



Lexmark™

MX910, MX911, MX912, XM9145, XM9155, and XM9165 MFPs

7421-03x, -23x, -43x

Service Manual

- [Start diagnostics](#)
- [Maintenance](#)
- [Safety and notices](#)
- [Trademarks](#)
- [Index](#)

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Product information

Product name:

Lexmark MX910, MX911, MX912, XM9145, XM9155, and XM9165

Machine type:

7421

Model(s):

036, 039, 236, 239, 436, 439

Edition notice

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Table of contents

Product information.....	2
Edition notice.....	2
Notices, conventions, and safety information.....	21
Laser notice.....	21
Conventions.....	24
Safety information.....	24
General caution statements.....	30
Change history.....	31
Change history.....	31
General information.....	37
Paper and specialty media guide.....	37
Using specialty media	37
Paper guidelines	39
Supported paper sizes, types, and weights	43
Data security notice.....	48
Tools required for service.....	49
Diagnostics and troubleshooting.....	51
Troubleshooting overview.....	51
Performing the initial troubleshooting check.....	51
Fixing print quality issues.....	51
Initial print quality check.....	52
Gray background check	52
Blank pages check.....	55
Solid black pages check.....	57
Shadow images check	59
Skewed print check	60
Streaked horizontal or vertical lines check	62
Toner smear check.....	63
Toner specks check.....	64
Fixing image quality issues.....	65
Initial image quality check.....	65
Flatbed scanner image quality check	66
Paper jams.....	68

Avoiding jams	68
Understanding jam messages and locations.....	69
[x]-page jam, clear jammed paper from multipurpose feeder. [200.xx].....	71
[x]-page jam, open door C and clear all jammed paper. [2yy.xx].....	71
[x]-page jam, slide the 3000-sheet tray and open door C. [2yy.xx].....	73
[x]-page jam, open door D and clear all jammed paper. [24y.xx].....	75
[x]-page jam, slide the 3000-sheet tray and open door D. [24y.xx].....	77
[x]-page jam, press latch at area E to open ADF's top cover. [28y.xx]	78
200 paper jams.....	80
202 paper jams.....	87
23y paper jams	91
241–242 paper jams	94
243–245 paper jams	104
28y–29y paper jams	117
Understanding the printer messages.....	129
Cartridge low [88.xy].....	129
Cartridge nearly low [88.xy].....	129
Cartridge very low [88.xy]	129
Change [paper source] to [custom string] load [orientation].....	129
Change [paper source] to [custom type name] load [orientation].....	130
Change [paper source] to [paper size] load [orientation]	130
Change [paper source] to [paper type] [paper size] load [orientation].....	130
Close door [x]	130
Complex page, some data may not have printed [39]	130
Configuration change, some held jobs were not restored [57]	130
Defective flash detected [51].....	131
Disk full [62]	131
Disk full, scan job canceled	131
Disk must be formatted for use in this device	131
Disk near full. Securely clearing disk space.....	131
Empty the hole punch box	132
Error reading USB drive. Remove USB.....	132
Error reading USB hub. Remove hub.....	132
Fax memory full.....	132
Fax partition inoperative. Contact system administrator.....	132
Fax server 'To Format' not set up. Contact system administrator.....	132
Fax Station Name not set up. Contact system administrator.....	132
Fax Station Number not set up. Contact system administrator.....	133
Incorrect paper size, open [paper source] [34].....	133
Insert hole punch box.....	133
Insert Tray [x].....	133
Insufficient memory for Flash Memory Defragment operation [37]	133
Insufficient memory to collate job [37].....	133
Insufficient memory to support Resource Save feature [35].....	134
Insufficient memory, some Held Jobs were deleted [37].....	134

Insufficient memory, some held jobs will not be restored [37].....	134
Insufficient space between paper stacks in Tray 3	134
Load [paper source] with [custom string] [paper orientation].....	134
Load [paper source] with [custom type name] [paper orientation].....	134
Load [paper source] with [paper size] [paper orientation].....	134
Load [paper source] with [paper type] [paper size] [paper orientation].....	135
Load Multipurpose Feeder with [custom string] [paper orientation].....	135
Load Multipurpose Feeder with [custom type name] [paper orientation]	135
Load Multipurpose Feeder with [paper size] [paper orientation].....	135
Load Multipurpose Feeder with [paper type] [paper size] [paper orientation].....	136
Load staples.....	136
Load staples [G11, G12].....	136
[x] maintenance kit very low [80.xy].....	136
Memory full [38].....	136
Memory full, cannot print faxes.....	137
Memory full, cannot send faxes.....	137
No analog phone line connected to modem, fax is disabled.....	137
Network [x] software error [54].....	137
Not enough free space in flash memory for resources [52].....	137
Open door H and remove paper from beneath area H10	137
Paper changes needed	137
Parallel port [x] disabled [56].....	138
Photoconductor low [84.xy].....	138
Photoconductor very low [84.xy].....	138
Printer had to restart. Last job may be incomplete.	138
Reinstall missing or unresponsive cartridge [31.xy].....	138
Reinstall missing or unresponsive photoconductor [31.xy].....	138
Remove defective disk [61]	138
Remove packaging material, [area name]	139
Remove packaging material, open door C, remove metal clips, remove all screws from scanner carriage	139
Remove paper from all bins.....	139
Remove paper from bin [x].....	139
Remove paper from [linked set bin name].....	139
Remove paper from standard output bin.....	139
Replace all originals if restarting job.	139
Replace cartridge, 0 estimated pages remain [88.xy].....	140
Replace cartridge, printer region mismatch [42.xy].....	140
Replace jammed originals if restarting job	140
Replace [x] maintenance kit, 0 estimated pages remain [80.xy].....	140
Replace missing photoconductor [31.xy].....	141
Replace missing waste toner bottle [82.xy].....	141
Replace missing cartridge [31.xy]	141
Replace paper pick rollers in [paper source], use parts and instructions in tray 1 or tray 2 compartment [80].....	141

Replace photoconductor, 0 pages remain [84.xy].....	141
Replace unsupported cartridge [32.xy]	141
Replace unsupported photoconductor [32.xy].....	141
Replace waste toner bottle [82.xy]	141
Restore held jobs?	142
Scanner disabled by admin [840.01]	142
Scanner disabled. Contact system administrator if problem persists. [840.02]	142
Scanner jam, remove jammed originals from the scanner [2yy.xx].....	142
Scanner maintenance required, use ADF Kit [80]	142
Scanner maintenance required soon, use ADF Kit [80].....	142
Serial port [x] disabled [56]	142
Some held jobs were not restored	142
SMTP server not set up. Contact system administrator.	143
Standard network software error [54].....	143
Standard USB port disabled [56].....	143
Supply needed to complete job	143
The device is operating in Safe Mode. Some print options may be disabled or provide unexpected results.	143
Too many flash options installed [58].....	143
Too many trays attached [58].....	144
Tray [x] paper size unsupported	144
Unformatted flash detected [53]	144
Unsupported disk.....	144
Unsupported option in slot [x] [55]	144
Waste toner bottle nearly full [82.xy].....	144
Weblink server not set up. Contact system administrator.	144
User attendance messages.....	145
User attendance messages (0-99)	145
Cartridge or photoconductor error service check.....	146
Mismatched paper size service check	147
Insufficient memory service check	147
Complex page service check.....	148
PPDS font error service check	149
Flash memory failure service check.....	149
Insufficient flash memory service check	150
Network service check	150
Unsupported internal option service check.....	153
Disabled port service check.....	154
Unrestored held jobs service check	154
Excess options service check	155
Incompatible hardware option service check.....	156
Hard disk failure service check	156
Maintenance kit service check	157
Printer hardware errors.....	157

111 errors	158
12y errors	159
13y errors	164
153 errors	168
16y errors	169
171–182 errors	176
189 errors	177
19y errors	179
600 errors	196
685 errors.....	197
Procedure before starting the 9yy service checks	198
900 errors	200
911–963 errors.....	203
Insufficient space between paper stacks in 2500-sheet tray service check.....	205
3000-sheet tray tray set failure service check.....	207
ADF/scanner hardware errors.....	208
800 error messages	208
809 error messages	209
816–824 error messages	209
843 error messages.....	209
850–891 error messages	209
ADF controller board service check.....	210
ADF/scanner image controller board service check	211
ADF CIS service check.....	212
Scanner controller board service check	213
Scanner CCD service check.....	214
Scanner lamp service check	215
Fax error log codes.....	216
Escalating a fax issue to second-level support	219

Service menus..... 221

Understanding the printer control panel.....	221
Using the control panel	221
Understanding the colors of the Sleep button and indicator lights.....	221
Understanding the home screen	222
Using the touch-screen buttons	224
Menus list.....	225
Diagnostics Menu.....	226
Entering the Diagnostics menu	226
Reset Separator Roll and Pick Assembly Counter.....	226
Reset Maintenance Counter.....	226
Reset Fuser Counter	226
REGISTRATION	227

SCANNER CALIBRATION.....	227
PRINT TESTS	228
Print Quality Pages.....	228
HARDWARE TESTS.....	229
DUPLEX TESTS	230
INPUT TRAY TESTS	231
OUTPUT BIN TESTS	231
SENSOR TESTS.....	232
Motor Tests.....	234
DEVICE TESTS	237
PRINTER SETUP.....	238
REPORTS	240
EVENT LOG.....	241
SCANNER TESTS.....	241
Exit Diags.....	243
Configuration Menu.....	243
Entering the Configuration menu.....	243
Hole Punch Configuration.....	243
Reset Maintenance Counter.....	244
USB Scan to Local.....	244
Print Quality Pages.....	244
Reports	244
SIZE SENSING	244
Tray Linking	245
Panel Menus	245
PPDS Emulation	245
Download Emuls.....	245
Safe Mode	245
Energy Conserve.....	246
Fax Low Power Support.....	246
Min Copy Memory	246
NumPad Job Assist.....	246
Format Fax Storage	247
Fax Storage Location.....	247
ADF Edge Erase.....	247
FB Edge Erase.....	247
Scanner Manual Registration	247
Disable Scanner.....	248
Paper Prompts.....	248
Envelope Prompts	248
Action for Prompts	248
Jobs on Disk	248
Disk Encryption	249
Font Sharpening	249
Require Standby	249

UI Automation.....	249
LES Applications.....	249
Key Repeat Initial Delay	250
Key Repeat Rate	250
Clear Supply Usage History.....	250
Clear Custom Status	250
USB Speed.....	250
Automatically Display Error Screens	250
Restore factory defaults.....	251
Exit Config	251
Entering Invalid engine mode.....	252
Entering Recovery Mode.....	252
Entering Safe Mode (EverReady Mode).....	252
Accessing the Network SE Menu.....	252
Service Engineer menu.....	252
Accessing the Service Engineer (SE) Menu	252
Service Engineer (SE) Menu	252
Fax Service Engineer (SE) Menu	253

Parts removal..... 255

Removal precautions.....	255
Data security notice	255
Handling ESD-sensitive parts.....	255
Restoring the printer configuration after replacing the controller board	256
Restoring solutions, licenses, and configuration settings	259
Updating the printer firmware	260
Backing up eSF solutions and settings	261
Understanding the marked or colored screws.....	262
Ribbon cable connectors	262
Zero Insertion Force (ZIF) connectors.....	262
Horizontal top contact connector	263
Horizontal bottom contact connector	265
Vertical mount contact connector	267
Horizontal sliding contact connector	269
Low insertion force (LIF) connector	271
Adjustments.....	272
ADF height adjustment	272
ADF registration adjustment.....	273
ADF separator roller pressure adjustment	274
Flatbed registration adjustment	275
Fuser alignment adjustment.....	276
MPF separator roller pressure adjustment	277
Pick roller pressure adjustment.....	279

Scanner carriage belt adjustment.....	281
3000-sheet tray pick roller pressure adjustment.....	282
2500-sheet tray transfer guide belt adjustment.....	284
Removal procedures.....	285
Left side removals.....	286
Left cover removal	286
Rear left cover removal.....	287
Tray base left cover removal	288
Main power supply shield removal.....	288
Main power supply fan removal	289
Main power supply removal	290
Printhead removal	290
Printhead relay board removal	291
Right side removals.....	293
Port access door removal	293
Fuser removal.....	294
Induction heater removal	294
Registration transport assembly.....	296
Upper right cover removal.....	299
Redrive belt cover removal.....	299
Redrive belt removal.....	300
Transfer roller removal	300
Duplex transport assembly removal.....	301
Duplex transport jam removal knob removal.....	302
Duplex transport diverter assembly removal.....	303
Sensor (fuser exit) removal	304
Fuser exit sensor actuator removal	304
Sensor (duplex pass through 1) removal	305
Duplex pass through 1 actuator removal.....	306
Duplex transport belt removal	308
Duplex transport gears removal.....	308
Motor (duplex transport) removal.....	309
Right door lock removal.....	311
Tray 2 transport guide removal.....	312
MPF removal.....	313
MPF tray removal.....	314
Sensor (MPF paper length) removal	315
MPF feed clutch removal.....	316
MPF lift plate solenoid removal	317
MPF gears removal	318
Sensor (MPF lift plate) removal.....	320
Sensor (MPF empty) removal	321
MPF feed/separator assembly	322
MPF lift plate assembly removal.....	323

MPF empty actuator removal	324
Duplex transport guide removal.....	325
Registration unit latch assembly removal	325
Right door switch actuator removal.....	327
Right door removal.....	327
Registration unit assembly removal.....	329
Registration unit sub-assembly removal	330
Sensor (fusing speed) removal	332
Fusing speed actuator removal.....	332
Sensor (duplex pass through 2) removal	333
Registration unit belt removal	334
Registration unit gears removal.....	335
Registration unit lock removal.....	336
Exit guide assembly removal.....	337
Front side removals.....	341
Tray insert removal.....	341
Control panel frame removal.....	342
Control panel board removal	345
Touch screen removal.....	346
Top front door removal	347
Bottom front door removal.....	347
Front inner cover removal.....	348
Waste toner door mount removal	348
Image controller board removal	349
Door switch removal.....	349
Main power switch removal.....	350
Sensor (top front door) removal	351
Motor (toner supply) removal	352
Waste toner drive removal.....	353
Sensor (toner cartridge present) removal	354
Toner agitator removal.....	355
Developer unit removal	356
Right door switch removal	357
Speaker cover removal.....	358
Speaker removal	360
Control panel removal.....	361
Rear side removals.....	364
Scanner interface cable cover removal.....	364
Controller board access cover removal	365
Engine board cover removal.....	366
Upper rear cover removal.....	366
IHPS shield removal.....	367
Induction heater magnetic erase board (IHMEB) removal	368
Induction heater power supply (IHPS) removal	370

Noise filter board removal.....	370
Expansion controller board removal.....	371
Power-saving board removal.....	372
Engine controller board removal.....	373
ADF/scanner image controller board removal.....	374
Hard drive removal.....	376
Controller board removal.....	376
Fax card removal.....	377
Motor (fuser pressure) removal.....	378
Paper exit fan duct removal.....	379
Paper exit fan removal.....	380
IHPS frame removal.....	380
Fuser power supply fan removal.....	381
Motor (toner cartridge) removal.....	382
Motor (redrive) removal.....	384
Controller board frame removal.....	385
Controller board fan removal.....	386
Motor (transport) removal.....	387
Motor (developer) removal.....	388
High voltage board removal.....	389
Motor (registration) removal.....	390
Motor (feed) removal.....	392
Tray 2 transport drive removal.....	393
Motor (tray 2 transport) removal.....	394
Feed drive assembly removal.....	395
Sensor (tray 1 and 2 paper temperature) removal.....	396
Ozone fan removal.....	396
Ozone fan duct removal.....	398
Center cable guide bracket removal.....	399
Main drive assembly removal.....	399
Toner cartridge drive assembly removal.....	402
Duplex transport clutch removal.....	403
Motor (fuser) removal.....	404
Fuser drive gearbox removal.....	405
Toner suction fan removal.....	407
Top side removals.....	409
Standard bin base removal.....	409
Fuser fan removal.....	409
Bin side cover removal.....	411
ADF and scanner removals.....	412
ADF assembly removal.....	412
ADF right hinge removal.....	416
ADF left hinge removal.....	417
ADF cushion removal.....	417

ADF front cover removal	418
ADF scan/exit roller belt removal.....	418
ADF rear cover removal.....	419
ADF door removal	419
ADF top cover removal.....	420
ADF tray bottom cover removal	422
ADF tray removal.....	422
ADF separator roller removal.....	423
ADF separator pad removal	423
ADF registration guide removal	423
Sensor (ADF scan) removal	424
ADF glass cleaning roller removal.....	425
ADF CIS assembly removal	428
ADF CIS power supply board removal	430
ADF fan removal.....	431
ADF controller board removal.....	431
ADF tray/transport removal	431
ADF feed and pick roller assembly removal.....	434
ADF feed roller removal	436
ADF pick roller removal	439
Sensor (ADF jam access cover) removal.....	441
Sensor (ADF scan shaft home) removal	442
Sensor (ADF top cover open) removal	443
Sensors (ADF tray section) removal	443
Sensors (ADF top open cover section) removal	444
Sensor (scan glass clean) removal.....	446
Motor (ADF CIS clean) removal.....	446
Motor (ADF scan shaft release) removal.....	447
Motor (ADF feed) removal.....	448
Motor (ADF registration) removal.....	450
Motor (ADF scan) removal.....	451
Motor (CIS glass clean) removal.....	452
Sensor (ADF CIS clean) removal	453
Scanner left cover removal.....	454
Scanner rear cover removal	454
Scanner right cover removal	455
Control panel bottom cover removal	455
Scanner top cover removal.....	456
Sensor (scanner cover open) removal.....	456
Sensor (scanner lamp home) removal	457
Scanner controller board removal	458
Motor (scanner drive) removal.....	459
Scanner glass removal.....	459
ADF duplex scan glass removal	460
Sensor (scanner paper length 1) removal.....	461

Sensor (scanner paper length 2) removal.....	462
Scanner CCD lens assembly removal.....	462
Control panel base removal	464
Sensor (scanner cover switch) removal.....	465
Scan glass brush removal	466
Cleaning shaft removal	467
Standard tray removals.....	470
Motor (tray 1 lift) removal.....	470
Sensor (tray 1 paper length) removal.....	472
Sensor (tray 1 near empty) removal	473
Sensor (tray 1 paper width) removal	475
Motor (tray 2 lift) removal	476
Sensor (tray 2 paper length) removal.....	478
Sensor (tray 2 near empty) removal	479
Sensor (tray 2 paper width) removal	481
2500-sheet tray removals.....	482
2500-sheet tray rear cover removal	482
2500-sheet tray rear right cover removal.....	483
2500-sheet tray lower right cover removal.....	483
2500-sheet tray LED cover removal.....	484
2500-sheet tray empty LED removal.....	484
2500-sheet tray front right cover removal	485
2500-sheet tray left cover removal	485
2500-sheet tray jam access cover removal.....	486
2500-sheet tray jam access door strap removal.....	487
2500-sheet tray controller board removal	487
2500-sheet tray division board removal.....	488
2500-sheet tray main tray empty sensor bottom actuator removal.....	489
2500-sheet tray elevator home sensor actuator removal	490
2500-sheet tray transfer guide stop removal.....	491
Sensor (2500-sheet tray elevator home) removal	491
Sensor (2500-sheet tray main tray empty, bottom) removal	492
2500-sheet tray paper stack transfer guide removal.....	493
2500-sheet reserve tray empty sensor actuator removal.....	494
Sensor (2500-sheet tray transfer guide home) removal	495
Sensor (2500-sheet tray reserve tray empty) removal	496
Sensor (2500-sheet paper stack transfer) removal	497
Sensor (2500-sheet tray reserve tray paper limit) removal	498
2500-sheet reserve tray paper limit sensor actuator removal	498
Sensor (2500-sheet tray main tray near empty) removal.....	499
Sensor (2500-sheet tray main tray empty, top) removal	500
Sensor (2500-sheet tray main tray elevator limit) removal	500
Sensor (2500-sheet tray feed) removal	501
Sensor (2500-sheet tray transport) removal.....	502

Sensor (2500-sheet tray jam access door) removal.....	503
Sensor (2500-sheet tray set) removal	504
Motor (2500-sheet tray elevator) removal.....	504
Motor (2500-sheet tray feed) removal	505
Motor (2500-sheet tray transfer guide) removal.....	506
Motor (2500-sheet tray transport) removal.....	506
2500-sheet tray paper feed assembly removal.....	507
2500-sheet tray transport roller removal.....	508
2500-sheet tray vertical media transport guide assembly removal.....	509
2500-sheet tray pick assembly removal.....	510
2500-sheet tray stopper removal.....	511
2500-sheet tray caster wheel removal	511
2 x 500-sheet tray removals.....	512
Sensor (2 x 500-sheet tray jam access door) removal.....	512
2 x 500-sheet tray caster wheel removal	513
Printer rubber stopper removal	514
Tray insert paper length guide removal	514
Tray lock removal	516
2 x 500-sheet tray rollers removal	518
Sensor (2 x 500-sheet tray paper length) removal	518
2 x 500-sheet tray left cover removal.....	520
2 x 500-sheet tray empty LED cover removal.....	520
2 x 500-sheet tray empty LED removal.....	521
2 x 500-sheet tray empty LED mount removal	521
2 x 500-sheet tray rear cover removal.....	522
Motor (2 x 500-sheet tray lift) removal	522
Sensor (2 x 500-sheet tray near empty) removal	523
Sensor (2 x 500-sheet tray paper width) removal	524
2 x 500-sheet tray feed and transport motors removal.....	525
2 x 500-sheet tray controller board removal.....	526
2 x 500-sheet tray jam access door removal	527
2 x 500-sheet tray rear right cover removal	528
2 x 500-sheet tray bottom right cover removal	529
2 x 500-sheet tray 3 transport assembly removal.....	529
2 x 500-sheet tray 4 transport assembly removal.....	530
2 x 500-sheet tray transport assembly sensors removal	531
2 x 500-sheet tray tray set actuator removal	532
Sensor (2 x 500-sheet tray transport) removal.....	533
2 x 500-sheet tray 3 transport belts and gears removal	534
2 x 500-sheet tray 4 transport belts and gears removal	535
3000-sheet tray removals.....	537
3000-sheet tray rollers removal.....	537
3000-sheet tray feed and pick belt removal	539
3000-sheet tray caster wheel removal	541

3000-sheet tray release handle removal	542
3000-sheet tray left cover removal	543
3000-sheet tray right cover removal	544
3000-sheet tray front cover removal	544
3000-sheet tray rear cover removal	545
3000-sheet tray door removal.....	546
3000-sheet tray left top cover removal.....	547
Dehumidifier removal.....	548
3000-sheet tray empty LED removal.....	549
Sensor (3000-sheet tray empty) removal	549
Sensor (3000-sheet tray elevator level) removal	550
Sensor (3000-sheet tray feed) removal	551
3000-sheet tray elevator spring removal	552
3000-sheet tray controller board removal	552
3000-sheet tray door switch removal.....	553
Motor (3000-sheet tray elevator) removal.....	554
3000-sheet tray set sensor actuator removal	554
Sensor (3000-sheet tray set) removal	555
Sensor (3000-sheet tray near empty) removal	556
Motor bracket removal.....	558
3000-sheet tray feed and transport motors removal	558
3000-sheet tray feed roller assembly removal	559
3000-sheet tray pick roller assembly removal.....	562

Component locations.....567

Exterior locations.....	567
Front view	567
Rear view	569

Maintenance..... 571

Inspection guide.....	571
Scheduled maintenance.....	572
Maintenance kits.....	572
Resetting the maintenance counter	573
Lubrication specification.....	573
Cleaning the printer parts.....	574
Cleaning the printer	574
Cleaning the scanner glass	574
Cleaning the charger and the printhead lens	575
Emptying the hole punch box	578

Parts catalog..... 580

Legend.....	580
-------------	-----

Assembly 1: Covers 1.....	581
Assembly 2: Covers 2.....	583
Assembly 3: Inner covers.....	585
Assembly 4: Control panel.....	587
Assembly 5: Control panel 2.....	589
Assembly 6: Printhead.....	591
Assembly 7: Toner supply 1.....	593
Assembly 8: Toner supply 2.....	595
Assembly 9: Waste toner.....	597
Assembly 10: Developer.....	599
Assembly 11: Photoconductor lock.....	601
Assembly 12: Transfer belt.....	603
Assembly 13: Tray 1 and 2 transport.....	605
Assembly 14: Tray 1 feed.....	607
Assembly 15: Tray 1 separator.....	609
Assembly 16: Tray 2 feed.....	611
Assembly 17: Tray 2 separator.....	613
Assembly 18: Tray rail.....	615
Assembly 19: Tray paper detection.....	617
Assembly 20: 500-sheet tray—Tray 1.....	619
Assembly 21: 500-sheet tray—Tray 1 or Tray 2.....	621
Assembly 22: 500-sheet tray—Tray 2.....	623
Assembly 23: Registration transport.....	625
Assembly 24: Transfer.....	627
Assembly 25: Registration unit.....	629
Assembly 26: Right door transport.....	631
Assembly 27: MPF 1.....	633
Assembly 28: MPF 2.....	635
Assembly 29: Duplex 1.....	637
Assembly 30: Duplex 2.....	639
Assembly 31: Fuser.....	641
Assembly 32: Exit 1.....	643
Assembly 33: Exit 2.....	645
Assembly 34: Main and feed drive.....	647
Assembly 35: Toner cartridge drive.....	649
Assembly 36: Fuser drive 1.....	651
Assembly 37: Fuser drive 2.....	653

Assembly 38: Ozone duct.....	655
Assembly 39: High voltage.....	657
Assembly 40: Main power supply.....	659
Assembly 41: Electrical 1.....	661
Assembly 42: Electrical 2.....	663
Assembly 43: ADF covers 1.....	665
Assembly 44: ADF covers 2.....	667
Assembly 45: ADF CIS 1.....	669
Assembly 46: ADF CIS 2.....	671
Assembly 47: ADF CIS 3.....	673
Assembly 48: ADF paper feed.....	675
Assembly 49: ADF paper pick 1.....	677
Assembly 50: ADF paper pick 2.....	679
Assembly 51: ADF paper pick 3.....	681
Assembly 52: ADF paper transport 1.....	683
Assembly 53: ADF paper transport 2.....	685
Assembly 54: ADF paper transport 3.....	687
Assembly 55: ADF paper transport 4.....	689
Assembly 56: ADF paper transport 5.....	691
Assembly 57: ADF paper transport 6.....	693
Assembly 58: Flatbed scanner covers.....	695
Assembly 59: Flatbed scanner 1.....	697
Assembly 60: Flatbed scanner 2.....	699
Assembly 61: Flatbed scanner 3.....	701
Assembly 62: 2 x 500-sheet tray—Covers.....	703
Assembly 63: 2 x 500-sheet tray—Frame.....	705
Assembly 64: 2 x 500-sheet tray—Paper feed.....	707
Assembly 65: 2 x 500-sheet tray—Paper size detection.....	709
Assembly 66: 2 x 500-sheet tray—Paper transport.....	711
Assembly 67: 2 x 500-sheet tray—Paper pick 1.....	713
Assembly 68: 2 x 500-sheet tray—Paper pick 2.....	715
Assembly 69: 2 x 500-sheet tray—Paper pick 3.....	717
Assembly 70: 2 x 500-sheet tray—Tray 3.....	719
Assembly 71: 2 x 500-sheet tray—Tray 4.....	721
Assembly 72: 2 x 500-sheet tray—Tray 3 or Tray 4 frame.....	723
Assembly 73: 3000-sheet tray—Covers.....	725
Assembly 74: 3000-sheet tray—Frame 1.....	727

Assembly 75: 3000-sheet tray—Frame 2.....	729
Assembly 76: 3000-sheet tray—Elevator front section.....	731
Assembly 77: 3000-sheet tray—Paper feed 1.....	733
Assembly 78: 3000-sheet tray—Paper feed 2.....	735
Assembly 79: 3000-sheet tray—Paper transport.....	737
Assembly 80: 3000-sheet tray—Elevator rear section.....	739
Assembly 81: 3000-sheet tray—Drive section.....	741
Assembly 82: 3000-sheet tray—Wiring.....	743
Assembly 83: 2500-sheet tray covers.....	745
Assembly 84: 2500-sheet tray frame.....	747
Assembly 85: 2500-sheet tray paper feed.....	749
Assembly 86: 2500-sheet tray paper transport.....	751
Assembly 87: 2500-sheet tray paper pick 1.....	753
Assembly 88: 2500-sheet tray paper pick 2.....	755
Assembly 89: 2500-sheet tray paper pick 3.....	757
Assembly 90: 2500-sheet tray insert 1.....	759
Assembly 91: 2500-sheet tray insert 2.....	761
Assembly 92: 2500-sheet tray insert 3.....	763
Assembly 93: 2500-sheet tray insert 4.....	765
Assembly 94: Maintenance kits.....	767
Assembly 95: Power cords.....	769
Assembly 96: Miscellaneous.....	771

Printer specifications.....773

Power consumption.....	773
Product power consumption.....	773
Sleep Mode.....	773
Hibernate Mode.....	774
Off mode.....	774
Total energy usage.....	774
Operating clearances.....	774
Noise emission levels.....	775
Temperature information.....	775

Options and features.....777

Available internal options.....	777
Media handling options.....	777

Theory of operation.....	779
POR sequence.....	779
Printer control.....	779
Print cycle operation.....	779
Flowchart.....	779
Charge.....	780
Expose.....	780
Develop.....	780
First transfer.....	781
Clean (photoconductor).....	782
Second transfer.....	783
Clean (transfer belt).....	783
Fuse.....	784
Printer operation.....	786
Printer paper path.....	786
Tray section.....	786
MPF section.....	789
2500-sheet tray section.....	791
3000-sheet tray section.....	794
Registration section.....	797
Print section.....	798
Exit section.....	799
Duplex section.....	801
ADF operation.....	803
ADF tray section configuration and paper path.....	803
ADF document feed section.....	804
ADF document registration section.....	805
ADF document scanning section.....	805
ADF document exit section.....	807
Flatbed scanner operation.....	808
Acronyms.....	811
Acronyms.....	811
Index.....	813
Part number index.....	825
Part name index.....	847

Notices, conventions, and safety information

Laser notice

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

Class I laser products are not considered to be hazardous. The printer contains a Class IIIb (3b) laser that is nominally a 15-milliwatt gallium arsenide laser operating in the wavelength of 787–800 nanometers. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service condition.

Avis relatif à l'utilisation du laser

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

Les produits laser de classe I ne sont pas considérés comme dangereux. L'imprimante contient un laser de classe IIIb (3b), laser arséniure de gallium 15 milliwatts opérant sur une longueur d'onde de l'ordre de 787 à 800 nanomètres. Le système laser ainsi que l'imprimante ont été conçus de manière à ce que personne ne soit exposé à des rayonnements laser dépassant le niveau de classe I dans le cadre d'un fonctionnement normal, de l'entretien par l'utilisateur ou de la maintenance.

Notificació del làser

La impressora està certificada als EUA per complir els requeriments de DHHS 21 CFR, capítol I, subcapítol J per a productes de làser Classe I (1), i a la resta del món s'ha certificat com productes de làser Classe I segons els requeriments de la norma IEC 60825-1: 2014.

Els productes de làser Classe I no es consideren perillosos. La impressora conté un làser intern Classe IIIb (3b) que normalment és un arsenur de galió de 15 miliwatts, que funciona a la regió de longitud d'ona de 787 a 800 nanòmetres i es troba dins d'una unitat de capçals d'impressió no substituïbles. El sistema làser i la impressora estan dissenyats de manera que les persones no estiguin exposades a una radiació del làser superior al nivell de Classe I durant el funcionament normal, el manteniment de l'usuari o les condicions de servei prescrites.

Aviso de láser

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

Los productos láser de Clase I no se consideran peligrosos. La impresora contiene un láser interno de Clase IIIb (3b) que nominalmente es un láser de arsenide galio de 15 milivatios que funciona en una longitud de onda de 787-800 nanómetros. El sistema láser y la impresora se han diseñado para que el ser humano no acceda nunca a las radiaciones láser por encima del nivel de Clase I durante su uso normal, ni en tareas de mantenimiento o intervenciones de servicio técnico prescrites.

Aviso sobre laser

Esta impressora foi certificada nos EUA por estar em conformidade com os requisitos do DHHS 21 CFR capítulo I, subcapítulo J, para produtos a laser de Classe I (1) e, nos demais países, foi certificada como um produto a laser de Classe I em conformidade com os requisitos da IEC 60825-1: 2014.

Os produtos a laser de Classe I não são considerados prejudiciais. A impressora contém, internamente, um laser de Classe IIIb (3b) que é, nominalmente, um laser de arsenieto de gálio de 15 miliwatts operando no comprimento de onda de 787-800 nanômetros. O sistema do laser e a impressora foram projetados para que jamais haja acesso humano à radiação do laser acima do nível da Classe I durante a operação normal ou a manutenção pelo usuário ou sob as condições de manutenção prescritas.

Avvertenze sui prodotti laser

La stampante è certificata negli Stati Uniti come prodotto conforme ai requisiti DHHS 21 CFR Capitolo I, Sottocapitolo J per i prodotti laser di Classe I (1), mentre in altri paesi è certificata come prodotto laser di Classe I conforme ai requisiti IEC 60825-1: 2014.

I prodotti laser di Classe I non sono considerati pericolosi. La stampante contiene un laser di Classe IIIb (3b), che è nominalmente un laser ad arseniuro di gallio a 15 milliwatt funzionante a una lunghezza d'onda di 787-800 nanometri. Il sistema laser e la stampante sono stati progettati in modo da impedire l'esposizione a radiazioni laser superiori al livello previsto dalla Classe I durante le normali operazioni di stampa, manutenzione o assistenza.

Laserinformatie

De printer is in de Verenigde Staten gecertificeerd als een product dat voldoet aan de vereisten van DHHS 21 CFR hoofdstuk 1, paragraaf J voor laserproducten van klasse I (1). Elders is de printer gecertificeerd als een laserproduct van klasse I dat voldoet aan de vereisten van IEC 60825-1: 2014.

Laserproducten van klasse I worden geacht geen gevaar op te leveren. De printer bevat een interne laser van klasse IIIb (3b); een galliumarsenide laser met een nominaal vermogen van 15 milliwatt en een golflengtebereik van 787-800 nanometer. Het lasersysteem en de printer zijn zodanig ontworpen dat gebruikers nooit blootstaan aan laserstraling die hoger is dan het toegestane niveau voor klasse I-apparaten, tijdens normaal gebruik, onderhoudswerkzaamheden door de gebruiker of voorgeschreven servicewerkzaamheden.

Lasererklæring

Printeren er certificeret i USA i henhold til kravene i DHHS 21 CFR kapitel I, underafsnit J for klasse I (1)-laserprodukter og er andre steder certificeret som et klasse I laserprodukt i henhold til kravene i IEC 60825-1: 2014.

Klasse I-laserprodukter anses ikke som farlige. Printeren indeholder internt en klasse IIIb (3b)-laser, der nominelt er en 15 milliwatt galliumarsenid-laser, som fungerer i bølglængdeområdet 787-800 nanometer. Lasersystemet og printeren er udviklet på en sådan måde, at der ikke er en direkte laserstråling, der overskrider Klasse I-niveauet under normal brug, brugers vedligeholdelse eller de foreskrevne servicebetingelser.

Laser-Hinweis

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

Laserprodukte der Klasse I werden nicht als gefährlich betrachtet. Der Drucker enthält im Inneren einen Laser der Klasse IIIb (3b), und zwar einen 15-Milliwatt-Gallium-Arsenid-Laser, der im Wellenlängenbereich von 787 bis 800 Nanometern arbeitet. Das Lasersystem und der Drucker sind so konstruiert, dass unter normalen Betriebsbedingungen, bei der Wartung durch den Benutzer oder bei den vorgeschriebenen Wartungsbedingungen Menschen keiner Laserstrahlung ausgesetzt sind, die die Werte für Klasse I überschreitet.

Laserilmoitus

Tämä tulostin on sertifioitu Yhdysvalloissa DHHS 21 CFR Chapter I, Subchapter J -standardin mukaiseksi luokan I (1) -lasertuotteeksi ja muualla IEC 60825-1:2014 -standardin mukaiseksi luokan I lasertuotteeksi.

Luokan I lasertuotteita ei pidetä haitallisina. Tulostimen sisällä on luokan IIIb (3b) laser, joka on nimellisteholtaan 15 mW:n galliumarsenidilaser ja toimii 787–800 nanometrin aallonpituuksilla. Laserjärjestelmä ja tulostin ovat rakenteeltaan sellaisia, että käyttäjä ei joudu alttiiksi luokkaa 1 suuremmalle säteilylle normaalin käytön, ylläpidon tai huollon aikana.

Lasermerknad

Skriveren er sertifisert i USA for samsvar med kravene i DHHS 21 CFR kapittel I, underkapittel J for laserprodukter av klasse I (1) og er andre steder sertifisert som et laserprodukt av klasse I som samsvarer med kravene i IEC 60825-1: 2014.

Laserprodukter av klasse I anses ikke som helseskadelige. Skriveren inneholder en intern laser av klasse IIIb (3b) som nominelt er en 15 milliwatt galliumarsenid-laser som opererer i bølgelengder på 787–800 nanometer. Lasersystemet og skriveren er utformet slik at mennesker ikke utsettes for laserstråling utover nivået i klasse I under normal drift, vedlikehold eller foreskrevet service.

Meddelande om laser

Skrivaren är certifierad i USA i enlighet med kraven i DHHS 21 CFR kapitel I, underkapitel J för klass I (1)-laserprodukter, och på andra platser certifierad som en klass I-laserprodukt i enlighet med kraven i IEC 60825-1: 2014.

Laserprodukter av klass I anses inte vara skadliga. Skrivaren innehåller en klass IIIb (3b)-laser, vilket är en 15 mW galliumarseniklaser som arbetar inom en våglängd på 787–800 nm. Lasersystemet och skrivaren är utformade så att människor aldrig utsätts för laserstrålning över klass I-nivå under normala förhållanden vid användning, underhåll eller service.

レーザーについて

本機は、米国においてクラス I (1) レーザー製品に対する DHHS 21 CFR Chapter I、Subchapter J の要件に準拠し、その他の国では IEC 60825-1: 2014 の要件に準拠するクラス I レーザー製品として認可されています。

クラス I レーザー製品は、危険性がないとみなされています。本機には、クラス IIIb (3b) レーザーが内蔵されています。これは、787～800 ナノメートルの波長で動作する定格 15 ミリワットのガリウムヒ素レーザーです。レーザーシステムとプリンタは、通常の操作、ユーザによるメンテナンス、または所定のサービス条件の下で、ユーザがクラス I レベルを超えるレーザー放射に絶対にさらされないように設計されています。

레이저 고지사항

프린터는 미국에서 레이저 제품용 DHHS 21 CFR Chapter I, Subchapter J의 요구 사항을 준수하며 이외 지역에서 IEC 60825-1:2014의 요구 사항을 준수하는 클래스 I(1) 레이저 제품으로 승인되었습니다.

클래스 I 레이저 제품은 위험한 제품으로 간주되지 않습니다. 프린터에는 787-800 나노미터의 파장 영역에서 작동하는 공칭 15밀리와트 갈륨 비소 레이저인 클래스 IIIb(3b) 레이저가 내부에 포함되어 있습니다. 레이저 시스템과 프린터는 정상적인 작동, 사용자 유지 관리 또는 사전 설명된 서비스 조건에는 사람에게 클래스 I 수준 이상의 레이저 방사가 노출되지 않도록 설계되었습니다.

激光注意事项

本打印机在美国认证合乎 DHHS 21 CFR Chapter I, Subchapter J 对分类 I (1) 激光产品的标准, 而在其他地区则被认证是合乎 IEC 60825-1: 2014 的分类 I 激光产品。

一般认为分类 I 激光产品不具有危险性。本打印机内部含有分类 IIIb (3b) 的激光, 是标称值为 15 毫瓦的砷化镓激光, 其工作波长范围在 787–800nm 之间。本激光系统及打印机的设计, 在一般操作、使用者维护或规定内的维修情况下, 不会使人体接触分类 I 以上等级的辐射。

雷射聲明

本印表機係經過美國核可, 符合 DHHS 21 CFR, Chapter I, Subchapter J 規定的 I (1) 級雷射產品; 在美國以外的地區, 為符合 IEC 60825-1 2014 規定的 I 級雷射產品。

根據 I 級雷射產品的規定, 這類產品不會對人體造成傷害。本印表機內部所採用之 IIIb (3b) 級雷射只會產生 15 毫瓦特 (milliwatt)、波長 787 至 800 奈米 (nanometer) 的鎵砷放射線 (gallium arsenide laser)。使用者只要以正確的方法操作及維護保養, 並依照先前所述之維修方式進行修護, 此印表機與其雷射系統絕不會產生 I 級以上的放射線, 而對人體造成傷害。






Conventions

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

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

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


Different types of caution statements include:


-  **CAUTION—POTENTIAL INJURY:** Indicates a risk of injury.
-  **CAUTION—SHOCK HAZARD:** Indicates a risk of electrical shock.
-  **CAUTION—HOT SURFACE:** Indicates a risk of burn if touched.
-  **CAUTION—TIPPING HAZARD:** Indicates a crush hazard.
-  **CAUTION—PINCH HAZARD:** Indicates a risk of being caught between moving parts.

Safety information

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


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


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

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

Consignes de sécurité


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


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

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

Informació de seguretat


- La seguretat d'aquest producte es basa en les proves i les homologacions del disseny original i dels components específics. El fabricant no és responsable de la seguretat en el cas d'ús de peces de recanvi no autoritzades.
- La informació de manteniment d'aquest producte s'ha preparat per a l'ús d'un professional tècnic i no per a l'ús d'altres persones.
- És possible que el risc de descàrrega elèctrica i lesions personals augmenti durant el desmuntatge i les tasques de manteniment d'aquest producte. El professional tècnic ha de comprendre aquest risc i prendre les precaucions necessàries.


 **PRECAUCIÓ. PERILL DE DESCÀRREGA ELÈCTRICA:** Quan vegeu aquest símbol, indica que hi ha un perill de voltatge elevat en l'àrea del producte on esteu treballant. Desconnecteu el producte abans de començar o tingueu precaució si el producte ha de rebre alimentació per realitzar la tasca.

 **PRECAUCIÓ. POSSIBLES DANYS:** La bateria de liti d'aquest producte no ha estat dissenyada perquè se substitueixi. Hi ha perill d'explosió si no es substitueix correctament la bateria de liti. No recarregueu, desmunteu o incinereu una bateria de liti. Desfeu-vos de les bateries de liti usades d'acord amb les instruccions del fabricant i les regulacions locals.

Información de seguridad


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


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

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

Informações sobre segurança


- A segurança deste produto é baseada em testes e aprovações do design original e de componentes específicos. O fabricante não é responsável por segurança em caso de uso não autorizado de peças de substituição.
- As informações sobre manutenção deste produto foram preparadas para utilização por um técnico profissional experiente e não se destinam ao uso por outros.
- Pode haver maior risco de choque elétrico e danos pessoais durante a desmontagem e manutenção deste produto. Os técnicos profissionais experientes devem entender esses riscos e tomar as precauções necessárias.


 **ATENÇÃO—RISCO DE CHOQUE:** Se você vir este símbolo, existe perigo de tensão elétrica na área do produto onde está trabalhando. Desligue o produto antes de começar ou tenha cuidado se o produto precisar receber energia para executar a tarefa.

 **ATENÇÃO—RISCO DE FERIMENTO:** A bateria de lítio neste produto não deve ser substituída. Existe o risco de explosão se uma bateria de lítio for substituída incorretamente. Não recarregue, desmonte nem incinere uma bateria de lítio. Descarte as baterias de lítio usadas de acordo com as instruções do fabricante e regulamentos locais.

Informazioni sulla sicurezza


- La sicurezza di questo prodotto è basata sui test e sulle approvazioni del design originale e dei componenti specifici. Il produttore non è responsabile della sicurezza in caso di utilizzo di parti di ricambio non autorizzate.
- Le informazioni di manutenzione per questo prodotto sono state predisposte per essere utilizzate da un tecnico dell'assistenza professionale e non sono state previste per l'uso da parte di altre persone.
- È possibile che vi sia un maggior rischio di scosse elettriche e lesioni personali durante lo smontaggio e la manutenzione di questo prodotto. Il personale dell'assistenza deve comprendere questo rischio e prendere le precauzioni necessarie.


 **ATTENZIONE - PERICOLO DI SCOSSE ELETTRICHE:** Questo simbolo indica la presenza di un rischio per tensioni pericolose nell'area del prodotto in cui si lavora. Scollegare l'alimentazione prima di iniziare, o prestare la massima attenzione se per effettuare l'operazione il prodotto deve ricevere l'alimentazione.

 **ATTENZIONE - PERICOLO DI LESIONI:** La batteria al litio contenuto nel prodotto non deve essere sostituita: in caso di sostituzione errata della batteria al litio, potrebbe verificarsi un'esplosione. Non ricaricare, smontare o bruciare batterie al litio. Smaltire le batterie al litio usate seguendo le istruzioni del produttore e le norme locali.

Informatie over veiligheid


- De veiligheid van dit product is gebaseerd op testen en goedkeuringen van het oorspronkelijke ontwerp en specifieke onderdelen. De fabrikant is niet verantwoordelijk voor de veiligheid bij gebruik van ongeautoriseerde vervangende onderdelen.
- De informatie over het onderhoud van dit product is opgesteld voor gebruik door een professionele onderhoudsmonteur en is niet bedoeld voor gebruik door anderen.
- Tijdens demontage en onderhoud van dit product bestaat mogelijk een hoger risico op elektrische schokken en lichamelijk letsel. Professionele onderhoudsmonteurs dienen op de hoogte te zijn van dit risico en de noodzakelijke voorzorgsmaatregelen te nemen.


 **LET OP: GEVAAR VOOR ELEKTRISCHE SCHOKKEN:** Wanneer u dit symbool ziet, bestaat er een gevaar voor gevaarlijke spanning in het gebied van het product waaraan u werkt. Haal de stekker van het product uit het stopcontact voordat u begint, of let extra goed op als het product stroom nodig heeft om een taak te kunnen uitvoeren.

 **LET OP: RISICO OP LETSEL:** De lithiumbatterij in dit product moet niet worden vervangen. Wanneer de lithiumbatterij niet juist wordt vervangen, bestaat er explosiegevaar. Probeer nooit lithiumbatterijen op te laden, open te maken of te verbranden. Gooi gebruikte lithiumbatterijen weg volgens de aanwijzingen van de fabrikant en houd hierbij de plaatselijke regelgeving in acht.

Sikkerhedsoplysninger


- Sikkerheden for dette produkt er baseret på afprøvning og godkendelser af det oprindelige design og specifikke komponenter. Producenten er ikke ansvarlig for sikkerhed i tilfælde af brug af uautoriserede dele til udskiftning.
- Vedligeholdelsesoplysninger om dette produkt er udarbejdet til brug af en kvalificeret servicetekniker og er ikke beregnet til at blive brugt af andre.
- Der kan være en forøget risiko for elektrisk stød eller personskaade ved afmontering og service af dette produkt. Professionelt servicepersonale bør forstå denne risiko og tage nødvendige forholdsregler.


 **FORSIGTIG - ELEKTRISK STØD:** Når du ser dette symbol, er der risiko for elektrisk spænding i nærheden af produktet, hvor du arbejder. Tag strømskiftet ud inden du begynder, eller udvis forsigtighed, hvis produktet skal modtage strøm for at udføre opgaven.

 **FORSIGTIG - RISIKO FOR SKADE:** Litium-batteriet i dette produkt er ikke beregnet til at blive udskiftet. Der er fare for eksplosion, hvis et litium-batteri udskiftes forkert. Du må ikke genoplade, demontere eller afbrænde et litium-batteri. Brugte litium-batterier skal bortskaffes i overensstemmelse med producentens instruktioner og lokale retningslinjer.

Sicherheitshinweise


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


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

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

Turvallisuusohjeet


- Tämän laitteen turvallisuus perustuu alkuperäisen rakenteen ja tiettyjen osien testaukseen ja hyväksymiseen. Valmistaja ei vastaa turvallisuudessa, jos laitteessa on käytetty luvattomia vaihto-osia.
- Tämän tuotteen huoltoa koskevat tiedot on tarkoitettu vain ammattitaitoisen huoltohenkilön käyttöön.
- Tämän tuotteen purkamiseen ja huoltoon voi liittyä kasvanut sähköiskun tai henkilövahingon vaara. Ammattitaitoisen huoltohenkilön on ymmärrettävä tämä vaara ja toimittava sen edellyttämällä tavalla.


 **HUOMIO – SÄHKÖISKUN VAARA:** Tämä symboli ilmaisee, että tuotteen työskentelyalueella on olemassa vaarallinen jännite. Irrota laite verkkovirrasta ennen kuin aloitat tai toimi erittäin varovasti, jos laitteessa on oltava virta työn aikana.

 **HUOMIO – TAPATURMAN MAHDOLLISUUS:** Tuotteessa olevaa litiumakkua ei ole tarkoitettu vaihdettavaksi. Litiumakun poistaminen väärin aiheuttaa räjähdysvaaran. Älä lataa, pura tai polta litiumakkua. Hävitä käytetyt litiumakut valmistajan ohjeiden ja paikallisten säädösten mukaisesti.

Sikkerhetsinformasjon


- Sikkerheten til dette produktet er basert på testing og godkjenning av originaldesignet og bestemte komponenter. Produsenten er ikke ansvarlig for sikkerheten ved bruk av uautoriserte reservedeler.
- Vedlikeholdsinformasjonen for dette produktet er tilrettelagt for bruk av profesjonelt servicepersonale, og er ikke ment for bruk av andre.
- Det kan være en økt risiko for elektrisk støt og personskade under demontering og vedlikehold av produktet. Profesjonelt servicepersonell må være innforstått med denne risikoen og ta nødvendige forholdsregler.


 **FORSIKTIG – FARE FOR STØT:** Dette symbolet betyr at det er fare for farlig spenning i det området av produktet der du arbeider. Koble fra produktet før du begynner, eller vær forsiktig hvis produktet må ha strøm for å kunne utføre oppgaven.

-  **FORSIKTIG – POTENSIELLE SKADER:** Litiumbatteriet i dette produktet er ikke beregnet for å byttes. Det er fare for eksplosjon hvis litiumbatteriet skiftes ut på feil måte. Ikke lad opp, demonter eller destruer et litiumbatteri. Kast brukte litiumbatterier i henhold til produsentens instruksjoner og lokale regelverk.

Säkerhetsinformation


- Säkerheten för denna produkt baseras på tester och godkännanden av ursprungsdesignen och av specifika komponenter. Tillverkaren har inget ansvar vid användning av oauktorerade reservdelar.
- Underhållsinformationen för produkten är avsedd att användas av utbildade servicetekniker och inte avsedd att användas av andra.
- Risken för elektriska stötar och personskador kan vara förhöjd vid isärtagning och service av produkten. Professionell servicepersonal bör vara medvetna om denna risk och vidta nödvändiga försiktighetsåtgärder.


-  **VAR FÖRSIKTIG– RISK FÖR ELEKTRISK STÖT:** När du ser denna symbol är det risk att det finns farlig spänning i den del av produkten du arbetar med. Koppla från strömmen innan du börjar, eller var försiktig om produkten måste vara strömförsörjd för att uppgiften ska kunna utföras.

-  **VAR FÖRSIKTIG – RISK FÖR SKADA:** Litiumbatteriet i produkten är inte utbytbart. Om ett litiumbatteri byts ut på fel sätt finns det risk att det exploderar. Du får inte ladda om, ta isär eller elda upp ett litiumbatteri. Gör dig av med använda litiumbatterier enligt tillverkarens instruktioner och lokala föreskrifter.

安全情報


- 本製品の安全性は、本来の設計、特定コンポーネントの試験、承認に基づいています。承認されていない交換部品をお客様が使用した場合、メーカーは安全性に対して責任を負いません。
- 本製品のメンテナンス情報は、専門のサービス担当者による利用を目的としており、その他の人を対象としていません。
- 本製品の分解や保守サービスを行う場合は、感電や傷害の危険性があります。専門のサービス担当者はこの危険性を理解し、十分な対策を講じる必要があります。


-  **注意—感電危険:** この表記がある場合、対象製品の作業領域には、高電圧による危険性が生じています。作業を始める前に、製品から電源コードを取り外してください。また作業時に、製品に給電する必要がある場合は、十分に注意するようにしてください。

-  **注意—傷害の恐れあり:** この製品に使用されているリチウム電池は、交換を前提としていません。リチウム電池の交換を誤ると破裂する危険性があります。リチウム電池の充電、解体、焼却はしないでください。使用済みのリチウム電池を廃棄する際は、製造元の指示およびお使いの地域の法律に従ってください。

안전 정보


- 이 제품의 안전은 기본 디자인 및 특정 구성품의 승인 및 테스트를 기반으로 합니다. 제조업체는 권한 없는 교체 부품 사용 시 안전에 대해 책임을 지지 않습니다.
- 이 제품의 유지관리 정보는 전문 서비스 요원을 대상으로 하며 다른 사람은 사용할 수 없습니다.
- 제품 분해 및 서비스 중에는 감전 및 상해 위험이 증가할 수 있습니다. 전문 서비스 요원은 이와 같은 위험을 이해하고 필요한 예방 조치를 취해야 합니다.


-  **주의—감전 위험:** 이 기호가 표시된 경우 작업 중인 제품 주변에서 위험 전압 위험이 있습니다. 사용 전/후에 전원 코드를 뽑아 두시고 제품에서 작업을 수행하는 데 반드시 전원이 필요한 경우에는 주의하여 사용하십시오.

-  **주의—상해 위험:** 이 제품에 들어 있는 리튬 배터리는 교체할 수 없습니다. 리튬 배터리를 잘못 교체하면 폭발할 위험이 있습니다. 리튬 배터리를 충전, 분해하거나 불에 태우지 마십시오. 제조업체의 지침과 지역 규정에 따라 다 쓴 리튬 배터리를 폐기하십시오.

安全信息


- 本产品的安全性以原始设计和特定组件的测试和审批为基础。如果使用未经授权的替换部件，制造商不对安全性负责。
- 本产品的维护信息仅供专业服务人员使用，并不打算由其他人使用。
- 本产品在拆卸和维修时，遭受电击和人员受伤的危险性会增高。专业服务人员对这点必须有所了解，并采取必要的预防措施。


 **小心—电击危险:** 当您看到此符号时，在您工作的产品区域内存在危险电压的威胁。在您开始操作之前请拔掉产品电源，如果产品必须接收功率才能执行任务，请务必谨慎操作。

 **小心—可能的伤害:** 本产品中的锂电池不可更换。如果不正确更换锂电池，可能会有爆炸危险。不要再充电、拆解或焚烧锂电池。丢弃旧的锂电池时应按照制造商的指导及当地法规进行处理。


安全資訊


- 本產品安全性係以原始設計及特定元件之測試與核准為依據。如有使用未獲授權替換組件之情形者，製造商對安全性概不負責。
- 本產品之維護資訊僅供專業維修人員使用，而非預定由他人使用。
- 拆裝及維修本產品時，有可能造成電擊與人員損傷之危險。專業維修人員應瞭解前項危險並採取必要措施。


 **請當心—觸電危險:** 當您看到此符號時，表示您所在產品工作區有危險電壓。開始工作之前，請先拔掉產品電源線，若產品必須接上電源方能執行作業，用電時請務必小心。


 **請當心—潛在受傷危險性:** 本產品中的鋰電池原本並不需要予以更換。若未正確更換鋰電池，可能會有爆炸的危險。請勿將鋰電池充電、拆裝或焚燒。請遵照製造商的指示及當地法規，丟棄用過的電池。

General caution statements

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

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

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

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

Change history

Change history

June 25, 2021

- Replaced the System software error service check topic with the 900 error service check topic in the Diagnostics and troubleshooting chapter. See [“900 error service check” on page 200](#).
- Updated the Hard disk failure service check topic in the Diagnostics and troubleshooting chapter. See [“Hard disk failure service check” on page 156](#).

September 10, 2020

- Updated the MPF feed/separator assembly removal topic in the Parts removal chapter.
- Updated the ADF paper transport 1 topic in the Parts catalog chapter.
- Replaced PN 40X9924 with PN 41X1942 in the Covers 1 topic in the Parts catalog chapter.

July 29, 2020

- Obsoleted PN 41X0032 in the Parts catalog chapter.

June 17, 2020

- Obsoleted the following PNs in the Parts catalog chapter:
 - 41X0010
 - 41X0011

February 14, 2020

- Tray insert removal was added.
- Service checks for resolving tray lift plate errors were updated.
 - Tray 2 lift plate failure service check
 - 2 x 500-sheet tray 3 lift plate failure service check
 - 2 x 500-sheet tray 4 lift plate failure service check
 - Tray 1 lift plate failure service check

October 18, 2019

- Replaced PN 40X9673 with 41X1977 in the topic “Maintenance kits” in of the “Parts catalog” chapter.

September 25, 2019

- Replaced PN 40X8894 with 41X2068 in the ADF paper transport 3 section of the Parts catalog chapter.

May 27, 2019

- Replaced PN 40X9217 with 41X1912 in the Parts catalog chapter.

March 18, 2019

- Update the description of PN 40X9678 in the Parts catalog chapter.
- Changed the FRU name ADF CIS cable with ADF interface cable.

January 9, 2019

- Added PN 41X1398 in the ADF paper pick 2 assembly of the Parts catalog chapter.

June 8, 2018

- Added the following PNs in the Parts catalog chapter:
 - 41X1777
 - 41X1778
 - 41X1779
- Added the following removal topics in the Repair information chapter:
 - [“ADF tray/transport removal” on page 431](#)
 - [“Scan glass brush removal” on page 466](#)
 - [“Cleaning shaft removal” on page 467](#)
- Added the topic [“ADF scanner open jam service check” on page 128](#) in the Diagnostics and troubleshooting chapter.
- Added the 291.06 error code in the Diagnostics and troubleshooting chapter.

December 18, 2017

- Updated the Restore Backup Data topic in the Service menus chapter.

September 29, 2017

- Sensor (ADF scan) removal was added to the Repair information chapter.

September 19, 2017

- 176.00 and 177.00 error codes were added to the 171–182 error messages.

July 21, 2017

- Updated the [“ADF CIS assembly removal” on page 428](#).

May 31, 2017

- Updated 40X4827 to 40X9652 in the topic “Miscellaneous” in the “Parts catalog” chapter.

March 31, 2017

- Updated the [“2500-sheet tray paper transport” on page 751](#).
 - Changed PN 41X0960 to PN 41X1018
 - Changed PN 41X0961 to PN 41X1019
 - Changed PN 41X0962 to PN 41X1021
- Updated the [“2 x 500-sheet tray—Paper transport” on page 711](#).
 - Changed PN 41X0960 to PN 41X1018
 - Changed PN 41X0961 to PN 41X1019

- Changed PN 41X0962 to PN 41X1021
- Changed PN 41X0963 to PN 41X1020

March 21, 2017

- Updated the [“Toner density failure service check” on page 165](#).
- Changed PN 40X8882 to PN 41X1405.
- Updated the wiring diagram.

February 14, 2017

- Updated the [“Fuser removal” on page 294](#).
- Updated the [“Exit guide assembly removal” on page 337](#).
- Updated the [“Registration transport assembly” on page 296](#).

September 2, 2016

- Changed PN 40X9031 to 41X0965 in the Parts catalog chapter.

August 22, 2016

- Added the ADF top cover open jam service check topic in the Diagnostics information chapter.
- Updated the 13y error messages topic in the Diagnostics information chapter.
- Updated the Assembly 55: ADF paper transport 4 topic in the Parts catalog information chapter.

June 28, 2016

- Updated the “LES Applications” topic in the “Service menus” chapter.

February 4, 2016

- Added the Standard tray removal topics in the Repair information chapter.
- Added the Tray base left cover removal topic in the Repair information chapter.
- Updated the Developer unit removal topic in the Repair information chapter.

November 10, 2015

- Updated this IR message, [“Insufficient space between paper stacks in Tray 3” on page 134](#), to add reference to related service check.
- Updated the electrical assembly 1 (both graphic and table) to remove references to power socket mount and PN 40X9402.
- Created [“Insufficient space between paper stacks in 2500-sheet tray service check” on page 205](#).

August 19, 2015

- Updated the Duplex 1 assembly art in the Parts catalog chapter.

August 11, 2015

- Updated the 2 x 500-sheet tray—Paper transport topic in the Parts catalog chapter.

July 2, 2015

- Updated the Electrical 2 topic in the Parts catalog chapter.

June 8, 2015

- Updated the Speaker cover removal and Control panel removal in the Repair chapter.

September 15, 2014

- Transfer belt fan removal was renamed to 'Fuser fan removal'.
- Control panel frame removal was updated.

September 3, 2014

- Installation information was added to the developer unit removal.
- Cable routing information was added to the induction heater removal.
- Printhead relay board removal was added. The printhead relay board removal was also included as a step for printhead removal.
- Registration unit removal was revised. Step 1 has been replaced with the right door removal.
- Part number 40X9999 has been replaced with 40X9215.
- Old part number 40X9215 has been replaced with 40X9685.
- Updated the Control panel removal topic in the Repair information chapter.
- Added the Speaker removal topic in the Repair information chapter.

August 27, 2014

- Added the following Fixing image quality issues topics:
 - Initial image quality check
 - Flatbed scanner image quality check

August 13, 2014

- Printer motor tests, 2 x 500-sheet tray motor tests, 2500-sheet tray motor tests, and 3000-sheet tray motor tests were revised to include steps for enabling safe mode.
- Control panel 2 parts catalog assembly was added, with new FRUs.
 - 41X0452 (Control panel cover assembly)
 - 41X0455 (Control panel UICC)
 - 41X0453 (Control panel cable kit)
 - 41X0454 (Control panel touch-screen display)
- Photoconductor cleaner was renamed 'Printhead cleaner'.
- Updated the control panel removal topic in the Repair chapter.

July 7, 2014

- Diagnostic information topics were added or revised.
 - Bullet for cleaning the photoconductor unit and printhead was added to Initial print quality check
 - Power requirement specifications was included in the 2nd bullet of Initial print quality check
 - Checking of pick, feed, and separator rollers have been removed for print quality checks. Transfer roller will be checked instead.
- Repair information topics were added or revised.
 - Step for removing the front inner cover has been included to the Printhead removal
 - Fuser connector cover removal—topic was deleted.

- Registration transport assembly removal—additional cables disconnected before removing the assembly.
- Front inner cover removal—callout to screws were revised.
- Toner agitator removal—additional cables disconnected before removing the assembly.
- Input options interface cover removal—topic was deleted.
- Sensor (2500-sheet tray transfer guide, home) removal
- Step for removing the upper rear cover has been included to the Upper rear cover removal.
- Steps for removing the center cable guide bracket and high voltage board has been included to the Main drive assembly removal.
- Sensor (2500-sheet tray set) removal
- Imaging unit has been renamed to Transfer belt unit
- Parts catalog FRUs were added.
 - 40X7104 (Power cord, 2.5 m (right-angled)—USA, Canada, Latin America)
 - 40X0288 (Power cord, 2.5 m (straight)—Argentina)
 - 40X1766 (Power cord, 2.5 m (straight)—Bolivia, Peru)
 - 40X0273 (Power cord, 2.5 m (straight)—Italy, Chile, Uruguay)
 - 40X3141 (Power cord, 2.5 m (straight)—Europe, Middle East, Indonesia, Africa (HV))
 - 40X4596 (Power cord, 2.5 m (straight)—Brazil)
 - 40X0271 (Power cord, 2.5 m (straight)—UK, Ireland, Hong Kong, Italy)
 - 40X0301 (Power cord, 2.5 m (straight)—Australia, New Zealand)
 - 40X0270 (Power cord, 2.5 m (straight)—Japan)
 - 40X1792 (Power cord, 2.5 m (straight)—Korea)
 - 40X0303 (Power cord, 2.5 m (straight)—PRC)
 - 40X1791 (Power cord, 2.5 m (straight)—Taiwan)
 - 40X1774 (Power cord, 2.5 m (straight)—Denmark, Finland, Norway, Sweden)
 - 40X0275 (Power cord, 1.8 m (straight)—Israel)
 - 40X1773 (Power cord, 2.5 m (straight)—South Africa, Hong Kong, Singapore, Thailand, Malaysia)
 - 40X1772 (Power cord, 2.5 m (straight)—Liechtenstein, Switzerland)
 - 40X7229 (Power cord, 2.5 m (straight)—India)
 - 41X0010 (Forms and Bar code card)
 - 41X0012 (IPDS card)
 - 41X0011 (PRESCRIBE card)
 - 41X0030 (Keyboard kit, English)
 - 41X0031 (Keyboard kit, French)
 - 41X0032 (Keyboard kit, Italian)
 - 41X0033 (Keyboard kit, German)
 - 41X0034 (Keyboard kit, Spanish)
 - 40X1368 (USB cable, packaged (2 meters))
 - 40X4819 (Serial interface card, RS-232C)
 - 40X4823 (Parallel interface card, 1284-B)
 - 40X7445 (DDR3 RAM, 2 GB x32)

- 40X7567 (DDR3 RAM, 1 GB x32)
- 40X8555 (Flash memory, 256 MB)
- 40X8556 (Font card, Traditional Chinese)
- 40X8557 (Font card, Simplified Chinese)
- 40X8568 (Font card, Korean)
- 40X8569 (Font card, Japanese)
- 40X8570 (Font card, Arabic)
- 40X8571 (Font card, Hebrew)
- 40X8311 (Card reader, small stick-on case)
- 40X8312 (Card reader, large stick-on case)
- 40X8313 (Card reader, small snap-on case)
- 40X8314 (Card reader, large snap-on case)
- 40X7858 (Wireless print server kit, MarkNet N8350 802.11b/g/n)
- 40X7854 (Fax card)

General information

The Lexmark™ MX91x MFPs are network-capable, multifunction laser printers that print monochrome print jobs. All information in this service manual pertains to all models unless explicitly noted.

The printers are available in the following models:

Model	Configurations	Machine type / model
MX910de	Mono laser MFP, Networking, Duplex print, Duplex scan, 10.1-in. color touch screen	7421-036
MX911dte	Mono laser MFP, Networking, Duplex print, Duplex scan, 10.1-in. color touch screen	7421-236
MX912dxe	Mono laser MFP, Networking, Duplex print, Duplex scan, 10.1-in. color touch screen	7421-436

For information on diagnosing a problem, see [“Diagnostics and troubleshooting” on page 51](#). For information on removing and reinstalling parts, see [“Parts removal” on page 255](#). For information on identifying the parts, see [“Parts catalog” on page 580](#).

Paper and specialty media guide

Notes:

- Make sure that the paper size, type, and weight are set correctly on the computer or control panel.
- Flex, fan, and straighten specialty media before loading them.
- The printer may print at a reduced speed to prevent damage to the fuser.
- For more information on card stock and labels, see the *Card Stock & Label Guide* at <http://support.lexmark.com>.

Using specialty media

Tips on using card stock

Card stock is heavy, single-ply specialty media. Many of its variable characteristics, such as moisture content, thickness, and texture, can significantly affect print quality.

- From the printer control panel, set the paper size, type, texture, and weight in the Paper menu to match the card stock loaded in the tray.
- Print samples on the card stock being considered for use before buying large quantities.
- Specify the paper texture and weight from the tray settings to match the paper loaded in the tray.
- Preprinting, perforation, and creasing may significantly affect the print quality and cause jams or other paper feed problems.
- Before loading the card stock on the tray, flex and fan the card stock to loosen them. Straighten the edges on a level surface.

Tips on using envelopes

- From the printer control panel, set the paper size, type, texture, and weight in the Paper menu to match the envelopes loaded in the tray.
- Print samples on the envelopes being considered for use before buying large quantities.
- Use envelopes designed specifically for laser printers.
- For best performance, use envelopes made from 90-g/m² (24-lb) paper or 25% cotton.
- Use only new envelopes from undamaged packages.
- To optimize performance and minimize jams, do not use envelopes that:
 - Have excessive curl or twist.
 - Are stuck together or damaged in any way.
 - Have windows, holes, perforations, cutouts, or embossing.
 - Have metal clasps, string ties, or folding bars.
 - Have an interlocking design.
 - Have postage stamps attached.
 - Have any exposed adhesive when the flap is in the sealed or closed position.
 - Have bent corners.
 - Have rough, cockle, or laid finishes.
- Adjust the width guides to fit the width of the envelopes.
- Before loading the envelopes on the tray, flex the stack of envelopes back and forth to loosen them, and then fan them. Straighten the edges on a level surface.

Note: A combination of high humidity (over 60%) and high printing temperature may wrinkle or seal envelopes.

Tips on using labels

- From the printer control panel, set the paper size, type, texture, and weight in the Paper menu to match the labels loaded in the tray.
- Print samples before buying large quantities.
- For more information on label printing, characteristics, and design, see the *Card Stock & Label Guide* at <http://support.lexmark.com>.
- Use labels designed specifically for laser printers.
- Do not use labels with slick backing material.
- Do not use labels with exposed adhesive.
- Use full label sheets. Partial sheets may cause labels to peel off during printing, resulting in a jam. Partial sheets also contaminate the printer and the cartridge with adhesive, and could void the printer and toner cartridge warranties.
- Before loading labels on the tray, flex and fan labels to loosen them. Straighten the edges on a level surface.

Tips on using letterhead

- Use letterhead specifically for laser printers.
- Print samples before buying large quantities.
- Before loading letterhead, flex and fan the sheets.
- When printing on letterhead, take note of the page orientation.

Source	Printing	Side with the letterhead	Paper orientation
Trays	One-sided	Faceup	Load the sheet with the top edge toward the back of the tray.
	Two-sided	Facedown	Load the sheet with the top edge toward the front of the tray.
Multipurpose feeder	One-sided	Facedown	Load the sheet with the top edge on the left side.
	Two-sided	Faceup	Load the sheet with the top edge on the right side.

Tips on using transparencies

- From the printer control panel, set the paper size, type, texture, and weight in the Paper menu to match the transparencies loaded in the tray.
- Print a test page on the transparencies being considered for use before buying large quantities.
- Use transparencies designed specifically for laser printers.
- Avoid getting fingerprints on the transparencies to prevent print quality problems.
- Before loading transparencies, flex and fan the sheets to prevent them from sticking together.
- When printing on large volumes of transparencies, make sure to print by batches of only up to 20 with an interval of at least three minutes between batches, to prevent the transparencies from sticking together in the bin. You can also remove transparencies from the bin by batches of 20.

Paper guidelines

Selecting the correct paper or specialty media reduces printing problems. For the best print quality, try a sample of the paper or specialty media before buying large quantities.

Paper characteristics

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

Weight

The printer trays can feed paper weights between 60–256 g/m² (16–68-lb) grain long paper. The multipurpose feeder can feed paper weights between 60–256 g/m² (16–68-lb) grain long paper. Paper lighter than 60 g/m² (16 lb) might not be stiff enough to feed properly, and may cause jams.

Note: Two-sided printing is supported for 60–169 g/m² (16–45-lb) paper.

Curl

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

Smoothness

Paper smoothness directly affects print quality. If paper is too rough, toner cannot fuse to it properly. If paper is too smooth, it can cause paper feeding or print quality issues. Always use paper between 100 and 200 Sheffield points.

Moisture content

The amount of moisture in paper affects both print quality and the ability of the printer to feed the paper correctly. Leave paper in its original wrapper until it is time to use it. This limits the exposure of paper to moisture changes that can degrade its performance.

Store paper in its original wrapper in the same environment as the printer for 24 to 48 hours before printing. Extend the time several days if the storage or transportation environment is very different from the printer environment. Thick paper may also require a longer conditioning period.

Grain direction

Grain refers to the alignment of the paper fibers in a sheet of paper. Grain is either *grain long*, running the length of the paper, or *grain short*, running the width of the paper.

For 60–256 g/m² (16–68-lb) paper, grain long paper is recommended.

Fiber content

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

Selecting paper

Using the appropriate paper prevents jams and helps ensure trouble-free printing.

