) .....	204
Secondary transfer roller .....	205
Reinstall the transfer roller .....	206
Secondary transfer assembly .....	207
Reinstall the secondary transfer assembly .....	208
Intermediate transfer belt (ITB) .....	209
Front-door assembly .....	211
Automatic document feeder (ADF) .....	212
Calibrate a replacement ADF assembly .....	214
ADF roller assembly and separation pad .....	215
Reinstall the ADF roller assembly .....	217
Control-panel overlay .....	218
Control-panel assembly .....	219
Remove the control-panel assembly .....	219
Right door (optional paper feeder) .....	221
External panels, covers, doors, and scanner assembly .....	223
Identification and location .....	223
Front-upper cover .....	225
Right-door assembly .....	227
Right-rear cover .....	231
Left cover .....	233
Rear-upper cover .....	236
Rear cover .....	238
Remove the rear cover .....	238
Right-front cover .....	239
Remove the right-front cover .....	239
Reinstall the power button .....	241
Scanner assembly .....	242
Remove the scanner assembly .....	242
Delivery cover .....	245
Remove the delivery cover .....	245
Left-upper cover .....	247

Remove the left-upper cover .....	247
Front stapler cover and right-side stapler cover .....	249
Remove the front stapler cover and right-side stapler cover .....	249
Reinstall the right-side stapler cover .....	256
Right-top cover .....	258
Remove the right-top cover .....	258
Front-top cover .....	261
Remove the front-top cover .....	261
Rear-top cover .....	262
Remove the rear-top cover .....	262
Internal assemblies .....	264
Stapler assembly .....	264
Remove the stapler assembly .....	264
Reinstall the stapler assembly .....	265
Stapler power supply .....	266
Remove the stapler power supply .....	266
Interconnect board (ICB) .....	267
Remove the ICB .....	267
Reinstall the ICB .....	269
DC controller PCA and tray .....	270
Remove the DC controller PCA and tray .....	270
Low-voltage power supply (LVPS) .....	273
Remove the LVPS .....	273
Scanner-control board (SCB) .....	279
Remove the SCB .....	279
Reinstall the SCB .....	283
Pickup roller (Tray 1) .....	284
Delivery fan, cartridge fan, and environmental sensor .....	285
Remove the delivery fan, cartridge fan, and environmental sensor .....	285
Toner-collection sensor .....	290
Remove the toner-collection sensor .....	290
Residual-toner-feed motor .....	292
Remove the residual-toner-feed motor .....	292
Reinstall the residual-toner collection door .....	296
Registration density (RD) sensor assembly .....	297
Remove the RD sensor assembly .....	297
Power-supply fan and fan duct .....	300
Remove the power-supply fan and fan duct .....	300
Registration assembly .....	303
Remove the registration assembly .....	303
High-voltage power supply lower .....	308
Remove the high-voltage power supply lower .....	308
Reinstall the high-voltage power supply lower .....	310
Developing-disengagement motor .....	311

Remove the developing-disengagement motor .....	311
Pickup motor .....	313
Remove the pickup motor .....	313
Lifter-drive assembly .....	314
Remove the lifter-drive assembly .....	314
Cassette-pickup drive assembly .....	316
Remove the cassette-pickup drive assembly .....	316
Reinstall the cassette-pickup drive assembly .....	321
Cassette-pickup assembly .....	323
Remove the cassette-pickup assembly .....	323
Laser/scanner assembly (Y/M) .....	325
Remove the laser/scanner assembly (Y/M) .....	325
Laser/scanner assembly (C/Bk) .....	332
Remove the laser/scanner assembly (C/Bk) .....	332
Reinstall the protective glass cleaner (PGC) actuators .....	336
High-voltage power supply upper .....	339
Remove the high-voltage power supply upper .....	339
Reinstall the high-voltage power supply upper .....	342
Drum motor 1 .....	343
Remove the drum motor 1 .....	343
Drum motor 2 or drum motor 3 .....	344
Remove the drum motor 2 or drum motor 3 .....	344
Fuser motor .....	345
Remove the fuser motor .....	345
Main-drive assembly .....	346
Remove the main-drive assembly .....	346
Reinstall the main-drive assembly .....	350
Fuser-drive assembly .....	356
Remove the fuser-drive assembly .....	357
Reinstall the fuser-drive assembly .....	360
Delivery assembly .....	361
Remove the delivery assembly .....	362
Reinstall the delivery assembly .....	365
Duplex-drive assembly .....	366
Remove the duplex-drive assembly .....	367
Optional paper feeder assembly (Tray 3) .....	368
Drawer connector .....	368

## 7 Solve problems

Solve problems checklist .....	370
Menu map .....	372
Troubleshooting process .....	373
Determine the problem source .....	373



Pre-troubleshooting checklist .....	373
Troubleshooting flowchart .....	375
Power subsystem .....	376
Power-on checks .....	376
Power-on troubleshooting overview .....	376
Tools for troubleshooting .....	378
Individual component diagnostics .....	378
LED diagnostics .....	378
Understand lights on the formatter .....	378
Engine diagnostics .....	381
Troubleshooting menu .....	381
Defeating interlocks .....	384
Disable cartridge check .....	385
Engine-test button .....	386
Paper-path test .....	386
Manual sensor test (special-mode test) .....	387
A TOP (top of page) sensor .....	389
B and C loop sensors .....	390
D fuser (fixing) delivery sensor .....	391
E duplex re-pickup sensor .....	392
F output bin full sensor .....	393
G developing home-position sensor .....	394
H fuser (fixing) pressure-release sensor .....	395
I primary transfer-roller disengagement sensor .....	396
K right and front door interlock switches .....	398
L Tray 1 media present sensor .....	400
M Tray 2 paper out sensor .....	401
N Tray 2 closed sensor .....	402
O Tray 2 stack-surface sensor .....	403
P optional Tray 3-empty sensor .....	404
Q optional Tray 3 media-feed sensor (Q) .....	405
R optional Tray 3 stack-surface sensor (R) .....	406
S, T, and U optional Tray 3 media-size sensors .....	407
Paper-path sensors test .....	408
Print/Stop test .....	409
Component tests .....	409
Component test (special mode test) .....	409
Diagrams .....	411
Formatter PCA .....	411
Location of connectors .....	412
DC controller PCA .....	412
Paper feeder driver PCA .....	413
PCAs, motors, fans, switches, solenoids, and clutches .....	414
Base product .....	414

1 x 500 paper feeder .....	420
Sensors .....	421
General timing chart .....	423
Circuit diagrams .....	423
Print-quality troubleshooting tools .....	427
Repetitive defects ruler .....	428
Calibrate the product .....	430
Internal print-quality test pages .....	431
Print-quality-troubleshooting pages .....	431
Diagnostics page .....	434
Cleaning page .....	435
Configuration pages .....	436
Configuration page .....	436
HP embedded Jetdirect page .....	438
Embedded protocol page .....	439
Finding important information on the configuration pages .....	440
Color-band test .....	440
Control-panel messages .....	441
Event log messages .....	468
Print an event log .....	468
Show an event log .....	468
Clear the event log .....	468
Event log message table .....	468
Clear paper jams .....	472
Common causes of jams .....	472
Jam locations .....	473
Clear jams .....	473
Clear jams in the right door .....	475
Clear jams in the output bin area .....	479
Clear jams in Tray 1 .....	480
Clear jams in Tray 2 .....	482
Clear jams in the optional 500-sheet paper and heavy media tray (Tray 3) .....	483
Clear jams in the lower right door (Tray 3) .....	484
Clear jams in the document feeder .....	485
Jam recovery .....	486
Solve paper-handling problems .....	487
Product feeds multiple sheets .....	487
Product feeds incorrect page size .....	487
Product pulls from incorrect tray .....	487
Paper does not feed automatically .....	488
Paper does not feed from Tray 2 or 3 .....	488
Transparencies or glossy paper will not feed .....	489
Envelopes jam or will not feed in the product .....	489

Output is curled or wrinkled .....	490
Product will not duplex or duplexes incorrectly .....	490
Use manual print modes .....	492
Solve image-quality problems .....	494
Image defects table .....	494
Solve performance problems .....	500
Solve connectivity problems .....	501
Solve direct-connect problems .....	501
Solve network problems .....	501
Service mode functions .....	503
Service menu .....	503
Product resets .....	505
Restore factory settings .....	505
Hard disk initialization (optional) .....	505
NVRAM initialization .....	506
Restore factory settings (cold reset) .....	506
Solve fax problems .....	507
Solve e-mail problems .....	507
Validate the SMTP gateway address .....	507
Validate the LDAP gateway address .....	507

## 8 Parts and diagrams

Order parts, accessories, and supplies .....	510
Part numbers .....	511
Customer self-repair (CSR) components .....	511
Accessories and products .....	512
Print cartridges and toner collection unit .....	513
Memory .....	513
Cables and interfaces .....	514
Service kits .....	515
Service manuals and user documentation .....	518
Screws .....	519
How to use the parts lists and diagrams .....	519
ADF and scanner assemblies .....	520
External covers, panels, and doors .....	522
Right door assembly .....	524
Internal components .....	526
Internal components (1 of 5) .....	526
Internal components (2 of 5) .....	528
Internal components (3 of 5) .....	530
Internal components (4 of 5) .....	532
Internal components (5 of 5) .....	534
Fuser .....	536

250-sheet cassette .....	538
250-sheet cassette paper pickup assembly .....	540
Registration assembly .....	542
Paper-delivery assembly .....	544
PCAs .....	546
Formatter components .....	548
Accessories .....	550
500-sheet paper feeder .....	550
Paper feeder main body .....	552
Alphabetical parts list .....	554
Numerical parts list .....	561

## **Appendix A Service and support**

Hewlett-Packard limited warranty statement .....	570
Print cartridge limited warranty statement .....	571
HP Color LaserJet Fuser Kit Limited Warranty Statement .....	572
End User License Agreement .....	573
Customer self-repair warranty service .....	575
Customer support .....	576

## **Appendix B Product specifications**

Physical specifications .....	578
Electrical specifications .....	578
Acoustic specifications .....	578
Environmental specifications .....	579

## **Appendix C Regulatory information**

FCC regulations .....	582
Declaration of Conformity .....	583
Safety statements .....	584
Laser safety .....	584
Canadian DOC regulations .....	584
VCCI statement (Japan) .....	584
Power cord statement (Japan) .....	584
EMC statement (Korea) .....	584
Laser statement for Finland .....	584
Substances Table (China) .....	585

<b>Index .....</b>	<b>587</b>
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# List of tables

Table 1-1	Product models .....	3
Table 1-2	Features .....	4
Table 2-1	Information menu .....	17
Table 2-2	Default Options For Originals menu .....	19
Table 2-3	Image Adjustment menu .....	20
Table 2-4	Default Copy Options menu .....	21
Table 2-5	Fax Send menu .....	22
Table 2-6	Fax Receive menu .....	22
Table 2-7	Default Print Options menu .....	25
Table 2-8	Time/Scheduling menu .....	26
Table 2-9	Management menu .....	28
Table 2-10	Networking and I/O .....	31
Table 2-11	Jetdirect menus .....	31
Table 2-12	Fax Setup menu .....	38
Table 2-13	E-mail Setup menu .....	41
Table 2-14	Send Setup menu .....	41
Table 2-15	Device Behavior menu .....	42
Table 2-16	Print Quality menu .....	46
Table 2-17	Troubleshooting menu .....	50
Table 2-18	Resets menu .....	53
Table 3-1	Supported paper and print media sizes .....	56
Table 5-1	Sequence of operation .....	117
Table 5-2	Solenoids .....	119
Table 5-3	Switches .....	120
Table 5-4	Sensors .....	121
Table 5-5	Motors .....	122
Table 5-6	Fans .....	123
Table 5-7	High-voltage power supply circuits .....	124
Table 5-8	Converted DC voltages .....	125
Table 5-9	Fuser (fixing) components .....	127
Table 5-10	Primary-transfer-roller engagement states .....	143
Table 5-11	Image-stabilization controls .....	147
Table 5-12	Switches and sensors for the pickup, feed, and delivery system .....	148
Table 5-13	Motors and solenoids for the pickup, feed, and delivery system .....	149



Table 5-14	Jams that the product detects .....	164
Table 5-15	Electrical components for the paper feeder .....	167
Table 6-1	DC controller connectors .....	183
Table 6-2	External panels, covers, doors, and scanner assembly; identification and location .....	223
Table 7-1	Pre-troubleshooting checklist .....	373
Table 7-2	Troubleshooting flowchart .....	375
Table 7-3	Manual sensor diagnostic tests .....	387
Table 7-4	Paper-path sensors diagnostic tests .....	408
Table 7-5	Component test details .....	409
Table 7-6	Formatter PCA .....	411
Table 7-7	DC controller connectors .....	412
Table 7-8	Paper feeder driver PCA connectors .....	413
Table 7-9	PCAs, motors, fans, switches, solenoids, and clutches .....	418
Table 7-10	Sensors .....	421
Table 7-11	Important information on the configuration pages .....	440
Table 7-12	Control-panel messages .....	441
Table 7-13	MP modes under the Adjust paper types> sub menu .....	492
Table 7-14	MP modes under the Optimize submenu .....	492
Table 8-1	Customer self-repair (CSR) components .....	511
Table 8-2	Accessories .....	512
Table 8-3	Print cartridges and toner collection unit .....	513
Table 8-4	Memory .....	513
Table 8-5	Cables and interfaces .....	514
Table 8-6	Service kit contents .....	515
Table 8-7	Service manuals and user documentation .....	518
Table 8-8	Common fasteners .....	519
Table 8-9	ADF/scanner assembly .....	521
Table 8-10	External covers, panels, and doors; .....	523
Table 8-11	Right door assembly .....	525
Table 8-12	Internal components (1 of 5) .....	527
Table 8-13	Internal components (2 of 5) .....	529
Table 8-14	Internal components (3 of 5) .....	531
Table 8-15	Internal components (4 of 5) .....	533
Table 8-16	Internal components (5 of 5) .....	535
Table 8-17	Fuser .....	537
Table 8-18	250-sheet cassette .....	539
Table 8-19	250-sheet cassette paper pickup assembly .....	541
Table 8-20	Registration assembly .....	543
Table 8-21	Paper-delivery assembly .....	545
Table 8-22	PCAs .....	547
Table 8-23	Formatter components .....	549
Table 8-24	500-sheet paper feeder .....	551
Table 8-25	Paper feeder main body .....	553
Table 8-26	Alphabetical parts list .....	554

Table 8-27	Numerical parts list .....	561
Table B-1	Product dimensions .....	578
Table B-2	Product dimensions, with all doors and trays fully opened .....	578
Table B-3	Power requirements .....	578
Table B-4	Power consumption (average, in watts) .....	578
Table B-5	HP Color LaserJet CM3530 MFP Series .....	578



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# List of figures

Figure 4-1	Slot for the security cable .....	92
Figure 4-2	Supply item locations .....	94
Figure 5-1	Relationship between the main product systems .....	116
Figure 5-2	Engine-control system .....	118
Figure 5-3	DC controller block diagram .....	119
Figure 5-4	High-voltage power supply circuits .....	123
Figure 5-5	Low-voltage power-supply circuit .....	125
Figure 5-6	Fuser (fixing) components .....	127
Figure 5-7	Fuser temperature-control circuit .....	128
Figure 5-8	Laser/scanner system .....	131
Figure 5-9	Image-formation system .....	133
Figure 5-10	Image-formation process .....	134
Figure 5-11	Pre-exposure .....	135
Figure 5-12	Primary charging .....	135
Figure 5-13	Laser-beam exposure .....	136
Figure 5-14	Development .....	136
Figure 5-15	Primary transfer .....	137
Figure 5-16	Secondary transfer .....	137
Figure 5-17	Separation .....	138
Figure 5-18	Fusing .....	138
Figure 5-19	ITB cleaning .....	139
Figure 5-20	Drum cleaning .....	139
Figure 5-21	Print-cartridge system .....	140
Figure 5-22	Developing-roller engagement and disengagement control .....	141
Figure 5-23	ITB unit .....	142
Figure 5-24	Three states of primary-transfer-roller engagement and disengagement .....	144
Figure 5-25	ITB cleaning process .....	145
Figure 5-26	Toner patterns for calibration .....	146
Figure 5-27	Switches and sensors for the pickup, feed, and delivery system .....	148
Figure 5-28	Motors and solenoids for the pickup, feed, and delivery system .....	149
Figure 5-29	Three main units of the pickup, feed, and delivery system .....	150
Figure 5-30	Pickup and feed unit .....	151
Figure 5-31	Cassette-pickup mechanism .....	152
Figure 5-32	Cassette presence sensor .....	153

Figure 5-33	Cassette lift mechanism .....	154
Figure 5-34	Paper-level-detection mechanism .....	155
Figure 5-35	Multifeed prevention .....	155
Figure 5-36	Multipurpose tray pickup mechanism .....	156
Figure 5-37	Paper-feed mechanism .....	157
Figure 5-38	Skew-feed prevention .....	158
Figure 5-39	Fuser and delivery unit .....	159
Figure 5-40	Loop-control mechanism .....	160
Figure 5-41	Pressure-roller pressurization control .....	161
Figure 5-42	Duplexing unit .....	162
Figure 5-43	Jam detection sensors .....	164
Figure 5-44	Optional paper feeder .....	166
Figure 5-45	Signals for the paper feeder .....	167
Figure 5-46	Paper-feeder pickup and feed operation .....	168
Figure 5-47	Paper size detection .....	169
Figure 5-48	Paper-feeder cassette lift .....	171
Figure 5-49	Paper-feeder multiple feed prevention .....	172
Figure 5-50	Jam detection .....	173
Figure 5-51	ADF path for single-sided documents .....	175
Figure 5-52	ADF path for two-sided documents .....	176
Figure 6-1	Phillips and pozidrive screwdriver comparison .....	179
Figure 6-2	DC controller PCA .....	183
Figure 6-3	Parts removal order (1 of 2) .....	184
Figure 6-4	Parts removal order (2 of 2) .....	185
Figure 6-5	Remove the print cartridge (1 of 2) .....	186
Figure 6-6	Remove the print cartridge (2 of 2) .....	187
Figure 6-7	Remove the stapler cartridge .....	188
Figure 6-8	Remove the duplex-reverse guide (1 of 2) .....	189
Figure 6-9	Remove the duplex-reverse guide (2 of 2) .....	189
Figure 6-10	Remove the toner-collection unit (1 of 4) .....	190
Figure 6-11	Remove the toner-collection unit (2 of 4) .....	190
Figure 6-12	Remove the toner-collection unit (3 of 4) .....	191
Figure 6-13	Remove the toner-collection unit (4 of 4) .....	191
Figure 6-14	Remove the formatter .....	192
Figure 6-15	Remove the memory DIMM (1 of 2) .....	193
Figure 6-16	Remove the memory DIMM (2 of 2) .....	194
Figure 6-17	Remove the hard drive and SATA cable (1 of 3) .....	195
Figure 6-18	Remove the hard drive and SATA cable (2 of 3) .....	196
Figure 6-19	Remove the hard drive and SATA cable (3 of 3) .....	196
Figure 6-20	Remove the fax PCA and cable (1 of 2) .....	197
Figure 6-21	Remove the fax PCA and cable (2 of 2) .....	198
Figure 6-22	Remove the tray cassette (1 of 2) .....	199
Figure 6-23	Remove the tray cassette (2 of 2) .....	199
Figure 6-24	Remove the fuser (1 of 2) .....	200



Figure 6-25	Remove the fuser (2 of 2) .....	200
Figure 6-26	Remove the pickup roller (Tray 2) (1 of 4) .....	201
Figure 6-27	Remove the pickup roller (Tray 2) (2 of 4) .....	201
Figure 6-28	Remove the pickup roller (Tray 2) (3 of 4) .....	202
Figure 6-29	Remove the pickup roller (Tray 2) (4 of 4) .....	202
Figure 6-30	Remove the Pickup and feed rollers (Tray 3) (1 of 2) .....	203
Figure 6-31	Remove the Pickup and feed rollers (Tray 3) (2 of 2) .....	203
Figure 6-32	Remove the separation roller (Tray 2) .....	204
Figure 6-33	Remove the transfer roller (1 of 3) .....	205
Figure 6-34	Remove the transfer roller (2 of 3) .....	205
Figure 6-35	Remove the transfer roller (3 of 3) .....	206
Figure 6-36	Reinstall the transfer roller .....	206
Figure 6-37	Remove the transfer roller (2 of 3) .....	207
Figure 6-38	Remove the secondary transfer assembly (1 of 2) .....	207
Figure 6-39	Remove the secondary transfer assembly (2 of 2) .....	208
Figure 6-40	Reinstall the secondary transfer assembly .....	208
Figure 6-41	Remove the intermediate transfer belt (1 of 3) .....	209
Figure 6-42	Remove the intermediate transfer belt (2 of 3) .....	209
Figure 6-43	Remove the intermediate transfer belt (3 of 3) .....	210
Figure 6-44	Remove the front-door assembly (1 of 2) .....	211
Figure 6-45	Remove the front-door assembly (2 of 2) .....	211
Figure 6-46	Remove the ADF assembly (1 of 4) .....	212
Figure 6-47	Remove the ADF assembly (2 of 4) .....	212
Figure 6-48	Remove the ADF assembly (3 of 4) .....	213
Figure 6-49	Remove the ADF assembly (4 of 4) .....	213
Figure 6-50	Remove the ADF roller assembly and separation pad (1 of 5) .....	215
Figure 6-51	Remove the ADF roller assembly and separation pad (2 of 5) .....	215
Figure 6-52	Remove the ADF roller assembly and separation pad (3 of 5) .....	216
Figure 6-53	Remove the ADF roller assembly and separation pad (4 of 5 ) .....	216
Figure 6-54	Remove the ADF roller assembly and separation pad (5 of 5) .....	217
Figure 6-55	Reinstall the ADF roller assembly .....	217
Figure 6-56	Remove the control-panel overlay (1 of 2) .....	218
Figure 6-57	Remove the control-panel overlay (2 of 2) .....	218
Figure 6-58	Remove the control-panel assembly (1 of 3) .....	219
Figure 6-59	Remove the control-panel assembly (2 of 3) .....	219
Figure 6-60	Remove the control-panel assembly (3 of 3) .....	220
Figure 6-61	Remove the right door; optional paper feeder (1 of 3) .....	221
Figure 6-62	Remove the right door; optional paper feeder (2 of 3) .....	221
Figure 6-63	Remove the right door; optional paper feeder (3 of 3) .....	222
Figure 6-64	External panels, covers, doors, and scanner assembly; identification and location .....	223
Figure 6-65	Remove the front-upper cover (1 of 4) .....	225
Figure 6-66	Remove the front-upper cover (2 of 4) .....	225
Figure 6-67	Remove the front-upper cover (3 of 4) .....	226
Figure 6-68	Remove the front-upper cover (4 of 4) .....	226

Figure 6-69	Remove the right-door assembly (1 of 8)	227
Figure 6-70	Remove the right-door assembly (2 of 8)	227
Figure 6-71	Remove the right-door assembly (3 of 8)	228
Figure 6-72	Remove the right-door assembly (4 of 8)	228
Figure 6-73	Remove the right-door assembly (5 of 8)	229
Figure 6-74	Remove the right-door assembly (6 of 8)	229
Figure 6-75	Remove the right-door assembly (7 of 8)	230
Figure 6-76	Remove the right-door assembly (8 of 8)	230
Figure 6-77	Remove the right-rear cover (1 of 3)	231
Figure 6-78	Remove the right-rear cover (2 of 3)	231
Figure 6-79	Remove the right-rear cover (3 of 3)	232
Figure 6-80	Remove the left cover (1 of 5)	233
Figure 6-81	Remove the left cover (2 of 5)	233
Figure 6-82	Remove the left cover (3 of 5)	234
Figure 6-83	Remove the left cover (4 of 5)	234
Figure 6-84	Remove the left cover (5 of 5)	235
Figure 6-85	Remove the rear-upper cover (1 of 4)	236
Figure 6-86	Remove the rear-upper cover (2 of 4)	236
Figure 6-87	Remove the rear-upper cover (3 of 4)	237
Figure 6-88	Remove the rear-upper cover (4 of 4)	237
Figure 6-89	Remove the rear cover (1 of 2)	238
Figure 6-90	Remove the rear cover (2 of 2)	238
Figure 6-91	Remove the right-front cover (1 of 5)	239
Figure 6-92	Remove the right-front cover (2 of 5)	239
Figure 6-93	Remove the right-front cover (3 of 5)	240
Figure 6-94	Remove the right-front cover (4 of 5)	240
Figure 6-95	Remove the right-front cover (5 of 5)	241
Figure 6-96	Reinstall the power button	241
Figure 6-97	Remove the scanner assembly (1 of 6)	242
Figure 6-98	Remove the scanner assembly (2 of 6)	242
Figure 6-99	Remove the scanner assembly (3 of 6)	243
Figure 6-100	Remove the scanner assembly (4 of 6)	243
Figure 6-101	Remove the scanner assembly (5 of 6)	244
Figure 6-102	Remove the scanner assembly (6 of 6)	244
Figure 6-103	Remove the delivery cover (1 of 3)	245
Figure 6-104	Remove the delivery cover (2 of 3)	246
Figure 6-105	Remove the delivery cover (3 of 3)	246
Figure 6-106	Remove the left-upper cover (1 of 2)	247
Figure 6-107	Remove the left-upper cover (2 of 2)	248
Figure 6-108	Remove the front stapler cover and right-side stapler cover (1 of 13)	249
Figure 6-109	Remove the front stapler cover and right-side stapler cover (2 of 13)	250
Figure 6-110	Remove the front stapler cover and right-side stapler cover (3 of 13)	250
Figure 6-111	Remove the front stapler cover and right-side stapler cover (4 of 13)	251
Figure 6-112	Remove the front stapler cover and right-side stapler cover (5 of 13)	251

Figure 6-113	Remove the front stapler cover and right-side stapler cover (6 of 13)	252
Figure 6-114	Remove the front stapler cover and right-side stapler cover (7 of 13)	252
Figure 6-115	Remove the front stapler cover and right-side stapler cover (8 of 13)	253
Figure 6-116	Remove the front stapler cover and right-side stapler cover (9 of 13)	253
Figure 6-117	Remove the front stapler cover and right-side stapler cover (10 of 13)	254
Figure 6-118	Remove the front stapler cover and right-side stapler cover (11 of 13)	254
Figure 6-119	Remove the front stapler cover and right-side stapler cover (12 of 13)	255
Figure 6-120	Remove the front stapler cover and right-side stapler cover (13 of 13)	255
Figure 6-121	Reinstall the right-side stapler cover (1 of 3)	256
Figure 6-122	Reinstall the right-side stapler cover (2 of 3)	256
Figure 6-123	Reinstall the right-side stapler cover (3 of 3)	257
Figure 6-124	Remove the right-top cover (1 of 5)	258
Figure 6-125	Remove the right-top cover (2 of 5)	259
Figure 6-126	Remove the right-top cover (3 of 5)	259
Figure 6-127	Remove the right-top cover (4 of 5)	260
Figure 6-128	Remove the right-top cover (5 of 5)	260
Figure 6-129	Remove the front-top cover (1 of 2)	261
Figure 6-130	Remove the front-top cover (2 of 2)	261
Figure 6-131	Remove the rear-top cover (1 of 2)	262
Figure 6-132	Remove the rear-top cover (2 of 2)	263
Figure 6-133	Remove the stapler assembly (1 of 2)	264
Figure 6-134	Remove the stapler assembly (2 of 2)	265
Figure 6-135	Reinstall the stapler assembly	265
Figure 6-136	Remove the stapler power supply	266
Figure 6-137	Remove the ICB (1 of 3)	267
Figure 6-138	Remove the ICB (2 of 3)	268
Figure 6-139	Remove the ICB (3 of 3)	268
Figure 6-140	Reinstall the ICB	269
Figure 6-141	Remove the DC controller PCA and tray (1 of 4)	270
Figure 6-142	Remove the DC controller PCA and tray (2 of 4)	271
Figure 6-143	Remove the DC controller PCA and tray (3 of 4)	271
Figure 6-144	Remove the DC controller PCA and tray (4 of 4)	272
Figure 6-145	Remove the LVPS (1 of 10)	273
Figure 6-146	Remove the LVPS (2 of 10)	274
Figure 6-147	Remove the LVPS (3 of 10)	274
Figure 6-148	Remove the LVPS (4 of 10)	275
Figure 6-149	Remove the (5 of 10)	275
Figure 6-150	Remove the (6 of 10)	276
Figure 6-151	Remove the LVPS (7 of 10)	276
Figure 6-152	Remove the LVPS (8 of 10)	277
Figure 6-153	Remove the LVPS (9 of 10)	277
Figure 6-154	Remove the LVPS (10 of 10)	278
Figure 6-155	Remove the SCB (1 of 8)	279
Figure 6-156	Remove the SCB (2 of 8)	280

Figure 6-157	Remove the SCB (3 of 8) .....	280
Figure 6-158	Remove the SCB (4 of 8) .....	281
Figure 6-159	Remove the (5 of 8) .....	281
Figure 6-160	Remove the SCB (6 of 8) .....	282
Figure 6-161	Remove the SCB (7 of 8) .....	282
Figure 6-162	Remove the SCB (8 of 8) .....	283
Figure 6-163	Reinstalling the SCB .....	283
Figure 6-164	Remove the pickup roller (Tray 1) (1 of 2) .....	284
Figure 6-165	Remove the pickup roller (Tray 1) (2 of 2) .....	284
Figure 6-166	Remove the delivery fan, cartridge fan, and environmental sensor (1 of 9) .....	285
Figure 6-167	Remove the delivery fan, cartridge fan, and environmental sensor (2 of 9) .....	285
Figure 6-168	Remove the delivery fan, cartridge fan, and environmental sensor (3 of 9) .....	286
Figure 6-169	Remove the delivery fan, cartridge fan, and environmental sensor (4 of 9) .....	286
Figure 6-170	Remove the delivery fan, cartridge fan, and environmental sensor (5 of 9) .....	287
Figure 6-171	Remove the delivery fan, cartridge fan, and environmental sensor (6 of 9) .....	287
Figure 6-172	Remove the delivery fan, cartridge fan, and environmental sensor (7 of 9) .....	288
Figure 6-173	Remove the delivery fan, cartridge fan, and environmental sensor (8 of 9) .....	288
Figure 6-174	Remove the delivery fan, cartridge fan, and environmental sensor (9 of 9) .....	289
Figure 6-175	Remove the toner-collection sensor (1 of 4) .....	290
Figure 6-176	Remove the toner-collection sensor (2 of 4) .....	290
Figure 6-177	Remove the toner-collection sensor (3 of 4) .....	291
Figure 6-178	Remove the toner-collection sensor (4 of 4) .....	291
Figure 6-179	Remove the residual-toner-feed motor (1 of 7) .....	292
Figure 6-180	Remove the residual-toner-feed motor (2 of 7) .....	293
Figure 6-181	Remove the residual-toner-feed motor (3 of 7) .....	293
Figure 6-182	Remove the residual-toner-feed motor (4 of 7) .....	294
Figure 6-183	Remove the residual-toner-feed motor (5 of 7) .....	294
Figure 6-184	Remove the residual-toner-feed motor (6 of 7) .....	295
Figure 6-185	Remove the residual-toner-feed motor (7 of 7) .....	295
Figure 6-186	Reinstall the residual-toner collection door .....	296
Figure 6-187	Remove the RD sensor assembly (1 of 6) .....	297
Figure 6-188	Remove the RD sensor assembly (2 of 6) .....	297
Figure 6-189	Remove the RD sensor assembly (3 of 6) .....	298
Figure 6-190	Remove the RD sensor assembly (4 of 6) .....	298
Figure 6-191	Remove the RD sensor assembly (5 of 6) .....	299
Figure 6-192	Remove the RD sensor assembly (6 of 6) .....	299
Figure 6-193	Remove the power-supply fan (1 of 4) .....	300
Figure 6-194	Remove the power-supply fan (2 of 4) .....	301
Figure 6-195	Remove the power-supply fan (3 of 4) .....	301
Figure 6-196	Remove the power-supply fan (4 of 4) .....	302
Figure 6-197	Remove the registration assembly (1 of 8) .....	303
Figure 6-198	Remove the registration assembly (2 of 8) .....	304
Figure 6-199	Remove the registration assembly (3 of 8) .....	304
Figure 6-200	Remove the registration assembly (4 of 8) .....	305

Figure 6-201	Remove the registration assembly (5 of 8)	305
Figure 6-202	Remove the registration assembly (6 of 8)	306
Figure 6-203	Remove the registration assembly (7 of 8)	306
Figure 6-204	Remove the registration assembly (8 of 8)	307
Figure 6-205	Remove the high-voltage power supply lower (1 of 4)	308
Figure 6-206	Remove the high-voltage power supply lower (2 of 4)	309
Figure 6-207	Remove the high-voltage power supply lower (3 of 4)	309
Figure 6-208	Remove the high-voltage power supply lower (4 of 4)	310
Figure 6-209	Reinstall the high-voltage power supply lower	310
Figure 6-210	Remove the developing-disengagement motor (1 of 2)	311
Figure 6-211	Remove the developing-disengagement motor (2 of 2)	312
Figure 6-212	Remove the pickup motor	313
Figure 6-213	Remove the lifter-drive assembly (1 of 2)	314
Figure 6-214	Remove the lifter-drive assembly (2 of 2)	315
Figure 6-215	Remove the cassette-pickup drive assembly (1 of 10)	316
Figure 6-216	Remove the cassette-pickup drive assembly (2 of 10)	317
Figure 6-217	Remove the cassette-pickup drive assembly (3 of 10)	317
Figure 6-218	Remove the cassette-pickup drive assembly (4 of 10)	318
Figure 6-219	Remove the cassette-pickup drive assembly (5 of 10)	318
Figure 6-220	Remove the cassette-pickup drive assembly (6 of 10)	319
Figure 6-221	Remove the cassette-pickup drive assembly (7 of 10)	319
Figure 6-222	Remove the cassette-pickup drive assembly (8 of 10)	320
Figure 6-223	Remove the cassette-pickup drive assembly (9 of 10)	320
Figure 6-224	Remove the cassette-pickup drive assembly (10 of 10)	321
Figure 6-225	Reinstall the cassette-pickup drive assembly (1 of 3)	321
Figure 6-226	Reinstall the cassette-pickup drive assembly (2 of 3)	322
Figure 6-227	Reinstall the cassette-pickup drive assembly (3 of 3)	322
Figure 6-228	Remove the cassette-pickup assembly (1 of 3)	323
Figure 6-229	Remove the cassette-pickup assembly (2 of 3)	324
Figure 6-230	Remove the cassette-pickup assembly (3 of 3)	324
Figure 6-231	Remove the laser/scanner assembly (Y/M) (1 of 12)	325
Figure 6-232	Remove the laser/scanner assembly (Y/M) (2 of 12)	326
Figure 6-233	Remove the laser/scanner assembly (Y/M) (3 of 12)	326
Figure 6-234	Remove the laser/scanner assembly (Y/M) (4 of 12)	327
Figure 6-235	Remove the laser/scanner assembly (Y/M) (5 of 12)	327
Figure 6-236	Remove the laser/scanner assembly (Y/M) (6 of 12)	328
Figure 6-237	Remove the laser/scanner assembly (Y/M) (7 of 12)	328
Figure 6-238	Remove the laser/scanner assembly (Y/M) (8 of 12)	329
Figure 6-239	Remove the laser/scanner assembly (Y/M) (9 of 12)	329
Figure 6-240	Remove the laser/scanner assembly (Y/M) (10 of 12)	330
Figure 6-241	Remove the laser/scanner assembly (Y/M) (11 of 12)	330
Figure 6-242	Remove the laser/scanner assembly (Y/M) (12 of 12)	331
Figure 6-243	Remove the laser/scanner assembly (C/Bk) (1 of 7)	332
Figure 6-244	Remove the laser/scanner assembly (C/Bk) (2 of 7)	333

Figure 6-245	Remove the laser/scanner assembly (C/Bk) (3 of 7)	333
Figure 6-246	Remove the laser/scanner assembly (C/Bk) (4 of 7)	334
Figure 6-247	Remove the laser/scanner assembly (C/Bk) (5 of 7)	334
Figure 6-248	Remove the laser/scanner assembly (C/Bk) (6 of 7)	335
Figure 6-249	Remove the laser/scanner assembly (C/Bk) (7 of 7)	335
Figure 6-250	Reinstall the PGC actuators (1 of 5)	336
Figure 6-251	Reinstall the PGC actuators (2 of 5)	336
Figure 6-252	Reinstall the PGC actuators (3 of 5)	337
Figure 6-253	Reinstall the PGC actuators (4 of 5)	337
Figure 6-254	Reinstall the PGC actuators (5 of 5)	338
Figure 6-255	Remove the high-voltage power supply upper (1 of 5)	339
Figure 6-256	Remove the high-voltage power supply upper (2 of 5)	340
Figure 6-257	Remove the high-voltage power supply upper (3 of 5)	340
Figure 6-258	Remove the high-voltage power supply upper (4 of 5)	341
Figure 6-259	Remove the high-voltage power supply upper (5 of 5)	341
Figure 6-260	Reinstall the high-voltage power supply upper	342
Figure 6-261	Remove the drum motor 1	343
Figure 6-262	Remove the drum motor 2 or drum motor 3	344
Figure 6-263	Remove the fuser motor	345
Figure 6-264	Remove the main-drive assembly (1 of 7)	346
Figure 6-265	Remove the main-drive assembly (2 of 7)	347
Figure 6-266	Remove the main-drive assembly (3 of 7)	347
Figure 6-267	Remove the main-drive assembly (4 of 7)	348
Figure 6-268	Remove the main-drive assembly (5 of 7)	348
Figure 6-269	Remove the main-drive assembly (6 of 7)	349
Figure 6-270	Remove the main-drive assembly (7 of 7)	349
Figure 6-271	Reinstall the main-drive assembly (1 of 11)	350
Figure 6-272	Reinstall the main-drive assembly (2 of 11)	350
Figure 6-273	Reinstall the main-drive assembly (3 of 11)	351
Figure 6-274	Reinstall the main-drive assembly (4 of 11)	351
Figure 6-275	Reinstall the main-drive assembly (5 of 11)	352
Figure 6-276	Reinstall the main-drive assembly (6 of 11)	352
Figure 6-277	Reinstall the main-drive assembly (7 of 11)	353
Figure 6-278	Reinstall the main-drive assembly (8 of 11)	353
Figure 6-279	Reinstall the main-drive assembly (9 of 11)	354
Figure 6-280	Reinstall the main-drive assembly (10 of 11)	354
Figure 6-281	Reinstall the main-drive assembly (11 of 11)	355
Figure 6-282	Remove the fuser-drive assembly (1 of 6)	357
Figure 6-283	Remove the fuser-drive assembly (2 of 6)	357
Figure 6-284	Remove the fuser-drive assembly (3 of 6)	358
Figure 6-285	Remove the fuser-drive assembly (4 of 6)	358
Figure 6-286	Remove the fuser-drive assembly (5 of 6)	359
Figure 6-287	Remove the fuser-drive assembly (6 of 6)	359
Figure 6-288	Reinstall the fuser-drive assembly	360

Figure 6-289	Remove the delivery assembly (1 of 5)	362
Figure 6-290	Remove the delivery assembly (2 of 5)	362
Figure 6-291	Remove the delivery assembly (3 of 5)	363
Figure 6-292	Remove the delivery assembly (4 of 5)	363
Figure 6-293	Remove the delivery assembly (5 of 5)	364
Figure 6-294	Reinstall the delivery assembly (1 of 2)	365
Figure 6-295	Reinstall the delivery assembly (2 of 2)	365
Figure 6-296	Remove the duplex-drive assembly (1 of 2)	367
Figure 6-297	Remove the duplex-drive assembly (2 of 2)	367
Figure 6-298	Remove the drawer connector; optional paper feeder	368
Figure 7-1	Front-door interlock	384
Figure 7-2	Right-door interlock	384
Figure 7-3	Engine-test button	386
Figure 7-4	Test the TOP sensor	389
Figure 7-5	Test the loop sensors	390
Figure 7-6	Test the fuser delivery sensor (1 of 2)	391
Figure 7-7	Test the fuser (fixing) delivery sensor (2 of 2)	391
Figure 7-8	Test the duplex re-pickup sensor	392
Figure 7-9	Test the output-bin-full sensor	393
Figure 7-10	Test the fuser (fixing) pressure-release sensor (1 of 2)	395
Figure 7-11	Test the fuser (fixing) pressure-release sensor (2 of 2)	395
Figure 7-12	Test the primary transfer-roller disengagement sensor (1 of 2)	396
Figure 7-13	Test the primary transfer-roller disengagement sensor (2 of 2)	397
Figure 7-14	Test the right- and front-door interlock switches (1 of 4)	398
Figure 7-15	Test the right- and front-door interlock switches (2 of 4)	398
Figure 7-16	Test the right- and front-door interlock switches (3 of 4)	399
Figure 7-17	Test the right- and front-door interlock switches (4 of 4)	399
Figure 7-18	Test the Tray 1 media-present sensor	400
Figure 7-19	Test the tray 2 paper-out sensor	401
Figure 7-20	Test the Tray 2 closed sensor (1 of 2)	402
Figure 7-21	Test the Tray 2 closed sensor (2 of 2)	402
Figure 7-22	Test the Tray 2 stack-surface sensor	403
Figure 7-23	Test the optional Tray 3-empty sensor	404
Figure 7-24	Test the optional Tray 3 media-feed sensor	405
Figure 7-25	Test the optional Tray 3 stack-surface sensor	406
Figure 7-26	Test the optional Tray 3 media-size sensors	407
Figure 7-27	Formatter PCA	411
Figure 7-28	DC controller PCA	412
Figure 7-29	Paper feeder driver PCA	413
Figure 7-30	Component locations (1 of 5)	414
Figure 7-31	Component locations (2 of 5)	415
Figure 7-32	Component locations (3 of 5)	415
Figure 7-33	Component locations (4 of 5)	416
Figure 7-34	Component locations (5 of 5)	417

Figure 7-35	1 x 500 paper feeder .....	420
Figure 7-36	Sensors .....	421
Figure 7-37	General timing chart .....	423
Figure 7-38	General circuit diagram (1 of 2) .....	424
Figure 7-39	General circuit diagram (2 of 2) .....	425
Figure 7-40	Product circuit block diagram .....	425
Figure 7-41	Paper feeder circuit diagram .....	426
Figure 7-42	Repetitive defects ruler .....	428
Figure 7-43	Print-quality troubleshooting procedure .....	431
Figure 7-44	Yellow print-quality troubleshooting page .....	432
Figure 7-45	Yellow comparison page .....	432
Figure 7-46	Black print-quality troubleshooting page .....	433
Figure 7-47	Configuration page .....	436
Figure 7-48	HP embedded Jetdirect page .....	438
Figure 7-49	Embedded protocol page .....	439
Figure 7-50	Jam locations .....	473
Figure 8-1	ADF/scanner assembly .....	520
Figure 8-2	External covers, panels, and doors .....	522
Figure 8-3	Right door assembly .....	524
Figure 8-4	Internal components (1 of 5) .....	526
Figure 8-5	Internal components (2 of 5) .....	528
Figure 8-6	Internal components (3 of 5) .....	530
Figure 8-7	Internal components (4 of 5) .....	532
Figure 8-8	Internal components (5 of 5) .....	534
Figure 8-9	Fuser .....	536
Figure 8-10	250-sheet cassette .....	538
Figure 8-11	250-sheet cassette paper pickup assembly .....	540
Figure 8-12	Registration assembly .....	542
Figure 8-13	Paper-delivery assembly .....	544
Figure 8-14	PCAs .....	546
Figure 8-15	Formatter components .....	548
Figure 8-16	500-sheet paper feeder .....	550
Figure 8-17	Paper feeder main body .....	552




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# 1 Product basics


- [Conventions used in this guide](#)
- [Product comparison](#)
- [Product features](#)
- [Product view](#)


## Conventions used in this guide

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 **TIP:** Tips provide helpful hints or shortcuts.

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



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

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

---

# Product comparison

**Table 1-1 Product models**

Model	Features
<p>HP Color LaserJet CM3530 MFP</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>• Automatic duplex printing</li> <li>• Automatic document feeder (ADF) that holds up to 50 pages, face-up</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>• 512 megabytes (MB) of random access memory (RAM)</li> <li>• Hard drive</li> </ul>
<p>HP Color LaserJet CM3530fs MFP</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>• Automatic duplex printing</li> <li>• Automatic document feeder (ADF) that holds up to 50 pages, face-up</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>• 512 megabytes (MB) of random access memory (RAM)</li> <li>• Hard drive</li> <li>• Analog fax</li> <li>• Convenience stapler that can staple up to 20 sheets of paper</li> </ul>

# Product features

**Table 1-2 Features**

<b>Speed and throughput</b>	<ul style="list-style-type: none"> <li>• Print up to 31 pages per minute (ppm) on letter-size paper and 30 ppm on A4-size paper.</li> <li>• Less than 11 seconds to print the first page</li> <li>• Recommended maximum monthly print volume of 2,000 to 6,000 pages</li> <li>• A 515 megahertz (MHz) microprocessor</li> <li>• Duplex at 75% speed from Tray 2 and 50% speed from Tray 1</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>• 512 MB of random-access memory (RAM), expandable to 1 gigabyte (GB) by using 200-pin small outline dual inline memory modules (SODIMM) that support 128, 256, or 512 MB of RAM.</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>• HP Easy Select full color 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>Languages and fonts</b>	<ul style="list-style-type: none"> <li>• HP Printer Control Language (PCL) 6</li> <li>• HP PCL 5</li> <li>• HP postscript level 3 emulation</li> <li>• Printer Management Language</li> <li>• 80 scalable TrueType PS typefaces</li> </ul>
<b>Print cartridges</b>	<ul style="list-style-type: none"> <li>• For information regarding print cartridges, see <a href="http://www.hp.com/go/learnaboutsupplies">www.hp.com/go/learnaboutsupplies</a>.</li> <li>• Authentic HP print cartridge detection</li> <li>• Automatic toner strip remover</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. This tray automatically detects common paper sizes. Holds standard and custom-size paper.</li> <li>• <b>Optional Tray 3:</b> 500-sheet paper and heavy media tray.</li> <li>• <b>Automatic document feeder (ADF):</b> Holds up to 50 sheets of paper.</li> <li>• <b>Duplex printing:</b> Provides automatic two-sided printing (printing on both sides of the paper).</li> </ul>

**Table 1-2 Features (continued)**

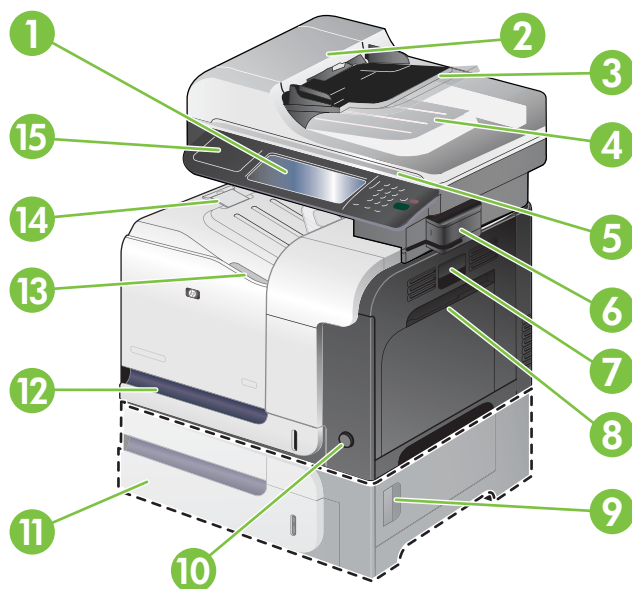
	<ul style="list-style-type: none"><li>• <b>ADF duplex scanning:</b> The ADF has an automatic duplexer for scanning two-sided documents.</li><li>• <b>Standard output bin:</b> The standard output bin is located beneath the scanner. This bin can hold up to 250 sheets of paper. The product has a sensor that indicates when the bin is full.</li></ul> <p>For information about supported paper sizes, see <a href="#">Supported paper and print media on page 56</a>.</p> <p>For information about supported paper types, see <a href="#">Supported paper and print media types on page 58</a>.</p>
<b>Supported operating systems</b>  <b>NOTE:</b> IPv4 and IPsec on IPv4 available on all listed Windows operating systems  IPv6 and IPsec on IPv6 only supported on Windows Vista and Windows Server 2008.	<ul style="list-style-type: none"><li>• Windows 2000®</li><li>• Windows XP® Home</li><li>• Windows XP® Professional</li><li>• Windows XP® Professional x64</li><li>• Windows Server 2003® (32/64 bit)</li><li>• Windows Vista™ (compatible)</li><li>• Windows Vista™ Premium</li><li>• Windows Server 2008® (32/64 bit)</li><li>• Macintosh OS X V10.3 and later</li><li>• Novell 5.1 and later</li><li>• Red Hat Linux 7.x and later</li><li>• SuSE Linux 8.x and later</li><li>• HP-UX 10.20, 11.x, and 11.i</li><li>• Solaris 2.5 and later (SPARC systems only)</li><li>• IBM AIX 3.2.5 and later (requires software from the NOS vendor)</li><li>• MPE-iX</li><li>• Citrix MetaFrame Server</li><li>• Windows Terminal Services</li></ul>
<b>Connectivity</b>	<ul style="list-style-type: none"><li>• Local area network (LAN) connector (RJ-45) for the embedded HP Jetdirect print server</li><li>• One enhanced input/output (EIO) slot</li><li>• USB 2.0 connection</li><li>• Host USB port for third-party solutions</li><li>• A Foreign Interface Harness (FIH) connection (AUX) for connecting other devices</li><li>• Optional analog fax card (included with the HP Color LaserJet CM3530fs MFP)</li><li>• Optional HP Digital Sending Software (DSS)</li></ul>
<b>Environmental features</b>	<ul style="list-style-type: none"><li>• Sleep setting saves energy.</li><li>• High content of recyclable components and materials.</li><li>• Instant-on technology</li></ul>

**Table 1-2 Features (continued)**

	<ul style="list-style-type: none"><li>• Energy Star® compliance (except in EMEA)</li><li>• Blue Angel certification (EMEA)</li><li>• Cartridge and toner collection unit recycling with HP Planet Partners</li><li>• Automatic color sensing</li></ul>
<b>Security features</b>	<ul style="list-style-type: none"><li>• Secure Disk Erase</li><li>• Security lock (optional)</li><li>• Job storage</li><li>• User PIN authentication for stored jobs</li><li>• Digital Send Software (DSS) authentication</li><li>• IPsec security</li><li>• Support for HP High Performance hard disks</li></ul>
<b>Copying and sending</b>	<ul style="list-style-type: none"><li>• Automatic color sensing for copies</li><li>• Modes for text, graphics, and mixed text and graphics formats</li><li>• Job-interrupt feature</li><li>• Multiple pages per sheet</li><li>• Control panel animations (for example, jam recovery)</li><li>• Scan and send to e-mail<ul style="list-style-type: none"><li>◦ Local address book for e-mail and fax</li><li>◦ LDAP addressing</li></ul></li><li>• Send to folder</li><li>• Automatic duplex (two-sided) scanning</li></ul>

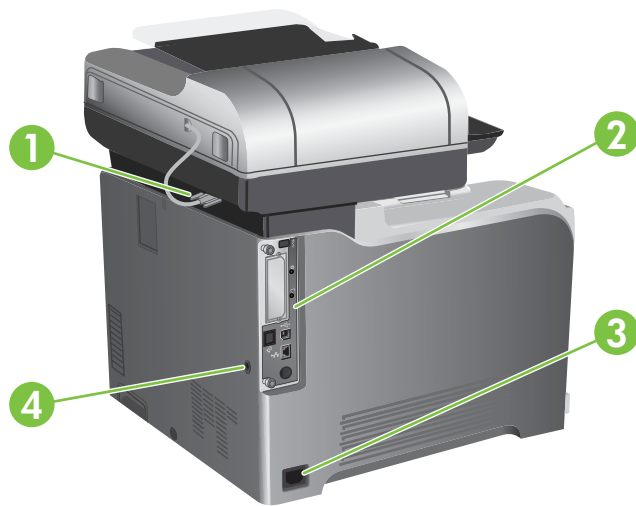
# Product view

## Product front view



1	Color control panel
2	Document-feeder top-cover (lift open to clear jams)
3	Automatic document-feeder (ADF)
4	Document-feeder output bin
5	Scanner
6	Convenience stapler (only for the HP Color LaserJet CM3530fs MFP)
7	Right-side door (access for clearing jams)
8	Tray 1 (pull the handle to open the tray)
9	Lower-right door (access for clearing jams)
10	On/off button
11	Optional Tray 3
12	Tray 2
13	Front door (access to print cartridges and toner collection unit)
14	Standard output bin
15	Hardware integration port

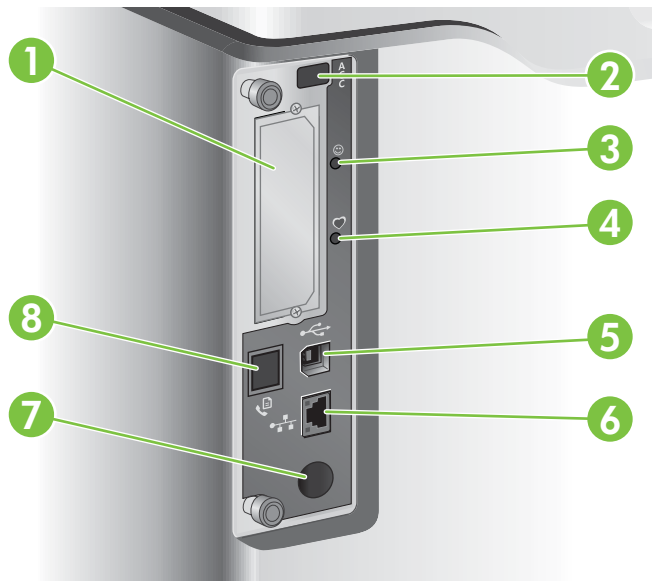
## Product back view



1	Connector for the ADF
2	Interface ports
3	Power connection
4	Slot for a cable-type security lock

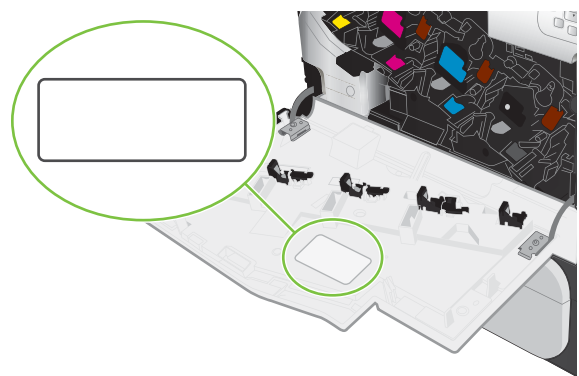


## Interface ports



1	EIO interface expansion slot
2	Host USB port (for third-party solutions)
3	Formatter connectivity LED (lit when the formatter is properly seated)
4	Heartbeat LED (blinks when the formatter is working correctly)
5	Hi-Speed USB 2.0 port
6	RJ-45 network port (includes HP Jetdirect LEDs)
7	Foreign-interface harness (for connecting third-party solutions)
8	Fax connection (only for the HP Color LaserJet CM3530fs MFP)

# Serial number and model number location



Model name	Model number
HP Color LaserJet CM3530 MFP	CC519A
HP Color LaserJet CM3530fs MFP	CC520A

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## 2 Control panel

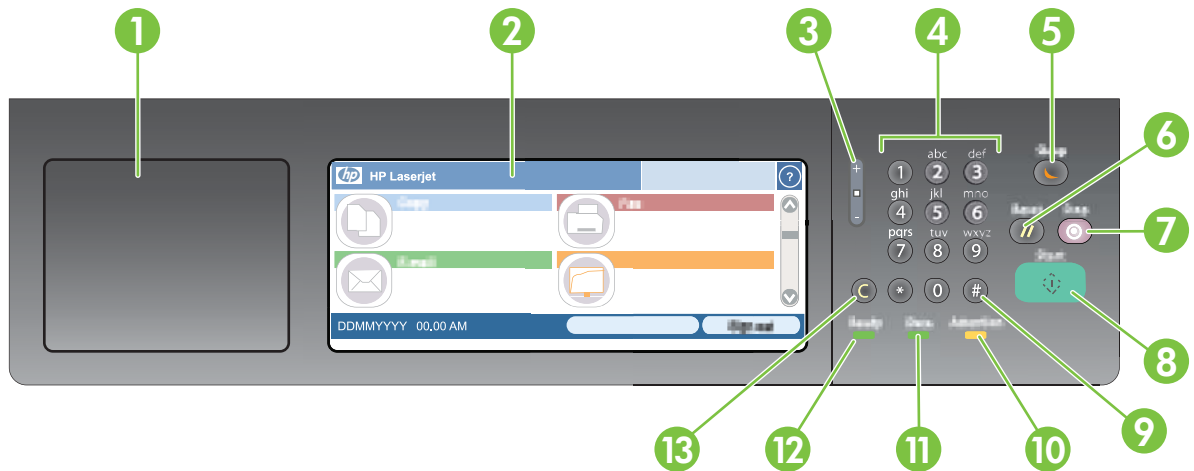
- [Use the control panel](#)
- [Navigate the Administration menu](#)
- [Information menu](#)
- [Default Job Options menu](#)
- [Time/Scheduling menu](#)
- [Management menu](#)
- [Initial Setup menu](#)
- [Device Behavior menu](#)
- [Print Quality menu](#)
- [Troubleshooting menu](#)
- [Resets menu](#)
- [Service menu](#)

## Use the control panel

The control panel has a VGA touchscreen that provides access to all product functions. Use the buttons and numeric keypad to control jobs and the product status. The LEDs indicate overall product status.

### Control-panel layout

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




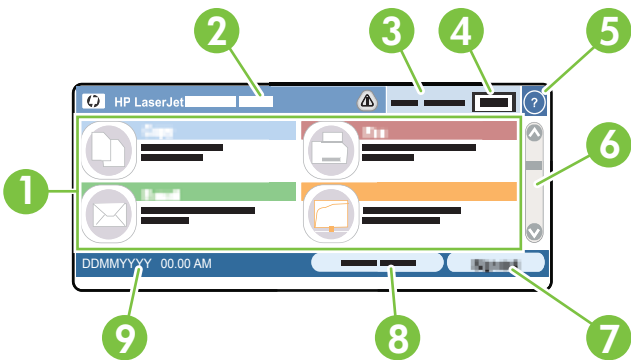
1	Hardware integration port	Area for adding third-party security devices
2	Touchscreen graphical display	Use the touchscreen to open and set up all product functions.
3	Brightness-adjustment button	Use this button to increase or decrease the brightness of the touchscreen display.
4	Numeric keypad	Use this area to specify the number of copies and other numeric values.
5	Sleep button	If the product is inactive for a long period of time, it automatically enters a sleep mode. To place the product into sleep mode or to reactivate the product, press the Sleep button.
6	Reset button	Resets the job settings to factory or user-defined default values.
7	Stop button	Stops the active job and opens the Job Status screen.
8	Start button	Begins a copy job, starts digital sending, starts a fax job, or continues a job that has been interrupted.
9	# button	Use this button to indicate a required pause for a fax number.
10	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 touchscreen.
11	Data light	The Data light indicates that the product is receiving data.

12	Ready light	The Ready light indicates that the product is ready to begin processing any job.
13	Clear button	Return values to their defaults.

# Home screen

The home screen provides access to the product features, and it indicates the current status of the product.







 **NOTE:** Depending on how the product has been configured, the features that appear on the home screen can vary.




1	Features	Depending on how the product is configured, the features that appear in this area can include any of the following items: <ul style="list-style-type: none"><li>• Copy</li><li>• Fax</li><li>• E-mail</li><li>• Secondary E-Mail</li><li>• Job Status</li><li>• Network Folder</li><li>• Job Storage</li><li>• Workflow</li><li>• Supplies Status</li><li>• Administration</li></ul>
2	Product status line	The status line provides information about the overall product status. Various buttons appear in this area, depending on the current status. For a description of each button that can appear in the status line, see <a href="#">Buttons on the touchscreen on page 15</a> .
3	Copy type	Shows whether copies are color.
4	Copy count	The copy count box indicates the number of copies that the product is set to make.
5	Help button	Touch the Help button to open the embedded help system.
6	Scroll bar	Touch the up or down arrows on the scroll bar to see the complete list of available features.
7	Sign Out	Touch <b>Sign Out</b> to sign out of the product if you have signed in for access to restricted features. After you sign out, the product restores all options to the default settings.
8	Network Address	Touch <b>Network Address</b> to find information about the network connection.
9	Date and time	The current date and time appear here. You can select the format that the product uses to show the date and time, for example 12-hour format or 24-hour format.

## Buttons on the touchscreen

The status line on the touchscreen provides information about the product status. Various buttons can appear in this area. The following table describes each button.



	<b>Home button.</b> Touch the home button to go to the Home screen from any other screen.
	<b>Start button.</b> Touch the <b>Start</b> button to begin the action for the feature that you are using. <b>NOTE:</b> The name of this button changes for each feature. For example, in the Copy feature, the button is named <b>Start Copy</b> .
	<b>Stop button.</b> If the product is processing a print or fax job, the <b>Stop</b> button appears instead of the <b>Start</b> button. Touch the <b>Stop</b> button to halt the current job. The product prompts you to cancel the job or to resume it.
	<b>Error button.</b> The error button appears whenever the product has an error that requires attention before it can continue. Touch the error button to see a message that describes the error. The message also has instructions for solving the problem.
	<b>Warning button.</b> The warning button appears when the product has a problem but can continue functioning. Touch the warning button to see a message that describes the problem. The message also has instructions for solving the problem.
	<b>Help button.</b> Touch the help button to open the built-in online Help system. For more information, see <a href="#">Control-panel help system on page 15</a> .

## Control-panel help system

The product has a built-in Help system that explains how to use each screen. To open the Help system, touch the Help button  in the upper-right corner of the screen.

For some screens, the Help opens to a global menu where you can search for specific topics. You can browse through the menu structure by touching the buttons in the menu.


For screens that contain settings for individual jobs, the Help opens to a topic that explains the options for that screen.


If the product alerts you of an error or warning, touch the error  or warning  button to open a message that describes the problem. The message also contains instructions to help solve the problem.

## Navigate the Administration menu

From the Home screen, touch **Administration** to open the menu structure. You might need to scroll to the bottom of the Home screen to see this feature.

The **Administration** menu has several sub-menus, which are listed on the left side of the screen. Touch the name of a menu to expand the structure. A plus sign (+) next to a menu name means that it contains sub-menus. Continue opening the structure until you reach the option that you want to configure. To return to the previous level, touch **Back**.

To exit the **Administration** menu, touch the Home button  in the upper-left corner of the screen.

The product has built-in Help that explains each of the features that are available through the menus. Help is available for many menus on the right-hand side of the touchscreen. Or, to open the global Help system, touch the Help button  in the upper-right corner of the screen.

The tables in the sections that follow indicate the overall structure of each menu under the Administration menu.



# Information menu

Administration > Information

Use this menu to print information pages and reports that are stored internally on the product.

**Table 2-1 Information menu**

Menu item	Sub-menu item	Sub-menu item	Values	Description
Configuration/Status Pages	Administration Menu Map		Print	Shows the basic structure of the <a href="#">Administration</a> menu and current administration settings.
	Configuration Page		Print	A set of configuration pages that show the current product settings.
	Supplies Status Page		Print	Shows the status of supplies such as cartridges, maintenance kits, and staples.
	Usage Page		Print	Shows information about the number of pages that have been printed on each paper type and size.
	Color Usage Job Log		Print	A directory page that contains job-by-job color usage information. Page content includes the user name, application name, and number of black-only pages and color pages.
	File Directory		Print	A directory page that contains information for any mass-storage devices, such as flash drives, memory cards, or hard disks, that are installed in this product.
Fax Reports	Fax Activity Log		Print	Contains a list of the faxes that have been sent from or received by this product.
	Fax Call Report	Fax Call Report	Print	A detailed report of the last fax operation, either sent or received.
		Thumbnail on Report	Yes No (default)	Choose whether or not to include a thumbnail of the first page of the fax on the call report.
	When to Print Report		Never auto print	
			Print after any fax job	
			Print after fax send jobs	
			Print after any fax error (default)	
			Print after send errors only	
			Print after receive errors only	
	Billing Codes Report		Print	A list of billing codes that have been used for outgoing faxes. This report shows how many sent faxes were billed to each code.
	Blocked Fax List		Print	A list of phone numbers that are blocked from sending faxes to this product.
	Speed Dial List		Print	Shows the speed dials that have been set up for this product.

**Table 2-1 Information menu (continued)**

Menu item	Sub-menu item	Sub-menu item	Values	Description
Sample Pages/Fonts	Demonstration Page		Print	Printout of a page highlighting the print capabilities of the product.
	RGB Samples		Print	Printout of color samples for different RGB values. The samples act as a guide for color matching.
	CMYK Samples		Print	Printout of color samples for different CMYK values. The samples act as a guide for color matching.
	PCL Font List		Print	A list of printer control language (PCL) fonts that are currently available on the product.
	PS Font List		Print	A list of PostScript (PS) fonts that are currently available on the product.

# Default Job Options menu

Administration > Default Job Options

Use this menu to define the default job options for each function. These are used if the user does not specify other options when creating the job.

## Default Options for Originals

Administration > Default Job Options > Default Options For Originals

**Table 2-2 Default Options For Originals menu**

Menu item	Values	Description
Paper Size	Select a paper size from the list.	Select the paper size that is most often used for copy or scan originals.
Number of Sides	1	Select whether copy or scan originals are most often single-sided or double-sided.
	2	
Orientation	Portrait	Select the orientation that is most often used for copy or scan originals. Select <b>Portrait</b> if the short edge is at the top or select <b>Landscape</b> if the long edge is at the top.
	Landscape	
Optimize Text/Picture	Manually Adjust	Optimize the output for a particular type of original: text, pictures, or a mixture of both.
	Text	If you select <b>Manually Adjust</b> , specify the mix of text and pictures that is used most often.
	Printed Picture	
	Photograph	

# Image adjustment

Administration > Default Job Options > Image Adjustment

Table 2-3 Image Adjustment menu

Menu item	Values	Description
Darkness	Select a value.	Select the level of density (darkness) for the output.
Background Cleanup	Adjust the value within the range.	Increase the Background Cleanup setting to remove faint images from the background or to remove a light background color.
Sharpness	Adjust the value within the range.	Adjust the Sharpness setting to clarify or soften the image.

## Default Copy Options

Administration > Default Job Options > Default Copy Options

**Table 2-4 Default Copy Options menu**

Menu item	Sub-menu item	Values	Description
Number of Copies		Type the number of copies. The factory default setting is 1.	Set the default number of copies for a copy job.
Number of Sides		1 2	Set the default number of sides for copies.
Color/Black		Auto Detect Color Black (default)	Choose whether the default copy mode is color, black, or automatically detected, based on the original.
Collate		Off On (default)	Set up the option for collating sets of copies.  If <b>On</b> is selected, the product prints a complete copy of the print job before starting on the next copy. Otherwise, the product prints the first page of all copies before printing the second page, and so on.
Edge-To-Edge		Normal (recommended) (default) Edge-To-Edge Output	If the original document is printed close to the edges, use the <b>Edge-To-Edge</b> feature to avoid shadows along the edges. Combine this feature with the <b>Reduce/Enlarge</b> feature to ensure that the entire page appears on the copies.
Auto Include Margins		Off (default) On	This feature automatically reduces the image size during scanning so the margins are included.

## Default Fax Options

Administration > Default Job Options > Default Fax Options



**NOTE:** This menu is available only for the HP Color LaserJet CM3530fs MFP.

**Table 2-5 Fax Send menu**

Menu item	Sub-menu item	Values	Description
Resolution		Standard (100x200dpi) (default)	Set the resolution for sent documents. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.
		Fine (200x200dpi)	
		Superfine (300x300dpi)	
Fax Header		Prepend (default)	Select the position of the fax header on the page.
		Overlay	Select <b>Prepend</b> to print the fax header above the fax content and move the fax content down on the page. Select <b>Overlay</b> to print the fax header over the top of the fax contents without moving the contents down. Using this option could prevent a single-page fax from flowing onto another page.

**Table 2-6 Fax Receive menu**

Menu item	Sub-menu item	Values	Description
Fax Forwarding	Fax Forwarding	Off (default)	To forward received faxes to another fax device, select <b>Fax Forwarding</b> and <b>Custom</b> . Then type the number of the other fax device into the <b>Fax Forwarding Number</b> field. When you select the <b>Fax Forwarding</b> menu item for the first time, you are prompted to set up a PIN. Type that PIN every time you use this menu. This PIN is also used to access the <b>Fax Printing</b> menu.
		Custom	
	Change PIN		Use this option to change the PIN for the <b>Fax Forwarding</b> menu.
Stamp Received Faxes	Enabled		Add the date, time, senders phone number, and page number to each page of the faxes that this product receives.
	Disabled (default)		
Fit to Page	Enabled (default)		Shrink faxes that are larger than Letter-size or A4-size so that they can fit onto a Letter-size or A4-size page. If it this feature set to <b>Disabled</b> , faxes larger than Letter or A4 will flow across multiple pages.
	Disabled		
Fax Paper Tray	Select from the list of trays. The default setting is <b>Automatic</b> .		Select the tray that holds the size and type of paper that you want to use for incoming faxes.

## Default E-mail Options

Administration > Default Job Options > Default E-mail Options

Menu item	Values	Description
Document File Type	PDF (default)	Select the file format for the e-mail.
	JPEG	
	TIFF	
	M-TIFF	
Output Quality	High (large file)	Selecting higher quality for output increases the size of the output file.
	Medium (default)	
	Low (small file)	
Resolution	300 DPI	Select the resolution. Use a lower setting to create smaller files.
	200 DPI	
	150 DPI (default)	
	75 DPI	
Color/Black	Color scan (default)	Specify whether the e-mail will be in black or in color.
	Black/white scan	
TIFF Version	TIFF 6.0 (default)	Specify the TIFF version to use when saving scanned files.
	TIFF (Post 6.0)	

## Default Send to Folder Options

Administration > Default Job Options > Default Send To Folder Options

Menu item	Values	Description
Color/Black	Color scan	Specify whether the file will be in black or in color.
	Black/white scan (default)	
Document File Type	PDF (default)	Select the file format for the file.
	M-TIFF	
	TIFF	
	JPEG	
TIFF Version	TIFF 6.0 (default)	Specify the TIFF version to use when saving scanned files.
	TIFF (Post 6.0)	
Output Quality	High (large file)	Selecting higher quality for output increases the size of the output file.
	Medium (default)	
	Low (small file)	
Resolution	75 DPI	Select the resolution. Use a lower setting to create smaller files.
	150 DPI (default)	
	200 DPI	
	300 DPI	
	400 DPI	
	600 DPI	



## Default Print Options

Administration > Default Job Options > Default Print Options

**Table 2-7 Default Print Options menu**

Menu item	Sub-menu item	Values	Description
Copies Per Job		Type a value.	Set the default number of copies for print jobs.
Default Paper Size		(List of supported sizes)	Select a paper size.
Default Custom Paper Size	Unit of measure	Millimeters Inches	Configure the default paper size that is used when the user selects <b>Custom</b> as the paper size for a print job.
	X Dimension		Configure the width measurement for the <b>Default Custom Paper Size</b> .
	Y Dimension		Configure the height measurement for the <b>Default Custom Paper Size</b> .
Print Sides		1-sided 2-sided	Select whether print jobs are single-sided or double-sided by default.
2-Sided Format		Long Edge (Default) Short Edge	<p>Use this feature to configure the default style for 2-sided print jobs.</p> <p>If <b>Long Edge</b> is selected and the job has a portrait orientation, the job will result in a book style. If the job is landscape, a calendar style (flipping up the pages) will result.</p> <p>If <b>Short Edge</b> is selected and the job has a portrait orientation, the job will result in a calendar style. If the job is landscape, a booklet style will result.</p>

# Time/Scheduling menu

Administration > Time/Scheduling

Use this menu to set options for setting the time and for setting the product to enter and exit sleep mode.



**NOTE:** Values shown with "(default)" are the factory-default values. Some menu items have no default.

**Table 2-8 Time/Scheduling menu**

Menu item	Sub-menu item	Sub-menu item	Values	Description
Date/Time	Date Format		YYYY/MMM/DD (default)	Use this feature to set the current date and time, and to set the date format and time format that are used to time-stamp outgoing faxes.
			MMM/DD/YYYY	
			DD/MMM/YYYY	
	Date	Month		
		Day		
		Year		
	Time Format		12 hour (AM/PM) (default)	
			24 hour	
	Time	Hour		
		Minute		
		AM		
		PM		
Time Zone			Select a time zone from the list.	Select the time zone where the product is located.
	Adjust for Daylight Savings		Enabled Disabled	
Sleep Delay			1 Minute	Use this feature to select the time interval that the product should remain inactive before entering Sleep Mode.
			15 Minutes	
			20 minutes	
			30 minutes (default)	
			45 minutes	
			1 hour (60 minutes)	
			90 minutes	
			2 hours	
Wake Time	Monday		Off (default)	Select <b>Custom</b> to set a wake time for each day of the week. The product exits sleep mode according to this schedule. Using a sleep schedule helps conserve energy and
			Custom	
	Tuesday			

**Table 2-8 Time/Scheduling menu (continued)**

Menu item	Sub-menu item	Sub-menu item	Values	Description
	Wednesday			prepares the product for use so that users do not have to wait for it to warm up.
	Thursday			
	Friday			
	Saturday			
	Sunday			
Sleep Time	Monday		Off (default)	Use this feature to set a sleep time for each day of the week for periods when the product will not likely be in use (for example, at a certain time each evening). Setting a sleep time makes the product automatically go into a low-power mode. Select a day and then select <b>Custom</b> to set up a custom sleep time schedule.
	Tuesday		Custom	
	Wednesday			
	Thursday			
	Friday			
	Saturday			
	Sunday			
Fax Printing	Fax Printing Mode	Store all received faxes		If you have concerns about the security of private faxes, use this feature to store faxes rather than having them automatically print by creating a printing schedule. When you select this menu item for the first time, you are prompted to set up a PIN. Type that PIN every time you use this menu.
		Print all received faxes (default)		Select <b>Print all received faxes</b> to print all incoming received faxes at the time they are received.
		Use Fax Printing Schedule	Create Fax Printing Schedule	Select <b>Use Fax Printing Schedule</b> to get to the <b>Create Fax Printing Schedule</b> menu options that allow you to set up a schedule for printing received faxes.
		Change PIN		Select <b>Change PIN</b> to change the PIN number that users must provide to print faxes.

# Management menu

Administration > Management

Use this menu to set up global product-management options.



**NOTE:** Values shown with "(default)" are the factory-default values. Some menu items have no default.

**Table 2-9 Management menu**

Menu item	Sub-menu item	Values	Description
Network Address Button	Display		Use this feature to display the Network Address button on the Home screen.
	Hide (default)		
Stored Job Management	Quick Copy Job Storage Limit	Select the maximum number of jobs to store	Use this menu to view and manage any jobs that are stored on the product.
	Quick Copy Job Held Timeout	Off (default)	
		1 Hour	
		4 Hours	
		1 Day	
		1 Week	
	Stored Jobs List Order	Alphabetical	
		Chronological	
Sleep mode	Disable		Use this feature to customize the sleep mode settings for this product.
	Use Sleep Delay (default)		Select <b>Use Sleep Delay</b> to set the product to enter sleep mode after the delay that is specified in the <b>Time/Scheduling</b> menu.
Manage Supplies	Replace Supplies		Sets the product behavior for when a supply item is low.
			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>Override at out 1</b> or <b>Override at out 2</b> . The Override options allow the product to continue using a supply item that has reached its estimated end of life.
		Stop at low	Choose <b>Stop at low</b> to stop printing when a supply reaches a low condition.
		Stop at out (default)	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>Override at out 1</b> or <b>Override at out 2</b> . The supply does not need to be replaced now unless the print quality is no longer acceptable.

**Table 2-9 Management menu (continued)**

Menu item	Sub-menu item	Values	Description
		Override at out 1 Override at out 2	<p>Choose <b>Override 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.</p> <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 the product.</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="#">Print cartridge limited warranty statement on page 571</a>.</p> <p>The Override options can be enabled or disabled at any time, and they 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>
		Page Limit Range of 0 to 100000	<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>
	Supply Low/Order Threshold	Select a value in the range. The default is 5%.	Use this menu to carry out administrative supply management tasks such as changing the threshold when supplies should be ordered.
	Color Supply Out	Stop (default) Auto-continue black	<p>This menu sets the product behavior when a color supply has reached its estimated end of life. When <b>Auto-continue black</b> is selected, the product will continue printing using black toner only.</p>
Restrict Color Use	Color printing access	Enable Color (default) Color If Allowed Disable Color	<p>This item allows the administrator to disable or restrict color printing. To use the <b>Color If Allowed</b> setting, set up user permissions and/or application permissions in the embedded Web server, HP Easy Printer Care software, or Web Jetadmin.</p>
	Color copying access	Enable Color (default) Disable Color	<p>This item allows the administrator to disable or restrict color copying.</p>
Color/Black Mix		Auto (default) Mostly color pages Mostly black pages	<p>This item controls how the engine switches from color mode to monochrome mode for maximum performance and print cartridge life.</p>

**Table 2-9 Management menu (continued)**

Menu item	Sub-menu item	Values	Description
			Select <b>Auto</b> to reset the product to the factory default setting.
			Select <b>Mostly color pages</b> if nearly all your print jobs are color with high page coverage.
			Select <b>Mostly black pages</b> if you print mostly monochrome jobs or a combination of color and monochrome jobs.

# Initial Setup menu

Administration > Initial Setup

 **NOTE:** Values shown with "(default)" are the factory-default values. Some menu items have no default.

## Networking and I/O

Administration > Initial Setup > Networking and I/O

**Table 2-10 Networking and I/O**

Menu item	Sub-menu item	Values	Description
I/O Timeout		Select a value in the range. The factory default setting is <b>15 seconds</b> .	I/O timeout refers to the elapsed time before a print job fails. If the stream of data that the product receives for a print job gets interrupted, this setting indicates how long the product will wait before it reports that the job has failed.
Parallel Input  <b>NOTE:</b> This item appears only if an EIO accessory is installed.	High Speed	No  Yes (default)	Use the <b>High Speed</b> setting to configure the speed that the parallel port uses to communicate with the host.
	Advanced Functions	Enabled (default)  Disabled	Use the <b>Advanced Functions</b> setting to enable or disable bidirectional parallel communication.
	Embedded Jetdirect	See <a href="#">Table 2-11 Jetdirect menus on page 31</a> for the list of options.	
EIO <X> Jetdirect			

**Table 2-11 Jetdirect menus**

Menu item	Sub-menu item	Sub-menu item	Values and Description
TCP/IP	Enable		<b>Off:</b> Disable the TCP/IP protocol.  <b>On (default):</b> Enable 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 NPIxxxxxx, where xxxxxx is the last six digits of the LAN hardware (MAC) address.
	IPv4 Settings	Config Method	Specifies the method that TCP/IPv4 parameters will be configured on the HP Jetdirect print server.  <b>Bootp:</b> Use BootP (Bootstrap Protocol) for automatic configuration from a BootP server.  <b>DHCP:</b> Use DHCP (Dynamic Host Configuration Protocol) for automatic configuration from a DHCPv4 server. If selected and a DHCP lease exists, <b>DHCP Release</b> and <b>DHCP Renew</b> menus are available to set DHCP lease options.  <b>Auto IP:</b> Use automatic link-local IPv4 addressing. An address in the form 169.254.x.x is assigned automatically.

**Table 2-11 Jetdirect menus (continued)**

Menu item	Sub-menu item	Sub-menu item	Values and Description
			<p><b>Manual:</b> Use the <b>Manual Settings</b> menu to configure TCP/IPv4 parameters.</p>
		Default IP	<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>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>
		DHCP Release	<p>This menu appears if <b>Config Method</b> was set to <b>DHCP</b> and a DHCP lease for the print server exists.</p> <p><b>No</b> (default): The current DHCP lease is saved.</p> <p><b>Yes:</b> The current DHCP lease and the leased IP address are released.</p>
		DHCP Renew	<p>This menu appears if <b>Config Method</b> was set to <b>DHCP</b> and a DHCP lease for the print server exists.</p> <p><b>No</b> (default): 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>
		Manual Settings	<p>(Available only if <b>Config Method</b> is set to <b>Manual</b>) Configure parameters directly from the printer control panel:</p> <p><b>IP Address:</b> The unique IP address of the printer (n.n.n.n), where n is a value from 0 to 255.</p> <p><b>Subnet Mask:</b> The subnet mask for the printer (m.m.m.m), where m is a value from 0 to 255.</p> <p><b>Syslog Server:</b> The IP address of the syslog server used to receive and log syslog messages.</p> <p><b>Default Gateway:</b> The IP address of the gateway or router used for communications with other networks.</p> <p><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).</p>
		Primary DNS	Specify the IP address (n.n.n.n) of a Primary DNS Server.
		Secondary DNS	Specify the IP address (n.n.n.n) of a Secondary Domain Name System (DNS) Server.
	IPv6 Settings	Enable	<p>Use this item to enable or disable IPv6 operation on the print server.</p> <p><b>Off:</b> IPv6 is disabled.</p> <p><b>On</b> (default): IPv6 is enabled.</p>



**Table 2-11 Jetdirect menus (continued)**

Menu item	Sub-menu item	Sub-menu item	Values and Description
		Address	<p><b>Manual Settings:</b> Use this item to manually set IPv6 addresses on the print server.</p> <p><b>Enable:</b> Select this item and choose <b>On</b> to enable manual configuration, or <b>Off</b> to disable manual configuration.</p> <p><b>Address:</b> Use this item to type a 32 hexadecimal digit IPv6 node address that uses the colon hexadecimal syntax.</p>
		DHCPv6 Policy	<p><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.</p> <p><b>Router Unavailable:</b> If a router is not available, the print server should attempt to obtain its stateful configuration from a DHCPv6 server.</p> <p><b>Always:</b> Whether or not a router is available, the print server always attempts to obtain its stateful configuration from a DHCPv6 server.</p>
		Primary DNS	Use this item to specify an IPv6 address for a primary DNS server that the print server should use.
		Secondary DNS	Use this item to specify an IPv6 address for a secondary DNS server that the print server should use.
	Proxy Server		<p>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.</p> <p>To specify a proxy server, enter its IPv4 address or fully-qualified domain name. The name can be up to 255 octets.</p> <p>For some networks, you may need to contact your Independent Service Provider (ISP) for the proxy server address.</p>
	Proxy Port		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.
	Idle Timeout		This is the time period, in seconds, after which an idle TCP print data connection is closed. The default is 270 seconds. To disable the timeout, specify 0.
IPX/SPX	Enable		<p><b>Off:</b> Disable the IPX/SPX protocol.</p> <p><b>On (default):</b> Enable the IPX/SPX protocol.</p>
	Frame Type		<p>Selects the frame-type setting for your network.</p> <p><b>Auto:</b> Automatically sets and limits the frame type to the first one detected.</p> <p><b>EN_8023, EN_II, EN_8022, and EN_SNAP:</b> Frame-type selections for Ethernet networks.</p>

**Table 2-11 Jetdirect menus (continued)**

Menu item	Sub-menu item	Sub-menu item	Values and Description
AppleTalk	Enable		<b>Off:</b> Disable the AppleTalk protocol.
			<b>On (default):</b> Enable the AppleTalk protocol.
DLC/LLC	Enable		<b>Off:</b> Disable the DLC/LLC protocol.
			<b>On (default):</b> Enable the DLC/LLC protocol.
Security	Print Sec Page		<b>Yes (default):</b> Prints a page that contains the current security settings on the HP Jetdirect print server.
			<b>No:</b> A security settings page is not printed.
	Secure Web		For configuration management, specify whether the embedded Web server will accept communications using HTTPS (Secure HTTP) only, or both HTTP and HTTPS.
			<b>HTTPS Required (default):</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.
	IPSec		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.
Diagnostics	Reset Security		Specify whether the current security settings on the print server will be saved or reset to factory defaults. <b>No:</b> The current security settings are maintained. <b>Yes:</b> Security settings are reset to factory defaults.
	Embedded Tests		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.
		LAN HW Test	<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.

**Table 2-11 Jetdirect menus (continued)**

Menu item	Sub-menu item	Sub-menu item	Values and Description
		HTTP Test	<p>This test checks operation of HTTP by retrieving predefined pages from the product, and tests the embedded Web server.</p> <p>Select <b>Yes</b> to choose this test, or <b>No</b> to not choose it.</p>
		SNMP Test	<p>This test checks operation of SNMP communications by accessing predefined SNMP objects on the product.</p> <p>Select <b>Yes</b> to choose this test, or <b>No</b> to not choose it.</p>
		Data Path Test	<p>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.</p> <p>Select <b>Yes</b> to choose this test, or <b>No</b> to not choose it.</p>
		Select All Tests	<p>Use this item to select all available embedded tests.</p> <p>Select <b>Yes</b> to choose all tests. Select <b>No</b> to select individual tests.</p>
		Execution Time [H]	<p>Use this item to specify the length of time (in hours) that an embedded test will be run. You can select a value from 1 to 60 hours. If you select zero (0), the test runs indefinitely until an error occurs or the product is turned off.</p> <p>Data gathered from the HTTP, SNMP, and Data Path tests is printed after the tests have completed.</p>
		Execute	<p><b>No:</b> Do not initiate the selected tests.</p> <p><b>Yes:</b> Initiate the selected tests.</p>
	Ping Test		<p>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:</p>
		Dest Type	Specify whether the target product is an IPv4 or IPv6 node.
		Dest IPv4	Type the IPv4 address.
		Dest IPv6	Type the IPv6 address.
		Packet Size	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.
		Timeout	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.
		Count	Specify the number of ping test packets to send for this test. Select a value from 1 to 100. To configure the test to run continuously, select 0.
		Print Results	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> (default), results are not printed.

**Table 2-11 Jetdirect menus (continued)**

Menu item	Sub-menu item	Sub-menu item	Values and Description
		Execute	Specify whether to initiate the ping test. Select <b>Yes</b> to initiate the test, or <b>No</b> to not run the test.
	Ping Results		Use this item to view the ping test status and results using the control panel display. You can select the following items:
		Packets Sent	Shows the number of packets (0 - 65535) sent to the remote host since the most recent test was initiated or completed.
		Packets Received	Shows the number of packets (0 - 65535) received from the remote host since the most recent test was initiated or completed.
		Percent Lost	Shows the percent of ping test packets that were sent with no response from the remote host since the most recent test was initiated or completed.
		RTT Min	Shows the minimum detected roundtrip- time (RTT), from 0 to 4096 milliseconds, for packet transmission and response.
		RTT Max	Shows the maximum detected roundtrip- time (RTT), from 0 to 4096 milliseconds, for packet transmission and response.
		RTT Average	Shows the average round-trip-time (RTT), from 0 to 4096 milliseconds, for packet transmission and response.
		Ping In Progress	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.
		Refresh	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.
Link Speed			<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> (default): 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>

**Table 2-11 Jetdirect menus (continued)**

Menu item	Sub-menu item	Sub-menu item	Values and Description
			<b>100TX Auto:</b> Limits auto-negotiation to a maximum link speed of 100 Mbps.
			<b>1000TX Full:</b> 1000 Mbps, full-duplex operation.
Print Protocols			Use this item to print a page that lists the configuration of the following protocols: IPX/SPX, Novell NetWare, AppleTalk, DLC/LLC.

# Fax Setup

Administration > Initial Setup > Fax Setup



**NOTE:** This menu is available only for the HP Color LaserJet CM3530fs MFP.

Table 2-12 Fax Setup menu

Menu item	Sub-menu item	Sub-menu item	Values	Description
Fax Setup Wizard				Use this wizard to set up options for sending faxes if the analog fax accessory is installed.
Required Settings	Country/Region		(Countries/regions listed)	Configure the settings that are legally required for outgoing faxes.
	Date/Time			
	Fax Header Information	Telephone Number		
		Company Name		
PC Fax Send			Disabled	Use this feature to enable or disable <b>PC Fax Send</b> . <b>PC Fax Send</b> enables users to send faxes through the product from their computers if they have the Send Fax driver installed on their PC.
			Enabled (default)	

**Table 2-12 Fax Setup menu (continued)**

Menu item	Sub-menu item	Sub-menu item	Values	Description
Fax Send Settings	Fax Dial Volume		Off	Use this feature to set the volume of the tones that you hear while the product dials the fax number.
			Low (default)	
			High	
	Error Correction Mode		Enabled (default)	When <b>Error Correction Mode</b> is enabled and an error occurs during fax transmission, the product sends or receives the error portion again.
			Disabled	
	JBIG Compression		Enabled (default)	JBIG compression reduces fax-transmission time, which can result in lower phone charges. However, using JBIG compression sometimes causes compatibility problems with older fax machines. If this occurs, turn off JBIG compression.
			Disabled	
	Maximum Baud Rate		Select a value from the list. The default is 33.6K.	Use this feature to set the maximum baud rate for receiving faxes. This can be used as a diagnostic tool for troubleshooting fax problems.
	TCF T.30 Delay Timer		Default (default)	This setting should be left at the default value and only changed when directed by an HP technical support agent. Adjustment procedures associated with this setting are beyond the scope of this guide.
			Custom	
	TCF Extend		Default (default)	This setting should be left at the default value and only changed when directed by an HP technical support agent. Adjustment procedures associated with this setting are beyond the scope of this guide.
		Custom		
Dialing Mode		Tone (default)	Select whether the product should use tone or pulse dialing.	
		Pulse		
Redial On Busy		The range is between 0 and 9. The factory default is 3 times.	Type the number of times the product should attempt to redial if the line is busy.	
Redial On No Answer		Never (default)	Use this feature to specify the number of times the product should attempt to dial if the recipient fax number does not answer.	
		Once		
		Twice		<b>NOTE:</b> <b>Twice</b> is available in locations other than the United States and Canada.

**Table 2-12 Fax Setup menu (continued)**


Menu item	Sub-menu item	Sub-menu item	Values	Description
	Redial Interval		The range is between 1 and 5 minutes. The factory default is 5 minutes.	Use this feature to specify the number of minutes between dialing attempts if the recipient number is busy or not answering.
	Detect Dial Tone		Enabled Disabled (default)	Use this feature to specify whether the product should check for a dial tone before sending a fax.
	Dialing Prefix		Off (default) Custom	Use this feature to specify a prefix number that must be dialed when sending faxes from the product.
	Billing Codes		Off (default) Custom	When billing codes are enabled, a prompt appears that asks the user to enter the billing code for an outgoing fax.  The range is between 1 and 16 digits. The default is 1 digit.
Fax Receive Settings	Rings To Answer		The range varies by location. The factory default is 2 rings.	Use this feature to specify the number of rings that must occur before the fax modem answers.
	Ring Interval		Default (default) Custom	This setting is used to adjust for some PBX ring signals. Change this setting only when directed by an HP technical support agent.
	Ring Frequency		Default (default) Custom	This setting should be left at the default value and only changed when directed by an HP technical support agent. Adjustment procedures associated with this setting are beyond the scope of this guide.
	Ringer Volume		Off Low (default) High	Set the volume for the fax ring-tone.
	Blocked Fax Numbers	Add Blocked Numbers	Type the fax number to add.	Use this feature to add or delete numbers from the blocked fax list. The blocked fax list can contain up to 30 numbers. When the product receives a call from one of the blocked fax numbers, it deletes the incoming fax. It also logs the blocked fax in the activity log along with job-accounting information.
		Remove Blocked Numbers	Select a fax number to remove.	
		Clear All Blocked Numbers	No (default) Yes	



## E-mail Setup

Administration > Initial Setup > E-mail Setup

Use this menu to enable the e-mail feature and to configure basic e-mail settings.

 **NOTE:** To configure advanced e-mail settings, use the embedded Web server. For more information, see [Embedded Web server on page 85](#).

**Table 2-13 E-mail Setup menu**

Menu item	Values	Description
E-mail Setup Wizard		Use this wizard to set up basic options for the e-mail feature.
Address Validation	On (default) Off	This option enables the product to check e-mail syntax when you type an e-mail address. Valid e-mail addresses require the "@" sign and a ".".
Find Send Gateways	Find	Search the network for SMTP gateways that the product can use to send e-mail.
SMTP Gateway	Enter a value.	Specify the IP address of the SMTP gateway that is used to send e-mail from the product.
Test Send Gateway	Test	Test the configured SMTP gateway to see if it is functional.

## Send Setup menu

Administration > Initial Setup > Send Setup

**Table 2-14 Send Setup menu**

Menu item	Values	Description
Replicate MFP	Enter a value (IP Address).	Copy the local Send settings from one product to another.
Allow Transfer to New DSS	Off On (default)	Use this feature to allow the transfer of the product from one HP Digital Sending Software (DSS) server to another.  HP DSS is a software package that handles digital sending tasks such as faxing, e-mail, and sending a scanned document to a network folder.
Allow Use of Digital Send Service	Off On (default)	This feature allows you to configure the product for use with an HP Digital Sending Software (DSS) server.
Fax Number Confirmation	Disable (default) Enable	When fax number confirmation is enabled, you are prompted to enter the fax number twice to verify that it has been typed correctly.
Fax Number Speed Dial Matching	Disable (default) Enable	If set to <b>Enable</b> , a screen is displayed if the fax numbers entered match a speed dial that is configured to that number. The numbers do not have to match as a group; the number must match individually. That is, if one of the fax numbers matches speed dial 2 and speed dial 6, then the screen is displayed for that fax number. When you touch <b>Yes</b> on the dialog, then the fax is sent or the fax number is added to the distribution list.

# Device Behavior menu

Administration > Device Behavior

**Table 2-15 Device Behavior menu**

Menu item	Sub-menu item	Sub-menu item	Values	Description
Language			Select the language from the list.	Select a different language for control-panel messages. When you select a new language, the keyboard layout might also change.
Keyboard Layout			Select the keyboard layout from the list	Select a keyboard layout regardless of the <a href="#">Language</a> setting.  Select <a href="#">Default</a> if you want the keyboard layout to change when the <a href="#">Language</a> setting changes. This is the default setting.
Keyboard Layout Button			<a href="#">Display</a> <a href="#">Hide</a>	When displayed, you can use this option to select an alternate keyboard layout. The keyboard returns to the default layout after the product returns to the <a href="#">Ready</a> state or if you press the <a href="#">Reset</a> button.
Key Press Sound			<a href="#">On</a> (default) <a href="#">Off</a>	Use this feature to specify whether you hear a sound when you touch the screen or press buttons on the control panel.
Inactivity Timeout			Type a value between 10 and 300 seconds. The factory default is 60 seconds.	Specify the amount of time that elapses between any activity on the control panel and the product resetting to the default settings.
Warning/Error Behavior	Clearable Warnings		<a href="#">On</a> <a href="#">Job</a> (default)	Set the amount of time that a clearable warning appears on the control panel.
	Continuable Events		<a href="#">Auto continue (10 seconds)</a> (default) <a href="#">Touch OK to continue</a>	Configure the product behavior when the product encounters certain errors.
	Jam Recovery		<a href="#">Auto</a> (default) <a href="#">Off</a> <a href="#">On</a>	Configure how the product handles pages that are lost during a jam.

**Table 2-15 Device Behavior menu (continued)**

Menu item	Sub-menu item	Sub-menu item	Values	Description
Tray Behavior	Use Requested Tray		Exclusively (default) First	Control how the product handles jobs that have specified a specific input tray.
	Manually Feed Prompt		Always (default) Unless Loaded	Specify how a prompt should appear when the type or size for a job does not match the specified tray and the product pulls from the multipurpose tray instead.
	PS Defer Media		Enabled (default) Disabled	Select either the PostScript (PS) or HP paper-handling model.
	Use Another Tray		Enabled (default) Disabled	Turn on or off the control-panel prompt to select another tray when the specified tray is empty.
	Alternative Letterhead Mode		On Off (default)	Use this feature so that you can load letterhead or preprinted paper into the tray the same way for all print or copy jobs, whether you are printing or copying to one side of the sheet or to both sides of the sheet.
	Size/Type Prompt		Display (default) Do not display	Control whether the tray configuration message appears whenever a tray is opened or closed.
	Duplex Blank Pages		Auto (default) Yes	Control how the product handles two-sided jobs (duplexing).
General Copy Behavior	Hold off print job		On Off	Prevents print jobs from beginning to print while a walk-up user is setting up a job.
	Hold off time			Prevents non-copy print jobs from starting for a specified time after a copy job is completely printed.
	Scan Ahead		Enabled (default) Disabled	Turn on no-wait scanning. With <b>Scan Ahead</b> enabled, the pages in the original document are scanned to disk and held until the product becomes available.
	Auto Print Interrupt		Enabled Disabled (default)	When this feature is enabled, copy jobs can interrupt print jobs that are set to print multiple copies.  The copy job is inserted into the print queue at the end of one copy of the print job. After the copy job is complete, the product continues printing the remaining copies of the print job.
	Copy Interrupt		Enabled Disabled (default)	When this feature is enabled, a copy job that is currently printing can be interrupted when a new copy job is started. You are prompted to confirm that you want to interrupt the current job.
	Alternative Letterhead Mode		Off (default) On	This option allows loading of letterhead or preprinted paper the same way for all copy jobs, whether copying to one side of the paper or to both sides of the paper.

**Table 2-15 Device Behavior menu (continued)**

Menu item	Sub-menu item	Sub-menu item	Values	Description
General Printing Behavior	Override A4/Letter		No	When this feature is enabled, the job prints on letter-size paper when an A4 job is sent but no A4-size paper is loaded in the product (or prints on A4 paper when a letter-size job is sent but no letter-size paper is loaded). This option also overrides A3 with ledger-size paper and ledger with A3-size paper.
			Yes (default)	
	Manual Feed		Enabled	When this feature is enabled, the user can select manual feed from the control panel as the paper source for a job.
			Disabled (default)	
	Courier Font		Regular (default)	Select which version of the Courier font you want to use.
			Dark	
	Wide A4		Enabled	Change the printable area of A4-size paper. If you enable this option, eighty 10-pitch characters can be printed on a single line of A4 paper.
			Disabled (default)	
	Print PS Errors		Enabled	Select whether a PostScript (PS) error page is printed when the product encounters a PS error.
			Disabled (default)	
	Print PDF Errors		Enabled	Select whether a PDF error page is printed when the product encounters a PDF error.
			Disabled (default)	
	Personality		Auto (default)	Select the printer language that the product should use.  <i>Normally, you should not change the language.</i> If you change the setting to a specific language, the product does not automatically switch from one language to another unless specific software commands are sent to the product.
			PCL	
			PDF	
			PS	

**Table 2-15 Device Behavior menu (continued)**

Menu item	Sub-menu item	Sub-menu item	Values	Description
	PCL	Form Length	Type a value between 5 and 128 lines. The factory default is 60 lines.	PCL is a set of printer commands that Hewlett-Packard developed to provide access to printer features.
		Orientation	Portrait (default) Landscape	Select the orientation that is most often used for print jobs. Select <b>Portrait</b> if the short edge is at the top or <b>Landscape</b> if the long edge is at the top.
		Font Source	Select the source from the list.	Select the font source for the user-soft default font.
		Font Number	Type the font number. The range is between 0 and 102. The factory default is 0.	Specify the font number for the user soft default font by using the source that is specified in the <b>Font Source</b> menu item. The product assigns a number to each font and lists it on the PCL font list (available from the <b>Administration</b> menu).
		Font Pitch	Type a value between 0.44 and 99.99. The factory default is 10.00.	If <b>Font Source</b> and <b>Font Number</b> indicate a contour font, use this feature to select a default pitch (for a fixed-spaced font).
		Font Point Size	Type a value between 4.00 and 999.75. The factory default is 12.00.	If <b>Font Source</b> and <b>Font Number</b> indicate a contour font, use this feature to select a default point size (for a proportional-spaced font).
		Symbol Set	PC-8 (default) (50 additional symbol sets from which to choose)	Select any one of several available symbol sets from the control panel. A symbol set is a unique grouping of all the characters in a font.
		Append CR to LF	No (default) Yes	Configure whether a carriage return (CR) is appended to each line feed (LF) encountered in backwards-compatible PCL jobs (pure text, no job control).
		Suppress Blank Pages	No (default) Yes	This option is for users who are generating their own PCL, which could include extra form feeds that cause blank pages to be printed. When <b>Yes</b> is selected, form feeds are ignored if the page is blank.
		Media Source Mapping	Standard (default) Classic	Select and maintain input trays by number when you are not using the printer driver, or when the software program has no option for tray selection.

# Print Quality menu

Administration > Print Quality

**Table 2-16 Print Quality menu**

Menu item	Sub-menu item	Values	Description
Adjust Color	Highlights	Cyan Density. Magenta Density. Yellow Density. Black Density  +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.
	Midtones	Cyan Density. Magenta Density. Yellow Density. Black Density  +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.
	Shadows	Cyan Density. Magenta Density. Yellow Density. Black Density  +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.
	Restore Color Values	Restore	Sets all the density values back to the factory default settings.
Set Registration	Test Page	Print	Shift the margin alignment to center the image on the page from top to bottom and from left to right. You can also align the image on the front with the image printed on the back.  Print a test page for setting the registration.
	Source	All trays  Tray <X>: <contents> (choose a tray)	Select the source input tray for printing the <a href="#">Set Registration</a> page.
	Adjust Tray <X>	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 <i>scans</i> across the page from side to side as the sheet <i>feeds</i> from top to bottom into the product.  The scan direction is referred to as X. X1 is the scan direction for the first side of a 2-sided page. X2 is the scan direction for the second side of a 2-sided page. The feed direction is referred to as Y.
Print Modes	<Paper Type>		Configure which mode is associated with which paper type.
	Restore Modes	Restore	Return all print-mode settings to the factory-default settings.
Auto Sense Mode	Tray 1 Sensing	Full Sensing (default)  Transparency Only	Sets the sensing option for Tray 1 for paper types when using <a href="#">Auto Sense Mode</a> .  When <a href="#">Full Sensing</a> is selected, the product senses every page and switches modes accordingly. The product recognizes overhead transparency and non-overhead transparency types.

**Table 2-16 Print Quality menu (continued)**

Menu item	Sub-menu item	Values	Description
Optimize	Background	Normal (default)	When <b>Transparency Only</b> is selected, the product senses only the first page and recognizes only overhead transparency types.
		Alternate 1	
		Alternate 2	
		Alternate 3	
	Registration	Normal (default)	Adjust this setting if you are having problems with color misregistration.
		Alternate	
	Transfer Control	Normal (default)	Adjust this setting if you are having problems with faint images repeated on the page.
		Alternate 1	
		Alternate 2	
		Alternate 3	
	Tray 1	Normal (default)	Select the <b>Alternate</b> setting if you are having problems with marks on the back side of the paper when printing from Tray 1. This increases the frequency of the cleaning cycle.
		Alternate	
	Environment	Normal (default)	Adjust this setting if you are having problems printing in low temperature and low humidity environments.
		Low Temp	
	Line Voltage	Normal (default)	Adjust this setting 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.
		Low Voltage	
	Tracking Control	On (default)	Do not adjust this setting unless an HP-authorized support person recommends it.
		Off	
	Uniformity Control	Normal (default)	Adjust this setting if printed images have a mottled appearance.
		Alternate 1	
		Alternate 2	
		Alternate 3	
	Normal Paper	Standard (default)	Adjust this setting if you are printing on normal-weight paper that is very smooth.
		Smooth	
	Heavy Paper	Standard (default)	Adjust this setting if you are printing on heavy-weight paper that is very smooth.
		Smooth	
	Envelope Mode	Normal (default)	Adjust this setting if envelopes are partially sealed after printing.
		Reduced Temp	
	Resistance Mode	Normal (default)	Adjust this setting if you are in a low-humidity environment and you are having problems with loose toner particles after printing.
		Up	
		Down	

**Table 2-16 Print Quality menu (continued)**

Menu item	Sub-menu item	Values	Description
	Humidity Mode	Normal (default) High	Adjust this setting if you are in a high-humidity environment and you are having problems with light density in the printed image.
	Pre-rotation	Off (default) On	Adjust this setting if you are having problems with horizontal streaks on printed pages. Using this feature increases the warm-up time for the product.
	Fuser Temp	Normal (default) Up Down	Adjust this setting upward if toner is not fusing well. Adjust it downward if you are seeing a faint image of the page repeated at the bottom of the page or on the next page.
	Paper Curl	Normal (default) Reduced	Adjust this setting if paper is curling in a high-temperature and high-humidity environment.
	Restore Optimize		Return all the settings in the <b>Optimize</b> menu to the factory-default values.
Resolution	Image REt 3600 1200x600dpi		Select <b>Image REt 3600</b> to produce fast, high-quality printing that is appropriate for most print jobs  Select <b>1200x600dpi</b> to produce the highest-quality printing available, but it may slow print speed. This setting may be useful for jobs that contain very thin lines or fine graphics.
Color REt		Enabled (default) Disabled	Enable or disable Resolution Enhancement technology (REt), which produces print output with smooth angles, curves, and edges.
Calibration/Cleaning	Auto Cleaning	Enabled Disabled (default)	When auto-cleaning is on, the product prints a cleaning page when the page count reaches the value that is set in <b>Cleaning Interval</b> .
	Cleaning Interval	1000 (default) 2000 5000 10000 20000	Use this feature to set the interval when the cleaning page is printed. The interval is measured by the number of pages printed.
	Auto Cleaning Size	Letter A4	Use this feature to select the size of paper used for the cleaning page.
	Process Cleaning Page	Process	Use this feature to create and process a cleaning page for cleaning excess toner off the pressure roller in the fuser. The process takes up to 2.5 minutes.
	Quick Calibration	Calibrate	Performs partial product calibrations.



**Table 2-16 Print Quality menu (continued)**

Menu item	Sub-menu item	Values	Description
	Full Calibration	Calibrate	Performs all product calibrations.
	Delay Calibration at Wake/Power On	No Yes (default)	<p>This menu controls the timing of the calibration when the printer wakes up or is turned on.</p> <ul style="list-style-type: none"><li>• Select <b>No</b> to have the printer 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. The product only accepts new jobs for a short time. It may start calibrating before it has printed all the jobs it has received.</li></ul> <p><b>NOTE:</b> For the best results, allow the product to calibrate before printing. Print jobs performed before calibration may not be of the highest quality.</p>

# Troubleshooting menu

Administration > Troubleshooting



**NOTE:** Many of the menu items under the Troubleshooting menu are for advanced troubleshooting purposes.

**Table 2-17 Troubleshooting menu**

Menu item	Sub-menu item	Sub-menu item	Values	Description
Event Log			Print	This shows the event codes and their corresponding engine cycles on the control-panel display.
Calibrate Scanner			Calibrate	Use this feature to compensate for offsets in the scanner imaging system (carriage head) for ADF and flatbed scans.  You might need to calibrate the scanner if it is not capturing the correct sections of scanned documents.
PQ Troubleshooting			Print	Print various diagnostic pages that help solve print-quality problems.
Fax T.30 Trace	T.30 Report		Print	Print or configure the fax T.30 trace report. T.30 is the standard that specifies handshaking, protocols, and error correction between fax machines.
		When to Print Report	Never auto print (default)	
			Print after any fax job	
			Print after fax send jobs	
			Print after any fax error	
			Print after send errors only	
Fax Transmit Signal Loss			A value between 0 and 30. The default is 0.	Set loss levels to compensate for phone-line signal loss. Do not modify this setting unless requested to do so by an HP service representative because it could cause the fax to stop functioning.
Fax V.34			Normal (default) Off	Disable V.34 mode if several fax failures have occurred or if phone line conditions require it.
Fax Speaker Mode			Normal (default)	A technician can use this feature technician to evaluate and diagnose fax issues by listening to the sounds of fax modulations.
			Diagnostic	
Diagnostic Page			Print	Print a diagnostic page that includes color swatches and the EP parameters table.
Disable Cartridge Check				Use this item to enter a mode where a cartridge (or color pair of cartridge and drum) can be removed to determine which particular

**Table 2-17 Troubleshooting menu (continued)**

Menu item	Sub-menu item	Sub-menu item	Values	Description
				color is the source of a problem. In this mode, all consumable-related errors are ignored.
Paper Path Sensors				Initiate a test of the paper-path sensors.
Paper Path Test	Test Page		Print	Generate a test page for testing the paper-handling features. Define the path for the test in order to test specific paper paths.
	Source		All trays Tray 1 Tray 2 (Additional trays are shown, if applicable.)	Specify whether the test page is printed from all trays or from a specific tray.
	Duplex		Off (default) On	Select whether the duplexer should be included in the test.
	Copies		Range: 1-500, Default is 1.	Select how many pages should be sent from the specified source as part of the test.
Manual Sensor Test				This item performs tests to determine whether the paper-path sensors are operating correctly.
Component Test	A list of available components appears.			Exercise individual parts independently to isolate noise, leaking, or other issues. To start the test, select one of the components. The test runs the number of times specified in the Repeat option. You might be prompted to remove parts from the product during the test. Press the Stop button to abort the test.
	Repeat		Once (default) Continuous	Determines the number of times the test runs.
Print/Stop Test			Continuous value from 0 to 60,000 milliseconds. Default: 0	Isolate faults by stopping the product during the print cycle and observing where in the process the image degrades. To run the test, specify a stop time. The next job that is sent to the product stops at the specified time in the process.
Color Band Test	Test Page		Print	Prints a page that helps identify arcing in the high-voltage power supplies.
	Copies		Continuous value from 1 to 30. Default: 1	Specify the number of copies to print for the Color Band test.
Scanner Tests	A list of available scanner tests appears.			A service technician can use this menu item to diagnose potential problems with the product scanner.

**Table 2-17 Troubleshooting menu (continued)**

Menu item	Sub-menu item	Sub-menu item	Values	Description
Control Panel	LEDs			Verify that the components of the control panel are functioning correctly.
	Display			
	Buttons			
	Touchscreen			

# Resets menu

Administration > Resets

**Table 2-18 Resets menu**

Menu item	Values	Description
Clear Local Address Book	Clear	Use this feature to clear all addresses from the address books that are stored on the product.
Clear Fax Activity Log	Yes No (default)	Use this feature to clear all events from the Fax Activity Log.
Restore Factory Telecom Setting	Restore	Use this option to restore the following settings to their factory default settings: Transmit Signal Loss, V34, Maximum Baud Rate, Speaker Mode.
Restore Factory Settings	Restore	Use this feature to restore all product settings to their factory defaults.
Reset Supplies	New Fuser Kit (Yes/No)	Notify the product that a new fuser kit has been installed.

# Service menu

Administration > Service

The **Service** menu is locked and requires a PIN for access. This menu is intended for use by authorized service personnel. For information about the **Service** menu, see [Service mode functions on page 503](#).

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## 3 Paper and print media

- [Supported paper and print media](#)
- [Supported paper and print media types](#)
- [Tray and bin capacity](#)
- [Custom paper sizes](#)
- [Load paper and print media](#)
- [Configure trays](#)
- [Choose an output bin](#)

# Supported paper and print media

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)	✓		
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)	✓		
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	✓	✓	✓



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

Size and dimensions	Tray 1	Tray 2	Tray 3 (optional)
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 (6.93 x 9.84 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)			

# 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/cljcm3530mfp](http://www.hp.com/support/cljcm3530mfp).

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 Soft Gloss (120 g/m <sup>2</sup> )	✓	✓	✓

Paper type	Tray 1	Tray 2	Tray 3 (optional)
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 220 g/m <sup>2</sup> (59 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: 96 g/m <sup>2</sup> (26 lb) bond to 220 g/m <sup>2</sup> (59 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 220 g/m <sup>2</sup> (59 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: 96 g/m <sup>2</sup> (26 lb) bond to 220 g/m <sup>2</sup> (59 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 220 g/m <sup>2</sup> (59 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: 96 g/m <sup>2</sup> (26 lb) bond to 220 g/m <sup>2</sup> (59 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

## 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.

# Load paper and print media

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.



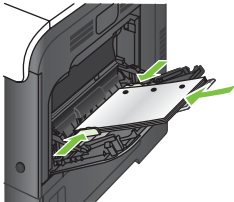
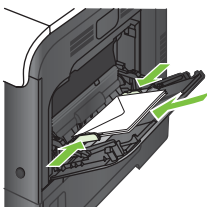
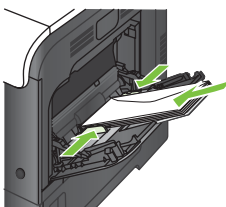
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**NOTE:** The [Alternative Letterhead Mode](#) setting affects the way you load letterhead or preprinted paper. This setting is turned off by default. For more information, see [Device Behavior menu on page 42](#).

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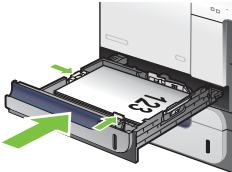
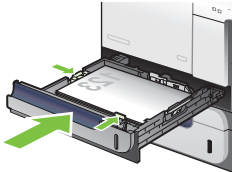
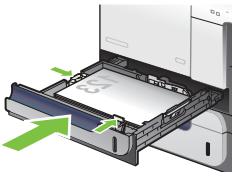
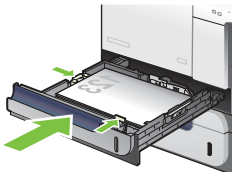
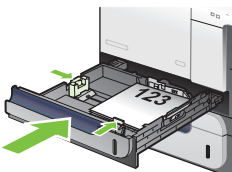
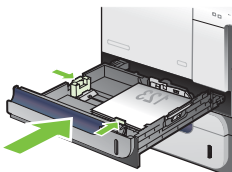
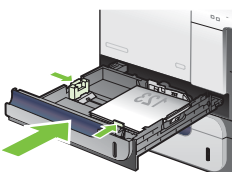
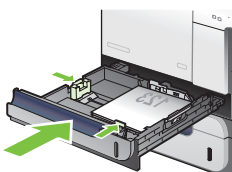
## Tray 1

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	Face up
			Top edge leading into the product	Bottom edge leading into the product
		2-sided printing	Face up	Face up
			Bottom edge leading into the product	Bottom edge leading into the product
	Landscape	1-sided printing	Face down	Face up
			Top edge toward the back of the product	Top edge toward the back of the product
		2-sided printing	Face up	Face up
			Top edge toward the back of the product	Top edge toward the back of the product
Prepunched	Portrait or landscape	1- or 2-sided printing	Holes toward the back of the product	Not applicable

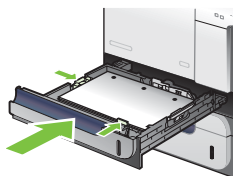
Paper type	Image orientation	Duplex mode	How to load paper Alternative Letterhead Mode = Off	How to load paper Alternative Letterhead Mode = On
				
Envelopes	Long edge of the envelope feeding into the product	1-sided printing	Face down Top edge leading into the product 	Not applicable
	Short edge of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




## Tray 2 or optional Tray 3


Paper type	Image orientation	Duplex mode	How to load paper Alternative Letterhead Mode = Off	How to load paper 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 
	Landscape	1-sided printing	Face up Top edge toward the back of the product 	Face down Top edge toward the back of the product 
		2-sided printing	Face down Top edge toward the back of the product 	Face down Top edge toward the back of the product 
Prepunched	Portrait or landscape	1- or 2-sided printing	Holes toward the back of the product	Not applicable

Paper type	Image orientation	Duplex mode	How to load paper	How to load paper
			Alternative Letterhead Mode = Off	Alternative Letterhead Mode = On

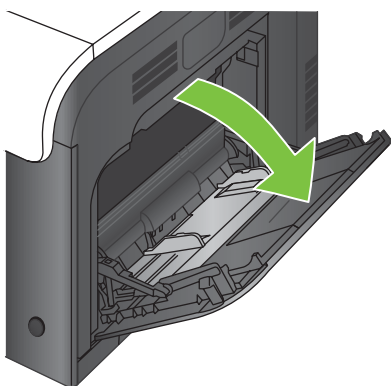


## Load Tray 1

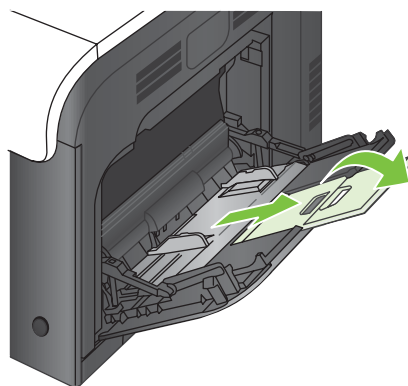
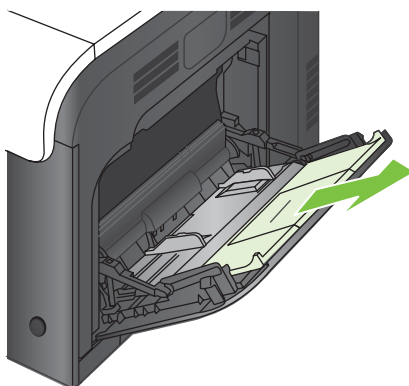
 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcm3530mfp-load-tray1](http://www.hp.com/go/cljcm3530mfp-load-tray1).

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

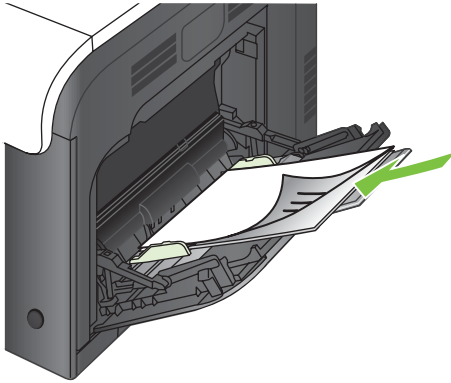
1. Open Tray 1.



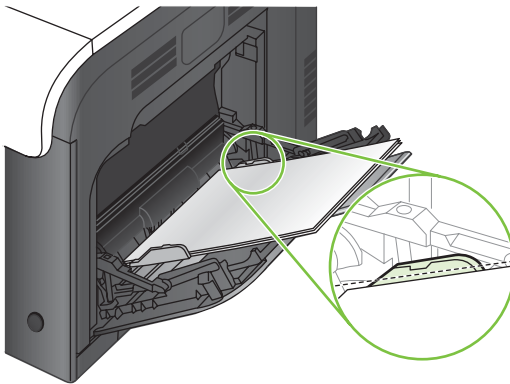
2. Fold out the tray extension to support the paper and set the side guides to the correct width.



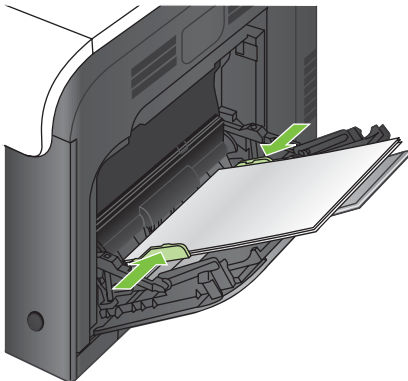
3. Load paper in the tray face down and the short, top edge going into the product first.



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

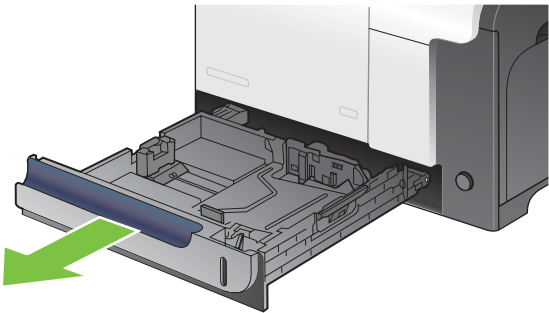
This tray holds up to 250 sheets of 75 g/m<sup>2</sup> (20 lb) paper. If the paper is heavier, the tray does not hold as many sheets. Do not overfill the tray.

△ **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.

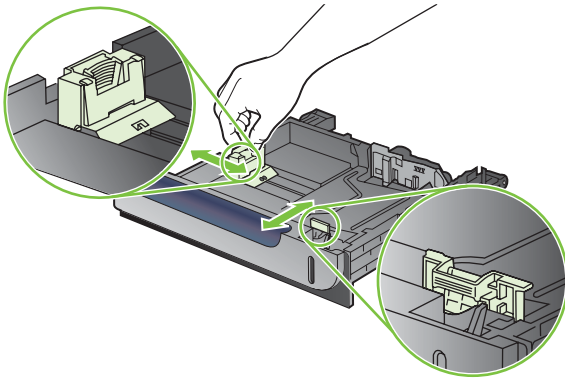
💡 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcm3530mfp-load-tray2](http://www.hp.com/go/cljcm3530mfp-load-tray2).

1. Slide open the tray.


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

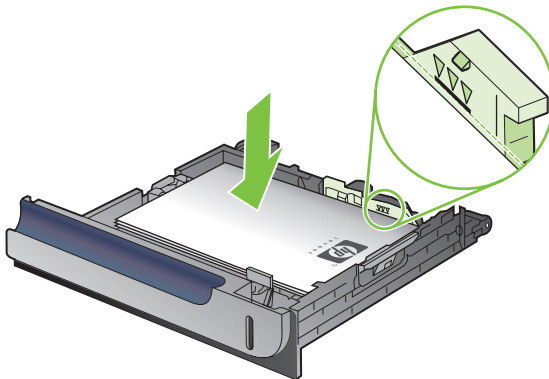



2. Adjust the paper-length and paper-width guides by squeezing the adjustment latch and sliding the guides to the size of the paper being used.



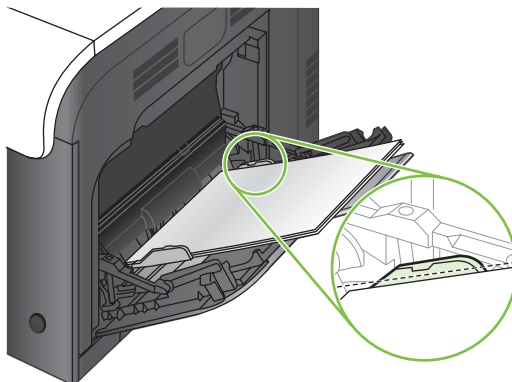
3. Load paper into the tray face up. Check the paper to verify the guides lightly touch the stack, but do not bend it.

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



 **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 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).

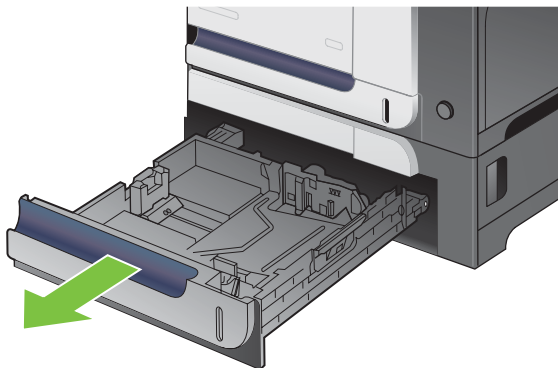
- △ **CAUTION:** Do not print envelopes or unsupported sizes of paper from Tray 3. Print these types of paper only from Tray 1.

## Load standard-sized paper into Tray 3

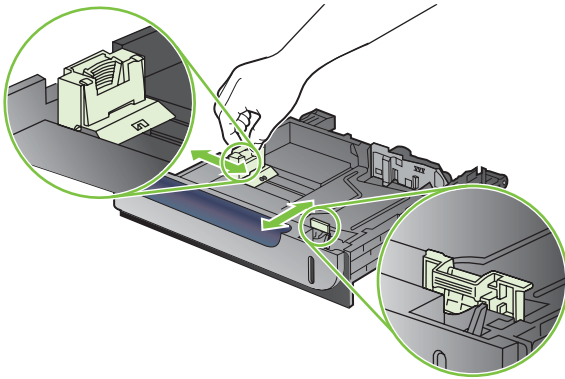
- 💡 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcm3530mfp-load-tray3](http://www.hp.com/go/cljcm3530mfp-load-tray3).

1. Slide open the tray.


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

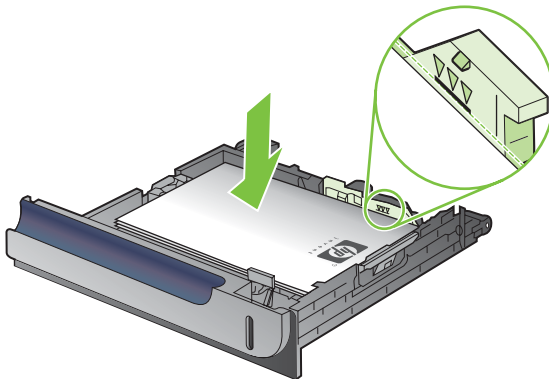



2. Adjust the paper-length and paper-width guides by squeezing the adjustment latches and sliding the guides to the size of the paper being used.



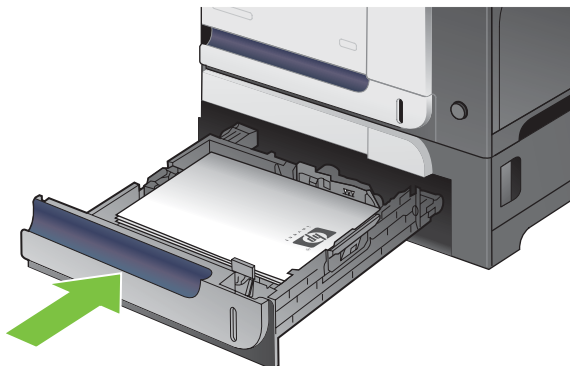
3. Load paper into the tray face up. Check the paper to verify the guides lightly touch the stack, but do not bend it.

 **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.



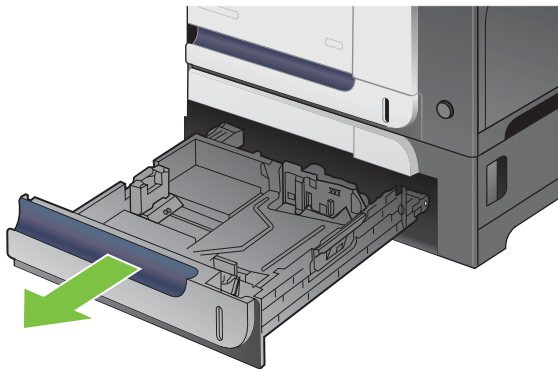
5. The control panel shows the tray's paper type and size. If the configuration is not correct, follow the instructions on the control panel to change the size or type.



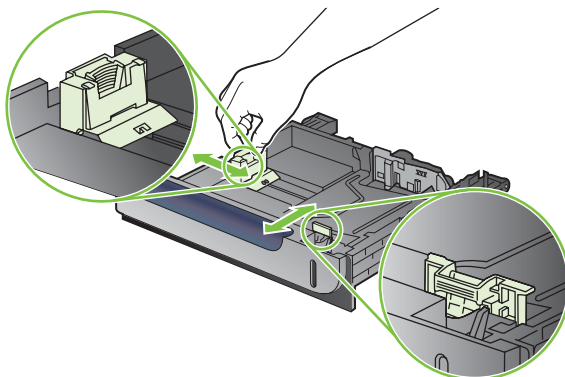
### Load custom-size paper into Tray 3

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.

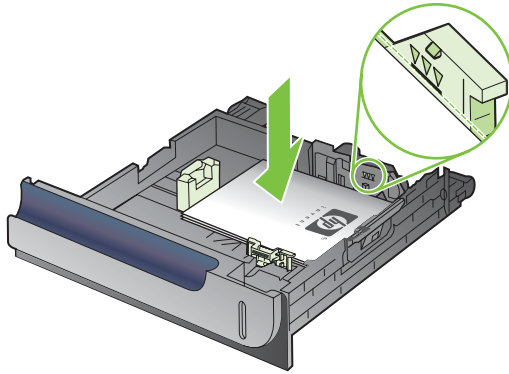


2. Adjust the paper-length and paper-width guides by squeezing the adjustment latches and sliding the guides to the size of the paper being used.

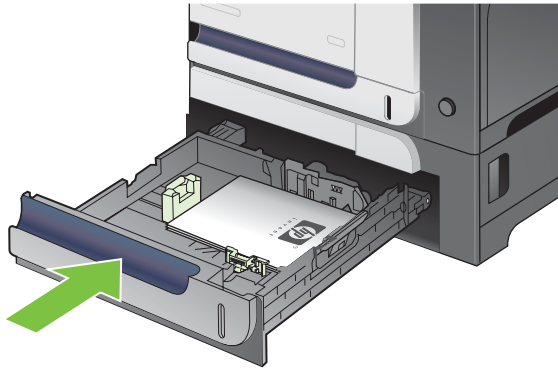




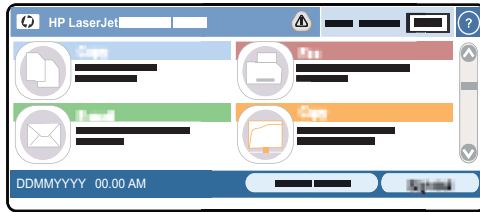
3. Load paper into the tray face up. Check the paper to verify the guides lightly touch the stack, but do not bend it.



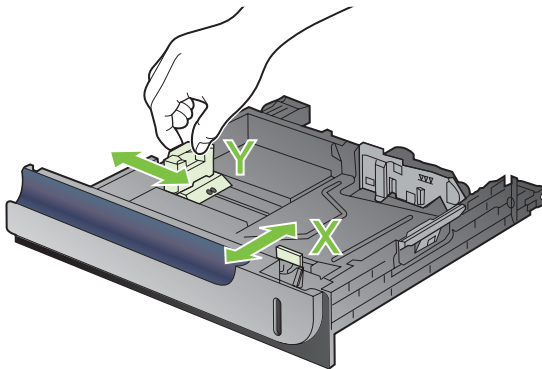
4. Slide the tray into the product. The control panel shows the paper type and size.



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.




# 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, touch "Modify". To accept, touch "OK".**

 **NOTE:** The prompt does not appear if you are printing from Tray 1 and Tray 1 is configured for **Any Custom** and **Any Type**.

**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 **Any Custom** is equivalent to **First** mode. Setting size for Tray 1 to a setting other than **Any Custom** 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. Touch **OK** to accept the detected size and type, or touch **Modify** to choose a different paper size or type.
4. Select the correct size and type and then touch **OK**.

## 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 tray configuration message appears.
3. Load the tray with the specified type and size of paper, and then close the tray.
4. Touch **OK** to accept the detected size and type, or touch **Modify** to choose a different paper size or type.
5. Select the correct size and type and then touch **OK**.

## 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 product 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 46](#).

## Select the paper 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.

## Choose an output bin

The product has an ADF output bin and the standard output bin for printed pages.



1	Standard output bin
2	ADF output bin (for copy originals)

When you scan or copy documents by using the ADF, the originals are automatically delivered to the ADF output bin.

When you send print jobs to the product from a computer, the output is to the standard output bin.



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## 4 Manage and maintain

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

# Print information pages

Information pages provide details about the product and its current configuration. The following table provides the instructions for printing the information pages.