To help avoid paper jams and poor print quality:

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

Selecting preprinted forms and letterhead

- Use grain long for 60–256-g/m² (16–68-lb) paper.
- Use only forms and letterhead printed using an offset lithographic or engraved printing process.
- Avoid paper with rough or heavily textured surfaces.

- Use inks that are not affected by the resin in toner. Inks that are oxidation-set or oil-based generally meet these requirements; latex inks might not.
- Print samples on preprinted forms and letterheads considered for use before buying large quantities. This determines whether or not the ink in the preprinted form or letterhead will affect print quality.
- When in doubt, contact your paper supplier.

Using recycled paper and other office papers

As an environmentally conscientious company, Lexmark supports the use of recycled paper produced specifically for use in laser (electrophotographic) printers.

While no blanket statement can be made that all recycled paper will feed well, Lexmark consistently tests papers that represent recycled cut size copier papers available on the global market. This scientific testing is conducted with rigor and discipline. Many factors are taken into consideration both separately and as a whole, including the following:

Generally, the following property guidelines apply to recycled paper.

- Amount of post-consumer waste (Lexmark tests up to 100% post-consumer waste content.)
- Temperature and humidity conditions (Testing chambers simulate climates from all over the world.)
- Moisture content (Business papers should have low moisture: 4–5%.)
- Bending resistance and proper stiffness means optimum feeding through the printer.
- Thickness (impacts how much can be loaded into a tray)
- Surface roughness (measured in Sheffield units, impacts print clarity and how well toner fuses to the paper)
- Surface friction (determines how easily sheets can be separated)
- Grain and formation (impacts curling, which also influences the mechanics of how the paper behaves as it moves through the printer)
- Brightness and texture (look and feel)

Recycled papers are better than ever; however, the amount of recycled content in a paper affects the degree of control over foreign matter. And while recycled papers are one good path to printing in an environmentally responsible manner, they are not perfect. The energy required to de-ink and deal with additives such as colorants and “glue” often generates more carbon emissions than does normal paper production. However, using recycled papers enables better resource management overall.

Lexmark concerns itself with the responsible use of paper in general based on life cycle assessments of its products. To gain a better understanding of the impact of printers on the environment, the company commissioned a number of life cycle assessments and found that paper was identified as the primary contributor (up to 80%) of carbon emissions caused throughout the entire life of a device (from design to end-of-life). This is due to the energy-intensive manufacturing processes required to make paper.

Thus, Lexmark seeks to educate customers and partners on minimizing the impact of paper. Using recycled paper is one way. Eliminating excessive and unnecessary paper consumption is another. Lexmark is well-equipped to help customers minimize printing and copying waste. In addition, the company encourages purchasing paper from suppliers who demonstrate their commitment to sustainable forestry practices.

Lexmark does not endorse specific suppliers, although a converter's product list for special applications is maintained. However, the following paper choice guidelines will help alleviate the environmental impact of printing:

- 1 Minimize paper consumption.
- 2 Be selective about the origin of wood fiber. Buy from suppliers who carry certifications such as the Forestry Stewardship Council (FSC) or the Program for the Endorsement of Forest Certification (PEFC). These certifications guarantee that the paper manufacturer uses wood pulp from forestry operators that employ environmentally and socially responsible forest management and restoration practices.
- 3 Choose the most appropriate paper for printing needs: normal 75 or 80 g/m² certified paper, lower weight paper, or recycled paper.

Unacceptable paper examples

Test results indicate that the following paper types are at risk for use with laser printers:

- Chemically treated papers used to make copies without carbon paper, also known as *carbonless papers*
- Preprinted papers with chemicals that may contaminate the printer
- Preprinted papers that can be affected by the temperature in the printer fuser
- Preprinted papers that require a registration (the precise location on the page) greater than ± 2.3 mm (± 0.9 in.), such as optical character recognition (OCR) forms. In some cases, registration can be adjusted with a software application to successfully print on these forms.)
- Coated papers (erasable bond), synthetic papers, thermal papers
- Rough-edged, rough or heavily textured surface papers or curled papers
- Recycled papers that fail EN12281:2002 (European testing)
- Paper weighing less than 60 g/m² (16 lb)
- Multiple part forms or documents

For more information about Lexmark, go to www.lexmark.com. General sustainability-related information can be found at the **Environmental Sustainability** link.

Storing paper

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

- For best results, store paper where the temperature is 21°C (70°F) and the relative humidity is 40 percent. Most label manufacturers recommend printing in a temperature range of 18–24°C (65–75°F) with relative humidity between 40 and 60 percent.
- Store paper in cartons, on a pallet or shelf, rather than on the floor.
- Store individual packages on a flat surface.
- Do not store anything on top of individual paper packages.
- Take paper out of the carton or wrapper only when you are ready to load it in the printer. The carton and wrapper help keep the paper clean, dry, and flat.

Supported paper sizes, types, and weights

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

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

Paper sizes supported by the printer

Paper sizes supported by the trays and multipurpose feeder

Paper size	Dimensions	Standard 500-sheet tray (Tray 1)	Standard 500-sheet tray (Tray 2)	2 x 500-sheet tray	2500-sheet tray	3000-sheet tray	Multipurpose feeder ³	Two-sided printing
A4	210 x 297 mm (8.3 x 11.7 in.)	✓	✓	✓	✓ ²	✓ ²	✓ ²	✓
A5	148 x 210 mm (5.8 x 8.3 in.)	✓ ¹	✓ ¹	✓ ¹	✗	✗	✓	✓
A6	105 x 148 mm (4.1 x 5.8 in.)	✗	✗	✗	✗	✗	✓ ¹	✓
JIS B5	182 x 257 mm (7.2 x 10.1 in.)	✓	✓	✓	✗	✗	✓	✓
Letter	216 x 279 mm (8.5 x 11 in.)	✓	✓	✓	✓ ²	✓ ²	✓	✓
Legal	216 x 356 mm (8.5 x 14 in.)	✓	✓	✓	✗	✗	✓	✓
Executive	184 x 267 mm (7.3 x 10.5 in.)	✓	✓	✓	✗	✗	✓	✓
JIS B4	257 x 364 mm (10.12 x 14.33 in.)	✓	✓	✓	✗	✗	✓	✓
SRA3	320 x 450 mm (12.6 x 17.7 in.)	✗	✓ ¹	✗	✗	✗	✓ ¹	✓
A3	297 x 420 mm (11.69 x 16.54 in.)	✓	✓	✓	✗	✗	✓	✓
12 x 18	305 x 457 mm (12 x 18 in.)	✗	✓ ¹	✗	✗	✗	✓ ¹	✓

¹ Supported only in short-edge orientation.

² Supported only in long-edge orientation.

³ Supports paper size without *size sensing*.

⁴ Supported only if the width is from 139.7 mm (5.5 in.) to 320 mm (12.6 in.), and the length is from 148 mm (5.83 in.) to 458 mm (18 in.).

Note: Banner is supported in the multipurpose feeder only if the width is up to 296.9 mm (11.69 in.), and the length is up to 1219.2 mm (48 in.). Set the paper size to Universal.

Paper size	Dimensions	Standard 500-sheet tray (Tray 1)	Standard 500-sheet tray (Tray 2)	2 x 500-sheet tray	2500-sheet tray	3000-sheet tray	Multipurpose feeder ³	Two-sided printing
11 x 17	279.4 x 431.8 mm (11 x 17 in.)	✓	✓	✓	X	X	✓	✓
Oficio	216 x 340 mm (8.5 x 13.4 in.)	✓	✓	✓	X	X	✓	✓
Folio	216 x 330 mm (8.5 x 13 in.)	✓	✓	✓	X	X	✓	✓
Statement	140 x 216 mm (5.5 x 8.5 in.)	✓ ¹	✓ ¹	✓ ¹	X	X	✓	✓
Universal	76.2 x 76.2 mm (3 x 3 in.) to 320 x 1219.2 mm (12.6 x 48 in.)	✓	✓	✓	X	X	✓	✓ ⁴
7 3/4 Envelope	98 x 191 mm (3.9 x 7.5 in.)	X	X	X	X	X	✓	X
9 Envelope	98 x 225 mm (3.9 x 8.9 in.)	X	X	X	X	X	✓	X
10 Envelope	105 x 241 mm (4.1 x 9.5 in.)	X	X	X	X	X	✓	X
DL Envelope	110 x 220 mm (4.3 x 8.7 in.)	X	X	X	X	X	✓	X
C5 Envelope	162 x 229 mm (6.4 x 9 in.)	X	X	X	X	X	✓	X
B5 Envelope	176 x 250 mm (6.9 x 9.8 in.)	X	X	X	X	X	✓	X
Other Envelope	98 x 162 mm (3.9 x 6.3 in.) to 176 x 250 mm (6.9 x 9.8 in.)	X	X	X	X	X	✓	X

¹ Supported only in short-edge orientation.

² Supported only in long-edge orientation.

³ Supports paper size without *size sensing*.

⁴ Supported only if the width is from 139.7 mm (5.5 in.) to 320 mm (12.6 in.), and the length is from 148 mm (5.83 in.) to 458 mm (18 in.).

Note: Banner is supported in the multipurpose feeder only if the width is up to 296.9 mm (11.69 in.), and the length is up to 1219.2 mm (48 in.). Set the paper size to Universal.

Paper sizes supported by the ADF and scanner glass

Paper size	Dimensions	ADF	Scanner glass
Business card		X	√ ^{1,2}
3 x 5	76.2 x 127 mm (3 x 5 in.)	X	√ ^{1,2}
4 x 6	101.6 x 152.4 mm (4 x 6 in.)	√ ²	√ ^{1,2}
A4	210 x 297 mm (8.3 x 11.7 in.)	√	√
A5	148 x 210 mm (5.8 x 8.3 in.)	√	√ ²
A6	105 x 148 mm (4.1 x 5.8 in.)	√ ^{1,2}	√ ^{1,2}
JIS B5	182 x 257 mm (7.2 x 10.1 in.)	√	√
Letter	216 x 279 mm (8.5 x 11 in.)	√	√
Legal	216 x 356 mm (8.5 x 14 in.)	√	√
Executive	184 x 267 mm (7.3 x 10.5 in.)	√	√
JIS B4	257 x 364 mm (10.12 x 14.33 in.)	√	√
SRA3	320 x 450 mm (12.6 x 17.7 in.)	X	X
A3	297 x 420 mm (11.69 x 16.54 in.)	√	√
12 x 18	305 x 457 mm (12 x 18 in.)	X	X
11 x 17	279.4 x 431.8 mm (11 x 17 in.)	√	√
Oficio	216 x 340 mm (8.5 x 13.4 in.)	√ ²	√ ²
Folio	216 x 330 mm (8.5 x 13 in.)	√	√
Statement	140 x 216 mm (5.5 x 8.5 in.)	√	√
Universal	89 x 98.4 mm (3.50 x 3.87 in.) to 297 x 431.8 mm (11.69 x 17.00 in.)	√ ²	√ ²
7 3/4 Envelope	98 x 191 mm (3.9 x 7.5 in.)	X	X
9 Envelope	98 x 225 mm (3.9 x 8.9 in.)	X	X
10 Envelope	105 x 241 mm (4.1 x 9.5 in.)	X	X
DL Envelope	110 x 220 mm (4.3 x 8.7 in.)	X	X
C5 Envelope	162 x 229 mm (6.4 x 9 in.)	X	X
B5 Envelope	176 x 250 mm (6.9 x 9.8 in.)	X	X
Other Envelope	98 x 162 mm (3.9 x 6.3 in.) to 176 x 250 mm (6.9 x 9.8 in.)	X	X
Custom Scan Size [x]		√ ²	√ ²

¹ Supported only in short-edge orientation.

² Supports paper size without *size sensing*.

Paper types and weights supported by the printer

The printer engine supports 60–256-g/m² (16–68-lb) paper weights.

Note: Labels, transparencies, envelopes, and card stock always print at reduced speed.

Paper type	Standard 500-sheet tray (Tray 1)	Standard 500-sheet tray (Tray 2)	2 x 500-sheet tray	2500-sheet tray	3000-sheet tray	Multipurpose feeder	ADF	Scanner
Plain Paper ¹	✓	✓	✓	✓	✓	✓	✓	✓
Card Stock ¹	✓	✓	✓	✓	✓	✓	✓	✓
Transparencies ²	X	X	X	X	X	✓	✓	✓
Recycled ¹	✓	✓	✓	✓	✓	✓	✓	✓
Glossy ¹	✓	✓	✓	✓	✓	✓	✓	✓
Heavy Glossy ¹	✓	✓	✓	✓	✓	✓	✓	✓
Labels	X	X	X	X	X	✓	✓	✓
Vinyl Labels	X	X	X	X	X	X	✓	✓
Bond ¹	✓	✓	✓	✓	✓	✓	✓	✓
Envelope	X	X	X	X	X	✓	✓	✓
Rough Envelope	X	X	X	X	X	✓	✓	✓
Letterhead ¹	✓	✓	✓	✓	✓	✓	✓	✓
Preprinted ¹	✓	✓	✓	✓	✓	✓	✓	✓
Colored Paper ¹	✓	✓	✓	✓	✓	✓	✓	✓
Light Paper ¹	✓	✓	✓	✓	✓	✓	✓	✓
Heavy Paper ¹	✓	✓	✓	✓	✓	✓	✓	✓
Rough Cotton ¹	✓	✓	✓	✓	✓	✓	✓	✓
Custom Type ¹	✓	✓	✓	✓	✓	✓	✓	✓

¹ Paper is supported for two-sided printing.

² Print transparencies in batches of only up to 20 to prevent them from sticking together.

Paper sizes, types, and weights supported by the finishers

The printer engine supports 60–256 g/m² (16–68-lb) paper weights.

Note: When a finisher is installed, the standard finisher bin becomes the default bin even for print jobs that do not require finishing.

Supported paper sizes

Paper size	Staple finisher	Staple, hole punch finisher bin 1	Staple, hole punch finisher bin 2	Booklet finisher
A6	√ ³	√ ³	X	X
A5	√ ³	√ ³	√ ²	X
JIS B5	√	√	√	X
JIS B4	√	√	√	√
Executive	√	√	√	X
Letter	√	√	√	√
A4	√	√	√	√
Legal	√	√ ⁴	√	√
12 x 18	√ ¹	√ ³	√ ¹	√
11 x 17	√	√	√	√
SRA3	√ ¹	√ ³	√ ¹	√
A3	√	√	√	√
Oficio	√ ¹	√ ³	√ ³	X
Folio	√ ¹	√ ³	√ ³	X
Statement	√ ¹	√ ³	√ ³	X
Universal	√	√ ³	√ ¹	√ ⁵

¹ Paper is supported only if the finisher stacks the paper but does not staple or punch holes in it.

² Paper is supported only if the finisher stacks or staples the paper but does not punch holes in it.

³ Paper is supported but the finisher does not stack, staple, or punch holes in it.

⁴ Paper is supported only for 2-hole punch.

⁵ Paper is supported only if the paper size is between 210 x 279.4 mm (8.27 x 11 in.) and 320 x 457.2 mm (12.6 x 18 in.).

Supported paper types

Paper type	Staple finisher	Staple, hole punch finisher	Booklet finisher
Plain Paper	√	√	√ ⁵
Card Stock	√ ²	√	X
Transparency ¹	√ ²	√ ³	X
Recycled	√ ²	√	√ ⁵
Glossy	√ ²	√	√ ⁵
Heavy Glossy	√ ²	√ ⁴	X
Labels	√ ²	√ ³	X
Bond	√	√	√ ⁵
Envelope	√ ²	√ ³	X
Rough Envelope	√ ²	√ ³	X
Letterhead	√	√	√ ⁵
Preprinted	√	√	√ ⁵
Colored Paper	√	√	√ ⁵
Light Paper	√	√	√ ⁵
Heavy Paper	√ ²	√ ⁴	X
Rough Cotton	√ ²	√	X
Custom Type	√	√	√ ⁵

¹ Print on transparencies by batches of only up to 20 to prevent them from sticking together. For more information, see [“Tips on using transparencies” on page 39](#).

² Paper is supported only if the finisher stacks the paper but does not staple it.

³ Paper is supported only if the finisher stacks the paper but does not staple or punch holes in it.

⁴ Paper is supported only if the finisher punches holes or stacks the paper but does not staple it.

⁵ Paper is supported only if the finisher staples or folds the paper.

Data security notice

- 1 The printer contains various types of memory that store printer and network settings, information from embedded solutions, and user data.

The following are the types of memory and data that they store.

- **Volatile memory**—The printer uses standard random access memory (RAM) to buffer user data temporarily during simple print and copy jobs.
- **Non-volatile memory**—The printer may use two forms of non-volatile memory: EEPROM and NAND (flash memory). Both types are used to store the operating system, printer settings, network information, scanner and bookmark settings, and embedded solutions.
- **Hard disk memory**—The printer hard disk is designed for printer-specific functionality and cannot be used for the long-term storage of data that is not print-related. The hard disk can retain buffered user data from complex print jobs, form data, and font data.

To erase volatile memory, turn off the printer.

To erase the non-volatile and printer hard disk memory, see [“Configuration Menu” on page 243](#).

The following parts are capable of storing memory:

- Printer control panel
- User interface controller card (UICC)
- Controller board
- Optional hard disk




Note: The control panel and controller board contain NVRAM.

2 After removing the old part, return it to your next level of support.

Tools required for service

- Flat-blade screwdrivers, various sizes
- #1 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic short-blade
- Needle-nose pliers
- Diagonal side cutters
- Spring hook
- Feeler gauges
- Analog or digital multimeter
- Flashlight (optional)

Diagnostics and troubleshooting

-  **CAUTION—SHOCK HAZARD:** For personal safety and to prevent damage to the printer, remove the power cord from the electrical outlet before you connect or disconnect any cable, electronic board, or assembly. Disconnect any connections between the printer and the computer or peripherals.
-  **CAUTION—POTENTIAL INJURY:** The printer weight is greater than 18 kg (40 lb) and requires two or more trained personnel to lift it safely. Use the handholds on the side of the printer. Make sure your fingers are not under the printer when you lift or set the printer on the floor or another stable surface.
-  **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

Troubleshooting overview

Performing the initial troubleshooting check

- With the power cord unplugged from the electrical outlet, check if the cord is free from breakage, short circuits, disconnected wires, or incorrect connections.
- Make sure that the printer is properly grounded.
- Make sure that the power supply line voltage is within 10% of the rated line voltage.
- Make sure that the printer is securely installed on a level surface in a well-ventilated area.
- Make sure that the temperature and relative humidity are within the specifications. See [“Temperature information” on page 775](#).
- Avoid locations that:
 - Generate ammonia gas
 - Are exposed to direct sunlight
 - Are near open flames
 - Are dusty
- Make sure that the recommended paper for this printer is used.
- Do a test print with paper from a newly opened package, and then check the result.

Fixing print quality issues

- [“Initial print quality check” on page 52](#)
- [“Gray background check” on page 52](#)
- [“Blank pages check” on page 55](#)
- [“Solid black pages check” on page 57](#)
- [“Shadow images check” on page 59](#)

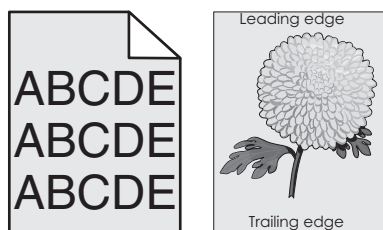
- “Skewed print check” on page 60
- “Streaked horizontal or vertical lines check” on page 62
- “Toner smear check” on page 63
- “Toner specks check” on page 64

Initial print quality check


Before troubleshooting print problems, perform the following:


- Clean the photoconductor unit and printhead. For more information, see [“Cleaning the charger and the printhead lens” on page 575](#).
- Make sure that the printer is located in an area that follows the recommended operating environment and power requirement specifications.
- Check the status of supplies. Replace supplies that are low or empty.
- Load 20-lb plain letter or A4 paper. Make sure that the paper guides are properly set and locked. From the control panel, set the paper size and type to match the paper loaded in the tray.
- Print and keep the menu settings page. The original menu settings page will be used to restore the customer’s custom settings if necessary.
- Make sure that the Print resolution and Toner darkness on the menu settings page are set to their default values.
- Check the transfer roller, toner cartridge, and transfer belt for damage, and replace if necessary.
- Print the print quality pages to see if the problem remains. Use tray 1 to test print quality problems. Look for variations in the print from what is expected.
- Make sure that the correct print driver is used to prevent print problems. If the wrong print driver is installed, incorrect characters could print, and the copy may not fit the page correctly.

Gray background check

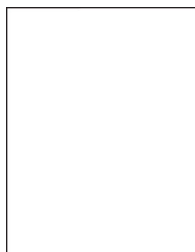


Actions	Yes	No
<p>Step 1</p> <p>a Navigate to Settings > Allow Background Removal. Make sure that the value is set to On.</p> <p>b Navigate to Settings > Print Settings > Quality Menu. Decrease the toner darkness (8 is the default value).</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Perform print quality calibration. Navigate to: Settings > Print Settings > Quality Menu > Adjust Print Quality</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Enter the Configuration menu, and then select Print Quality Pages.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Enter the Configuration menu, and then navigate to: Automatic Image Stabilization > Auto Align Adj</p> <p>Make sure that the value is set to On.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Make sure that the sensor (toner density) is free of dust or debris.</p> <p>b Reseat the sensor cable.</p> <p>c Check the sensor and its cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Observe the toner density solenoid.</p> <p>Is it working properly?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the solenoid and its actuator for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.



Actions	Yes	No
<p>Step 8</p> <p>a Make sure that the cartridge and photoconductor are installed.</p> <p>b Make sure that the cartridge and photoconductor are supported.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Printed Page Count</p> <p>Does the page count reach 300K or 600K?</p>	Go to step 10.	Go to step 11.
<p>Step 10</p> <p>Check the following parts for damage or contamination, and replace if necessary.</p> <ul style="list-style-type: none"> • Transfer roller • Transfer belt • Developer unit <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Make sure that the erase LED is properly installed.</p> <p>b Check the LED for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p> CAUTION—SHOCK HAZARD: Do not perform this step if the printer is on.</p> <p>a Make sure that the following cables are properly connected:</p> <ul style="list-style-type: none"> • High voltage charge cable • High voltage transfer cable • High voltage toner charge cable <p>b Make sure that the high voltage charge and developer contacts are secure.</p> <p>c Check the high voltage board cables and contacts for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Actions	Yes	No
<p>Step 13</p> <p> CAUTION—SHOCK HAZARD: Do not perform this step if the printer is on.</p> <p>a Make sure that the high voltage board cables are properly connected.</p> <p>b Check the high voltage board for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>a Make sure that the printhead is properly installed.</p> <p>b Check the printhead for damage, and replace if necessary. See “Printhead removal” on page 290.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Blank pages check



Actions	Yes	No
<p>Step 1</p> <p>a Navigate to Settings > Allow Background Removal. Make sure that the value is set to On.</p> <p>b Navigate to Settings > Print Settings > Quality Menu. Decrease the toner darkness (8 is the default value).</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Enter the Configuration menu, and then select Print Quality Pages.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Make sure that the cartridge and photoconductor are installed.</p> <p>b Make sure that the cartridge and photoconductor are supported.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.



Actions	Yes	No
<p>Step 4</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Printed Page Count</p> <p>Does the page count reach 300K or 600K?</p>	Go to step 5.	Go to step 6.
<p>Step 5</p> <p>Check the following parts for damage or contamination, and replace if necessary:</p> <ul style="list-style-type: none"> • Transfer roller • Transfer belt • Developer unit <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Make sure that the erase LED is properly installed. b Check the LED for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p> CAUTION—SHOCK HAZARD: Do not perform this step if the printer is on.</p> <p>a Make sure that the following cables are properly connected:</p> <ul style="list-style-type: none"> • High voltage charge cable • High voltage transfer cable • High voltage toner charge cable <p>b Make sure that the high voltage charge and developer contacts are secure.</p> <p>c Check the high voltage board cables and contacts for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p> CAUTION—SHOCK HAZARD: Do not perform this step if the printer is on.</p> <p>a Make sure that the high voltage board cables are properly connected.</p> <p>b Check the high voltage board for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Actions	Yes	No
<p>Step 9</p> <p>a Make sure that the printhead is properly installed.</p> <p>b Check the printhead for damage, and replace if necessary. See “Printhead removal” on page 290.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

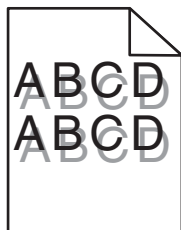
Solid black pages check



Actions	Yes	No
<p>Step 1</p> <p>a Navigate to Settings > Allow Background Removal. Make sure that the value is set to On.</p> <p>b Navigate to Settings > Print Settings > Quality Menu. Decrease the toner darkness (8 is the default value).</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Enter the Configuration menu, and then select Print Quality Pages.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Make sure that the cartridge and photoconductor are installed.</p> <p>b Make sure that the cartridge and photoconductor are supported.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Printed Page Count</p> <p>Does the page count reach 300K or 600K?</p>	Go to step 5.	Go to step 6.

Actions	Yes	No
<p>Step 5</p> <p>Check the following parts for damage or contamination, and replace if necessary:</p> <ul style="list-style-type: none"> • Transfer roller • Transfer belt • Developer unit <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Make sure that the erase LED is properly installed.</p> <p>b Check the LED for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p> CAUTION—SHOCK HAZARD: Do not perform this step if the printer is on.</p> <p>a Make sure that the following cables are properly connected:</p> <ul style="list-style-type: none"> • High voltage charge cable • High voltage transfer cable • High voltage toner charge cable <p>b Make sure that the high voltage charge and developer contacts are secure.</p> <p>c Check the high voltage board cables and contacts for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p> CAUTION—SHOCK HAZARD: Do not perform this step if the printer is on.</p> <p>a Make sure that the high voltage board cables are properly connected.</p> <p>b Check the high voltage board for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>a Make sure that the printhead is properly installed.</p> <p>b Check the printhead for damage, and replace if necessary. See “Printhead removal” on page 290.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

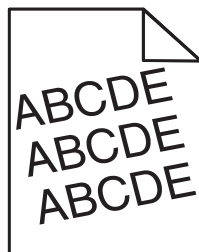
Shadow images check



Actions	Yes	No
<p>Step 1 Make sure that the paper type and weight are supported.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the exit roller for wear, damage, or contamination, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <ul style="list-style-type: none"> a Check the exit belt for proper tension, and adjust if necessary. b Check the exit gear and belt for wear or damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the transfer roller for wear, damage, or contamination, and replace if necessary. See “Transfer roller removal” on page 300.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <ul style="list-style-type: none"> a Make sure that the registration unit is properly installed. b Make sure that the unit is clear of obstructions. c Check the unit for damage, and replace if necessary. See “Registration unit assembly removal” on page 329. <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the sensor (fusing speed) for damage.</p> <p>Is it free of damage?</p>	Go to step 7.	Go to step 9.

Actions	Yes	No
<p>Step 7</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > Fusing speed</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 10.
<p>Step 8</p> <p>a Reseat the fusing speed sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Replace the sensor (fusing speed). See “Sensor (fusing speed) removal” on page 332.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Make sure that the fuser and its cable are properly connected. b Check the fuser for damage, and replace if necessary. See “Fuser removal” on page 294.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

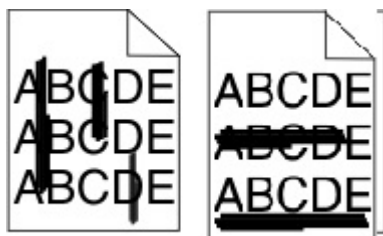
Skewed print check





Actions	Yes	No
<p>Step 1</p> <p>Make sure that the following parts are properly installed:</p> <ul style="list-style-type: none"> • Printhead • Transfer belt • Developer unit • Photoconductor <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Actions	Yes	No
<p>Step 2 Enter the Diagnostics menu, and then navigate to: REGISTRATION > [source tray] > Print Quick Test</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the registration roller for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Check the registration belt for proper tension, and adjust if necessary.</p> <p>b Check the registration gear and belt for wear or damage, and replace if necessary. See “Registration unit belt removal” on page 334 and “Registration unit gears removal” on page 335.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the following rollers for wear or damage, and replace if necessary:</p> <ul style="list-style-type: none"> • Pick roller • Feed roller • Separator roller • Transport roller <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Check the roller belts for proper tension, and adjust if necessary.</p> <p>b Check the roller gears and belts for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

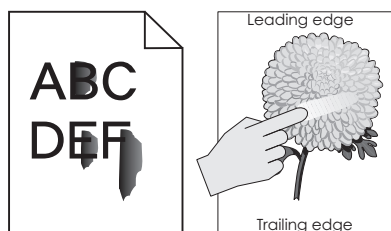
Streaked horizontal or vertical lines check



Actions	Yes	No
<p>Step 1</p> <p>a Make sure that the photoconductor and printhead are clean.</p> <p>b Make sure that the photoconductor and printhead are properly installed.</p> <p>c Check the photoconductor for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Make sure that the toner cartridge supply is not low.</p> <p>b Check the photoconductor for contamination or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Printed Page Count</p> <p>Does the page count reach 300K or 600K?</p>	Go to step 4.	Go to step 5.
<p>Step 4</p> <p>Check the following for damage:</p> <ul style="list-style-type: none"> • Developer unit • Transfer belt • Transfer roller <p>Replace the parts if necessary. See “Transfer roller removal” on page 300.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Make sure that the erase LED is properly installed.</p> <p>b Check the LED for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

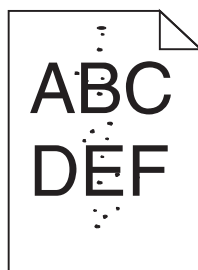
Actions	Yes	No
<p>Step 6</p> <p> CAUTION—SHOCK HAZARD: Do not perform this step if the printer is on.</p> <p>a Make sure that the following cables are properly connected:</p> <ul style="list-style-type: none"> • High voltage charge cable • High voltage transfer cable • High voltage toner charge cable <p>b Make sure that the high voltage charge and developer contacts are secure.</p> <p>c Check the high voltage board cables and contacts for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p> CAUTION—SHOCK HAZARD: Do not perform this step if the printer is on.</p> <p>a Make sure that the high voltage board cables are properly connected.</p> <p>b Check the high voltage board for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Make sure that the printhead is properly installed.</p> <p>b Check the printhead for damage, and replace if necessary. See “Printhead removal” on page 290.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Toner smear check



Actions	Yes	No
<p>Step 1 Make sure that the paper type and weight are supported.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the environment for proper humidity. Remove or reduce sources of humidity if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Make sure that the fuser and its cable are properly connected. b Check the fuser for damage, and replace if necessary. See “Fuser removal” on page 294.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 a Make sure that the induction heater is properly installed. b Reseat the heater cable. c Check the heater and its cable for damage, and replace if necessary. See “Induction heater removal” on page 294.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Make sure that the induction heater power supply is properly installed. b Reseat the power supply cables. c Check the power supply and its cables for damage, and replace if necessary. See “Induction heater power supply (IHPS) removal” on page 370.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Toner specks check



Actions	Yes	No
<p>Step 1</p> <ul style="list-style-type: none"> a Make sure that the photoconductor and printhead are clean. b Make sure that the photoconductor and printhead are properly installed. c Check the photoconductor for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <ul style="list-style-type: none"> a Make sure that the cartridge and photoconductor are installed. b Make sure that the cartridge and photoconductor are supported. <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Printed Page Count</p> <p>Does the page count reach 300K or 600K?</p>	Go to step 4.	Go to step 5.
<p>Step 4</p> <p>Check the following for damage:</p> <ul style="list-style-type: none"> • Developer unit • Transfer belt • Transfer roller <p>Replace the parts if necessary. See “Transfer roller removal” on page 300.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <ul style="list-style-type: none"> a Make sure that the fuser and its cable are properly connected. b Check the fuser for damage, and replace if necessary. See “Fuser removal” on page 294. <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Fixing image quality issues

Initial image quality check

Before troubleshooting image quality problems, perform the following:

- Perform a print test to ensure that the defect is not due to printer problem.

- Make sure that the document is placed correctly.
- Make sure that the image data is properly transmitted.
- Make sure that the scanner or ADF is free of debris or dust.
- Make sure all ADF and scanner cables are properly installed.
- Make sure that the scanner and ADF are properly aligned. For more information, see [“ADF height adjustment” on page 272](#).
- Make sure that the printer is placed on a level surface.
- Reset the scanner quality adjustment to the default values.

Flatbed scanner image quality check

Actions	Yes	No
<p>Step 1 Check the ADF cushion for dust, crease marks, or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Make sure that the scanner glass is free of debris or dust. b Check the glass for proper alignment, and adjust if necessary. c Check the glass for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Reset the printer, and then check the scanner lamp for movement.</p> <p>Does the scanner lamp move smoothly?</p>	Go to step 7.	Go to step 4.
<p>Step 4</p> <p>a Make sure that the sensor (scanner lamp home) is installed properly. b Check the sensor for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the motor (scanner) for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Actions	Yes	No
<p>Step 6</p> <p>a Check the scanner motor belt for proper tension, and adjust if necessary.</p> <p>b Check the gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Make sure that the scanner lamp cable and connectors are properly installed.</p> <p>b Check the cable and connectors for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Make sure that the scanner lamp is properly installed.</p> <p>b Check the lamp for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the scanner CCD lens for proper alignment, and adjust if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Make sure that the scanner sensor cable is properly installed.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Check the scanner CCD lens for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Check the scanner controller card for damaged pins, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Make sure that the scanner CCD cable is properly installed.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Actions	Yes	No
<p>Step 14</p> <p>a Make sure that the ADF/scanner image controller board is properly installed.</p> <p>b Check the board for damaged pins, and replace if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Paper jams

- “Avoiding jams” on page 68
- “Understanding jam messages and locations” on page 69
- “[x]-page jam, clear jammed paper from multipurpose feeder. [200.xx]” on page 71
- “[x]-page jam, open door C and clear all jammed paper. [2yy.xx]” on page 71
- “[x]-page jam, slide the 3000-sheet tray and open door C. [2yy.xx]” on page 73
- “[x]-page jam, open door D and clear all jammed paper. [24y.xx]” on page 75
- “[x]-page jam, slide the 3000-sheet tray and open door D. [24y.xx]” on page 77
- “[x]-page jam, press latch at area E to open ADF’s top cover. [28y.xx]” on page 78
- “200 paper jams” on page 80
- “202 paper jams” on page 87
- “23y paper jams” on page 91
- “241–242 paper jams” on page 94
- “243–245 paper jams” on page 104
- “28y–29y paper jams” on page 117

Avoiding jams

Load paper properly

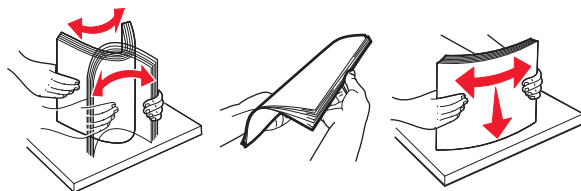
- Make sure that the paper lies flat in the tray.
- Do not remove a tray while the printer is printing.
- Do not load a tray while the printer is printing. Load it before printing, or wait for a prompt to load it.
- Do not load too much paper. Make sure that the stack height is below the maximum paper fill indicator.
- Do not slide paper into the tray. Load paper as shown in the illustration.



- Make sure that the paper guides are properly positioned.
- Push the tray firmly into the printer after loading paper.

Use recommended paper

- Use only recommended paper or specialty media.
- Do not load wrinkled, creased, damp, bent, or curled paper.
- Flex, fan, and straighten paper before loading it.



- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure that the paper size and type are set correctly on the Embedded Web Server or the computer.

Note: Depending on your operating system, access the Paper menu using Local Printer Settings Utility or Printer Settings.

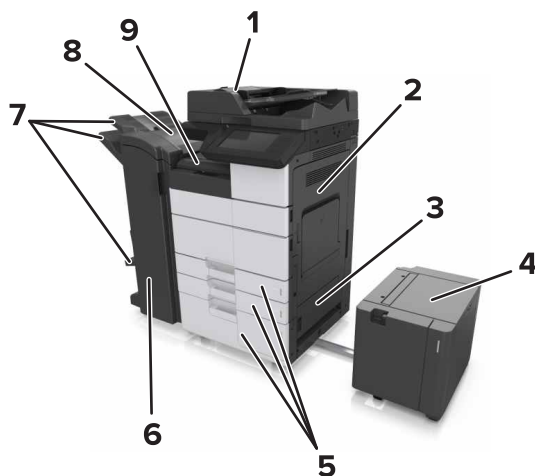
- Store paper according to manufacturer recommendations.

Understanding jam messages and locations

When a jam occurs, a message indicating the jam location and information to clear the jam appears on the printer display. Open the doors, covers, and trays indicated on the display to remove the jam.

Notes:

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



	Area name
1	Automatic document feeder (ADF)
2	Door C
3	Door D
4	Door F
5	Trays
6	Door H
7	Finisher bins
8	Door J
9	Area G

Area name	Control panel message	What to do
ADF	[x]-page jam, press latch at area E to open ADF's top cover. [28y.xx]	Open the ADF top door, and then remove the jammed paper.
Multipurpose feeder	[x]-page jam, clear jammed paper from the multipurpose feeder. [200.xx]	Remove the jammed paper from the feeder.
Door C, trays	[x]-page jam, open door C and clear all jammed paper. [2yy.xx]	Open door C, and then remove the jammed paper.
	[x]-page jam, slide the 3000-sheet tray and open door C. [2yy.xx]	Pull out the tray, and then remove the jammed paper.
Door D, trays	[x]-page jam, open door D and clear all jammed paper. [24y.xx]	Open door D, and then remove the jammed paper.
	[x]-page jam, slide the 3000-sheet tray and open door D. [24y.xx]	Pull out the tray, and then remove the jammed paper.
Doors C and F	[x]-page jam, slide the 3000-sheet tray and open door F. [24y.xx]	Pull the 3000-sheet tray, and then remove the jammed paper from the side of the tray. Open door F, and then remove the jammed paper.
Area G, doors C, J, and H, finisher bin	[x] page jam, open doors G, H, and J and clear jammed paper. [4yy.xx]	Open door G, and then remove the jammed paper. Open door H, and then remove the jammed paper.
Doors C and G, finisher bin	[x]-page jam, press latch beside door G and slide finisher to the left. Leave paper in bin. [40y.xx]	Slide the staple finisher to the left, and then remove the jammed paper.
Area G, doors C, J, and H, finisher bin	[x]-page jam, open door H and rotate knob SD3 clockwise. Leave paper in bin. [426.xx–428.xx]	Open door H, and then remove the jammed paper.

[x]-page jam, clear jammed paper from multipurpose feeder. [200.xx]

- 1 Remove all paper from the multipurpose feeder.
- 2 Remove the jammed paper.

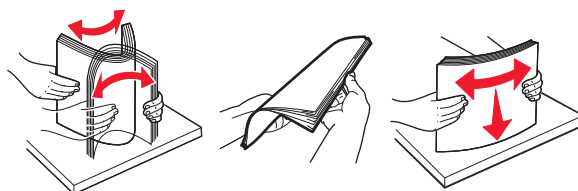


- 3 Open door C to remove any paper fragments.

Note: Make sure that door C does not hit any cable attached to the printer.

- 4 Close door C.

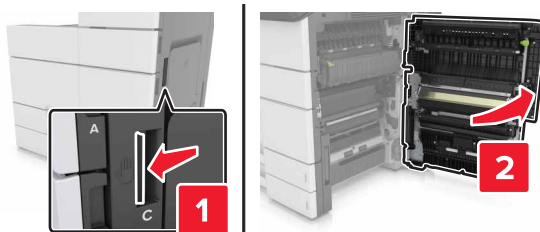
- 5 Flex the sheets back and forth to loosen them, and then fan them. Do not fold or crease the paper. Straighten the edges on a level surface.



- 6 Reload the paper.

[x]-page jam, open door C and clear all jammed paper. [2yy.xx]

- 1 Open door C. Make sure that it does not hit any cable attached to the printer.



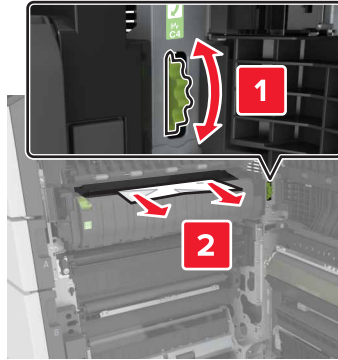
- 2 Remove the jammed paper from any of the following locations:

Note: Make sure that all paper fragments are removed.

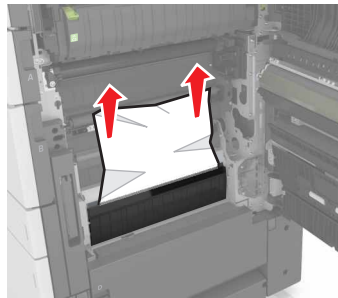


CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

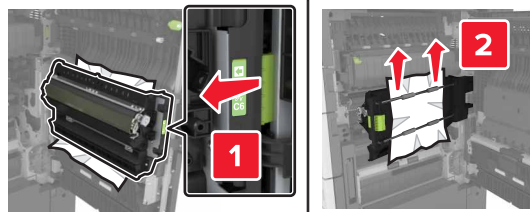
- Fuser area



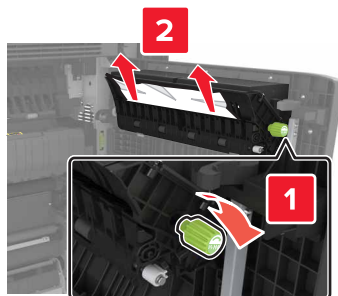
- Below the fuser area



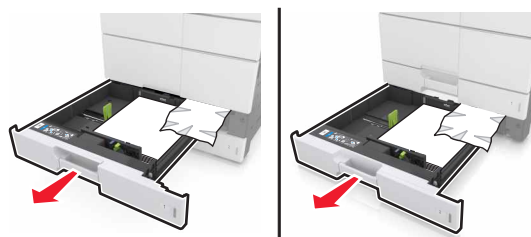
- Duplex area



- Above the duplex area



3 Open the standard trays, and then locate the jammed paper.



4 Remove the jammed paper.

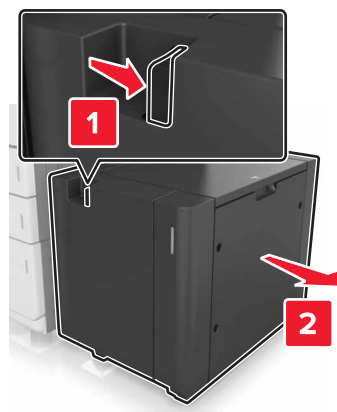
Note: Make sure that all paper fragments are removed.



5 Close the trays and door C.

[x]-page jam, slide the 3000-sheet tray and open door C. [2yy.xx]

1 Slide the 3000-sheet tray.




- 2 Open door C. Make sure that it does not hit any cable attached to the printer.

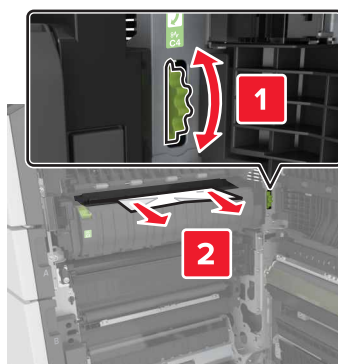


- 3 Remove the jammed paper from any of the following locations:

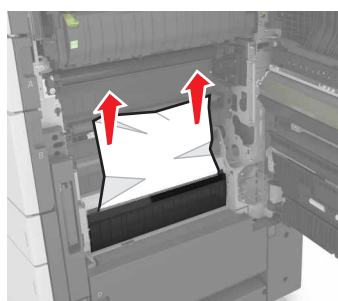
Note: Make sure that all paper fragments are removed.

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

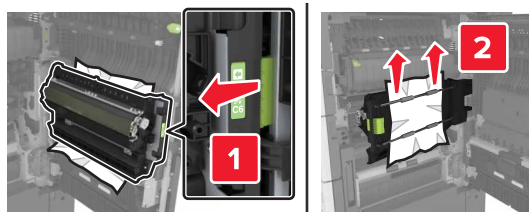
- Fuser area



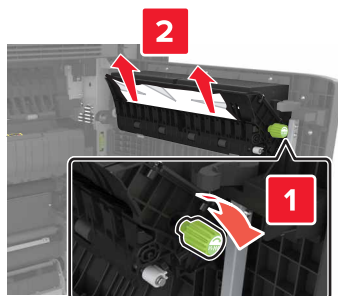
- Below the fuser area



- Duplex area



- Above the duplex area



- 4 Open the standard trays, and then locate the jammed paper.



- 5 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.



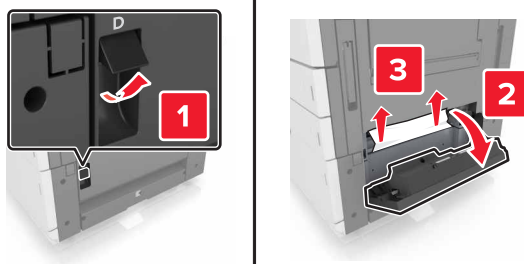
- 6 Close the trays and door C.

- 7 Slide the 3000-sheet tray back into place.

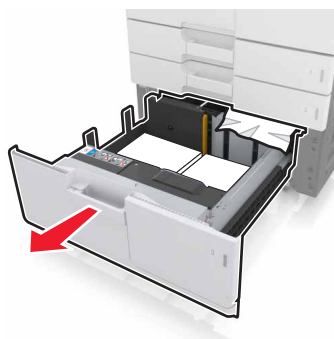
[x]-page jam, open door D and clear all jammed paper. [24y.xx]

- 1 Open door D, and then remove the jammed paper.

Note: Make sure that all paper fragments are removed.

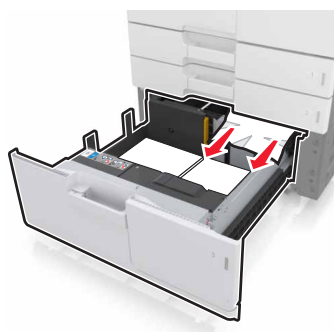


2 Open the optional tray, and then locate the jammed paper.



3 Remove the jammed paper.

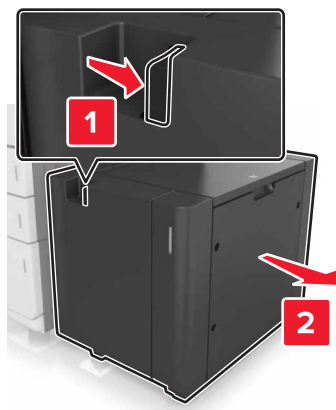
Note: Make sure that all paper fragments are removed.



4 Close the tray and door D.

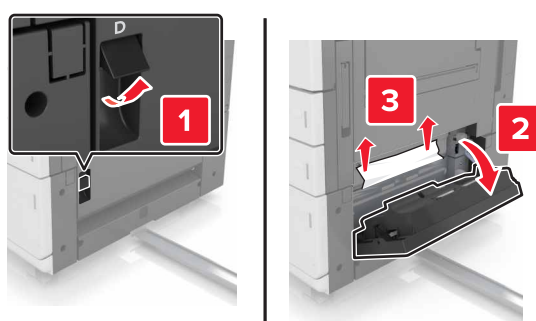
[x]-page jam, slide the 3000-sheet tray and open door D. [24y.xx]

- 1 Slide the 3000-sheet tray.

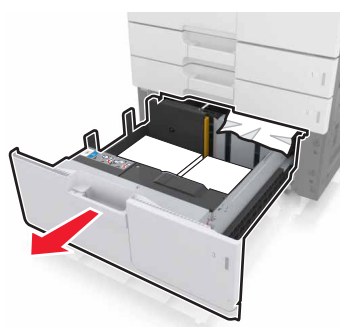


- 2 Open door D, and then remove the jammed paper.

Note: Make sure that all paper fragments are removed.

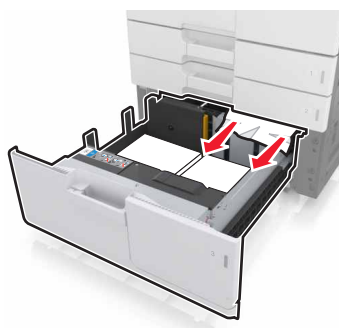


- 3 Open the optional tray, and then locate the jammed paper.



- 4 Remove the jammed paper.

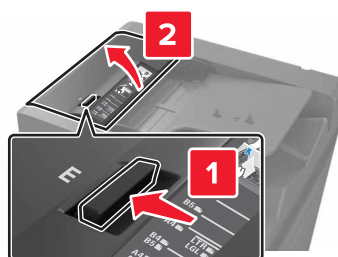
Note: Make sure that all paper fragments are removed.



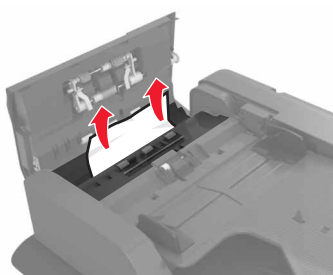
- 5 Close the tray and door D.
- 6 Slide the 3000-sheet tray back into place.

[x]-page jam, press latch at area E to open ADF's top cover. [28y.xx]

- 1 Remove all original documents from the ADF tray.
- 2 Open the ADF top cover.

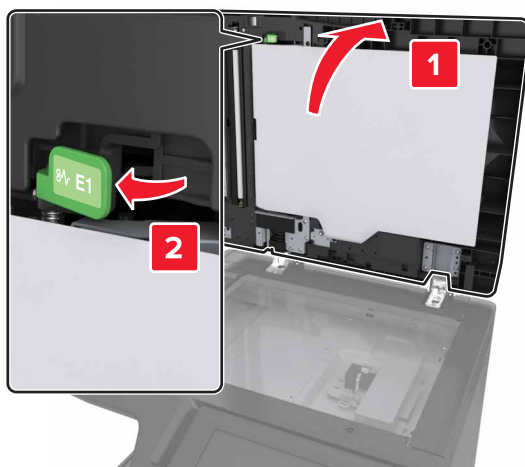


- 3 Remove jammed paper.
 - Note:** Make sure that all paper fragments are removed.



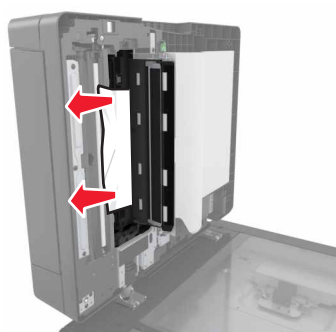
- 4 Close the cover.

- 5 Open the scanner cover, and then open the bottom ADF door.

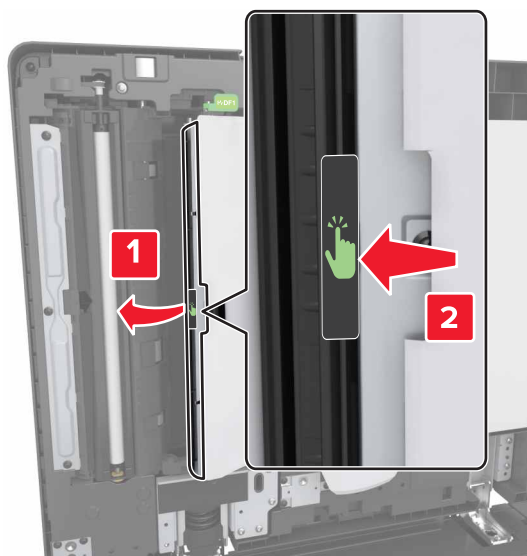


- 6 Remove jammed paper.

Note: Make sure that all paper fragments are removed.



7 Close the door.



8 Close the scanner cover.

200 paper jams

200 paper jam messages

Error code	Description	Action
200.06	The sensor (registration) did not detect the paper fed from the MPF.	See “MPF jam service check” on page 84.
200.09	While feeding from the MPF, skew correction did not complete at the registration roller.	
200.16	The sensor (registration) did not detect the paper fed from tray 1.	See “Registration jam service check” on page 81.
200.19	While feeding from tray 1, skew correction did not complete at the registration roller.	
200.91	The paper remains detected at the sensor (registration) after the printer is turned on.	
200.92	Paper size error was detected.	
200.93	While feeding from tray 2, tray 3 or tray 4, skew correction did not complete at the registration roller.	
200.99	The sensor (registration) did not detect the paper fed from tray 2, tray 3, tray 4, or tray 5.	

Registration jam service check

Action	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)</p>	Go to step 2.	Go to step 8.
<p>Step 2</p> <p>Make sure that the registration paper path, including the sensors, are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the registration sensor actuator for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the sensor (registration).</p> <p>Is it free of damage?</p>	Go to step 5.	Go to step 7.
<p>Step 5</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > Registration</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>a Reseat the registration sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the sensor (registration).</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Enter the Diagnostics menu, and then navigate to: INPUT TRAY TESTS > Feed Tests > Tray 1</p> <p>Does the leading edge of the paper reach the sensor (registration)?</p>	Go to step 10.	Go to step 9.

Action	Yes	No
<p>Step 9 Check the tray 2 transport roller for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the registration roller for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Registration</p> <p>Does the motor run?</p>	Go to step 15.	Go to step 12.
<p>Step 12</p> <ul style="list-style-type: none"> a Reseat the registration motor cable. b Check the cable for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <ul style="list-style-type: none"> a Check the registration belt for proper tension, and adjust if necessary. b Check the registration gear and belt for wear or damage, and replace if necessary. See “Registration unit belt removal” on page 334 and “Registration unit gears removal” on page 335. <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Replace the motor (registration). See “Motor (registration) removal” on page 390.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <ul style="list-style-type: none"> a Check the feed belts for proper tension, and adjust if necessary. b Check the feed gears and belts for wear or damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Is tray 1 the paper source?</p>	Go to step 18.	Go to step 17.

Action	Yes	No
<p>Step 17</p> <p>a Check the tray 2 transport drive belt for proper tension, and adjust if necessary.</p> <p>b Check the tray 2 transport drive gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>a Make sure that the paper feed drive assembly is properly installed.</p> <p>b Make sure that the assembly is clear of obstructions.</p> <p>c Check the assembly for damage, and replace if necessary. See “Feed drive assembly removal” on page 395.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>a Make sure that the registration transport assembly is properly installed.</p> <p>b Make sure that the assembly is clear of obstructions.</p> <p>c Check the assembly for damage, and replace if necessary. See “Registration transport assembly” on page 296.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Make sure that the blue screws and marked screws in the paper path area are tightened.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Check the expansion controller board pins for damage, and replace if necessary. See “Expansion controller board removal” on page 371.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MPF jam service check

Action	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)</p>	Go to step 2.	Go to step 8.
<p>Step 2 Make sure that the MPF paper path, including the sensors, are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the MPF empty sensor actuator for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the sensor (MPF empty).</p> <p>Is it free of damage?</p>	Go to step 5.	Go to step 7.
<p>Step 5 Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > MPF empty</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 8.
<p>Step 6 a Reseat the MPF empty sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor (MPF empty).</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Make sure that the MPF lift plate, including the cam and gears, are properly installed. b Check the plate, including the cam and gears, for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p>Step 9 Observe the MPF lift plate solenoid.</p> <p>Is it working properly?</p>	Go to step 11.	Go to step 10.
<p>Step 10 a Reseat the MPF lift plate solenoid cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the MPF lift plate solenoid, including the actuator for wear or damage, and replace if necessary. See “MPF lift plate solenoid removal” on page 317.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Observe the MPF lift plate clutch.</p> <p>Is it working properly?</p>	Go to step 14.	Go to step 13.
<p>Step 13 a Reseat the MPF lift plate clutch cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the MPF lift plate clutch for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Check the sensor (MPF lift plate).</p> <p>Is it free of damage?</p>	Go to step 16.	Go to step 18.
<p>Step 16 Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > MPF lift plate position</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 19.	Go to step 17.

Action	Yes	No
<p>Step 17</p> <p>a Reseat the MPF lift plate sensor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Replace the sensor (MPF lift plate). See “Sensor (MPF lift plate) removal” on page 320.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Paper feed</p> <p>Does the motor run?</p>	Go to step 23.	Go to step 20.
<p>Step 20</p> <p>a Reseat the feed motor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>a Check the paper feed belt for proper tension, and adjust if necessary.</p> <p>b Check the paper feed gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>Replace the motor (feed). See “Motor (feed) removal” on page 392.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23</p> <p>a Make sure that the MPF is properly installed.</p> <p>b Check the MPF for damage, and replace if necessary. See “MPF removal” on page 313.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.

Action	Yes	No
<p>Step 24</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

202 paper jams

202 paper jam messages

Error code	Description	Action
202.91	The paper remains detected at the sensor (exit) after the printer is turned on.	See “Exit jam service check” on page 87 .
202.93	The sensor (fuser exit) did not detect the paper.	
202.95	The paper remains detected at the sensor (fuser exit) during a print job.	

Exit jam service check

Action	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)</p>	Go to step 2.	Go to step 8.
<p>Step 2</p> <p>Make sure that the exit paper path, including the sensors, are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the exit sensor actuator for damage, and replace if necessary. See “Fuser exit sensor actuator removal” on page 304.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the sensor (exit).</p> <p>Is it free of damage?</p>	Go to step 5.	Go to step 7.

Action	Yes	No
<p>Step 5</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > Paper exit</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>a Reseat the exit sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the sensor (exit).</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Enter the Diagnostics menu, and then navigate to: INPUT TRAY TESTS > Feed Tests > Tray 1</p> <p>Does the leading edge of the paper reach the fuser?</p>	Go to step 9.	Go to step 10.
<p>Step 9</p> <p>Does the leading edge of the paper reach the sensor (fuser exit)?</p>	Go to step 14.	Go to step 13.
<p>Step 10</p> <p>Check the registration roller for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Make sure that the registration transport assembly is properly installed. b Make sure that the assembly is clear of obstructions. c Check the assembly for damage, and replace if necessary. See “Registration transport assembly” on page 296.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>a Make sure that the registration unit is properly installed. b Make sure that the unit is clear of obstructions. c Check the unit for damage, and replace if necessary. See “Registration unit assembly removal” on page 329.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p>Step 13</p> <p>Check the fuser for wear or damage, and replace if necessary. See “Fuser removal” on page 294.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Check the fuser exit clutch for wear or damage, and replace if necessary. See “Fuser removal” on page 294.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>a Make sure that the duplex transport assembly is properly installed.</p> <p>b Make sure that the assembly is clear of obstructions.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Check the assembly, including its exit roller and gears for damage, and replace if necessary. See “Duplex transport assembly removal” on page 301.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>a Check the fuser belt for proper tension, and adjust if necessary.</p> <p>b Check the fuser gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>a Make sure that the exit guide assembly is properly installed.</p> <p>b Make sure that the assembly is clear of obstructions.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>Check the exit guide assembly, including the rollers and diverter for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Check the diverter solenoid for proper operation. Check the solenoid for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.

Action	Yes	No
<p>Step 21</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Redrive forward</p> <p>Does the motor run?</p>	Go to step 25.	Go to step 22.
<p>Step 22</p> <p>a Reseat the redrive motor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23</p> <p>a Check the redrive belt for proper tension, and adjust if necessary. b Check the redrive gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24</p> <p>Replace the motor (redrive). See “Motor (redrive) removal” on page 384.</p> <p>Does the problem remain?</p>	Go to step 25.	The problem is solved.
<p>Step 25</p> <p>Make sure that the blue screws and marked screws in the paper path area are tightened.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26</p> <p>Check the expansion controller board pins for damage, and replace if necessary. See “Expansion controller board removal” on page 371.</p> <p>Does the problem remain?</p>	Go to step 27.	The problem is solved.
<p>Step 27</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

23y paper jams

23y paper jam messages

Error code	Description	Action
230.91	The paper remains detected at the sensor (duplex pass through 1) after the printer is turned on.	See “Duplex jam service check” on page 91.
230.93	The sensor (duplex pass through 1) did not detect the paper.	
232.93	The paper remains detected at the sensor (registration) during a duplex job.	
232.99	Skew correction did not complete at the registration roller during a duplex job.	

Duplex jam service check

Action	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)</p>	Go to step 2.	Go to step 5.
<p>Step 2</p> <p>Make sure that the duplex paper path, including the sensors, are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the duplex pass through 1 and duplex pass through 2 sensor actuator for damage, and replace if necessary. See “Duplex pass through 1 actuator removal” on page 306.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the sensor (duplex pass through 1) and sensor (duplex pass through 2) for damage, and replace if necessary. See “Sensor (duplex pass through 1) removal” on page 305 and “Sensor (duplex pass through 2) removal” on page 333.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>Enter the Diagnostics menu, and then navigate to: INPUT TRAY TESTS > Feed Tests > Tray 1</p> <p>Does the leading edge of the paper reach the sensor (duplex pass through 1)?</p>	Go to step 6.	Go to step 7.
<p>Step 6</p> <p>Does the leading edge of the paper reach the sensor (registration)?</p>	Go to step 14.	Go to step 13.
<p>Step 7</p> <p>a Check the duplex transport belt for proper tension, and adjust if necessary.</p> <p>b Check the duplex transport gear and belt for wear or damage, and replace if necessary. See “Duplex transport belt removal” on page 308 and “Duplex transport gears removal” on page 308.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Make sure that the duplex transport assembly is properly installed.</p> <p>b Make sure that the assembly is clear of obstructions.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the duplex transport assembly, including its rollers and guides for damage, and replace if necessary. See “Duplex transport assembly removal” on page 301.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Duplex transport tray</p> <p>Does the motor run?</p>	Go to step 13.	Go to step 11.
<p>Step 11</p> <p>a Reseat the duplex transport motor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.

Action	Yes	No
<p>Step 12 Replace the motor (duplex transport). See “Motor (duplex transport) removal” on page 309.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 a Make sure that the registration unit is properly installed. b Check the unit, including the duplex pass through 2 and duplex exit rollers for wear or damage, and replace if necessary. See “Registration unit assembly removal” on page 329.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Transport tray</p> <p>Does the motor run?</p>	Go to step 18.	Go to step 15.
<p>Step 15 a Reseat the transport motor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 a Check the transport motor belt for proper tension, and adjust if necessary. b Check the transport motor gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Replace the motor (transport). See “Motor (transport) removal” on page 387.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 Check the expansion controller board pins for damage, and replace if necessary. See “Expansion controller board removal” on page 371.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.

Action	Yes	No
<p>Step 19</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

241–242 paper jams

241–242 paper jam messages

Error code	Description	Action
241.11	The paper remains detected at the sensor (tray 1 feed) after the printer is turned on.	See “Tray 1 feed jam service check” on page 94 .
241.91	The paper remains detected at the sensor (tray 1 feed) after the printer is turned on.	
242.21	The paper remains detected at the sensor (tray 2 feed) after the printer is turned on.	See “Tray 2 feed jam service check” on page 98 .
242.26	The sensor (tray 2 transport) did not detect the paper.	
242.91	The paper remains detected at the sensor (tray 2 transport) after the printer is turned on.	
242.93	The sensor (tray 2 transport) did not detect the paper from tray 3.	See “2 x 500-sheet tray 3 jam service check” on page 108 .
242.93	The sensor (tray 2 transport) did not detect the paper from the 3000-sheet tray.	See “3000-sheet tray transport jam service check” on page 103 .

Tray 1 feed jam service check

Action	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)</p>	Go to step 2.	Go to step 7.
<p>Step 2</p> <p>Make sure that the tray 1 feed paper path, including the sensors, are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Check the sensor (tray 1 paper feed).</p> <p>Is it free of damage?</p>	Go to step 4.	Go to step 6.
<p>Step 4 Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > Tray 1 paper feed</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5 a Reseat the tray 1 paper feed sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Replace the sensor (tray 1 paper feed).</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Enter the Diagnostics menu, and then navigate to: INPUT TRAY TESTS > Feed Tests > Tray 1</p> <p>Does the leading edge of the paper reach the sensor (tray 1 paper feed)?</p>	Go to step 14.	Go to step 8.
<p>Step 8 Check the tray 1 feed, pick, and separator rollers for damage, and replace if necessary. Note: If the page count is over 50K, then clean the rollers.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Paper feed</p> <p>Does the motor run?</p>	Go to step 13.	Go to step 10.
<p>Step 10 a Reseat the feed motor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11</p> <p>a Check the paper feed belt for proper tension, and adjust if necessary.</p> <p>b Check the paper feed gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Replace the motor (feed). See “Motor (feed) removal” on page 392.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Check the tray 1 paper feed clutch for damage, and replace if necessary.</p> <p>b Reseat the clutch cable. Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Registration</p> <p>Does the motor run?</p>	Go to step 18.	Go to step 15.
<p>Step 15</p> <p>a Reseat the registration motor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>a Check the registration belt for proper tension, and adjust if necessary.</p> <p>b Check the registration gear and belt for wear or damage, and replace if necessary. See “Registration unit belt removal” on page 334 and “Registration unit gears removal” on page 335.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Replace the motor (registration). See “Motor (registration) removal” on page 390.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.

Action	Yes	No
<p>Step 18</p> <p>a Make sure that the registration unit is properly installed.</p> <p>b Make sure that the unit is clear of obstructions.</p> <p>c Check the unit for damage, and replace if necessary. See “Registration unit assembly removal” on page 329.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>a Make sure that the paper feed drive assembly is properly installed.</p> <p>b Make sure that the assembly is clear of obstructions.</p> <p>c Check the assembly for damage, and replace if necessary. See “Feed drive assembly removal” on page 395.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>a Make sure that the paper feed unit is properly installed.</p> <p>b Make sure that the unit is clear of obstructions.</p> <p>c Check the unit for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Make sure that the blue screws and marked screws in the paper path area are tightened.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Tray 2 feed jam service check

Action	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)</p>	Go to step 2.	Go to step 7.
<p>Step 2</p> <p>Make sure that the tray 2 feed paper path, including the sensors, are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the sensor (tray 2 paper feed).</p> <p>Is it free of damage?</p>	Go to step 4.	Go to step 6.
<p>Step 4</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > Tray 2 paper feed</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5</p> <p>a Reseat the tray 2 paper feed sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Replace the sensor (tray 2 paper feed).</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Enter the Diagnostics menu, and then navigate to: INPUT TRAY TESTS > Feed Tests > Tray 2</p> <p>Does the leading edge of the paper reach the sensor (tray 2 paper feed)?</p>	Go to step 8.	Go to step 9.
<p>Step 8</p> <p>Does the leading edge of the paper reach the sensor (tray 2 transport)?</p>	Go to step 15.	Go to step 10.

Action	Yes	No
<p>Step 9 Check the tray 2 feed, pick, and separator rollers for damage, and replace if necessary. Note: If the page count is over 50K, then clean the rollers.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Paper feed</p> <p>Does the motor run?</p>	Go to step 14.	Go to step 11.
<p>Step 11 a Reseat the feed motor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 a Check the paper feed belt for proper tension, and adjust if necessary. b Check the paper feed gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Replace the motor (feed). See “Motor (feed) removal” on page 392.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 a Make sure that the paper feed drive assembly is properly installed. b Make sure that the assembly is clear of obstructions. c Check the assembly for damage, and replace if necessary. See “Feed drive assembly removal” on page 395.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Tray 2 vertical transport</p> <p>Does the motor run?</p>	Go to step 19	Go to step 16.

Action	Yes	No
<p>Step 16</p> <p>a Reseat the tray 2 transport motor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>a Check the transport drive belt for proper tension, and adjust if necessary.</p> <p>b Check the transport drive assembly for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Replace the motor (tray 2 transport).</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>Check the tray 2 transport roller for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>a Make sure that the tray transport guide is properly installed.</p> <p>b Make sure that the guide is clear of obstructions.</p> <p>c Check the guide for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>a Make sure that the paper feed unit is properly installed.</p> <p>b Make sure that the unit is clear of obstructions.</p> <p>c Check the unit for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>Make sure that the blue screws and marked screws in the paper path area are tightened.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.

Action	Yes	No
<p>Step 23 Check the expansion controller board pins for damage, and replace if necessary. See “Expansion controller board removal” on page 371.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 3 transport jam service check

Action	Yes	No
<p>Step 1 Make sure that the paper path between tray 2 and tray 3, including the sensors, are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Enter the Diagnostics menu, and then navigate to: INPUT TRAY TESTS > Feed Tests > Tray 3 b Check the movement and position of the paper.</p> <p>Does the leading edge of the paper reach the sensor (tray 2 transport)?</p>	Go to step 3.	Go to step 7.
<p>Step 3 Check the sensor (tray 2 transport).</p> <p>Is it free of damage?</p>	Go to step 4.	Go to step 6.
<p>Step 4 Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > Tray 2 transport</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 12.	Go to step 5.
<p>Step 5 a Reseat the sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6 Replace the sensor (tray 2 transport).</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the tray 3 transport roller for damage, and replace if necessary.</p> <p>Note: If the page count is over 50K, then clean the rollers.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > 2 x 500-Sheet Tray Motor Tests > Tray 3 transport</p> <p>Does the motor run?</p>	Go to step 12.	Go to step 9.
<p>Step 9</p> <ul style="list-style-type: none"> a Reseat the motor cable. b Check the cable for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <ul style="list-style-type: none"> a Check the tray 3 transport belt for proper tension, and adjust if necessary. b Check the transport gear and belt for wear or damage, and replace if necessary. See “2 x 500-sheet tray 3 transport belts and gears removal” on page 534. <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the motor (2 x 500-sheet tray 3 transport). See “2 x 500-sheet tray feed and transport motors removal” on page 525.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the 2 x 500-sheet tray controller board pins for damage, and replace if necessary. See “2 x 500-sheet tray controller board removal” on page 526.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

3000-sheet tray transport jam service check

Action	Yes	No
<p>Step 1</p> <ul style="list-style-type: none"> a Make sure that the tray is free of debris. b Make sure that the tray is properly installed and aligned to the printer. c Reseat the interface cable that is plugged into the 2500- or 2 x 500-sheet tray. d Reset the printer. <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <ul style="list-style-type: none"> a Remove the rear cover. b Make sure that the sensor (3000-sheet tray set) is properly installed. c Make sure that the sensor is free of debris or dust. d Reseat the cable on the sensor and the cable CN5 on the controller board. e Check the sensor for damage. <p>Is it free of damage?</p>	Go to step 3.	Go to step 4.
<p>Step 3</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 3000-Sheet Tray Sensor Tests > Tray set</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Replace the sensor. See “Sensor (3000-sheet tray set) removal” on page 555.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <ul style="list-style-type: none"> a Reseat the cable on the rest of the sensors. b Reseat the cable CN5 on the controller board. c If necessary, reseat all the junction connectors on the cables. d Make sure that the cables do not block the path of moving parts. e Check the cables for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6</p> <p>a Reseat the cable on all of the motors and on the top door switch.</p> <p>b Reseat the cables CN3 and CN4 on the controller board.</p> <p>c If necessary, reseat all the junction connectors on the cables.</p> <p>d Make sure that the cables do not block the path of moving parts.</p> <p>e Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

243–245 paper jams

243 paper jam messages

Error code	Description	Action
243.31	2 x 500-sheet tray: The paper remains detected at the sensor (tray 3 feed) after the printer is turned on.	See “2 x 500-sheet tray 3 jam service check” on page 108.
243.31	2500-sheet tray: The paper remains detected at the sensor (tray 3 feed) after the printer is turned on.	See “2500-sheet tray jam service check” on page 105.
243.36	2 x 500-sheet tray: The sensor (tray 3 transport) did not detect the paper.	See “2 x 500-sheet tray 3 jam service check” on page 108.
243.36	2500-sheet tray: The sensor (tray 3 transport) did not detect the paper.	See “2500-sheet tray jam service check” on page 105.
243.43	2 x 500-sheet tray: The paper remains detected at the sensor (tray 3 transport) during a print job.	See “2 x 500-sheet tray 4 transport jam service check” on page 112.
243.43	2500-sheet tray: The paper remains detected at the sensor (tray 3 transport) during a print job.	See “2500-sheet tray jam service check” on page 105.
243.91	2 x 500-sheet tray: The paper remains detected at the sensor (tray 3 transport) after the printer is turned on.	See “2 x 500-sheet tray 3 jam service check” on page 108.
243.91	2500-sheet tray: The paper remains detected at the sensor (tray 3 transport) after the printer is turned on.	See “2500-sheet tray jam service check” on page 105.