Page description	How to print the page from the product control panel
<b>Administration Menu Map</b>  Shows the control-panel menus and available settings.	<ol style="list-style-type: none"><li>1. At the product control panel, touch the down arrow until the <b>Administration</b> menu displays.</li><li>2. Touch the <b>Administration</b> menu to open it.</li><li>3. Touch the <b>Information</b> menu to open it.</li><li>4. Touch the <b>Configuration/Status Pages</b> menu to open it.</li><li>5. Touch the <b>Administration Menu Map</b> option, and then touch the <b>Print</b> button.</li></ol> <p>The content of the menu map varies, depending on the options currently installed in the product.</p> <p>For a complete list of control panel menus and possible values, see <a href="#">Control panel on page 11</a>.</p>
<b>Configuration Page</b>  Shows product settings and installed accessories.	<ol style="list-style-type: none"><li>1. At the product control panel, touch the down arrow until the <b>Administration</b> menu displays.</li><li>2. Touch the <b>Administration</b> menu to open it.</li><li>3. Touch the <b>Information</b> menu to open it.</li><li>4. Touch the <b>Configuration/Status Pages</b> menu to open it.</li><li>5. Touch the <b>Configuration Page</b> option, and then touch the <b>Print</b> button.</li></ol> <p><b>NOTE:</b> If the product contains an HP Jetdirect print server or an optional hard disk drive, additional configuration pages print that provide information about those devices.</p>
<b>Supplies Status Page</b>  Shows print-cartridge toner levels.	<ol style="list-style-type: none"><li>1. At the product control panel, touch the down arrow until the <b>Administration</b> menu displays.</li><li>2. Touch the <b>Administration</b> menu to open it.</li><li>3. Touch the <b>Information</b> menu to open it.</li><li>4. Touch the <b>Configuration/Status Pages</b> menu to open it.</li><li>5. Touch the <b>Supplies Status Page</b> option, and then touch the <b>Print</b> button.</li></ol> <p><b>NOTE:</b> If you are using non-HP supplies, the supplies status page might not show the remaining life for those supplies.</p>
<b>Usage Page</b>  Shows a page count for each size of paper printed, the number of one-sided (simplex) or two-sided (duplexed) pages, and the average percentage of coverage.	<ol style="list-style-type: none"><li>1. At the product control panel, touch the down arrow until the <b>Administration</b> menu displays.</li><li>2. Touch the <b>Administration</b> menu to open it.</li><li>3. Touch the <b>Information</b> menu to open it.</li><li>4. Touch the <b>Configuration/Status Pages</b> menu to open it.</li><li>5. Touch the <b>Usage Page</b> option, and then touch the <b>Print</b> button.</li></ol>



Page description	How to print the page from the product control panel
<b>Color Usage Job Log</b>  Shows job-by-job color usage information.	<ol style="list-style-type: none"> <li>1. At the product control panel, touch the down arrow until the <b>Administration</b> menu displays.</li> <li>2. Touch the <b>Administration</b> menu to open it.</li> <li>3. Touch the <b>Information</b> menu to open it.</li> <li>4. Touch the <b>Configuration/Status Pages</b> menu to open it.</li> <li>5. Touch the <b>Color Usage Job Log</b> option, and then touch the <b>Print</b> button.</li> </ol>
<b>File Directory</b>  Contains information for any mass storage devices, such as flash drives, memory cards, or hard disks, that are installed in the product.	<ol style="list-style-type: none"> <li>1. At the product control panel, touch the down arrow until the <b>Administration</b> menu displays.</li> <li>2. Touch the <b>Administration</b> menu to open it.</li> <li>3. Touch the <b>Information</b> menu to open it.</li> <li>4. Touch the <b>Configuration/Status Pages</b> menu to open it.</li> <li>5. Touch the down arrow until the <b>File Directory</b> option displays.</li> <li>6. Touch the <b>File Directory</b> option, and then touch the <b>Print</b> button.</li> </ol>
<b>Fax Reports</b>  Five reports show fax activity, fax calls, billing codes, blocked fax numbers, and speed-dial numbers.  <b>NOTE:</b> Fax reports are available only on product models that have fax capabilities.	<ol style="list-style-type: none"> <li>1. At the product control panel, touch the down arrow until the <b>Administration</b> menu displays.</li> <li>2. Touch the <b>Administration</b> menu to open it.</li> <li>3. Touch the <b>Information</b> menu to open it.</li> <li>4. Touch the <b>Fax Reports</b> menu to open it.</li> <li>5. Touch one of the following buttons to print the corresponding report: <ul style="list-style-type: none"> <li>◦ <b>Fax Activity Log</b></li> <li>◦ <b>Fax Call Report</b></li> <li>◦ <b>Billing Codes Report</b></li> <li>◦ <b>Blocked Fax List</b></li> <li>◦ <b>Speed Dial List</b></li> </ul> </li> <li>6. Touch the <b>Print</b> button.</li> </ol> <p>For more information, see the fax guide that came with the product.</p>
<b>Sample Pages/Fonts</b>  Shows which fonts are installed in the product.	<ol style="list-style-type: none"> <li>1. At the product control panel, touch the down arrow until the <b>Administration</b> menu displays.</li> <li>2. Touch the <b>Administration</b> menu to open it.</li> <li>3. Touch the <b>Information</b> menu to open it.</li> <li>4. Touch <b>Sample Pages/Fonts</b>.</li> <li>5. Touch the down arrow to scroll to the <b>PCL Font List</b> or <b>PS Font List</b> option.</li> <li>6. Touch the <b>PCL Font List</b> or <b>PS Font List</b> option, and then touch the <b>Print</b> button.</li> </ol> <p><b>NOTE:</b> The font lists also show which fonts reside on a hard disk accessory or DIMM.</p>

# 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
<b>Support tab</b>  Provides links to support information	<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>
<b>Settings tab</b>  Configure product settings, adjust print-quality settings, and find information about specific product features  <b>NOTE:</b> This tab is not available for some products.	<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>
<b>HP Proactive Support</b>  <b>NOTE:</b> This item is available from the <b>Overview</b> and <b>Support</b> tabs.	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.
<b>Supplies Ordering button</b>  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.  <b>NOTE:</b> This item is available from the <b>Overview</b> and <b>Support</b> tabs.	<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 button</b>: 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 button</b>: Prints the information for the supplies that have the <b>Order</b> check box selected.</li> </ul>

Section	Options
<p><b>Alert Settings</b> link</p> <p><b>NOTE:</b> This item is available from the <b>Overview</b> and <b>Support</b> tabs.</p>	<p>Click <b>Alert Settings</b> to open the Alert Settings window, in which you can configure alerts for each product.</p> <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>
<p><b>Color Access Control</b></p> <p><b>NOTE:</b> This item is available only for HP color products that support Color Access Control.</p> <p><b>NOTE:</b> This item is available from the <b>Overview</b> and <b>Support</b> tabs.</p>	<p>Use this feature to permit or restrict color printing.</p>

## Embedded Web server

Use the embedded Web server to view product and network status 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:


 **NOTE:** When the printer is directly connected to a computer, use the HP Easy Printer Care to view the printer status.

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- View product status information.
- Set the type of media that is loaded in each tray.
- 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.

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

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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 [Print information pages on page 80](#).

 **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 four tabs that contain settings and information about the product: the **Information** tab, the **Settings** tab, the **Networking** tab, and the **Digital Sending** tab. Click the tab that you want to view.

See [Embedded Web server sections on page 86](#) for more information about each tab.

## Embedded Web server sections

Tab or section	Options
<b>Information tab</b>  Provides product, status, and configuration information	<ul style="list-style-type: none"> <li>• <b>Device Status:</b> Shows the product status and shows the life remaining of HP supplies, with 0% indicating that a supply is empty. 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 life remaining of HP supplies, with 0% indicating that a supply has reached its estimated end of life. 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.</li> <li>• <b>Usage Page:</b> Shows a summary of the number of pages the product has printed, grouped by size and type.</li> <li>• <b>Diagnostics Page:</b> Allows you to name the product, show the company name, assign an asset number to the product, and name the primary contact who manages the product. An HP-authorized support person might ask for this information.</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>
<b>Settings tab</b>  Provides the ability to configure the product from your computer	<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. Enable and disable certain features of the embedded Web server.</li> <li>• <b>Authentication Manager:</b> Allows you to determine which product functions will require a user to provide log-in information in order to use those functions.</li> <li>• <b>LDAP Authentication:</b> Allows you to configure a Lightweight Directory Access Protocol (LDAP) server to limit product access to certain users. The LDAP server will require a user to provide log-in information in order to gain access to the product.</li> <li>• <b>Kerberos Authentication:</b> Allows you to configure a Kerberos network authentication protocol, which provides strong authentication for client/server applications by using secret-key cryptography.</li> </ul>

Tab or section	Options
	<ul style="list-style-type: none"> <li>● <b>Device PIN:</b> Allows you to configure the PIN numbers that are required to access various product functions. Use the <b>Authentication Manager</b> page to select <b>Group 1 PIN</b> or <b>Group 2 PIN</b> for the various functions. For example, you could configure the <b>Copy</b> option to require <b>Group 1 PIN</b> and configure the <b>Send to E-mail</b> option to require <b>Group 2 PIN</b>.</li> <li>● <b>User PIN:</b> Allows you to add, edit, or delete individual users who are allowed to use various product functions such as copy, fax, and digital sending.</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> <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>Sleep Schedule:</b> Allows you to set or edit a wake time, sleep time, and sleep delay for the product.</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> <li>● <b>Home Screen Setup:</b> Allows you to configure which features display on the Home screen and the order in which they display.</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>
<b>Digital Sending tab</b>	<p>Use the pages on the <b>Digital Sending</b> tab to configure the digital-sending features.</p> <p><b>NOTE:</b> If the product is configured to use the optional HP Digital Sending Software, the options on these tabs are not available. Instead, all digital-sending configuration is performed by using the HP Digital Sending Software.</p> <ul style="list-style-type: none"> <li>● <b>General.</b> Set up contact information for the system administrator.</li> <li>● <b>Send to Folder.</b> Allows you to enable, disable, and configure the Send to Folder capabilities on the product. It is also used to link the product to individual folder destinations that exist in the network. As a first step, you must create and configure destination folders. These destination folders need to be operational before using this page to add the destinations to the product.</li> <li>● <b>E-mail Settings.</b> Configure the e-mail settings for digital sending. You can specify the SMTP server, the default "From" address, and the default subject. You can also set the maximum file size that is allowed for attachments.</li> <li>● <b>E-mail Address Book.</b> The <b>E-mail Address Book</b> page enables you to add e-mail addresses into the product one at a time, and to edit e-mail addresses that have already been saved in the product. You can also use the <b>Import/Export</b> tab to load a large list of frequently-used e-mail addresses on to the product all at once, rather than adding them one at a time.</li> <li>● <b>LDAP Settings.</b> Allows you to configure the e-mail addresses where scanned documents can be sent.</li> <li>● <b>Import/Export.</b> Use this tab to import or export .CSV files containing e-mail addresses, fax numbers, or user records, so that they can be accessed on this product. You can also export e-mail, fax, or user records from the product into a file</li> </ul>

Tab or section	Options
	<p>on your computer. You can then use this file as a data backup, or you can use it to import the records onto another HP product.</p> <ul style="list-style-type: none"> <li>• <b>Log.</b> View the digital-sending activity log for the product. The log contains digital-sending job information, including any errors that occur.</li> <li>• <b>Preferences.</b> Configure digital-sending defaults such as the default page-size and the default settings-reset delay. You can also configure these settings by using the product control-panel menus.</li> </ul>
<b>Fax tab</b>	<p>The <b>Fax</b> tab contains options to configure and use the fax capabilities of the product. For additional information about fax functions, see the Fax User Guide.</p> <p><b>NOTE:</b> This tab is available only for the HP Color LaserJet CM3530fs MFP.</p> <ul style="list-style-type: none"> <li>• Use the <b>Fax Settings</b> screen to configure the send-to-fax features for the product.</li> <li>• The <b>Fax Address Book</b> page enables you to add fax numbers into the product one at a time, and to edit fax numbers that have already been saved in the product. You can also use the <b>Import/Export</b> feature on the <b>Digital Sending</b> tab to load a large list of frequently-used fax numbers on to the product all at once, rather than adding them one at a time.</li> <li>• Use the <b>Fax Speed Dials</b> screen to add, edit, or delete fax speed dial entries to and from the product. You can use fax speed dials to store frequently used fax numbers or lists of up to 100 fax numbers. Up to 100 speed dial entries can be configured.</li> </ul>
<b>Networking tab</b>  Provides the ability to change network settings from your computer	<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>
<b>Other Links</b>  Contains links that connect you to the Internet	<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 search for help regarding various topics.</li> <li>• <b>Show Me How:</b> Connects to information that demonstrates specific tasks for the product.</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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# Product 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 85](#).
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.

## 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 511](#).

## Secure Disk Erase

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 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 feature. The job can only be printed when the correct PIN is entered at the control panel.

## DSS authentication

Optional Digital Sending Software (DSS) for the product is available for purchase separately. The software provides an advanced sending program that contains an authentication process. This process requires users to type a user identification and a password before they can use any of the DSS features that require authentication.

## 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.

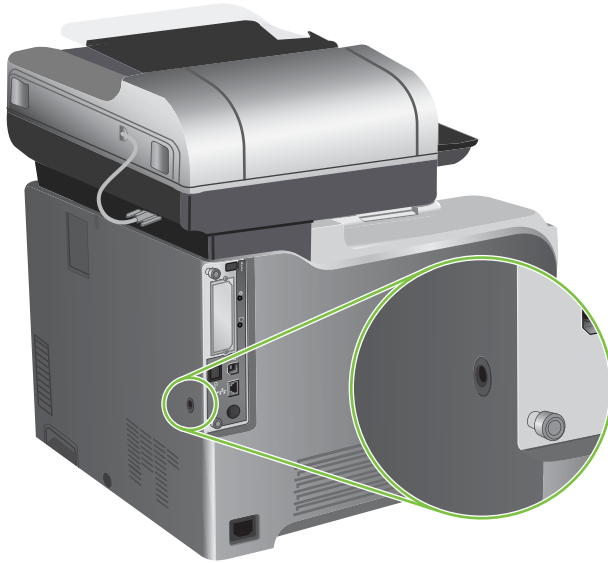
You can use HP Web Jetadmin to lock the control-panel menus on several products simultaneously. Browse to [www.hp.com/go/webjetadmin](http://www.hp.com/go/webjetadmin) to access white papers discussing security features, such as control-panel lock, that allow you to secure the product against unwanted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

△ **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.

 **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 94](#). 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

When you use genuine HP supplies, the product automatically notifies you when supplies are reaching their estimated end of life. The notification to order supplies allows ample time to order new supplies before they need to be replaced. For more information about ordering supplies, see [Order parts, accessories, and supplies on page 510](#)

## Supplies life

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

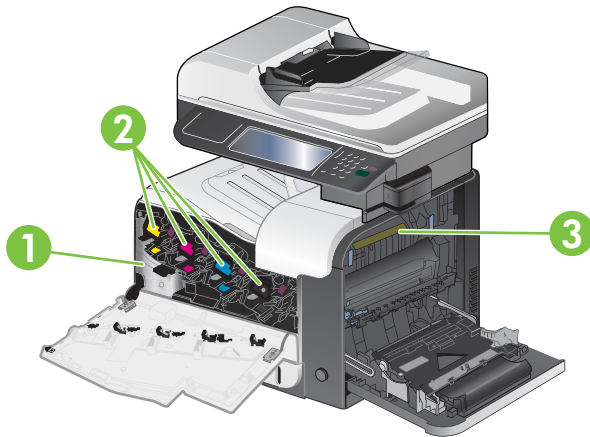
To order supplies, see [Parts and diagrams on page 509](#).

## 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 [Management menu on page 28](#).

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.

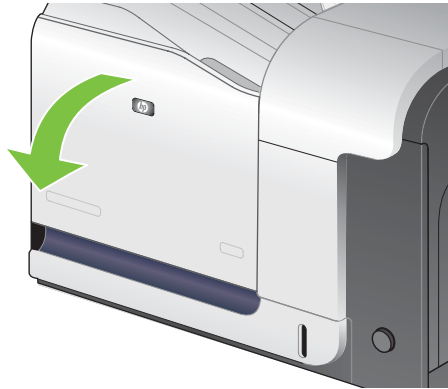
△ **CAUTION:** If toner gets on clothing, wipe it off with a dry cloth and wash the clothes in cold water. Hot water sets toner into fabric.

📄 **NOTE:** Information about recycling used print cartridges is on the print-cartridge box. See the product user guide.

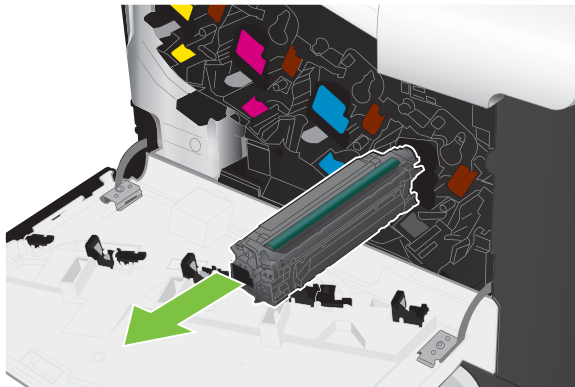
💡 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcm3530mfp-replace-print-cartridges](http://www.hp.com/go/cljcm3530mfp-replace-print-cartridges).

## Replace print cartridges

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

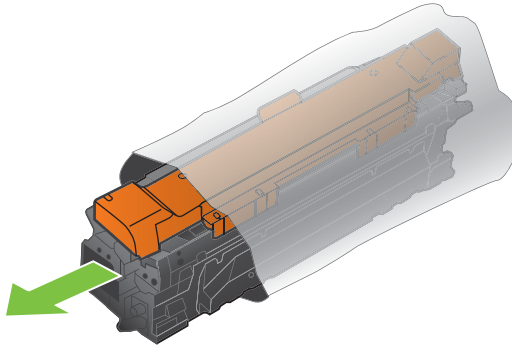



2. Grasp the handle of the used print cartridge and pull out to remove.

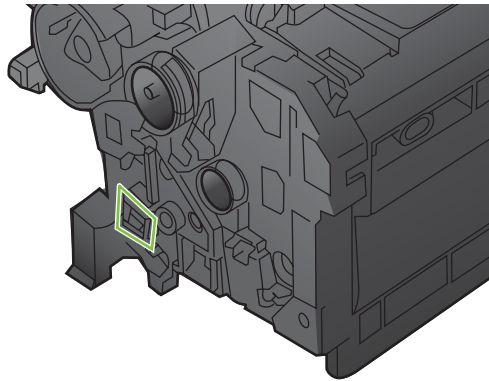


3. Store the used print cartridge in a protective bag. Information about recycling used print cartridges is on the print-cartridge box.

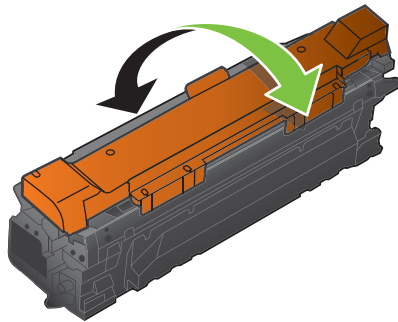
4. Remove the new print cartridge from its protective bag.



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

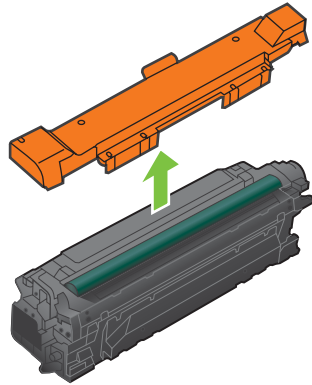


5. Grasp both sides of the print cartridge and distribute the toner by gently rocking the print cartridge.





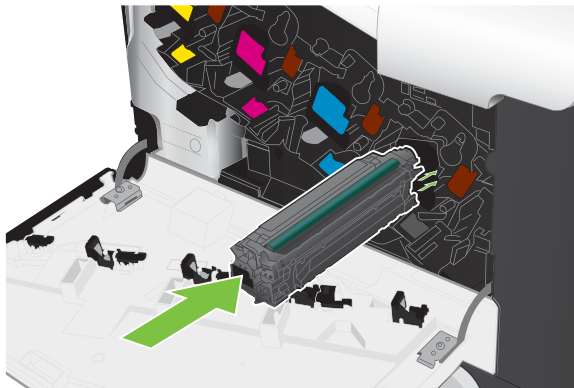
6. Remove the orange protective cover from the print cartridge.



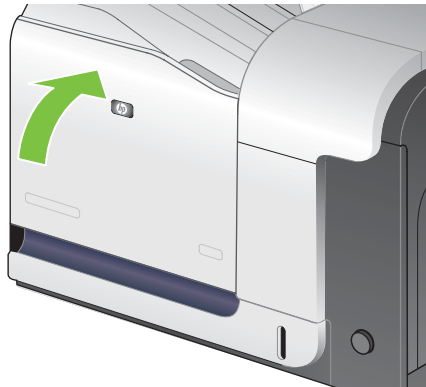
△ **CAUTION:** Avoid prolonged exposure to light.

**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

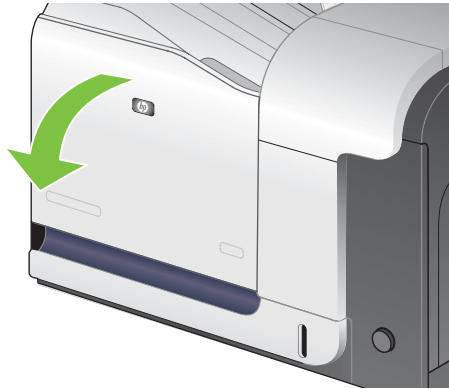
Replace the toner collection unit when the control panel prompts you.

 **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.

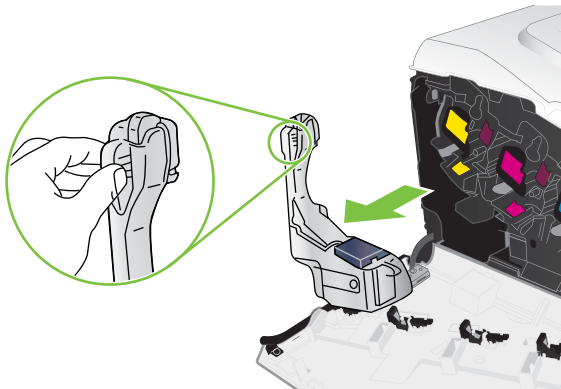
 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcm3530mfp-replace-toner-collection-unit](http://www.hp.com/go/cljcm3530mfp-replace-toner-collection-unit).

### Replace the toner collection unit

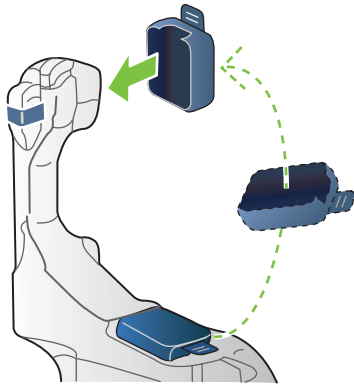
1. Open the front door. Make sure that the door is completely open.



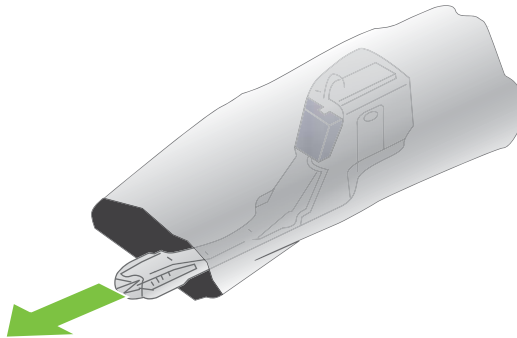
2. Grasp the blue label at the top of the toner collection unit and remove it from the product.



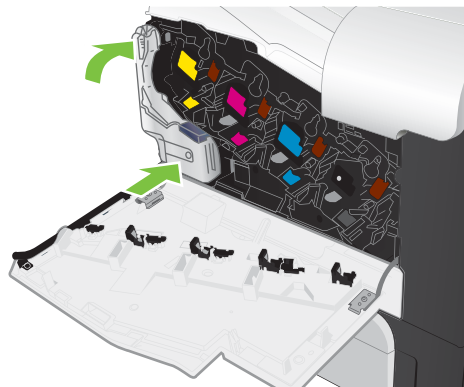
3. Place the attached blue cap over the blue opening at the top of the unit.



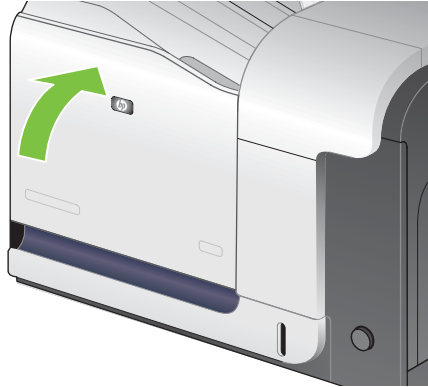
4. Remove the new toner collection unit from its packaging.




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.



 **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.

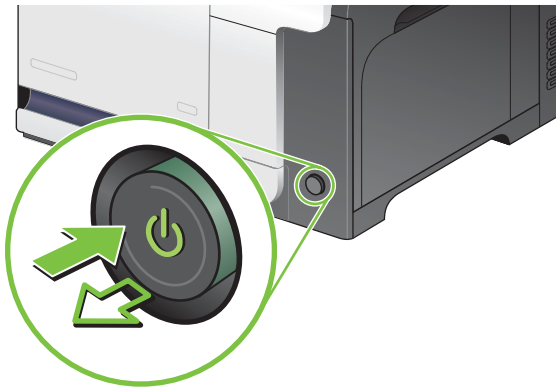
## Install memory

You can install more memory for the product.


- △ **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.

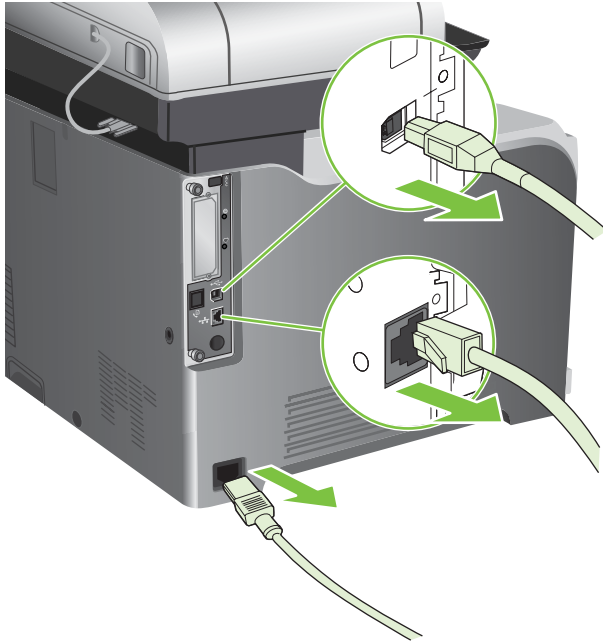
### Install DDR memory DIMMs

1. Turn the product off.

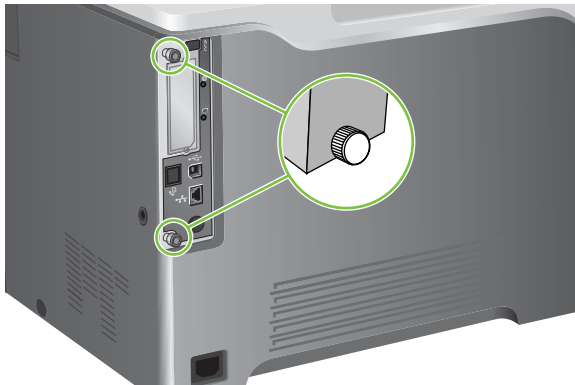


2. Disconnect all power and interface cables.

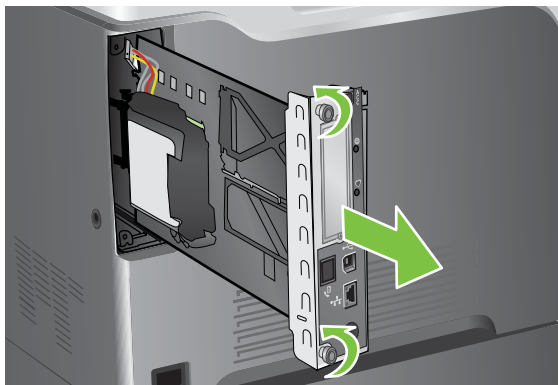
 **NOTE:** This illustration might not show all the cables.



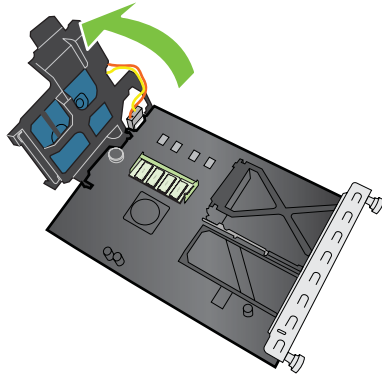
3. Locate the thumb screws on the formatter board in the rear of the product.



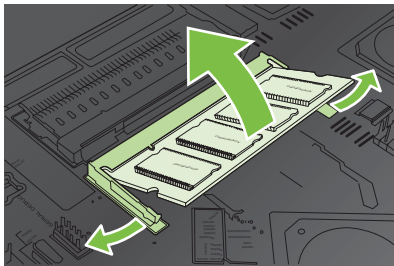
4. Unscrew the thumb screws and then pull the formatter board from the product. Place the formatter board on a clean, flat, grounded surface.



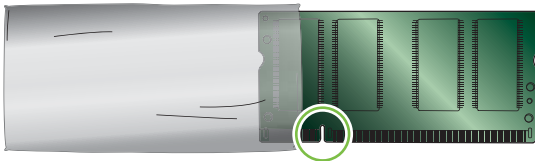
5. Release bracket that holds the hard drive, and swing it open.



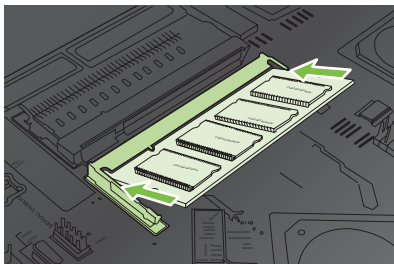
6. To replace a DIMM that is currently installed, spread the latches apart on each side of the DIMM slot, lift the DIMM up at an angle, and pull it out.



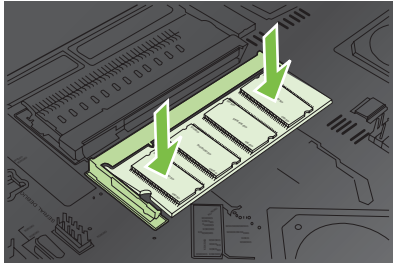
7. Remove the new DIMM from the antistatic package. Locate the alignment notch on the bottom edge of the DIMM.



8. 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.



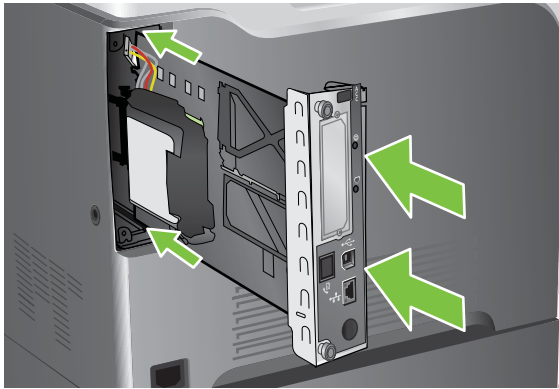
9. Push down on the DIMM until both latches engage the DIMM.



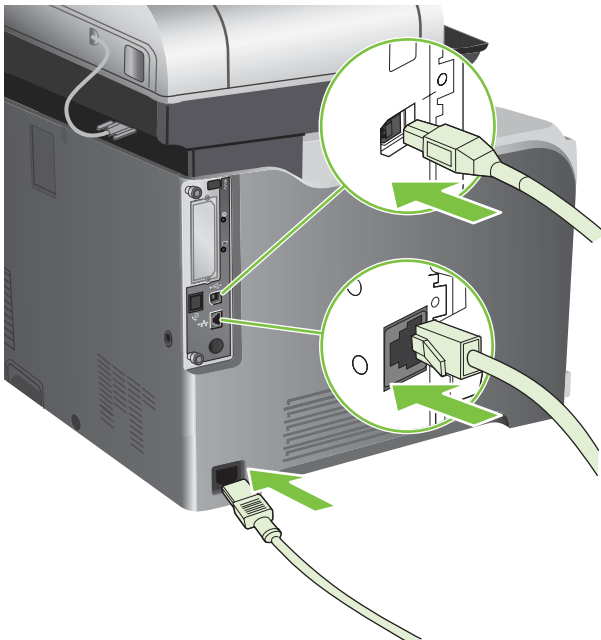
**NOTE:** If you have difficulty inserting the DIMM, make sure the notch on the bottom of the DIMM is aligned with the bar in the slot. If the DIMM still does not go in, make sure you are using the correct type of DIMM.

10. 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.



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



## Enable memory for Windows

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

-or-

**Windows 2000, Windows XP, and Windows Server 2003 (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. Next to **Printer Memory**, select the total amount of memory that is installed.
6. Click **OK**.

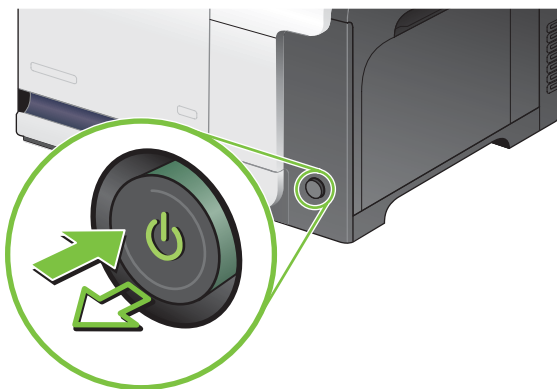


## Install an HP Jetdirect or EIO print server card or EIO hard disk

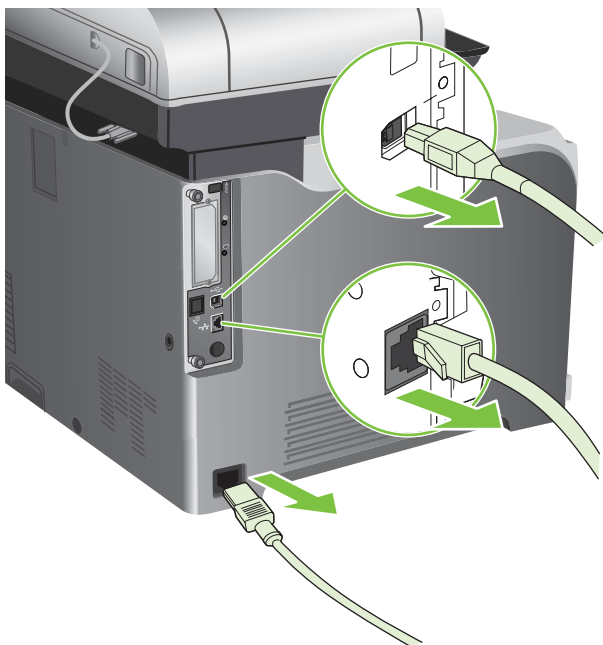
This product is equipped with an external I/O (EIO) slot. You can install an additional HP Jetdirect print server card or external EIO hard drive in the available EIO slot.

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

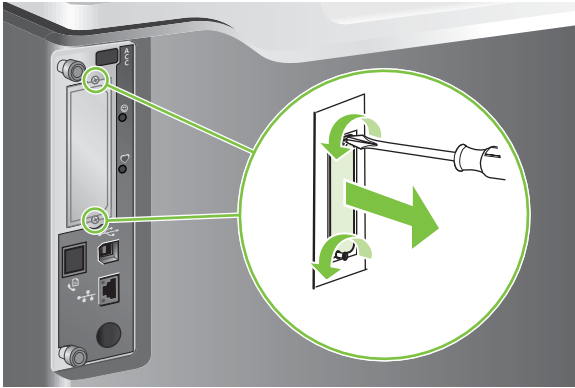
1. Turn the product off.



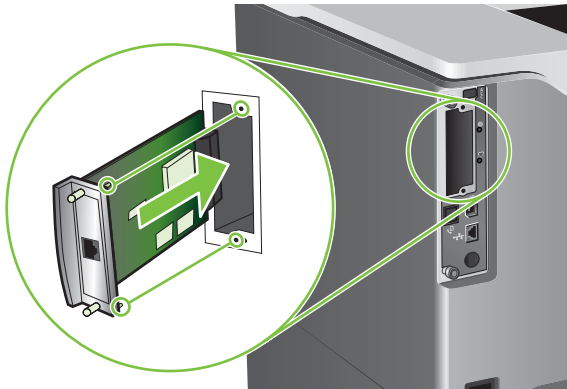
2. Disconnect all power and interface cables.



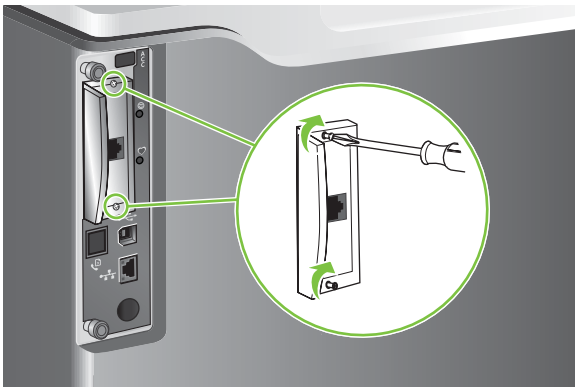
3. Loosen and remove the two retaining screws holding the cover for the EIO slot, and then remove the cover. You will not need these screws and the cover again. They can be discarded.



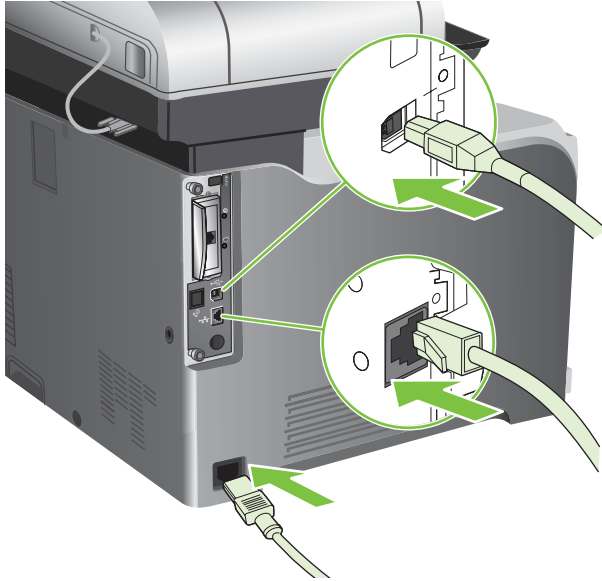
4. Firmly insert the HP Jetdirect print server card into the EIO slot.



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

To maintain print quality, clean the product thoroughly every time you replace the print cartridge and whenever print-quality problems occur.

- 
- △ **WARNING!** Avoid touching the fusing area when cleaning the product. It can be hot.
- △ **CAUTION:** To avoid permanent damage to the print cartridge, do not use ammonia-based cleaners on or around the product except as directed.
- 

## Clean the outside of the product

- Clean the outside of the product if it is visibly marked.
- Use a soft, lint-free cloth dampened with water, or water and a mild detergent.

## Clean the touchscreen

Clean the touchscreen whenever it is necessary to remove fingerprints or dust. Wipe the touchscreen gently with a clean, water-dampened, lint-free cloth.

- 
- △ **CAUTION:** Use water only. Solvents or cleaners can damage the touchscreen. Do not pour or spray water directly onto the touchscreen.
- 

## Clean the scanner glass

- Clean the scanner glass only if dirt is visible, or if you are experiencing a decrease in copy quality, such as streaking.
- Clean the scanner glass by wiping it gently with a clean, slightly damp, lint-free cloth. Use an ammonia-based surface cleaner only when a water-dampened cloth does not clean the scanner glass.



- 
- △ **CAUTION:** Do not pour or spray liquids directly onto the scanner glass. Do not press hard on the glass surface. (You could break the glass).
- 

## Clean the document feeder

Ink and correction fluid can leave residue on the narrow glass strip to the left of the large scanner glass. If you are having problems with streaks on copies, clean the narrow glass strip.

## Clean the document-feeder backing

1. Open the scanner lid.



2. Locate the white, vinyl document-feeder backing.



3. Clean the document-feeder backing by wiping it with a clean, damp, lint-free cloth. Use an ammonia-based surface cleaner only when a water-dampened cloth does not clean the components.
4. Close the scanner lid.

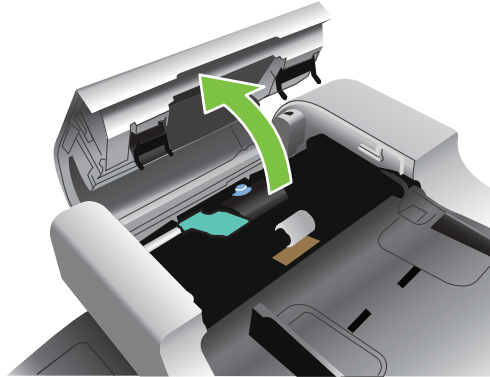


## Clean the document-feeder rollers

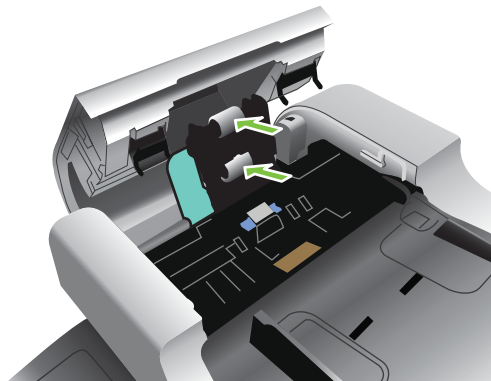
You should clean the rollers in the document feeder if you are experiencing misfeeds or if your originals show marks as they exit the document feeder.

△ **CAUTION:** Clean the rollers only if you experience misfeeds or marks on the originals, and you notice dust on the rollers. Cleaning the rollers frequently could introduce dust into the product.

1. Pull the release lever to open the document-feeder cover.



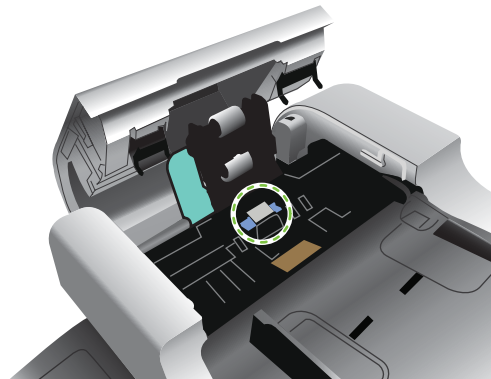
2. Locate the rollers.



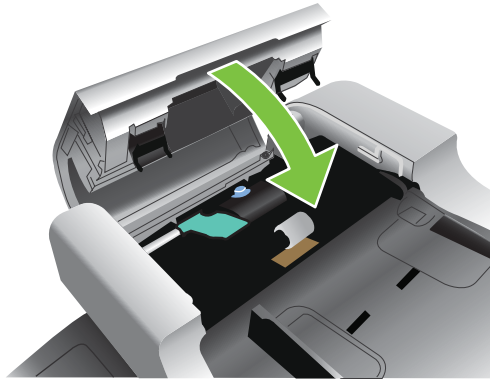
3. Wipe the rollers with a clean, water-dampened, lint-free cloth.

△ **CAUTION:** Do not pour water directly onto the rollers. Doing so might damage the product.

4. Locate the separation pad.



5. Wipe the pad with a clean, water-dampened, lint-free cloth.
6. Close the document-feeder cover.



## 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).

## Create and use the cleaning page

1. Scroll to and touch **Administration**.
2. Scroll to and touch **Print Quality**.
3. Touch **Calibration/cleaning**.
4. Touch **Process cleaning 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. At the product control panel, touch the down arrow until the **Administration** menu displays.
2. Touch the **Administration** menu to open it.
3. Touch the **Information** menu to open it.
4. Touch the **Configuration Page** option, and then touch the **Print** button.

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/cljcm3530mfp\\_firmware](http://www.hp.com/go/cljcm3530mfp_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.

---

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 flash executable file to update the firmware

This product has flash-based memory, so you can use the flash firmware executable (.EXE) file to upgrade the firmware. Download this file from [www.hp.com/go/cljcm3530mfp\\_firmware](http://www.hp.com/go/cljcm3530mfp_firmware).



 **NOTE:** To use this method, connect the product directly to your computer through a USB cable, and install the printer driver for this product on your computer.

---

1. Print a configuration page and note the TCP/IP address.
2. Find the .EXE file on your computer, and double-click it to open the file.
3. From the **Select Printer to Update** drop-down list, select this product. Click the **Start** button to begin the update process.


△ **CAUTION:** Do not turn the product off or try to send a print job during this process.

---

4. When the process is complete, a smiling face icon displays in the dialog box. Click the **Exit** button to close the dialog box.
5. Turn the product off and then on.
6. Print another configuration page and verify that the new firmware datecode is listed.

### 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.

 **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.

---


### 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.

 **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 `cljcm3530.rfu`, type `put cljcm3530.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:\cljcm3530.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\cljcm3530.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.

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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](#)
- [Scanning/image capture system system](#)

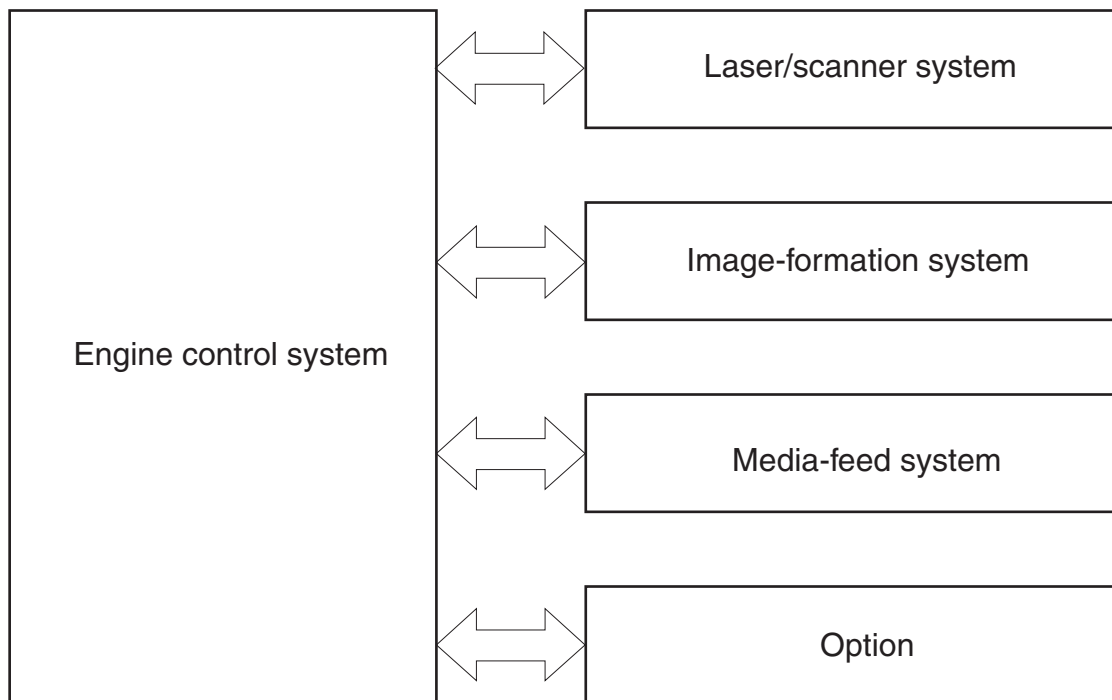
## Basic operation

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**

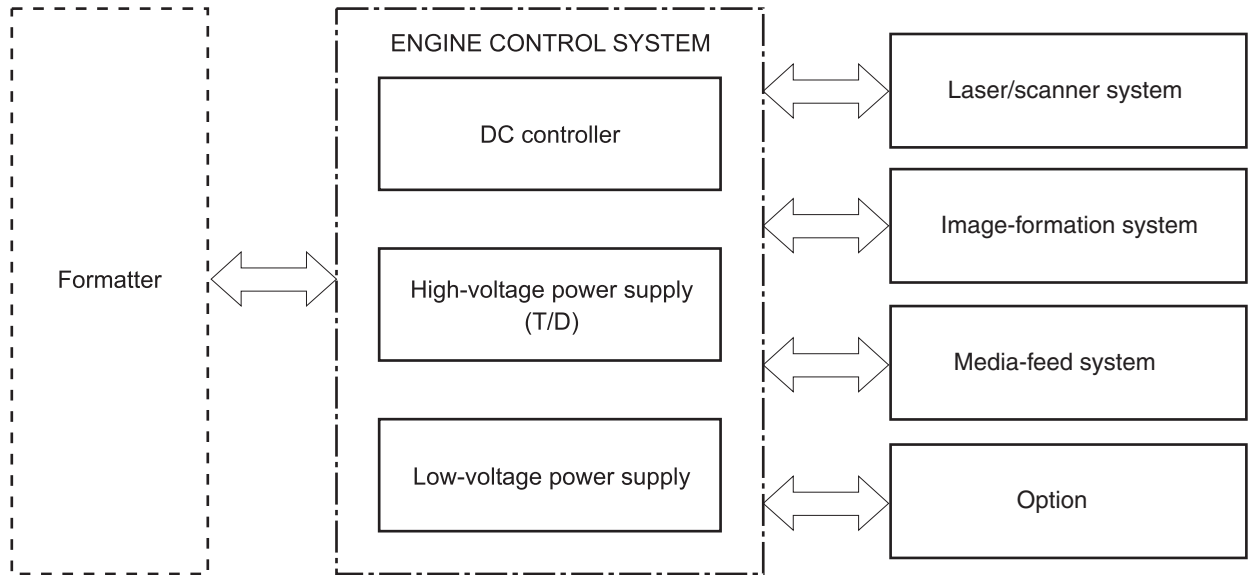
Period	Duration	Description
Waiting	From the time the power is turned on, the door is closed, or when the product exits Sleep mode until the product is ready for printing	<ul style="list-style-type: none"> <li>• Heats the fuser sleeve</li> <li>• Pressurizes the fuser pressure roller</li> <li>• Detects 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

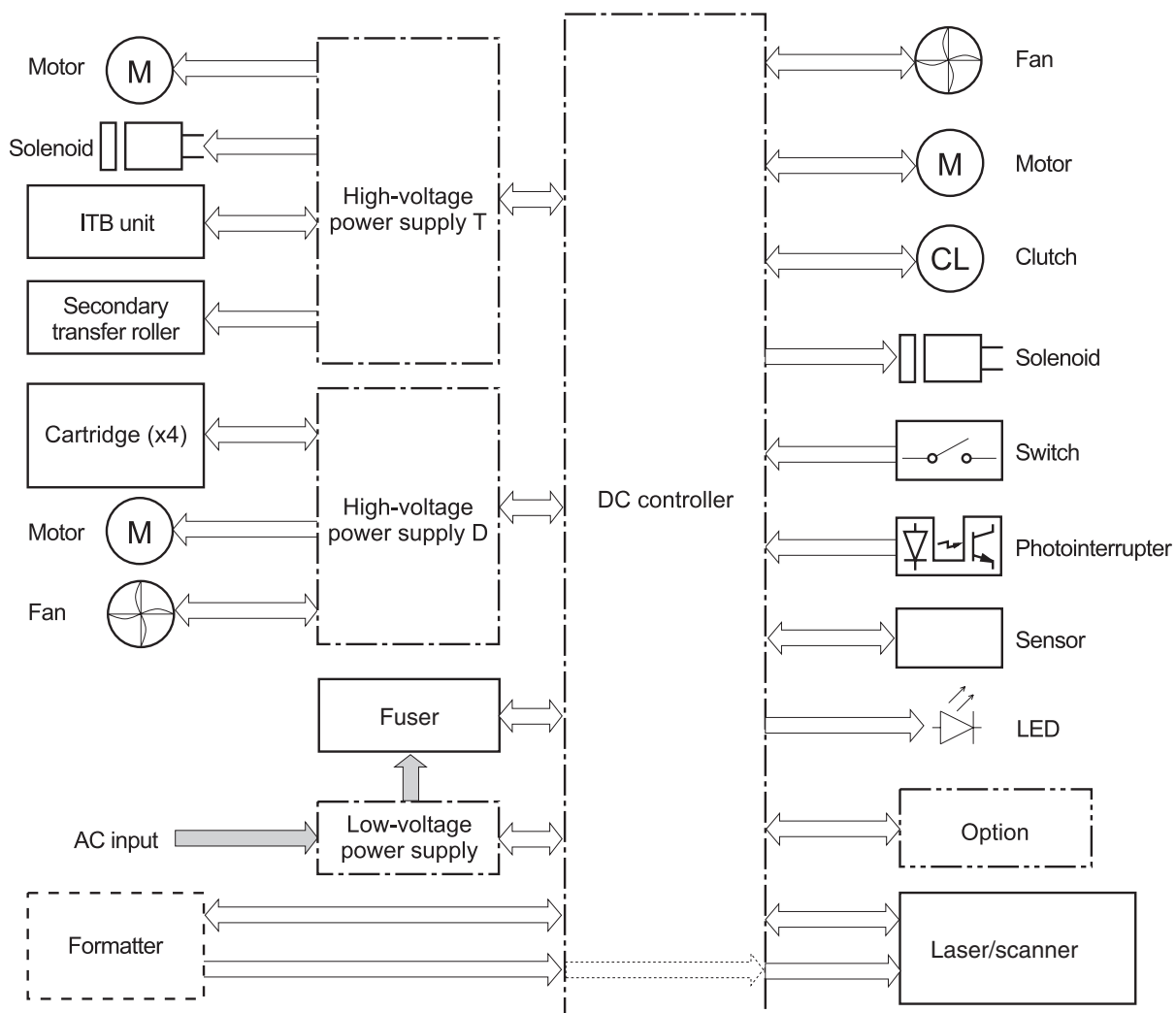
**Figure 5-2** Engine-control system



## 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
SL3	Multipurpose-tray pickup solenoid
SL4	Cassette pickup solenoid

## Clutches

Component abbreviation	Component name
CL1	Duplex re-pickup clutch

## 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
	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 fans. The motors drive the components in the paper-feed and image-formation systems. The fan motors cool the inside of the product.

**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	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**

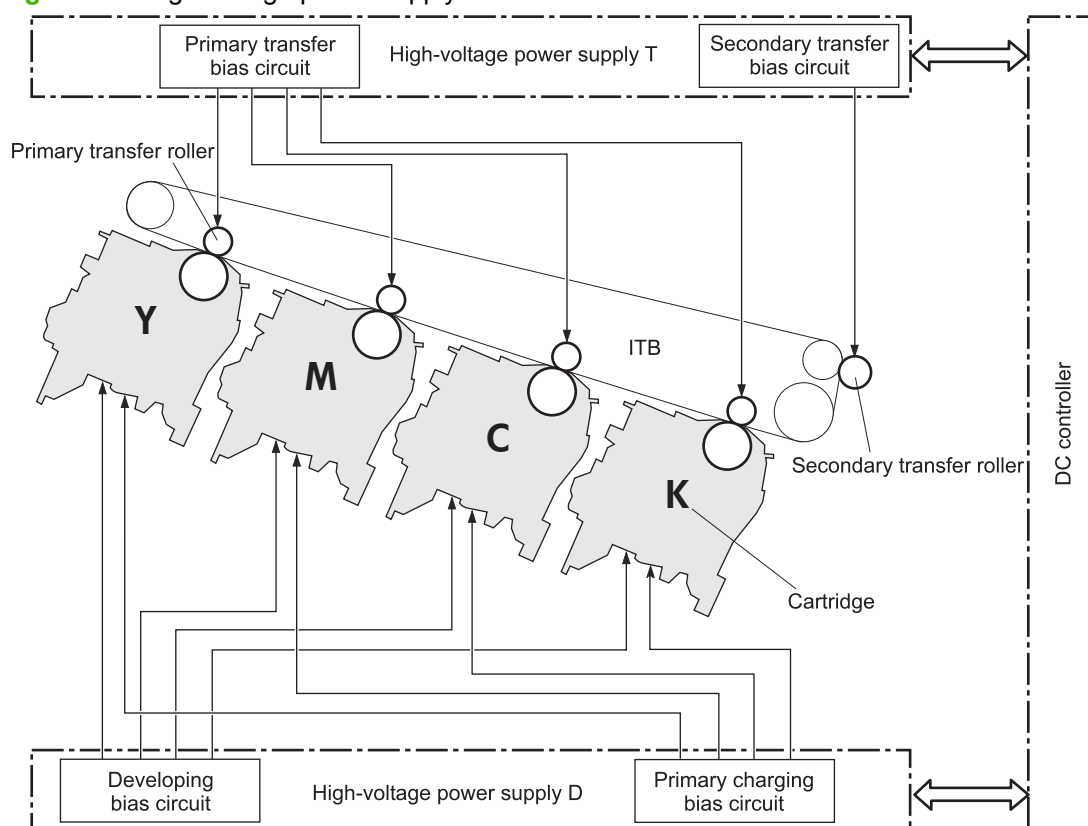
Abbreviation	Name	Cooling area	Type	Speed
FM1	Power supply fan	Around the power supply unit	Intake	Full/half
FM2	Cartridge fan	Around the cartridges	Intake	Full/half
FM3	Delivery fan	Around the delivery unit	Intake	Full/half

## 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.

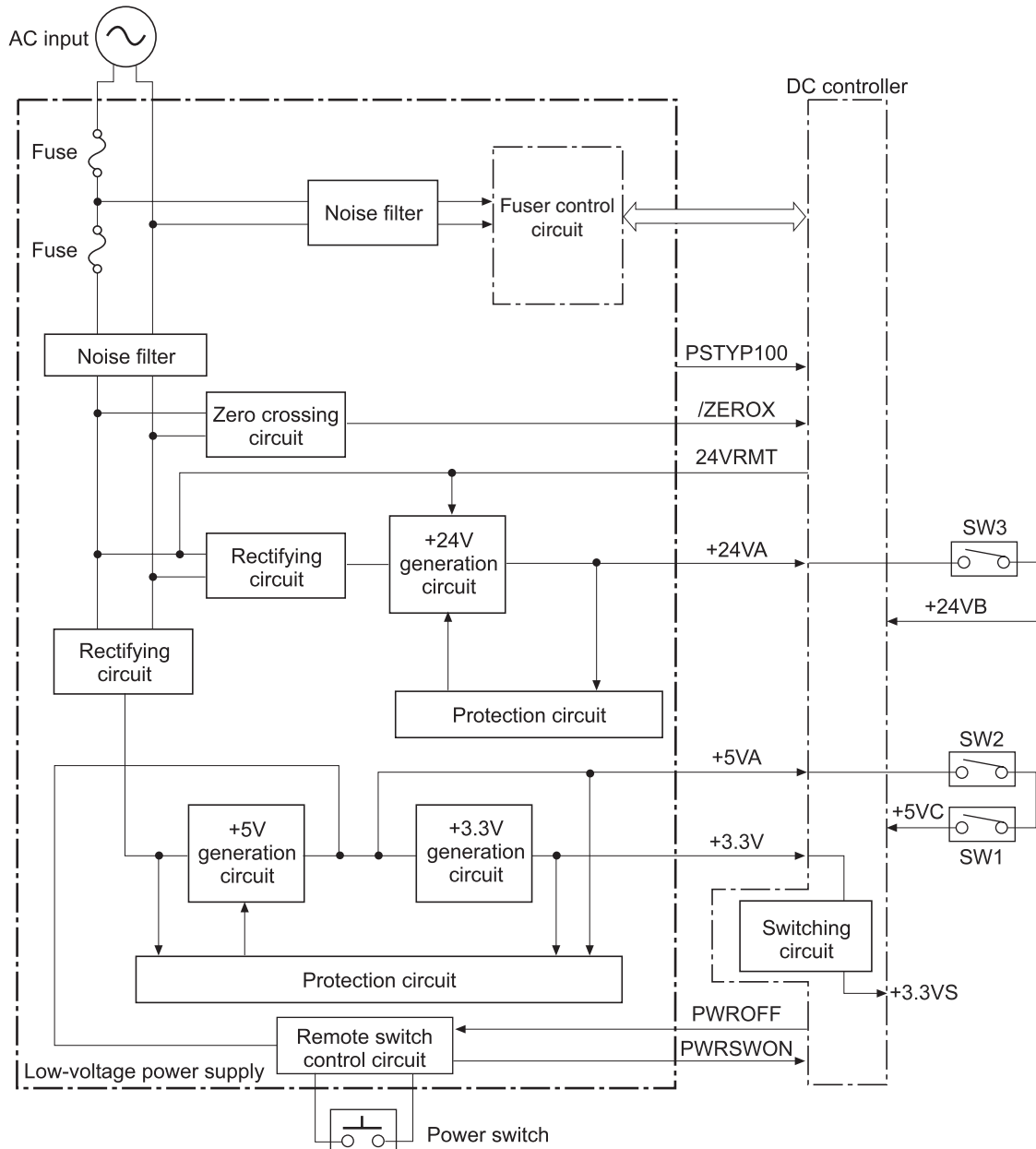
**Table 5-7 High-voltage power supply circuits**

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.

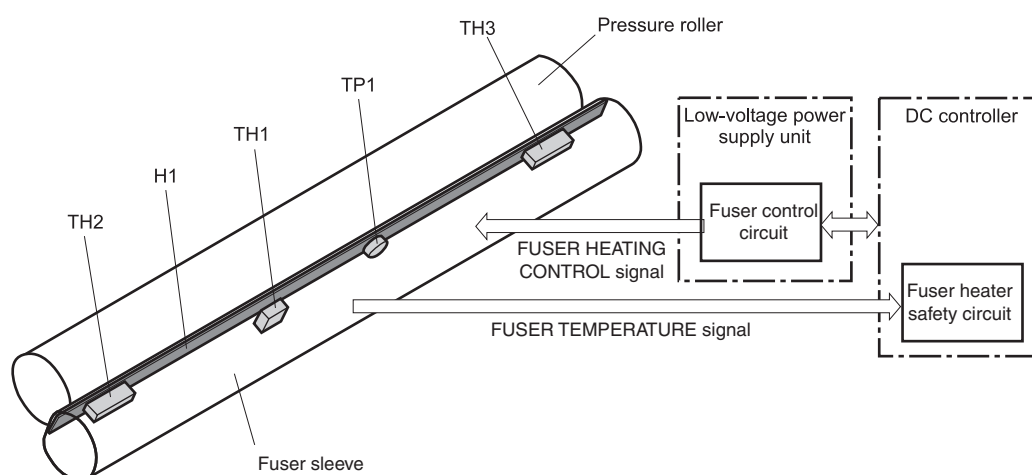
## Low-voltage power supply failure

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



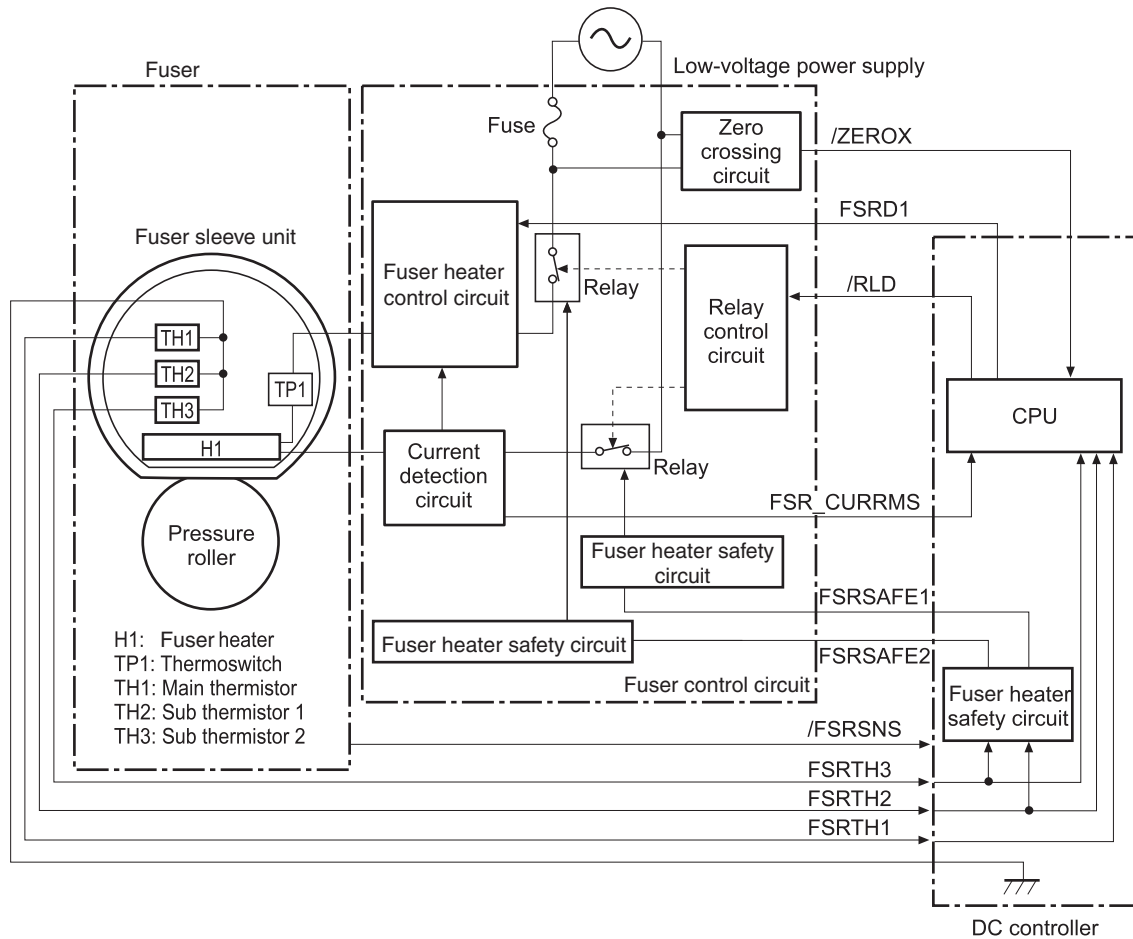
**Table 5-9** Fuser (fixing) components

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.

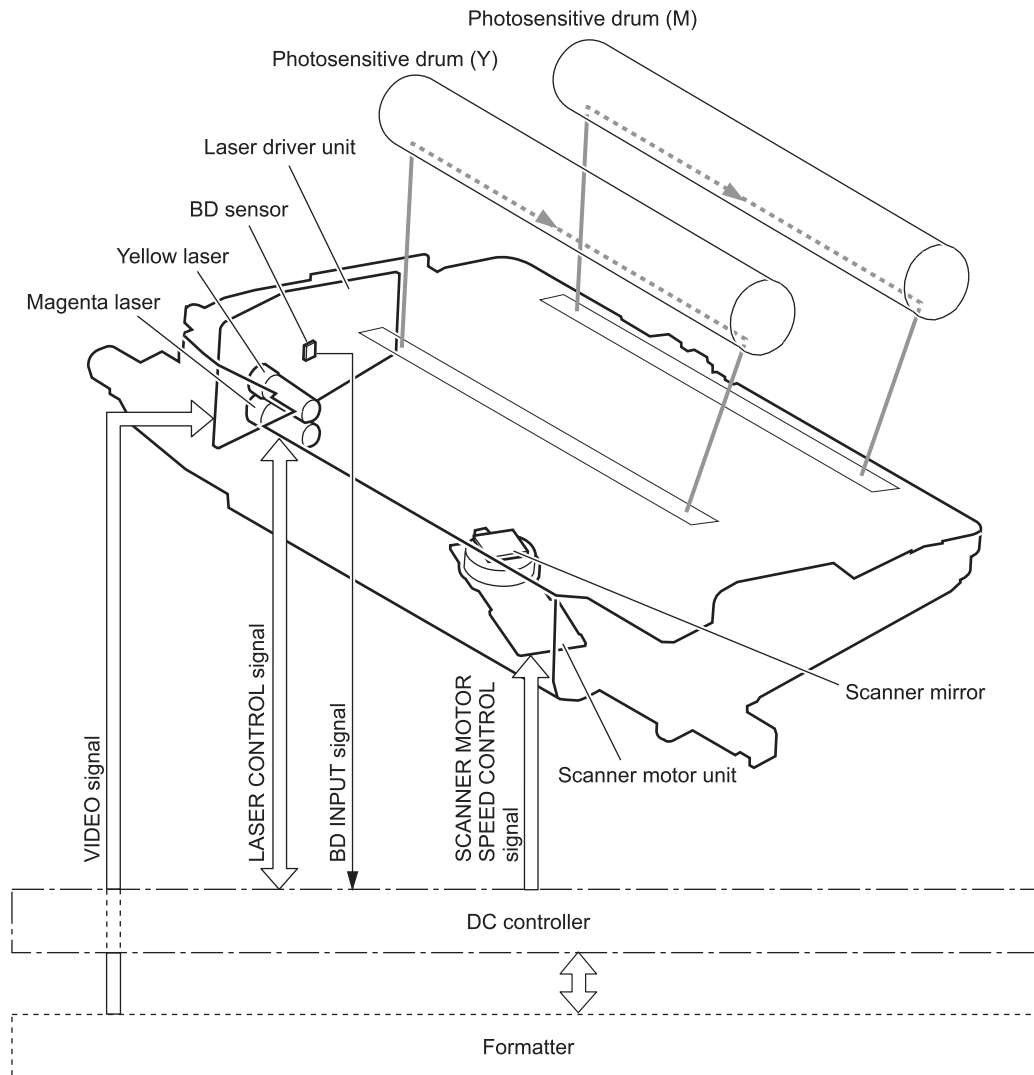
- **Abnormal temperature rise:** The DC controller determines an abnormal temperature rise if the detected temperature of TH1 does not rise 2° C within a specified time period after the fuser (fixing) motor is turned on, or if the detected temperature of the thermistors does not rise to a specified temperature 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



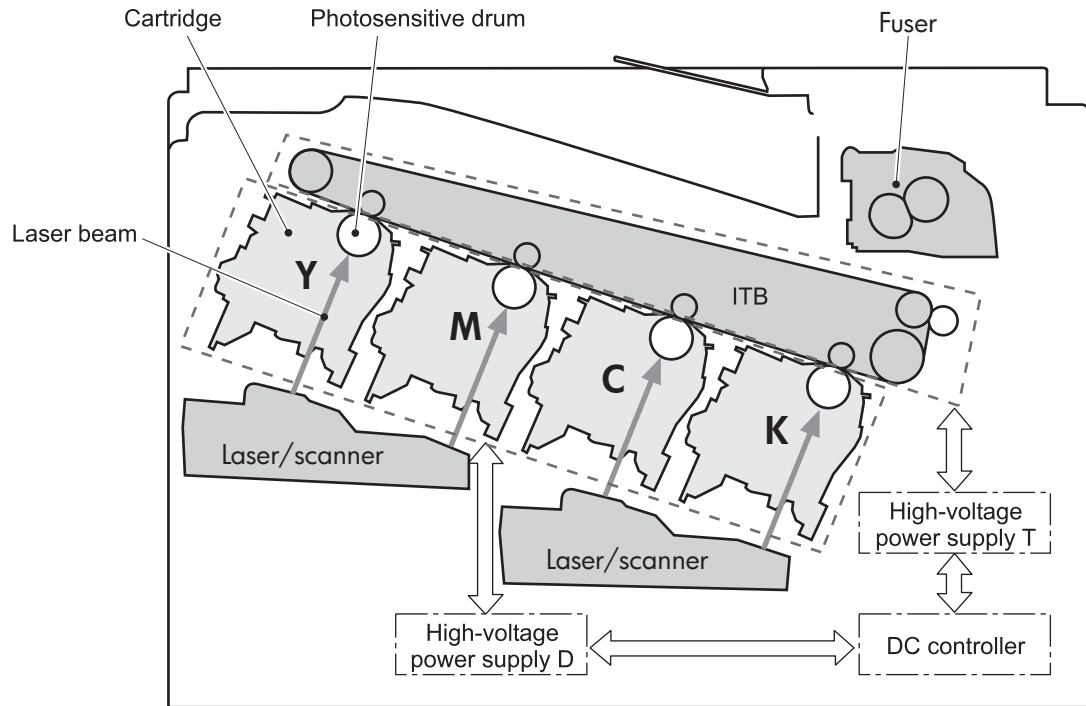
The DC controller determines that a laser/scanner has failed when any of the following conditions occurs:

- **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.

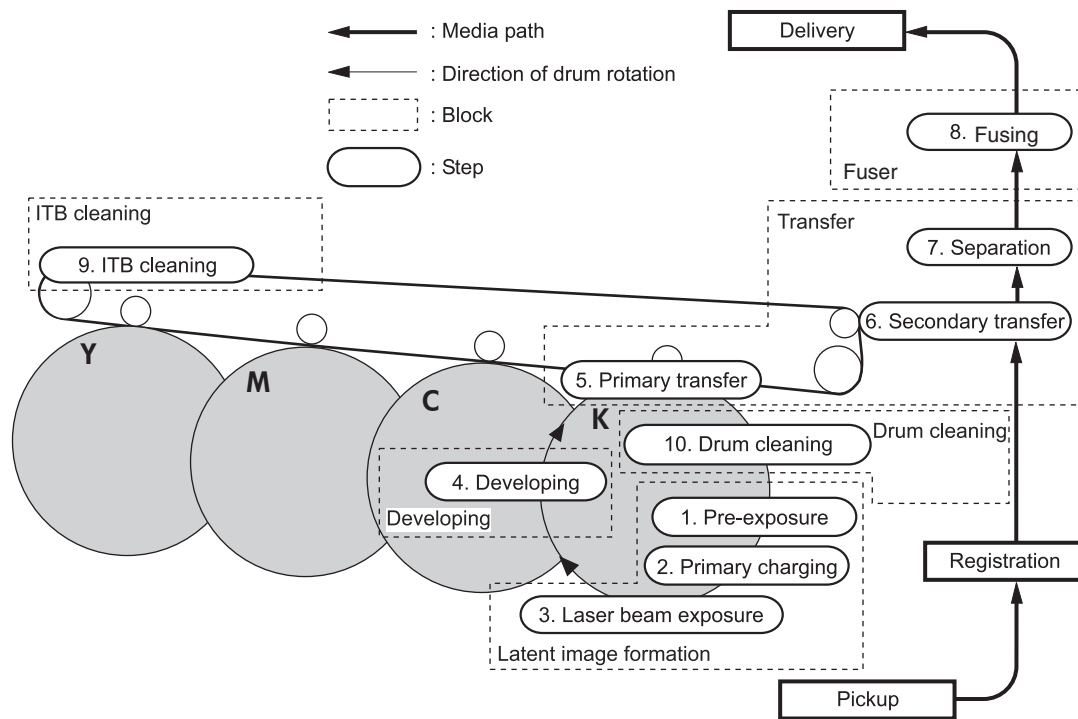
**Figure 5-9** Image-formation system



## Image-formation process

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

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

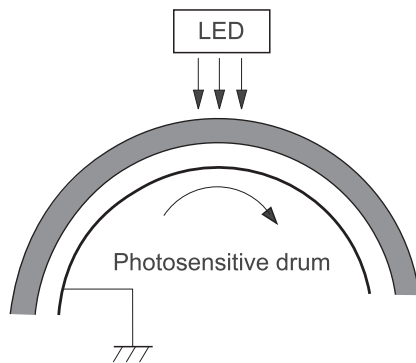


Functional block	Steps	Description
Latent image formation	1. Pre-exposure 2. Primary charging 3. Laser-beam exposure	An invisible latent image forms on the surface of the photosensitive drums.
Development	4. Development	Toner adheres to the electrostatic latent image on the photosensitive drums.
Transfer	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.

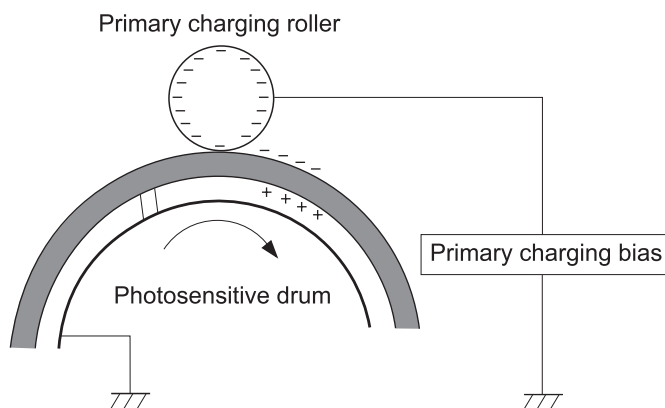
**Figure 5-11** Pre-exposure



## Step 2: Primary charging

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

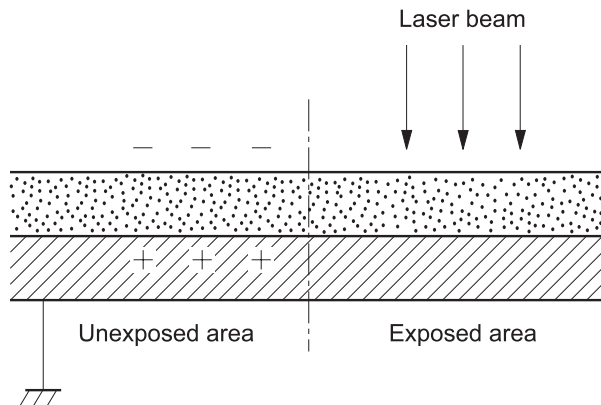
**Figure 5-12** Primary charging



### 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.

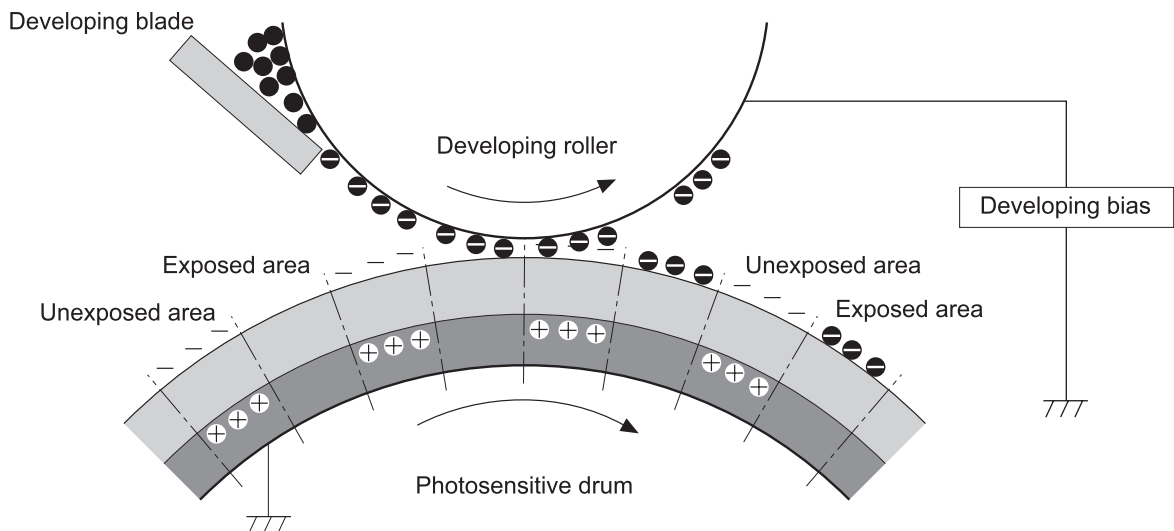
**Figure 5-13** Laser-beam exposure



### 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



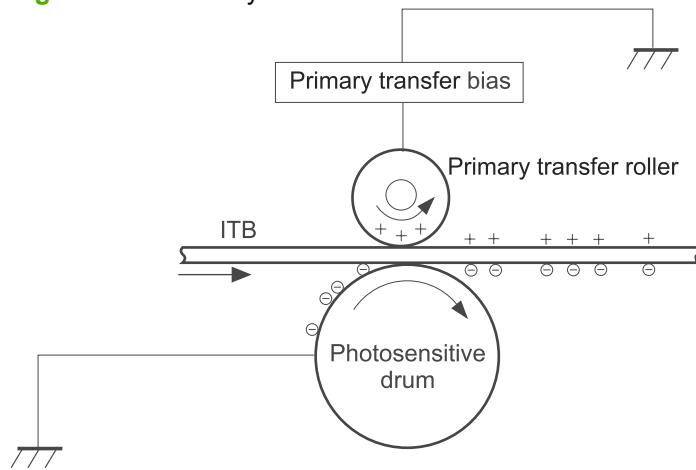
### Step 5: Primary transfer

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.

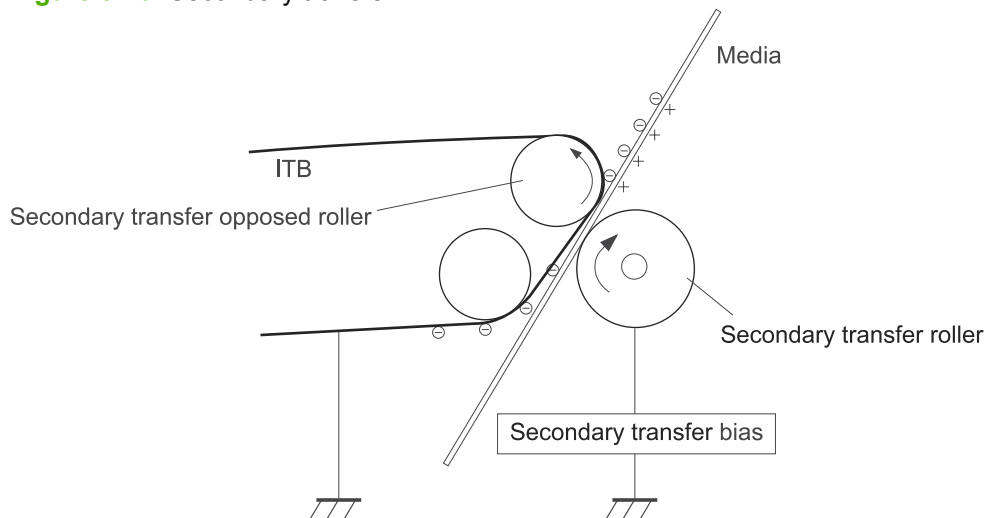
**Figure 5-15** Primary transfer



### 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.

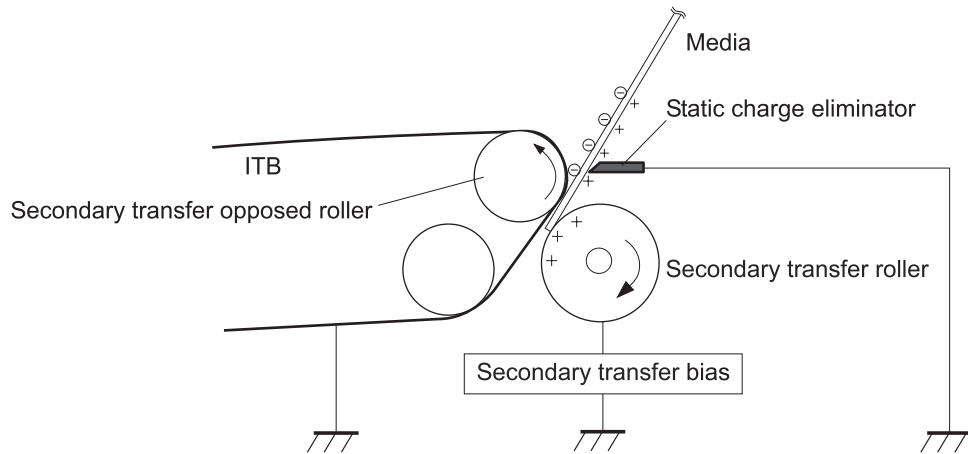
**Figure 5-16** Secondary transfer



## 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.

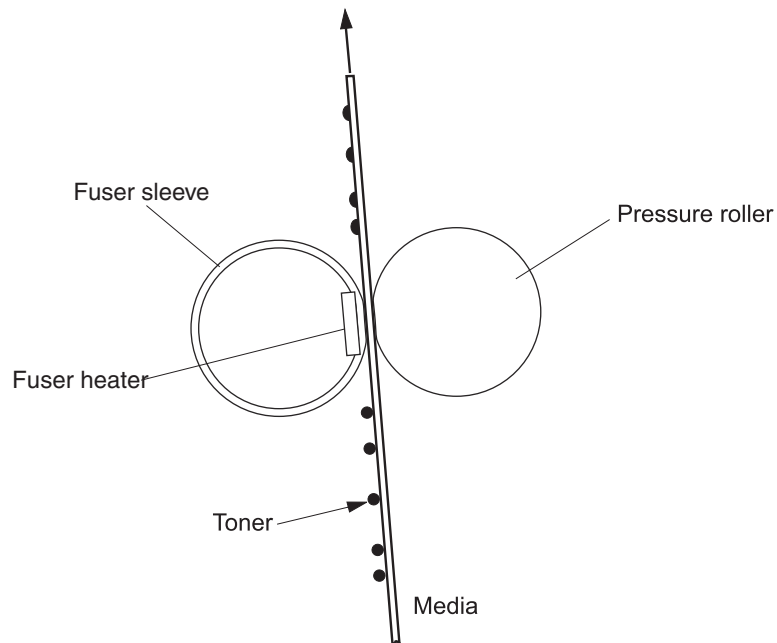
**Figure 5-17** Separation



## Step 8: Fusing

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

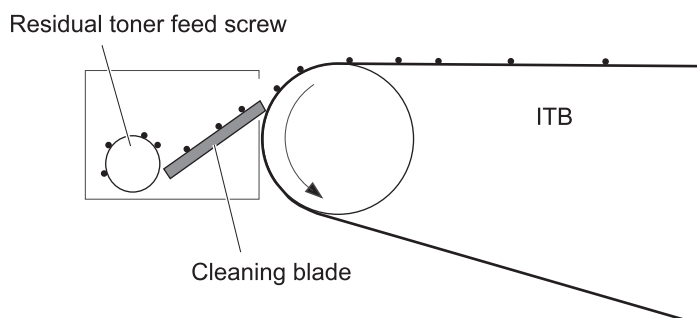
**Figure 5-18** Fusing



## 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.

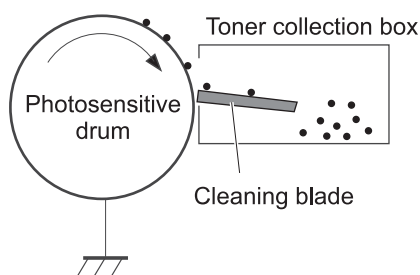
**Figure 5-19** ITB cleaning



## 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



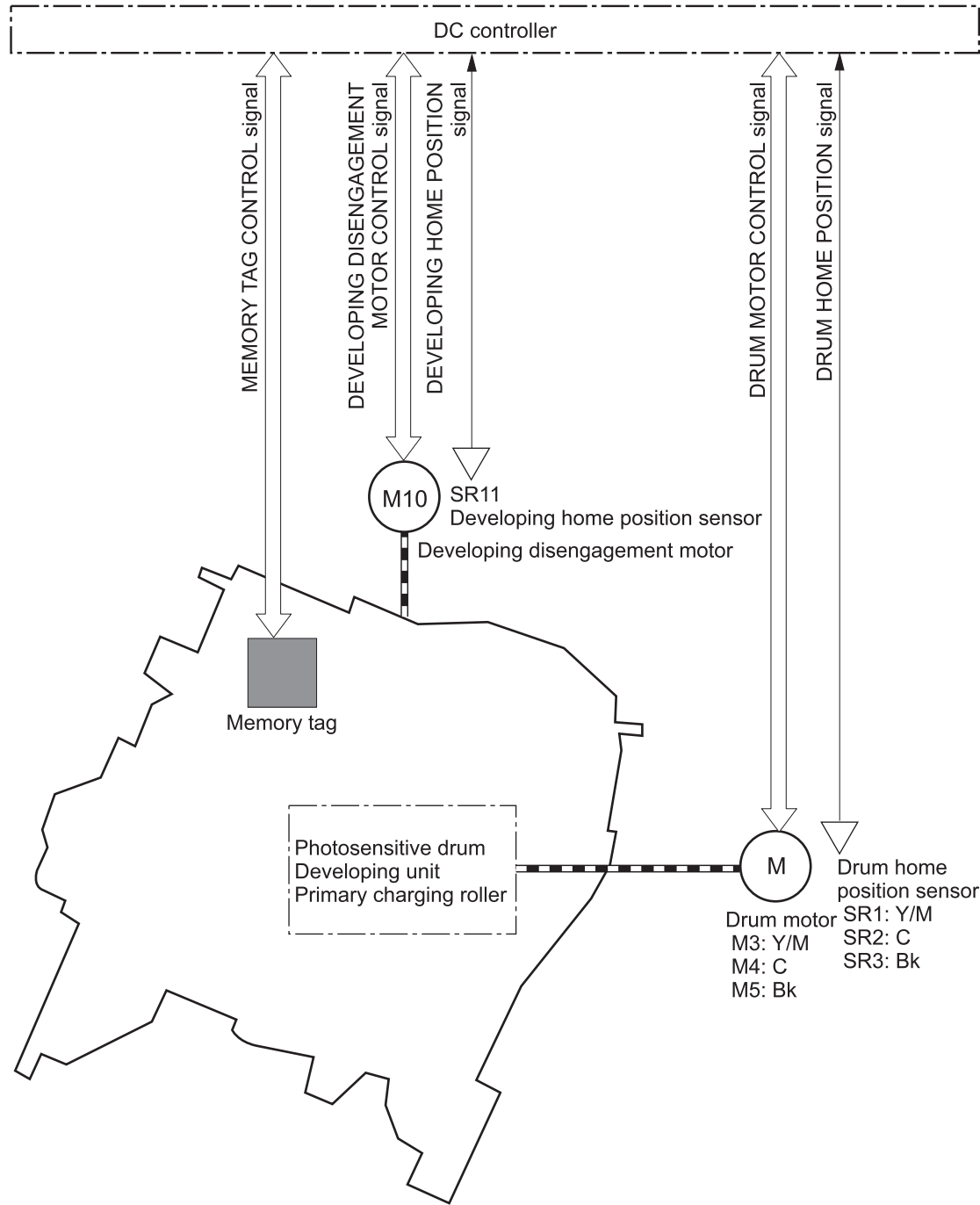
## Print cartridge

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.

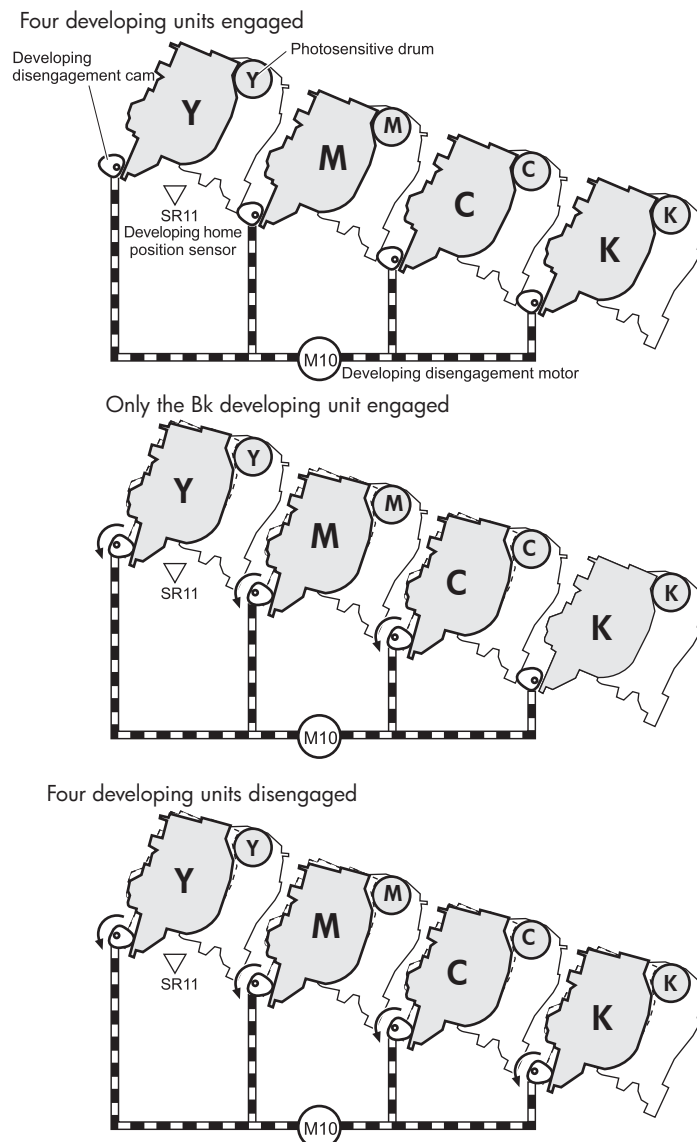
The DC controller notifies the formatter of an error if any of the following conditions exist:

- 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.

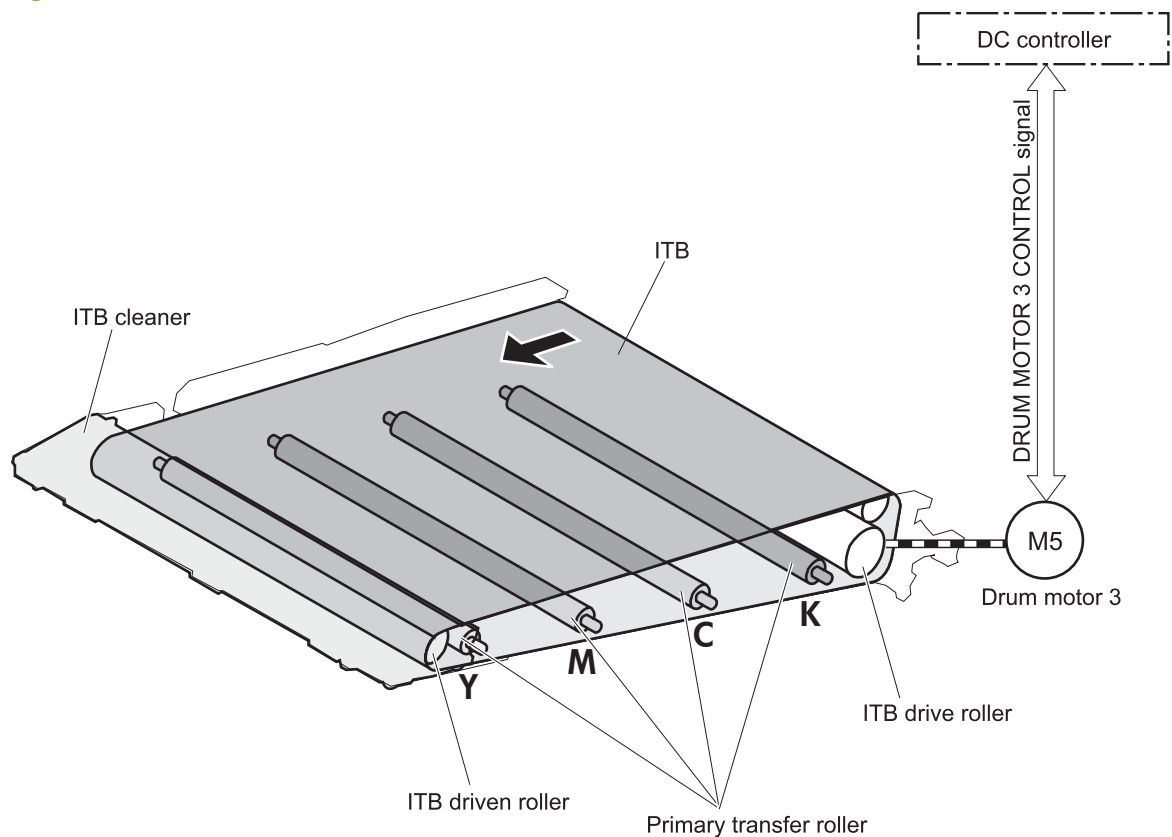
## Intermediate transfer belt (ITB) unit

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**

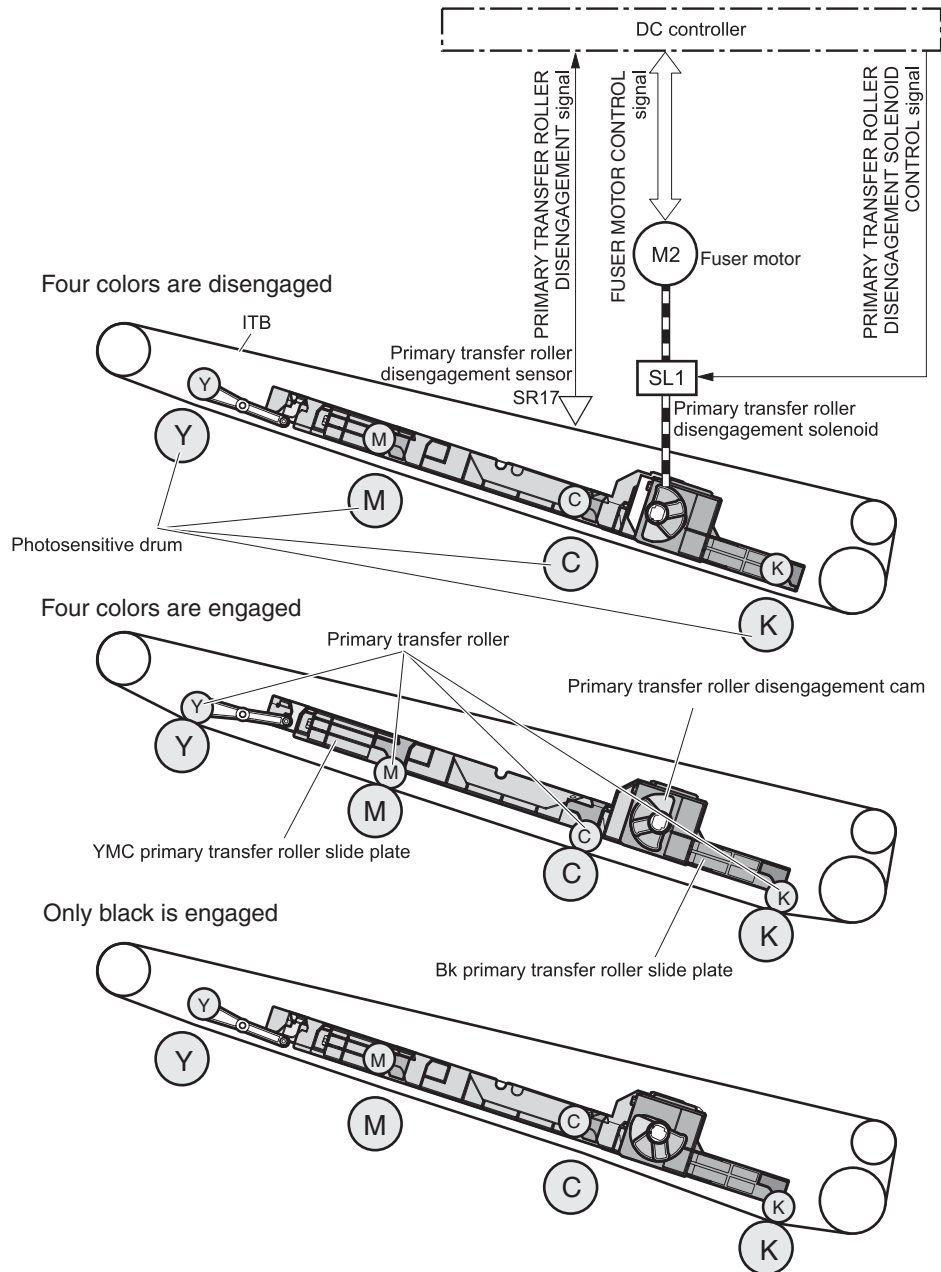
All rollers disengaged	The home position for the ITB unit
All rollers engaged	The state for a full-color print job
Black roller engaged	The state for a black-only print job

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



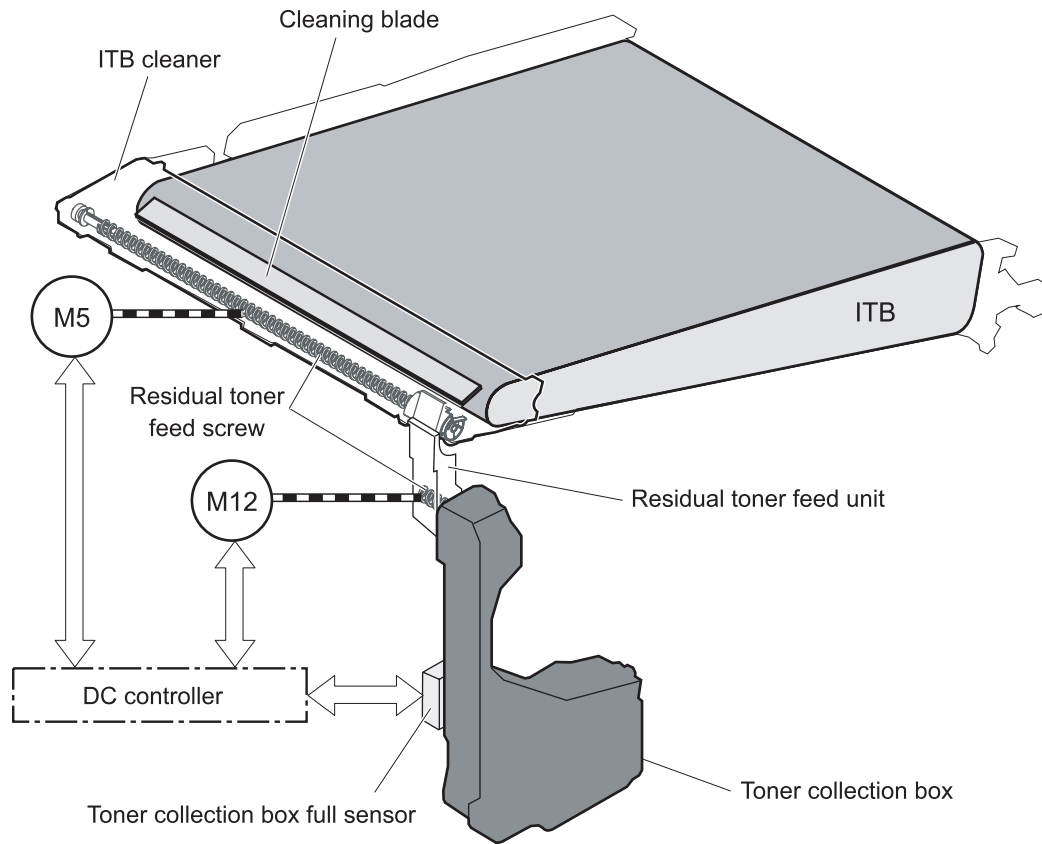
## ITB cleaning

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

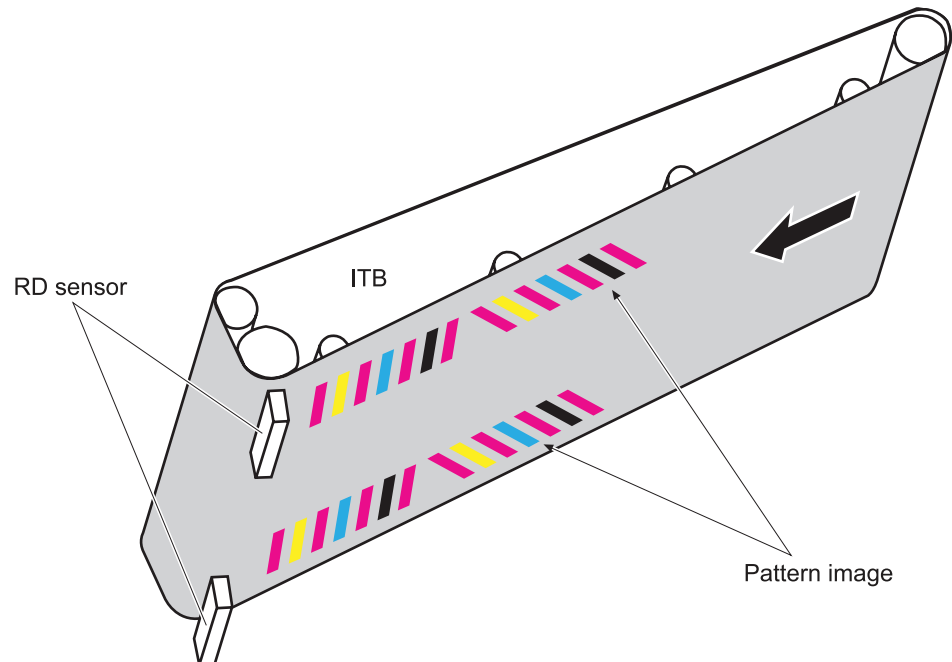


## Calibration

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**

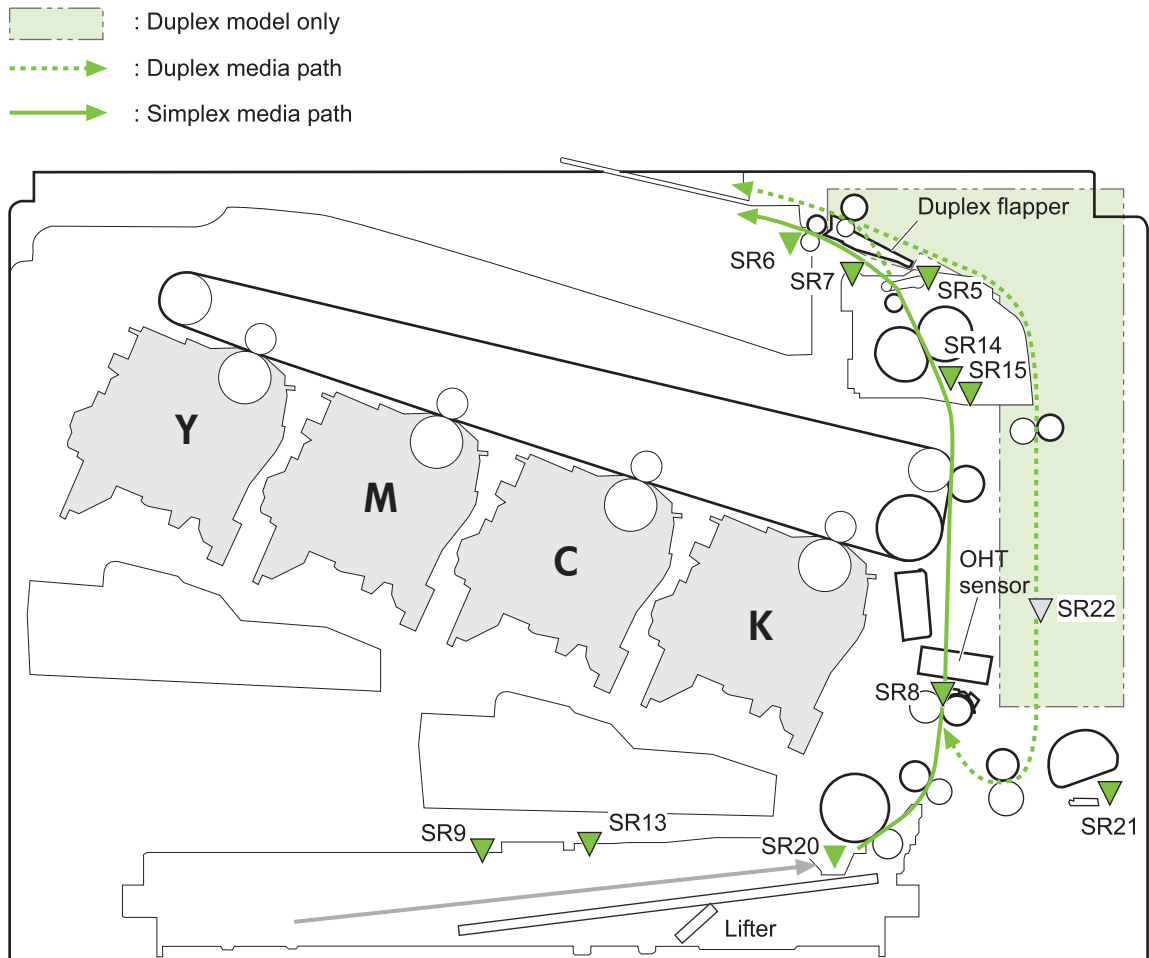
Environment change control	<p>The DC controller monitors environmental information from internal temperature and humidity sensors. The DC controller adjusts the high-voltage bias to accommodate environmental changes. This control occurs under the following circumstances:</p> <ul style="list-style-type: 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



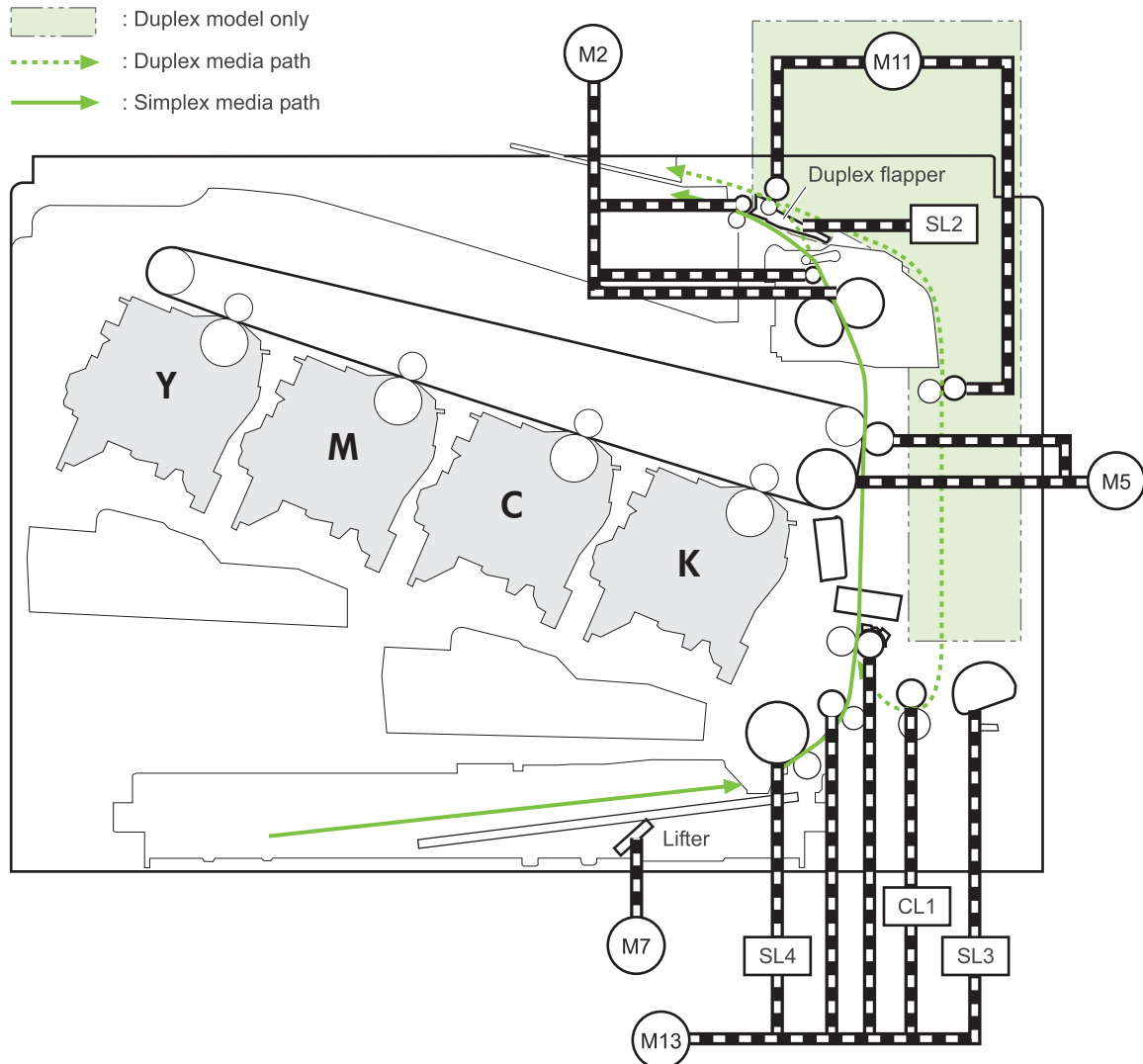
**Table 5-12** Switches and sensors for the pickup, feed, and delivery system

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



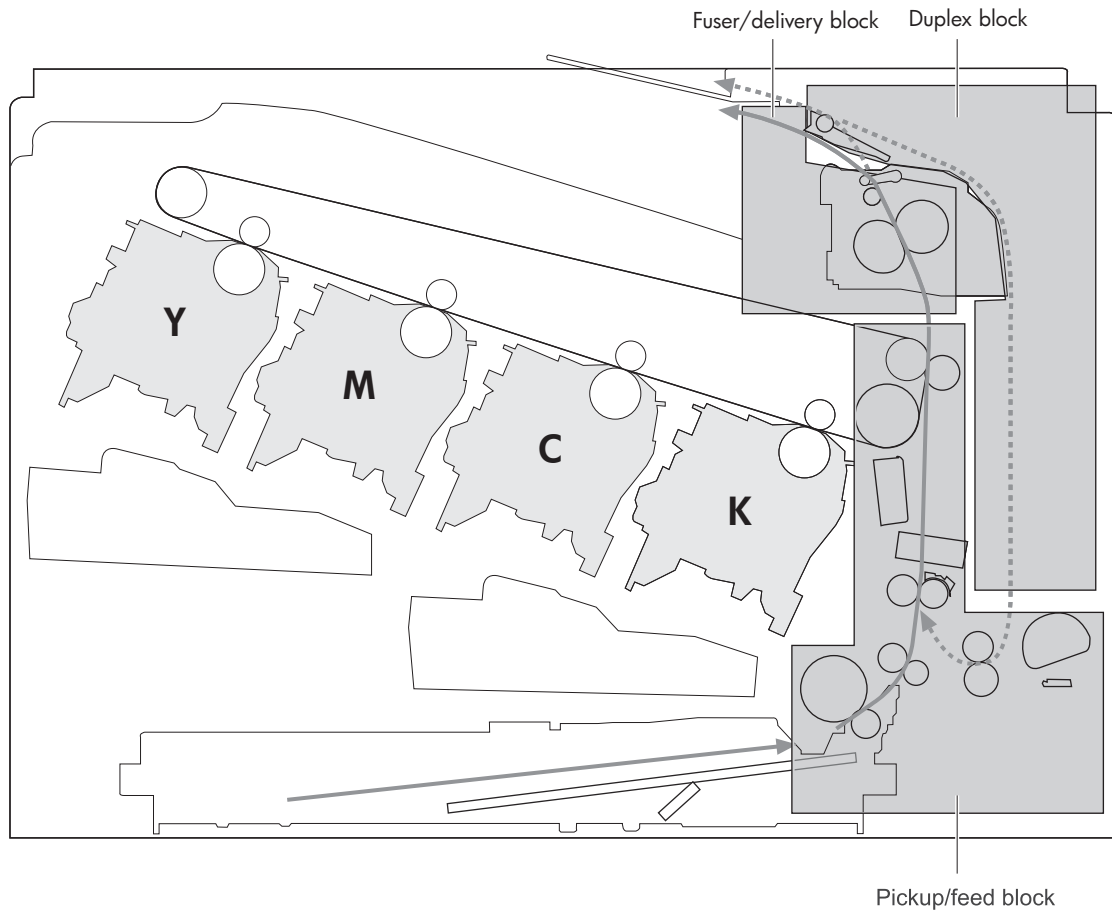
**Table 5-13** Motors and solenoids for the pickup, feed, and delivery system

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

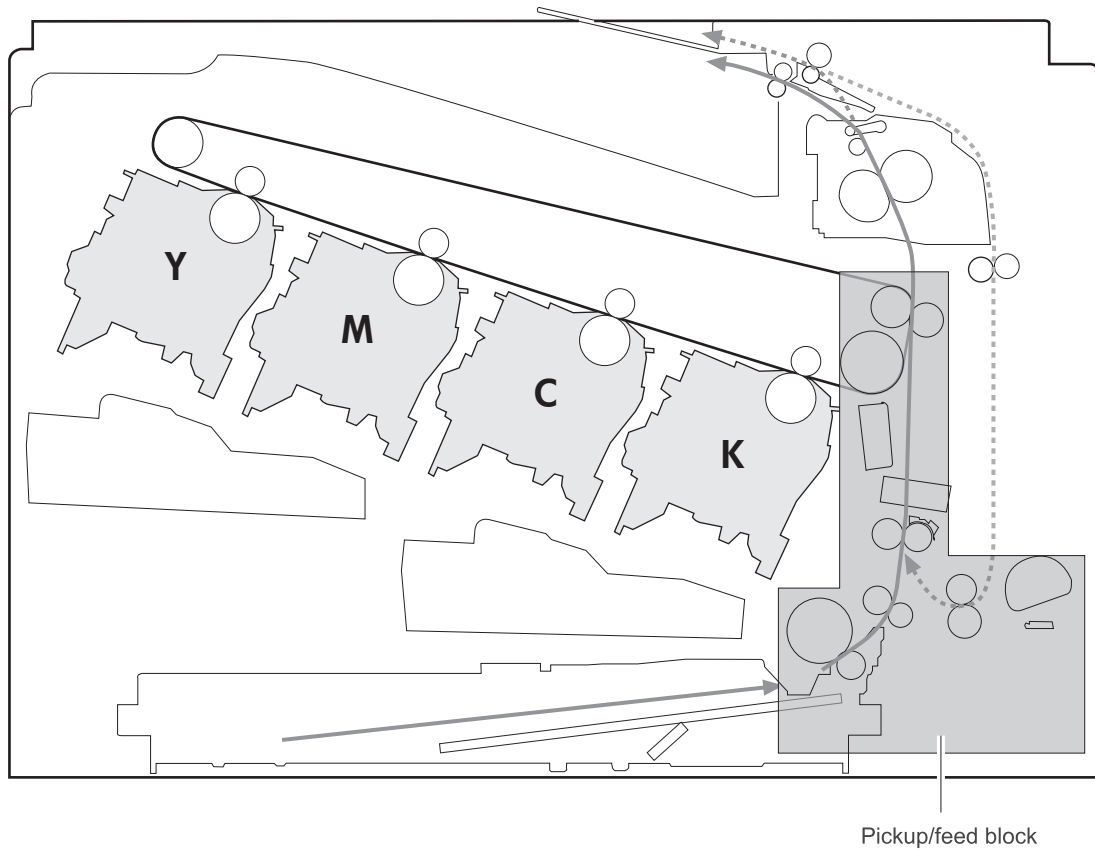
**Figure 5-29** Three main units of the pickup, feed, and delivery system



## 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** Pickup and feed unit

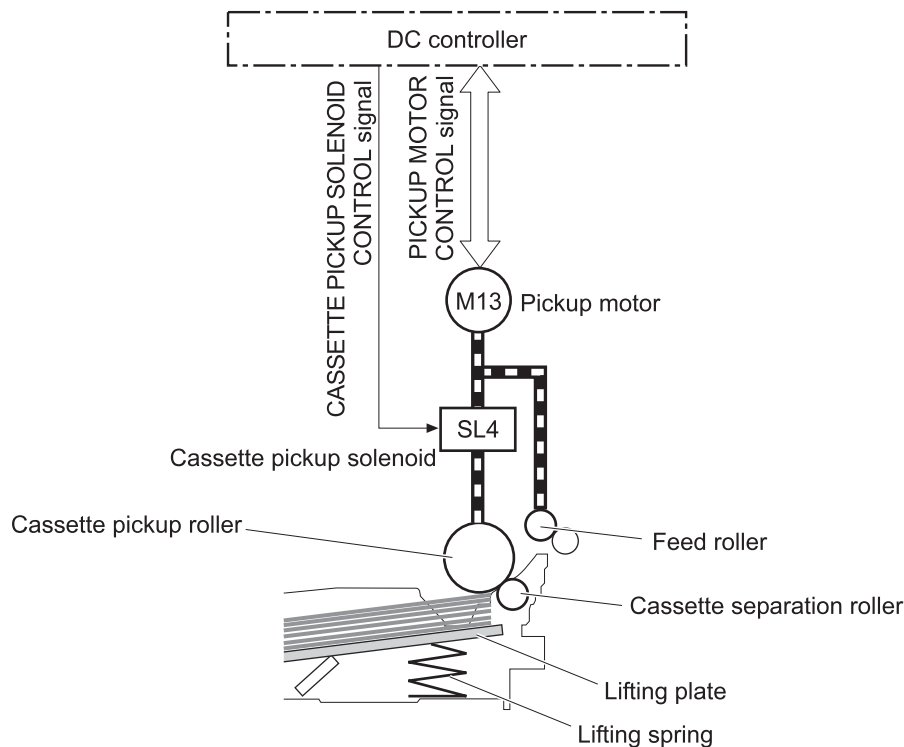


## Cassette pickup

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



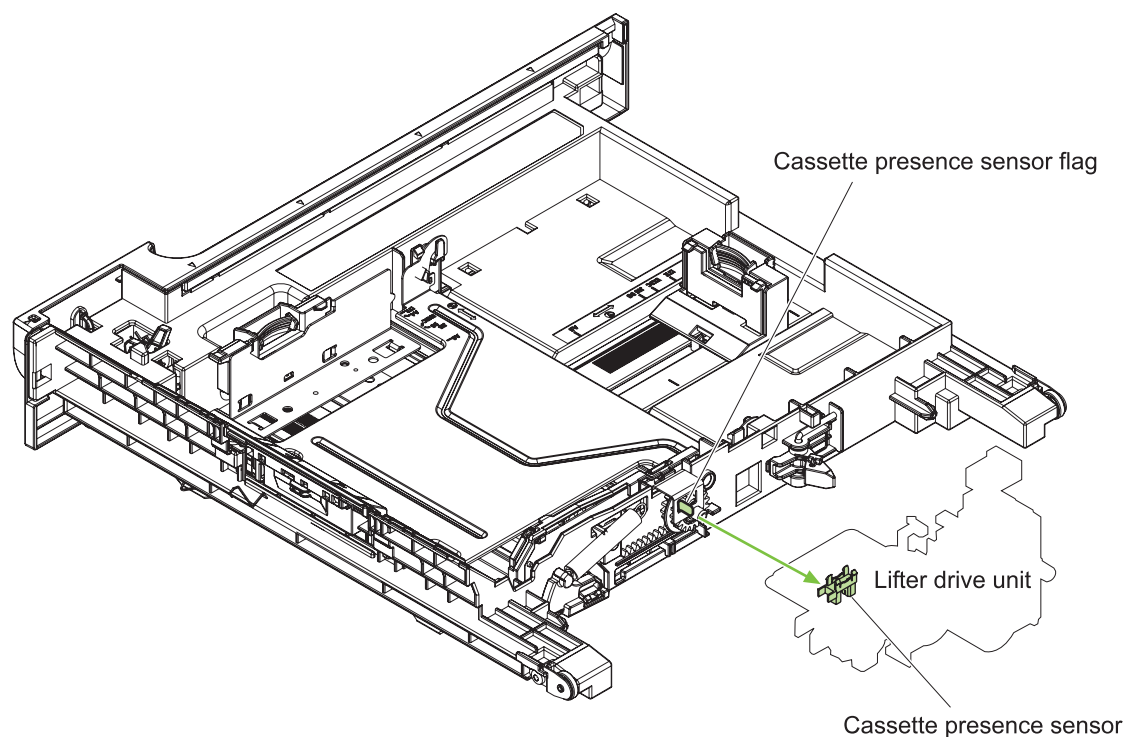
**NOTE:** The lift-up operation lifts the lifting plate to keep the stack surface of the media at a pickup position. The lifting spring helps support the lifting plate depending on the media size and amount.



### 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



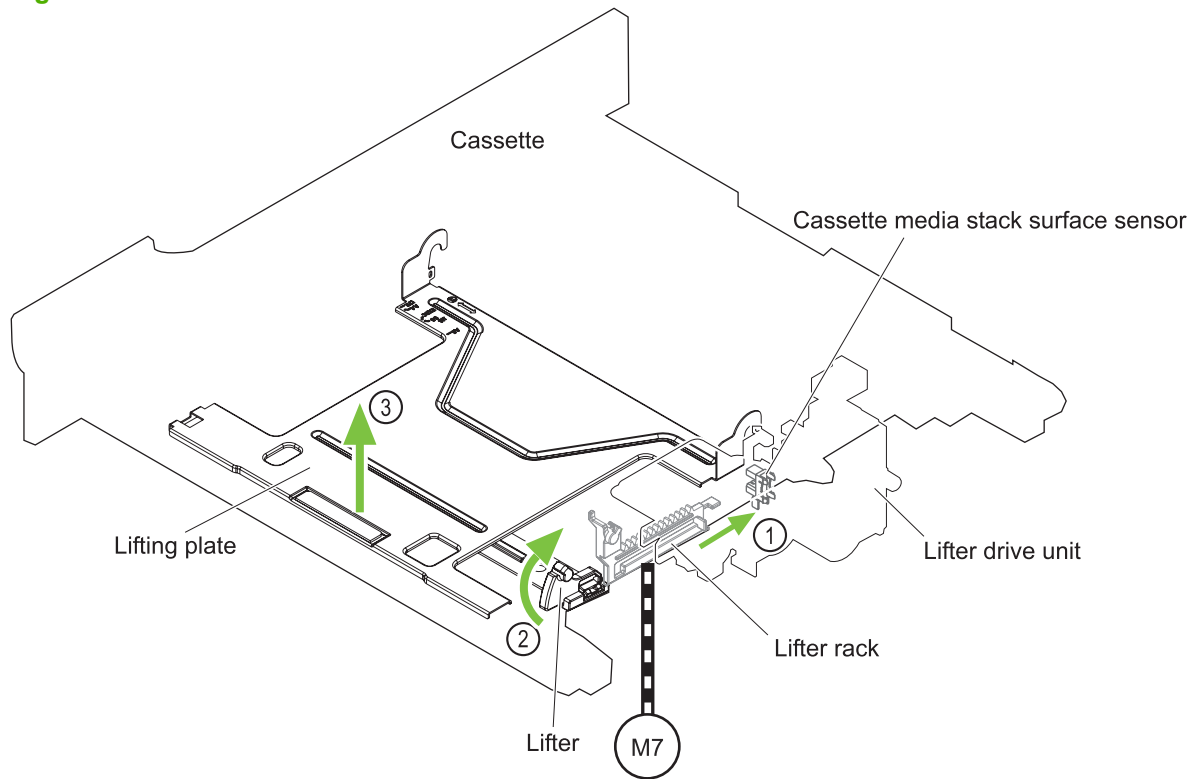
### Cassette lift operation

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.

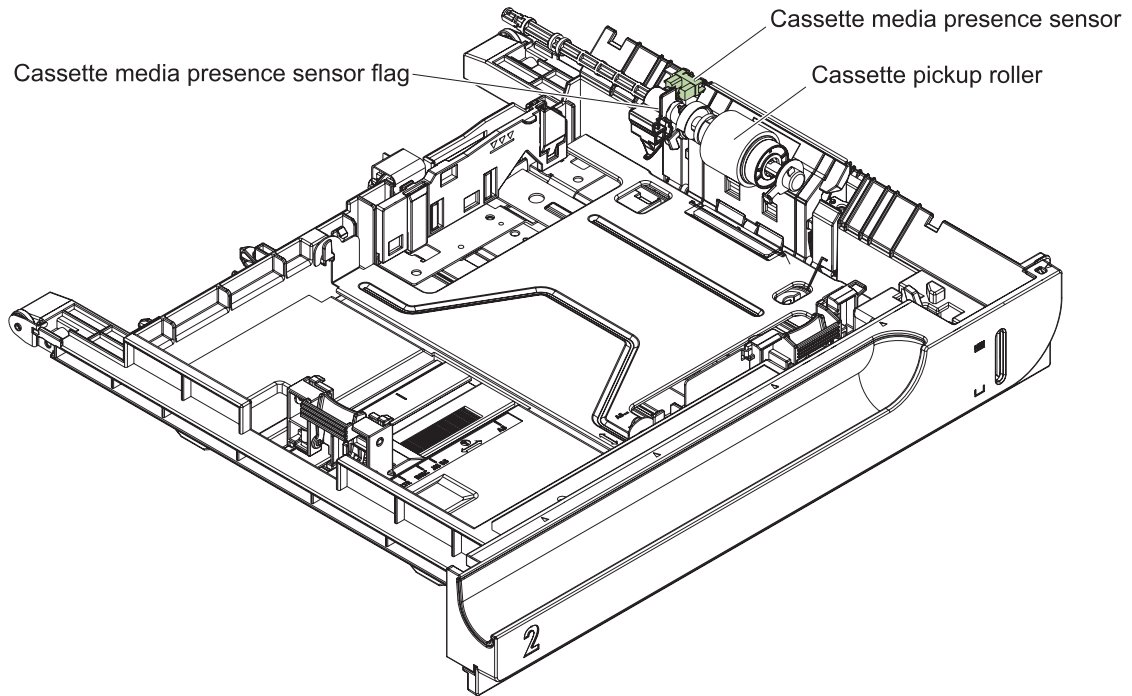
**Figure 5-33** Cassette lift mechanism



## Cassette paper-presence detection

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

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

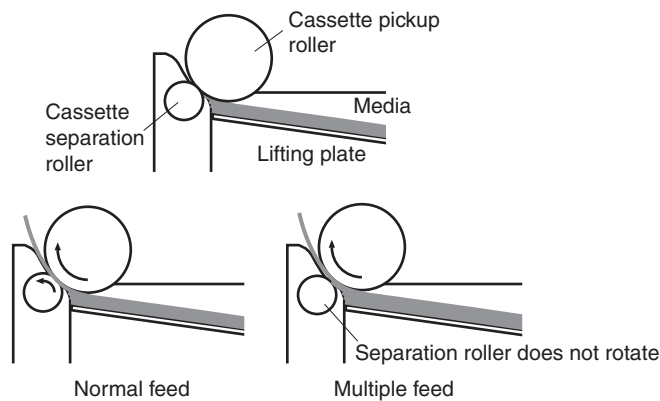


## Multifeed prevention

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

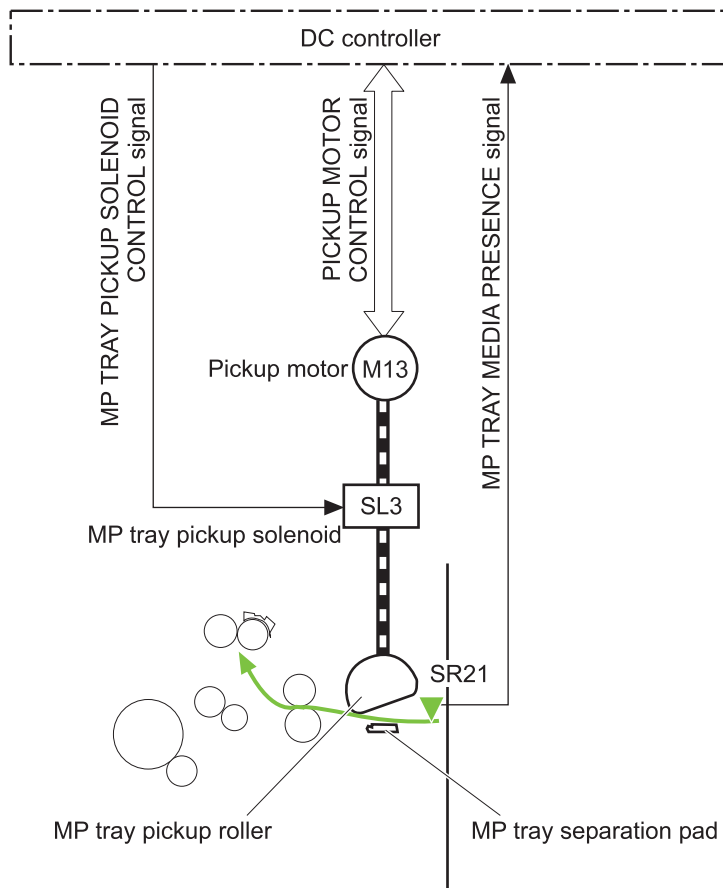
The multipurpose tray paper-presence sensor detects whether paper is in the tray. If no paper is present, the DC controller notifies the formatter. Printing does not occur until paper is in the tray.

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

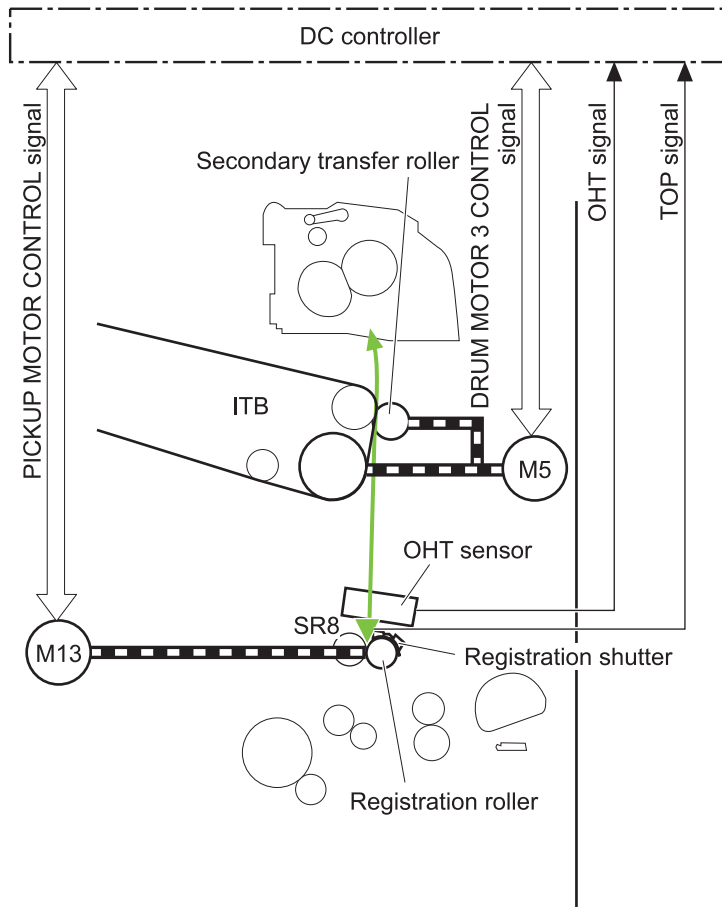


## Paper feed

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

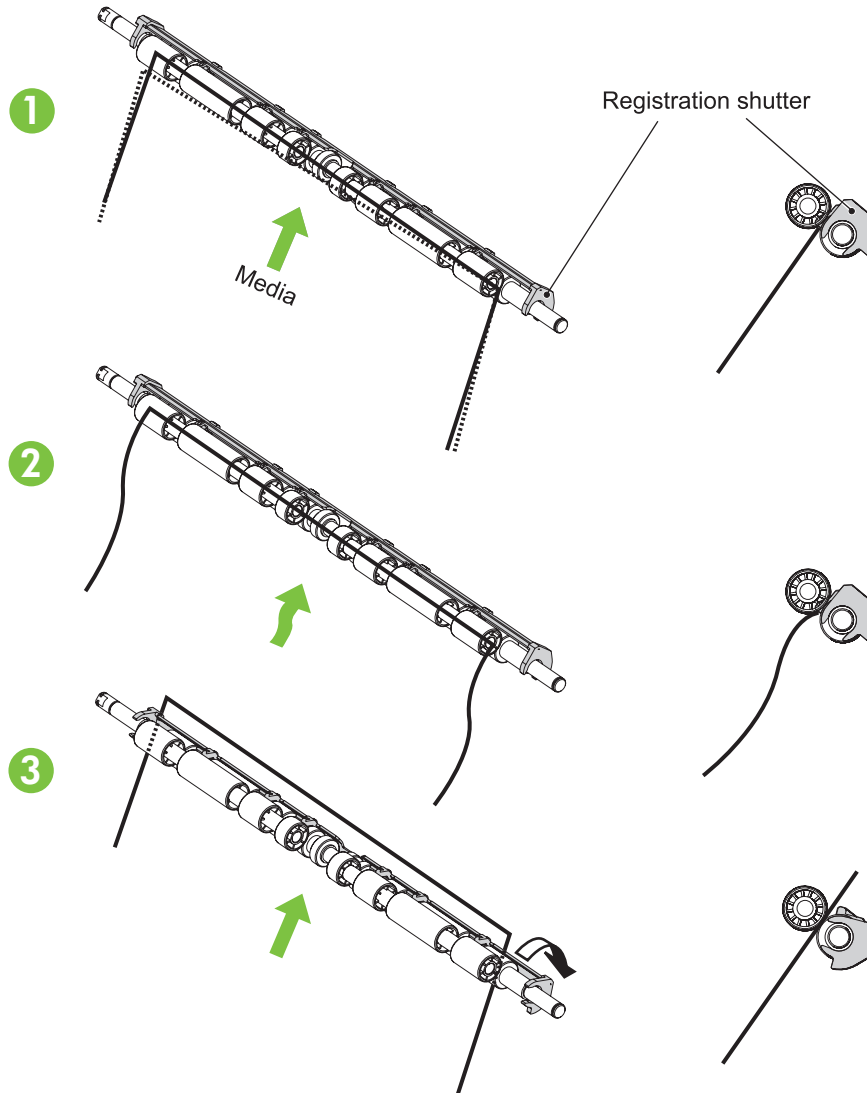


## Skew-feed prevention

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.