244 paper jam messages

Error code	Description	Action
244.41	The paper remains detected at the sensor (tray 4 feed) after the printer is turned on.	See “2 x 500-sheet tray 4 jam service check” on page 110.
244.46	The sensor (tray 4 transport) did not detect the paper.	See “2 x 500-sheet tray 4 jam service check” on page 110.
244.46	The sensor (3000-sheet tray feed) did not detect the paper.	See “3000-sheet tray feed jam service check” on page 114.
244.91	The paper remains detected at the sensor (tray 4 transport) after the printer is turned on.	See “2 x 500-sheet tray 4 jam service check” on page 110.
244.91	The paper remains detected at the sensor (3000-sheet tray transport) after the printer is turned on.	See “3000-sheet tray jam service check” on page 116.

245 paper jam messages

Error code	Description	Action
245.56	The sensor (3000-sheet tray feed) did not detect the paper.	See “3000-sheet tray feed jam service check” on page 114.
245.91	The paper remains detected at the sensor (3000-sheet tray transport) after the printer is turned on.	See “3000-sheet tray jam service check” on page 116.

2500-sheet tray jam service check

Actions	Yes	No
<p>Step 1</p> <p>a Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>b Check the last digits of the error codes.</p> <p>Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)</p>	Go to step 2.	Go to step 7.
<p>Step 2</p> <p>Make sure that the 2500-sheet tray feed paper path, including the sensors, are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Actions	Yes	No
<p>Step 3 Check the sensor (2500-sheet tray feed) for damage.</p> <p>Is it free of damage?</p>	Go to step 4.	Go to step 6.
<p>Step 4 Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2500-Sheet Tray Sensor Tests</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 5.
<p>Step 5 a Reseat the 2500-sheet tray feed sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Replace the sensor (2500-sheet tray feed). See “Sensor (2500-sheet tray feed) removal” on page 501.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 a Enter the Diagnostics menu, and then navigate to: INPUT TRAY TESTS > Feed Tests > Tray 3 b Observe the movement and position of the paper.</p> <p>Does the leading edge of the paper reach the sensor (2500-sheet tray feed)?</p>	Go to step 13.	Go to step 8.
<p>Step 8 Check the 2500-sheet tray feed, pick, and separator rollers for wear or damage, and replace if necessary. See “2500-sheet tray paper feed assembly removal” on page 507 and “2500-sheet tray pick assembly removal” on page 510.</p> <p>Note: If the page count is over 50K, then clean the rollers.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 a Make sure that the motor (2500-sheet tray feed) is properly installed. b Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > 2500-Sheet Tray Motor Tests > Tray feed</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 10.

Actions	Yes	No
<p>Step 10</p> <p>a Reseat the 2500-sheet tray feed and transport motor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Check the 2500-sheet tray feed and transport motor belt for proper tension, and adjust if necessary.</p> <p>b Check the 2500-sheet tray feed and transport motor belt and gears for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Replace the motor (2500-sheet tray feed). See “Motor (2500-sheet tray feed) removal” on page 505.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check the sensor (2500-sheet tray transport) for damage.</p> <p>Is it free of damage?</p>	Go to step 14.	Go to step 16.
<p>Step 14</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2500-Sheet Tray Sensor Tests</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 17.	Go to step 15.
<p>Step 15</p> <p>a Reseat the 2500-sheet tray transport sensor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Replace the sensor (2500-sheet tray transport). See “Sensor (2500-sheet tray transport) removal” on page 502.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check the 2500-sheet tray controller board pins for damage, and replace if necessary. See “2500-sheet tray controller board removal” on page 487.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 3 jam service check

Action	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)</p>	Go to step 2.	Go to step 7.
<p>Step 2</p> <p>Make sure that the tray 3 feed paper path, including the sensors, are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the sensor (2 x 500-sheet tray 3 feed).</p> <p>Is it free of damage?</p>	Go to step 4.	Go to step 6.
<p>Step 4</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2 x 500-Sheet Tray Sensor Tests > Tray 3 feed</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 5.
<p>Step 5</p> <p>a Reseat the sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Replace the sensor (2 x 500-sheet tray 3 feed). See “2 x 500-sheet tray transport assembly sensors removal” on page 531.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Enter the Diagnostics menu, and then navigate to: INPUT TRAY TESTS > Feed Tests > Tray 3</p> <p>Does the leading edge of the paper reach the sensor (2 x 500-sheet tray 3 paper feed)?</p>	Go to step 13.	Go to step 8.
<p>Step 8</p> <p>Check the tray 3 feed, pick, and separator rollers for damage, and replace if necessary.</p> <p>Note: If the page count is over 50K, then clean the rollers.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p>Step 9</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > 2 x 500-Sheet Tray Motor Tests > Tray 3 feed</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 10.
<p>Step 10</p> <p>a Reseat the motor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Check the paper feed belt for proper tension, and adjust if necessary. b Check the paper feed gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Replace the motor (2 x 500-sheet tray 3 transport). See “2 x 500-sheet tray feed and transport motors removal” on page 525.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check the sensor (2 x 500-sheet tray 3 transport).</p> <p>Is it free of damage?</p>	Go to step 14.	Go to step 16.
<p>Step 14</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2 x 500-Sheet Tray Sensor Tests > Tray 3 transport</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 17.	Go to step 15.
<p>Step 15</p> <p>a Reseat the sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Replace the sensor (2 x 500-sheet tray 3 transport). See “2 x 500-sheet tray transport assembly sensors removal” on page 531.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.

Action	Yes	No
<p>Step 17 Check the 2 x 500-sheet tray controller board pins for damage, and replace if necessary. See “2 x 500-sheet tray controller board removal” on page 526.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 4 jam service check

Action	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)</p>	Go to step 2.	Go to step 7.
<p>Step 2 Make sure that the tray 4 feed paper path, including the sensors, are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the sensor (2 x 500-sheet tray 4 feed).</p> <p>Is it free of damage?</p>	Go to step 4.	Go to step 6.
<p>Step 4 Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2 x 500-Sheet Tray Sensor Tests > Tray 4 feed</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 5.
<p>Step 5 a Reseat the sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Replace the sensor (2 x 500-sheet tray 4 feed). See “2 x 500-sheet tray transport assembly sensors removal” on page 531.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7 Enter the Diagnostics menu, and then navigate to: INPUT TRAY TESTS > Feed Tests > Tray 4</p> <p>Does the leading edge of the paper reach the sensor (2 x 500-sheet tray 4 paper feed)?</p>	Go to step 13.	Go to step 8.
<p>Step 8 Check the tray 4 feed, pick, and separator rollers for damage, and replace if necessary. Note: If the page count is over 50K, then clean the rollers.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > 2 x 500-Sheet Tray Motor Tests > Tray 4 feed</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 10.
<p>Step 10 a Reseat the motor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 a Check the paper feed belt for proper tension, and adjust if necessary. b Check the paper feed gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Replace the motor (2 x 500-sheet tray 4 transport). See “2 x 500-sheet tray feed and transport motors removal” on page 525.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check the sensor (2 x 500-sheet tray 4 transport).</p> <p>Is it free of damage?</p>	Go to step 14.	Go to step 16.

Action	Yes	No
<p>Step 14</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2 x 500-Sheet Tray Sensor Tests > Tray 4 transport</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 17.	Go to step 15.
<p>Step 15</p> <p>a Reseat the sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Replace the sensor (2 x 500-sheet tray 4 transport). See “2 x 500-sheet tray transport assembly sensors removal” on page 531.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check the 2 x 500-sheet tray controller board pins for damage, and replace if necessary. See “2 x 500-sheet tray controller board removal” on page 526.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 4 transport jam service check

Action	Yes	No
<p>Step 1</p> <p>Make sure that the paper path between tray 3 and tray 4, including the sensors, are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: INPUT TRAY TESTS > Feed Tests > Tray 4 b Check the movement and position of the paper.</p> <p>Does the leading edge of the paper reach the sensor (tray 3 transport)?</p>	Go to step 3.	Go to step 7.
<p>Step 3</p> <p>Check the sensor (tray 3 transport).</p> <p>Is it free of damage?</p>	Go to step 4.	Go to step 6.

Action	Yes	No
<p>Step 4</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > Tray 3 transport</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 12.	Go to step 5.
<p>Step 5</p> <p>a Reseat the sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Replace the sensor (tray 3 transport). See “2 x 500-sheet tray transport assembly sensors removal” on page 531.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the tray 4 transport roller for damage, and replace if necessary. Note: If the page count is over 50K, then clean the rollers.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > 2 x 500-Sheet Tray Motor Tests > Tray 4 transport</p> <p>Does the motor run?</p>	Go to step 12.	Go to step 9.
<p>Step 9</p> <p>a Reseat the motor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Check the tray 4 transport belt for proper tension, and adjust if necessary. b Check the transport gear and belt for wear or damage, and replace if necessary. See “2 x 500-sheet tray 4 transport belts and gears removal” on page 535.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11 Replace the motor (2 x 500-sheet tray 4 transport). See “2 x 500-sheet tray feed and transport motors removal” on page 525.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the 2 x 500-sheet tray controller board pins for damage, and replace if necessary. See “2 x 500-sheet tray controller board removal” on page 526.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

3000-sheet tray feed jam service check

Action	Yes	No
<p>Step 1</p> <ul style="list-style-type: none"> a Open the top door. b Make sure that the tray is free of debris. c Make sure that the tray is properly installed and aligned to the printer. d Reseat the interface cable that is plugged into the 2500- or 2 x 500-sheet tray. e Reset the printer. <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <ul style="list-style-type: none"> a Make sure that the feed, separator, and pick rollers are properly installed. b Make sure that the rollers are free of debris or dust. c Check the rollers for wear or damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <ul style="list-style-type: none"> a Remove the left top cover. b Make sure that the transport roller is properly installed. c Make sure that the roller is free of debris or dust. d Check the roller for wear or damage, and replace if necessary. See “3000-sheet tray feed roller assembly removal” on page 559. <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4</p> <p>a Make sure that the following sensors are properly installed:</p> <ul style="list-style-type: none"> • Sensor (3000-sheet tray elevator level) • Sensor (3000-sheet tray empty) • Sensor (3000-sheet tray feed) <p>b Make sure that the sensors are free of debris or dust.</p> <p>c Reseat the cable on the sensors and the cable CN5 on the controller board.</p> <p>d Check the sensors for damage.</p> <p>Are they free of damage?</p>	Go to step 5.	Go to step 6.
<p>Step 5</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 3000-Sheet Tray Sensor Tests > Tray upper limit or Tray paper feed</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Replace the sensor. See “Sensor (3000-sheet tray elevator level) removal” on page 550 or “Sensor (3000-sheet tray feed) removal” on page 551.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Test the motor (3000-sheet tray feed) and motor (3000-sheet tray transport).</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > 3000-Sheet Tray Motor Tests > Tray feed or Tray transport</p> <p>Do the motors run?</p>	Go to step 9.	Go to step 8.
<p>Step 8</p> <p>a Reseat the cable on the motor and the cable CN4 on the controller board.</p> <p>b Check the motors and cables for damage, and replace if necessary. See “3000-sheet tray feed and transport motors removal” on page 558.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the belts and gears connected to the motors for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10</p> <ul style="list-style-type: none"> a Reseat the cable on the rest of the sensors. b Reseat the cable CN5 on the controller board. c If necessary, reseat all the junction connectors on the cables. d Make sure that the cables do not block the path of moving parts. e Check the cables for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <ul style="list-style-type: none"> a Reseat the cable on the rest of the motors and on the top door switch. b Reseat the cables CN3 and CN4 on the controller board. c If necessary, reseat all the junction connectors on the cables. d Make sure that the cables do not block the path of moving parts. e Check the cables for damage, and replace if necessary. <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

3000-sheet tray jam service check

Action	Yes	No
<p>Step 1</p> <ul style="list-style-type: none"> a Open the top door. b Make sure that the tray is free of debris. c Make sure that the tray is properly installed and aligned to the printer. d Reseat the interface cable that is plugged into the 2500- or 2 x 500-sheet tray. e Reset the printer. <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <ul style="list-style-type: none"> a Make sure that the sensor (3000-sheet tray feed) is properly installed. b Make sure that the sensor is free of debris or dust. c Reseat the cable on the sensor and the cable CN5 on the controller board. d Check the sensor for damage. <p>Is it free of damage?</p>	Go to step 3.	Go to step 4.

Action	Yes	No
<p>Step 3</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 3000-Sheet Tray Sensor Tests > Tray paper feed</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Replace the sensor. See “Sensor (3000-sheet tray feed) removal” on page 551.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Reseat the cable on all of the sensors. b Reseat the cable CN5 on the controller board. c If necessary, reseat all the junction connectors on the cables. d Make sure that the cables do not block the path of moving parts. e Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Reseat the cable on all of the motors and on the top door switch. b Reseat the cables CN3 and CN4 on the controller board. c If necessary, reseat all the junction connectors on the cables. d Make sure that the cables are not in the path of moving parts. e Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

28y–29y paper jams

28y–29y paper jam messages

Error code	Description	Action
280.13	The sensor (ADF registration) did not detect the paper.	See “ADF registration jam service check” on page 118.
280.15	The paper remains detected at the sensor (ADF registration) during a job.	

Error code	Description	Action
281.11	The paper remains detected at the sensor (ADF feed) after the printer is turned on.	See “ADF feed jam service check” on page 121.
281.13	The sensor (ADF feed) did not detect the picked paper.	
281.15	The paper remains detected at the sensor (ADF feed) during a job.	
282.13	The sensor (ADF exit) did not detect the paper after scanning.	See “ADF exit jam service check” on page 123.
282.15	The paper remains detected at the sensor (ADF exit) during a job.	
283.11	The paper remains detected at the sensor (ADF scan) after the printer is turned on.	See “ADF scan jam service check” on page 125.
283.12	The paper was detected earlier than expected at the sensor (ADF scan).	
283.13	The sensor (ADF scan) did not detect the paper after registration.	
283.15	The paper remains detected at the sensor (ADF scan) during a job.	
290.02	The sensor (ADF top cover open) did not detect the actuator.	See “ADF top cover open jam service check” on page 127.
291.06	The flatbed cover is opened before starting an ADF job.	See “ADF scanner open jam service check” on page 128.

ADF registration jam service check

Actions	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Does the error log show persistent 280.x1 jam?</p>	Go to step 2.	Go to step 7.
<p>Step 2</p> <p>Clear the sensor (ADF document separation) and sensor (ADF registration) paper paths of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the sensor actuators for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Actions	Yes	No
<p>Step 4 Enter the Diagnostics menu, and then navigate to: SCANNER TESTS > Sensor Test</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5 a Reseat the sensor cables. b Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the sensor (ADF document separation) and sensor (ADF registration) for damage, and replace if necessary. See “Sensors (ADF top open cover section) removal” on page 444.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the ADF registration rollers for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Make sure that the roller belts have proper belt tension. b Check the roller belts for wear or damage, and replace if necessary. c Make sure that the roller gears are properly aligned. d Check the roller gears for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the actuators of the following sensors for damage, and replace if necessary:</p> <ul style="list-style-type: none"> • Sensor (ADF mixed paper width 1) • Sensor (ADF mixed paper width 2) • Sensor (ADF mixed paper width 3) <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Actions	Yes	No
<p>Step 10</p> <ul style="list-style-type: none"> a Remove the ADF rear cover and locate the motor drive. b Open the ADF top cover. c Bypass the sensor (ADF top cover open) and observe if the ADF registration gear rotates. d Observe the motor (ADF registration) if it is working properly. <p>Does the motor run?</p>	Go to step 12.	Go to step 11.
<p>Step 11</p> <ul style="list-style-type: none"> a Reseat the ADF registration motor cable. b Check the motor cable for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <ul style="list-style-type: none"> a Make sure that the ADF registration belt has correct belt tension. b Check the ADF registration gear and belt for wear or damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Replace the motor (ADF registration). See “Motor (ADF registration) removal” on page 450.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Make sure that the blue screws and marked screws along the paper path are tightened.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Check the ADF controller board for damaged pins, and replace if necessary. See “ADF controller board removal” on page 431.</p> <p>Note: Make sure to perform ADF scanner adjustment after replacing the ADF controller board.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <ul style="list-style-type: none"> a Make sure that the ADF interface cable is properly installed. b Check the cable for damage, and replace if necessary. <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF feed jam service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Does the error log show persistent 281.x1 jam?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Does the error log show persistent 281.13 or 281.15 jam?</p>	Go to step 8.	Go to step 4.
<p>Step 3 Make sure the sensor (ADF document separation) and sensor (ADF registration) paper paths are free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the sensor actuators for damage and proper operation, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Enter the Diagnostics menu, and then navigate to: SCANNER TESTS > Sensor Test</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>a Reseat the sensor cables. b Check the sensor cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the sensor (ADF document separation) and sensor (ADF registration) for damage, and replace if necessary. See “Sensors (ADF top open cover section) removal” on page 444.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Actions	Yes	No
<p>Step 8 Check the following rollers for wear or damage, and replace if necessary:</p> <ul style="list-style-type: none"> • ADF pick roller. See “ADF pick roller removal” on page 439. • ADF feed roller. See “ADF feed roller removal” on page 436. • ADF separator roller. See “ADF separator roller removal” on page 423. <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <ol style="list-style-type: none"> a Make sure that the ADF pick assembly is properly installed. b Make sure that the paper path is free of debris or dust. c Check the ADF pick assembly for wear or damage, and replace if necessary. See “ADF feed and pick roller assembly removal” on page 434. <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <ol style="list-style-type: none"> a Remove the ADF rear cover and locate the motor drive. b Open the ADF top cover. c Bypass the sensor (ADF top cover open) and observe if the ADF feed drive gear rotates. d Observe the motor (ADF feed) if it is working properly. <p>Does the motor run?</p>	Go to step 12.	Go to step 11.
<p>Step 11</p> <ol style="list-style-type: none"> a Reseat the ADF feed motor cable. b Check the motor cable for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <ol style="list-style-type: none"> a Make sure that the ADF feed belt has correct belt tension. b Check the ADF feed gear and belt for wear or damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Replace the motor (ADF feed). See “Motor (ADF feed) removal” on page 448.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Actions	Yes	No
<p>Step 14 Make sure that the blue screws and marked screws along the paper path are tightened.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Check the ADF controller board for damaged pins, and replace if necessary. See “ADF controller board removal” on page 431.</p> <p>Note: Make sure to perform ADF scanner adjustment after replacing the ADF controller board.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>a Make sure that the ADF interface cable is properly installed.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF exit jam service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Does the error log show persistent 282.x1 jam?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Open the ADF, and then clear the sensor (ADF exit) of debris or dust within the sensor paper path.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the sensor actuator for damage and proper operation, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Enter the Diagnostics menu, and then navigate to: SCANNER TESTS > Sensor Test</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.

Actions	Yes	No
<p>Step 5</p> <p>a Reseat the sensor cable.</p> <p>b Check the sensor cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the sensor (ADF exit) for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the ADF exit roller and ADF scan roller 2 for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Make sure that the belts have correct belt tension.</p> <p>b Check the belts and gears for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Make sure that the blue screws and marked screws along the paper path are tightened.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the ADF controller board for damaged pins, and replace if necessary. See “ADF controller board removal” on page 431.</p> <p>Note: Make sure to perform ADF scanner adjustment after replacing the ADF controller board.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Make sure that the ADF interface cable is properly installed.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF scan jam service check

Actions	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: EVENT LOG > Display Log</p> <p>Does the error log show persistent 283.x1 jam?</p>	Go to step 2.	Go to step 3.
<p>Step 2</p> <p>Open the ADF, and then clear the sensor (ADF scan) of debris or dust within the sensor paper path.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Enter the Diagnostics menu, and then navigate to: SCANNER TESTS > Sensor Test</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>a Reseat the sensor cable. b Check the sensor cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the sensor (ADF scan) for damage, and replace if necessary. See “Sensor (ADF scan) removal” on page 424.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Enter the Diagnostics menu, and then navigate to: SCANNER TESTS > Feed Test</p> <p>Is the test successful?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Observe the leading and trailing edge location of the paper along the paper path while performing a feed test.</p> <p>Does the leading edge of the paper reach the ADF scan glass area?</p>	Go to step 12.	Go to step 8.
<p>Step 8</p> <p>Observe the motor (ADF scan) if it is working properly.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 9.

Actions	Yes	No
<p>Step 9</p> <ul style="list-style-type: none"> a Remove the ADF rear cover. b Reseat the ADF scan motor cable. c Check the motor cable for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <ul style="list-style-type: none"> a Make sure that the ADF scan motor belts have correct belt tension. b Check the motor gears and belts for wear or damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Check the ADF scan roller 1 for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Observe the motor (CIS glass clean) if it is working properly.</p> <p>Is the motor working properly?</p>	Go to step 14.	Go to step 13.
<p>Step 13</p> <ul style="list-style-type: none"> a Remove the ADF rear cover. b Reseat the CIS glass clean motor cable. c Check the motor cable for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <ul style="list-style-type: none"> a Make sure that the CIS glass clean belt has correct belt tension. b Check the CIS glass clean gear and belt for wear or damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <ul style="list-style-type: none"> a Check the ADF glass clean roller and CIS glass clean roller for wear or damage, and replace if necessary. See “ADF glass cleaning roller removal” on page 425. b Check the ADF glass clean gear and CIS glass clean gear for wear or damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.

Actions	Yes	No
<p>Step 16</p> <p>Make sure that the blue screws and marked screws along the paper path are tightened.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>a Make sure that the ADF scan cleaning assembly and ADF CIS scan cleaning assembly are properly installed</p> <p>b Make sure that the paper path is clear of debris or dust.</p> <p>c Check the assemblies for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Check the ADF controller board for damaged pins, and replace if necessary. See “ADF controller board removal” on page 431.</p> <p>Note: Make sure to perform ADF scanner adjustment after replacing the ADF controller board.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>a Make sure that the ADF interface cable is properly installed.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF top cover open jam service check

Actions	Yes	No
<p>Step 1</p> <p>Check the ADF cover latch for damage.</p> <p>Is the latch damaged?</p>	Go to step 2.	Go to step 3.
<p>Step 2</p> <p>Replace the ADF top cover. See “ADF top cover removal” on page 420.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Make sure that the ADF tray is free of debris or dust.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Actions	Yes	No
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: SCANNER TESTS > Sensor Test</p> <p>b Manually toggle the sensor (ADF top cover open).</p> <p>Does the sensor status change while toggling the sensor?</p>	Contact the next level of support.	Go to step 5.
<p>Step 5</p> <p>Check the sensor cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the sensor for damage, and replace if necessary. See “Sensor (ADF top cover open) removal” on page 443.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF scanner open jam service check

Action	Yes	No
<p>Step 1</p> <p>a Remove all obstructions between the ADF assembly and flatbed.</p> <p>b Check if the ADF assembly opens and closes properly.</p> <p>c Check if the flatbed and ADF are parallel with each other.</p> <p>Is the ADF assembly properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Reinstall the ADF assembly. See “ADF assembly removal” on page 412.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF open).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>a Reseat the sensor cable, and then clear the sensor of debris and dust.</p> <p>b Check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Reinstall or replace the sensor. See “Sensor (scanner cover switch) removal” on page 465.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Make sure that the sensor (scanner cover switch) and the sensor magnet are properly aligned.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Perform the ADF height adjustment. See “ADF height adjustment” on page 272.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Understanding the printer messages

Cartridge low [88.xy]

You may need to order a replacement toner cartridge. If necessary, touch **Continue** on the printer control panel to clear the message and continue printing.

Cartridge nearly low [88.xy]

If necessary, touch **Continue** on the printer control panel to clear the message and continue printing.

Cartridge very low [88.xy]

You may need to replace the toner cartridge very soon.

If necessary, touch **Continue** on the control panel to clear the message and continue printing.

Change [paper source] to [custom string] load [orientation]

Try one or more of the following:

- Load the correct size and type of paper in the tray, specify the paper size and type in the Paper menu on the control panel, and then touch **Finished changing paper**.
- Touch **Use current [paper source]** to use the available paper size and type in the tray.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Cancel the print job.

Change [paper source] to [custom type name] load [orientation]

Try one or more of the following:

- Load the correct size and type of paper in the tray or feeder, specify the paper size and type in the Paper menu on the printer control panel, and then touch **Finished changing paper**.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Cancel the print job.

Change [paper source] to [paper size] load [orientation]

Try one or more of the following:

- Load the correct size and type of paper in the tray or feeder, specify the size and type of paper in the Paper menu on the control panel, and then touch **Finished changing paper**.
- Touch **Use current [paper source]** to use the available size and type of paper in the current tray or feeder.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Cancel the print job.

Change [paper source] to [paper type] [paper size] load [orientation]

Try one or more of the following:

- Load the correct size and type of paper in the tray or feeder, specify the paper size and type in the Paper menu on the control panel, and then touch **Finished changing paper**.
- Touch **Use current [paper source]** to use the available paper size and type in the tray.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Cancel the print job.

Close door [x]

Close the specified door.

Complex page, some data may not have printed [39]

Try one or more of the following:

- From the control panel, touch **Continue** to clear the message and continue printing.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Cancel the print job.
- Install additional printer memory.

Configuration change, some held jobs were not restored [57]

Held jobs are invalidated because of the following possible changes in the printer:

- The printer firmware has been updated.
- The tray for the print job has been removed.

- The print job is sent from a flash drive that is no longer attached to the USB port.
- The printer hard disk contains print jobs that were stored when the hard disk was installed in a different printer model.

From the printer control panel, touch **Continue** to clear the message.

Defective flash detected [51]

Try one or more of the following:

- Replace the defective flash memory card.
- From the printer control panel, touch **Continue** to ignore the message and continue printing.
- Cancel the current print job.

Disk full [62]

Try one or more of the following:

- From the control panel, touch **Continue** to clear the message and continue printing.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Delete fonts, macros, and other data stored in the printer hard disk.
- Install a hard disk with larger capacity.

Disk full, scan job canceled

Try one or more of the following:

- Touch **Continue** to clear the message and continue scanning.
- Delete fonts, macros, and other data stored in the printer hard disk.
- Install a hard disk with higher capacity.

Disk must be formatted for use in this device

From the printer control panel, touch **Format disk** to format the printer hard disk and clear the message.

Note: Formatting deletes all the files stored in the printer hard disk.

Disk near full. Securely clearing disk space.

Try one or more of the following:

- Touch **Continue** to clear the message and continue printing.
- Delete fonts, macros, and other data stored on the printer hard disk.
- Install a hard disk with higher capacity.

Empty the hole punch box

Try one or more of the following:

- Empty the hole punch box.
- Select **Continue** on the printer control panel to clear the message and continue printing.
- Cancel the print job.

Error reading USB drive. Remove USB.

An unsupported USB device is inserted. Remove the USB device, and then insert a supported one.

Error reading USB hub. Remove hub.

An unsupported USB hub has been inserted. Remove the USB hub, and then install a supported one.

Fax memory full

From the printer control panel, touch **Continue** to clear the message.

Fax partition inoperative. Contact system administrator.

Try one or more of the following:

- From the printer control panel, touch **Continue** to clear the message.
- Turn off the printer, and then turn it back on. If the message appears again, then contact your system support person.

Fax server 'To Format' not set up. Contact system administrator.

Try one or more of the following:

- From the printer control panel, touch **Continue** to clear the message.
- Complete the Fax Server setup. If the message appears again, then contact your system support person.

Fax Station Name not set up. Contact system administrator.

Try either of the following:

- From the printer control panel, touch **Continue** to clear the message.
- Complete the Analog Fax setup. If the message appears again after completing the setup, then contact your system support person.

Fax Station Number not set up. Contact system administrator.

Try one or more of the following:

- From the printer control panel, touch **Continue** to clear the message.
- Complete the Analog Fax setup. If the message appears again after completing the setup, then contact your system support person.

Incorrect paper size, open [paper source] [34]

Try one or more of the following:

- Load the correct paper size and type in the tray or feeder, and then specify the paper size and type in the Paper menu on the control panel.
- Make sure that the correct paper size and type are specified in Print Properties or the Print dialog settings.
- Check the length and width guides and make sure that the paper is loaded properly in the tray or feeder.
- From the control panel, touch **Continue** to clear the message and then print using a different tray.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Cancel the print job.

Insert hole punch box

Insert the hole punch box into the finisher, and then touch **Continue** to clear the message.

Insert Tray [x]

Try one or more of the following:

- Insert the specified tray into the printer.
- Cancel the print job.
- Reset the active bin for a linked set of bins by selecting **Reset active bin** on the printer control panel.

Insufficient memory for Flash Memory Defragment operation [37]

Try one or more of the following:

- From the printer control panel, touch **Continue** to stop the defragmentation and continue printing.
- Delete fonts, macros, and other data in the printer memory.
- Install additional printer memory.

Insufficient memory to collate job [37]

Try one or more of the following:

- From the printer control panel, touch **Continue** to print the part of the job already stored and begin collating the rest of the print job.
- Cancel the current print job.

Insufficient memory to support Resource Save feature [35]

Install additional printer memory or touch **Continue** to disable Resource Save, clear the message, and continue printing.

Insufficient memory, some Held Jobs were deleted [37]

From the printer control panel, touch **Continue** to clear the message.

Insufficient memory, some held jobs will not be restored [37]

Try one or more of the following:

- From the printer control panel, touch **Continue** to clear the message.
- Delete other held jobs to free up additional printer memory.

Insufficient space between paper stacks in Tray 3

Move the paper stacks apart, and then touch **Continue** on the control panel to clear the message and continue printing.

If problem remains, see [“Insufficient space between paper stacks in 2500-sheet tray service check” on page 205.](#)

Load [paper source] with [custom string] [paper orientation]

Try one or more of the following:

- Load the tray or feeder with the correct size and type of paper, and then touch **Finished loading paper** on the control panel.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Cancel the current job.

Load [paper source] with [custom type name] [paper orientation]

Try one or more of the following:

- Load the tray or feeder with the correct size and type of paper, and then touch **Finished loading paper** on the control panel.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Cancel the print job.

Load [paper source] with [paper size] [paper orientation]

Try one or more of the following:

- Load the tray or feeder with the correct size of paper, and then touch **Finished loading paper** on the control panel.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Cancel the current job.

Load [paper source] with [paper type] [paper size] [paper orientation]

Try one or more of the following:

- Load the specified tray or feeder with the correct size and type of paper, and then touch **Finished loading paper** on the control panel.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Cancel the current job.

Load Multipurpose Feeder with [custom string] [paper orientation]

Try one or more of the following:

- Load the feeder with the correct size and type of paper.
- From the control panel, touch one of the following:
 - **Prompt each page, paper loaded** or **Do not prompt, paper loaded**—To clear the message and continue printing.
 - **Automatically select paper**—To use the paper loaded in the tray.
 - **Reset active bin**—To reset the active bin for a linked set of bins.
- Cancel the print job.

Load Multipurpose Feeder with [custom type name] [paper orientation]

Try one or more of the following:

- Load the feeder with the correct size and type of paper.
- From the control panel, touch one of the following:
 - **Prompt each page, paper loaded** or **Do not prompt, paper loaded**—To clear the message and continue printing.
 - **Automatically select paper**—To use the paper loaded in the tray.
 - **Reset active bin**—To reset the active bin for a linked set of bins.
- Cancel the print job.

Load Multipurpose Feeder with [paper size] [paper orientation]

Try one or more of the following:

- Load the feeder with the correct size of paper.
- From the control panel, touch one of the following:
 - **Prompt each page, paper loaded** or **Do not prompt, paper loaded**—To clear the message and continue printing.
 - **Automatically select paper**—To use the paper loaded in the tray.
 - **Reset active bin**—To reset the active bin for a linked set of bins.
- Cancel the print job.

Load Multipurpose Feeder with [paper type] [paper size] [paper orientation]

Try one or more of the following:

- Load the feeder with the correct size and type of paper.
- From the control panel, touch one of the following:
 - **Prompt each page, paper loaded** or **Do not prompt, paper loaded**—To clear the message and continue printing.
 - **Automatically select paper**—To use the paper loaded in the tray.
 - **Reset active bin**—To reset the active bin for a linked set of bins.
- Cancel the print job.

Load staples

Try one or more of the following:

- Replace or insert the staple cartridge in the finisher.
For instructions on inserting or replacing a staple cartridge in the finisher, touch **More information** on the printer control panel.
- From the printer control panel, touch **Continue** to clear the message and continue printing.
- From the printer control panel, touch **Cancel job** to cancel the print job.

Load staples [G11, G12]

Try one or more of the following:

- Replace or insert the staple cartridge into the finisher.
For instructions on replacing or inserting the staple cartridge into the finisher, touch **More information** on the control panel.
- From the control panel, touch **Continue** to clear the message and continue printing.
- Cancel the print job.

[x] maintenance kit very low [80.xy]

You may need to replace the maintenance kit very soon. For more information, go to <http://support.lexmark.com> or contact customer support, and then report the message.

If necessary, touch **Continue** to clear the message and continue printing.

Memory full [38]

Try one or more of the following:

- From the control panel, touch **Cancel job** to clear the message.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Install additional printer memory.

Memory full, cannot print faxes

From the printer control panel, touch **Continue** to clear the message without printing. Held faxes attempt to print after the printer is restarted.

Memory full, cannot send faxes

- 1 From the printer control panel, touch **Continue** to clear the message and cancel the fax job.
- 2 Try one or more of the following:
 - Reduce the fax resolution, and then resend the fax job.
 - Reduce the number of pages in the fax, and then resend the fax job.

No analog phone line connected to modem, fax is disabled.

Connect the printer to an analog phone line.

Network [x] software error [54]

Try one or more of the following:

- From the printer control panel, touch **Continue** to continue printing.
- Turn off the printer, wait for about 10 seconds, and then turn the printer back on.
- Update the network firmware in the printer or print server. For more information, go to <http://support.lexmark.com>.

Not enough free space in flash memory for resources [52]

Try one or more of the following:

- From the control panel, touch **Continue** to clear the message and continue printing.
- Touch **Reset active bin** to reset the active bin for a linked set of bins.
- Delete fonts, macros, and other data stored in the flash memory.
- Install a flash memory card with larger capacity.

Note: Downloaded fonts and macros not previously stored in the flash memory are deleted.

Open door H and remove paper from beneath area H10

Remove the paper from the specified area.

Paper changes needed

Try one or more of the following:

- Touch **Use current supplies** to clear the message and continue printing.
- Cancel the current print job.

Parallel port [x] disabled [56]

Try one or more of the following:

- From the printer control panel, touch **Continue** to clear the message.
- Enable the parallel port. From the printer control panel, navigate to:
Network/Ports > Parallel [x] > Parallel Buffer > Auto

Note: The printer discards any data received through the parallel port.

Photoconductor low [84.xy]

You may need to order a replacement photoconductor. If necessary, select **Continue** on the control panel to clear the message and continue printing.

Photoconductor very low [84.xy]

You may need to replace the photoconductor unit very soon.

If necessary, touch **Continue** on the control panel to clear the message and continue printing.

Printer had to restart. Last job may be incomplete.

From the printer control panel, touch **Continue** to clear the message and continue printing.

For more information, visit <http://support.lexmark.com> or contact customer support.

Reinstall missing or unresponsive cartridge [31.xy]

Try one or more of the following:

- Check if the toner cartridge is missing. If missing, install the toner cartridge.
For information on installing the cartridge, see the “Replacing supplies” section of the *User’s Guide*.
- If the toner cartridge is installed, then remove the unresponsive toner cartridge, and then reinstall it.

Note: If the message appears after reinstalling the supply, then the cartridge is defective. Replace the toner cartridge.

Reinstall missing or unresponsive photoconductor [31.xy]

Try one or more of the following:

- If the photoconductor unit is missing, then install it.
- If the photoconductor unit is installed, then remove and then reinstall it.

Note: If the message appears after reinstalling the supply, then replace the defective photoconductor unit.

Remove defective disk [61]

Remove and replace the defective printer hard disk.

Remove packaging material, [area name]

Remove any remaining packaging material from the specified location.

Remove packaging material, open door C, remove metal clips, remove all screws from scanner carriage

Open door C and the scanner cover, and then remove any remaining packaging material.

Note: Make sure door C does not hit any cable attached to the printer.

Remove paper from all bins

Remove the paper from all of the bins. The printer automatically senses paper removal and resumes printing.

If removing the paper does not clear the message, then touch **Continue**.

Remove paper from bin [x]

Remove the paper from the specified bin. The printer automatically senses paper removal and resumes printing.

If removing the paper does not clear the message, then touch **Continue**.

Remove paper from [linked set bin name]

Remove paper from the specified bin. The printer automatically detects paper removal and resumes printing.

If removing the paper does not clear the message, then touch **Continue**.

Remove paper from standard output bin

Remove the paper stack from the standard bin.

Replace all originals if restarting job.

Try one or more of the following:

- Touch **Cancel job** to clear the message and cancel the scan job.
- Touch **Scan from automatic feeder** to continue scanning from the ADF immediately after the last successful scan job.
- Touch **Scan from flatbed** to continue scanning from the scanner immediately after the last successful scan job.
- Touch **Finish job without further scanning** to end the last successful scan job.
- Touch **Restart job** to restart the scan job with the same settings from the previous scan job.

Replace cartridge, 0 estimated pages remain [88.xy]

Replace the toner cartridge to clear the message and continue printing. For more information, see the instruction sheet that came with the supply or see the “Replacing supplies” section of the *User’s Guide*.

Note: If you do not have a replacement cartridge, then see the “Ordering supplies” section of the *User’s Guide* or visit www.lexmark.com.

Replace cartridge, printer region mismatch [42.xy]

Install a toner cartridge that matches the region number of the printer. x indicates the value of the printer region. y indicates the value of the cartridge region. x and y can have the following values:

Printer and toner cartridge regions

Region number	Region
0	Global
1	United States, Canada
2	European Economic Area (EEA), Switzerland
3	Asia Pacific, Australia, New Zealand
4	Latin America
5	Africa, Middle East, rest of Europe
9	Invalid

Notes:

- The x and y values represent **.xy** in the code that appears on the printer control panel.
- The x and y values must match for printing to continue.

Replace jammed originals if restarting job

Try one or more of the following:

- Touch **Cancel job** to clear the message and cancel the scan job.
- Touch **Scan from automatic feeder** to continue scanning from the ADF immediately after the last successful scan job.
- Touch **Scan from flatbed** to continue scanning from the scanner immediately after the last successful scan job.
- Touch **Finish job without further scanning** to end the last successful scan job.
- Touch **Restart job** to restart the scan job with the same settings from the previous scan job.

Replace [x] maintenance kit, 0 estimated pages remain [80.xy]

The printer is scheduled for maintenance. For more information, go to <http://support.lexmark.com> or contact your service representative, and then report the message.

Replace missing photoconductor [31.xy]

Install the missing photoconductor unit to clear the message.

Replace missing waste toner bottle [82.xy]

Install the missing waste toner bottle to clear the message. For more information, see the instruction sheet that came with the supply.

Replace missing cartridge [31.xy]

Install the missing cartridge to clear the message.

Replace paper pick rollers in [paper source], use parts and instructions in tray 1 or tray 2 compartment [80]

Try one or more of the following:

- Replace the pick rollers, and then touch **Rollers replaced** on the control panel to clear the message and continue printing.
- Touch **Continue and replace later (Jams may continue to occur)** to ignore the message and continue printing.

Replace photoconductor, 0 pages remain [84.xy]

Replace the photoconductor unit to clear the message and continue printing.

Replace unsupported cartridge [32.xy]

Remove the toner cartridge, and then install a supported one to clear the message and continue printing. For more information, see the instruction sheet that came with the supply or see the “Replacing supplies” section of the *User’s Guide*.

Note: If you do not have a replacement cartridge, then see the “Ordering supplies” section of the *User’s Guide* or visit www.lexmark.com.

Replace unsupported photoconductor [32.xy]

Remove the photoconductor unit, and then install a supported one to clear the message and continue printing.

Replace waste toner bottle [82.xy]

Replace the waste toner bottle to clear the message.

Restore held jobs?

Try one or more of the following:

- From the printer control panel, touch **Restore** to restore all held jobs stored in the printer hard disk.
- From the printer control panel, touch **Do not restore** if you do not want to restore any of the print jobs.

Scanner disabled by admin [840.01]

Print without the scanner, or contact your system support person.

Scanner disabled. Contact system administrator if problem persists. [840.02]

Try one or more of the following:

- Touch **Continue with scanner disabled** to return to the home screen, and then contact your system support person.
- Touch **Reboot and automatically enable scanner** to cancel the job.

Note: This attempts to enable the scanner.

Scanner jam, remove jammed originals from the scanner [2yy.xx]

Remove the jammed paper from the scanner.

Scanner maintenance required, use ADF Kit [80]

The printer is scheduled for maintenance. For more information, go to <http://support.lexmark.com> or contact your service representative, and then report the message.

Scanner maintenance required soon, use ADF Kit [80]

Contact customer support, and then report the message. The printer is scheduled for maintenance.

Serial port [x] disabled [56]

Try one or more of the following:

- From the printer control panel, touch **Continue** to clear the message.
The printer discards any data received through the specified serial port.
- Make sure Serial Buffer is not set to Disabled.
- From the printer control panel, set Serial Buffer to Auto in the Serial [x] menu.

Some held jobs were not restored

From the printer control panel, touch **Continue** to delete the indicated job.

Note: Held jobs that are not restored remain in the printer hard disk and are inaccessible.

SMTP server not set up. Contact system administrator.

From the printer control panel, touch **Continue** to clear the message.

Note: If the message appears again, then contact your system support person.

Standard network software error [54]

Try one or more of the following:

- From the printer control panel, touch **Continue** to continue printing.
- Turn off the printer, and then turn it back on.
- Update the network firmware in the printer or print server. For more information, go to <http://support.lexmark.com> or contact customer support, and then report the message.

Standard USB port disabled [56]

Try one or more of the following:

- From the printer control panel, touch **Continue** to clear the message.
- Enable the USB port. From the printer control panel, navigate to:
Network/Ports > USB Buffer > Auto

Note: The printer discards any data received through the USB port.

Supply needed to complete job

Do either of the following:

- Install the missing supply to complete the job.
- Cancel the current job.

The device is operating in Safe Mode. Some print options may be disabled or provide unexpected results.

Touch **Continue** on the control panel to clear the message and continue printing.

Too many flash options installed [58]

Try one or more of the following:

- Touch **Continue** on the control panel to continue printing.
- Remove the extra flash memory:
 - 1 Turn off the printer.
 - 2 Unplug the power cord from the electrical outlet.
 - 3 Remove the extra flash memory.
 - 4 Connect the power cord to a properly grounded electrical outlet.
 - 5 Turn the printer back on.

Too many trays attached [58]

- 1 Turn off the printer.
- 2 Unplug the power cord from the electrical outlet.
- 3 Remove the extra trays.
- 4 Connect the power cord to a properly grounded electrical outlet.
- 5 Turn the printer back on.

Tray [x] paper size unsupported

Replace with a supported paper size.

Unformatted flash detected [53]

Try one or more of the following:

- From the printer control panel, touch **Continue** to stop the defragmentation and continue printing.
- Format the flash memory.

Note: If the error message remains, then the flash memory may be defective and needs to be replaced.

Unsupported disk

Remove the unsupported printer hard disk, and then insert a supported one.

Unsupported option in slot [x] [55]

- 1 Turn off the printer.
- 2 Unplug the power cord from the electrical outlet.
- 3 Remove the unsupported option card from the printer controller board, and then replace it with a supported card.
- 4 Connect the power cord to a properly grounded electrical outlet.
- 5 Turn the printer back on.

Waste toner bottle nearly full [82.xy]

You may need to order a waste toner bottle. If necessary, touch **Continue** on the printer control panel to clear the message and continue printing.

Weblink server not set up. Contact system administrator.

From the printer control panel, touch **Continue** to clear the message.

Note: If the message appears again, then contact your system support person.

User attendance messages

User attendance messages (0-99)

Error code	Description	Action
31	A supply-related error was detected: <ul style="list-style-type: none"> • The cartridge is missing or undetected. • The photoconductor is missing or undetected. • The cartridge is defective. • The photoconductor is defective. 	See “Cartridge or photoconductor error service check” on page 146.
32	The cartridge or photoconductor is unsupported.	
34	Paper size mismatch was detected.	See “Mismatched paper size service check” on page 147.
35	The printer memory is insufficient to enable Resource Save.	See “Insufficient memory service check” on page 147.
37	The printer memory was insufficient to do the job.	
38	Memory is full.	
39	The page is too complex to print.	See “Complex page service check” on page 148.
42	The cartridge is incompatible due to printer region mismatch.	See “Cartridge or photoconductor error service check” on page 146.
50	PPDS encountered a font error.	See “PPDS font error service check” on page 149.
51	The flash memory is defective.	See “Flash memory failure service check” on page 149.
52	The flash memory is insufficient.	See “Insufficient flash memory service check” on page 150.
53	Unformatted flash was detected.	See “Flash memory failure service check” on page 149.
54	The printer was not able to connect with the network.	See “Network service check” on page 150.
55	The internal option installed is unsupported.	See “Unsupported internal option service check” on page 153.
56	The parallel port, serial port, or standard USB port is disabled.	See “Disabled port service check” on page 154.
57	Some held jobs were not restored due to configuration change.	See “Unrestored held jobs service check” on page 154.
58	Excess number of options detected: <ul style="list-style-type: none"> • Too many flash or optional firmware cards are installed. • Too many input trays are installed. 	See “Excess options service check” on page 155.

Error code	Description	Action
59	The input option or output option is incompatible.	See “Incompatible hardware option service check” on page 156.
61	The hard disk is defective.	See “Hard disk failure service check” on page 156.
62	The hard disk is full.	
80	The printer requires maintenance. The appropriate maintenance kit needs to be installed.	See “Maintenance kit service check” on page 157.
82	The waste toner bottle is full or nearly full.	See “Cartridge or photoconductor error service check” on page 146.
84	The photoconductor supply is low, very low, or empty.	
88	The toner cartridge supply is low, very low, or empty.	

Cartridge or photoconductor error service check

Action	Yes	No
<p>Step 1</p> <p>a Make sure that the cartridge or photoconductor unit is installed.</p> <p>b Check if the cartridge or photoconductor unit is supported, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Make sure that the cartridge or photoconductor unit is properly installed.</p> <p>b Make sure that the cartridge or photoconductor cables are properly connected.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the cartridge or photoconductor contacts for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Mismatched paper size service check

Action	Yes	No
<p>Step 1</p> <p>a Make sure that the tray paper length and tray paper width guides are properly installed.</p> <p>b Check the guides for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the paper width and paper length sensor actuators for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Reseat the paper width and paper length sensor cables.</p> <p>b Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the paper width and paper length sensors for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Insufficient memory service check

Action	Yes	No
<p>Step 1</p> <p>Reset the printer, and then navigate to: Paper Menu > Print Settings > Download Target > Disk</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>If applicable, install extra memory card.</p> <p>If applicable, make sure that the additional memory card is properly installed.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Complex page service check

Action	Yes	No
<p>Step 1</p> <p>Reset the printer, and then navigate to: Paper Menu > Print Settings > Download Target > Disk</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER TESTS > Tray 1 > Single</p> <p>Does the problem remain?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>If applicable, install extra memory card. If applicable, make sure that the additional memory card is properly installed.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

PPDS font error service check

Action	Yes	No
<p>Step 1 Navigate to Settings > PPDS Menu > Best Fit. Make sure that the value is set to On.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Make sure that the font is supported by the memory card. Replace the memory card if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Flash memory failure service check

Action	Yes	No
<p>Step 1 Navigate to Settings > Print settings > Job Accounting Menu Settings > Log Near Full Level. Make sure that the value is set to maximum.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 If applicable, make sure that the optional memory card is supported.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Make sure that the firmware version is the latest, and update if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Insufficient flash memory service check

Action	Yes	No
<p>Step 1 Navigate to Settings > Print settings > Utilities Menu > Format Flash > Yes.</p> <p>Does the problem remain?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Navigate to Settings > Print > Job Accounting > Log Near Full Level. Make sure that the value is set to maximum.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 If applicable, make sure that the optional memory card is supported.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Make sure that the firmware version is the latest, and update if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Network service check

Note: Before starting this service check, print the network setup page. This page is found under **Menu > Reports > Network Settings**. Consult the network administrator to make sure that the physical and wireless network settings displayed on the network settings page for the printer are properly configured. If a wireless network is used, then make sure that the printer is in the range of the host computer or wireless access point. Make sure that there is no electronic interference in the wireless network. Have the network administrator check that the printer is using the correct SSID, and wireless security protocols. For more network troubleshooting information, consult the *Lexmark Network Setup Guide*.

Actions	Yes	No
<p>Step 1 If the printer is physically connected to the network, make sure that the Ethernet cable is properly connected on both ends.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 If the network is wireless, check the online status of the printer under Printers and Faxes on the host computer. Delete all print jobs in the print queue.</p> <p>Is the printer online and in Ready state?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Change the printer status to online.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the IP address displayed on the network settings page.</p> <p>Does it match the IP address in the port of the drivers using the printer?</p>	Go to step 9.	Go to step 5.
<p>Step 5 Note: A printer should use a static IP address on a network.</p> <p>Does the LAN use DHCP?</p>	Go to step 6.	Go to step 8.
<p>Step 6 Check the first two segments of the IP address.</p> <p>Does the IP address start with 169.254?</p>	Go to step 7.	Go to step 8.
<p>Step 7 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 8 Reset the address on the printer to match the IP address on the driver.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Have the network administrator check if the printer and computer IP address have identical subnet addresses.</p> <p>Are the subnet addresses the same?</p>	Go to step 11.	Go to step 10.

Actions	Yes	No
<p>Step 10 Using the subnet address supplied by the network administrator, assign a unique IP address to the printer.</p> <p>Note: The printer IP address should match the IP address on the print driver.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Is the printer physically connected (Ethernet cable) to the network?</p>	Go to step 12.	Go to step 15.
<p>Step 12</p> <p>Try using a different Ethernet cable.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Have the network administrator check the network drop for activity.</p> <p>Is the network drop functioning properly?</p>	Go to step 14.	Contact the network administrator.
<p>Step 14</p> <p>Replace the controller board. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Is the printer on the same wireless network as the other devices?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Assign the correct wireless network to the printer.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Are the other devices on the wireless network communicating properly?</p>	Go to step 18.	Contact the network administrator.
<p>Step 18</p> <p>Make sure that the wireless card on the controller board is properly installed.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.

Actions	Yes	No
<p>Step 19 If there is an attached antenna, check it for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Make sure that the antenna is properly connected to the wireless card.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Replace the wireless card.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Replace the controller board. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Unsupported internal option service check

Action	Yes	No
<p>Step 1 If applicable, make sure that the option cards are supported.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Make sure that the firmware version is the latest, and update if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Disabled port service check

Action	Yes	No
<p>Step 1</p> <p>a Make sure that the cables connected to ports are properly installed.</p> <p>b Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Enter the Network/Ports menu and make sure that the applicable port settings are enabled.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>If applicable, make sure that the option card is supported.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Make sure that the firmware version is the latest, and update if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Unrestored held jobs service check

Action	Yes	No
<p>Step 1</p> <p>Reset the printer, and then resend the print job.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Make sure that the hard disk and memory card are supported and properly installed.</p> <p>b Check the hard disk and memory card for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a If applicable, remove all internal options.</p> <p>b Reset the printer, and then resend the print job.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Excess options service check

Action	Yes	No
<p>Step 1</p> <p>Reset the printer, and then resend the print job.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>If applicable, make sure that the internal option is supported.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a If applicable, remove all internal options.</p> <p>b Reset the printer, and then resend the print job.</p> <p>Does the problem remain?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check if the number of internal options installed is allowed, and remove the excess option.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check if the number of input options installed is allowed, and remove the excess option.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Incompatible hardware option service check

Action	Yes	No
<p>Step 1</p> <p>Warning—Potential Damage: Do not perform this step if the printer is on.</p> <ul style="list-style-type: none"> a Reseat the hardware option cables. b Check the cables for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the firmware version of the hardware option if it is supported by the engine firmware. Update the firmware if necessary.</p> <p>Note: Contact the next level of support for the correct firmware version.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the hardware option controller board pins for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Hard disk failure service check

Action	Yes	No
<p>Step 1</p> <p>Delete unnecessary files.</p> <ul style="list-style-type: none"> a From the home screen, navigate to Settings > Device > Maintenance > Out-of-Service Erase > Erase Hard Disk > Sanitize all information on hard disk. b Select Erase downloads (Erase all macros, fonts, PFOs, etc), Erase buffered jobs, and Erase held jobs > All held jobs. c Touch Erase. <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Make sure that the printer is using the latest firmware version.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <ul style="list-style-type: none"> a Make sure that the hard disk cable is properly installed. b Check the cable for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4</p> <p>a Make sure that the hard disk is properly installed.</p> <p>b Check the hard disk for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the controller board pins for damage.</p> <p>Are the pins free of damage?</p>	Contact the next level of support.	Go to step 6.
<p>Step 6</p> <p>Replace the controller board. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Maintenance kit service check

Action	Yes	No
<p>Warning—Potential Damage: Do not perform this step if the printer is on.</p> <p>a Replace the required maintenance kit.</p> <p>b Reset the maintenance counter:</p> <ul style="list-style-type: none"> For 300K, enter the Configuration menu, and then navigate to Reset Maintenance counter > Reset 300K Maintenance Kit. For 600K, enter the Diagnostics menu, and then navigate to Reset Maintenance counter > Reset 600K Maintenance Kit. <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Printer hardware errors

- [“111 errors” on page 158](#)
- [“12y errors” on page 159](#)
- [“13y errors” on page 164](#)
- [“153 errors” on page 168](#)
- [“16y errors” on page 169](#)
- [“171–182 errors” on page 176](#)
- [“189 errors” on page 177](#)
- [“19y errors” on page 179](#)
- [“600 errors” on page 196](#)
- [“685 errors” on page 197](#)

- “Procedure before starting the 9yy service checks” on page 198
- “900 errors” on page 200
- “911–963 errors” on page 203

111 errors

111 error messages

Error code	Description	Action
111.01	The printhead motor malfunctioned.	See “Printhead failure service check” on page 158 .
111.06	The printhead laser malfunctioned.	

Printhead failure service check

Action	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Make sure that the printhead FFC is properly connected. b Check the FFC for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Polygon</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>a Make sure that the printhead is properly installed. b Check the printhead for damage, and replace if necessary. See “Printhead removal” on page 290.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the printhead relay board pins for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

12y errors

12y error messages

Error code	Description	Action
120.00	The motor (fuser) did not run.	See “Motor (fuser) failure service check” on page 160 .
120.06	The motor (fuser) did not run at the correct timing.	
121.02	The fuser temperature did not reach the required level during warm-up.	See “Fuser temperature failure service check” on page 161 .
121.60	The fuser thermistor (main) was not detected.	
121.61	The fuser temperature (main) did not reach the required level.	
121.62	The fuser temperature (main) went over the required level.	
121.64	The fuser thermistor (edge) was not detected.	
121.65	The fuser temperature (edge) did not reach the required level.	
121.66	The fuser temperature (edge) went over the required level.	
121.68	The fuser thermistor (middle) was not detected.	
121.69	The fuser temperature (middle) did not reach the required level.	
121.70	The fuser temperature (middle) went over the required level.	
121.80	The fuser roller did not retract.	See “Fuser roller pressure failure service check” on page 163 .
121.85	The heating roller did not turn.	
121.86	Contamination was detected at the sensor (fuser temperature).	See “Fuser temperature failure service check” on page 161 .

Motor (fuser) failure service check

Action	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Make sure that the paper width is supported (less than 6.77 in. (172 mm)).</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Fusing tray</p> <p>Does the motor run?</p>	Go to step 7.	Go to step 4.
<p>Step 4</p> <ul style="list-style-type: none"> a Reseat the fuser motor cable. b Check the cable for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <ul style="list-style-type: none"> a Check the fuser motor belt for proper tension, and adjust if necessary. b Make sure that the fuser motor gear is properly lubricated. c Check the fuser motor gear and belt for wear or damage, and replace if necessary. See “Fuser drive gearbox removal” on page 405. <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Replace the motor (fuser). See “Motor (fuser) removal” on page 404.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the fusing speed sensor actuator for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8 Check the sensor (fusing speed). Is it free of damage?</p>	Go to step 9.	Go to step 11.
<p>Step 9 Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > Fusing speed Does the sensor status change while toggling the sensor?</p>	Go to step 12.	Go to step 10.
<p>Step 10 a Reseat the fusing speed sensor cable. b Check the cable for damage, and replace if necessary. Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the sensor (fusing speed). See “Sensor (fusing speed) removal” on page 332. Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376. Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Fuser temperature failure service check

Action	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the environment for humidity. Remove or reduce sources of humidity if necessary. Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Make sure that the sensor (fuser temperature) is free from dust. b Check the sensor for damage, and replace if necessary. Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4</p> <p>a Make sure that the sensor (registration humidity) is free from dust.</p> <p>b Check the sensor for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Observe the paper exit fan.</p> <p>Is it working properly?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>a Make sure that the paper exit fan cable is properly connected.</p> <p>b Check the paper exit fan for damage, and replace if necessary. See “Paper exit fan removal” on page 380.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Make sure that the fuser is properly installed.</p> <p>b Make sure that the fuser cable is properly connected.</p> <p>c Check the fuser for damage, and replace if necessary. See “Fuser removal” on page 294.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the induction heater.</p> <p>Is it working properly?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>a Make sure that the induction heater cable is properly connected.</p> <p>b Check the induction heater for damage, and replace if necessary. See “Induction heater removal” on page 294.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Make sure that the induction heater power supply is properly installed.</p> <p>b Check the induction heater power supply cable connections, and reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11 Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Fuser roller pressure failure service check

Action	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Remove the fuser. See “Fuser removal” on page 294. b Observe the fuser roller while moving the gears and levers engaged to it. Check if the roller properly retracts, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the sensor (fusing pressure home).</p> <p>Is it free of damage?</p>	Go to step 4.	Go to step 6.
<p>Step 4 Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > Fusing pressure home</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5 a Reseat the fusing pressure home sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Replace the sensor (fusing pressure home).</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7</p> <p>a Reseat the fuser cables.</p> <p>b Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Make sure that the fuser is properly installed.</p> <p>b Check the fuser for wear or damage, and replace if necessary. See “Fuser removal” on page 294.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

13y errors

13y error messages

Error code	Description	Action
133.00	The toner density is below normal.	See “Toner density failure service check” on page 165.
133.01	The toner density is above normal.	
133.03	The sensor (toner density) malfunctioned.	
133.04	The sensor (toner density) did not perform the correct adjustments.	
136.06	The motor (developer) did not run at the correct timing.	See “Motor (developer) failure service check” on page 167.

Toner density failure service check

Action	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Enter the Diagnostics menu, and then navigate to: Reset Image Stabilization > Restore factory toner density</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Enter the Configuration menu, and then navigate to: Automatic Image Stabilization > Auto Align Adj Make sure that the value is set to On.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 a Make sure that the developer is properly installed. b Make sure that the developer is supported.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Make sure that the toner is properly installed. b Make sure that the toner is supported.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 a Make sure that the sensor (toner density) is free of dust or debris. b Reseat the toner density sensor cable. c Check the sensor (toner density) and its cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 a Make sure that the toner agitator arm is not fixed in the upper position. b Make sure that the toner agitator is properly installed. c Check the toner agitator for damage, and replace if necessary. See “Toner agitator removal” on page 355.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>a Make sure that the sensor (toner cartridge present) is free of dust or debris.</p> <p>b Reseat the toner cartridge present sensor cable.</p> <p>c Check the sensor (toner cartridge present) and its cable for damage, and replace if necessary. See “Sensor (toner cartridge present) removal” on page 354.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Observe the motor (toner supply).</p> <p>Is it working properly?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>a Make sure that the toner supply motor cable is properly connected.</p> <p>b Check the motor (toner supply) and its cable for damage, and replace if necessary. See “Motor (toner supply) removal” on page 352.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Observe the motor (toner cartridge).</p> <p>Is it working properly?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>a Make sure that the toner cartridge motor cable is properly connected.</p> <p>b Check the motor (toner cartridge) and its cable for damage, and replace if necessary. See “Motor (toner cartridge) removal” on page 382.</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check the image controller board pins for damage, and replace if necessary. See “Image controller board removal” on page 349.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (developer) failure service check

Action	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Developing tray</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 3.
<p>Step 3 a Reseat the developer motor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 a Check the developer belt for proper tension, and adjust if necessary. b Check the developer gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the motor (developer). See “Motor (developer) removal” on page 388.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the developer for proper operation.</p> <p>Is it working properly?</p>	Go to step 9.	Go to step 7.
<p>Step 7 Make sure that the cable is properly connected to the developer and the image controller board.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the developer for damage, and replace if necessary. See “Developer unit removal” on page 356.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p>Step 9 Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

153 errors

153 error messages

Error code	Description	Action
153.00	The motor (transport) failed.	See “Motor (transport) failure service check” on page 168 .
153.06	The motor (transport) did not run at the correct timing.	

Motor (transport) failure service check

Action	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Transport tray</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 3.
<p>Step 3 a Reseat the transport motor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 a Check the transport motor belt for proper tension, and adjust if necessary. b Check the transport motor gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>Replace the motor (transport). See “Motor (transport) removal” on page 387.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

16y errors

16y error messages

Error code	Description	Action
163.04	The motor (tray 3 feed) did not reach the required speed.	See “2 x 500-sheet tray 3 feed failure service check” on page 172 .
163.04	The motor (2500-sheet tray paper feed) did not reach the required speed.	See “2500-sheet tray feed failure service check” on page 170 .
164.04	The motor (tray 4 feed) did not reach the required speed.	See “2 x 500-sheet tray 4 feed failure service check” on page 173 .
167.04	The motor (tray 3 transport) did not reach the required speed.	See “2 x 500-sheet tray 3 transport failure service check” on page 174 .
167.04	The motor (2500-sheet tray transport) did not reach the required speed.	See “2500-sheet tray transport failure service check” on page 171 .
168.04	The motor (tray 4 transport) did not reach the required speed.	See “2 x 500-sheet tray 4 transport failure service check” on page 175 .

2500-sheet tray feed failure service check

Actions	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to:</p> <p>PRINTER SETUP > Reset engine Service Error</p> <p>Note: Do this every time a service error would occur to clear the error and restore the engine settings.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Check the 2500-sheet tray feed and transport motor belt for proper tension, and adjust if necessary.</p> <p>b Check the 2500-sheet tray feed and transport motor gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the 2500-sheet tray feed, pick, and separator rollers for damage, and replace if necessary. See “2500-sheet tray paper feed assembly removal” on page 507 and “2500-sheet tray pick assembly removal” on page 510.</p> <p>Note: If the page count is over 50K, then clean the rollers.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Replace the motor (2500-sheet tray feed). See “Motor (2500-sheet tray feed) removal” on page 505.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the 2500-sheet tray controller board pins for damage, and replace if necessary. See “2500-sheet tray controller board removal” on page 487.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2500-sheet tray transport failure service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset engine Service Error Note: Do this step every time a service error would occur to clear the error and restore the engine settings.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Check the 2500-sheet tray feed and transport motor belt for proper tension, and adjust if necessary. b Check the 2500-sheet tray feed and transport motor gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the 2500-sheet tray transport rollers for damage, and replace if necessary. See “2500-sheet tray transport roller removal” on page 508. Note: If the page count is over 50K, then clean the rollers.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Replace the motor (2500-sheet tray transport). See “Motor (2500-sheet tray transport) removal” on page 506.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the 2500-sheet tray controller board pins for damage, and replace if necessary. See “2500-sheet tray controller board removal” on page 487.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 3 feed failure service check

Actions	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Check the tray 3 feed belt for proper tension, and adjust if necessary.</p> <p>b Check the feed belt and gears for wear or damage, and replace if necessary. See “2 x 500-sheet tray 3 transport belts and gears removal” on page 534.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the tray 3 feed, pick, and separator rollers for wear or damage, and replace if necessary.</p> <p>Note: If the page count is over 50K, then clean the rollers.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Replace the motor (2 x 500-sheet tray 3 feed). See “2 x 500-sheet tray feed and transport motors removal” on page 525.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the 2 x 500-sheet tray controller board pins for damage, and replace if necessary. See “2 x 500-sheet tray controller board removal” on page 526.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 4 feed failure service check

Actions	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Check the tray 4 feed belt for proper tension, and adjust if necessary.</p> <p>b Check the feed belt and gears for wear or damage, and replace if necessary. See “2 x 500-sheet tray 4 transport belts and gears removal” on page 535.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the tray 4 feed, pick, and separator rollers for wear or damage, and replace if necessary.</p> <p>Note: If the page count is over 50K, then clean the rollers.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Replace the motor (2 x 500-sheet tray 4 feed). See “2 x 500-sheet tray feed and transport motors removal” on page 525.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the 2 x 500-sheet tray controller board pins for damage, and replace if necessary. See “2 x 500-sheet tray controller board removal” on page 526.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 3 transport failure service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Check the tray 3 transport belt for proper tension, and adjust if necessary.</p> <p>b Check the transport belt and gears for wear or damage, and replace if necessary. See “2 x 500-sheet tray 4 transport belts and gears removal” on page 535.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the tray 3 transport roller for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Replace the motor (2 x 500-sheet tray 3 transport). See “2 x 500-sheet tray feed and transport motors removal” on page 525.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the 2 x 500-sheet tray controller board pins for damage, and replace if necessary. See “2 x 500-sheet tray controller board removal” on page 526.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 4 transport failure service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Check the tray 4 transport belt for proper tension, and adjust if necessary.</p> <p>b Check the transport belt and gears for wear or damage, and replace if necessary. See “2 x 500-sheet tray 4 transport belts and gears removal” on page 535.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the tray 4 transport roller for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Replace the motor (2 x 500-sheet tray 4 transport). See “2 x 500-sheet tray feed and transport motors removal” on page 525.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the 2 x 500-sheet tray controller board pins for damage, and replace if necessary. See “2 x 500-sheet tray controller board removal” on page 526.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

171–182 errors

171–182 error messages

Error code	Description	Action
171.00	The paper exit fan did not run.	See “Fan failure service check” on page 176.
172.00	The main power supply fan did not run.	
176.00	The toner suction fan did not run.	
177.00	The transfer belt fan did not run.	
178.00	The fuser power supply fan did not run.	
179.00	The fuser fan did not run.	
180.00	The ozone fan did not run.	
182.00	The controller board fan did not run.	

Fan failure service check

Action	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Reseat the fan cable. Reseat also the cable connecting the fan to the board.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the fan for damage and functionality, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

189 errors

189 error messages

Error code	Description	Action
189.00	The 2 x 500-sheet tray communication failed.	See “2 x 500-sheet tray communication error service check” on page 177.
189.00	The 2500-sheet tray communication failed.	See “2500-sheet tray communication error service check” on page 178.
189.01	The expansion controller board communication failed.	See “Expansion controller board failure service check” on page 178.
189.61	The staple, hole punch finisher communication failed.	
189.61	The staple finisher communication failed.	
189.63	The horizontal paper transport communication failed.	
189.64	The hole punch booklet finisher communication failed.	

2 x 500-sheet tray communication error service check

Actions	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Reseat the 2 x 500-sheet tray interface cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the 2 x 500-sheet tray controller board pins for damage, and replace if needed. See “2 x 500-sheet tray controller board removal” on page 526.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Expansion controller board failure service check

Action	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Make sure that the interface cable is properly connected to the finisher and to the expansion controller board.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the expansion controller board pins for damage, and replace if necessary. See “Expansion controller board removal” on page 371.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2500-sheet tray communication error service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Note: Do this step every time a service error would occur to clear the error and restore the engine settings.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <ul style="list-style-type: none"> a Reseat the 2500-sheet tray interface cable. b Check the cable for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Actions	Yes	No
<p>Step 3</p> <p>Check the 2500-sheet tray controller board pins for damage, and replace if necessary. See “2500-sheet tray controller board removal” on page 487.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

19y errors

190–194 error messages

Error code	Description	Action
190.10	The MPF lift plate did not move to the correct position.	See “MPF lift plate failure service check” on page 180 .
190.10	The elevator plate did not move to the correct position.	See “3000-sheet tray elevator failure service check” on page 190 .
191.10	The tray 1 lift plate did not move to the correct position.	See “Tray 1 lift plate failure service check” on page 182 .
192.10	The tray 2 lift plate did not move to the correct position.	See “Tray 2 lift plate failure service check” on page 184 .
193.10	The tray 3 lift plate did not move to the correct position.	See “2 x 500-sheet tray 3 lift plate failure service check” on page 186 .
194.10	The tray 4 lift plate did not move to the correct position.	See “2 x 500-sheet tray 4 lift plate failure service check” on page 188 .

196–197 error messages

Error code	Description	Action
196.10	The 2500-sheet tray lift plate did not move to the correct position.	See “2500-sheet tray lift plate failure service check” on page 192 .
196.11	The 2500-sheet tray transfer guide did not move to the correct position.	See “2500-sheet tray transfer guide motor failure service check” on page 194 .
196.60	Communication error occurred between the induction heater and the controller board.	See “Induction heater failure service check” on page 191 .
196.61	The induction heater monitor malfunctioned.	
196.62	The power supplied to the induction heater is abnormal.	
196.63	The voltage supplied to the induction heater is abnormal.	
197.10	3000-sheet tray elevator did not move to the correct position.	See “3000-sheet tray elevator failure service check” on page 190 .

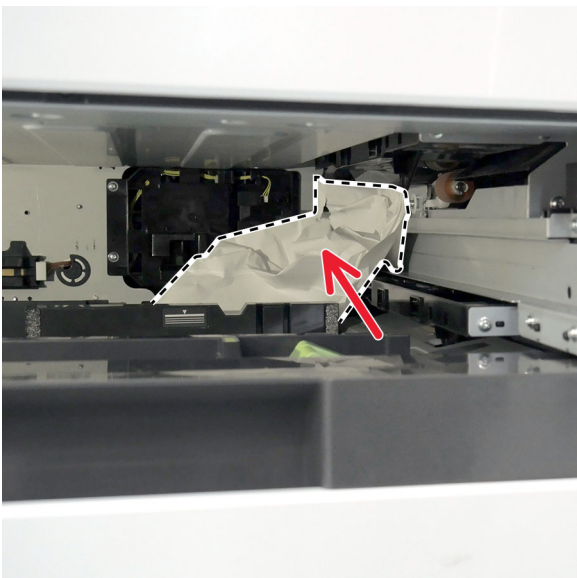
MPF lift plate failure service check

Action	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Make sure that the MPF lift plate, including the cam and gears, are properly installed.</p> <p>b Check the plate, including the cam and gears, for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Observe the MPF lift plate solenoid.</p> <p>Is it working properly?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>a Reseat the MPF lift plate solenoid cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the MPF lift plate solenoid, including the actuator for wear or damage, and replace if necessary. See “MPF lift plate solenoid removal” on page 317.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Observe the MPF lift plate clutch.</p> <p>Is it working properly?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>a Reseat the MPF lift plate clutch cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the MPF lift plate clutch for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p>Step 9 Check the sensor (MPF lift plate).</p> <p>Is it free of damage?</p>	Go to step 10.	Go to step 12.
<p>Step 10 Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > MPF lift plate position</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 11.
<p>Step 11 a Reseat the MPF lift plate sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Replace the sensor (MPF lift plate). See “Sensor (MPF lift plate) removal” on page 320.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Paper feed</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 14.
<p>Step 14 a Reseat the feed motor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 a Check the paper feed belt for proper tension, and adjust if necessary. b Check the paper feed gear and belt for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Replace the motor (feed). See “Motor (feed) removal” on page 392.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.