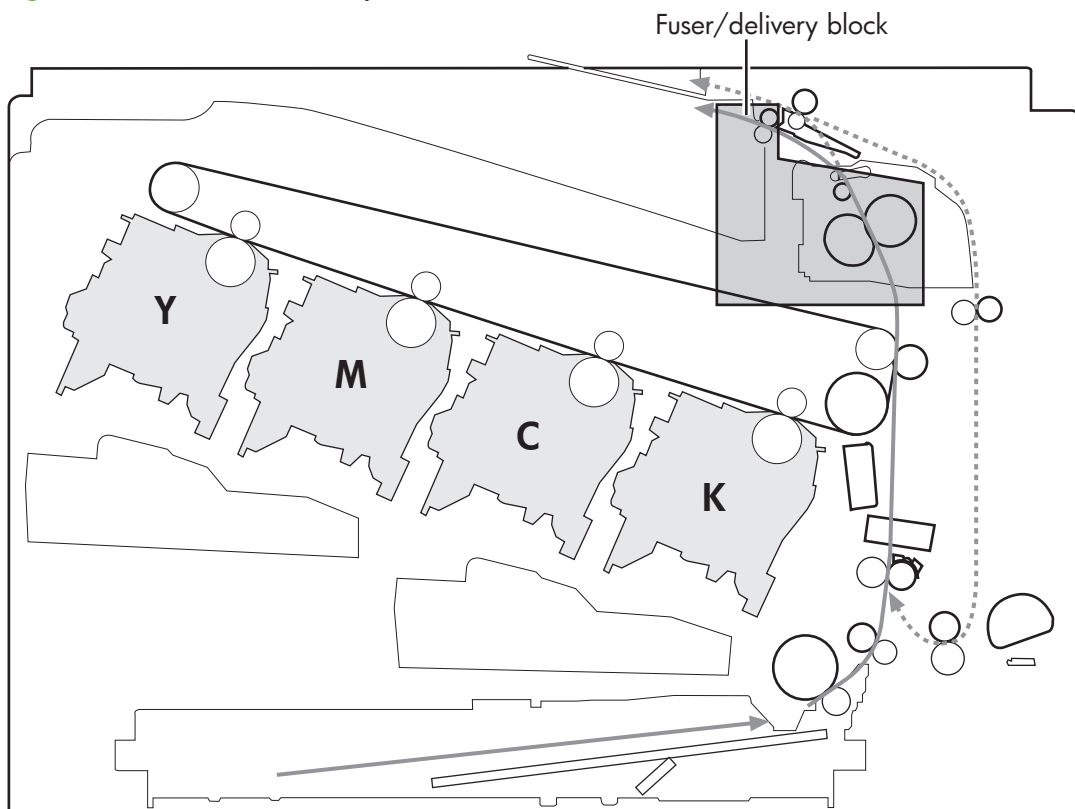
## Fusing and delivery unit

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



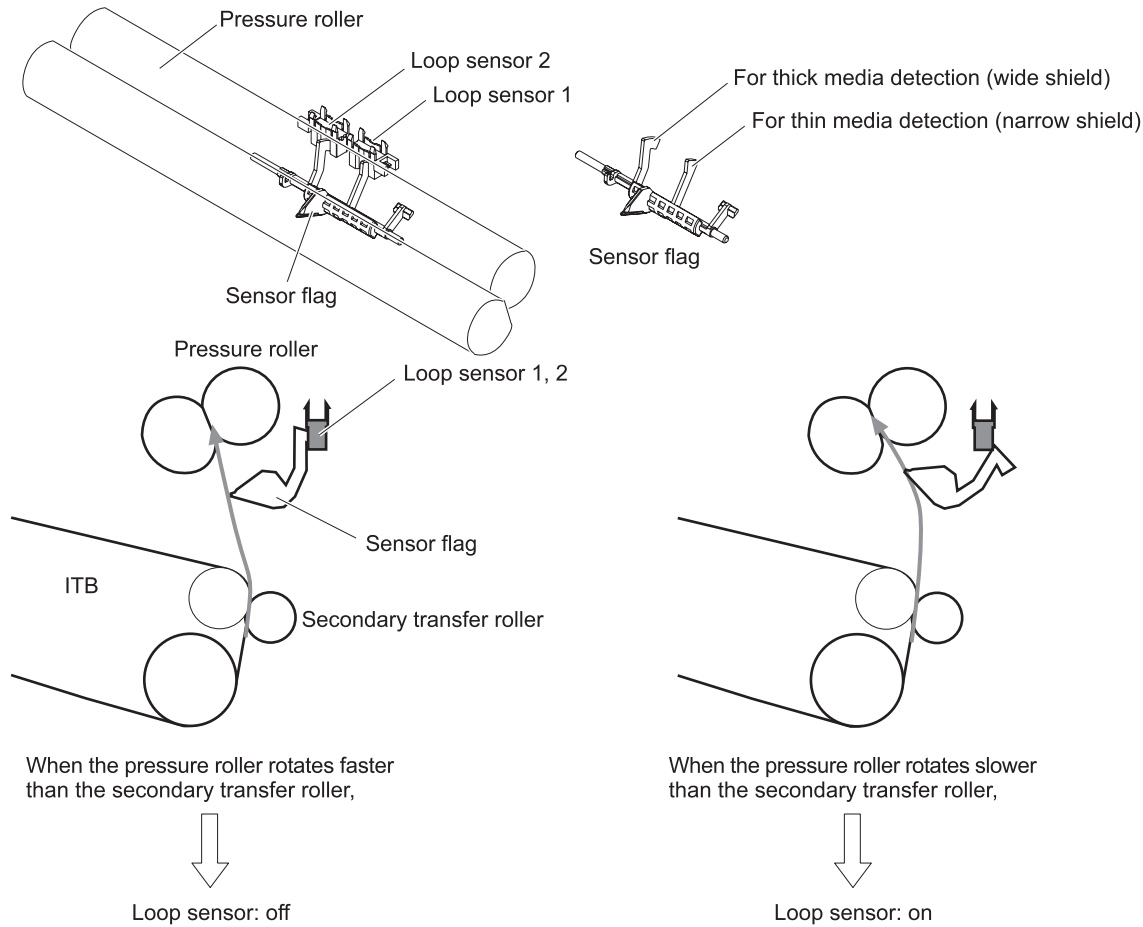
## Loop control

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

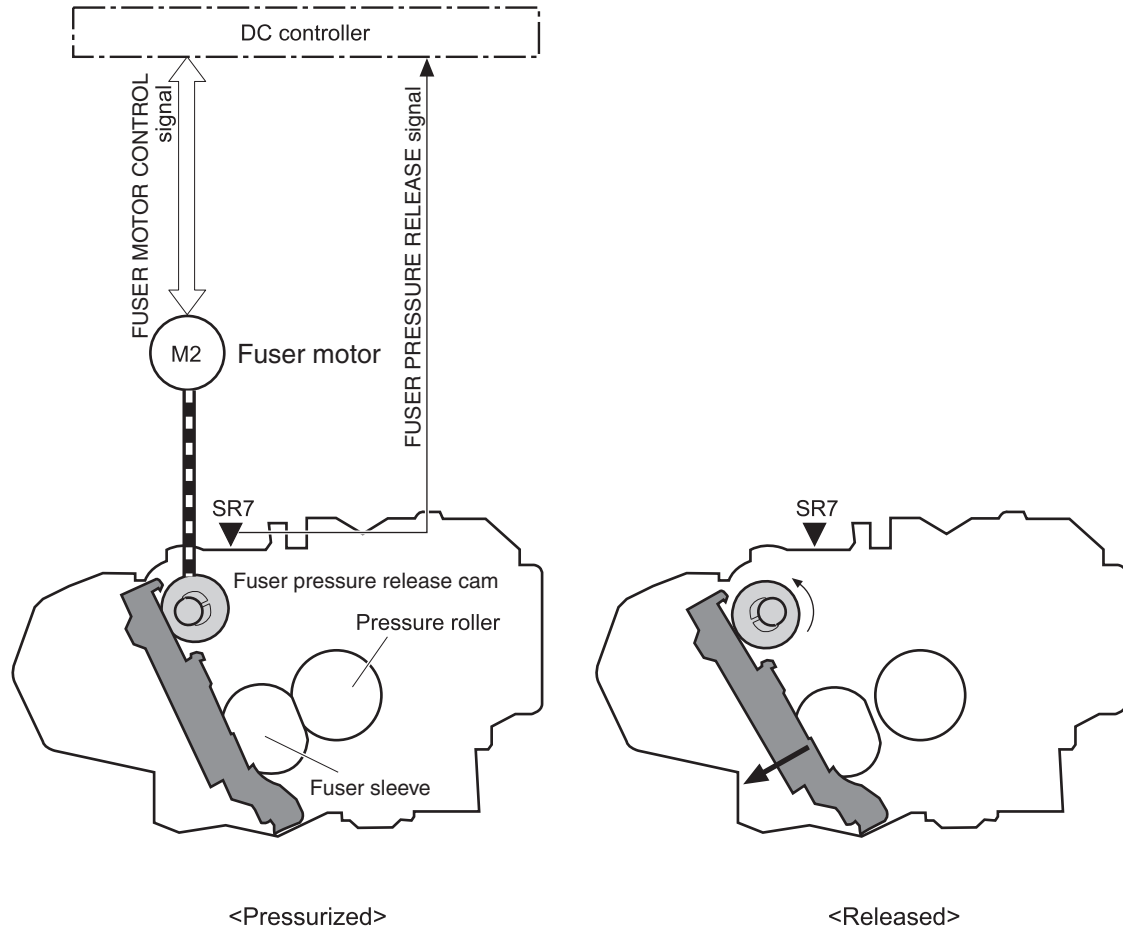




## Pressure-roller pressurization control

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.

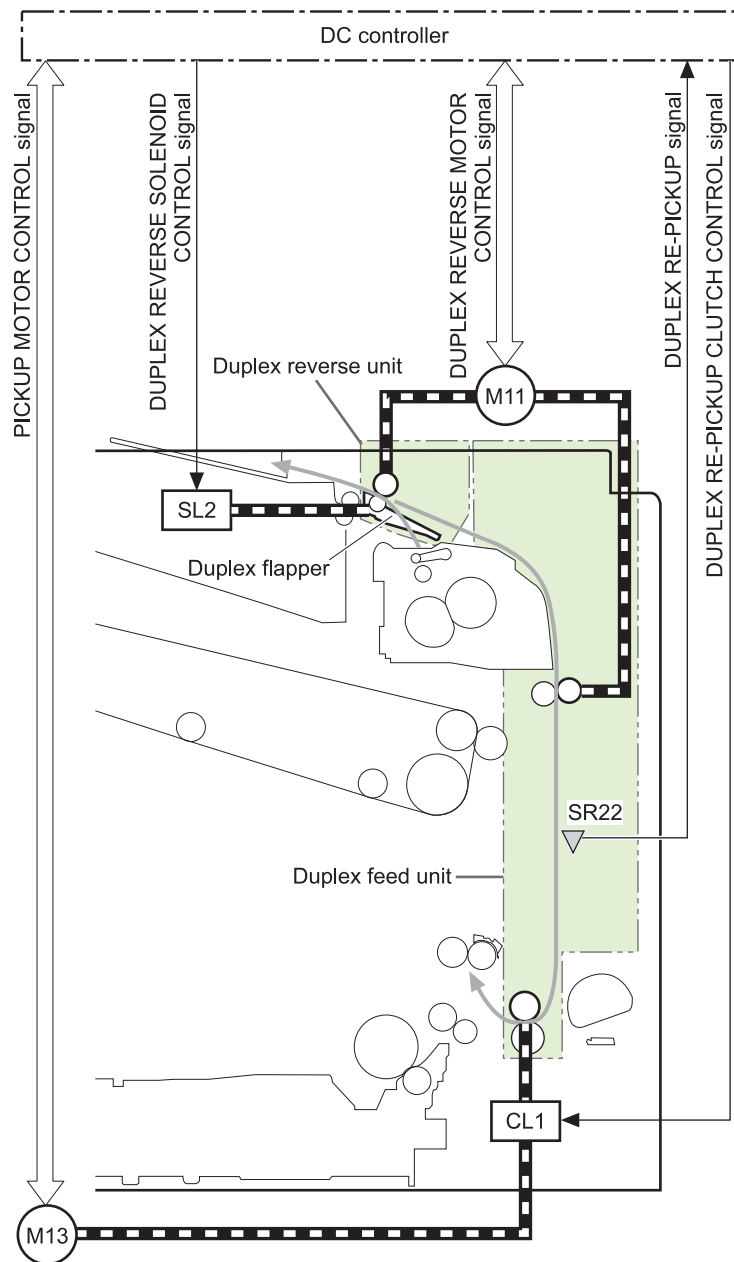
## Duplexing unit

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	<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. <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.
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.

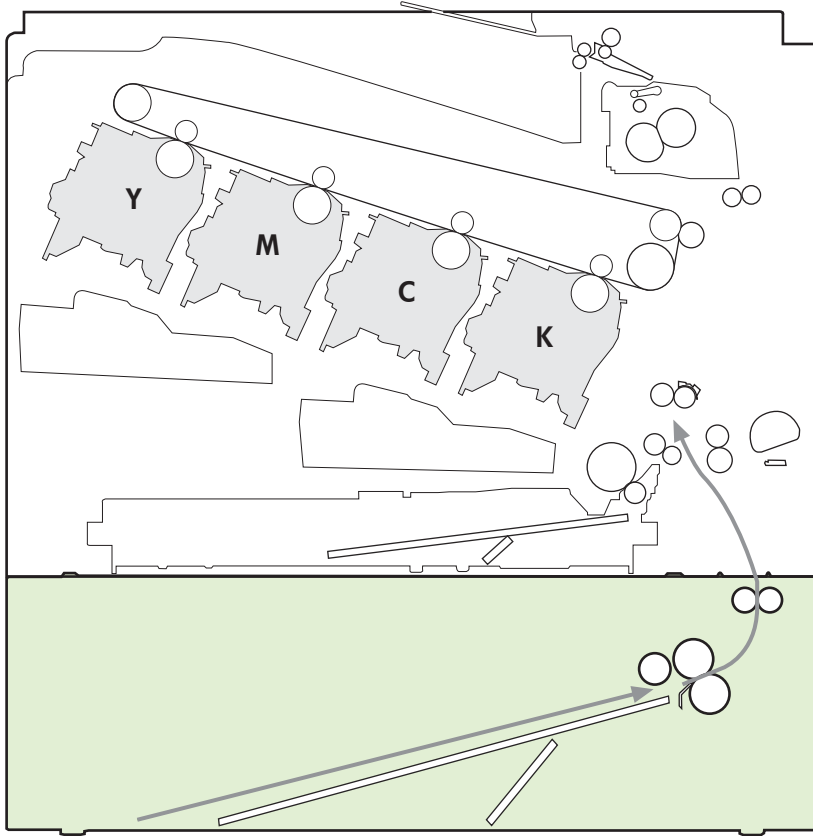
After a jam, some sheets of paper might remain inside the product. If the DC controller detects residual paper after a door closes or after the product is turned on, the product automatically clears itself of those residual sheets.

## 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.

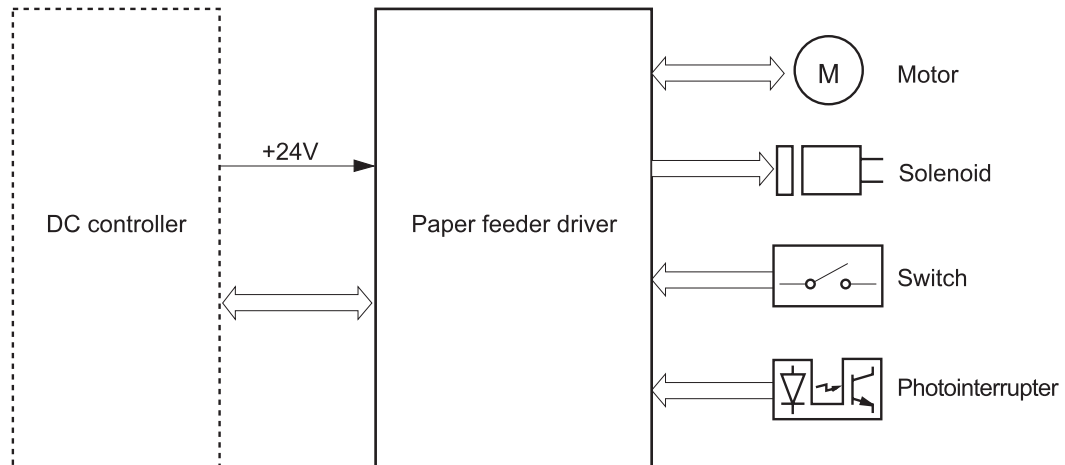
 **NOTE:** These optional trays are *not* identical to the main cassette (Tray 2).

**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.

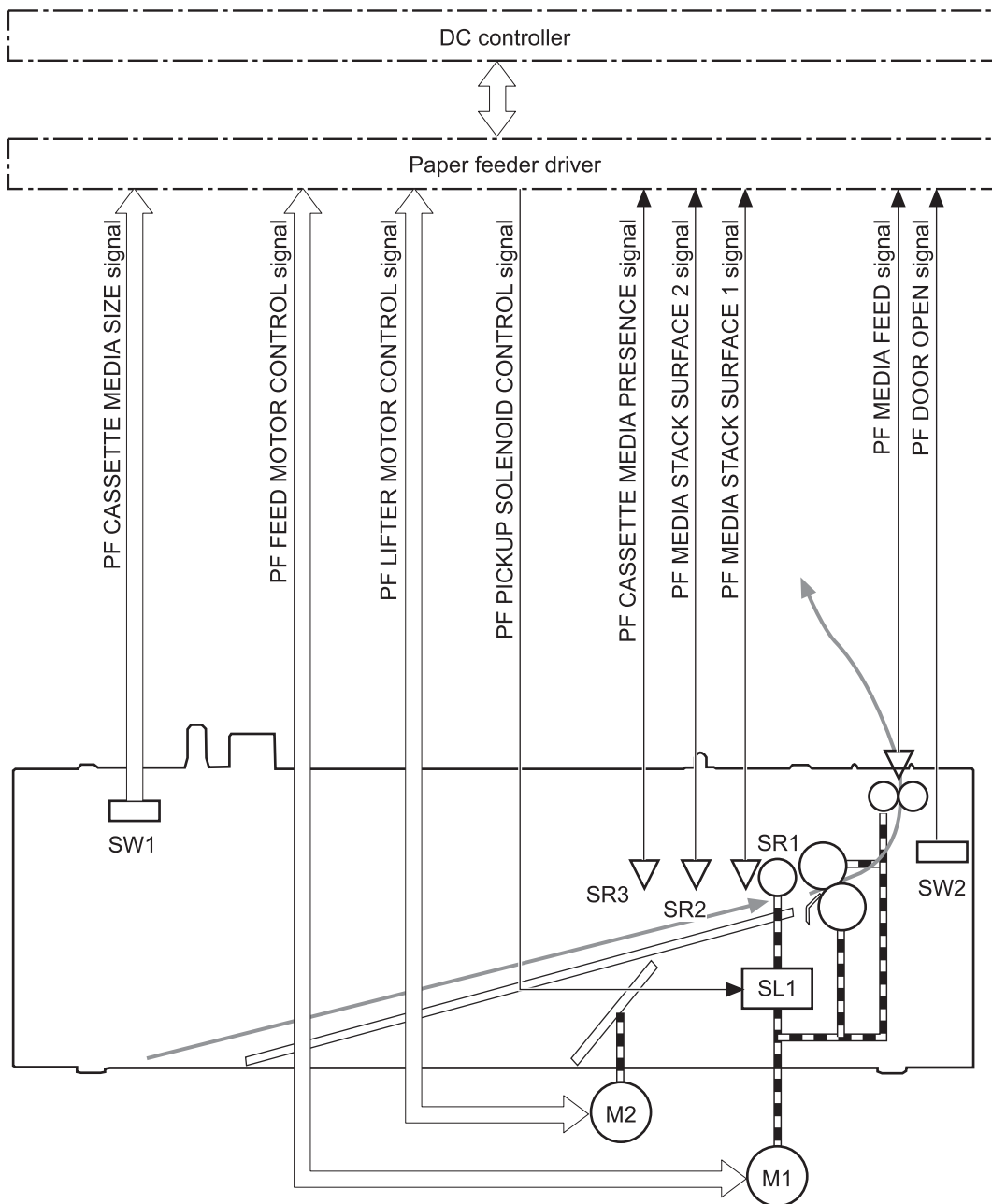
**Table 5-15** Electrical components for the paper feeder

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

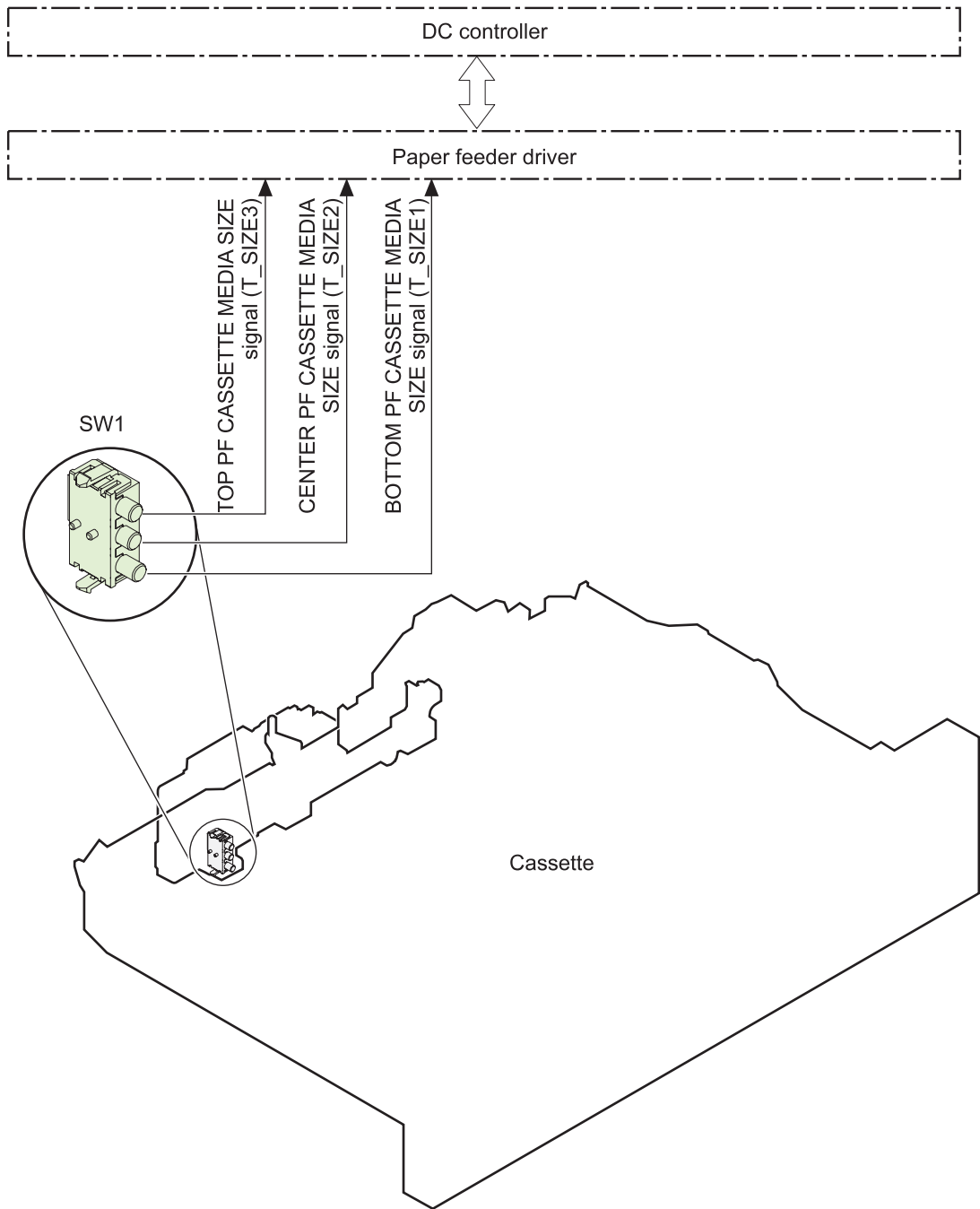




# Paper-size detection and cassette-presence detection

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.

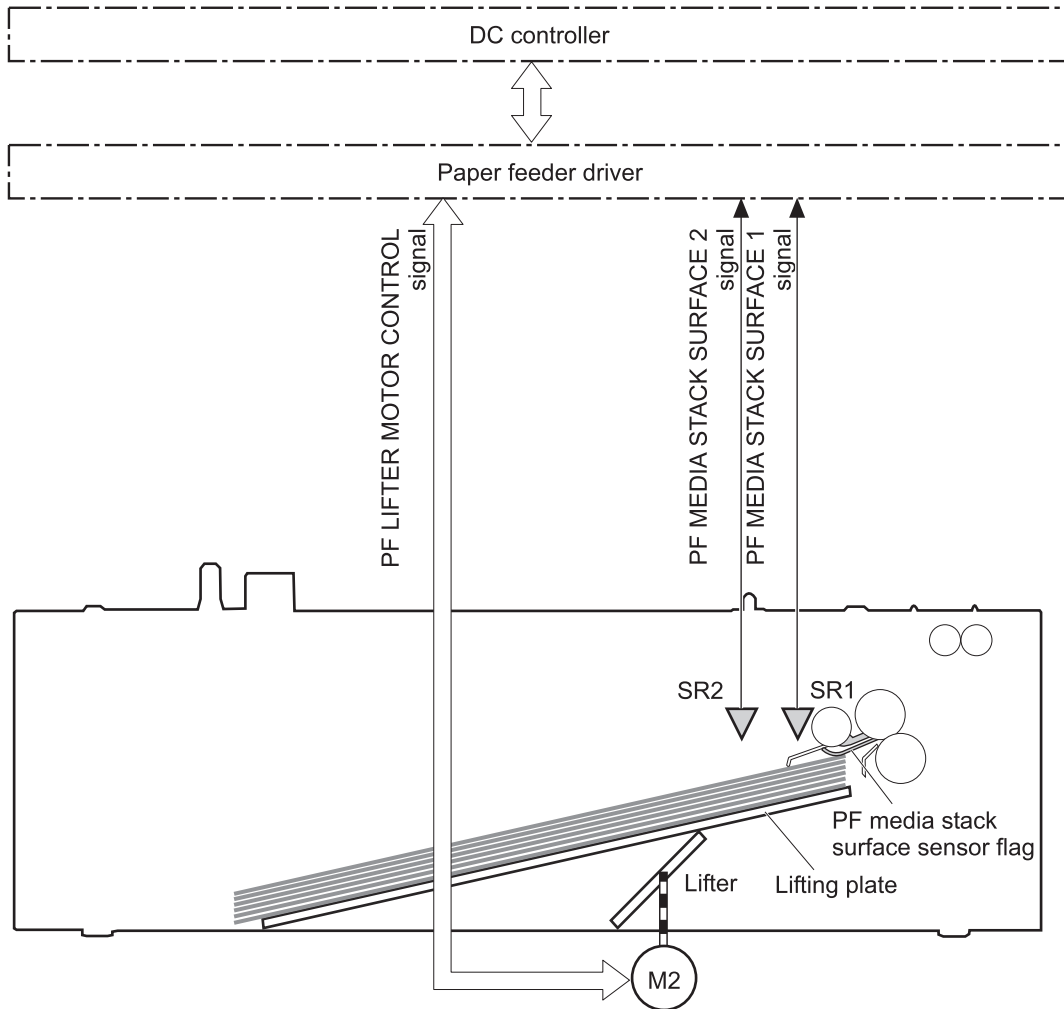
## Paper-feeder cassette lift operation

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.

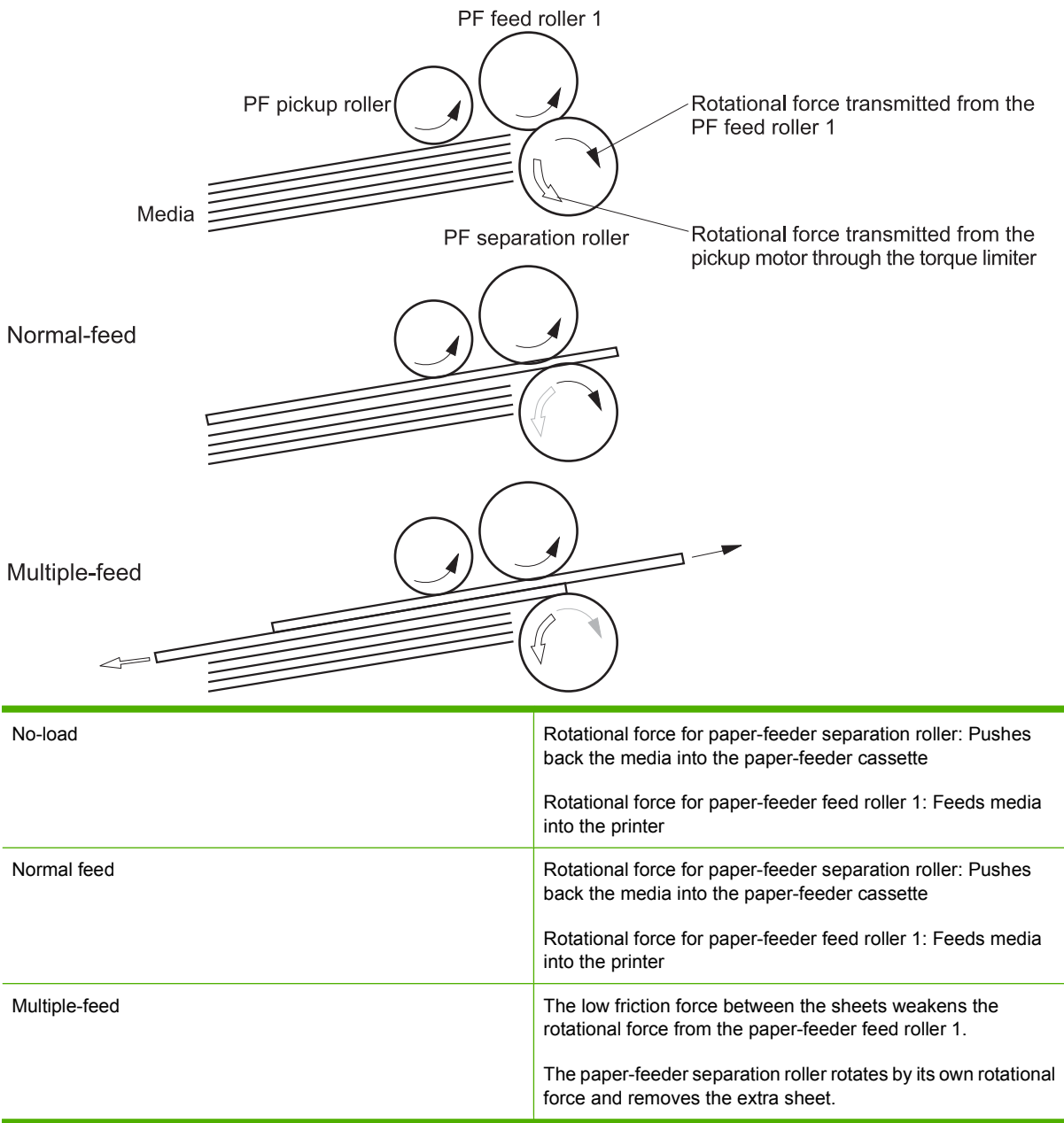
## Paper-feeder presence detection

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.

# Scanning/image capture system system

## Optical assembly

The scanner is a carriage-type platen scanner which includes the frame, glass, LED optics, and a scanner controller board (SCB) attached to the bottom of the assembly. The scanner has a sensor to detect legal-sized media and a switch to indicate when the ADF is opened.

The ADF and control-panel assembly are attached to the scanner assembly. If the scanner fails, it can be replaced as a whole unit. The scanner replacement part does not include the ADF, SCB, or control-panel assembly.

The HP Color LaserJet CM3530 contains an interconnect board (ICB) which has an NVRAM component that is used to store critical engines values and formatter data. This NVRAM allows for simpler save/restore process. When a formatter or DC controller is replaced, the critical engine values are copied from NVRAM on the ICB to the new component.

## Automatic document feed system

If the ADF fails, it can be replaced as a whole-unit replacement part.

## Control panel

The control panel is a USB connected device with its own diagnostic capabilities. Calibration of the control-panel touch screen does not require a special boot-key sequence. See .

The control panel also includes a hardware integration pocket where third-party USB solutions, such as card readers, can be installed.

## Sensors in the ADF

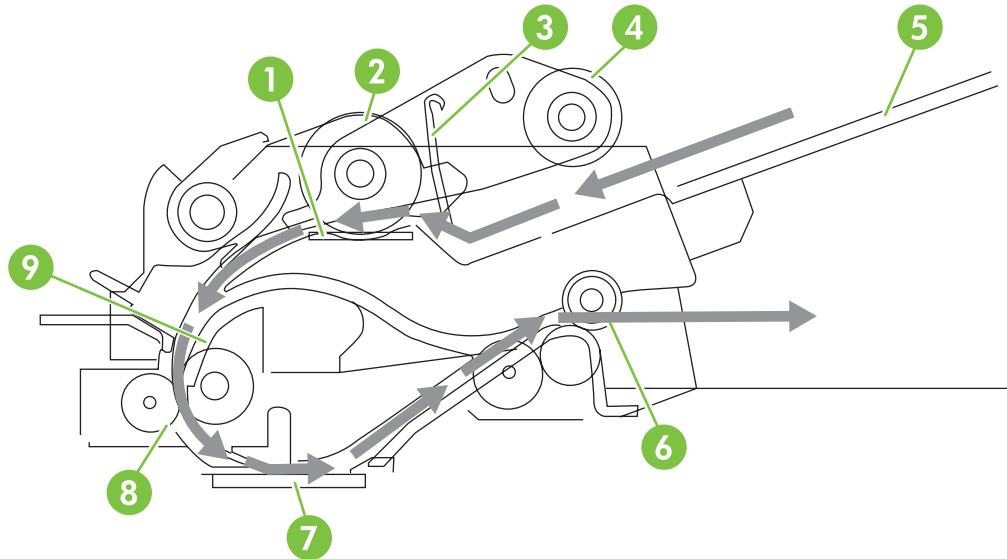
The ADF contains the following sensors:

- **ADF-cover sensor.** Detects whether the ADF cover is open or closed.
- **Top-of-page sensor.** Detects the top of the page before sending a page through the ADF and the end of the page after feeding/scanning is complete.
- **Paper-present sensor.** Detects whether a document is present in the ADF. If paper is present in the ADF when copies are made, the product scans the document using the ADF. If no paper is present when copies are made, the product scans the document using the scanner glass.

## ADF paper path

The ADF feeds documents past the ADF glass for scanning. See [Figure 5-51 ADF path for single-sided documents on page 175](#).

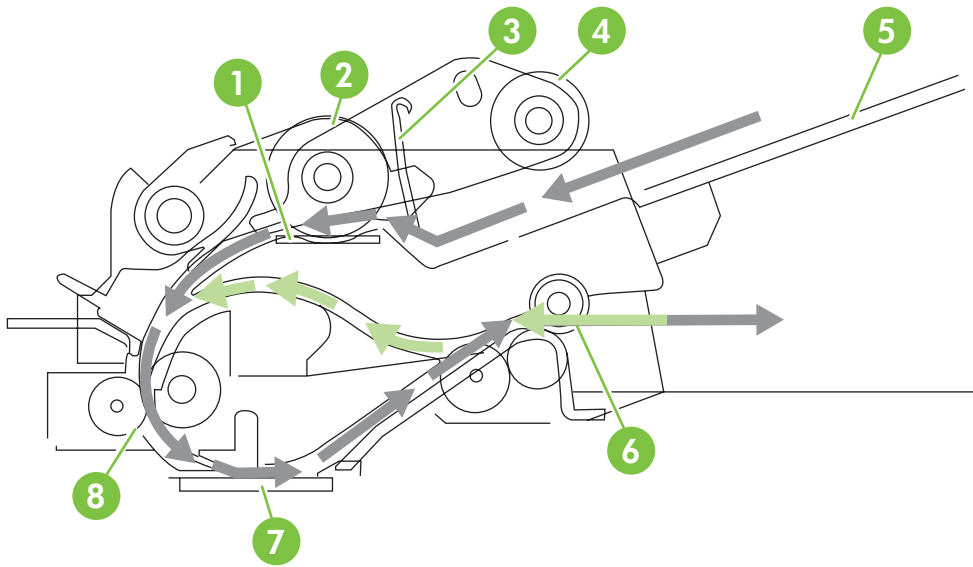
**Figure 5-51** ADF path for single-sided documents



1	Separation pad	5	ADF input tray
2	Pickup roller	6	Delivery/duplex-feed rollers
3	Stack stop	7	ADF glass
4	Pre-pick roller	8	ADF feed rollers

For two-sided documents, the delivery rollers reverse the direction of each page to feed the second side of the document past the ADF glass. See [Figure 5-52 ADF path for two-sided documents on page 176](#).

**Figure 5-52** ADF path for two-sided documents



 **NOTE:** Callouts in [Figure 5-52 ADF path for two-sided documents on page 176](#) are identical to callouts in [Figure 5-51 ADF path for single-sided documents on page 175](#).

## Stapler

The HP Color LaserJet CM3530fs MFP includes a stapler capable of stapling 20 sheets of (80 g/m<sup>2</sup>) (20 lb) paper. The stapler has an AC power connection to the LVPS. Because there are no logic connections to the product, error conditions or out-of-staples indications are not displayed on the control panel.



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## 6 Removal and replacement



**NOTE:** Your product might not appear exactly as the one shown in the photos in this chapter. Although some photos do not show the ADF/scanner unit, the procedures in this chapter are appropriate for your product.

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

# 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

⚠ **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

⚠ **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.

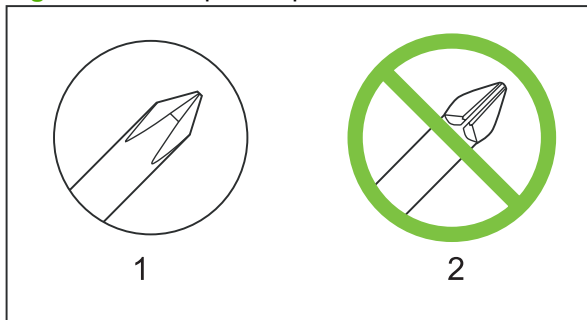
Protect the ESD-sensitive parts by placing them in ESD pouches when they are out of the product.

## Required tools

- #1 Phillips screwdriver with a magnetic tip and a 152-mm (6-inch) shaft length
- #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 186](#).
- Remove the tray cassette or cassettes. See [Tray cassette on page 199](#).

## 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.




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**NOTE:** Your product might not appear exactly as the one shown in the photos in this chapter. Although some photos do not show the ADF/scanner unit, the procedures in this chapter are appropriate for your product.

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## Post-service test

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

 **NOTE:** Your product might not appear exactly as the one shown in the photos in this chapter. Although some photos do not show the ADF/scanner unit, the procedures in this chapter are appropriate for your product.

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### Print-quality test

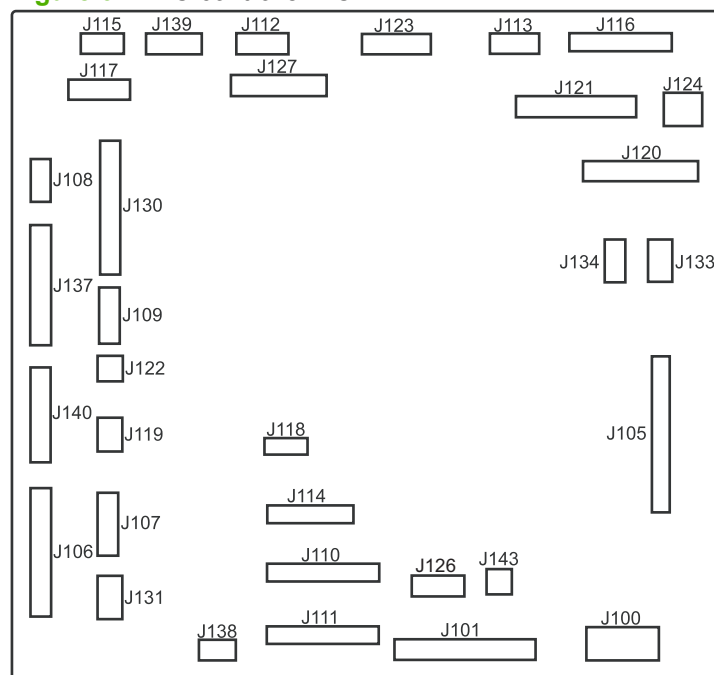
1. Verify that you have completed the necessary reassembly steps.
2. Make sure that the tray contains clean, unmarked paper.
3. Attach the power cord and interface cable or interface cables, and then turn on the product.
4. Verify that the expected startup sounds occur.
5. Print a configuration page, 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.

### Copy-quality test

1. Verify that you have completed the necessary reassembly steps.
2. Ensure that the input tray contains clean, unmarked paper.
3. Attach the power cord, and then turn on the product.
4. Verify that the expected start-up sounds occur.
5. Print a configuration page, and then verify that the expected printing sounds occur.
6. Place the configuration page in the ADF.
7. Print a copy job, and then verify the results.
8. Place the configuration page on the scanner glass.
9. Print a copy job, and then verify the results.
10. Clean the outside of the product with a damp cloth.

# DC controller PCA

**Figure 6-2** DC controller PCA



**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> 24 v to scanner-control board (SCB)	<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	Remove
Print cartridges							
Toner collection unit (TCU)							
Automatic document feeder (ADF)							
Scanner assy							
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			
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	T2	ITB		
Power-supply (PS) fan and fan duct	Right-rear cover	Left cover	Rear cover				
Interconnect board (ICB)	Formatter	Right-rear cover	Left cover	Rear cover			
DC controller (DCC)	Formatter	Right-rear cover	Left cover	Rear cover	ICB		
Low-voltage power supply (LVPS)	Formatter	Right-rear cover	Left cover	Rear cover	ICB		
Registration assy	Right-rear cover	Left cover	Rear cover	T2	ITB	RD Sensor	
High-voltage power supply (HVPS)-lower	Formatter	Right-rear cover	Left cover	Rear cover	ICB	LVPS	
High-voltage power supply (HVPS)-upper	Formatter	Right-rear cover	Left cover	Rear cover	ICB	DCC	
Developing-disengagement motor	Formatter	Right-rear cover	Left cover	Rear cover	ICB	LVPS	
Pickup motor	Formatter	Right-rear cover	Left cover	Rear cover	ICB	LVPS	
Lifter-drive assy	Formatter	Right-rear cover	Left cover	Rear cover	ICB	LVPS	
Cassette-pickup drive assy	Formatter	Right-rear cover	Left cover	Rear cover	ICB	LVPS	
Cassette-pickup assy	Formatter	Right-rear cover	Left cover	Rear cover	Registration assy	ICB	
Delivery fan, cartridge fan and environmental sensor	Formatter	Right-rear cover	Left cover	Rear cover	ICB	LVPS	
Laser scanner (Y/M)	TCU	Formatter	Right-rear cover	Left cover	Rear cover	ICB	
Laser Scanner (C/Bk)	TCU	Formatter	Right-rear cover	Left cover	Rear cover	ICB	
Drum Motor 1	Right-rear cover	Left cover	Rear cover	ICB	LVPS	HVPS-upper	
Drum motor 2 or drum motor 3	Right-rear cover	Left cover	Rear cover	ICB	LVPS	HVPS-upper	
Main-drive assy	Formatter	T2	ITB	Right-rear cover	Left cover	Rear cover	
Fuser motor	Formatter	Right-rear cover	Left cover	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	Scanner and ADF assy
Duplex-drive assy	Fuser	T2	Right-rear cover	Left cover	Control panel	Rear cover	Scanner and ADF assy



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

[illegible]

## Customer self repair (CSR) components

 **NOTE:** Your product might not appear exactly as the one shown in the photos in this chapter. Although some photos do not show the ADF/scanner unit, the procedures in this chapter are appropriate for your product.

### 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.*

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

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

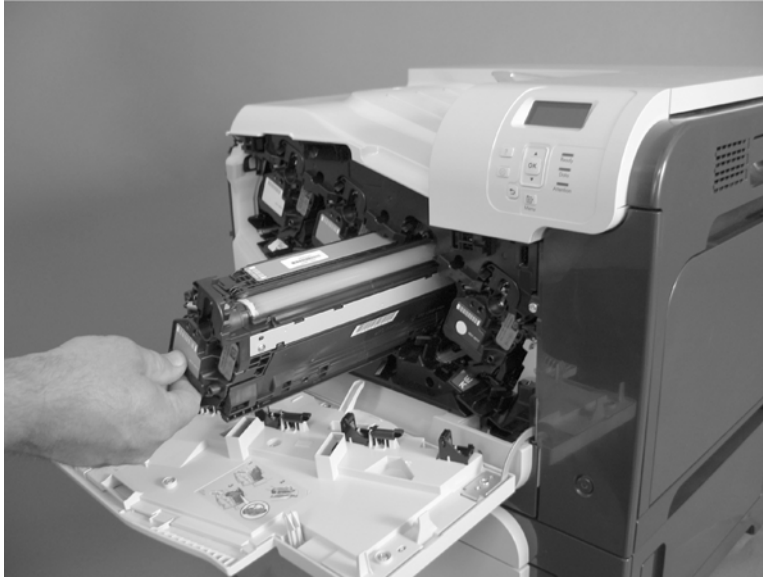


2. Grasp the print-cartridge handle and pull out to remove.

△ **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)



## Stapler cartridge

Open the stapler door, and then remove the stapler cartridge.

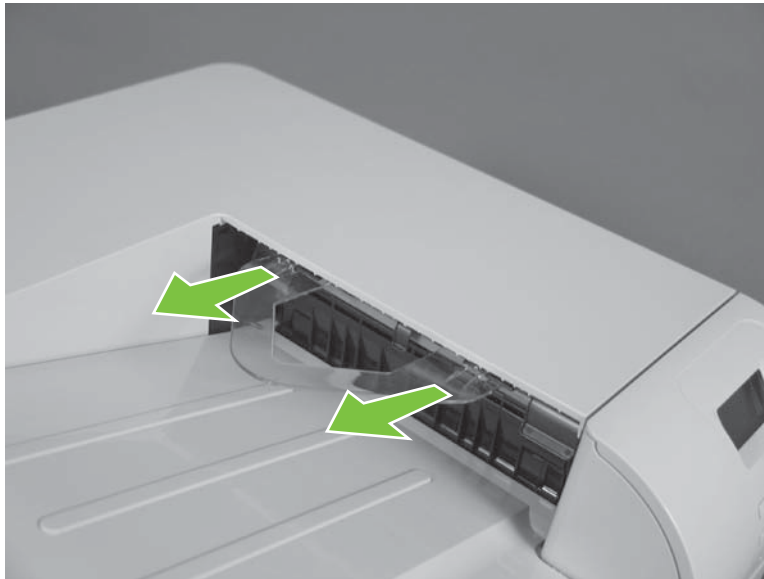
**Figure 6-7** Remove the stapler cartridge



## Duplex-reverse guide

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

**Figure 6-8** Remove the duplex-reverse guide (1 of 2)




2. Remove the guide.

**Figure 6-9** 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.

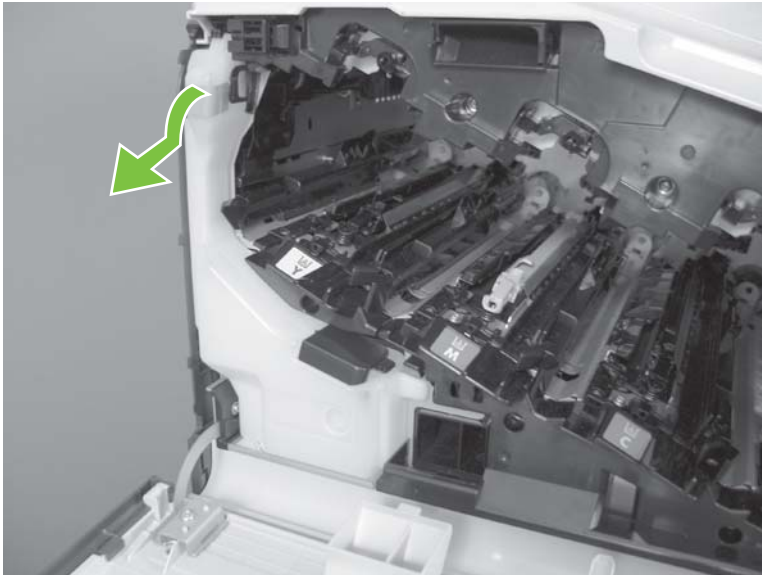
**Figure 6-10** Remove the toner-collection unit (1 of 4)



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 6-11** 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 6-12** Remove the toner-collection unit (3 of 4)




**Figure 6-13** 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 6-14** 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 192](#).

### Remove the memory DIMM



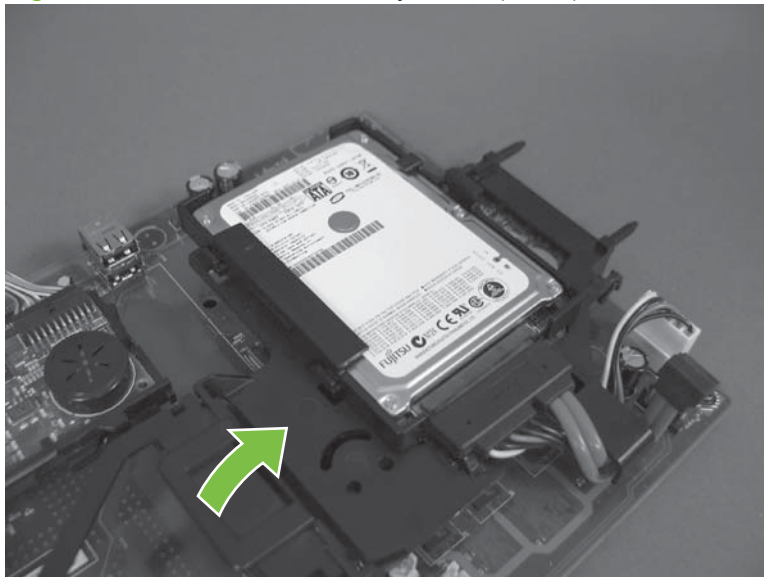
**CAUTION:**  ESD sensitive component.




**NOTE:** See [Enable memory for Windows on page 194](#) after installing a new memory DIMM.

1. Place the formatter on a clean, flat, grounded surface.
2. Release on tab, and raise the hard drive mounting bracket to access the memory DIMM.

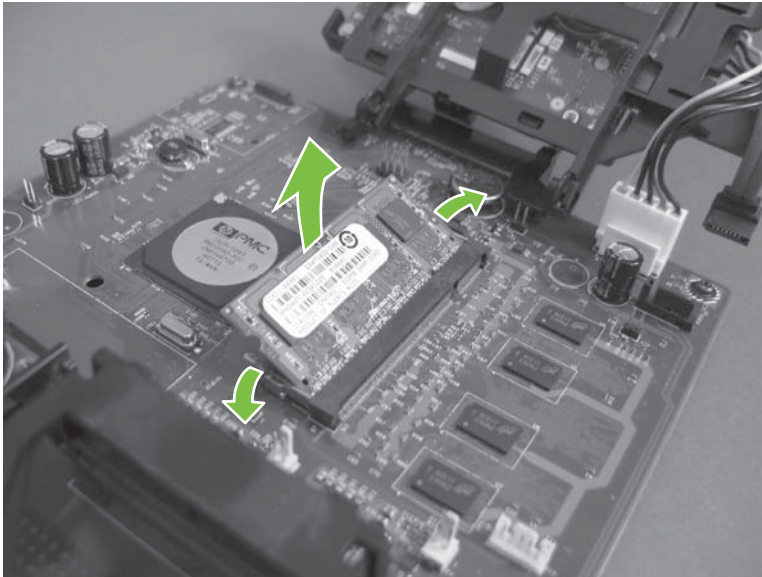
**Figure 6-15** Remove the memory DIMM (1 of 2)



3. Spread the latches apart on each side of the DIMM slot. 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 6-16** 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**.

## Hard drive and Serial Advanced Technology Attachment (SATA) cable

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).

### Remove the hard drive and SATA cable



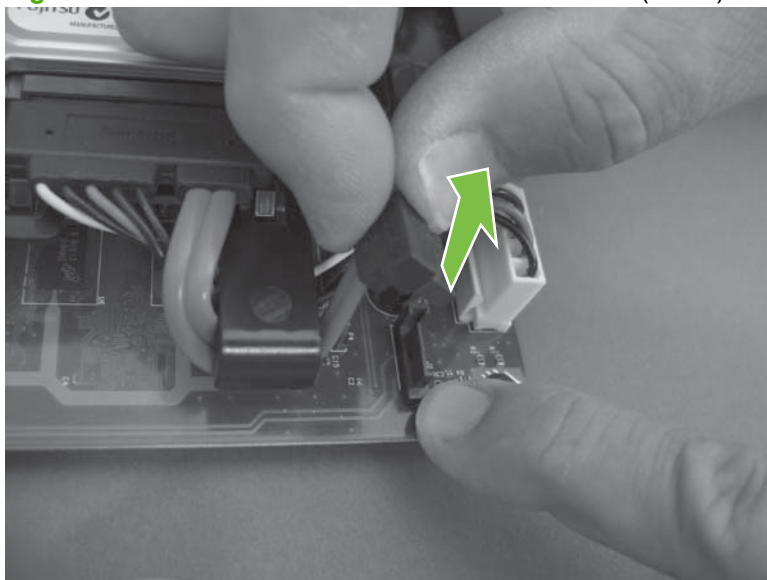
**CAUTION:** ESD sensitive component.

1. Disconnect one connector.



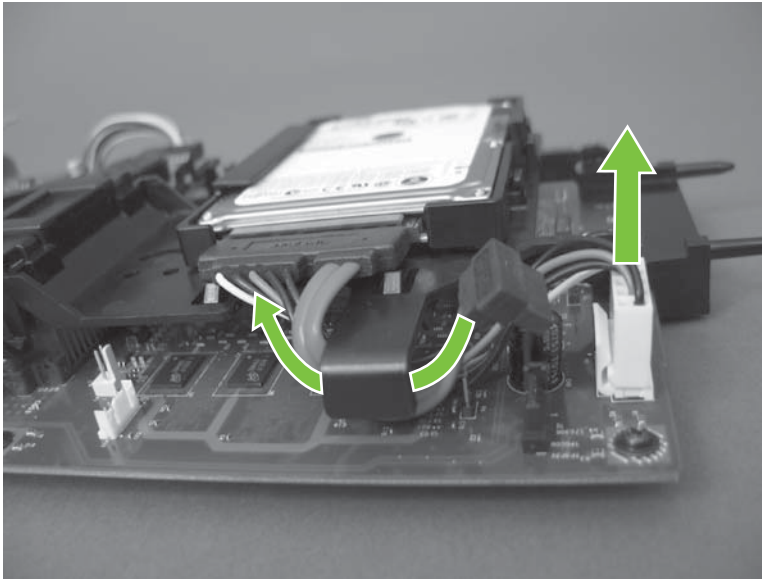
**CAUTION:** Use your finger to secure the connector base to the PCA. The connector base can be dislodged and damaged when the connector is removed.

**Figure 6-17** Remove the hard drive and SATA cable (1 of 3)



2. Disconnect one connector and release the wire harnesses from the guide.

**Figure 6-18** Remove the hard drive and SATA cable (2 of 3)

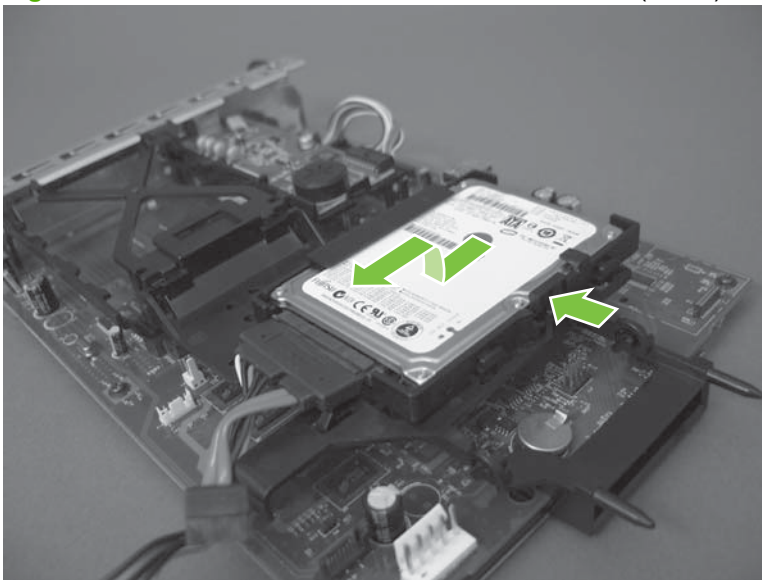


3. Release one tab and then slide the hard drive toward the bottom of the formatter to release it. Remove the hard drive.



**NOTE:** If necessary, disconnect the SATA cable from the hard drive.

**Figure 6-19** Remove the hard drive and SATA cable (3 of 3)




## Fax PCA and cable

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).

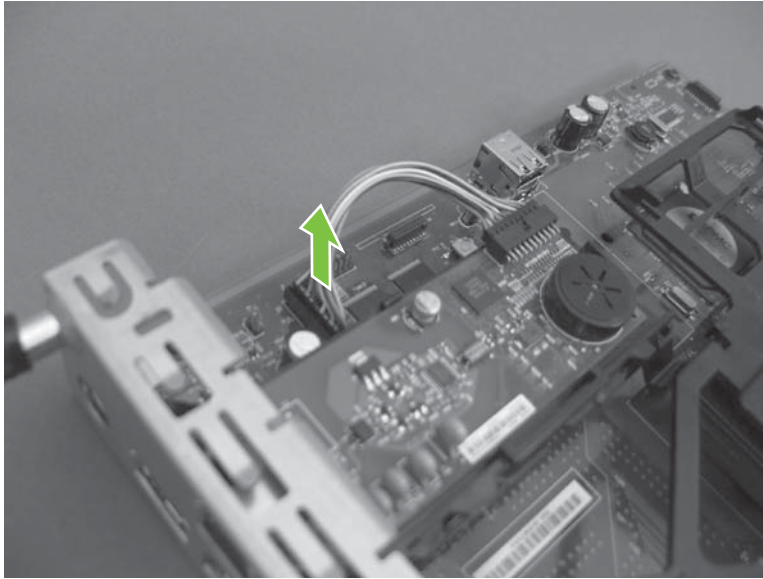
### Remove the fax PCA and cable



**CAUTION:**  ESD sensitive component.


1. Disconnect one connector.

**Figure 6-20** Remove the fax PCA and cable (1 of 2)



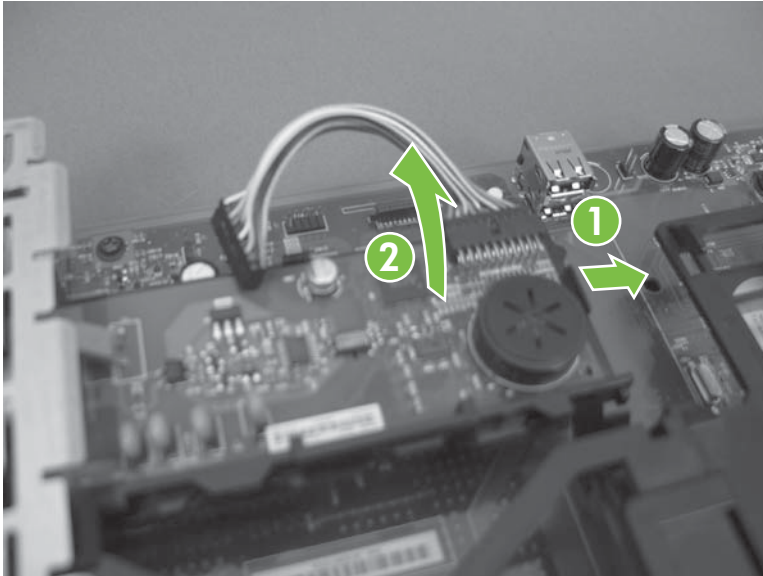
2. Release one tab, and then rotate the fax PCA away from the formatter to release it. Remove the fax PCA.

---

 **NOTE:** If necessary, disconnect the cable from the fax PCA.

---

**Figure 6-21** Remove the fax PCA and cable (2 of 2)

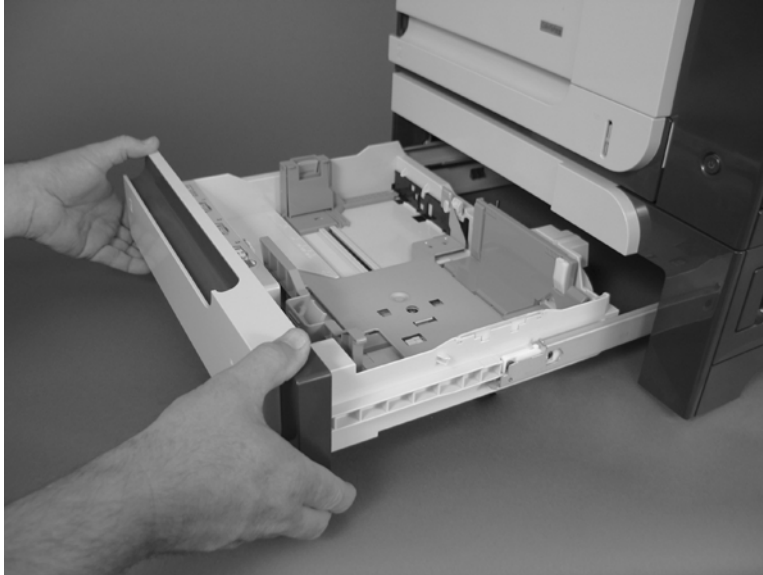


## Tray cassette

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

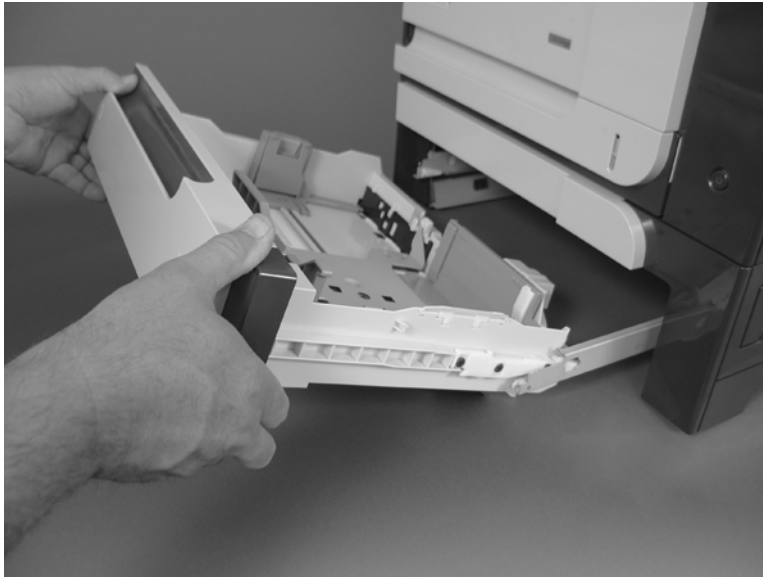
1. Pull the tray straight out of the product until it stops.

**Figure 6-22** Remove the tray cassette (1 of 2)



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

**Figure 6-23** 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.

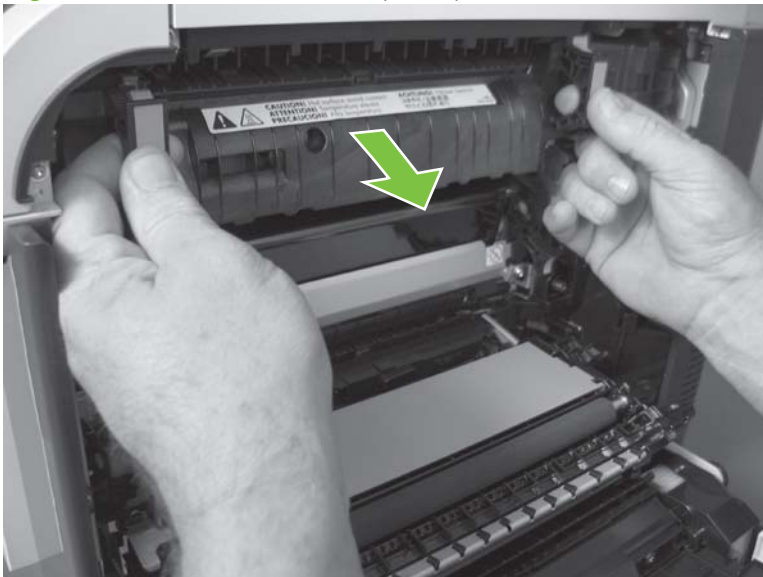
1. Open the right-door assembly.

**Figure 6-24** 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 6-25** Remove the fuser (2 of 2)





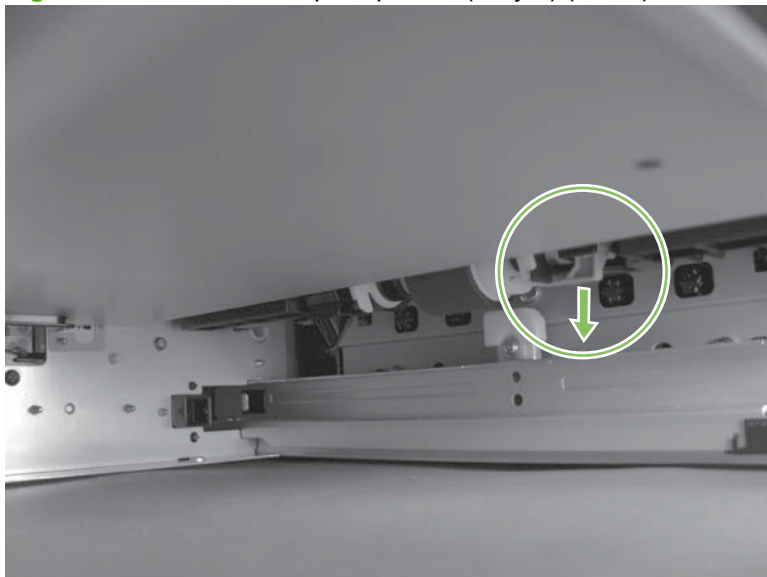
## Pickup roller (Tray 2)

△ **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.

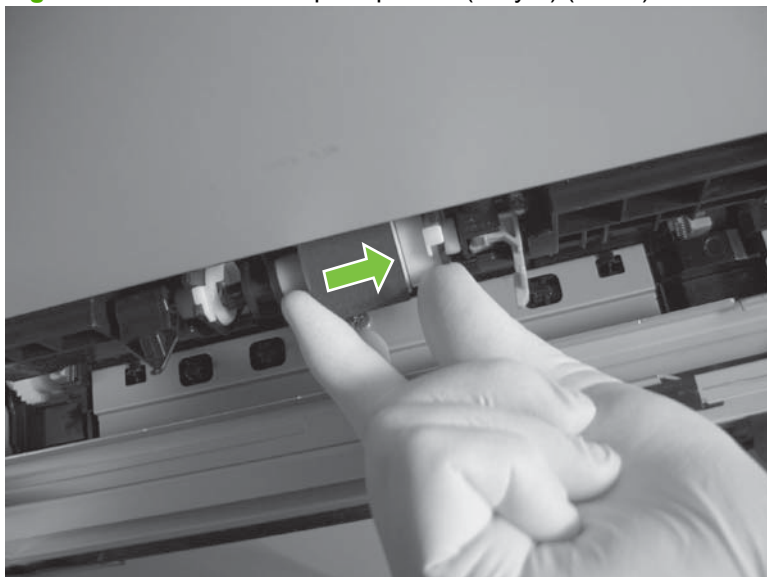
💡 **Reinstallation tip** When the roller is reinstalled, rotate the roller shaft several times to make sure that the shaft correctly engages the drive mechanism. You should hear a click when the shaft engages the drive mechanism.

**Figure 6-26** 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 6-27** 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 6-28** 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 6-29** Remove the pickup roller (Tray 2) (4 of 4)



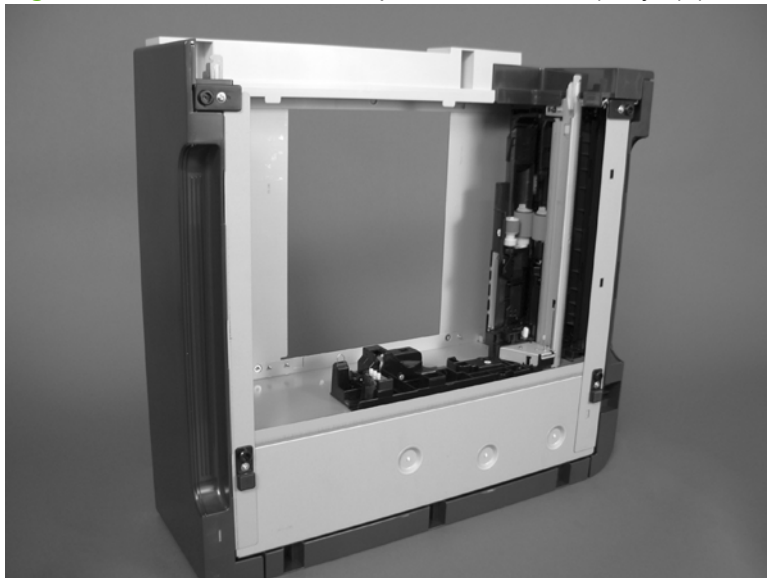
## Pickup and feed rollers (Tray 3)

△ **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.

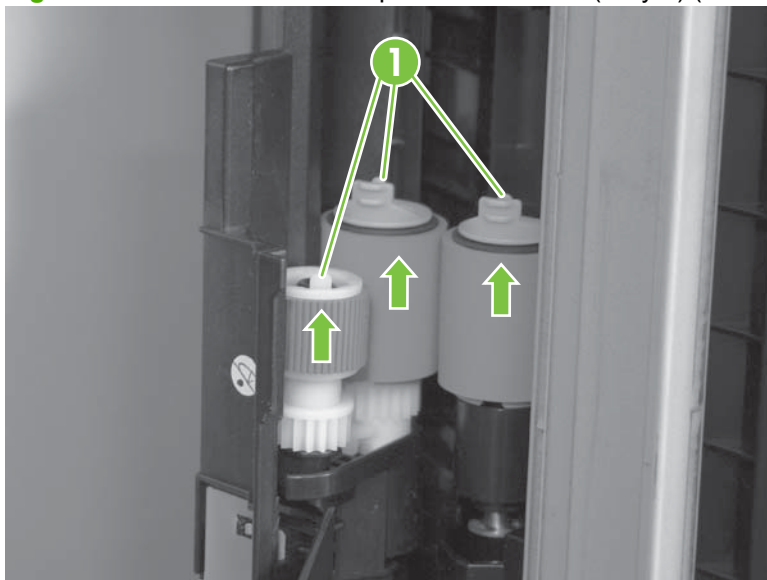
**Figure 6-30** Remove the Pickup and feed rollers (Tray 3) (1 of 2)



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 6-31** Remove the Pickup and feed rollers (Tray 3) (2 of 2)



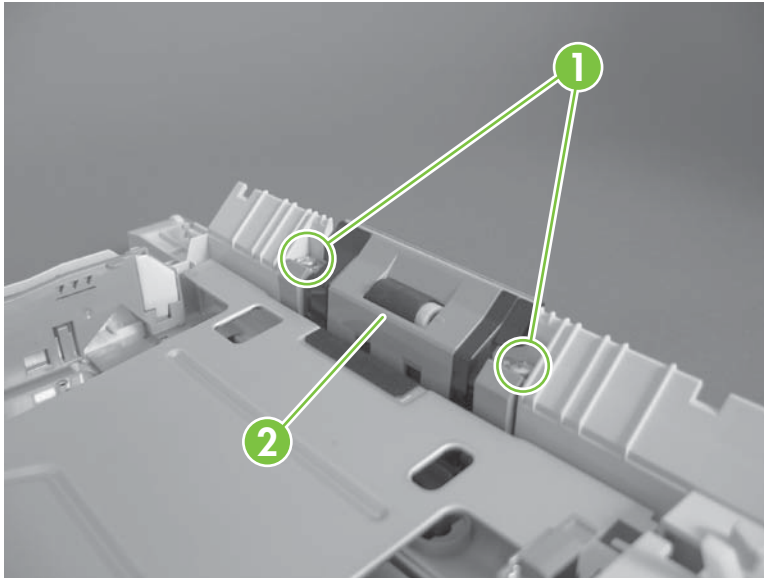
## Separation roller (Tray 2)

△ **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 199](#).

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

**Figure 6-32** 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.

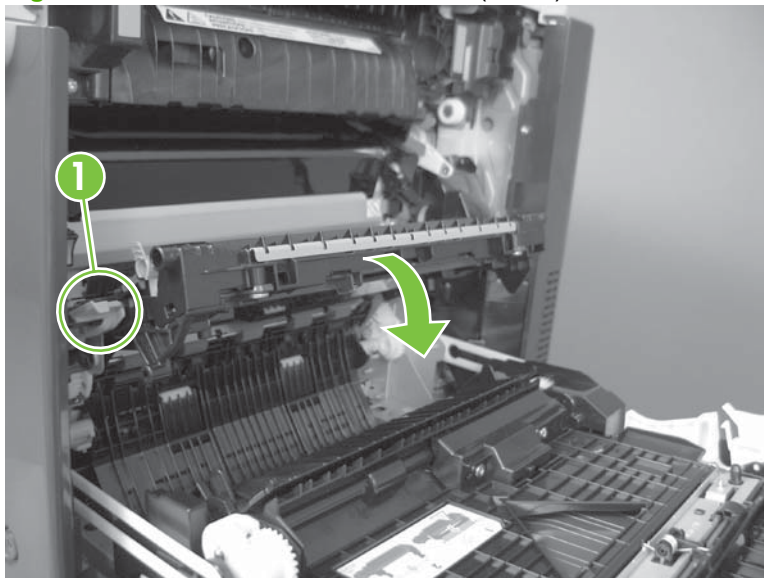
1. Open the right-door assembly.

**Figure 6-33** Remove the transfer roller (1 of 3)



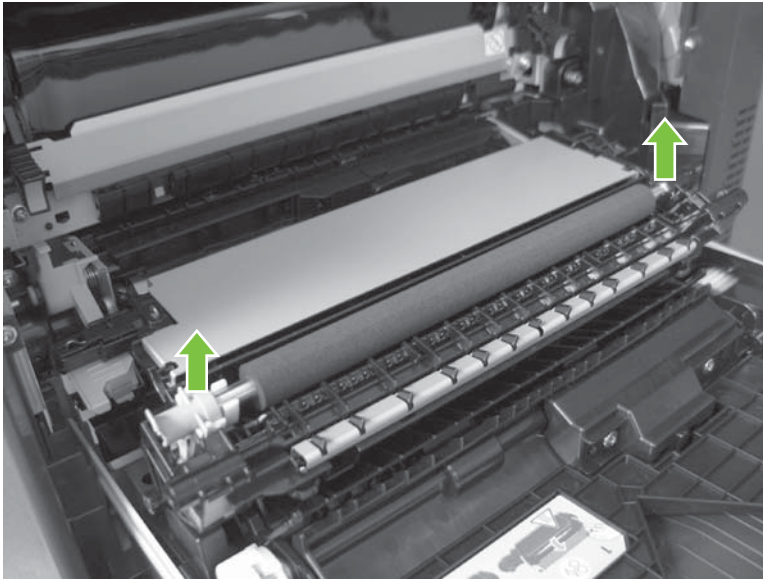
2. Use the blue lever (callout 1) to lower the secondary transfer assembly.

**Figure 6-34** Remove the transfer roller (2 of 3)



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

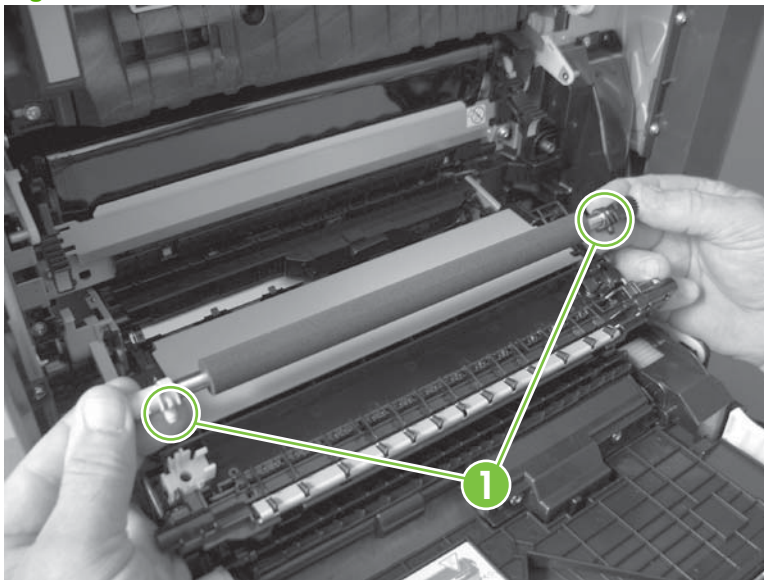
**Figure 6-35** Remove the transfer roller (3 of 3)



### 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 6-36** Reinstall the transfer roller



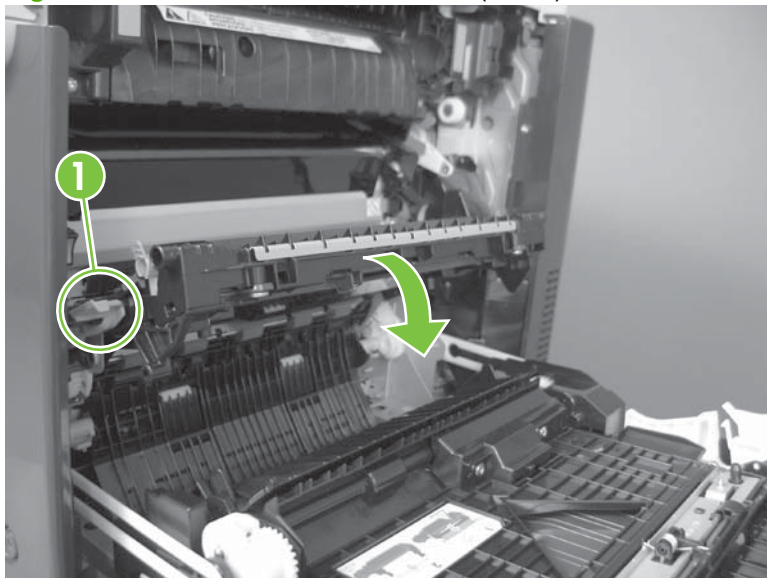


## Secondary transfer assembly

The secondary transfer assembly includes the transfer roller.

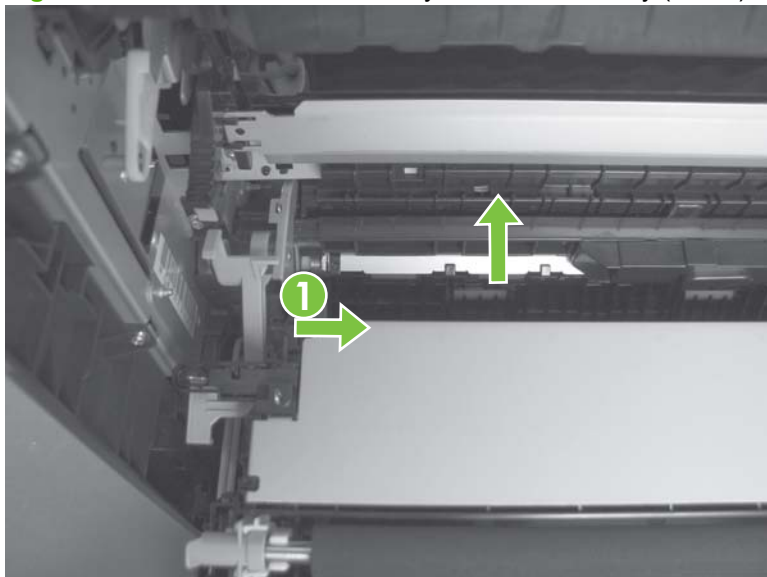
1. Open the right-door assembly.
2. Use the blue lever (callout 1) to lower the secondary transfer assembly.

**Figure 6-37** 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 6-38** Remove the secondary transfer assembly (1 of 2)



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

**Figure 6-39** 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 6-40** Reinstall the secondary transfer assembly



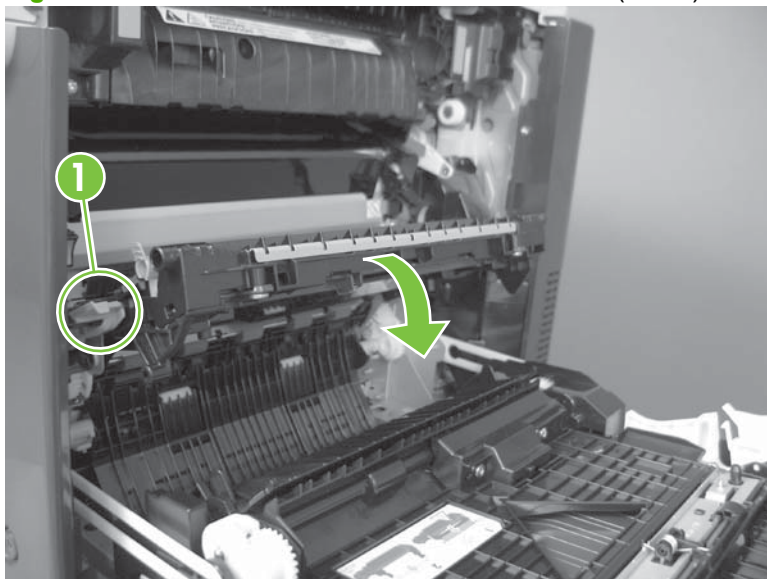


## Intermediate transfer belt (ITB)

△ **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.

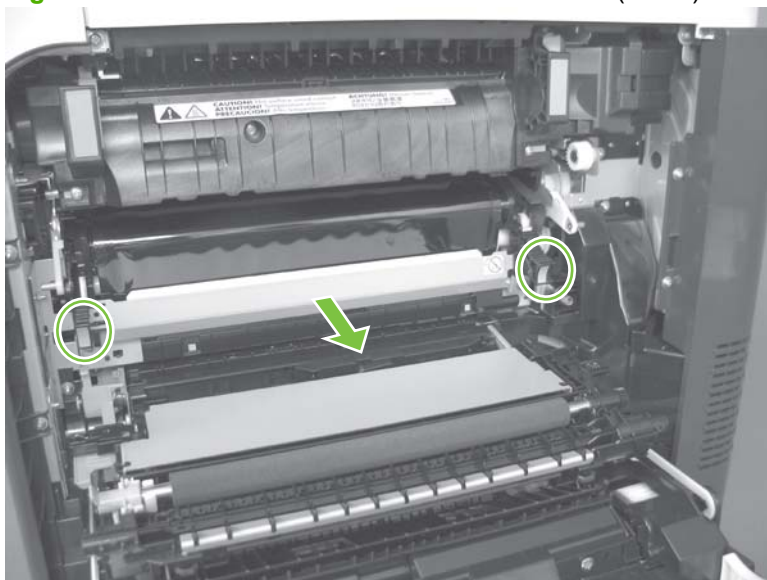
1. Open the right-door assembly.
2. Use the blue lever (callout 1) to lower the secondary transfer assembly.

**Figure 6-41** 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.

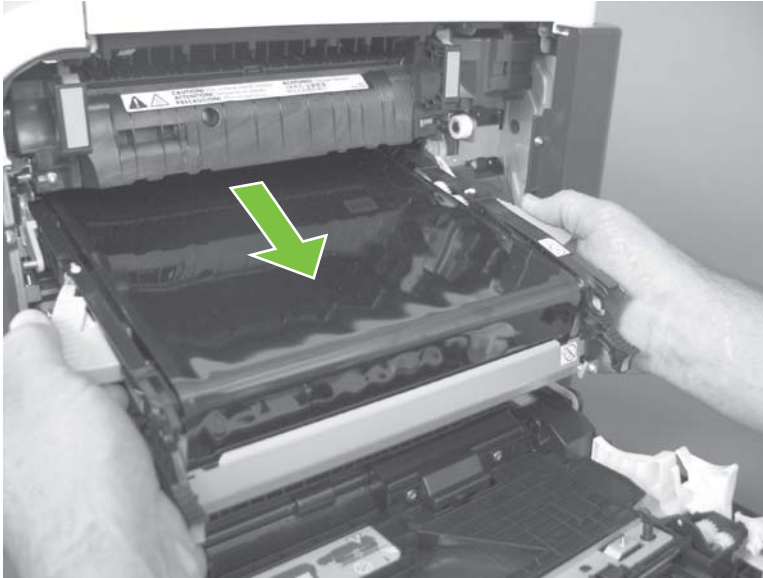
**Figure 6-42** Remove the intermediate transfer belt (2 of 3)



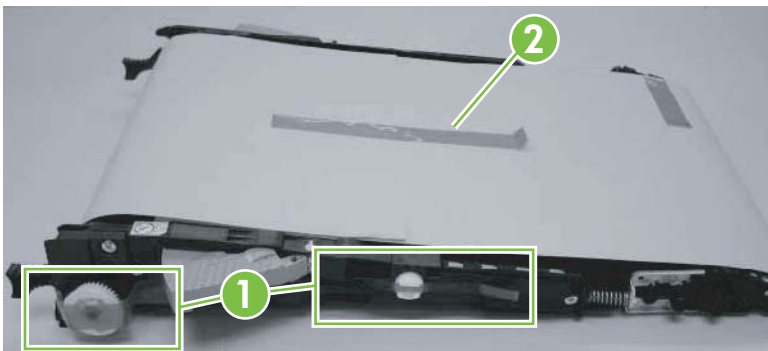
4. Grasp the large handles on the ITB and then pull the ITB straight out of the product to remove it.

△ **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 6-43** 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).




## Front-door assembly

1. Open the front door.

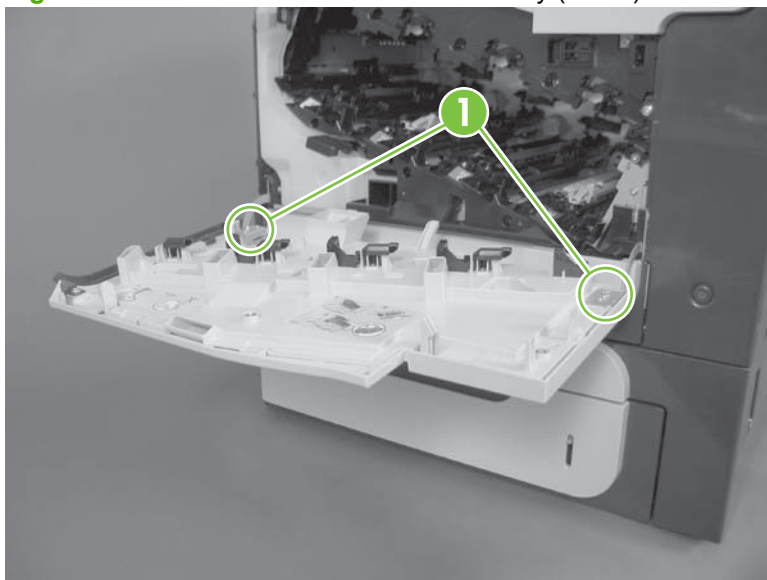
**Figure 6-44** Remove the front-door assembly (1 of 2)



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 6-45** Remove the front-door assembly (2 of 2)



3. If you are installing a replacement front-door assembly, install the HP name tag and the appropriate product model number tag on the assembly.

## Automatic document feeder (ADF)

 **NOTE:** After removing the ADF assembly, place it on a clean, dry, and smooth surface.

You must calibrate the ADF and scanner after installing the ADF. See [Calibrate a replacement ADF assembly on page 214](#).

1. Release two thumb screws, and then disconnect one connector.

**Figure 6-46** Remove the ADF assembly (1 of 4)



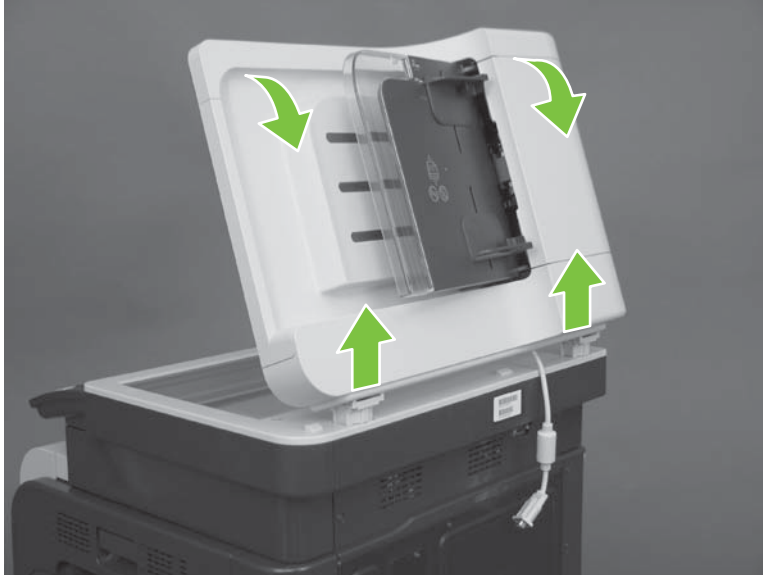
2. Open the ADF.

**Figure 6-47** Remove the ADF assembly (2 of 4)



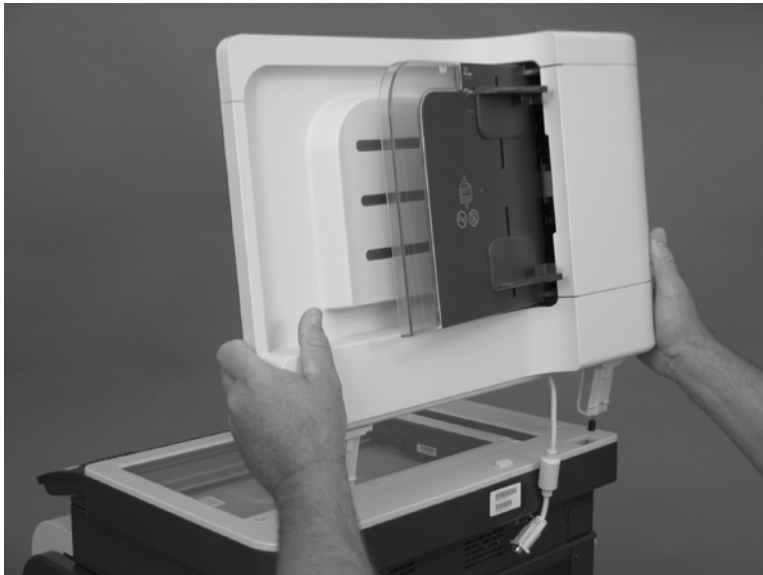
3. Lift the ADF straight up until it stops, and then slightly tilt it toward the rear of the product. Continue lifting the ADF straight up to remove it.

**Figure 6-48** Remove the ADF assembly (3 of 4)



4. Remove the ADF.

**Figure 6-49** Remove the ADF assembly (4 of 4)



## Calibrate a replacement ADF assembly

1. On the control-panel Home screen, scroll to and touch **Administration**.
2. Touch **Troubleshooting**.
3. Touch **Calibrate Scanner**.
4. Touch **Calibrate** to print the first pass of the calibration target.
5. Follow the instructions on the control-panel display. For more information, see [Calibrate the product on page 430](#).

## ADF roller assembly and separation pad

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

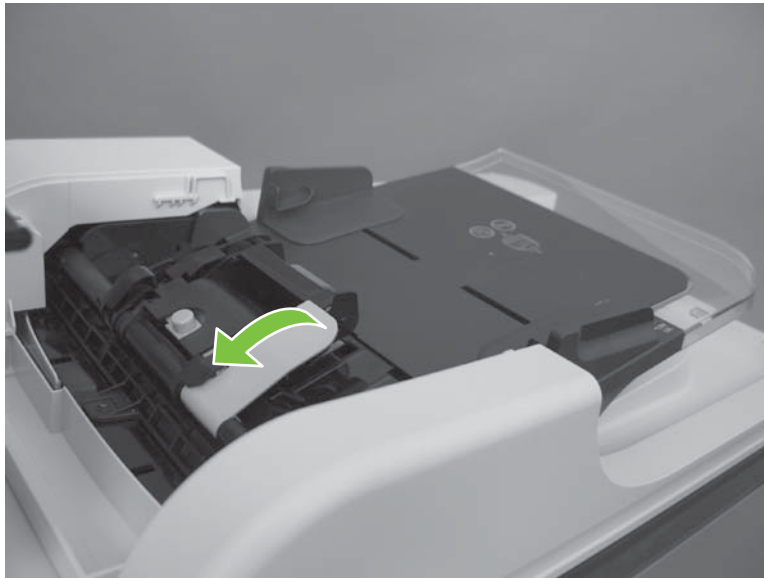
1. Open the ADF jam door.

**Figure 6-50** Remove the ADF roller assembly and separation pad (1 of 5)



2. Lift the green handle.

**Figure 6-51** Remove the ADF roller assembly and separation pad (2 of 5)





3. Push the blue button.

**Figure 6-52** Remove the ADF roller assembly and separation pad (3 of 5)



4. Remove the ADF roller assembly.

**Figure 6-53** Remove the ADF roller assembly and separation pad (4 of 5 )

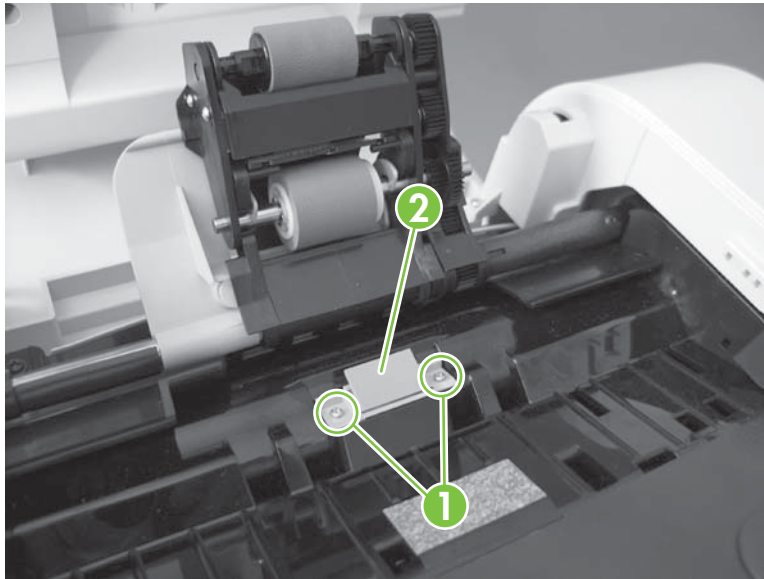




5. Remove two screws (callout 1), and then remove the separation-pad assembly (callout 2).

 **TIP:** Use a #1 Phillips screwdriver to remove these screws.

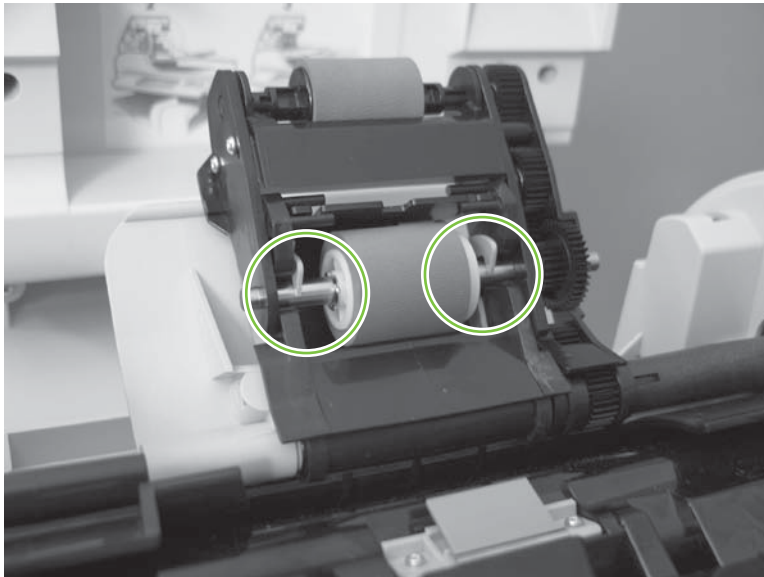
**Figure 6-54** Remove the ADF roller assembly and separation pad (5 of 5)



### Reinstall the ADF roller assembly

Securely attach the ADF roller assembly to the blue hooks.

**Figure 6-55** Reinstall the ADF roller assembly



## Control-panel overlay

1. Gently pull up on the control-panel overlay.

**Figure 6-56** Remove the control-panel overlay (1 of 2)



2. Remove the control-panel overlay.

**Figure 6-57** Remove the control-panel overlay (2 of 2)



## Control-panel assembly

Before proceeding, remove the following components:

- Control-panel overlay. See [Control-panel overlay on page 218](#).

### Remove the control-panel assembly

1. Release six tabs.

**Figure 6-58** Remove the control-panel assembly (1 of 3)



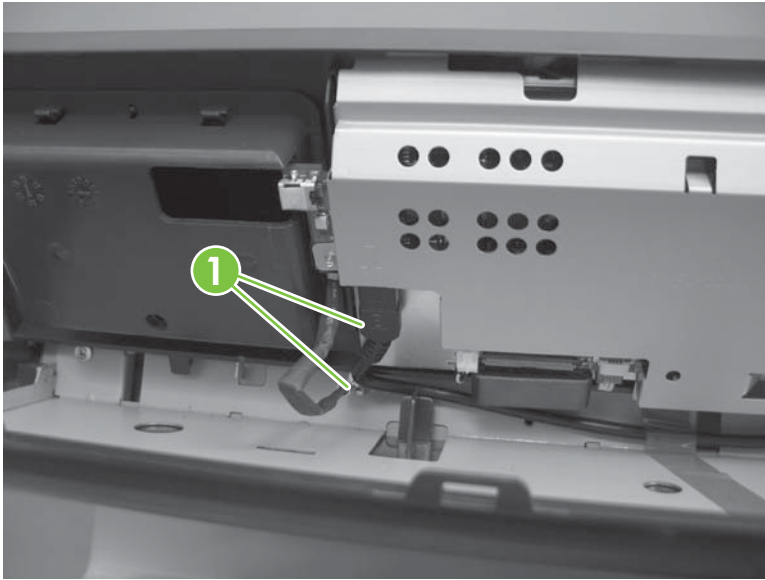
2. Pull the control-panel assembly toward the front of the product and rotate it up.

**Figure 6-59** Remove the control-panel assembly (2 of 3)



3. Disconnect two connectors (callout 1), and then remove the control-panel assembly.

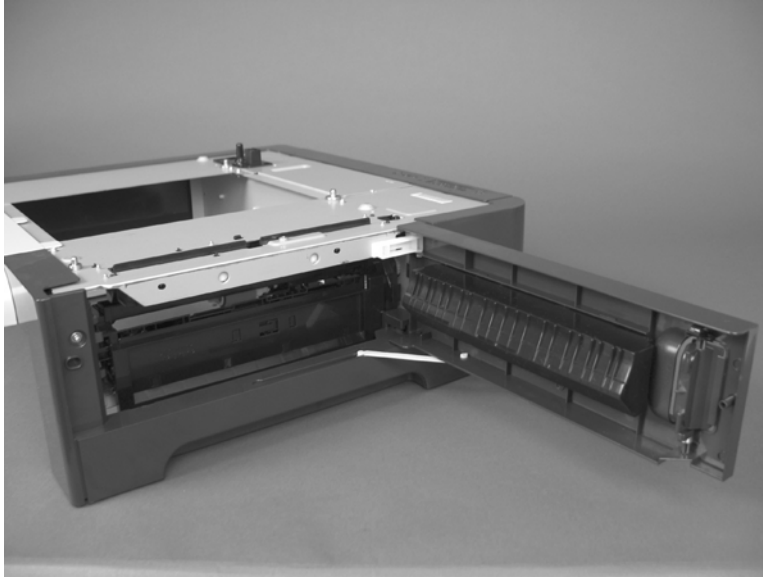
**Figure 6-60** Remove the control-panel assembly (3 of 3)



## Right door (optional paper feeder)

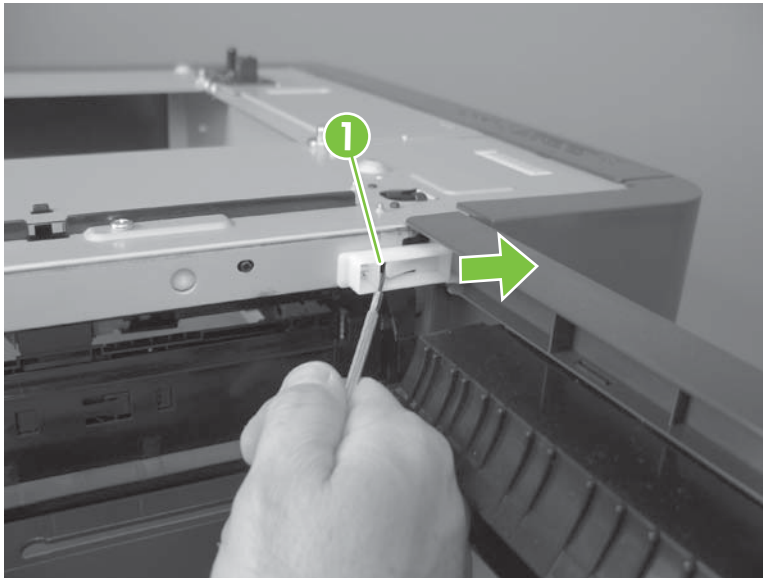
1. Open the right door.

**Figure 6-61** Remove the right door; optional paper feeder (1 of 3)



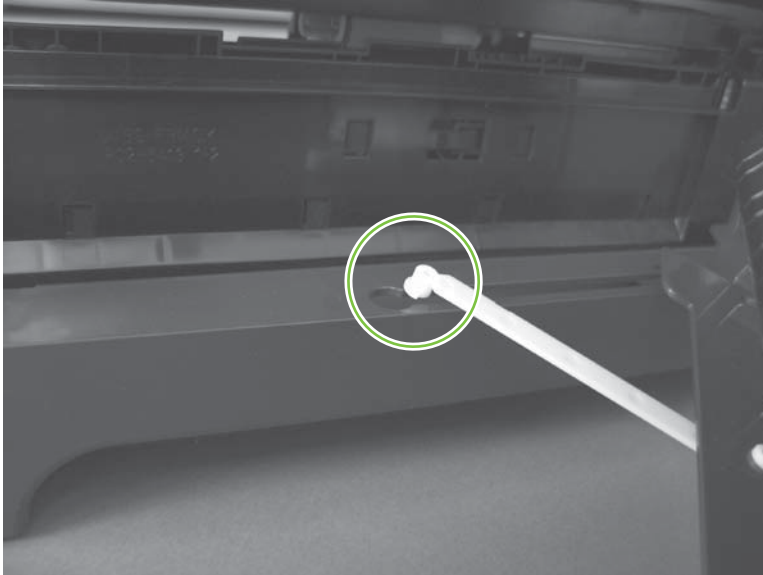
2. Release one tab (callout 1), and then slide the stopper toward the right side of the product to remove it.

**Figure 6-62** 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 6-63** Remove the right door; optional paper feeder (3 of 3)

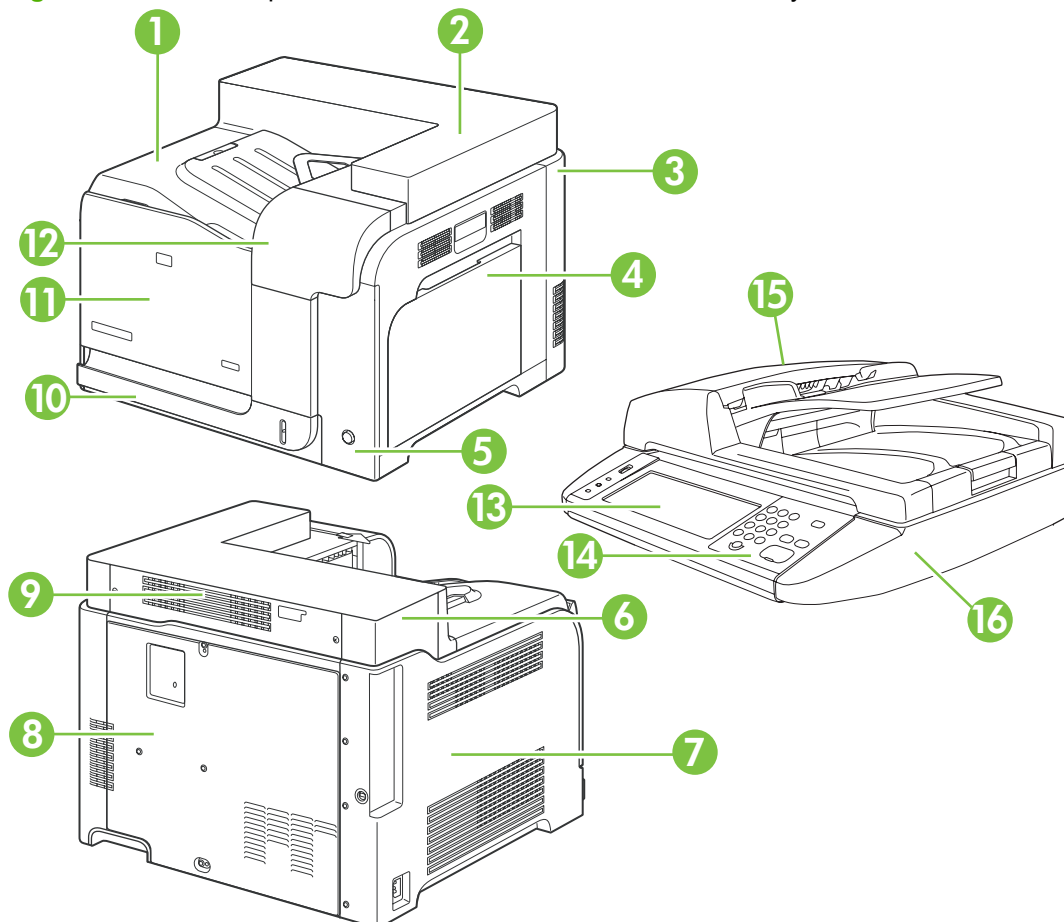


# External panels, covers, doors, and scanner assembly

## Identification and location

 **NOTE:** Your product might not appear exactly as the one shown in the photos in this chapter. Although some photos do not show the ADF/scanner unit, the procedures in this chapter are appropriate for your product.

**Figure 6-64** External panels, covers, doors, and scanner assembly; identification and location



**Table 6-2** External panels, covers, doors, and scanner assembly; identification and location

Item	Description
1	Front-top cover (see <a href="#">Front-top cover on page 261</a> )
2	Right-top cover (see <a href="#">Right-top cover on page 258</a> )
3	Right-rear cover (see <a href="#">Right-rear cover on page 231</a> )
4	Right-door assembly (see <a href="#">Right-door assembly on page 227</a> )
5	Right-front cover (see <a href="#">Right-front cover on page 239</a> )
6	Left-upper cover (see <a href="#">Left-upper cover on page 247</a> )
7	Left cover (see <a href="#">Left cover on page 233</a> )
8	Rear cover (see <a href="#">Rear cover on page 238</a> )

**Table 6-2 External panels, covers, doors, and scanner assembly; identification and location (continued)**

Item	Description
9	Rear-upper cover (see <a href="#">Rear-upper cover on page 236</a> )
10	Tray cassette (see <a href="#">Tray cassette on page 199</a> )
11	Front-door assembly (see <a href="#">Front-door assembly on page 211</a> )
12	Front-upper cover (see <a href="#">Front-upper cover on page 225</a> )
13	Control-panel assembly (see <a href="#">Control-panel assembly on page 219</a> )
14	Control-panel overlay (see <a href="#">Control-panel overlay on page 218</a> )
15	Automatic Document Feeder (see <a href="#">ADF roller assembly and separation pad on page 215</a> )
16	Scanner (see <a href="#">Scanner assembly on page 242</a> )



## Front-upper cover

1. Open the right door and front door.

**Figure 6-65** Remove the front-upper cover (1 of 4)



2. Remove one screw.

**Figure 6-66** Remove the front-upper cover (2 of 4)



3. Remove one screw.

**Figure 6-67** Remove the front-upper cover (3 of 4)

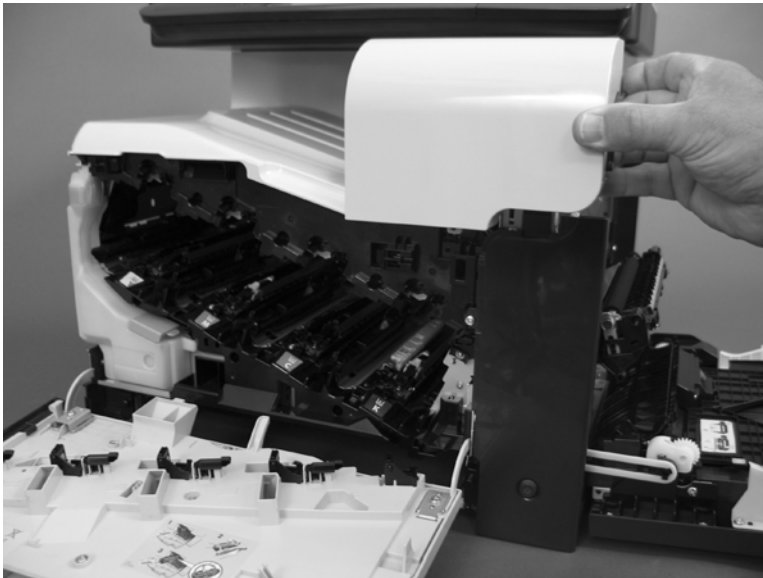


4. Lift the cover up, and then remove the front-upper cover.



**NOTE:** The cover might be difficult to remove. It might require some flexing to release it.

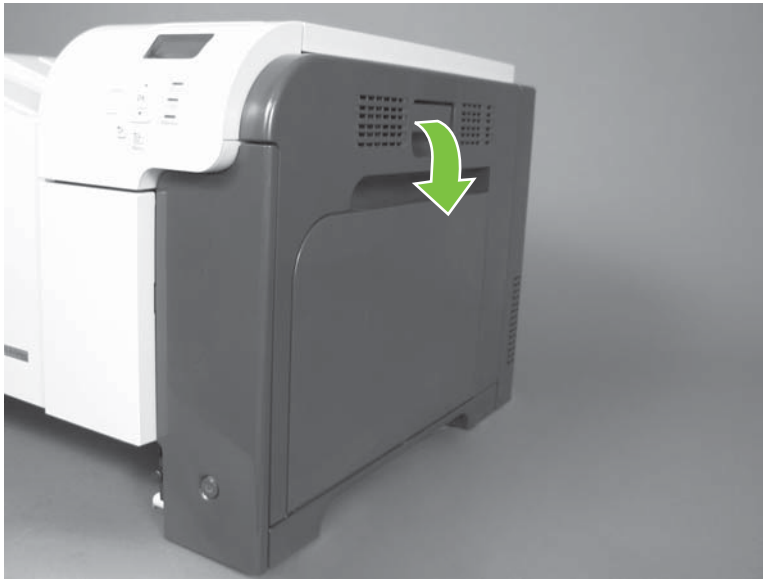
**Figure 6-68** Remove the front-upper cover (4 of 4)



## Right-door assembly

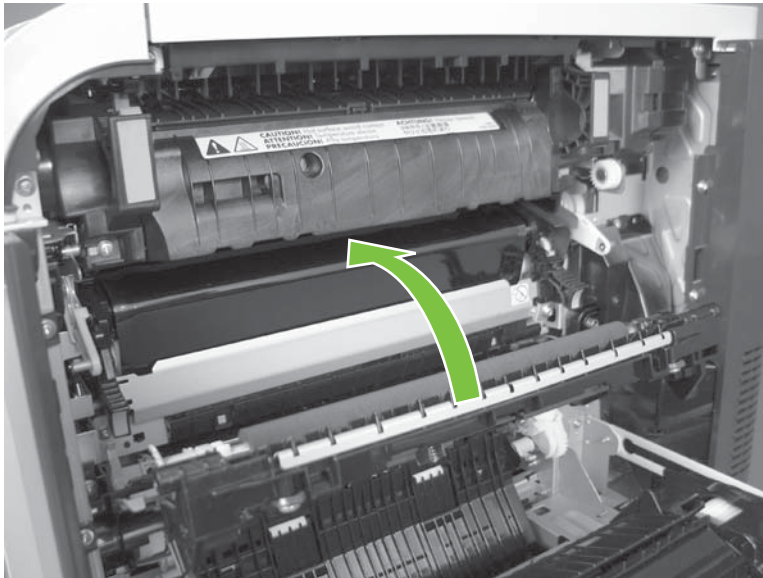
1. Open the right-door assembly

**Figure 6-69** Remove the right-door assembly (1 of 8)



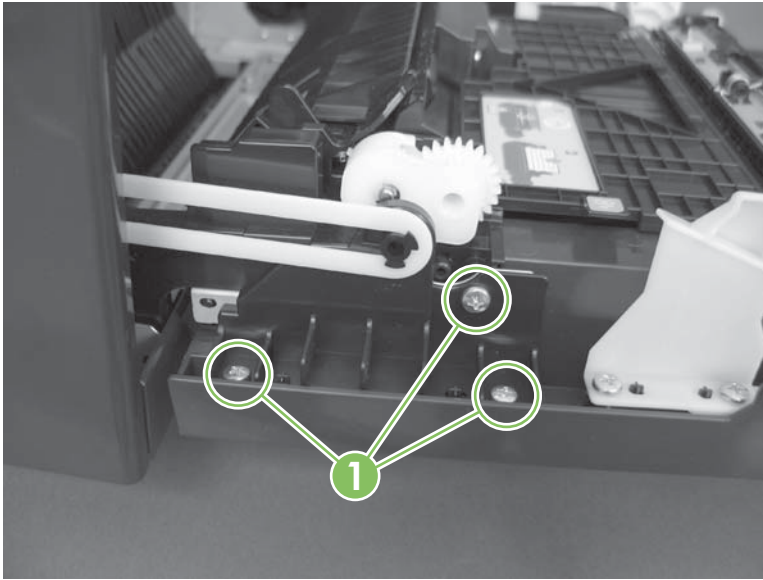
2. Close the secondary transfer assembly.

**Figure 6-70** Remove the right-door assembly (2 of 8)



3. Remove three screws (callout 1).

**Figure 6-71** Remove the right-door assembly (3 of 8)



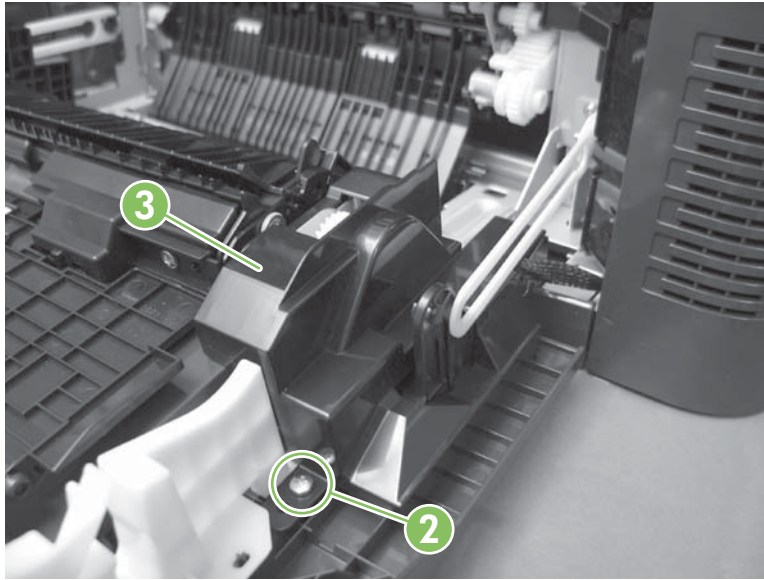
4. Carefully release one link arm.

**Figure 6-72** Remove the right-door assembly (4 of 8)




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

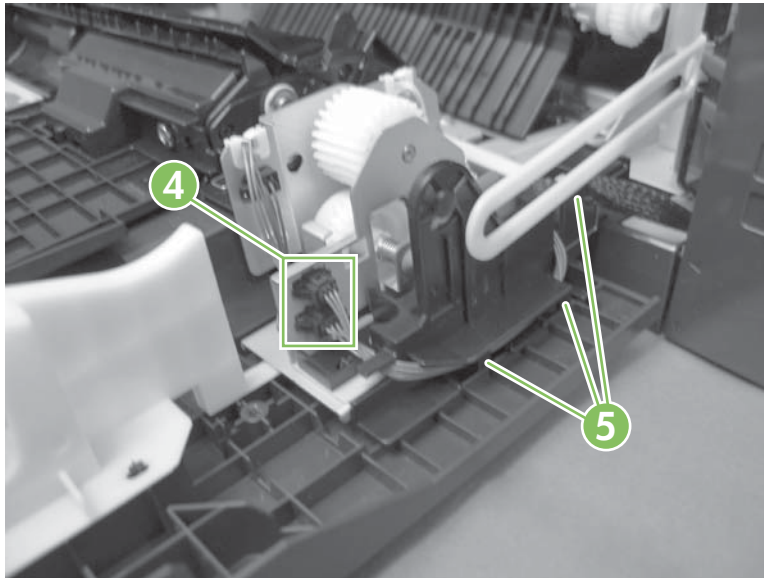
**Figure 6-73** Remove the right-door assembly (5 of 8)



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.

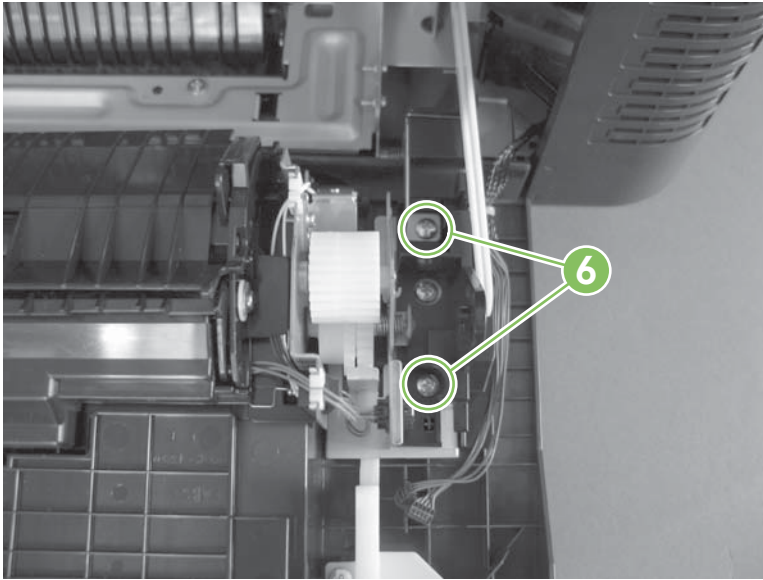
**Figure 6-74** Remove the right-door assembly (6 of 8)





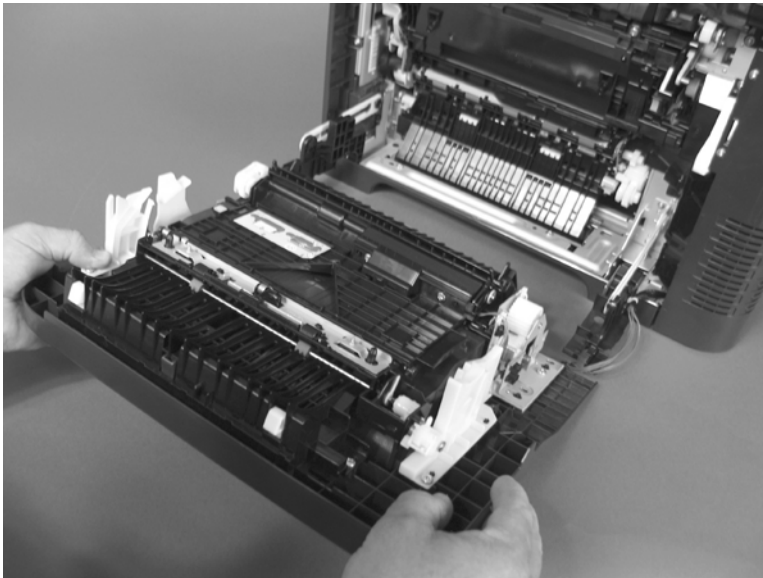
7. Remove two screws (callout 6).

**Figure 6-75** Remove the right-door assembly (7 of 8)



8. Remove the right-door assembly.

**Figure 6-76** Remove the right-door assembly (8 of 8)



## Right-rear cover

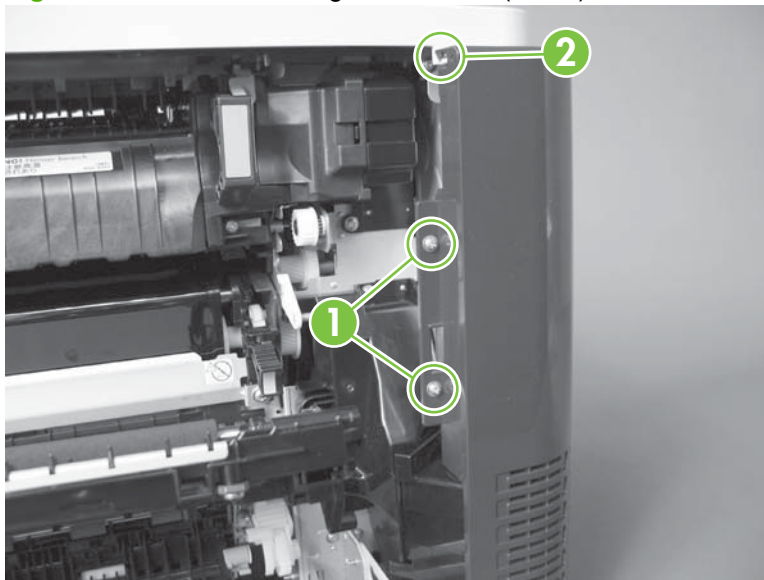
1. Open the right-door assembly.

**Figure 6-77** Remove the right-rear cover (1 of 3)



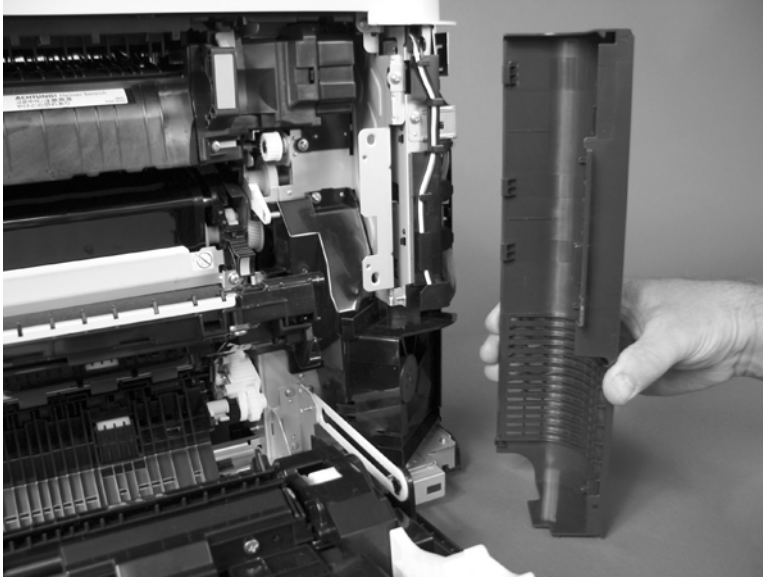
2. Remove two screws (callout 1) and release one tab (callout 2).

**Figure 6-78** 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 6-79** Remove the right-rear cover (3 of 3)

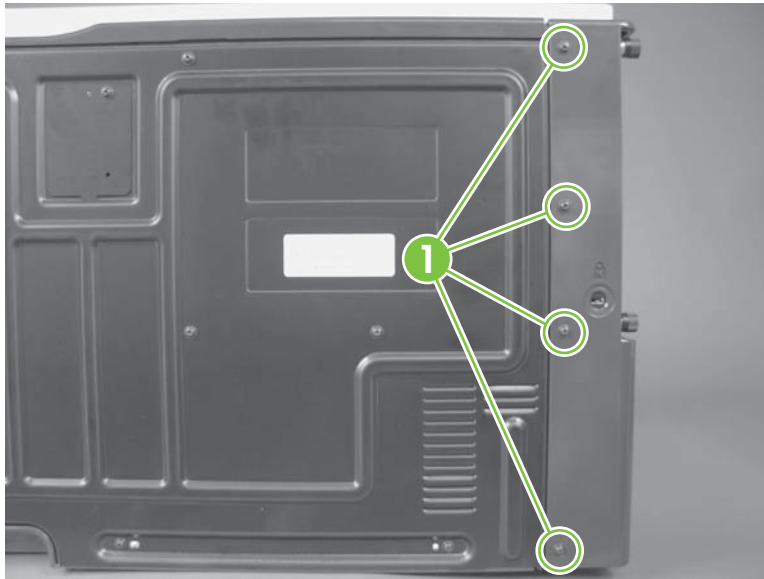




## Left cover

1. Remove four screws (callout 1).

**Figure 6-80** Remove the left cover (1 of 5)



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

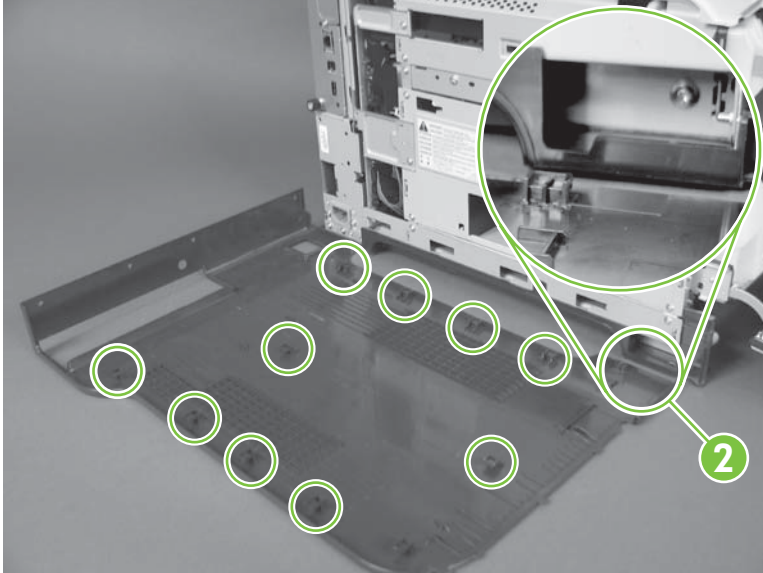
**Figure 6-81** Remove the left cover (2 of 5)



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.

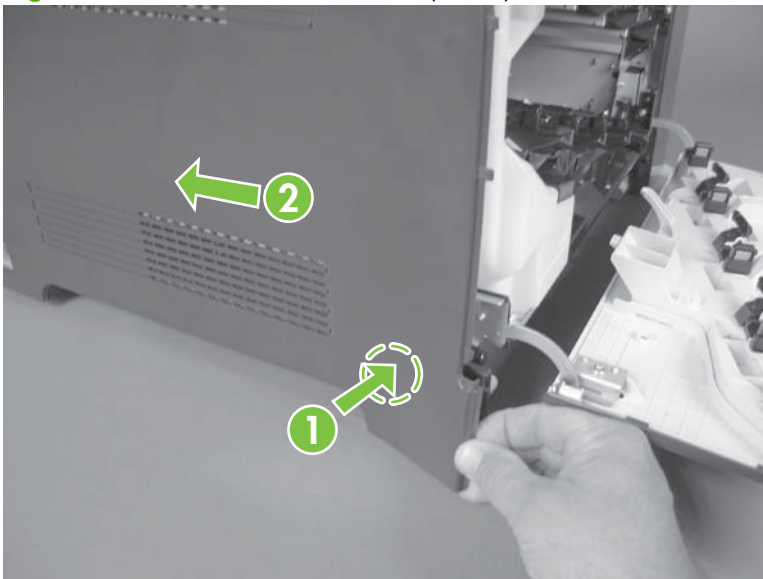
**Figure 6-82** Remove the left cover (3 of 5)



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 6-82 Remove the left cover \(3 of 5\) on page 234](#).

**Figure 6-83** 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 6-84** Remove the left cover (5 of 5)



## Rear-upper cover

1. Release two thumb screws, and then disconnect one connector.

**Figure 6-85** Remove the rear-upper cover (1 of 4)



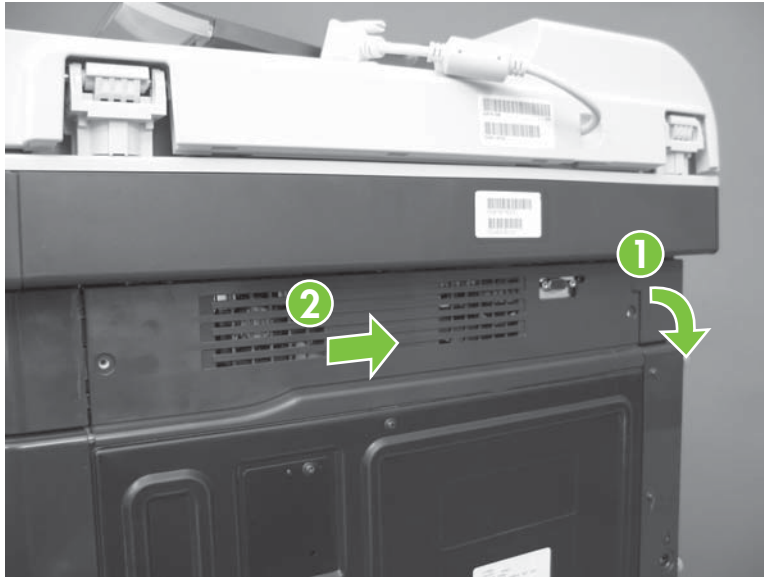
2. Remove two screws.

**Figure 6-86** Remove the rear-upper cover (2 of 4)



3. Rotate the rear-upper cover away from the product (callout 1), and then slide it toward the right (callout 2) to release one tab.

**Figure 6-87** Remove the rear-upper cover (3 of 4)



4. Remove the rear-upper cover.

**Figure 6-88** Remove the rear-upper cover (4 of 4)



## Rear cover

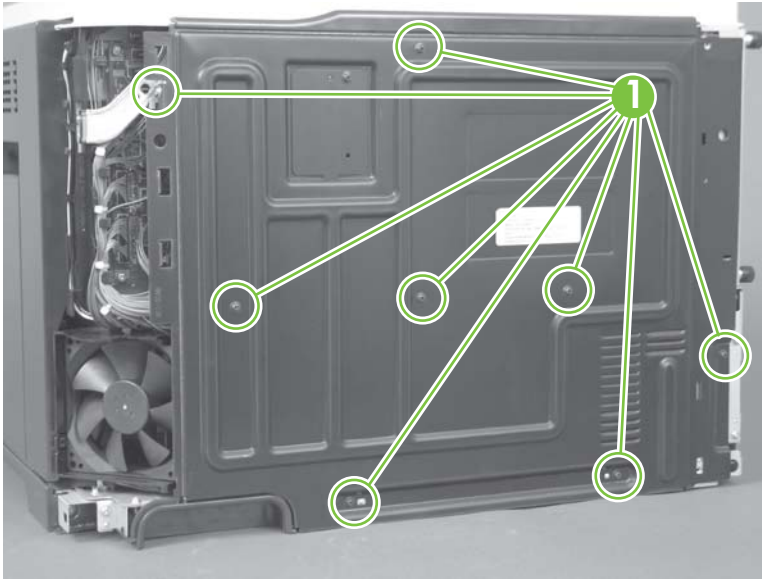
Before proceeding, remove the following components:

- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).