Action	Yes	No
<p>Step 17</p> <p>a Make sure that the MPF is properly installed.</p> <p>b Check the MPF for damage, and replace if necessary. See “MPF removal” on page 313.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

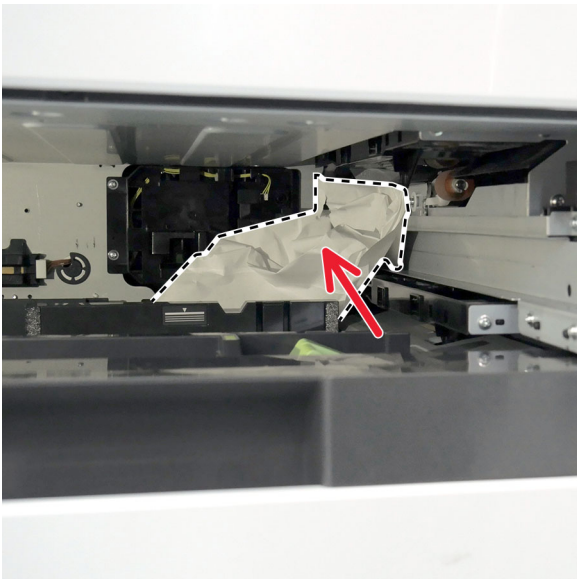
Tray 1 lift plate failure service check

Action	Yes	No
<p>Step 1</p> <p>a Remove tray 1. See “Tray insert removal” on page 341.</p> <p>b Make sure that the area inside the printer behind the tray is clear of paper fragments and debris.</p>  <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Tray 1 Lift</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>a Reseat the tray 1 lift motor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the motor (tray 1 lift).</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Make sure that the tray set actuator is properly installed. b Check the actuator for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the sensor (tray 1 lift plate level).</p> <p>Is it free of damage?</p>	Go to step 8.	Go to step 10.
<p>Step 8</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > Tray 1 lift plate limit</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>a Reseat the tray 1 lift plate level sensor cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the sensor (tray 1 lift plate level).</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

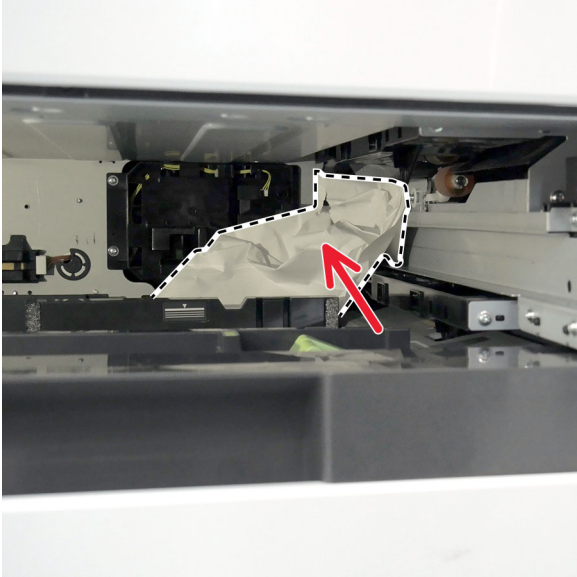
Action	Yes	No
<p>Step 11 Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Tray 2 lift plate failure service check

Action	Yes	No
<p>Step 1</p> <p>a Remove tray 2. See “Tray insert removal” on page 341.</p> <p>b Make sure that the area inside the printer behind the tray is clear of paper fragments and debris.</p>  <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > PRINTER MOTOR TESTS > Tray 2 lift</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 4.

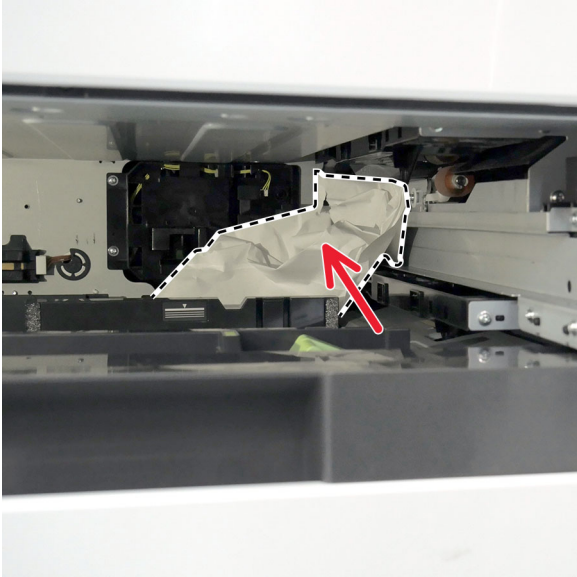
Action	Yes	No
<p>Step 4</p> <p>a Reseat the tray 2 lift motor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the motor (tray 2 lift).</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Make sure that the tray set sensor actuator is properly installed.</p> <p>b Check the actuator for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the sensor (tray 2 lift plate level).</p> <p>Is it free of damage?</p>	Go to step 8.	Go to step 10.
<p>Step 8</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > PRINTER SENSOR TESTS > Tray 2 lift plate limit</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>a Reseat the tray 2 lift plate level sensor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the sensor (tray 2 lift plate level).</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 3 lift plate failure service check

Action	Yes	No
<p>Step 1</p> <p>a Remove tray 3. See “Tray insert removal” on page 341.</p> <p>b Make sure that the area inside the printer behind the tray is clear of paper fragments and debris.</p>  <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > 2 x 500-Sheet Tray Motor Tests > Tray 3 lift</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>a Reseat the motor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the motor. See “Motor (2 x 500-sheet tray lift) removal” on page 522.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6</p> <p>a Make sure that the tray 3 tray set actuator is properly installed.</p> <p>b Check the actuator for damage, and replace if necessary. “2 x 500-sheet tray tray set actuator removal” on page 532.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the sensor (2 x 500-sheet tray 3 lift plate level).</p> <p>Is it free of damage?</p>	Go to step 8.	Go to step 10.
<p>Step 8</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2 x 500-Sheet Tray Sensor Tests > Tray 3 lift plate limit</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>a Reseat the sensor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the sensor (2 x 500-sheet tray 3 lift plate level). See “2 x 500-sheet tray transport assembly sensors removal” on page 531.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Check the 2 x 500-sheet tray controller board pins for damage, and replace if necessary. See “2 x 500-sheet tray controller board removal” on page 526.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 4 lift plate failure service check

Action	Yes	No
<p>Step 1</p> <p>a Remove tray 4. See “Tray insert removal” on page 341.</p> <p>b Make sure that the area inside the printer behind the tray is clear of paper fragments and debris.</p>  <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > 2 x 500-Sheet Tray Motor Tests > Tray 4 lift</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>a Reseat the motor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the motor. See “Motor (2 x 500-sheet tray lift) removal” on page 522.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6</p> <p>a Make sure that the tray 4 tray set actuator is properly installed.</p> <p>b Check the actuator for damage, and replace if necessary. “2 x 500-sheet tray tray set actuator removal” on page 532.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the sensor (2 x 500-sheet tray 4 lift plate level).</p> <p>Is it free of damage?</p>	Go to step 8.	Go to step 10.
<p>Step 8</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2 x 500-Sheet Tray Sensor Tests > Tray 4 lift plate limit</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>a Reseat the sensor cable.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the sensor (2 x 500-sheet tray 4 lift plate level). See “2 x 500-sheet tray transport assembly sensors removal” on page 531.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Check the 2 x 500-sheet tray controller board pins for damage, and replace if necessary. See “2 x 500-sheet tray controller board removal” on page 526.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

3000-sheet tray elevator failure service check

Action	Yes	No
<p>Step 1</p> <ul style="list-style-type: none"> a Make sure that the tray is properly installed and aligned to the printer. b Reseat the interface cable that is plugged into the 2500- or 2 x 500-sheet tray. c Reset the printer. <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Enter the Diagnostics menu, and then navigate to: MOTOR TESTS > 3000-Sheet Tray Motor Test > Tray elevator</p> <p>Does the motor run?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <ul style="list-style-type: none"> a Make sure that the motor (3000-sheet tray elevator) is properly installed. b Reseat the cable on the motor and the cable CN3 on the controller board. c Check the motor for damage, and replace if necessary. See “Motor (3000-sheet tray elevator) removal” on page 554. <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <ul style="list-style-type: none"> a Reseat the cable on all of the sensors. b Reseat the cable CN5 on the controller board. c If necessary, reseat all of the junction connectors on the cables. d Make sure that the cables do not block the path of moving parts. e Check the cables for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <ul style="list-style-type: none"> a Reseat the cable on the rest of the motors and on the top door switch. b Reseat the cables CN3 and CN4 on the controller board. c If necessary, reseat all of the junction connectors on the cables. d Make sure that the cables do not block the path of moving parts. e Check the cables for damage, and replace if necessary. <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Induction heater failure service check

Action	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Make sure that the induction heater is properly installed.</p> <p>b Reseat the induction heater cable.</p> <p>c Check the induction heater and its cable for damage, and replace if necessary. See “Induction heater removal” on page 294.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Make sure that the induction heater magnetic erase board is properly installed.</p> <p>b Reseat the induction heater magnetic erase board cables.</p> <p>c Check the induction heater magnetic erase board and its cables for damage, and replace if necessary. See “Induction heater magnetic erase board (IHMEB) removal” on page 368.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Make sure that the induction heater power supply is properly installed.</p> <p>b Reseat the induction heater power supply cables.</p> <p>c Check the induction heater power supply and its cables for damage, and replace if necessary. See “Induction heater power supply (IHPS) removal” on page 370.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Make sure that the fuser is properly installed.</p> <p>b Make sure that the fuser cable is properly connected.</p> <p>c Check the fuser for damage, and replace if necessary. See “Fuser removal” on page 294.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6 Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2500-sheet tray lift plate failure service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset engine Service Error Note: Do this step every time a service error would occur to clear the error and restore the engine settings.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Make sure that the motor (2500-sheet tray elevator) is properly installed. b Enter the Diagnostics menu, and then navigate to: Motor Tests > 2500-Sheet Tray Motor Tests > Elevator Test c Observe if the motor is working properly. Note: Remove tray 1 and tray 2 to observe the motor movement properly.</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 3.
<p>Step 3 a Reseat the 2500-sheet tray elevator motor cable on both sides. b Check the motor cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 a Check the coupling for wear or damage, and replace if necessary. b Check the motor gears, rollers, and belts for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the motor (2500-sheet tray elevator). See “Motor (2500-sheet tray elevator) removal” on page 504.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Actions	Yes	No
<p>Step 6</p> <ul style="list-style-type: none"> a Make sure that the actuators of the sensor (tray elevator home) and sensor (main tray elevator limit) are properly installed and aligned. b Check the actuators for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2500-Sheet Tray Sensor Tests</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	Go to step 8.
<p>Step 8</p> <ul style="list-style-type: none"> a Make sure that the sensor cables are properly installed. b Make sure to route the cables properly. c Make sure to reseat the cables on the 2500-sheet tray controller board and the sensors. d Make sure to reseat the junction connectors of the cables. e Make sure that the cables do not snag on moving objects. f Check the cables for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <ul style="list-style-type: none"> a Remove the tray insert. b Make sure that the sensor (tray elevator home) and sensor (main tray elevator limit) are properly installed. c Check the sensors for damage, and replace if necessary. See “2500-sheet tray elevator home sensor actuator removal” on page 490 and “Sensor (2500-sheet tray main tray elevator limit) removal” on page 500. <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2500-sheet tray transfer guide motor failure service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset engine Service Error Note: Do this step every time a service error would occur to clear the error and restore the engine settings.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Make sure that the motor (2500-sheet tray transfer guide) is properly installed. b Enter the Diagnostics menu, and then navigate to: Motor Tests > 2500-Sheet Tray Motor Tests > Elevator Test c Observe if the motor is working properly. Note: Remove tray 1 and tray 2 to observe the motor movement properly.</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 3.
<p>Step 3 a Reseat the 2500-sheet tray transfer guide motor cable on both sides. b Check the motor cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 a Make sure that the motor belts have correct belt tension. b Check the motor gears, rollers, and belts for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the motor (2500-sheet tray transfer guide). See “Motor (2500-sheet tray transfer guide) removal” on page 506.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 a Make sure that the 2500-sheet tray elevator home sensor actuator is properly installed and aligned with the sensor. b Check the actuators for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Actions	Yes	No
<p>Step 7 Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2500-Sheet Tray Sensor Tests</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	Go to step 8.
<p>Step 8</p> <ul style="list-style-type: none"> a Make sure that the sensor cables are properly installed. b Make sure to route the cables properly. c Make sure to reseal the cables on the 2500-sheet tray controller board and the sensors. d Make sure to reseal the junction connectors of the cables. e Make sure that the cables do not snag on moving objects. f Check the cables for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <ul style="list-style-type: none"> a Remove the tray insert. b Make sure that the sensor (transfer guide home) and sensor (2500-sheet tray elevator home) are properly installed. c Check the sensors for damage, and replace if necessary. See “Sensor (2500-sheet tray transfer guide home) removal” on page 495 and “Sensor (2500-sheet tray elevator home) removal” on page 491. <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

600 errors

600 error messages

Error code	Description	Action
600.00	The image was not ready during a print job from the MPF.	See “Unready image service check” on page 196.
600.01	The image was not ready during a print job from tray 1.	
600.02	The image was not ready during a print job from tray 2.	
600.03	The image was not ready during a print job from tray 3.	
600.04	The image was not ready during a print job from tray 4.	
600.05	The image was not ready during a print job from tray 5.	
600.10	The image was not ready during a duplex print job.	

Unready image service check

Action	Yes	No
<p>Step 1 Make sure that the Page description language (PDL) of the print job is supported. Install the supporting option card if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Enter the Diagnostics menu, and then navigate to: PRINT TESTS > Tray 1</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Make sure that the printhead and board cables are properly connected.</p> <p>b Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>a Make sure that the printhead is properly installed.</p> <p>b Check the printhead for damage, and replace if necessary. See “Printhead removal” on page 290.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

685 errors

685 error messages

Error code	Description	Action
685.xx	Original document size mismatch detected at the ADF.	See “ADF document size mismatch service check” on page 197 .

ADF document size mismatch service check

Action	Yes	No
<p>Step 1</p> <p>Make sure that the scanner paper size setting matches the source tray paper size setting</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Make sure that there is no document on the flatbed scanner when copying from the ADF.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Enter the Configuration menu, and then select SIZE SENSING.</p> <p>a Make sure that Tray Sensing is set to Auto for the 500-sheet trays.</p> <p>b Make sure that the paper size settings for 2500-sheet tray and 3000-sheet tray matches the supported paper size of the source tray.</p> <p>c Make sure that the correct paper size is set. The printer can only detect one paper size at a time for the following:</p> <ul style="list-style-type: none"> • Oficio/Folio Sensing • Statement/A5 Sensing • Executive/B5 Sensing <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: SCANNER TESTS > Sensor Test</p> <p>b Manually toggle the following sensors:</p> <ul style="list-style-type: none"> • Sensor (ADF paper width) • Sensor (ADF paper length 1) • Sensor (ADF paper length 2) <p>Does the sensor status change while toggling the sensors?</p>	Go to step 7.	Go to step 5.
<p>Step 5</p> <p>a Reseat the sensor cables.</p> <p>b Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the sensors for damage, and replace if necessary. See “Sensors (ADF tray section) removal” on page 443.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the paper width and paper length sensors of the source tray for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Make sure that the source tray is properly installed.</p> <p>b Make sure that the paper path is clear of debris or dust.</p> <p>c Make sure that the tray length and width guides are working properly.</p> <p>d Check the tray insert for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Procedure before starting the 9yy service checks

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

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

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

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

A. Collecting the history information from the SE menu

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

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

Notes:

- **printer_IP_address** is the TCP/IP address of the printer
- **se** is required to access the printer diagnostic information

- 2 Click **History Information**, copy all information, and then save it as a text file.

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

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

Notes:

- Make sure that your printer is connected to a network or to a print server.
- Some printers are designed to restart automatically after a 9yy error. On these printers, you can retrieve the secondary crash code information using the SE menu.
- Fwdebugs can also be referred to as LBtrace. If FWEdebugs does not appear in the list, then look for LBtrace. Multiple LBtrace logs can appear in the list of links referred to in step 2.

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

- 2 Click **List Fwdebugs captured during reboots**.

Note: A list of the secondary crash codes retrieved from previous reboots will be generated. If there are Fwdebugs listed, then click **Dump Fwdebug log0**, **Dump Fwdebug log1**, and **Dump Fwdebug log2**. Clicking these links will dump the debug logs to the computer. Take note of the destination folder where the logs are saved.

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

Note: Some printer SE menus give you the option of clicking **Logs Gzip Compressed**. If this option is shown in the menu, then click it and retrieve the compressed log file. Take note of the destination folder where the log file is saved.

C. Collecting the settings from the menu settings page

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

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

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

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

Printing the menu settings page

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

D. Collecting information from the user

Ask the user for information about the following:

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

900 errors

900-909 error messages

Error code	Description	Action
900-909.x x	RIP firmware errors	See “900 error service check” on page 200.

900 error service check

Action	Yes	No
Step 1 a Perform a POR. b Check if a 900.xx error code appears on the display. Does a 900.xx error code appear?	Go to step 4.	Go to step 2.
Step 2 Check if another type of error code appears instead of the 900.xx error code. Does a different error code appear?	Go to step 3.	Go to step 4.
Step 3 See the error code and its service instructions in the printer <i>Service Manual</i> . Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4</p> <p>a Turn off the printer.</p> <p>b At the rear of the printer, disconnect the network cable, USB cable, and fax line.</p> <p>c Turn on the printer.</p> <p>Does the problem remain?</p>	Go to step 12.	Go to step 5.
<p>Step 5</p> <p>a From the control panel, navigate to the Reports menu.</p> <p>b Select Device Statistics and Device Settings.</p> <p>Does the problem remain?</p>	Go to step 12.	Go to step 6.
<p>Step 6</p> <p>Check if the printer has a scanner.</p> <p>Does the printer have a scanner?</p>	Go to step 7.	Go to step 8.
<p>Step 7</p> <p>Using the scanner, perform a one-page copy job in color.</p> <p>Does the problem remain?</p>	Go to step 12.	Go to step 8.
<p>Step 8</p> <p>a Turn off the printer.</p> <p>b At the rear of the printer, connect the network cable, USB cable, and fax line.</p> <p>c Turn on the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	Go to step 10.
<p>Step 9</p> <p>a Start the printer in Invalid engine mode. See “Entering Invalid engine mode” on page 252.</p> <p>b Check if an Invalid Engine Code message appears.</p> <p>Does an Invalid Engine Code message appear?</p>	Go to step 10.	Contact the next level of support.
<p>Step 10</p> <p>Using the Device Settings report that is printed in step 5, check if the firmware level is older than the latest available version.</p> <p>Is the firmware version older, and does the customer agree to update the firmware?</p>	Go to step 11.	Contact the next level of support.
<p>Step 11</p> <p>Update the firmware to the latest version.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.

Action	Yes	No
<p>Step 12</p> <p>a Turn off the printer.</p> <p>b Make sure that all the cables on the controller board and scanner are properly connected.</p> <p>c Turn on the printer.</p> <p>d From the control panel, navigate to the Reports menu, and then select Device Statistics and Device Settings.</p> <p>e For MFPs, perform a one-page copy and scan job in color.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check if a hard disk is installed.</p> <p>Is a hard disk installed?</p>	Go to step 14.	Go to step 17.
<p>Step 14</p> <p>a Check for buffered print jobs, and then delete them. See “Hard disk failure service check” on page 156.</p> <p>b Perform a POR.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>a Turn off the printer.</p> <p>b Uninstall the hard disk.</p> <p>c Perform a POR.</p> <p>Does the problem remain?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Replace the hard disk.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check if the printer has any of the following components installed:</p> <ul style="list-style-type: none"> • Memory options • Fax card • Modem • Wireless and network option cards <p>Is any of the components installed?</p>	Go to step 18.	Go to step 21.

Action	Yes	No
<p>Step 18</p> <p>a Turn off the printer.</p> <p>b Remove all the installed components.</p> <p>c Turn on the printer.</p> <p>Does the problem remain?</p>	Go to step 21.	Go to step 19.
<p>Step 19</p> <p>a Turn off the printer.</p> <p>b Install the following components one at a time:</p> <ul style="list-style-type: none"> • Memory options • Fax card • Modem • Wireless and network option cards <p>Note: Make sure to perform a POR after installing each component.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>a Turn off the printer.</p> <p>b Replace the components that caused the error.</p> <p>c Turn on the printer.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Replace the controller board. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

911–963 errors

911–916 error messages

Error code	Description	Action
911.72	Finisher abnormality was detected when controlling the exit roller pressure.	See “Option controller board error service check” on page 205 .
911.225	Finisher abnormality was detected when driving the motors.	
916.165	Destination abnormality was detected.	See “Engine and controller board error service check” on page 204 .

919 error messages

Error code	Description	Action
919.52	Engine communication error was detected.	See “Engine and controller board error service check” on page 204.
919.208	Engine backup media access error was detected.	
919.212	K DR backup media access error was detected.	
919.22	K TB backup media access error was detected.	
919.224	Engine backup data discord was detected.	
919.225	Engine board exchange abnormality was detected.	
919.226	Engine flash ROM writing error was detected.	
919.227	Engine flash ROM device abnormality was detected.	
919.228	Engine firmware download communication error was detected.	
919.24	Engine control abnormality was detected.	

Engine and controller board error service check

Action	Yes	No
<p>Step 1</p> <p>a Reset the printer.</p> <p>b Make sure that the cables are properly connected to the engine controller board and controller board.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Make sure that the firmware version is the latest.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Option controller board error service check

Action	Yes	No
<p>Step 1</p> <p>a Reset the printer.</p> <p>b Make sure that the cables are properly connected to the option controller board and controller board.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the engine controller board pins for damage, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the option controller board pins for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Make sure that the firmware version is the latest.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Insufficient space between paper stacks in 2500-sheet tray service check

Action	Yes	No
<p>Step 1</p> <p>Check the paper stack transfer sensor actuator for proper installation and damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the transfer guide stop spring for proper installation and damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a Make sure that the sensor actuator (main tray elevator limit) is properly installed and aligned.</p> <p>b Check the actuator for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2500-Sheet Tray Sensor Tests > Main tray elevator limit</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5</p> <p>Check the sensor cable for proper installation and damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Replace the sensor. See “Sensor (2500-sheet tray main tray elevator limit) removal” on page 500.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Make sure that the sensor actuator (main tray paper empty, top) is properly installed and aligned.</p> <p>b Check the actuator for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 2500-Sheet Tray Sensor Tests > Main tray paper empty, top</p> <p>Does the sensor status change while toggling the sensor?</p>	Contact the next level of support.	Go to step 9.
<p>Step 9</p> <p>Check the sensor cable for proper installation and damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the sensor. See “Sensor (2500-sheet tray main tray empty, top) removal” on page 500.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

3000-sheet tray tray set failure service check

Action	Yes	No
<p>Step 1</p> <p>a Make sure that the tray is properly installed and aligned to the printer.</p> <p>b Reseat the interface cable that is plugged into the 2500- or 2 x 500-sheet tray.</p> <p>c Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Remove the rear cover.</p> <p>b Make sure that the tray set sensor actuator and spring are properly installed.</p> <p>c Check the actuator and spring for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Make sure that the sensor (3000-sheet tray set) is properly installed.</p> <p>b Make sure that the sensor is free of debris or dust.</p> <p>c Reseat the cable on the sensor and the cable CN5 on the controller board.</p> <p>d Check the sensor for damage.</p> <p>Is it free of damage?</p>	Go to step 4.	Go to step 5.
<p>Step 4</p> <p>Enter the Diagnostics menu, and then navigate to: SENSOR TESTS > 3000-Sheet Tray Sensor Test > Tray set</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>Replace the sensor. See “Sensor (3000-sheet tray set) removal” on page 555.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6</p> <p>a Reseat the cable on the rest of the sensors.</p> <p>b Reseat the cable CN5 on the controller board.</p> <p>c If necessary, reseat all of the junction connectors on the cables.</p> <p>d Make sure that the cables do not block the path of moving parts.</p> <p>e Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Reseat the cable on all the motors and on the top door switch.</p> <p>b Reseat the cables CN3 and CN4 on the controller board.</p> <p>c If necessary, reseat all of the junction connectors on the cables.</p> <p>d Make sure that the cables do not block the path of moving parts.</p> <p>e Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF/scanner hardware errors

800 error messages

Error code	Description	Action
800.04	A timing error occurred during a scan job at the front side of the document.	See “Scanner controller board service check” on page 213.
800.15	The CIS clamp adjustment failed.	See “ADF CIS service check” on page 212.
800.16	The CIS gain adjustment failed.	
800.23	A timing error occurred during a scan job at the back side of the document.	See “ADF controller board service check” on page 210.
800.25	The CCD power supply malfunctioned.	See “Scanner CCD service check” on page 214.
800.7	The image data was not detected.	See “Scanner controller board service check” on page 213.

809 error messages

Error code	Description	Action	
809	Scanner controller board was not detected.	See “Scanner controller board service check” on page 213.	
809.01	The scanner controller board communication failed.		
809.02	The scanner controller board communication failed.		
809.03	ADF controller board was not detected.		See “ADF controller board service check” on page 210.
809.04	The ADF controller board communication failed.		
809.05	The ADF controller board communication failed.		
809.06	Scanning speed went over the required level.		

816–824 error messages

Error code	Description	Action
816.7	Scanner clamp or gain adjustment failed.	See “Scanner CCD service check” on page 214.
820	Scanner lamp exposure did not reach the required level.	See “Scanner lamp service check” on page 215.
820.01	Scanner lamp exposure went over the required level.	
824	The sensor (scanner lamp home) did not detect the scanner lamp at its home position.	
824.01	The scanner lamp remains detected at its home position during a scan job.	

843 error messages

Error code	Description	Action
843.01	ADF scanner mechanical failure	See “ADF scan jam service check” on page 125.

850–891 error messages

Error code	Description	Action
850	CIS lamp exposure did not reach the required level.	See “ADF CIS service check” on page 212.
850.1	CIS lamp exposure went over the required level.	

Error code	Description	Action
855	The ADF fan failed.	See “ADF controller board service check” on page 210.
890	Sensor (ADF CIS clean) error was detected at the start of a scan job.	
890.01	Sensor (ADF CIS clean) error was detected during a scan job.	
891	Sensor (ADF scan shaft home) error was detected during a scan job.	
891.01	Sensor (ADF scan glass clean) error was detected during a scan job.	

ADF controller board service check

Actions	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error</p> <p>Note: Do this step every time a service error would occur to clear the error and restore the engine settings.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Reseat the interface cable connecting the engine controller board and the image controller board.</p> <p>b Reseat all of the cables on the ADF controller board and reseat the cable connectors on the other end of the connection.</p> <p>c Make sure to tighten the blue screws and marked screws.</p> <p>d Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the ADF controller board for damaged pins, and replace if necessary. See “ADF controller board removal” on page 431.</p> <p>Note: Make sure to perform ADF scanner adjustment after replacing the ADF controller board.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the ADF/scanner image controller board for damaged pins, and replace if necessary. See “ADF/scanner image controller board removal” on page 374.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Actions	Yes	No
<p>Step 5 Check the controller board for damaged pins, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF/scanner image controller board service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error Note: Do this step every time a service error would occur to clear the error and restore the engine settings.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Reseat the ADF CIS data cable on the ADF controller board and the image controller board. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Make sure that the ADF/scanner image controller board is mounted properly on the controller board. b Check the ADF/scanner image controller board for damaged pins, and replace if necessary. See “ADF/scanner image controller board removal” on page 374.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the controller board for damaged pins, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF CIS service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error Note: Do this step every time a service error would occur to clear the error and restore the engine settings.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <ul style="list-style-type: none"> a Reseat the interface cable connecting the engine controller board and the image controller board. b Reseat all of the cables on the engine controller board and reseat the cable connectors on the other end of the connection. c Check the cables for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <ul style="list-style-type: none"> a Reseat the ADF CIS power supply board cable and ADF CIS power supply cable. b Check the cables for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the ADF CIS power supply board for proper installation and damage, and replace if necessary. See “ADF CIS power supply board removal” on page 430.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <ul style="list-style-type: none"> a Reseat the ADF CIS data cable. b Check the cable for damage, and replace if necessary. <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the ADF CIS assembly for proper installation and damage, and replace if necessary. See “ADF CIS assembly removal” on page 428.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Actions	Yes	No
<p>Step 7</p> <p>Check the ADF/scanner image controller board for damaged pins, and replace if necessary. See “ADF/scanner image controller board removal” on page 374.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the ADF controller board for damaged pins, and replace if necessary. See “ADF controller board removal” on page 431.</p> <p>Note: Make sure to perform ADF scanner adjustment after replacing the ADF controller board.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the controller board for damaged pins, and replace if necessary. See “Controller board removal” on page 376.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Scanner controller board service check

Actions	Yes	No
<p>Step 1</p> <p>Enter the Diagnostics menu, and then navigate to:</p> <p>PRINTER SETUP > Reset Engine Service Error</p> <p>Note: Do this step every time a service error would occur to clear the error and restore the engine settings.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Reseat all of the cables on the scanner controller board and reseat the cable connectors on the other end of the connection.</p> <p>b Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the scanner controller board for damaged pins, and replace if necessary. See “Scanner controller board removal” on page 458.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Actions	Yes	No
<p>Step 4 Check the engine controller board for damaged pins, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Scanner CCD service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error Note: Do this step every time a service error would occur to clear the error and restore the engine settings.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Reseat all of the cables on the scanner controller board and engine controller board. b Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Reseat the scanner CCD cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the scanner CCD lens assembly for proper installation and damage, and replace if necessary. See “Scanner CCD lens assembly removal” on page 462.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the scanner controller board for damaged pins, and replace if necessary. See “Scanner controller board removal” on page 458.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Actions	Yes	No
<p>Step 6 Check the engine controller board for damaged pins, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Scanner lamp service check

Actions	Yes	No
<p>Step 1 Enter the Diagnostics menu, and then navigate to: PRINTER SETUP > Reset Engine Service Error Note: Do this step every time a service error would occur to clear the error and restore the engine settings.</p> <p>Does the error remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Reseat the scanner lamp cable. b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the scanner lamp for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the scanner controller board for damaged pins, and replace if necessary. See “Scanner controller board removal” on page 458.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the engine controller board for damaged pins, and replace if necessary. See “Engine controller board removal” on page 373.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Fax error log codes

Error code	Description	Action
000	No error occurred during fax transmission.	No action is needed.
200	Error occurred when transmitting training.	<ul style="list-style-type: none"> • Check line quality. • Select a lower Max Speed value under Fax Send settings. • Adjust the transmit level.
3XX	Error occurred when receiving image data.	<ul style="list-style-type: none"> • Check line quality. • Adjust Receive Threshold. • Select a lower Max Speed value under Fax Receive settings.
4XX	Error occurred when sending image data.	<ul style="list-style-type: none"> • Check line quality. • Adjust 'Transmit Level'. • Select a lower 'Max Speed' value under Fax Receive settings.
5XX	Received unknown response from remote fax device.	No action needed. Issue is with the other device.
6XX	Error occurred when receiving a frame.	<ul style="list-style-type: none"> • Check line quality. • Adjust 'Receive Threshold'.
7XX	Error occurred when sending a frame.	<ul style="list-style-type: none"> • Check line quality. • Adjust 'Transmit Level'. • Select a lower 'Max Speed' value under Fax Send settings.
800	Received EOT unexpectedly from the modem in V34 mode.	If error persists, then disable V34 modulation scheme.
802	Too many timeouts occurred during ECM reception.	If error persists, then disable ECM mode.
803	Fax cancelled by user	No action needed.
804	Unexpectedly received a disconnect command from the remote end.	<ul style="list-style-type: none"> • Check line quality. • Adjust Transmit Level/Receive Threshold values. • Remote device could be requesting an unsupported feature.
805	Remote fax device failed to respond to the DCS command.	<ul style="list-style-type: none"> • Adjust Transmit Level/Receive Threshold values. • Remote device could be malfunctioning.
808	T1 timeout occurred when trying to establish a connection with a remote fax device.	Adjust Transmit Level/Receive Threshold values.
809	T2 Timeout occurred due to loss of command/response synchronization.	Adjust Transmit Level/Receive Threshold values.

Error code	Description	Action
80A	T5 Timeout occurred when transmitting image data to remote fax device.	<ul style="list-style-type: none"> • Check line quality. • Adjust 'Transmit Level'. • Select a lower 'Max Speed' value under Fax Send settings.
80B	Too many errors when transmitting in ECM mode.	<ul style="list-style-type: none"> • Check line quality. • Adjust 'Transmit Level'. • Select a lower 'Max Speed' value under Fax Send settings.
80C	Remote device failed to respond to the CTC command.	<ul style="list-style-type: none"> • Select a lower 'Max Speed' value under Fax Send settings. • Adjust 'Transmit Level'.
80D	Received too many requests from remote end to repeat the previous command sent.	<ul style="list-style-type: none"> • Check line quality. • Adjust 'Transmit Level'. • Check if line conditions on remote end will facilitate a good connection.
80E	Functional limitation-Remote fax device does not support G3 receive capability.	No action needed. Issue with the remote device.
811	Failed to detect a fax device at the remote end.	<ul style="list-style-type: none"> • Make sure that MFD is answering to fax call and not a voice call. • Decrease value of 'Rings To Answer' setting.
812	No more data rates available in V34 modulation scheme.	Adjust to a lower modulation scheme.
813	Timeout occurred after waiting too long to receive a good frame.	Adjust "Receive Threshold".
814	Tried too many times at selected speed using V34 modulation scheme.	<ul style="list-style-type: none"> • Adjust 'Transmit Level'. • Adjust to a lower modulation scheme.
815	Fax transmission was interrupted due to power failure.	Troubleshoot MFP if error persists.
818	Fax transmission failed due to insufficient memory to store scanned image.	Adjust 'Memory Use' setting to allocate more memory for send jobs.
819	Fax transmission failed due to insufficient memory to store received image.	Adjust 'Memory Use' setting to allocate more memory for receive jobs.
81A	A timeout occurred during transmission of a page in ECM mode.	Select a lower 'Max Speed' value under Fax Send settings.
880	Failure to transmit training successfully in V17, V29, V27 terminal modulation schemes.	<ul style="list-style-type: none"> • Select a lower "Max Speed" under Fax Send settings. • Adjust the "Transmit Level". • Check line quality.

Error code	Description	Action
881	Failure to transmit training successfully in V33, V29, V27 terminal modulation schemes.	<ul style="list-style-type: none"> • Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
882	Failure to transmit training successfully in V17, V29 terminal modulation schemes.	<ul style="list-style-type: none"> • Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
883	Failure to transmit training successfully in V17, V27 terminal modulation schemes.	<ul style="list-style-type: none"> • Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
884	Failure to transmit training successfully in V29, V27 terminal modulation schemes.	<ul style="list-style-type: none"> • Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
885	Failure to transmit training successfully in V17 terminal modulation scheme.	<ul style="list-style-type: none"> • Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
886	Failure to transmit training successfully in V29 terminal modulation scheme.	<ul style="list-style-type: none"> • Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
887	Failure to transmit training successfully in V27 terminal modulation scheme.	<ul style="list-style-type: none"> • Select a lower “Max Speed” under Fax Send settings. • Adjust the “Transmit Level”. • Check line quality.
888	Failure to transmit training successfully at 2400 bps in V27 terminal modulation scheme.	<ul style="list-style-type: none"> • Adjust “Transmit Level”. • Check line quality.
889	Failed to connect at the minimum speed supported by the MFP.	<ul style="list-style-type: none"> • Adjust “Transmit Level”. • Incompatible connection.
88A	Failed to connect using V.34 modulation scheme.	<ul style="list-style-type: none"> • Check line quality. • Adjust to a lower modulation scheme. • Adjust Transmit Level Receive Threshold values.

Error code	Description	Action
901	No fax tones detected from remote end.	<ul style="list-style-type: none"> • Check the destination phone number. • Make sure that the remote fax is authorized to receive faxes.
902	No dial tone detected.	<ul style="list-style-type: none"> • Check by enabling 'Behind a PABX' setting. • Check phone line. • Check MFD modem hardware.
903	Busy tone detected.	Check with remote end if successive attempts fail.
904	Hardware error detected.	
905	A timeout occurred after dialing the number and waiting for a response.	Check with remote end if successive attempts fail.
906	Fax cancelled by user.	No action needed.
907	Modem detected a digital line connection.	Make sure that the MFP is connected to an analog line.
908	Phone line was disconnected	Restore phone line connection.
A00	Received request for unsupported function from remote fax device.	No action needed.
A01	Received request for unsupported image width from remote fax device.	No action needed.
A02	Received request for unsupported image resolution from remote fax device.	No action needed.
A03	Received request for unsupported compression type from remote fax device.	No action needed.
A04	Received request for unsupported image length from remote fax device.	No action needed.
F00	Unknown error occurred.	No action needed.

Escalating a fax issue to second-level support

Before contacting the second-level support, go to the SE menu on the MFP, and then generate a Fax error file. This file contains printer settings information and debug information that will help second-level support determine the cause of a failure.

To generate the fax error file, perform the following steps:

- 1 In a Web browser, type **http://MFP/<IP address>/se**.
- 2 The MFP's SE menu page will display. Click the "Dump Job History" link. The following displays:

Fax Job Log							
Wednesday, 2006-02-08 11:25							
Action	Date	Time	Job #	Length	Station Name/Number	Pages	Status
SCAN	1969-12-31	19:00				9	OK
SEND	2006-02-01	13:55	73	17:53	4039	2	CANCELED
SEND	2006-02-01	13:56	74	17:53	4039	0	CANCELED

- 3 Write down the type of connection, the type of error, and the job in which the error occurred.
- 4 In the Web browser address bar, type **http://MFP/<IP address>/se**.
- 5 Click **Report a Fax Problem**. The fax check list displays.
- 6 Fill in the requested information. This is where you will type in the information you retrieved in step 3. Second-level support can assist you if you have questions about the information requested on the page.

Title/Name of Tester	<input type="text" value="Your Name"/>	Date of Event	<input type="text" value="Date of Event"/>	mm/dd/yyyy
Customer	<input type="text" value="Customer Name"/>	Time of Event	<input type="text" value="Time of Event"/>	hh:mm [A,P]M
Job ID	<input type="text" value="Job ID"/>			#####
Describe the Physical Connection:				
Type:	Description:	Channel Quality:		
<input checked="" type="radio"/> Analog	<input type="checkbox"/> VoIP/FoIP	<input checked="" type="radio"/> Clear		
<input type="radio"/> Digital	<input type="checkbox"/> PAB	<input type="radio"/> OK		
	<input type="checkbox"/> ISD	<input type="radio"/> Some Noise		
		<input type="radio"/> Very Noisy		

Note: The fields requesting the code levels, model number, and type of problem are auto-filled. If the information is not in the fields, it can be retrieved from the SE menu. The SE menu can be accessed by pressing ****411** or typing **http://MFP/<IP address>/se** in a Web browser.

- 7 After all the requested information is entered into the Fax Checklist Web page, press the **Submit** button on the bottom of the page. A dialogue asking you to save the file appears.

Note: The file generated by the MFP is not automatically transmitted to second-level support. It is placed on the computer desktop.

- 8 Enter a name for the file, and indicated where you want to save the file.
- 9 Press **OK**. The file appears on the desktop.
- 10 E-mail the file to second-level support.

Service menus

Understanding the printer control panel

Using the control panel



Use the		To
1	Display	<ul style="list-style-type: none"> View the printer status and messages. Set up and operate the printer.
2	Home button	Go to the home screen.
3	Sleep button	<p>Enable Sleep mode or Hibernate mode.</p> <p>The following actions wake the printer from Sleep mode:</p> <ul style="list-style-type: none"> Touching the control panel home screen Opening the scanner cover <p>The following actions wake the printer from Hibernate mode:</p> <ul style="list-style-type: none"> Pressing the Sleep button until the printer wakes Performing a power-on reset using the main power switch
4	Keypad	Enter numbers, letters, or symbols.
5	Start button	Start a job, depending on which mode is selected.
6	Clear all / Reset button	Reset the default settings of a function, such as copying, faxing, or scanning.
7	Stop or Cancel button	Stop all printer activity.
8	Indicator light	Check the status of the printer.

Understanding the colors of the Sleep button and indicator lights

The colors of the Sleep button and indicator lights on the printer control panel signify a certain printer status or condition.

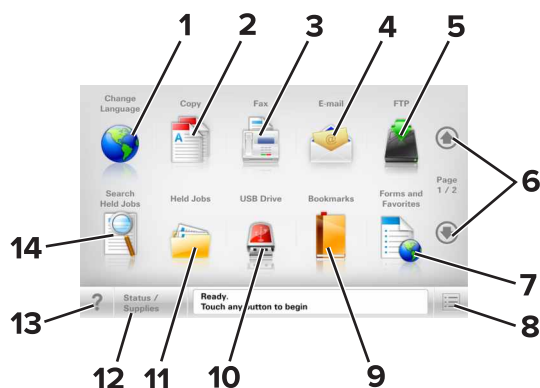
Indicator light	Printer status
Off	The printer is off or in Hibernate mode.
Blinking green	The printer is warming up, processing data, or printing.
Solid green	The printer is on, but idle.
Blinking red	The printer requires user intervention.

Sleep button light	Printer status
Off	The printer is off, idle or in Ready state.
Solid amber	The printer is in Sleep mode.
Blinking amber	The printer is entering or waking from Hibernate mode.
Blinking amber for 0.1 second, then goes completely off for 1.9 seconds in a slow, pulsing pattern	The printer is in Hibernate mode.

Understanding the home screen

When the printer is turned on, the display shows a basic screen, referred to as the home screen. Touch the home screen buttons and icons to initiate an action such as copying, faxing, or scanning; to open the menu screen; or to respond to messages.



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



Touch	To
1	Change Language Launch the Change Language pop-up window that lets you change the primary language of the printer.
2	Copy Access the Copy menus and make copies.
3	Fax Access the Fax menus and send fax.
4	E-mail Access the E-mail menus and send e-mails.
5	FTP Access the File Transfer Protocol (FTP) menus and scan documents directly to an FTP server.
6	Arrows Scroll up or down.

Touch		To
7	Forms and Favorites	Quickly find and print frequently used online forms.
8	Menu icon	Access the printer menus. Note: The menus are available only when the printer is in Ready state.
9	Bookmarks	Create, organize, and save a set of bookmarks (URL) into a tree view of folders and file links. Note: The tree view supports only bookmarks created from this function, and not from any other application.
10	USB Drive	View, select, print, scan, or e-mail photos and documents from a flash drive. Note: This icon appears only when you return to the home screen while a memory card or flash drive is connected to the printer.
11	Held Jobs	Display all current held jobs.
12	Status/Supplies	<ul style="list-style-type: none"> • Show a warning or error message whenever the printer requires intervention to continue processing. • Access the messages screen for more information on the message, and how to clear it.
13	Tips	Open a context-sensitive Help dialog.
14	Search Held Jobs	Search for one or more of the following items: <ul style="list-style-type: none"> • User name for held or confidential print jobs • Job names for held jobs, excluding confidential print jobs • Profile names • Bookmark container or print job names • USB container or print job names for supported file types

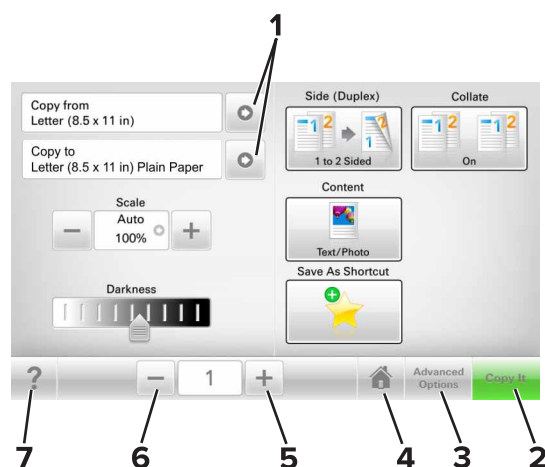
Features

Feature	Description
Menu trail line Example: <u>Menus</u> > <u>Settings</u> > <u>Copy Settings</u> > Number of Copies	A menu trail line is located at the top of each menu screen. This feature shows the path taken to arrive at the current menu. Touch any of the underlined words to return to that menu. Number of Copies is not underlined because it is the current screen. If you touch an underlined word on the “Number of Copies” screen before the number of copies is set and saved, then the selection is not saved, and it does not become the default setting.
Attendance message alert 	If an attendance message affects a function, then this icon appears and the red indicator light blinks.
Warning 	If an error condition occurs, then this icon appears.

Feature	Description
Status message bar	<ul style="list-style-type: none"> • Show the current printer status such as Ready or Busy. • Show printer conditions such as Toner Low or Cartridge Low. • Show intervention messages so the printer can continue processing.
Printer IP address Example: 123 . 123 . 123 . 123	The IP address of your network printer is located at the upper left corner of the home screen and appears as four sets of numbers separated by periods. You can use the IP address when accessing the Embedded Web Server so you can view and remotely configure printer settings even when you are not physically near the printer.




Using the touch-screen buttons

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



	Touch	To
1	Arrows	View a list of options.
2	Copy It	Print a copy.
3	Advanced Options	Select a copy option.
4	Home	Go to the home screen.
5	Increase	Select a higher value.
6	Decrease	Select a lower value.
7	Tips	Open a context-sensitive Help dialog.

Other touch-screen buttons

Touch	To
Accept 	Save a setting.
Cancel 	<ul style="list-style-type: none"> • Cancel an action or a selection. • Exit a screen and return to the previous screen without saving changes.
Reset 	Reset values on the screen.

Menus list

Paper Menu

Default Source
 Paper Size/Type
 Configure MP
 Substitute Size
 Paper Texture
 Paper Loading
 Custom Types
 Custom Names
 Custom Scan Sizes
 Custom Bin Names
 Universal Setup
 Bin Setup

Reports

Menu Settings Page
 Device Statistics
 Stapler Test
 Network Setup Page
 Network [x] Setup Page
 Shortcut List
 Fax Job Log
 Fax Call Log
 Copy Shortcuts
 E-mail Shortcuts
 Fax Shortcuts
 FTP Shortcuts
 Profiles List
 Print Fonts
 Print Directory
 Print Demo
 Asset Report
 Event Log Summary

Network/Ports

Active NIC
 Standard Network¹
 Standard USB
 Parallel [x]
 Serial [x]
 SMTP Setup

Security

Edit Security Setups
 Miscellaneous Security Settings
 Confidential Print
 Erase Temporary Data Files
 Security Audit Log
 Set Date and Time

¹ Depending on the printer setup, this menu appears as Standard Network or Network [x].

² This menu appears only when one or more DLEs are installed.

Paper Menu	Reports	Network/Ports	Security
Settings	Help	Manage Shortcuts	Option Card Menu²
General Settings	Print All Guides	Fax Shortcuts	A list of installed DLEs (Download Emulators) appears.
Copy Settings	Copy Guide	E-mail Shortcuts	
Fax Settings	E-mail Guide	FTP Shortcuts	
E-mail Settings	Fax Guide	Copy Shortcuts	
FTP Settings	FTP Guide	Profile Shortcuts	
Flash Drive Menu	Print Defects Guide		
Print Settings	Information Guide		
	Supplies Guide		

¹ Depending on the printer setup, this menu appears as Standard Network or Network [x].

² This menu appears only when one or more DLEs are installed.

Diagnostics Menu

Entering the Diagnostics menu

- 1 Turn off the printer.
- 2 Press and hold **3** and **6** while turning on the printer.
Release the buttons when the splash screen appears.

Reset Separator Roll and Pick Assembly Counter

This setting resets the value of the counter that tracks the usage of the 200K ADF maintenance kit.

Reset Maintenance Counter

This setting resets the value of the counter that tracks the usage of the multipurpose feeder maintenance roller kit.

- 1 Enter the Diagnostics menu, and then select **Reset Maintenance Counter**.
- 2 Select the kit to reset.

Reset Fuser Counter

This setting resets the fuser counter to zero.

Note: This setting appears only if the **Maintenance Warning and Intervention** configuration ID bit is enabled.

Enter the Diagnostics menu, and then select **Reset Fuser Counter**.

REGISTRATION

This menu allows you to perform the following:

- 1 Adjust the top and left margin values of the installed trays.
- 2 View how the change in margin values affect the overall registration of the printer.

To set the registration:

- 1 Print a Quick Test page.
 - a Enter the Diagnostics menu, and then navigate to:
REGISTRATION > Quick Test
 - b Retain this page to determine the changes you need for the margin settings. The alignment diamonds in the margins should touch the margins of the page.
- 2 Change the value of the margin settings.

Margin	Value	Description
Top Margin	-15 to +15	Moves the top margin of the installed trays either up or down
Left Margin	-15 to +15	Moves the left margin of the tray to the right or left

SCANNER CALIBRATION

Scanner Calibration

This test calibrates the black and white values for the ADF and flatbed. Use the following values to manually adjust a replacement scanner.

Menu items	Values
Flatbed Black	-10 to 10*
ADF Front Black	-10 to 10*
ADF Back Black	-10 to 10*
Flatbed White	-10 to 10*
ADF Front White	-10 to 10*
ADF Back White	-10 to 10*
* The default value is 0.	

To adjust a calibration value, do the following steps:

- 1 Enter the Diagnostics menu, and then select **Scanner Calibration**.
- 2 Select a calibration value to adjust.
- 3 To view the result for an ADF front adjustment, place a test page image side up and touch **Copy Quick Test**. Compare the results to the original, and adjust if necessary.
- 4 To view the result for an ADF back adjustment, place a test page image side down and touch **Copy Quick Test**. Compare the results to the original, and adjust if necessary.

- 5 To view the result for a flatbed adjustment, do the following:
 - a Remove any paper from the ADF. Compare the results to the original, and adjust if necessary.
 - b Place a test page on the flatbed and touch **Copy Quick Test**. Compare the results to the original, and adjust if necessary.

Reset flatbed, ADF front, and ADF back calibration values

These settings revert the selected scan source IQT black and white values back to the Nominal Black and Nominal White settings.

Note: Perform this test only on a replacement scanner.

To reset a scanner calibration value, do the following:

- 1 Enter the Diagnostics menu, and then select **SCANNER CALIBRATION**.
- 2 Select a calibration value to adjust.
- 3 Apply the changes.

PRINT TESTS

This test determines if the printer can print on paper from any of the input trays. Each installed tray is available within the Print Tests menu.

The content of the test page varies depending on the paper in the selected input tray.

- If the selected tray contains paper, then a page similar to the Quick Test page is printed but without the print registration diamonds information.
- If the selected tray contains envelopes, then an envelope print test pattern is printed. If Continuous is selected, then the envelope print test pattern is printed on the first envelope and the rest of the envelopes are blank.

The Print Test page always prints one-sided, regardless of the duplex setting or the presence of the duplex option.

- 1 Enter the Diagnostics menu, and then select **PRINT TESTS**.
- 2 Select the paper source.
- 3 Select any of the following:
 - **Single**—This option prints a single Print Test page (no buttons are active while the test page is printing).
 - **Continuous**—This option continuously prints the Print Test page until **X** is pressed.

Print Quality Pages

This setting lets you view the values of a broad range of the printer settings and test the printer ability to generate an acceptable printed output.

Enter the Diagnostics menu, and then navigate to:

PRINT TESTS > Print Quality Pages

HARDWARE TESTS

Panel Test

This test verifies the function of the control panel display.

- 1 Enter the Diagnostics menu, and then navigate to:
Hardware Tests > Panel Test
- 2 Exit the test.

Button Test

This test verifies the function of each button on the control panel.

- 1 Enter the Diagnostics menu, and then navigate to:
HARDWARE TESTS > Button Test
A pattern matching the control panel buttons appear on the display.
- 2 Press the control panel button to highlight the represented button on the display.
- 3 Release the button to remove the highlight.
- 4 Exit the test.

DRAM Test

This test checks the validity of the standard and optional dynamic random access memory (DRAM). The test repeatedly writes patterns of data to the DRAM to verify that each bit in the memory can be set and read correctly.

- 1 Enter the Diagnostics menu, and then navigate to:
HARDWARE TESTS > DRAM Test
- 2 Testing and resetting the printer messages appear on the display.
- 3 After the printer resets, the results of the test appear: **DRAM Test [x] P:##### F:#####**.
 - **[x]** represents the size of the installed DRAM.
 - **P:#####** represents the number of times the memory test passed and finished successfully.
The maximum pass count is 999,999.
 - **F:#####** represents the number of times the memory test failed and finished with errors.
The maximum pass count is 999,999.
- 4 After the maximum pass or fail count is reached or when all the DRAM has been tested, the test stops and the final results appear.

Serial 1 Wrap

This test checks the operation of the serial port hardware using a wrap plug. Each signal is tested. If the test fails, then replace the controller board.

- 1 Disconnect the serial interface cable, and then install the wrap plug.
- 2 Enter the Diagnostics menu, and then navigate to:
HARDWARE TESTS > Serial 1 Wrap
- 3 Select a test from the list.
 - If the test passes, then the Pass Count increases by 1.
 - If the test fails, then a failure message appears on the display and the Fail Count increases by 1.

The test stops after the maximum count is reached or when a failure occurs.

USB HS Test Mode

This test checks the USB ports for USB high speed certification.

- 1 Enter the Diagnostics menu, and then navigate to:
HARDWARE TESTS > USB HS Test Mode
- 2 Select the port and the type of test.

Ports	Tests
Port 0	Test J
Port 1	Test K
Port 2	Test SEO NAK
Port 3	Test Packet
	Test Force Enable

- 3 To exit the test, reset the printer.
- 4 If the test fails, then replace the USB cable.

DUPLEX TESTS

Quick Test

This test determines if the top margin at the back of a duplexed page is set correctly.

- 1 Enter the Diagnostics menu, and then navigate to:
DUPLEX TESTS > Quick Test
- 2 Select any of the following:
 - **Single**—This option prints a single Quick Test page.
 - **Continuous**—This option continuously prints the Quick Test page until **X** is pressed.

The printer attempts to print the page from the default paper source.
- 3 Check the page for the correct offset between the placement of the first scan line on both sides of a duplexed sheet.

Top Margin

This setting controls the offset between the placement of the first scan line on both sides of a duplexed sheet.

Note: If adjustment is necessary, adjust first the top margin in the Registration menu. You can adjust next the duplex top margin.

1 Enter the Diagnostics menu, and then navigate to:

DUPLEX TESTS > Top Margin

2 Change the margin values.

Changing the value by 1 unit moves the margin by 1/100 inch. A positive value moves the text down the page and widens the top margin. A negative value moves the text up the page and narrows the top margin.

3 Apply the changes.

INPUT TRAY TESTS

Feed Tests

This test feeds blank pages through the paper path.

1 Enter the Diagnostics menu, and then navigate to:

INPUT TRAY TESTS > Feed Tests

2 Select the input source.

All installed sources appear.

3 Select any of the following:

- **Single**—This option feeds a single page.
- **Continuous**—This option continuously feeds pages until **X** is pressed.

OUTPUT BIN TESTS

Feed Tests

This test verifies if paper can be fed to a specific output bin. No information is printed on the paper.

1 Enter the Diagnostics menu, and then navigate to:

OUTPUT BIN TESTS > Feed Tests

2 Select the output bin.

All installed output bins appear.

3 Select one of the following:

- **Single**—This option feeds a single page.
- **Continuous**—This option continuously feeds pages until **X** is pressed.

SENSOR TESTS

PRINTER SENSOR TESTS

These tests verify that the printer sensors are working properly.

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

SENSOR TESTS > PRINTER SENSOR TESTS

- 2 Select a sensor.
- 3 Manually toggle the sensor.

Note: The sensor status on the screen toggles between **Open** and **Close** when the sensor is working properly.

2 x 500-Sheet Tray Sensor Tests

These tests verify that the 2 x 500-sheet tray sensors are working properly.

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

SENSOR TESTS > 2 x 500-Sheet Tray Sensor Test

- 2 Select a sensor.
- 3 Manually toggle the sensor.

Note: The sensor status on the screen toggles between **Open** and **Close** when the sensor is working properly.

2500-Sheet Tray Sensor Tests

These tests verify that the 2500-sheet tray sensors are working properly.

- 1 Remove the tray inserts from tray 1 and tray 2.
- 2 Enter the Diagnostics menu, and then navigate to:

SENSOR TESTS > 2500-Sheet Tray Sensor Tests

- 3 Select a sensor.
- 4 Manually toggle the sensor.

Note: The sensor status on the screen toggles between **Open** and **Close** when the sensor is working properly.

3000-Sheet Tray Sensor Tests

These tests verify that the 3000-sheet tray sensors are working properly.

- 1 Remove the tray inserts from tray 1 and tray 2.
- 2 Enter the Diagnostics menu, and then navigate to:

SENSOR TESTS > 3000-Sheet Tray Sensor Tests

3 Select a sensor.

4 Manually toggle the sensor.

Note: The sensor status on the screen toggles between **Open** and **Close** when the sensor is working properly.

Staple and Hole Punch Finisher Sensor Tests

These tests verify that the staple and hole punch finisher sensors are working properly.

1 Remove the tray inserts from tray 1 and tray 2.

2 Enter the Diagnostics menu, and then navigate to:

SENSOR TESTS > Staple and Hole Punch Finisher Sensor Test

3 Select a sensor.

4 Manually toggle the sensor.

Note: The sensor status on the screen toggles between **Open** and **Close** when the sensor is working properly.

Hole Punch Booklet Finisher Sensor Tests

These tests verify that the hole punch booklet finisher sensors are working properly.

1 Remove the tray inserts from tray 1 and tray 2.

2 Enter the Diagnostics menu, and then navigate to:

SENSOR TESTS > Hole Punch Booklet Finisher Sensor Tests

3 Select a sensor.

4 Manually toggle the sensor.

Note: The sensor status on the screen toggles between **Open** and **Close** when the sensor is working properly.

Staple Finisher Sensor Tests

These tests verify that the staple finisher sensors are working properly.

1 Remove the tray inserts from tray 1 and tray 2.

2 Enter the Diagnostics menu, and then navigate to:

SENSOR TESTS > Staple Finisher Sensor Tests

3 Select a sensor.

4 Manually toggle the sensor.

Note: The sensor status on the screen toggles between **Open** and **Close** when the sensor is working properly.

Motor Tests

PRINTER MOTOR TESTS

These tests verify that the printer motors are properly working.

Note: If these tests are not performed in safe mode, then the control panel may become unresponsive.

1 Enter the Diagnostics menu, and then close the bottom front door.

2 Navigate to:

Motor Tests > PRINTER MOTOR TESTS

3 Open the bottom front door and right door.

4 Select **Registration**.

5 Press **X** three times.

6 Close the bottom front door and right door.

Note: If the engine does not initialize, then the motor test is in safe mode.

7 Select a motor.

8 Check if the motor runs.

Note: Not all motors run the same way.

The following motors run, and then stop after a preset duration:

- MPF tray lift-up plate elevator down
- Tray 1 lift
- Tray 2 lift
- Fusing pressure release

The following motors continuously run, unless the test is canceled:

- Registration
- Paper feed
- Tray 2 vertical transport
- Polygon
- Transport
- Fusing
- Developing
- Duplex transport
- Redrive forward
- Redrive reverse

2x500-Sheet Tray Motor Tests

These tests verify that the 2 x 500-sheet tray motors are properly working.

Note: If these tests are not performed in safe mode, then the control panel may become unresponsive.

1 Enter the Diagnostics menu, and then close the bottom front door.

2 Navigate to:

Motor Tests > PRINTER MOTOR TESTS

3 Open the bottom front door and right door.

4 Select **Registration**.

5 Press **X** three times.

6 Close the bottom front door and right door.

Note: If the engine does not initialize, then the motor test is in safe mode.

7 Navigate to:

Motor Tests > 2x500-Sheet Tray Motor Tests

8 Select a motor.

9 Check if the motor runs.

Note: Not all motors run the same way.

The following motors run, and then stop after a preset duration:

- Tray 3 lift
- Tray 4 lift

The following motors continuously run, unless the test is canceled:

- Tray 3 paper feed
- Tray 4 paper feed
- Tray 3 transport
- Tray 4 transport

2500-Sheet Tray Motor Tests

These tests verify that the 2500-sheet tray motors are properly working.

Note: If these tests are not performed in safe mode, then the control panel may become unresponsive.

1 Enter the Diagnostics menu, and then close the bottom front door.

2 Navigate to:

Motor Tests > PRINTER MOTOR TESTS

3 Open the bottom front door and right door.

4 Select **Registration**.

5 Press **X** three times.

6 Close the bottom front door and right door.

Note: If the engine does not initialize, then the motor test is in safe mode.

7 Navigate to:

Motor Tests > 2500-Sheet Tray Motor Tests

- 8 Select a motor.
- 9 Check if the motor runs.

Note: Not all motors run the same way.

The following motors run, and then stop after a preset duration:

- Elevator UP
- Elevator DOWN
- Transfer guide HOME
- Transfer guide AWAY

The following motors continuously run, unless the test is canceled:

- Tray feed
- Tray transport

3000-Sheet Tray Motor Tests

These tests verify that the 3000-sheet tray motors are properly working.

Note: If these tests are not performed in safe mode, then the control panel may become unresponsive.

- 1 Enter the Diagnostics menu, and then close the bottom front door.
- 2 Navigate to:
Motor Tests > PRINTER MOTOR TESTS
- 3 Open the bottom front door and right door.
- 4 Select **Registration**.
- 5 Press **X** three times.
- 6 Close the bottom front door and right door.

Note: If the engine does not initialize, then the motor test is in safe mode.

- 7 Navigate to:
Motor Tests > 3000-Sheet Tray Motor Tests
- 8 Select a motor.
- 9 Check if the motor runs.

Notes:

- If Tray elevator is selected—the motor runs, and then stops after a preset duration.
- If Tray feed or Tray transport is selected—the motor continuously runs, unless the test is canceled.

Staple Finisher Motor Tests

These tests verify that the staple finisher motors are working properly.

- 1 Enter the Diagnostics menu, and then navigate to:
Motor Tests > Staple Finisher Motor Tests
- 2 Select a motor.

- 3 Check if the motor runs.

Staple and Hole Punch Finisher Motor Tests

These tests verify that the staple and hole punch finisher motors are working properly.

- 1 Enter the Diagnostics menu, and then navigate to:
Motor Tests > Staple and Hole Punch Finisher Motor Tests
- 2 Select a motor.
- 3 Check if the motor runs.

Booklet Maker Motor Tests

These tests verify that the booklet maker motors are working properly.

- 1 Enter the Diagnostics menu, and then navigate to:
Motor Tests > Booklet Maker Motor Tests
- 2 Select a motor.
- 3 Check if the motor runs.

DEVICE TESTS

Quick Disk Test

This test performs a non-destructive read/write test on one block per track on the disk. If the block is good, then the saved data is written back to the disk.

- 1 Enter the Diagnostics menu, and then navigate to:
DEVICE TESTS > Quick Disk Test
- 2 Exit the test.

Disk Test/Clean

Warning—Potential Damage: This test destroys all data on the printer hard disk.

This test may run for approximately 1.5 hours depending on the disk size.

- 1 Enter the Diagnostics menu, and then navigate to:
DEVICE TESTS > Disk Test/Clean
You cannot cancel the test once it has started.
- 2 Exit the test.

Flash Test

This test examines the condition of the flash drive.

Warning—Potential Damage: This test destroys all data on the flash drive.

1 Enter the Diagnostics menu, and then navigate to:

Device Tests > Flash Test

You cannot cancel the test once it has started.

2 Exit the test.

3 Reformat the flash drive using the Flash Format setting in the Utilities menu.

PRINTER SETUP

Defaults

Warning—Potential Damage: Modifying printer setting defaults restores the NVRAM space to its factory settings.

This setting determines whether the printer uses the U.S. or Non-U.S. factory default value for the following settings:

Printer default values	U.S. value	Non-U.S. value
Paper Sizes setting in the General Settings menu	U.S.	Metric
Default Paper Size (paper feeding sources which do not have hardware size sensing capabilities)	Letter	A4
Default Envelope Size (envelope feeding sources which do not have hardware size sensing capability)	10 Envelope	DL Envelope
Fax Paper Size	Letter	A4
PCL Symbol Set	PC-8	PC-850
PPDS Code Page	437	850
Universal Units of Measure	Inches	Millimeters

1 Enter the Diagnostics menu, and then navigate to:

PRINTER SETUP > Defaults

2 Select a default value.

3 Apply the changes.

Printed Page Count

This setting gauges the amount of usage on the printer. The value of the Printed Page Count setting equals the value of the Picked Sides meter. After all print tests are completed, the value resets to zero.

Enter the Diagnostics menu, and then navigate to:

PRINTER SETUP > Printed Page Count

Note: The value of the setting cannot be changed manually.

Permanent Page Count (Perm page count)

This setting indicates the number of pages that are printed. After all print tests are completed, the value resets to zero.

Enter the Diagnostics menu, and then navigate to:

PRINTER SETUP > Perm Page Count

Note: The Permanent Page Count value cannot be reset.

Processor ID

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

Enter the Diagnostics menu, and then navigate to:

PRINTER SETUP > Processor ID

Edge to Edge

This setting shifts all four margins to the physical edges of the page. This feature does not work in PPDS emulation.

Enter the Diagnostics menu, and then navigate to:

PRINTER SETUP > Edge to Edge

Enable Edge to Edge Copy

This setting determines whether the printer accepts the ADF or flatbed edge erase value when performing an ADF or flatbed copy.

Enter the Diagnostics menu, and then navigate to:

PRINTER SETUP > Enable Edge to Edge Copy

Parallel Strobe Adjustment (Par 1 Strobe Adj)

This setting adjusts the factory default setting for how long the strobe is sampled to determine that valid data is available on the parallel port.

Each time the value increases by one, the strobe is sampled 50 nanoseconds longer than the default value. Each time the value decreases by one, the strobe is sampled 50 nanoseconds less than the default value. The range of values is between -4 and +6, in increments of one. A value of zero indicates that no change is made from the factory setting.

Enter the Diagnostics menu, and then navigate to:

PRINTER SETUP > Par 1 Strobe Adj

Reset Engine Service Error

This setting restores the engine to normal functioning mode after a fatal error occurs that places the engine into lockdown mode.

Enter the Diagnostics menu, and then navigate to:

PRINTER SETUP > Reset Engine Service Error

Restore Backup Data

This setting transfers the settings from the engine controller board to the printer controller board and vice versa.

Enter the Diagnostics menu, and then navigate to:

PRINTER SETUP > Restore Backup Data

Creating a backup data of the engine board setting after installing a new controller board

After installing a new controller board, select **Engine card to controller card** to create a backup copy of the existing engine board settings into the new controller board.

Restoring backup data when replacing the engine controller board

- 1** Before removing the old engine board, select **Engine card to controller card** to move the current engine settings into the controller board.
- 2** After installing the new engine board, select **Controller card to engine card** to move the engine board settings stored on the controller board to the new engine board.

Reset Fuser Counter

This setting resets the fuser counter to zero.

Note: This setting appears only if the **Maintenance Warning and Intervention** configuration ID bit is enabled.

Enter the Diagnostics menu, and then navigate to:

PRINTER SETUP > Reset Fuser Counter

REPORTS

Menu Settings Page

This report shows the Diagnostics menu settings and their current values.

Enter the Diagnostics menu, and then navigate to:

REPORTS > Menu Settings Page

Installed Licenses

This report shows the installed licenses and their features.

Enter the Diagnostics menu, and then navigate to:

REPORTS > Installed Licenses

EVENT LOG

Display Log

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

Enter the Diagnostics menu, and then navigate to:

EVENT LOG > Display Log

Print Log

This setting prints the various printer events.

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

Enter the Diagnostics menu, and then navigate to:

EVENT LOG > Print Log

Clear Log

This setting clears current information in the EVENT LOG.

1 Enter the Diagnostics menu, and then navigate to:

EVENT LOG > Clear Log

2 Select a setting.

3 Apply the changes.

Print Log Summary

This prints a summary of the printed event logs.

Enter the Diagnostics menu, and then navigate to:

EVENT LOG > Print Log Summary

SCANNER TESTS

ADF Front Magnification

This setting adjusts the ADF front magnification levels.

1 Enter the Diagnostics menu, and then navigate to:

SCANNER TESTS > ADF Front Magnification

2 Select **ADF Front Vertical Magnification** or **ADF Front Horizontal Magnification**.

3 Adjust the magnification setting, and then apply the changes.

ADF Back Magnification

This setting adjusts the ADF back magnification levels.

- 1 Enter the Diagnostics menu, and then navigate to:
SCANNER TESTS > ADF Back Magnification
- 2 Select **ADF Back Vertical Magnification** or **ADF Back Horizontal Magnification**.
- 3 Adjust the magnification setting, and then apply the changes.

FB Magnification

This setting adjusts the flatbed magnification levels.

- 1 Enter the Diagnostics menu, and then navigate to:
SCANNER TESTS > FB Magnification
- 2 Select **Flatbed Vertical Magnification** or **Flatbed Horizontal Magnification**.
- 3 Adjust the magnification setting, and then apply the changes.

ASIC Test

This setting scans the ASIC memory of the scanner.

Enter the Diagnostics menu, and then navigate to:

SCANNER TESTS > ASIC Test

Feed Test

This test allows for a continuous feed from the ADF or flatbed.

- 1 Enter the Diagnostics menu, and then navigate to:
SCANNER TESTS > Feed Test
- 2 Select a paper size, and then start the test.

Sensor Tests

These tests verify that the flatbed sensors and ADF scanner sensors are working properly.

- 1 Enter the Diagnostics menu, and then navigate to:
SCANNER TESTS > Sensor Tests

2 Select a sensor.

3 Manually toggle the sensor.

The status of the sensor toggles between **0** and **1** if the sensor is working properly.

Scanner Calibration Reset

Before starting the test, make sure that the scanner glass and backing material are clean.

1 Enter the Diagnostics menu, and then navigate to:

SCANNER TESTS > Scanner Calibration Reset

2 Select a setting.

3 Apply the changes.

To verify the result, do the following:

1 Load the ADF with a document containing light and dark content.

2 Print a two-sided copy of the document.

Notes:

- If the back side of the copy has vertical streaks, clean the scanner glass and backing material, and then print another copy.
- If the streaks still appear, then repeat the cleaning and verification procedure or replace the ADF.

Exit Diags

Select this setting to exit the Diagnostics Menu screen. The printer performs a POR, and then restarts in normal mode.

This menu appears as a soft button at the bottom right corner of the display.

Configuration Menu

Entering the Configuration menu

1 Turn off the printer.

2 Press and hold **2** and **6** while turning on the printer.

Release the buttons when the splash screen appears.

Hole Punch Configuration

The values in this setting determine which values appear in the Hole Punch Mode setting and which value is the default.

1 Enter the Configuration menu, and then select **Hole Punch Configuration**.

2 Select from the following options:

- **2/3-hole**—Only the 2 holes and 3 holes values appear. The 3 holes value is the default.
- **2/4-hole**—Only the 3 holes and 4 holes values appear. The 4 holes value is the default.
- **Swedish**—Only the 4 holes value appears.
- **Japanese**—Only the 2 holes value appears.

3 Apply the changes.

Reset Maintenance Counter

This setting resets the selected maintenance count value to zero.

- 1 Enter the Configuration menu, and then select **Reset Maintenance Counter**.
- 2 Select the maintenance kit to reset.

USB Scan to Local

This setting determines whether the USB device driver enumerates as a USB Simple device (single interface) or as a USB Composite device (multiple interfaces).

- 1 Enter the Configuration menu, and then select **USB Scan to Local**.
- 2 Select a setting.
- 3 Apply the changes.

Print Quality Pages

This setting prints a report that contains a limited set of the information that appears in the Diagnostics version of the Print Quality Pages report. See [“Print Quality Pages” on page 228](#).

Enter the Configuration menu, and then select **Print Quality Pages**.

Reports

Menu Settings Page

This report lists the Configuration menu settings and the value of each setting.

- 1 Enter the Configuration menu, and then navigate to:
Reports > Menu Settings Page
- 2 Return to the Configuration Menu screen.

Event Log

This setting prints a report of the detailed events in the print log. See [“Print Log” on page 241](#).

- 1 Enter the Configuration menu, and then navigate to:
Reports > Event Log
- 2 Return to the Configuration Menu screen.

SIZE SENSING

This setting controls whether the printer automatically registers the size of the paper loaded in a tray with a size-sensing mechanism.

Enter the Configuration menu, and then select **SIZE SENSING**.

Note: Due to engine limitations, trays 1 through 4 cannot simultaneously sense the following paper sizes:

- Oficio/Folio
- Statement/A5
- Executive/B5

The value of each setting determines which of the paper sizes the trays sense automatically. The values apply to all automatic trays except for the multipurpose feeder. The multipurpose feeder supports these paper sizes regardless of the value of this setting.

Tray Linking

This setting enables the printer to link automatically the trays that contain the same paper type and size.

- 1 Enter the Configuration menu, and then select **Tray Linking**.
- 2 Select a setting.
- 3 Apply the changes.

Panel Menus

This setting determines whether to enable access to the printer menus.

- 1 Enter the Configuration menu, and then select **Panel Menus**.
- 2 Select a setting.
- 3 Apply the changes.

PPDS Emulation

This setting determines if the printer can recognize and use the PPDS data stream.

- 1 Enter the Configuration menu, and then select **PPDS Emulation**.
- 2 Select a setting.
- 3 Apply the changes.

Download Emuls

This menu appears only if at least one download emulator (DLE) is installed. The default setting is Disable. All download emulators are automatically re-enabled after two PORs.

Enter the Configuration menu, and then select **Download Emuls**.

Safe Mode

When Safe Mode is enabled, the printer operates in a special limited mode with as much functionality as possible despite known issues. For more information about Safe Mode and the Safe Mode print behavior, see [“Entering Safe Mode \(EverReady Mode\)” on page 252](#).

- 1 Enter the Configuration menu, and then select **Safe Mode**.
- 2 Select a setting, and then apply the changes.

- 3 Reset the printer.

Energy Conserve

This setting controls which values appear on the Power Saver menu.

- 1 Enter the Configuration menu, and then select **Energy Conserve**.
- 2 Select a setting.
- 3 Apply the changes.

Fax Low Power Support

This setting allows you to select the power settings for fax.

- **Auto**—Determines whether the printer supports the fax portion of the low power architecture
- **Permit Sleep**—Allows the fax chip to enter the low power mode
- **Disable Sleep**—Does not allow the fax chip to enter the low power mode

- 1 Enter the Configuration menu, and then select **Fax Low Power Support**.
- 2 Select a setting.
- 3 Apply the changes.

Min Copy Memory

This setting determines how much DRAM is allowed to be stored in the priority queue for copy jobs.

Note: The values appear only if the amount of installed DRAM is at least twice the amount of the value.

- 1 Enter the Configuration menu, and then select **Min Copy Memory**.
- 2 Select a setting.
- 3 Apply the changes.

NumPad Job Assist

This setting determines if you can configure and initiate a job using the hard buttons of the control panel.

- 1 Enter the Configuration menu, and then select **NumPad Job Assist**.
- 2 Select a setting.
- 3 Apply the changes.

Format Fax Storage

This setting enables you to format the non-volatile storage for faxes.

- 1 Enter the Configuration menu, and then select **Format Fax Storage**.

Note: If an advanced password has been established, then enter the password to change the setting. If no advanced password exists, then establish one by using the keyboard that appears on the screen.

- 2 Apply the changes.

Fax Storage Location

This setting allows you to store faxes on the hard disk or NAND.

Note: This setting appears only if a hard disk is installed. The printer automatically stores all buffered faxes on NAND when no hard disk is installed.

- 1 Enter the Configuration menu, and then select **Fax Storage Location**.
- 2 Select a setting.
- 3 Apply the changes.

ADF Edge Erase

This setting sets the size of the no-print area around an ADF scan job.

- 1 Enter the Configuration menu, and then select **ADF Edge Erase**.
- 2 Select a setting.
- 3 Apply the changes.

FB Edge Erase

This setting sets the size of the no-print area around a flatbed scan job.

- 1 Enter the Configuration menu, and then select **FB Edge Erase**.
- 2 Select a setting.
- 3 Apply the changes.

Scanner Manual Registration

Use this setting to register the flatbed and ADF on the scanner. Perform a registration adjustment whenever the ADF, flatbed, or controller board is replaced.

Note: This setting does not appear if the Disable Scanner setting is set to Auto Disabled.

Enter the Configuration menu, and then select **Scanner Manual Registration**.

For more information on adjusting the scanner registration, see [“ADF registration adjustment” on page 273](#) and [“Flatbed registration adjustment” on page 275](#).

Disable Scanner

Use this setting to disable the scanner if it is not working properly.

- 1 Enter the Configuration menu, and then select **Disable Scanner**.
- 2 Select a setting, and then apply the changes.
- 3 Reset the printer.

Paper Prompts

This setting determines the input source to which the printer directs a paper change prompt.

Note: The value of [“Action for Prompts” on page 248](#) may override the value of this setting.

- 1 Enter the Configuration menu, and then select **Paper Prompts**.
- 2 Select a setting.
- 3 Apply the changes.

Envelope Prompts

This setting determines the input source to which the printer directs an envelope change prompt.

Note: The value of [“Action for Prompts” on page 248](#) may override the value of this setting.

- 1 Enter the Configuration menu, and then select **Envelope Prompts**.
- 2 Select a setting.
- 3 Apply the changes.

Action for Prompts

This gives you the option to allow the printer to resolve change prompt situations without requiring any user assistance.

- 1 Enter the Configuration menu, and then select **Action for Prompts**.
- 2 Select a setting.
- 3 Apply the changes.

Jobs on Disk

This setting allows you to delete buffered jobs from the printer hard disk.

- 1 Enter the Configuration menu, and then select **Jobs on Disk**.
- 2 Select a setting.
- 3 Apply the changes.

Disk Encryption

This setting controls whether the printer encrypts the information that it writes on the hard disk.

- 1 Enter the Configuration menu, and then select **Disk Encryption**.
- 2 Select a setting.
- 3 Apply the changes.

Font Sharpening

This setting sets a text point-size value below which the high-frequency screens are used when printing font data.

- 1 Enter the Configuration menu, and then select **Font Sharpening**.
- 2 Select a setting.
- 3 Apply the changes.

Require Standby

This setting allows you to enable the Standby Mode.

- 1 Enter the Configuration menu, and then select **Require Standby**.
- 2 Select a setting.
- 3 Apply the changes.

UI Automation

This setting allows external developers to measure the stability of their applications by performing their own automated testing against the printer.

- 1 Enter the Configuration menu, and then select **UI Automation**.
- 2 Select a setting.
- 3 Apply the changes.

LES Applications

This setting allows you to enable the Lexmark Embedded Solutions (LES) applications. This setting does not affect built-in applications.

- 1 Enter the Configuration menu, and then select **LES Applications**.
- 2 Select a setting.
- 3 Apply the changes.

Key Repeat Initial Delay

This setting determines the length of delay before a repeating key starts repeating.

- 1 Enter the Configuration menu, and then select **Key Repeat Initial Delay**.
- 2 Select a setting.
- 3 Apply the changes.

Key Repeat Rate

This setting indicates the number of presses per second for a repeating key.

- 1 Enter the Configuration menu, and then select **Key Repeat Rate**.
- 2 Select a setting.
- 3 Apply the changes.

Clear Supply Usage History

This setting reverts the supply usage history (number of pages and days remaining) to its factory default settings.

- 1 Enter the Configuration menu, and then select **Clear Supply Usage History**.
- 2 Apply the changes.

Clear Custom Status

This setting erases the defined strings for the default or alternate custom messages.

- 1 Enter the Configuration menu, and then select **Clear Custom Status**.
- 2 Apply the changes.

USB Speed

This setting determines the throughput of the USB port on the printer.

- 1 Enter the Configuration menu, and then select **USB Speed**.
- 2 Select a setting.
- 3 Apply the changes.

Automatically Display Error Screens

This setting allows the automatic display of existing printer-related messages on the home screen after the printer remains inactive.

- 1 Enter the Configuration menu, and then select **Automatically Display Error Screens**.
- 2 Select a setting.
- 3 Apply the changes.

Restore factory defaults

Restore Settings

This setting restores the printer to its network or base settings

- 1 Enter the Configuration menu, and then navigate to:
Restore Factory Defaults > Restore Settings
- 2 Select a setting.
- 3 Apply the changes.

Erase Printer Memory

This setting makes any sensitive information on the volatile or non-volatile storage of the printer completely indecipherable.

Enter the Configuration menu, and then navigate to **Restore Factory Defaults > Erase Printer Memory**.

Erase Hard Disk

This setting performs a disk wipe operation and erases all data.

Note: Do not reset the printer while a disk wipe operation is going on to avoid corrupting the disk.

- 1 Enter the Configuration menu, and then navigate to:
Restore Factory Defaults > Erase Hard Disk
- 2 Select any of the following:
 - **Single Pass Erase** overwrites all data and the file system. This wipe is faster but less secure since it is possible to retrieve the deleted data with forensic data-retrieval techniques.
 - **Multiple Pass Erase** overwrites all data without rewriting the file system. This wipe is DoD 5220.22-M compliant since the deleted data is irretrievable.
- 3 Apply the changes.

Out of Service Erase

This setting clears the settings, apps, jobs, and faxes on the printer memory and all content on the hard disk.

- 1 Enter the Configuration menu, and then navigate to:
Restore Factory Defaults > Out of Service Erase
- 2 Select a setting.
- 3 Apply the changes.

Exit Config

Select this menu to exit the Configuration Menu screen. The printer performs a POR, and then restarts in normal mode.

This menu appears as a soft button at the bottom right corner of the display.

Entering Invalid engine mode

This mode allows the printer to load the correct firmware code.

- 1 Turn off the printer.
- 2 From the control panel, press and hold the **3**, **4**, and **6** while turning on the printer.
- 3 Release the buttons after 10 seconds.

Entering Recovery Mode

This mode allows the printer to receive firmware updates using a USB connection.

- 1 Turn off the printer.
- 2 Press and hold **7** and **8** while turning on the printer.
- 3 Release the buttons after 10 seconds.

Entering Safe Mode (EverReady Mode)

This mode enables the printer to temporarily offer minimal print capabilities.

- 1 Turn off the printer.
- 2 Press and hold **7** and **6** while turning on the printer.
- 3 Release the buttons after 10 seconds.

Accessing the Network SE Menu

This menu contains settings for fine tuning the communication settings for the network interfaces and protocols.

- 1 Navigate to:
Networks/Ports > Standard Network > Standard Network Setup
- 2 Press and hold **6**, **7**, and **9**.

Service Engineer menu

Accessing the Service Engineer (SE) Menu

From a Web browser on a host computer, add `/se` to the printer IP address.

Service Engineer (SE) Menu

Use this menu as directed by the next level of support.

Top level menu	Intermediate menu
Print SE Menus	--
General	Copyright
Code Revision Info	<ul style="list-style-type: none"> • Network Code Level • Network Compile Info • Printer Code Level • Printer Compile Info
History	<ul style="list-style-type: none"> • Print History • Mark History • History Mode
MAC	<ul style="list-style-type: none"> • Set Card Speed • LAA • Keep Alive
NVRAM	<ul style="list-style-type: none"> • Dump NVRAM • Reinit NVRAM
TCP/IP	<ul style="list-style-type: none"> • netstat-r • arp-a • Allow SNMP Set • MTU • Meditech Mode • RAW LPR Mode • Gather Debug • Enable Debug


Fax Service Engineer (SE) Menu

Use this menu for the fax transmission and fax reception service checks. Use this menu as directed by the next level of support.

In Ready mode, type ****411** to enter the Fax SE Menu.

Parts removal

Removal precautions

 **CAUTION—SHOCK HAZARD:** For personal safety and to prevent damage to the printer, remove the power cord from the electrical outlet before you connect or disconnect any cable, electronic board, or assembly. Disconnect any connections between the printer and the computer or peripherals.

Data security notice

- 1 The printer contains various types of memory that store printer and network settings, information from embedded solutions, and user data.

The following are the types of memory and data that they store.

- **Volatile memory**—The printer uses standard random access memory (RAM) to buffer user data temporarily during simple print and copy jobs.
- **Non-volatile memory**—The printer may use two forms of non-volatile memory: EEPROM and NAND (flash memory). Both types are used to store the operating system, printer settings, network information, scanner and bookmark settings, and embedded solutions.
- **Hard disk memory**—The printer hard disk is designed for device-specific functionality and cannot be used for the long-term storage of data that is not print-related. The hard disk can retain buffered user data from complex print jobs, form data, and font data.

To erase volatile memory, turn off the printer.

To erase the non-volatile and printer hard disk memory, see [“Configuration Menu” on page 243](#).

The following parts are capable of storing memory:

- Printer control panel
- User interface controller card (UICC)
- Controller board
- Optional hard disk

Note: The control panel and controller board contain NVRAM.

- 2 After removing the old part, return it to your next level of support.

Handling ESD-sensitive parts

Many electronic products use parts that are known to be sensitive to electrostatic discharge (ESD). To prevent damage to ESD-sensitive parts, do the following:

- Turn off the printer before removing logic boards.
- Keep the parts in their original packing material until you are ready to install them into the printer.
- Make the least possible movements with your body to prevent an increase of static electricity from clothing fibers, carpets, and furniture.
- Put the ESD wrist strap on your wrist. Connect the wrist band to the system ground point. This action discharges any static electricity in your body to the printer.
- Hold the parts by their edge connector shroud. Do not touch its pins. If you are removing a pluggable module, then use the correct tool.

- If possible, keep all parts in a grounded metal cabinet.
- Do not place the parts on the printer cover or on a metal table. If you need to put down the parts, then put them into their packing material.
- Prevent parts from being accidentally touched by other personnel. Cover the printer when you are not working on it.
- Be careful while working with the parts when cold-weather heating is used. Low humidity increases static electricity.

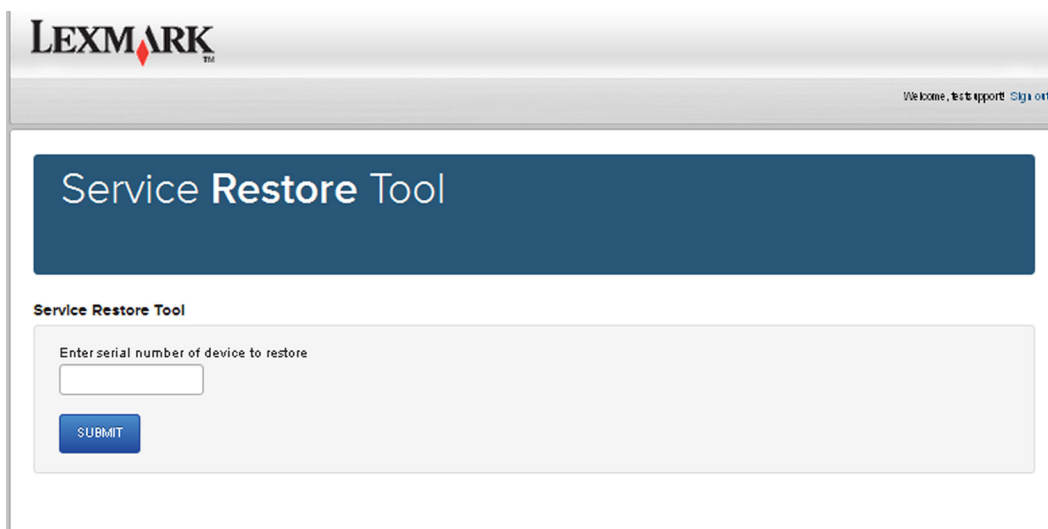
Restoring the printer configuration after replacing the controller board

Restore the printer to its correct configuration to complete the replacement service. Use the Service Restore Tool to download the software bundle, and then flash the printer settings and embedded solutions.

Note: The software bundle contains the latest version of the firmware, applications, and software licenses from the Lexmark Virtual Solutions Center (VSC). The printer firmware may be at a different level from what was used before replacing the controller board.

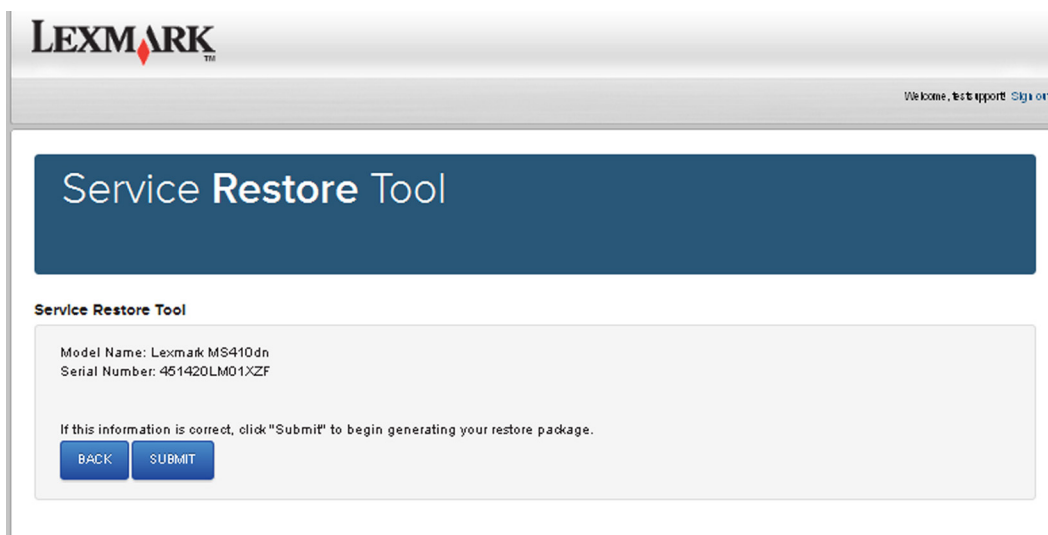
Using the Service Restore Tool

- 1 Go to <https://cdp.lexmark.com/service-restore-tool/> to access the tool.
- 2 Log in using your Lexmark or partner login.
If your login fails, then contact your next level of support.
- 3 Enter the printer serial number, and then submit the information.



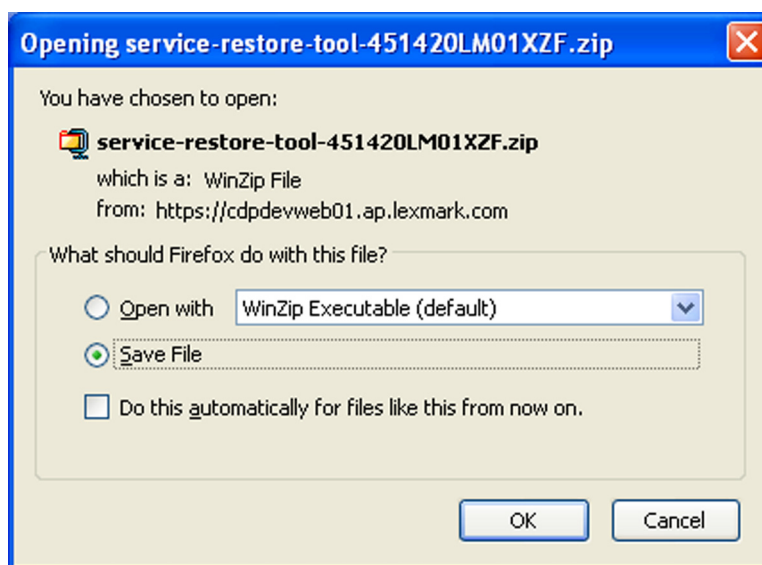
The screenshot shows the Lexmark Service Restore Tool web interface. At the top left is the Lexmark logo. At the top right, it says "Welcome, test support" with a "Sign out" link. The main heading is "Service Restore Tool". Below this, there is a section titled "Service Restore Tool" containing a form. The form has a label "Enter serial number of device to restore" above a text input field. Below the input field is a blue "SUBMIT" button.

Note: Make sure that the serial number that appears on the verification screen is correct.



4 Save the zip file.

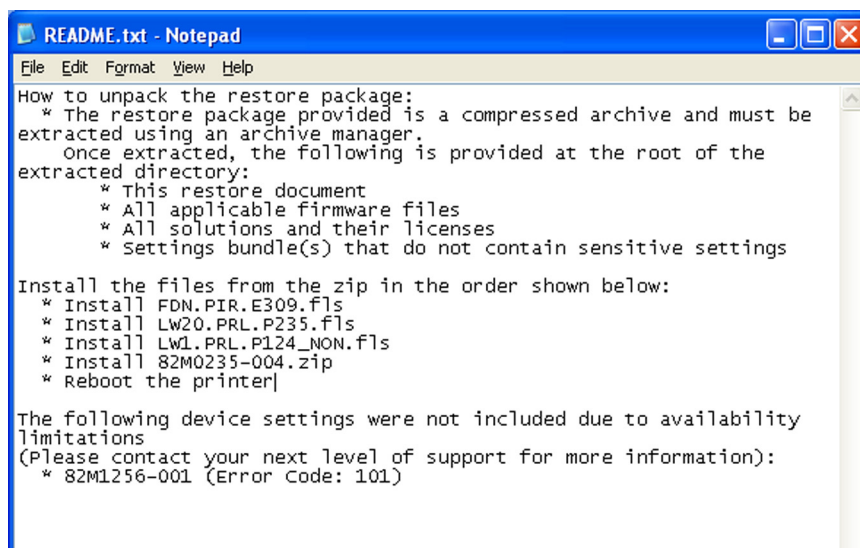
Note: Make sure that the serial number in the zip file matches the serial number of the printer being restored.



5 Extract the contents of the zip file, open the *Readme* file, and then follow the instructions in the file.

Notes:

- Perform the install instructions on the *Readme* file in the exact order shown. Restart the printer only if the file says so.
- For more information on how to flash the downloaded files, see [“Updating the printer firmware” on page 260](#).
- To load the zip files that are extracted from the Service Restore Tool, see [“Restoring solutions, licenses, and configuration settings” on page 259](#).



```
README.txt - Notepad
File Edit Format View Help
How to unpack the restore package:
* The restore package provided is a compressed archive and must be
extracted using an archive manager.
  once extracted, the following is provided at the root of the
  extracted directory:
    * This restore document
    * All applicable firmware files
    * All solutions and their licenses
    * Settings bundle(s) that do not contain sensitive settings

Install the files from the zip in the order shown below:
* Install FDN.PIR.E309.fls
* Install Lw20.PRL.P235.fls
* Install Lw1.PRL.P124_NON.fls
* Install 82M0235-004.zip
* Reboot the printer]

The following device settings were not included due to availability
limitations
(Please contact your next level of support for more information):
* 82M1256-001 (Error Code: 101)
```

- 6 After performing the installation instructions in the *Readme* file, confirm from the customer if all the eSF apps have been installed.

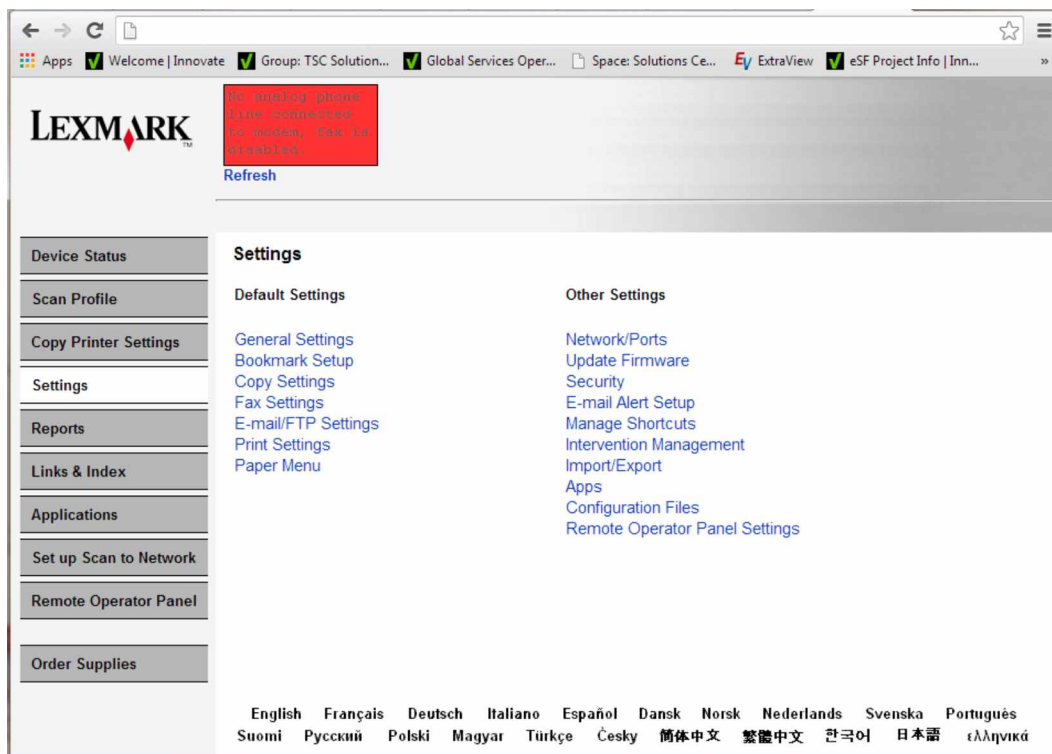
Notes:

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

Restoring solutions, licenses, and configuration settings

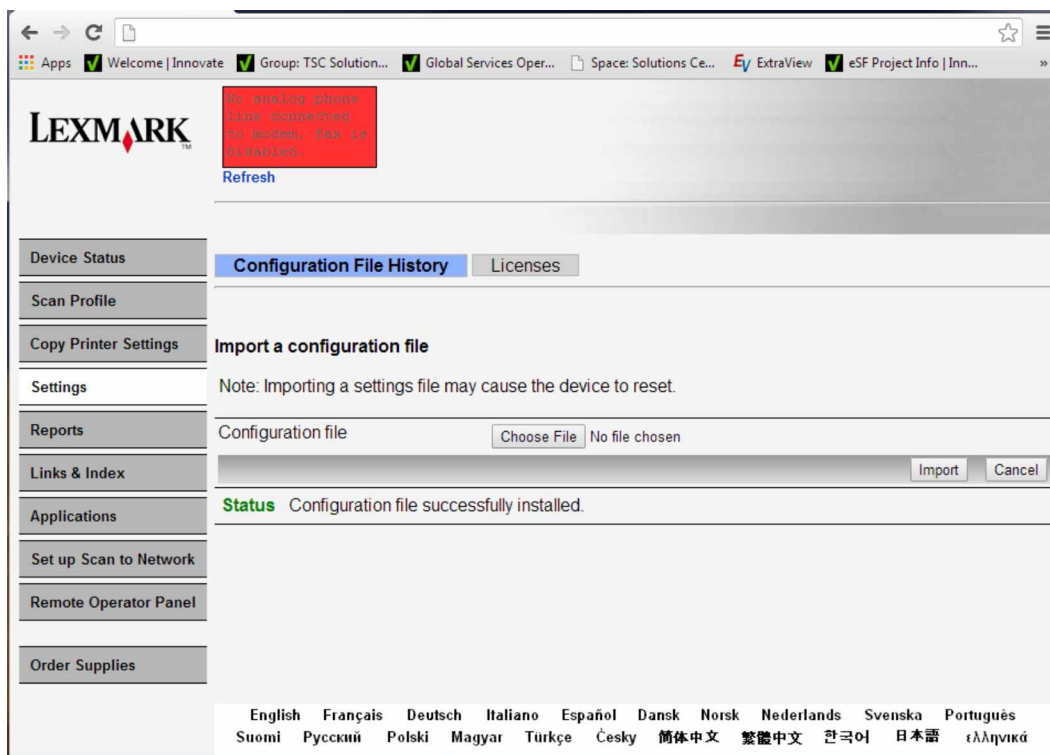
To load the zip files that are extracted from the Service Restore Tool, do the following:

- 1 Open a Web browser, and then type the printer IP address.
- 2 Navigate to **Settings > Configuration Files**.



- 3 From the Configuration File History tab, navigate to **Import > Choose File**.
- 4 Select the zip file from the expanded Service Restore Tool package.

5 Click **Import**.



6 Repeat steps 3 through 5 for the other zip files that are included in the expanded zip file.

Updating the printer firmware

Warning—Potential Damage: Before updating the printer firmware, ask the next level of support for the correct code. Using an incorrect code level may damage the printer.

The printer must be in ready state in order to update the firmware.

Using a flash drive

This option is available only in printer models with front USB port.

Make sure to enable the Enable Drive and Update Code settings. You can find the settings in the Flash drive menu under the Settings menu.

- 1 Insert the flash drive into the USB port.
- 2 From the control panel, navigate to **USB Menu: Print from USB > Accept** or **OK**.
- 3 Select the file that you need to flash.

Note: Do not turn off the printer while the update is going on.

Using a network computer

Using the File Transfer Protocol (FTP)

Make sure that the printer is in ready state before flashing the printer.

- 1 Turn on the printer.
- 2 Obtain the IP address:
 - From the home screen
 - From the TCP/IP section of the Network/Ports menu
- 3 From the command prompt of a network computer, open an FTP session to the printer IP address.
- 4 Use a PUT command to place the firmware file on the printer.
The printer performs a POR sequence and terminates the FTP session.
- 5 Repeat step 2 through step 4 for the other files.

Using the Embedded Web Server

Make sure that the printer is in ready state before flashing the printer.

- 1 Open a web browser, and then type the printer IP address.
- 2 From the home page, navigate to **Configuration > Update Firmware**.
- 3 Select the file to use.
The printer performs a POR sequence and terminates the FTP session.
- 4 Repeat step 2 through step 4 for the other files.

Backing up eSF solutions and settings

Note: Export the eSF solutions and settings from the printer before replacing the controller board.

Exporting eSF solutions and settings file

- 1 Reset the printer into Invalid engine mode. See [“Entering Invalid engine mode” on page 252](#).
- 2 Open a web browser, and then type the printer IP address.
Note: If the web page cannot be accessed or an error occurs when starting the printer into Invalid engine mode, then data backup is not an option. Inform the customer that the data cannot be saved.
- 3 Navigate to **Settings > Solutions > Embedded Solutions**.
- 4 From the Embedded Solutions page, select the applications that you want to export.
- 5 Click **Export**.
Note: The size limit of the export file is 128 KB.

Importing eSF solutions and settings file

After replacing the controller board, import back to the printer the eSF solutions and settings that were exported.

- 1 Reset the printer into Invalid engine mode. See [“Entering Invalid engine mode” on page 252](#).
- 2 Open a web browser, and then type the printer IP address.

Note: If the web page cannot be accessed or an error occurs when starting the printer into Invalid engine mode, then data backup is not an option. Inform the customer that the data cannot be saved.
- 3 Navigate to **Settings > Solutions > Embedded Solutions**.
- 4 From the Embedded Solutions page, select the applications that you want to import.
- 5 Click **Import**.

Understanding the marked or colored screws

Some parts are secured by screws that are specially marked or colored.

- **Blue or green**—These screws may loosen due to vibrations and loads during use or transport.
- **Red**—These screws secure parts that are difficult to install, adjust, or align. Do not remove or loosen the parts with red screws unless the parts are defective.

Note: In some cases, the part is secured by multiple screws but only one screw is marked in red. This part should not also be removed or loosened unnecessarily.

Ribbon cable connectors

Zero Insertion Force (ZIF) connectors

These connectors are used on the boards and cards that are installed in the printer.

To avoid damaging the connectors and their cables, observe the following:

- Do not insert the cables where the contacts are facing the locking actuator.
- Do not insert the cables diagonally into the ZIF socket.
- Avoid using a fingernail or sharp object to open the locking actuator.
- Avoid pressing against the cables when opening the locking actuator.

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

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

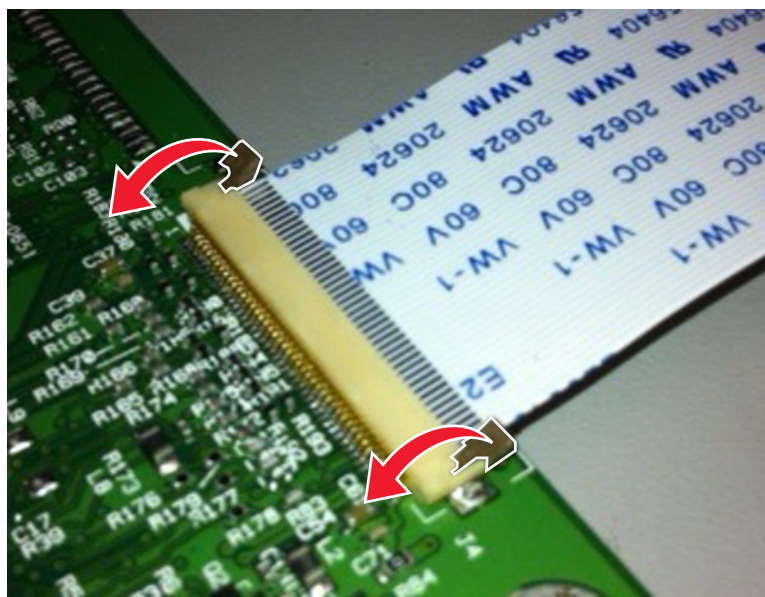
Horizontal top contact connector

This connector uses a back flip locking actuator to lock the ribbon cable into the ZIF connector.

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

Removing the cable

- 1 Unlock the actuator.



- 2 Remove the cable.

Inserting the cable

Make sure that the actuator is unlocked before installing the cable. The tabs are vertical when the actuator is locked.

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

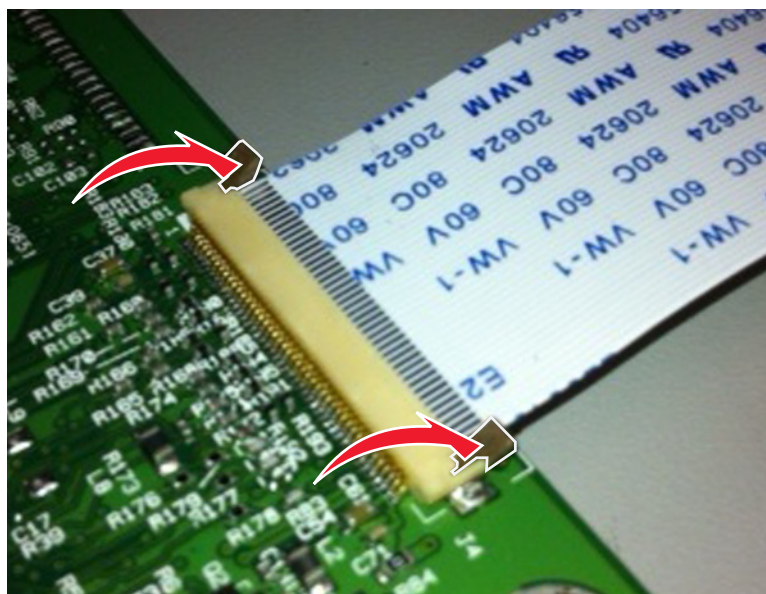
Note: Make sure that the cable is installed squarely into the connector to avoid intermittent failures.



2 Rotate the locking actuator to the locked position.

Notes:

- Do not move the cable while locking the actuator.
- If the cable moves, open the actuator, reposition the cable, and then close the actuator.



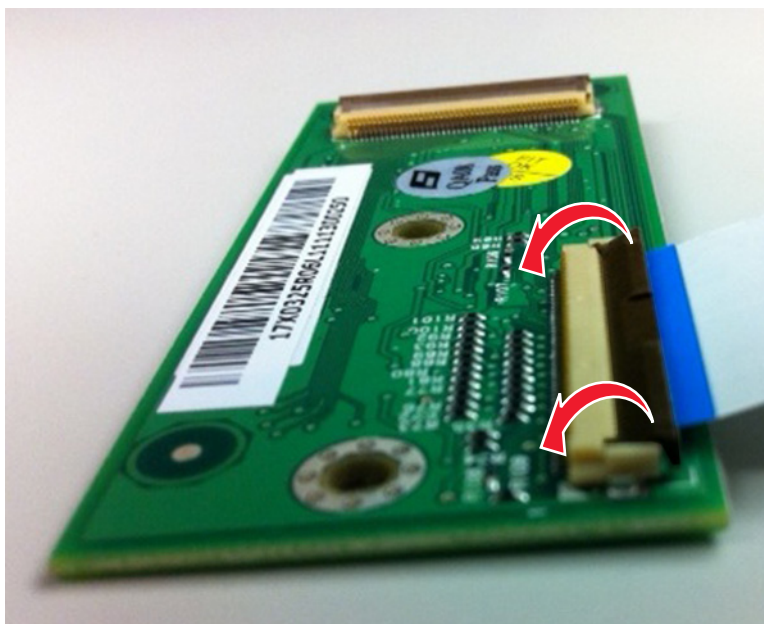
Horizontal bottom contact connector

This connector uses a flip locking actuator to lock the ribbon cable into the ZIF connector.

Warning—Potential Damage: When opening or closing this type of actuator, gently lift the center of the actuator using your finger. Do not use a fingernail or screwdriver to open the actuator to avoid damaging the ribbon cable. Do not close the actuator from its ends.

Removing the cable

- 1 Unlock the actuator.



- 2 Remove the cable.

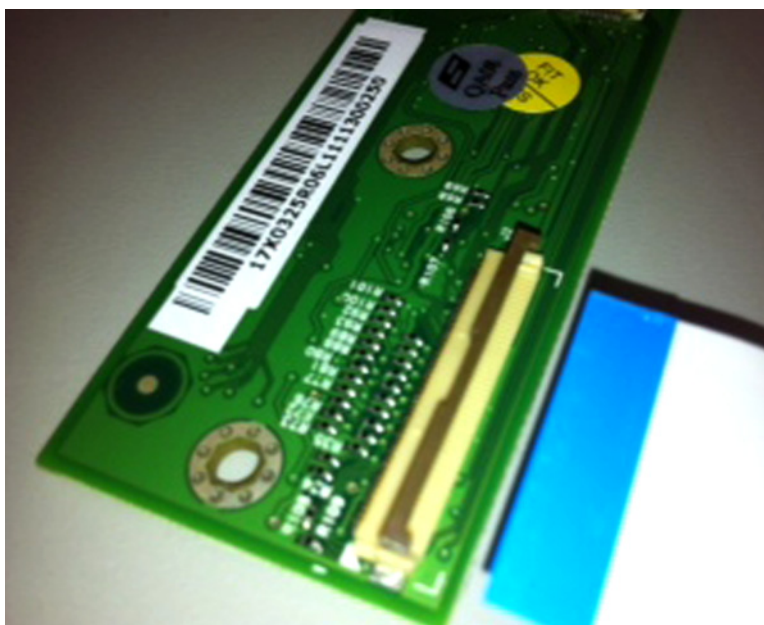
Inserting the cable

- 1 Make sure that the actuator is in the open position.

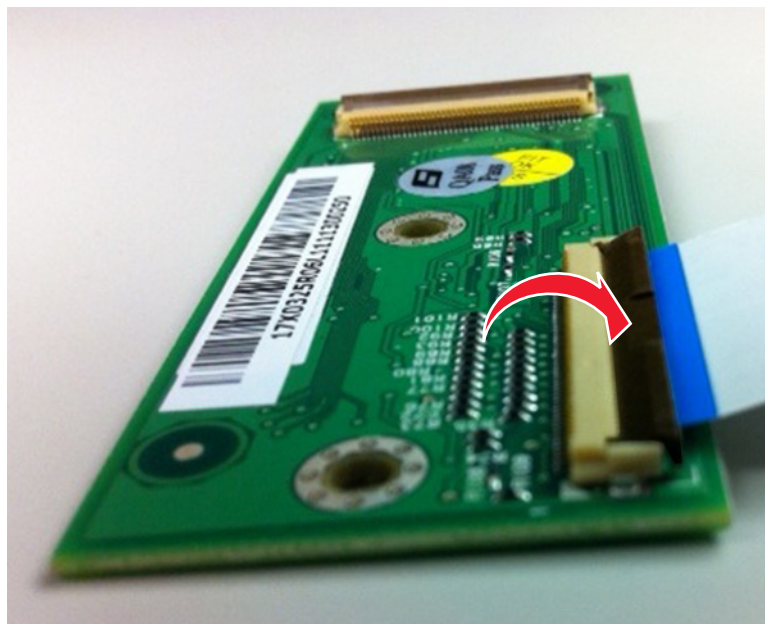


- 2 Insert the cable below the actuator with the contacts facing downward and away from the locking actuator.

Note: Make sure that the cable is installed squarely into the connector to avoid intermittent failures.



- 3 Rotate the locking actuator to the locked position.



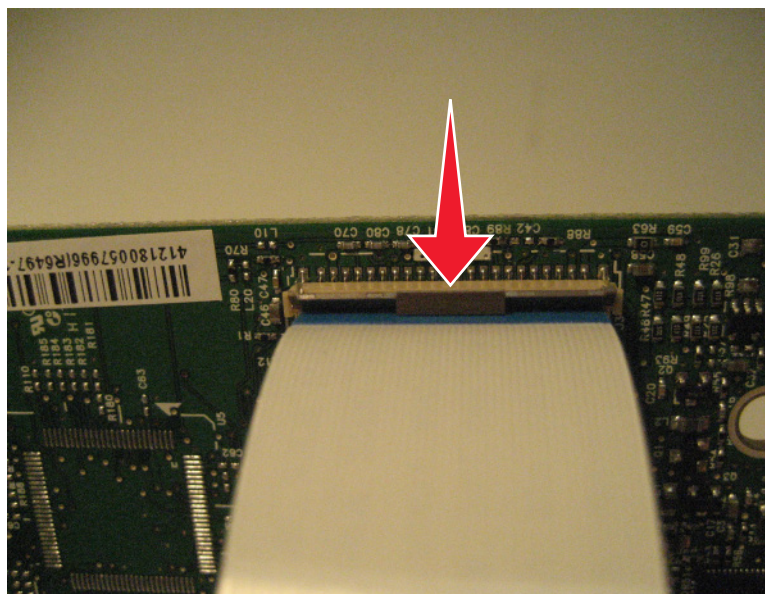
Vertical mount contact connector

This connector uses a back flip locking actuator to lock the ribbon cable into the ZIF connector.

Warning—Potential Damage: When opening or closing this type of actuator, gently lift the center of the actuator using your finger. Do not use a fingernail or screwdriver to open the actuator to avoid damaging the ribbon cable. Do not close the actuator from its ends.

Removing the cable

- 1 Rotate the locking actuator from the center of the actuator to the unlocked position.



- 2 Remove the cable.

Inserting the cable

- 1 Make sure that the locking actuator is in the open position.



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

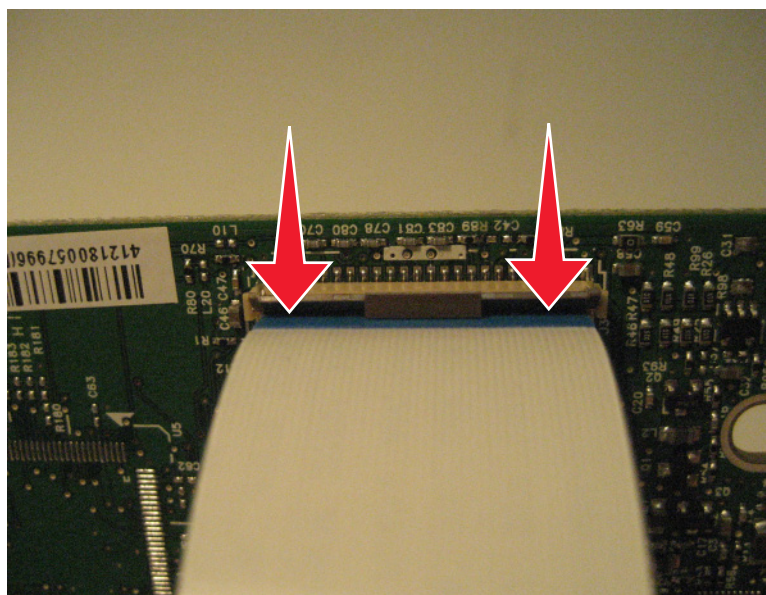
Note: Make sure that the cable is installed squarely into the connector to avoid intermittent failures.



- 3 Rotate the locking actuator to the locked position.

Notes:

- Do not move the cable while locking the actuator.
- If the cable moves, open the actuator, reposition the cable, and then close the actuator.



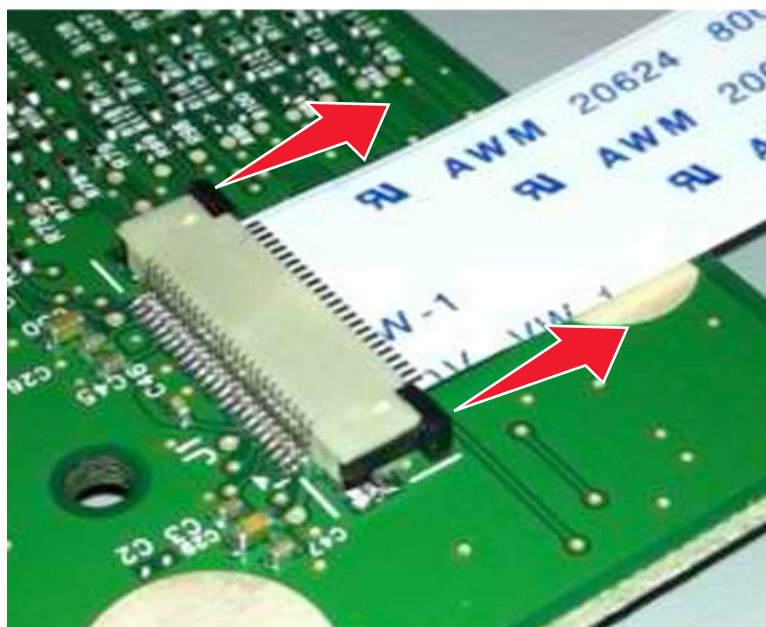
Horizontal sliding contact connector

This connector uses a slide locking actuator to lock the ribbon cable into the ZIF connector.

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

Removing the cable

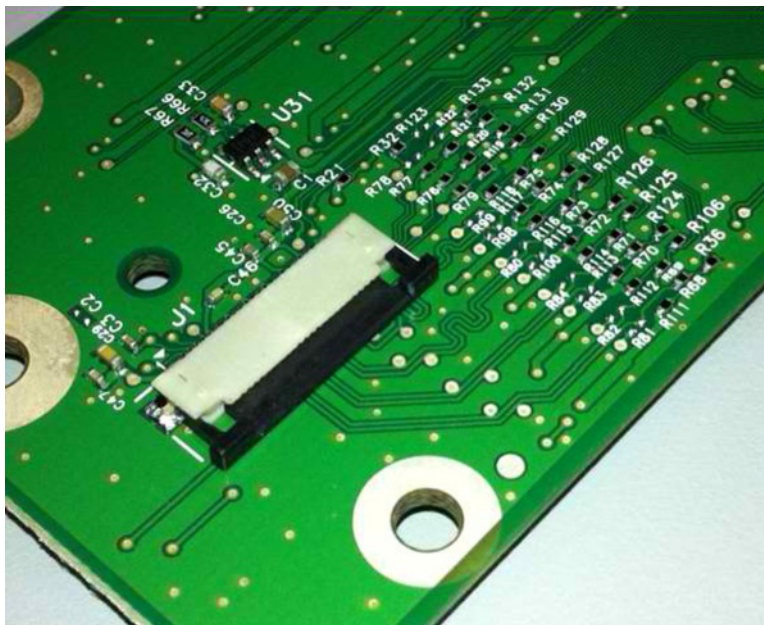
- 1 Slide the tabs away from the connector.



- 2 Remove the cable.

Inserting the cable

- 1 Make sure that the locking actuator is in the open position. If you are opening the connector, then pull back the end tabs using equal force to avoid breaking the connector.



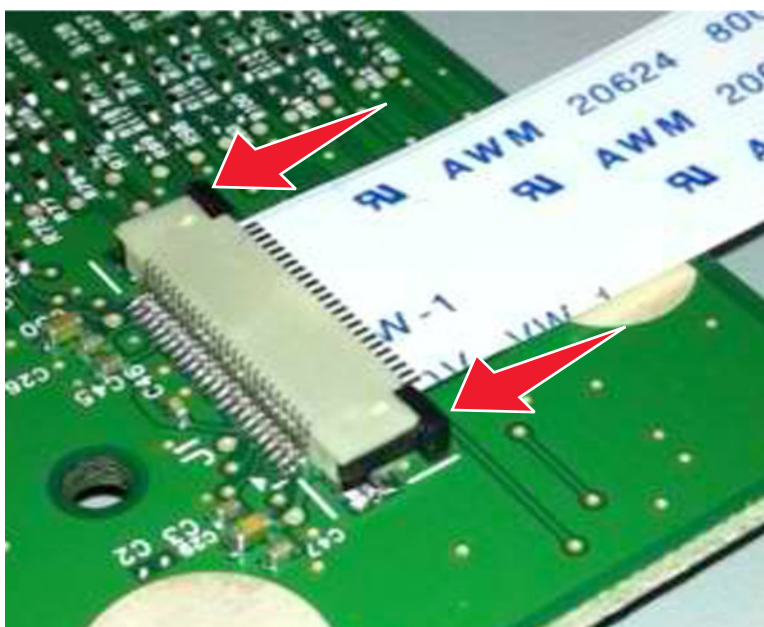
- 2 Insert the cable on top of the actuator with the contacts facing away from the locking actuator.



- 3 Slide the locking actuator toward the connector to lock the cable.

Notes:

- Do not move the cable while locking the actuator.
- If the cable moves, open the actuator, reposition the cable, and then close the actuator.

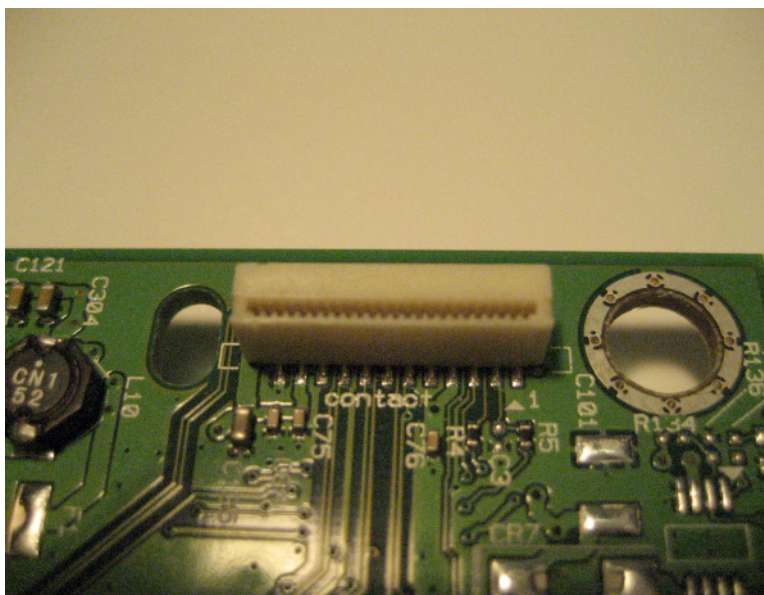


Low insertion force (LIF) connector

Warning—Potential Damage: When installing a cable into an LIF connector, avoid bending the edges of the cables and damaging the contacts on the cables.

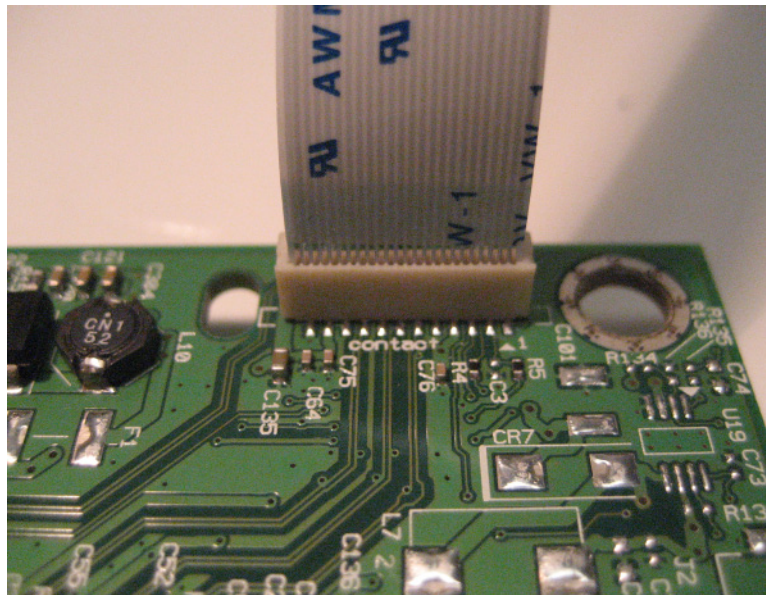
Inserting the cable

- 1 Make sure that the contacts of the controller board and connectors are on the same side.



- 2 Insert the cable.

Note: Make sure that the cable is installed straight into the connector to avoid intermittent failures.

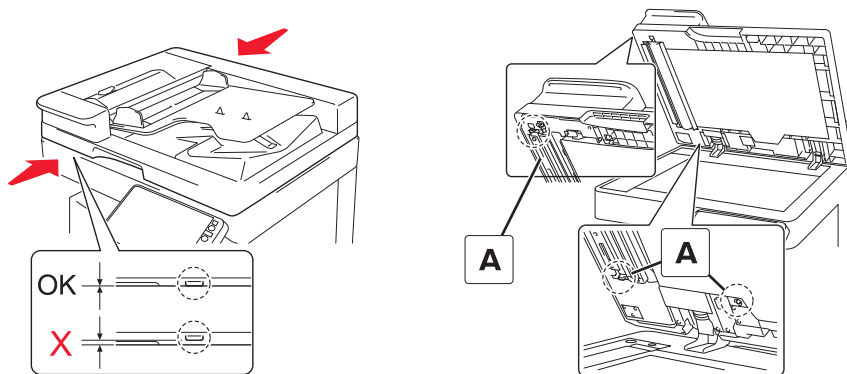


Adjustments

ADF height adjustment

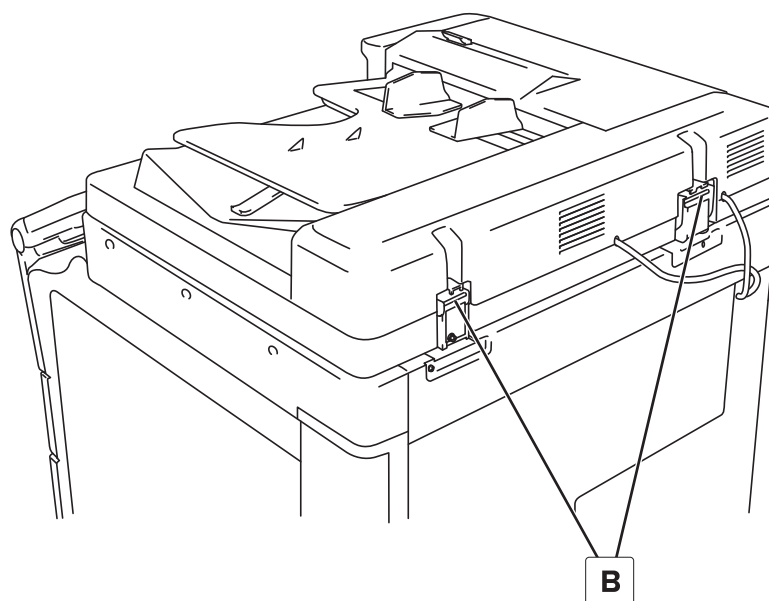
Jams may occur when clearance between the ADF and flatbed scanner is too low. Image quality issues may also occur when the clearance is too high. Perform this step to correct the clearance between the ADF and flatbed scanner or when replacing the ADF assembly.

- 1 Check the clearance between the flatbed scanner and the protrusions (A) on the ADF side.



Note: Make sure that the protrusion on the ADF and flatbed scanner has no clearance.

- 2 If clearance is found, turn the two adjustment screws (B) clockwise or counterclockwise to lift or lower the rear side.



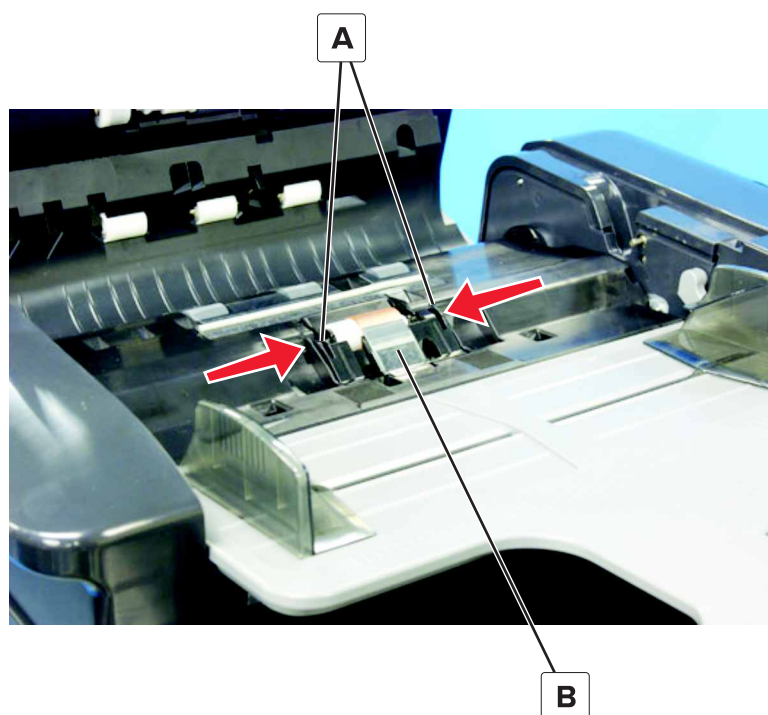
ADF registration adjustment

- 1 Enter the Configuration Menu, and then navigate to:
Scanner Manual Registration > Print Quick Test
- 2 Place the Quick Tests page on the ADF and then select **Copy Quick Test**.
Do this step to view the current ADF registration values.
- 3 Select from the following options:
 - **ADF**—This setting adjusts the ADF registration of a simplex scanner.
 - **ADF Front**—This setting adjusts the ADF front side registration of a duplex scanner.
 - **ADF Back**—This setting adjusts the ADF back side registration of a duplex scanner.
 The current values of the horizontal adjust and top margin registration settings appear.
- 4 Adjust the value of the horizontal adjust and top margin settings.
- 5 Apply the changes.
- 6 Repeat step 2 to view the updated values.
- 7 Repeat steps 3 through 5 to make further adjustments.

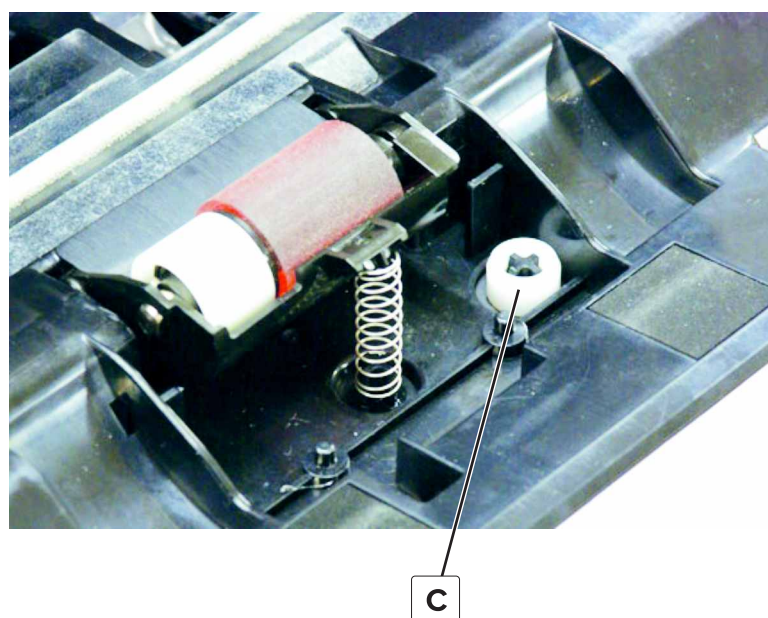
ADF separator roller pressure adjustment

Jams may occur if the improper level of pressure is applied in feeding thin paper. Perform this step to increase or decrease the ADF separator roller pressure.

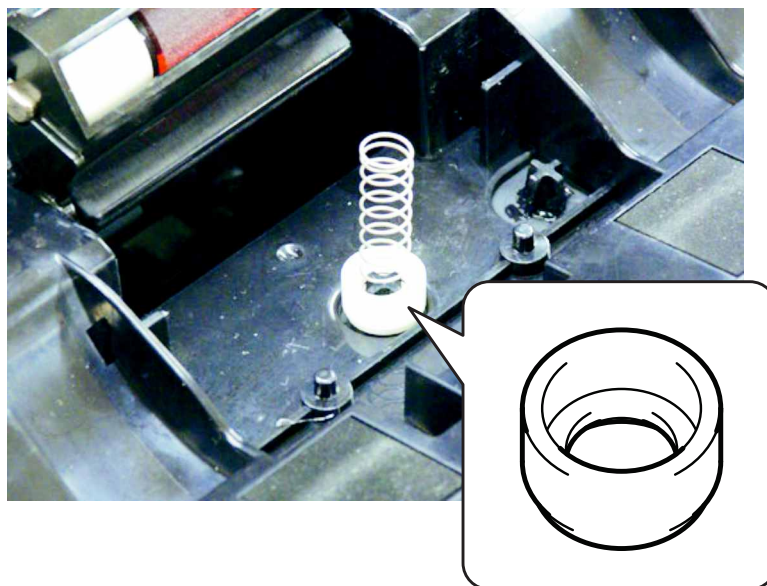
- 1 Open the ADF door.
- 2 Grip both sides of the ADF separator pad (A), and then remove the cover (B).



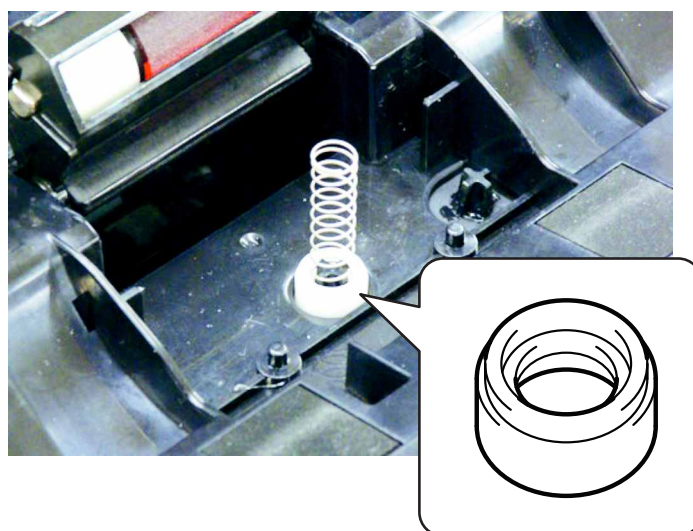
- 3 Remove the spacer (C).



- 4 Set the spacer on the lower part of the spring with its deeper groove facing up.



- 5 If the spring force is not enough, set the spacer on the lower part of the spring with its shallow groove facing up.



Flatbed registration adjustment

- 1 Enter the Configuration Menu, and then navigate to:
Scanner Manual Registration > Print Quick Test
- 2 Remove all the pages from the ADF, place the Quick Test page on the flatbed, and then select **Copy Quick Test**.

Do this step to view the current flatbed registration values.

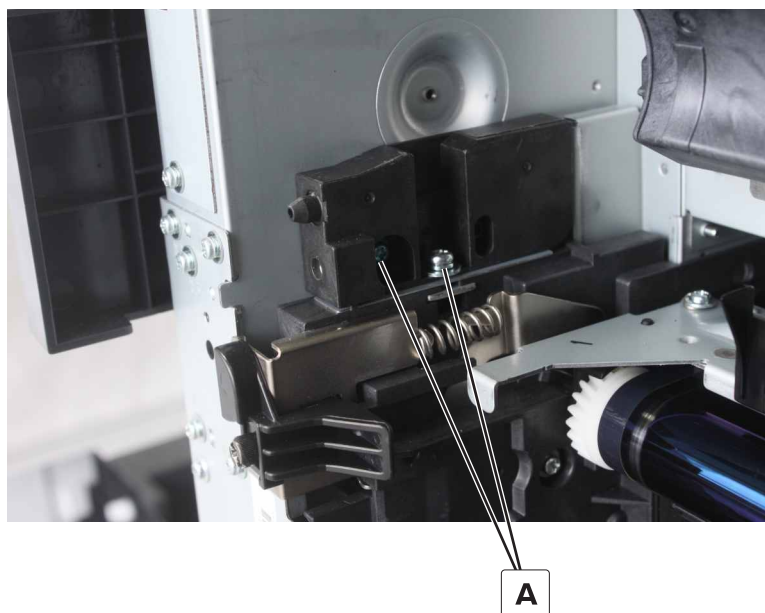
3 Select **Flatbed**.

The current values of the left margin and right margin registration settings appear.

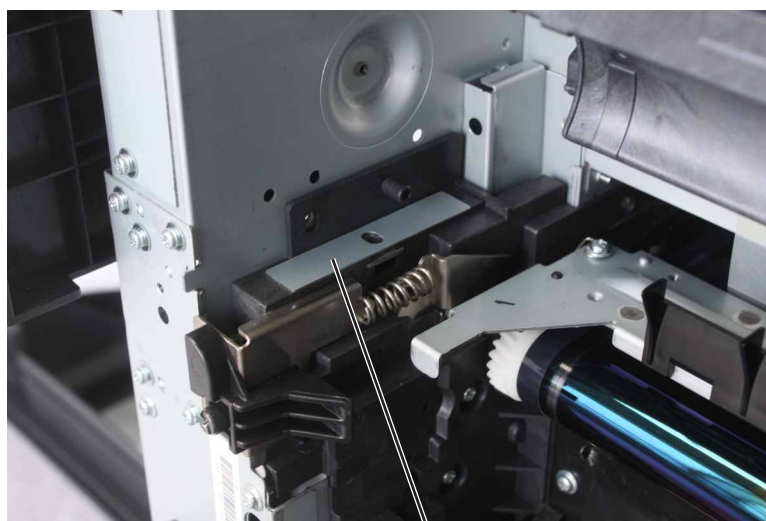
4 Adjust the left and right margins.**5** Apply the changes.**6** Repeat step 2 to view the updated values.**7** Repeat steps 3 through 5 to make further adjustments.

Fuser alignment adjustment

Fuser misalignment may cause wrinkles on the paper. Perform this procedure to align the fuser with the registration unit assembly.

1 Remove the fuser. See [“Fuser removal” on page 294](#).**2** Remove the two screws (A), and then remove the fuser mount.**3** Add or decrease the number of plates to adjust the position of the fuser.**Notes:**

- A single plate (B) has a thickness of 0.6 mm.
- The default number of plates is 1.




B

4 Perform a print job to verify the adjustment.

MPF separator roller pressure adjustment

Jams may occur if the improper level of pressure is applied in picking thick paper from the MPF tray. Perform this procedure to adjust the separator roller pressure.

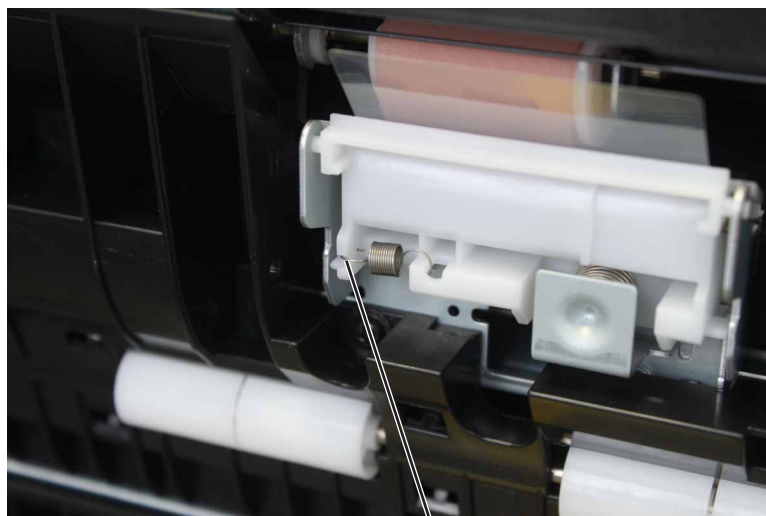
1 Open the right door, remove the screw (A), and then remove the cover.

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



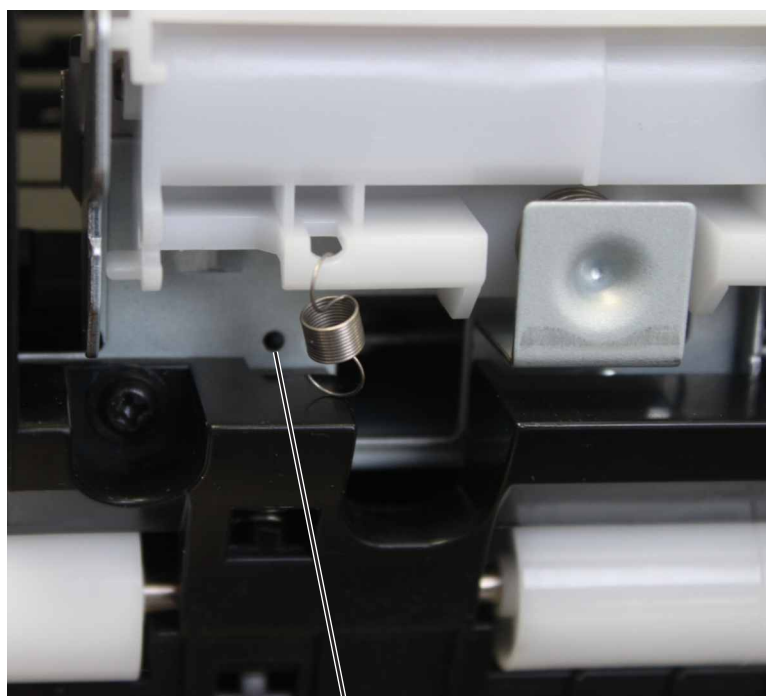
A

2 Release the hook (B).



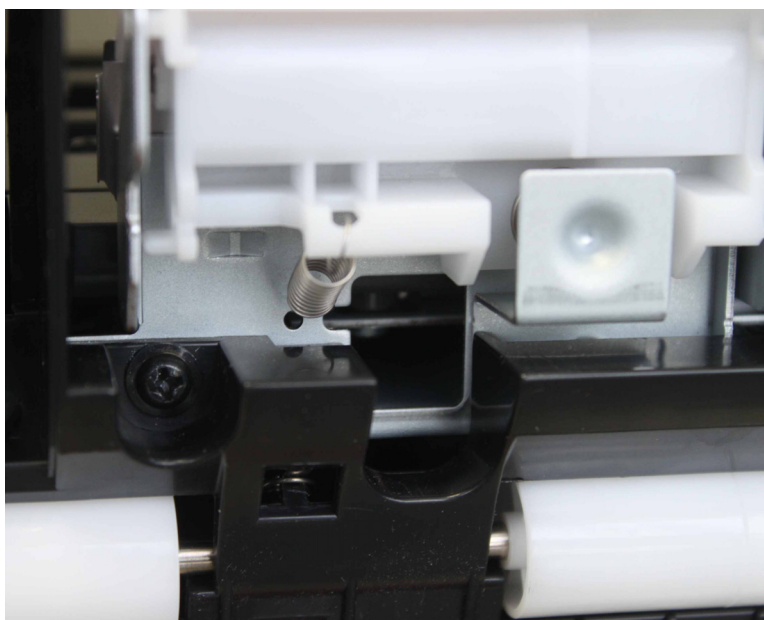
B

3 Attach the hook to the hole (C).



C

Note: The correct position is shown in the following illustration.



4 Perform a print job to verify the adjustment.

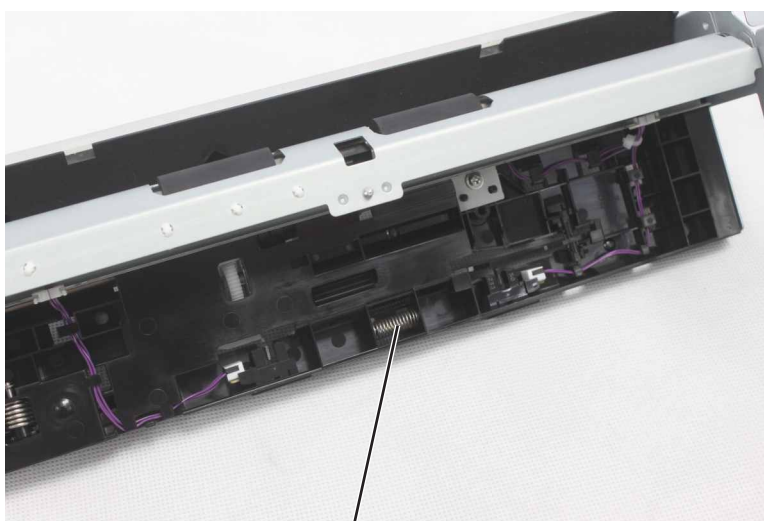
Pick roller pressure adjustment

Jams may occur if the improper level of pressure is applied in picking thin paper. Perform this step to increase or decrease the pick roller pressure.