### Remove the rear cover

1. Remove eight screws (callout 1).

**Figure 6-89** Remove the rear cover (1 of 2)



2. Slide the cover toward the fan side of the product, and then remove the rear cover.

**Figure 6-90** Remove the rear cover (2 of 2)




## Right-front cover

Before proceeding, remove the following components:

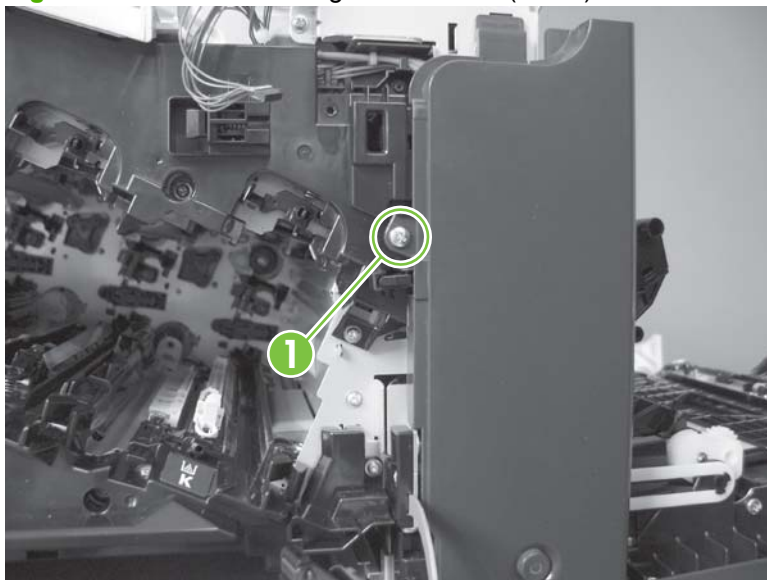
- Front-upper cover. See [Front-upper cover on page 225](#).

### 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 241](#) to reinstall it.

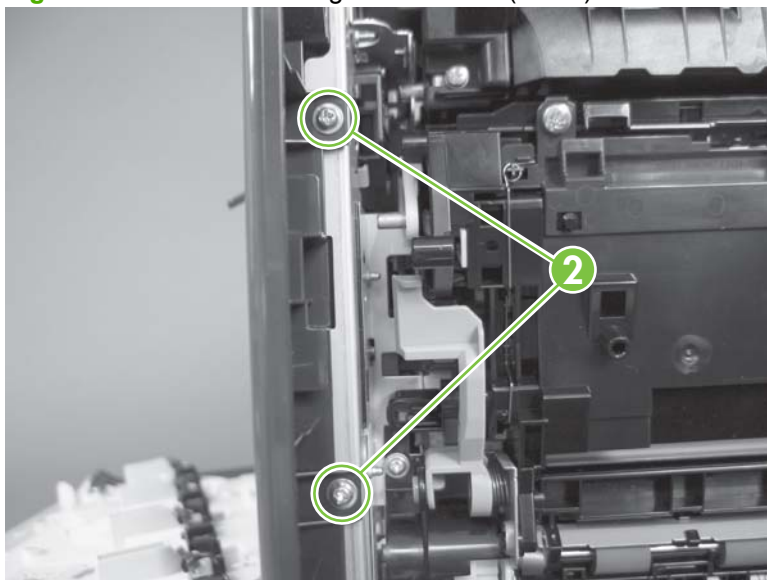
1. Remove one screw (callout 1).

**Figure 6-91** Remove the right-front cover (1 of 5)



2. Remove two screws (callout 2).

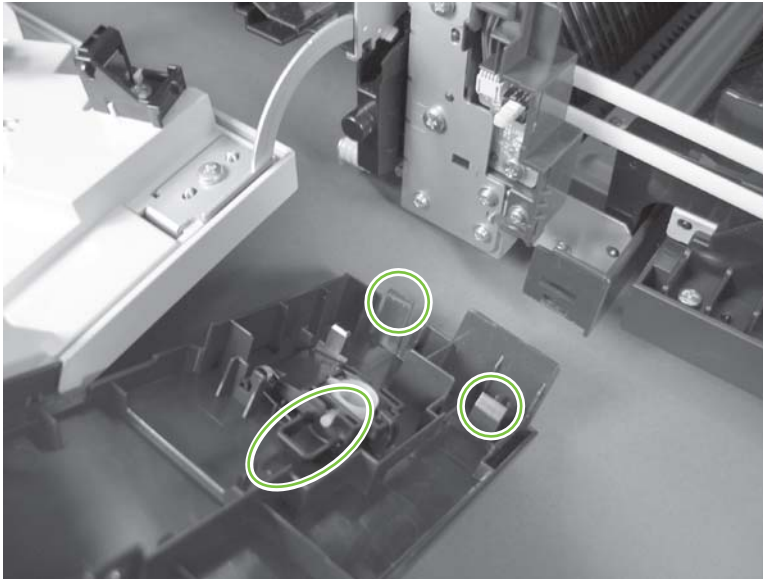
**Figure 6-92** Remove the right-front cover (2 of 5)






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

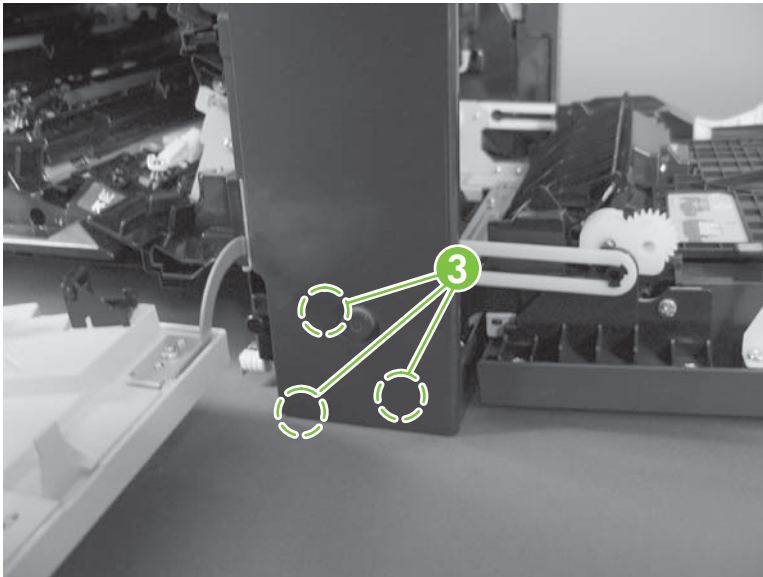
**Figure 6-93** Remove the right-front cover (3 of 5)



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.

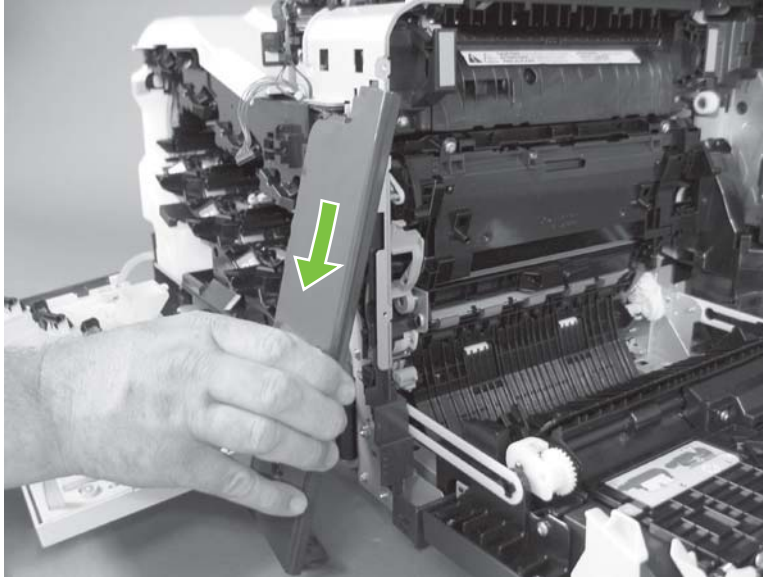
**Figure 6-94** Remove the right-front cover (4 of 5)





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

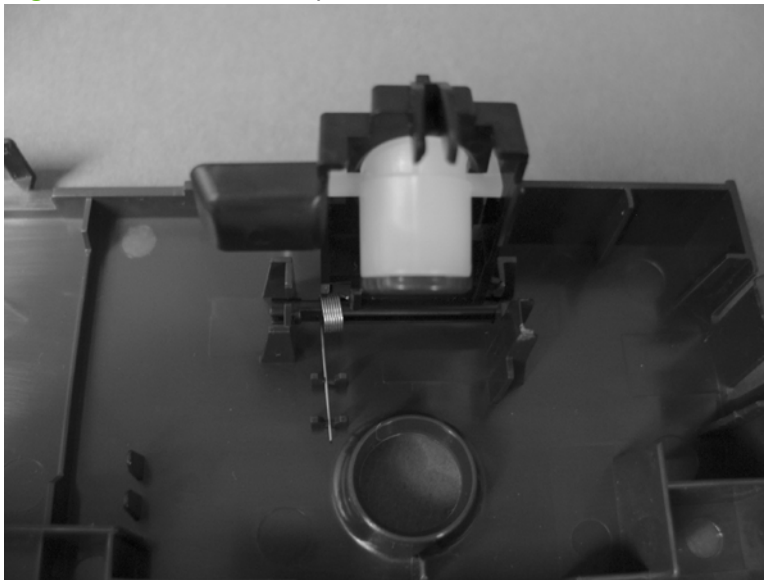
**Figure 6-95** Remove the right-front cover (5 of 5)



#### Reinstall the power button

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

**Figure 6-96** Reinstall the power button



## Scanner assembly

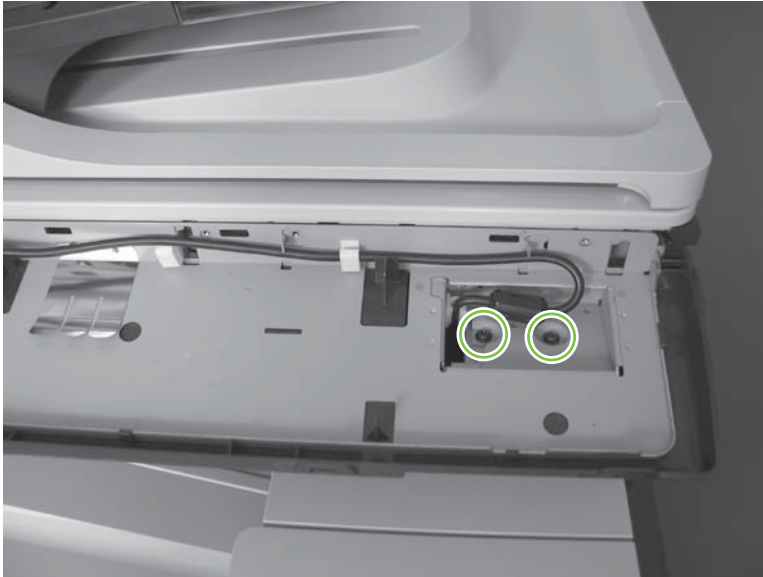
Before proceeding, remove the following components:

- Control-panel overlay. See [Control-panel overlay on page 218](#)
- Control-panel assembly. See [Control-panel assembly on page 219](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).

### Remove the scanner assembly

1. Remove two screws.

**Figure 6-97** Remove the scanner assembly (1 of 6)



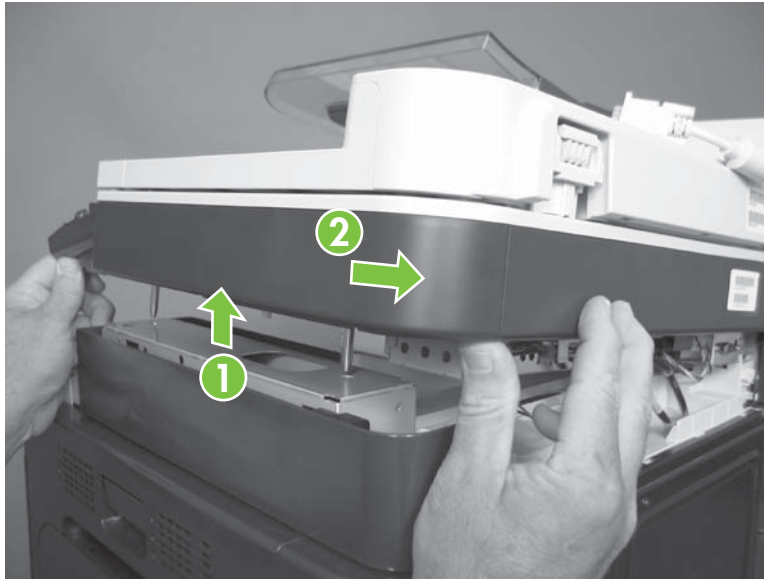
2. Remove two screws.

**Figure 6-98** Remove the scanner assembly (2 of 6)



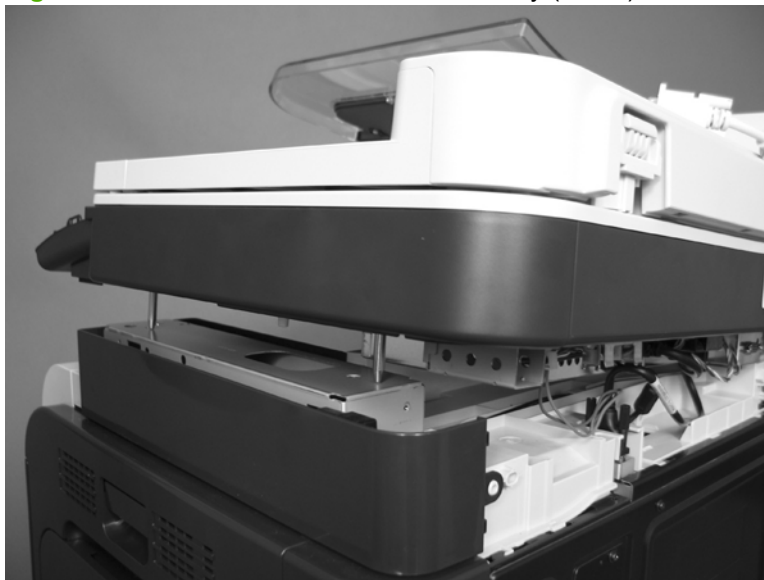
3. Lift the right side of the scanner assembly, and then move it slightly to the rear.

**Figure 6-99** Remove the scanner assembly (3 of 6)



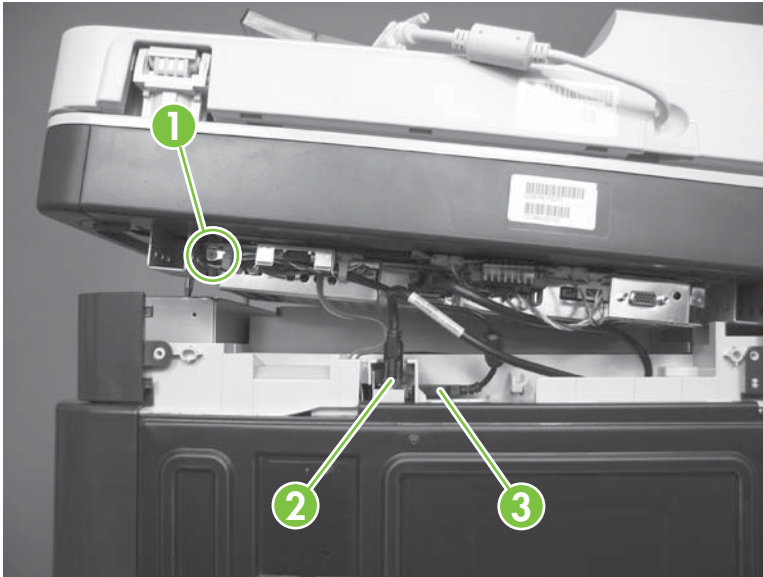
4. Place the scanner assembly on top of the base.

**Figure 6-100** Remove the scanner assembly (4 of 6)



5. Disconnect one connector (callout 1), remove two thumb screws (callout 2), and then release one cable (callout 3).

**Figure 6-101** Remove the scanner assembly (5 of 6)



6. Remove the scanner assembly.

**Figure 6-102** Remove the scanner assembly (6 of 6)



## Delivery cover

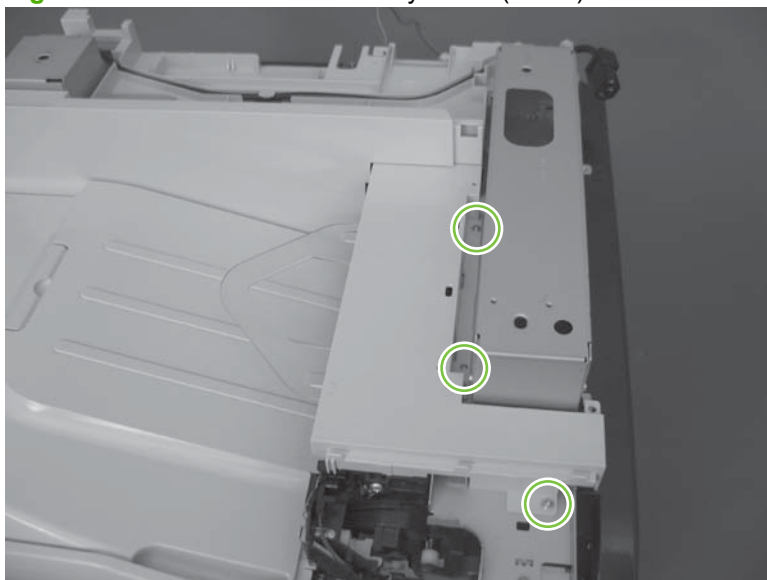
Before proceeding, remove the following components:

- Control-panel overlay. See [Control-panel overlay on page 218](#).
- Control-panel assembly. See [Control-panel assembly on page 219](#).
- Front-upper cover. See [Front-upper cover on page 225](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Scanner assembly. See [Scanner assembly on page 242](#).
- Right-top cover. See [Right-top cover on page 258](#).

### Remove the delivery cover

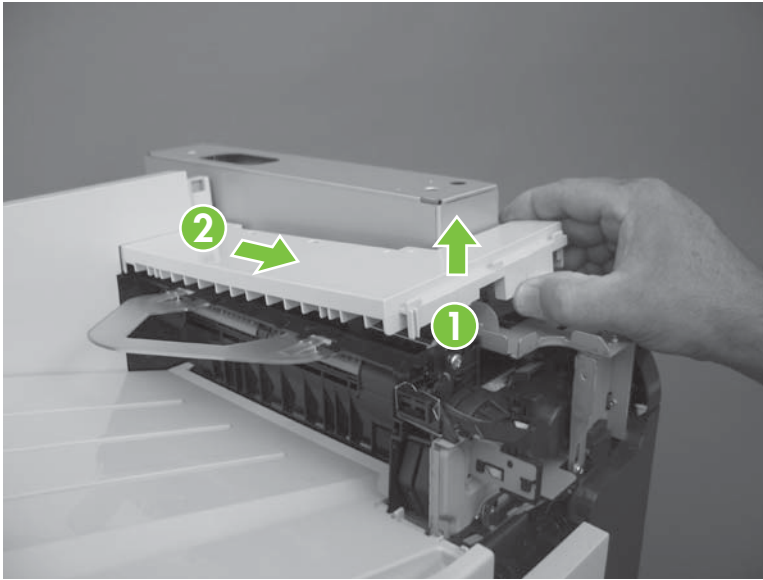
1. Remove three screws.

**Figure 6-103** Remove the delivery cover (1 of 3)



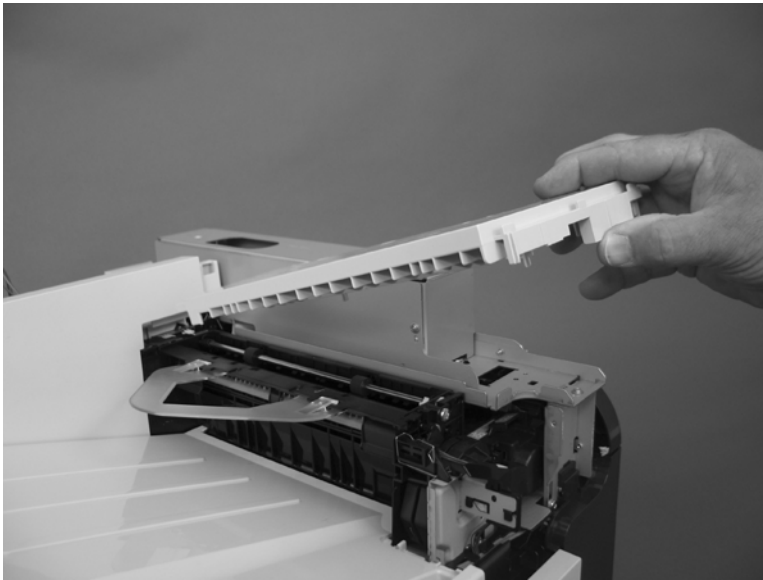
2. Lift up (callout 1) and slide the delivery cover (callout 2).

**Figure 6-104** Remove the delivery cover (2 of 3)



3. Remove the delivery cover.

**Figure 6-105** Remove the delivery cover (3 of 3)



## Left-upper cover

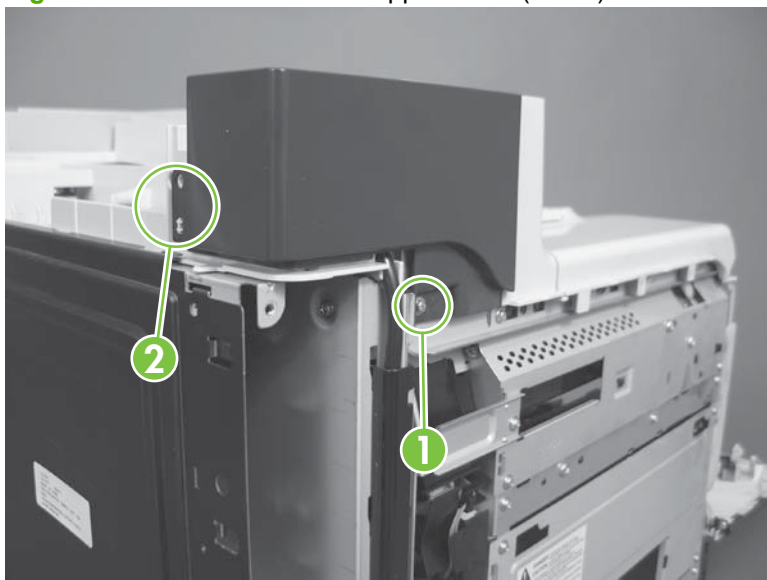
Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).
- Control-panel overlay. See [Control-panel overlay on page 218](#).
- Control-panel assembly. See [Control-panel assembly on page 219](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Scanner assembly. See [Scanner assembly on page 242](#).

### Remove the left-upper cover

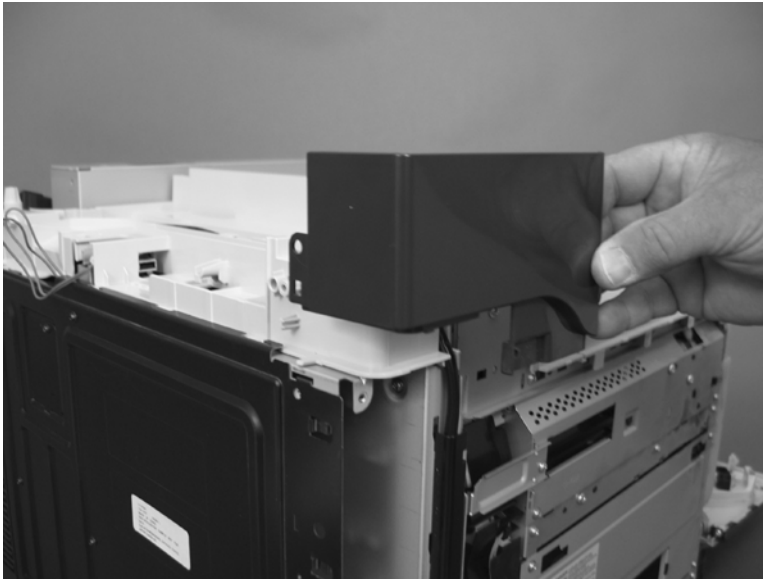
1. Remove one screw (callout 1) and one tab (callout 2).

**Figure 6-106** Remove the left-upper cover (1 of 2)



2. Remove the left-upper cover.

**Figure 6-107** Remove the left-upper cover (2 of 2)





## Front stapler cover and right-side stapler cover

Before proceeding, remove the following components:

- Control-panel overlay. See [Control-panel overlay on page 218](#).
- Control-panel assembly. See [Control-panel assembly on page 219](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Scanner assembly. See [Scanner assembly on page 242](#).

### Remove the front stapler cover and right-side stapler cover

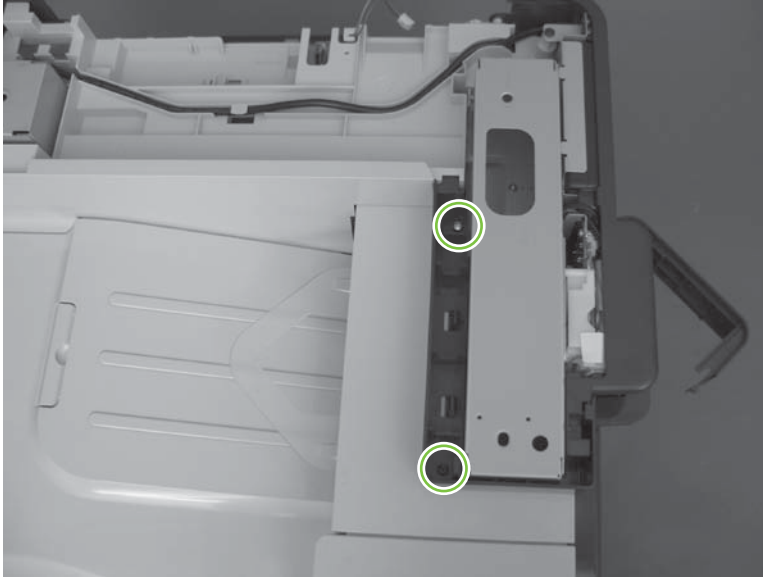
1. Open the stapler door, and then remove the stapler cartridge.

**Figure 6-108** Remove the front stapler cover and right-side stapler cover (1 of 13)



2. Remove two screws.

**Figure 6-109** Remove the front stapler cover and right-side stapler cover (2 of 13)



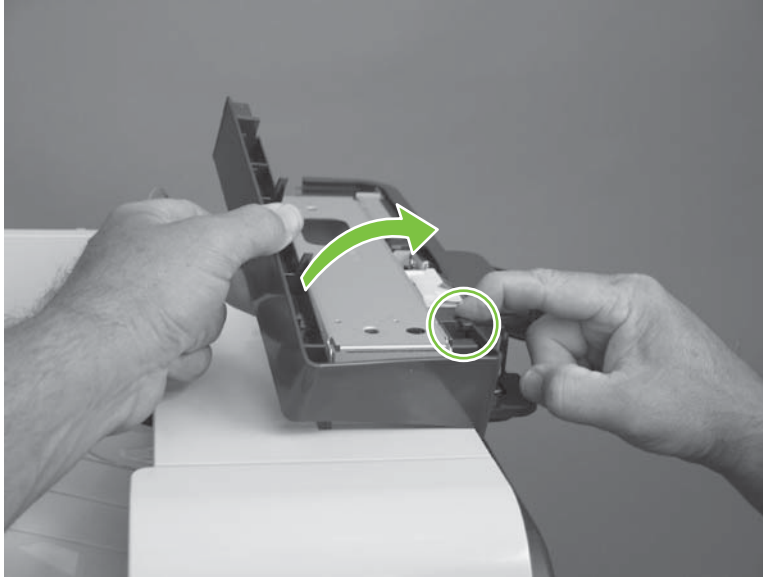
3. Slide the cover toward the front of the product while releasing two tabs.

**Figure 6-110** Remove the front stapler cover and right-side stapler cover (3 of 13)



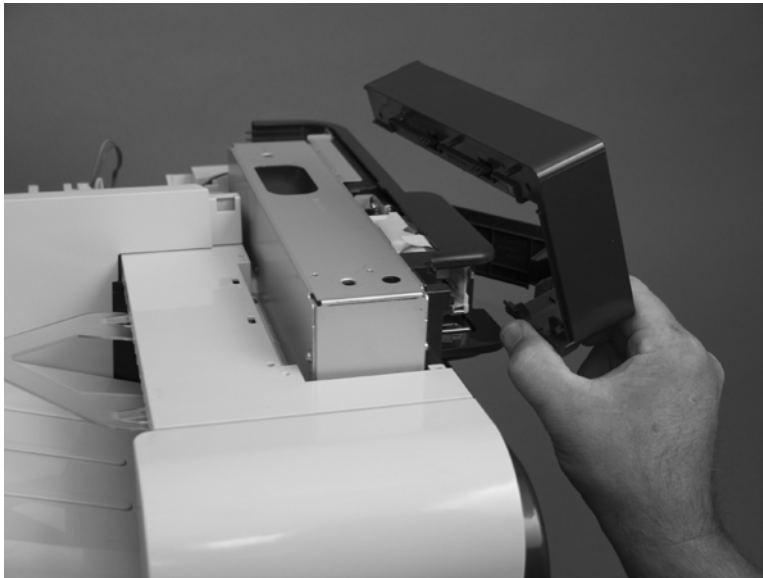
4. Slightly raise the cover and then release one tab.

**Figure 6-111** Remove the front stapler cover and right-side stapler cover (4 of 13)



5. Rotate the cover up, and then remove the cover.

**Figure 6-112** Remove the front stapler cover and right-side stapler cover (5 of 13)



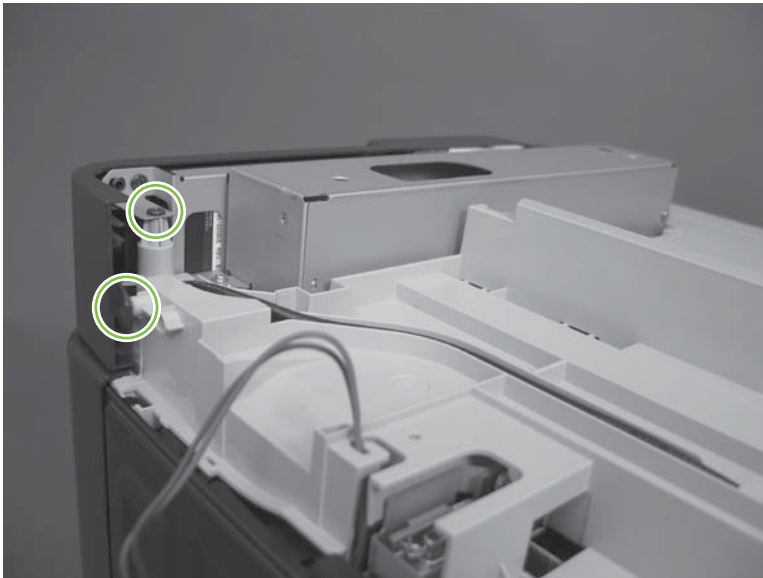
6. Remove one screw.

**Figure 6-113** Remove the front stapler cover and right-side stapler cover (6 of 13)



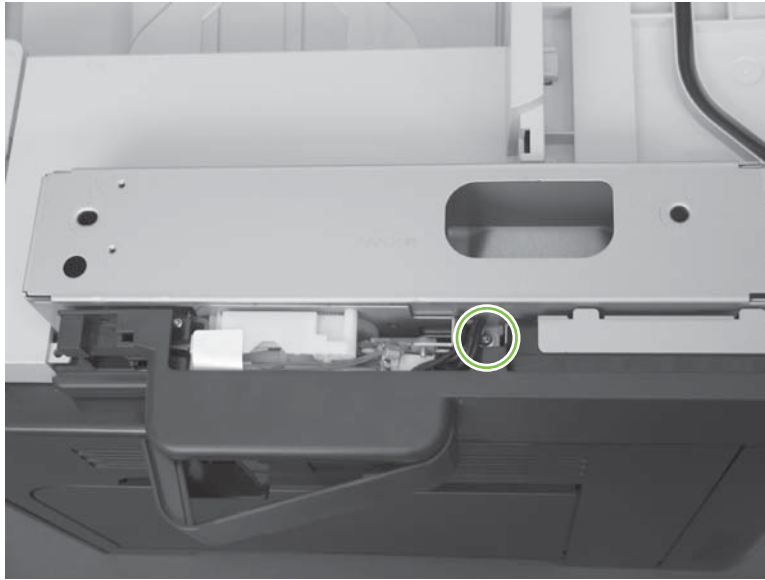
7. Remove two screws.

**Figure 6-114** Remove the front stapler cover and right-side stapler cover (7 of 13)



8. Remove one screw.

**Figure 6-115** Remove the front stapler cover and right-side stapler cover (8 of 13)



9. Release one tab.

**Figure 6-116** Remove the front stapler cover and right-side stapler cover (9 of 13)



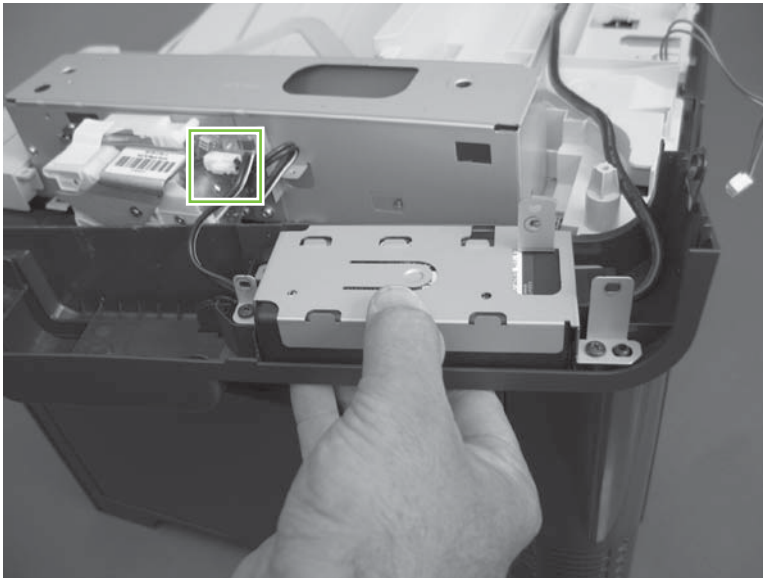
10. Rotate the cover.

**Figure 6-117** Remove the front stapler cover and right-side stapler cover (10 of 13)



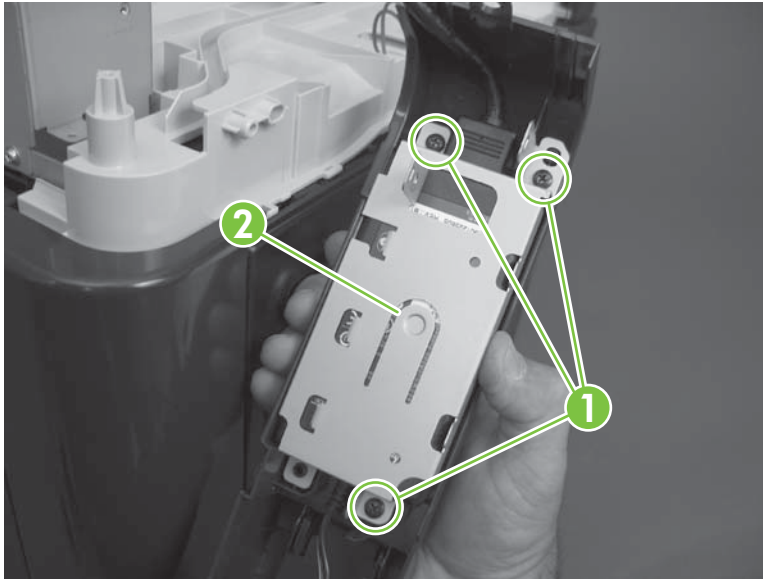
11. Disconnect one connector.

**Figure 6-118** Remove the front stapler cover and right-side stapler cover (11 of 13)



12. Remove three screws (callout 1), and then remove the sheet-metal cover (callout 2).

**Figure 6-119** Remove the front stapler cover and right-side stapler cover (12 of 13)



13. Separate the stapler power supply from the cover, and then remove the cover.

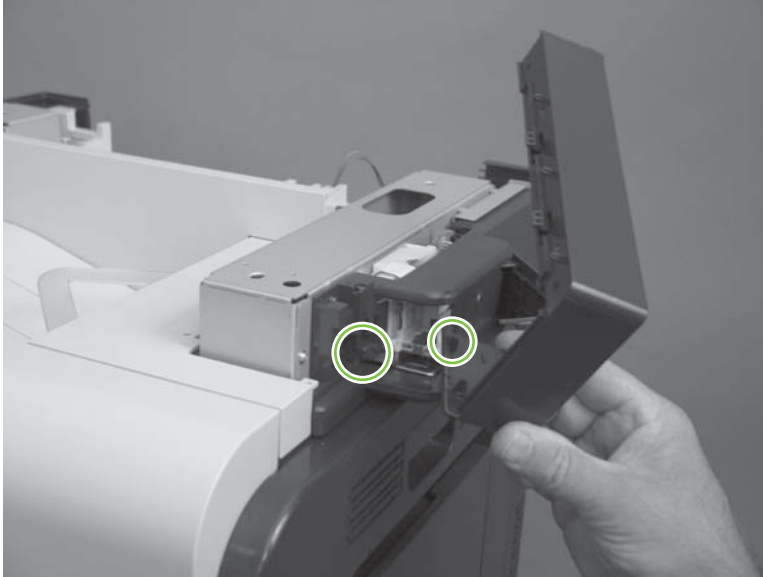
**Figure 6-120** Remove the front stapler cover and right-side stapler cover (13 of 13)



## Reinstall the right-side stapler cover

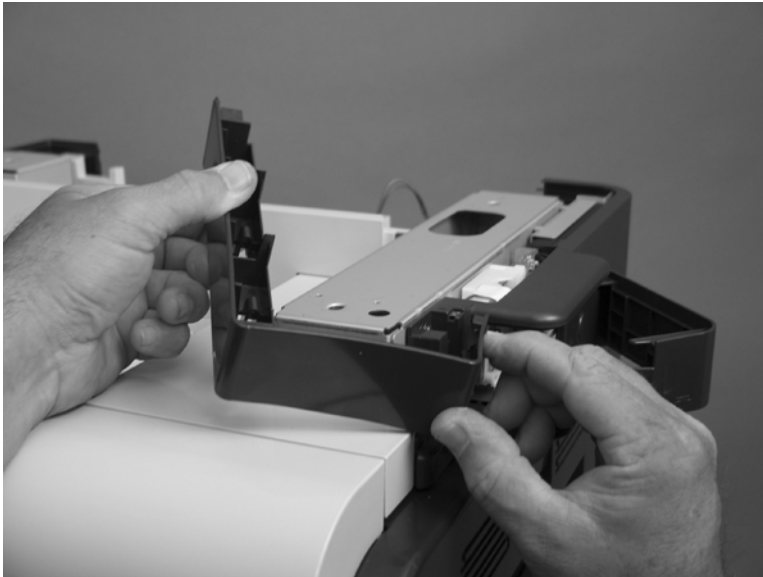
1. Insert one tab.

**Figure 6-121** Reinstall the right-side stapler cover (1 of 3)



2. Carefully bend the right-upper cover A around the chassis.

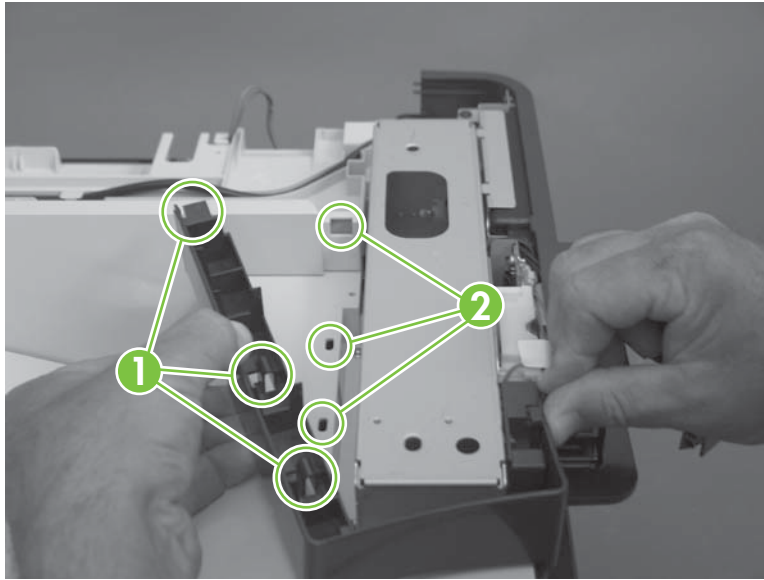
**Figure 6-122** Reinstall the right-side stapler cover (2 of 3)





3. Insert three tabs (callout 1) into three slots (callout 2).

**Figure 6-123** Reinstall the right-side stapler cover (3 of 3)



## Right-top cover

Before proceeding, remove the following components:

- Automatic document feeder (ADF). See [Automatic document feeder \(ADF\) on page 212](#)
- Control-panel overlay. See [Control-panel overlay on page 218](#).
- Control-panel assembly. See [Control-panel assembly on page 219](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Scanner assembly. See [Scanner assembly on page 242](#).

### Remove the right-top cover

1. Remove four screws.

**Figure 6-124** Remove the right-top cover (1 of 5)



2. Release one tab.

**Figure 6-125** Remove the right-top cover (2 of 5)



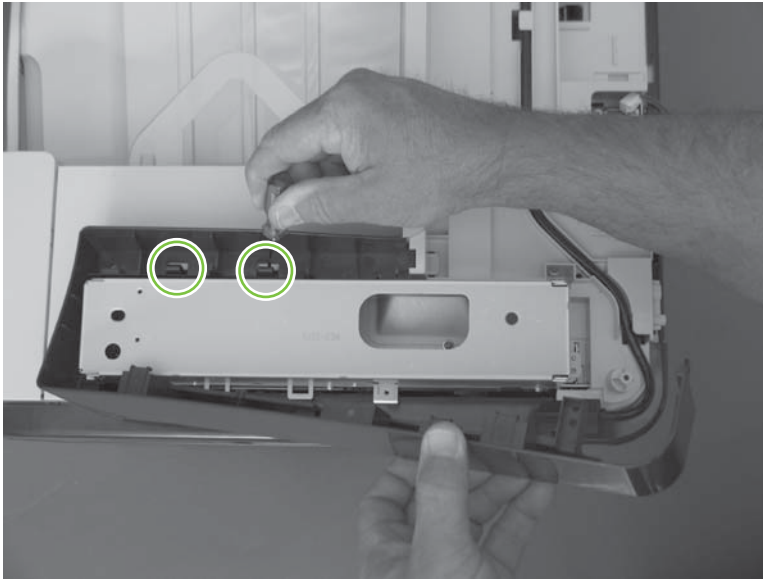
3. Release three tabs.

**Figure 6-126** Remove the right-top cover (3 of 5)



4. Release two tabs.

**Figure 6-127** Remove the right-top cover (4 of 5)



5. Remove the right-top cover.

**Figure 6-128** Remove the right-top cover (5 of 5)



## Front-top cover

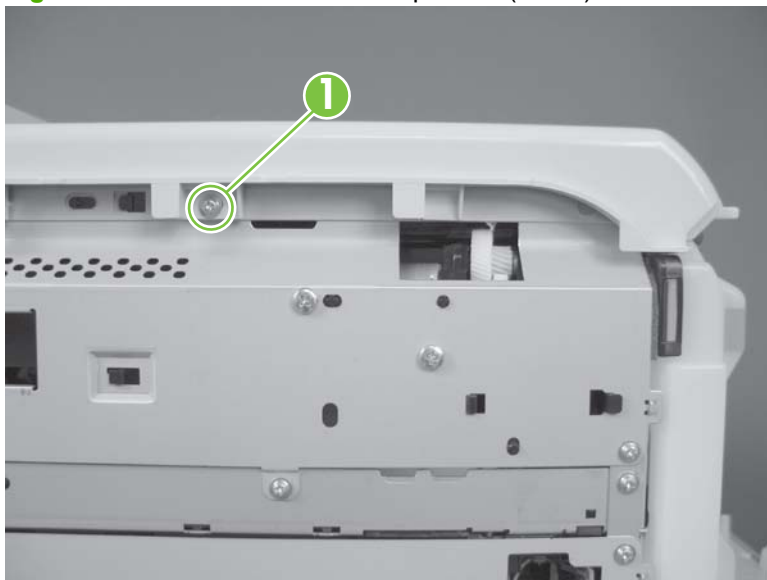
Before proceeding, remove the following components:

- Front-upper cover. See [Front-upper cover on page 225](#).
- Left cover. See [Left cover on page 233](#).
- Scanner assembly. See [Scanner assembly on page 242](#).

### Remove the front-top cover

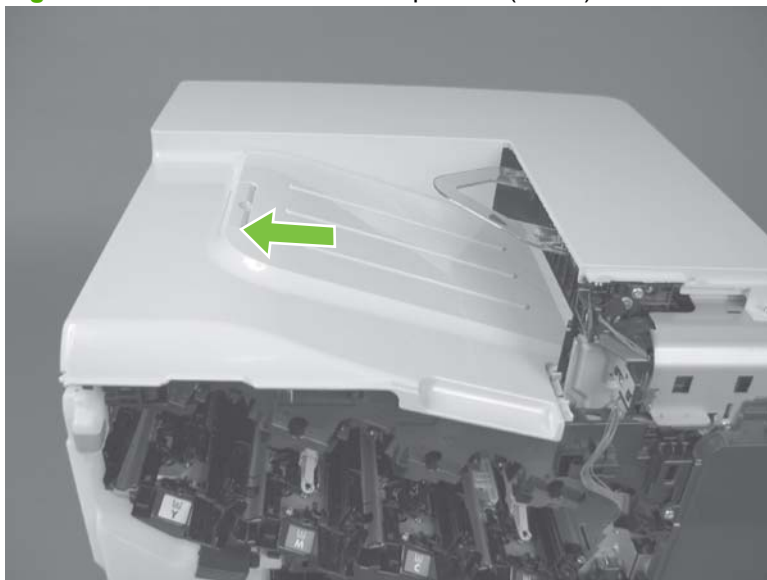
1. Remove one screw (callout 1).

**Figure 6-129** 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 6-130** Remove the front-top cover (2 of 2)




## Rear-top cover

Before proceeding, remove the following components:

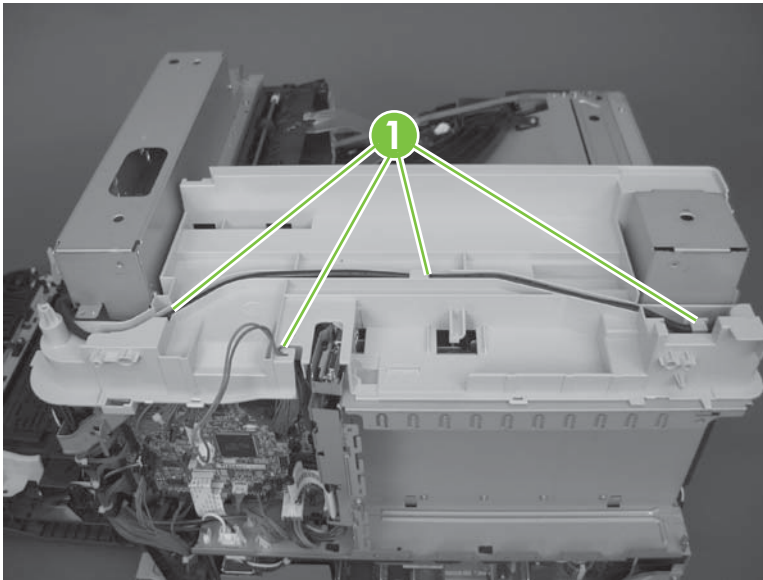
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Scanner assembly. See [Scanner assembly on page 242](#).
- Delivery cover. See [Delivery cover on page 245](#).
- Left-upper cover. See [Left-upper cover on page 247](#).
- Front-top cover. See [Front-top cover on page 261](#).

### Remove the rear-top cover

1. Release the stapler power supply cable and one wire harness from the retainers (callout 1).

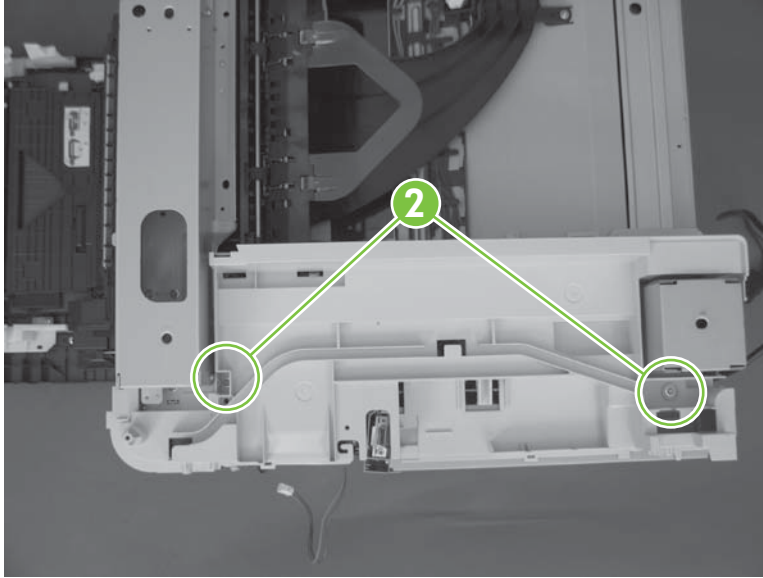
 **NOTE:** You might have to disconnect one end of the power supply cable to release it from the retainers.

**Figure 6-131** Remove the rear-top cover (1 of 2)




2. Remove two screws (callout 2), and then remove the cover.

**Figure 6-132** 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.

## Stapler assembly

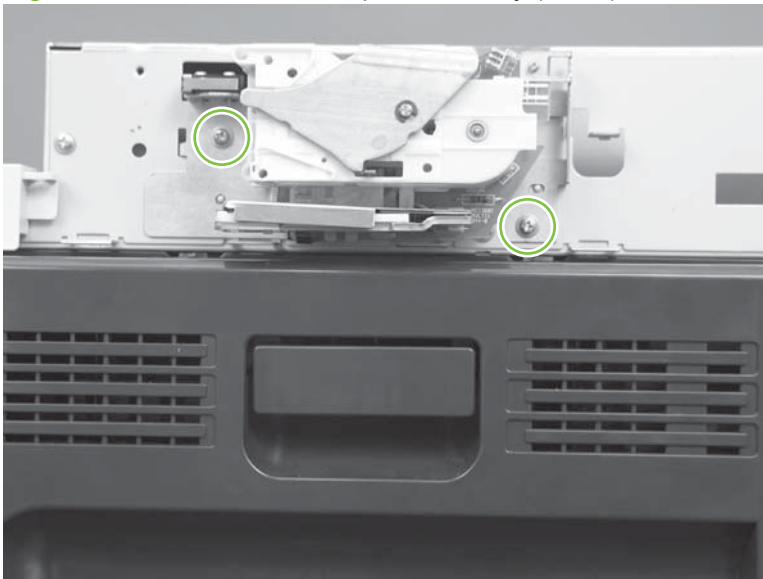
Before proceeding, remove the following components:

- Automatic document feeder (ADF) assembly. See [Automatic document feeder \(ADF\) on page 212](#).
- Control-panel overlay. See [Control-panel overlay on page 218](#).
- Control-panel assembly. See [Control-panel assembly on page 219](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Scanner assembly. See [Scanner assembly on page 242](#).
- Front stapler cover and right-side stapler cover. See [Front stapler cover and right-side stapler cover on page 249](#).

## Remove the stapler assembly

1. Remove two screws.

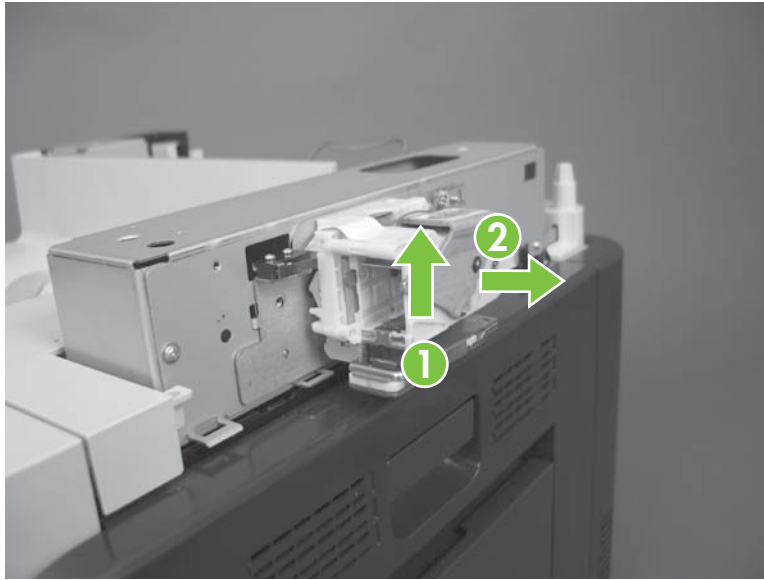
**Figure 6-133** Remove the stapler assembly (1 of 2)





2. Lift up (callout 1) and remove the stapler assembly (callout 2).

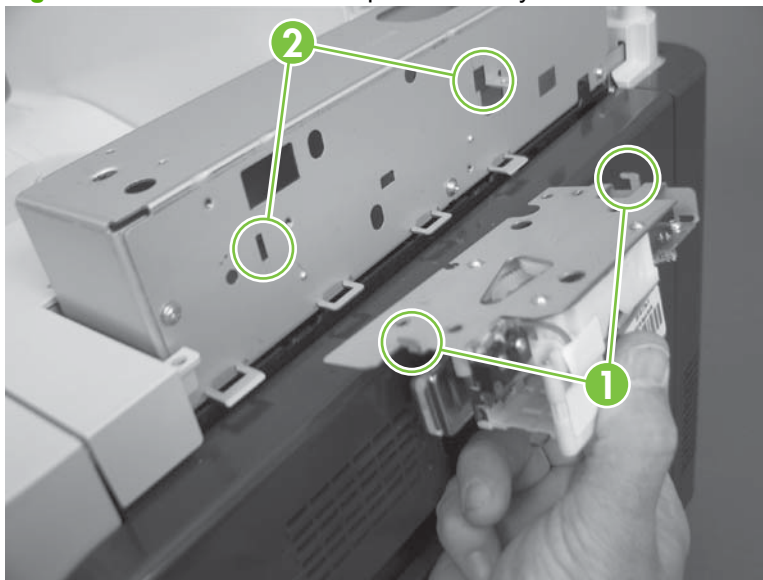
**Figure 6-134** Remove the stapler assembly (2 of 2)



#### Reinstall the stapler assembly

Insert the hooks on the stapler assembly (callout 1) into the chassis (callout 2), and then slide the stapler assembly down to engage the hooks.

**Figure 6-135** Reinstall the stapler assembly



## Stapler power supply

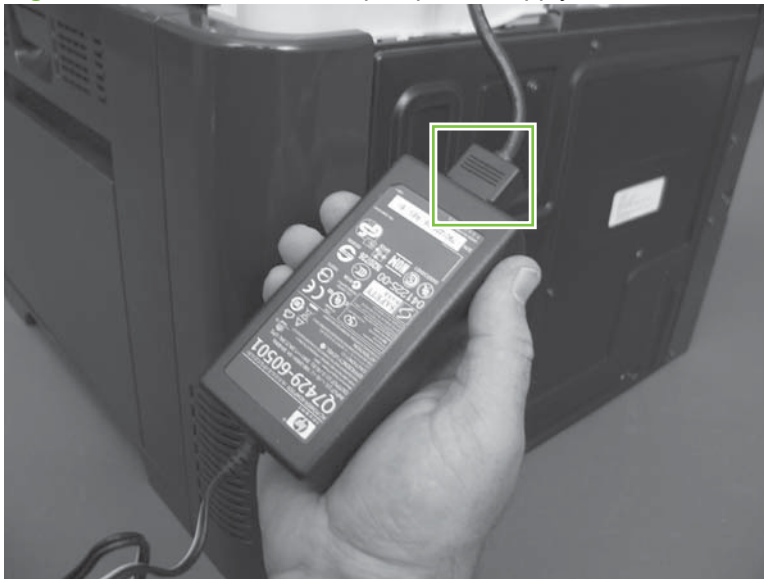
Before proceeding, remove the following components:

- Automatic document feeder (ADF) assembly. See [Automatic document feeder \(ADF\) on page 212](#).
- Control-panel overlay. See [Control-panel overlay on page 218](#).
- Control-panel assembly. See [Control-panel assembly on page 219](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Scanner assembly. See [Scanner assembly on page 242](#).
- Front stapler cover and right-side stapler cover. See [Front stapler cover and right-side stapler cover on page 249](#).

## Remove the stapler power supply

Disconnect one connector, and then remove the power supply.

**Figure 6-136** Remove the stapler power supply



## Interconnect board (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.

**Before proceeding, remove the following components:**

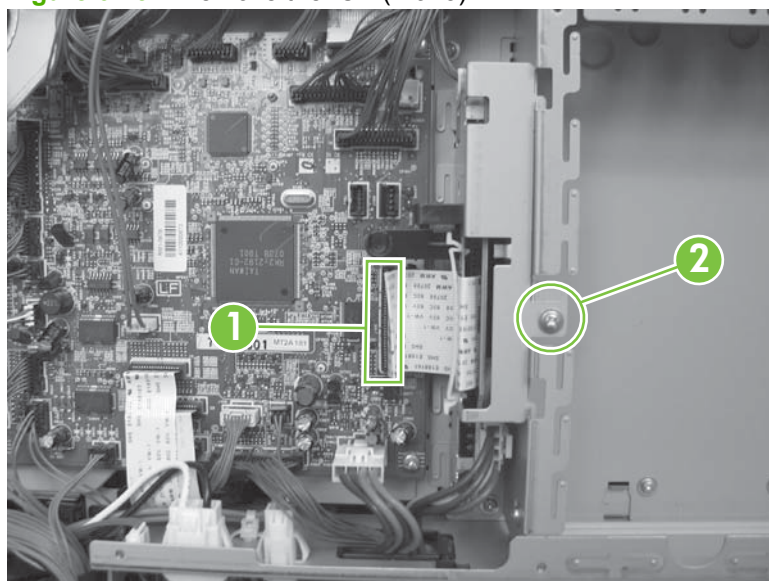
- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).

## Remove the ICB

📄 **NOTE:** To locate DC controller connector locations, see [DC controller PCA on page 183](#).

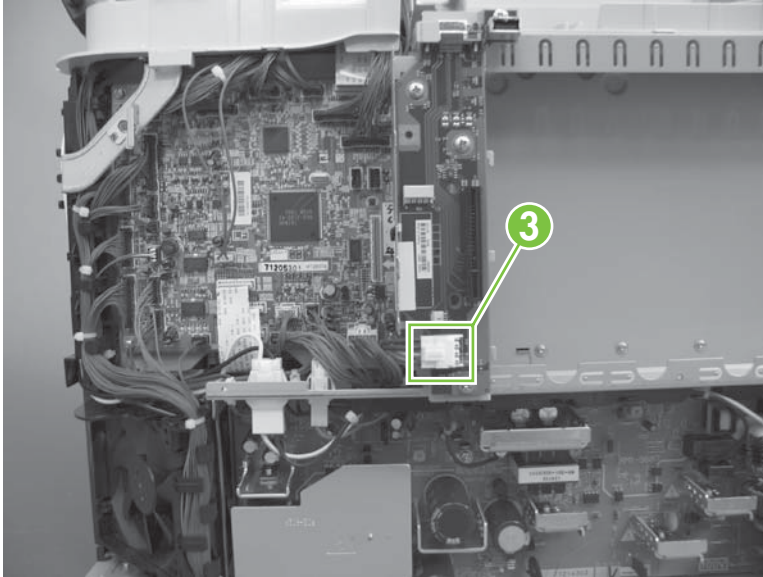
1. Disconnect one connector (callouts 1; J105), and then remove one screw (callout 2).

**Figure 6-137** Remove the ICB (1 of 3)



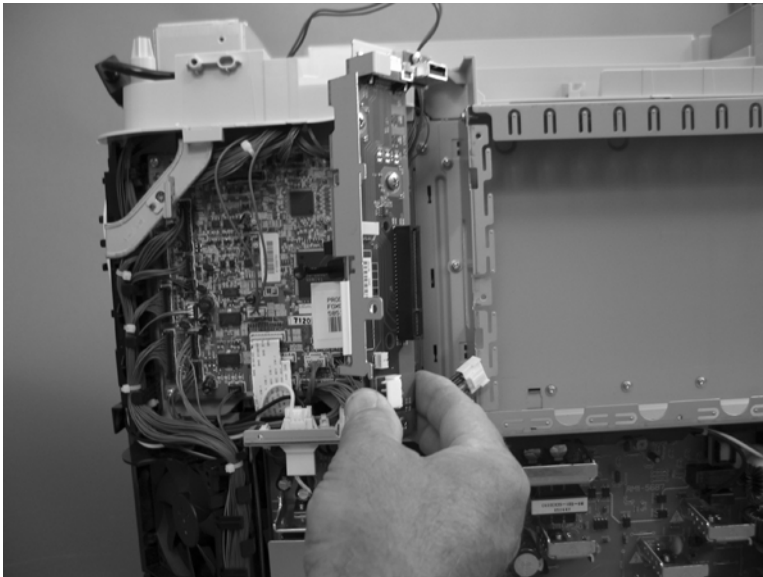
2. Carefully rotate and slide the ICB up and away from the chassis, and then disconnect one connector (callout 3).

**Figure 6-138** Remove the ICB (2 of 3)



3. Remove the ICB.

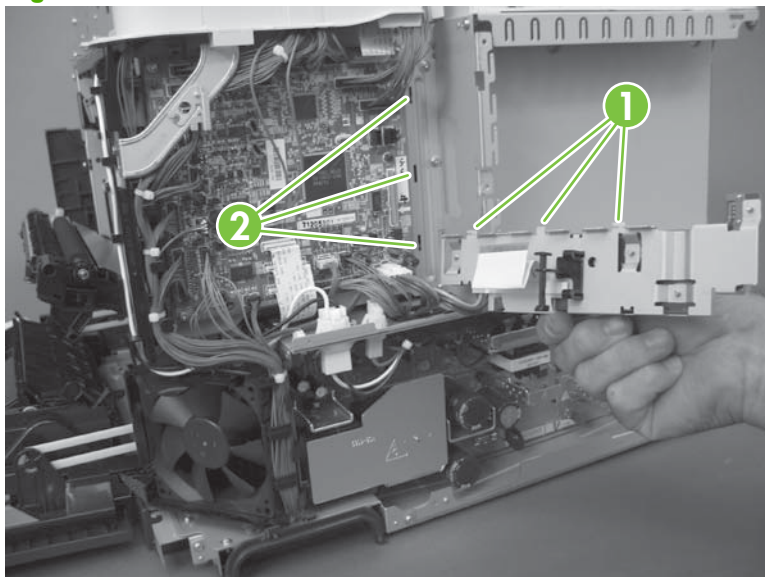
**Figure 6-139** Remove the ICB (3 of 3)



## Reinstall the ICB

The ICB bracket (callout 1) must be properly engaged on the chassis (callout 2).

**Figure 6-140** Reinstall the ICB



## DC controller PCA and tray

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

### Remove the DC controller PCA and tray



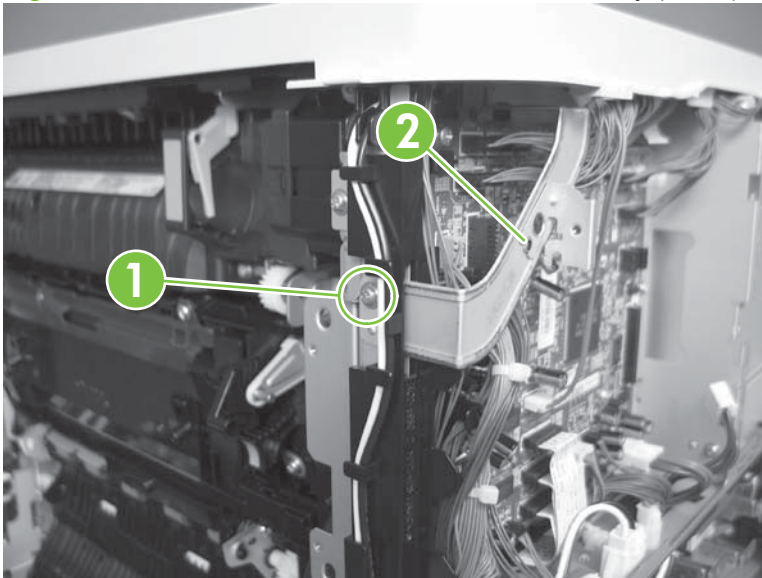
**CAUTION:**  ESD-sensitive part.



**TIP:** To access components behind the DC controller PCA, remove the PCA and the sheet-metal tray together. Disconnect all of the connectors on the PCA, and then remove five screws and the bracket, see [Figure 6-141 Remove the DC controller PCA and tray \(1 of 4\) on page 270](#) and [Figure 6-144 Remove the DC controller PCA and tray \(4 of 4\) on page 272](#).


1. Remove one screw (callout 1), and then remove the sheet-metal bracket (callout 2).

**Figure 6-141** Remove the DC controller PCA and tray (1 of 4)





2. Disconnect all the connectors.

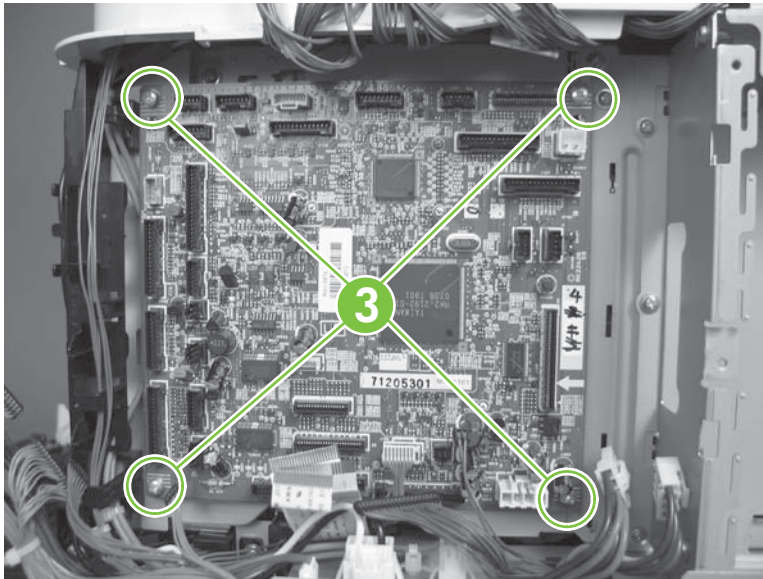
 **Reinstallation tip** The connector locations J133 and J134 are not used.

**Figure 6-142** Remove the DC controller PCA and tray (2 of 4)



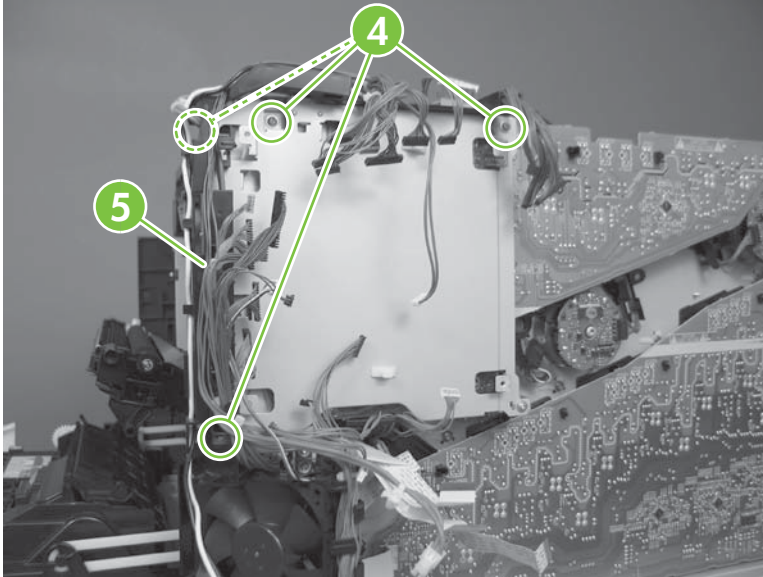
3. Remove four screws (callout 3), and then remove the DC controller PCA.

**Figure 6-143** Remove the DC controller PCA and tray (3 of 4)



4. If necessary, remove four screws (callout 4), remove the wire guide (callout 5), and then remove the sheet-metal tray.

**Figure 6-144** Remove the DC controller PCA and tray (4 of 4)






## Low-voltage power supply (LVPS)

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

 **NOTE:** 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.

### Remove the LVPS



**CAUTION:**  ESD-sensitive part.



**NOTE:** The formatter cage is attached to the LVPS. Both components are removed as an assembly, and then the formatter cage is removed from the LVPS.

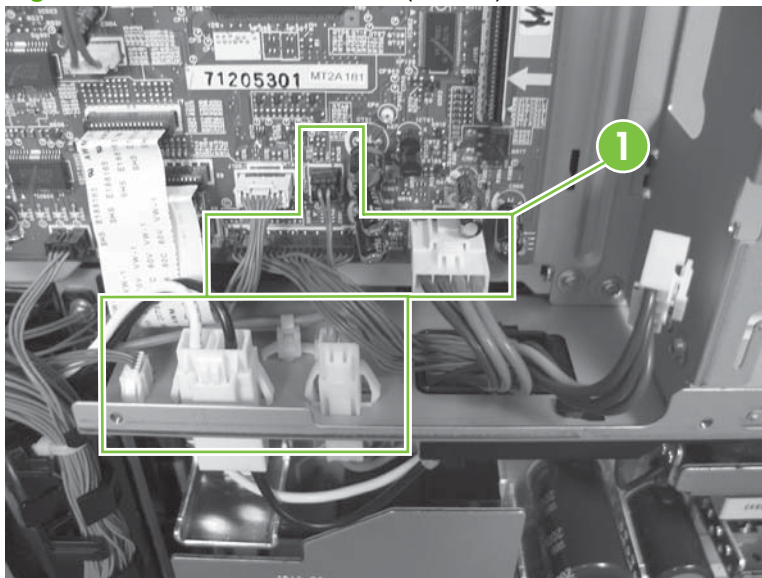
1. Disconnect six connectors (callout 1; J100, J101, J143 on the DC controller PCA).



**NOTE:** To locate DC controller connector locations, see [DC controller PCA on page 183](#).

**NOTE:** 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.

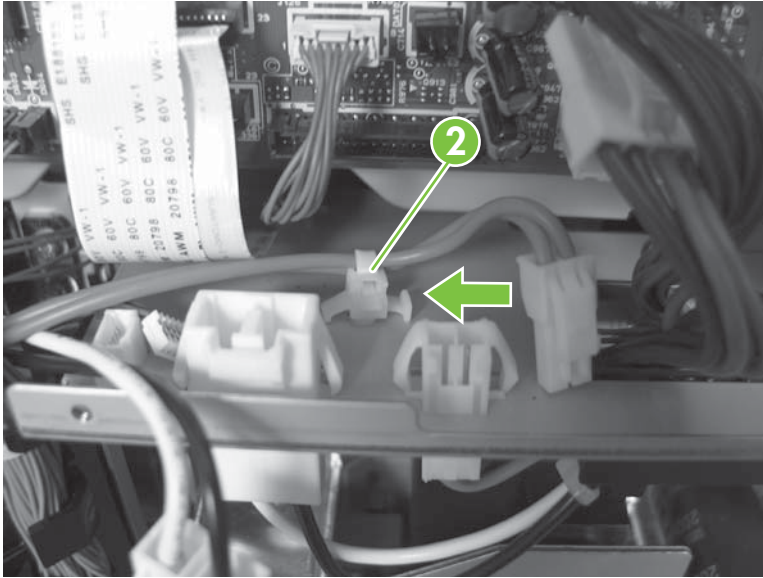
**Figure 6-145** Remove the LVPS (1 of 10)



2. Push in on the locking tab to release the retainer (callout 2), and then separate the retainer from the assembly.

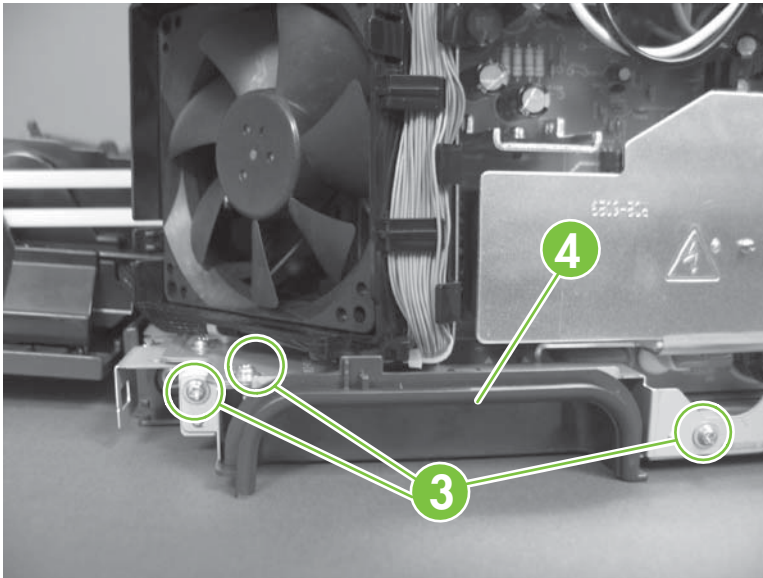
 **NOTE:** The retainer remains attached to the wire harness, and is disengaged from the assembly.

**Figure 6-146** Remove the LVPS (2 of 10)



3. Remove three screws (callout 3), and then remove the handle (callout 4).

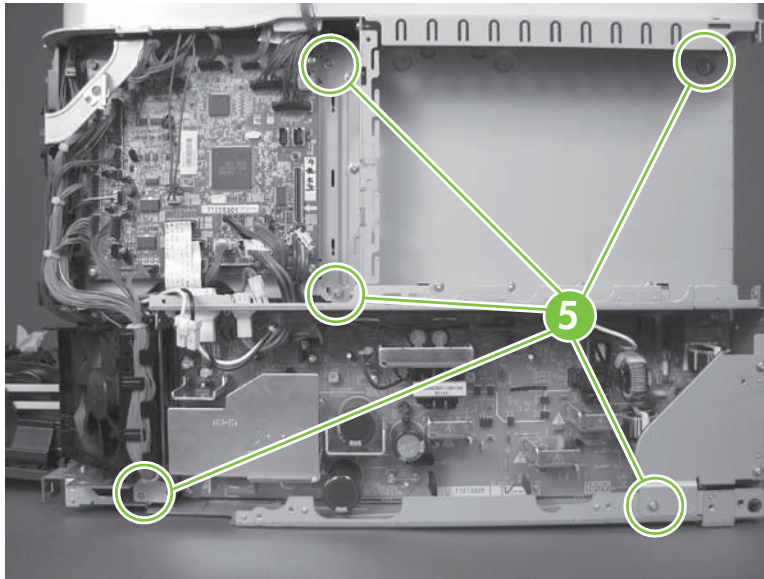
**Figure 6-147** Remove the LVPS (3 of 10)



4. Remove five screws (callout 5).

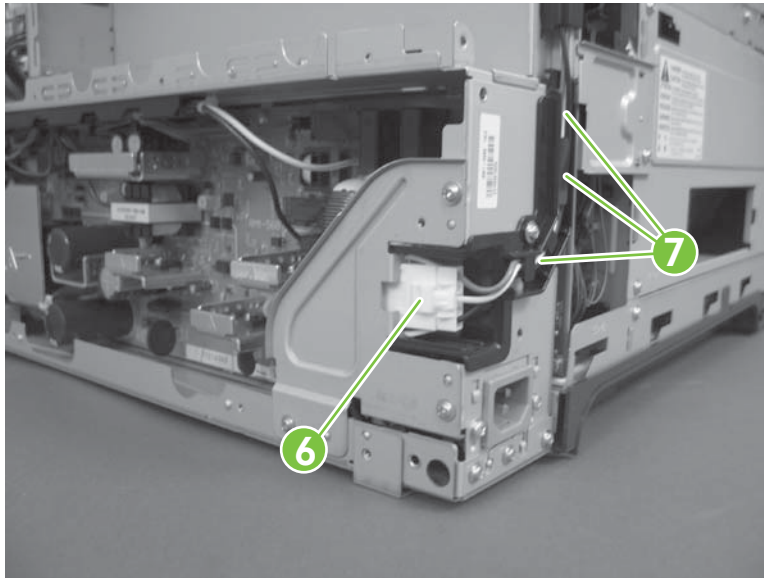
 **NOTE:** The illustration below shows the ICB removed.

**Figure 6-148** Remove the LVPS (4 of 10)



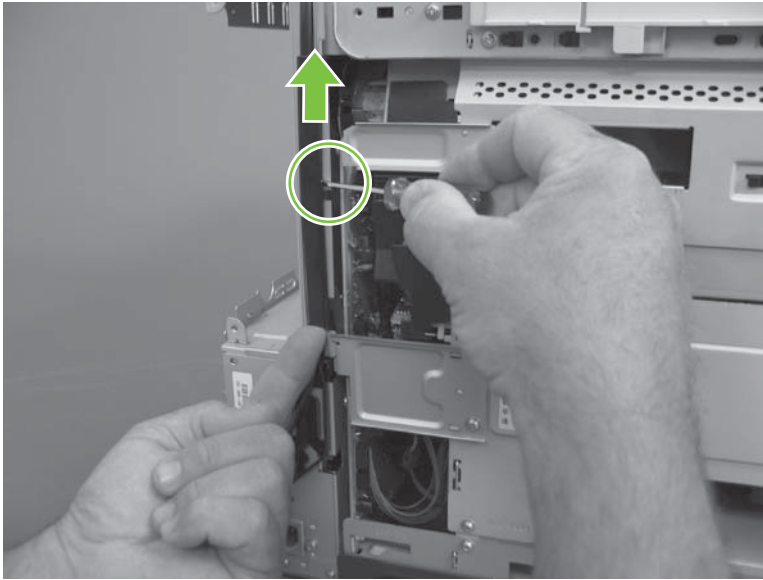
5. Disconnect one connector (callout 6), and then remove the wire from the guide (callout 7).

**Figure 6-149** Remove the (5 of 10)



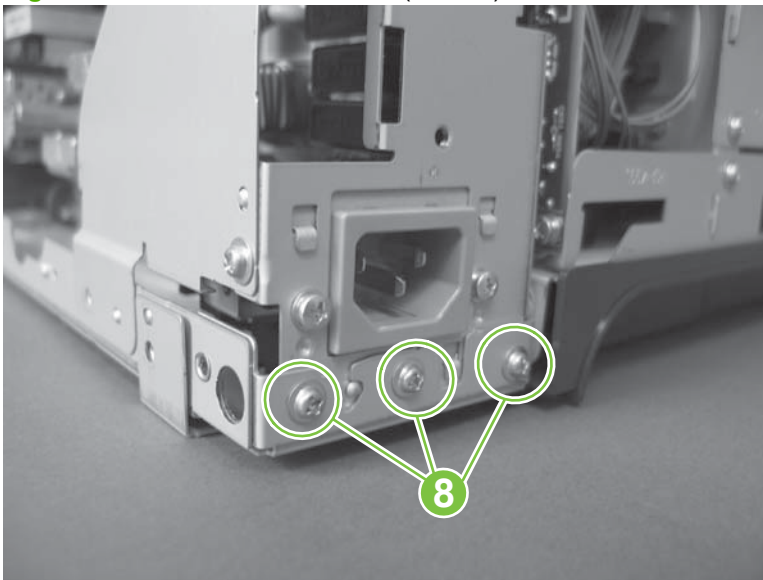
6. Release one tab and lift up the wire cover.

**Figure 6-150** Remove the (6 of 10)



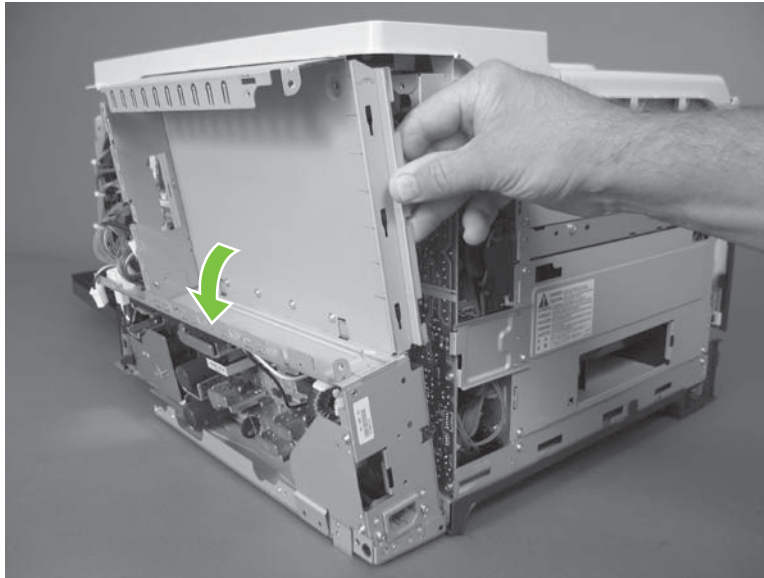
7. Remove three screws (callout 8).

**Figure 6-151** Remove the LVPS (7 of 10)



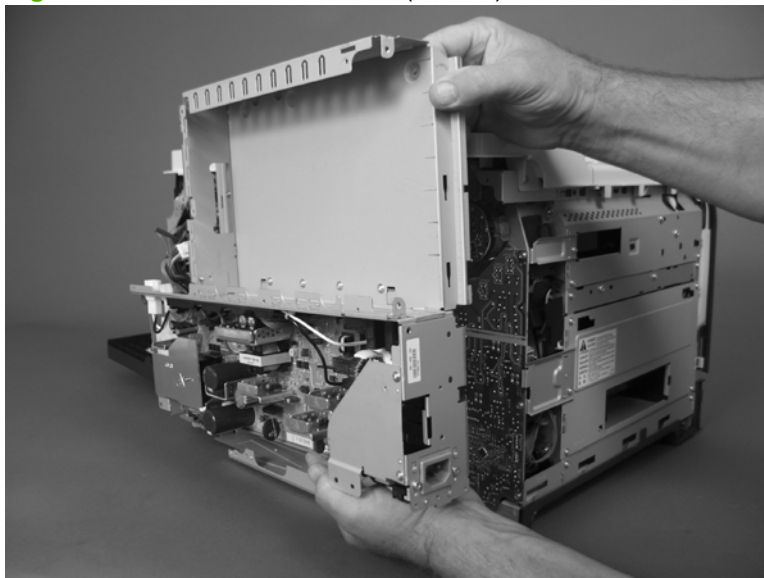
8. Rotate the formatter cage away from the top of the product.

**Figure 6-152** Remove the LVPS (8 of 10)



9. Remove the assembly.

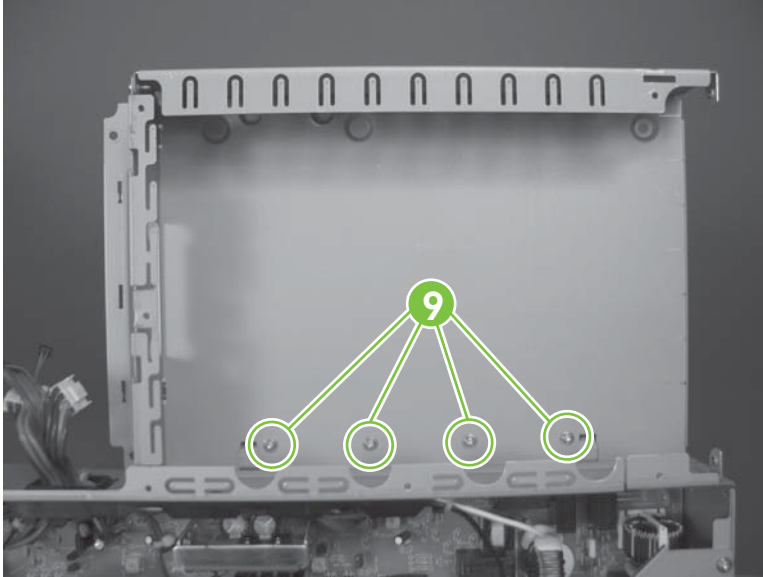
**Figure 6-153** Remove the LVPS (9 of 10)





10. Remove four screws (callout 9), and then separate the formatter cage from the low-voltage power supply.

**Figure 6-154** Remove the LVPS (10 of 10)




## Scanner-control board (SCB)


Before proceeding, remove the following components:

- Automatic document feeder (ADF). See [Automatic document feeder \(ADF\) on page 212](#).
- Control-panel overlay. See [Control-panel overlay on page 218](#).
- Control-panel assembly. See [Control-panel assembly on page 219](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Scanner assembly. See [Scanner assembly on page 242](#).

### Remove the SCB

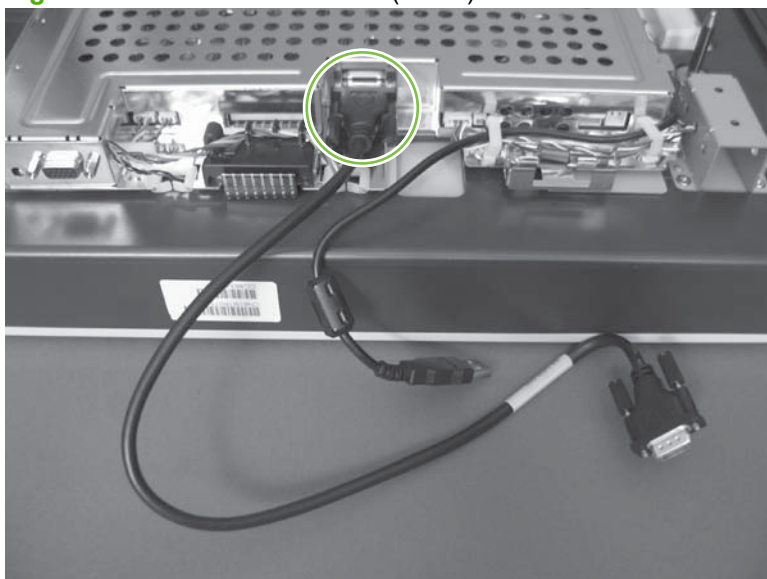
 **NOTE:** To replace the Peripheral Component Interconnect Express (PCI-E) cable, locate and remove the cable that connects the SCB to the ICB.

1. Place the scanner assembly glass-side down on a clean surface or piece of paper.

 **CAUTION:** Dust or debris can scratch the scanner glass and cause print-quality problems. If possible, place the scanner on a clean lint-free cloth.

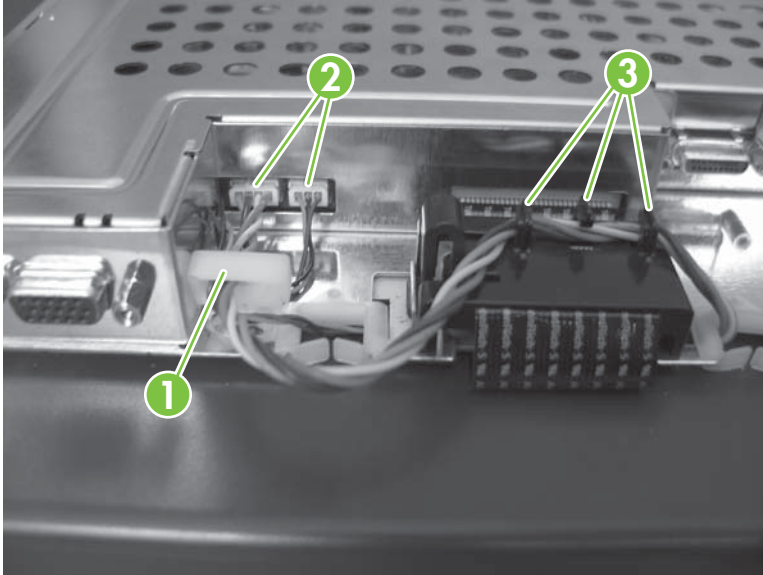
2. Release two thumb screws, and then remove one cable.

**Figure 6-155** Remove the SCB (1 of 8)



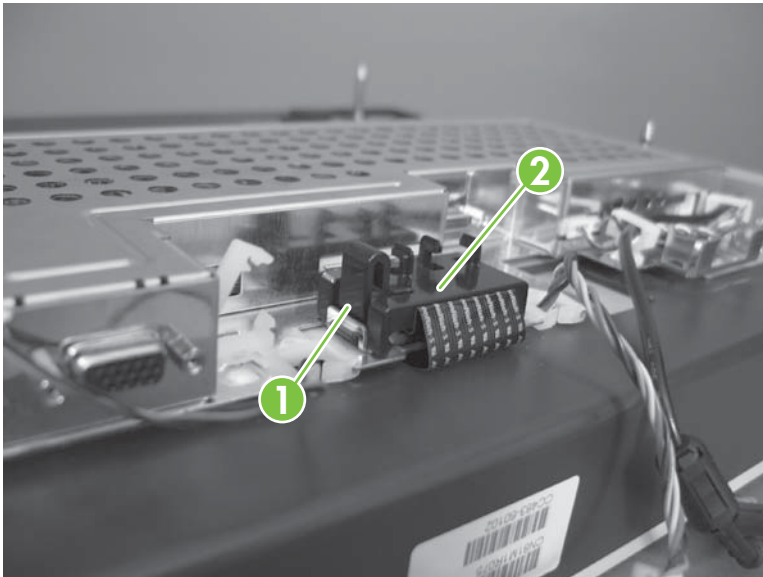
3. Release one retainer (callout 1), disconnect two connectors (callout 2), and then release the wires from the guides (callout 3).

**Figure 6-156** Remove the SCB (2 of 8)



4. Release one tab (callout 1), and then disengage the ferrite assembly (callout 2).

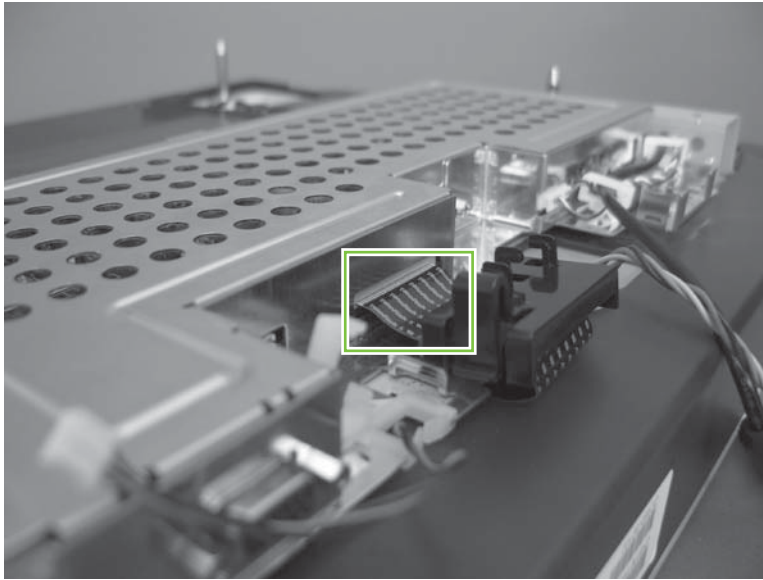
**Figure 6-157** Remove the SCB (3 of 8)





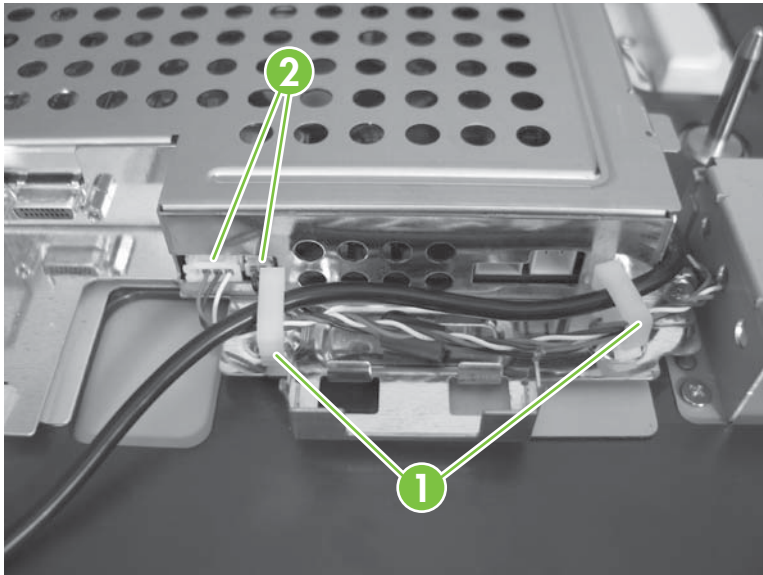
5. Disconnect one FFC, and then remove the ferrite assembly from the FFC.

**Figure 6-158** Remove the SCB (4 of 8)



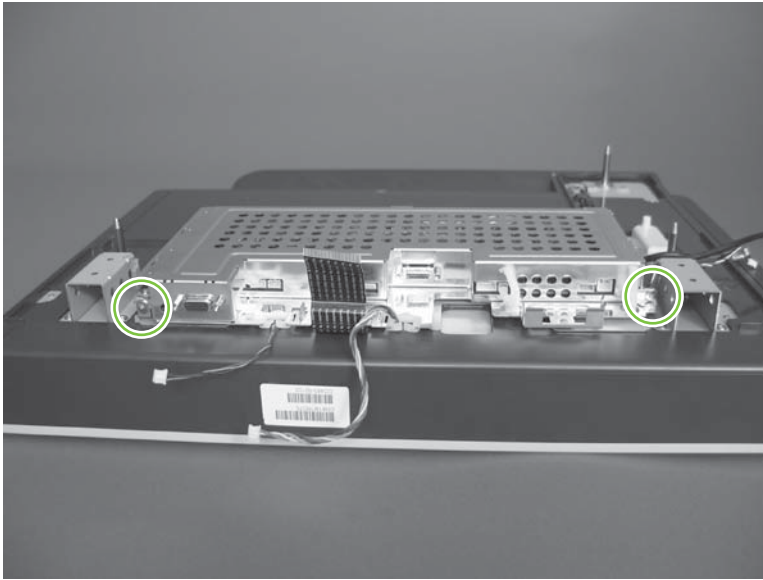
6. Release two retainers (callout 1), disconnect two connectors (callout 2), and then move the wires to the side.

**Figure 6-159** Remove the (5 of 8)



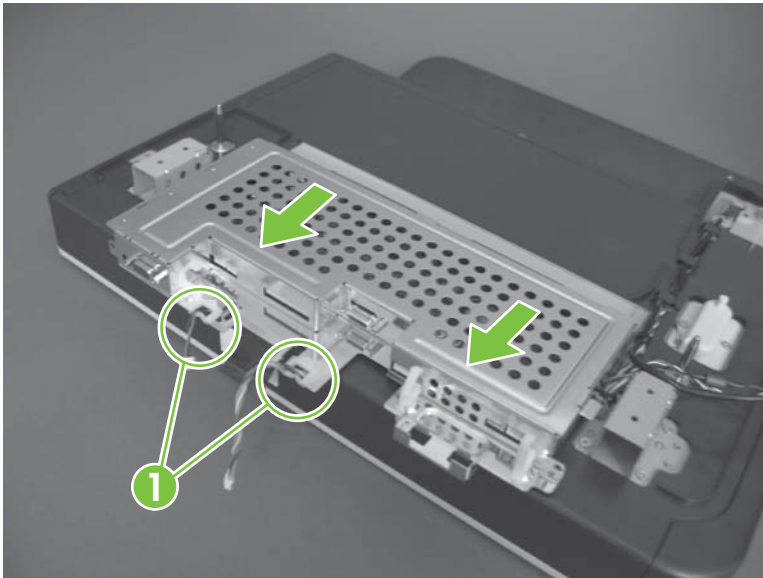
7. Remove two screws.

**Figure 6-160** Remove the SCB (6 of 8)



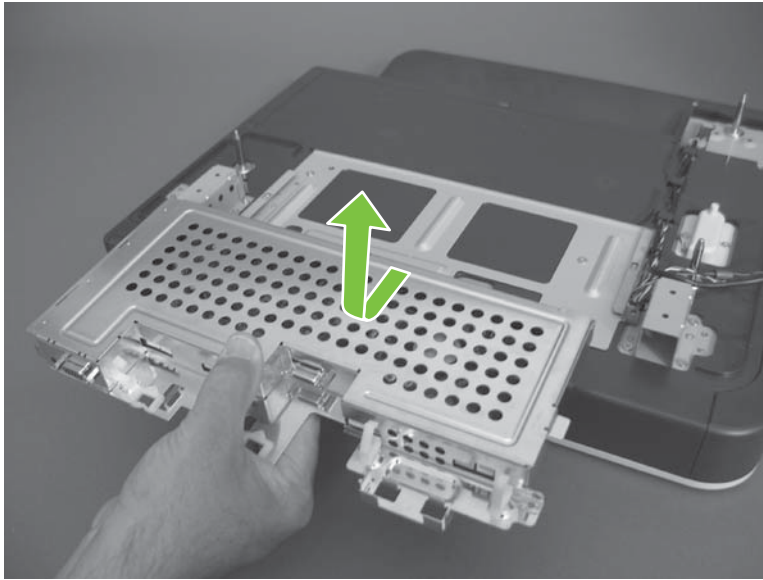
8. Gently slide the SCB, and then release two wire harnesses (callout 1).

**Figure 6-161** Remove the SCB (7 of 8)




9. Remove the SCB.

**Figure 6-162** Remove the SCB (8 of 8)

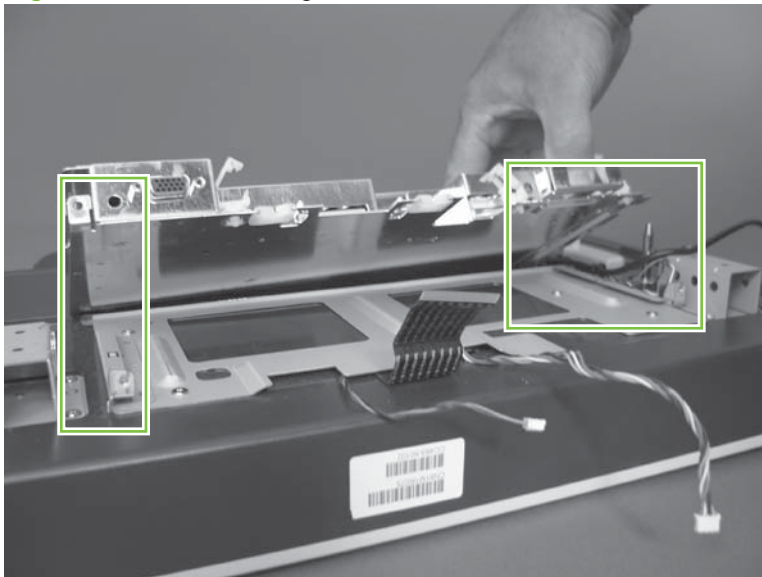


### Reinstall the SCB

When reinstalling the SCB, fully engage the guides on both sides of the SCB with the slots on the scanner assembly.

 **Reinstallation tip** Make sure that the control-panel USB cable is properly routed. The scanner assembly will not correctly seat on the product if the cable is not properly routed.

**Figure 6-163** Reinstalling the SCB



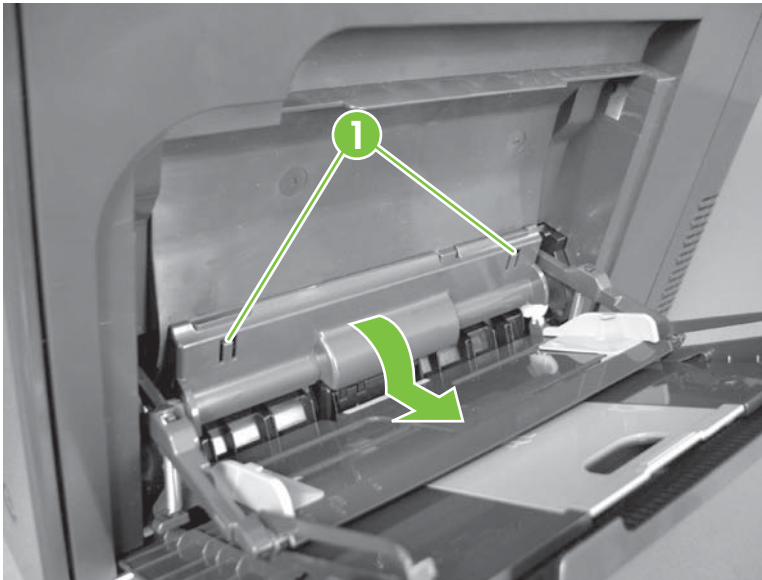
## Pickup roller (Tray 1)

△ **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.

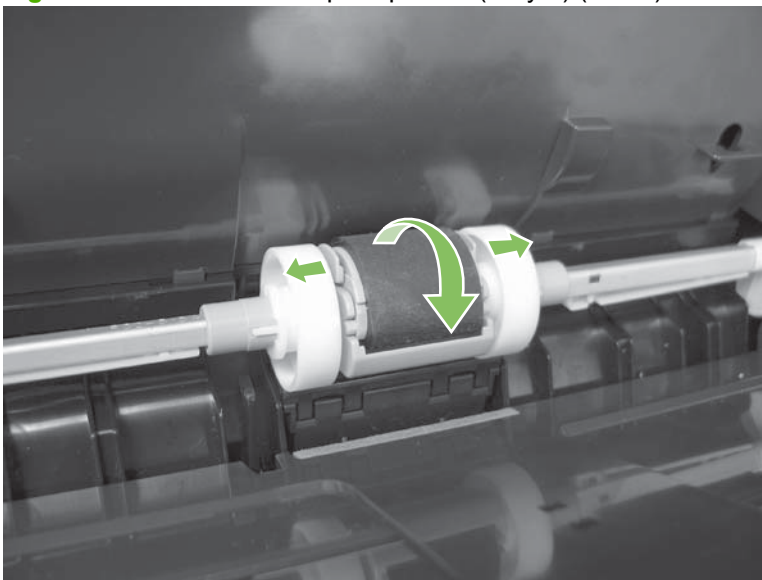
**Figure 6-164** Remove the pickup roller (Tray 1) (1 of 2)



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 6-165** Remove the pickup roller (Tray 1) (2 of 2)



## Delivery fan, cartridge fan, and environmental sensor

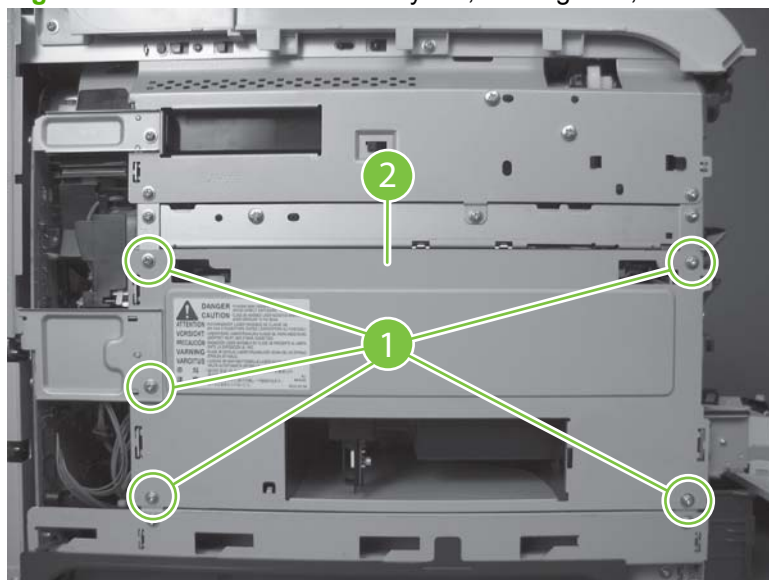
**Before proceeding, remove the following components:**

- Left cover. See [Left cover on page 233](#).

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

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

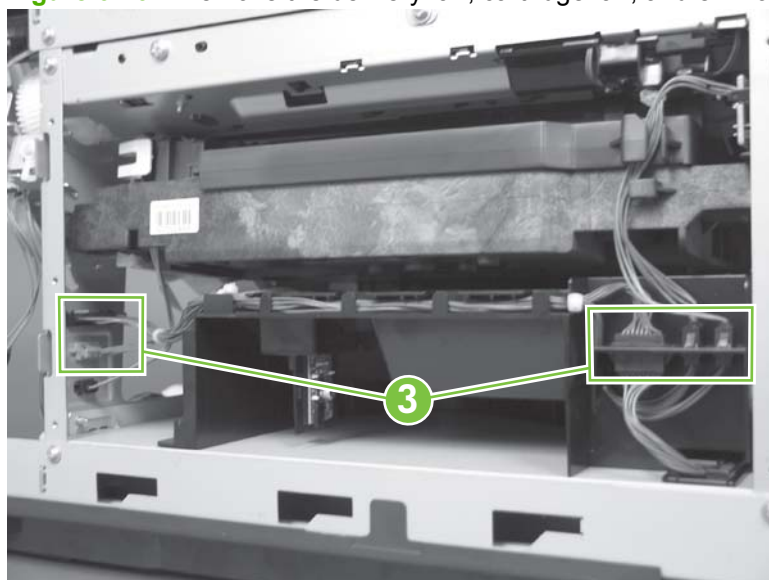
**Figure 6-166** Remove the delivery fan, cartridge fan, and environmental sensor (1 of 9)



- 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.

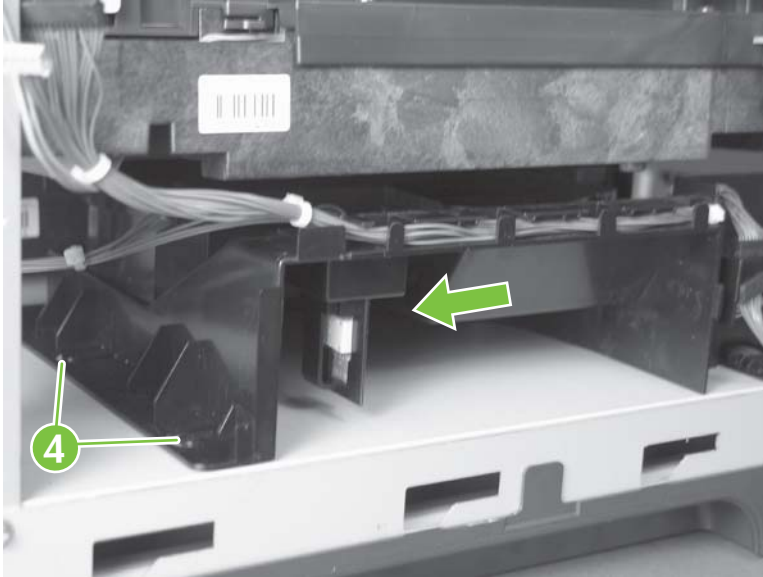
**Figure 6-167** Remove the delivery fan, cartridge fan, and environmental sensor (2 of 9)





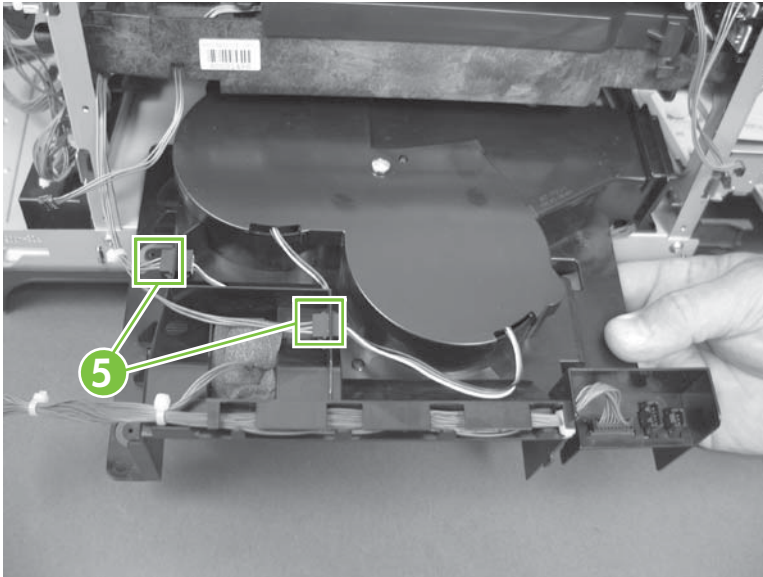
3. Release two tabs (callout 4), and then slide the delivery-fan and cartridge-fan assembly toward the power-supply side of the product to release it.

**Figure 6-168** Remove the delivery fan, cartridge fan, and environmental sensor (3 of 9)



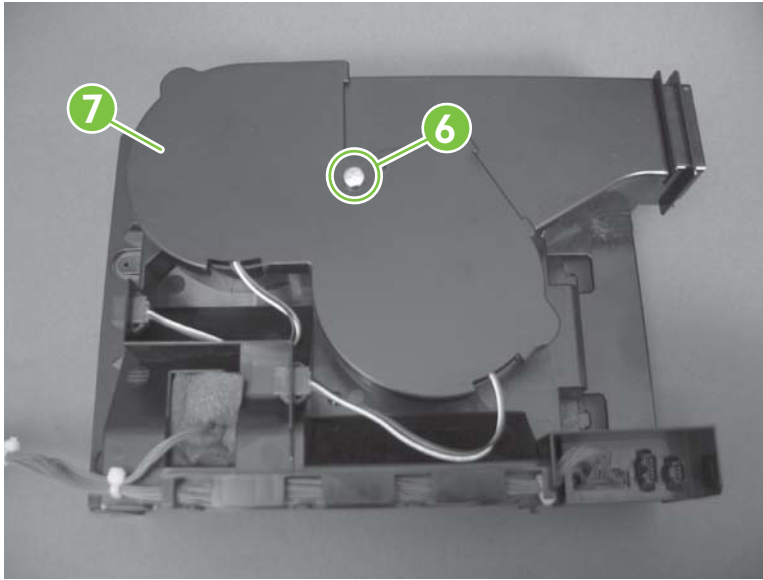
4. Pull the assembly slightly out of the product, disconnect two connectors (callout 5), and then to remove the assembly.

**Figure 6-169** Remove the delivery fan, cartridge fan, and environmental sensor (4 of 9)



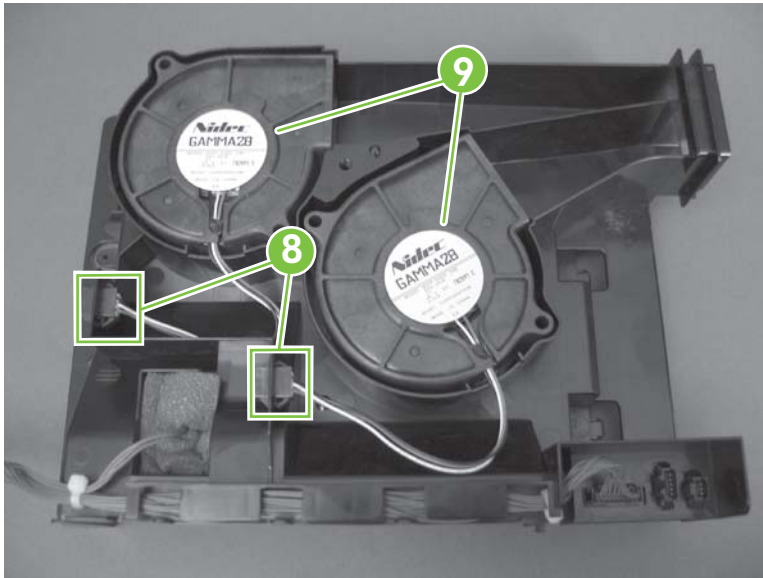
5. Remove one screw (callout 6), and then remove the cover (callout 7).

**Figure 6-170** Remove the delivery fan, cartridge fan, and environmental sensor (5 of 9)



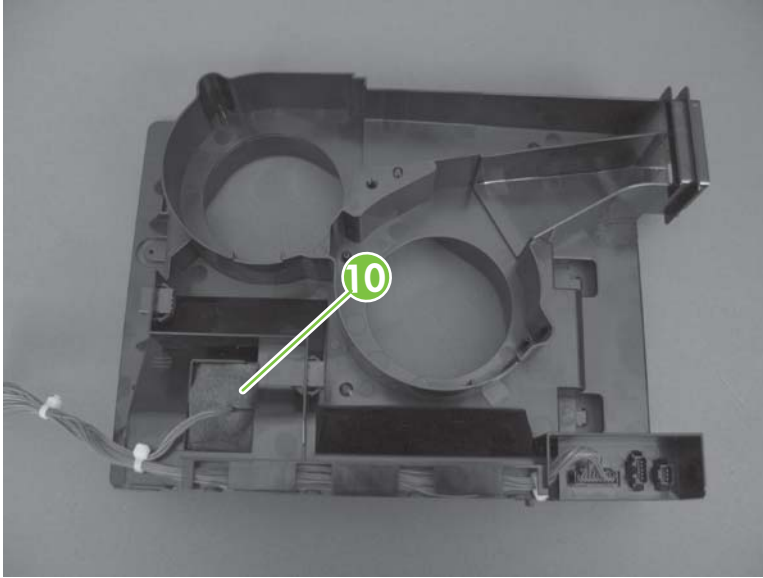
6. Disconnect two connectors (callout 8), and then remove the fans (callout 9).

**Figure 6-171** Remove the delivery fan, cartridge fan, and environmental sensor (6 of 9)



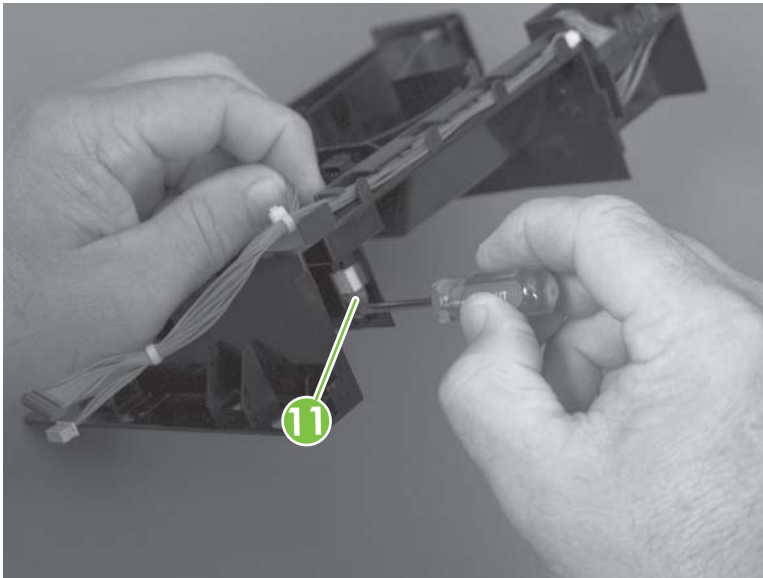
7. Remove the antistatic foam (callout 10).

**Figure 6-172** Remove the delivery fan, cartridge fan, and environmental sensor (7 of 9)



8. Release one tab (callout 11).

**Figure 6-173** Remove the delivery fan, cartridge fan, and environmental sensor (8 of 9)



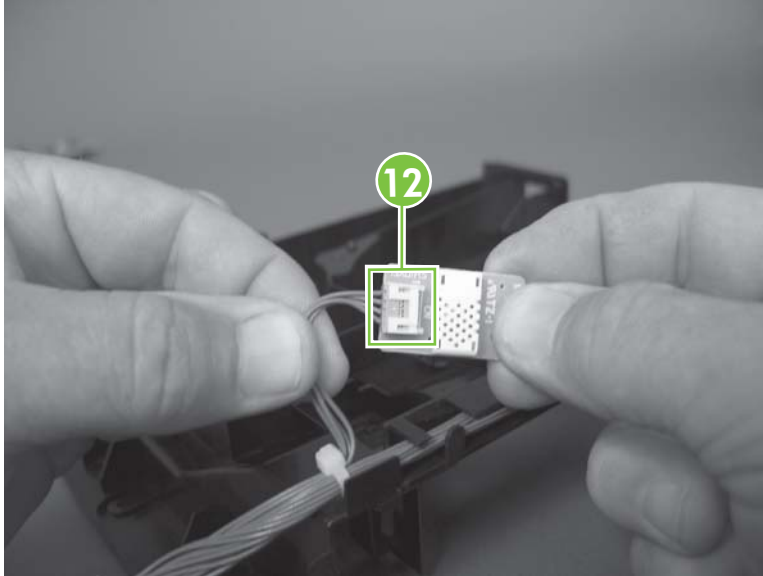


9. Disconnect one connector (callout 12), and then remove the environmental sensor.



**CAUTION:**  ESD-sensitive part.

**Figure 6-174** Remove the delivery fan, cartridge fan, and environmental sensor (9 of 9)



## Toner-collection sensor

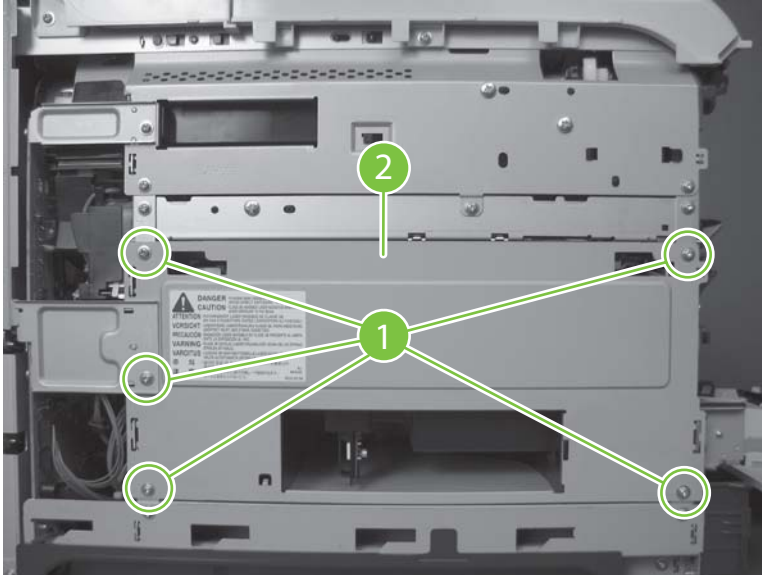
Before proceeding, remove the following components:

- Toner-collection unit. See [Toner-collection unit on page 190](#).
- Left cover. See [Left cover on page 233](#).

### Remove the toner-collection sensor

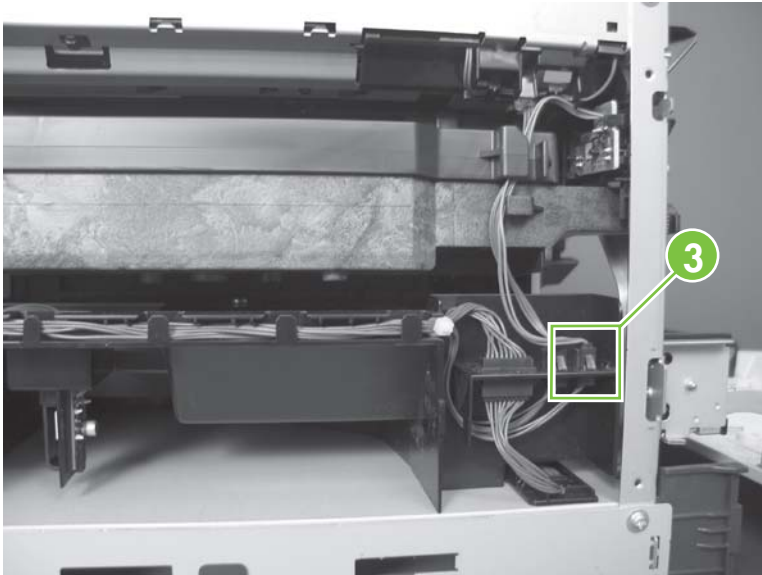
1. Remove five screws (callout 1), and then remove the sheet-metal plate (callout 2).

**Figure 6-175** Remove the toner-collection sensor (1 of 4)




2. Disconnect one connector (callout 3).

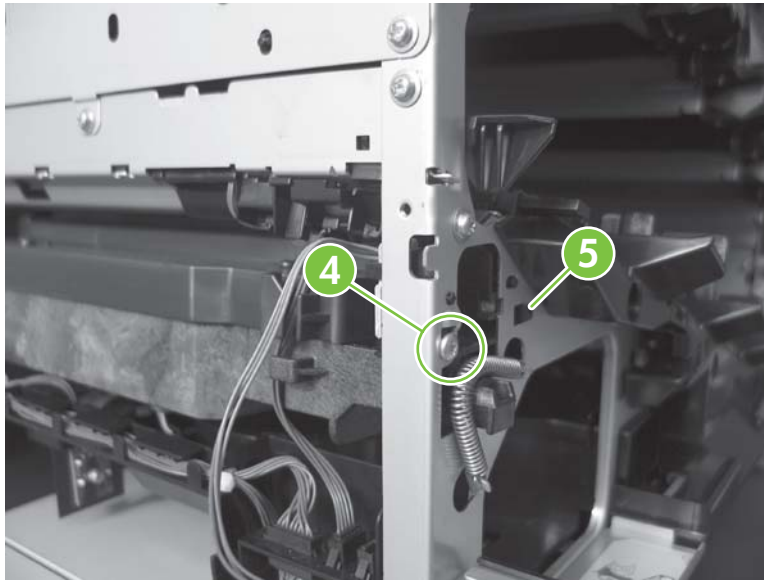
**Figure 6-176** Remove the toner-collection sensor (2 of 4)



3. Remove one screw (callout 4).

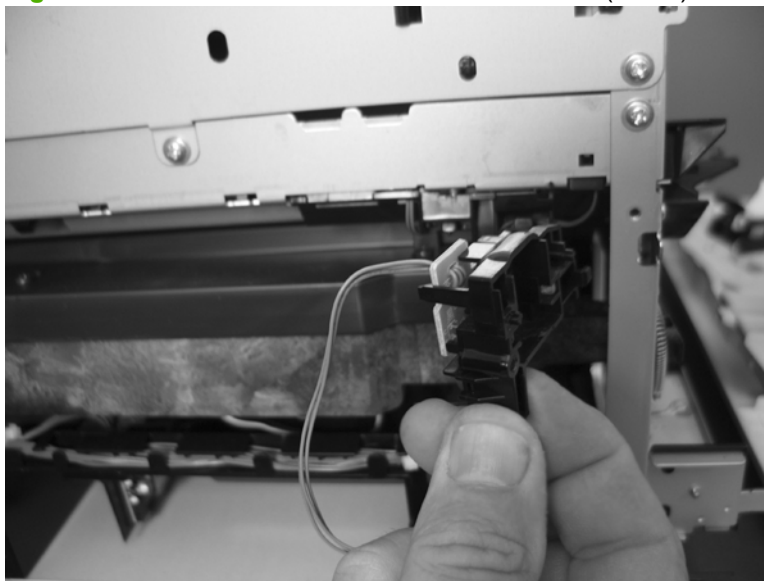
 **Reinstallation tip** When you reinstall the sensor, make sure that the tab (callout 5) on the sensor body completely engages the slot in the product chassis.

**Figure 6-177** Remove the toner-collection sensor (3 of 4)



4. Remove the toner-collection sensor.

**Figure 6-178** Remove the toner-collection sensor (4 of 4)




## Residual-toner-feed motor

Before proceeding, remove the following components:

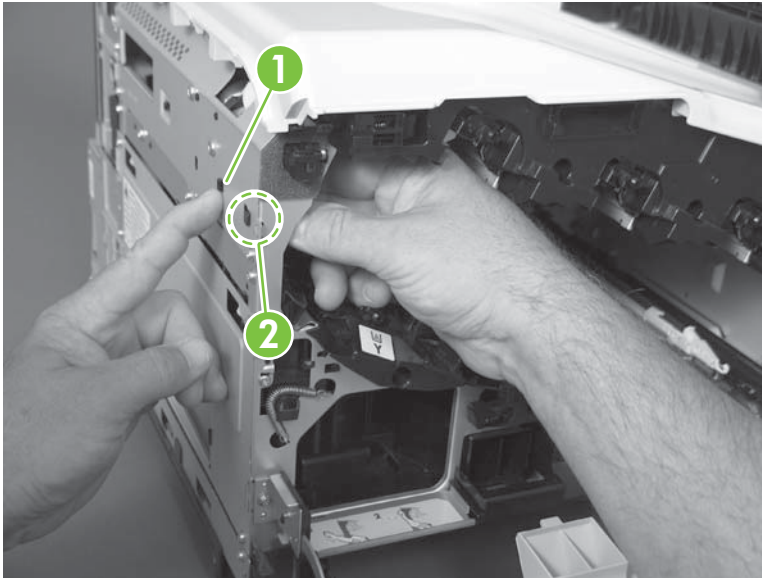
- Toner-collection unit. See [Toner-collection unit on page 190](#).
- Intermediate transfer belt (ITB). See [Intermediate transfer belt \(ITB\) on page 209](#).
- Left cover. See [Left cover on page 233](#).

### 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 296](#) to reinstall it.

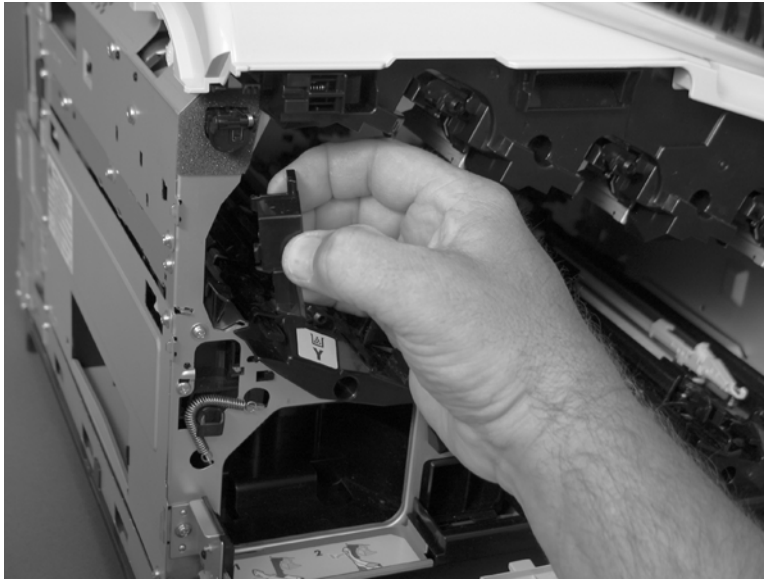
1. Release one tab (callout 1) while you support the cover (callout 2).

**Figure 6-179** Remove the residual-toner-feed motor (1 of 7)



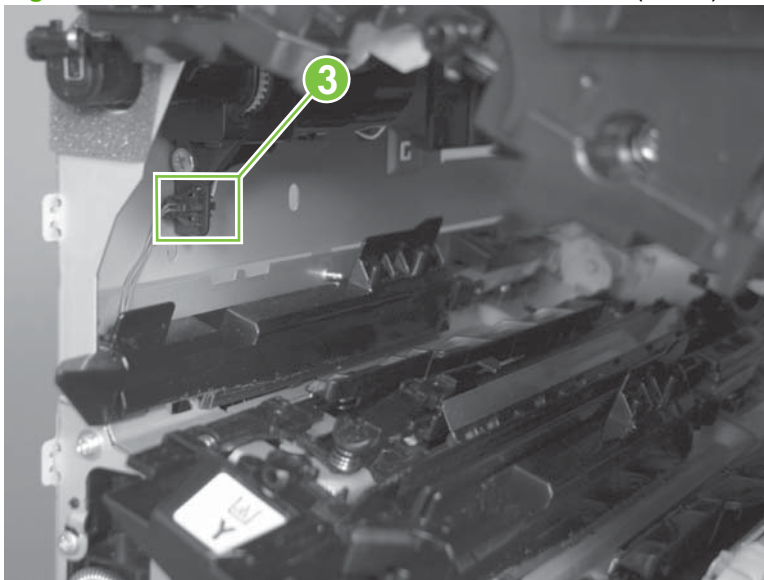
2. Remove the cover.

**Figure 6-180** Remove the residual-toner-feed motor (2 of 7)



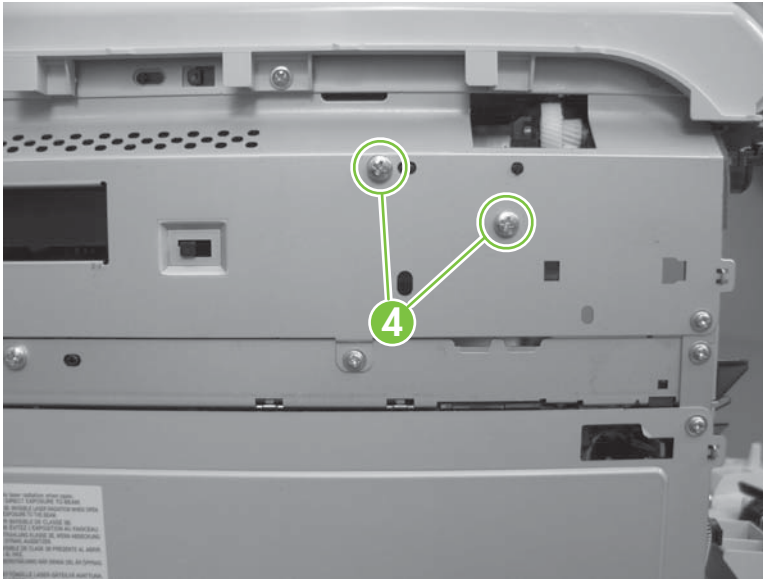
3. Disconnect one connector (callout 3).

**Figure 6-181** Remove the residual-toner-feed motor (3 of 7)



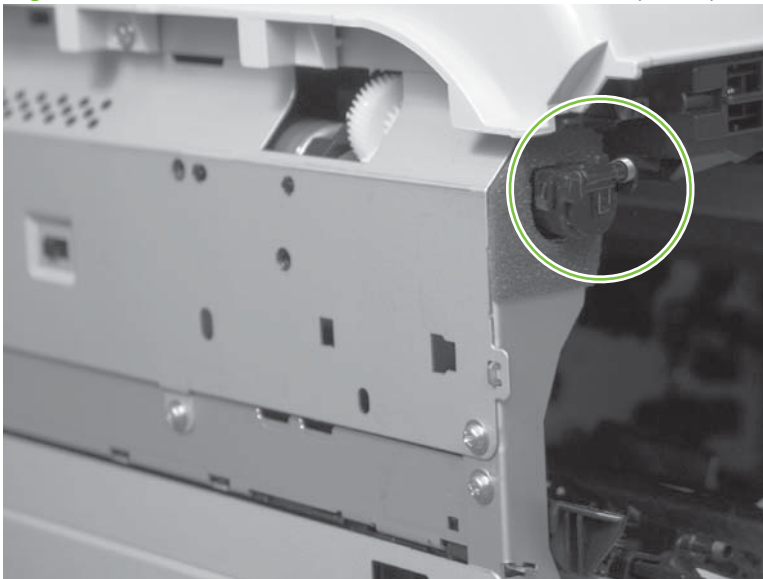
4. Support the assembly, and then remove two screws (callout 4).

**Figure 6-182** 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 296](#) to reinstall it.

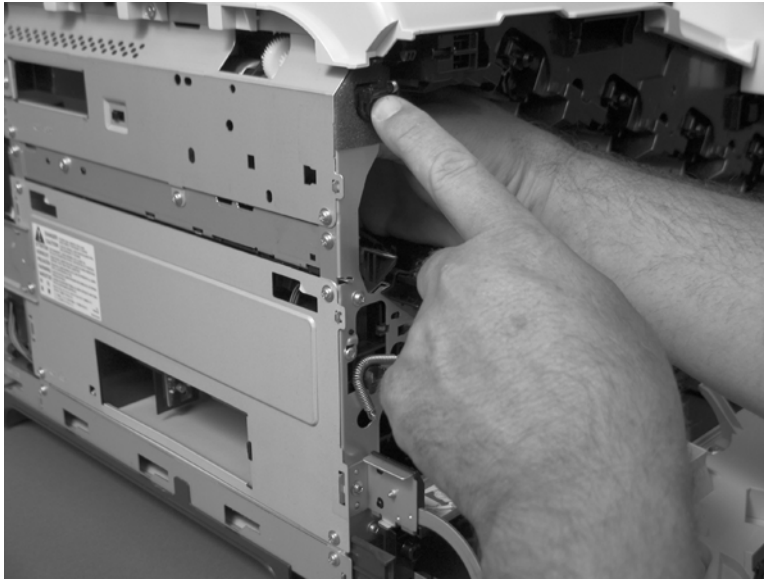
**Figure 6-183** Remove the residual-toner-feed motor (5 of 7)





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

**Figure 6-184** Remove the residual-toner-feed motor (6 of 7)



7. Remove the motor.

**Figure 6-185** 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 6-186** Reinstall the residual-toner collection door





## Registration density (RD) sensor assembly

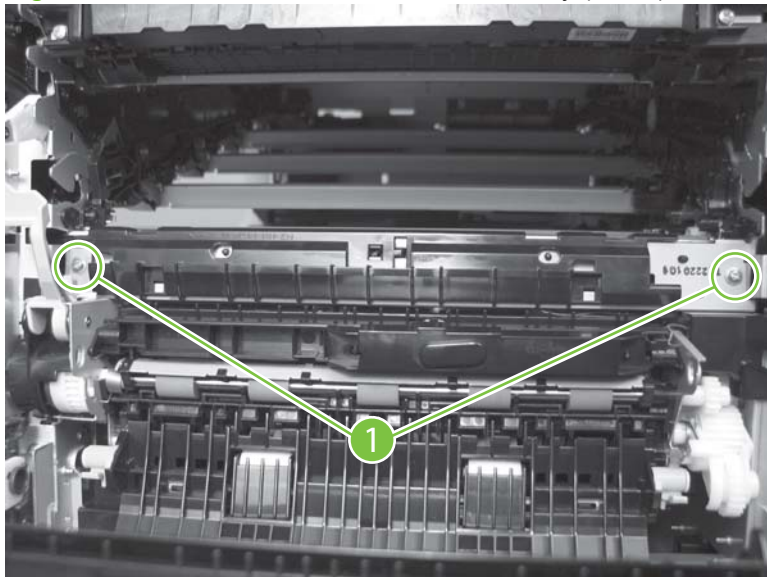
Before proceeding, remove the following components:

- Secondary transfer assembly. See [Secondary transfer assembly on page 207](#).
- Intermediate transfer belt (ITB). See [Intermediate transfer belt \(ITB\) on page 209](#).