1 Remove the tray 1 and 2 paper feed unit.

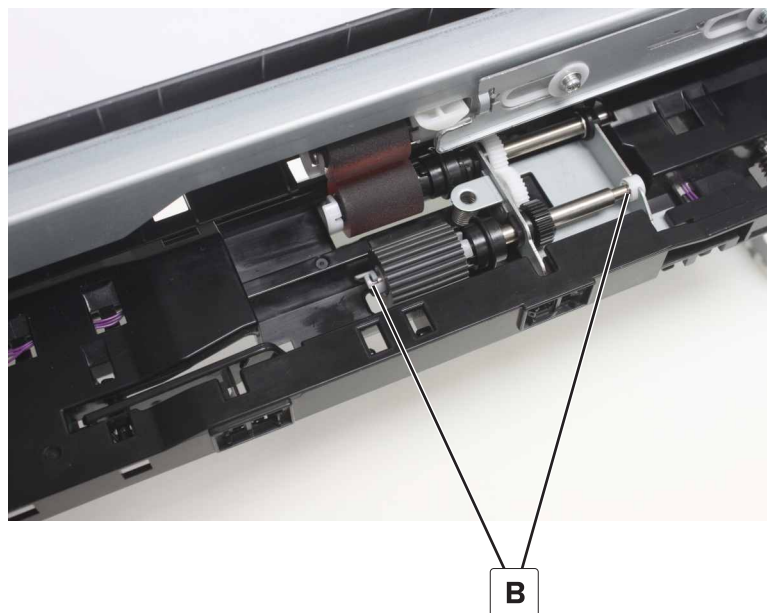
2 Remove the replacement spring (A).

Note: This spring must have higher or lower tension than the spring it replaces.

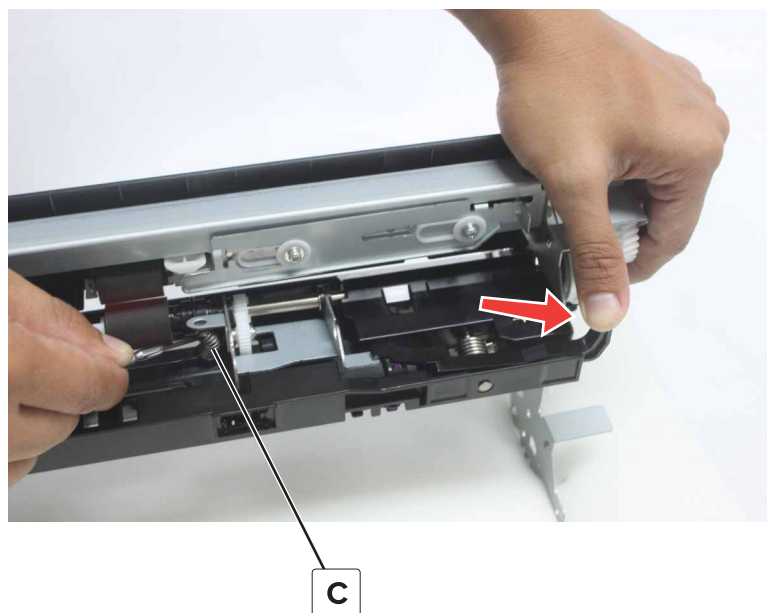


A

- 3** Release the clips (B), and then remove the pick tire, bushing, and shaft.



- 4** Press the lever, remove the spring (C), and then install the replacement spring from step 2.

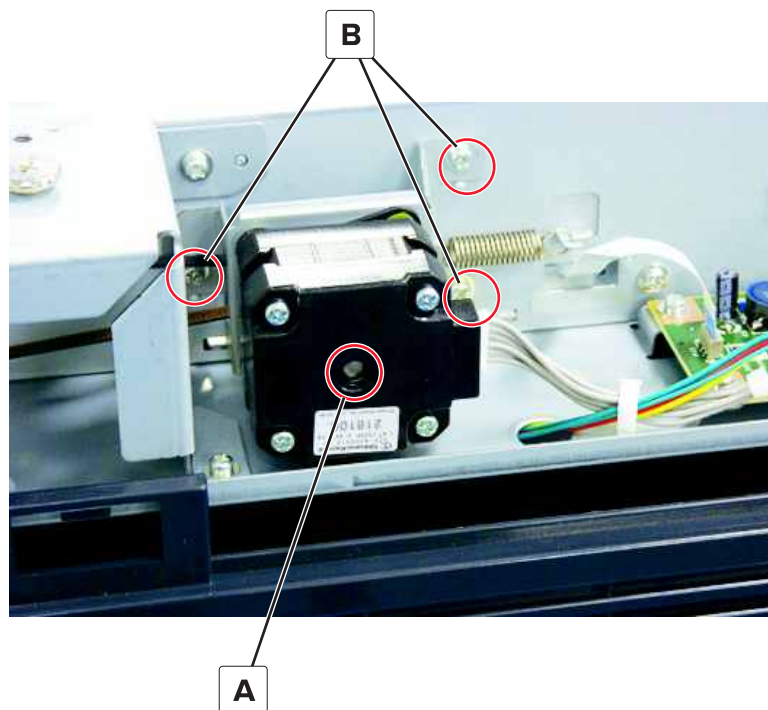


- 5** Perform a print job to verify the adjustment.

Scanner carriage belt adjustment

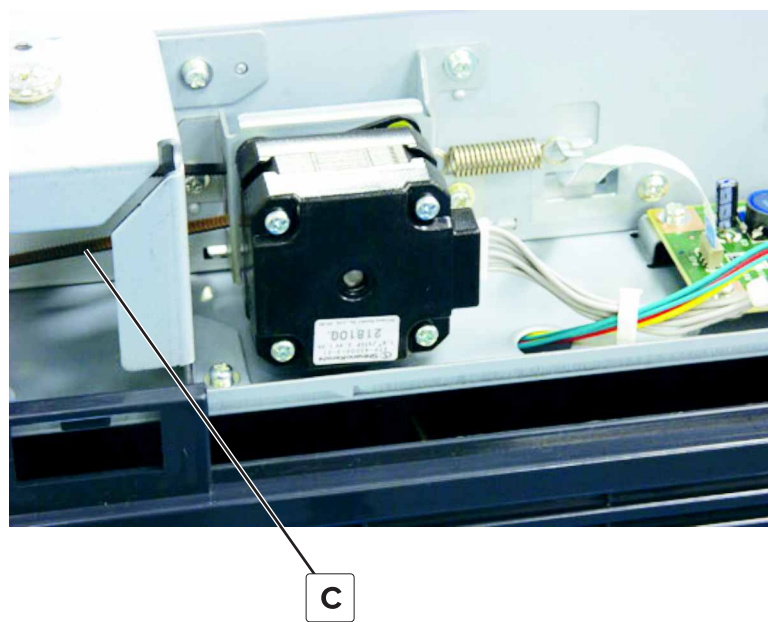
Loose scanner carriage belt may affect the scan speed of the scanner lamp and cause scan quality issues. Perform this step to correct the scanner drive belt tension or after replacing the motor (scanner drive).

- 1 Attach the spring to the motor (scanner drive) (A), and then temporarily secure the motor with three screws (B).



Note: Do not fully tighten the screws.

- 2 Attach the scanner carriage belt (C).



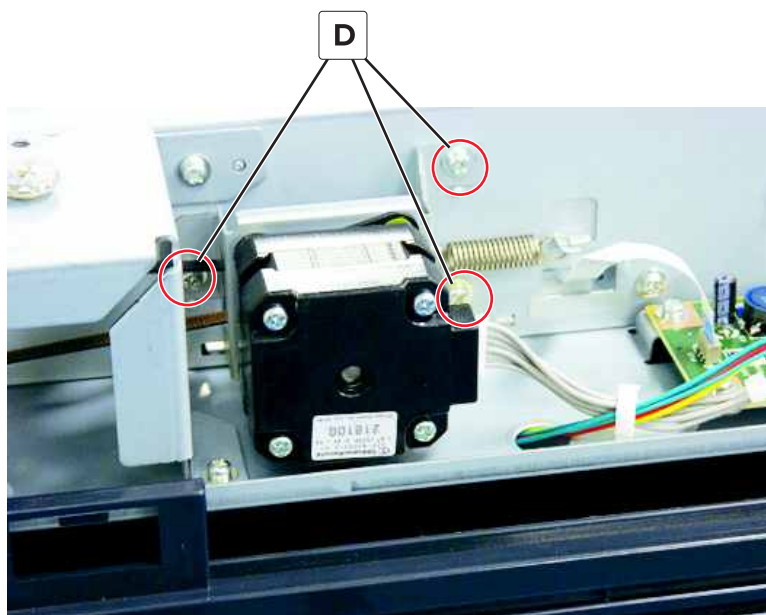
Parts removal

Notes:

- Make sure that the belt tension is not too loose or too tight.
- Make sure that the drive belt is kept tight by the spring.

3 Turn the drive gear.

4 Tighten the three screws (D).



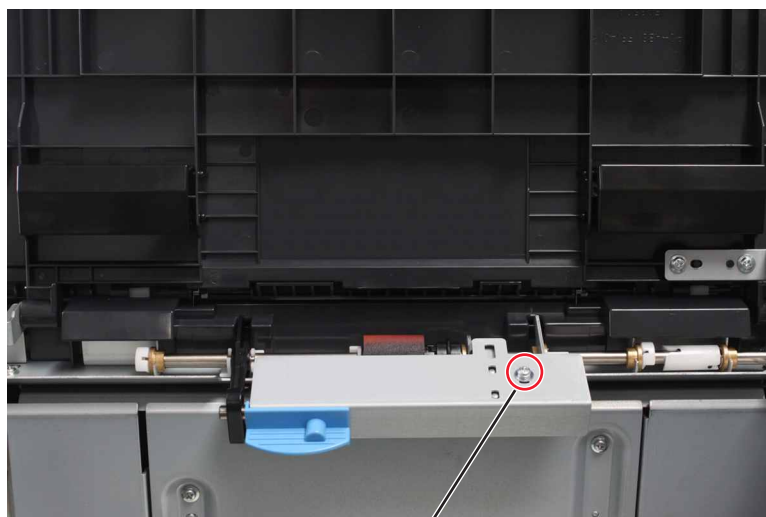
Note: Make sure that the belt tension is not too loose or too tight.

3000-sheet tray pick roller pressure adjustment

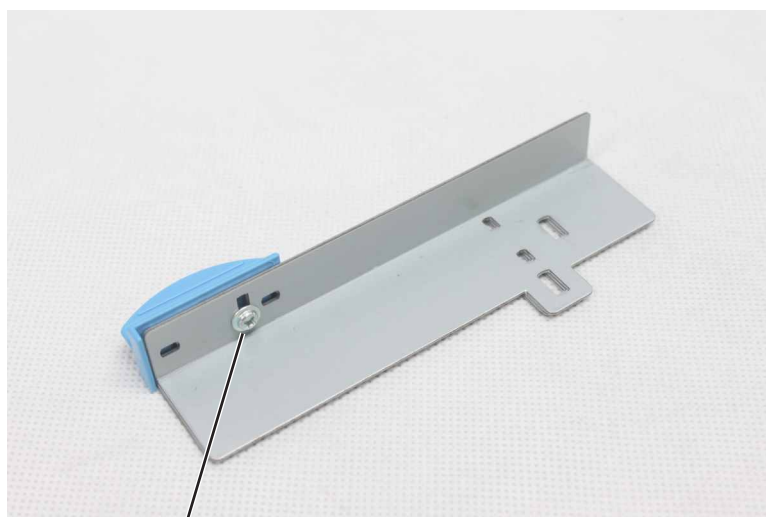
Jams may occur if the improper level of pressure is applied when picking thin paper. Perform this procedure to increase the pick roller pressure.

1 Remove the screw (A), and then remove the plates.

Installation note: Replace this screw with an M3 x 10 mm screw.

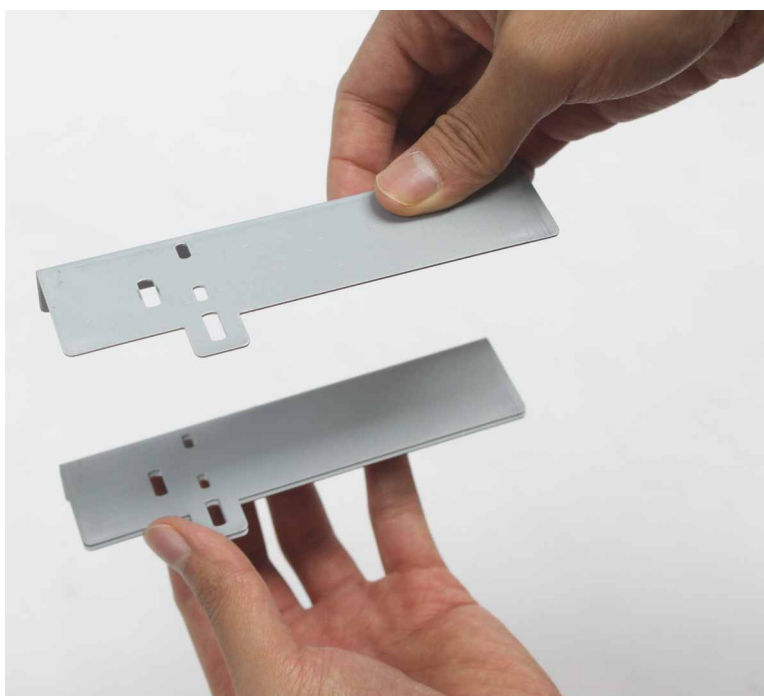
**A**

2 Remove the screw (B), and then remove the handle.

**B**

3 Add one or more plates.

Note: A total of four plates can be installed.

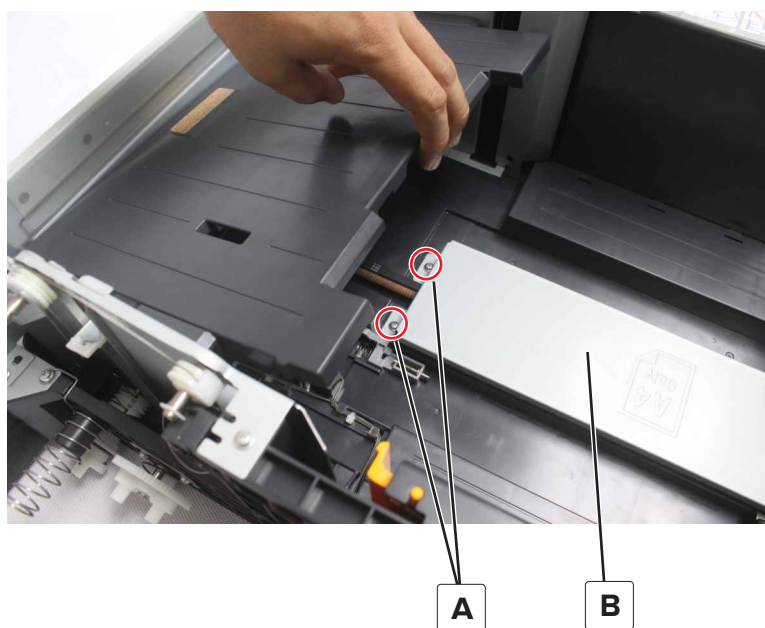


4 Perform a print job to verify the adjustment.

2500-sheet tray transfer guide belt adjustment

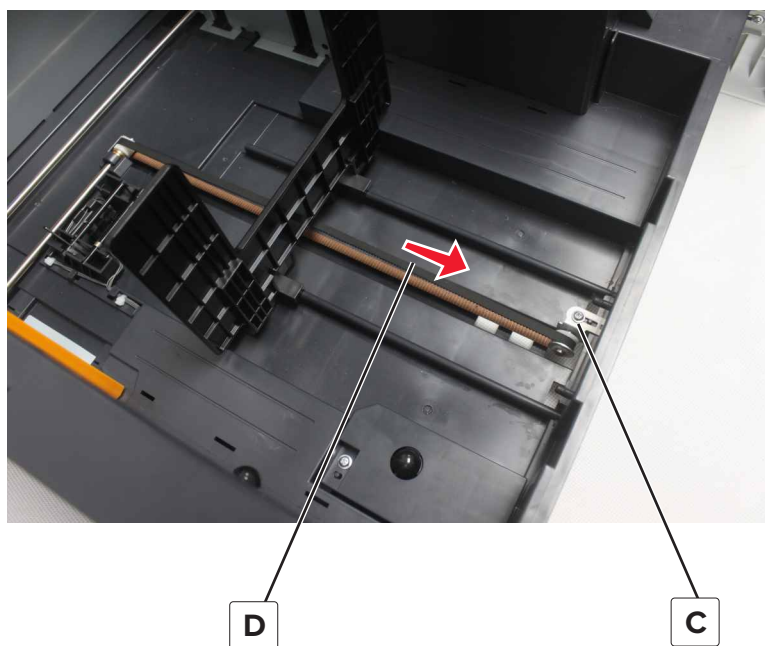
A loose transfer guide belt may cause paper stack transfer failure. Perform this step to correct the transfer guide belt tension.

- 1** Remove the tray insert.
- 2** Raise the main tray.
- 3** Remove the two screws (A), and then remove the belt cover (B).



Parts removal

- 4 Move the paper stack transfer guide.
- 5 Loosen the tension screw (C), and then move the belt (D) to adjust.



- 6 Retighten the tension screw.

Removal procedures

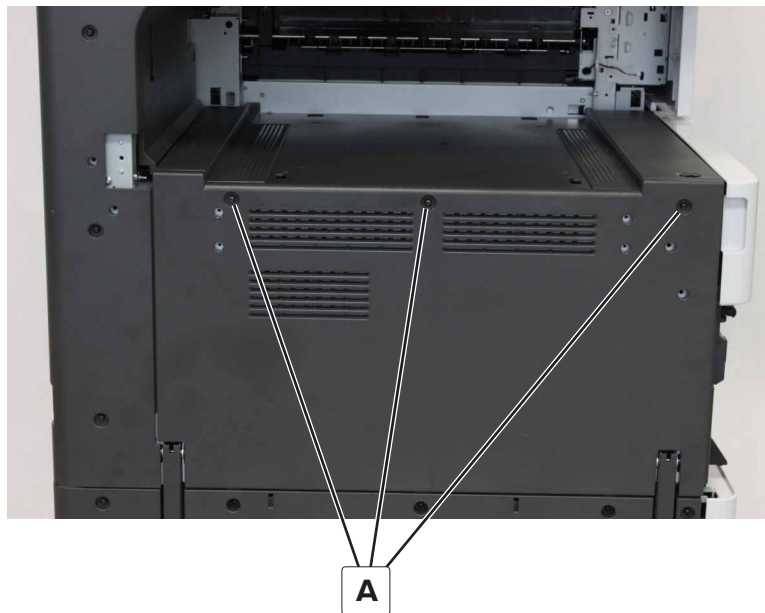
When replacing printer parts, consider the following:

- Some removal procedures require removing cable ties. Replace cable ties during reassembly to avoid pinching wires, obstructing the paper path, or restricting mechanical movement.
- Remove the toner cartridges, imaging units, developer units, photoconductor units, and trays before removing other printer parts.
- Place the imaging or photoconductor unit on a clean, smooth, and flat surface. Do not expose the photoconductor drum to light.
- Disconnect all external cables from the printer to prevent possible damage during service.
- Unless otherwise stated, reinstall the parts in reverse order of removal.
- When reinstalling a part held by several screws, start all screws before the final tightening.

Left side removals

Left cover removal

- 1 Remove the three screws (A).



- 2 Remove the cover.

Rear left cover removal

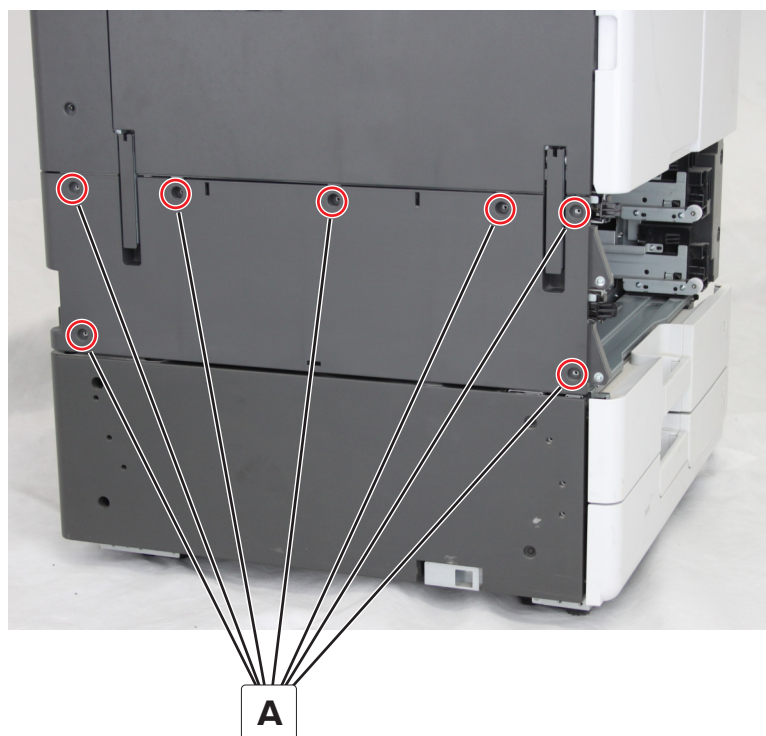
- 1 Remove the left cover. See [“Left cover removal” on page 286](#).
- 2 Remove the three screws (A), and then remove the cover.



Tray base left cover removal

1 Remove the tray inserts. See [“Tray insert removal” on page 341](#)

2 Remove the seven screws (A), and then remove the cover.



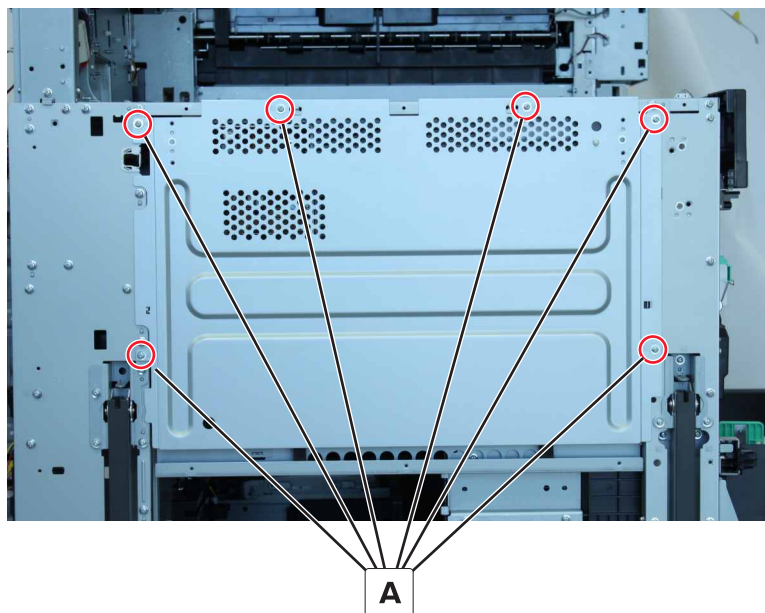
Main power supply shield removal

Note: This part is not a FRU.

1 Remove the left cover. See [“Left cover removal” on page 286](#).

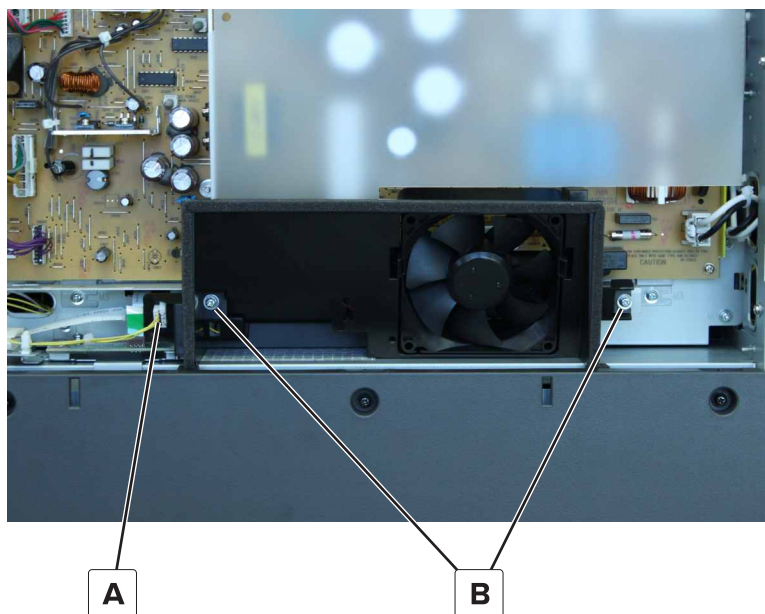
2 Remove the rear left cover. See [“Rear left cover removal” on page 287](#).

- 3 Remove the six screws (A), and then remove the shield.



Main power supply fan removal

- 1 Remove the left cover. See [“Left cover removal” on page 286](#).
- 2 Remove the rear left cover. See [“Rear left cover removal” on page 287](#).
- 3 Remove the main power supply shield. See [“Main power supply shield removal” on page 288](#).
- 4 Disconnect the cable (A), and then remove the two screws (B).



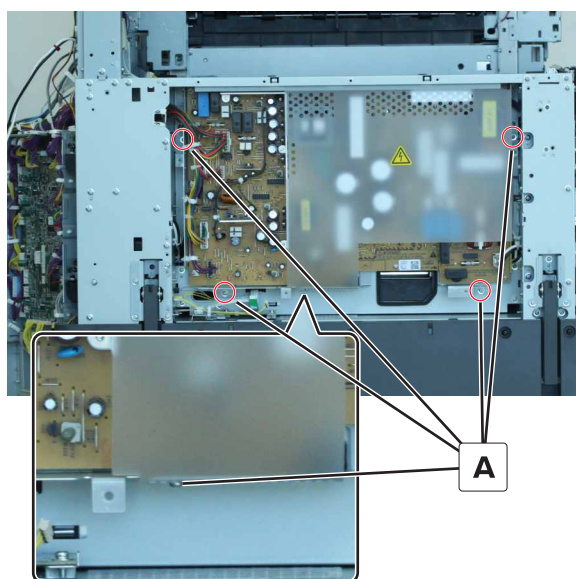
- 5 Remove the fan.

Main power supply removal

⚠ CAUTION—SHOCK HAZARD: The main power supply capacitors may have residual voltage. Do not touch the parts under the insulated area. The printer must be turned off for four hours to dissipate the charge.

⚠ CAUTION—FIRE HAZARD: To prevent fire, do not replace fuse with the incorrect type and rating.

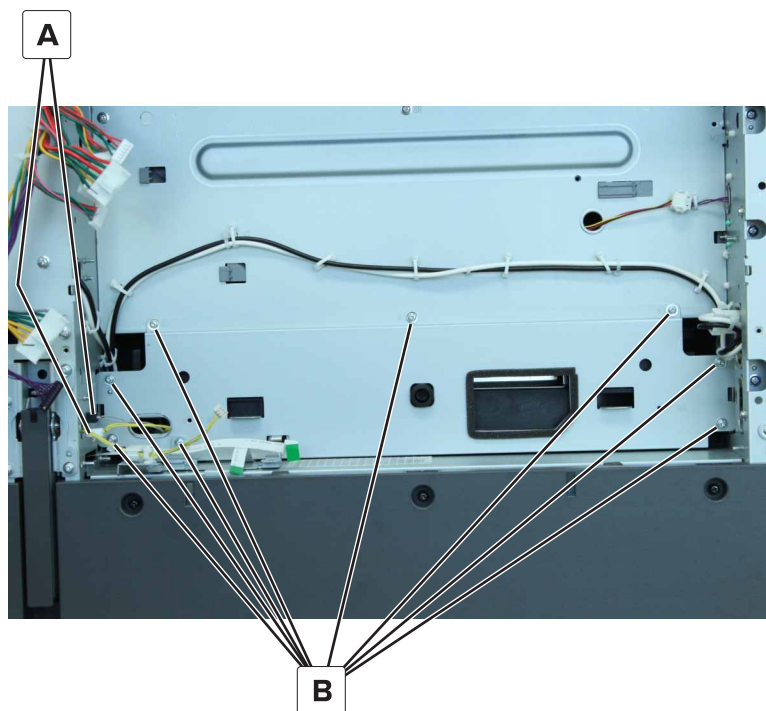
- 1 Remove the left cover. See [“Left cover removal” on page 286](#).
- 2 Remove the rear left cover. See [“Rear left cover removal” on page 287](#).
- 3 Remove the main power supply shield. See [“Main power supply shield removal” on page 288](#).
- 4 Remove the main power supply fan. See [“Main power supply fan removal” on page 289](#).
- 5 Disconnect all cables from the power supply, remove the five screws (A), and then remove the power supply.



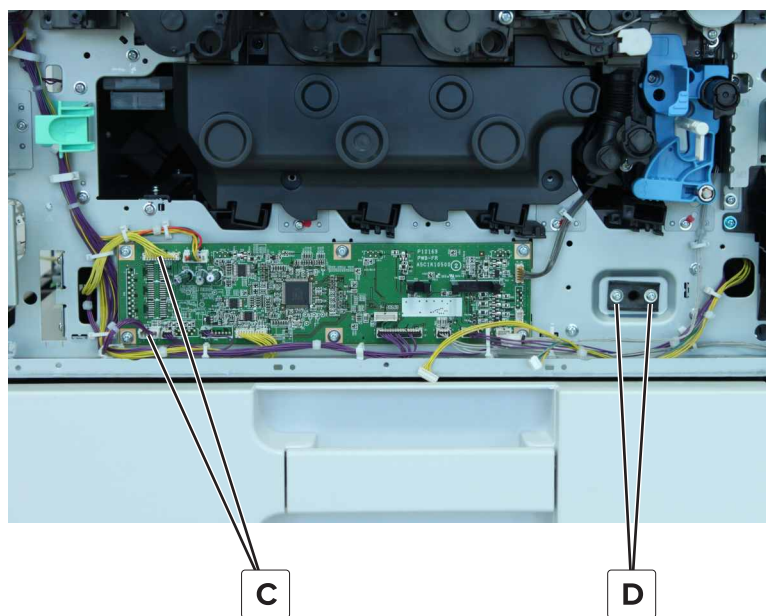
Printhead removal

- 1 Remove the top front door. See [“Top front door removal” on page 347](#).
- 2 Remove the bottom front door. See [“Bottom front door removal” on page 347](#).
- 3 Remove the front inner cover. See [“Front inner cover removal” on page 348](#).
- 4 Remove the waste toner door mount. See [“Waste toner door mount removal” on page 348](#).
- 5 Remove the left cover. See [“Left cover removal” on page 286](#).
- 6 Remove the rear left cover. See [“Rear left cover removal” on page 287](#).
- 7 Remove the main power supply shield. See [“Main power supply shield removal” on page 288](#).
- 8 Remove the main power supply fan. See [“Main power supply fan removal” on page 289](#).
- 9 Remove the main power supply. See [“Main power supply removal” on page 290](#).
- 10 Remove the printhead relay board. See [“Printhead relay board removal” on page 291](#).

11 Disconnect the two cables (A), and then remove the eight screws (B) from the cover.



12 From the front, disconnect the two cables (C), and then remove the two screws (D).

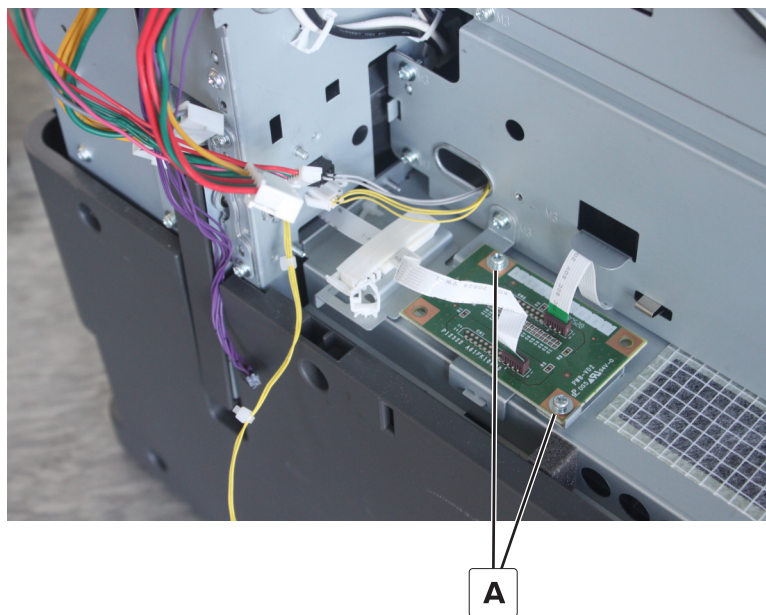


13 Remove the cover and printhead.

Printhead relay board removal

- 1** Remove the top front door. See [“Top front door removal” on page 347.](#)
- 2** Remove the bottom front door. See [“Bottom front door removal” on page 347.](#)

- 3 Remove the front inner cover. See [“Front inner cover removal” on page 348.](#)
- 4 Remove the waste toner door mount. See [“Waste toner door mount removal” on page 348.](#)
- 5 Remove the left cover. See [“Left cover removal” on page 286.](#)
- 6 Remove the rear left cover. See [“Rear left cover removal” on page 287.](#)
- 7 Remove the main power supply shield. See [“Main power supply shield removal” on page 288.](#)
- 8 Remove the main power supply fan. See [“Main power supply fan removal” on page 289.](#)
- 9 Remove the main power supply. See [“Main power supply removal” on page 290.](#)
- 10 Disconnect the cables, and then remove the two screws (A).

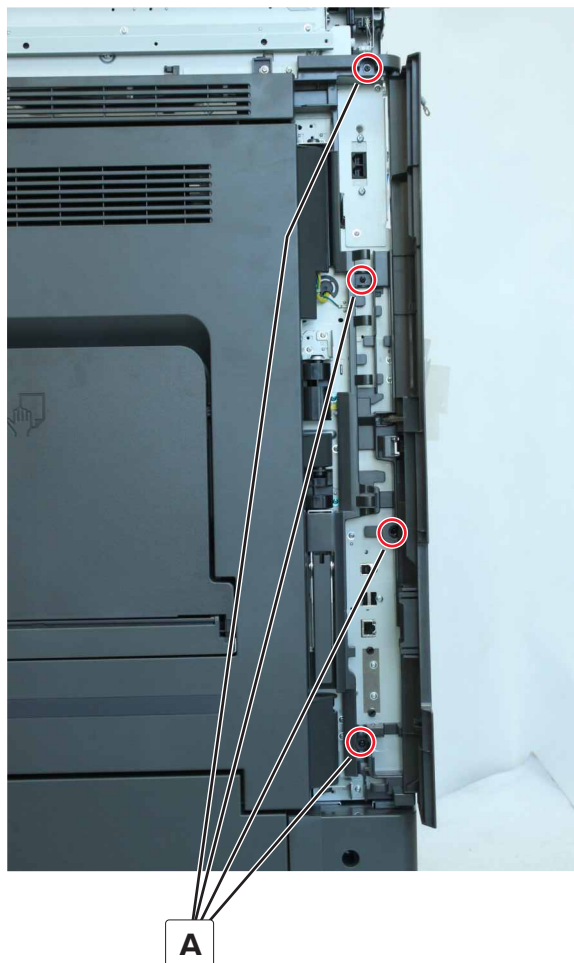


- 11 Remove the board.

Right side removals

Port access door removal

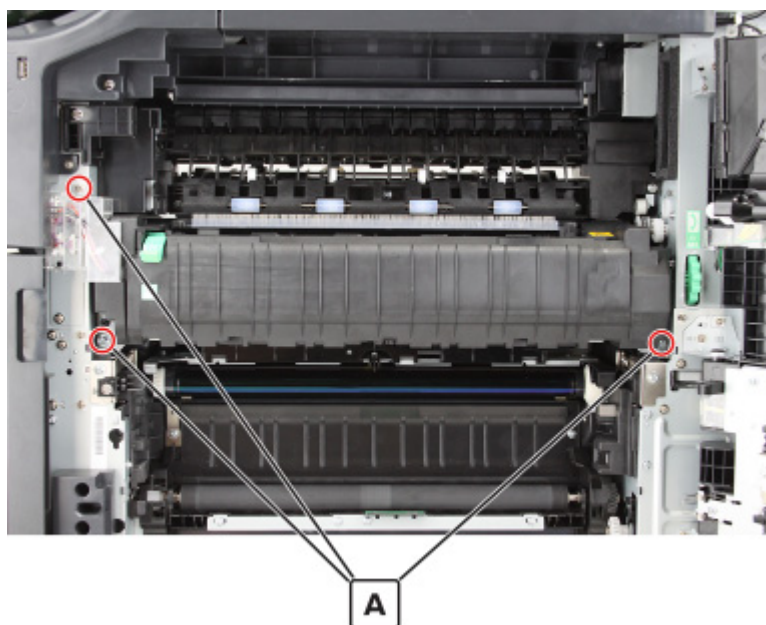
- 1 Open the door, and then remove the four screws (A).



- 2 Remove the door.

Fuser removal

- 1 Open the right door.
- 2 Remove the three screws (A), remove the cover, and then disconnect the fuser cables.



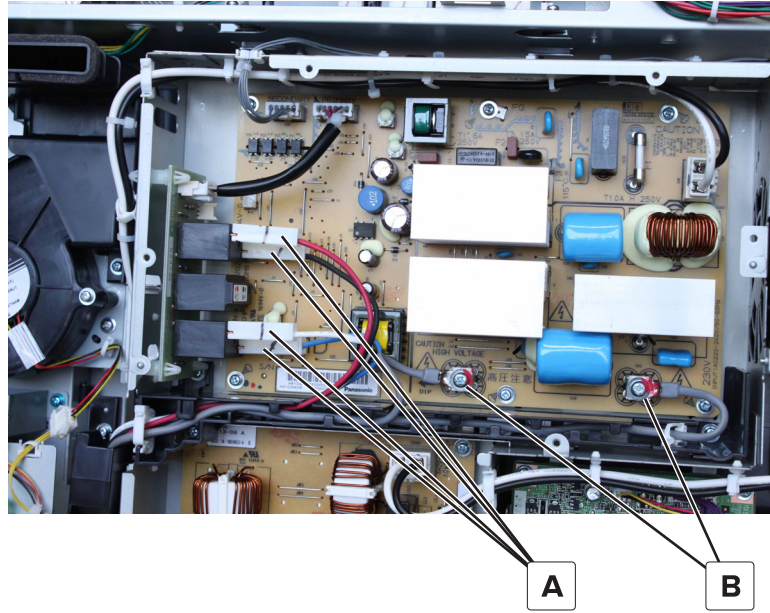
- 3 Remove the fuser.

Note: If the fuser rollers are not retracted, the fuser may be hard to remove. To retract the fuser roller, turn on the printer to initiate warmup, and then turn off the printer.

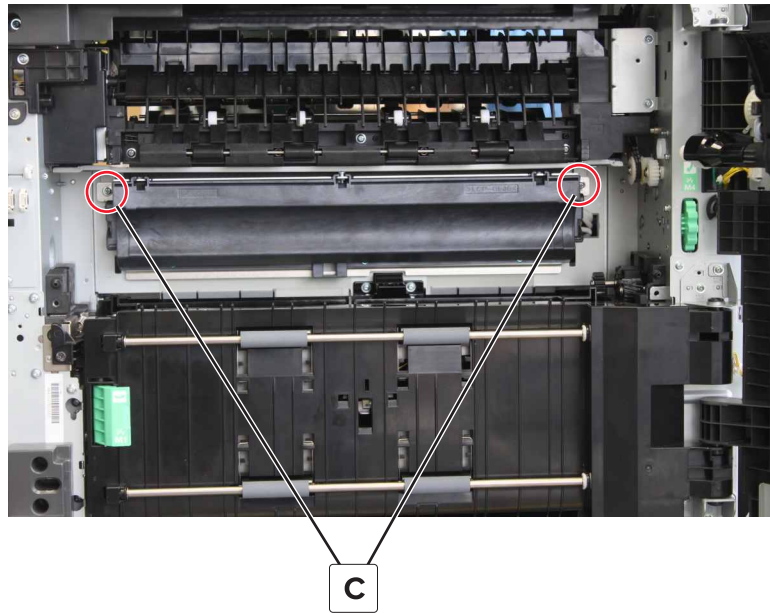
Induction heater removal

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 5 Remove the induction heater power supply shield. See [“IHPS shield removal” on page 367.](#)
- 6 Remove the fuser. See [“Fuser removal” on page 294.](#)
- 7 Remove the left cover. See [“Left cover removal” on page 286.](#)
- 8 Remove the standard bin base. See [“Standard bin base removal” on page 409.](#)

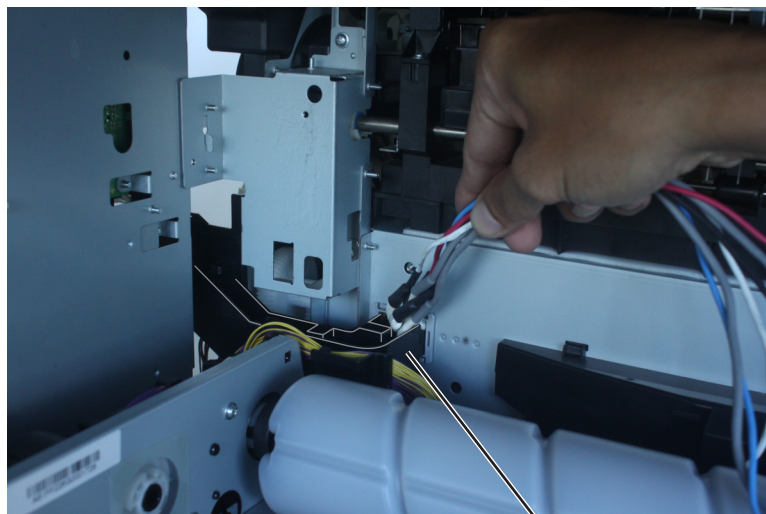
9 From the rear side, disconnect the four cables (A), and then remove the two screws (B).



10 Remove the two screws (B).



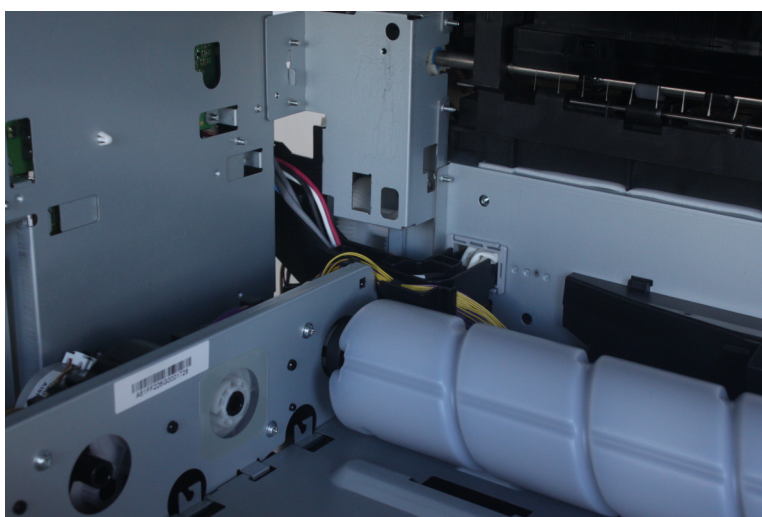
- 11 Behind the heater, release the cables from the guide (D).



D

- 12 Remove the heater.

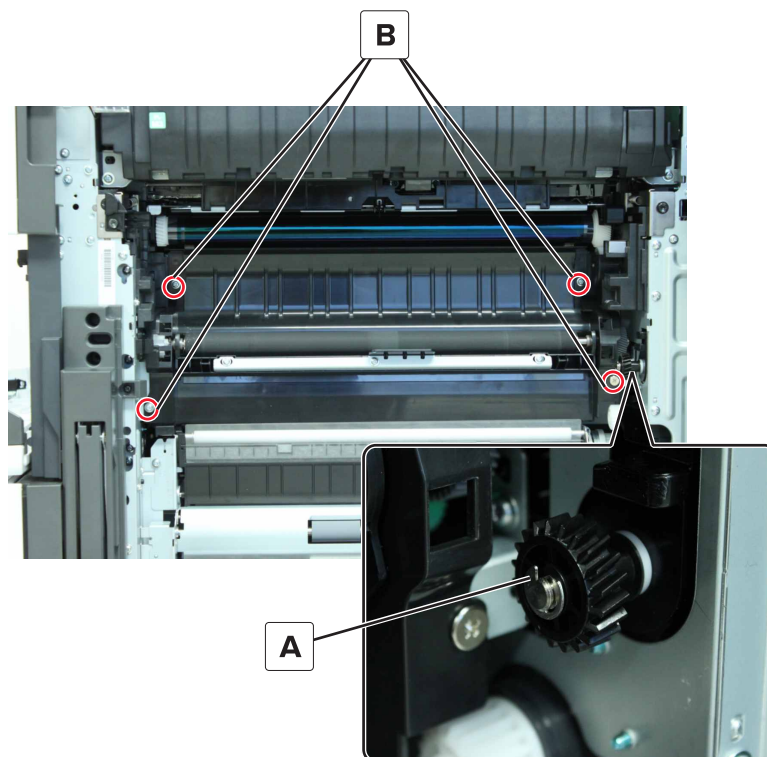
Installation note: Make sure that the cables are properly routed.



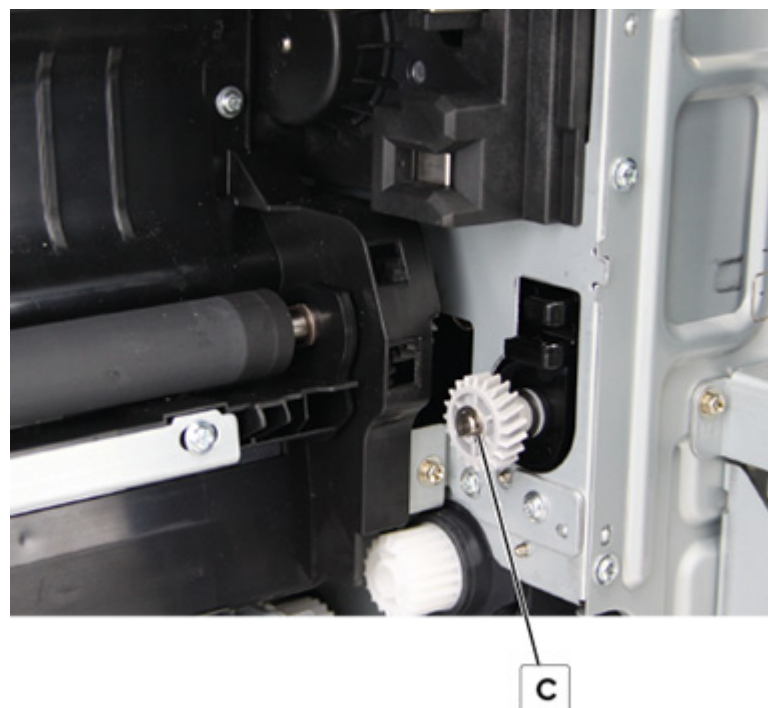
Registration transport assembly

- 1 Remove the fuser. See [“Fuser removal” on page 294](#).
- 2 Remove the top front door. See [“Top front door removal” on page 347](#).
- 3 Remove the bottom front door. See [“Bottom front door removal” on page 347](#).
- 4 Remove the waste toner door mount. See [“Waste toner door mount removal” on page 348](#).
- 5 Disconnect the cables of the registration assembly from the image controller board.

6 Remove the clip (A), and then remove the gear. Remove the four screws (B).

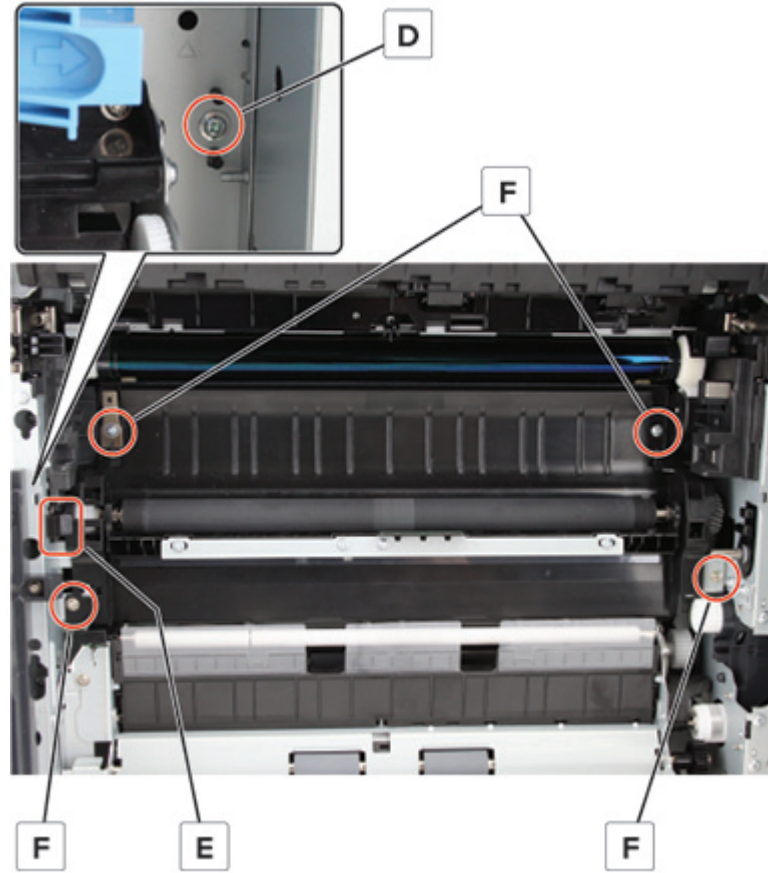


7 Open the right door, remove the E-clip (C), and then remove the gear.



8 Remove the screw (D), and then remove the latch (E).

9 Remove the four screws (F).

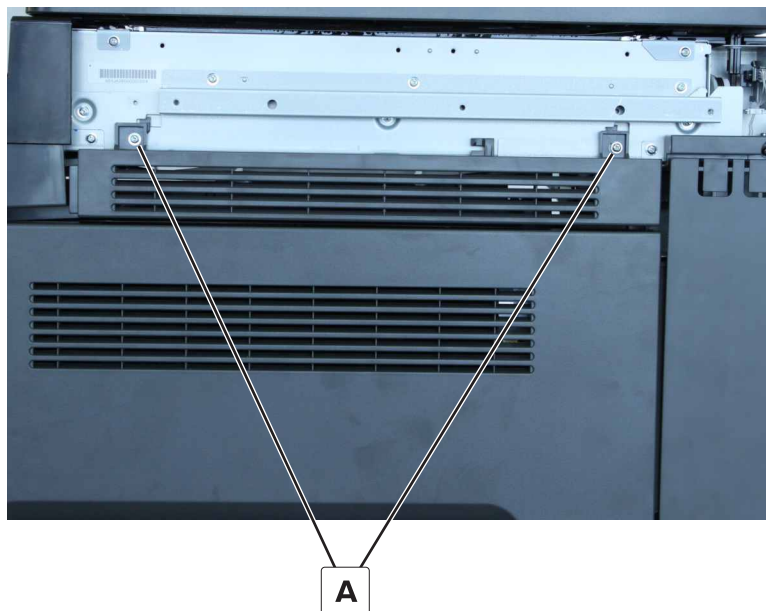


10 Remove the assembly.

Upper right cover removal

Note: This part is not a FRU.

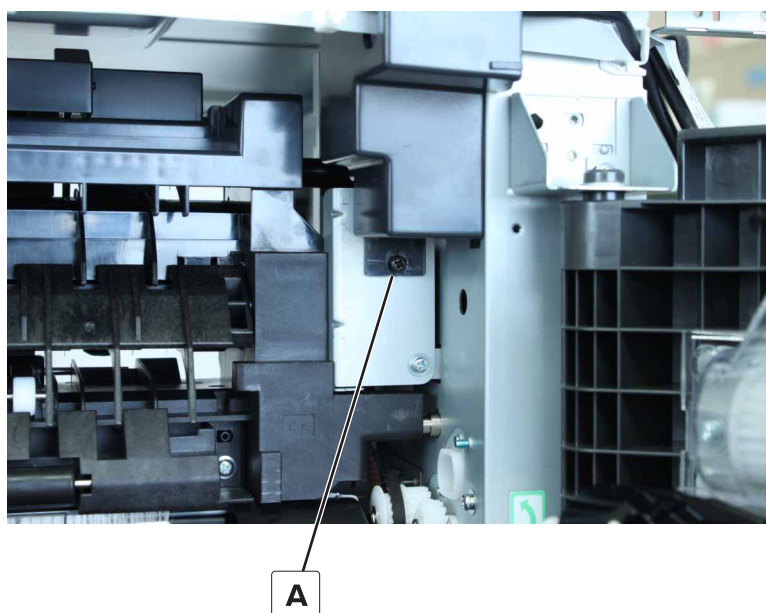
- 1 Remove the scanner right cover. See [“Scanner right cover removal” on page 455](#).
- 2 Remove the two screws (A), and then remove the cover.



Redrive belt cover removal

Note: This part is not a FRU.

- 1 Open the right door.
- 2 Remove the screw (A), and then remove the cover.

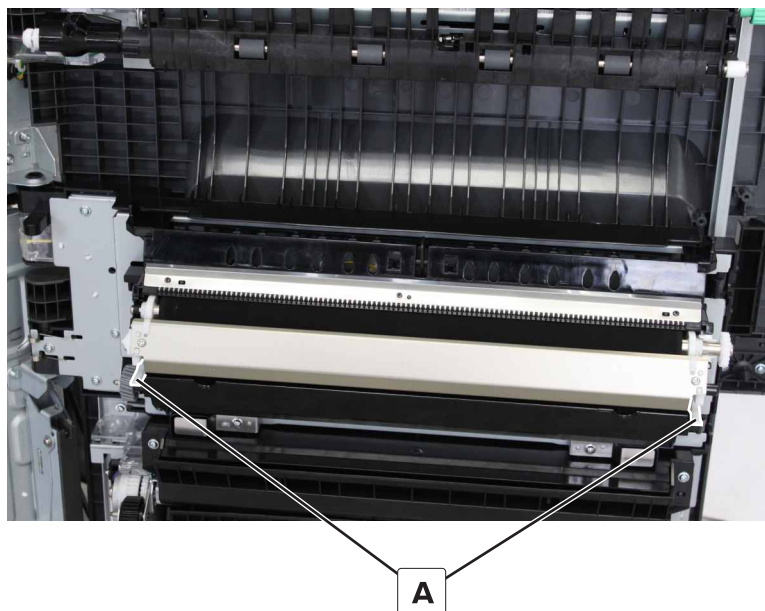


Redrive belt removal

- 1 Remove the motor (redrive). See [“Motor \(redrive\) removal” on page 384.](#)
- 2 Remove the redrive belt cover. See [“Redrive belt cover removal” on page 299.](#)
- 3 Remove the redrive belt.

Transfer roller removal

- 1 Open the right door.
- 2 Release the latches (A).




- 3 Remove the transfer roller.

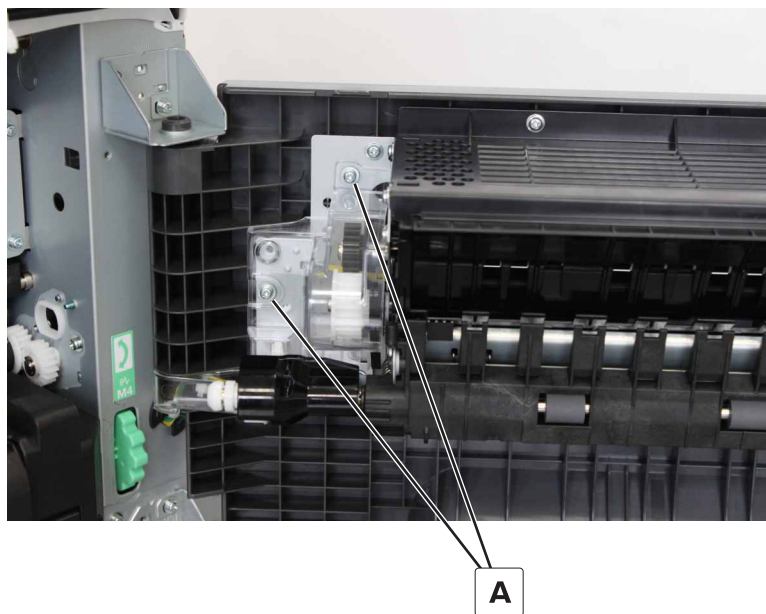
Duplex transport assembly removal

Note: For a video demonstration, see [Duplex transport assembly removal](#).

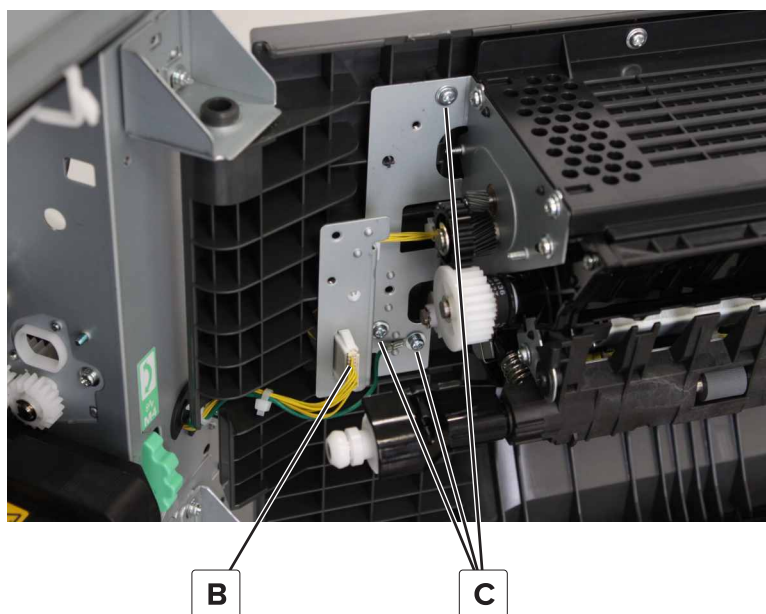
- 1 Open the right door.

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

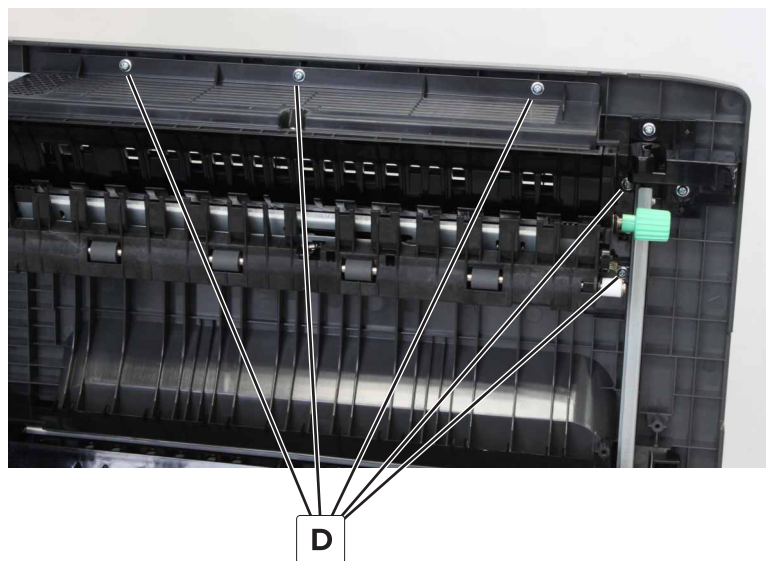
- 2 Remove the two screws (A), and then remove the cover.



- 3 Disconnect the cable (B), and then remove the three screws (C).




- 4 Remove the five screws (D), and then remove the assembly.

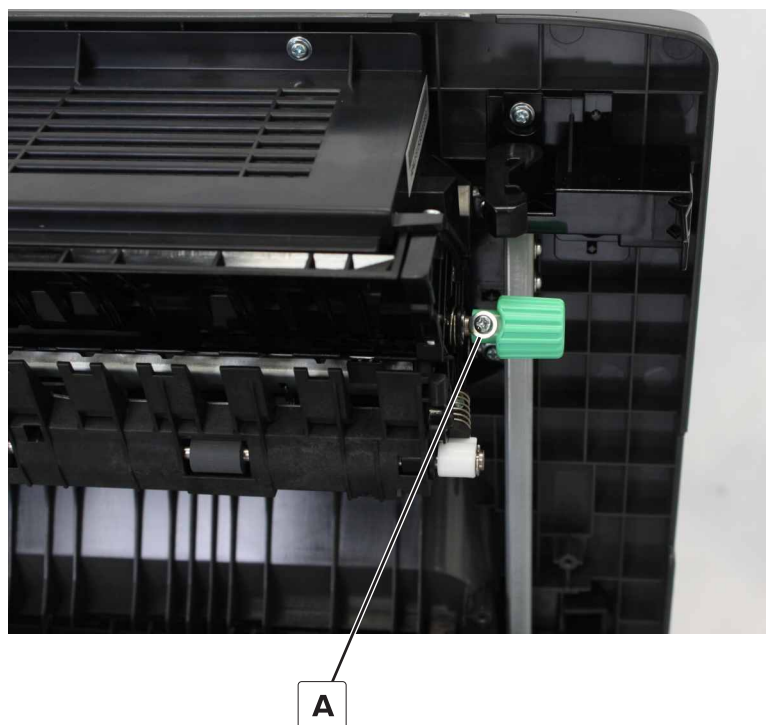


Duplex transport jam removal knob removal

- 1 Open the right door.

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

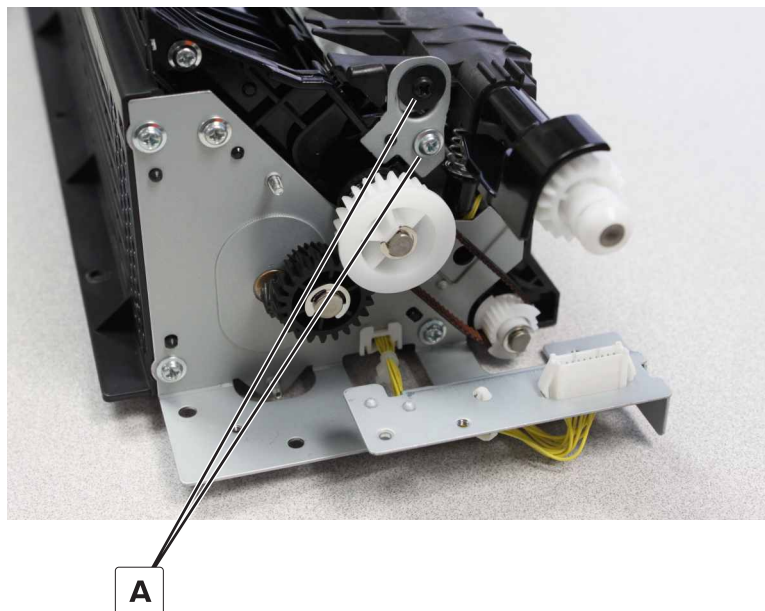
- 2 Remove the screw (A), and then remove the knob.



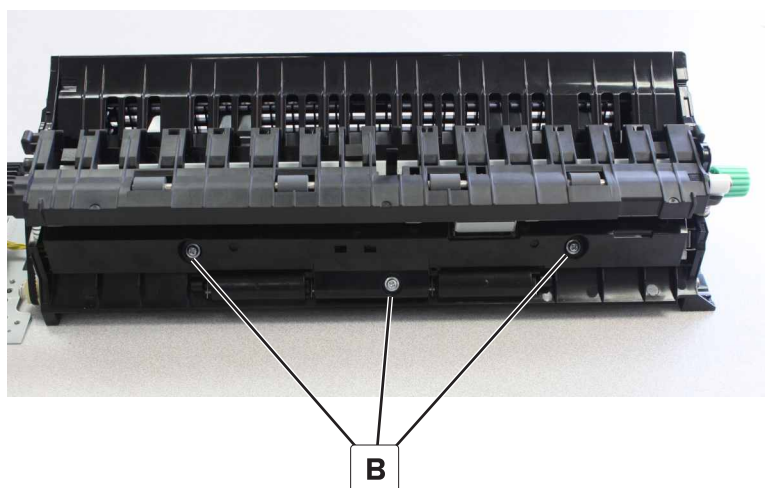
Duplex transport diverter assembly removal

Note: This part is not a FRU.

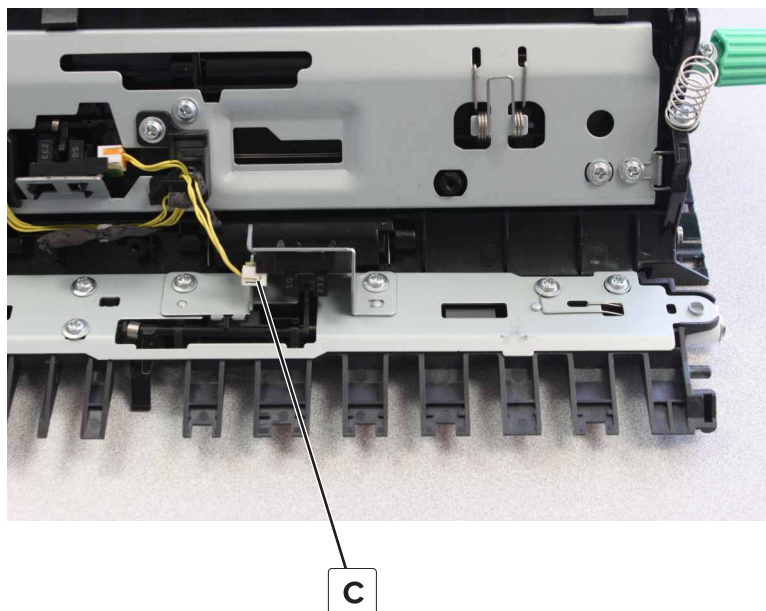
- 1 Remove the duplex transport assembly. See [“Duplex transport assembly removal” on page 301](#).
- 2 Remove the two screws (A), and then remove the bracket.



- 3 Remove the three screws (B), and then lift the diverter assembly.

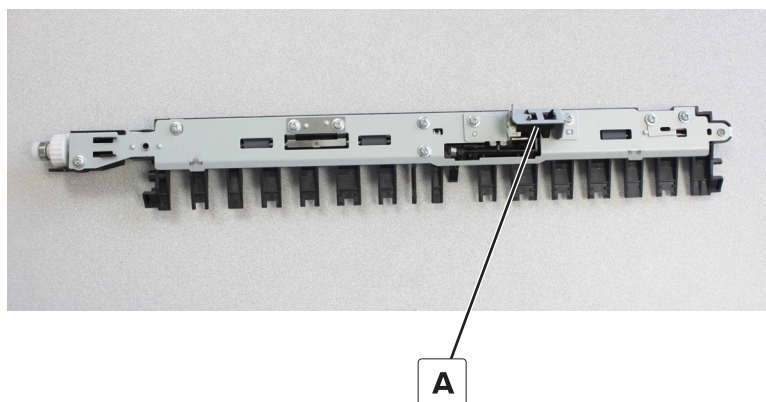


- 4 Disconnect the cable (C), and then remove the assembly.



Sensor (fuser exit) removal

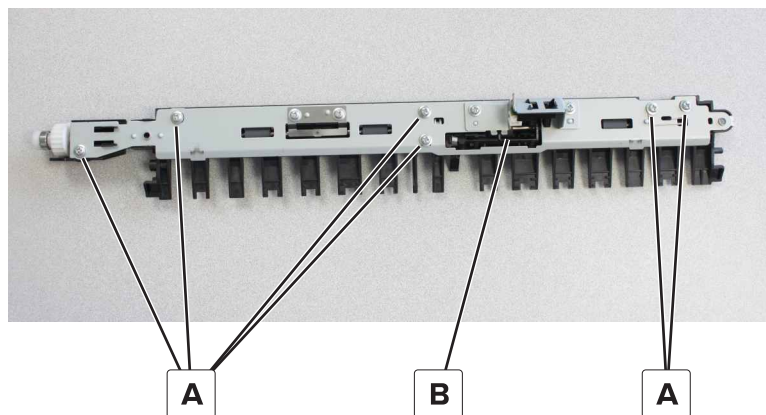
- 1 Remove the duplex transport assembly. See [“Duplex transport assembly removal” on page 301.](#)
- 2 Remove the duplex transport diverter assembly. See [“Duplex transport diverter assembly removal” on page 303.](#)
- 3 Remove the sensor (A).



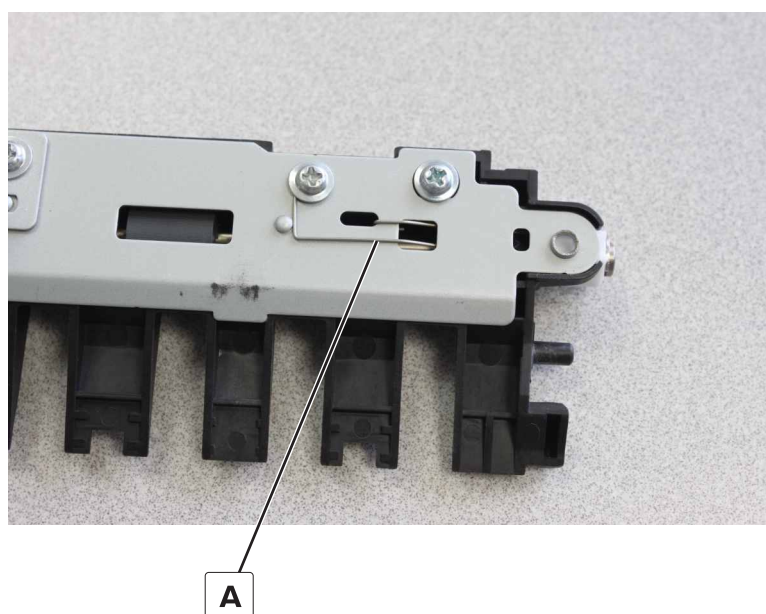
Fuser exit sensor actuator removal

- 1 Remove the duplex transport assembly. See [“Duplex transport assembly removal” on page 301.](#)
- 2 Remove the duplex transport diverter assembly. See [“Duplex transport diverter assembly removal” on page 303.](#)

- 3 Remove the six screws (A), remove the diverter bracket, and then remove the sensor actuator (B).



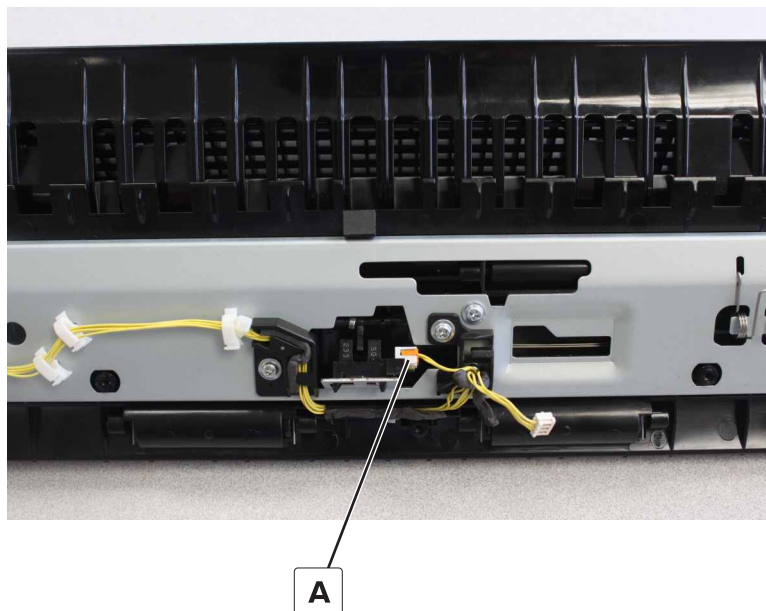
Installation note: Make sure that the ground retainers (A) are correctly installed.



Sensor (duplex pass through 1) removal

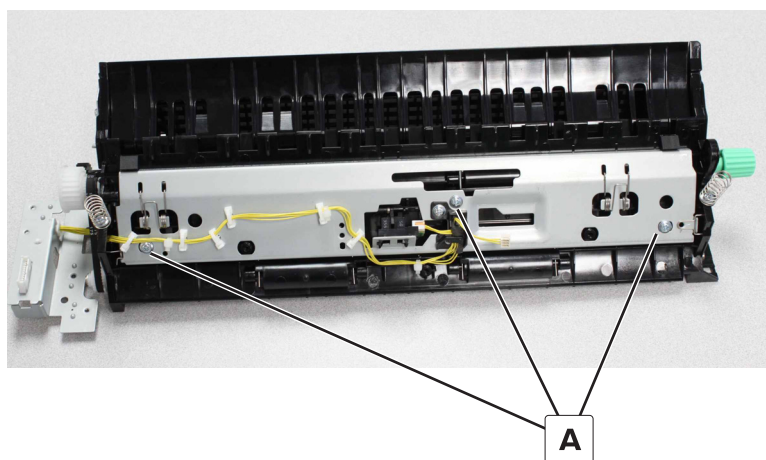
- 1 Remove the duplex transport assembly. See [“Duplex transport assembly removal” on page 301.](#)
- 2 Remove the duplex transport diverter assembly. See [“Duplex transport diverter assembly removal” on page 303.](#)

- 3 Disconnect the cable (A), and then remove the sensor.

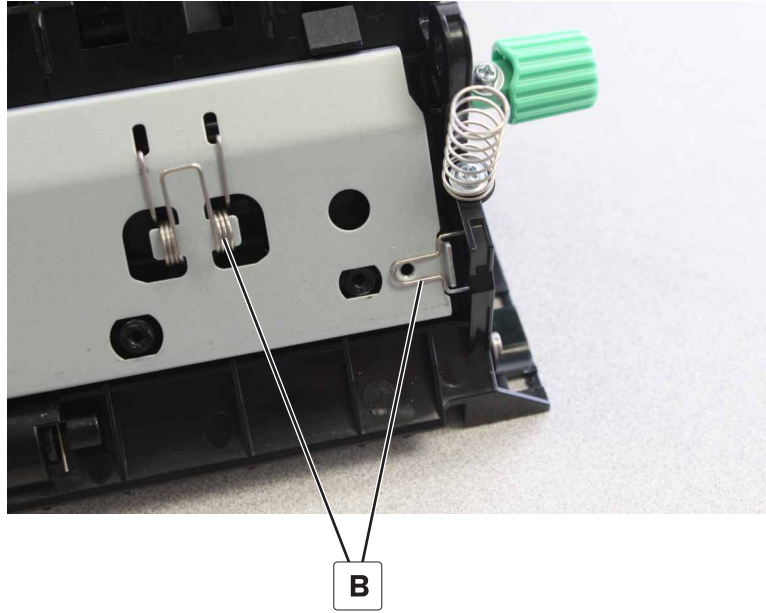


Duplex pass through 1 actuator removal

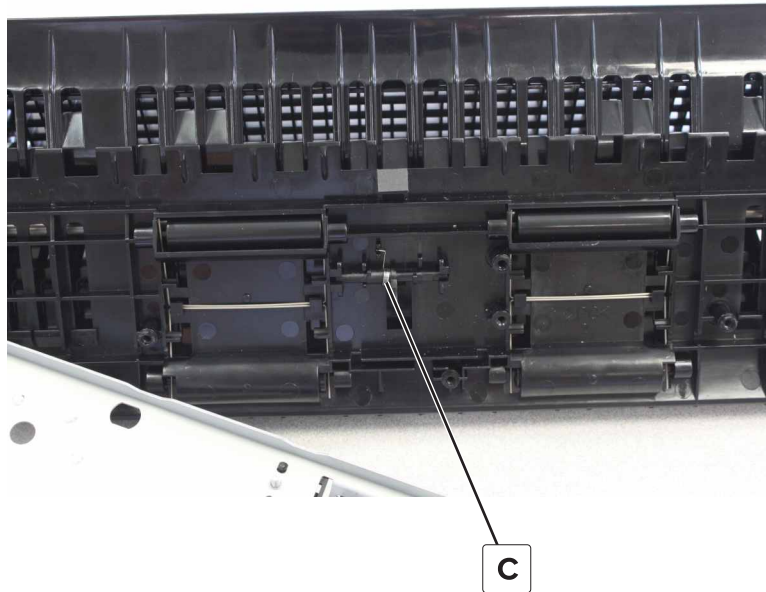
- 1 Remove the duplex transport assembly. See [“Duplex transport assembly removal” on page 301.](#)
- 2 Remove the duplex transport diverter assembly. See [“Duplex transport diverter assembly removal” on page 303.](#)
- 3 Remove the three screws (A).



4 Release the retainers (B), and then remove the bracket.

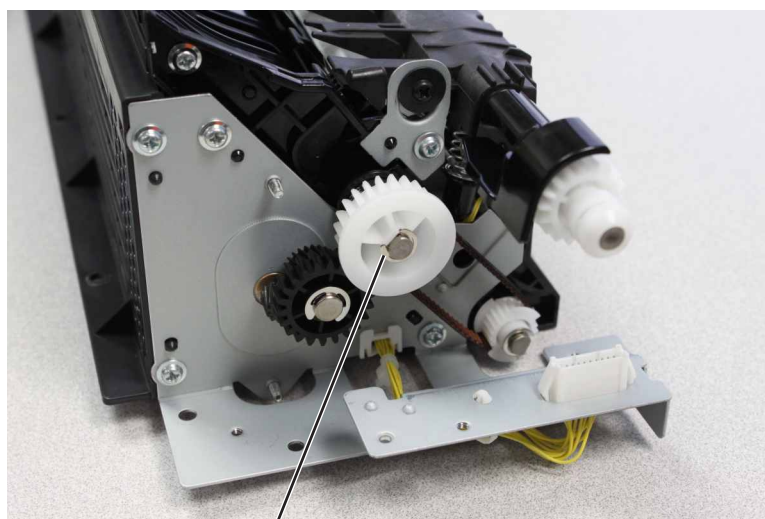


5 Remove the actuator (C).



Duplex transport belt removal

- 1 Remove the duplex transport assembly. See [“Duplex transport assembly removal” on page 301.](#)
- 2 Release the clip (A), and then remove the gear.

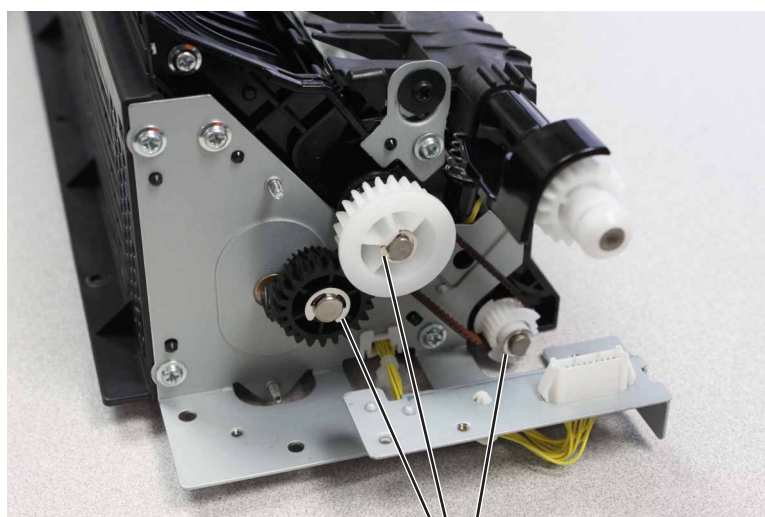


A

- 3 Remove the belt.

Duplex transport gears removal

- 1 Remove the duplex transport assembly. See [“Duplex transport assembly removal” on page 301.](#)
- 2 Remove the three clips (A), and then remove the gears.



A

Note: The duplex transport gear assembly includes the gears, bushings, clips, and washers.

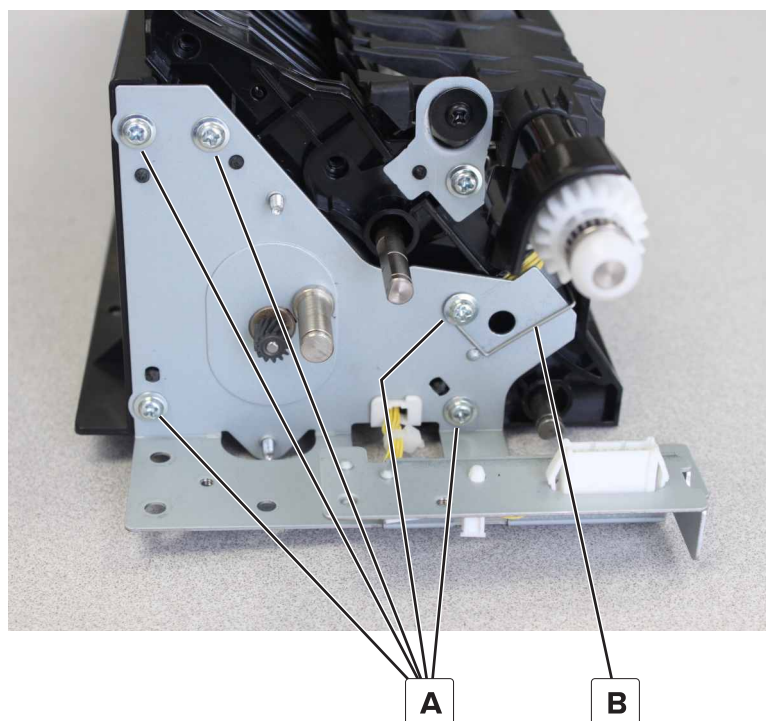


Motor (duplex transport) removal

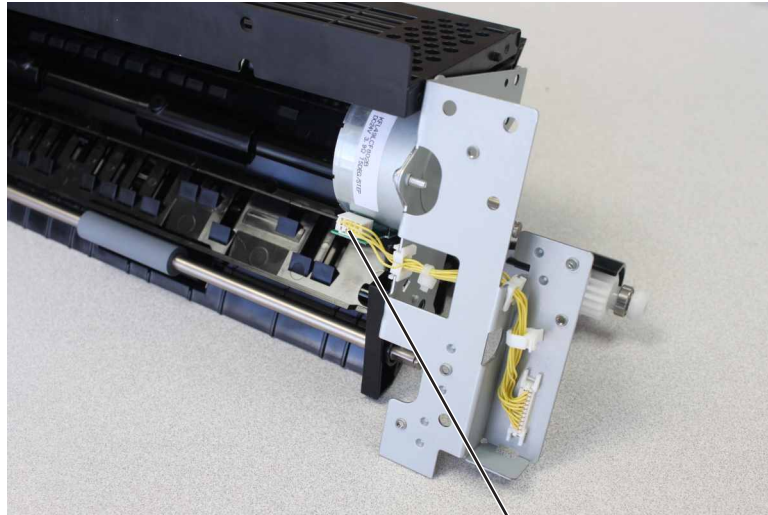
1 Remove the duplex transport assembly. See [“Duplex transport assembly removal” on page 301](#).

2 Remove the five screws (A).

Note: Take note of the original position of the retainer (B).

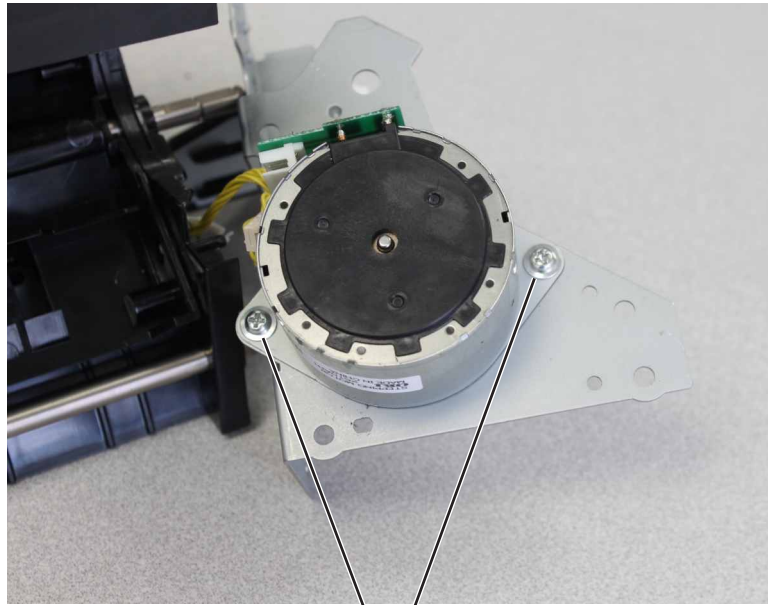


3 Disconnect the cable (C).



C

4 Move away the bracket, and then remove the two screws (D).



D

5 Remove the motor.

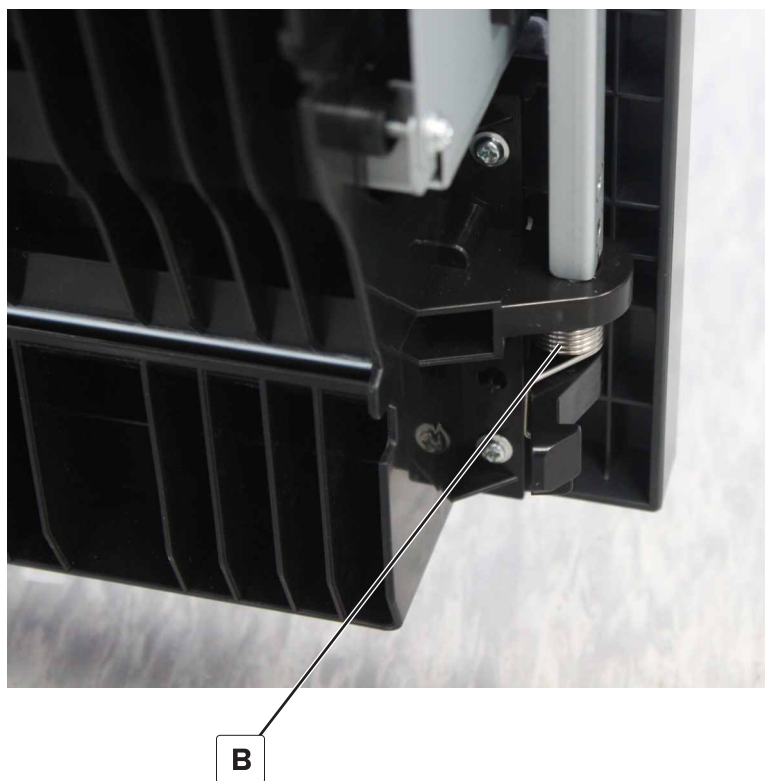
Right door lock removal

- 1 Open the right door.
- 2 Remove the six screws (A).




- 3 Release the spring (B), and then remove the lock.

Installation note: Make sure that the bottom spring (B) is correctly installed.

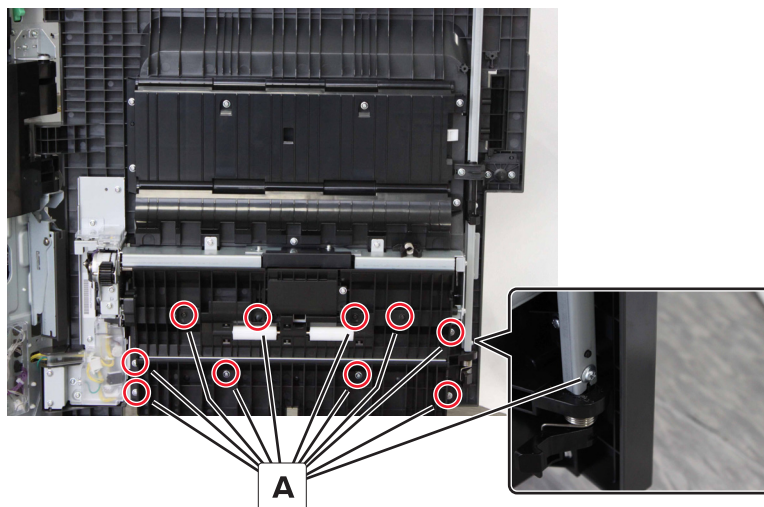


Tray 2 transport guide removal

1 Open the right door.

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

2 Remove the 11 screws (A), and then remove the guide.

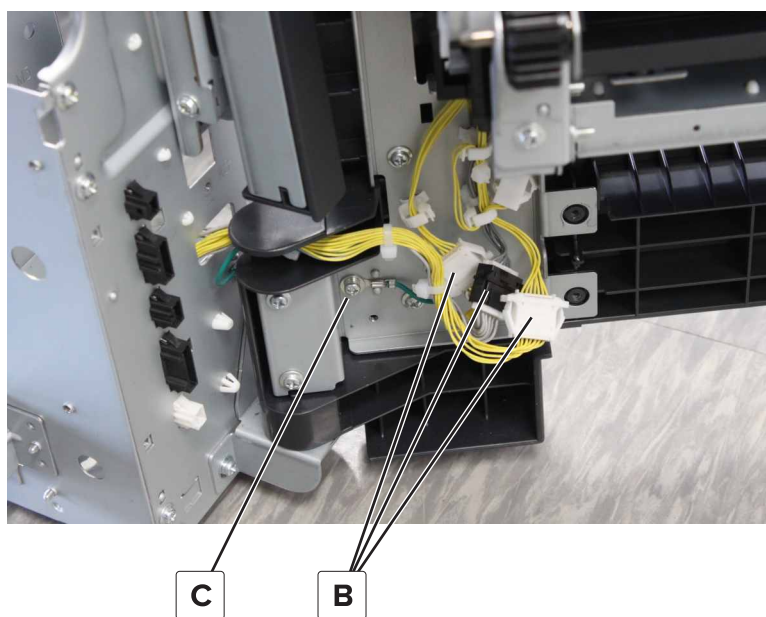


MPF removal

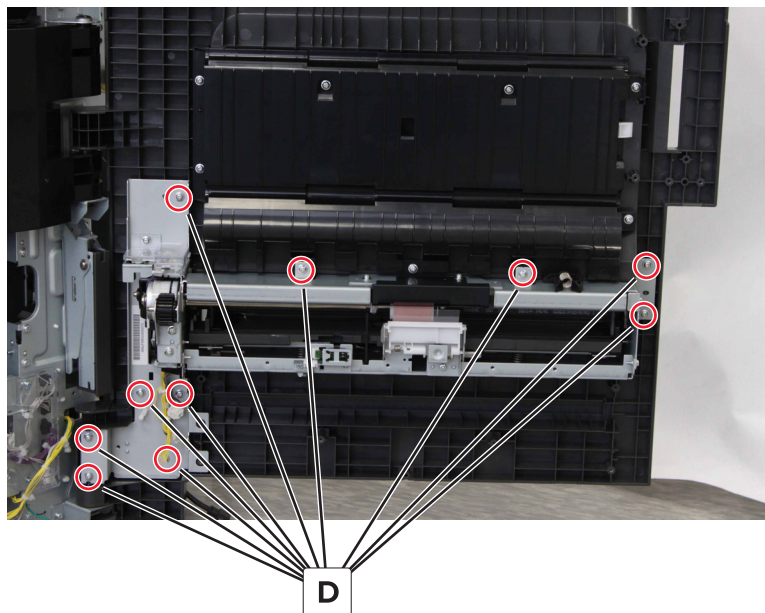
- 1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312.](#)
- 2 Remove the screw (A), and then remove the cover.



- 3 Disconnect the three cables (B), and then remove the ground screw (C).



- 4 Remove the 10 screws (D), and then remove the assembly.

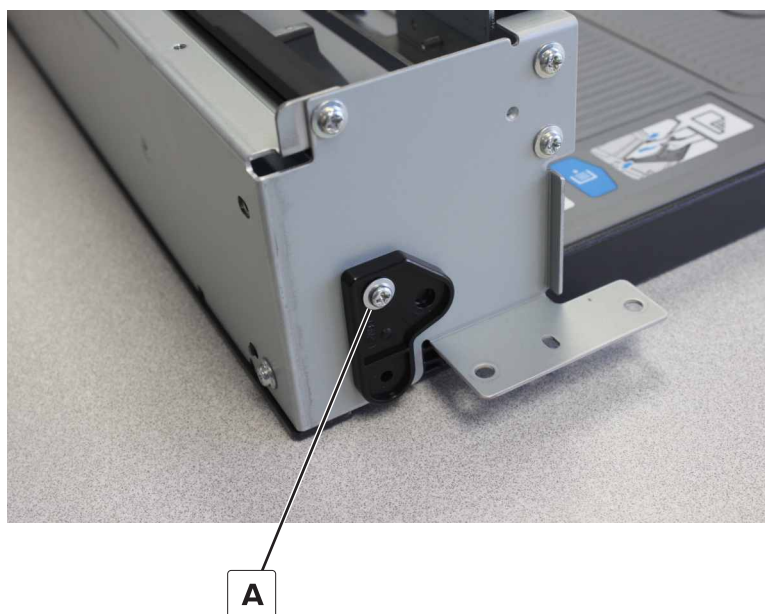


Installation note: Secure the cables to their clips.

MPF tray removal

Note: This part is not a FRU.

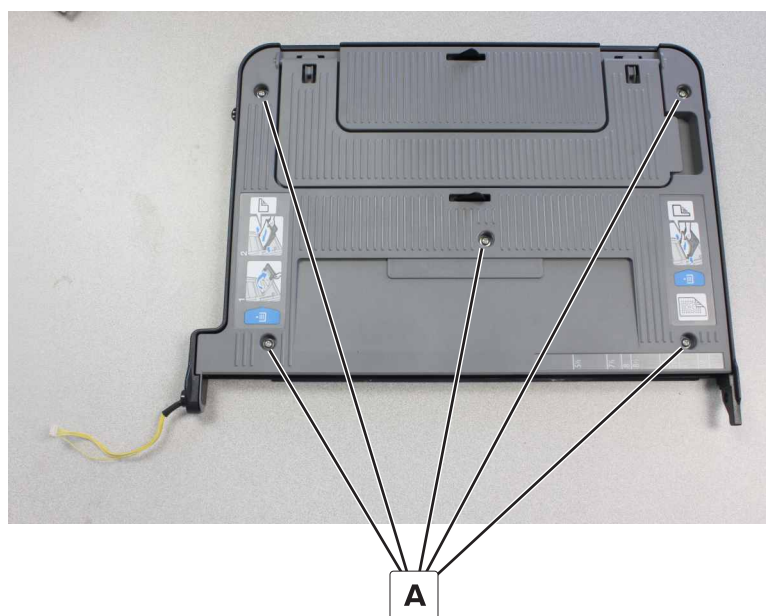
- 1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312.](#)
- 2 Remove the MPF. See [“MPF removal” on page 313.](#)
- 3 Remove the screw (A), and then remove the hinge.



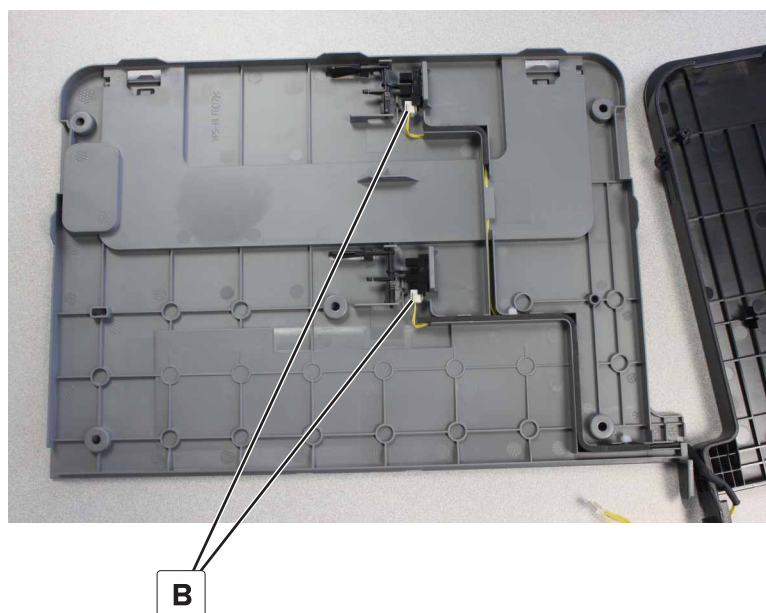
- 4 Remove the MPF tray.

Sensor (MPF paper length) removal

- 1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312.](#)
- 2 Remove the MPF. See [“MPF removal” on page 313.](#)
- 3 Remove the MPF tray. See [“MPF tray removal” on page 314.](#)
- 4 Remove the five screws (A), and then lift the cover.

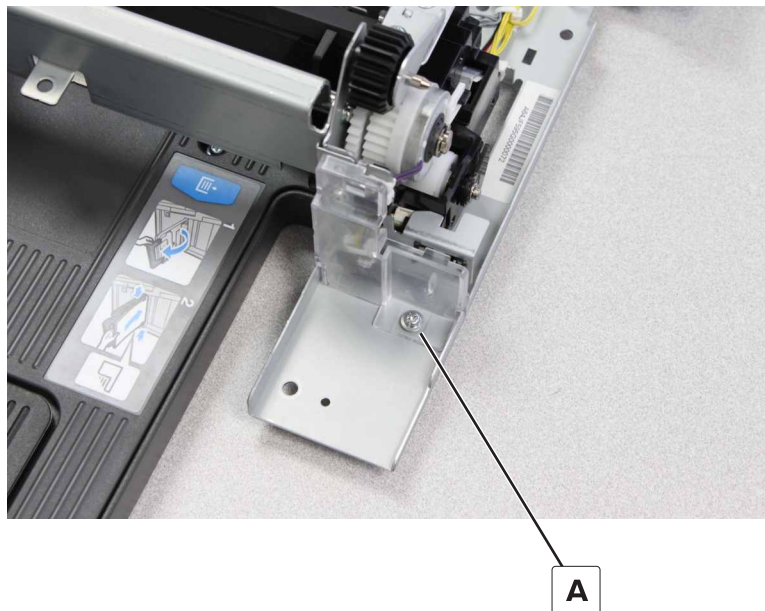


- 5 Disconnect the cable (B), and then remove the sensor.

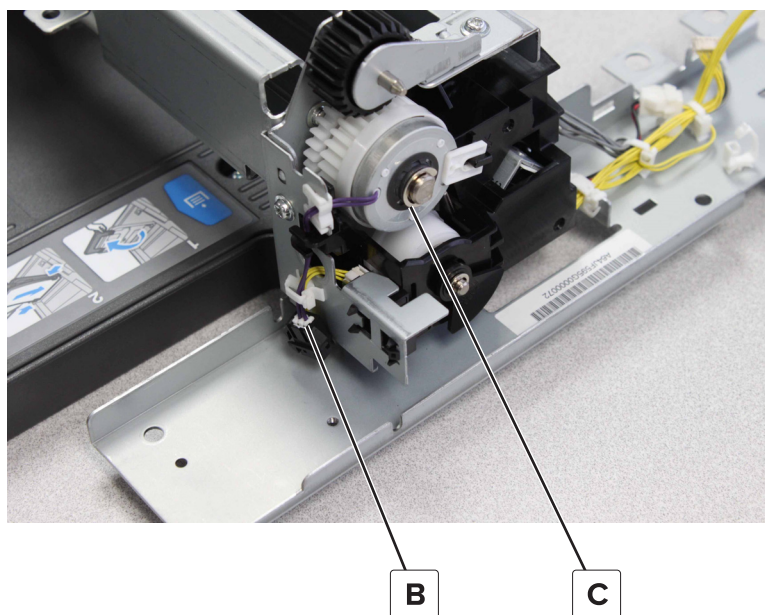


MPF feed clutch removal

- 1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312.](#)
- 2 Remove the MPF. See [“MPF removal” on page 313.](#)
- 3 Remove the screw (A), and then remove the cover.



- 4 Disconnect the cable (B), and then release the clip (C).



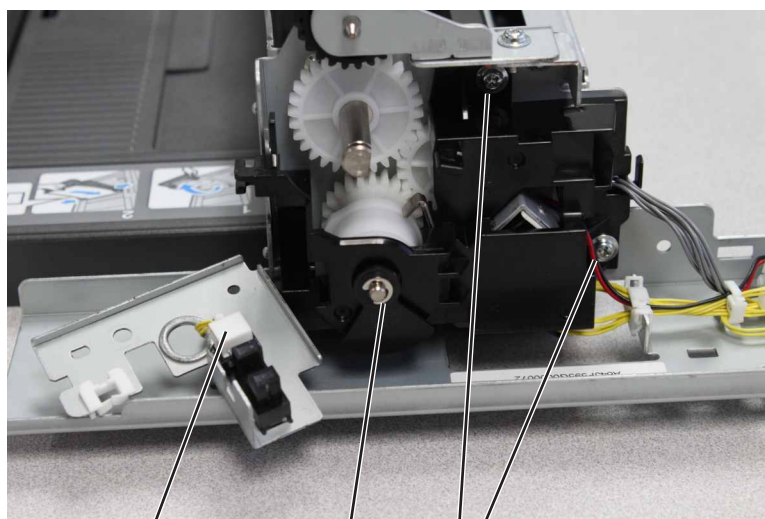
- 5 Remove the clutch.

MPF lift plate solenoid removal

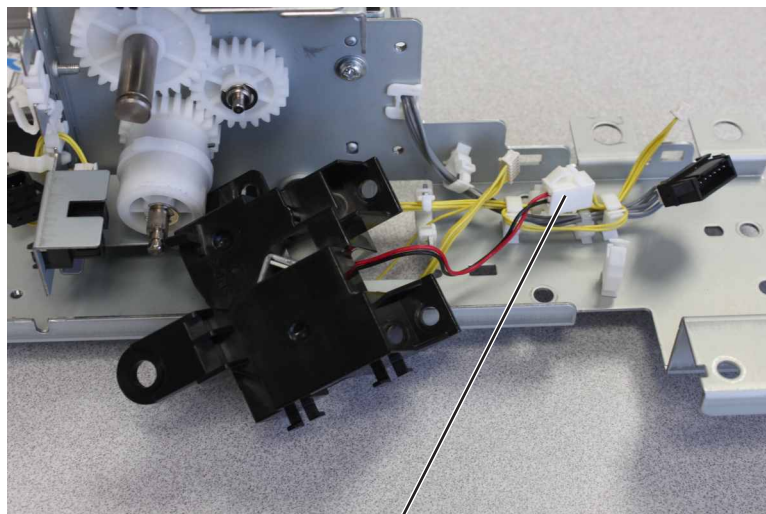
- 1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312.](#)
- 2 Remove the MPF. See [“MPF removal” on page 313.](#)
- 3 Remove the MPF feed clutch. See [“MPF feed clutch removal” on page 316.](#)
- 4 Remove the screw (A), and then move away the bracket.

**A**

- 5 Disconnect the cable (B), release the clip (C), and then remove the two screws (D).

**B****C****D**

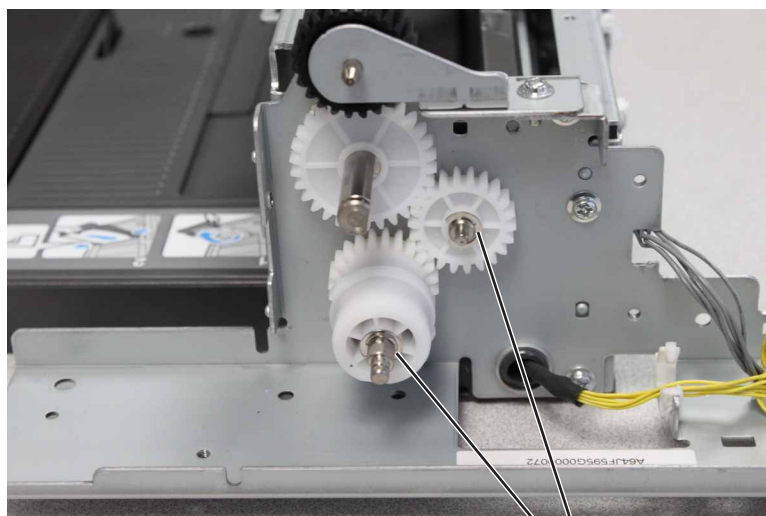
- 6 Disconnect the cable (E), and then remove the solenoid.



E

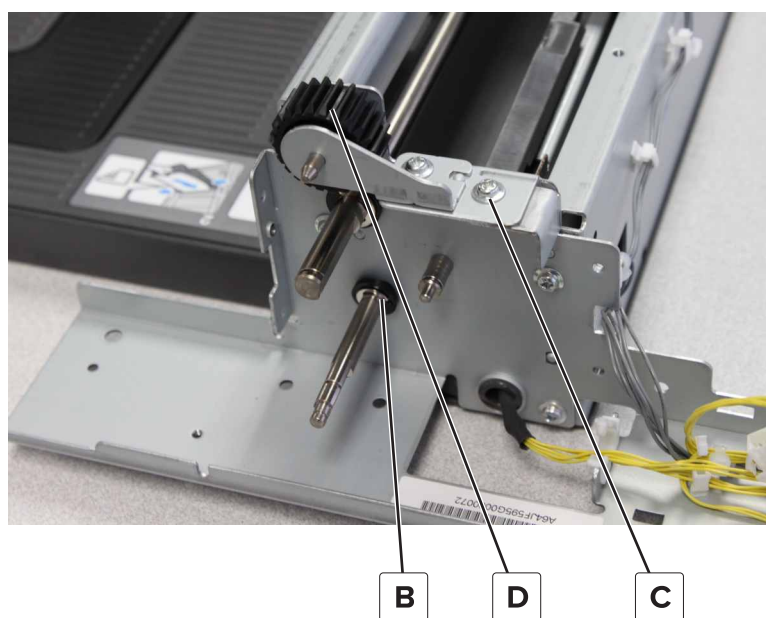
MPF gears removal

- 1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312.](#)
- 2 Remove the MPF. See [“MPF removal” on page 313.](#)
- 3 Remove the MPF feed clutch. See [“MPF feed clutch removal” on page 316.](#)
- 4 Move the MPF lift plate solenoid out of the way. See [“MPF lift plate solenoid removal” on page 317.](#)
- 5 Release the two clips (A), and then remove the gears.



A

- 6 Release the clip (B), and then remove the bushing. Remove the screw (C), remove the bracket, and then remove the gear (D).




Note: The MPF gears include the gears, bushing, clips, cam, and actuator.

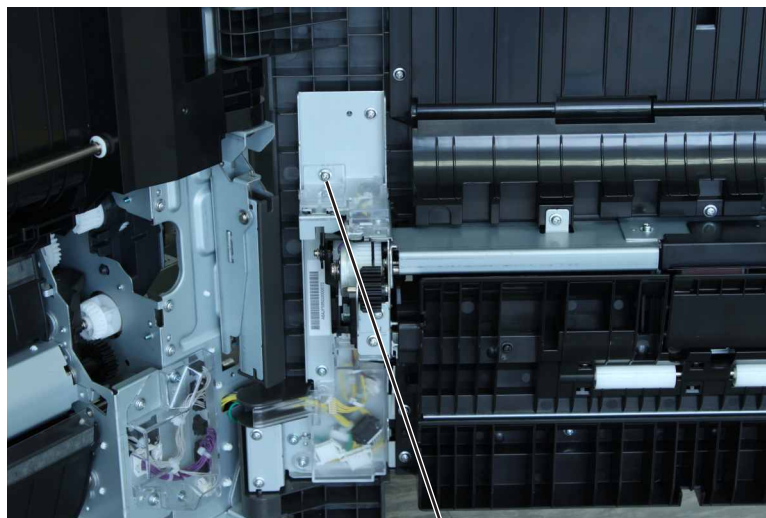


Sensor (MPF lift plate) removal

1 Open the right door, and then unlatch the registration unit handle.

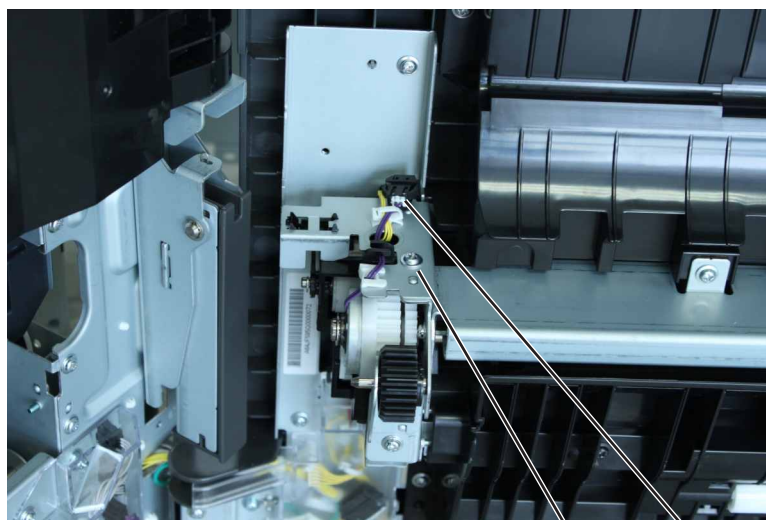
 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

2 Remove the screw (A), and then remove the cover.



A

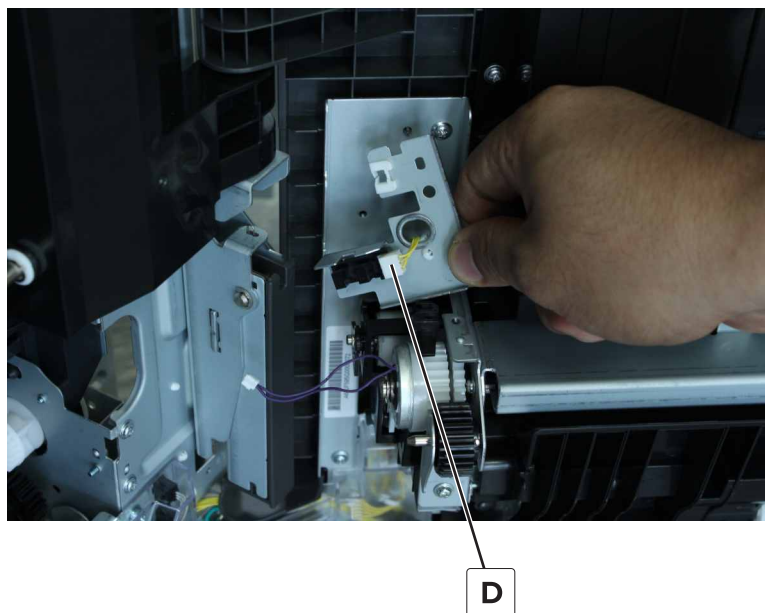
3 Disconnect the cable (B), and then remove the screw (C).



C

B

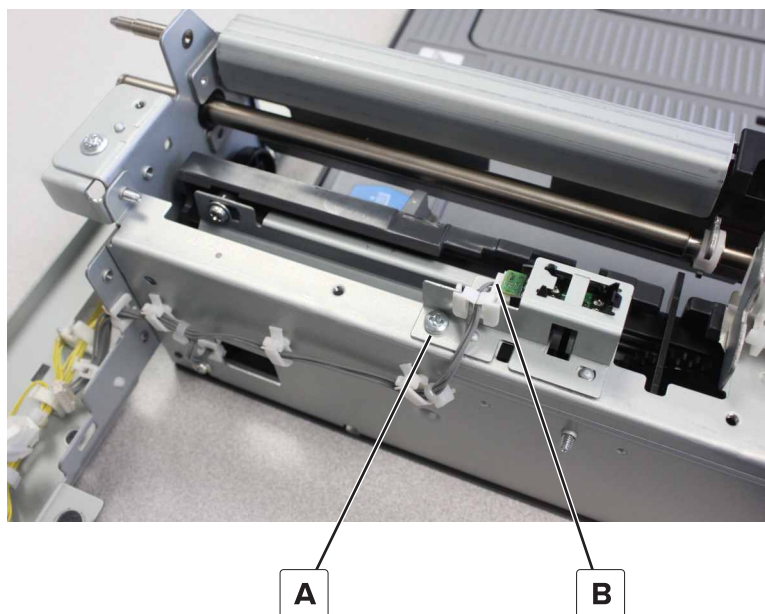
- 4 Lift the bracket, and then disconnect the cable (D).



- 5 Remove the sensor.

Sensor (MPF empty) removal

- 1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312.](#)
- 2 Remove the MPF. See [“MPF removal” on page 313.](#)
- 3 Remove the screw (A), and then disconnect the cable (B).



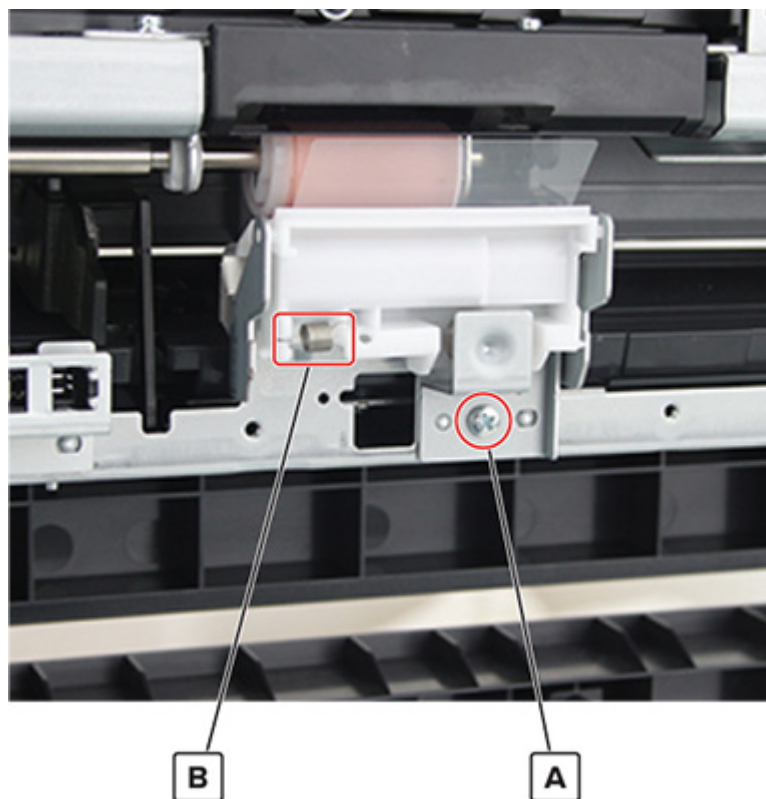
- 4 Remove the sensor.

MPF feed/separator assembly

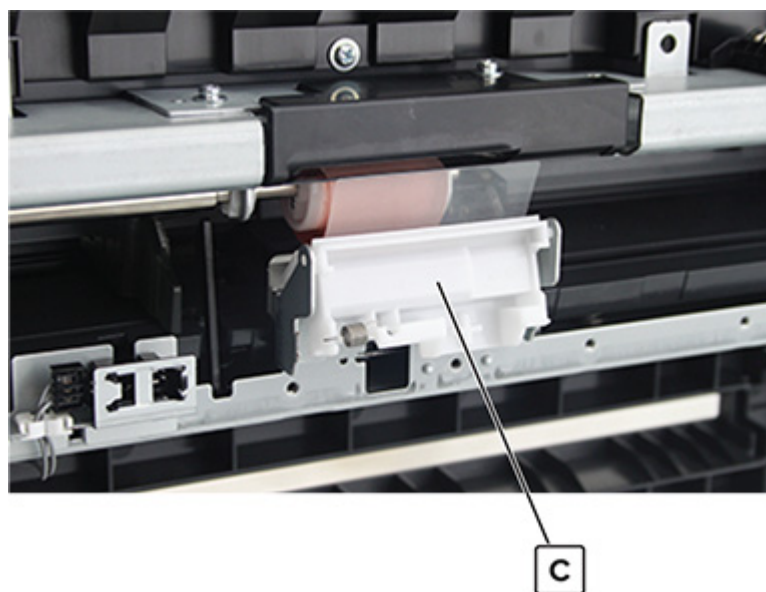
1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312](#).

2 Remove the screw (A) to remove the bracket and separator spring.

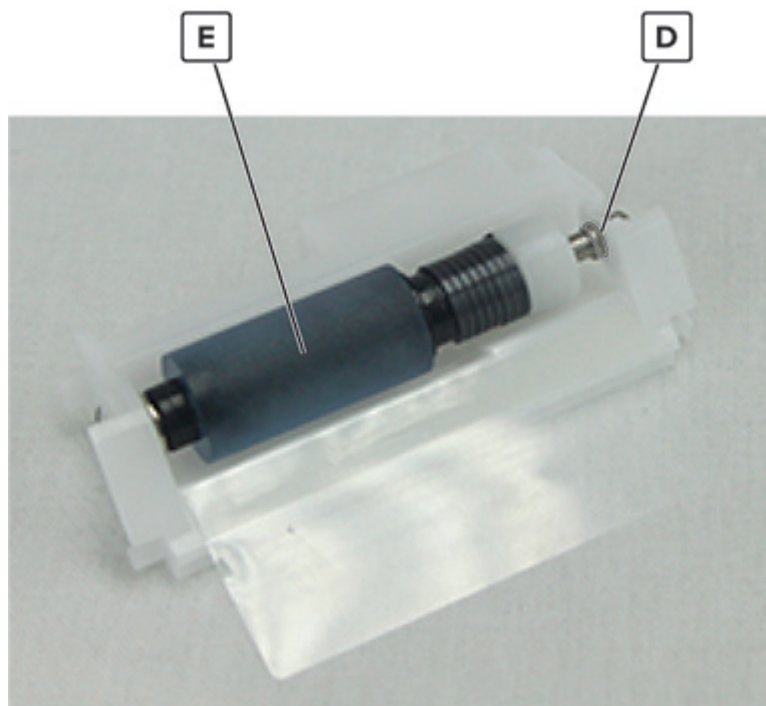
Warning—Potential Damage: Do not lose the spring (B).



3 Remove the separator roller assembly (C).



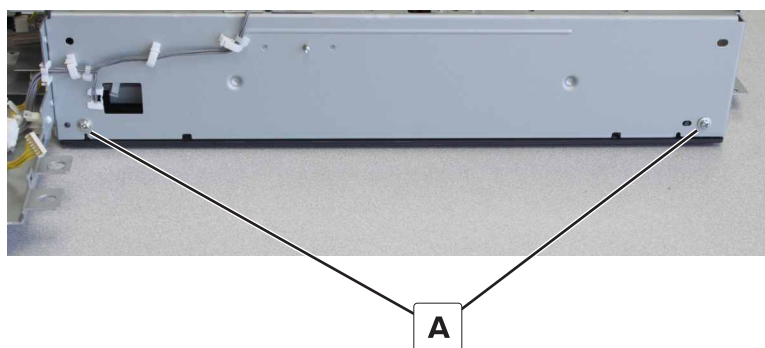
- 4 Remove the E-clip (D), and then remove the roller (E).



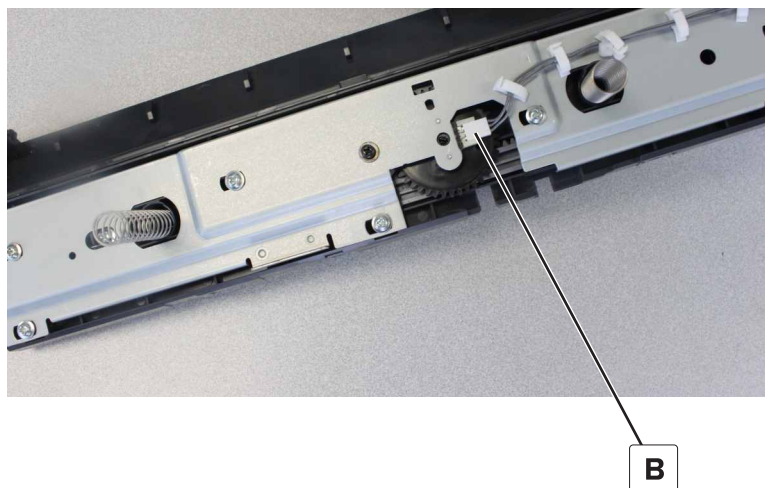
MPF lift plate assembly removal

Note: This part is not a FRU.

- 1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312.](#)
- 2 Remove the MPF. See [“MPF removal” on page 313.](#)
- 3 Remove the MPF tray. See [“MPF tray removal” on page 314.](#)
- 4 Remove the two screws (A), and then move away the plate.



- 5 Disconnect the cable (B), and then release it from the cable clips.

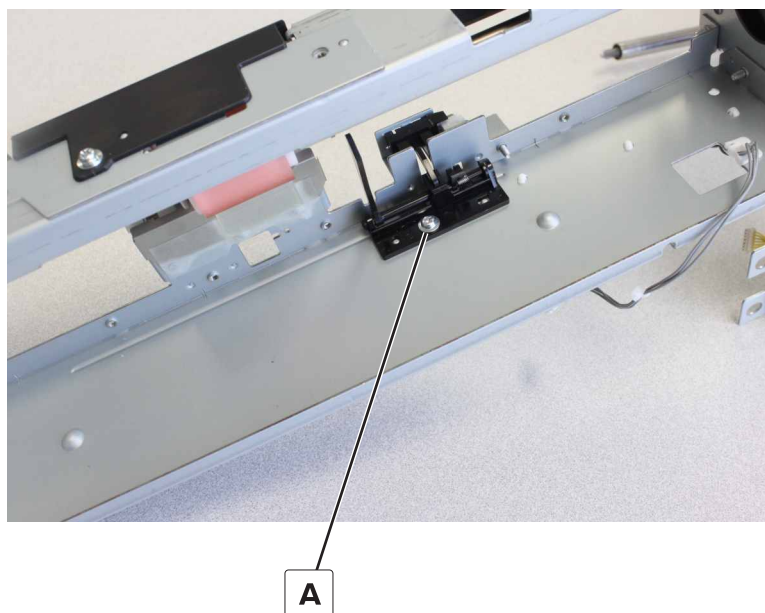


- 6 Remove the assembly.

MPF empty actuator removal

Note: This part is not a FRU.

- 1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312.](#)
- 2 Remove the MPF. See [“MPF removal” on page 313.](#)
- 3 Remove the MPF tray. See [“MPF tray removal” on page 314.](#)
- 4 Remove the screw (A), and then remove the actuator with spring.



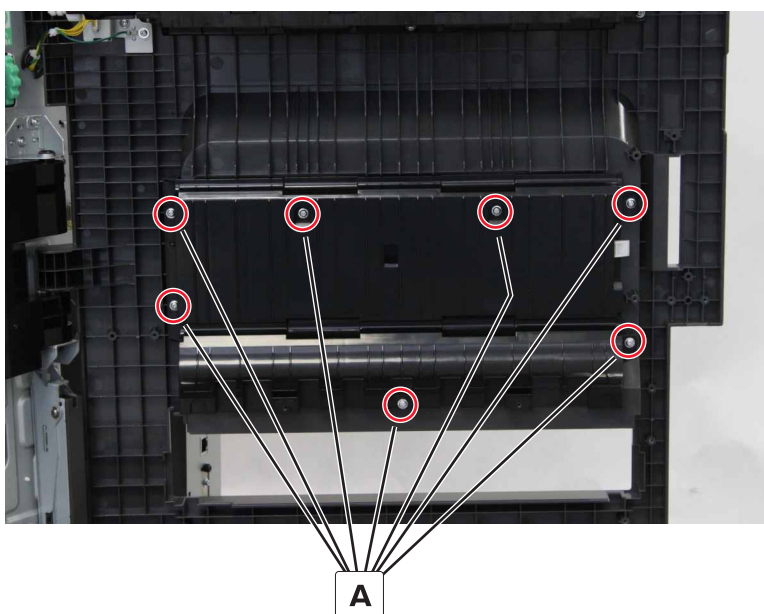
Installation note: Make sure that the spring is correctly positioned on the actuator base.



Duplex transport guide removal

Note: This part is not a FRU.

- 1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312.](#)
- 2 Remove the MPF. See [“MPF removal” on page 313.](#)
- 3 Remove the seven screws (A), and then remove the guide.

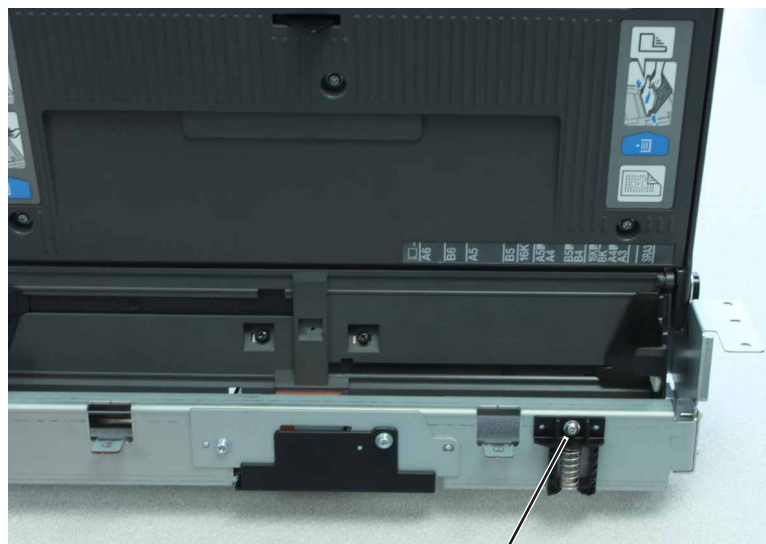


Registration unit latch assembly removal

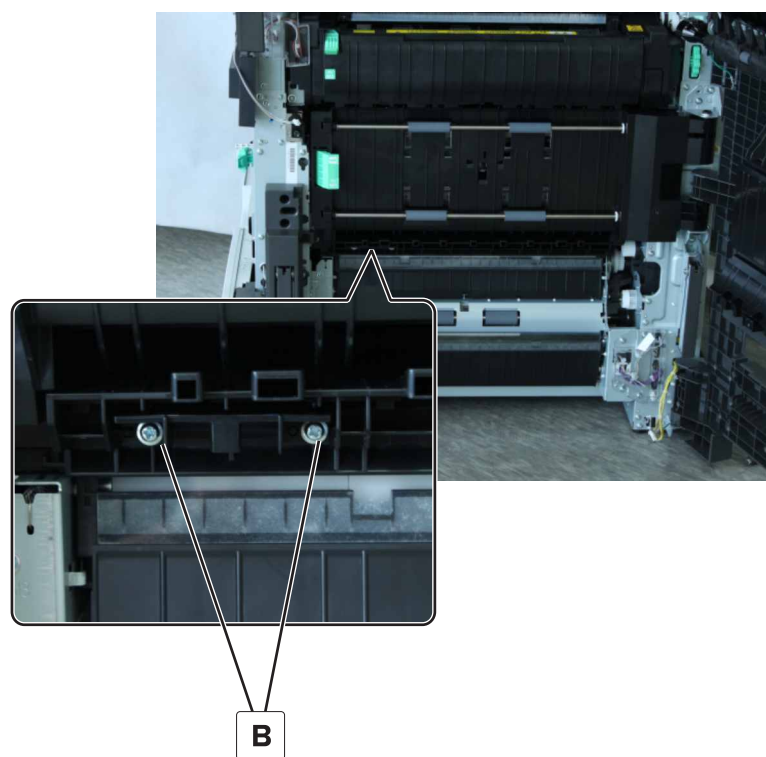
Note: This part is not a FRU.

- 1 Remove the tray 2 transport guide. See [“Tray 2 transport guide removal” on page 312.](#)
- 2 Remove the MPF. See [“MPF removal” on page 313.](#)

- 3 Remove the screw (A), and then remove the latch and spring.

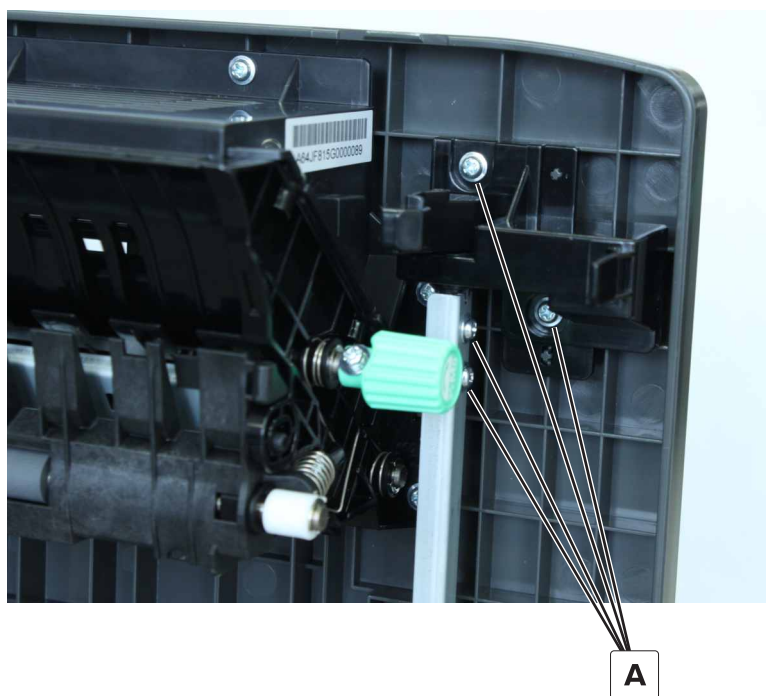


- 4 On the rear side of the printer, remove the two screws (B), and then remove the latch.



Right door switch actuator removal

- 1 Open the right door.
- 2 Remove the four screws (A), and then remove the actuator.



Right door removal

Note: This part is not a FRU.

- 1 Open the right door.

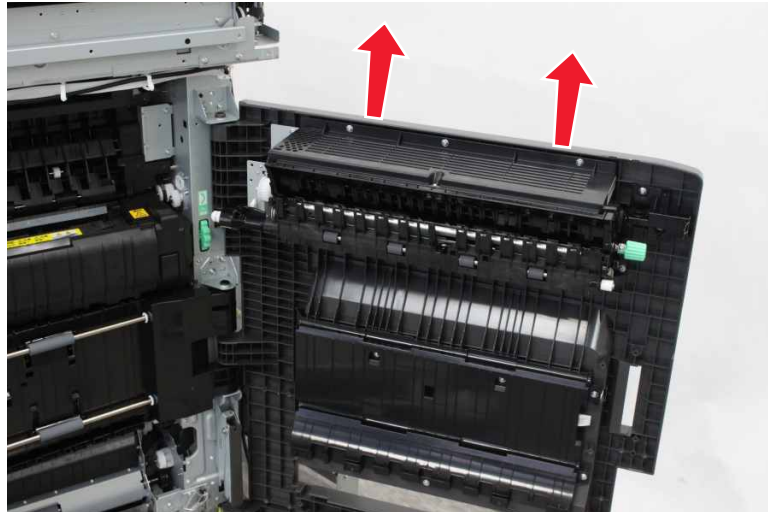
Installation note: Before removing the door, take note of the alignment of the door hinge.



2 Remove the two screws (A), and then remove the upper hinge.




3 Remove the door.

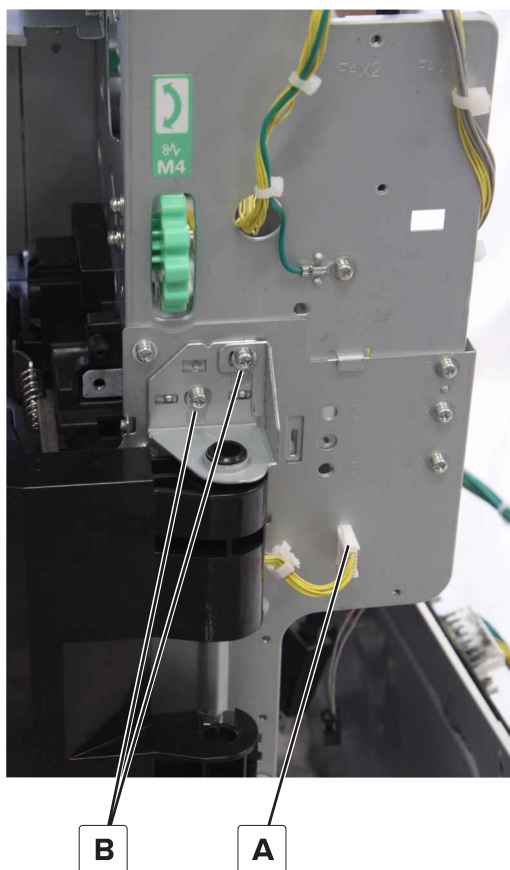


Registration unit assembly removal

1 Remove the right door. See [“Right door removal” on page 327](#).

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

2 Disconnect the cable (A), and then remove the two screws (B).

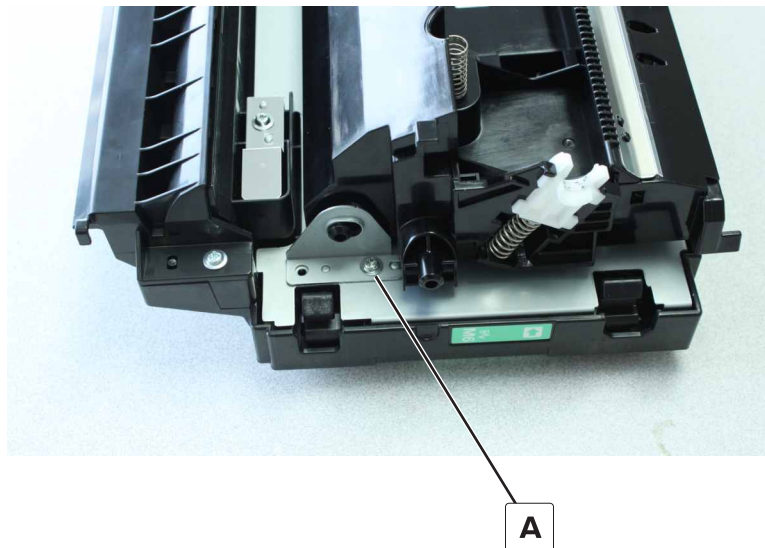


3 Lift the registration unit to release, and then remove.

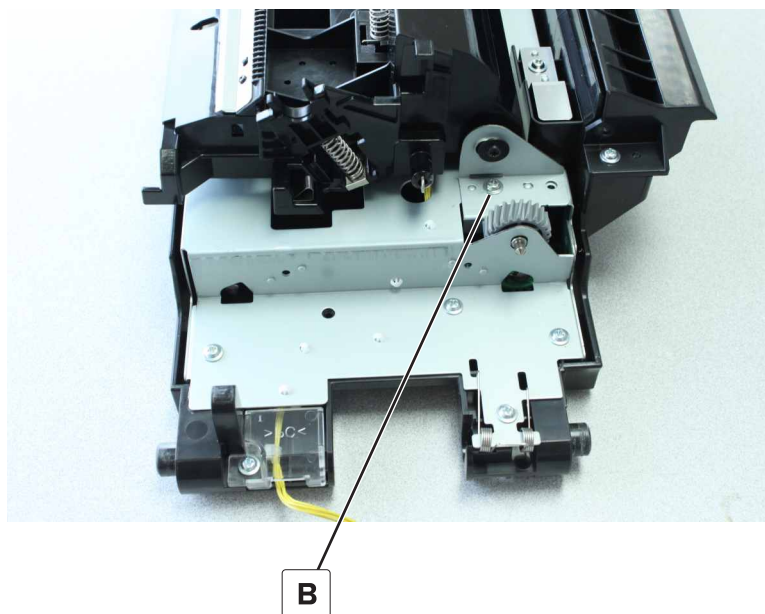
Registration unit sub-assembly removal

Note: This part is not a FRU.

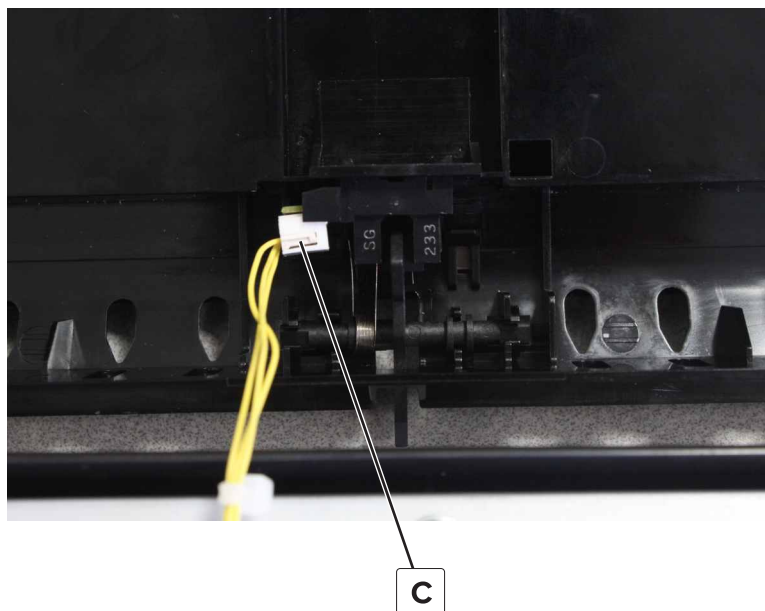
- 1 Remove the registration unit assembly. See [“Registration unit assembly removal” on page 329](#).
- 2 Remove the screw (A) from the right bracket.



- 3 Remove the screw (B) from the left bracket.



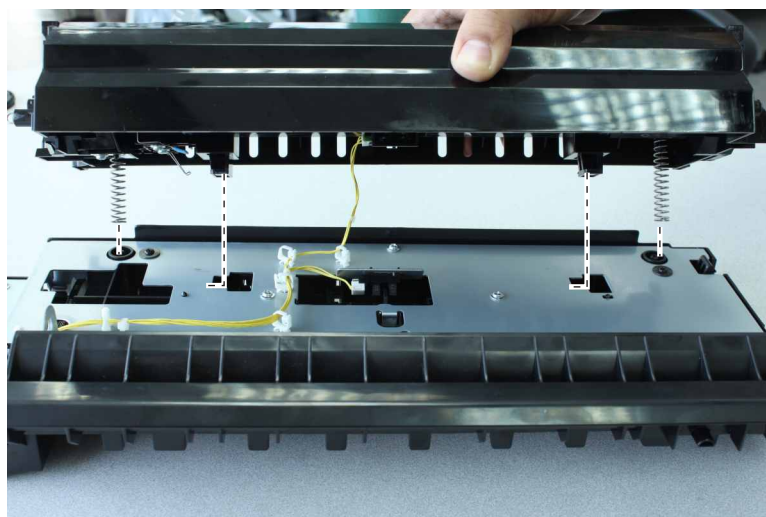
- 4 Disconnect the cable (C), and then remove the sub-assembly.



 **CAUTION—POTENTIAL INJURY:** This part has sharp points.

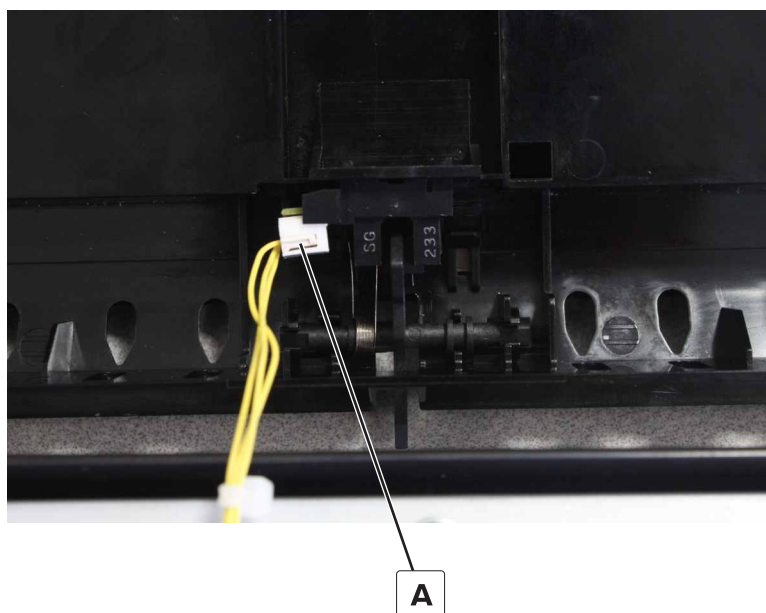


Installation note: Align the two springs while pushing down the assembly, and then move the assembly to the left to lock.



Sensor (fusing speed) removal

- 1 Remove the registration unit assembly. See [“Registration unit assembly removal” on page 329.](#)
- 2 Remove the registration unit sub-assembly. See [“Registration unit sub-assembly removal” on page 330.](#)
- 3 Disconnect the cable (A), and then remove the sensor.

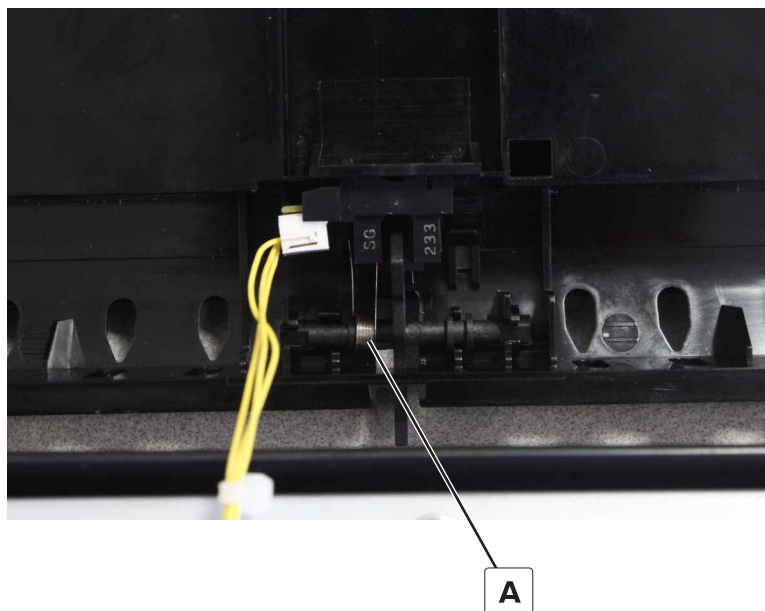


Fusing speed actuator removal

Note: This part is not a FRU.

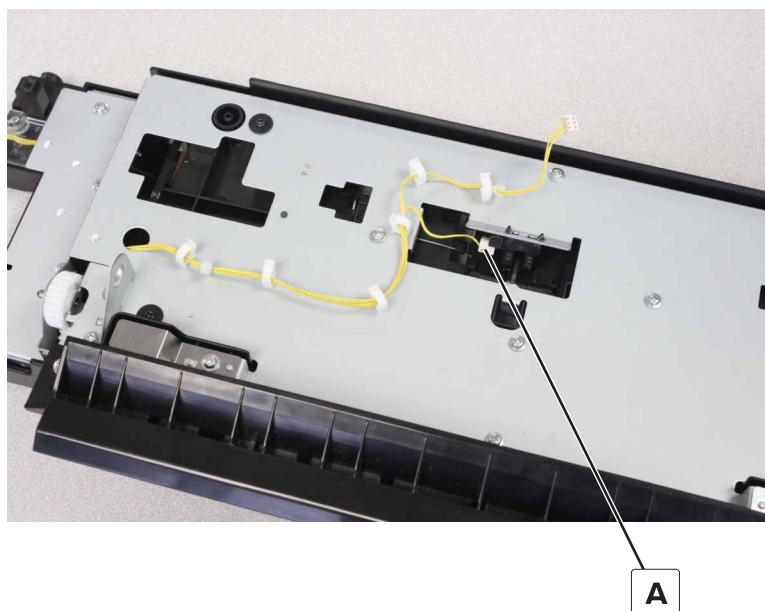
- 1 Remove the registration unit assembly. See [“Registration unit assembly removal” on page 329.](#)
- 2 Remove the registration unit sub-assembly. See [“Registration unit sub-assembly removal” on page 330.](#)
- 3 Release the spring (A), and then remove the actuator.

Installation note: Make sure that the spring (A) is correctly positioned on the actuator base.