### Remove the RD sensor assembly

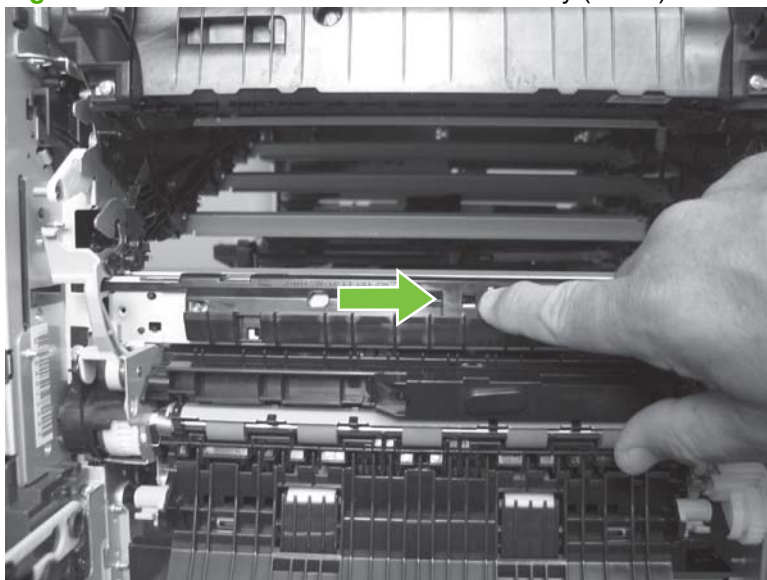
1. Remove two screws (callout 1).

**Figure 6-187** 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.

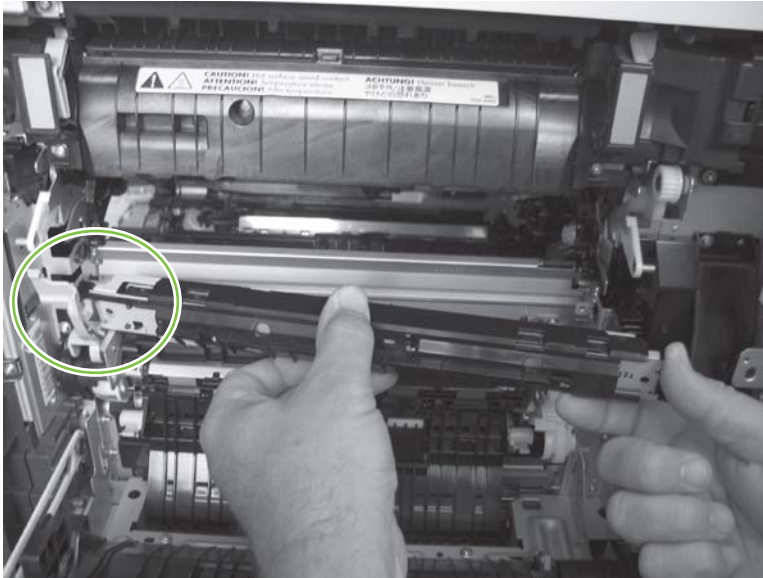
**Figure 6-188** Remove the RD sensor assembly (2 of 6)



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

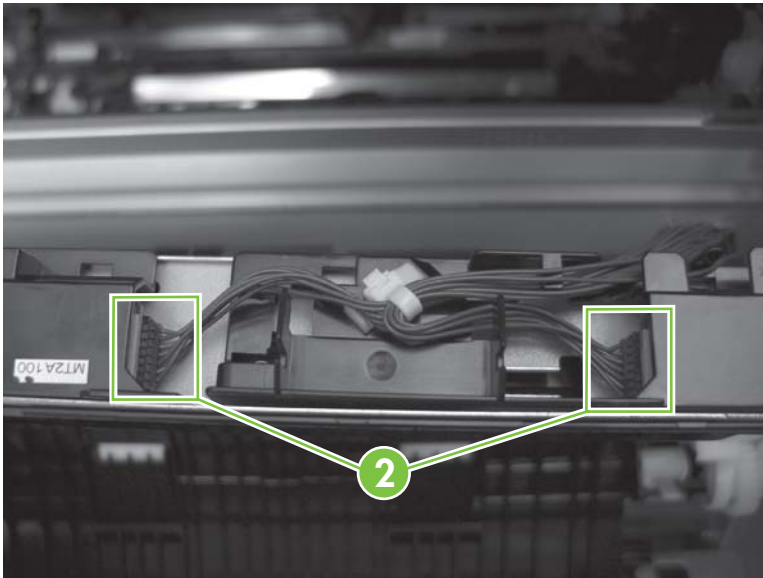
△ **CAUTION:** Do not damage the shutter as it passes through the chassis.

**Figure 6-189** Remove the RD sensor assembly (3 of 6)




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

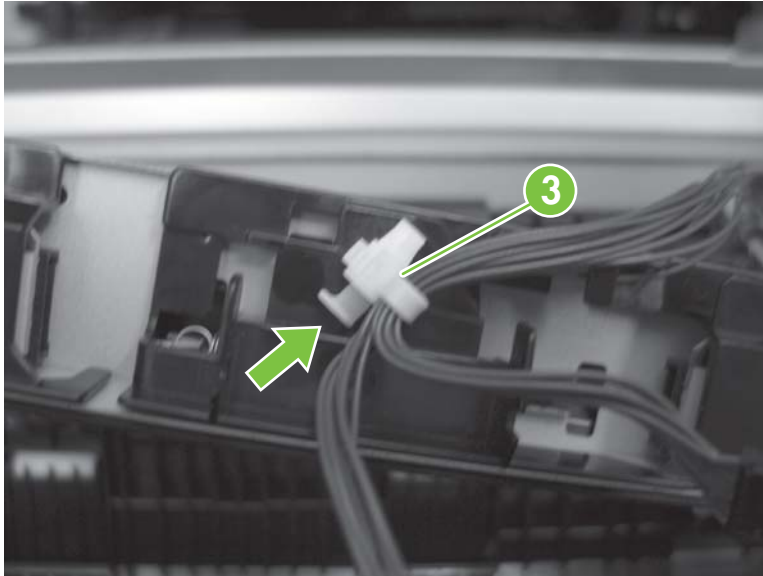
**Figure 6-190** Remove the RD sensor assembly (4 of 6)



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 6-191** Remove the RD sensor assembly (5 of 6)



6. Remove the assembly.

**Figure 6-192** Remove the RD sensor assembly (6 of 6)




## Power-supply fan and fan duct

Before proceeding, remove the following components:

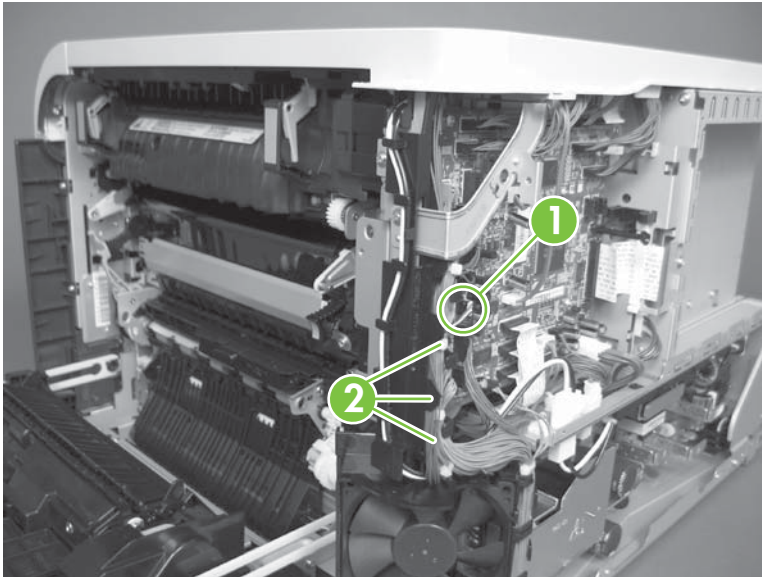
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).

### 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 PCA on page 183](#).

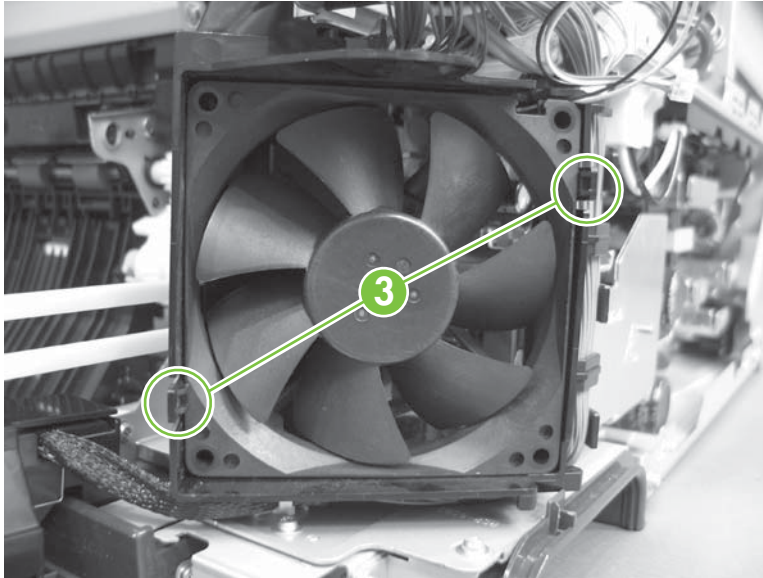
**Figure 6-193** Remove the power-supply fan (1 of 4)



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

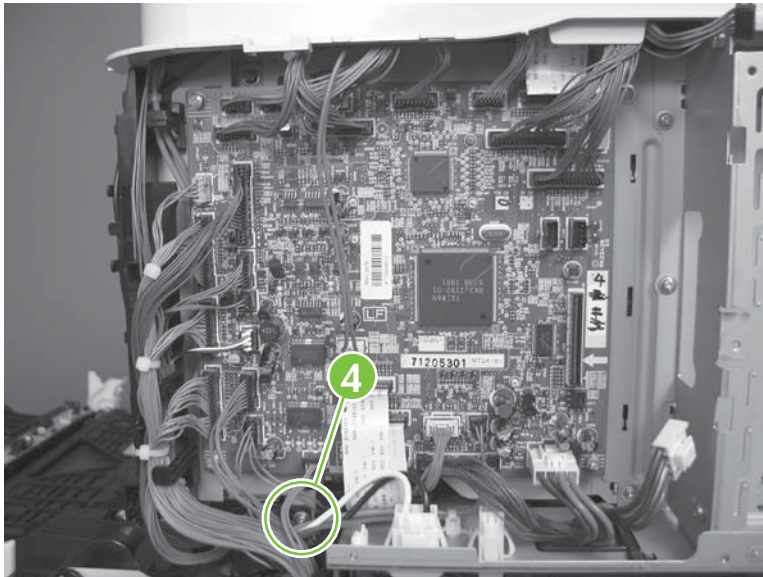
 **Reinstallation tip** When the fan is reinstalled, the air must flow into the product. Look at the arrows embossed on the fan frame that indicate air flow direction.

**Figure 6-194** 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.

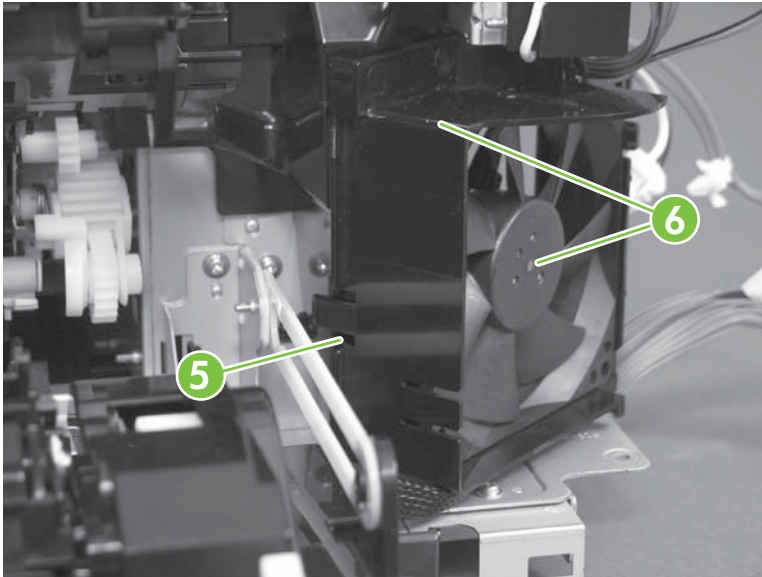
**Figure 6-195** Remove the power-supply fan (3 of 4)





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

**Figure 6-196** 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 207](#).
- Intermediate transfer belt (ITB). See [Intermediate transfer belt \(ITB\) on page 209](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear cover. See [Rear cover on page 238](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Registration density (RD) sensor assembly. See [Registration density \(RD\) sensor assembly on page 297](#).

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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 300](#).

## Remove the registration assembly

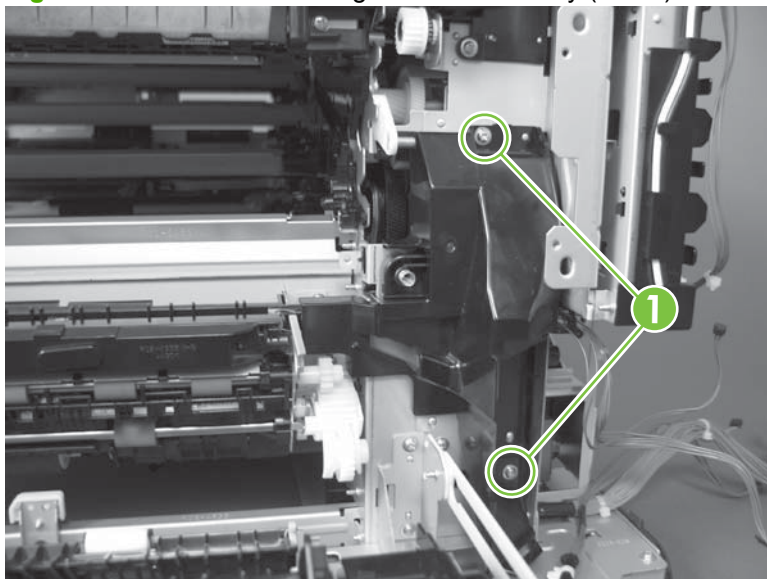
---

 **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 6-197** 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.

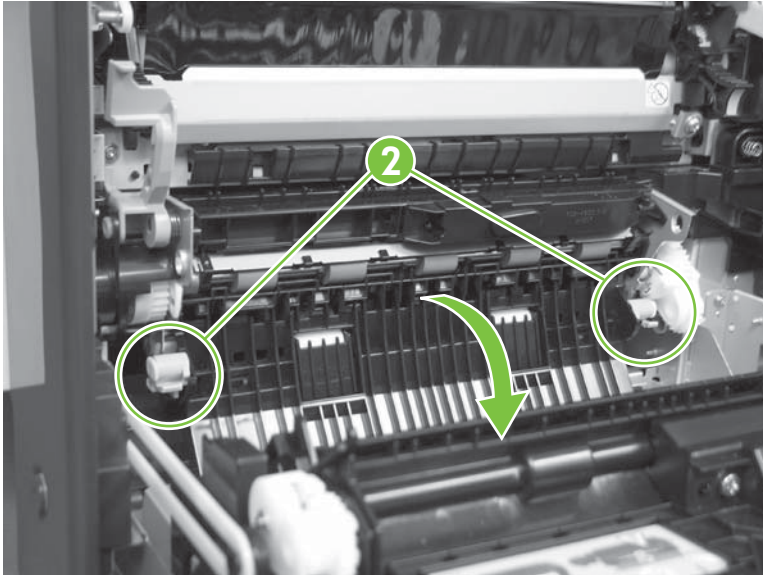
**Figure 6-198** Remove the registration assembly (2 of 8)



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.

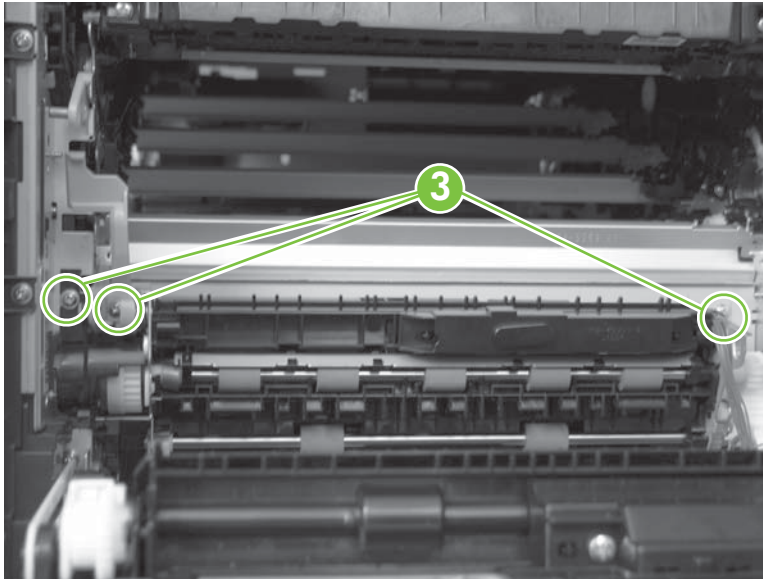
**Figure 6-199** Remove the registration assembly (3 of 8)





4. Remove three screws (callout 3).

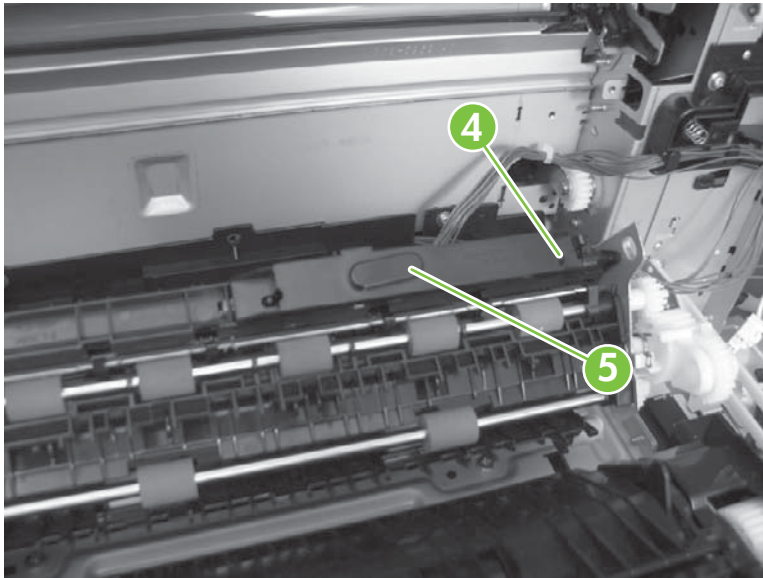
**Figure 6-200** Remove the registration assembly (4 of 8)



5. Separate the assembly from the product, release one tab (callout 4), and then remove the cover (callout 5).

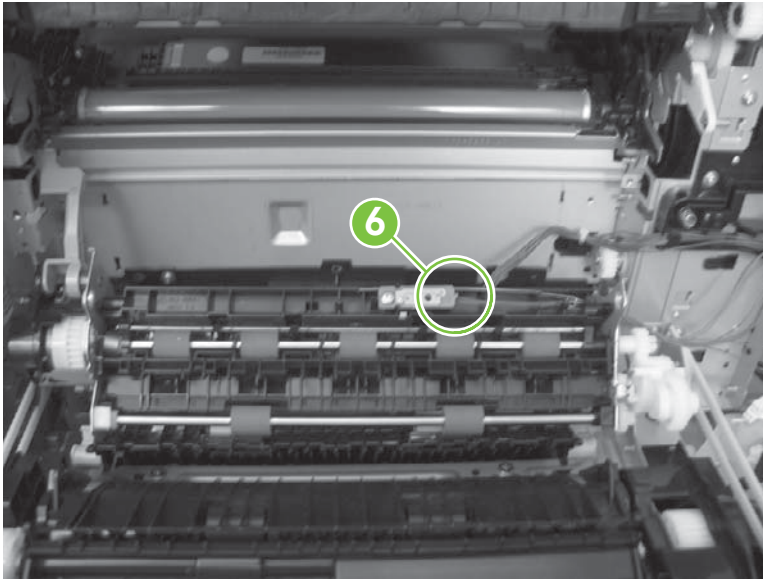
△ **CAUTION:** The assembly is still attached to the product by the wire harnesses.

**Figure 6-201** Remove the registration assembly (5 of 8)



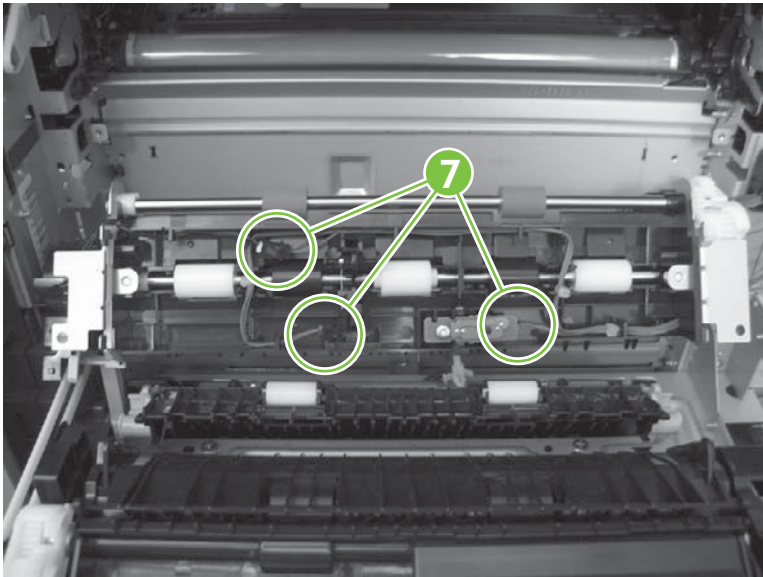
6. Disconnect one connector (callout 6), and then release the wire harness from the retainer.

**Figure 6-202** 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.

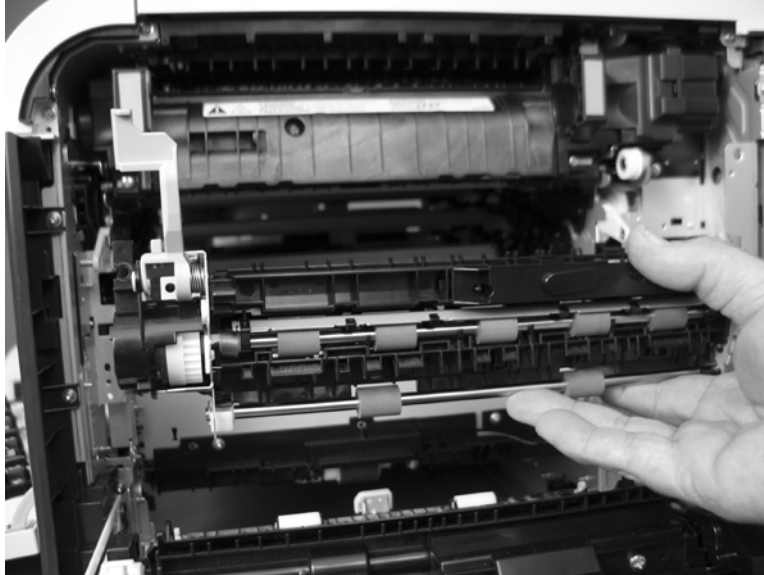
**Figure 6-203** Remove the registration assembly (7 of 8)



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 6-204** Remove the registration assembly (8 of 8)



## High-voltage power supply lower

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).

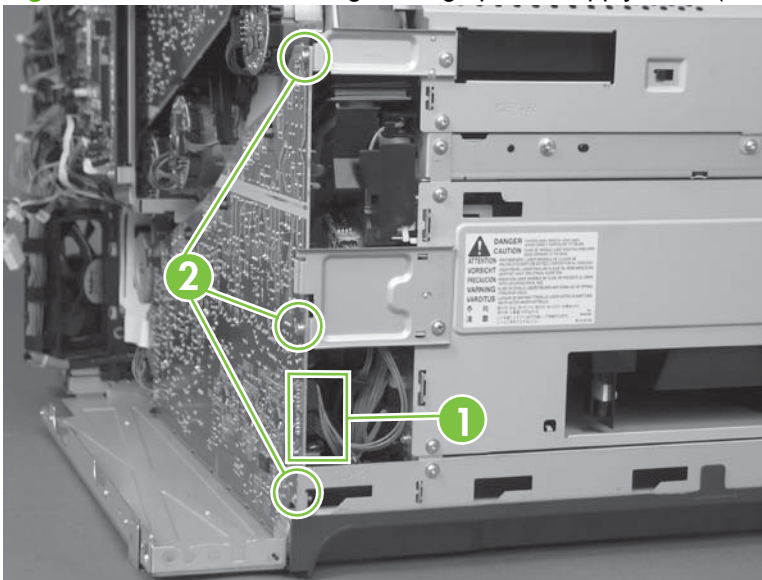
## Remove the high-voltage power supply lower



**CAUTION:**  ESD-sensitive part.

1. Disconnect two connectors (callout 1), and then remove three screws (callout 2).

**Figure 6-205** Remove the high-voltage power supply lower (1 of 4)

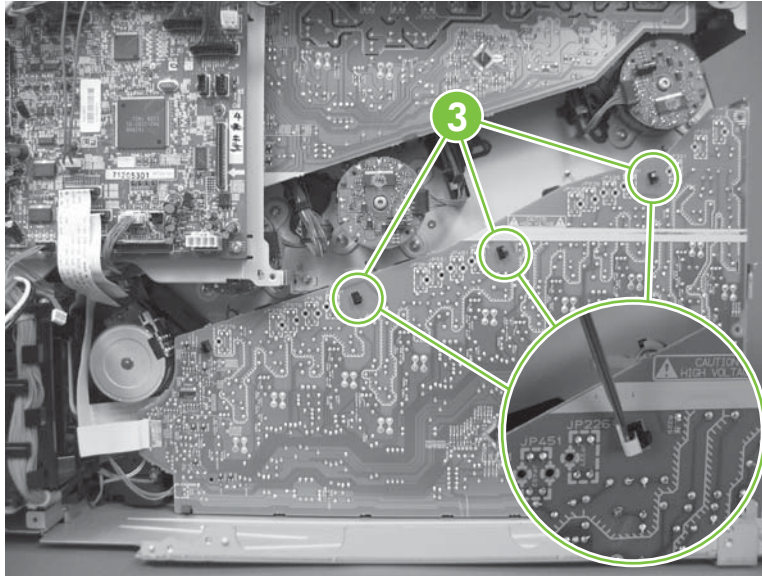




2. Use a small flat blade screwdriver to carefully remove three locking clips (callout 3).

△ **CAUTION:** Do not damage the PCA with the screwdriver.

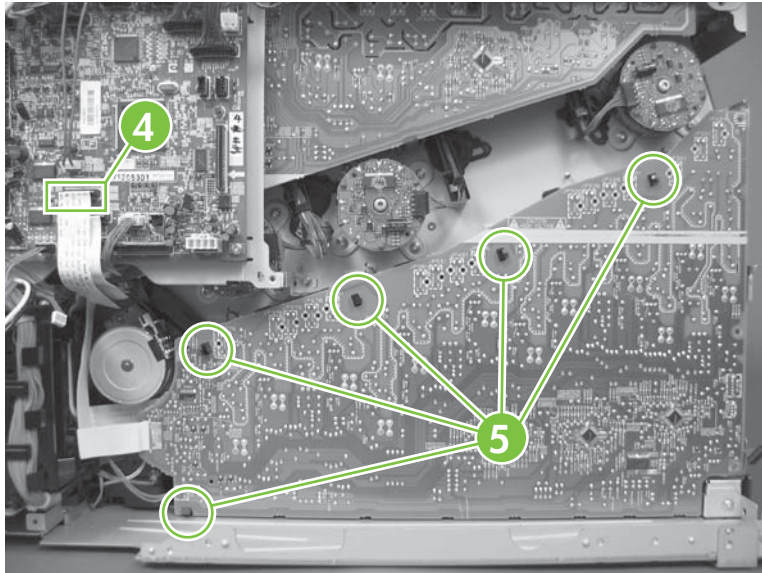
**Figure 6-206** Remove the high-voltage power supply lower (2 of 4)



3. Disconnect one connector (callout 4; J114), and then release five clips (callout 5).

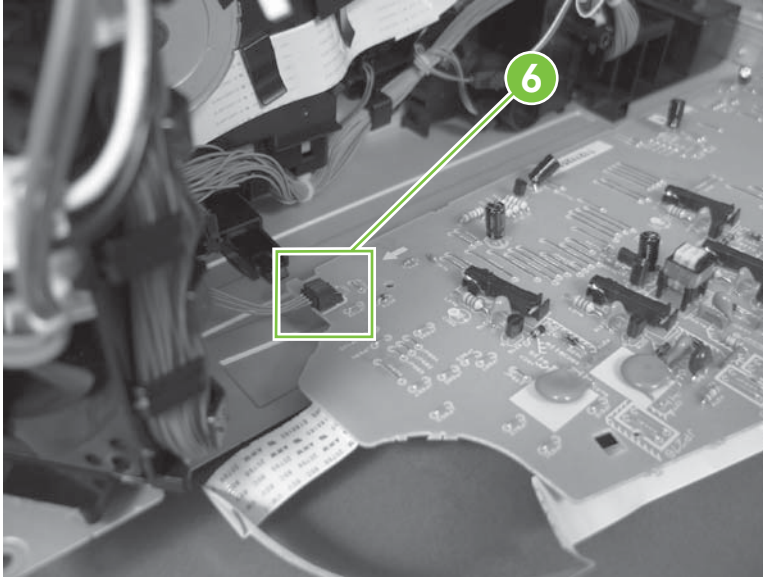
📝 **NOTE:** To locate DC controller connector locations, see [DC controller PCA on page 183](#).

**Figure 6-207** 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

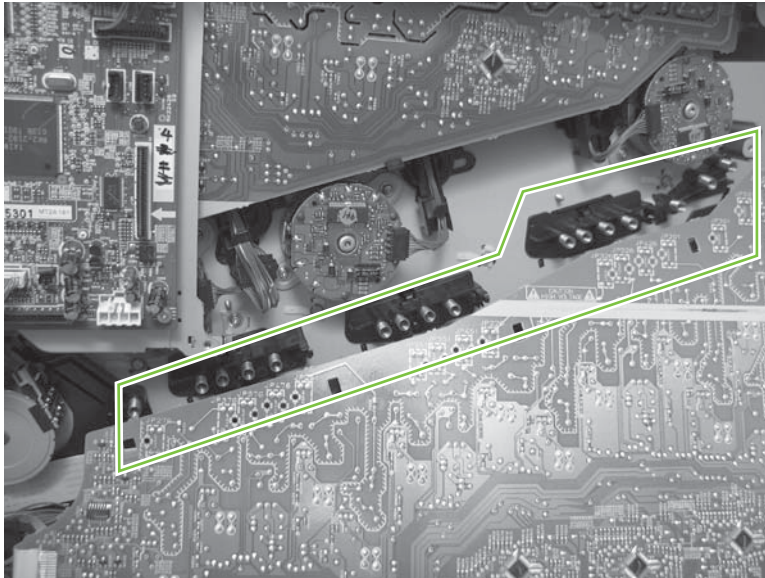
**Figure 6-208** Remove the high-voltage power supply lower (4 of 4)



#### 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 6-209** Reinstall the high-voltage power supply lower



## Developing-disengagement motor

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

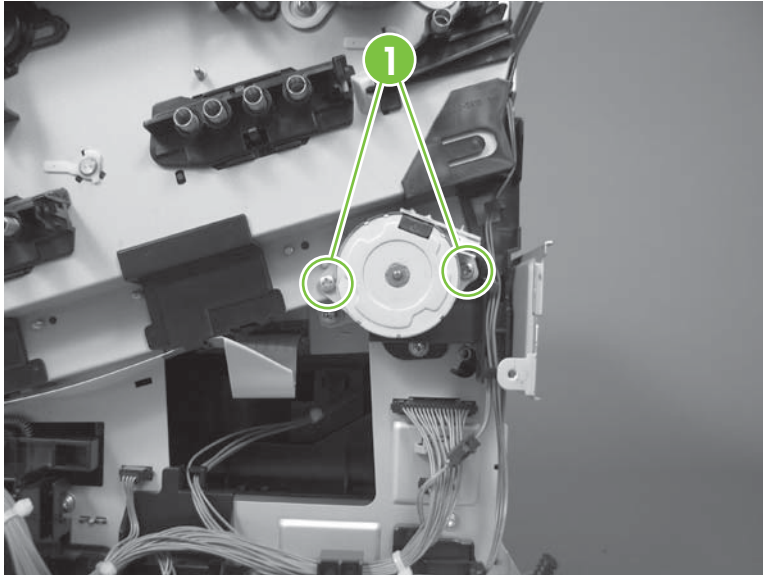
 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- High-voltage power supply lower. See [High-voltage power supply lower on page 308](#).

## Remove the developing-disengagement motor

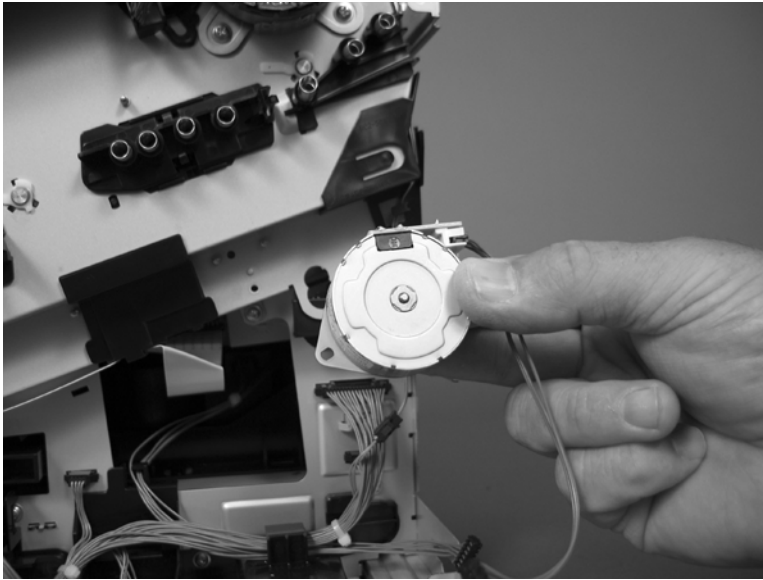
1. Remove two screws (callout 1).

**Figure 6-210** Remove the developing-disengagement motor (1 of 2)



2. Remove the motor.

**Figure 6-211** Remove the developing-disengagement motor (2 of 2)






## Pickup motor

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

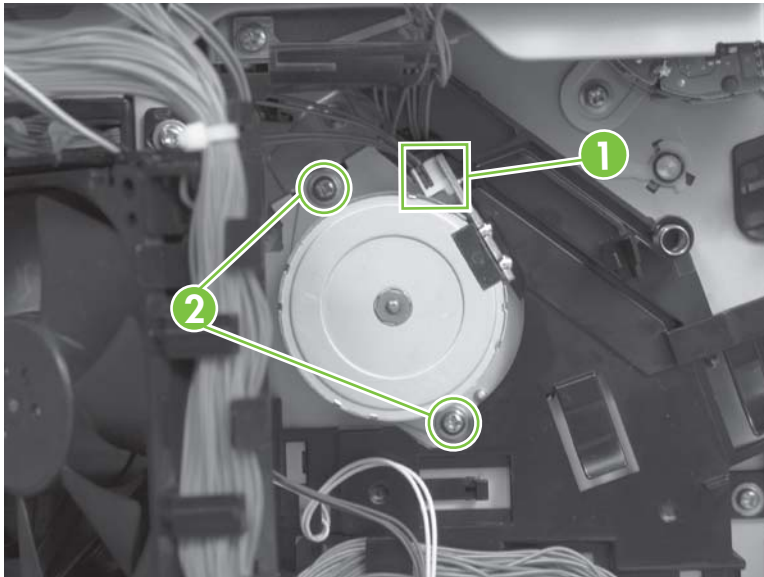
 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- Low-voltage power supply. See [Low-voltage power supply \(LVPS\) on page 273](#).
- High-voltage power supply lower. See [High-voltage power supply lower on page 308](#).

## Remove the pickup motor

Disconnect one connector (callout 1), remove two screws (callout 2), and then remove the motor.


**Figure 6-212** Remove the pickup motor



## Lifter-drive assembly

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

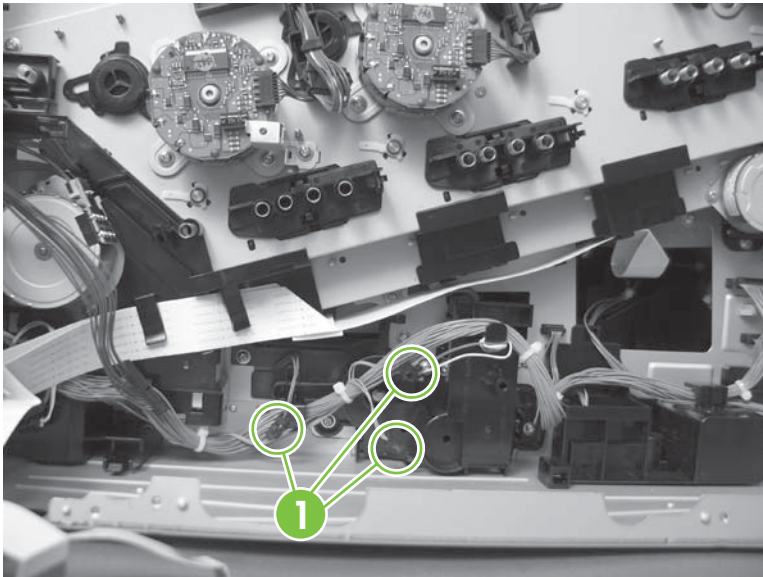
 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- High-voltage power supply lower. See [High-voltage power supply lower on page 308](#).

## Remove the lifter-drive assembly

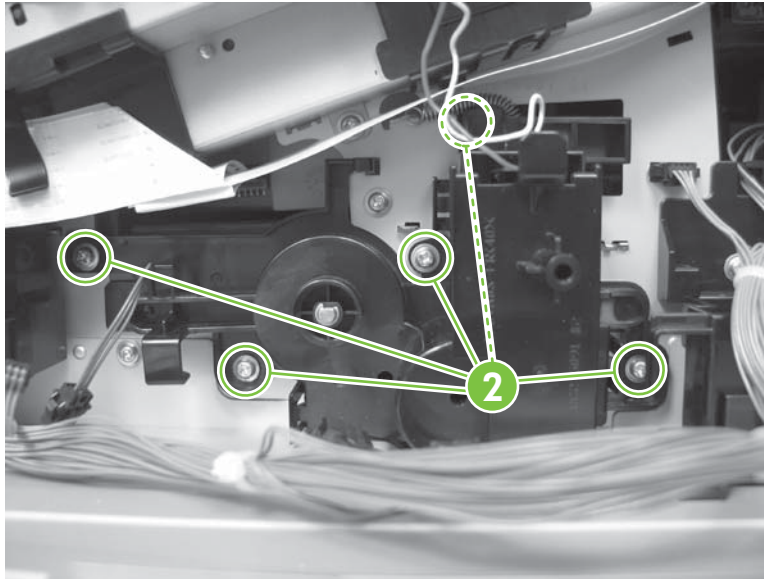
1. Disconnect three connectors (callout 1), and then release the wire harness from the retainers.

**Figure 6-213** Remove the lifter-drive assembly (1 of 2)



2. Remove five screws (callout 2), and then remove the assembly.


**Figure 6-214** Remove the lifter-drive assembly (2 of 2)



## Cassette-pickup drive assembly

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

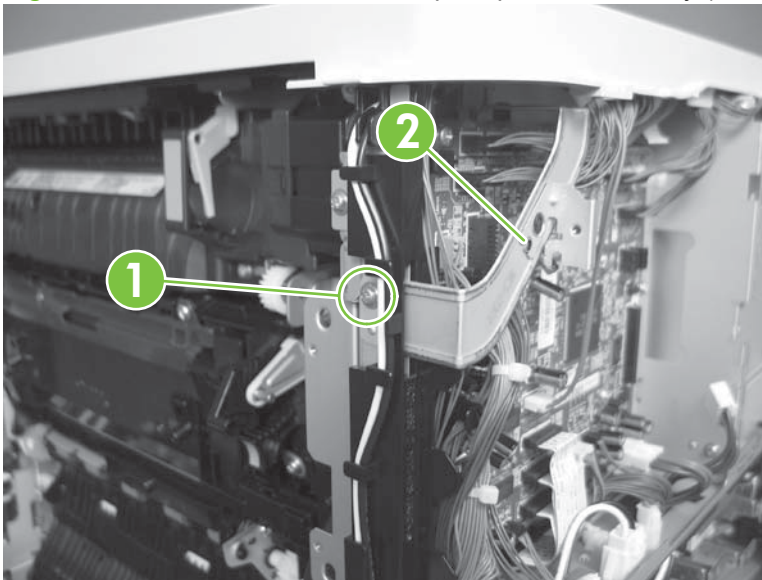
- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- High-voltage power supply lower. See [High-voltage power supply lower on page 308](#).

## Remove the cassette-pickup drive assembly


 **NOTE:** To remove the pickup motor only, see [Pickup motor on page 313](#).

1. Remove one screw (callout 1), and then remove the sheet-metal bracket (callout 2).

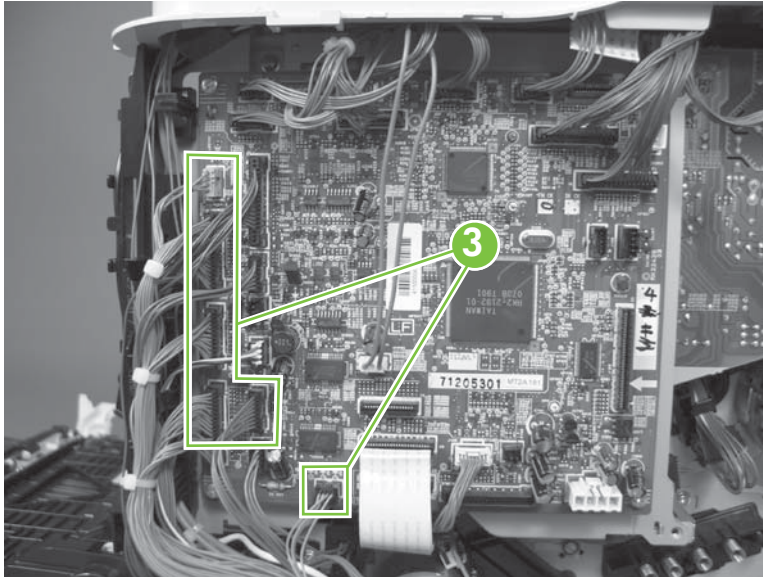
**Figure 6-215** Remove the cassette-pickup drive assembly (1 of 10)




2. Disconnect six connectors (callout 3; J106, J107, J108, J137, J138, J140).

 **NOTE:** To locate DC controller connector locations, see [DC controller PCA on page 183](#).

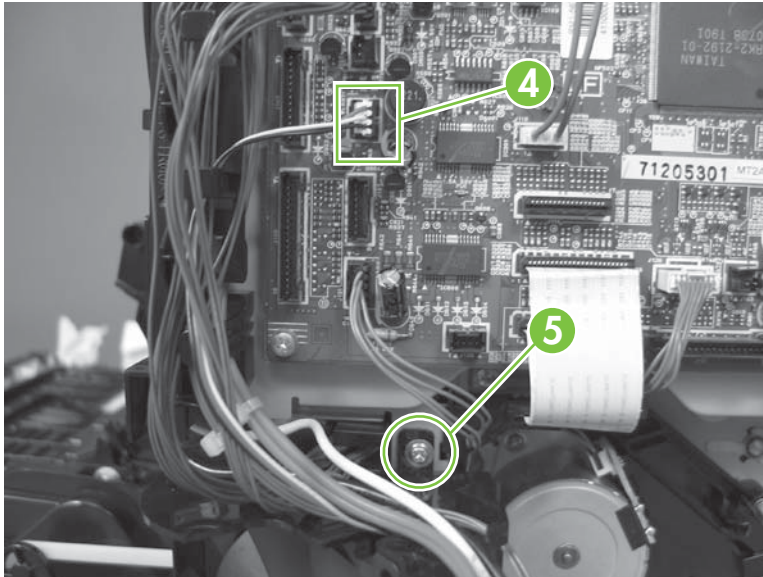
**Figure 6-216** Remove the cassette-pickup drive assembly (2 of 10)



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 PCA on page 183](#).

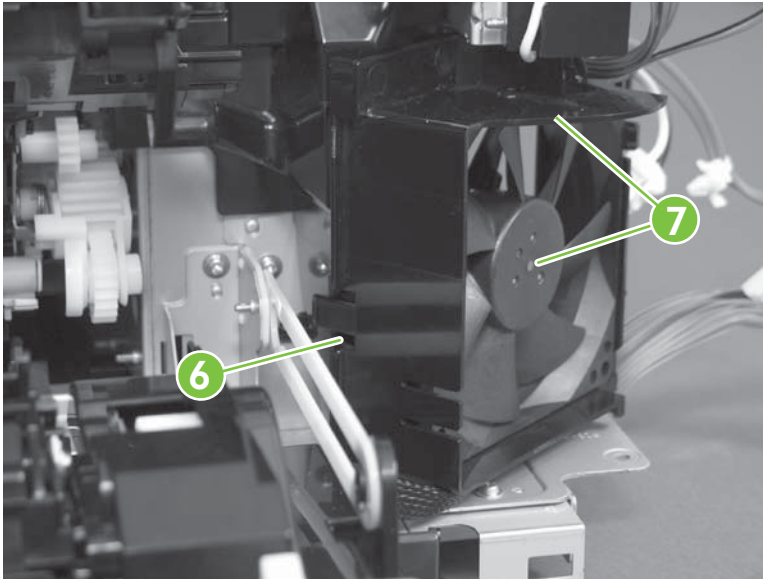
**Figure 6-217** Remove the cassette-pickup drive assembly (3 of 10)






4. Release one tab (callout 6), and then remove the fan and fan duct (callout 7).

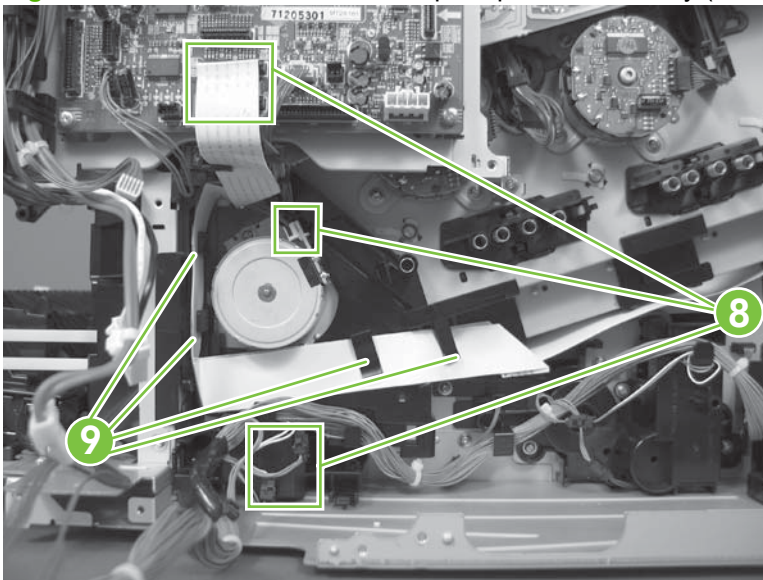
**Figure 6-218** Remove the cassette-pickup drive assembly (4 of 10)



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.

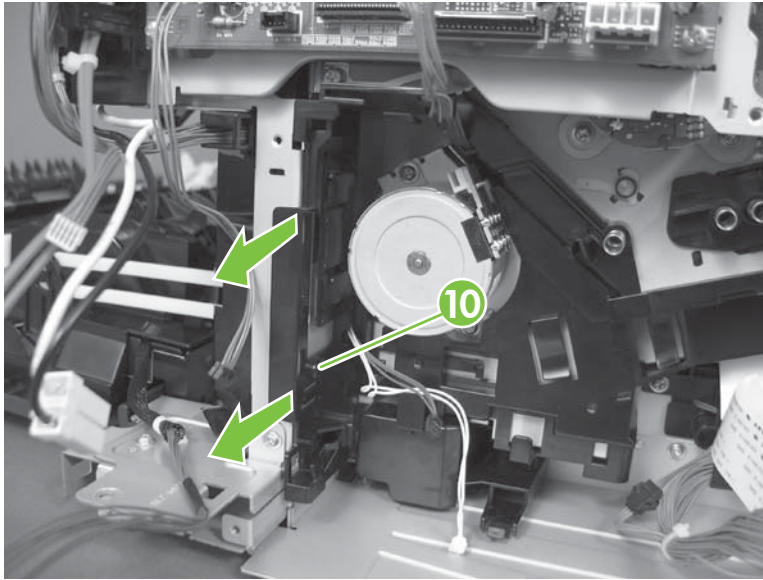
 **NOTE:** To locate DC controller connector locations, see [DC controller PCA on page 183](#).

**Figure 6-219** Remove the cassette-pickup drive assembly (5 of 10)



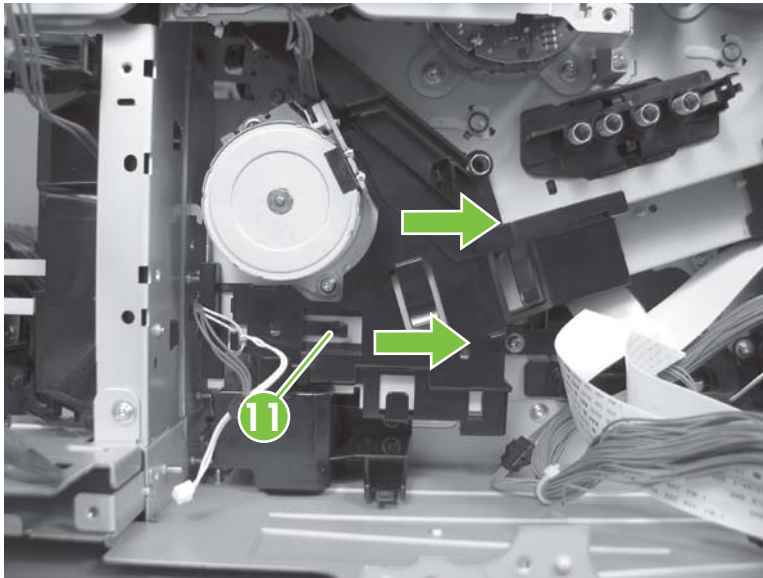
6. Release one tab (callout 10), and then remove the guide.

**Figure 6-220** Remove the cassette-pickup drive assembly (6 of 10)



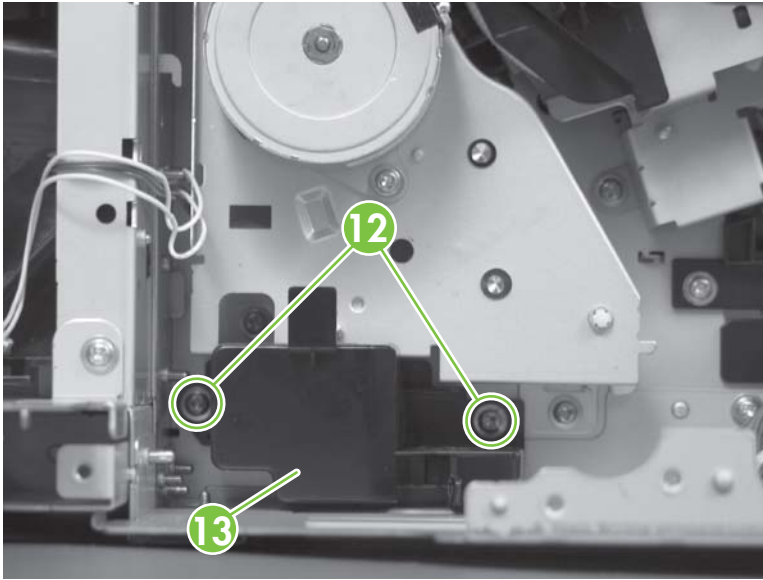
7. Release one tab (callout 11), and then remove the guide.

**Figure 6-221** Remove the cassette-pickup drive assembly (7 of 10)



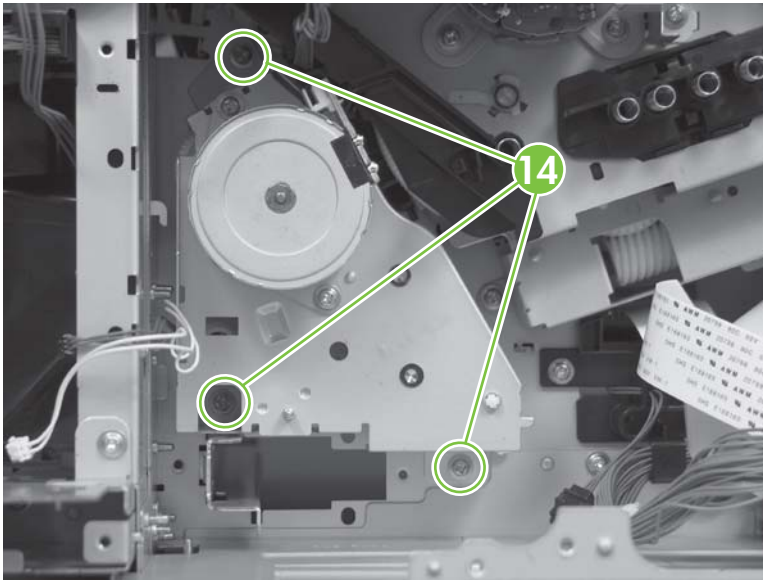
8. Remove two screws (callout 12), and then remove the high-voltage bracket (callout 13).

**Figure 6-222** Remove the cassette-pickup drive assembly (8 of 10)



9. Remove three screws (callout 14).

**Figure 6-223** Remove the cassette-pickup drive assembly (9 of 10)

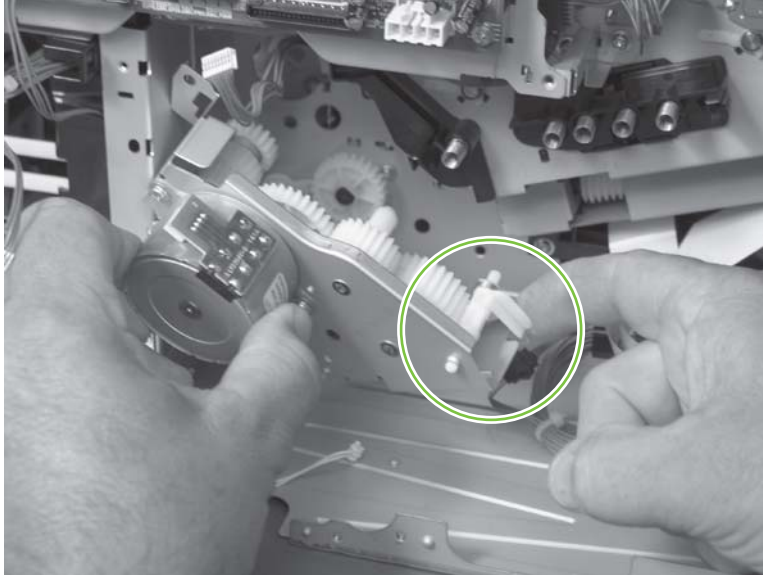




10. Carefully remove the assembly.

△ **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 321](#).

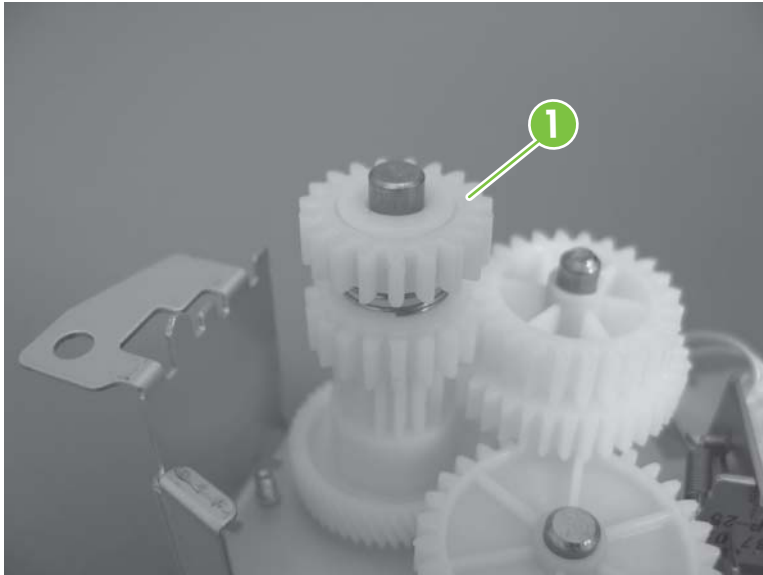
**Figure 6-224** Remove the cassette-pickup drive assembly (10 of 10)



#### Reinstall the cassette-pickup drive assembly

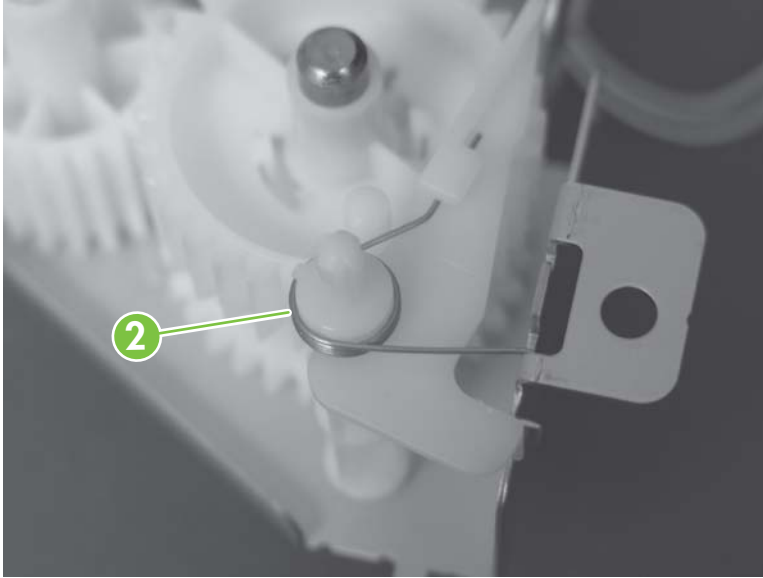
1. Make sure that the spring-loaded gear (callout 1) is correctly installed.

**Figure 6-225** Reinstall the cassette-pickup drive assembly (1 of 3)



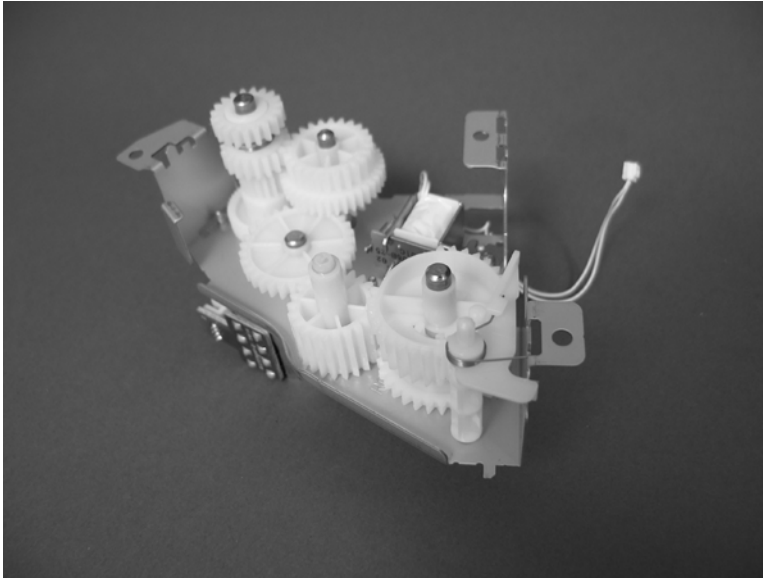
2. Make sure that the spring (callout 2) is correctly installed.

**Figure 6-226** Reinstall the cassette-pickup drive assembly (2 of 3)



3. Make sure that the gears, arm, and spring are correctly installed.


**Figure 6-227** Reinstall the cassette-pickup drive assembly (3 of 3)



## Cassette-pickup assembly

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

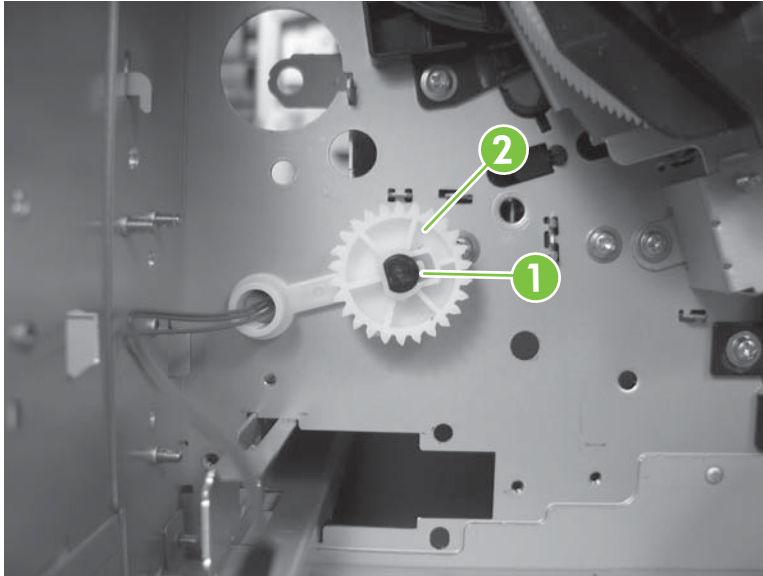
 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- Registration assembly. See [Registration assembly on page 303](#).
- High-voltage power supply lower. See [High-voltage power supply lower on page 308](#).
- Cassette-pickup drive assembly. See [Cassette-pickup drive assembly on page 316](#).

## Remove the cassette-pickup assembly

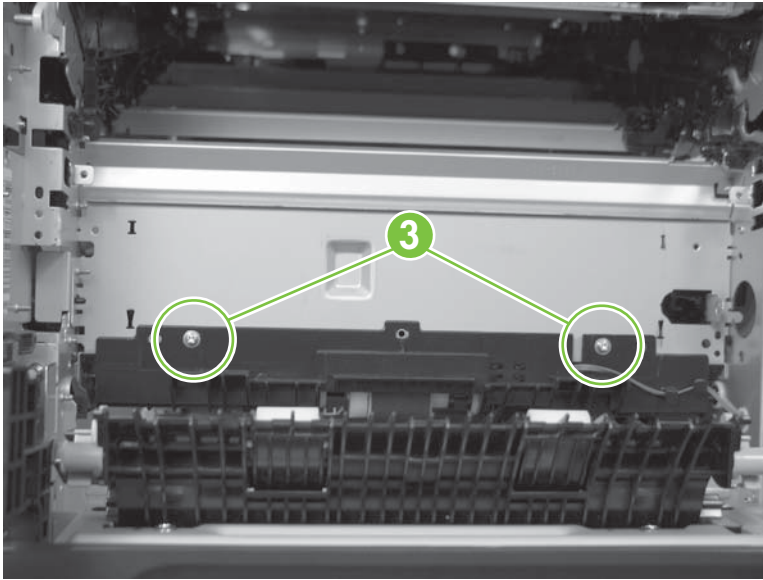
1. Release one tab (callout 1), and then remove the gear (callout 2).

**Figure 6-228** Remove the cassette-pickup assembly (1 of 3)



2. Remove two screws (callout 3).

**Figure 6-229** Remove the cassette-pickup assembly (2 of 3)



3. Remove the assembly.


**Figure 6-230** 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 190](#).
- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

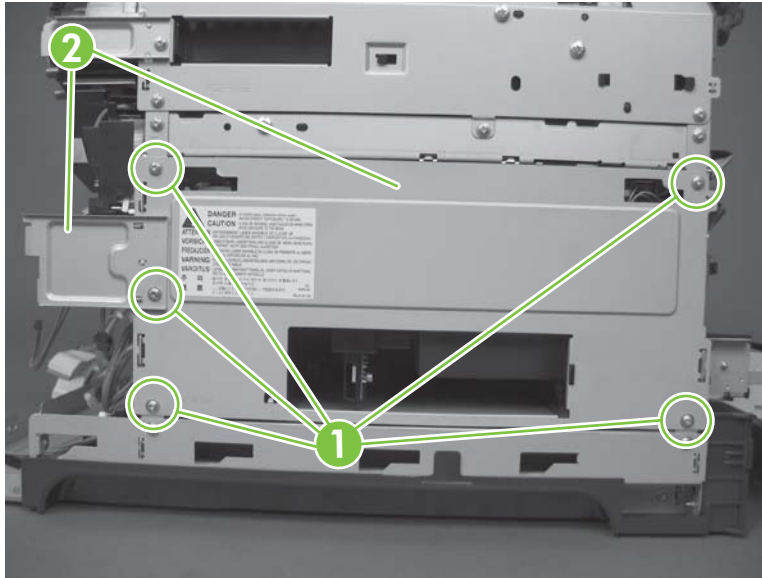
 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- High-voltage power supply lower. See [High-voltage power supply lower on page 308](#).

## Remove the laser/scanner assembly (Y/M)

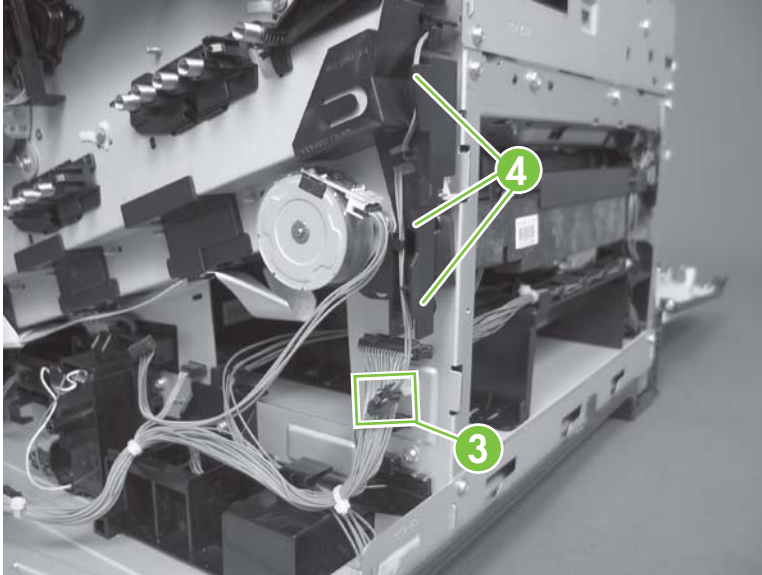
1. Remove five screws (callout 1), and then remove the sheet-metal plate (callout 2).

**Figure 6-231** Remove the laser/scanner assembly (Y/M) (1 of 12)



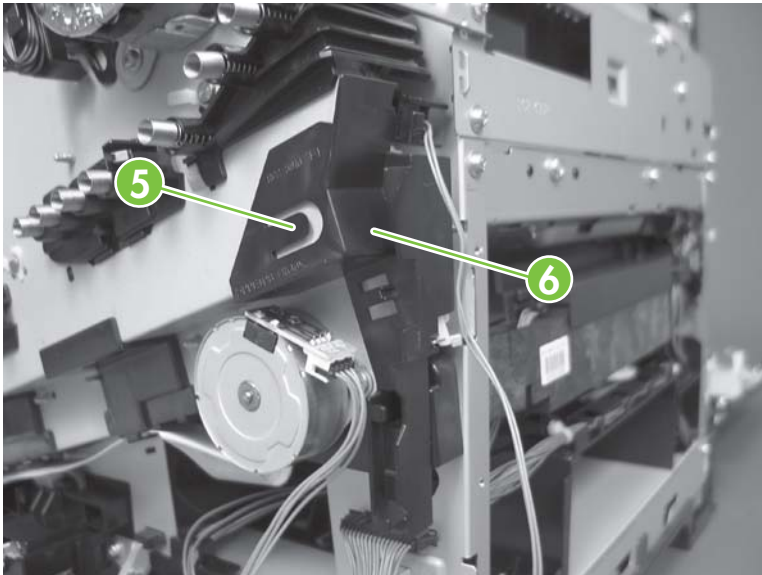
2. Disconnect in-line one connector (callout 3), and then release the wire harnesses from the guide (callout 4).

**Figure 6-232** Remove the laser/scanner assembly (Y/M) (2 of 12)



3. Release one tab (callout 5), and then remove the guide (callout 6).

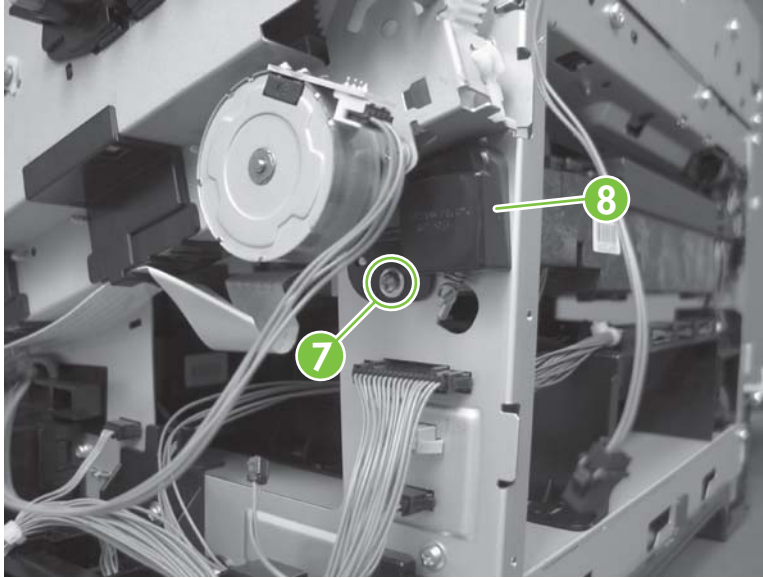
**Figure 6-233** Remove the laser/scanner assembly (Y/M) (3 of 12)





4. Remove one screw (callout 7), and then remove the cover (callout 8).

**Figure 6-234** Remove the laser/scanner assembly (Y/M) (4 of 12)

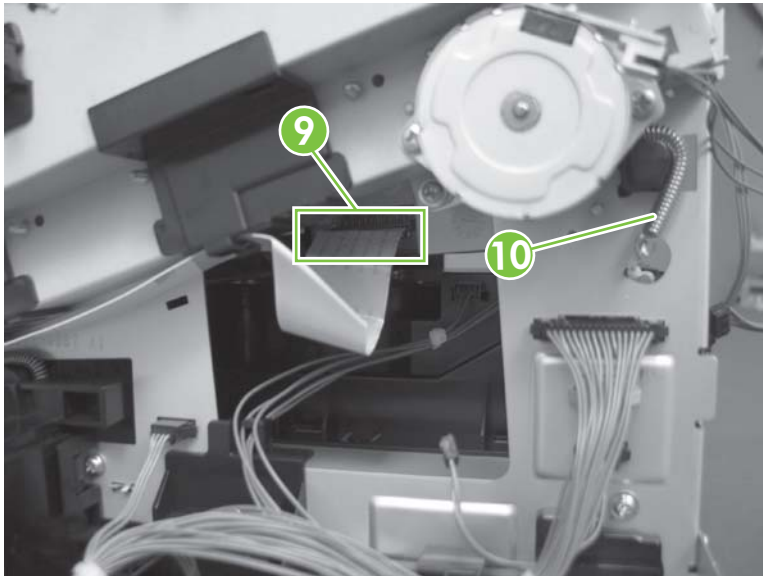


5. Disconnect one FFC (callout 9), and then release one spring (callout 10).


△ **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.

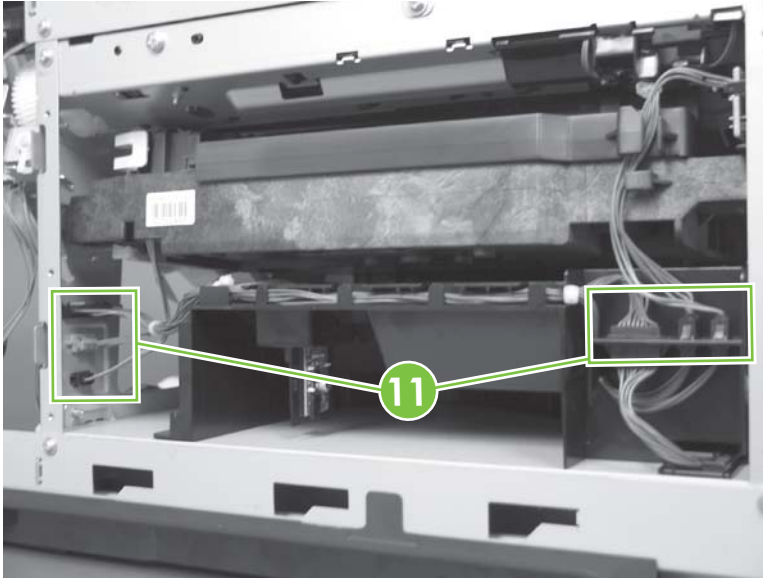
**Figure 6-235** Remove the laser/scanner assembly (Y/M) (5 of 12)



6. Disconnect six connectors (callout 11).

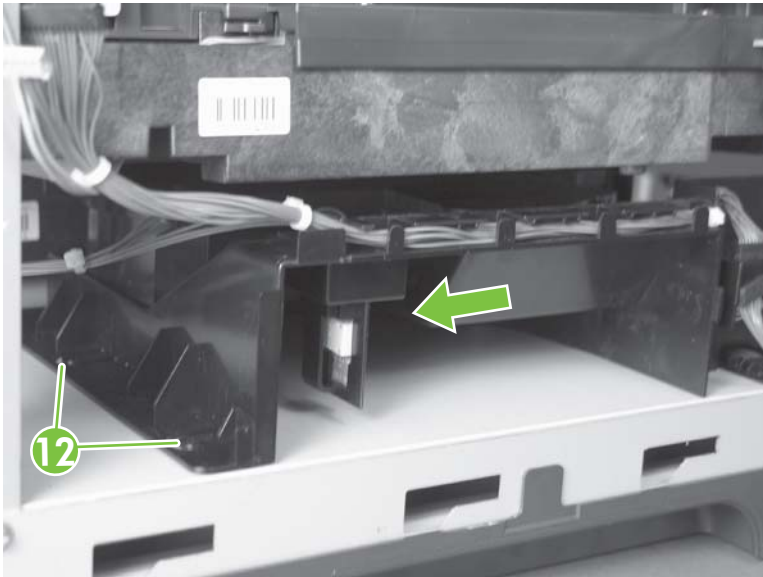
 **NOTE:** Disconnect the larger connector on the right side from the bottom. Disconnect the two smaller connectors on the right side from the top.

**Figure 6-236** 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.

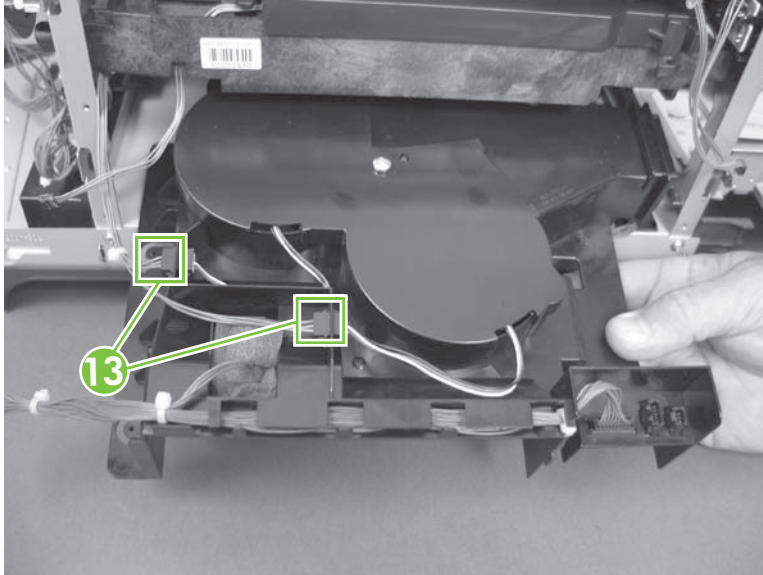
**Figure 6-237** Remove the laser/scanner assembly (Y/M) (7 of 12)





8. Pull the fan assembly slightly out of the product, disconnect two connectors (callout 13), and then remove the assembly.

**Figure 6-238** Remove the laser/scanner assembly (Y/M) (8 of 12)

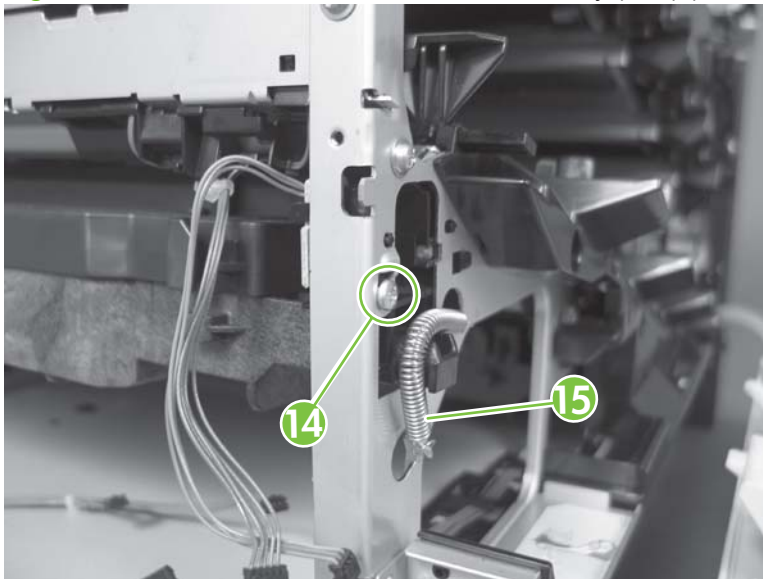


9. Remove one screw (callout 14), and then release one spring (callout 15).

△ **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.

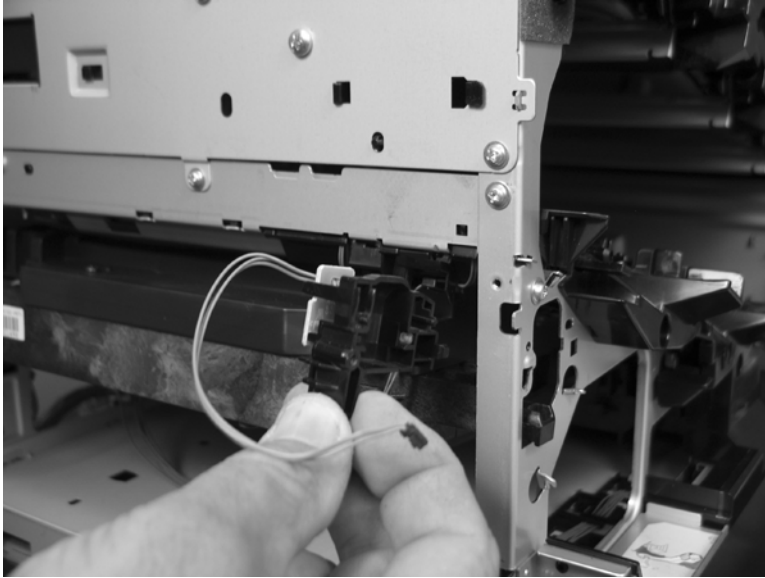
💡 **Reinstallation tip** When the laser/scanner is properly positioned in the chassis, the plastic parts which protrude at the front and rear of the product will be firmly seated against the locator tabs on the chassis. Verify that the assembly is correctly seated, and then install the spring.

**Figure 6-239** Remove the laser/scanner assembly (Y/M) (9 of 12)



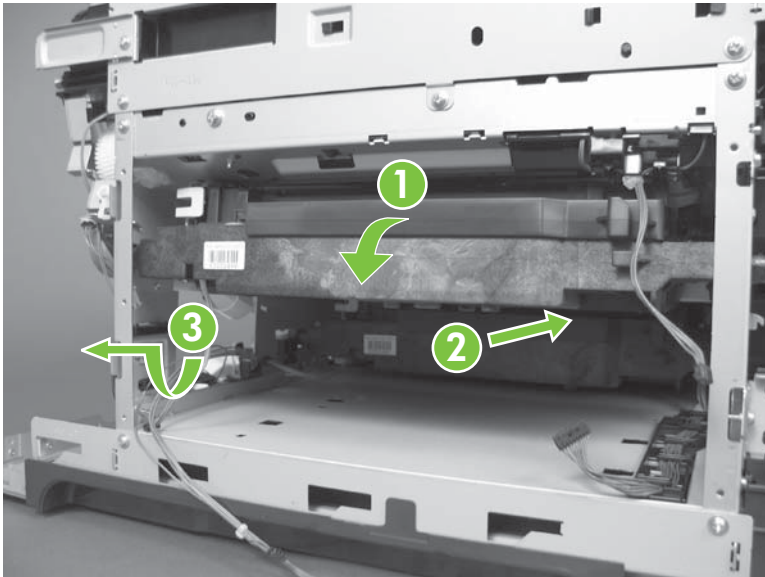
10. Remove the toner collection sensor.

**Figure 6-240** 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 6-241** 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 6-242** 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 190](#).
- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).
- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- High-voltage power supply lower. See [High-voltage power supply lower on page 308](#).
- Lifter drive assembly. See [Lifter-drive assembly on page 314](#).
- Laser/scanner assembly (Y/M). See [Laser/scanner assembly \(Y/M\) on page 325](#).

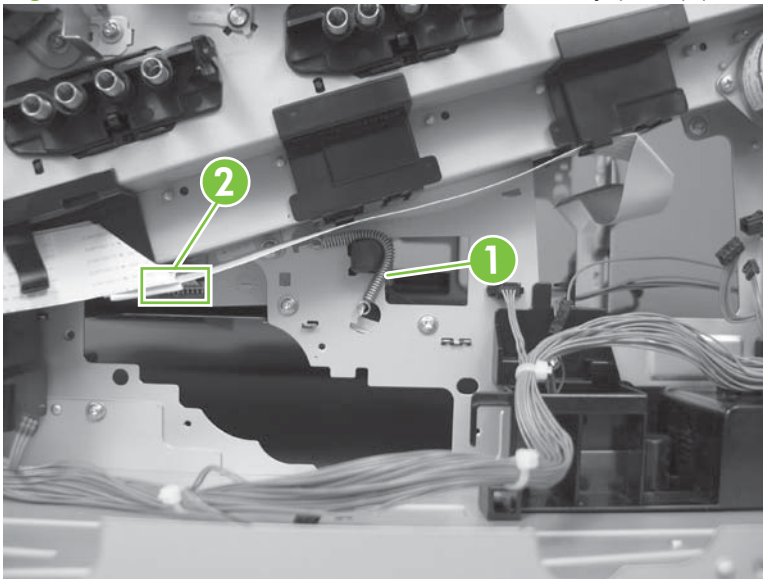
### Remove the laser/scanner assembly (C/Bk)

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.

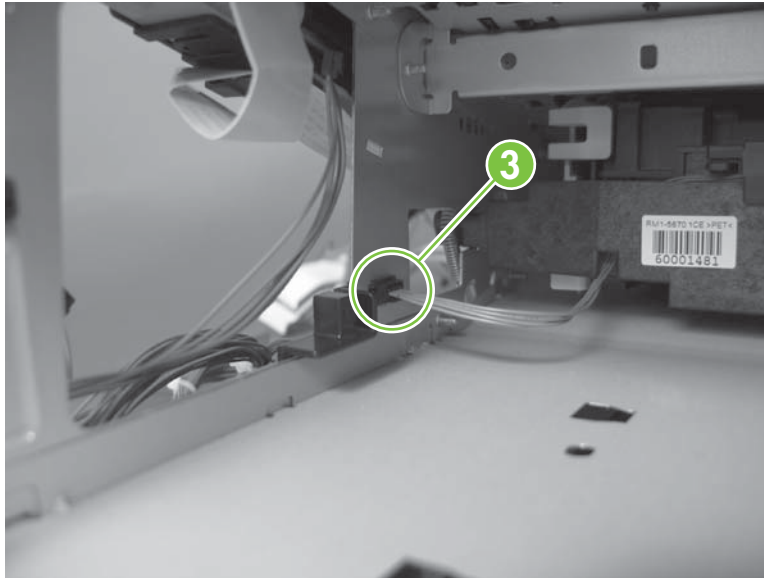
💡 **Reinstallation tip** When you reinstall the spring, make sure that the laser/scanner fits tightly up against the product chassis, and make sure that the FFC is fully seated in the connector. The locator tabs on the front of the scanner must be firmly seated in the slots in the chassis.

**Figure 6-243** Remove the laser/scanner assembly (C/Bk) (1 of 7)



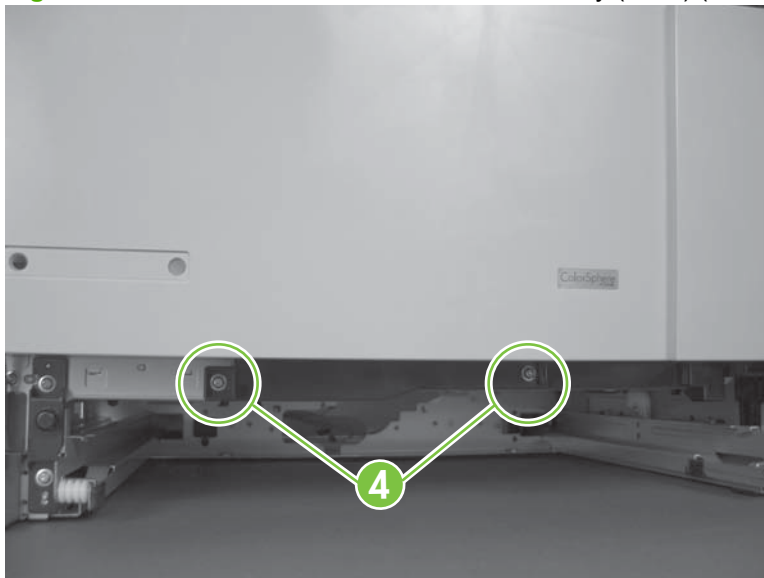
2. Disconnect one connector (callout 3).

**Figure 6-244** Remove the laser/scanner assembly (C/Bk) (2 of 7)



3. Remove two screws (callout 4) located below the front door.

**Figure 6-245** 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).

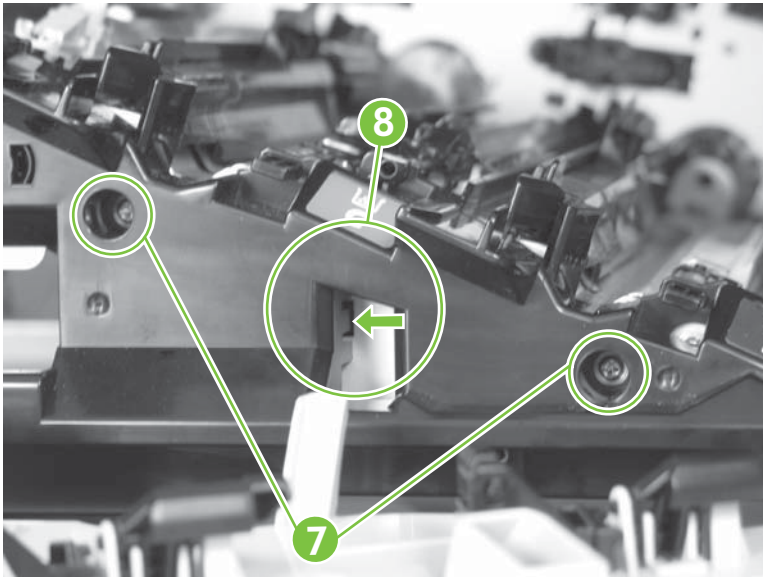
**Figure 6-246** Remove the laser/scanner assembly (C/Bk) (4 of 7)



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 6-250 Reinstall the PGC actuators \(1 of 5\) on page 336](#). To reinstall the actuators, see [Reinstall the protective glass cleaner \(PGC\) actuators on page 336](#).

**Figure 6-247** Remove the laser/scanner assembly (C/Bk) (5 of 7)



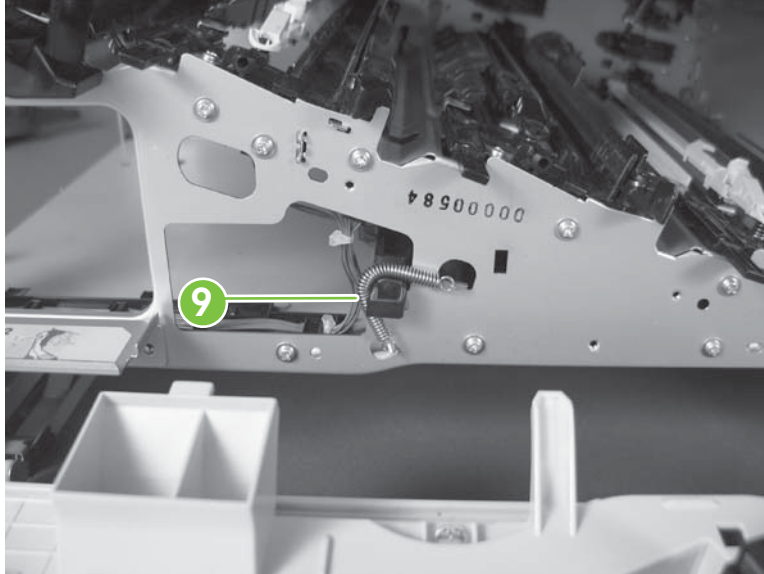


6. Release one spring (callout 9).

△ **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.

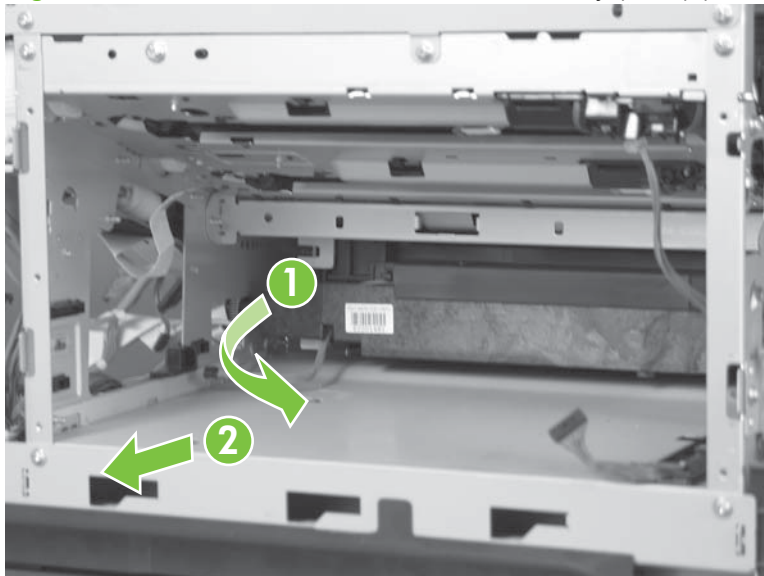
**Figure 6-248** Remove the laser/scanner assembly (C/Bk) (6 of 7)



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 6-249** Remove the laser/scanner assembly (C/Bk) (7 of 7)

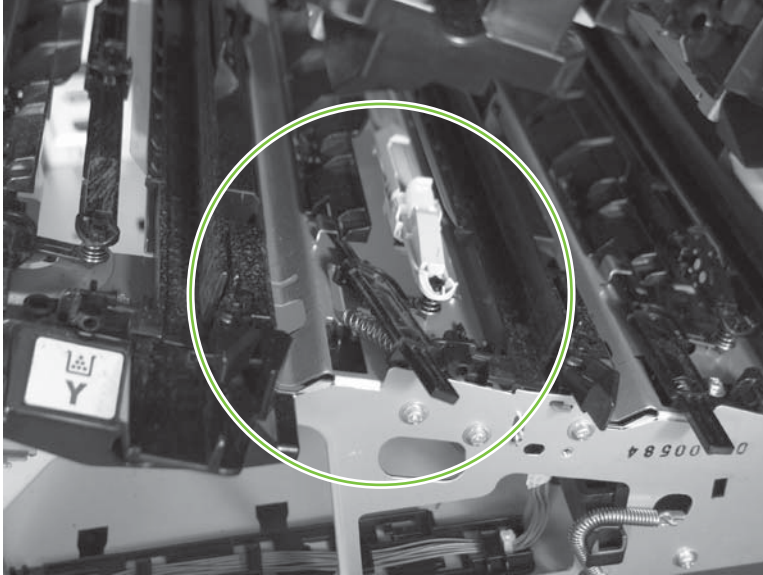


## Reinstall the protective glass cleaner (PGC) actuators

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 6-250** Reinstall the PGC actuators (1 of 5)



2. Remove the actuator and spring from the product. Install the spring on the actuator.

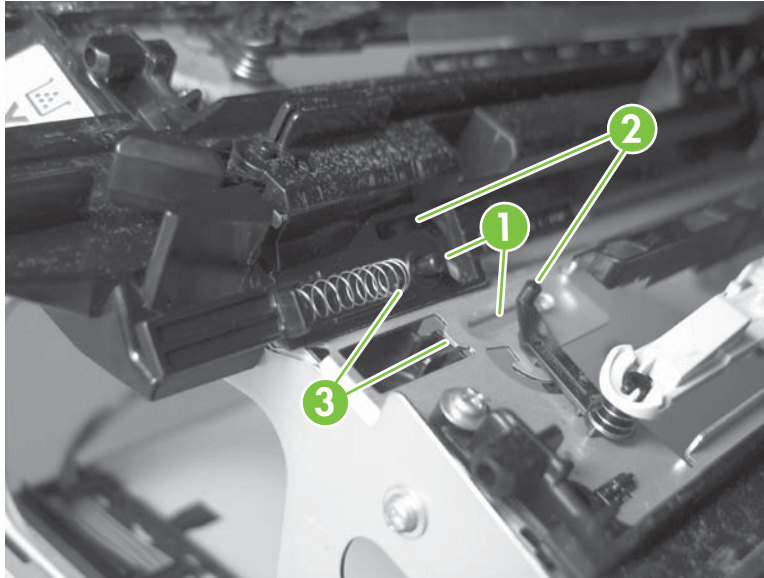
**Figure 6-251** Reinstall the PGC actuators (2 of 5)





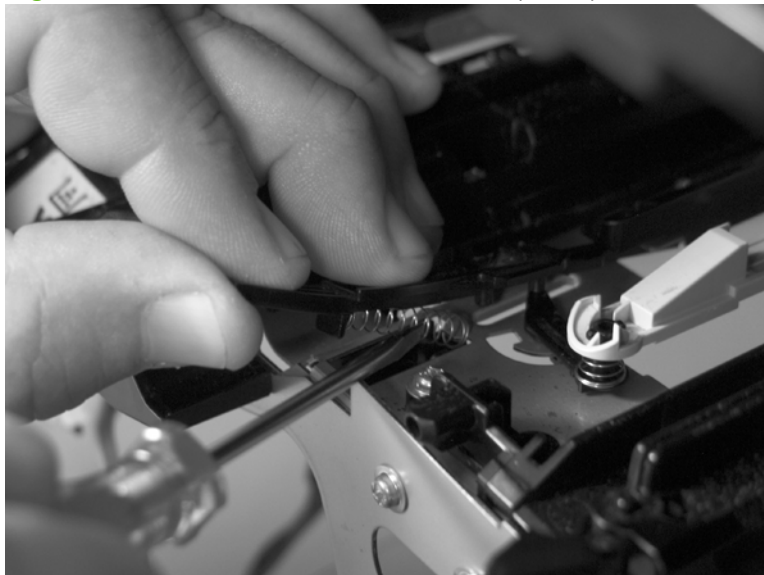
3. Before proceeding, take note of the following:
- **Callout 1:** The pin on the actuator will be installed into the slot in the chassis.
  - **Callout 2:** The pin on the pivot arm will be installed into the slot on the actuator.
  - **Callout 3:** The end of the spring will be installed onto the tab on the chassis.

**Figure 6-252** Reinstall the PGC actuators (3 of 5)



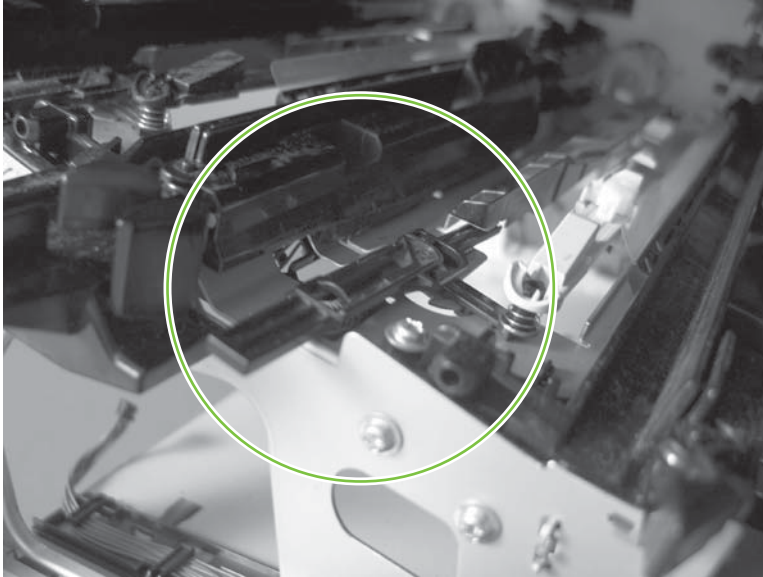
4. Place the end of the actuator into the PGC rod, and then use a small flat blade screw driver to fasten the end of the spring on the tab on the chassis.

**Figure 6-253** 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 6-254** Reinstall the PGC actuators (5 of 5)



## High-voltage power supply upper

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).
- DC controller. See [DC controller PCA and tray on page 270](#).
- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).

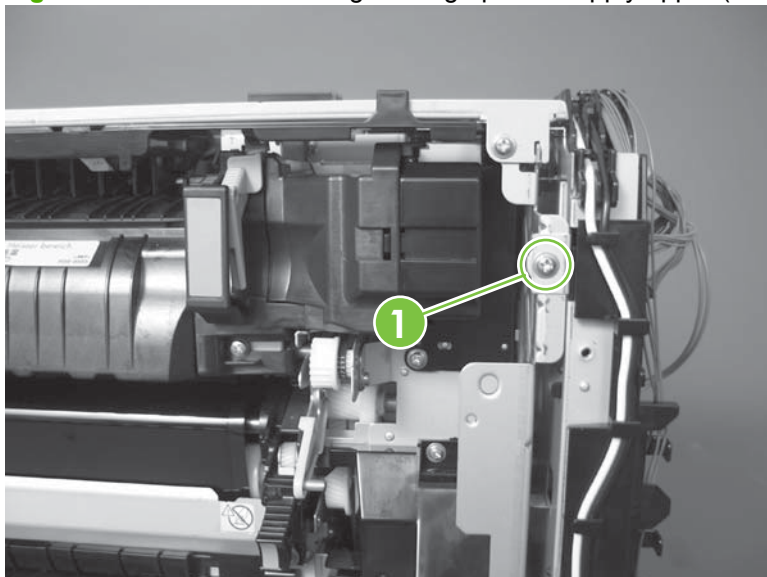
## Remove the high-voltage power supply upper




**CAUTION:**  ESD-sensitive part.

1. Remove one screw (callout 1).

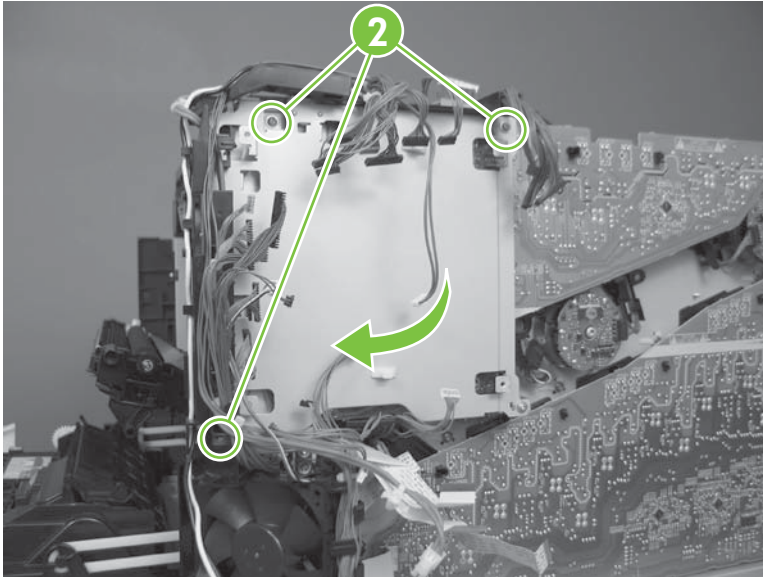
**Figure 6-255** Remove the high-voltage power supply upper (1 of 5)




2. Remove four 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.

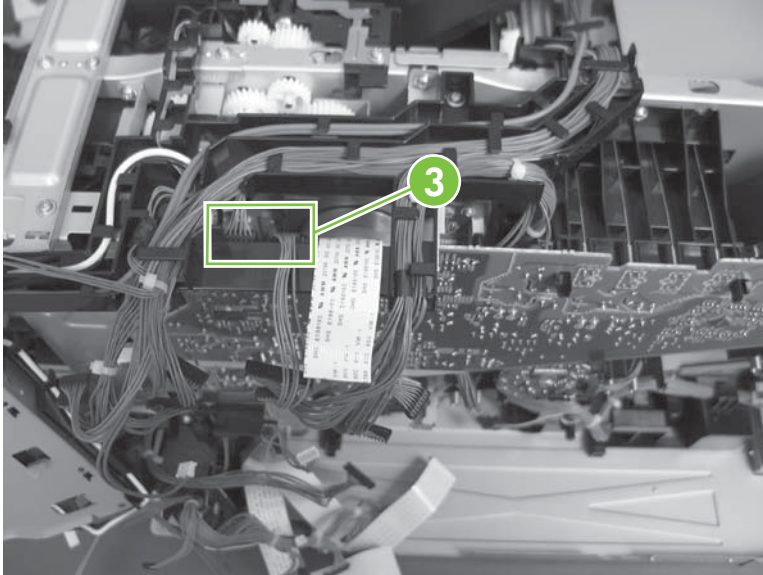
**Figure 6-256** Remove the high-voltage power supply upper (2 of 5)



3. Disconnect two connectors (J201, J202; callout 3) from the back side of the power supply.

 **NOTE:** For clarity, the figure in this step shows the ADF and scanner removed. Carefully reach under these components to access the two connectors.

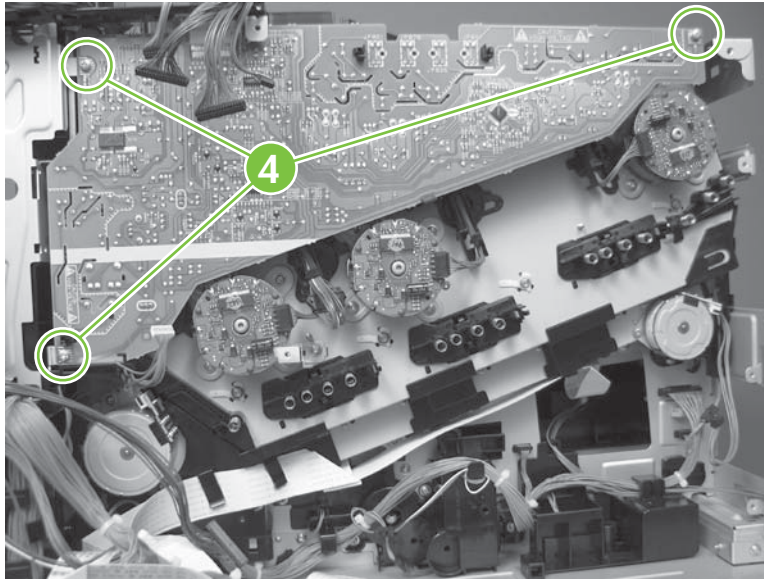
**Figure 6-257** Remove the high-voltage power supply upper (3 of 5)





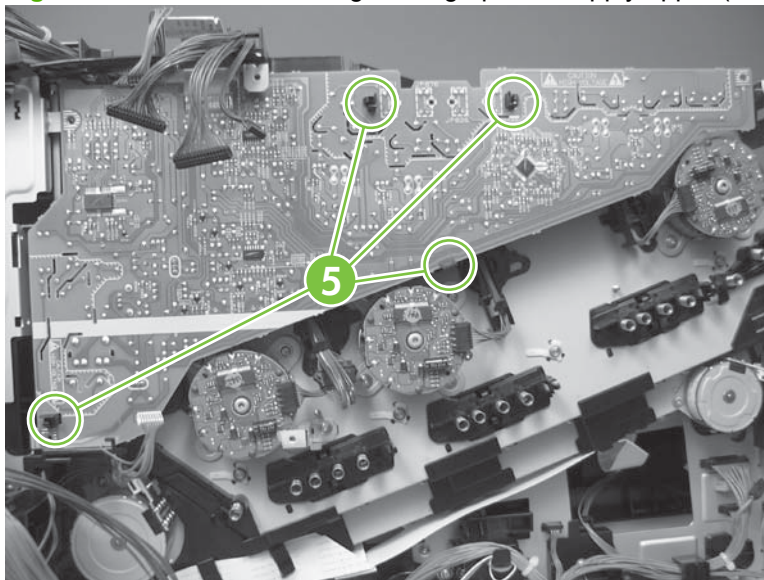
4. Remove three screws (callout 4).

**Figure 6-258** Remove the high-voltage power supply upper (4 of 5)




5. Release four tabs (callout 5), and then remove the power supply.

**Figure 6-259** Remove the high-voltage power supply upper (5 of 5)



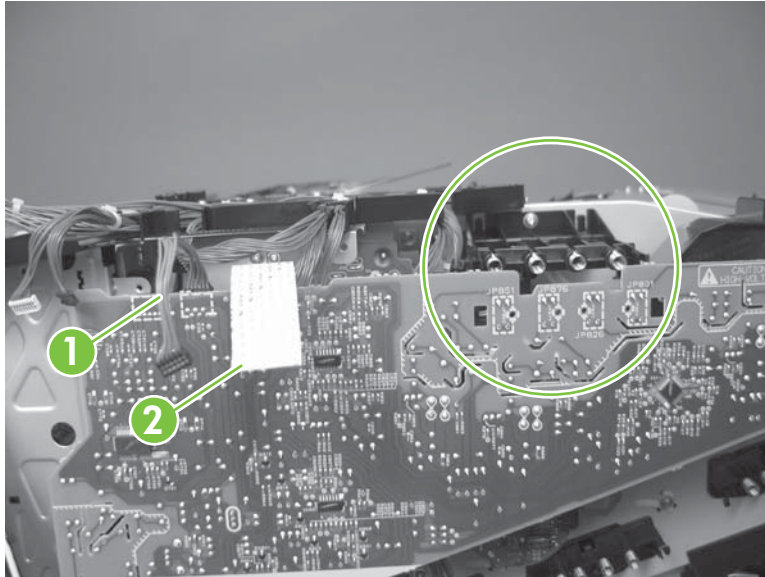
### Reinstall the high-voltage power supply upper

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:** One wire harness (callout 1) is disconnected at both ends. Do not lose the wire harness.

Position the FFC (callout 2) over the cable guide when you reinstall the power supply.


**Figure 6-260** 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 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Reinstall the ICB on page 269](#).

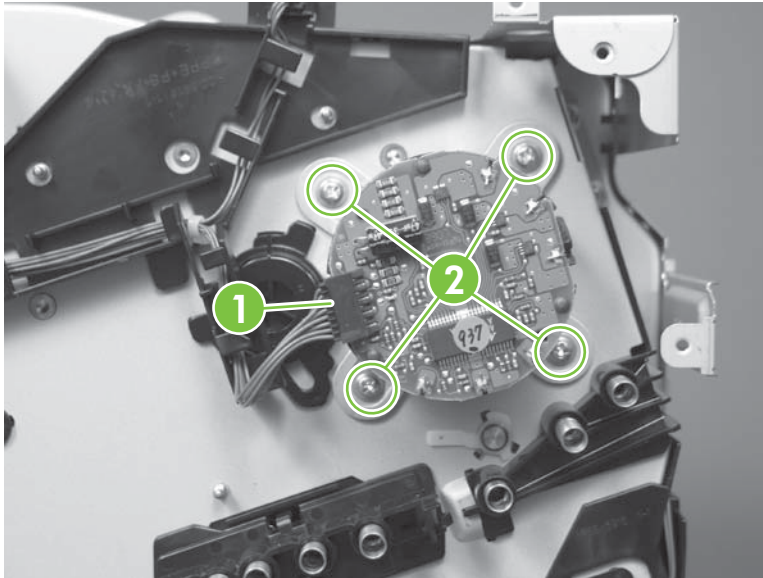
 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- High-voltage power supply upper. See [High-voltage power supply upper on page 339](#).

## Remove the drum motor 1

- ▲ Disconnect one connector (callout 1), remove four screws (callout 2), and then remove the motor.


**Figure 6-261** 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 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

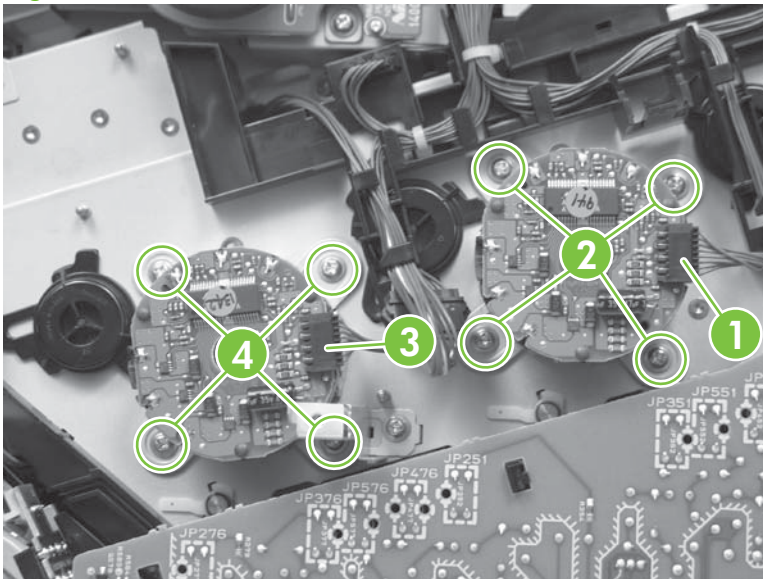
- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- High-voltage power supply upper. See [High-voltage power supply upper on page 339](#).

## 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 6-262** Remove the drum motor 2 or drum motor 3






## Fuser motor

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#)
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

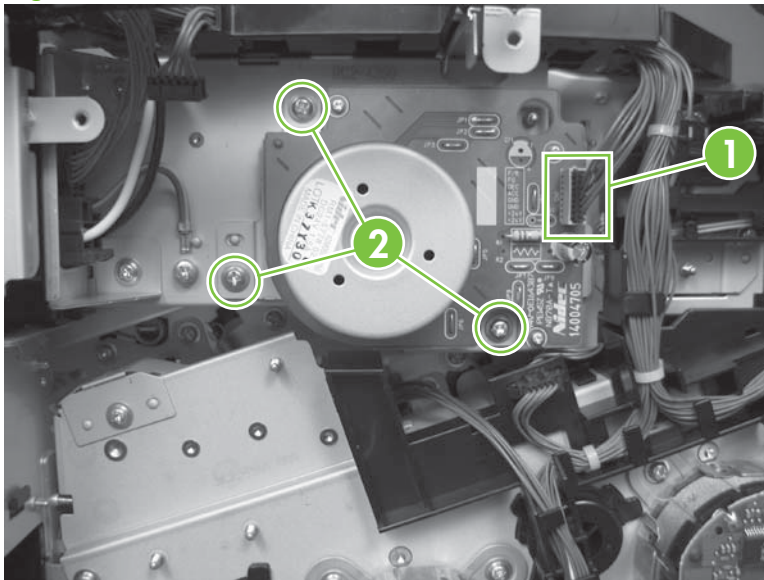
 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

- DC controller PCA and tray. See [DC controller PCA and tray on page 270](#).
- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- High-voltage power supply upper. See [High-voltage power supply upper on page 339](#).

### Remove the fuser motor

Disconnect one connector (callout 1), remove three screws (callout 2), and then remove the motor.

**Figure 6-263** Remove the fuser motor




## Main-drive assembly

Before proceeding, remove the following components:

- Formatter PCA. See [Formatter PCA on page 192](#).
- Secondary transfer assembly. See [Secondary transfer assembly on page 207](#).
- Intermediate transfer belt (ITB). See [Intermediate transfer belt \(ITB\) on page 209](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).

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 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

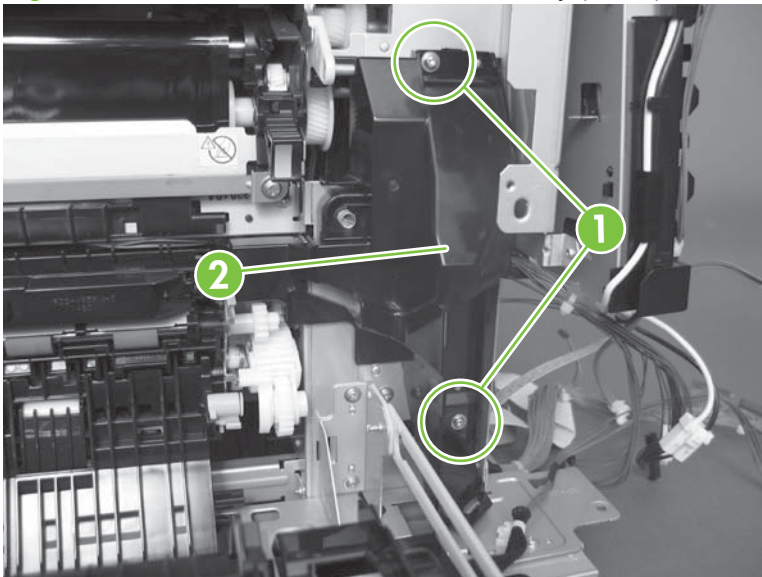
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- DC controller PCA. See [DC controller PCA and tray on page 270](#).
- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- Power-supply fan and fan duct. See [Power-supply fan and fan duct on page 300](#).
- High-voltage power supply lower. See [High-voltage power supply lower on page 308](#).
- High-voltage power supply upper. See [High-voltage power supply upper on page 339](#).

## Remove the main-drive assembly

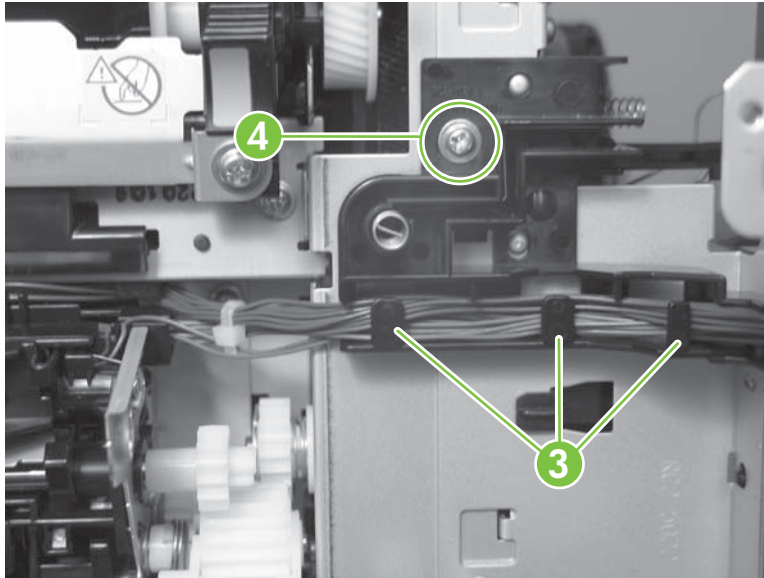
1. Remove two screws (callout 1), and then remove the cover (callout 2).

**Figure 6-264** Remove the main-drive assembly (1 of 7)



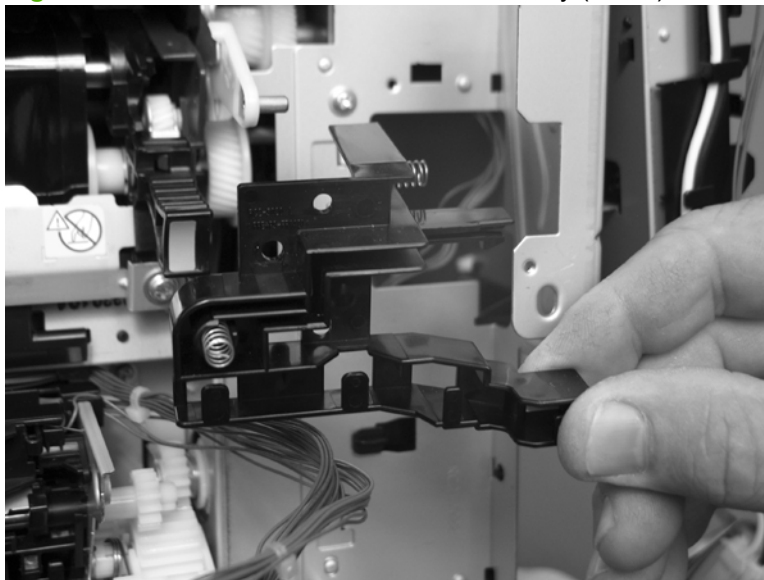
2. Release the wire harnesses from the guide (callout 3), and then remove one screw (callout 4).

**Figure 6-265** Remove the main-drive assembly (2 of 7)



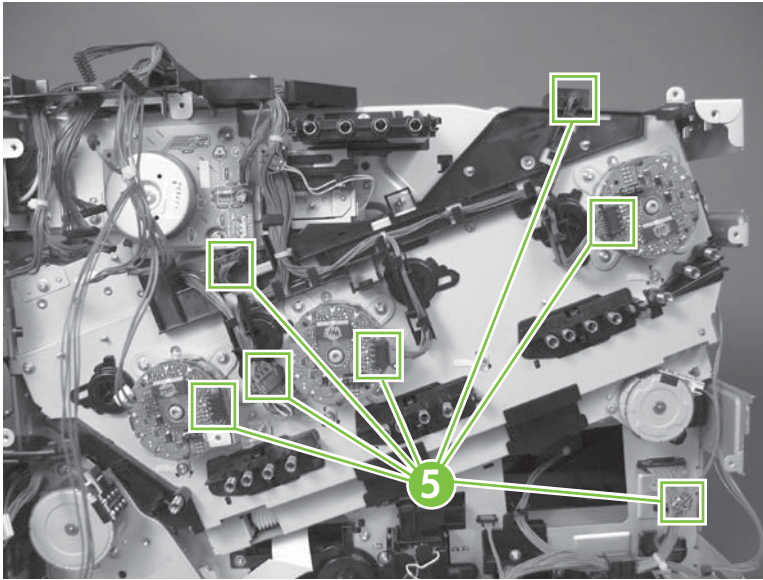
3. Lift the high-voltage bracket up to release it, and then remove the bracket.

**Figure 6-266** Remove the main-drive assembly (3 of 7)



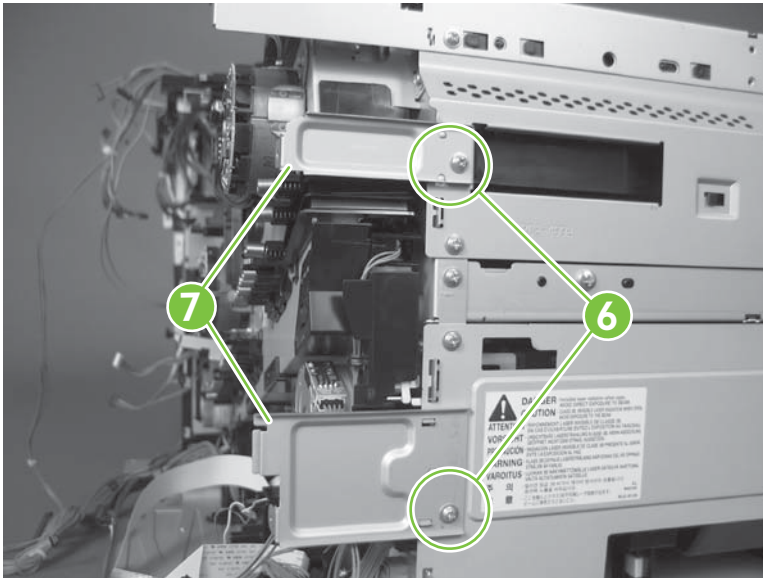
4. Disconnect seven connectors (callout 5), and then release the wire harnesses from the guides.

**Figure 6-267** Remove the main-drive assembly (4 of 7)



5. Remove two screws (callout 6), and then remove the sheet-metal plates (callout 7).

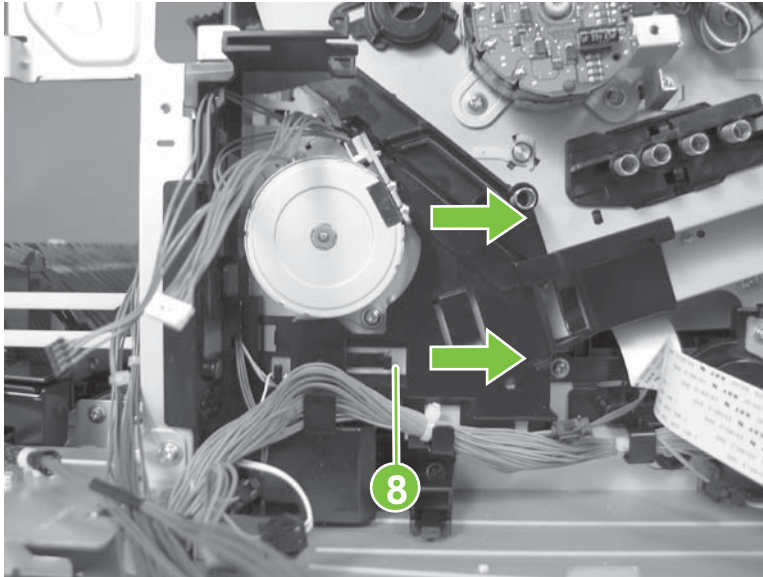
**Figure 6-268** Remove the main-drive assembly (5 of 7)





6. Release the FFCs and lower wiring harness from the guide, and then release one tab (callout 8) and remove the guide.

**Figure 6-269** Remove the main-drive assembly (6 of 7)

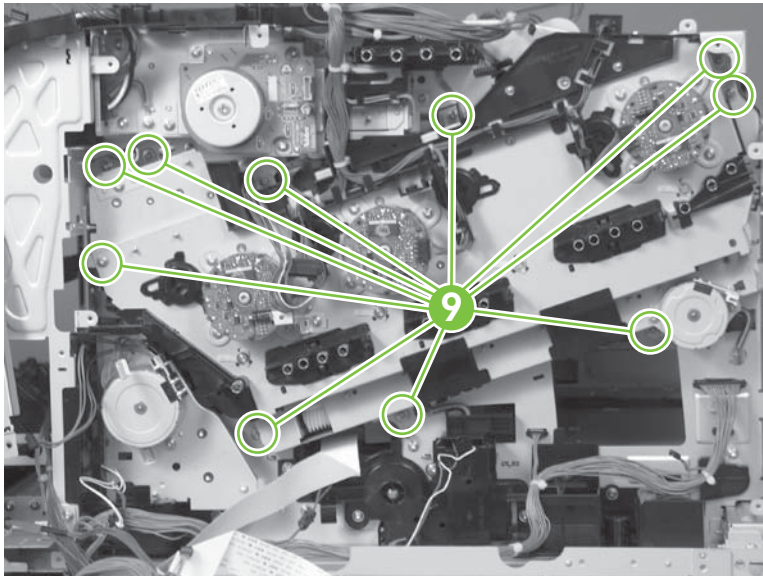


7. Remove ten screws (callout 9), and then carefully remove the assembly.

△ **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 6-272 Reinstall the main-drive assembly \(2 of 11\) on page 350](#).

The black cam must be installed on the shaft furthest away from the developing-disengagement motor. The white cams are interchangeable.


**Figure 6-270** Remove the main-drive assembly (7 of 7)



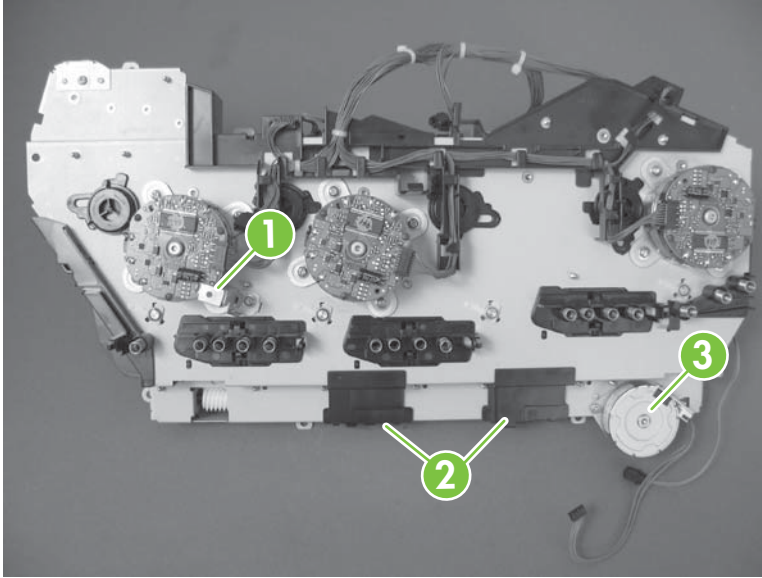
## Reinstall the main-drive assembly

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.

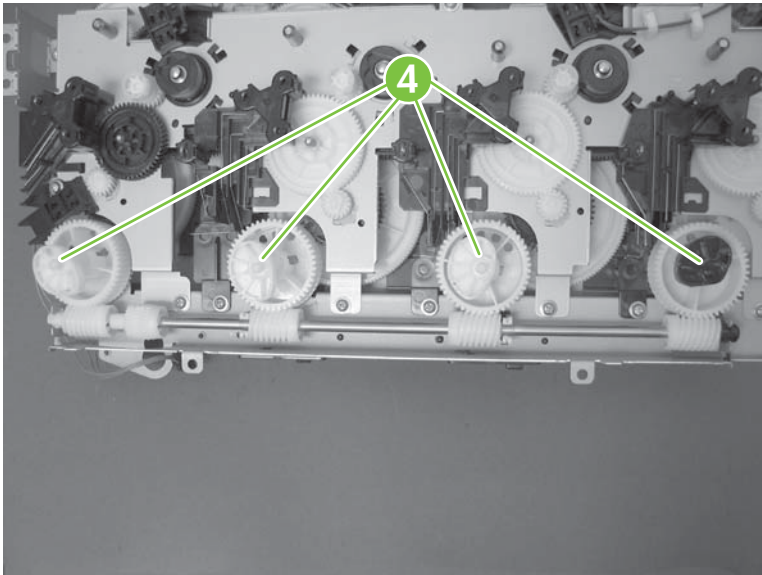
 **NOTE:** Do not install the developing-disengagement motor on the assembly (this motor must be removed from the assembly to align the main-drive cams).

**Figure 6-271** Reinstall the main-drive assembly (1 of 11)



2. Locate the cams (callout 4) on the back side of the assembly.

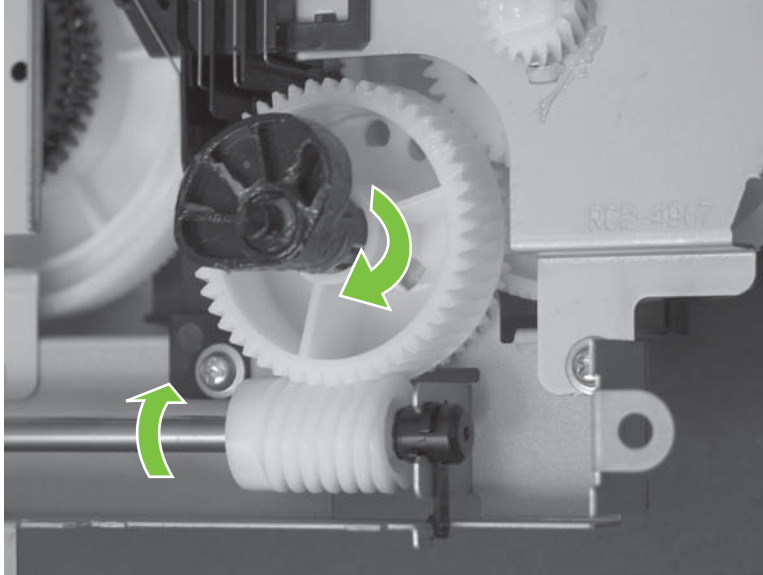
**Figure 6-272** Reinstall the main-drive assembly (2 of 11)



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 6-273** Reinstall the main-drive assembly (3 of 11)

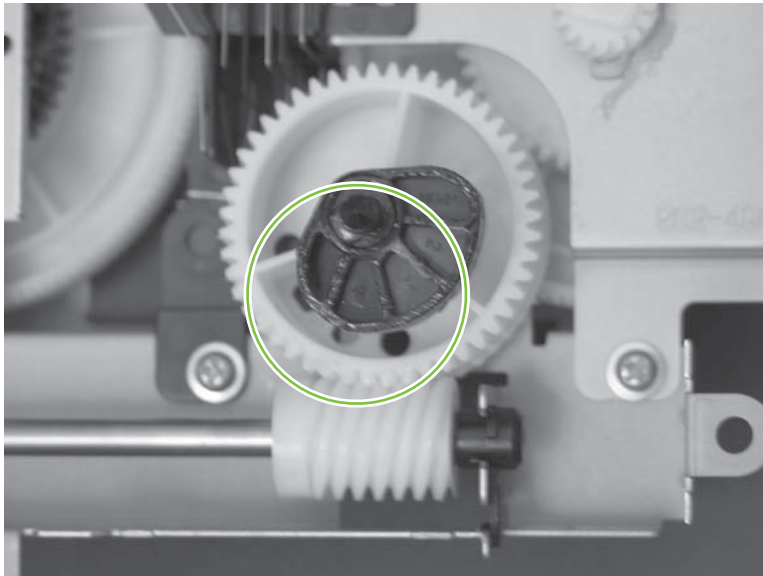


4. Continue to rotate the shaft until the holes in the black-cam gear align as shown below.


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 6-274** Reinstall the main-drive assembly (4 of 11)



5. Verify that the cams (callout 5) align correctly.

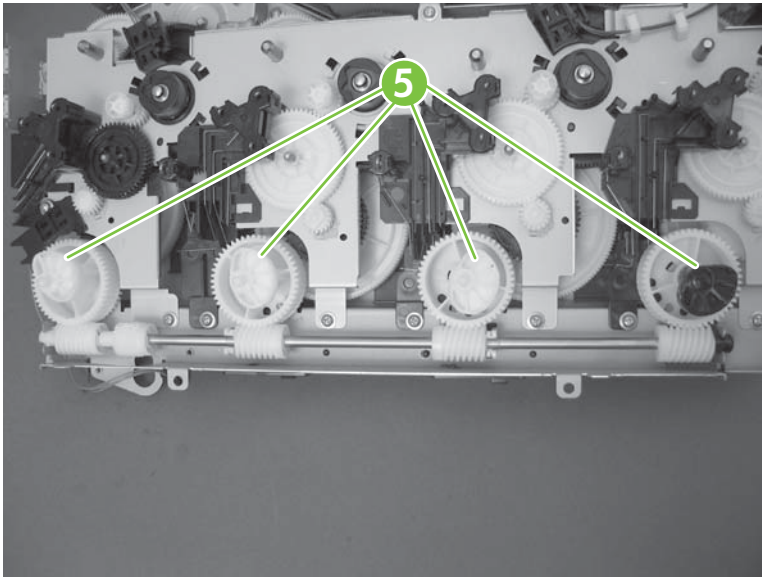
 **TIP:** The second cam in from the right (the white cam to the left of the black cam), should have the *second* hole aligned with the hole in the sheet-metal chassis.

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.

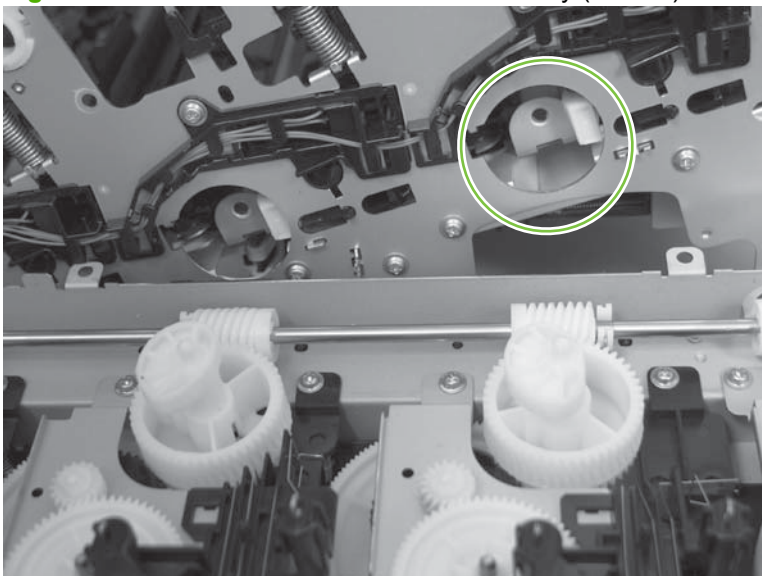
If the second, third, or fourth cams do not correctly align, do the following. Hold the long drive shaft, gently tilt the cam and gear away from the shaft to allow clearance to rotate the gear until the correct hole in the gear aligns with the hole in the chassis.

**Figure 6-275** Reinstall the main-drive assembly (5 of 11)



6. When the cams align correctly, they easily fit into the holes in the chassis.

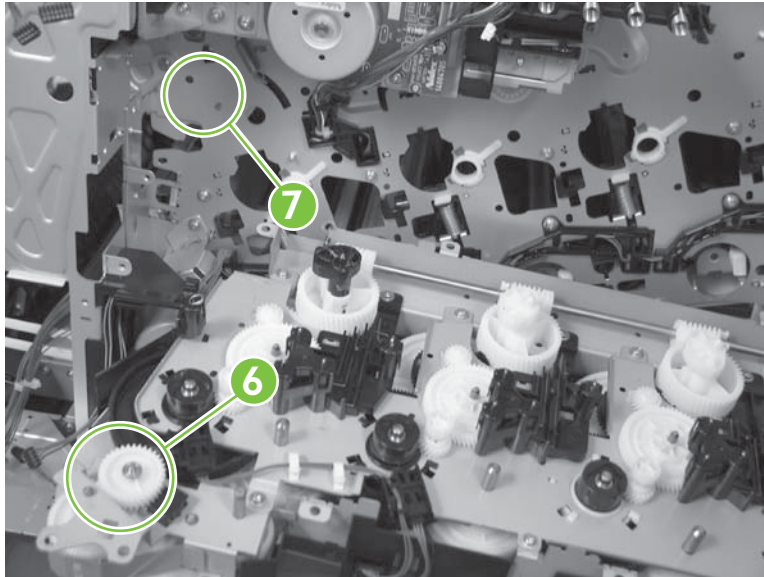
**Figure 6-276** Reinstall the main-drive assembly (6 of 11)





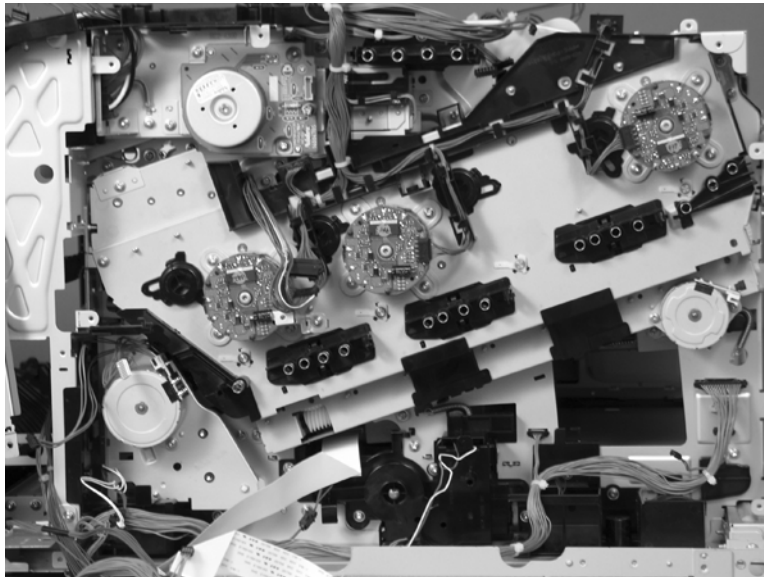
7. When the assembly is placed on the chassis, the pin on the swing gear and on the bracket (callout 6), must align with the holes in the chassis (callout 7).

**Figure 6-277** Reinstall the main-drive assembly (7 of 11)



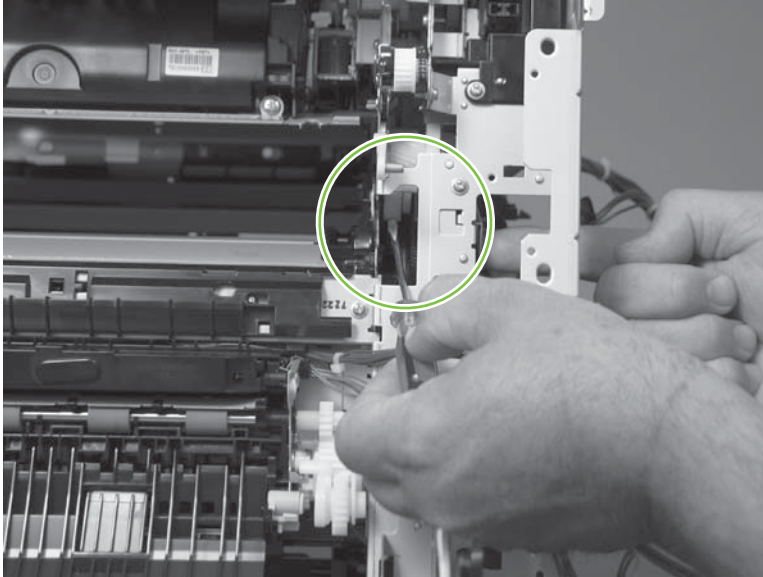
8. Position the assembly on the chassis.

**Figure 6-278** Reinstall the main-drive assembly (8 of 11)



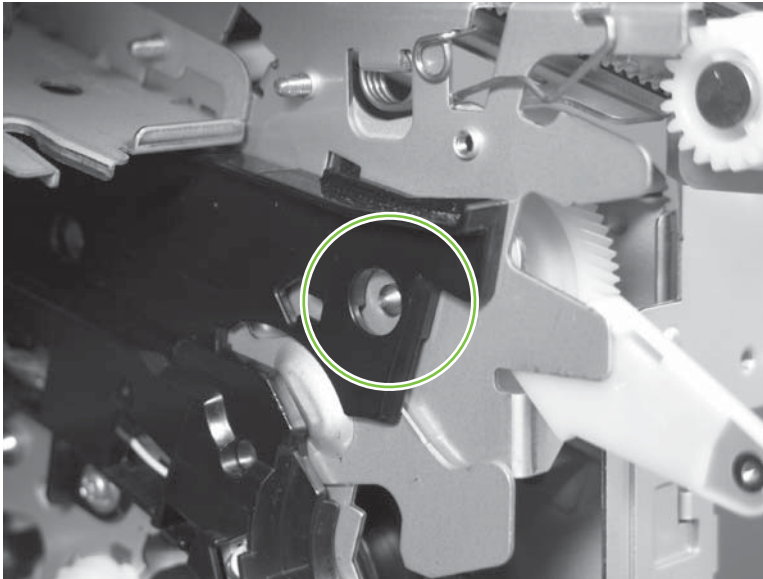
9. Use your finger to push in on the assembly, and use a small flat blade screwdriver to align the pin on the swing gear with the hole in the chassis.

**Figure 6-279** 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 6-280** Reinstall the main-drive assembly (10 of 11)

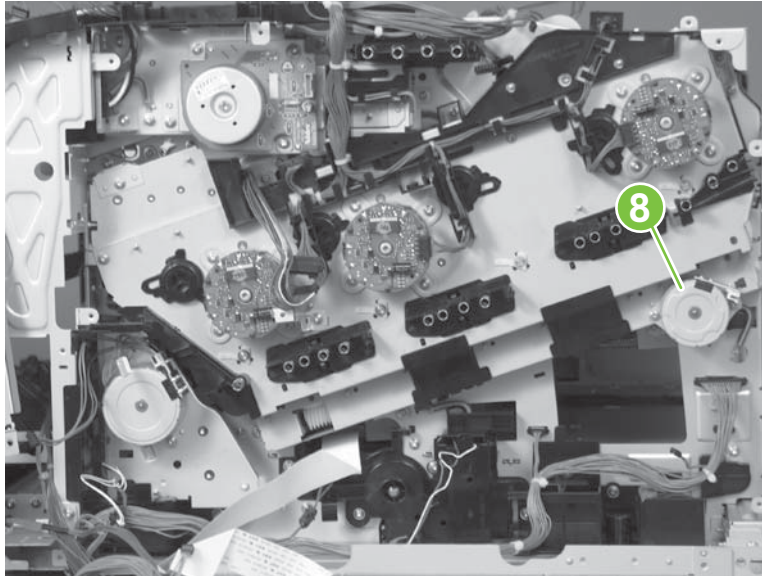


11. Install the main-drive assembly mounting screws, and then reinstall the developing-disengagement motor (callout 8).

 **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 6-281** Reinstall the main-drive assembly (11 of 11)




## Fuser-drive assembly

Before proceeding, remove the following components:

- Formatter PCA. [Formatter PCA on page 192.](#)
- Fuser. See [Fuser on page 200.](#)
- Secondary transfer assembly. See [Secondary transfer assembly on page 207.](#)
- Front-upper cover. See [Front-upper cover on page 225](#)
- Right-rear cover. See [Right-rear cover on page 231.](#)
- Left cover. See [Left cover on page 233.](#)
- Rear-upper cover. See [Rear-upper cover on page 236.](#)
- Rear cover. See [Rear cover on page 238.](#)
- Scanner assembly. See [Scanner assembly on page 242.](#)
- Front-top cover. See [Front-top cover on page 261.](#)
- Rear-top cover. See [Rear-top cover on page 262](#)
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267.](#)

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 **TIP:** For internal product access, you can remove the ICB and the low-voltage power supply as a single component.

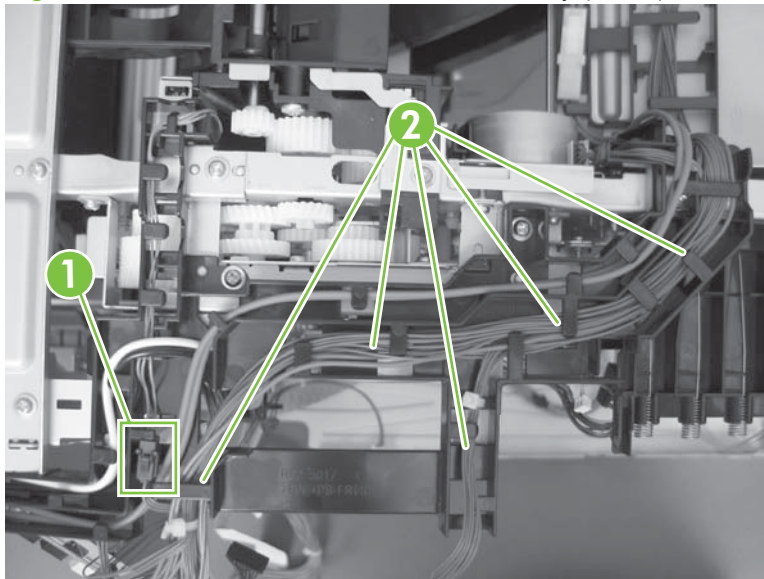
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- DC controller PCA. See [DC controller PCA and tray on page 270.](#)
- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273.](#)
- Power-supply fan and fan duct. See [Power-supply fan and fan duct on page 300.](#)
- High-voltage power supply lower. See [High-voltage power supply lower on page 308.](#)
- High-voltage power supply upper. See [High-voltage power supply upper on page 339.](#)
- Main-drive assembly. See [Main-drive assembly on page 346.](#)

## Remove the fuser-drive assembly

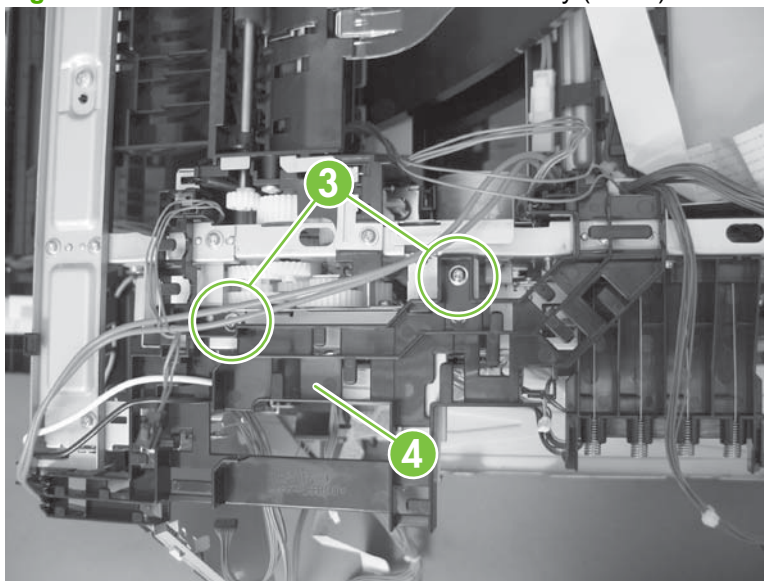
1. Disconnect one connector (callout 1), and then release the wire harnesses from the guide (callout 2).

**Figure 6-282** Remove the fuser-drive assembly (1 of 6)



2. Remove two screws (callout 3), and then remove the guide (callout 4).

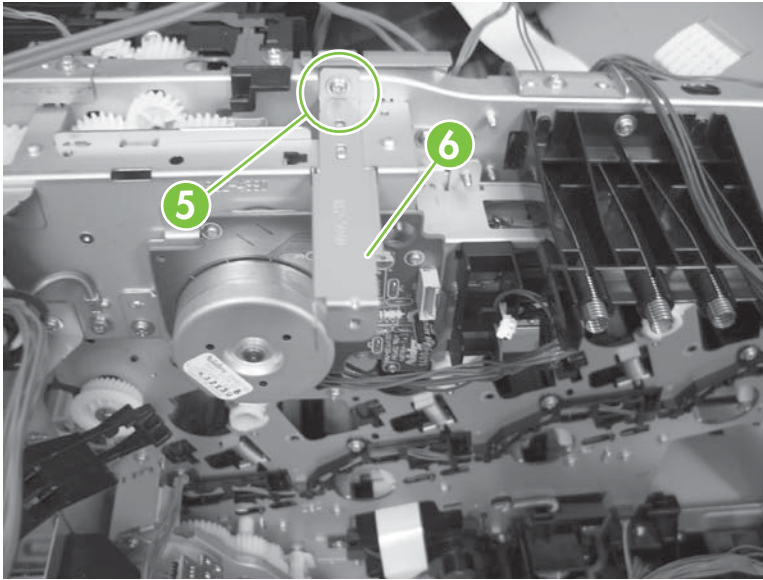
**Figure 6-283** Remove the fuser-drive assembly (2 of 6)





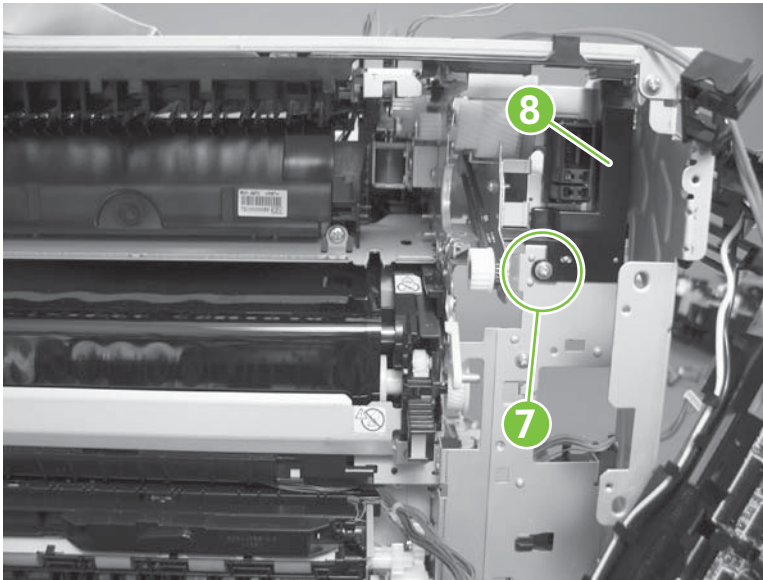
3. Remove one screw (callout 5), and then remove the sheet-metal plate (callout 6).

**Figure 6-284** Remove the fuser-drive assembly (3 of 6)



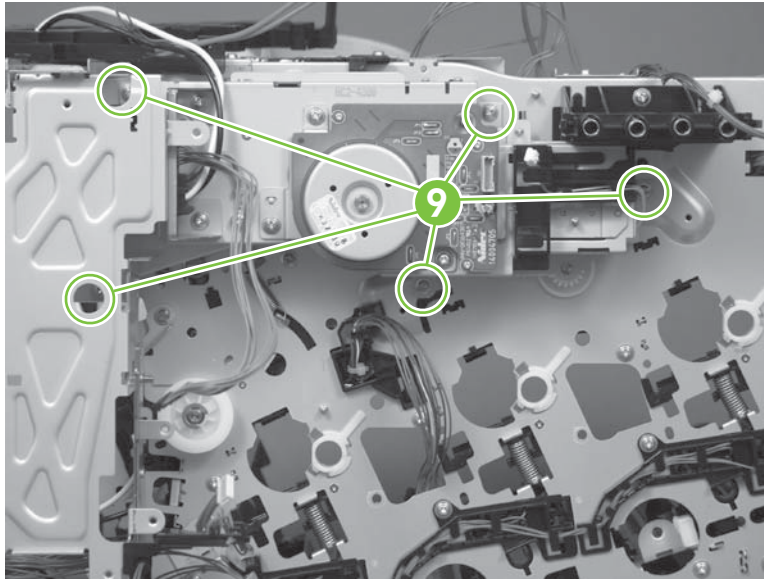
4. Remove one screw (callout 7), and then remove the cover (callout 8).

**Figure 6-285** Remove the fuser-drive assembly (4 of 6)



5. Remove five screws (callout 9).

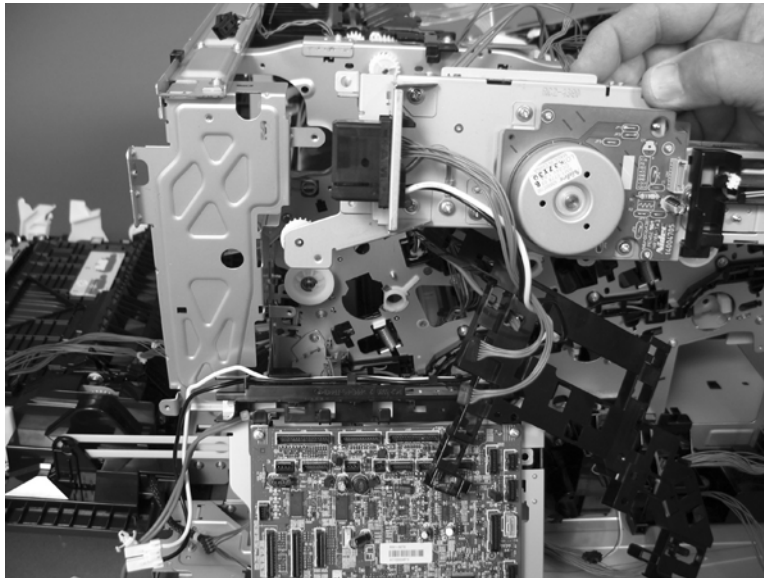
**Figure 6-286** Remove the fuser-drive assembly (5 of 6)



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 360](#).

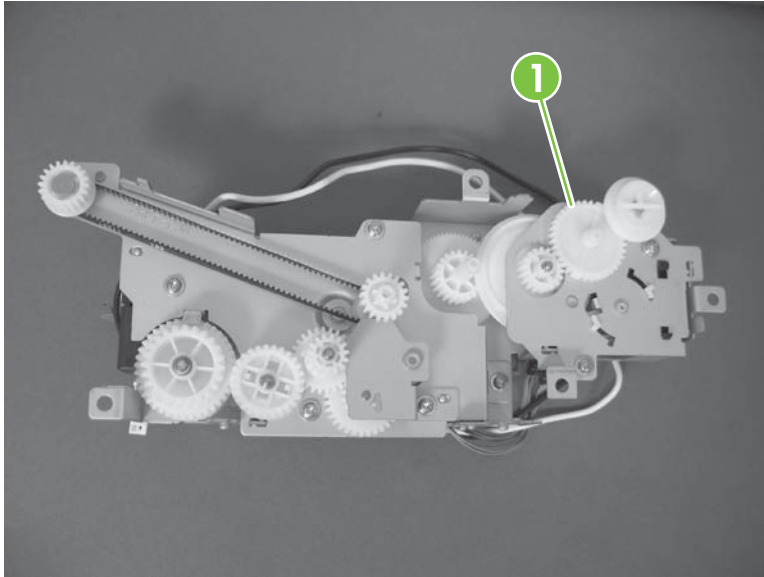
**Figure 6-287** Remove the fuser-drive assembly (6 of 6)



### 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 6-288** Reinstall the fuser-drive assembly





## Delivery assembly

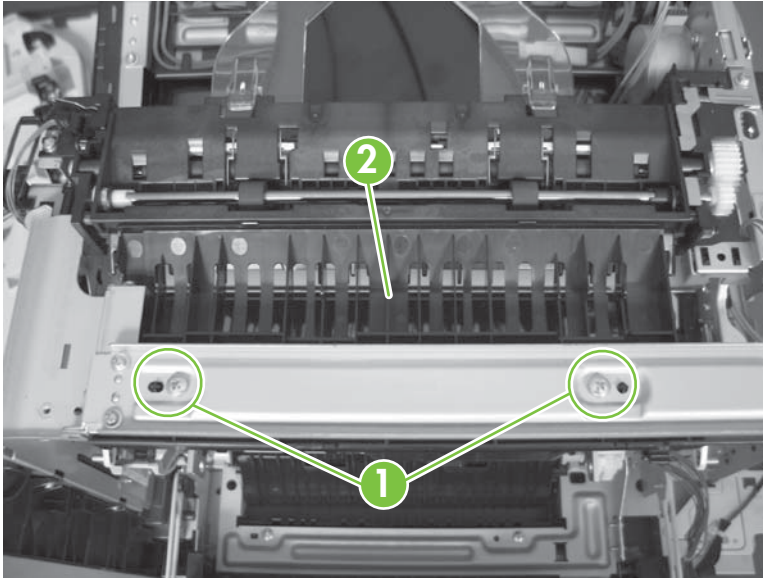
Before proceeding, remove the following components:

- Fuser. See [Fuser on page 200](#).
- Secondary transfer assembly. See [Secondary transfer assembly on page 207](#).
- Front-upper cover. See [Front-upper cover on page 225](#).
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Scanner assembly. See [Scanner assembly on page 242](#).
- Front-top cover. See [Front-top cover on page 261](#).
- Rear-top cover. See [Rear-top cover on page 262](#).
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).
- DC controller PCA. See [DC controller PCA and tray on page 270](#).
- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- Power-supply fan and fan duct. See [Power-supply fan and fan duct on page 300](#).
- High-voltage power supply lower. See [High-voltage power supply lower on page 308](#).
- High-voltage power supply upper. See [High-voltage power supply upper on page 339](#).
- Main-drive assembly. See [Main-drive assembly on page 346](#).
- Fuser-drive assembly. See [Fuser-drive assembly on page 356](#).

## Remove the delivery assembly

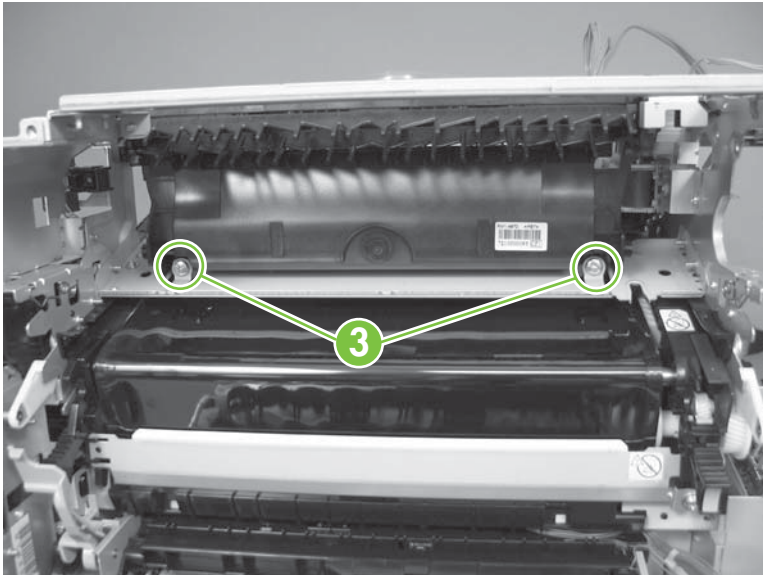
1. Remove two screws (callout 1), and then remove the guide (callout 2).

**Figure 6-289** Remove the delivery assembly (1 of 5)



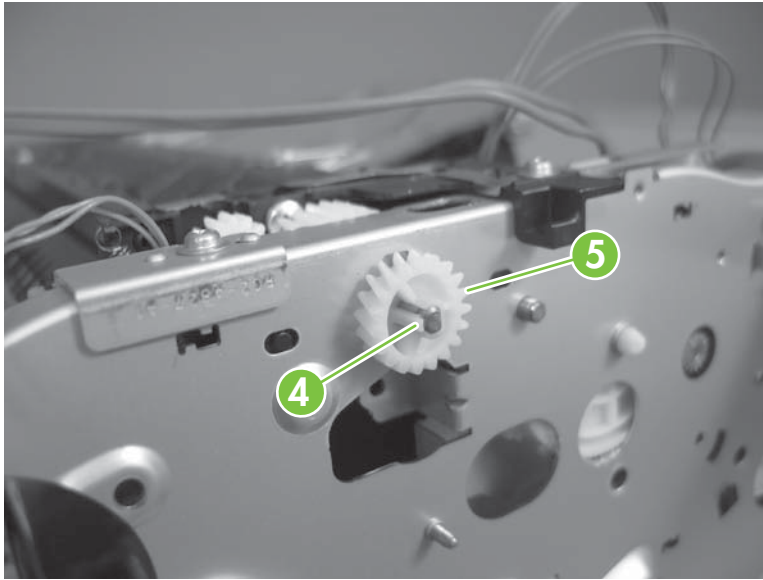
2. Remove two screws (callout 3).

**Figure 6-290** Remove the delivery assembly (2 of 5)



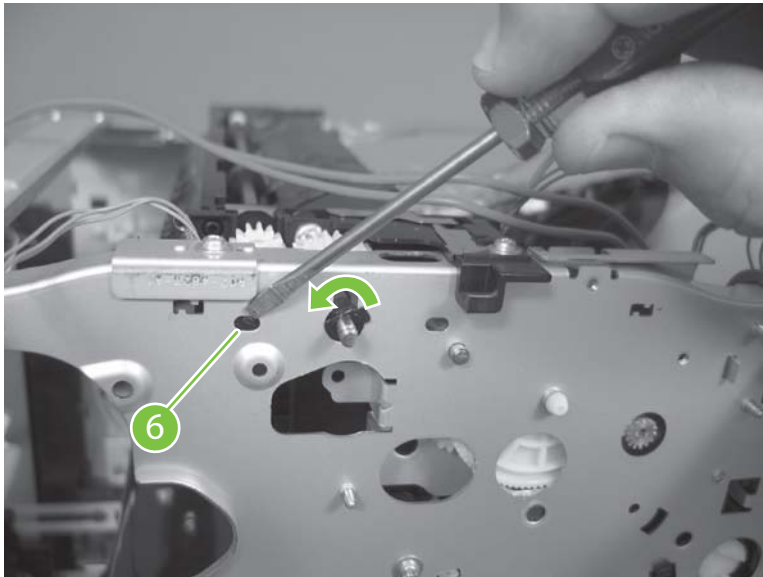
3. Release one tab (callout 4), and then remove the gear (callout 5).

**Figure 6-291** 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.

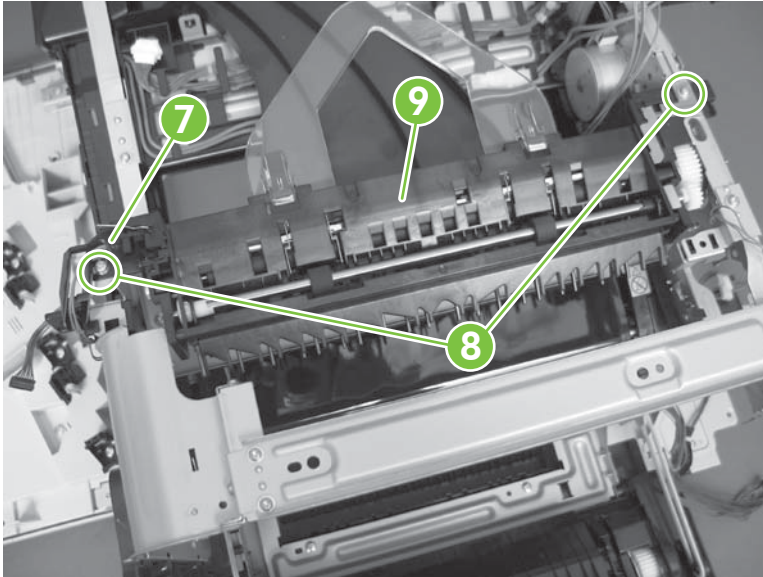
**Figure 6-292** Remove the delivery assembly (4 of 5)



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 (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 365](#).

**Figure 6-293** Remove the delivery assembly (5 of 5)



## Reinstall the delivery assembly

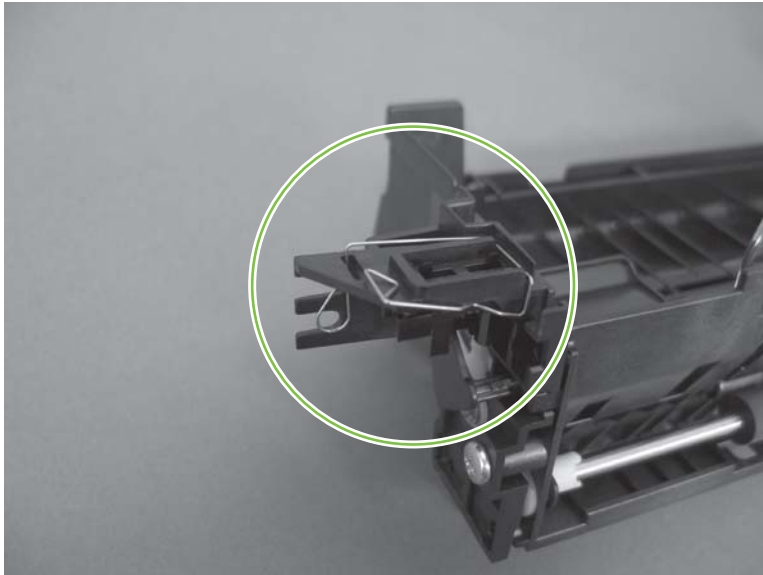
1. Make sure that the solenoid arm is correctly installed on the assembly.

**Figure 6-294** Reinstall the delivery assembly (1 of 2)



2. Make sure that the spring is correctly installed on the assembly.

**Figure 6-295** Reinstall the delivery assembly (2 of 2)



## Duplex-drive assembly

Before proceeding, remove the following components:

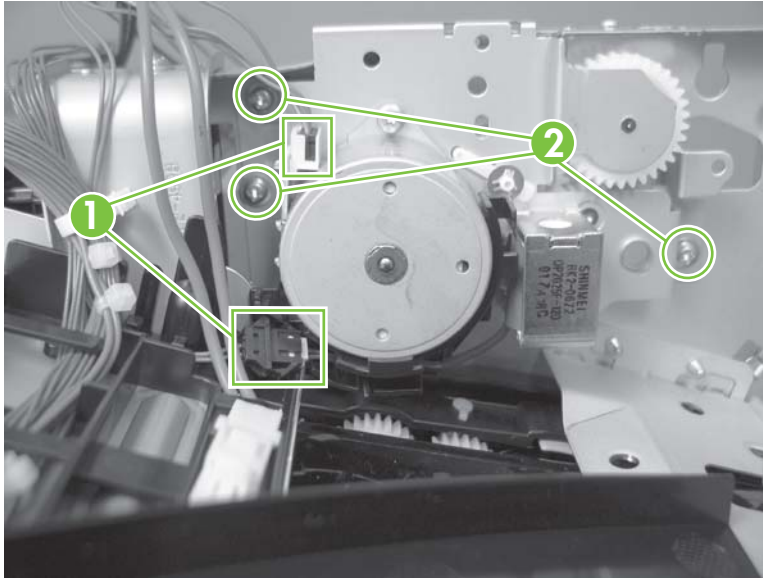
- Fuser. See [Fuser on page 200](#).
- Secondary transfer assembly. See [Secondary transfer assembly on page 207](#).
- Intermediate transfer belt. See [Intermediate transfer belt \(ITB\) on page 209](#)
- Front-upper cover. See [Front-upper cover on page 225](#)
- Right-rear cover. See [Right-rear cover on page 231](#).
- Left cover. See [Left cover on page 233](#).
- Rear-upper cover. See [Rear-upper cover on page 236](#).
- Rear cover. See [Rear cover on page 238](#).
- Scanner assembly. See [Scanner assembly on page 242](#).
- Front-top cover. See [Front-top cover on page 261](#).
- Rear-top cover. See [Rear-top cover on page 262](#)
- Interconnect board (ICB). See [Interconnect board \(ICB\) on page 267](#).
- DC controller PCA. See [DC controller PCA and tray on page 270](#).
- Low-voltage power supply (LVPS). See [Low-voltage power supply \(LVPS\) on page 273](#).
- Power-supply fan and fan duct. See [Power-supply fan and fan duct on page 300](#).
- High-voltage power supply lower. See [High-voltage power supply lower on page 308](#).
- High-voltage power supply upper. See [High-voltage power supply upper on page 339](#).
- Main-drive assembly. See [Main-drive assembly on page 346](#).
- Fuser-drive assembly. See [Fuser-drive assembly on page 356](#).
- Delivery assembly. See [Delivery assembly on page 361](#).



## Remove the duplex-drive assembly

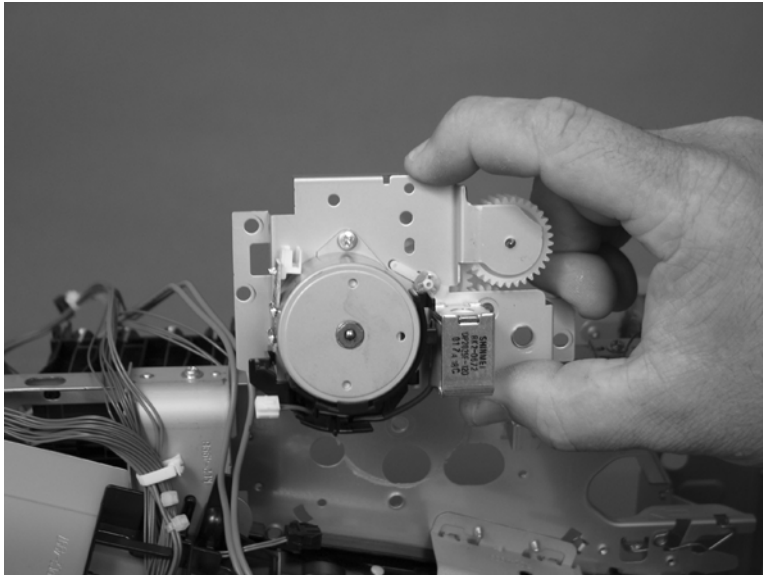
1. Disconnect two connectors (callout 1), and then remove three screws (callout 2).

**Figure 6-296** Remove the duplex-drive assembly (1 of 2)




2. Remove the assembly.

**Figure 6-297** Remove the duplex-drive assembly (2 of 2)



## Optional paper feeder assembly (Tray 3)

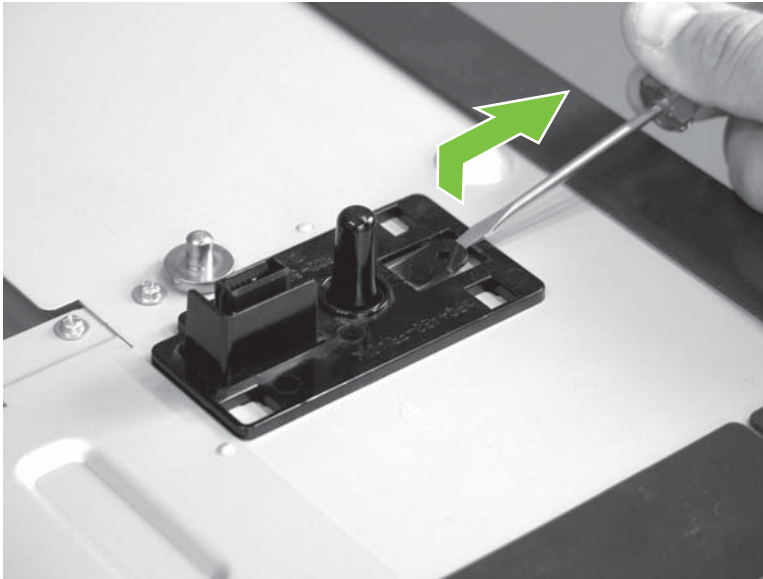
 **NOTE:** For information about removing the Tray 3 pickup roller, see [Pickup and feed rollers \(Tray 3\) on page 203](#).

For information about removing the Tray 3 cassette, see [Tray cassette on page 199](#).

For information about removing the right door (optional paper feeder), see [Right door \(optional paper feeder\) on page 221](#)

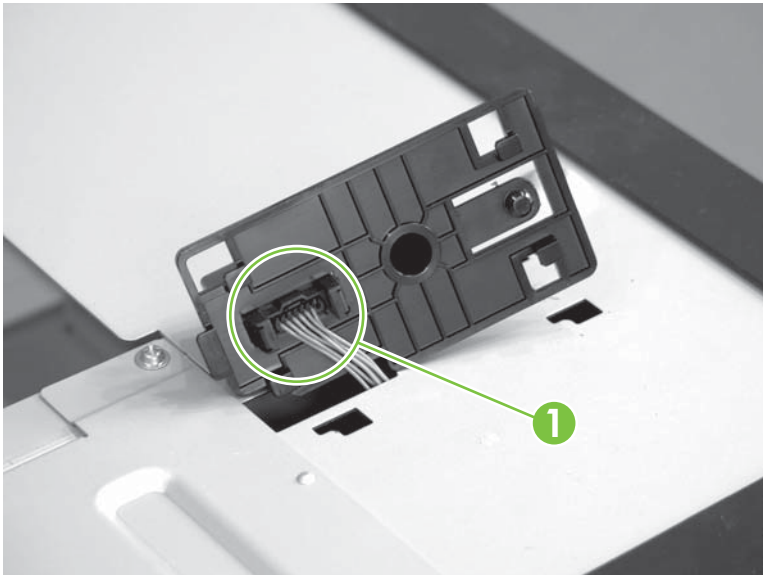
### Drawer connector

1. With a small screwdriver, lift one tab and then slide the drawer connector to release.



2. Remove one connector (callout 1).

**Figure 6-298** Remove the drawer connector; optional paper feeder





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# 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 product systems, and the basic theory of operation are contained in [Theory of operation on page 115](#). Do not perform any of these troubleshooting processes unless you understand the function of each product component.

- [Solve problems checklist](#)
- [Menu map](#)
- [Troubleshooting process](#)
- [Tools for troubleshooting](#)
- [Control-panel messages](#)
- [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 fax problems](#)
- [Solve e-mail problems](#)

# 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 376](#).
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 501](#).
3. Ensure that the print media that you are using meets specifications. See [Supported paper and print media on page 56](#).
4. Print a configuration page. See [Configuration pages on page 436](#). 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 472](#).
5. If the configuration page prints, check the following items.
  - a. If the page prints correctly, then 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, go to step 7. If no, check the following items:
  - Print the print-quality (PQ) troubleshooting pages See [Print-quality-troubleshooting pages on page 431](#) in this chapter.
  - Solve the print-quality problems, and then go to 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 CM3530**.

-or-

**Mac OS X:** Open **Printer Setup Utility**, and then double-click the line for the **HP Color LaserJet CM3530**.

8. Verify that you have installed the HP Color LaserJet CM3530 MFP Series printer driver. Check the program to make sure that you are using the HP Color LaserJet CM3530 MFP Series printer driver.
9. Print a short document from a different program that has worked in the past. If this solution works, then the problem is with the program 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

The menu map can be an important troubleshooting tool. It shows each control-panel menu and submenu to aid navigation through the menu system. Print the menu map from the control panel by completing the following steps.

1. Touch **Administration**.
2. Touch **Information**.
3. Touch **Configuration/Status Pages**.
4. Touch **Administration Menu Map**.
5. Touch **Print**.

# 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.

**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 the appendix 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 top cover and front cover 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 opened 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>• Remove the product from the network, and ensure that the failure is associated with the product before beginning troubleshooting.</li><li>• For any print-quality issues, calibrate the product. See <a href="#">Calibrate the product on page 430</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 additional testing is needed. Proceed to the appropriate section in this chapter, and follow the instructions there. After completing the instructions, proceed to the next major step in this troubleshooting flowchart.

**Table 7-2 Troubleshooting flowchart**

<b>1</b> <b>Power on</b>	Is the product on and does a readable message display?		Follow the power-on troubleshooting checks. See <a href="#">Power subsystem on page 376</a> .
	Yes ↓	No →	After the control-panel display is functional, go to step 2.
<b>2</b> <b>Control panel messages</b>	Does the message <b>Ready</b> display on the control panel?		If an error message appears, see <a href="#">Control-panel messages on page 441</a> .
	Yes ↓	No →	After the errors have been corrected, go to step 3.
<b>3</b> <b>Event log</b>	Open the <b>Troubleshooting</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 468</a> .
	Does the event log print?		If paper jams inside the product, see <a href="#">Clear paper jams on page 472</a> .
<b>4</b> <b>Information pages</b>	Open the <b>Information</b> menu and print the configuration pages to verify that all of the accessories are installed.		If accessories that are installed are not listed on the configuration page, remove the accessory and reinstall it.
	Are all the accessories installed?		After evaluating the configuration pages, go to step 5.
<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 494</a> .
	Yes ↓	No →	After the print quality is acceptable, go to step 6.
<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.
	Yes. This is the end of the troubleshooting process.	No →	If error messages display on the control panel, see <a href="#">Control-panel messages on page 441</a> .  When the customer can print from the host computer, this is the end of the troubleshooting process.

## 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 the normal initialization display does not appear, perform power-on checks to find the cause of the problem.

### Power-on sequence

- 00 seconds: power on button LED (+5 VA from LVPS)
- 02 seconds: control-panel display with HP logo (check USB cable from ICB, 12 v from formatter)
- 04 seconds: output bin LED (+5 v from SCB)
- 06 seconds: scanner lamp and initialization (24 v from LVPS)
- 10 seconds: ADF initialization (check ADF cable)
- 12 seconds: LVPS fan (right rear corner, 24 v from LVPS)
- 22 seconds: engine initialization

---

 **NOTE:** The LVPS includes an over current and over voltage crowbar circuit. If the power supply does not come on, unplug the power cord, wait five minutes, and then plug the power cord in and try turning the product on again.

---

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 386](#)). 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.





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**NOTE:** If the control panel remains blank, lift the control and verify the USB cable is seated. Next, remove the rear upper cover and check the other end of the control panel USB cable where it connects to the ICB.

The control panel operates on +12 v which originates on the formatter and is delivered through connections on the ICB.

The control panel diagnostic mode can be accessed to verify functionality. Touching “+” and “\*” together at any time accesses the diagnostic mode.

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# Tools for troubleshooting

The section describes the tools that can help you solve problems with the product.

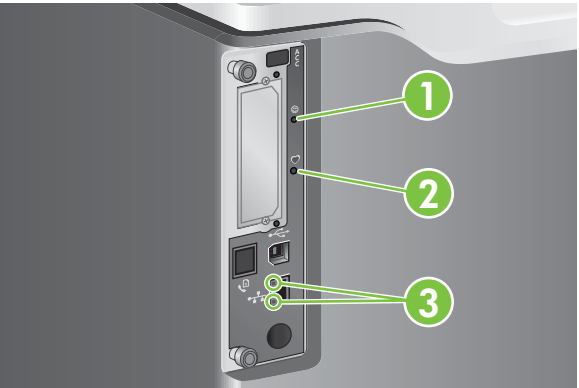
## Individual component diagnostics

### 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.

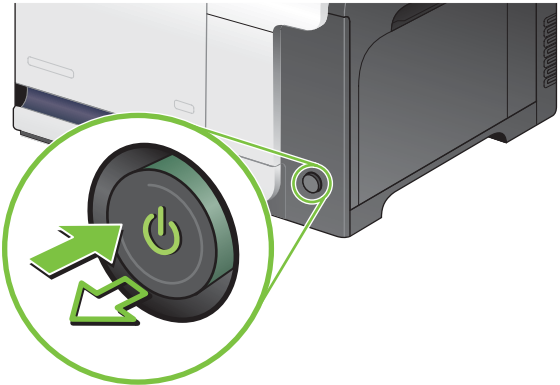


1	Formatter connectivity LED (lit when formatter is correctly seated)
2	Heartbeat LED
3	HP Jetdirect LEDs


#### Formatter connectivity LED

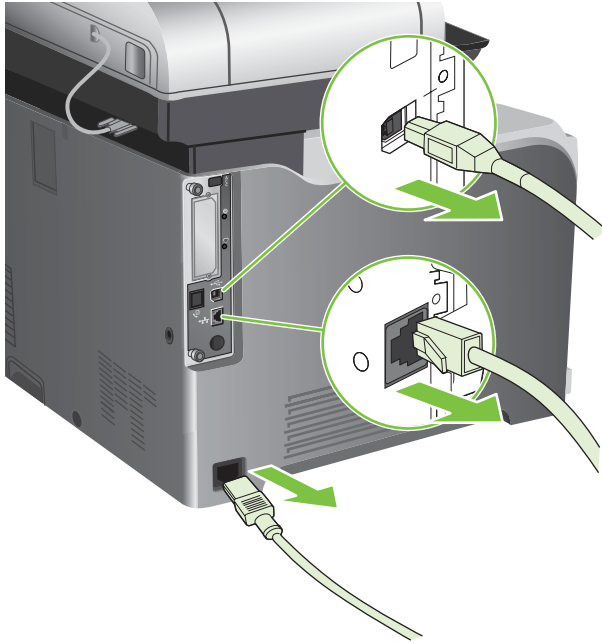
The formatter connectivity LED indicates when the formatter is correctly seated in the product. If the LED is not lit, follow this procedure to correct the problem.

1. Turn the product off.

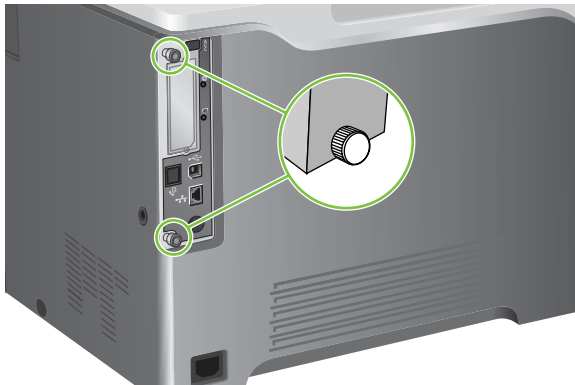


2. Disconnect all power and interface cables.

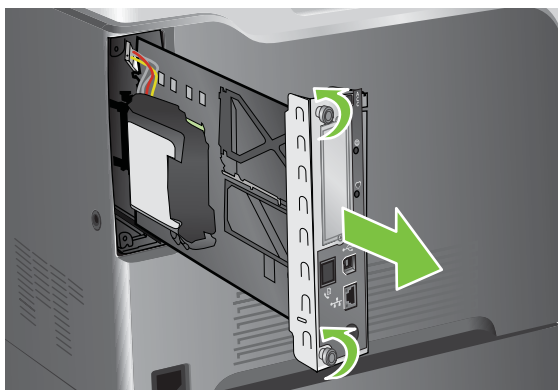
 **NOTE:** This illustration might not show all the cables.




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




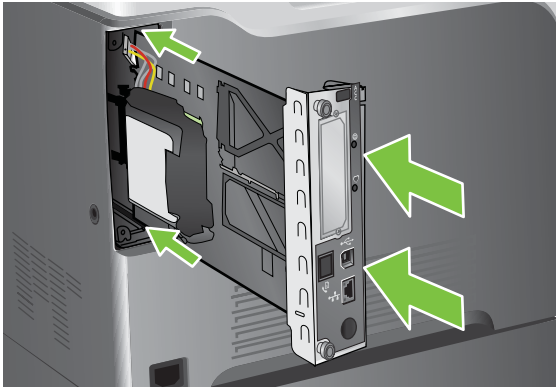
4. Unscrew the thumb screws and pull the formatter from the product.



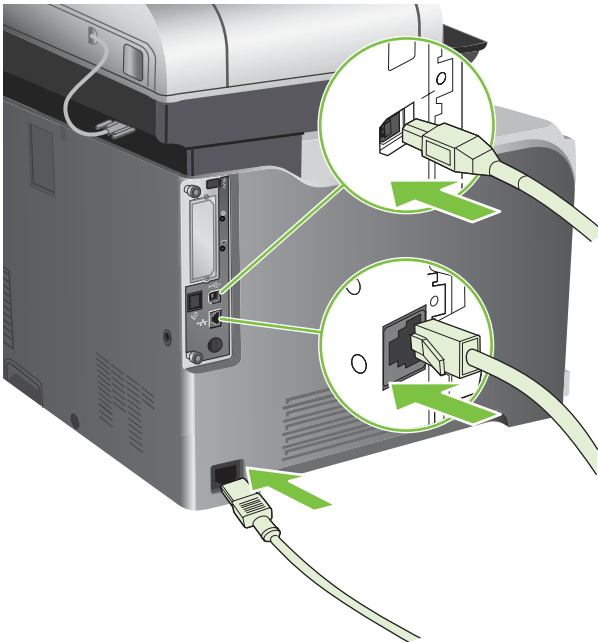
5. Align the formatter in the tracks at the bottom of the slot, and then slide it back into the product. Push firmly on the right side of the formatter to make sure it is fully inserted.

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

 **Reinstallation tip** To prevent the formatter from flexing and not fully seating, firmly push in on the formatter along the edge opposite of the thumb screws.



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



### 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.

If the heartbeat LED is off, the formatter might have a problem. Turn the product off and then on. If the LED is still off, replace the formatter. See [Formatter PCA on page 192](#).

## 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. Scroll to and touch **Administration**.
2. Touch **Initial Setup**.
3. Touch **Networking and I/O**.
4. Touch **Embedded Jetdirect** or **EIO <X> Jetdirect**.
5. Touch **Link Speed**.
6. Select the appropriate link speed.
7. Touch **Save**.

## Engine diagnostics

This section provides an overview of the engine diagnostics that are available in the HP Color LaserJet CM3530 MFP Series product. The product contains extensive internal diagnostics that help in troubleshooting print quality, paper path, noise, component, and timing issues.

### Troubleshooting menu

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

Menu item	Description
Event Log	This shows the event codes and their corresponding engine cycles on the control-panel display. See <a href="#">Event log messages on page 468</a> .
Calibrate Scanner	Use this feature to compensate for offsets in the scanner imaging system (carriage head) for ADF and flatbed scans. You might need to calibrate the scanner if it is not capturing the correct sections of scanned documents.
PQ Troubleshooting	This item prints a series of eight pages that include instructions, pages for each color, a demo page, and a configuration page. These pages can help isolate print-quality problems. See <a href="#">Solve image-quality problems on page 494</a> .
Fax T.30 Trace	Print or configure the fax T.30 trace report. T.30 is the standard that specifies handshaking, protocols, and error correction between fax machines. See <a href="#">Solve fax problems on page 507</a> .
Fax Transmit Signal Loss	Set loss levels to compensate for phone-line signal loss. Do not modify this setting unless requested to do so by an HP service representative because it could cause the fax to stop functioning. See <a href="#">Solve fax problems on page 507</a> .
Fax V.34	Disable V.34 mode if several fax failures have occurred or if phone line conditions require it. See <a href="#">Solve fax problems on page 507</a> .

Menu item	Description
Fax Speaker Mode	A technician can use this feature to evaluate and diagnose fax issues by listening to the sounds of fax modulations. See <a href="#">Solve fax problems on page 507</a> .
Diagnostic Page	Print a diagnostic page that includes color swatches and the EP parameters table. See <a href="#">Diagnostics page on page 434</a> .
Disable Cartridge Check	This item allows you to remove a print cartridge to help determine which cartridge is the source of a problem. See <a href="#">Disable cartridge check on page 385</a> .
Paper Path Sensors	This item displays the status of each sensor in the paper path. See <a href="#">Paper-path sensors test on page 408</a> .
Paper Path Test	This item tests the paper handling features of the product, such as the configuration of the trays. See <a href="#">Paper-path test on page 386</a> .
Manual Sensor Test	This item displays the status of each sensor, and allows manual testing of the sensors. See <a href="#">Manual sensor test (special-mode test) on page 387</a> .
Component Test	This item activates individual parts independently to isolate noise, leaking, and other hardware issues. See <a href="#">Component tests on page 409</a> .
Print/Stop Test	This item isolates print-quality faults more accurately by stopping the product in mid-print cycle. Stopping the product in mid print cycle allows you to see where the image begins to degrade. It also causes a jam that might need to be manually removed. A service representative should perform this test. See <a href="#">Print/Stop test on page 409</a> .
Color Band Test	Print a color-band test page to identify arcing in the high-voltage power supply. See <a href="#">Color-band test on page 440</a> .
Scanner Tests	<p>Use this item to diagnose potential problems with the product scanner. See <a href="#">Troubleshooting menu on page 50</a>.</p> <ul style="list-style-type: none"> <li>● Lower-lamp</li> <li>● ADF read motor</li> <li>● Sensors <ul style="list-style-type: none"> <li>◦ ADF empty sensor</li> <li>◦ Top-of-page sensor</li> <li>◦ Register/deskew sensor</li> <li>◦ ADF width sensor</li> <li>◦ ADF jam cover sensor</li> <li>◦ ADF length sensor</li> <li>◦ Flatbed cover sensor</li> <li>◦ Flatbed width sensor</li> <li>◦ Flatbed length sensor</li> </ul> </li> <li>● ADF read motor reverse</li> <li>● ADF input motor</li> <li>● ADF duplex solenoid</li> <li>● ADF input reverse</li> </ul>

Menu item	Description
	<ul style="list-style-type: none"> <li>• ADF indicator light</li> <li>• Flatbed motor</li> </ul>
Control Panel	<p>Use this item to make sure that the control-panel is functioning. See <a href="#">Troubleshooting menu on page 50</a>.</p> <ul style="list-style-type: none"> <li>• test control-panel LEDs by turning them on and off</li> <li>• display a test pattern on the display (if the test pattern does not display the control panel is not correctly functioning)</li> <li>• test the functionality of the control-panel buttons</li> <li>• display a test grid on the touch screen (touch each section of the grid to verify touch screen sensitivity)</li> </ul>
PTT test mode	Manufacturing test only. Not a service test.

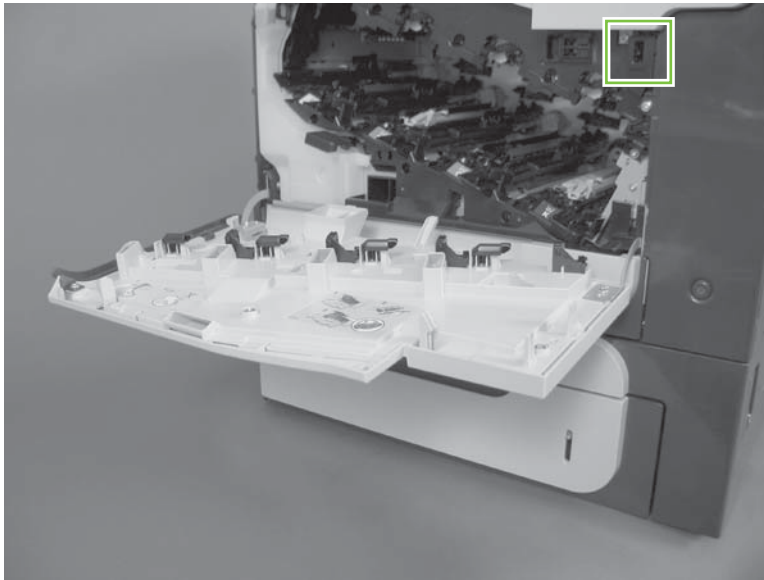
## Defeating interlocks

Different tests can be used to isolate different types of issues. For component or noise isolation, you can run the diagnostic test after removing the covers for a better view of the areas that are being tested. To operate the product with the covers removed, the door-switch levers (SW1, callout 1) must be depressed (this is the door-closed position) with a folded piece of paper.

**⚠ WARNING!** Be careful when performing product diagnostics to avoid the risk of injury. Only trained service personnel should open and run the diagnostics with the covers removed or with the door switch levers depressed. Never touch any of the power supplies when the product is turned on.

**WARNING!** If the front- or right-door switch levers are depressed, the laser/scanners can be activated while a door is open.

**Figure 7-1** Front-door interlock



**Figure 7-2** Right-door interlock







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**NOTE:** Anytime that a cartridge is installed or removed while the covers are removed, the door interlock must be manually cycled to simulate opening and closing the top cover in order for the engine to recognize the change. When the covers are installed, the door switch and fuser interlock are automatically operated.

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### 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 or image drum pairs are removed or exchanged. While the product is in this diagnostics mode, consumable supply errors are ignored, and you can navigate the menus. This test can be used to isolate problems, such as noise, and to isolate print-quality problems that are related to individual print cartridges.



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**NOTE:** Do not remove or exchange print cartridges until **after** you start the disable cartridge check diagnostic.

**NOTE:** Anytime a print cartridge is installed or removed while the covers are removed, the front door interlock must be manually cycled to simulate opening and closing the front door in order for the engine to recognize the change. When the covers are installed, the front-door switch is automatically operated.

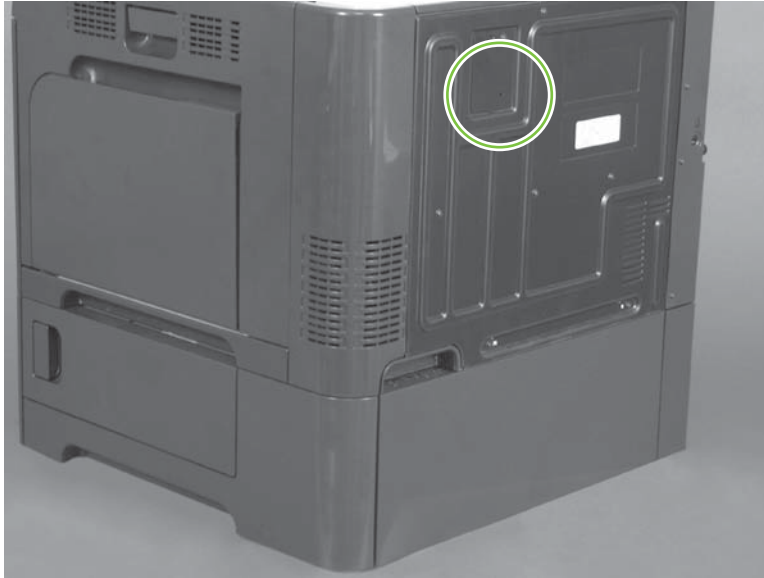
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1. Touch **Administration**.
2. Scroll to and touch **Troubleshooting**.
3. Touch **Disable Cartridge Check**.

## 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 back 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 7-3** 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 open 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 trays.
  - **Duplex.** Enable or disable 2-sided printing.
  - **Copies.** Set the number of copies to be printed; the choices are 1, 10, 50, 100, or 500.
1. Touch **Administration**.
  2. Scroll to and touch **Troubleshooting**.
  3. Touch **Paper Path Test**.
  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 test the product sensors and switches. Each sensor is represented by a letter and number on the control panel display. Following is the default state of the sensors when the test is accessed (J is not used on this product).

- A1 B1 C1 D1 E0 F0 G0 H1 I0 K0 L1 M0 N1 O0 P0 Q0 R0 S0 T0 U0

 **NOTE:** For the *K right and front door interlock switches* test: Sensor K displays as **0** when *both* the front and side doors are closed. When *either* door is opened, sensor K displays as **1**.

There is only one interlock switch for both doors. If sensor K displays as **1**, check both door actuators. If the actuators are not damaged, check connector J118 on the DC controller.

 **TIP:** If a sensor test fails and the solution is to replace an assembly, try the following. Before you replace the entire assembly, try replacing the failed sensor with the sensor from a replacement assembly. If the problem persists, replace the indicated assembly.

1. Touch **Administration**.
2. Scroll to and touch **Troubleshooting**.
3. Scroll to and touch **Manual Sensor Test**.
4. To exit this test, touch **Exit** on the touchscreen.

**Table 7-3 Manual sensor diagnostic tests**

Sensor or switch name	Sensor or switch number
Top (A)	SR8
Loop 1 (B)	SR14
Loop 2 (C)	SR15
Fuser delivery (D)	SR5
Duplex re-feed (E)	SR22
Output bin full (F)	SR6
Developing home position sensor (G)	SR11
Fuser pressure release sensor (H)	SR7
ITB alienation sensor (I)	SR17
Front and side door switches (K)	SW1, SW2
Tray 1 (L)	SR9
Tray 2 paper present (M)	SR3
Tray 2 installed (N)	SR4
Tray 2 lift motor (O)	SR1
Tray 3 paper present (P)	SR3
Tray 3 feed (Q)	SR4
Tray 3 installed (R)	SR1
Tray 3 size (bottom) button (S)	SW1

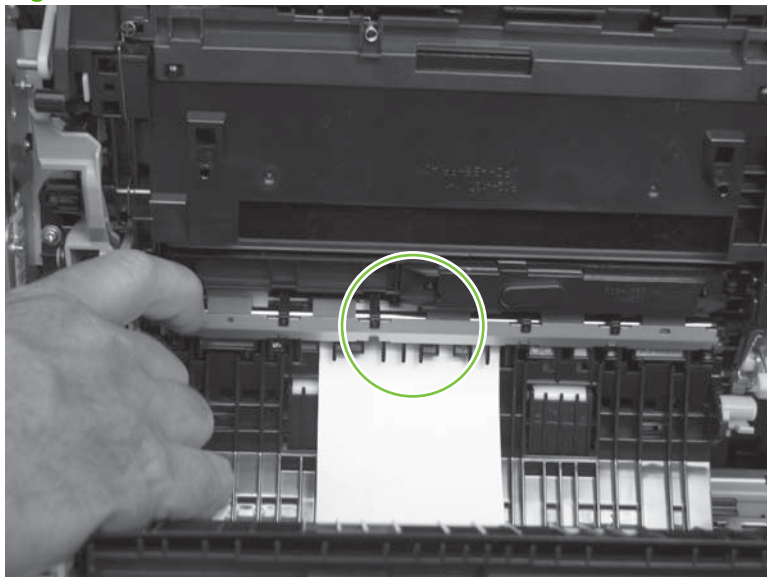
**Table 7-3 Manual sensor diagnostic tests (continued)**

Sensor or switch name	Sensor or switch number
Tray 3 (middle) button (T)	SW1
Tray 3 (top) button (U)	SW1

### 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 7-4** 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 7-5** Test the loop sensors

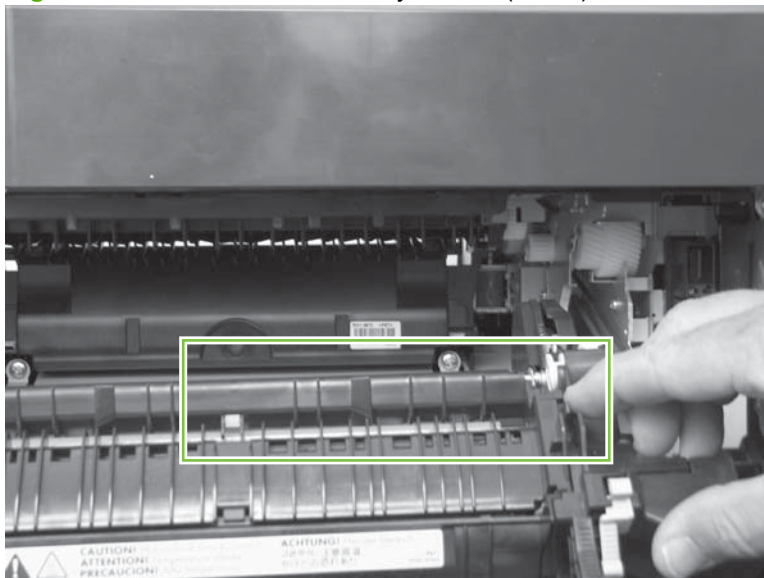


4. Check the control-panel display for a sensor response.
5. If there is no response, replace fuser. See [Fuser on page 200](#).

## D fuser (fixing) delivery sensor

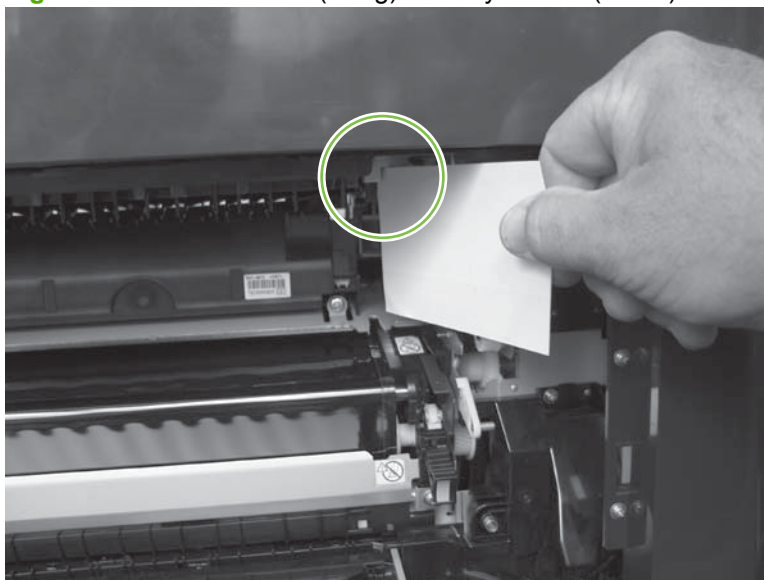
1. Open the right door.
2. Lower the secondary transfer assembly.
3. Remove the fuser assembly, and then verify that the sensor flag on the fuser assembly moves freely. If the sensor flag does not move freely, replace the fuser. See [Fuser on page 200](#).

**Figure 7-6** Test the fuser delivery sensor (1 of 2)



4. Insert a piece of paper to activate the fuser (fixing) delivery sensor.

**Figure 7-7** Test the fuser (fixing) delivery sensor (2 of 2)

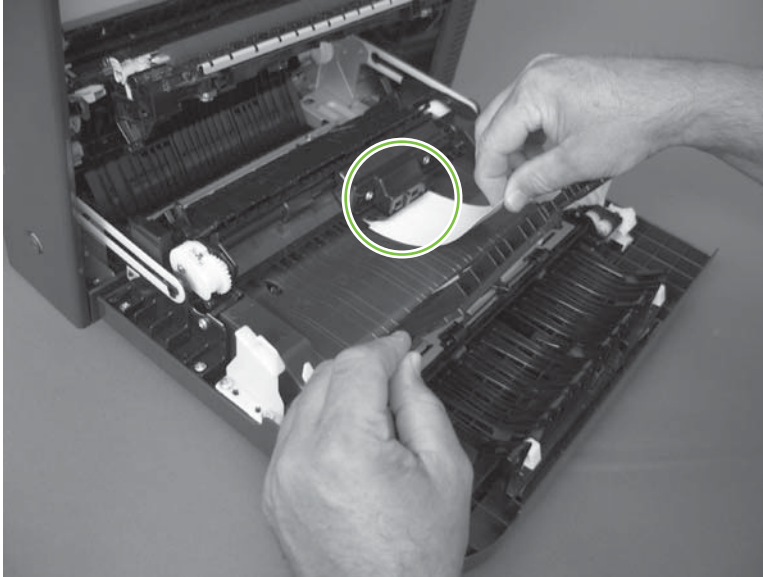


5. Check the control-panel display for a sensor response.
6. If there is no response, replace the fuser (fixing) delivery sensor.

### 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 7-8** 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 227](#).

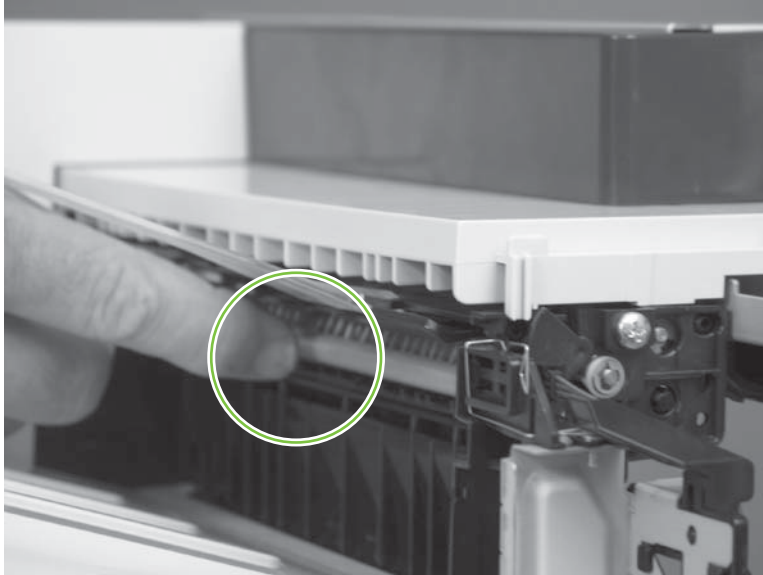


## F output bin full sensor

 **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 7-9** 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. If the sensor is malfunctioning, replace the delivery assembly. See [Delivery assembly on page 361](#).

## G developing home-position sensor

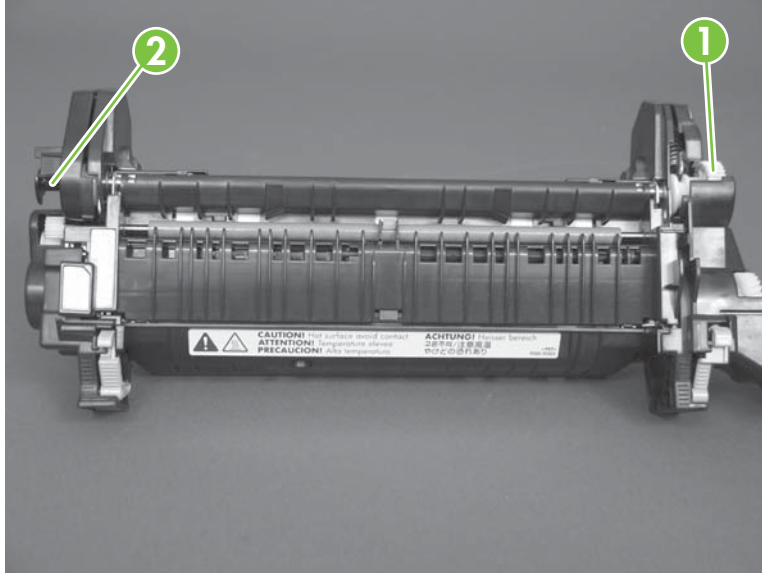
The normal status of sensor G is 0. Testing the sensor requires the following steps:

1. Turn off the product and then remove the formatter and left side cover.
2. Reinstall the formatter and turn on the product. Resume the manual sensor test.
3. Disconnect the 3-pin connector to the right of the power cord connection. Sensor G should change to 1.
4. Reconnect the connector. Sensor G should change to 0.
5. If sensor G does not change, replace the main drive assembly. See [Main-drive assembly on page 346](#).

### H fuser (fixing) pressure-release sensor

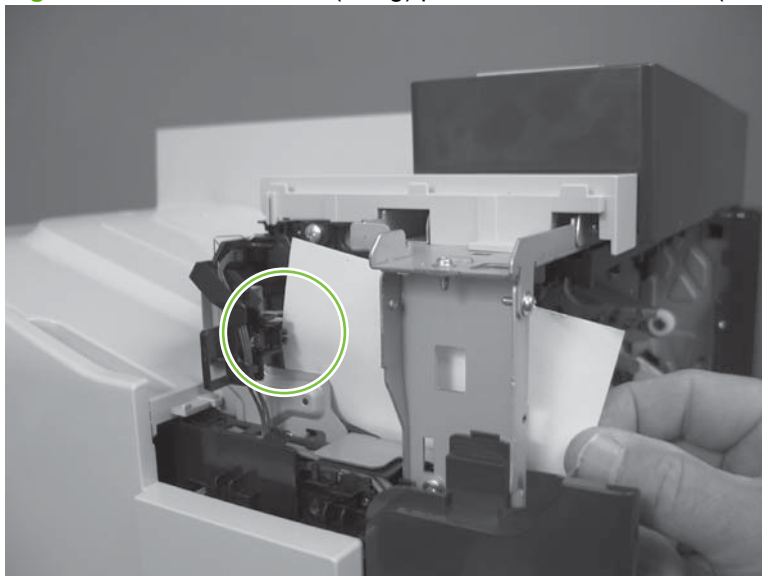
1. Open the right door.
2. Lower the secondary transfer assembly.
3. Remove the fuser, and then rotate the gear (callout 1) to move the flag (callout 2). If the flag does not actuate, replace the fuser. See [Fuser on page 200](#).

**Figure 7-10** 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 7-11** Test the fuser (fixing) pressure-release sensor (2 of 2)

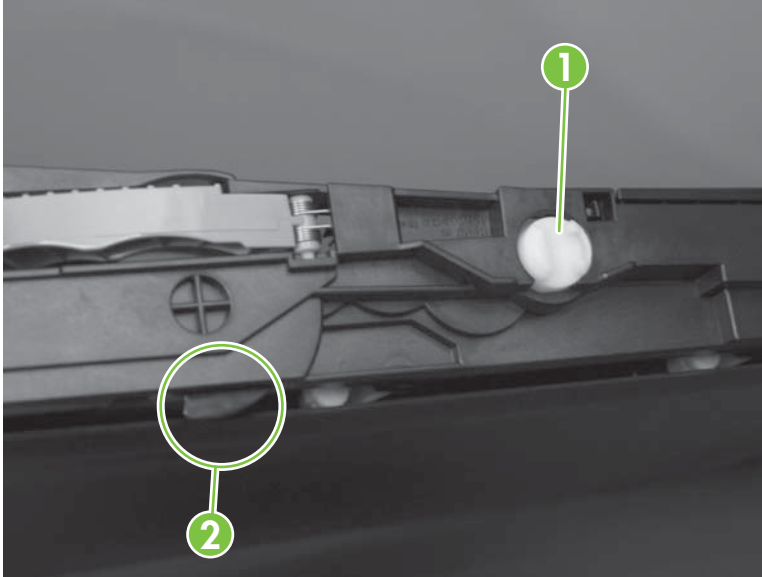


5. Check the control-panel display for sensor response.
6. If there is no response, replace fuser (fixing) pressure-release sensor.

### 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 209](#).

**Figure 7-12** Test the primary transfer-roller disengagement sensor (1 of 2)



5. Remove all print cartridges.

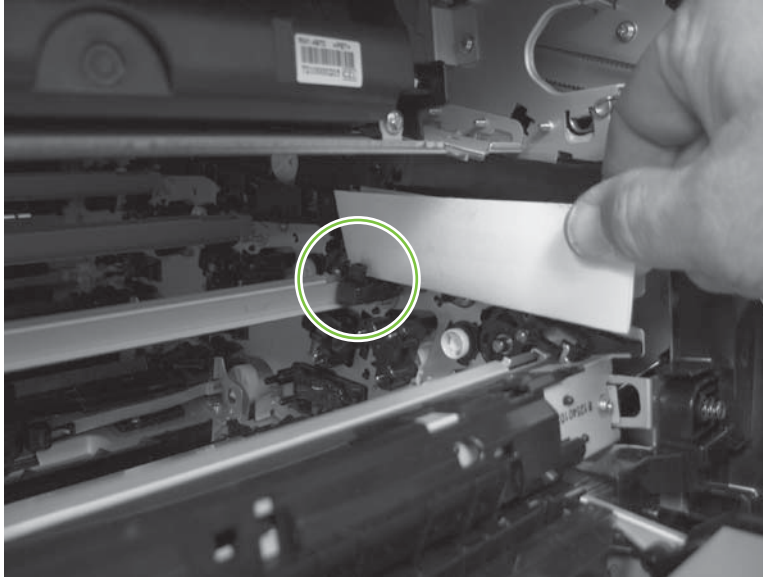


**NOTE:** Cover all removed print cartridges with paper.

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 7-13** Test the primary transfer-roller disengagement sensor (2 of 2)

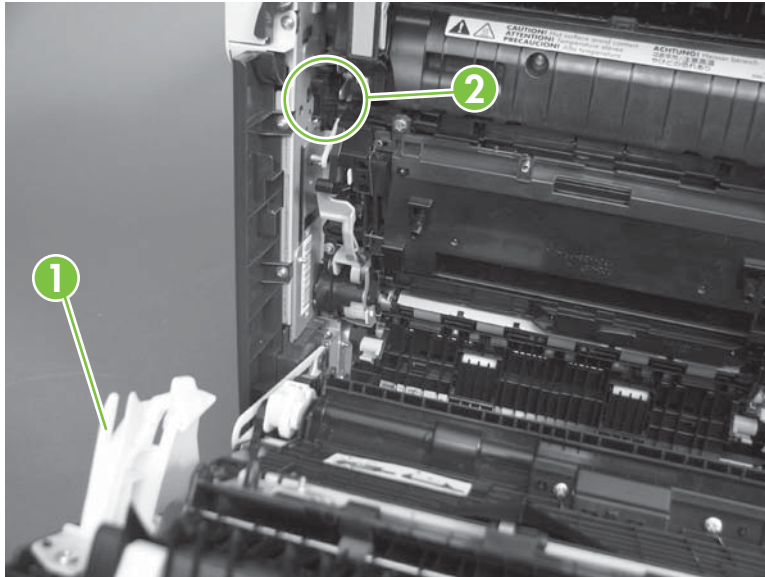


8. Check the control-panel display for sensor response.
9. If no response, replace the sensor.

## K right and front door interlock switches

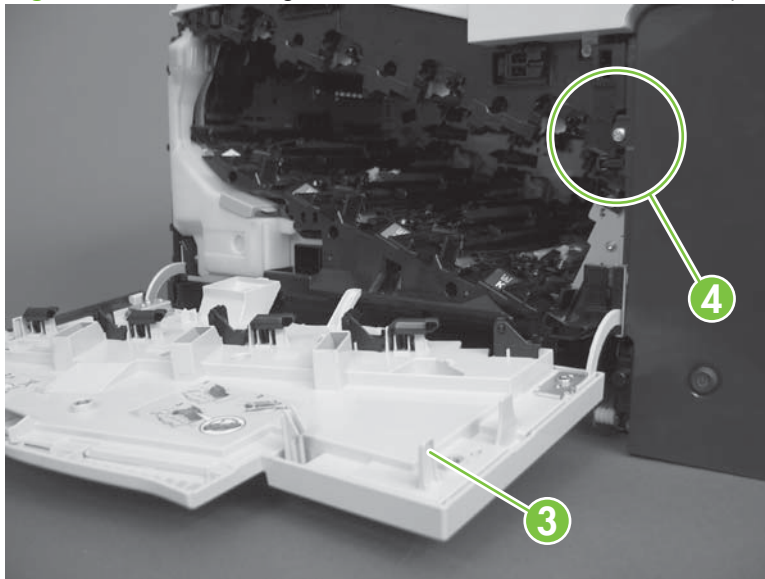
1. Open the right door (callout 1) to disengage the right-door switch (callout 2).

**Figure 7-14** 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).

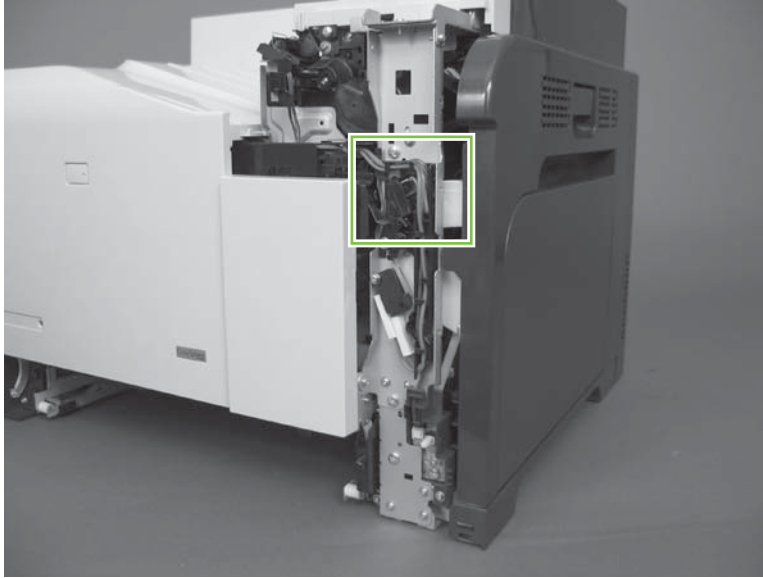
**Figure 7-15** Test the right- and front-door interlock switches (2 of 4)



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.

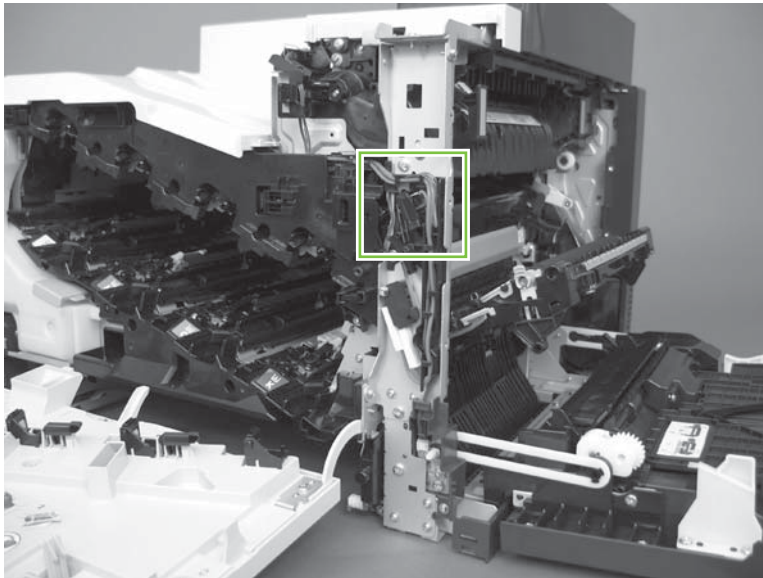
6. Close the right door and front door to verify that the switches close.

**Figure 7-16** 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 7-17** Test the right- and front-door interlock switches (4 of 4)

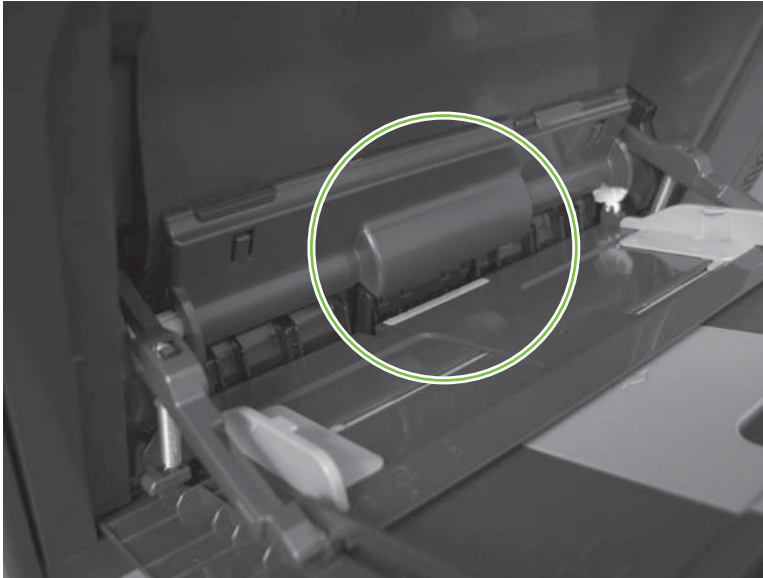


8. If the switches do not close, check the connectors on the DC controller PCA.
9. If the switches are opening/closing correctly when either door is open or closed, then check J118 on the DC controller.
10. If the connectors are securely connected to the DC controller PCA and the switches still do not close, replace the DC controller PCA. See [DC controller PCA and tray on page 270](#).

### L Tray 1 media present sensor

1. Open Tray 1.
2. Move the Tray 1 media-present sensor flag.

**Figure 7-18** Test the Tray 1 media-present sensor



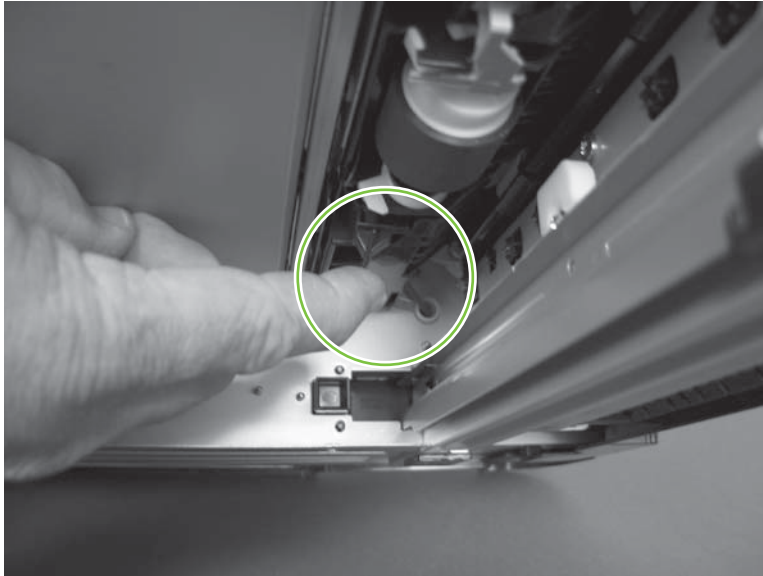
3. Check the control-panel display for sensor response.
4. If no response, replace Tray 1.



### M Tray 2 paper out sensor

1. Remove Tray 2.
2. Move the tray 2 paper-out sensor flag.


**Figure 7-19** 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.

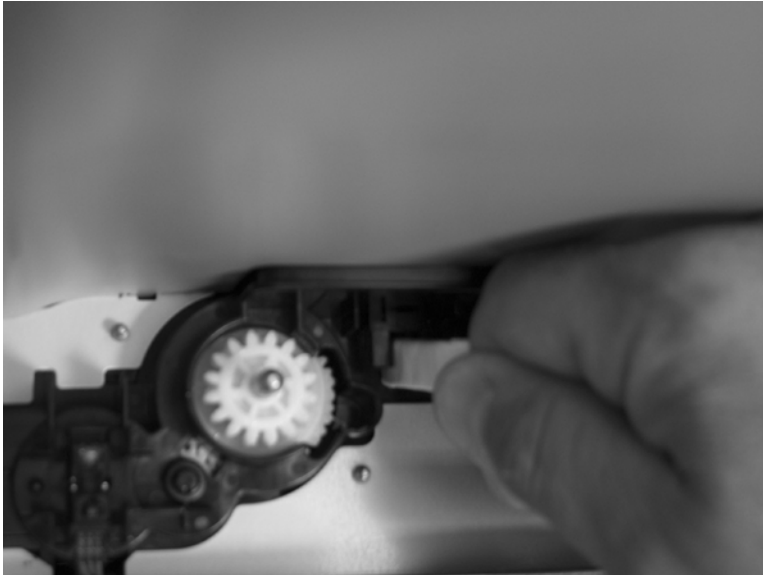
 **NOTE:** The Tray 2 closed sensor flag is on the back of Tray 2. Inspect the flag to verify that it is aligned correctly. If it is bent upward, it might miss the sensor when installed.

**Figure 7-20** Test the Tray 2 closed sensor (1 of 2)



2. Insert a piece of paper in the Tray 2 closed sensor.

**Figure 7-21** Test the Tray 2 closed sensor (2 of 2)

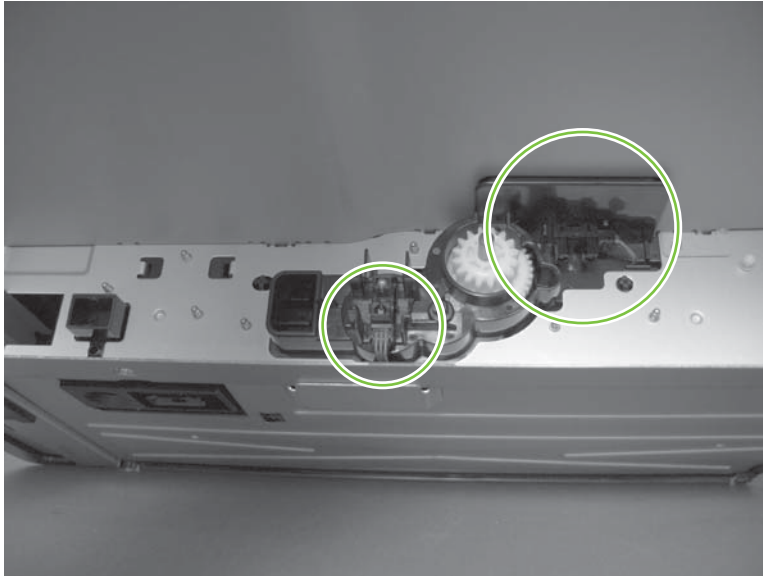


3. Check the control-panel display for sensor response.
4. If there is no response, replace the lifter-drive assembly. See [Lifter-drive assembly on page 314](#).

### O Tray 2 stack-surface sensor

1. Remove Tray 2.
2. Move the Tray 2 stack-surface sensor flag.

**Figure 7-22** Test the Tray 2 stack-surface sensor

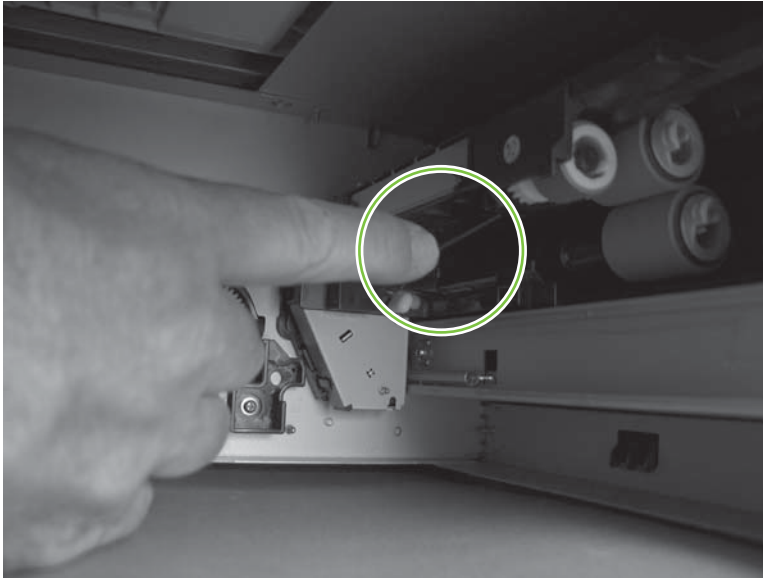


3. Check the control-panel display for sensor response.
4. If no response, replace the lifter-drive assembly. See [Lifter-drive assembly on page 314](#).

### P optional Tray 3-empty sensor

1. Remove the optional Tray 3 cassette.
2. Move the optional Tray 3-empty sensor flag.

**Figure 7-23** Test the optional Tray 3-empty sensor

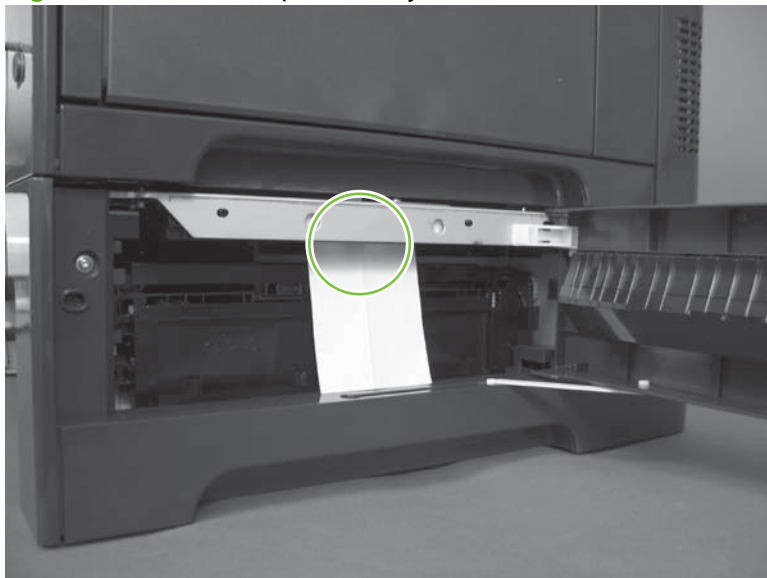


3. Check the control-panel display for sensor response.
4. If no response, replace the optional Tray 3.

#### 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 7-24** Test the optional Tray 3 media-feed sensor

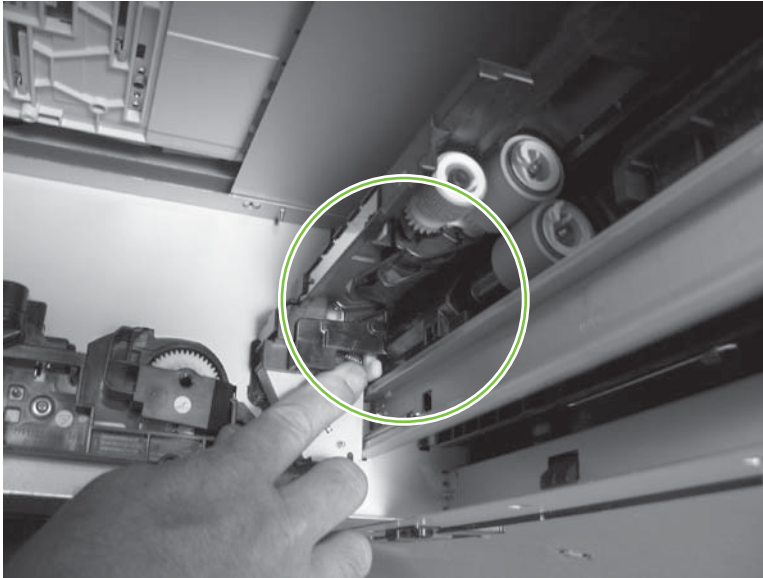


3. Check the control-panel display for sensor response.
4. If there is no response, replace the optional Tray 3.

### 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 7-25** Test the optional Tray 3 stack-surface sensor

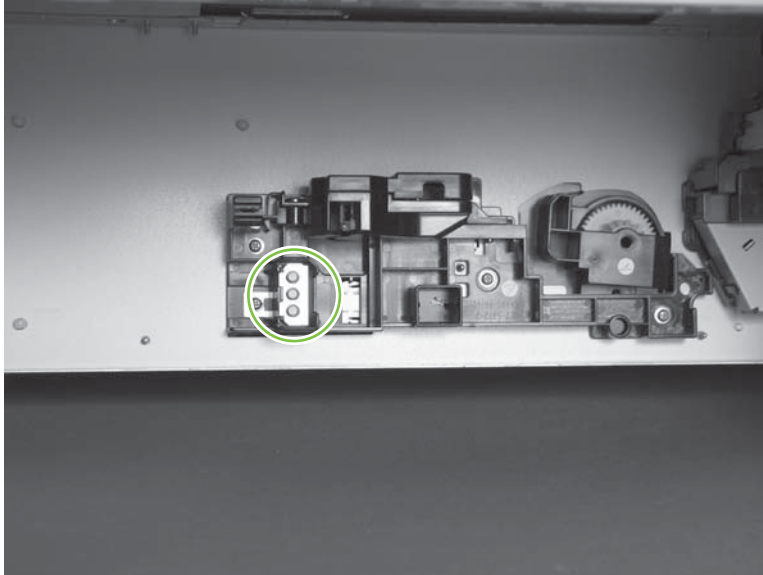


3. If there is no response, replace the optional Tray 3.

### 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 7-26** 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. Touch **Administration**.
2. Scroll to and touch **Troubleshooting**.
3. Touch **Paper Path Test**.
4. Select the paper-path test options for the test you want to run.

 **NOTE:** The default state of the sensors when first entering the test is shown below. Sensor J is not used on this product.

A1 B1 C1 D1 E0 F0 G0 H1 I0 K0 L1 M0 N1 O0 P0 Q0 R0 S0 T0 U0

**Table 7-4 Paper-path sensors diagnostic tests**

Sensor name	Sensor number
TOP (A)	SR8
Loop 1 (B)	SR14
Loop 2 (C)	SR15
Fusing delivery (D)	SR5
Duplex re-feed (E)	SR22
Output bin full (F)	SR6
Developing home position sensor (G)	SR11□
Fuser pressure release sensor (H)	SR7
Alienation sensor (I)	SR17
Front and side door switches (K)	SW1, SW2
MP Tray 1 (L)	SR21
Tray 2 paper present (M)	SR20
Tray 2 installed (N)	SR13
Tray 2 lift motor (O)	SR9
Tray 3 paper present (P)	SR3
Tray 3 feed (Q)	SR4
Tray 3 installed (R)	SR1
Tray 3 size (bottom) button (S)	
Tray 3 (middle) button (T)	
Tray 3 (top) button (U)	



## Print/Stop test

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

1. Touch **Administration**.
2. Scroll to and touch **Troubleshooting**.
3. Scroll to and touch **Print/Stop Test**.
4. Select the number of milliseconds and then touch **OK**.

## 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 ends.



**NOTE:** The door interlock switch must be defeated to run any of the component tests. If covers are removed, the door switch must be manually cycled during some tests in order for the engine to recognize a change. Print cartridges can be installed or removed during certain tests. The control-panel display prompts you to remove some or all cartridges during certain tests to rotate and isolate certain components, and to protect the cartridges and ITB.

1. Touch **Administration**.
2. Scroll to and touch **Troubleshooting**.
3. Touch **Component Test**.
4. Select the component test options for the test you want to run.

**Table 7-5 Component test details**

Component test	Motor or solenoid number	Comments
TRANSFER MOTOR	M5	
BELT ONLY	M10	Rotates the transfer belt.
CARTRIDGE MOTOR	<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.
BLACK LASER SCANNER	M8	Activates the black/cyan scanner motor for 10 seconds.
CYAN LASER SCANNER	M8	Activates the black/cyan scanner motor for 10 seconds.
MAGENTA LASER SCANNER	M9	Activates the yellow/magenta scanner motor for 10 seconds.

**Table 7-5 Component test details (continued)**

Component test	Motor or solenoid number	Comments
<b>YELLOW LASER SCANNER</b>	M9	Activates the yellow/magenta scanner motor for 10 seconds.
<b>FUSER MOTOR</b>	M2	Activate the fuser motor at a specified speed for 10 seconds.
<b>FUSER PRESSURE RELEASE MOTOR</b>	M2 reverse	Reverses the fuser motor and pressurizes or depressurizes the pressure release motor.
<b>ALIENATION MOTOR</b>	M10	Disengages the developer from the primary charge roller.
<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 motor 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>	M1	Activates the motor 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	Activates the motor at a specified speed for 10 seconds.
<b>DUPLEX REFEED CLUTCH SOLENOID</b>	CL1, SL2	Activates the clutch for 10 seconds.

Diagrams

Formatter PCA

Figure 7-27 Formatter PCA

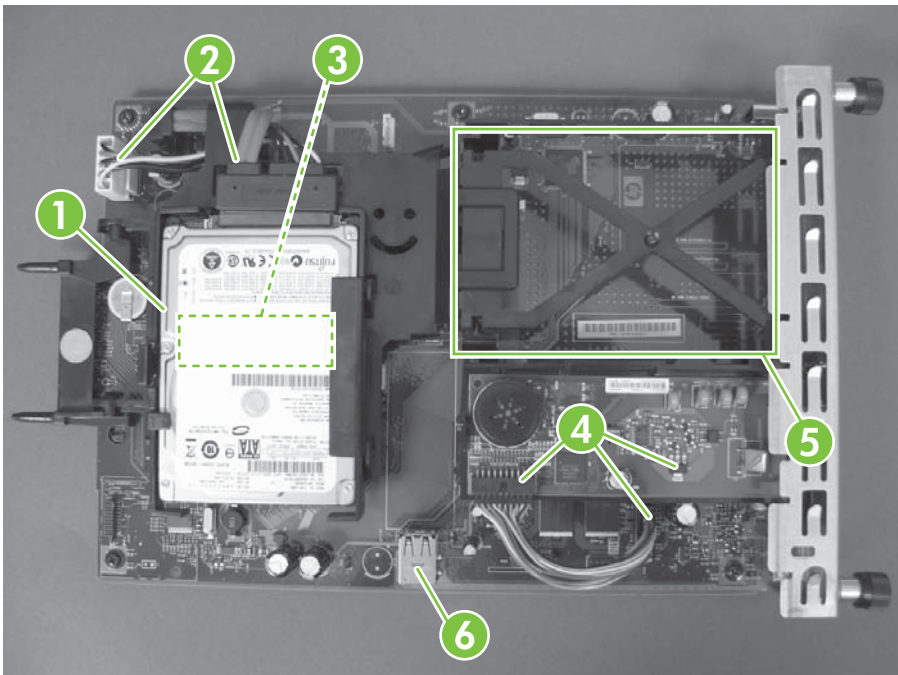


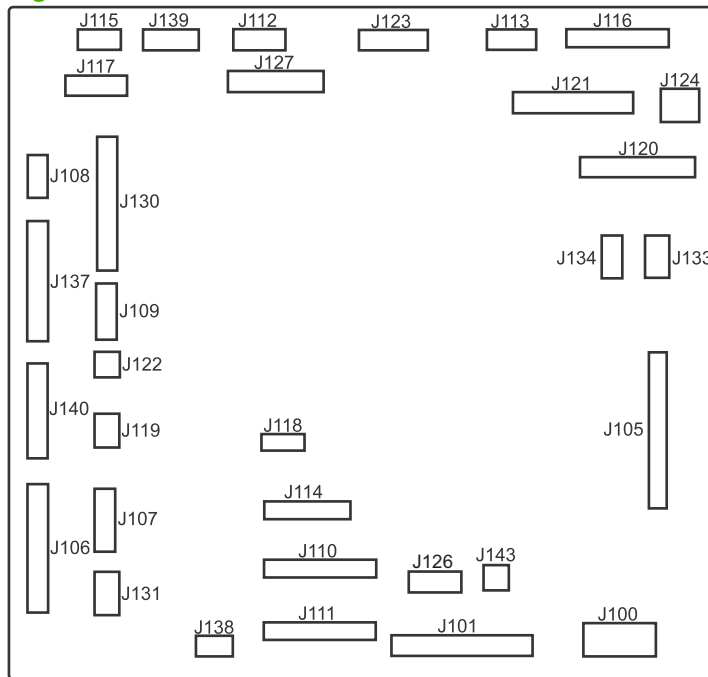
Table 7-6 Formatter PCA

Item	Description
1	Hard drive
2	Hard drive cable
3	DIMM slot (under the hard drive)
4	Fax card and cable
5	EIO slot
6	Internal USB ports

## Location of connectors

### DC controller PCA

**Figure 7-28** DC controller PCA

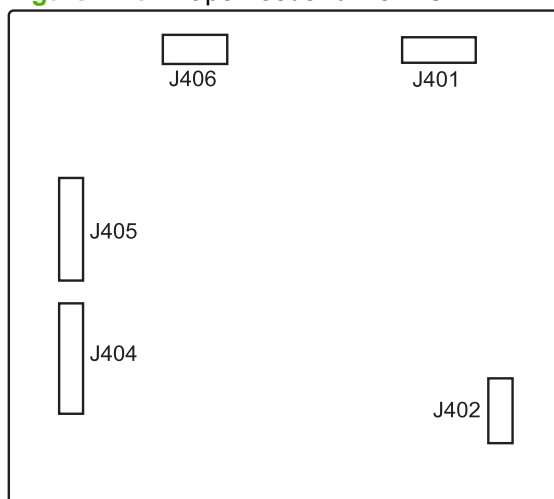


**Table 7-7** DC controller connectors

<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> 24 v to scanner-control board (SCB)	<b>J143:</b> 24 v present from LVPS

## Paper feeder driver PCA

**Figure 7-29** Paper feeder driver PCA



**Table 7-8** 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

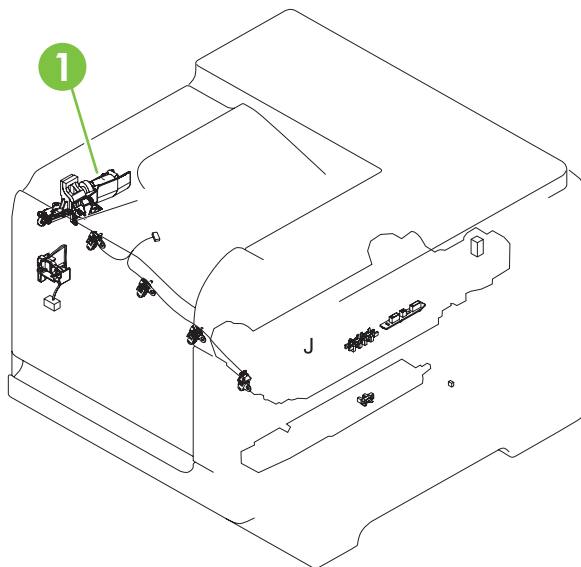
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## PCAs, motors, fans, switches, solenoids, and clutches

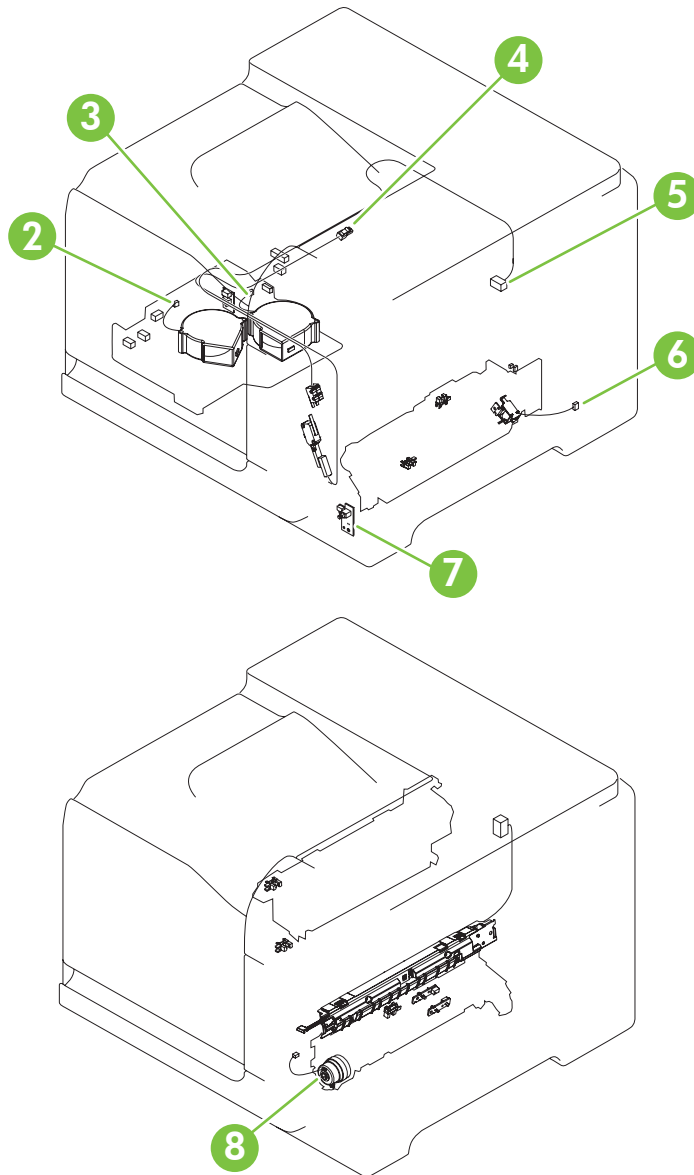
Use the diagrams to locate components. For a list of components, see [Table 7-9 PCAs, motors, fans, switches, solenoids, and clutches on page 418](#)

### Base product

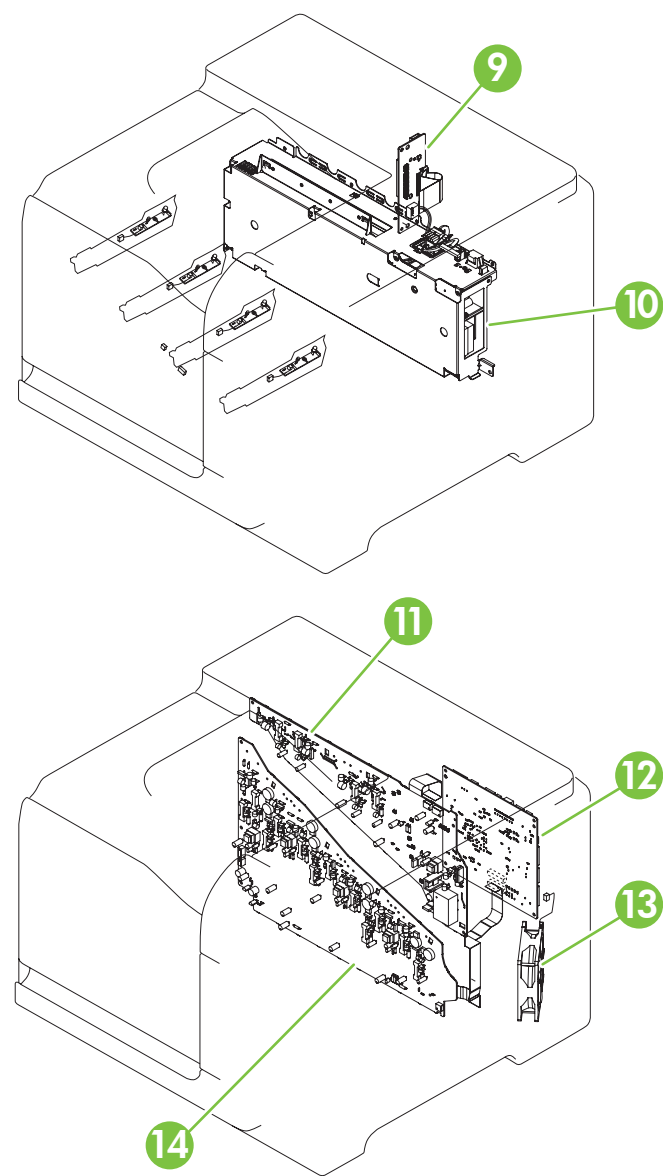
**Figure 7-30** Component locations (1 of 5)



**Figure 7-31** Component locations (2 of 5)

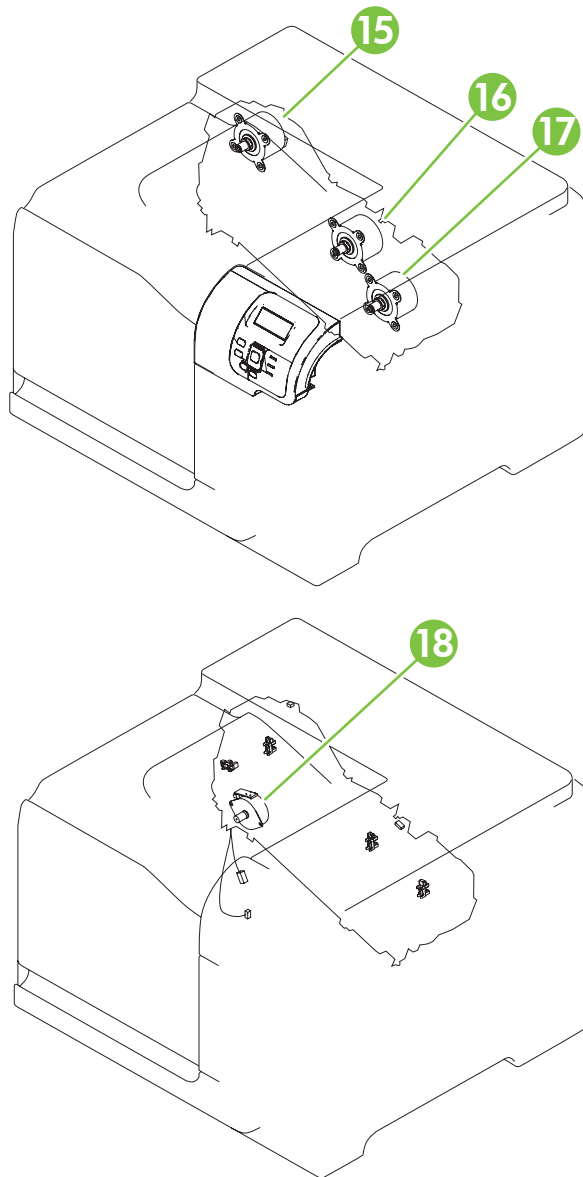


**Figure 7-32** Component locations (3 of 5)

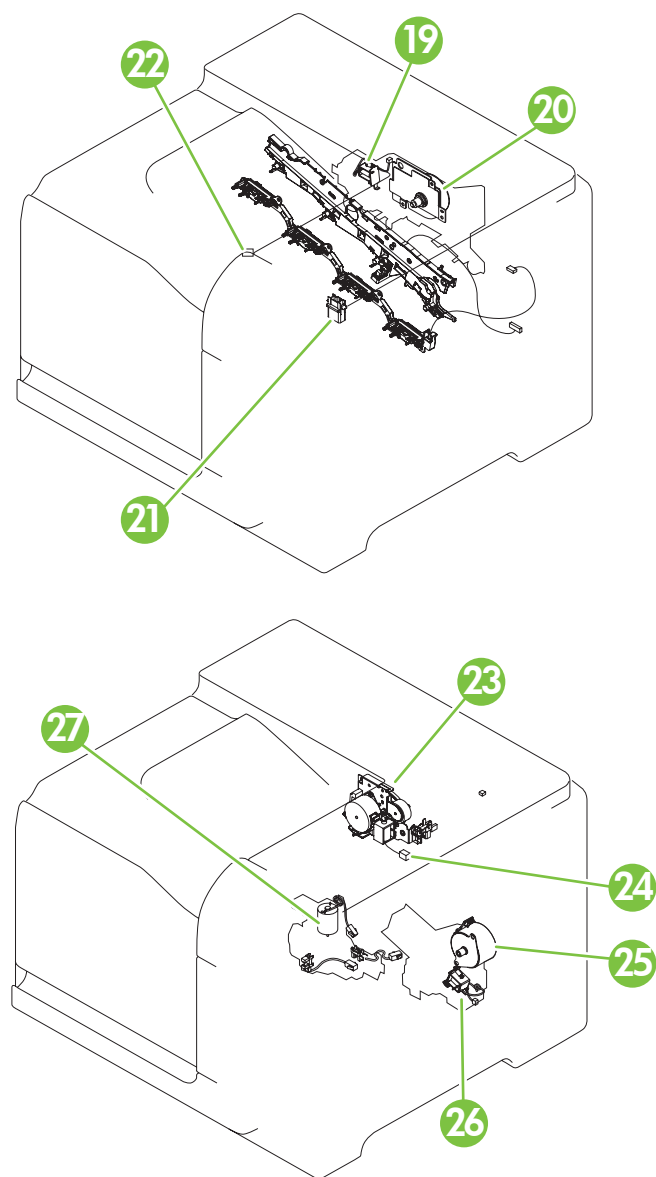




**Figure 7-33** Component locations (4 of 5)



**Figure 7-34** Component locations (5 of 5)



**Table 7-9** PCAs, motors, fans, switches, solenoids, and clutches

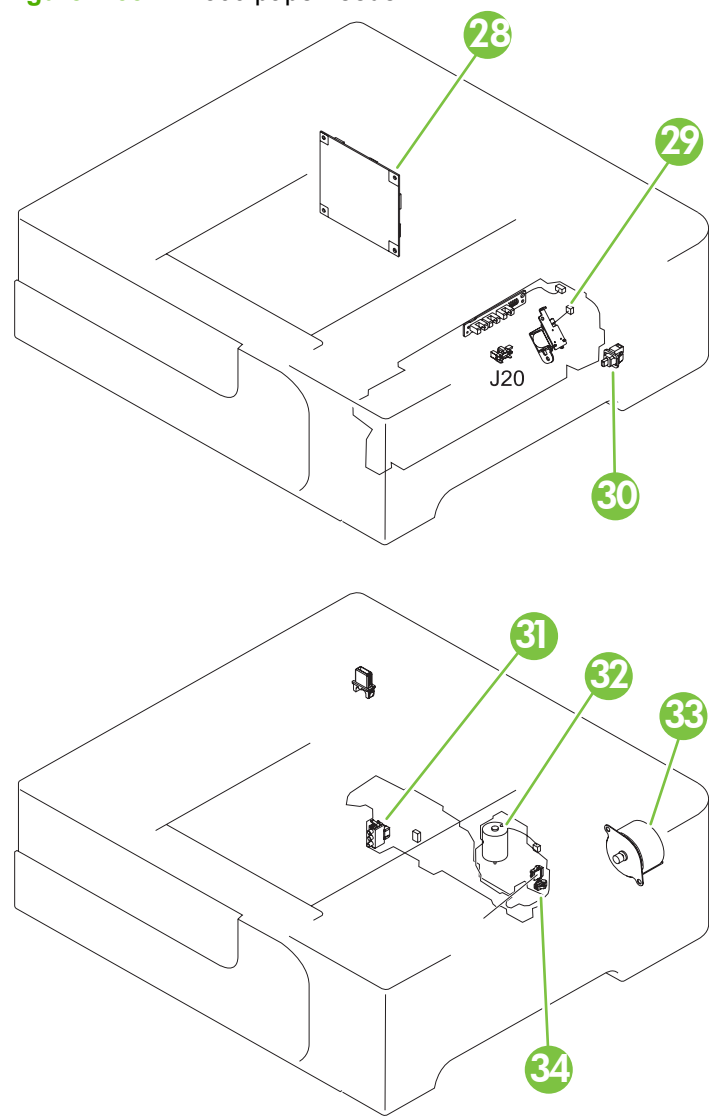
Location	Connector	Component abbreviation	Component name
1	J89	M12	Residual toner-feed motor
2	J26	FM2	Cartridge fan
3	J27	FM3	Delivery fan
4	J62	SW3	24V interlock switch
5	J118	SW1, SW2	5V interlock switch
6	J84	SL3	Multipurpose-tray pickup solenoid
7	J780	SW4	Power switch
8	J86	CL1	Duplex re-pick clutch

**Table 7-9 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
24	J21	SL2	Duplex reverse solenoid
25	J6	M13	Pickup motor
26	J83	SL4	Cassette-pickup solenoid
27	J79	M7	Tray 2 lifter motor

1 x 500 paper feeder

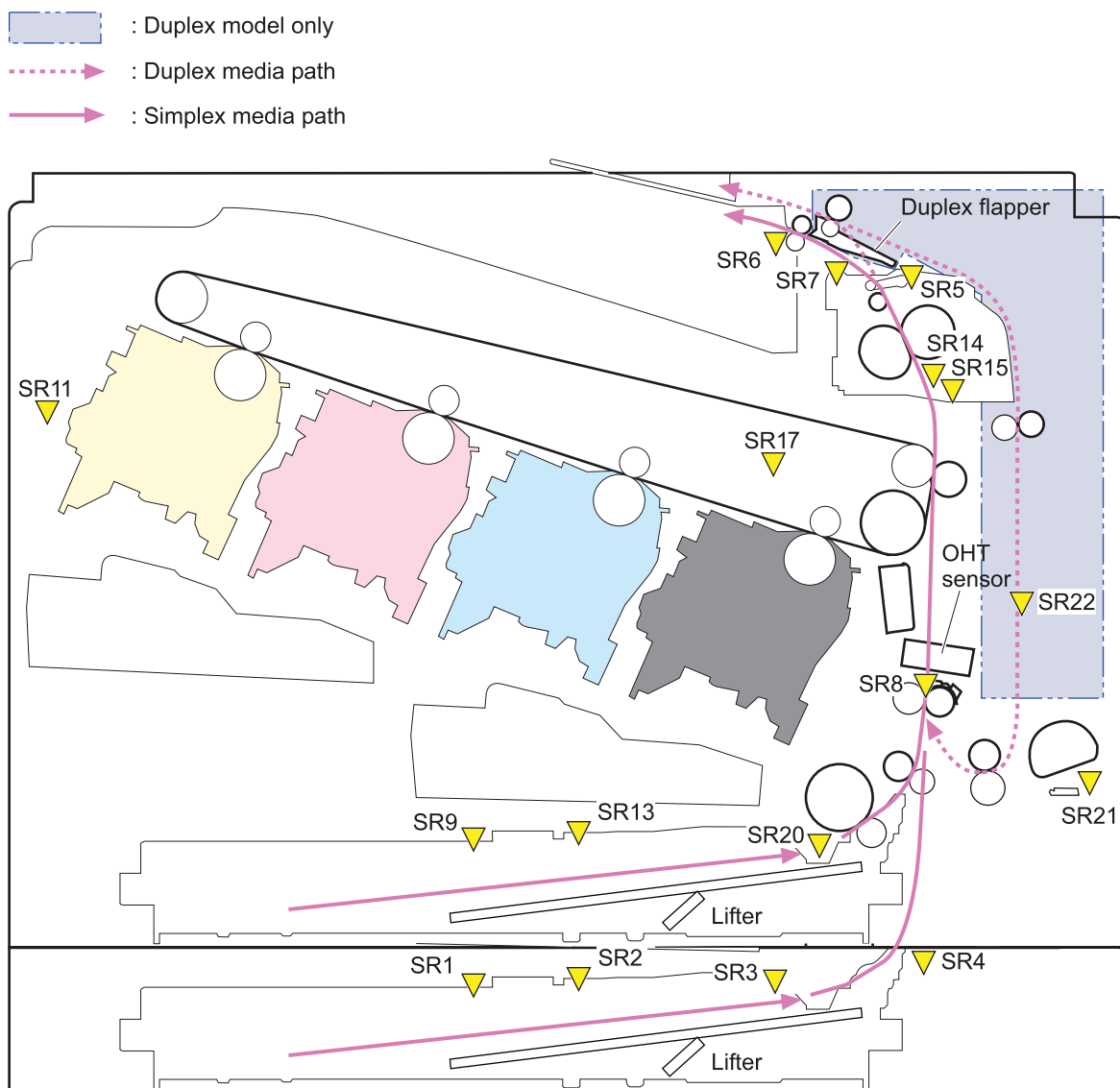
Figure 7-35 1 x 500 paper feeder



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 7-36** Sensors



**Table 7-10** Sensors

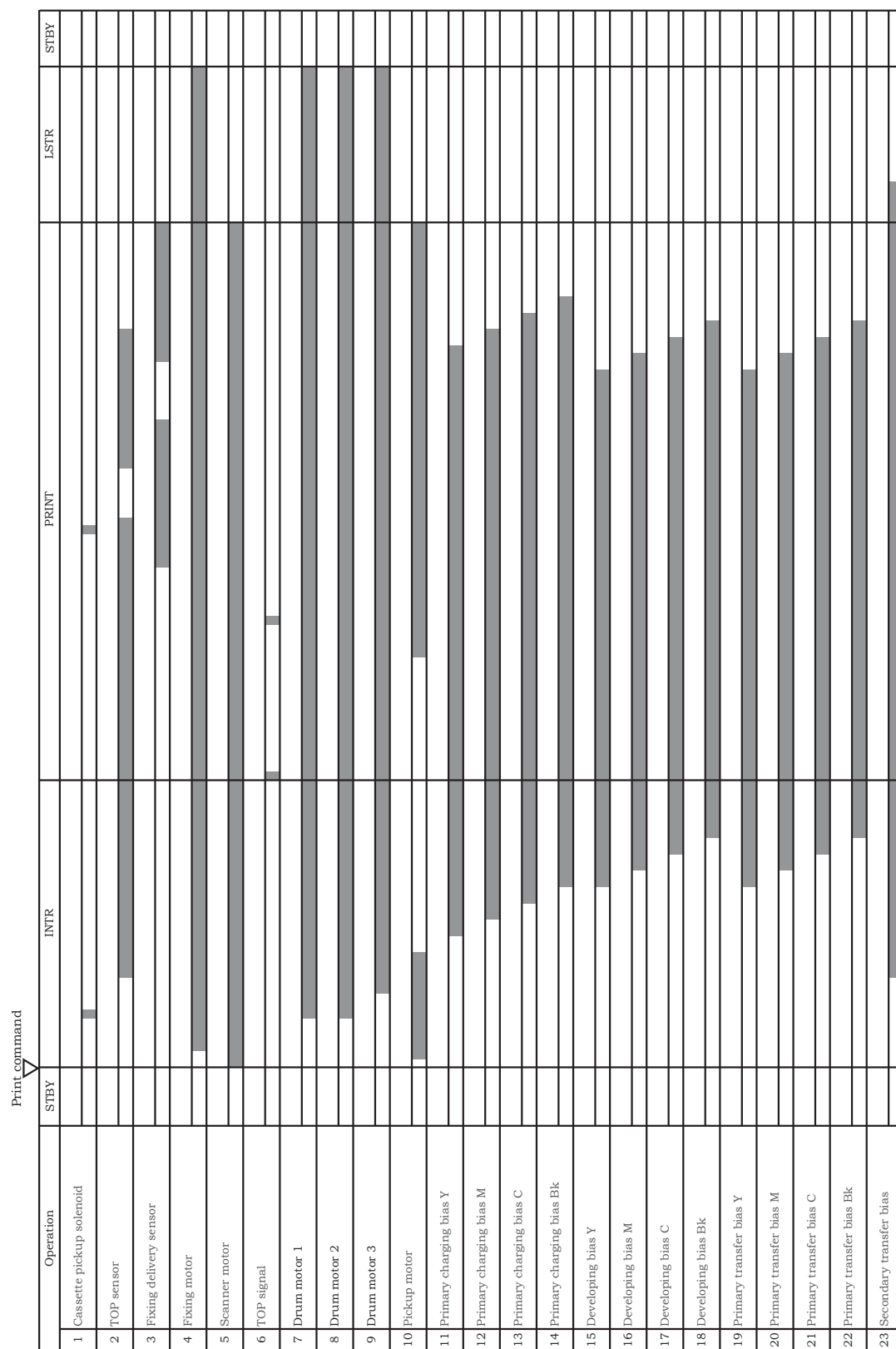
Component abbreviation	Component name
SR1	Tray 3 paper surface sensor 1
SR2	Tray 3 paper surface sensor 2
SR3	Tray 3 paper sensor
SR4	Tray 3 feed sensor
SR5	Fuser (fixing) output sensor
SR6	Output bin full sensor
SR7	Fuser (fixing) pressure release sensor
SR8	TOP sensor

**Table 7-10 Sensors (continued)**

Component abbreviation	Component name
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

## General timing chart

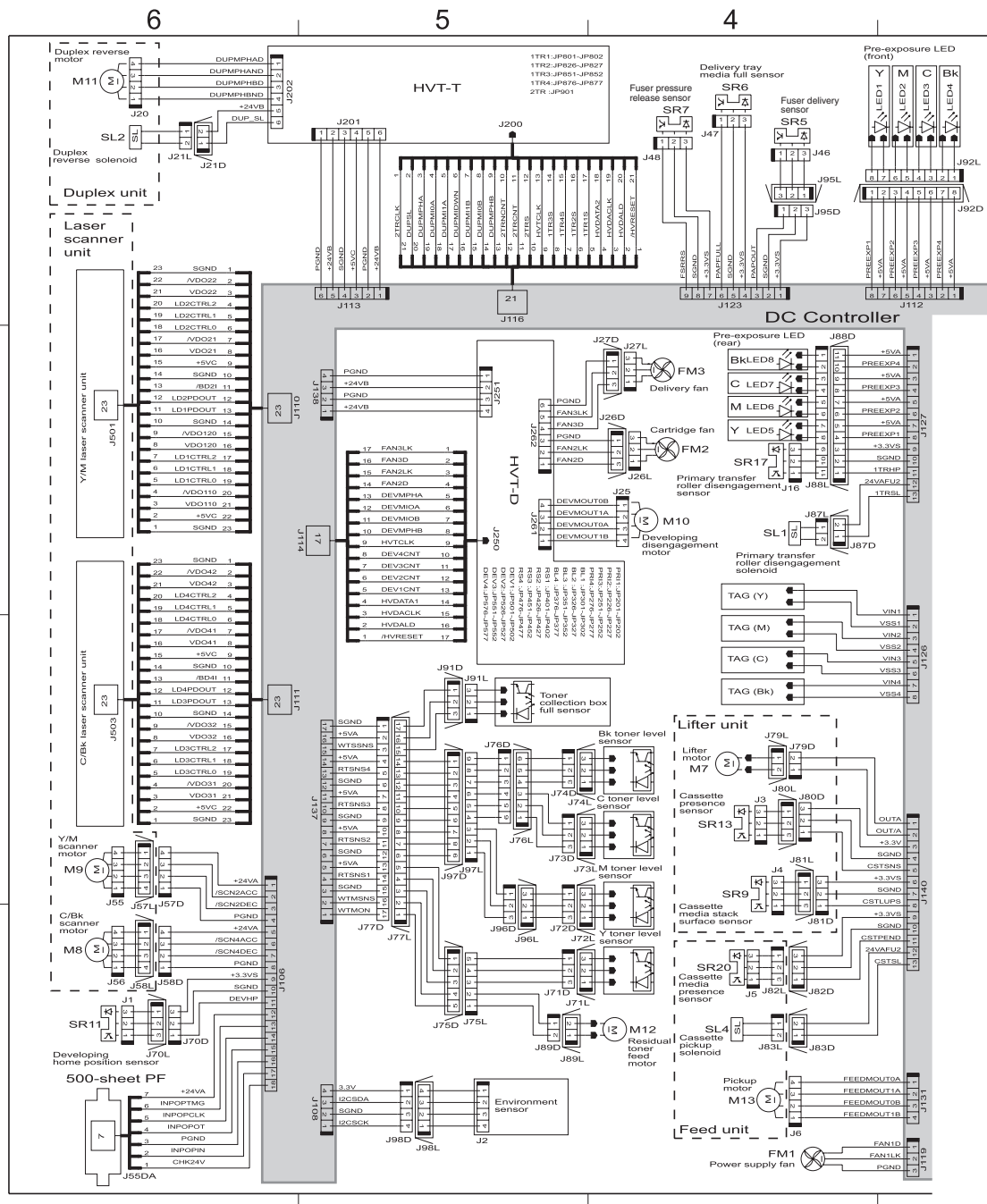
Figure 7-37 General timing chart



Timing chart is two consecutive print jobs on letter-size paper (full color using one-to-one speed mode)

## Circuit diagrams

**Figure 7-38** General circuit diagram (1 of 2)





**Figure 7-39** General circuit diagram (2 of 2)

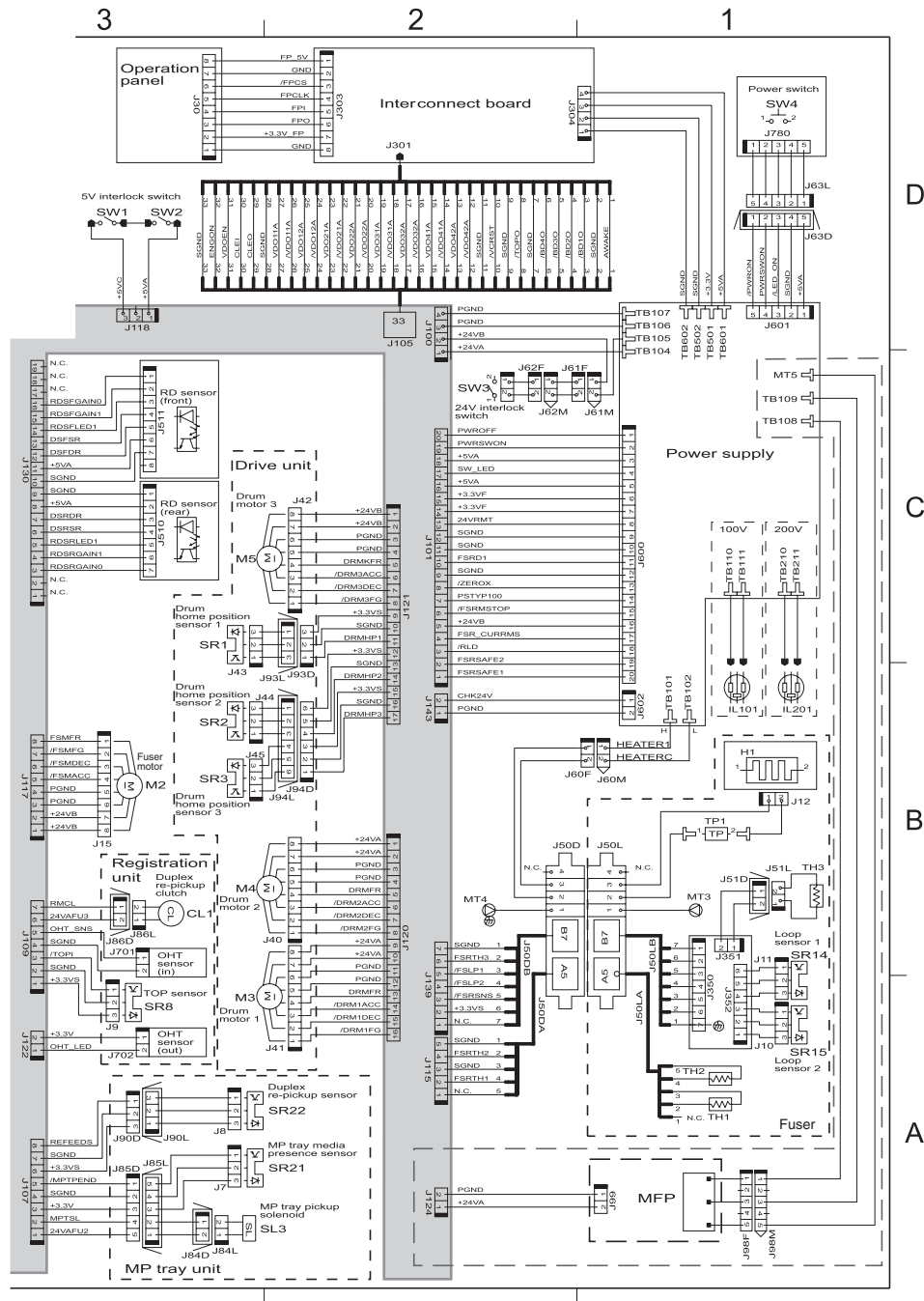
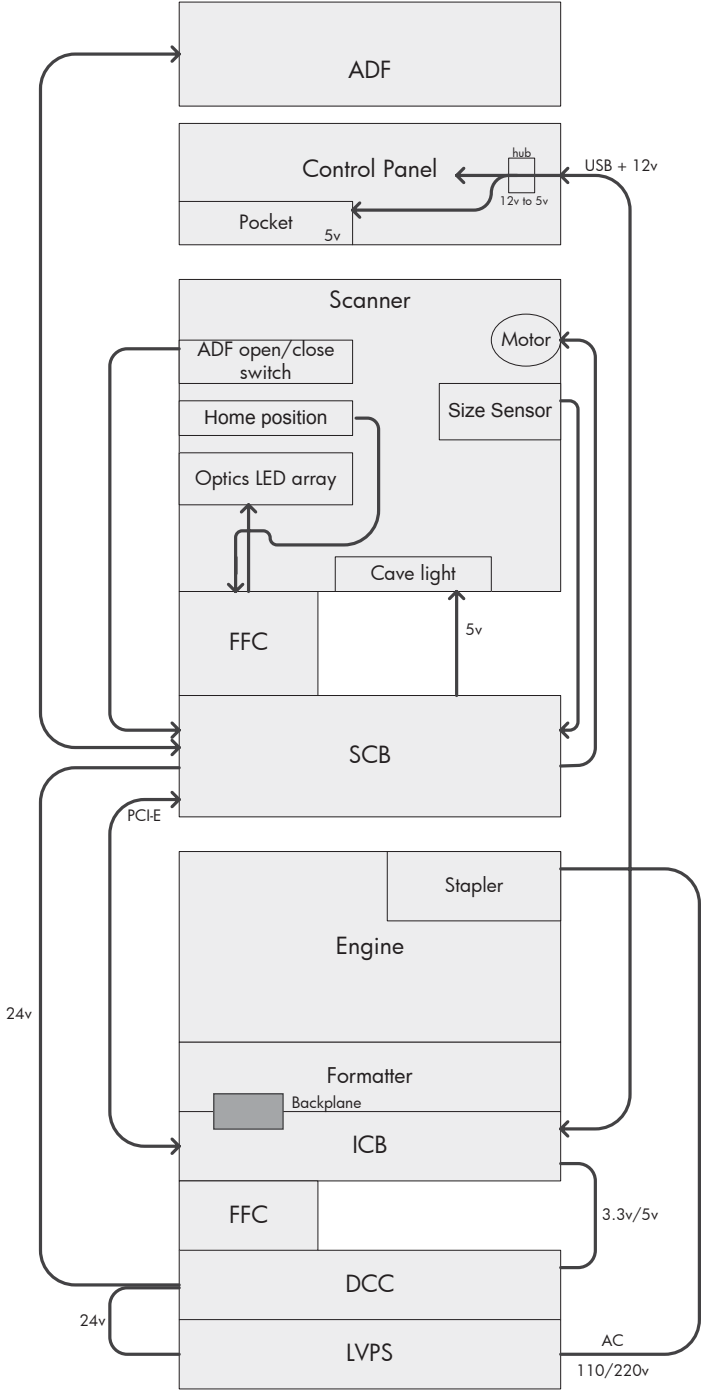
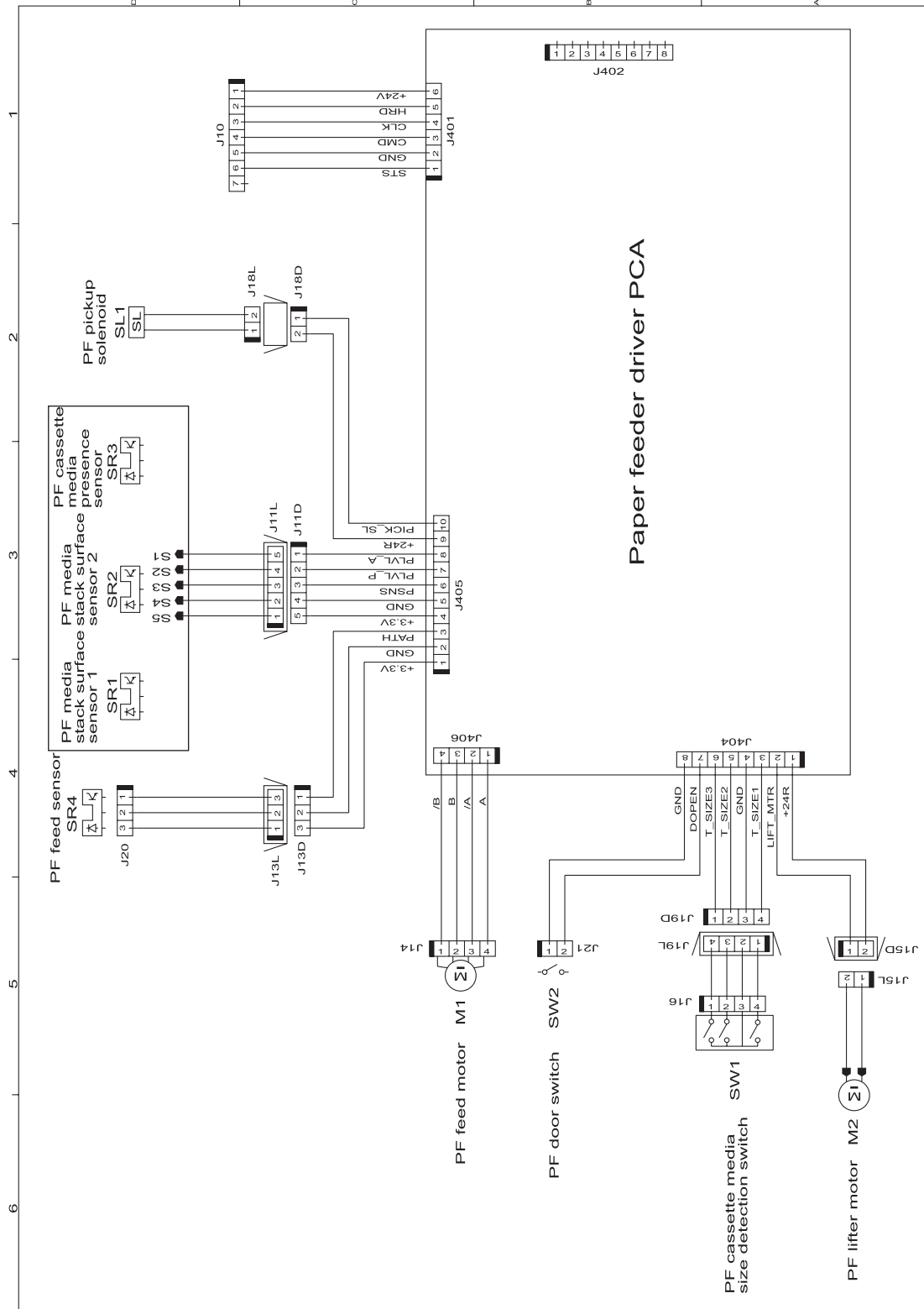


Figure 7-40 Product circuit block diagram



**Figure 7-41** Paper feeder circuit diagram

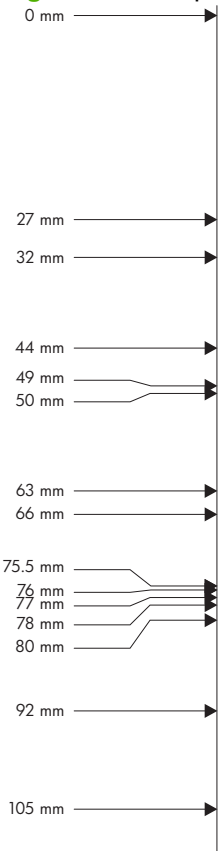


# Print-quality troubleshooting tools

## 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 7-42** 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

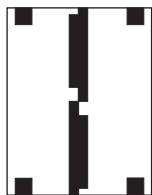
 **NOTE:** The procedure below is used to calibrate the scanner portion of the product. To perform an internal print-quality calibration from the control panel, open the **Print Quality** menu.

Calibrate the scanner to compensate for offsets in the scanner imaging system (carriage head) for ADF and flatbed scans. Because of mechanical tolerances, the scanner's carriage head might not read the position of the image accurately. During the calibration procedure, scanner offset values are calculated and stored. The offset values are then used when producing scans so that the correct portion of the document is captured.

Scanner calibration should be carried out only if you notice offset problems with the scanned images. The scanner is calibrated before it leaves the factory. It needs to be calibrated again only rarely.

Before calibrating the scanner, print the calibration target.

1. Place letter- or A4-size paper in tray 1, and adjust the side guides.
2. On the control-panel Home screen, scroll to and touch **Administration**.
3. Touch **Troubleshooting**.
4. Touch **Calibrate Scanner**.
5. Touch **Calibrate** to print the first pass of the calibration target.
6. Place the first pass of the calibration target face-down in tray 1 so that the arrows are facing into the product.
7. Touch **Start** to print the second pass. The final calibration target *must* look similar to the following figure.



△ **CAUTION:** If the calibration target does not look similar to the figure shown here, the calibration process will fail and the quality of scans will be degraded. *The black areas must extend completely to the short edges of the page. If they do not, use a black marker to extend the black areas to the edge of the page.* Make sure that the paper is loaded correctly.

8. Place the calibration target face-up into the ADF, and adjust the side guides.
9. After the calibration target has passed through the ADF once, reposition it face down in the ADF and touch **Start**.
10. Place the calibration target face-down on the scanner glass, touch **Start**, and scan the page. After this pass, the calibration is complete.

## 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.

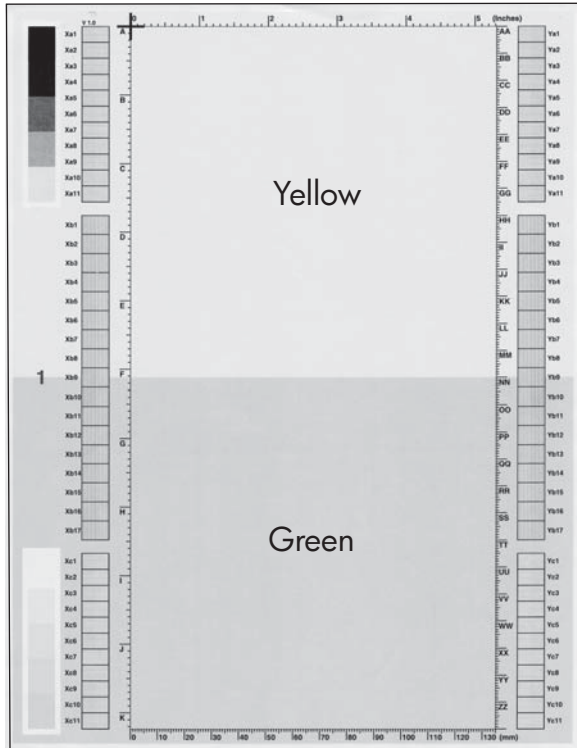
1. Scroll to and touch **Administration**.
2. Scroll to and touch **Troubleshooting**.
3. Touch **PQ Troubleshooting**.
4. Touch **Print**.

The product returns to the **Ready** state after printing the print-quality-troubleshooting pages. Follow the instructions on the pages that print out.

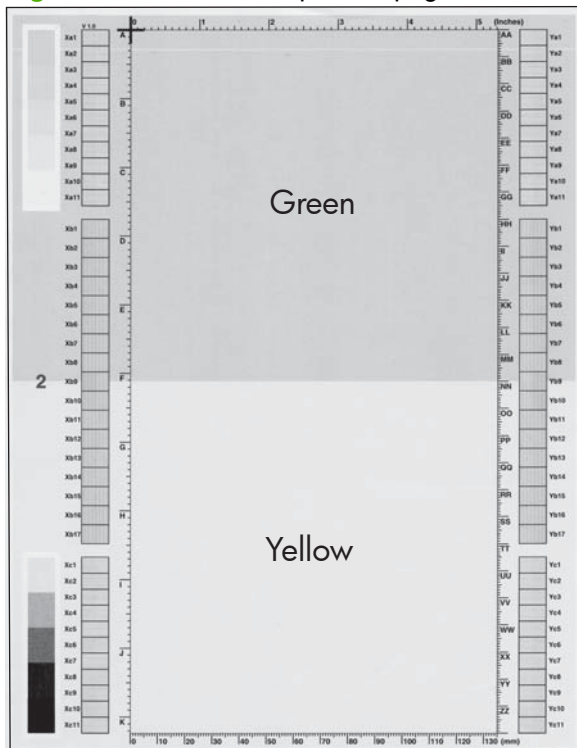
**Figure 7-43** Print-quality troubleshooting procedure



**Figure 7-44** Yellow print-quality troubleshooting page



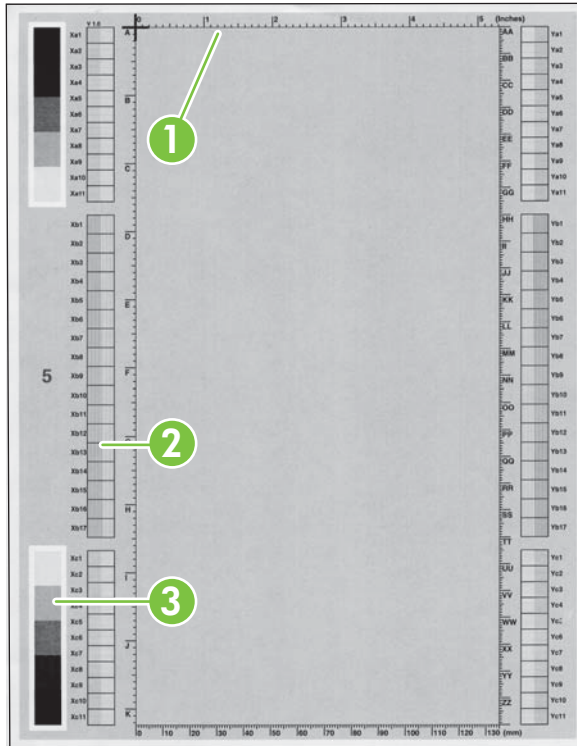
**Figure 7-45** Yellow comparison page



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 7-46** Black print-quality troubleshooting page

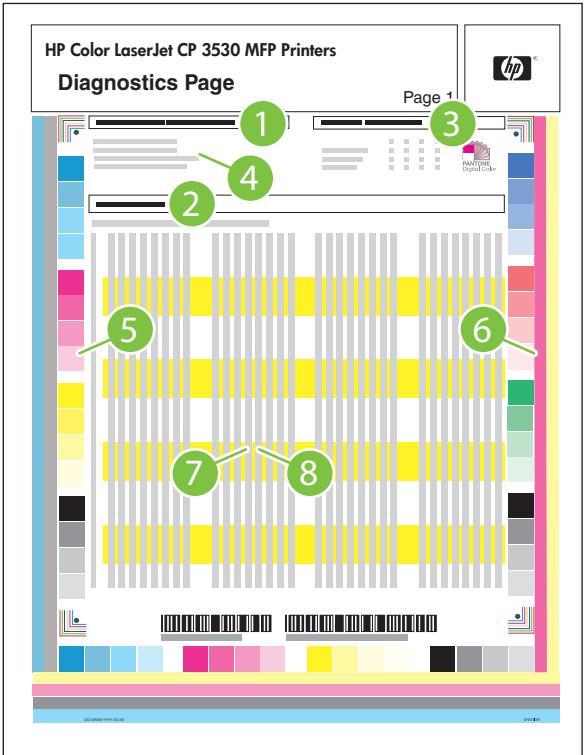


1. Grids	The grids are in inches and millimeters. They are label with letters and numbers so that defects can be described by position and by distance between repeats.
2. Color plane registration (CPR) bars	After printing, the box with no extra color in each area on each page shows how far off the CPR 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.
3. Color ramp patches	Used to detect offset for the OPC or developer in the image drum or offset in the fuser.

## Diagnostics page

Use the diagnostics page to evaluate problems with color-plane registration, EP parameters, and print quality.

1. Touch **Administration**.
2. Touch **Troubleshooting**.
3. Touch **Diagnostics Page**.



1	Calibration information
2	Parameters
3	Color density
4	Color-plane registration
5	Primary colors
6	Secondary colors
7	Temperature values (22 M)
8	Humidity values (22 N)

## Cleaning page

Run the product cleaning page to keep the fuser free of toner and paper particles that can sometimes accumulate and 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).

### Create and use the cleaning page

1. Scroll to and touch **Administration**.
2. Scroll to and touch **Print Quality**.
3. Touch **Calibration/cleaning**.
4. Touch **Process cleaning page**.

## Configuration pages


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 also prints.

### Configuration page

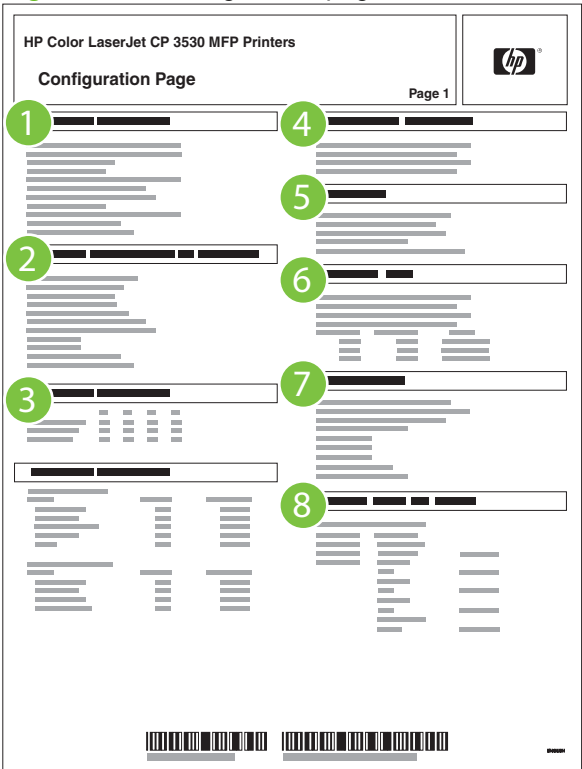
Use the configuration page to view current product settings, to help troubleshoot product problems, or to verify installation of optional accessories, such as memory (DIMMs), paper trays, and printer languages.

1. Touch **Administration**.
2. Touch **Information**.
3. Touch **Configuration/Status Pages**.
4. Touch **Configuration Page**.
5. Touch **Print**.

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 7-47** Configuration page



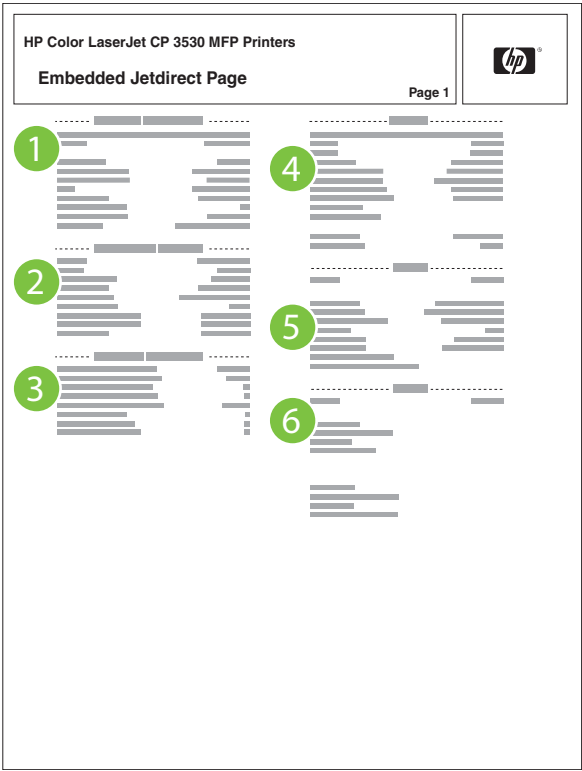
1	Printer information
2	Installed personalities and options

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 7-48 HP embedded Jetdirect page



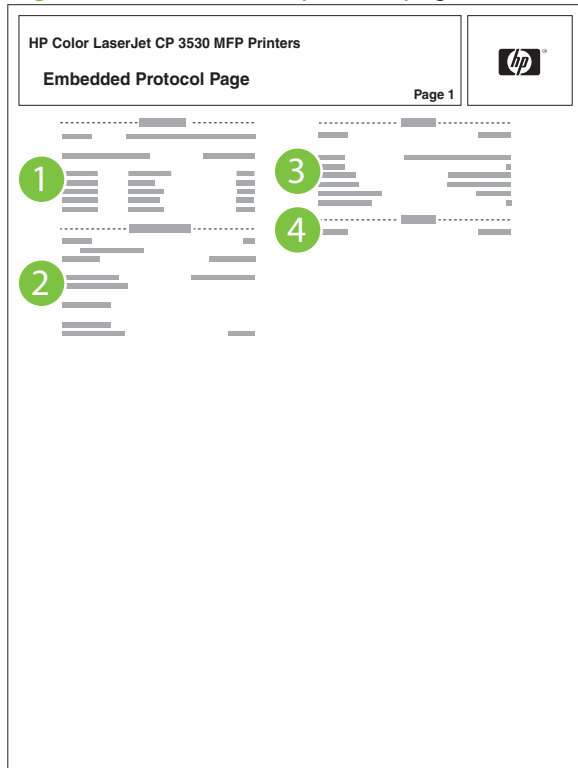
1	<b>HP Jetdirect Configuration</b> indicates the product status, model number, hardware firmware version, port select, port configuration, auto negotiation, manufacturing identification, and manufactured date.
2	<b>Security Settings</b> information
3	<b>Network Statistics</b> indicates the total packets 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 7-49** 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 7-11 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)	Look on the main configuration page, under "Device 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. Scroll to and touch **Administration**.
2. Touch **Troubleshooting**.
3. Touch **Color Band Test**.
4. Touch **Print**.



# Control-panel messages

**Table 7-12 Control-panel messages**

Control panel message	Description	Recommended action
<b>Output Bin Full Remove all paper from bin</b>	The output bin is full and must be emptied for printing to continue.	Empty the bin to continue printing.
<b>10.00.YY Supply memory error</b>	<p>The product is unable to read the cartridge data. The print cartridge is present but defective.</p> <ul style="list-style-type: none"> <li>10.00.00 Supply memory error (black print cartridge)</li> <li>10.00.01 Supply memory error (cyan print cartridge)</li> <li>10.00.02 Supply memory error (magenta print cartridge)</li> <li>10.00.03 Supply memory error (yellow print cartridge)</li> <li>10.10.00 Supply memory error (e-label for the black print cartridge)</li> <li>10.10.01 Supply memory error (e-label for the cyan print cartridge)</li> <li>10.10.02 Supply memory error (e-label for the magenta print cartridge)</li> <li>10.10.03 Supply memory error (e-label for the yellow print cartridge)</li> <li>10.10.05 Supply memory error (e-label for the black image drum)</li> <li>10.10.06 Supply memory error (e-label for the cyan image drum)</li> <li>10.10.07 Supply memory error (e-label for the magenta image drum)</li> <li>10.10.08 Supply memory error (e-label for the yellow image drum)</li> </ul>	<ol style="list-style-type: none"> <li>1. Open the front door and remove the print cartridge, and then reinsert it.</li> <li>2. Close the front door. If the message reappears, turn the product off and then on.</li> <li>3. If the error reappears, replace the print cartridge.</li> </ol>
<b>11.XX Internal clock error To continue touch OK</b>	The product's real time clock experienced an error.	<p>Whenever the product is turned off and then turned on again, set the time and date at the control panel. See the user guide for more information.</p> <p>If the error persists, you might need to replace the formatter.</p>
<b>13.01 Jam In Tray 3</b>	The leading edge of the paper fed from Tray 3 stopped before reaching the media feed sensor (SR4).	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>13.04 Jams inside right door</b>	The paper stopped at the registration sensor (A).	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>13.05 Fuser area jam</b>	The leading edge of the paper stopped between registration and the input to the	Follow the onscreen instructions to locate and remove the paper or obstruction.

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
	fuser. The paper did not reach the loop sensors (SR14, SR15)	
<b>13.06 Fuser area jam</b>	The paper stopped at the fuser-delivery sensor (D).	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>13.12 Jam inside right door</b>	The duplex refeed paper stopped before it reached duplex re-pickup sensor (SR22).	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>13.13 Jam inside right door</b>	The duplex refeed paper stopped between the duplex re-pickup sensor (SR22) and registration.	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>13.1C Fuser Wrap Jam</b>	The paper is stopped in the fuser.	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>13.20 Jams inside right door</b>	The paper is stopped at either the registration sensor (SR8), the loop sensors (SR14,SR15) or the fuser-delivery sensor (SR5).	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>13.21 Jams inside right door</b>	Either the front or right side door was opened while paper was in the path.	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>13.2E Paper Late Jam Near Fuser at Sensors F - J</b>	The paper stopped between the fuser-output sensor (F) and the output-bin-full sensor (J).	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>13.30.00 Jam in Tray 1</b>	Paper being fed from Tray 1 did not reach registration sensor.	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>13.30.00 Jam in Tray 2</b>	Paper from Tray 2 did not reach registration sensor (SR8).	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>13.30.00 Jam inside lower right door</b>	Paper being fed from Tray 3 did not reach registration sensor.	Follow the onscreen instructions to locate and remove the paper or obstruction.
<b>20 INSUFFICIENT MEMORY To continue touch OK</b>	The product does not have enough memory to print the page.	Touch <b>OK</b> to print a partial page. Reduce the page complexity or add product memory.
<b>22 - USB I/O buffer overflow To continue touch OK</b>	The product's USB buffer overflowed during a busy state.	Touching <b>OK</b> resumes printing but results in a loss of data.
<b>22 EMBEDDED I/O BUFFER OVERFLOW To continue touch OK</b>	Too much data was sent to the embedded HP Jetdirect print server. An incorrect communications protocol might be in use.	Touch <b>OK</b> to print the transferred data. Some data might be lost. Check the host configuration.
<b>30.01.02 Scanner failure</b>	The document feeder is jammed.	<ol style="list-style-type: none"> <li>1. Remove all originals from the document feeder.</li> <li>2. Open the document feeder top cover and check for torn paper or other objects, such as paper clips.</li> </ol>
<b>30.01.03 Scanner failure</b>	An ADF pickup failure occurred.	<ol style="list-style-type: none"> <li>1. Verify that the original documents are not damaged. If one edge is damaged, try rotating the originals.</li> <li>2. Verify that the document feeder guides are not too tight against the stack of originals.</li> <li>3. Clean or replace the document feeder rollers and the separation pad.</li> </ol>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>30.01.08 Scanner failure</b>	The scanner carriage is locked or it has not returned to the home position within the expected time.	<ol style="list-style-type: none"> <li>1. Verify that the scanner is not locked.</li> <li>2. Verify that the scanner carriage can move freely. If it cannot move, replace the scanner. See <a href="#">Scanner assembly on page 242</a>.</li> </ol>
<b>30.01.14 Scanner failure</b>	The SCB firmware failed.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Replace the SCB. See <a href="#">Scanner-control board (SCB) on page 279</a>.</li> </ol>
<b>30.01.18 Scanner failure</b>	The SCB ASIC failed.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Replace the SCB. See <a href="#">Scanner-control board (SCB) on page 279</a>.</li> </ol>
<b>30.01.19 Scanner failure</b>	The scanner lamp failed.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Replace the scanner. See <a href="#">Scanner assembly on page 242</a>.</li> </ol>
<b>30.01.23 Scanner failure</b>	A scanner calibration error has occurred.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Replace the scanner. See <a href="#">Scanner assembly on page 242</a>.</li> </ol>
<b>30.01.25 Scanner failure</b>	The scanner-control board (SCB) cannot communicate with the product.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Check the SCB LED.</li> <li>3. Verify that the SCB connections are correct.</li> <li>4. Verify the cable from the scanner to the formatter is not plugged in backwards.</li> <li>5. Replace the SCB. See <a href="#">Scanner-control board (SCB) on page 279</a>.</li> </ol>
<b>30.01.36 Scanner failure</b>	An error occurred during the SCB firmware upgrade.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Resend the firmware upgrade.</li> <li>3. Replace the SCB. See <a href="#">Scanner-control board (SCB) on page 279</a>.</li> </ol>
<b>30.01.39 Scanner failure</b>	There was an AFE1 (analog front-end) failure.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Replace the scanner. See <a href="#">Scanner assembly on page 242</a>.</li> </ol>
<b>30.01.40 Scanner failure</b>	The scanner AFE 2 failed.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Replace the scanner. See <a href="#">Scanner assembly on page 242</a>.</li> </ol>
<b>30.01.41 Scanner failure</b>	There was a SCB error.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Replace the SCB. See <a href="#">Scanner-control board (SCB) on page 279</a>.</li> </ol>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>30.01.42 Scanner failure</b>	The PCI-E (peripheral component interconnect express) cable is faulty or disconnected.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Check the PCI-E cable connections at the SCB and the ICB.</li> <li>3. Replace the PCI-E cable. See <a href="#">Scanner-control board (SCB) on page 279</a>.</li> </ol>
<b>30.01.43 Scanner failure</b>	The SCB memory has failed.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Replace the SCB. See <a href="#">Scanner-control board (SCB) on page 279</a>.</li> </ol>
<b>30.01.44 Scanner failure</b>	Communication failed on the SCB.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Replace the SCB. See <a href="#">Scanner-control board (SCB) on page 279</a>.</li> </ol>
<b>30.01.45 Scanner failure</b>	The SCB has failed.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Replace the SCB. See <a href="#">Scanner-control board (SCB) on page 279</a>.</li> </ol>
<b>30.01.46 Scanner failure</b>	The SCB enumeration failed.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Check the PCI cable at the scanner and formatter.</li> <li>3. Check the SCB connections.</li> <li>4. Replace the SCB. See <a href="#">Scanner-control board (SCB) on page 279</a>.</li> </ol>
<b>40 Embedded I/O Bad Transmission To continue touch OK</b>	A temporary printing error occurred. The connection between the product and the EIO card in the specified slot has been broken.	Touch <b>OK</b> to clear the error message and continue printing. Turn the product off and then on.
<b>41.3 Load Tray &lt;XX&gt;: [Type] [Size]</b>	The specified tray is loaded with media that is longer or shorter in the feed direction than the size adjusted for the tray. This message also appears if two or more sheets of media stick together in the product or if the tray is not adjusted correctly. If using glossy paper, ensure that it has been acclimated.	Touch <b>OK</b> to use another tray. Reconfigure the size in a tray so that the product will use a tray that is loaded with the correct media size. If the message does not clear automatically from the control-panel display, turn the product off and then on.
<b>41.5 Load Tray &lt;XX&gt;: [Type], [Size] To use another tray, touch OK</b>	<p>The product detected an unexpected paper size. There is a tray type mismatch.</p> <p>The tray is a cassette and there is another tray available for use.</p>	To continue, load the tray with the size and type indicated. Or, if another tray is available, touch <b>OK</b> to use it. This problem affects printing, but some scan functions might still be available.
<b>41.X ERROR</b>	A temporary printing error occurred.	Touch <b>OK</b> to clear the error. If the error is not cleared, turn the product off and then on.
<b>49.XXXXX ERROR To continue turn off then on</b>	<p>A firmware error has occurred.</p> <p>This type of error can be caused by corrupted print jobs or software program issues, non product-specific printer drivers, poor-quality USB or network cables, bad network connections or incorrect network configurations, invalid firmware operations, or unsupported accessories.</p>	<p>The following steps should help to identify possible causes and a resolution to the error condition:</p> <ol style="list-style-type: none"> <li>1. Turn the product off then on. If the error returns, disconnect all interface cables and turn the product off and then on again.</li> </ol>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		<p>If the error recurs only after connecting one of the interface cables or it happens randomly, go to step 2.</p> <p>If the error returns after the second time you turn the product off and on, follow these steps:</p> <ol style="list-style-type: none"> <li>The error has been isolated to when the product is in stand-alone condition. Turn the product off and remove the hard drive, fax card (if equipped), any HP paper-handling accessories, all third-party DIMMs (leave the minimum HP memory installed), and all third-party accessories.</li> <li>After you have removed all components, turn the product on and print a configuration page. <p>If the configuration page prints, the error has been isolated to one or more components you removed. Go to step c.</p> <p>If the configuration page does not print, go to step e.</p> </li> <li>Turn the product off, reinstall one of the components onto the formatter, and turn the product on. Print the configuration page after the individual component is added.</li> <li>Continue reinstalling one component at a time and printing the configuration page until you identify the faulty component. Replace the faulty component, or contact the third-party accessory supplier.</li> <li>If the configuration page did not print in step b, turn the product off and reinstall all components removed from the formatter. Reinstall the formatter.</li> <li>Perform a Cold Reset, Disk INIT and NVRAM INIT. <p><b>NOTE:</b> Customer settings or data from the disk might be lost.</p> </li> <li>If the product does not come to a ready state after performing all steps listed above, contact your Hewlett Packard support center.</li> </ol>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		<p><b>NOTE:</b> HP LaserJet formatter PCAs are rarely the cause of 49 service errors. Do not replace the formatter unless troubleshooting identifies it as the cause.</p> <p>2. If the error clears after turning the product off and then on, it is possible that a print job, an action performed on the product, or a connectivity issue is responsible for the error.</p> <p>a. If the error recurs only after connecting an interface cable try the following actions, if applicable:</p> <ul style="list-style-type: none"> <li>• Try a new cable.</li> <li>• Move the product to a new network port, fax-line port, or USB port.</li> <li>• Verify that all unused network protocols are disabled and that all settings are correctly set for the network configuration being used.</li> <li>• Reset the fax settings to factory defaults. Configure only the basic settings needed to operate: country/region, company name, and fax number.</li> <li>• Verify that the fax card firmware revision is the correct version for the formatter firmware version on the product.</li> </ul> <p>b. If the error happens only when performing certain actions, such as making a copy, sending an e-mail, or sending a fax, try the following actions, if applicable:</p> <ul style="list-style-type: none"> <li>• Try different configuration settings</li> <li>• Increase or decrease the file resolution</li> <li>• Use black and white file format instead of color, or vice-versa.</li> <li>• Use different file formats, for example .PDF or .TIFF.</li> <li>• Use different copy settings, such as eliminating duplex printing or printing multiple pages on one sheet.</li> </ul>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		<ul style="list-style-type: none"> <li>• Reduce the number of originals.</li> <li>• Reset the fax settings to factory defaults. Configure only the basic settings needed to operate: country/region, company name, and fax number.</li> <li>• Verify that the fax card firmware revision is the correct version for the formatter firmware version on the product.</li> </ul> <p>c. If the error occurs only when printing a job, try the following actions:</p> <ul style="list-style-type: none"> <li>• Verify that the printer driver is correct for your product.</li> <li>• Try printing another file from the same software program or from another software program.</li> <li>• Reduce the number of features being used in the print job, such as printing watermarks, printing multiple pages on one sheet, or using job-storage features.</li> <li>• If other files or software programs are successful, try making changes to the file, such as using different fonts, changing driver settings, or printing with another driver language, such as PCL 6.</li> </ul> <p>d. If the error continues to occur, update the product firmware. Obtain the latest firmware from <a href="http://www.hp.com/go/cljcm3530mfp_firmware">www.hp.com/go/cljcm3530mfp_firmware</a>.</p> <p>3. If the error persists after performing these steps, contact your Hewlett Packard support center.</p>
<b>50.1 FUSER ERROR</b>	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 200</a>.</li> </ol>

**Table 7-12 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 200</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 200</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 (LVPS) on page 273</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 200</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 200</a>.</li> </ol>



**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>50.8 FUSER ERROR</b>	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 200</a>.</li> </ol>
<b>50.9 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 (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 200</a>.</li> </ol>
<b>51.1Y Error To continue turn off and then on</b>	<p>There is a beam detect error.</p> <ul style="list-style-type: none"> <li>• 51.10=black</li> <li>• 51.11=cyan</li> <li>• 51.12=magenta</li> <li>• 51.13=yellow</li> </ul>	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Check the flat flexible cable (FFC) connections to the laser scanners. Also check connectors J111 and J110 at the DC controller, and check connectors J503 and J501 at the laser scanners</li> <li>3. Replace the specific laser scanner. See <a href="#">Laser/scanner assembly (C/Bk) on page 332</a> or <a href="#">Laser/scanner assembly (Y/M) on page 325</a>.</li> </ol>
<b>51.2Y Error To continue turn off and then on</b>	<p>There is a laser error.</p> <ul style="list-style-type: none"> <li>• 51.20=black</li> <li>• 51.21=cyan</li> <li>• 51.22=magenta</li> <li>• 51.23=yellow</li> </ul>	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Check the connectors on the laser scanner.</li> <li>3. Replace the specific laser scanner. See <a href="#">Laser/scanner assembly (C/Bk) on page 332</a> or <a href="#">Laser/scanner assembly (Y/M) on page 325</a>.</li> </ol>
<b>52.00 Error To continue turn off and then on</b>	The laser scanner experienced a startup error.	<ol style="list-style-type: none"> <li>1. Perform the laser scanner component tests in the <a href="#">Troubleshooting</a> 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 of the cyan/black scanner motor (J56 and J58) and the DC controller PCA (J106).</li> <li>◦ If the yellow or magenta component tests showed a startup failure, reconnect the connectors of the yellow/magenta scanner motor (J55 and J57) and the DC controller PCA (J106).</li> </ul> </li> <li>3. Replace the cyan/black laser scanner unit or the yellow/magenta laser</li> </ol>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		scanner unit. See <a href="#">Laser/scanner assembly (C/Bk) on page 332</a> or <a href="#">Laser/scanner assembly (Y/M) on page 325</a> .
<b>52.20 Error To continue turn off and then on</b>	The laser scanner experienced a rotational error.	<ol style="list-style-type: none"> <li>1. Perform the laser scanner component tests in the <a href="#">Troubleshooting</a> 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 of the cyan/black scanner motor (J56 and J58) and the DC controller PCA (J106).</li> <li>◦ If the yellow or magenta component tests showed a startup failure, reconnect the connectors of the yellow/magenta scanner motor (J55 and J57) and the DC controller PCA (J106).</li> </ul> </li> <li>3. Replace the cyan and black laser-scanner assembly or the yellow and magenta laser-scanner assembly. See <a href="#">Laser/scanner assembly (C/Bk) on page 332</a> or <a href="#">Laser/scanner assembly (Y/M) on page 325</a>.</li> </ol>
<b>53.10.0X Unsupported DIMM</b>	An unsupported DIMM is installed.	Turn the product off, and then replace the DIMM that caused the error.
<b>54.01 Error</b>	The environmental sensor experienced an error.	<ol style="list-style-type: none"> <li>1. Reconnect the connector of the DC controller PCA (J108).</li> <li>2. Replace the environmental sensor. See <a href="#">Delivery fan, cartridge fan, and environmental sensor on page 285</a>.</li> </ol>
<b>55.00.YY DC Controller Communication Error To continue turn off and then on</b>	The DC controller experienced a communication error.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Perform an engine test. See <a href="#">Engine-test button on page 386</a>.</li> <li>3. Verify the connectors on the DC controller.</li> <li>4. Replace the DC controller. See <a href="#">DC controller PCA and tray on page 270</a>.</li> </ol>
<b>55.01.YY DC Controller Memory Error To continue turn off and then on</b>	There is an error with the DC controller memory.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Perform an engine test. See <a href="#">Engine-test button on page 386</a>.</li> <li>3. Verify the connectors on the DC controller.</li> <li>4. Replace the DC controller. See <a href="#">DC controller PCA and tray on page 270</a>.</li> </ol>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>55.02.YY Outgoing Parity Error To continue turn off and then on</b>	There is a DC controller outgoing parity error.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Perform an engine test. See <a href="#">Engine-test button on page 386</a>.</li> <li>3. Verify the connectors on the DC controller.</li> <li>4. Replace the DC controller. See <a href="#">DC controller PCA and tray on page 270</a>.</li> </ol>
<b>55.03.YY No Engine Response To continue turn off and then on</b>	DC controller no response error.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Perform an engine test. See <a href="#">Engine-test button on page 386</a>.</li> <li>3. Verify the connectors on the DC controller.</li> <li>4. Replace the DC controller. See <a href="#">DC controller PCA and tray on page 270</a>.</li> </ol>
<b>55.04.YY Communications Timeout To continue turn off and then on</b>	There was a DC controller communications time out.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Perform an engine test. See <a href="#">Engine-test button on page 386</a>.</li> <li>3. Verify the connectors on the DC controller.</li> <li>4. Replace the DC controller. See <a href="#">DC controller PCA and tray on page 270</a>.</li> </ol>
<b>55.05 ENGINE FIRMWARE RFU ERROR</b>	Firmware upgrade failed.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Remove any third-party hardware.</li> <li>3. Resend the firmware upgrade.</li> </ol>
<b>56.01 - Illegal input To continue turn off and then on</b>	There was an illegal input.	<ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Remove any third-party hardware.</li> <li>3. Attempt the remote firmware update again.</li> <li>4. Replace the DC controller.</li> </ol>
<b>56.02 - Illegal output To continue turn off and then on</b>	There was an illegal output.	Turn the product off and then on.
<b>57.03 Error To continue turn off and then on</b>	The cartridge area cooling fan (FM2) experienced an error.	<ol style="list-style-type: none"> <li>1. Reconnect the connector J26 of the cartridge fan, connector J262 on the high voltage power supply D PCA, and connector J114 on the DC controller PCA.</li> <li>2. Immediately after turning on the product, measure the voltage between the connector J262-1 and J262-3 on the high-voltage power supply D PCA. If the voltage changes from 0 V to approximately 24 V, replace the cartridge fan.</li> </ol>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>57.04 Error To continue turn off and then on</b>	The low-voltage power-supply fan (FM1) experienced an error.	<ol style="list-style-type: none"> <li>1. Reconnect the connector J119 on the DC controller PCA.</li> <li>2. Immediately after turning on the product, measure the voltage between the connector J119-1 and J119-3 on the DC controller PCA. If the voltage changes from 0 V to approximately 24 V, replace the power-supply fan.</li> </ol>
<b>57.07 Error To continue turn off and then on</b>	The delivery area cooling fan (FM3) experienced an error.	<ol style="list-style-type: none"> <li>1. Reconnect the connector J27 of the delivery fan, connector J262 on the high voltage power supply D PCA, and connector J114 on the DC controller PCA.</li> <li>2. Immediately after turning on the product, measure the voltage between the connector J262-4 and J262-6 on the high-voltage power supply D PCA. If the voltage changes from 0 V to approximately 24 V, replace the delivery fan.</li> </ol>
<b>59.30 Error To continue turn off and then on</b>	The fuser motor experienced a startup error.	<ol style="list-style-type: none"> <li>1. Perform the fuser motor component test in the <b>Troubleshooting</b> menu.</li> <li>2. Reconnect the connector J117 on the DC controller PCA.</li> <li>3. Replace the fuser motor. See <a href="#">Fuser motor on page 345</a>.</li> </ol>
<b>59.40 Error To continue turn off and then on</b>	The fuser motor experienced a rotational error.	<ol style="list-style-type: none"> <li>1. Perform the fuser motor component test in the <b>Troubleshooting</b> menu.</li> <li>2. Reconnect the connector J117 on the DC controller PCA.</li> <li>3. Replace the fuser motor. See <a href="#">Fuser motor on page 345</a>.</li> </ol>
<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 343</a> or <a href="#">Drum motor 2 or drum motor 3 on page 344</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> </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 343</a> or <a href="#">Drum motor 2 or drum motor 3 on page 344</a>.</li> </ol>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
	<ul style="list-style-type: none"> <li>Y=2: Magenta (drum motor 1) (M3) (M4) (J120)</li> <li>Y=3: Yellow (drum motor 1) (M3) (J120)</li> </ul>	
<b>59.B0 ERROR</b> To continue turn off then on	The toner-collection unit is full.	Replace the toner-collection unit. See <a href="#">Toner-collection unit on page 190</a>
<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>	Replace the toner-collection unit. See <a href="#">Toner-collection unit on page 190</a> .
<b>59.C0 Error</b> To continue turn off and then on	The developer-disengagement motor experienced a rotational error.	<ol style="list-style-type: none"> <li>Perform the <b>Alienation Motor</b> test in the <b>Component Tests</b> menu in the <b>Troubleshooting</b> menu. Verify that the cartridges are being correctly alienated.</li> <li>Check the following connectors: J25 at the motor (M10), J261 and J251 on the high voltage power supply-D PCA, and connectors J138 and J106 on the DC controller PCA.</li> <li>Perform the <b>Manual Sensor Test</b> and observe item G. The normal state is "0". Locate the in-line connector J70 in the cable that is connected to developing-home-position sensor (SR11). To find this connector, remove the left-side cover and look in the area below the support plate. Disconnect the in-line connector. The state of item G should change to "1".</li> <li>If the motor is defective, replace motor M10. If the sensor is defective, replace the main-drive assembly.</li> </ol>
<b>59.F0 ERROR</b>	The transfer unit is missing or a motor error has occurred.	<ol style="list-style-type: none"> <li>Verify that the ITB is installed correctly. Remove the ITB and manually test the alienation mechanism.</li> <li>The position of the alienation mechanism in the ITB is monitored by the primary transfer roller disengagement sensor (SR17), which is located in the rear of the black cartridge slot. Perform the manual sensor test while the ITB is removed, and observe the state of sensor "I". The normal state is "0". When you insert a piece of paper into the sensor, the state should change to "1."</li> <li>Open the right door and defeat the interlock. Perform the <b>ITB Contact/Alienation</b> test in the <b>Component</b></li> </ol>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		<p><b>Test</b> menu. Observe the alienation-drive hub, which is above the cyan cartridge.</p> <p><b>4.</b> If the sensor (SR17) fails, order the rear pre-exposure assembly and replace the faulty sensor with the new sensor from the assembly.</p> <p><b>5.</b> If the alienation drive hub does not rotate, the problem could be the fuser motor or the fuser-drive assembly.</p>
<b>59.XY ERROR To continue turn off then on</b>	A temporary printing error occurred.	Turn the product off and then on.
<b>60.02 Tray 2 lifting error</b>	The Tray 2 lifter motor experienced an error.	<p><b>1.</b> Check the Tray-2 paper-surface sensor in the <a href="#">Manual Sensor Test 2</a> menu in the <b>Troubleshooting</b> menu.</p> <p><b>2.</b> Reconnect the connectors of the cassette lifter motor (J1920) and the DC controller PCA (J112).</p> <p><b>3.</b> Replace the lifter drive unit. See <a href="#">Lifter-drive assembly on page 314</a>.</p>
<b>60.03 Tray 3 lifting error</b>	The Tray 3 lifter motor experienced an error.	<p><b>1.</b> Check the Tray-3 paper-surface sensor in the <a href="#">Manual Sensor Test 2</a> menu in the <b>Troubleshooting</b> menu.</p> <p><b>2.</b> Reconnect the connectors of the cassette lifter motor (J1920) and the DC controller PCA (J112).</p> <p><b>3.</b> Replace the lifter drive unit. See <a href="#">Lifter-drive assembly on page 314</a>.</p>
<b>68.X Storage error settings changed To continue, touch OK.</b>	<p>At least one of the settings saved in the non-volatile storage device is invalid and was reset to its factory default. Printing can continue, but there may be some unexpected behavior because an error occurred in permanent storage.</p> <ul style="list-style-type: none"> <li>68.0: The onboard NVRAM failed.</li> <li>68.1: The removable disk (flash or hard) failed.</li> </ul>	Touch OK to clear the message.
<b>69.X Error To continue, touch OK.</b>	A duplex error occurred.	Turn the product off and then on. This problem affects printing, but some scan functions might still be available. Touch <a href="#">Hide</a> to remove this message and use other features.
<b>79.XXXX - ERROR To continue turn off and then on</b>	A critical hardware error occurred.	Turn the product off and then on.

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>8X.YYYY EIO ERROR To continue turn off and then on</b>	The EIO accessory card encountered a critical error, as specified by <b>YYYY</b> .	Try the following actions to clear the message: <ol style="list-style-type: none"> <li>1. Turn the product off and then on.</li> <li>2. Turn the product off, reseal the EIO accessory, and then turn the product on.</li> <li>3. Replace the EIO accessory. See <a href="#">Formatter PCA on page 192</a>.</li> </ol>
<b>8X.YYYY EMBEDDED JETDIRECT ERROR</b>	The embedded HP Jetdirect print server encountered a critical error, as specified by <b>YYYY</b> .	Turn the product off and then on.
<b>ABCDEFGHIJK 10000000000</b>	The product is performing the paper path test.	To exit press the <b>Stop</b> button.
<b>ACTION NOT CURRENTLY AVAILABLE FOR TRAY X TRAY SIZE CANNOT BE ANY SIZE/ANY CUSTOM</b>	A duplexed (2-sided) document was requested from a tray that is set to <b>Any Size</b> or <b>Any Custom</b> . Duplexing is not allowed from a tray configured to <b>Any Size</b> or <b>Any Custom</b> .	Select another tray or reconfigure the tray.
<b>Authentication required</b>	Authentication is enabled for this feature or destination. A user name and password are required.	Type the user name and password, or contact the network administrator.
<b>Authentication required to use this feature</b>	A user name and password are required.	Type the user name and password, or contact the network administrator.
<b>Bad optional tray connection</b>	The optional tray is not connected properly and must be reconnected before printing can continue.	<ol style="list-style-type: none"> <li>1. Turn the product off.</li> <li>2. Remove and then reinstall optional tray.</li> </ol>
<b>Calibrating...</b>	The product is calibrating.	No action is necessary.
<b>Cancelling</b>	The product is canceling a job.	No action is necessary.
<b>Card Slot Device Failure - To Clear Touch OK</b>	The specified device failed.	Touch <b>OK</b> to clear.
<b>Card Slot file operation failed To clear touch OK</b>	A PjL file system command was received that attempted to perform an illogical operation, such as downloading a file to a non-existent directory.	Touch <b>OK</b> to clear.
<b>Card Slot is write protected To clear touch OK</b>	The device is protected and no new files can be written to it.	Touch <b>OK</b> to clear message.
<b>Card Slot Not Initialized</b>	The file system device must be initialized before it can be used.	Initialize the device.
<b>Cartridge Error – Replace Black Cartridge</b>	Toner has settled in the black print cartridge and the auger cannot turn.	Replace the black cartridge. After replacing the cartridge, turn the power off and then on to continue
<b>Cartridge Error-Replace color cartridges Reinstall, then turn off and then on</b>	The cyan, magenta, or yellow print cartridges are defective and need to be replaced.	Replace the defective print cartridges and turn the product off and then on.
<b>Checking engine</b>	The product is checking the engine.	No action is necessary.
<b>Checking paper path</b>	The engine is checking the rollers for possible paper jams.	No action is necessary.

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>Chosen personality not available. To continue touch OK.</b>	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</b>	The cleaning page is being processed.	No action is necessary.
<b>Cleaning disk &lt;X&gt;% complete Do not power off</b>	A storage device is being sanitized or cleaned.	Do not turn off the product. The product's functions are unavailable. The product will automatically restart when finished.
<b>Clearing activity log</b>	The corresponding fax menu item has been triggered.	No action is necessary.
<b>Clearing all blocked numbers</b>	The corresponding fax menu item has been triggered.	No action is necessary.
<b>Clearing event log</b>	The event log is being cleared.	No action is necessary.
<b>Clearing paper path</b>	The product jammed or was turned on and paper was detected where it should not be. It is attempting to eject these pages automatically.	No action is necessary.
<b>Close front or right doors</b>	Either the front or right door is open.	<ol style="list-style-type: none"> <li>1. Close the door.</li> <li>2. Inspect the interlock on both the front and right doors.</li> <li>3. Use the manual sensor test to verify that the interlock switches are working correctly.</li> </ol>
<b>Close lower-right door</b>	The lower-right door is open.	Close the lower-right door.
<b>Cooling device</b>	This product recently experienced a period of heavy usage. In order to maintain a supported operating temperature, the product cycles through intervals of printing and pausing.	No action is necessary.
<b>Creating cleaning page</b>	A two-step page is being processed after having been created. This message is also used for products with duplexers that create and process the cleaning page in one step.	No action is necessary.
<b>Data received</b>	The product is waiting for the command to print the last page. The last page will print in a few moments.	No action is necessary.
<b>Deleting...</b>	The product is currently deleting a stored job.	No action is necessary.
<b>Disk spinning up</b>	The EIO disk product in slot <X> is spinning up.	No action is necessary.
<b>Document feeder cover open</b>	The document feeder cover is open.	Close the document feeder cover. Follow the instructions in the onscreen dialog box.
<b>DOCUMENT FEEDER EMPTY</b>	The document feeder is empty.	<ol style="list-style-type: none"> <li>1. Place originals in the document feeder or on the glass.</li> <li>2. Press the <b>Start</b> button.</li> </ol>



**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>Document feeder pick error</b>	The document feeder experienced an error while picking media.	<ol style="list-style-type: none"> <li>1. Open the document feeder cover.</li> <li>2. If necessary, roll the green wheel to the left to advance the paper. Remove all paper found.</li> <li>3. Lift the green tab to open the paper guide. Remove all paper found.</li> <li>4. Close the paper guide. Close the document feeder cover.</li> <li>5. Reinsert the original pages into the document feeder. Align the paper guides with the edges of the paper.</li> <li>6. To continue, press the <b>Start</b> button.</li> </ol> <p><b>NOTE:</b> If this jam occurs frequently, try scanning from the flatbed glass. Some paper types cause jams in the document feeder. If the original document contains both Letter and Legal size pages, select "Mixed Letter/Legal" as the original size.</p>
<b>Duplexing... do not grab paper</b>	The product is printing a duplex job, and the paper is accessible.	No action is necessary.
<b>E-MAIL GATEWAY DID NOT ACCEPT THE JOB BECAUSE THE ATTACHMENT WAS TOO LARGE</b>	The scanned documents have exceeded the size limit of the server.	Send the job again using a lower resolution, smaller file size setting, or fewer pages. Contact the network administrator to enable sending the scanned documents by using multiple e-mails.
<b>E-MAIL GATEWAY DID NOT RESPOND</b>	A gateway exceeded the time-out value.	Validate the SMTP IP address.
<b>E-MAIL GATEWAY REJECTED THE JOB BECAUSE OF THE ADDRESSING INFORMATION</b>	One or more of the e-mail addresses is incorrect.	Send the job again with the correct addresses.
<b>EIO &lt;X&gt; Disk initializing</b>	The EIO disk product in slot <X> 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.	Turn the product off. Remove the disk from the slot indicated, and replace it with a new disk. Turn the product on.
<b>EIO Device Failure - To Clear Touch OK</b>	The specified device failed.	Touch <b>OK</b> to clear.
<b>EIO file operation failed To clear touch OK</b>	A PjL file system command attempted to perform an illogical operation, such as downloading a file to a directory that does not exist.	Touch <b>OK</b> to clear.
<b>EIO is write protected To clear touch OK</b>	The device is protected and no new files can be written to it.	Touch <b>OK</b> to clear message.
<b>EIO Not initialized</b>	The file system device must be initialized before it can be used.	Initialize the device.
<b>Entering internal application &lt;X&gt;</b>	The product is opening an internal program.	No action is necessary.
<b>Error</b>	The directory or file is not readable.	To activate a fax, complete the required fax settings available through the <b>Administration</b> menu.

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>ERROR EXECUTING DIGITAL SEND JOB</b>	A digital send job failed and cannot be delivered.	Try to send the job again.
<b>External device initializing</b>	An external product is initializing.	No action is necessary.
<b>Fax is disabled ignoring call</b>	The product received a call, but the fax feature was not configured with the required settings (country/region, date/time, company name, fax number, etc.). The fax icon on the control panel is grayed out.	Configure the fax with the required settings from the <a href="#">Administration</a> menu on the control panel.
<b>Flatbed cover open</b>	The flatbed scanner cover is open.	Close the flatbed cover.
<b>Found SMTP gateway</b>	The <a href="#">Find SMTP Gateway</a> menu has been selected.	No action is necessary
<b>Gateways failed</b>	The gateway configuration is incorrect.	See <a href="#">Solve connectivity problems on page 501</a> .
<b>Gateways OK</b>	The gateway configuration is correct.	No action is necessary.
<b>Genuine HP supplies installed</b>	A new HP cartridge has been installed. This message appears for approximately 6 seconds before the returns to the <b>Ready</b> state.	No action is necessary.
<b>HP DIGITAL SENDING: DELIVERY ERROR</b>	A digital send job failed and cannot be delivered.	Try to send the job again.
<b>HP SECURE HARD DRIVE DISABLED</b>	<p>The HP high-performance hard disk is disabled, or the product does not recognize the hard disk.</p> <p>After an encrypted hard disk is paired with a specific product, it cannot be used in another product unless it is reinitialized.</p> <p><b>NOTE:</b> After the encrypted hard disk is paired to the product, all other hard disks are disabled.</p>	<p>Use the embedded Web server to configure the hard disk.</p> <ol style="list-style-type: none"> <li>1. Open the embedded Web Server by typing the product IP address into a Web browser.</li> <li>2. Click the <b>Digital Sending</b> tab.</li> <li>3. Select the <b>Security</b> link from the left navigation menu, and open the <b>Hard Disk and Mass Storage Security Settings</b> section.</li> <li>4. The following options are available: <ul style="list-style-type: none"> <li>◦ <b>Disk Init:</b> This option does not affect the disk encryption status.</li> <li>◦ <b>NVram Init:</b> This option does not affect the disk encryption status.</li> <li>◦ <b>Disable Hard Disk Encryption and Reboot:</b> This option completely erases the hard disk including all stored jobs, digital-send settings, and authentication settings. All pre-loaded fonts, after-market fonts, and other programs must be reloaded.</li> <li>◦ <b>Reinitialize Hard Disk:</b> This option has the same effect as the <b>Disable Hard Disk Encryption</b></li> </ul> </li> </ol>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
		<b>and Reboot</b> , but it does not restart the product.
<b>Image CRC error</b>	This message is displayed before the firmware is loaded at startup when an error occurs during a firmware upgrade.	Resend the upgrade.
<b>Incompatible fuser</b>	The wrong fuser is installed. The product will not print, even though the fuser fits the product.	Install the correct fuser. See <a href="#">Fuser on page 200</a> .
<b>Incompatible supplies</b>	Two or more incompatible supplies are installed. The product will not print, even though the supplies fit the product.	Install the correct supply.
<b>INFLATE FAILURE</b>	An error occurred during the firmware upgrade.	Resend the upgrade.
<b>Initializing permanent storage</b>	Product is initializing permanent storage.	No action is necessary.
<b>Initializing scanner</b>	The scanner is initializing.	Wait until the scanner is <b>Ready</b> before proceeding to scan.
<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.
<b>Install fuser</b>	The fuser is either not installed or not installed correctly.	Install the fuser. See <a href="#">Fuser on page 200</a> .
<b>Install supplies</b>	At least two supplies are missing.	Replace the missing supplies or make sure the installed supplies are fully seated.
<b>Install transfer unit</b>	The ITB is either not installed or not installed correctly.	Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 209</a> .
<b>Insufficient memory to load fonts/data &lt;device&gt; To continue touch OK</b>	The product does not have enough memory to load the data (for example, fonts or macros) from the location specified.	Touch <b>OK</b> to continue without this information. If the message persists, add memory.
<b>Internal Disk Device Failure - To Clear Touch OK</b>	The specified device failed.	Touch <b>OK</b> to clear the message.
<b>Internal disk file operation failed To clear touch OK</b>	A P.J.L. file system command attempted to perform an illogical operation, such as downloading a file to a non-existent directory.	Touch <b>OK</b> to clear.
<b>Internal Disk Initializing</b>	The internal disk is initializing.	No action is necessary.
<b>Internal disk is write protected To clear touch OK</b>	The product is protected and no new files can be written to it.	Touch <b>OK</b> to clear the message.
<b>Internal disk not found</b>	Internal disk not found.	Turn the product off and then on.
<b>Internal disk not functional</b>	The internal disk is not functional.	Copy and send is disabled. Turn the product off and then on.
<b>Internal disk not initialized</b>	The internal disk is not initialized.	Initialize the disk.
<b>Internal disk spinning up</b>	The internal disk is spinning up its platter. It usually shows for approximately 15 seconds when the product comes out of power-save mode. Jobs can still print, but jobs that require disk access (i.e., stored jobs) must wait.	No action is necessary.

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>Jam in document feeder</b>	Paper is jammed in the document feeder.	<ol style="list-style-type: none"> <li>1. Open the document feeder cover.</li> <li>2. If necessary, roll the green wheel to the left to advance the paper. Remove all paper found. Lift the green tab to open the paper guide. Remove all paper found. Close the paper guide. Close the document feeder cover.</li> <li>3. Reinsert the original pages into the document feeder. Align the paper guides with the edges of the paper. To continue, press the <b>Start</b> button.</li> </ol> <p><b>NOTE:</b> If this jam occurs frequently, try scanning from the flatbed glass. Some paper types cause jams in the document feeder. If the original document contains both letter- and legal-size pages, select <b>Mixed Letter/Legal</b> as the original size.</p>
<b>Job is being saved to disk</b>	Job is being saved.	No action is necessary.
<b>LED is on To continue, touch OK</b>	This message appears when the LED is component tested.	Touch <b>OK</b> to continue.
<b>Load Tray 1 &lt;type&gt; &lt;size&gt;</b>	The tray is empty or configured for a different size than the size requested.	Follow the instructions in the onscreen dialog box.
<b>Load Tray 1: [Type], [Size] To continue, touch OK</b>	Tray 1 is empty.	<p>Load Tray 1 with the requested paper. Or, if paper is already in Tray 1, touch <b>OK</b> to print.</p> <p>If paper is in another tray, remove the paper and insert it in Tray 1, and then touch <b>OK</b>.</p>
<b>Load Tray &lt;XX&gt; &lt;type&gt; &lt;size&gt; To use another tray, touch OK</b>	A cassette tray is empty, and there is another tray available.	<p>Load the tray with the requested paper or adjust the paper guides.</p> <p>If another tray is available, touch <b>OK</b> to select.</p>
<b>Load Tray &lt;XX&gt;: [type], [size]</b>	A cassette tray is empty, and there is no other tray available.	Load the tray with the requested paper or adjust the paper guides.
<b>Loading program &lt;XX&gt; Do not power off</b>	Programs and fonts are being loaded into the product's file system.	No action is necessary.
<b>Manually feed &lt;type&gt; &lt;size&gt;</b>	The specified job requires manual feed from Tray 1.	<p>Load the requested media into Tray 1.</p> <p>Touch <b>OK</b> to use paper in another tray.</p>
<b>Manually feed output stack Then touch OK to print second sides</b>	The first side of a manual duplex job printed and the product is waiting for the user to insert the output stack to complete the second side. For the normal <b>Manually Feed</b> message, printing continues automatically when the paper is reinserted. With this message, printing stops until the user touches the <b>OK</b> button, which allows time for straightening the output stack.	<p>The even-numbered pages of the two-sided document have printed. Follow the next steps to print the odd-numbered pages.</p> <ol style="list-style-type: none"> <li>1. Maintaining the same orientation, remove the document from the output bin. Do not discard blank pages.</li> <li>2. Flip the document over so it is face up.</li> <li>3. Load Tray 1 with the face-up document.</li> <li>4. To continue printing, touch <b>OK</b>.</li> </ol>

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>Manually Feed: [Type], [Size] To continue, touch OK</b>	A job has specified manual feed, and Tray 1 is loaded.	Touch <b>OK</b> to resume printing.
<b>Manually Feed: [Type], [Size] To use another tray, touch OK</b>	The job specified manual feed, the MP-tray is empty, and there is another tray available to use.	Touch <b>OK</b> to switch to another tray and resume printing.
<b>Moving solenoid To exit press STOP</b>	The solenoid and a motor are moving as part of a component test.	No action is necessary.
<b>No job to cancel</b>	This message appears when the <b>Stop</b> button is pressed.	No action is necessary.
<b>Non-HP supply installed</b>	A refilled color or a cloned color/mono cartridge was installed, and the product previously used all genuine HP supplies. Or, an unauthorized cartridge was installed, and the product previously used all genuine supplies.	Install a genuine HP cartridge, or touch <b>OK</b> to override the condition.
<b>Non-HP supply in use</b>	This message appears when the override button is pressed (on the non-HP supply installed error).	No action is necessary.
<b>Order &lt;color&gt; Cartridge</b>	The identified print cartridge is nearing the end of its useful life. The product is ready and will continue for the estimated number of pages indicated. Estimated pages remaining is based upon the historical page coverage of this product.  Printing will continue until a supply needs to be replaced.	Order a replacement print cartridge.
<b>Order Fuser Kit</b>	The fuser is near the 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 roller kit-Less than XXXX pages</b>	The roller kit is low due to rotations.	Order a replacement roller kit.
<b>Order Supplies</b>	One or more supplies need to be replaced.	Replace the supply.
<b>Order toner collection unit</b>	The toner collection unit is almost full.	Order a replacement toner collection unit.
<b>Order Transfer Kit</b>	The transfer kit is near the end of life. Printing can continue.	Order a replacement transfer kit.
<b>Order transfer kit Less than XXXX pages</b>	The number of pages remaining for this supply has reached the low threshold. Printing can continue.	Order a replacement transfer kit. Approximate pages remaining will vary depending on the types of documents printed.
<b>Performing Color Band Test</b>	The color-band test is being performed.	No action is necessary.
<b>Performing paper path test Press stop to cancel</b>	The product is performing a paper-path test.	No action is necessary.
<b>Performing upgrade &lt;Device&gt;</b>	The product is performing a product upgrade.	Do not turn the product off or press any buttons. The product will automatically restart when the upgrade is finished.
<b>Please wait</b>	The product is going offline.	No action is necessary.
<b>Printing</b>	The page is being printed.	No action is necessary.

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>Printing CMYK Samples</b>	The CMYK-samples page is being generated. The product will return to the ready state when the page is complete.	No action is necessary.
<b>PRINTING COLOR USAGE LOG</b>	The color-usage-log page is being generated. The product will return to the ready state when the page is complete.	No action is necessary.
<b>Printing configuration</b>	The product is generating the internal configuration page.	No action is necessary.
<b>PRINTING DEMONSTRATION</b>	The demo page is being generated. The product will return to the ready state when the page is complete.	No action is necessary.
<b>PRINTING DIAGNOSTICS PAGE</b>	The diagnostics page is being generated. The product will return to the ready state when the page is complete.	No action is necessary.
<b>Printing event log</b>	The event log page is being generated.	No action is necessary.
<b>Printing file directory</b>	The product is generating the file directory page.	No action is necessary.
<b>Printing font list</b>	The product is generating the font list.	No action is necessary.
<b>Printing menu map</b>	The product is generating the menu map.	No action is necessary.
<b>Printing mopy status</b>	The product is generating the mopy status report.	No action is necessary.
<b>PRINTING PQ TROUBLESHOOTING</b>	The print-quality troubleshooting test is being generated. The product will return to the ready state when the test completes.	No action is necessary.
<b>Printing registration page</b>	The product is generating the registration page.	No action is necessary.
<b>PRINTING RGB SAMPLES</b>	The print-quality troubleshooting test is being generated. The product will return to the ready state when the test completes.	No action is necessary.
<b>Printing stopped To continue, touch OK</b>	A Print/Stop test is running.	No action is necessary.
<b>Printing supplies status</b>	The product is generating the supplies status page.	No action is necessary.
<b>Printing usage page</b>	The product is generating the usage page.	No action is necessary.
<b>Processing copy &lt;X&gt; of &lt;Y&gt;...</b>	The product is currently processing or printing collated copies.	No action is necessary.
<b>Processing digital send job</b>	The product is processing a digital send job.	No action is necessary.
<b>Processing duplex job</b>	The product is processing a duplex job.	No action is necessary.
<b>Processing from tray &lt;X&gt;</b>	The product is processing a job. The <X> stands for the chosen paper tray.	No action is necessary.
<b>Processing-intermittent mode</b>	The internal temperature of the product is too hot, and the product is processing a job(s).	No action is necessary.
<b>Processing. . .</b>	The product is processing the current job but has not begun to pick up pages yet.	No action is necessary.

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>RAM Disk Device Failure - To Clear Touch OK</b>	The specified device failed.	Touch <b>OK</b> to clear the message.
<b>RAM Disk file operation failed To clear touch OK</b>	A PjL file system command was received that attempted to perform an illogical operation, such as downloading a file to a non-existent directory.	Touch <b>OK</b> to clear the message.
<b>RAM Disk is write protected To clear touch OK</b>	The device is protected and no new files can be written to it.	Touch <b>OK</b> to clear the message.
<b>RAM disk not initialized</b>	The file system device must be initialized before it can be used.	Initialize the device.
<b>Ready</b>	The product is online and ready to receive data.	No action is necessary.
<b>Receiving upgrade</b>	The product is receiving a firmware update.	No action is necessary.
<b>Remove All Print Cartridges</b>	The product is executing a component test and the component selected is belt only.	Remove all print cartridges.
<b>Remove At Least One Print Cartridge</b>	The product is executing a disable-cartridge check or component test and the component selected is the cartridge motor.	Remove one print cartridge.
<b>REMOVE CARTRIDGE LOCKS</b>	At least one print-cartridge lock is installed.	<ol style="list-style-type: none"> <li>1. Open the front door.</li> <li>2. Remove the cartridge locks from the front of each cartridge.</li> <li>3. Close the front door.</li> </ol>
<b>Replace &lt;color&gt; Cartridge</b>	The identified print cartridge has reached the end of life. Printing can continue.	Replace the specified print cartridge.
<b>Replace &lt;color&gt; cartridge - To continue, touch "OK"</b>	A print cartridge has reached the low threshold, and the Replace Supplies menu is set to stop at low.	Order a replacement print cartridge. Touch <b>OK</b> to continue printing.
<b>Replace DIMM &lt;X&gt; MEM test failure</b>	The listed DIMM is not functioning properly and must be replaced.	Replace the DIMM.
<b>Replace document feeder kit</b>	This warning message appears one month before the end of life when the maintenance interval has been reached.	Follow instructions included with the document feeder kit to install.
<b>Replace fuser kit</b>	The fuser kit has reached the low threshold.	Replace the fuser. See <a href="#">Fuser on page 200</a> .
<b>Replace fuser kit To continue, touch OK</b>	The fuser is nearing the end of its useful life. Printing can continue.	Replace the fuser kit. See <a href="#">Fuser on page 200</a> .
<b>Replace roller kit</b>	The roller kit has reached the low threshold.	Replace the roller kit. <a href="#">Secondary transfer assembly on page 207</a> .
<b>Replace Supplies - Override in Use</b>	<p>The product is set to continue printing even though a supply has reached the end of life.</p> <p><b>CAUTION:</b> Using the override mode can result in unsatisfactory print quality. HP recommends replacing the supply when this message appears. The HP Supplies Premium Protection Warranty coverage ends when a supply is used in override mode.</p>	No action is necessary.

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>Replace Supplies - Using black</b>	A color supply (or supplies) has reached the out condition and the <b>Color Supply Out</b> menu item is set to <b>Autocontinue black</b> .	No user input is required for printing to continue. Printing continues in black.
<b>Replace transfer kit</b>	The supply has reached the end of life. Printing can continue.	Replace transfer kit. See <a href="#">Intermediate transfer belt (ITB) on page 209</a> .
<b>Replace transfer kit To continue, touch OK</b>	The transfer kit is at the end of life. Printing can continue, but print quality might be reduced.	The product is set to stop printing when a supply needs to be ordered. To continue printing, touch <b>OK</b> .  Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 209</a> .
<b>Request Accepted Please Wait</b>	This message appears when a request to print an internal page is accepted but cannot print.	Wait for the internal page to print.
<b>Resend external accessory firmware</b>	An external accessory requires a firmware upgrade. Printing can continue, but jams may occur if the job uses the external accessory.	Perform a firmware upgrade.
<b>Resend upgrade</b>	A firmware upgrade did not complete successfully.	Upgrade the firmware again.
<b>Restoring factory settings</b>	A <b>Restore Factory Settings</b> reset is being performed.	No action is necessary.
<b>Restoring...</b>	A <b>Restore Last Saved State</b> , <b>Restore Print Modes</b> , <b>Restore Optimization</b> , or <b>Restore Color Values</b> operation is being performed.	No action is necessary.
<b>Restricted from printing in color</b>	The print job is being forced to print in black either because the product is set to print only in black or because the user ID and application ID do not have color printing permissions.	No action is necessary.
<b>RFU LOAD ERROR</b>	A failure occurred during the remote firmware upgrade.	Resend the upgrade.
<b>ROM Disk Device Failure - To Clear Touch OK</b>	The specified device failed.	Touch <b>OK</b> to clear.
<b>ROM Disk file operation failed To clear touch OK</b>	A P.J.L file system command was received that attempted to perform an illogical operation, such as downloading a file to a non-existent directory.	Touch <b>OK</b> to clear the message.
<b>ROM Disk is write protected To clear touch OK</b>	The device is protected and no new files can be written to it.	Touch <b>OK</b> to clear the message.
<b>ROM Disk Not Initialized</b>	The file system device must be initialized before it can be used.	Initialize the device.
<b>Rotating &lt;color&gt; Motor</b>	A component test is in progress; the component selected is the <color> cartridge motor.	Press <b>Stop</b> to stop the test.
<b>Rotating Motor - To exit press STOP</b>	The product is executing a component test and the component selected is a motor.	Press <b>Stop</b> to stop the test.
<b>Sanitizing Disk &lt;X&gt;% Complete Do not power off</b>	The hard disk is being cleaned.	Contact the network administrator.



**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>SCAN FAILURE</b>	The scan was unsuccessful and the document needs to be scanned again.	If necessary, reposition the document to scan again, and then press <b>Start</b> .
<b>Scanning...page &lt;X&gt;</b>	The product is scanning a job in the ADF.	No action is necessary.
<b>Scanning...page from glass</b>	The product is scanning from the glass.	No action is necessary.
<b>Searching... please wait</b>	The product is searching.	No action is necessary.
<b>Send complete</b>	The send process is complete.	No action is necessary.
<b>Sending digital send job</b>	The product is sending a digital-send job.	No action is necessary.
<b>Sending to external destinations</b>	The product is sending a digital-send job.	No action is necessary.
<b>Size mismatch in tray XX</b>	The media in the listed tray does not match the size specified for that tray.	Load the correct media.
<b>Sleep mode on</b>	The product is in sleep mode.	No action is necessary.
<b>SMTP Gateways OK</b>	The status of the SMTP gateways is normal.	No action is necessary.
<b>Testing Please wait</b>	The product is temporarily unavailable.	No action is necessary.
<b>To return to ready press STOP</b>	The product is paused, and there are no error messages pending at the display.	No action is necessary.
<b>Total images: &lt;X&gt;</b>	The product has processed the number of images indicated by <X>.	No action is necessary.
<b>Tray &lt;X&gt;: [Type], [Size]</b>	The tray is closed if the Size/Type Prompt menu is set to Display.	No action is necessary.
<b>Tray &lt;XX&gt; empty: [type], [size]</b>	The specified tray is empty and needs to be loaded, but the current job does not need this tray to print.	Load the tray.
<b>Tray &lt;XX&gt; open</b>	The specified tray is open or not closed completely; the tray is not required to print and is not blocking the paper path of a tray required for printing.	Close the tray.
<b>Type Mismatch In Tray &lt;XX&gt;</b>	The specified tray contains a media type that does not match the configured type.	The specified tray will not be used until this condition is addressed. Printing can continue from other trays.
<b>Unable to connect</b>		To temporarily hide this message in order to fax or send to e-mail, touch <b>Hide</b> .
<b>UNABLE TO COPY</b>	The product was unable to copy the document.	To temporarily hide this message in order to fax or send to e-mail, touch <b>Ignore</b> .
<b>Unable to mopy job</b>	Because of a memory, disk, or configuration problem, a mopy job cannot be moped. Only one copy will be produced.	Try increasing the product memory or reducing the complexity of the job.
<b>UNABLE TO SEND</b>		To temporarily hide this message in order to fax or send to e-mail, touch <b>Ignore</b> .
<b>UNABLE TO SEND FAX</b>	The product was unable to send the fax.	Contact the network administrator.
<b>Unauthorized supply in use</b>	The product is using a non-HP supply.	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.

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
Unsupported data on [FS] DIMM in slot	The data on the DIMM is not supported.	The DIMM may need to be replaced. Turn off the product before removing it. To clear this warning, touch <b>OK</b> .
Unsupported USB accessory detected	The USB accessory is not recognized and cannot be used by this product.	Remove the USB accessory. To clear this message, touch <b>OK</b> .
Upgrade complete To continue, turn off and then on	Upgrade complete.	Turn the product off and then on.
USB ACCESSORY UNAVAILABLE	The USB accessory was installed after the product was turned on. The product does not support plug-and-play operation.	<ol style="list-style-type: none"> <li>1. Remove the USB accessory.</li> <li>2. Turn the product off, and then plug in the USB accessory.</li> <li>3. Turn the product on.</li> </ol>
USB Device Failure - To Clear Touch <b>OK</b>	The specified device failed.	Touch <b>OK</b> to clear.
USB file operation failed To clear touch <b>OK</b>	A P.J.L file system command was received that attempted to perform an illogical operation, such as downloading a file to a non-existent directory.	Touch <b>OK</b> to clear the message.
USB HUBS NOT FULLY SUPPORTED	Some USB hubs require more power than the product has available.	<ol style="list-style-type: none"> <li>1. Remove the USB hub.</li> </ol>
USB is write protected To clear touch <b>OK</b>	The device is protected and no new files can be written to it.	Touch <b>OK</b> to clear the message.
USB needs too much power	Power requirements for the USB accessory attached to this product are beyond supported limits.	Detach the accessory, and then turn the product off and then on. Try a similar accessory that has its own power supply or requires less power.
USB Not Initialized	The file system device must be initialized before it can be used.	Initialize the device.
USB storage <X> is initializing	The designated USB storage unit is initializing.	No action is necessary.
USB storage <X> is not functional	A parameter in the USB storage is not working correctly.	Turn the product off. Disconnect the USB storage accessory, and replace with a new USB storage accessory.
USB storage <X> removed	A USB storage accessory has been disconnected since the product was turned on.	To continue using the USB accessory, turn the product off and reconnect it. Turn the product off and then on to clear the message.
USED SUPPLY IN USE	One or more used supplies have been installed.	<ol style="list-style-type: none"> <li>1. Install new supplies.</li> <li>2. If you believe you purchased a genuine HP supply, visit us at <a href="http://www.hp.com/go/anticounterfeit">www.hp.com/go/anticounterfeit</a>. Any repair required as a result of using used cartridges is not covered under warranty. Supply status and features depending on supply status are not available.</li> </ol>
Wait for printer to reinitialize	The user changed the RAMDISK settings. The product automatically restarts.	No action is necessary.
Waiting for tray <XX> to lift	The tray number specified by <XX> is in the process of lifting the paper to the top of the tray for proper feeding.	No action is necessary.

**Table 7-12 Control-panel messages (continued)**

Control panel message	Description	Recommended action
<b>Warming up</b>	The product is coming out of sleep-delay mode. Printing will continue once the product completely warms up.	No action is necessary.
<b>Warming up scanner</b>	The scanner is warming up.	No action is necessary.
<b>Windows login required to use this feature</b>	A Windows login is required.	Enter a Windows login.

# Event log messages

## Print an event log

### Print the event log

1. Touch **Administration**.
2. Scroll to and touch **Troubleshooting**.
3. Touch **Print Event Log**.

## Show an event log

### View the event log from the control panel

1. Touch **Administration**.
2. Scroll to and touch **Troubleshooting**.
3. Touch **Show Event Log**.

## Clear the event log

Use the **Service** menu to clear the event log.

### Clear the event log

1. Touch **Administration**.
2. Scroll to and touch **Service**.
3. Touch **Clear Event Log**.

## 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

Event log message	Description	Comments
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>	
13.02.00	PAPER STOP JAM IN TRAY 2 AT SENSOR D	
13.05.00	PAPER LATE JAM BETWEEN SENSORS D AND F	
13.06.00	PAPER JAM IN FUSER	
13.10.00	PAPER LATE JAM IN DUPLEX AREA SENSORS F-G	
13.11.00	PAPER STOP JAM IN DUPLEX AREA AT SENSOR G	
13.12.00	PAPER LATE JAM IN DUPLEX AREA SENSORS H-D	
13.13.00	PAPER STOP JAM IN DUPLEX AREA SENSORS G-H	
13.1C.00	FUSER WRAP JAM, PAPER IN FUSER	
13.20.00	PAPER EJECT JAM AT SENSORS E, F-G	
13.21.00	DOOR OPEN 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	PAPER LATE JAM NEAR FUSER AT SENSORS F-J	
13.30.00	PAPER LATE JAM, JAM IN CASSETTE	
14.X	Feed roller error <ul style="list-style-type: none"> <li>X = 2 Tray 2 (upper cassette)</li> <li>X = 3 Tray 3 (lower cassette)</li> </ul>	Feed roller life warning
54.05	Printer error OHT sensor out of range	Waste toner sensor failure
54.0D.XX	Halftone calibration errors <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. Scroll to and touch <a href="#">Administration</a>.</li> <li>2. Scroll to and touch <a href="#">Print Quality</a>.</li> <li>3. Touch <a href="#">Calibration/Cleaning</a>.</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>Touch <a href="#">Full Calibration</a>.</li> <li>Touch <a href="#">Calibrate</a>.</li> </ol>
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>Scroll to and touch <a href="#">Administration</a>.</li> <li>Scroll to and touch <a href="#">Print Quality</a>.</li> <li>Touch <a href="#">Calibration/Cleaning</a>.</li> <li>Touch <a href="#">Full Calibration</a>.</li> <li>Touch <a href="#">Calibrate</a>.</li> </ol>
54.14	CPR sensor abnormality	<ol style="list-style-type: none"> <li>Scroll to and touch <a href="#">Administration</a>.</li> <li>Scroll to and touch <a href="#">Print Quality</a>.</li> <li>Touch <a href="#">Calibration/Cleaning</a>.</li> <li>Touch <a href="#">Full Calibration</a>.</li> <li>Touch <a href="#">Calibrate</a>.</li> </ol>
54.1E.XX	Halftone calibration error.	<ol style="list-style-type: none"> <li>Scroll to and touch <a href="#">Administration</a>.</li> <li>Scroll to and touch <a href="#">Print Quality</a>.</li> <li>Touch <a href="#">Calibration/Cleaning</a>.</li> <li>Touch <a href="#">Full Calibration</a>.</li> <li>Touch <a href="#">Calibrate</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 270</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 270</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 8X01	Permanent storage was reset to factory default because the current value was not valid.	

Event log message	Description	Comments
68 8X02	The permanent storage is full.	
8x7345	Disk was successfully cleaned or sanitized.	
8x7346	The disk cleaning or sanitization failed.	
88.00	The engine self-test failed.	
99.00.01	Upgrade not performed, file is corrupt.	CRC error in the firmware image (bad image)
99.00.02	Upgrade not performed, timeout during receive.	IO timeout when reading header number and size
99.00.03	Upgrade not performed, error writing to disk	Disk error: write operation failed
99.00.04	Upgrade not performed, timeout during receive.	IO timeout when reading rest of header
99.00.05	Upgrade not performed, timeout during receive.	IO timeout when reading image data
99.00.06	Upgrade not performed, error reading upgrade.	Unexpected read error when reading header number and size
99.00.07	Upgrade not performed, error reading upgrade.	Unexpected read error when reading rest of header
99.00.14	Upgrade not performed, the file is invalid	The header number is greater than 2, but the header size is too small for this future header version.

# 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 on page 56</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 paper and print media on page 62</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.

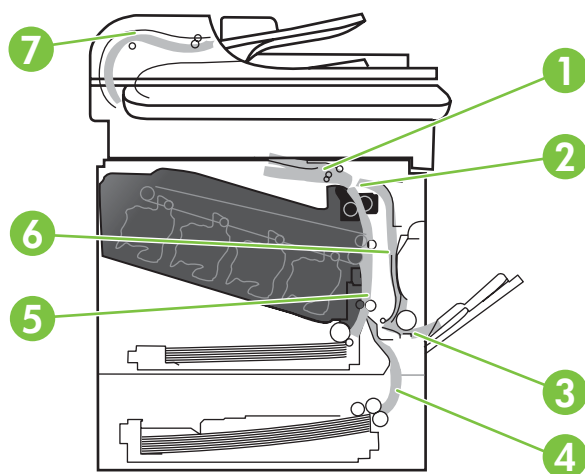


## Jam locations

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	Tray 2 pickup area
6	Duplexing area
7	Document feeder area

## Clear jams

When a jam occurs, a message appears on the control-panel display that describes the location of the jam.

 **WARNING!** To avoid electrical shock, remove any necklaces, bracelets, or other metal items before reaching into the inside of the product.

Type of jam	Procedure
13.XX.YY - Jam inside right door	See <a href="#">Clear jams in the right door on page 475</a>
13.XX.YY - Jams inside right door	
13.XX.YY - Fuser area jam	See <a href="#">Clear jams in the right door on page 475</a> .
13.XX.YY - Fuser wrap jam	
13.XX.YY - Jam below control panel	See <a href="#">Clear jams in the output bin area on page 479</a> .

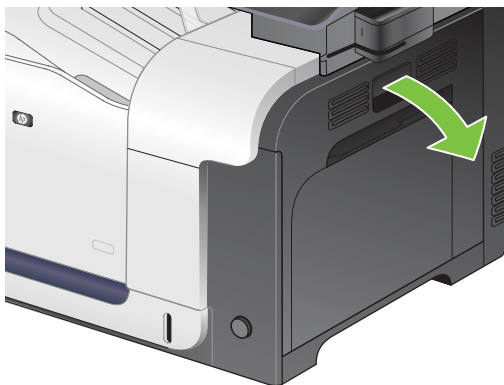
Type of jam	Procedure
13.XX.YY - Jam in tray 1	See <a href="#">Clear jams in Tray 1 on page 480.</a>
13.XX.YY - Jam in tray 2	See <a href="#">Clear jams in Tray 2 on page 482.</a>
13.XX.YY - Jam in tray 3	See <a href="#">Clear jams in the optional 500-sheet paper and heavy media tray (Tray 3) on page 483</a>
13.XX.YY - Jam inside lower-right door	See <a href="#">Clear jams in the lower right door (Tray 3) on page 484.</a>

## Clear jams in the right door

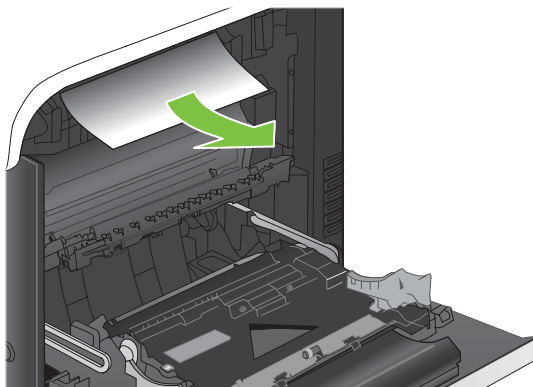
△ **CAUTION:** The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.

💡 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcm3530mfp-right-door-jams](http://www.hp.com/go/cljcm3530mfp-right-door-jams).

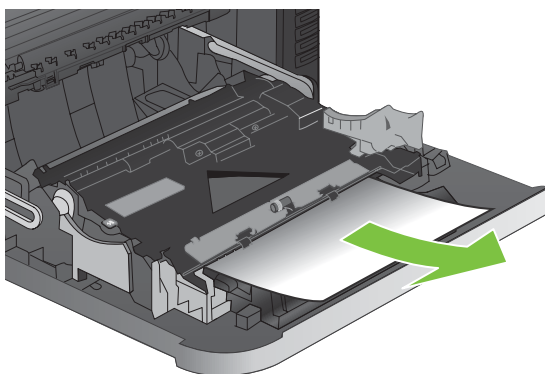
1. Open the right door.



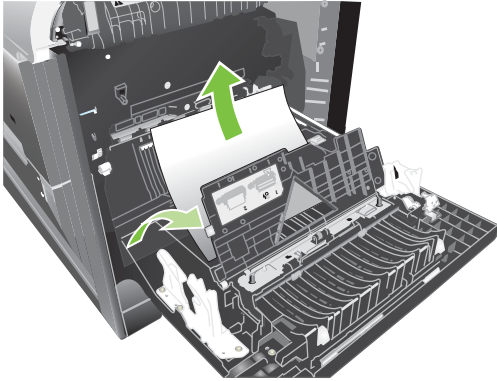
2. If paper is jammed as it enters the output bin, gently pull the paper downward to remove it.



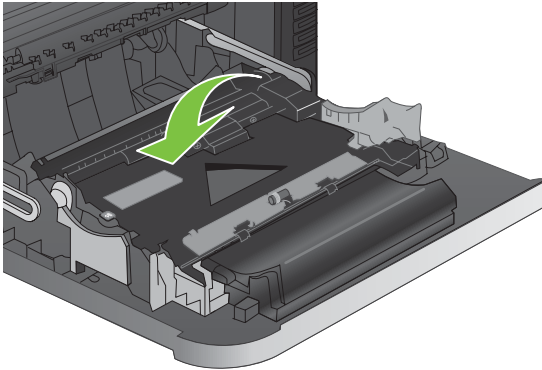
3. If paper is jammed inside the right door, gently pull the paper to remove it.



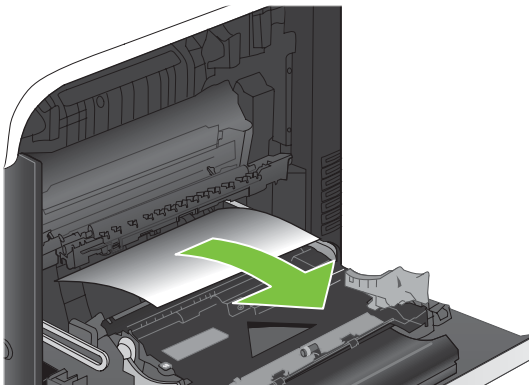
4. Lift the paper-feed cover on the inside of the right door. If jammed paper is present, gently pull the paper straight out to remove it.



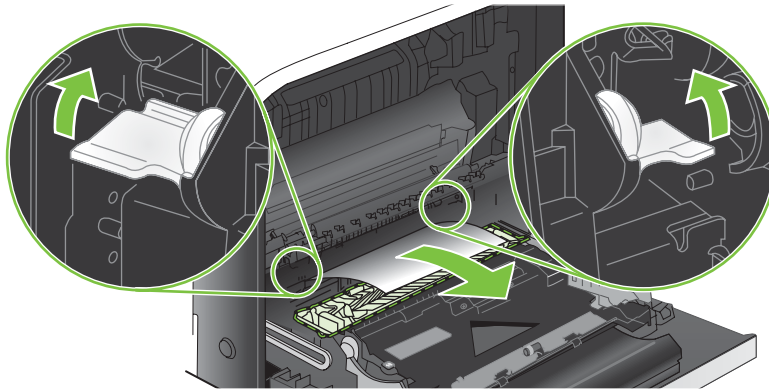
5. Close the paper-feed cover.



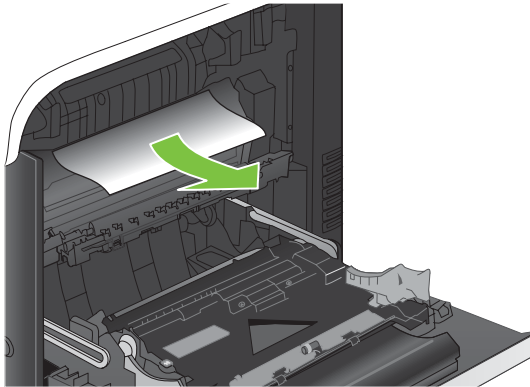
6. Gently pull the paper out of the pickup area.



7. Look for paper in the Tray 2 roller area. Near the bottom of the right side, squeeze the two green 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.

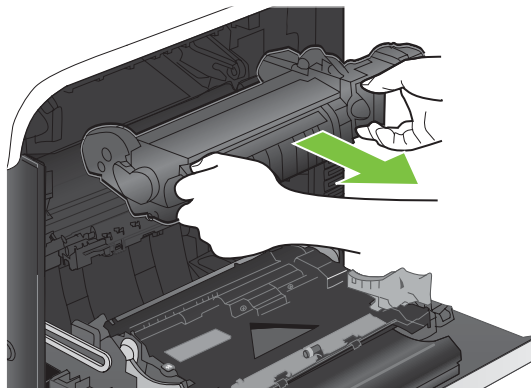


△ **CAUTION:** Do not touch the rollers on the transfer roller. Contaminates can affect print quality.

9. Paper could be jammed inside the fuser where it would not be visible. Remove the fuser to check for jammed paper inside.

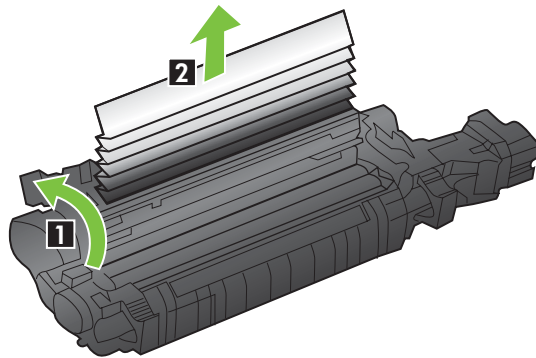
△ **CAUTION:** The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.

- a. Grasp the fuser handles, lift up slightly, and pull straight out to remove the fuser.



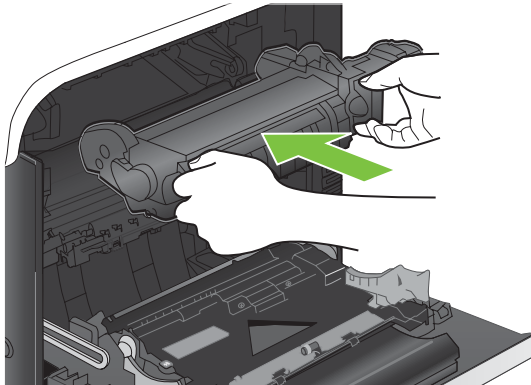
- b. Open the jam-access door. If paper is jammed inside the fuser, gently pull it straight up to remove it. If the paper tears, remove all paper fragments.

△ **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.

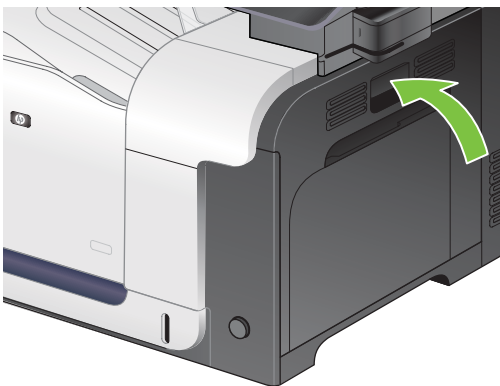


- |   |                           |
|---|---------------------------|
| 1 | Open the jam-access door. |
| 2 | Remove the jammed paper.  |


- 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/cljcm3530mfp-output-jams](http://www.hp.com/go/cljcm3530mfp-output-jams).


1. If paper is visible from the output bin, grasp the leading edge and remove it.



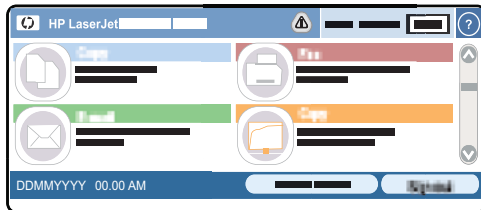
2. If jammed paper is visible in the duplex output area, gently pull it to remove it.



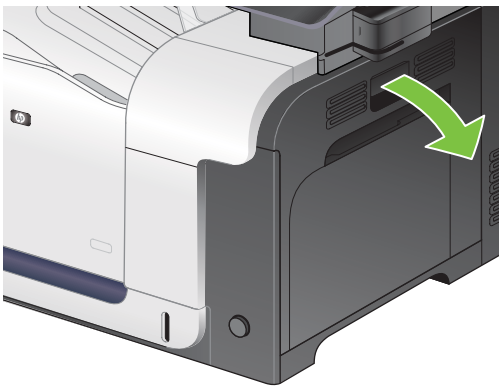
## Clear jams in Tray 1

 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcm3530mfp-tray1-jams](http://www.hp.com/go/cljcm3530mfp-tray1-jams).

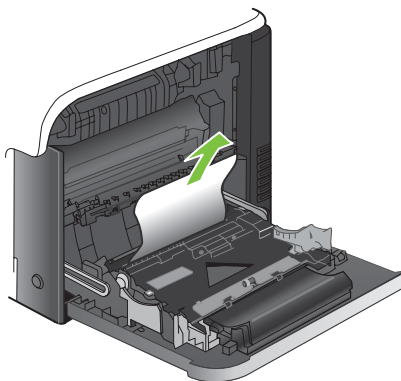
1. If jammed paper is visible in Tray 1, clear the jam by gently pulling the paper straight out. Touch the **OK** button to clear the message.



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.

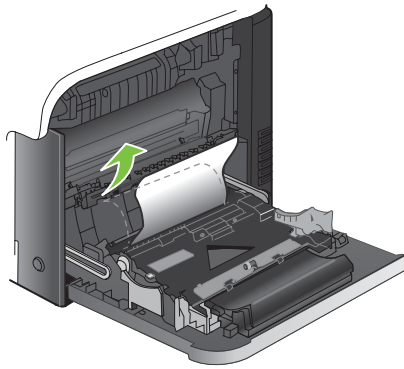


3. If paper is visible inside the right door, gently pull the trailing edge to remove it.

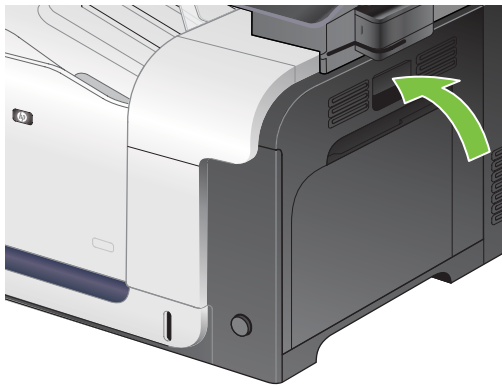




4. Gently pull the paper out of the pick up area.



5. Close the right door.

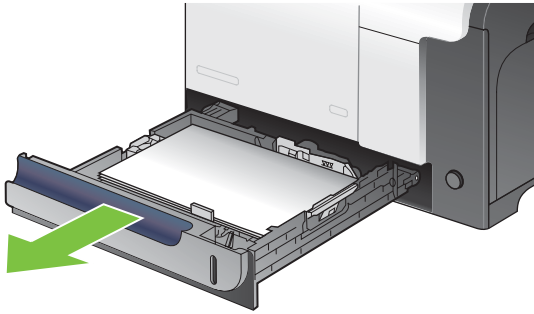


## Clear jams in Tray 2

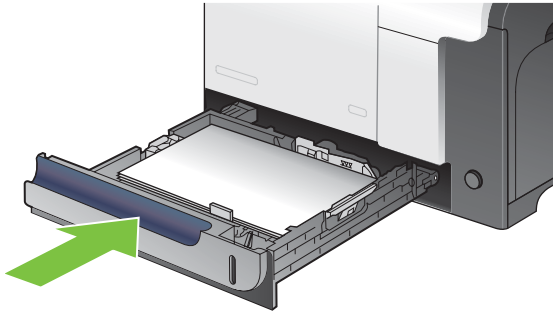
△ **CAUTION:** Opening a tray when paper is jammed can cause the paper to tear and leave pieces of paper in the tray, which might cause another jam. Be sure to clear jams before opening the tray.

💡 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcm3530mfp-tray2-jams](http://www.hp.com/go/cljcm3530mfp-tray2-jams).


1. Open Tray 2 and make sure that the paper is stacked correctly. Remove any jammed or damaged sheets of paper.



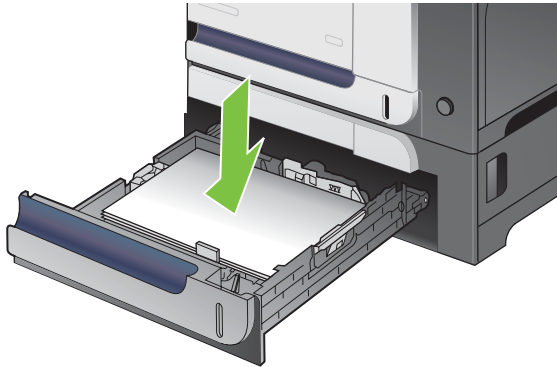
2. Close the tray.



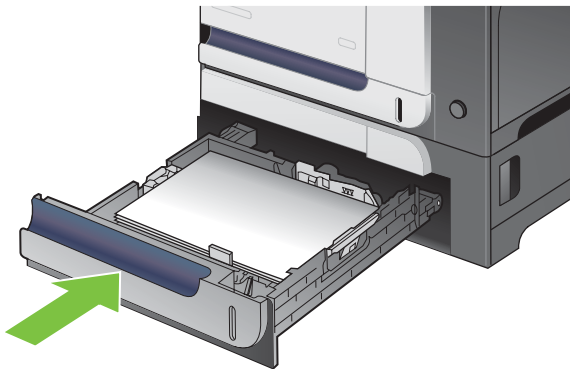
## Clear jams in the optional 500-sheet paper and heavy media tray (Tray 3)

 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcm3530mfp-tray3-jams](http://www.hp.com/go/cljcm3530mfp-tray3-jams).


1. Open Tray 3 and make sure that the paper is stacked correctly. Remove any damaged or jammed sheets of paper.



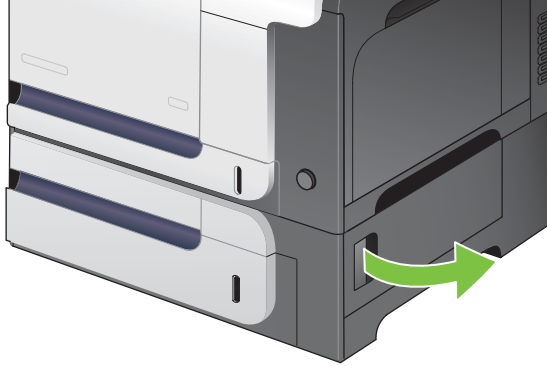
2. Close Tray 3.



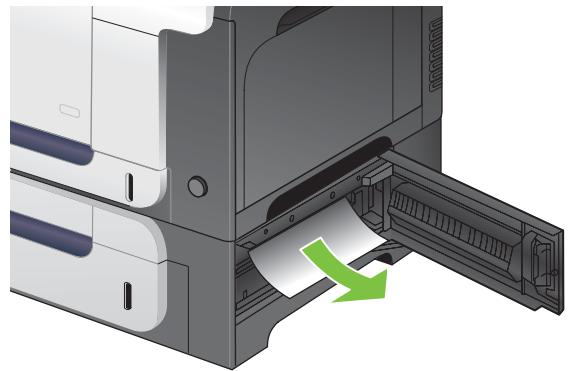
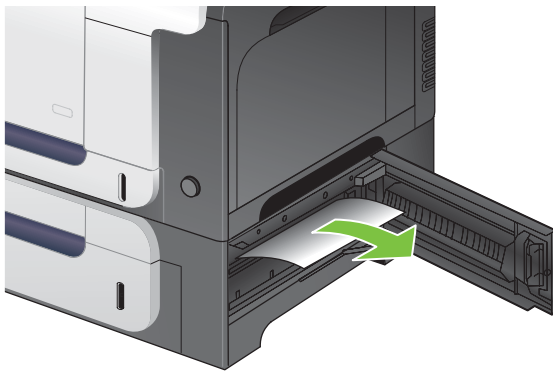
## Clear jams in the lower right door (Tray 3)

 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcm3530mfp-lower-right-door-jams](http://www.hp.com/go/cljcm3530mfp-lower-right-door-jams).

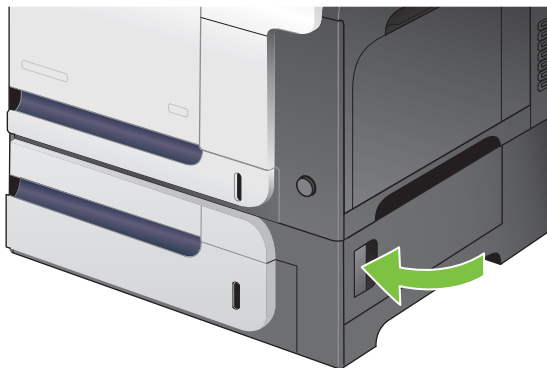
1. Open the lower right door.




2. If paper is visible, gently pull the jammed paper up or down to remove it.



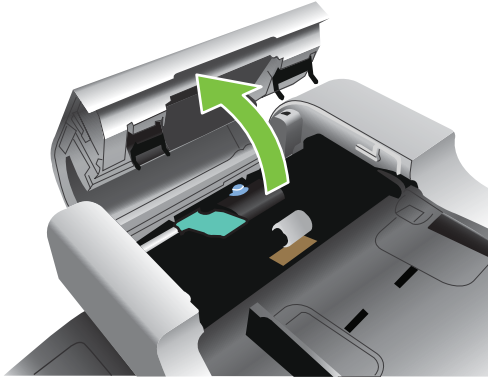
3. Close the lower right door.



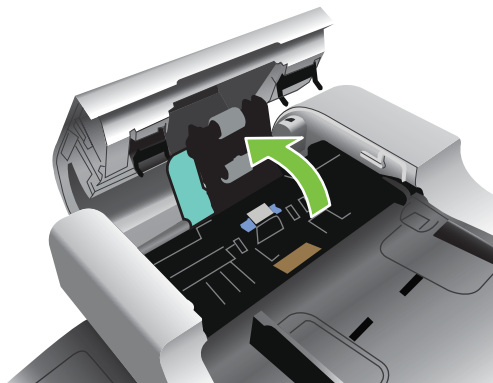
## Clear jams in the document feeder

 **TIP:** To see an animation of this procedure go to this Web site: [www.hp.com/go/cljcm3530mfp-adf-jams](http://www.hp.com/go/cljcm3530mfp-adf-jams).

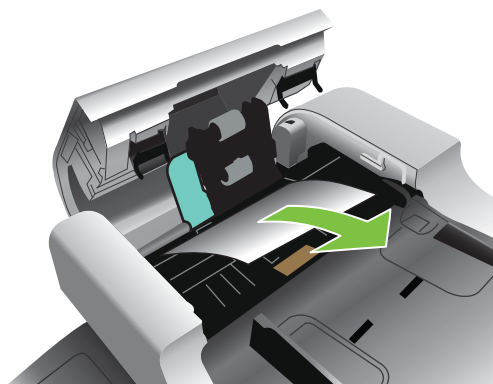
1. Open the document feeder cover.



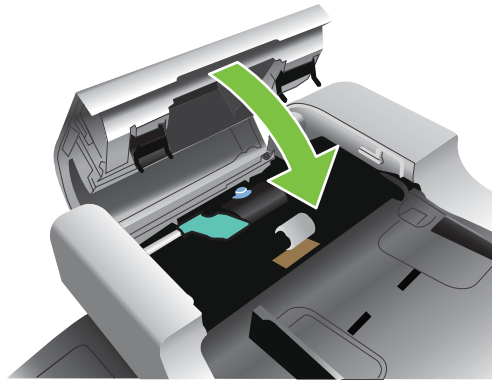
2. Lift the rollers.



3. Remove any jammed paper.



4. Close the document feeder cover.



## Jam recovery

This product provides jam recovery, a feature that reprints jammed pages. The following options are available:

- **Auto** setting — The product attempts to reprint jammed pages when sufficient memory is available.
- **Off** setting — The product does not attempt 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** setting — 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. Touch the **Administration** menu and then touch the **Device Behavior** setting.
2. Touch the **Warning/Error Behavior** setting and then touch the **Jam Recovery** setting.
3. Touch an option and then touch the **Save** button.

# Solve paper-handling problems

Use only paper that meets the specifications outlined in the *HP LaserJet Printer Family Print Media Guide*. Always configure the paper type on the control panel to match the type of paper that is loaded in the tray.

## 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.

## Product feeds incorrect page size

Product feeds incorrect page size	
Cause	Solution
The correct size paper is not loaded in the input tray.	Load the correct size paper in the input 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 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 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 paper and print media on page 62</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.

### Product will not duplex (print 2-sided jobs) or duplexes incorrectly

Cause	Solution
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.
The product configuration is not set for duplexing.	<p>In Windows, run the automatic configuration feature:</p> <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>

# Use manual print modes

Try the following multi-purpose (MP) modes to see if they solve the image-quality problems. At the control panel, touch **Administration**, and then **Print Quality**, and then scroll to the **Print Modes** or **Optimize** submenus.

If you are having print-quality problems when using a specific paper type, use the **Print Modes** submenu to override the factory-default mode setting can sometimes resolve the print quality problems. You can associate a different print mode with each paper type.

Use the **Optimize** submenu to optimize print engine parameters to get the best possible print quality for all the jobs rather than printing by media type. Use the **Restore Optimize** option to reset all of the **Optimize** parameters back to the factory default settings

**Table 7-13** MP modes under the **Adjust paper types>** sub menu

PRINT MODE	<ul style="list-style-type: none"><li>• Plain</li><li>• Light 60-74g</li><li>• Intermediate 85-95g</li><li>• Bond</li><li>• Recycled</li><li>• Mid-Weight 96-110g</li><li>• Heavy 111-130g</li><li>• Mid-Wt Glossy 96-110</li><li>• Hvy Glossy 111-130g</li><li>• Extra Heavy 131-175</li><li>• Xhvy Glossy 131-175g</li><li>• Card Stock 176-220g</li><li>• Card Glossy 176-220</li><li>• Transparency</li><li>• Labels</li></ul>
<b>NOTE:</b> Not all print modes are available for all paper types.	

**Table 7-14** MP modes under the **Optimize** submenu

BACKGROUND	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.
REGISTRATION	Set to <b>ALTERNATIVE</b> when color misregistration occurs.
TRANSFER CONTROL	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.

**Table 7-14 MP modes under the Optimize submenu (continued)**

<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 Any Size and <b>Any Type</b> for Tray 1.
<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>TRACKING CONTROL</b>	Improves color stability by adjusting the bias voltage. Make sure this mode is set to <b>ON</b> .
<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>NORMAL PAPER</b>	Set to <b>SMOOTH</b> when printing on smooth paper of normal weight.
<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>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 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.
<b>RESTORE OPTIMIZE</b>	Return all settings to the factory-default settings.




# Solve image-quality problems



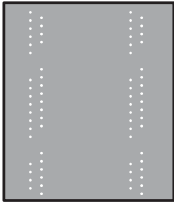

This section helps you define print-quality problems and what to do to correct them. Often print-quality problems can be handled easily by making sure that the product is properly maintained, using paper that meets HP specifications, or running a cleaning page.


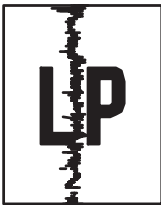




## Image defects table

The following examples depict letter-size paper that has passed through the product short-edge first. These examples illustrate problems that would affect all of 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.

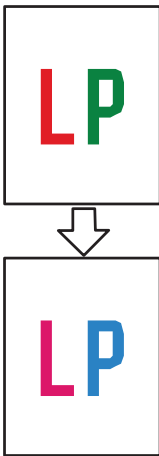


For ADF image-quality problems, verify that the scanner is scanning from the ADF and not the scanner glass. If it is scanning from the glass, you should see the scanner illuminate and the optical head move the entire length of the glass. If no document is on the glass, a blank page is produced.


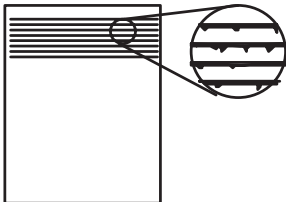


Problem	Cause	Solution
Print is light or faded on entire page. 	Poor contacts exist on the ITB unit and the product grounding unit.  Poor secondary transfer contacts with exist on the secondary transfer roller and the ITB.	Clean the grounding contacts. If the problem remains after cleaning, check the contacts for damage. Replace any deformed or damaged parts.  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.  Poor primary charging bias contacts with the print cartridge and product.  Poor developing bias contacts with the print cartridge 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.
Image is too dark. 	The image-density sensor is defective.	Replace the color misregistration/image-density sensor unit.



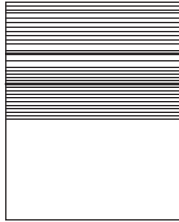
Problem	Cause	Solution
Page is blank. 	<p>The source document was not placed in the ADF input tray face-up.</p> <p>The source document was not detected in the ADF input tray.</p> <p>A source document was not picked up when attempting to feed multiple documents.</p>	<p>Verify that the source document is face-up in the ADF input tray.</p> <p>Remove and then reinsert the source document into the ADF, making sure that it is placed face-up.</p> <p>Inspect the ADF pickup and feed rollers and the ADF separation pad for damage. Clean the rollers if they are dirty. If the ADF separation pad or rollers are worn, replace them. See <a href="#">ADF roller assembly and separation pad on page 215</a>.</p>
	<p>The high-voltage power-supply lower is defective (no developing bias output).</p>	<p>Replace the high-voltage power-supply lower. See <a href="#">High-voltage power supply lower on page 308</a>.</p>
The page is all black or a solid color. 	<p>Poor contact exists in the primary charging bias or developing bias contacts between the print cartridge and the product.</p>	<p>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.</p>
White spots appear in an image 	<p>The static charge eliminator is dirty.</p> <p>The primary transfer roller is deformed or has deteriorated.</p> <p>The secondary transfer roller is deformed or has deteriorated.</p>	<p>Clean the static charge eliminator.</p> <p>Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 209</a>.</p> <p>Replace the secondary-transfer-roller. See <a href="#">Secondary transfer roller on page 205</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 205</a>.</p> <p>Clean the dirty parts. If the dirt does not come off, replace the guide.</p> <p>Execute the cleaning page. If the dirt does not come off, replace the fuser.</p>

Problem	Cause	Solution
Vertical streaks or bands appear on the page. 	The ADF small glass might be dirty.	Clean the ADF small glass.
	Scratches are present on the circumference of the photosensitive drum.	Replace the print cartridge of the color that matches the defect.
	Scratches are present on the circumference of the fuser roller.	Replace the fuser. See <a href="#">Fuser on page 200</a> .
	Scratches are present on the circumference of the ITB.	Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 209</a> .
	The ITB drive roller is deformed or has deteriorated.	
	The ITB cleaning mechanism is malfunctioning.	
Vertical white lines appear in a particular color. 	The laser beam window is dirty.	Clean the window and remove any foreign substances.
	Scratches are present on the circumference of the developing cylinder or photosensitive drum.	Replace the print cartridge of the color that matches the defect.
	The laser/scanner-unit mirror is dirty.	Replace the laser/scanner assembly. See <a href="#">Laser/scanner assembly (Y/M) on page 325</a> or <a href="#">Laser/scanner assembly (C/Bk) on page 332</a> .
Vertical white lines appear in all colors. 	Horizontal scratches on the fuser roller.	Replace the fuser. See <a href="#">Fuser on page 200</a> .
	Scratches are present on the circumference of the ITB.	Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 209</a> .
Horizontal lines appear on the page. 	Repetitive horizontal lines appear.	Use the repetitive defects ruler to identify the dirty roller. Clean the roller. If the roller cannot be cleaned, replace the roller.
	Horizontal scratches are present on the photosensitive drum.	Replace the print cartridge of the color that matches the defect.
	Horizontal scratches are present on the fuser roller.	Replace the fuser. See <a href="#">Fuser on page 200</a> .
A horizontal white line appears on the page. 	Repetitive horizontal white lines appear.	Use the repetitive defects ruler to identify the dirty roller. Clean the roller. If the roller cannot be cleaned, replace the roller.
	Horizontal scratches are present on the photosensitive drum.	Replace the print cartridge of the color that matches the defect.
	Scratches are present on the circumference of the ITB.	Replace the ITB. See <a href="#">Intermediate transfer belt (ITB) on page 209</a> .



Problem	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 on page 308</a> .
	The laser/scanner unit is defective.	Replace the laser/scanner assembly. See <a href="#">Laser/scanner assembly (Y/M) on page 325</a> or <a href="#">Laser/scanner assembly (C/Bk) on page 332</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 205</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 on page 339</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 200</a> .
	The fuser control PCA is defective.	Replace the low-voltage power supply. See <a href="#">Fuser on page 200</a> .
	The thermistor is defective.	Replace the fuser. See <a href="#">Fuser on page 200</a> .
	The fuser heater is defective.	

Problem	Cause	Solution
Some color is misregistered.  	The product is incorrectly calibrated.  The ITB unit is defective.  The drive gear of the ITB motor is worn or chipped.  The RD sensor is defective.  The laser/scanner unit is defective.  The print cartridge is defective.	Calibrate the product.  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 209</a> .  Check each drive gear between the ITB drive roller and the ITB motor. If the gear is worn or chipped, replace the drive unit.  Open the 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 297</a> .  Replace the laser/scanner assembly. See <a href="#">Laser/scanner assembly (Y/M) on page 325</a> or <a href="#">Laser/scanner assembly (C/Bk) on page 332</a> .  Replace the print cartridge of the affected color.
Toner smears appear on the media.  	The product has residual media.  Poor grounding contacts exist between each print cartridge and the product.  The fuser inlet guide is dirty.	Remove the residual media.  Clean the grounding contacts on each print cartridge and the product. If the problem remains after cleaning, check the contacts for damage. Replace any deformed or damaged parts.  Clean the fuser inlet guide.
The printed page contains misformed characters.  	The ADF white backing is not uniformly pressing the source document against the flatbed glass.  The product is experiencing page skew.  The laser/scanner unit is defective.	Check the ADF white backing for damage or warping. Replace the ADF if necessary. See <a href="#">Automatic document feeder (ADF) on page 212</a> .  See the "Text or graphics are skewed on the printed page" row in this table.  Replace the laser/scanner assembly. See <a href="#">Laser/scanner assembly (Y/M) on page 325</a> or <a href="#">Laser/scanner assembly (C/Bk) on page 332</a> .
Text or graphics are skewed on the printed page.  	The ADF input tray guides are not correctly adjusted.  A source document was not picked up when attempting to feed multiple documents.  The registration shutter spring is unhooked.  The registration shutter spring is deformed.	Make sure that the ADF input tray guides are adjusted so that they are lightly touching the sides of the paper stack.  Inspect the ADF pickup and feed rollers and the ADF separation pad for damage. Clean the rollers if they are dirty. If the ADF separation pad or rollers are worn, replace them. See <a href="#">ADF roller assembly and separation pad on page 215</a> .  Check the spring and place it in the correct position.  Replace the registration assembly. See <a href="#">Registration assembly on page 303</a> .

Problem	Cause	Solution
<p>The printed page contains wrinkles or creases.</p> 	<p>The roller or media feed guide is dirty.</p> <p>A 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>
<p>The front of the page is dirty.</p> 	<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 200</a>.</p>
<p>Unexpected image</p> 	<p>The copied image does not look like the source document.</p> <p>The scanner-control board (SCB) has failed.</p>	<p>If the copy was made using the ADF, make sure that no media is on the flatbed glass from a previous copy job.</p> <p>Replace the SCB. See <a href="#">Scanner-control board (SCB) on page 279</a>.</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.
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 472</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 [Print information pages on page 80](#).

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 [Networking and I/O on page 31](#).

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 85](#).


**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 type an eight-digit PIN number. The PIN for the HP Color LaserJet CM3530 MFP Series is 11353008.

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

1. Scroll to and touch **Administration**.
2. Scroll to and touch **Service**.
3. Touch the **Service use only:** text box near the center of the control-panel display. The touchscreen numeric keypad appears.
4. Touch the touchscreen numeric keypad buttons to type the PIN (11353008).
5. Touch **OK** to save the PIN or **Cancel** to exit the screen.
6. The PIN displays in the **Service use only:** text box as **\*\*\*\*\***.
7. Touch **OK** to open the **Service** menu or **Cancel** to exit the screen.

The following menu items appear in the **Service** menu:

Menu item	Sub-menu item	Description
Clear Event Log		Use this item to clear the product event log.
Mono Cycle Count		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).
Color Cycle Count		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).
Refurbish Cycle Count		Use this item to record the page count when the product was refurbished.
Document Feeder Kit Count:		Set the total number of pages that have been fed through the ADF.
Document Feeder Kit Interval		Total number of pages since the document feeder kit was replaced.
ADF Count		Set the total pages fed through the ADF.
Flatbed Count		Set the total pages scanned from the flatbed.
ADF Simplex Count		Set the total single-sided pages fed through the ADF.
ADF Duplex Count		Set the total two-sided pages fed through the ADF.
Copy Scan Count		Set the total copy pages that have been scanned.
Send Scan Count		Set the number of scanned pages sent to e-mail.
Copy Pages Count		Set the number of scanned pages that have been printed.

Menu item	Sub-menu item	Description
Scanner Settings	ADF Settings	Set the calibration values.
	Glass Settings	Set the calibration values.
Serial number		Set the serial number.
SERVICE ID		<p>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.</p> <p><b>Restore the service ID</b></p> <p>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:</p> <ol style="list-style-type: none"> <li>To calculate YY, subtract 1990 from the calendar year. For instance, if the product was first used in 2002, calculate YY as follows: <math>2002 - 1990 = 12</math>. <math>YY = 12</math>.</li> <li>Subtract 1 from 10 (October is the tenth month of the year): <math>10 - 1 = 9</math>. <ul style="list-style-type: none"> <li>Multiply 9 by 30: <math>9 \times 30 = 270</math> or add 17 to 270: <math>270 + 17 = 287</math>. Thus, <math>DDD = 287</math>.</li> </ul> </li> </ol> <p><b>Convert the service ID to an actual date</b></p> <p>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:</p> <ol style="list-style-type: none"> <li>Add 1990 to YY to get the actual year that the product was installed.</li> <li>Divide DDD by 30. If there is a remainder, add 1 to the result. This is the month.</li> <li>The remainder from the calculation in step 2 is the date.</li> </ol> <p>Using the Service ID 12287 as an example, the date conversion is as follows:</p> <ol style="list-style-type: none"> <li><math>12 + 1990 = 2002</math>, so the year is 2002.</li> <li>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.</li> <li>The remainder in step 2 is 17, so that is the date.</li> <li>The complete date is 17-October-2002.</li> </ol> <p><b>NOTE:</b> A six-day grace period is built into the date system.</p>
Cold Reset Paper		<p>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.</p>



## Product resets

### Restore factory settings

Use the **Resets** menu to restore factory settings.

1. Scroll to and touch **Administration** and then touch **Resets**.
2. Touch **Restore Factory Settings** and then touch **Reset**.

For more information, see [Resets menu on page 53](#).

### 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 **Start** button until all lights on the control panel are lit.
3. Press the **5** key. The **INITIALIZE DISKS** menu item appears.
4. Press the **6** key. 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:** Before performing an NVRAM initialization, print a menu map and a configuration page. Use the information on these pages to reset any customer-specific settings.

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 off.
  2. Press and hold **9**, turn the power on, wait for all three LEDs to stay on. This might take up to 20 seconds (release the **9** key).
  3. Press and release **3**, and then press and release **Start**.
  4. Use the **3** and **9** keys to scroll to **NVRAM INIT** (this message appears in the upper-left corner of the display).
  5. Press and release **6** to start the initialization.

## Restore factory settings (cold reset)

Before beginning, print a configuration page and supplies status page. Use these pages to verify that the resets have occurred.

1. Turn the product off.
2. Press and hold **6**, turn the power on, wait for all three LEDs to stay on. This might take up to 20 seconds (release the **6** key).
3. Use the **3** and **9** keys to scroll to **Cold Reset** (this message appears in the upper-left corner of the display).
4. Press the **6** key to start the cold reset.

## Solve fax problems

See the *HP LaserJet MFP Analog Fax Accessory 500 Fax Guide* and the *HP LaserJet MFP Analog Fax Accessory 500 Send Fax Driver Guide*, which are included on the product User CD. The guides are also available for download from [www.hp.com/go/mfpfaxaccessory500](http://www.hp.com/go/mfpfaxaccessory500).

## Solve e-mail problems

If you are unable to send e-mails by using the digital-send feature, you might need to reconfigure the SMTP gateway address or the LDAP gateway address. Print a configuration page to find the current SMTP and LDAP gateway addresses. See [Print information pages on page 80](#). Use the following procedures to check if the SMTP and LDAP gateway addresses are valid.

### Validate the SMTP gateway address



**NOTE:** This procedure is for Windows operating systems.

1. Open an MS-DOS command prompt: click **Start**, click **Run**, and then type `cmd`.
2. Type `telnet` followed by the SMTP gateway address and then the number 25, which is the port over which the product is communicating. For example, type `telnet 123.123.123.123 25` where "123.123.123.123" represents the SMTP gateway address.
3. Press **Enter**. If the SMTP gateway address is *not* valid, the response contains the message `Could not open connection to the host on port 25: Connect Failed`.
4. If the SMTP gateway address is not valid, contact the network administrator.

### Validate the LDAP gateway address



**NOTE:** This procedure is for Windows operating systems.

1. Open Windows Explorer. In the address bar, type `LDAP://` immediately followed by the LDAP gateway address. For example, type `LDAP://12.12.12.12` where "12.12.12.12" represents the LDAP gateway address.
2. Press **Enter**. If the LDAP gateway address is valid, the **Find People** dialog box opens.
3. If the LDAP gateway address is not valid, contact the network administrator.



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## 8 Parts and diagrams

- [Order parts, accessories, and supplies](#)
- [Part numbers](#)
- [Screws](#)
- [How to use the parts lists and diagrams](#)
- [ADF and scanner assemblies](#)
- [External covers, panels, and doors](#)
- [Right door assembly](#)
- [Internal components](#)
- [Accessories](#)
- [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/cljcm3530mfp](http://www.hp.com/support/cljcm3530mfp).

## 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.

### Customer self-repair (CSR) components

**Table 8-1 Customer self-repair (CSR) components**

Item	Part number
Formatter kit	CC519-67903
128 MB memory kit	CC519-67910
256 MB memory kit	CC519-67911
512 MB memory kit	CC519-67912
Hard drive kit	CC519-67904
Hard drive cable kit	CC519-67905
Fax PCA	CC456-60001
Fax cable kit	CC519-67907
Toner collection unit kit	CC468-67910
Pick/feed and separation pad kit	CC468-67911
ITB kit	CC468-67907
110V fuser kit	CC519-67901
220V fuser kit	CC519-67902
Duplex reverse guide kit	CC468-67913
Secondary transfer roller kit	CC468-67914
Secondary transfer assembly kit (duplex)	CC468-67915
Fuser cleaning kit (letter)	CC468-67919
Front door assembly and nameplate	CC519-67916
500 sheet feeder replacement kit	CC468-67905
500 sheet feeder right door kit	CC468-67906
Control panel kit	CC519-67908
ADF kit	CC483-67902
ADF roller kit	CC519-67909
Stapler cartridge	Q7432-67901
250-sheet cassette	RM1-4962-000CN
500-sheet cassette	RM1-6198-000CN
Control panel overlay—English	CC519-40003
Control panel overlay—French	CC519-40004
Control panel overlay—Italian	CC519-40005

**Table 8-1 Customer self-repair (CSR) components (continued)**

Item	Part number
Control panel overlay—German	CC519-40006
Control panel overlay—Spanish	CC519-40007
Control panel overlay—Portuguese	CC519-40009
Control panel overlay—Norwegian	CC519-40010
Control panel overlay—Swedish	CC519-40011
Control panel overlay—Finnish	CC519-40012
Control panel overlay—Danish	CC519-40013
Control panel overlay—Polish	CC519-40014
Control panel overlay—Russian	CC519-40015
Control panel overlay—Czech	CC519-40016
Control panel overlay—Hungarian	CC519-40017
Control panel overlay—Turkish	CC519-40018
Control panel overlay—Hebrew	CC519-40019
Control panel overlay—Greek	CC519-40020
Control panel overlay—Arabic	CC519-40021
Control panel overlay—Croatian	CC519-40022
Control panel overlay—Romanian	CC519-40023
Control panel overlay—Slovak	CC519-40024
Control panel overlay—Slovenian	CC519-40025
Control panel overlay—Catalan	CC519-40026
Control panel overlay—Chinese, traditional	CC519-40027
Control panel overlay—Chinese, simplified	CC519-40028
Control panel overlay—Korean	CC519-40030
Control panel overlay—Japanese	CC519-40031
Control panel overlay—Thai	CC519-40032
Control panel overlay—Bahasa Indonesian	CC519-40033

## Accessories and products

**Table 8-2 Accessories**

Item	Description	Part number	Product part number
Stapler cartridge	Replacement staple cartridge	Q7432-67901	Q7432A
1 x 500 paper feeder	500-sheet paper and heavy media tray	CC468-67905	CE522A



**Table 8-2 Accessories (continued)**

Item	Description	Part number	Product part number
Fax PCA	HP LaserJet MFP analog fax accessory 500	CC456-60001	CC487A
Digital send software	HP Digital Sending Software 4	NA	T1936AA
Print server	HP Jetdirect 630n IPv6 Gigabit Ethernet print server	NA	J7997G
	HP Jetdirect 635n IPv6/IPSec print server	NA	J7961G
Parallel card	HP 1284B parallel card	NA	J7972G

## Print cartridges and toner collection unit

**Table 8-3 Print cartridges and toner collection unit**

Item	Description <sup>1</sup>	Part number	Product part number
HP Color LaserJet black print cartridge	Standard black cartridge	CE250-67901	CE250A
HP Color LaserJet black print cartridge	High-capacity black cartridge	CE250-67902	CE250X
HP Color LaserJet cyan print cartridge	Cyan cartridge	CE251-67901	CE251A
HP Color LaserJet yellow print cartridge	Yellow cartridge	CE252-67901	CE252A
HP Color LaserJet magenta print cartridge	Magenta cartridge	CE253-67901	CE253A
Toner collection unit	Waste toner box assembly	CC468-67910	CE254A
	Waste toner installation instructions		
	Toner cleaning cloth		

<sup>1</sup> For more information, go to [www.hp.com/go/learnaboutsupplies](http://www.hp.com/go/learnaboutsupplies)

## Memory

**Table 8-4 Memory**

Item	Description	Product part number
200-pin DDR DIMM	128MB	CC409AX
Boosts the ability of the product to handle large or complex print jobs.	256MB	CC410AX
	512MB	CC411AX
HP Encrypted High Performance hard disks	HP high-performance secure hard disk	J8018A
HP Encrypted High Performance hard disks	HP high-performance secure EIO hard disk	J8019A

## Cables and interfaces

**Table 8-5 Cables and interfaces**

Item	Description	Part number
Enhanced I/O (EIO) card	HP Jetdirect 635n IPv6/IPsec Print Server	J7961G
USB cable	2-meter standard USB-compatible device connector	C6518A
Power cord North America	PWR-CORD OPT-903 3-COND 1.9-M-LG ROHS	8121-0740
Power cord Taiwan	PWR-CORD OPT-934 3-COND 1.9-M-LG ROHS	8121-0964
Power cord Europe (generic)	PWR-CORD OPT-902 3-COND 1.9-M-LG ROHS	8121-0731
Power cord China	PWR-CORD OPT-922 3-COND 1.9-M-LG ROHS	8121-0943
Power cord	PWR-CORD OPT-901 3-COND 1.9-M-LG ROHS	8121-0837
Power cord Japan (7A)	PWR-CORD OPT-918 3-COND 1.9-M-LG ROHS	8121-0736
Power cord United Kingdom; Singapore; Hong Kong SAR; Malaysia	PWR-CORD OPT-900 3-COND 1.9-M-LG 5A ROHS	8121-0739
Power cord Denmark	PWR-CORD OPT-912 3-COND 1.9-M-LG ROHS	8121-0733
Power cord Argentina	PWR-CORD OPT-920 3-COND 1.9-M-LG ROHS	8121-0729
Power cord India (<= 6 A)	PWR-CORD OPT-923 3-COND 1.9-M-LG ROHS	8121-0564
Power cord Chile	PWR-CORD OPT-921 3-COND 1.9-M-LG ROHS	8121-0735
Power cord South Africa	PWR-CORD OPT-917 3-COND 1.9-M-LG ROHS	8121-0737
Power cord Israel	PWR-CORD OPT-919 3-COND 1.9-M-LG ROHS	8121-1004
Power cord Switzerland	PWR-CORD OPT-906 3-COND 1.9-M-LG ROHS	8121-0738

**Table 8-5 Cables and interfaces (continued)**

Item	Description	Part number
Power cord Thailand; Philippine Islands	PWR-CORD OPT-927 3-COND 1.9-M-LG ROHS	8121-0734
Phone cord United States	PHN-CORD OPT-501 US 3.0-M-LG ROHS	8121-0811
Phone cord Republic of Korea	PHN-CORD OPT-516 KR 3.0-M-LG ROHS	8120-8908
Phone cord Turkey	PHN-CORD OPT-507 TR 3.0-M-LG ROHS	8120-8920
Phone cord Estonia	PHN-CORD OPT-520 EE 3.0-M-LG ROHS	8120-8922
Phone cord Australia	PHN-CORD OPT-519 AU 3.0-M-LG ROHS	8120-8907
Phone cord United Kingdom; Hong Kong SAR; New Zealand	PHN-CORD OPT-505 UK/HK/NZ 3.0-M-LG ROHS	8120-8921
Phone cord Denmark	PHN-CORD OPT-506 DK 3.0-M-LG ROHS	8120-8911
Phone cord Australia	PHN-CORD OPT-515 AT 3.0-M-LG ROHS	8120-8909
Phone cord Italy	PHN-CORD OPT-514 IT 3.0-M-LG ROHS	8120-8914
Phone cord Switzerland	PHN-CORD OPT-512 CH 3.0-M-LG ROHS	8121-0844
Phone cord Norwegian; Finnish	PHN-CORD OPT-510 NO/FI 3.0-M-LG ROHS	8120-8916
Phone cord Sweden	PHN-CORD OPT-511 SE 3.0-M-LG ROHS	8120-8918

## Service kits

**Table 8-6 Service kit contents**

Item	Description	Part number
500 sheet feeder replacement kit	500 sheet feeder assembly (CE222A) 500 sheet feeder instructions	CC468-67905
500 sheet feeder right door kit	Door stopper	CC468-67906

**Table 8-6 Service kit contents (continued)**

Item	Description	Part number
	Right door link	
	Right door assembly	
	Right door installation instructions	
ADF kit	ADF assembly	CC483-67903
	ADF installation instructions	
ADF roller kit	ADF roller assembly	CC519-67909
	ADF separation pad	
	ADF roller kit installation instructions	
128MB memory kit	128MB DDR DIMM	CC519-67910
	Installation instructions	
256MB memory kit	256MB DDR DIMM	CC519-67911
	Installation instructions	
512MB memory kit	512MB DDRDIMM	CC519-67912
	Installation instructions	
Toner collection unit kit	Waste toner box assembly	● Part number: CC468-67910
(Maintenance kit)	Waste toner installation instructions	● Product number: TCU CE254A
	Toner cleaning cloth	
Hard drive kit	Hard Drive, 80GB disc 2.5" SATA ROHS	CC519-67904
	Left rail, plastic	
	Right rail, snap plastic	
	Hard drive installation instructions	
Hard drive cable kit	SATA hard drive power/data cable	CC519-67905
	Hard drive installation instructions	
Fax cable kit	Fax cable	CC519-67907
	Fax cable installation instructions	
Control panel kit	Control-panel assembly	CC519-67908
	Installation instructions	
Duplex reverse guide kit	Duplexing reverse guide	CC468-67913
	Duplexing guide installation instructions	
Front door kit	Front door	CC519-67916
	Nameplate CLJ CM3530 MFP	
	Nameplate CLJ CM3530fs MFP	
	HP logo	

**Table 8-6 Service kit contents (continued)**

Item	Description	Part number
	Front door assembly installation instructions	
Fuser cleaning kit (letter)	50 sheets of HP Tough Paper Cleaning instructions	CC468-67919
Fuser kit (Maintenance kit)	110V service fuser kit <ul style="list-style-type: none"> <li>Fuser assembly, 110V</li> <li>Fuser installation instructions</li> <li>Recycle flyer</li> <li>Return label</li> </ul> 220V service fuser kit <ul style="list-style-type: none"> <li>Fuser assembly, 220V</li> <li>Fuser installation instructions</li> <li>Recycle flyer</li> <li>Return label</li> </ul>	<ul style="list-style-type: none"> <li>Part number: CC519-67901</li> <li>Product number: CE484A</li> <li>Part number: CC519-67902</li> <li>Product number: CE506A</li> </ul>
ITB kit	Intermediate transfer belt assembly ITB installation instructions Secondary transfer roller assembly Secondary transfer roller installation instructions	CC468-67907
Main drive assembly kit	Main drive assembly Main drive assembly installation instructions	CC468-67918
Formatter kit	Formatter assembly Formatter sheet metal tray assembly Screw, M3 x 0.5 EIO card guide Disk drive cradle Fax cable Formatter installation instructions	CC519-67903
Pick/feed and separation pad kit	250-sheet tray paper pickup roller Paper feed roller assembly (500 SF) Paper pickup roller (500 SF) Replacement and installation instructions	CC468-67911
Laser/scanner assembly kit	Laser/scanner assembly	CC468-67917

**Table 8-6 Service kit contents (continued)**


Item	Description	Part number
	Scanner installation instructions	
Secondary transfer assembly kit	Secondary transfer assembly	CC468-67915
	Secondary transfer assembly installation instructions	
Secondary transfer (T2) roller kit	Secondary transfer roller assembly	CC468-67914
	Secondary transfer roller installation instructions	
Preventative maintenance kit	110 v	CE484A
	220 v	CE506A

## Service manuals and user documentation


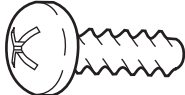

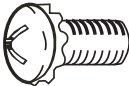
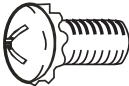
**Table 8-7 Service manuals and user documentation**


Item	Part number
Service manual—English (entire manual)	CC519-91013
Service manual—French (troubleshooting and replacement only)	CC519-91014
Service manual—Italian (troubleshooting and replacement only)	CC519-91015
Service manual—German (troubleshooting and replacement only)	CC519-91016
Service manual—Spanish (troubleshooting and replacement only)	CC519-91017
Service manual—Korean (troubleshooting and replacement only)	CC519-91018
Service manual—Chinese, simplified (troubleshooting and replacement only)	CC519-91019
Administrator guide	CC519-60105
User guide	CC519-60106

## 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 8-8 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

6 mm    8 mm    10 mm    12 mm    M 3    M 4  


## How to use the parts lists and diagrams

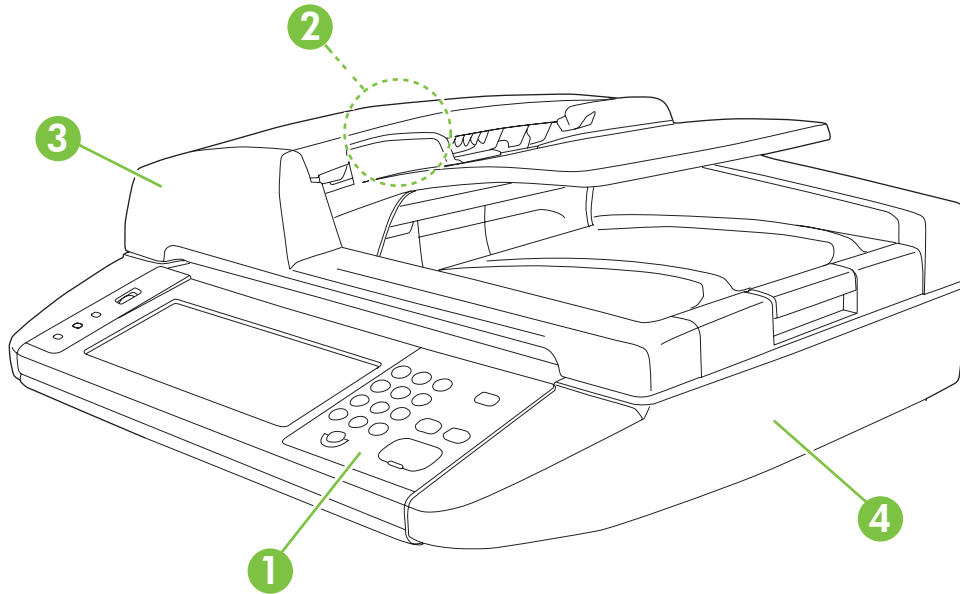
The figures in this chapter show the major subassemblies in the product and their component parts. A parts list table follows each exploded view assembly diagram. Each table lists the item number, the associated part number, and the description of each part. If a part is not listed in the table, then 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.

## ADF and scanner assemblies

Figure 8-1 ADF/scanner assembly



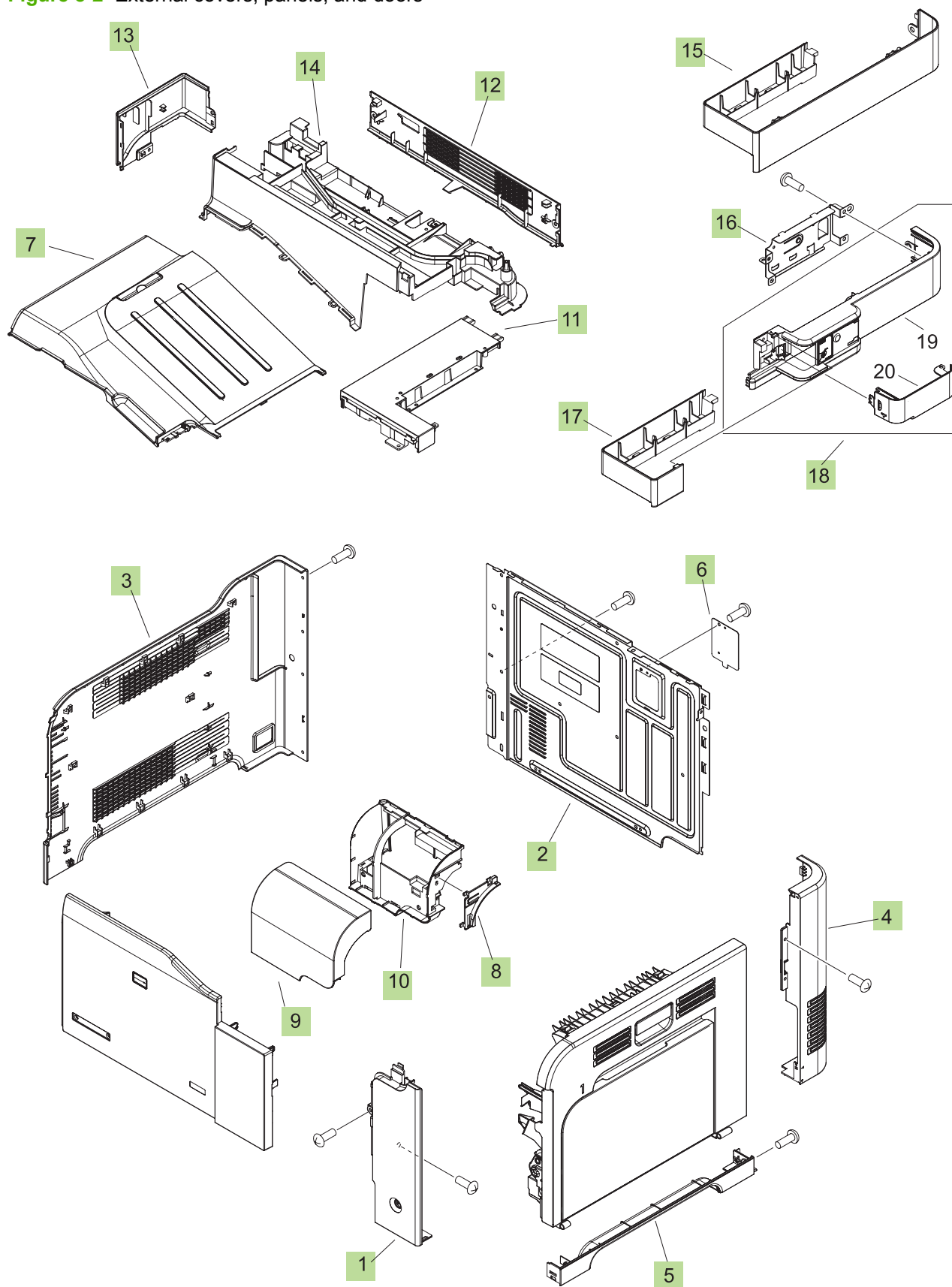


**Table 8-9 ADF/scanner assembly**

Ref	Description	Part number	Qty
1	Control panel assembly	CC519-60115	1
Not shown	Control-panel cable	CC519-60107	1
2	ADF feed roller kit	CC519-67909	1
3	ADF assembly	CC483-60103	1
4	Scanner assembly (ADF assembly and SCB PCA are <i>not</i> included)	CC519-67914	1
Not shown	Scanner controller board (SCB)	CC454-60002	1
Not shown	PCI express RoHS cable	5851-3141	1

## External covers, panels, and doors

Figure 8-2 External covers, panels, and doors

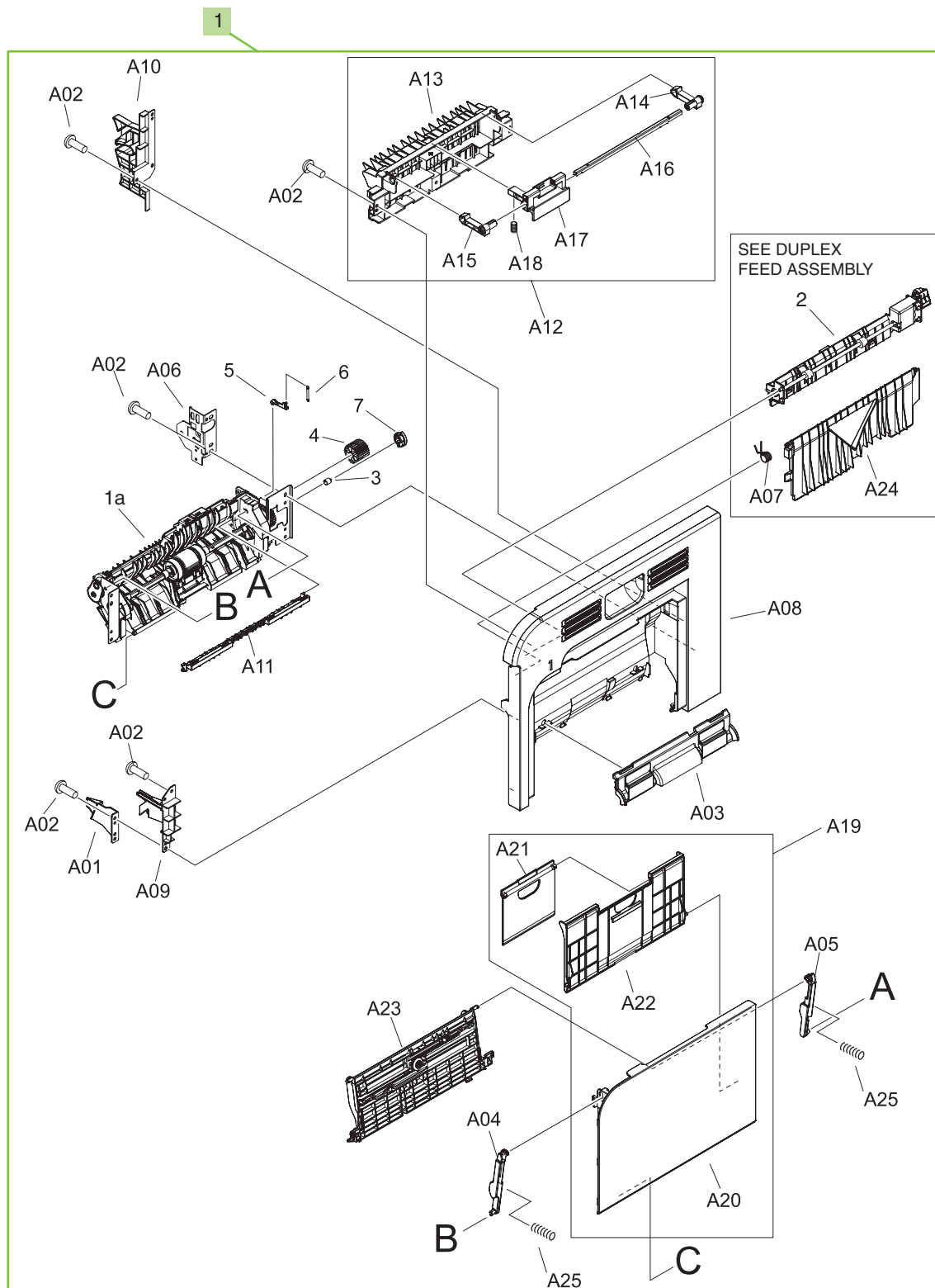


**Table 8-10 External covers, panels, and doors;**

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, rear right	RC2-5057-000CN	1
5	Cover, right lower	RC2-5059-000CN	1
6	Plate, blanking	RC2-5938-000CN	1
7	Tray, paper delivery	RL1-1941-000CN	1
8	Rib, Control panel	RC2-5179-000CN	1
9	Cover, control panel	RC2-5180-000CN	1
10	Cover, control panel, rear	RC2-5181-000CN	1
11	Cover, upper right	RC2-5182-000CN	1
12	Cover, rear, upper	RC2-5185-000CN	1
13	Cover, left rear	RC2-5188-000CN	1
14	Cover, upper rear	RL1-1953-000CN	1
15	Cover, right (without stapler)	RC2-5189-000CN	1
16	Holder, AC	RC2-5194-000CN	1
17	Cover, right (with stapler)	RC2-5192-000CN	1
18	Stapler, right cover assembly	RM1-5033-000CN	1

# Right door assembly

Figure 8-3 Right door assembly



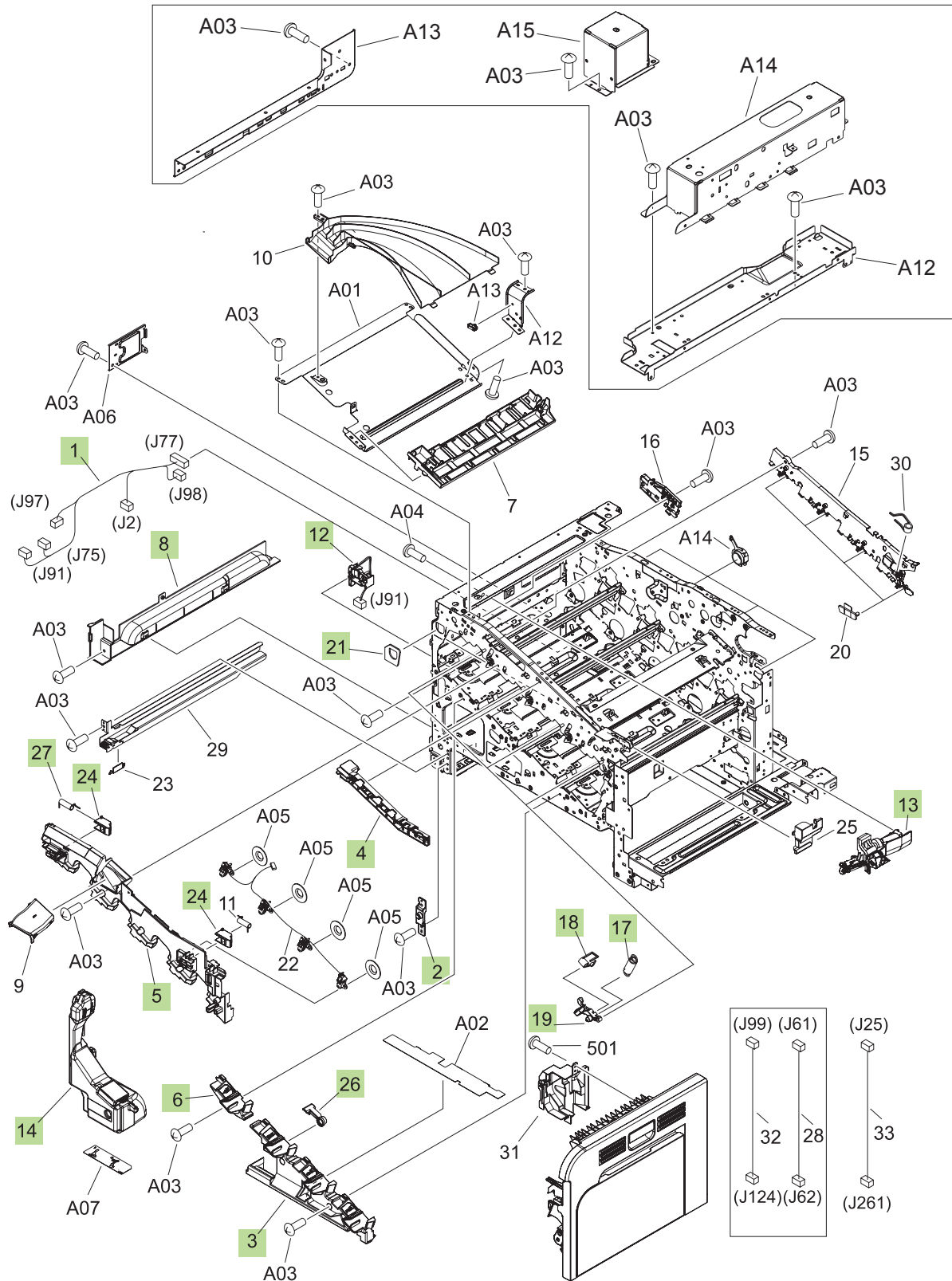
**Table 8-11 Right door assembly**

Ref	Description	Part number	Qty
1	Right door assembly	RM1-4957-000CN	1
Not shown	Tray 1 pickup roller	RL1-1928-000CN	1

# Internal components

## Internal components (1 of 5)

Figure 8-4 Internal components (1 of 5)

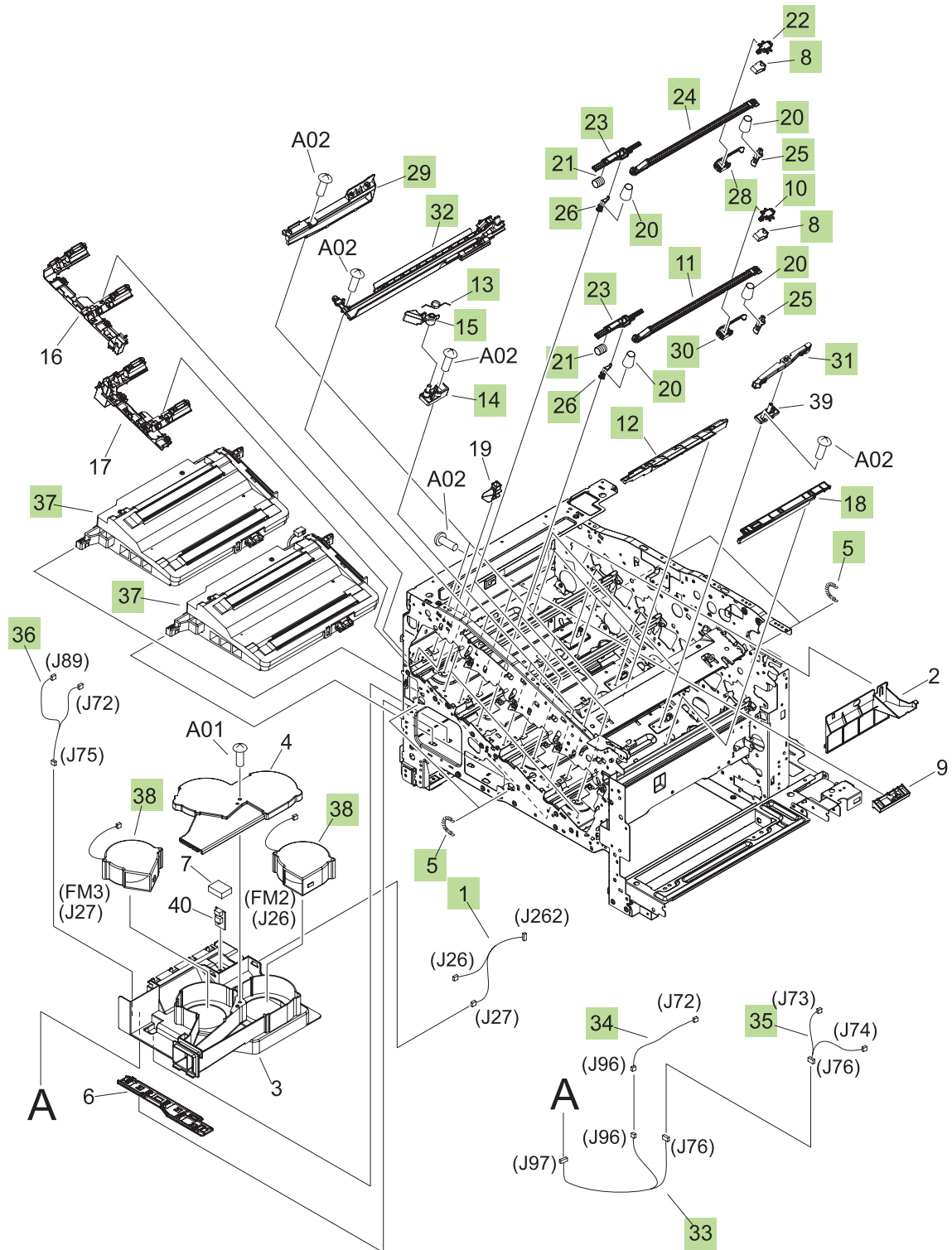


**Table 8-12 Internal components (1 of 5)**

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 (motor)	RM1-4977-000CN	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 8-5** Internal components (2 of 5)



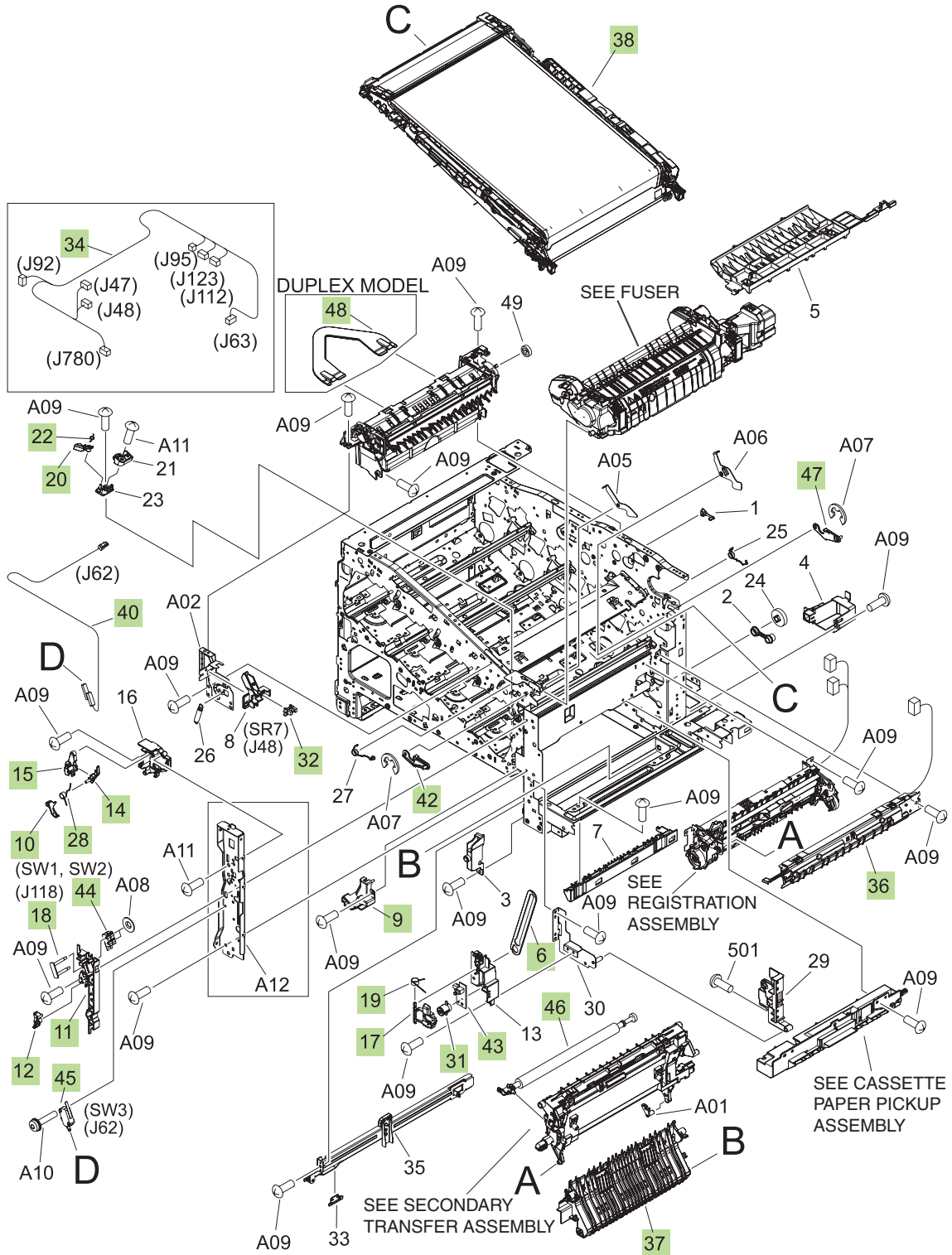


**Table 8-13 Internal components (2 of 5)**

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	3
20	Spring, compression	RU6-2318-000CN	8
21	Spring, compression	RU6-2316-000CN	4
22	Tab	RC2-4428-000CN	2
23	Lever, shutter	RU6-4415-000CN	4
24	Shutter	RC2-4413-000CN	2
25	Shutter rear arm	RC2-4407-000CN	4
26	Shutter front arm	RC2-4406-000CN	4
27	Sensor unit, Tmp/Hum sensor	RK2-2229-000CN	1
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
38	Fan	RK2-2418-000CN	2

## Internal components (3 of 5)

**Figure 8-6** Internal components (3 of 5)

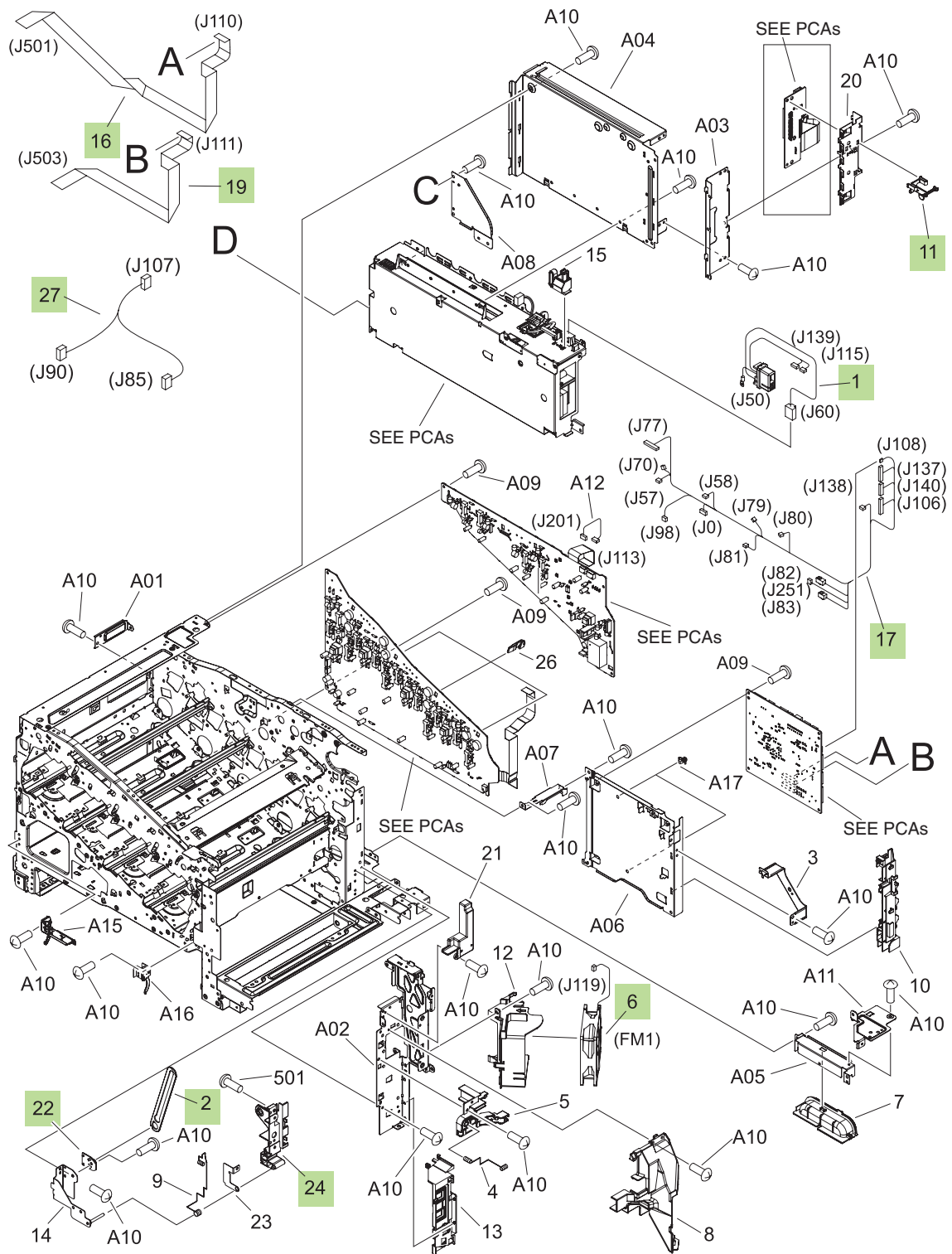


**Table 8-14 Internal components (3 of 5)**

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
34	Front cable assembly	RM1-6998-000CN	1
36	Density detect sensor assembly	RM1-4953-000CN	1
37	Lower pick up guide assembly	RM1-4980-000CN	1
38	ITB assembly service kit	CC468-67907	1
40	Switch cable assembly	RM1-5718-000CN	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	Transfer roller assembly service kit	CC468-67914	
47	Rear lock arm assembly	RM1-5533-000CN	1

## Internal components (4 of 5)

**Figure 8-7** Internal components (4 of 5)

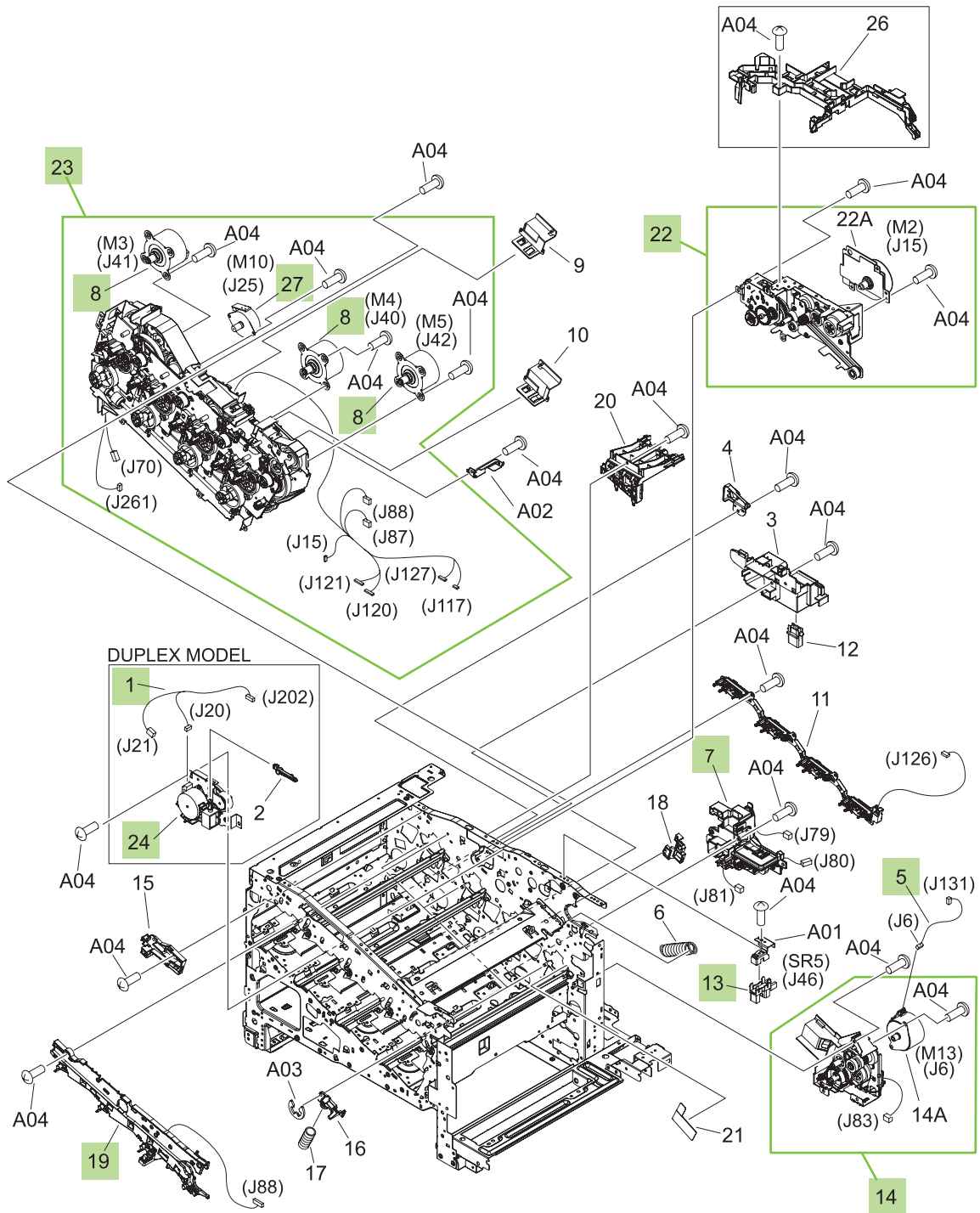


**Table 8-15 Internal components (4 of 5)**

Ref	Description	Part number	Qty
1	Fusing connecting cable assembly	RM1-5714-000CN	1
2	Door stopper right link	RC2-4916-000CN	2
6	Fan	RK2-2416-000CN	1
11	Switch arm	RC2-5943-000CN	1
16	Scanner flat cable (FFC)	RK2-2506-000CN	1
17	Rear cable assembly	RM1-5721-000CN	1
19	Scanner flat cable (FFC)	RK2-2508-000CN	1
24	Right door rear hinge	RC2-4895-000CN	1
27	Multipurpose tray sensor cable assembly	RM1-5737-000CN	1
28	Cable, AC (stapler power)	RK2-2501-000CN	1
Not shown	Stapler mechanism	CC483-60107	1
Not shown	Stapler power supply	Q7429-60501	1

## Internal components (5 of 5)

Figure 8-8 Internal components (5 of 5)

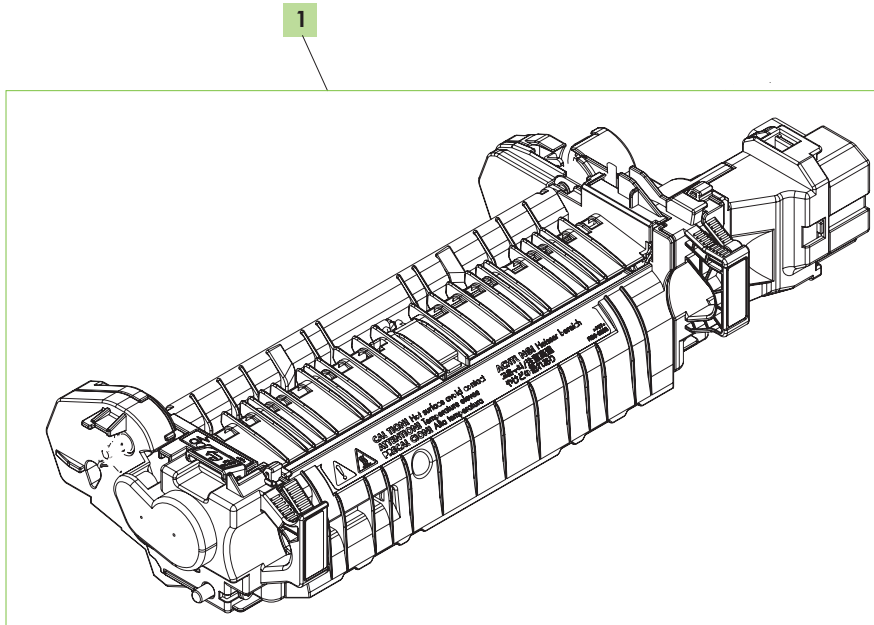


**Table 8-16 Internal components (5 of 5)**

Ref	Description	Part number	Qty
1	Duplexing unit cable assembly	RM1-5730-000CN	1
5	Pickup 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	RM1-5705-000CN	1
22	Fusing drive assembly with motor	RM1-4974-000CN	1
24	Duplexing drive assembly	RM1-4973-000CN	1
27	Stepping motor, DC (developing disengagement)	RK2-2415-000CN	1

## Fuser

Figure 8-9 Fuser



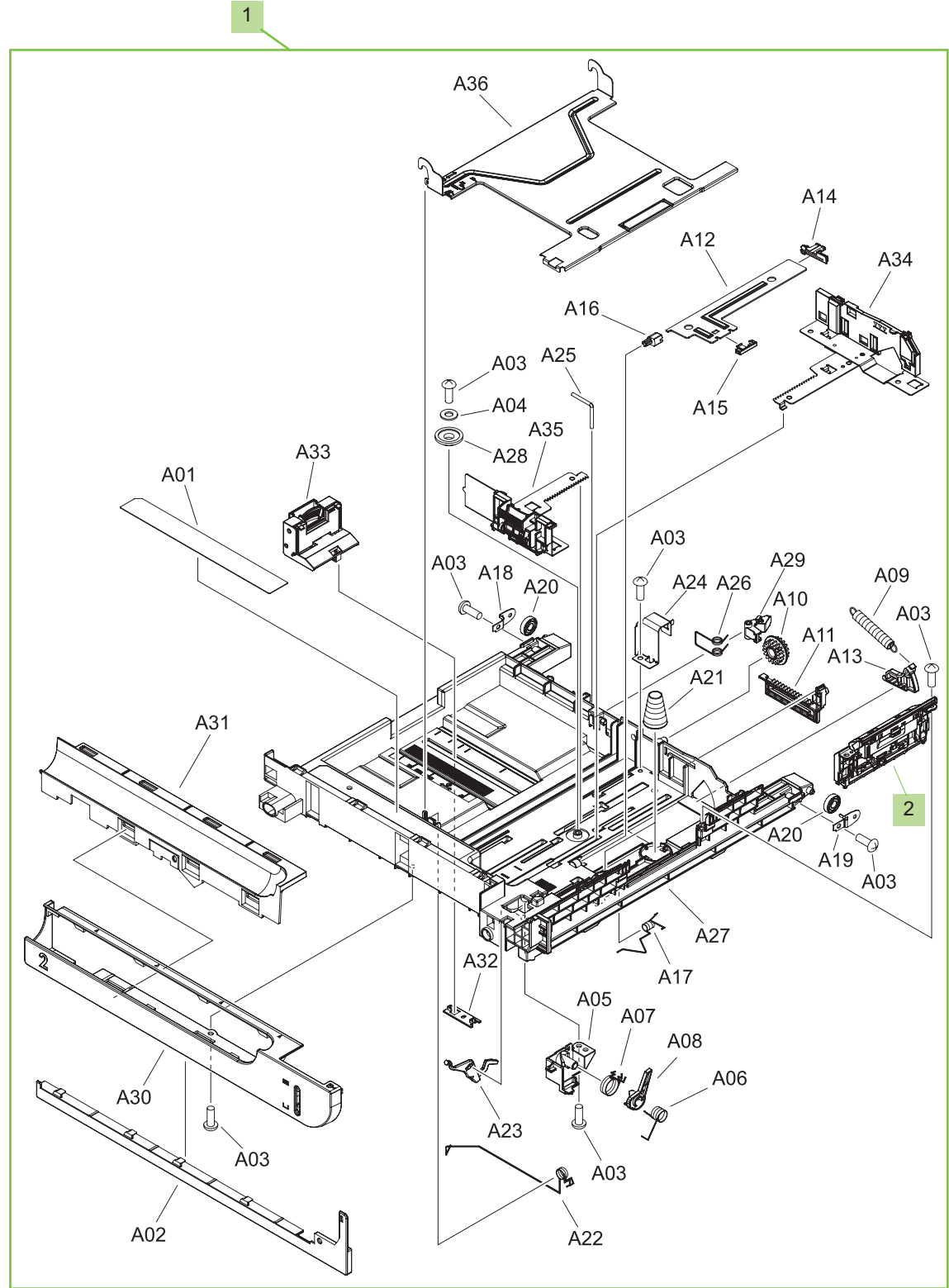


**Table 8-17 Fuser**

Ref	Description	Part number	Qty
1	Fuser/Fixing service kit110 v	CC519-67901	1
1	Fuser/Fixing service kit 220 v	CC519-67902	1

# 250-sheet cassette

Figure 8-10 250-sheet cassette

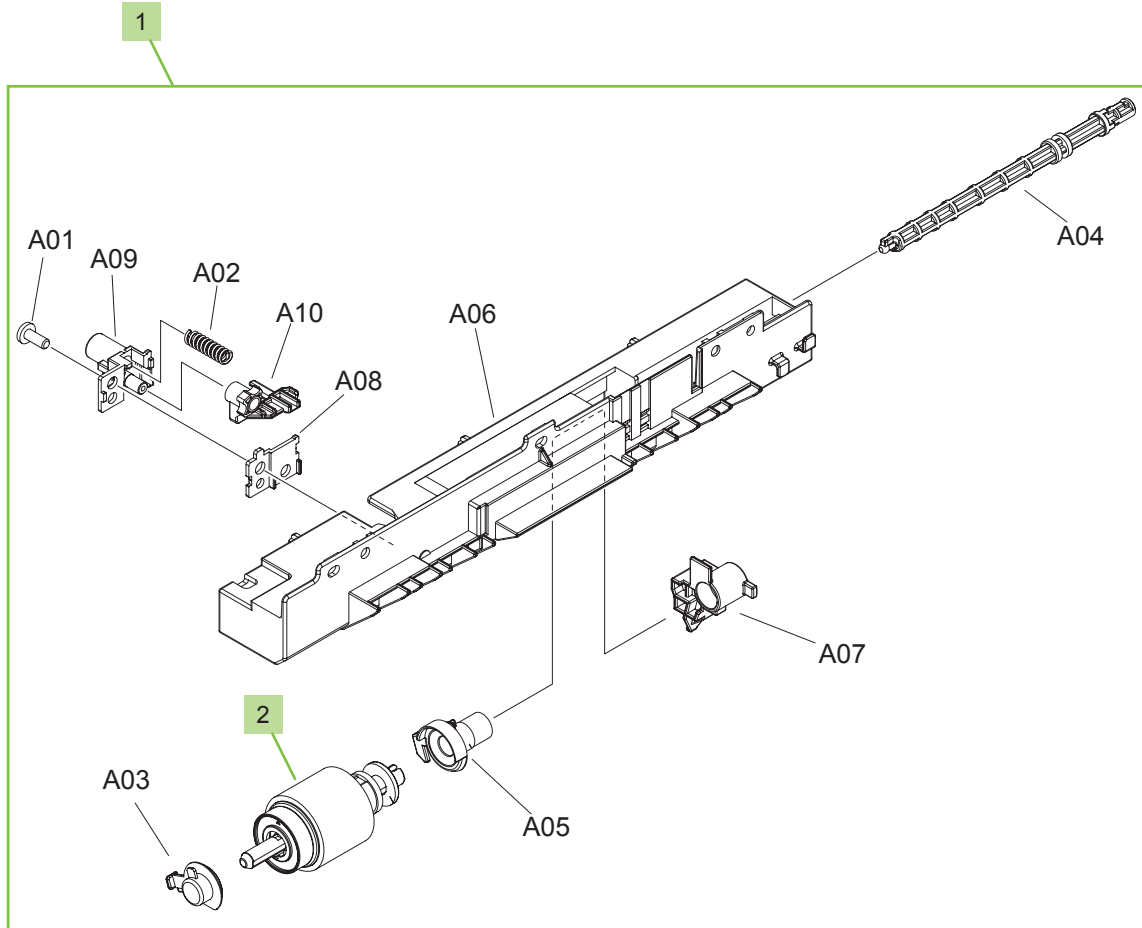


**Table 8-18 250-sheet cassette**

Ref	Description	Part number	Qty
1	250-sheet cassette	RM1-4962-000CN	1
2	Separation roller assy	RM1-4966-000CN	1

## 250-sheet cassette paper pickup assembly

**Figure 8-11** 250-sheet cassette paper pickup assembly

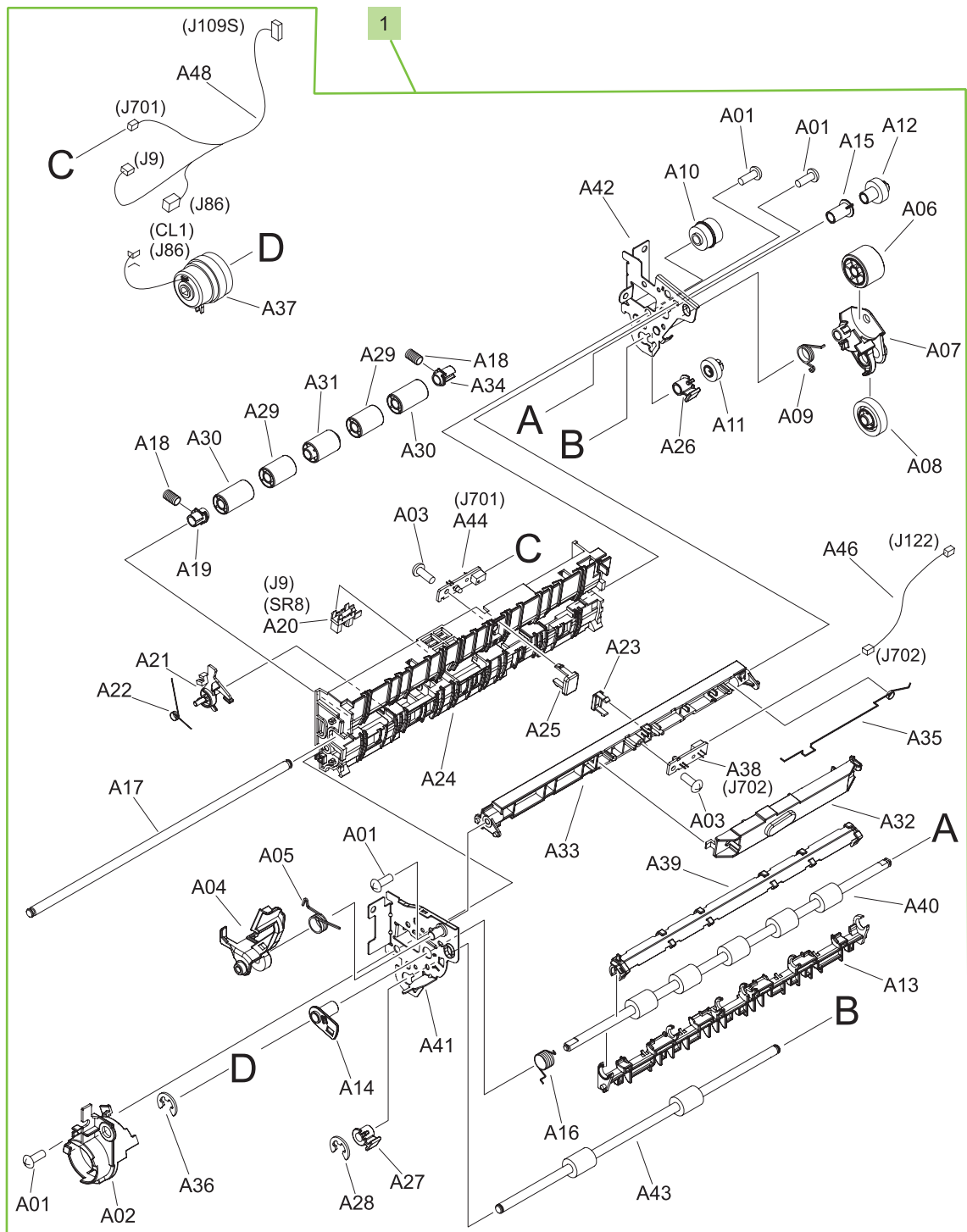


**Table 8-19 250-sheet cassette paper pickup assembly**

Ref	Description	Part number	Qty
1	250-sheet cassette paper pickup assembly	RM1-4967-000CN	1
2	250-sheet cassette paper pickup roller	RM1-4968-000CN	

## Registration assembly

Figure 8-12 Registration assembly

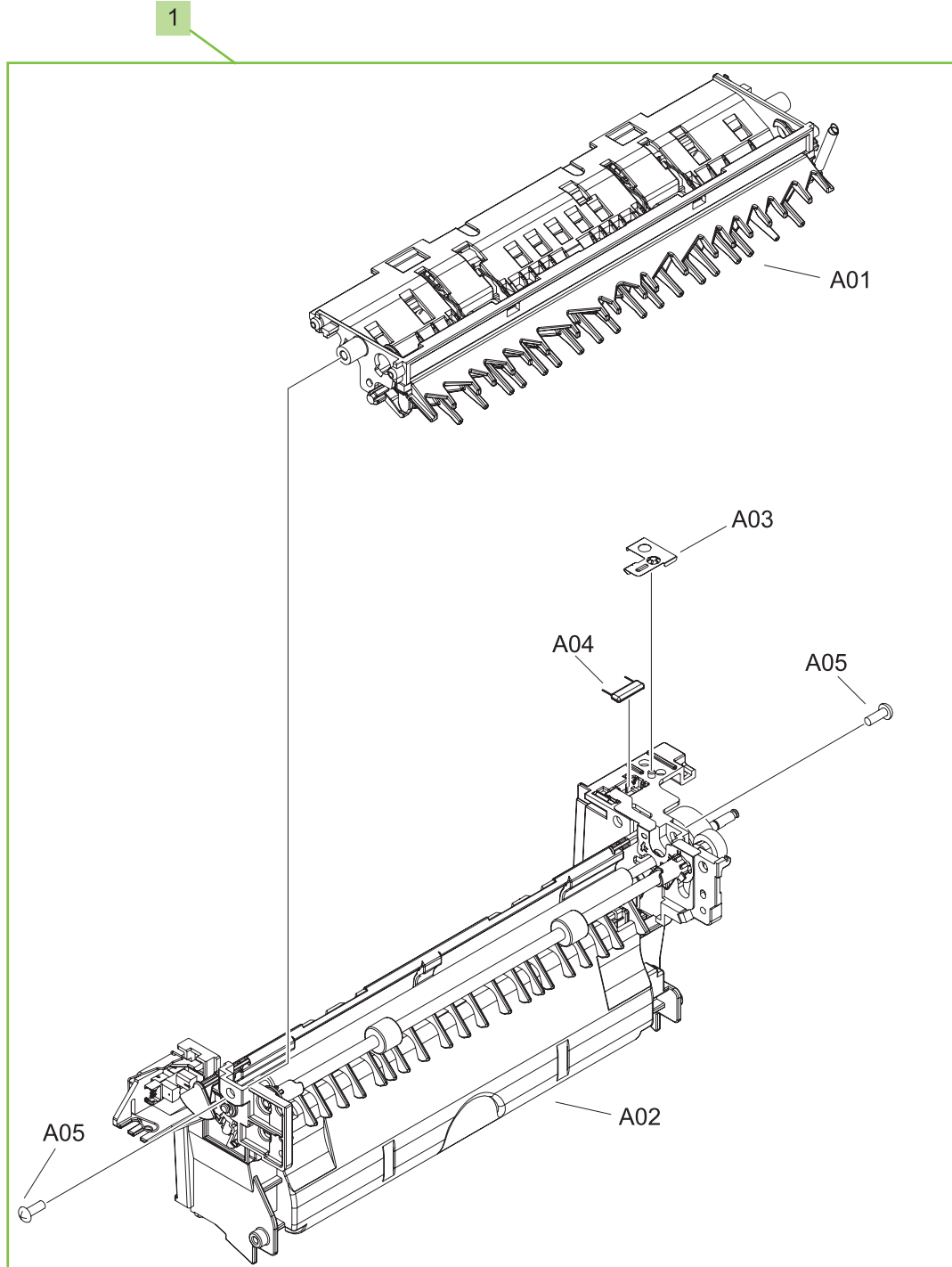


**Table 8-20 Registration assembly**

Ref	Description	Part number	Qty
1	Registration assembly	RM1-4969-000CN	1

## Paper-delivery assembly

Figure 8-13 Paper-delivery assembly



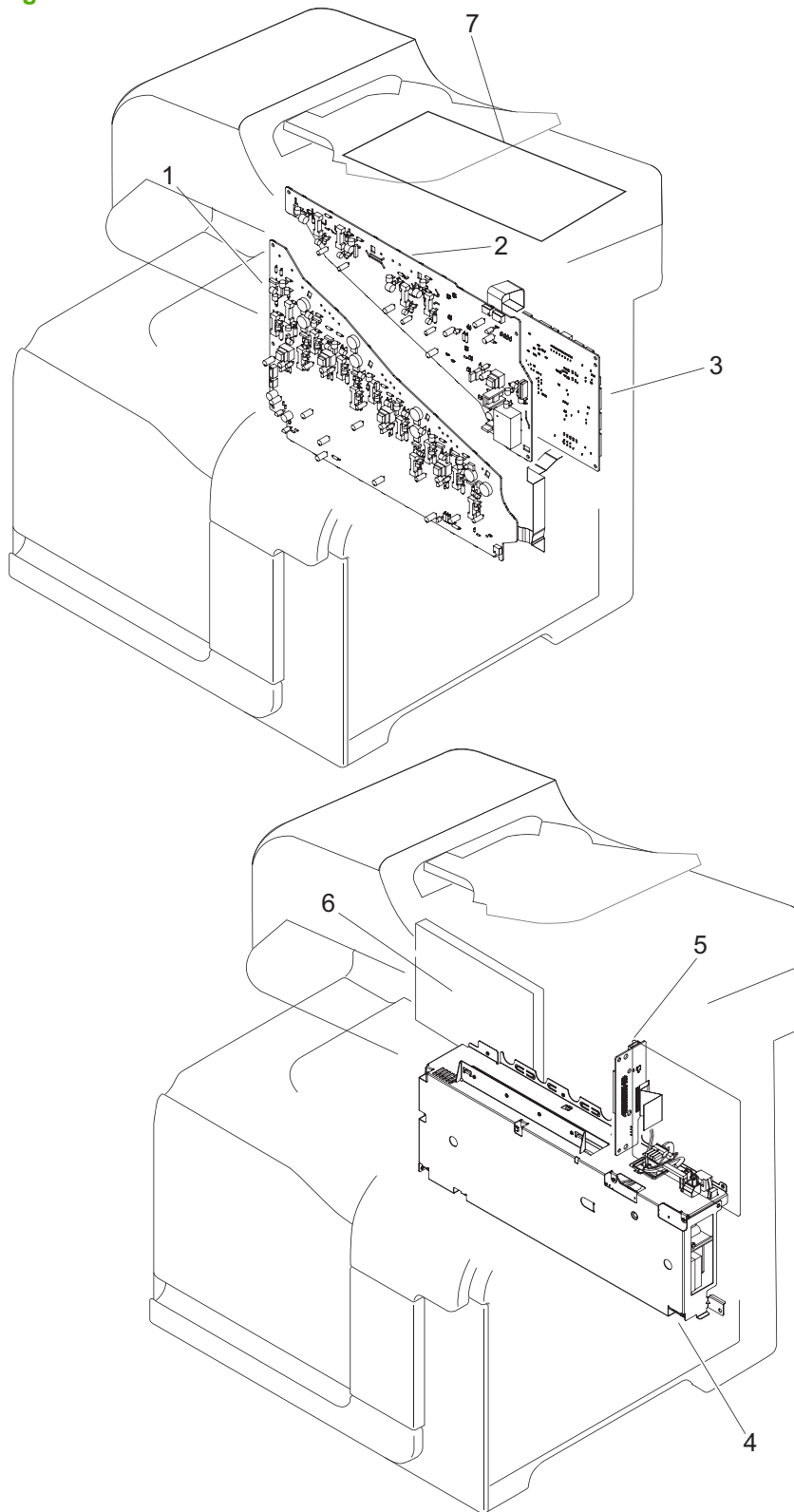


**Table 8-21 Paper-delivery assembly**

Ref	Description	Part number	Qty
1	Paper-delivery assembly	RM1-4970-000CN	1

## PCAs

Figure 8-14 PCAs

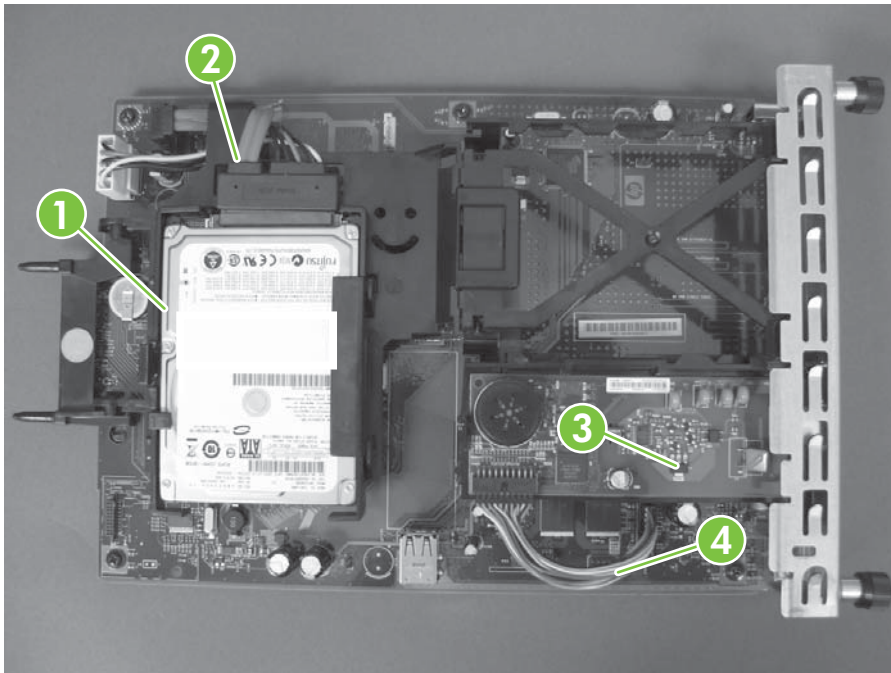


**Table 8-22 PCAs**

Ref	Description	Part number	Qty
1	High-voltage power supply lower PCA (HVPS-D)	RM1-5680-000CN	1
2	High-voltage power supply upper PCA (HVPS-T)	RM1-5681-000CN	1
3	DC controller PCA	RM1-5678-000CN	1
4	Low-voltage power supply PCA(110 v)	RM1-5689-000CN	1
4	Low-voltage power supply PCA(220 v)	RM1-5690-000CN	1
5	Interconnect board (ICB)	CC453-60001	1
6	Formatter PCA	CC452-60001	1
7	Scanner controller board (SCB)	CC454-60002	1

## Formatter components

Figure 8-15 Formatter components



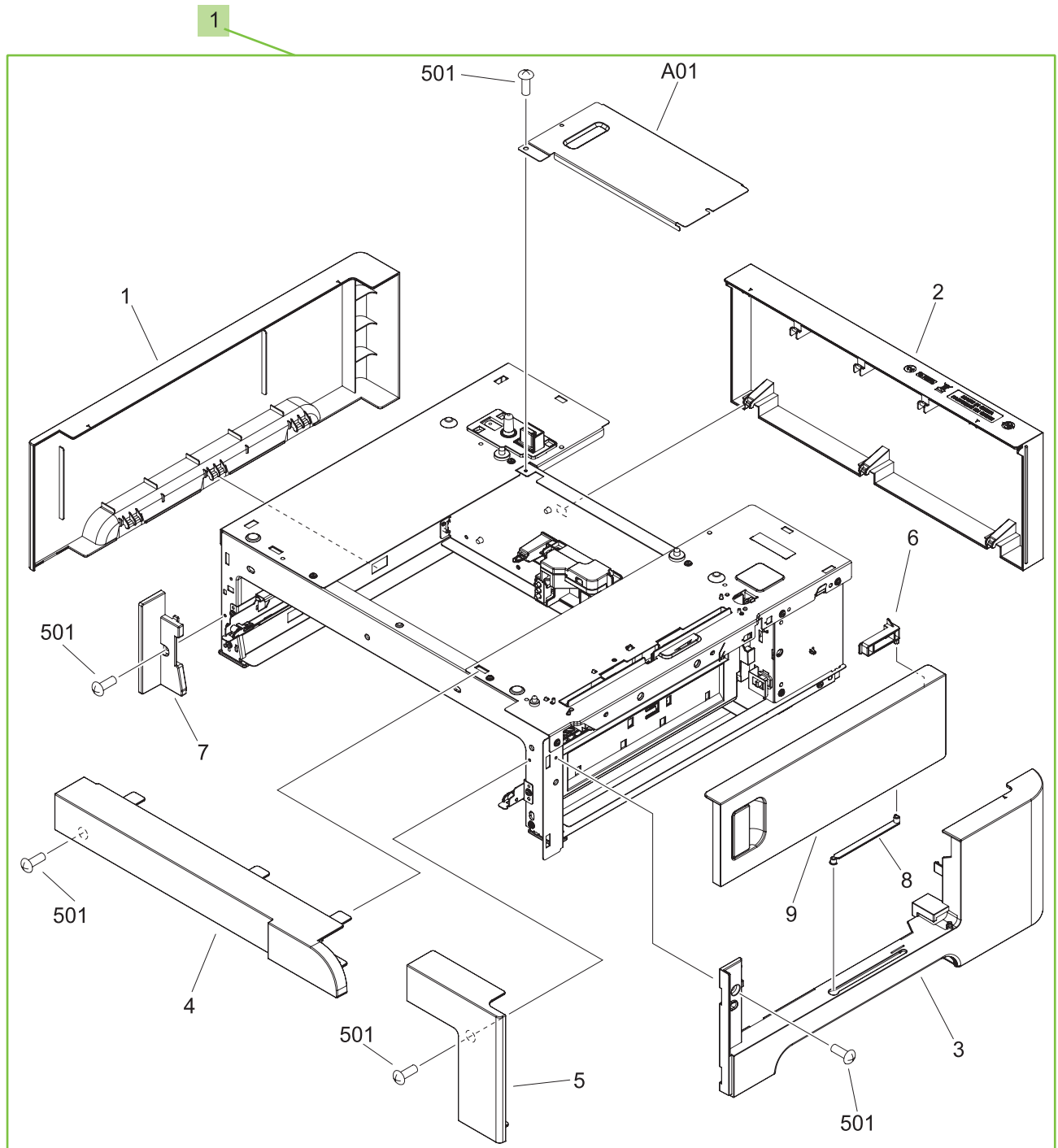
**Table 8-23 Formatter components**

Ref	Description	Part number	Qty
1	Hard drive, 80GB 2.5-inch SATA ROHS	CC519-67904	1
2	SATA hard drive cable power/data	CC519-67905	1
3	Fax controller PCA	CC456-60001	1
4	Fax cable	CC519-67907	1

# Accessories

## 500-sheet paper feeder

Figure 8-16 500-sheet paper feeder

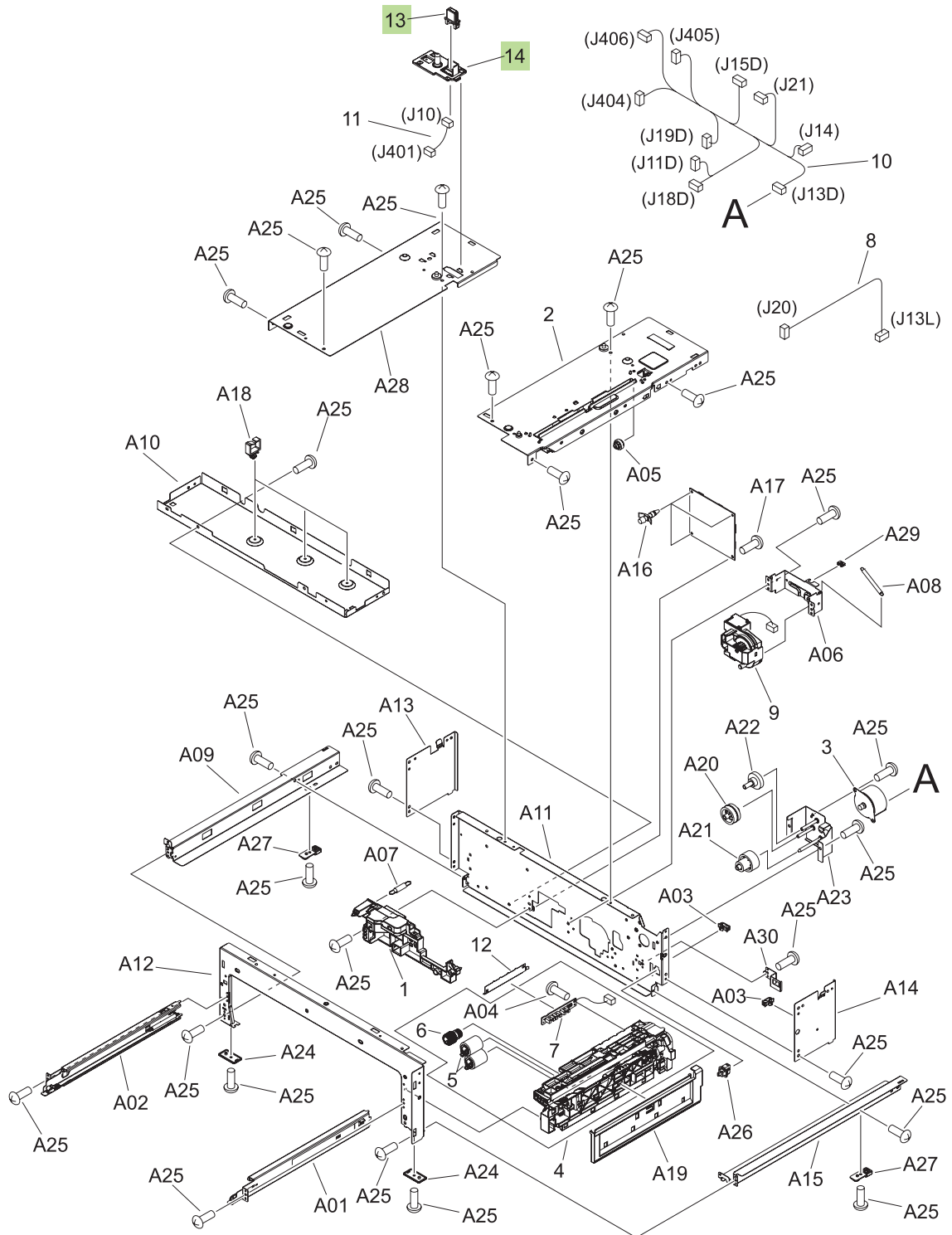


**Table 8-24 500-sheet paper feeder**

Ref	Description	Part number	Qty
1	500-sheet feeder replacement	CE222-67901	1
Not shown	500-sheet paper feeder right door kit	CC468-67906	1
Not shown	500-sheet cassette	RM1-6198-000CN	1

## Paper feeder main body

**Figure 8-17** Paper feeder main body





**Table 8-25 Paper feeder main body**

Ref	Description	Part number	Qty
13	Drawer connector (Tray 3)	VS1-7257-007CN	1
14	Drawer connector holder (Tray 3)	RC2-5416-000CN	1

# Alphabetical parts list

**Table 8-26 Alphabetical parts list**

Description	Part number	Table and page
250-sheet cassette	RM1-4962-000CN	<a href="#">250-sheet cassette on page 539</a>
250-sheet cassette paper pickup assembly	RM1-4967-000CN	<a href="#">250-sheet cassette paper pickup assembly on page 541</a>
250-sheet cassette paper pickup roller	RM1-4968-000CN	<a href="#">250-sheet cassette paper pickup assembly on page 541</a>
500-sheet cassette	RM1-6198-000CN	<a href="#">500-sheet paper feeder on page 551</a>
500-sheet feeder replacement	CE222-67901	<a href="#">500-sheet paper feeder on page 551</a>
500-sheet paper feeder right door kit	CC468-67906	<a href="#">500-sheet paper feeder on page 551</a>
ADF assembly	CC483-60103	<a href="#">ADF/scanner assembly on page 521</a>
ADF feed roller kit	CC519-67909	<a href="#">ADF/scanner assembly on page 521</a>
Base	RL1-2144-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Base	RL1-1923-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Base assembly	RM1-4979-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Cable, AC (stapler power)	RK2-2501-000CN	<a href="#">Internal components (4 of 5) on page 533</a>
Cartridge lock lever	RC2-5954-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Cassette paper pick up drive assembly with motor	RM1-4975-000CN	<a href="#">Internal components (5 of 5) on page 535</a>
Connecting cable assembly	RM1-5749-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Control panel assembly	CC519-60115	<a href="#">ADF/scanner assembly on page 521</a>
Control-panel cable	CC519-60107	<a href="#">ADF/scanner assembly on page 521</a>
Cover	RC2-5912-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Cover	RC2-5962-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Cover, control panel	RC2-5180-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Cover, control panel, rear	RC2-5181-000CN	<a href="#">External covers, panels, and doors; on page 523</a>

**Table 8-26 Alphabetical parts list (continued)**

Description	Part number	Table and page
Cover, front inner lower	RL1-1914-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Cover, front inner lower	RL1-1915-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Cover, front inner upper	RC2-5006-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Cover, left	RC2-5052-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Cover, left lower	RC2-5069-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Cover, left rear	RC2-5188-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Cover, rear	RC2-5048-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Cover, rear right	RC2-5057-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Cover, rear, upper	RC2-5185-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Cover, right (with stapler)	RC2-5192-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Cover, right (without stapler)	RC2-5189-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Cover, right front	RC2-5056-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Cover, right lower	RC2-5059-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Cover, right lower inner	RC2-5019-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Cover, upper rear	RL1-1953-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Cover, upper right	RC2-5182-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
DC controller PCA	RM1-5678-000CN	<a href="#">PCAs on page 547</a>
Density detect sensor assembly	RM1-4953-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Door stopper right link	RC2-4916-000CN	<a href="#">Internal components (4 of 5) on page 533</a>
Door switch assembly	RM1-5732-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Drawer connector (Tray 3)	VS1-7257-007CN	<a href="#">Paper feeder main body on page 553</a>
Drawer connector holder (Tray 3)	RC2-5416-000CN	<a href="#">Paper feeder main body on page 553</a>

**Table 8-26 Alphabetical parts list (continued)**

Description	Part number	Table and page
Drum motor assembly	RM1-4988-000CN	<a href="#">Internal components (5 of 5) on page 535</a>
Duplexing drive assembly	RM1-4973-000CN	<a href="#">Internal components (5 of 5) on page 535</a>
Duplexing unit cable assembly	RM1-5730-000CN	<a href="#">Internal components (5 of 5) on page 535</a>
Fan	RK2-2418-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Fan	RK2-2416-000CN	<a href="#">Internal components (4 of 5) on page 533</a>
Fan cable assembly	RM1-5746-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Fax cable	CC519-67907	<a href="#">Formatter components on page 549</a>
Fax controller PCA	CC456-60001	<a href="#">Formatter components on page 549</a>
Formatter PCA	CC452-60001	<a href="#">PCAs on page 547</a>
Front cable assembly	RM1-6998-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Front lock arm assembly	RM1-5532-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Fuser/Fixing service kit 220 v	CC519-67902	<a href="#">Fuser on page 537</a>
Fuser/Fixing service kit 110 v	CC519-67901	<a href="#">Fuser on page 537</a>
Fusing connecting cable assembly	RM1-5714-000CN	<a href="#">Internal components (4 of 5) on page 533</a>
Fusing drive assembly with motor	RM1-4974-000CN	<a href="#">Internal components (5 of 5) on page 535</a>
Hard drive, 80GB 2.5-inch SATA ROHS	CC519-67904	<a href="#">Formatter components on page 549</a>
High-voltage power supply lower PCA (HVPS-D)	RM1-5680-000CN	<a href="#">PCAs on page 547</a>
High-voltage power supply upper PCA (HVPS-T)	RM1-5681-000CN	<a href="#">PCAs on page 547</a>
Holder, AC	RC2-5194-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Holder, cartridge lock lever	RC2-5955-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Interconnect board (ICB)	CC453-60001	<a href="#">PCAs on page 547</a>
Interlock link	RC2-5120-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Interlock link	RC2-5119-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Interlock link	RC2-5118-000CN	<a href="#">Internal components (3 of 5) on page 531</a>

**Table 8-26 Alphabetical parts list (continued)**

Description	Part number	Table and page
Interlock link	RC2-5122-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Interlock link switch arm	RC2-5121-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Interlock switch mount	RC2-5123-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
ITB assembly service kit	CC468-67907	<a href="#">Internal components (3 of 5) on page 531</a>
Lever, box presence detect	RC2-5951-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Lever, cartridge lock	RC2-5954-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Lever, cartridge pressure front	RC2-3983-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Lever, shutter	RU6-4415-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Lifter cable assembly	RM1-5742-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Lifter drive assembly	RM1-4976-000CN	<a href="#">Internal components (5 of 5) on page 535</a>
Link, door stopper right	RC2-4916-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Lock, door	RC2-5937-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Low-voltage power supply PCA(110 v)	RM1-5689-000CN	<a href="#">PCAs on page 547</a>
Low-voltage power supply PCA(220 v)	RM1-5690-000CN	<a href="#">PCAs on page 547</a>
Lower cartridge guide assembly	RM1-4984-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Lower pick up guide assembly	RM1-4980-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Motor/sensor cable assembly	RM1-5752-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Multipurpose tray sensor cable assembly	RM1-5737-000CN	<a href="#">Internal components (4 of 5) on page 533</a>
Paper-delivery assembly	RM1-4970-000CN	<a href="#">Paper-delivery assembly on page 545</a>
PCI express RoHS cable	5851-3141	<a href="#">ADF/scanner assembly on page 521</a>
Photo interrupter, TLP1243	WG8-5696-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Photo interrupter, TLP1243	WG8-5696-000CN	<a href="#">Internal components (5 of 5) on page 535</a>
Pickup motor cable assembly	RM1-5731-000CN	<a href="#">Internal components (5 of 5) on page 535</a>

**Table 8-26 Alphabetical parts list (continued)**

Description	Part number	Table and page
Plate, blanking	RC2-5938-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Power supply button	RL1-1947-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Power supply switch assembly	RM1-5697-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Rear cable assembly	RM1-5721-000CN	<a href="#">Internal components (4 of 5) on page 533</a>
Rear lock arm assembly	RM1-5533-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Rear pre-exposure PCA	RM1-5705-000CN	<a href="#">Internal components (5 of 5) on page 535</a>
Registration assembly	RM1-4969-000CN	<a href="#">Registration assembly on page 543</a>
Rib, Control panel	RC2-5179-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Right door assembly	RM1-4957-000CN	<a href="#">Right door assembly on page 525</a>
Right door rear hinge	RC2-4895-000CN	<a href="#">Internal components (4 of 5) on page 533</a>
SATA hard drive cable power/data	CC519-67905	<a href="#">Formatter components on page 549</a>
Scanner assembly (ADF assembly and SCB PCA are <i>not</i> included)	CC519-67914	<a href="#">ADF/scanner assembly on page 521</a>
Scanner controller board (SCB)	CC454-60002	<a href="#">ADF/scanner assembly on page 521</a>
Scanner controller board (SCB)	CC454-60002	<a href="#">PCAs on page 547</a>
Scanner flat cable (FFC)	RK2-2506-000CN	<a href="#">Internal components (4 of 5) on page 533</a>
Scanner flat cable (FFC)	RK2-2508-000CN	<a href="#">Internal components (4 of 5) on page 533</a>
Seal, waste toner box	RC2-4780-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Sensor cable assembly	RM1-5740-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Sensor cable assembly	RM1-5741-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Sensor unit, Tmp/Hum sensor	RK2-2229-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Separation roller assy	RM1-4966-000CN	<a href="#">250-sheet cassette on page 539</a>
Shaft	RC2-5913-000CN	<a href="#">Internal components (3 of 5) on page 531</a>

**Table 8-26 Alphabetical parts list (continued)**

Description	Part number	Table and page
Shutter	RC2-5910-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Shutter	RC2-4413-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Shutter front arm	RC2-4406-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Shutter rear arm	RC2-4407-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Spring, compression	RU6-2568-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Spring, compression	RU6-2318-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Spring, compression	RU6-2316-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Spring, ground	RU6-2237-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Spring, leaf	RC2-5970-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Spring, tension	RU6-2236-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Spring, tension	RU6-2436-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Spring, torsion	RC2-5958-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Spring, torsion	RC2-5934-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Spring, torsion	RC2-5958-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Stapler mechanism	CC483-60107	<a href="#">Internal components (4 of 5) on page 533</a>
Stapler power supply	Q7429-60501	<a href="#">Internal components (4 of 5) on page 533</a>
Stapler, right cover assembly	RM1-5033-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Stepping motor, DC (developing disengagement)	RK2-2415-000CN	<a href="#">Internal components (5 of 5) on page 535</a>
Switch	WC4-5171-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Switch arm	RC2-5943-000CN	<a href="#">Internal components (4 of 5) on page 533</a>
Switch cable assembly	RM1-5718-000CN	<a href="#">Internal components (3 of 5) on page 531</a>
Switch lever	RC2-5124-000CN	<a href="#">Internal components (3 of 5) on page 531</a>

**Table 8-26 Alphabetical parts list (continued)**

Description	Part number	Table and page
Tab	RC2-5909-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Tab	RC2-4428-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Toner sensor holder assembly	RM1-5700-000CN	<a href="#">Internal components (2 of 5) on page 529</a>
Transfer roller assembly service kit	CC468-67914	<a href="#">Internal components (3 of 5) on page 531</a>
Tray, paper delivery	RL1-1941-000CN	<a href="#">External covers, panels, and doors; on page 523</a>
Tray 1 pickup roller	RL1-1928-000CN	<a href="#">Right door assembly on page 525</a>
Waste toner detect assembly	RM1-5696-000CN	<a href="#">Internal components (1 of 5) on page 527</a>
Waste toner duct assembly (motor)	RM1-4977-000CN	<a href="#">Internal components (1 of 5) on page 527</a>



# Numerical parts list

**Table 8-27 Numerical parts list**

Part number	Description	Table and page
5851-3141	PCI express RoHS cable	<a href="#">ADF/scanner assembly on page 521</a>
CC452-60001	Formatter PCA	<a href="#">PCAs on page 547</a>
CC453-60001	Interconnect board (ICB)	<a href="#">PCAs on page 547</a>
CC454-60002	Scanner controller board (SCB)	<a href="#">ADF/scanner assembly on page 521</a>
CC454-60002	Scanner controller board (SCB)	<a href="#">PCAs on page 547</a>
CC456-60001	Fax controller PCA	<a href="#">Formatter components on page 549</a>
CC468-67906	500-sheet paper feeder right door kit	<a href="#">500-sheet paper feeder on page 551</a>
CC468-67907	ITB assembly service kit	<a href="#">Internal components (3 of 5) on page 531</a>
CC468-67914	Transfer roller assembly service kit	<a href="#">Internal components (3 of 5) on page 531</a>
CC483-60103	ADF assembly	<a href="#">ADF/scanner assembly on page 521</a>
CC483-60107	Stapler mechanism	<a href="#">Internal components (4 of 5) on page 533</a>
CC519-60107	Control-panel cable	<a href="#">ADF/scanner assembly on page 521</a>
CC519-60115	Control panel assembly	<a href="#">ADF/scanner assembly on page 521</a>
CC519-67901	Fuser/Fixing service kit110 v	<a href="#">Fuser on page 537</a>
CC519-67902	Fuser/Fixing service kit 220 v	<a href="#">Fuser on page 537</a>
CC519-67904	Hard drive, 80GB 2.5-inch SATA ROHS	<a href="#">Formatter components on page 549</a>
CC519-67905	SATA hard drive cable power/data	<a href="#">Formatter components on page 549</a>
CC519-67907	Fax cable	<a href="#">Formatter components on page 549</a>
CC519-67909	ADF feed roller kit	<a href="#">ADF/scanner assembly on page 521</a>
CC519-67914	Scanner assembly (ADF assembly and SCB PCA are <i>not</i> included)	<a href="#">ADF/scanner assembly on page 521</a>
CE222-67901	500-sheet feeder replacement	<a href="#">500-sheet paper feeder on page 551</a>
Q7429-60501	Stapler power supply	<a href="#">Internal components (4 of 5) on page 533</a>

**Table 8-27 Numerical parts list (continued)**

Part number	Description	Table and page
RC2-3983-000CN	Lever, cartridge pressure front	<a href="#">Internal components (1 of 5) on page 527</a>
RC2-4406-000CN	Shutter front arm	<a href="#">Internal components (2 of 5) on page 529</a>
RC2-4407-000CN	Shutter rear arm	<a href="#">Internal components (2 of 5) on page 529</a>
RC2-4413-000CN	Shutter	<a href="#">Internal components (2 of 5) on page 529</a>
RC2-4428-000CN	Tab	<a href="#">Internal components (2 of 5) on page 529</a>
RC2-4780-000CN	Seal, waste toner box	<a href="#">Internal components (1 of 5) on page 527</a>
RC2-4895-000CN	Right door rear hinge	<a href="#">Internal components (4 of 5) on page 533</a>
RC2-4916-000CN	Link, door stopper right	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-4916-000CN	Door stopper right link	<a href="#">Internal components (4 of 5) on page 533</a>
RC2-5006-000CN	Cover, front inner upper	<a href="#">Internal components (1 of 5) on page 527</a>
RC2-5019-000CN	Cover, right lower inner	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-5048-000CN	Cover, rear	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5052-000CN	Cover, left	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5056-000CN	Cover, right front	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5057-000CN	Cover, rear right	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5059-000CN	Cover, right lower	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5069-000CN	Cover, left lower	<a href="#">Internal components (1 of 5) on page 527</a>
RC2-5118-000CN	Interlock link	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-5119-000CN	Interlock link	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-5120-000CN	Interlock link	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-5121-000CN	Interlock link switch arm	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-5122-000CN	Interlock link	<a href="#">Internal components (3 of 5) on page 531</a>

**Table 8-27 Numerical parts list (continued)**

Part number	Description	Table and page
RC2-5123-000CN	Interlock switch mount	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-5124-000CN	Switch lever	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-5179-000CN	Rib, Control panel	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5180-000CN	Cover, control panel	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5181-000CN	Cover, control panel, rear	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5182-000CN	Cover, upper right	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5185-000CN	Cover, rear, upper	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5188-000CN	Cover, left rear	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5189-000CN	Cover, right (without stapler)	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5192-000CN	Cover, right (with stapler)	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5194-000CN	Holder, AC	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5416-000CN	Drawer connector holder (Tray 3)	<a href="#">Paper feeder main body on page 553</a>
RC2-5909-000CN	Tab	<a href="#">Internal components (2 of 5) on page 529</a>
RC2-5910-000CN	Shutter	<a href="#">Internal components (2 of 5) on page 529</a>
RC2-5912-000CN	Cover	<a href="#">Internal components (2 of 5) on page 529</a>
RC2-5913-000CN	Shaft	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-5934-000CN	Spring, torsion	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-5937-000CN	Lock, door	<a href="#">Internal components (1 of 5) on page 527</a>
RC2-5938-000CN	Plate, blanking	<a href="#">External covers, panels, and doors; on page 523</a>
RC2-5943-000CN	Switch arm	<a href="#">Internal components (4 of 5) on page 533</a>
RC2-5951-000CN	Lever, box presence detect	<a href="#">Internal components (1 of 5) on page 527</a>
RC2-5954-000CN	Lever, cartridge lock	<a href="#">Internal components (2 of 5) on page 529</a>

**Table 8-27 Numerical parts list (continued)**

Part number	Description	Table and page
RC2-5954-000CN	Cartridge lock lever	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-5955-000CN	Holder, cartridge lock lever	<a href="#">Internal components (2 of 5) on page 529</a>
RC2-5958-000CN	Spring, torsion	<a href="#">Internal components (2 of 5) on page 529</a>
RC2-5958-000CN	Spring, torsion	<a href="#">Internal components (3 of 5) on page 531</a>
RC2-5962-000CN	Cover	<a href="#">Internal components (2 of 5) on page 529</a>
RC2-5970-000CN	Spring, leaf	<a href="#">Internal components (2 of 5) on page 529</a>
RK2-2229-000CN	Sensor unit, Tmp/Hum sensor	<a href="#">Internal components (2 of 5) on page 529</a>
RK2-2415-000CN	Stepping motor, DC (developing disengagement)	<a href="#">Internal components (5 of 5) on page 535</a>
RK2-2416-000CN	Fan	<a href="#">Internal components (4 of 5) on page 533</a>
RK2-2418-000CN	Fan	<a href="#">Internal components (2 of 5) on page 529</a>
RK2-2501-000CN	Cable, AC (stapler power)	<a href="#">Internal components (4 of 5) on page 533</a>
RK2-2506-000CN	Scanner flat cable (FFC)	<a href="#">Internal components (4 of 5) on page 533</a>
RK2-2508-000CN	Scanner flat cable (FFC)	<a href="#">Internal components (4 of 5) on page 533</a>
RL1-1914-000CN	Cover, front inner lower	<a href="#">Internal components (1 of 5) on page 527</a>
RL1-1915-000CN	Cover, front inner lower	<a href="#">Internal components (1 of 5) on page 527</a>
RL1-1923-000CN	Base	<a href="#">Internal components (2 of 5) on page 529</a>
RL1-1928-000CN	Tray 1 pickup roller	<a href="#">Right door assembly on page 525</a>
RL1-1941-000CN	Tray, paper delivery	<a href="#">External covers, panels, and doors; on page 523</a>
RL1-1947-000CN	Power supply button	<a href="#">Internal components (3 of 5) on page 531</a>
RL1-1953-000CN	Cover, upper rear	<a href="#">External covers, panels, and doors; on page 523</a>
RL1-2144-000CN	Base	<a href="#">Internal components (2 of 5) on page 529</a>
RM1-4953-000CN	Density detect sensor assembly	<a href="#">Internal components (3 of 5) on page 531</a>

**Table 8-27 Numerical parts list (continued)**

Part number	Description	Table and page
RM1-4957-000CN	Right door assembly	<a href="#">Right door assembly on page 525</a>
RM1-4962-000CN	250-sheet cassette	<a href="#">250-sheet cassette on page 539</a>
RM1-4966-000CN	Separation roller assy	<a href="#">250-sheet cassette on page 539</a>
RM1-4967-000CN	250-sheet cassette paper pickup assembly	<a href="#">250-sheet cassette paper pickup assembly on page 541</a>
RM1-4968-000CN	250-sheet cassette paper pickup roller	<a href="#">250-sheet cassette paper pickup assembly on page 541</a>
RM1-4969-000CN	Registration assembly	<a href="#">Registration assembly on page 543</a>
RM1-4970-000CN	Paper-delivery assembly	<a href="#">Paper-delivery assembly on page 545</a>
RM1-4973-000CN	Duplexing drive assembly	<a href="#">Internal components (5 of 5) on page 535</a>
RM1-4974-000CN	Fusing drive assembly with motor	<a href="#">Internal components (5 of 5) on page 535</a>
RM1-4975-000CN	Cassette paper pick up drive assembly with motor	<a href="#">Internal components (5 of 5) on page 535</a>
RM1-4976-000CN	Lifter drive assembly	<a href="#">Internal components (5 of 5) on page 535</a>
RM1-4977-000CN	Waste toner duct assembly (motor)	<a href="#">Internal components (1 of 5) on page 527</a>
RM1-4979-000CN	Base assembly	<a href="#">Internal components (2 of 5) on page 529</a>
RM1-4980-000CN	Lower pick up guide assembly	<a href="#">Internal components (3 of 5) on page 531</a>
RM1-4984-000CN	Lower cartridge guide assembly	<a href="#">Internal components (2 of 5) on page 529</a>
RM1-4988-000CN	Drum motor assembly	<a href="#">Internal components (5 of 5) on page 535</a>
RM1-5033-000CN	Stapler, right cover assembly	<a href="#">External covers, panels, and doors; on page 523</a>
RM1-5532-000CN	Front lock arm assembly	<a href="#">Internal components (3 of 5) on page 531</a>
RM1-5533-000CN	Rear lock arm assembly	<a href="#">Internal components (3 of 5) on page 531</a>
RM1-5678-000CN	DC controller PCA	<a href="#">PCAs on page 547</a>
RM1-5680-000CN	High-voltage power supply lower PCA (HVPS-D)	<a href="#">PCAs on page 547</a>
RM1-5681-000CN	High-voltage power supply upper PCA (HVPS-T)	<a href="#">PCAs on page 547</a>
RM1-5689-000CN	Low-voltage power supply PCA(110 v)	<a href="#">PCAs on page 547</a>
RM1-5690-000CN	Low-voltage power supply PCA(220 v)	<a href="#">PCAs on page 547</a>

**Table 8-27 Numerical parts list (continued)**

Part number	Description	Table and page
RM1-5696-000CN	Waste toner detect assembly	<a href="#">Internal components (1 of 5) on page 527</a>
RM1-5697-000CN	Power supply switch assembly	<a href="#">Internal components (3 of 5) on page 531</a>
RM1-5700-000CN	Toner sensor holder assembly	<a href="#">Internal components (2 of 5) on page 529</a>
RM1-5705-000CN	Rear pre-exposure PCA	<a href="#">Internal components (5 of 5) on page 535</a>
RM1-5714-000CN	Fusing connecting cable assembly	<a href="#">Internal components (4 of 5) on page 533</a>
RM1-5718-000CN	Switch cable assembly	<a href="#">Internal components (3 of 5) on page 531</a>
RM1-5721-000CN	Rear cable assembly	<a href="#">Internal components (4 of 5) on page 533</a>
RM1-5730-000CN	Duplexing unit cable assembly	<a href="#">Internal components (5 of 5) on page 535</a>
RM1-5731-000CN	Pickup motor cable assembly	<a href="#">Internal components (5 of 5) on page 535</a>
RM1-5732-000CN	Door switch assembly	<a href="#">Internal components (3 of 5) on page 531</a>
RM1-5737-000CN	Multipurpose tray sensor cable assembly	<a href="#">Internal components (4 of 5) on page 533</a>
RM1-5740-000CN	Sensor cable assembly	<a href="#">Internal components (2 of 5) on page 529</a>
RM1-5741-000CN	Sensor cable assembly	<a href="#">Internal components (2 of 5) on page 529</a>
RM1-5742-000CN	Lifter cable assembly	<a href="#">Internal components (1 of 5) on page 527</a>
RM1-5746-000CN	Fan cable assembly	<a href="#">Internal components (2 of 5) on page 529</a>
RM1-5749-000CN	Connecting cable assembly	<a href="#">Internal components (2 of 5) on page 529</a>
RM1-5752-000CN	Motor/sensor cable assembly	<a href="#">Internal components (2 of 5) on page 529</a>
RM1-6198-000CN	500-sheet cassette	<a href="#">500-sheet paper feeder on page 551</a>
RM1-6998-000CN	Front cable assembly	<a href="#">Internal components (3 of 5) on page 531</a>
RU6-2236-000CN	Spring, tension	<a href="#">Internal components (1 of 5) on page 527</a>
RU6-2237-000CN	Spring, ground	<a href="#">Internal components (1 of 5) on page 527</a>
RU6-2316-000CN	Spring, compression	<a href="#">Internal components (2 of 5) on page 529</a>

**Table 8-27 Numerical parts list (continued)**

Part number	Description	Table and page
RU6-2318-000CN	Spring, compression	<a href="#">Internal components (2 of 5) on page 529</a>
RU6-2436-000CN	Spring, tension	<a href="#">Internal components (2 of 5) on page 529</a>
RU6-2568-000CN	Spring, compression	<a href="#">Internal components (1 of 5) on page 527</a>
RU6-4415-000CN	Lever, shutter	<a href="#">Internal components (2 of 5) on page 529</a>
VS1-7257-007CN	Drawer connector (Tray 3)	<a href="#">Paper feeder main body on page 553</a>
WC4-5171-000CN	Switch	<a href="#">Internal components (3 of 5) on page 531</a>
WG8-5696-000CN	Photo interrupter, TLP1243	<a href="#">Internal components (3 of 5) on page 531</a>
WG8-5696-000CN	Photo interrupter, TLP1243	<a href="#">Internal components (5 of 5) on page 535</a>





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# A Service and support

- [Hewlett-Packard limited warranty statement](#)
- [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 CM3530 Series MFP	One-year limited 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.

Warranty does not apply to defects resulting from (a) improper or inadequate maintenance or calibration, (b) software, interfacing, parts or supplies not supplied by HP, (c) unauthorized modification or misuse, (d) operation outside of the published environmental specifications for the product, or (e) improper site preparation or maintenance.

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HP's limited warranty is valid in any country/region or locality where HP has a support presence for this product and where HP has marketed this product. The level of warranty service you receive may vary according to local standards. HP will not alter form, fit or function of the product to make it operate in a country/region for which it was never intended to function for legal or regulatory reasons.

TO THE EXTENT ALLOWED BY LOCAL LAW, THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL HP OR ITS SUPPLIERS BE LIABLE FOR LOSS OF DATA OR FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT OR DATA), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE. Some countries/regions, states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

## Print cartridge limited warranty statement

This HP product is warranted to be free from defects in materials and workmanship.

This warranty does not apply to products that (a) have been refilled, refurbished, remanufactured or tampered with in any way, (b) experience problems resulting from misuse, improper storage, or operation outside of the published environmental specifications for the printer product or (c) exhibit wear from ordinary use.

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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# HP Color LaserJet Fuser Kit Limited Warranty Statement

This HP product is warranted to be free from defects in materials and workmanship until the printer provides a low-life indicator on the control panel.

This warranty does not apply to products that (a) have been refurbished, remanufactured or tampered with in any way, (b) experience problems resulting from misuse, improper storage, or operation outside of the published environmental specifications for the printer product or (c) exhibit wear from ordinary use.

To obtain warranty service, please return the product to place of purchase (with a written description of the problem) 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

## Customer self-repair warranty service

HP products are designed with many Customer Self Repair (CSR) parts to minimize repair time and allow for greater flexibility in performing defective parts replacement. If during the diagnosis period, HP identifies that the repair can be accomplished by the use of a CSR part, HP will ship that part directly to you for replacement. There are two categories of CSR parts: 1) Parts for which customer self repair is mandatory. If you request HP to replace these parts, you will be charged for the travel and labor costs of this service. 2) Parts for which customer self repair is optional. These parts are also designed for Customer Self Repair. If, however, you require that HP replace them for you, this may be done at no additional charge under the type of warranty service designated for your product.

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/cljcm3530mfp](http://www.hp.com/support/cljcm3530mfp)

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Get support for products used with a Macintosh computer

[www.hp.com/go/macosex](http://www.hp.com/go/macosex)

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Download software utilities, drivers, and electronic information

[www.hp.com/go/cljcm3530mfp\\_software](http://www.hp.com/go/cljcm3530mfp_software)

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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](#)
- [Electrical specifications](#)
- [Acoustic specifications](#)
- [Environmental specifications](#)

## Physical specifications

**Table B-1 Product dimensions**

Product	Height	Depth	Width	Weight
HP Color LaserJet CM3530n	358 mm (14.1 in)	491 mm (19.3 in)	514 mm (20.2 in)	47.6 kg (105.0 lb)
HP Color LaserJet CM3530dn	358 mm (14.1 in)	491 mm (19.3 in)	514 mm (20.2 in)	47.6 kg (105.0 lb)
HP Color LaserJet CM3530x	520 mm (20.5 in)	491 mm (19.3 in)	514 mm (20.2 in)	48.4 kg (106.6 lb)

**Table B-2 Product dimensions, with all doors and trays fully opened**

Product	Height	Depth	Width
HP Color LaserJet CM3530n	358 mm (14.1 in)	739 mm (29.1 in)	822 mm (32.4 in)
HP Color LaserJet CM3530dn	358 mm (14.1 in)	739 mm (29.1 in)	822 mm (32.4 in)
HP Color LaserJet CM3530x	520 mm (20.5 in)	739 mm (29.1 in)	822 mm (32.4 in)

## 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	115 to 127 volts ( $\pm 10\%$ )	220 to 240 volts ( $\pm 10\%$ )
	50/60 Hz ( $\pm 2$ Hz)	50/60 Hz ( $\pm 2$ Hz)
Rated current	8.5 Amps	4.5 Amps

**Table B-4 Power consumption (average, in watts)<sup>1246</sup>**

Product model	Copy/scan	Printing	Ready	Sleep 1	Sleep 2	Off
HP Color LaserJet CM3530 models	666 W	652 W	87.4 W	72.2 W	18.1 W	0.84 W

<sup>1</sup> Values subject to change. See [www.hp.com/support/cljcm3530mfp](http://www.hp.com/support/cljcm3530mfp) 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 = 298.3 BTU/hour.

<sup>6</sup> HP Color LaserJet CM3530 speed is 31 ppm Letter size.

## Acoustic specifications

**Table B-5 HP Color LaserJet CM3530 MFP Series<sup>13</sup>**

Sound power level	Declared per ISO 9296
Printing	$L_{wAd}$ = 6.8 Bels (A) [68 dB(A)]

**Table B-5 HP Color LaserJet CM3530 MFP Series (continued)**

Sound power level	Declared per ISO 9296
ADF copying	$L_{WAd} = 7.0$ Bels (A) [70 dB(A)]
Ready	$L_{WAd} = 4.8$ Bels (A) [48 dB(A)]
Sound pressure level - bystander position	Declared per ISO 9296
Printing	$L_{pAm} = 53$ dB (A)
ADF copying	$L_{pAm} = 55$ dB (A)
Ready	$L_{pAm} = 34$ dB (A)

<sup>1</sup> Values are based on preliminary data. See [www.hp.com/support/cljcm3530mfp](http://www.hp.com/support/cljcm3530mfp) for current information.

<sup>3</sup> Configuration tested: HP Color LaserJet CM3530 printer printing on A4-size paper in simplex mode

## Environmental specifications

Environmental condition	Recommended	Storage
Temperature (product and print cartridge)	15° to 27°C (59° to 80.6°F)	0° to 35°C (32° to 95°F)
Relative humidity	20% to 60% relative humidity (RH)	10% to 90% RH
Altitude	N/A	0 meters (0 feet) to 2500 meters (8000 feet)



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# C Regulatory information

- [FCC regulations](#)
- [Declaration of Conformity](#)
- [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 CM3530 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)

# 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A情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

## 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 Apparat

HP Color LaserJet CM3530, CM3530fs, 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 CM3530, CM3530fs - 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 alttiina 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
复印机组件	X	0	0	0	0	0
控制面板	0	X	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

3688

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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# Index

## Symbols/Numerics

500-sheet paper and heavy media tray  
models including 3

## A

AC to DC conversion 125  
accessories  
ordering 510  
part numbers 511  
screws 519  
accessories installed,  
information 440  
acoustic specifications 578  
activity log, fax 81  
address books, e-mail  
clearing 53  
importing 87  
ADF  
capacity 4  
clean delivery system 108  
operations 174  
part numbers 520  
sensors 174  
ADF output bin  
selecting 77  
ADF roller assembly,  
removing 215  
ADF separation pad,  
removing 215  
ADF, removing 212  
Administration menu, control  
panel 16  
after service checklist 181  
anticounterfeit supplies 93  
AppleTalk information 439  
AppleTalk settings 34  
Attention light  
locating 12

automatic overhead transparency  
sensing 75

## B

bands, troubleshooting 496  
beam-detect (BD) failure 132  
bias generation  
high-voltage power  
supply 124  
billing codes report, fax 81  
bins  
locating 7  
selecting 77  
bins, output  
capacity 60  
black-only printing mode  
developing roller state 141  
primary transfer roller  
state 143  
blank pages  
troubleshooting 500  
blank pages, troubleshooting 495  
blocked fax list, printing 81  
browser requirements  
embedded Web server 85  
buffer overflow errors 442  
buttons, control panel  
locating 12  
touchscreen 15

## C

cable, USB  
part number 514  
cables  
USB, troubleshooting 500  
calibrate scanner 430  
calibrating scanner 50

calibration  
information, printed 434  
reset by NVRAM  
initialization 506  
call report, fax 81  
Canadian DOC regulations 584  
capacity  
ADF 4  
cartridges  
management menu 29  
non-HP 93  
ordering through embedded  
Web server 88  
removing 186  
replace 93  
replacement intervals 93  
storage 93  
warranty 571  
cartridges, print  
part numbers 513  
cassette  
lift operation 153, 170  
paper-level detection 155  
paper-presence  
detection 155, 171  
pickup assembly,  
removing 323  
pickup drive assembly,  
removing 316  
pickup operations 152  
presence detection 153, 169  
tray 2, removing 199  
tray 3, removing 199  
*See also* trays  
cautions 2  
characters, troubleshooting 498  
checklists  
after service 181  
preservice 180

- circuit diagrams
  - fuser temperature-control 128
  - general 424
  - high-voltage power supply 123
  - low-voltage power supply 125
- clean
  - about 108, 110
  - ADF delivery system 108
  - document-feeder rollers 110
  - fuser 111
  - glass 108
  - outside of product 108
  - touchscreen 108
- clean page, printing 111
- clock
  - error message 441
- clutches
  - DC controller 120
- cold reset 504
- color
  - calibration 145
  - diagnostic test 440
  - disengagement for black-only printing 141
  - misregistration control 146
  - page count, reset 503
  - primary transfer roller state 143
  - troubleshooting 434, 497
- color usage job log, printing 81
- components
  - DC controller 119
  - diagnostic tests 409
  - diagrams of 411
  - duplexing unit 162
  - engine-control system 118
  - fuser 127
  - image formation, use during 133
  - intermediate transfer belt (ITB) 142
  - paper feeder 167
  - pickup, feed, and delivery 148
  - print cartridge 139
  - protection for 126, 128
  - Registration density (RD) sensor assembly, removing 297
  - residual-toner-feed motor, removing 292
  - toner-collection sensor, removing 290
- configuration page
  - Information menu 17
  - printing 80
- configuration pages
  - information 440
  - printing 436
- configurations, models 3
- configure
  - trays 75
- connectivity features 5
- connectors
  - DC controller PCA 412
  - product base 414
- control panel
  - Administration menu 16
  - buttons 12
  - clean touchscreen 108
  - E-mail Setup menu 41
  - Fax Setup menu 38
  - help 15
  - Home screen 14
  - Information menu 17
  - Initial Setup menu 31
  - layout 12
  - lights 12
  - locating 7
  - locking menus 91
  - Management menu 28
  - messages, listed alphabetically 441
  - messages, listed numerically 441
  - Resets menu 53
  - Send Setup menu 41
  - Service menu 54
  - Time/Scheduling menu 26
  - touchscreen buttons 15
- control-panel assembly, removing 219
- control-panel overlay, removing 218
- controlling print jobs 76
- conventions, document 2
- cooling
  - areas and fans 123
- copying
  - features 6
  - quality, troubleshooting 494
  - speed specifications 4
- counterfeit supplies 93
- counts
  - ADF 503
  - ADF duplex 503
  - ADF simplex 503
  - color cycle 503
  - copy pages 503
  - copy scan 503
  - flatbed cycle 503
  - mono cycle 503
  - page, reset 503
  - print engine maintenance 440
  - refurbish cycle 503
  - reset after replacing formatter 503
  - reset by NVRAM initialization 506
  - send scan 503
  - See also pages counts
- covers
  - delivery cover, removing 245
  - front stapler and right-side stapler covers, removing 249
  - front-door assembly, removing 211
  - front-top, removing 261
  - front-upper cover, removing 225
  - left, removing 233
  - left-upper cover, removing 247
  - rear cover, removing 238
  - rear-toptop, removing 262
  - rear-upper cover, removing 236
  - right-door assembly, removing 227
  - right-front, removing 239
  - right-rear, removing 231
  - right-top cover, removing 258
- covers, locating 7
- creases, troubleshooting 499
- crooked pages
  - troubleshooting 498

- current-detection protection
  - circuit 129
- custom paper sizes 61
- customer support
  - embedded Web server
    - links 88
  - online 576
- D**
  - dark image, troubleshooting 494
  - Data light
    - locating 12
  - date
    - codes for firmware 440
    - manufacture 438
    - product first used 504
  - date, setting 26
  - DC controller
    - clutches 120
    - components 119
    - fans 122
    - motors 122
    - PCA, connectors 412
    - sensors 121
    - solenoids 119
    - switches 120
    - temperature controls 129
    - voltage detection 126
  - DC controller PCA and tray,
    - removing 270
  - DC motors 122
  - DC voltages converted from
    - AC 125
  - Declaration of Conformity 583
  - default job options menu 19
  - default settings
    - Resets menu 53
  - defects, repeating 428
  - delivery assembly
    - removing 361
  - delivery cover, removing 245
  - demo page 378
  - density control 147
  - development process 136
  - Device Behavior menu 42
  - diagnostics
    - component 409
    - engine 381
    - LED 378

- networks 34
  - page, printing 434
  - See *a/so* tests; troubleshooting
- diagrams 509
- digital sending
  - embedded Web server
    - settings 87
  - Setup menu 41
  - validating gateway
    - addresses 507
- Digital Sending tab, embedded
  - Web server 87
- DIMM
  - memory, removing 193
- DIMMs (dual inline memory
  - modules)
    - installing 100
    - part numbers 513
- Disk Erase feature 90
- disk initialization 505
- DLC/LLC information 439
- DLC/LLC settings 34
- document conventions 2
- document feeder
  - jams 485
- document feeder count
  - ADF pages 503
- document feeder interval 503
- double-sided printing
  - paper loading orientation 62
- drawer connector
  - drawer connector,
    - removing 368
- drive circuit
  - power-supply frequency
    - range 130
- drivers
  - paper types 58
- duplex printing
  - paper loading orientation 62
- duplexing unit
  - components 162
  - duplex-drive assembly,
    - removing 366
  - motors 122
  - pickup operation 163
  - See *a/so* pickup, feed, and
    - delivery
- duty cycle 4

- E**
  - EIO accessory
    - settings 31
  - EIO cards
    - buffer overflow 442
    - errors 455
    - installing 105
    - part number 514
    - reset by NVRAM
      - initialization 506
  - electrical specifications 578
  - electrostatic discharge
    - (ESD) 178
  - embedded protocol page 439
  - embedded Web server
    - assigning a password 90
    - Digital Sending tab 87
    - features 85
  - energy specifications 578
  - engine
    - diagnostics 381
    - test page 386
  - engine-control system
    - components 118
  - Enhanced I/O card
    - part number 514
  - envelopes
    - jams 489
    - loading in Tray 1 66
    - loading orientation 62
  - environment change control 147
  - environment, specifications 579
  - erasing hard disk 90
  - Error button, control panel
    - touchscreen 15
  - error messages
    - control panel, listed
      - alphabetically 441
    - control panel, listed
      - numerically 441
    - event log, listed
      - numerically 468
    - See *a/so* troubleshooting
  - ESD (electrostatic
    - discharge) 178
  - Ethernet cards 5
  - event log
    - clear 468, 503
    - information 440

- messages, listed
  - numerically 468
- reset by NVRAM
  - initialization 506
- view or print 468
- EWS
  - features 85
- exhaust fans 123
- Explorer, versions supported
  - embedded Web server 85
- e-mail
  - embedded Web server
    - settings 87
  - problem solving 507
  - validating gateway
    - addresses 507
- E-mail Setup menu 41
- F**
  - faded print 494
  - failure detection
    - drive circuit 130
    - fuser 129
    - lasers and scanners 132
    - low-voltage power supply 126
    - motors 122
    - See *also* jams
  - fans
    - cartridge, removing 285
    - DC controller 122
    - delivery, removing 285
    - exhaust 123
    - intake 123
    - power-supply fan and fan duct, removing 300
  - fax accessory
    - printing schedule 27
    - solve problems 507
  - Fax Activity Log
    - clearing 53
  - fax PCA, removing 197
  - fax reports, printing 17, 81
  - Fax Setup menu 38
  - features 3, 4
  - feed, paper. See pickup, feed, and delivery
  - file directory, printing 81
  - Finnish laser safety
    - statement 584

- firmware
  - date codes 440
  - version information 438
- firmware, upgrading 112
- fixing
  - definition 116
- flowcharts
  - troubleshooting 375
- fonts
  - included 4
  - list, printing 18, 81
- Foreign Interface Harness (FIH) 9
- formatter
  - operations 116
  - PCA, removing 192
  - resets after replacing 503
  - security 92
- formatter lights 378
- fraud hotline 93
- front-door assembly,
  - removing 211
- front-top cover, removing 261
- front-upper cover, removing 225
- fuser
  - clean 111
  - components 127
  - control-circuit function 127
  - discrepancy detection 130
  - drive assembly, removing 356
  - failure detection 129
  - jams 475
  - motor, removing 345
  - temperature control 128
  - See *also* fusing and delivery unit
- fusing
  - definition 116
- fusing and delivery unit
  - operations 159
  - See *also* fuser; pickup, feed, and delivery

- G**
  - gateways
    - validating addresses 507
  - glass
    - clean 108
  - graphical display, control
    - panel 12

- H**
  - halftone control 147
  - hard disk
    - erasing 90
    - initialization 505
    - part numbers 513
  - hard disk EIO
    - part numbers 513
  - hard disks
    - encrypted 90
  - hard drive, removing 195
  - heartbeat LED 380
  - heat control for fuser 128
  - heaters, fuser 127
  - Help button, control panel
    - touchscreen 15
  - help, control panel 15
  - high-voltage power supply
    - bias generation 124
    - circuits 124
    - operations 123
    - removing, lower 308
    - removing, upper 339
    - See *also* power supply
  - Home button, control panel
    - touchscreen 15
  - Home screen, control panel 14
  - HP Customer Care 576
  - HP Easy Printer Care
    - opening 82
    - options 82
    - using 82
  - HP fraud hotline 93
  - HP Jetdirect print server
    - configuration page 438
    - installing 105
    - lights 378
    - models including 3
    - settings 31
  - HP Jetdirect print servers
    - installing 105
  - HP Web Jetadmin
    - firmware updates 114
  - humidity requirements 579
- I**
  - I/O configuration
    - settings 31
  - ICB, removing 267

- image quality issues
    - examples and solutions 494
  - image stabilization controls 147
  - image-formation process 133
  - imaging drums
    - color drums
    - disengagement 141
    - diagnostic test 385
  - Information menu 17
  - information pages 80
  - Information tab, embedded Web server 86
  - initial rotation period 117
  - Initial Setup menu 31
  - initializing
    - hard disk 505
    - NVRAM 506
  - input trays
    - optional, operations 166
  - installation
    - date calculation 504
    - verify for optional accessories 436
  - installing
    - EIO cards 105
  - intake fans 123
  - interface ports
    - included 5
    - locating 9
  - intermediate transfer belt (ITB)
    - components 142
    - home position 143
    - operations 142
  - Internet Explorer, versions supported
    - embedded Web server 85
  - IPv4 information 438
  - IPv6 information 438
  - IPX/SPX information 439
  - IPX/SPX setting 33
- J**
- jams
    - common causes of 472
    - detection in paper feeder 173
    - detection sensors 164
    - diagnostic test for 386
    - document feeder 485
    - envelopes 489
    - fuser 475
    - lower right door 484
    - output bin 479
    - recovery 486
    - right door 475
    - Tray 1 480
    - Tray 2 482
    - Tray 3 483, 484
    - types detected 164
  - Japanese VCCI statement 584
  - Jetadmin
    - firmware updates 114
  - Jetadmin, HP Web 89
  - Jetdirect print server
    - installing 105
    - lights 378
    - models including 3
    - settings 31
  - job storage
    - settings 28
- K**
- keys, control panel
    - locating 12
    - touchscreen 15
  - Korean EMC statement 584
- L**
- LAN-connector 5
  - languages, printer 4
  - laser safety statements 584
  - laser/scanner
    - assembly (C/Bk), removing 332
    - assembly (Y/M), removing 325
    - failure conditions 132
    - operations 131
  - last rotation period 117
  - latent image formation 134
  - LDAP servers
    - embedded Web server settings 87
    - validating gateway addresses 507
  - LEDs. *See* lights
  - left cover, removing 233
  - left-upper cover, removing 247
  - license, software 573
  - lifter-drive assembly
    - removing 314
  - light print, troubleshooting 494
  - lights
    - control panel 12
    - formatter 378
    - troubleshooting with 378
  - lines, troubleshooting 496
  - link speed settings 36
  - loading
    - Tray 1 66
    - Tray 2 68
  - loading media
    - configuring 62
  - locking
    - control panel menus 91
  - log of events
    - clear 468
    - messages, listed numerically 468
    - view or print 468
  - loop control 159
  - loose toner, troubleshooting 497
  - low-voltage power supply
    - converted DC voltages 125
    - failure detection 126
    - operations 125
    - protection for components 126
    - safety provided by 126
    - stops and interruptions 125
    - See also* power supply
  - lower right door
    - jams 484
  - LVPS, removing 273
- M**
- Macintosh
    - AppleTalk settings 34
    - support 576
  - main-drive assembly
    - removing 346
  - manage
    - EWS 85
    - information pages 80
    - supplies 93
  - Management menu 28
  - manual print modes 492
  - Media 55
  - media
    - supported sizes 56

- memory
  - features 4
  - included 3
  - information 436
  - insufficient 442, 459
  - NVRAM initialization 506
  - part numbers 513
- memory DIMM, removing 193
- memory DIMMs
  - security 92
- Menu button 12
- menu map
  - Information menu 17
  - print 372
  - printing 80
- menus, control panel
  - Administration 16
  - E-mail Setup 41
  - Fax Setup 38
  - Information 17
  - Initial Setup 31
  - locking 91
  - Management 28
  - Resets 53
  - Send Setup 41
  - Service 54
  - Time/Scheduling 26
- messages
  - control panel, listed
    - alphabetically 441
  - control panel, listed
    - numerically 441
  - event log, listed
    - numerically 468
- model number 438
- models 3
- monthly duty cycle 4
- motors
  - DC controller 122
  - developing-disengagement,
    - removing 311
  - drum motor 1, removing 343
  - drum motor 2 or 3,
    - removing 344
  - failure detection 122
  - fuser, removing 345
  - paper feeder 167
  - pickup, feed, and delivery 149
  - pickup, removing 313
  - stepping 122

- movement of paper through
  - product. See pickup, feed, and delivery
- multiple paper feed
  - prevention 155, 172
- multipurpose tray. See trays

## N

- Netscape Navigator, versions
  - supported
    - embedded Web server 85
- Networking tab, embedded Web
  - server 88
- networks
  - AppleTalk settings 34
  - connectivity features 5
  - diagnostics 34
  - DLC/LLC settings 34
  - HP embedded Jetdirect
    - configuration page 438
  - HP Web Jetadmin 89
  - installing EIO cards 105
  - IPX/SPX settings 33
  - link speed settings 36
  - print servers included 3
  - protocol configuration page,
    - printing 37
  - security 34
  - TCP/IP settings 31
  - validating gateway
    - addresses 507
- noise specifications 578
- non-HP supplies 93
- notes 2
- Novell/NetWare information 439
- NVRAM (nonvolatile memory)
  - initialization 506

## O

- on/off switch, locating 7
- online help, control panel 15
- online support 576
- operating environment
  - specifications 579
- operation sequence 117
- operations
  - ADF 174
  - scanner 174
- ordering
  - part numbers for 511

- supplies and accessories 510
- supplies through embedded
  - Web server 88
- orientation
  - paper, while loading 62
- output bin
  - jams 479
  - locating 7
- output bins
  - selecting 77
- overcurrent or overvoltage
  - protection 126
- overhead transparency (OHT)
  - detection 158

## P

- pages
  - blank 500
  - not printing 500
  - printing slowly 500
  - skewed 498
- pages count
  - from product ADF 503
  - from product copy 503
  - from product copy scan
    - count 503
  - from product flatbed 503
  - from product refurbish
    - date 503
  - from product send scan 503
  - reset 503
  - reset by NVRAM
    - initialization 506
  - since last maintenance 440
  - See *also* counts
- pages per minute 4
- paper
  - cassette-presence
    - detection 153, 169
  - custom sizes 61
  - default size reset 504
  - jam detection 173
  - level detection 155
  - load 66
  - loading orientation 62
  - loading Tray 3 72
  - movement sensors 148, 164
  - multifeed prevention 172
  - presence detection 155, 171
  - selecting 76



- size detection 169
  - source 76
  - stop in path for testing 409
  - supported sizes 56
  - supported types 58
  - type 76
  - type and size 76
  - type detection 158
  - wrinkled 499
  - paper feeder
    - cassette lift operation 170
    - electrical components 167
    - feed operations 157
    - jam detection 173
    - multifeed prevention 155, 172
    - optional 1 x 500-sheet 166
    - pickup and feed operation 168
    - skew feed prevention 158
    - See also* pickup, feed, and delivery
  - paper jams. *See* jams
  - paper path
    - diagnostic test 386
    - stop movement for testing 409
  - paper-path
    - test, sensors 408
  - parameters, EP,
    - troubleshooting 434
  - part numbers
    - ADF/scanner assembly 520
    - hard disk 513
    - hard disk EIO 513
    - memory 513
    - print cartridges 513
    - screws 519
  - parts 509
  - parts lists and diagrams
    - covers, panels, and doors 522
    - internal components 526, 528, 530, 532, 534
    - using 519
  - password
    - Service menu PIN 503
  - periods of the operation
    - sequence 116
  - physical specifications 577
  - pickup, feed, and delivery
    - components 148
    - multipurpose tray pickup 156
    - overview 148
    - paper-feed operations 157
    - paper-feeder pickup and feed 168
    - pickup-and-feed unit
      - operations 151
    - See also* paper feeder; fusing and delivery unit; duplexing unit
  - pliers, required 179
  - port configuration
    - information 438
  - ports
    - included 5
    - locating 9
  - post-service tests 182
  - power specifications 578
  - power supply
    - frequency range for drive circuit 130
    - troubleshooting 376
    - See also* low-voltage power supply; high-voltage power supply
  - power switch, locating 7
  - power-save mode. *See* sleep settings
  - pre-troubleshooting checklist 373
  - preservice checklist 180
  - pressure-roller pressurization
    - control 161
  - print cartridge
    - managing 93
  - print cartridges
    - components 139
    - diagnostic test 385
    - error conditions 141
    - management menu 29
    - non-HP 93
    - operations 140
    - ordering through embedded Web server 88
  - part numbers 513
  - removing 186
  - replacement intervals 93
  - replacing 94
  - storage 93
  - warranty 571
  - print media
    - loading in Tray 1 66
  - print quality
    - built-in troubleshooting pages 431
    - color misregistration control 146
    - image stabilization controls 147
    - manual print modes 492
    - menu 46
    - test pages 431
    - troubleshooting 494
  - Print Quality menu options 492
  - print server card
    - installing 105
  - print-quality test 182
  - printer languages 4
  - printing
    - modes, manual 492
    - output bin, selecting 77
    - period in operation sequence 117
    - process explained 133
    - speed specifications 4
    - stop for testing 409
    - troubleshooting 500
  - printing from Tray 2 68
  - problem-solving
    - Error button, control panel touchscreen 15
    - e-mail 507
    - jams 472
    - networks 34
  - processor speed 4
  - product info 1
  - product status
    - HP Easy Printer Care 82
  - protocol configuration page,
    - printing 37
- Q**
- quality. *See* print quality
- R**
- Ready light
    - locating 12
  - rear cover, removing 238

- rear-top cover, removing 262
- rear-upper cover, removing 236
- reformat product hard disk 505
- registration assembly
  - removing 303
- Registration density (RD) sensor
  - assembly, removing 297
- regulatory statements
  - Declaration of Conformity 583
- remote firmware update (RFU) 112
- removing parts
  - ADF 212
  - ADF roller assembly 215
  - ADF separation pad 215
  - cartridge fan 285
  - cassette-pickup assembly 323
  - cassette-pickup drive assembly 316
  - cautions for 178
  - checklists 180
  - control-panel assembly 219
  - control-panel overlay 218
  - DC controller PCA and tray 270
  - delivery assembly 361
  - delivery cover 245
  - delivery fan 285
  - developing-disengagement motor 311
  - drawer connector 368
  - drum motor 1 343
  - drum motor 2 or 3 344
  - duplex-drive assembly 366
  - environmental sensor 285
  - fax PCA 197
  - formatter PCA 192
  - front stapler and right-side stapler covers 249
  - front-door assembly 211
  - front-top cover 261
  - front-upper cover 225
  - fuser 200
  - fuser motor 345
  - fuser-drive assembly 356
  - hard drive 195
  - high-voltage power supply
    - lower 308
    - upper 339
  - ICB 267
  - intermediate transfer belt 209
  - laser/scanner assembly (C/Bk) 332
  - laser/scanner assembly (Y/M) 325
  - left cover 233
  - left-upper cover 247
  - lifter-drive assembly 314
  - LVPS 273
  - main-drive assembly 346
  - memory DIMM 193
  - pickup motor 313
  - pickup roller (tray 1) 284
  - pickup roller (tray 2) 201
  - power-supply fan and fan duct 300
  - print cartridges 186
  - rear cover 238
  - rear-top cover 262
  - rear-upper cover 236
  - registration assembly 303
  - Registration density (RD) sensor assembly 297
  - residual-toner-feed motor 292
  - right-door assembly 227
  - right-front cover 239
  - right-rear cover 231
  - right-top cover 258
  - scanner assembly 242
  - SCB 279
  - secondary transfer assembly 207
  - secondary transfer roller 205
  - separation roller (tray 2) 204
  - stable cartridge 188
  - stapler assembly 264
  - stapler power supply 266
  - toner-collection sensor 290
  - toner-collection unit 190
  - tools, required 179
  - tray cassette 199
  - repeating defects, troubleshooting 428
  - replace
    - memory 100
    - supplies 93
  - replacing
    - parts 178
  - reset button 12
  - Resets menu, control panel 53
  - residual-toner-feed motor, removing 292
  - resolution
    - specifications 4
    - troubleshooting quality 494
  - restore factory settings 505
  - reverse and feed control, duplexer 163
  - right door
    - jams 475
  - right-front cover, removing 239
  - right-top cover, removing 258
  - roller
    - pickup roller (Tray 1), removing 284
    - pickup roller (Tray 2), removing 201
  - rollers
    - clean document-feeder 110
    - secondary transfer roller, removing 207
    - separation roller (Tray 2), removing 204
  - ruler, repetitive defect 428

**S**

  - safety features
    - when front door is open 126
  - safety statements 584
  - scanner
    - operations 174
    - part numbers 520
  - scanner assembly, removing 242
  - scanner calibration 50, 430
  - scanner glass
    - clean 108
  - scanner settings 504
  - scanner-motor failure 132
  - scanning
    - speed specifications 4
  - scanning to e-mail
    - embedded Web server settings 87
    - validating addresses 507
  - SCB, removing 279
  - screwdrivers, required 179
  - screws
    - part numbers 519
    - replacing 178

- secondary transfer roller, removing 205
- Secure Disk Erase 90
- security
  - disk erase 90
  - encrypted hard disk 90
  - locking control panel menus 91
  - settings 34
- security features 6
- security settings information 438
- Send Setup menu 41
- sending to e-mail
  - embedded Web server settings 87
  - validating gateway addresses 507
- sensor tests manual
  - developing home-position sensor 394
  - door (front and right) interlock switches sensor 398
  - duplex re-pickup sensor (E) 392
  - fuser delivery sensor 391
  - fuser pressure release sensor 395
  - loop sensors 390
  - output bin full sensor 393
  - primary transfer roller disengagement sensor 396
  - TOP sensor (A) 389
  - tray 1 media present sensor 400
  - tray 2 closed sensor 402
  - tray 2 paper-out sensor (M) 401
  - tray 2 stack surface sensor 403
  - tray 3 (optional) empty sensor (P) 404
  - tray 3 (optional) media feed sensor 405
  - tray 3 (optional) media size sensors 407
  - tray 3 (optional) stack surface sensor (R) 406
- sensors
  - ADF 174
  - DC controller 121
  - diagnostic tests 408
  - environmental, removing 285
  - jam detection 164
  - paper feeder 167
  - pickup, feed, and delivery 148
  - product base 421
  - tests, manual 387
- sequence of operation 116
- serial number
  - locate 10
  - reset by NVRAM initialization 506
- service
  - tools, required 179
- Service ID
  - convert to date 504
  - restore 504
- Service menu options 503
- Service menu, control panel 54
- settings
  - restore factory 505
- Settings tab, embedded Web server 86
- skew-feed prevention 158
- skewed pages
  - troubleshooting 498
- Sleep button 12
- Sleep mode
  - power specifications 578
  - settings 26, 28
- sleep settings
  - voltage for 126
  - voltage too high during 126
- smear toner, troubleshooting 498
- SMTP servers
  - validating gateway addresses 507
- software
  - HP Easy Printer Care 82
  - software license agreement 573
- solenoids
  - DC controller 119
  - paper feeder 167
  - pickup, feed, and delivery 149
- solve problems 369
- solving
  - direct-connect problems 501
  - network problems 501
- space requirements 577
- specifications
  - acoustic 578
  - electrical 578
  - features 4
  - operating environment 579
  - physical 577
- speed dial list, printing 81
- speed specifications 4
- stable cartridge, removing 188
- standard output bin
  - locating 7
  - selecting 77
- standby period 117
- stapler assembly, removing 264
- stapler power supply, removing 266
- Start button 12
- Start button, control panel touchscreen 15
- static precautions 178
- status
  - embedded Web server 86
  - Home screen, control panel 14
  - HP Easy Printer Care 82
- Status button 12
- status page 378
- stepping motors 122
- Stop button 12
- Stop button, control panel touchscreen 15
- stop printing for test 409
- storage, job
  - settings 28
- storing
  - print cartridges 93
- streaks, troubleshooting 496
- subvoltage
  - low-voltage power supply circuit 125
- supplies
  - counterfeit 93
  - locating 94
  - management menu 29
  - non-HP 93
  - ordering 510
  - ordering through embedded Web server 88
  - part numbers 511, 513

- replace 93
- replacement intervals 93
- replacing 94
- Resets menu 53
- status page, printing 80
- status, viewing with embedded Web server 86
- supplies 93
- supplies, status
  - HP Easy Printer Care 82
- support
  - embedded Web server
    - links 88
  - online 576
- supported media 56
- switches
  - DC controller 120
  - paper feeder 167, 169
  - pickup, feed, and delivery 148
- system requirements
  - embedded Web server 85

## T

- TCP/IP information 438
- TCP/IP settings 31
- technical support
  - online 576
- temperature
  - control for fuser 128
  - thresholds for fuser
    - components 129
- temperature requirements 579
- tests
  - color band 440
  - component tests list and descriptions 409
  - disable cartridge check 385
  - engine 386
  - manual sensor 387
  - networks 34
  - paper path 386
  - paper-path sensors 408
  - post-service 182
  - print-quality 182
  - print/stop 409
- text, troubleshooting 498
- thermistors
  - fuser 127, 129
  - open detection 130

- thermopiles
  - fuser 129
- thermoswitches
  - fuser 127, 129
- thresholds
  - power-supply frequency, drive circuit 130
  - temperature, fuser
    - components 129
- time, setting 26
- Time/Scheduling menu, control panel 26
- timeout settings 31
- timing chart 423
- tips 2
- toner
  - image formation, use
    - during 134
  - loose, troubleshooting 497
  - patterns for calibration 146
  - smear, troubleshooting 498
- toner cartridges. *See* print cartridges
- toner collection unit
  - removing 190
  - replacing 98
- toner-collection sensor, removing 290
- tools, required 179
- touchscreen, clean 108
- transfer processes 136
- Tray 1
  - capacity 60
  - jams 480
- Tray 2
  - capacity 60
  - jams 482
- Tray 3
  - jams 483, 484
- trays
  - automatic overhead transparency sensing 75
  - capacity 60
  - configure 75
  - included 3
  - load 62
  - multipurpose, pickup
    - operation 156
  - paper orientation 62

- removing 199
- select paper 76
- See also* cassette
- trays, status
  - HP Easy Printer Care 82
- triac-drive circuit
  - deactivation 129
- troubleshooting
  - blank pages 500
  - checklist 370, 373
  - color 434
  - configuration page 378
  - configuration pages for 436
  - control-panel messages,
    - alphabetical list 441
  - control-panel messages,
    - numerical list 441
  - demo page 378
  - direct-connect problems 501
  - duplexing 490
  - EP parameters 434
  - event log 378
  - event log, use for 468
  - event-log messages, numerical list 468
  - flowchart 375
  - gateway addresses 507
  - jams 472
  - lights, using 378
  - lines, printed pages 496
  - menu 50
  - messages, alphabetical list
    - of 441
  - network problems 501
  - pages not printing 500
  - pages printing slowly 500
  - paper handling problems 487
  - power 376
  - print quality issues 494
  - process 373
  - repeating defects 428
  - reports and tools 378
  - skewed pages 498
  - status page 378
  - text 498
  - toner smear 498
  - transparencies 489
  - USB cables 500
  - wrinkles 499

- See *also* diagnostics; error messages
- Troubleshooting menu
  - options 381
- TrueType fonts included 4
- typefaces
  - included 4

## U

- upgrading firmware 112
- usage page, printing 80
- USB port
  - troubleshooting 500

## V

- validating gateway
  - addresses 507
- version, hardware firmware 438
- vertical lines,
  - troubleshooting 496
- voltage detection
  - DC controller 126
- voltage specifications 578

## W

- waiting period 117
- wake time, setting 27
- Warning button, control panel
  - touchscreen 15
- warnings 2
- warranty
  - customer self repair 575
  - license 573
  - print cartridges 571
  - product 570
- warranty date information 504
- Web browser requirements
  - embedded Web server 85
- Web Jetadmin
  - firmware updates 114
- Web sites
  - customer support 576
  - fraud reports 93
  - HP Web Jetadmin,
    - downloading 89
  - Macintosh customer support 576
  - ordering supplies 510
- white spots, troubleshooting 495
- wrinkles, troubleshooting 499