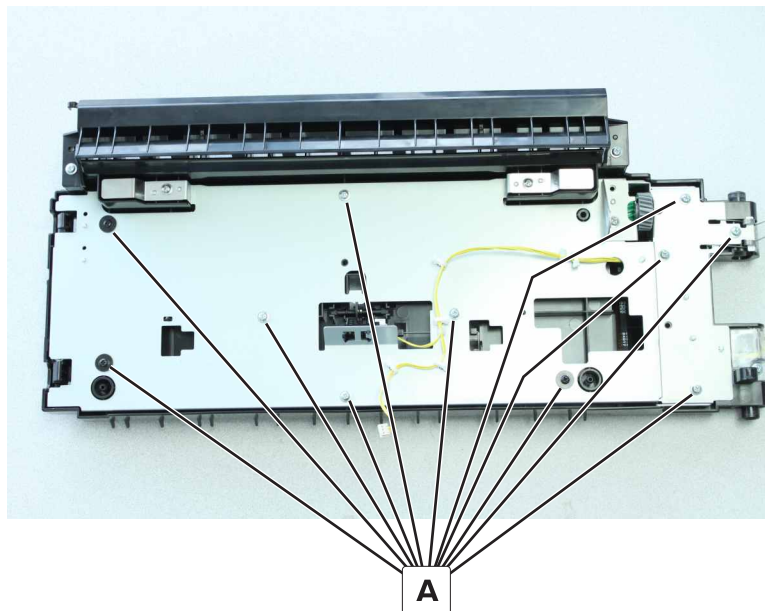
Sensor (duplex pass through 2) removal

- 1 Remove the registration unit assembly. See [“Registration unit assembly removal” on page 329.](#)
- 2 Remove the registration unit sub-assembly. See [“Registration unit sub-assembly removal” on page 330.](#)
- 3 Disconnect the cable (A), and then remove the sensor.

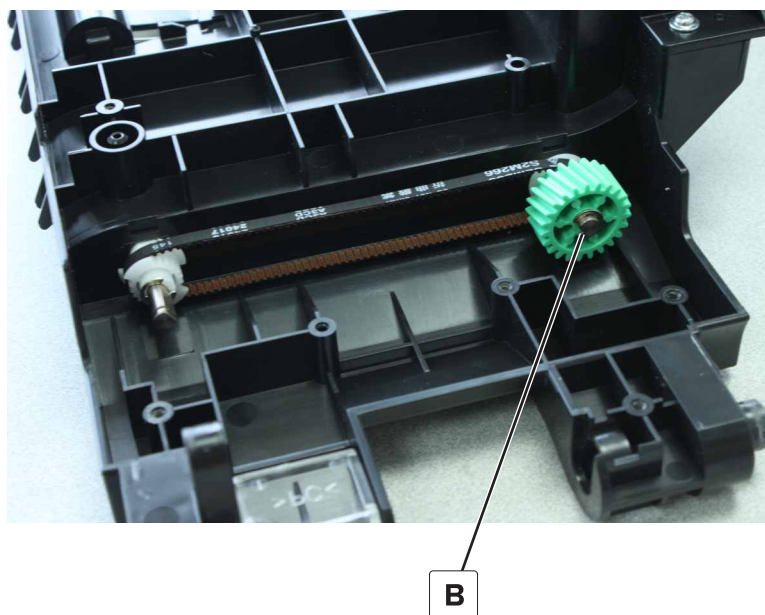


Registration unit belt removal

- 1 Remove the registration unit assembly. See [“Registration unit assembly removal” on page 329.](#)
- 2 Remove the registration unit sub-assembly. See [“Registration unit sub-assembly removal” on page 330.](#)
- 3 Remove the 11 screws (A), and then remove the plate.



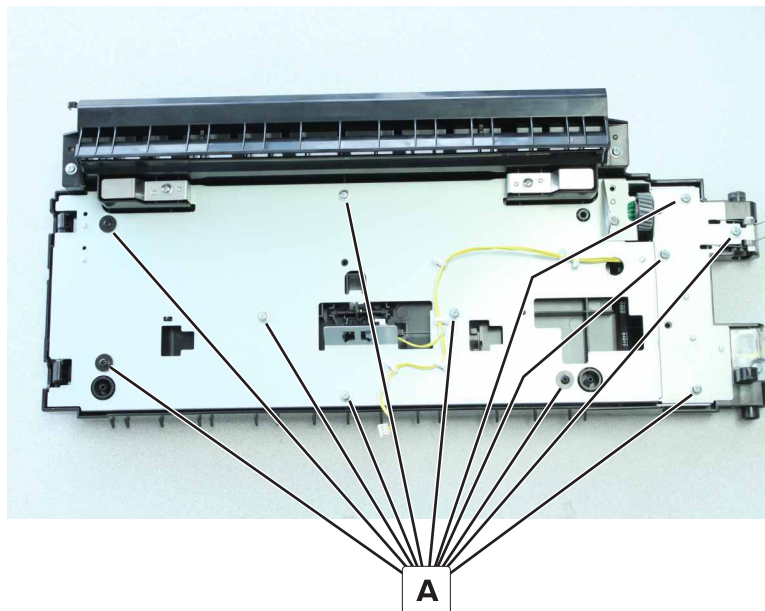
- 4 Release the clip (B), and then remove the gear.



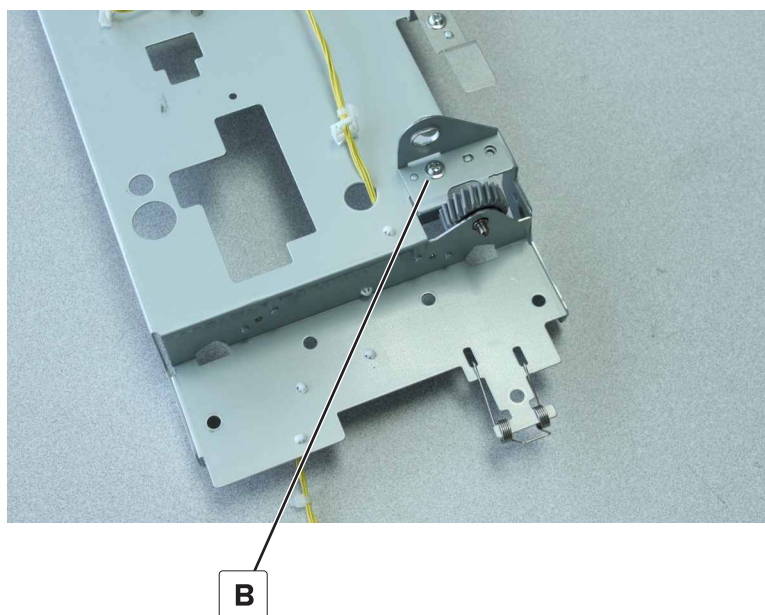
- 5 Remove the belt.

Registration unit gears removal

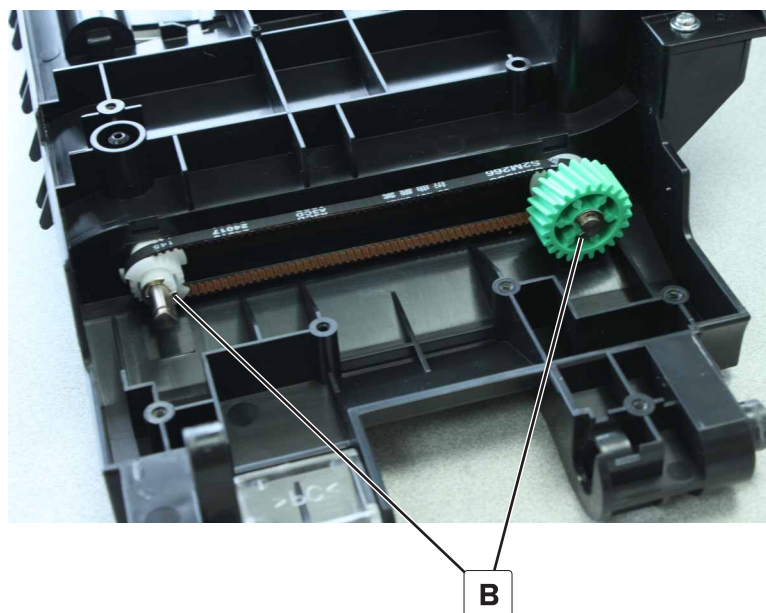
- 1 Remove the registration unit assembly. See [“Registration unit assembly removal” on page 329.](#)
- 2 Remove the registration unit sub-assembly. See [“Registration unit sub-assembly removal” on page 330.](#)
- 3 Remove the 11 screws (A), and then remove the plate.



- 4 Remove the screw (B), remove the bracket, and then remove the gear.



- 5 Release the two clips (C), and then remove the gears.



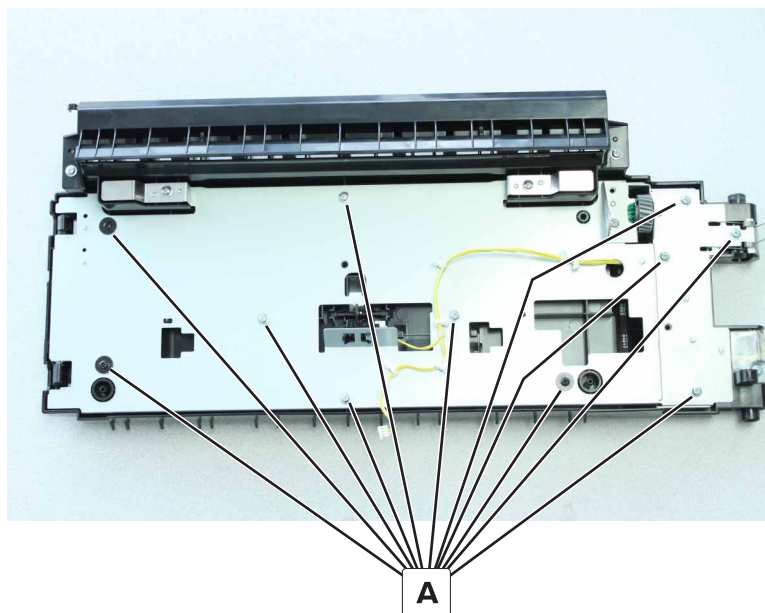
Note: The registration gear pack includes the gears, bushings, and clips.



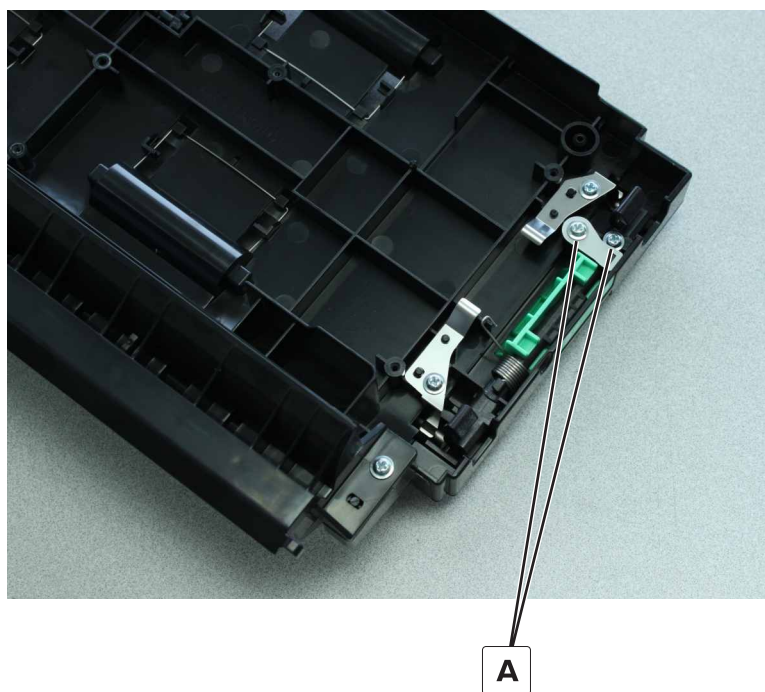
Registration unit lock removal

- 1 Remove the registration unit assembly. See [“Registration unit assembly removal” on page 329.](#)
- 2 Remove the registration unit sub-assembly. See [“Registration unit sub-assembly removal” on page 330.](#)

- 3 Remove the 11 screws (A), and then remove the plate.



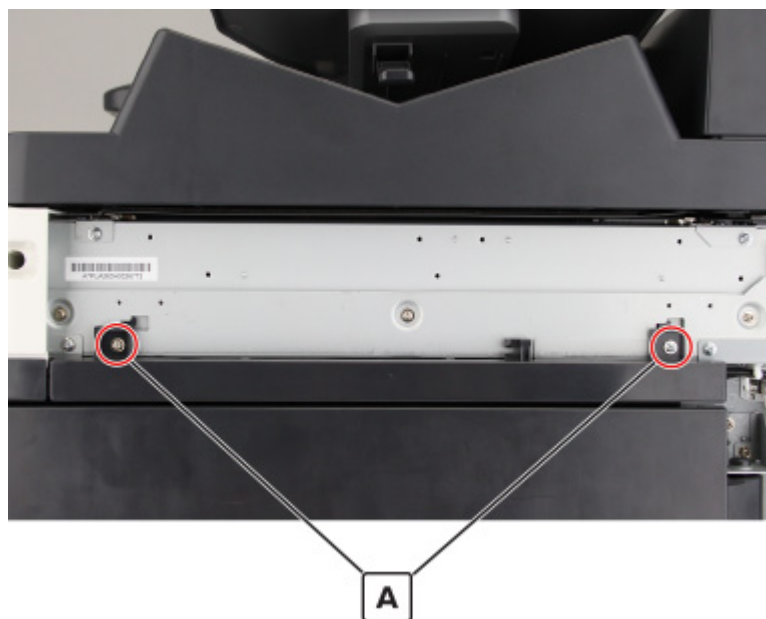
- 4 Remove the two screws (A), and then remove the lock.



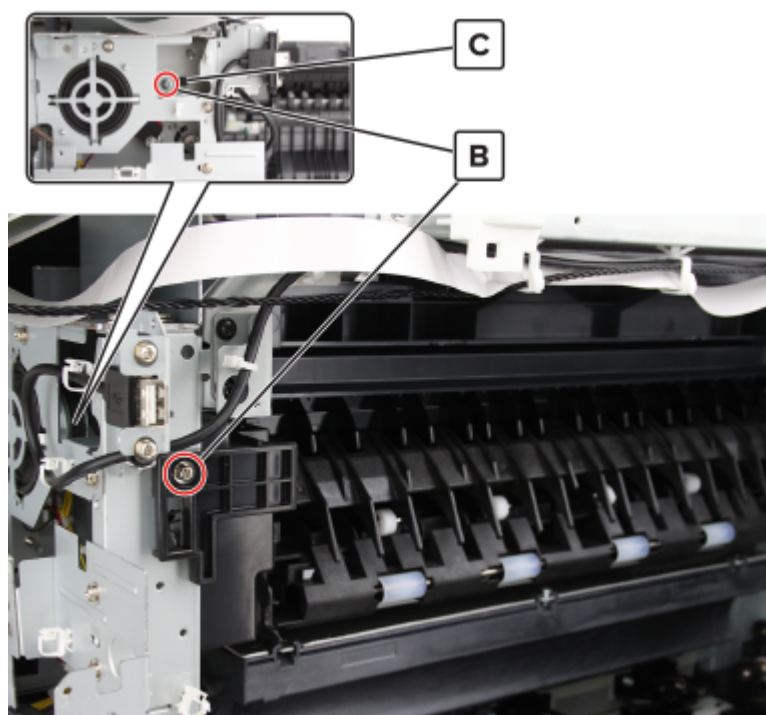
Exit guide assembly removal

- 1 Remove the scanner right cover. See [“Scanner right cover removal” on page 455.](#)
- 2 Remove the speaker cover. See [“Speaker cover removal” on page 358.](#)
- 3 Remove the fuser. See [“Fuser removal” on page 294.](#)

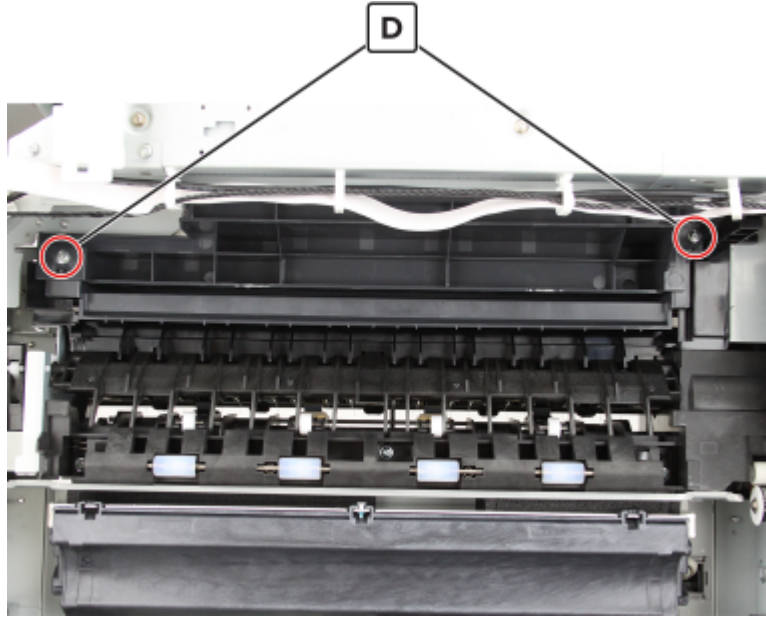
- 4 Remove the two screws (A), and then remove the cover.



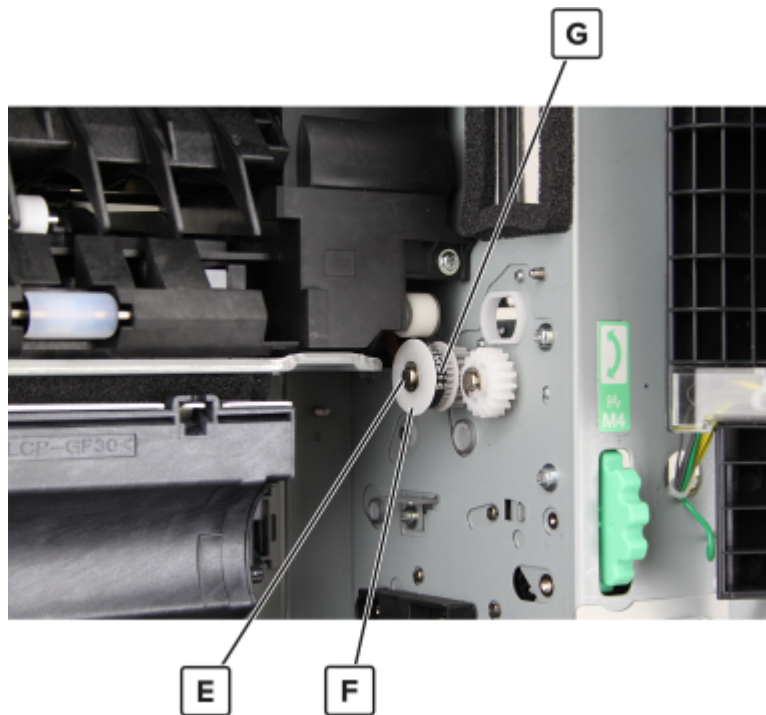
- 5 Open the right door, remove the two screws (B), release the tab (C), and then remove the cover.



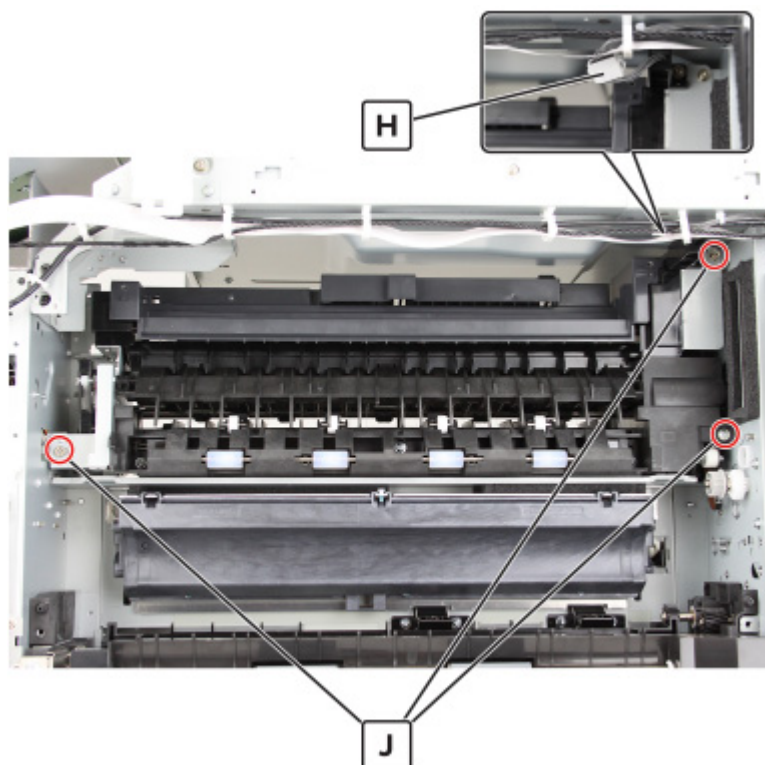
6 Remove the two screws (D), and then remove the exit cover.



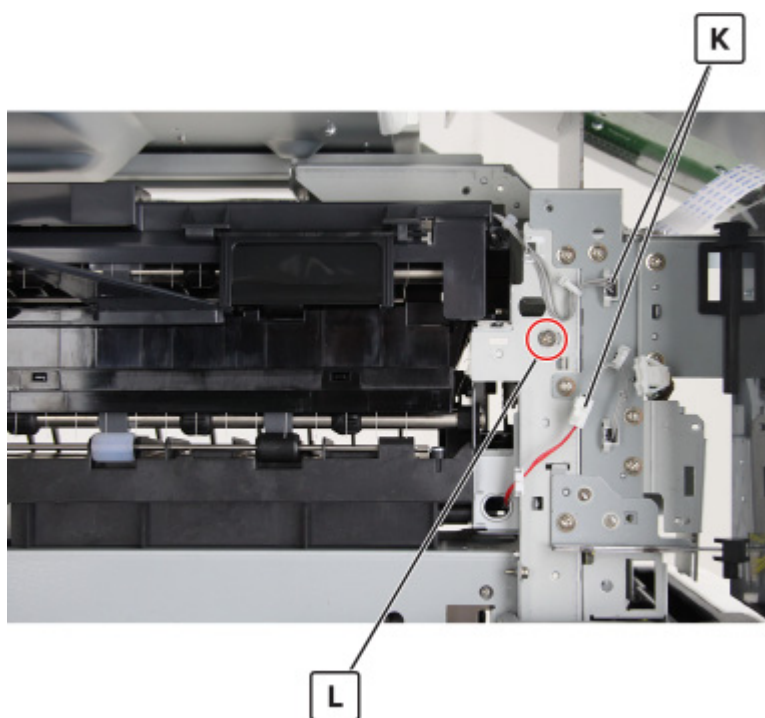
7 Remove the E-clip (E) and bushing (F), release the belt (G), and then remove the gear.



- 8** Disconnect the cable (H), and then remove the three screws (J).



- 9** Disconnect the two cables (K) behind the exit drive, and then remove the screw (L).

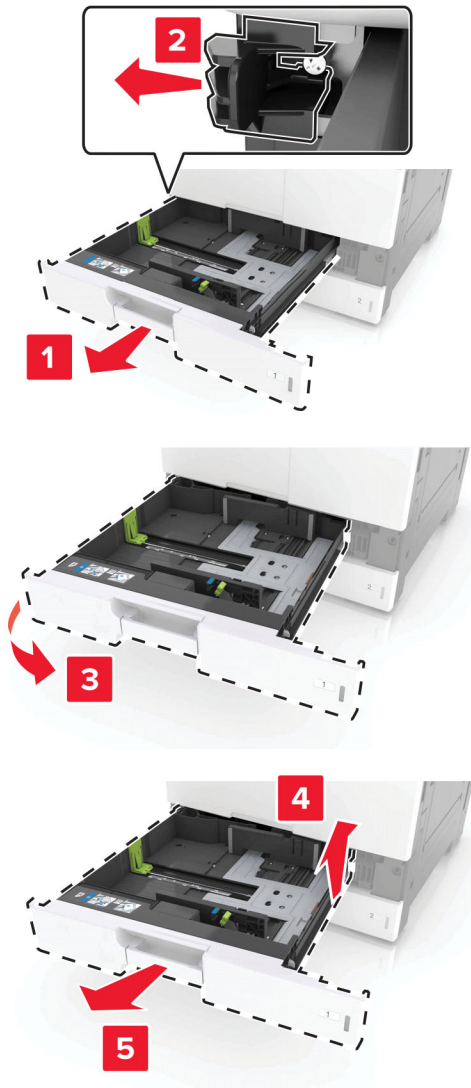


- 10** Remove the exit drive.

Front side removals

Tray insert removal

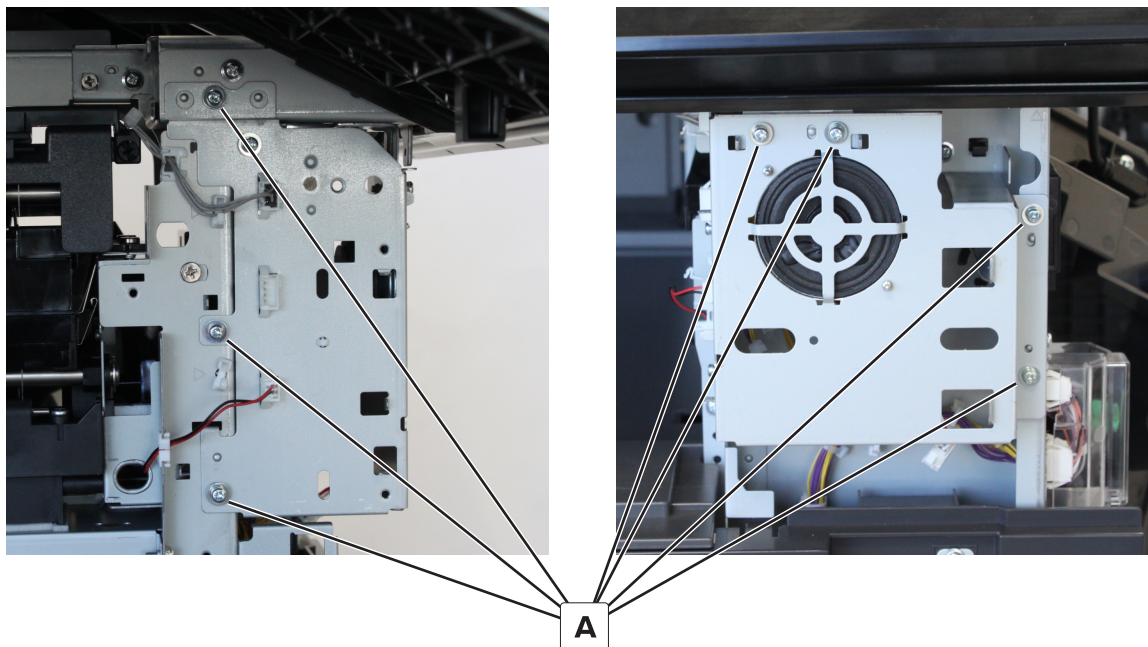
Remove the tray insert.



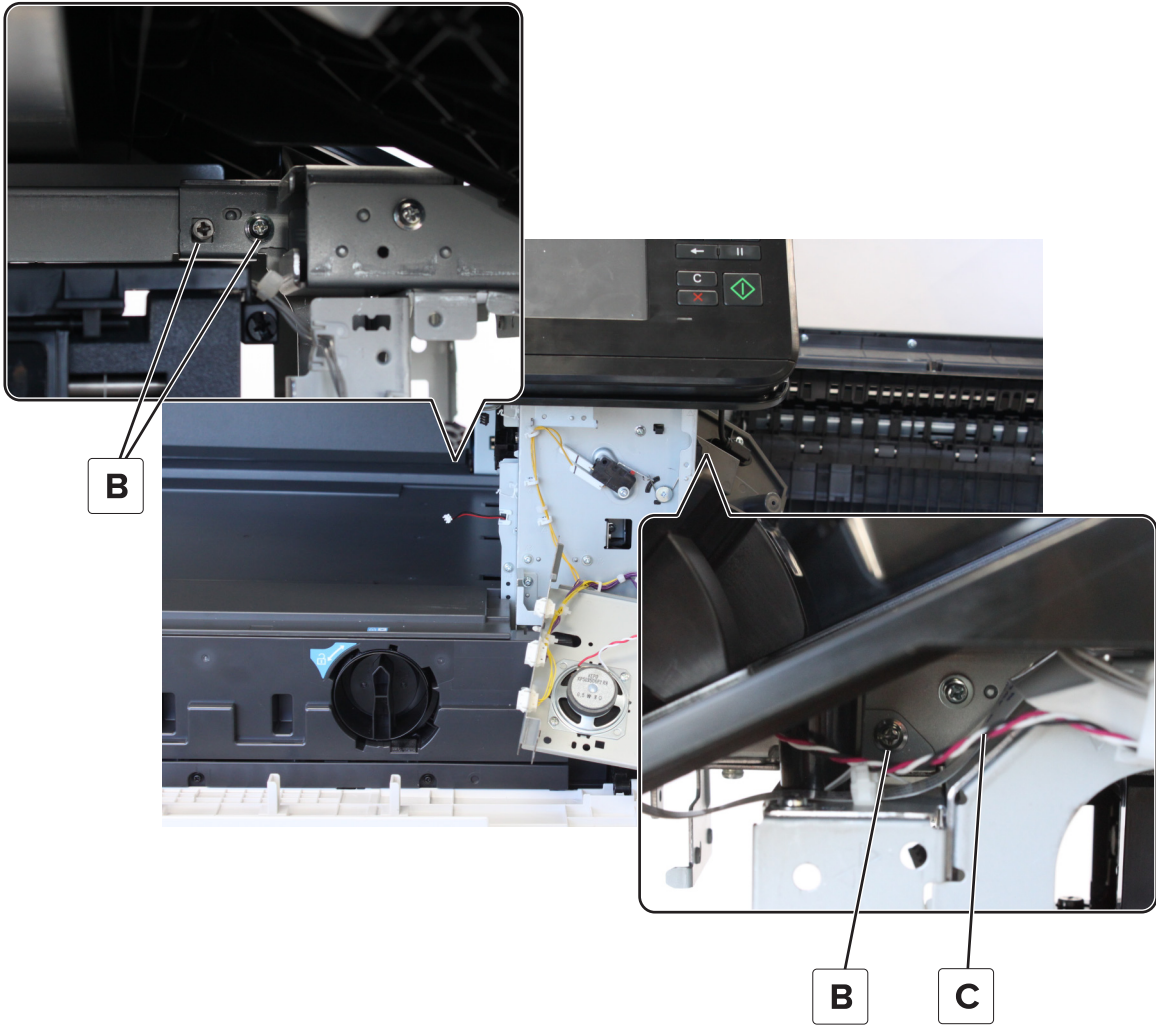
Control panel frame removal

Note: This part is not a FRU.

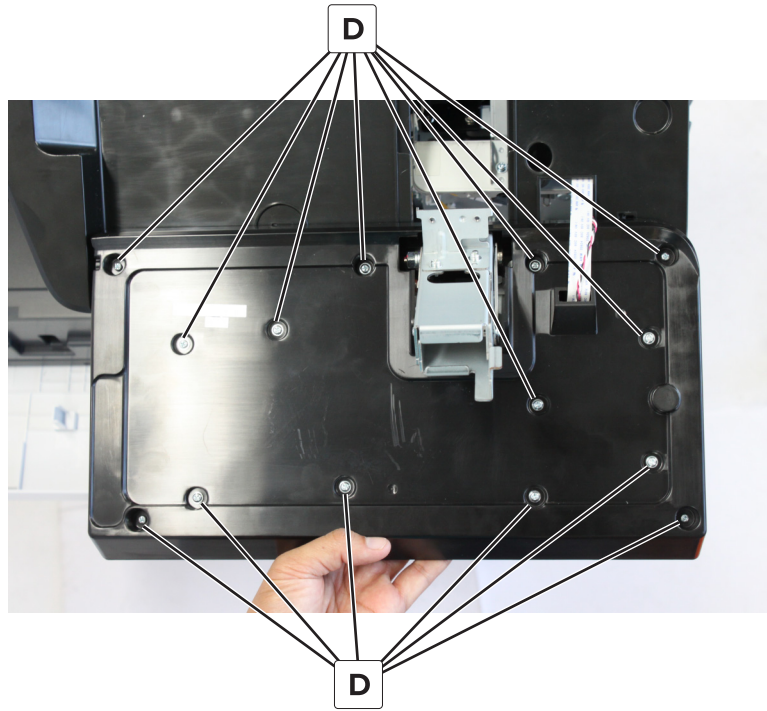
- 1 Remove the speaker cover. See [“Speaker cover removal” on page 358](#).
- 2 Remove the screws (A), and then remove the speaker frame.



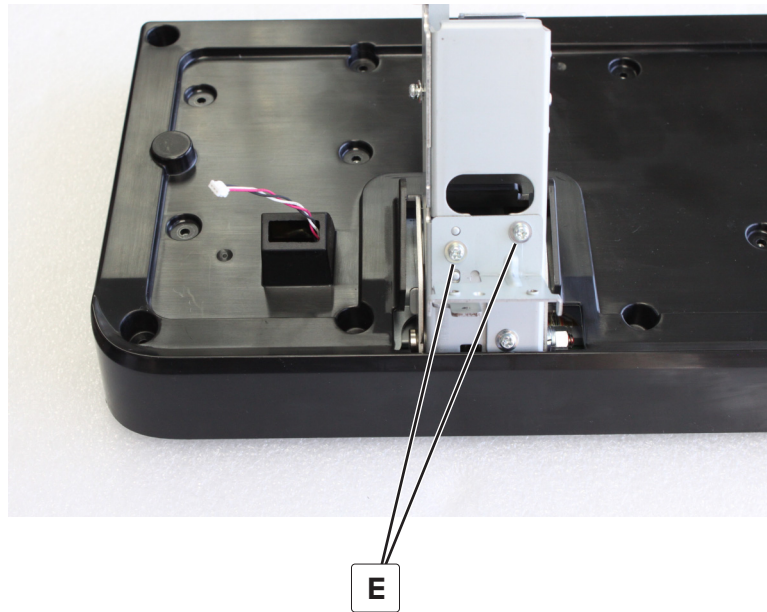
3 Remove the three screws (B), and then disconnect the control panel board cable (C).



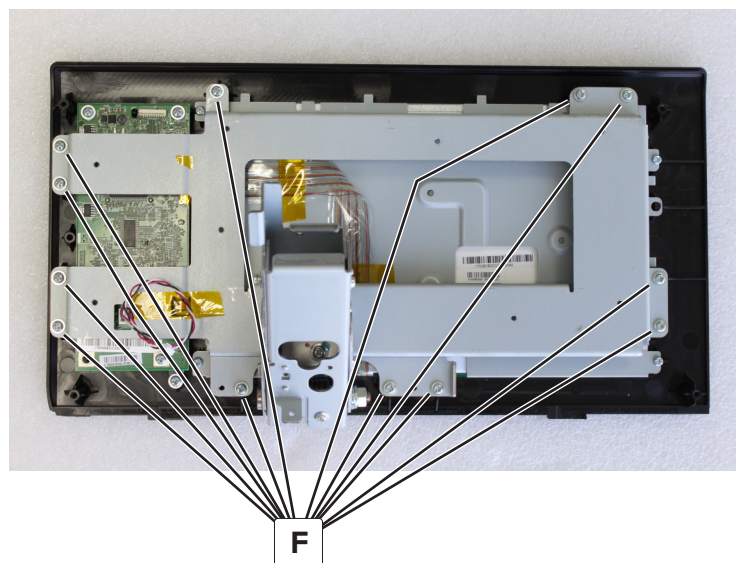
4 Remove the 14 screws (D) behind the control panel.



5 Remove the two screws (E), and then remove the cover.

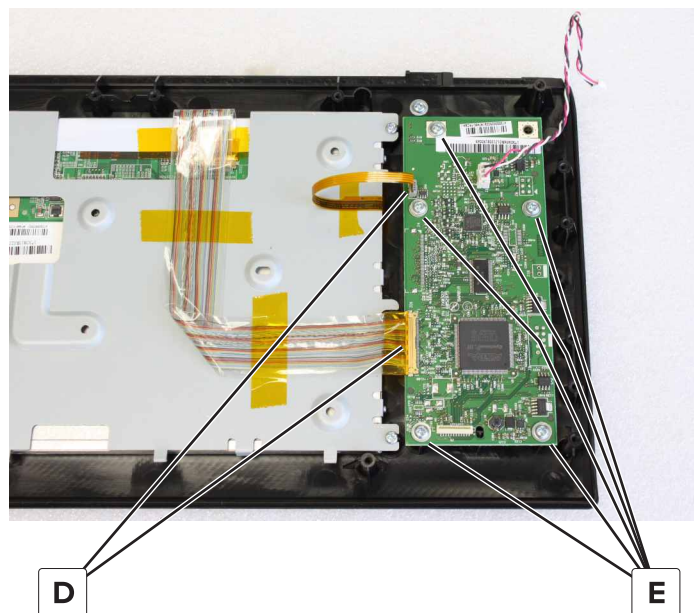


- 6 Remove the 12 screws (F), and then remove the frame.



Control panel board removal

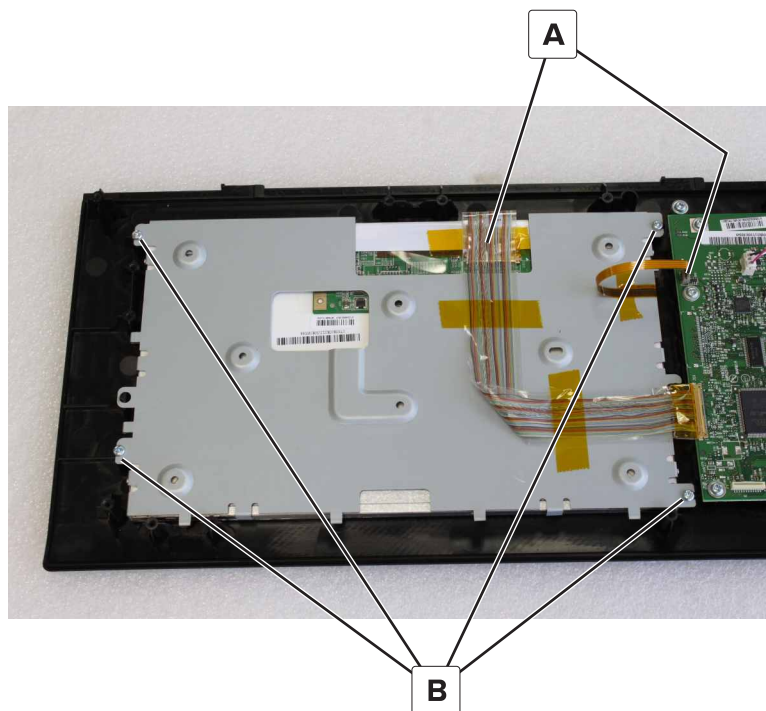
- 1 Remove the speaker cover. See [“Speaker cover removal” on page 358.](#)
- 2 Remove the control panel frame. See [“Control panel frame removal” on page 342.](#)
- 3 Disconnect the two cables (D), and then remove the five screws (E).



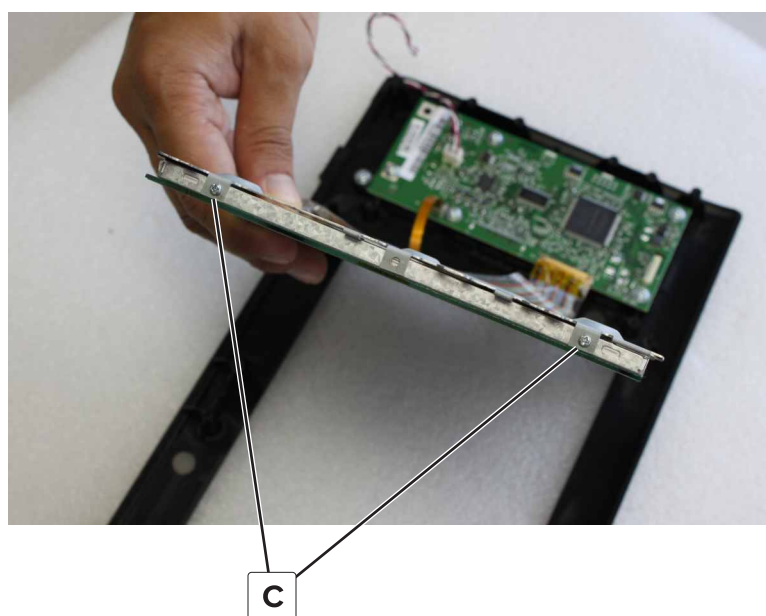
- 4 Remove the board.

Touch screen removal

- 1 Remove the speaker cover. See [“Speaker cover removal” on page 358.](#)
- 2 Remove the control panel frame. See [“Control panel frame removal” on page 342.](#)
- 3 Disconnect the two cables (A), remove the four screws (B), and then remove the shield.

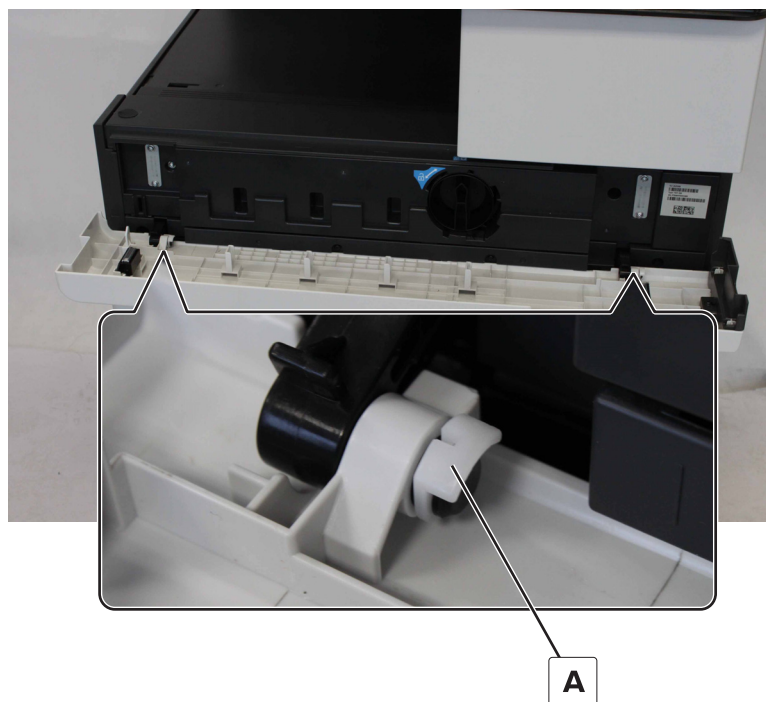


- 4 Remove the two screws (C), and then remove the two screws from the opposite side.
Note: Use a #1 Phillips screwdriver.



Top front door removal

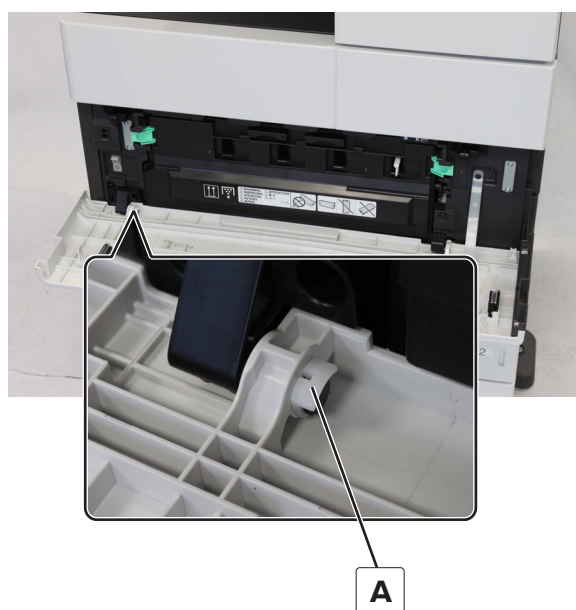
- 1 Open the door, and then remove the two clips (A).



- 2 Slightly move the door to the right to release, and then remove.

Bottom front door removal

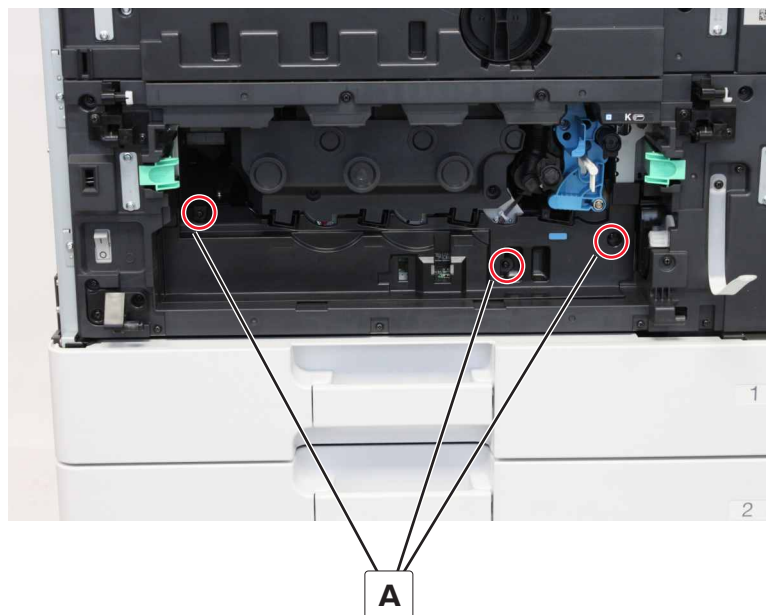
- 1 Open the door, and then remove the clip (A).



- 2 Slightly move the door to the right to release, and then remove.

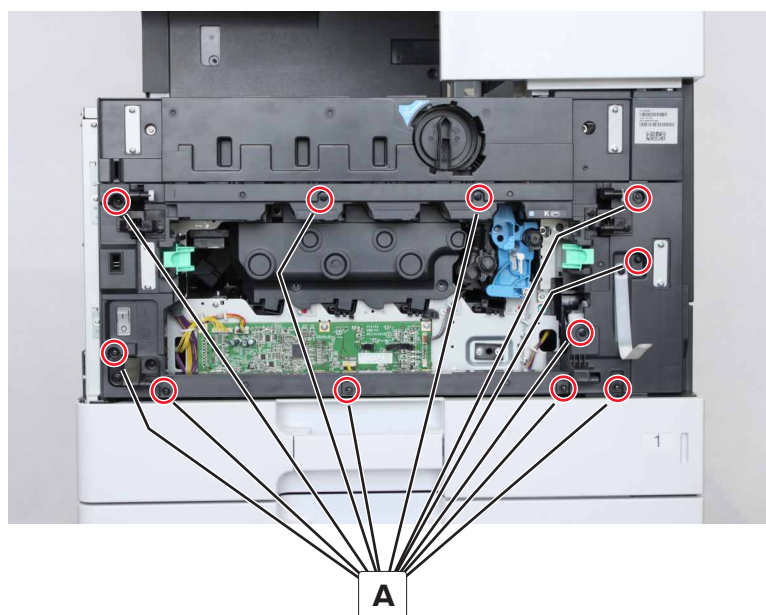
Front inner cover removal

- 1 Remove the top front door. See [“Top front door removal” on page 347.](#)
- 2 Remove the bottom front door. See [“Bottom front door removal” on page 347.](#)
- 3 Remove the three screws (A), and then remove the cover.



Waste toner door mount removal

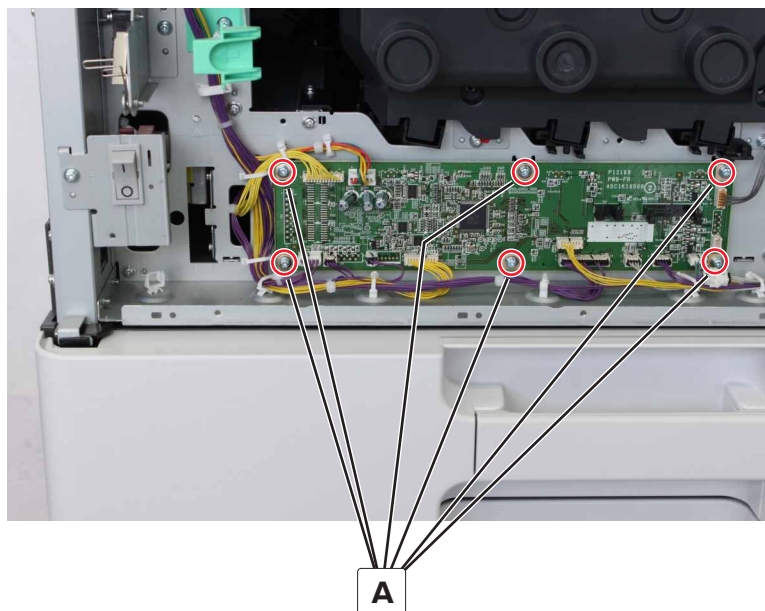
- 1 Remove the top front door. See [“Top front door removal” on page 347.](#)
- 2 Remove the bottom front door. See [“Bottom front door removal” on page 347.](#)
- 3 Remove the 11 screws (A), and then remove the door mount.



Parts removal

Image controller board removal

- 1 Remove the top front door. See [“Top front door removal” on page 347.](#)
- 2 Remove the bottom front door. See [“Bottom front door removal” on page 347.](#)
- 3 Remove the waste toner door mount. See [“Waste toner door mount removal” on page 348.](#)
- 4 Disconnect the cables, and then remove the six screws (A).

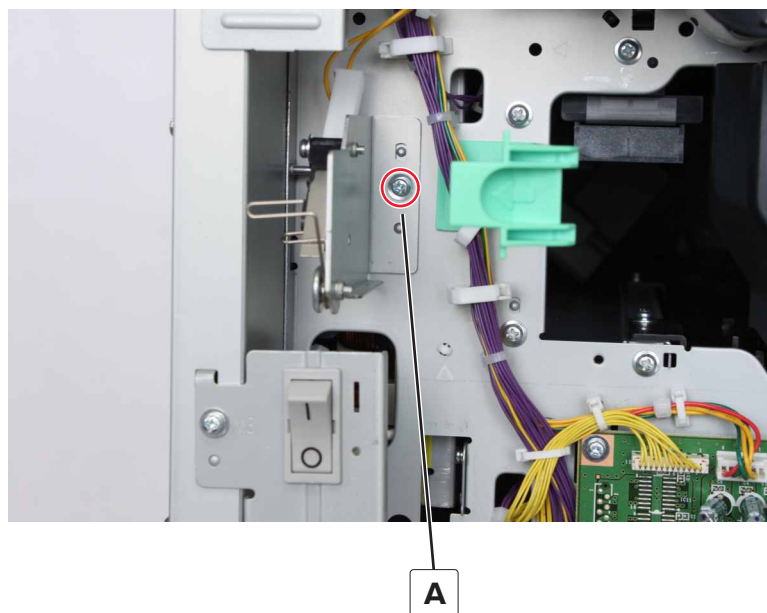


- 5 Remove the board.

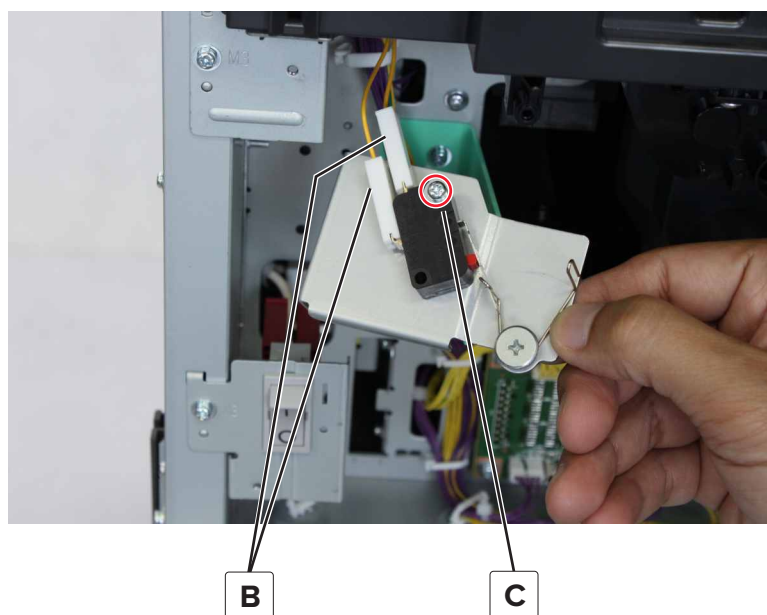
Door switch removal

- 1 Remove the top front door. See [“Top front door removal” on page 347.](#)
- 2 Remove the bottom front door. See [“Bottom front door removal” on page 347.](#)
- 3 Remove the waste toner door mount. See [“Waste toner door mount removal” on page 348.](#)

- 4 Remove the screw (A), and then move away the bracket.



- 5 Disconnect the two cables (B), and then remove the screw (C).

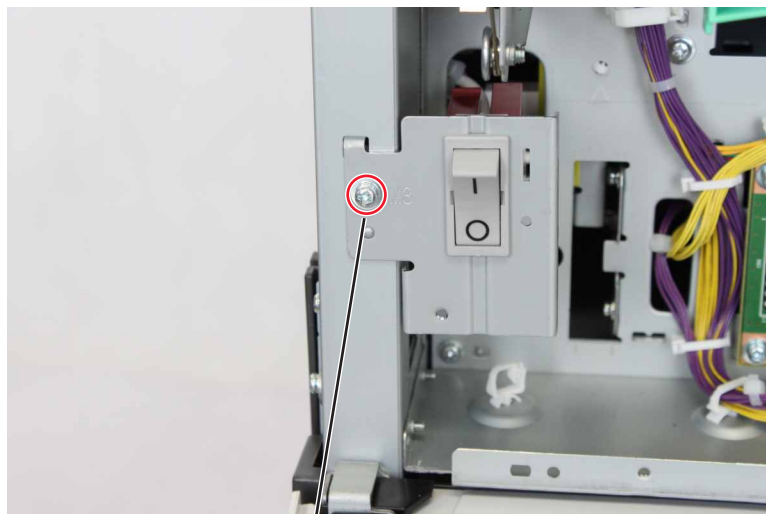


- 6 Release the retainer, and then remove the switch.

Main power switch removal

- 1 Remove the top front door. See [“Top front door removal” on page 347](#).
- 2 Remove the bottom front door. See [“Bottom front door removal” on page 347](#).
- 3 Remove the waste toner door mount. See [“Waste toner door mount removal” on page 348](#).

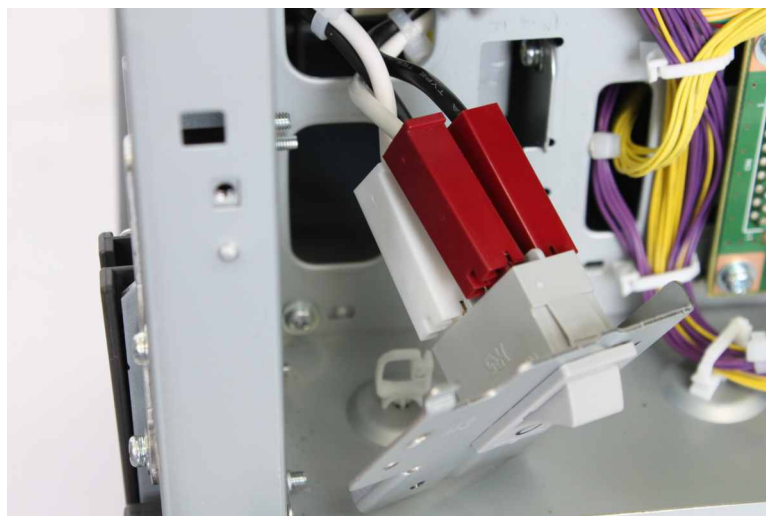
- 4 Remove the screw (A), and then move away the switch.



A

- 5 Disconnect the four cables and remove the switch.

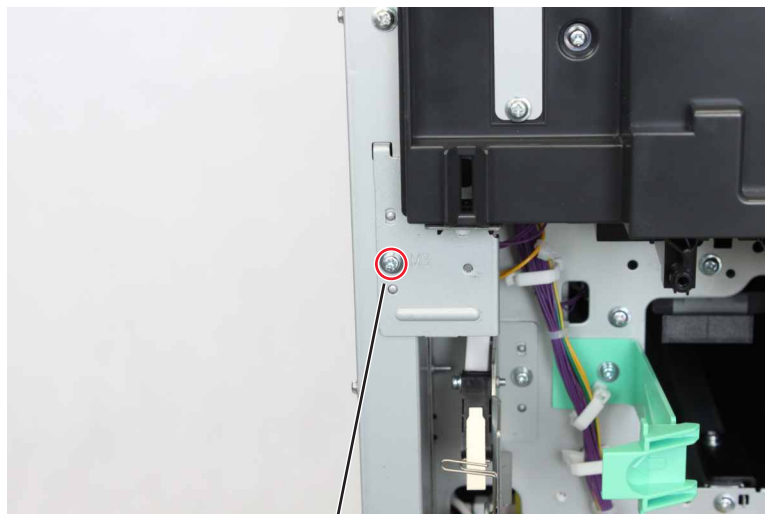
Installation note: Red connectors are on top, while white connectors are at the bottom. Black cables are on the right, while white cables are on the left.



Sensor (top front door) removal

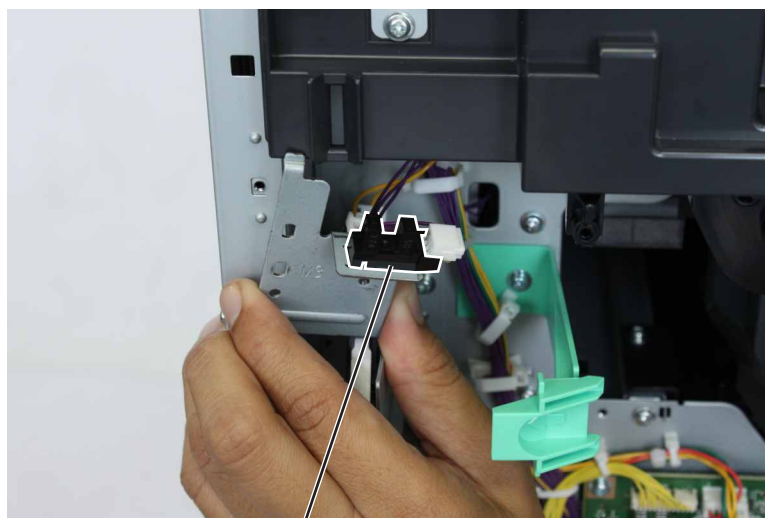
- 1 Remove the top front door. See [“Top front door removal” on page 347.](#)
- 2 Remove the bottom front door. See [“Bottom front door removal” on page 347.](#)
- 3 Remove the waste toner door mount. See [“Waste toner door mount removal” on page 348.](#)

- 4 Remove the screw (A), and then move away the bracket.



A

- 5 Disconnect the cable, and then remove the sensor (B).

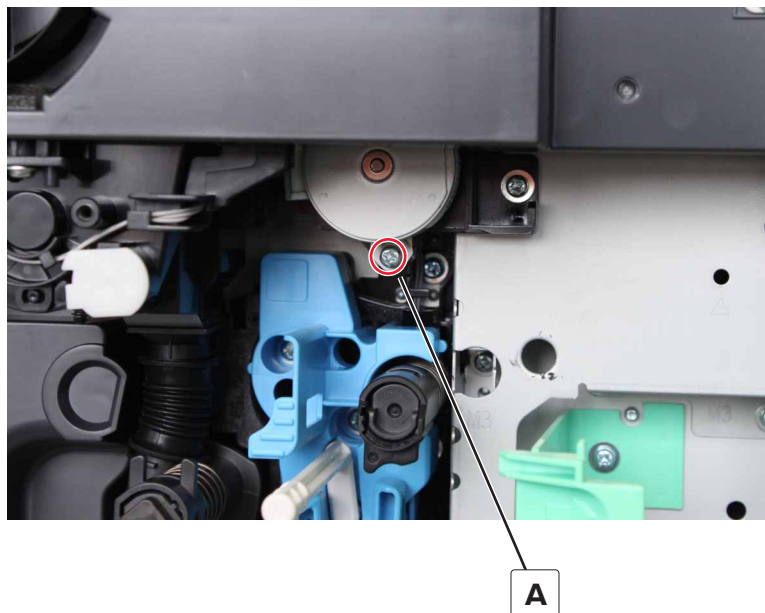


B

Motor (toner supply) removal

- 1 Remove the top front door. See [“Top front door removal” on page 347.](#)
- 2 Remove the bottom front door. See [“Bottom front door removal” on page 347.](#)
- 3 Remove the waste toner door mount. See [“Waste toner door mount removal” on page 348.](#)

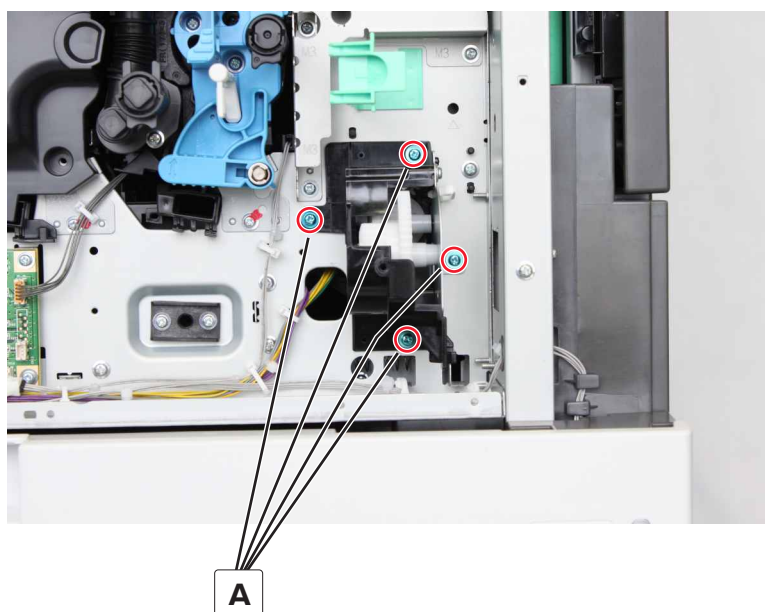
- 4 Remove the screw (A), and then disconnect the cable.



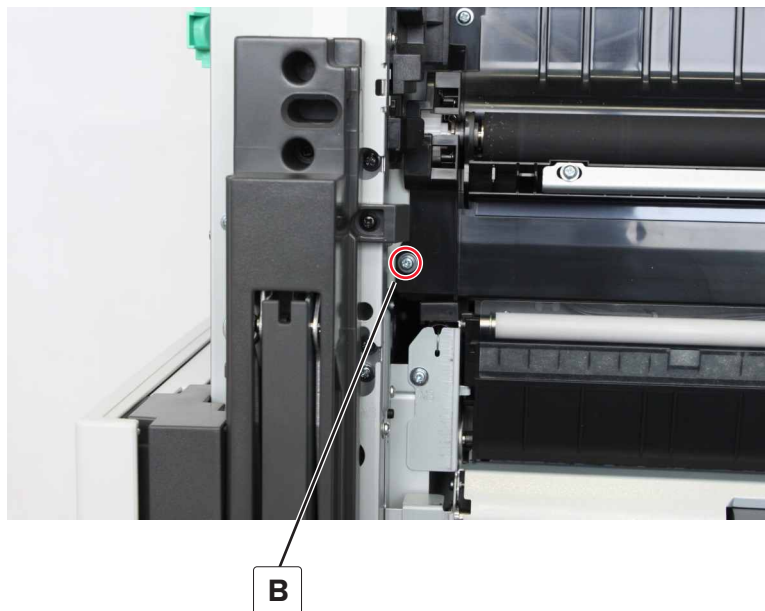
- 5 Remove the motor.

Waste toner drive removal

- 1 Remove the top front door. See [“Top front door removal” on page 347.](#)
- 2 Remove the bottom front door. See [“Bottom front door removal” on page 347.](#)
- 3 Remove the waste toner door mount. See [“Waste toner door mount removal” on page 348.](#)
- 4 Remove the four screws (A).



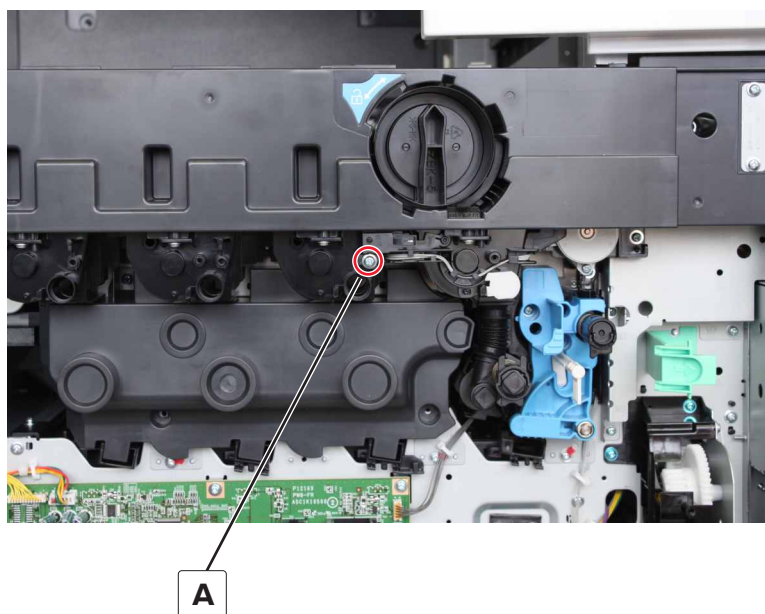
- 5 From the right, remove the screw (B).



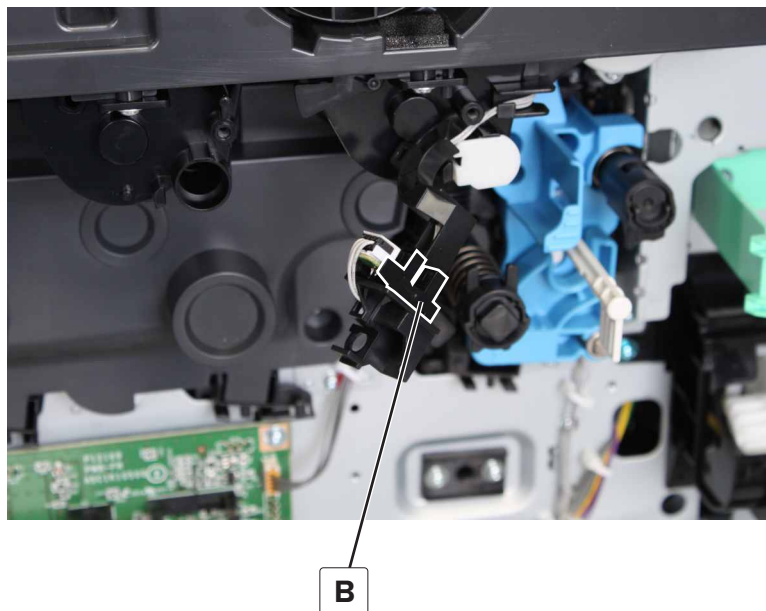
- 6 Remove the waste toner drive.

Sensor (toner cartridge present) removal

- 1 Remove the top front door. See [“Top front door removal” on page 347.](#)
- 2 Remove the bottom front door. See [“Bottom front door removal” on page 347.](#)
- 3 Remove the waste toner door mount. See [“Waste toner door mount removal” on page 348.](#)
- 4 Remove the screw (A), and then move away the bracket.

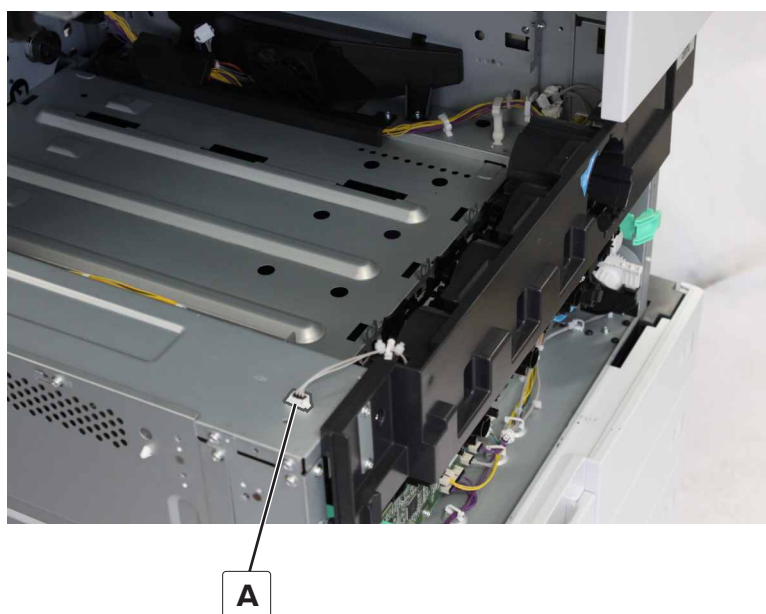


- 5 Disconnect the cable, and then remove the sensor (B).

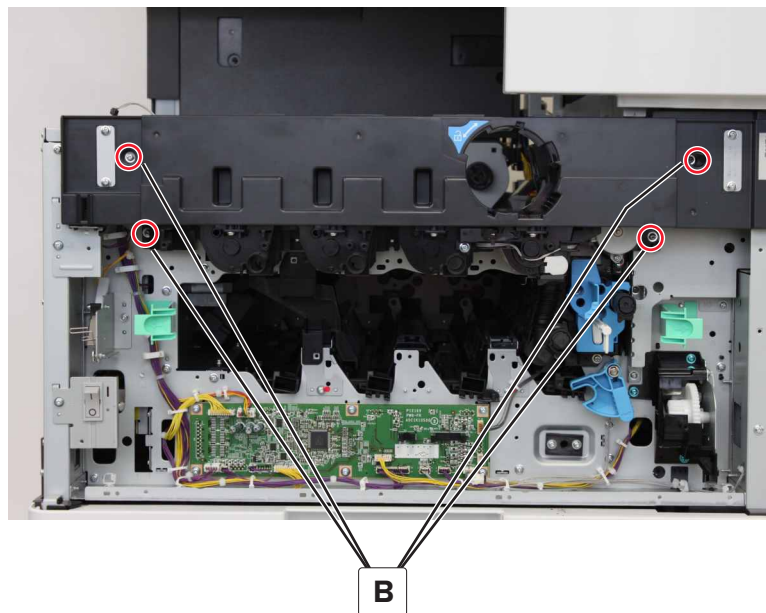


Toner agitator removal

- 1 Remove the standard bin base. See [“Standard bin base removal” on page 409](#).
- 2 Remove the top front door. See [“Top front door removal” on page 347](#).
- 3 Remove the bottom front door. See [“Bottom front door removal” on page 347](#).
- 4 Remove the waste toner door mount. See [“Waste toner door mount removal” on page 348](#).
- 5 Disconnect the cable (A).



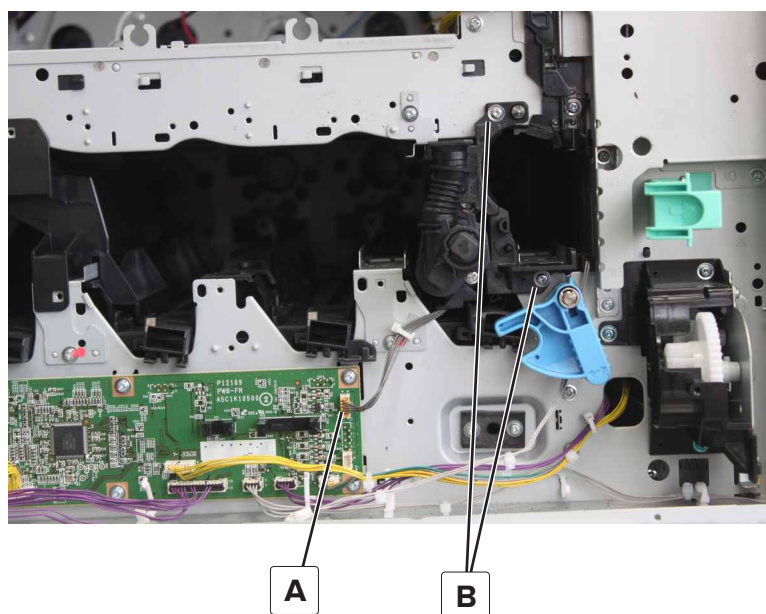
- 6 Remove the four screws (B).



- 7 Disconnect the cables, and then remove the assembly.

Developer unit removal

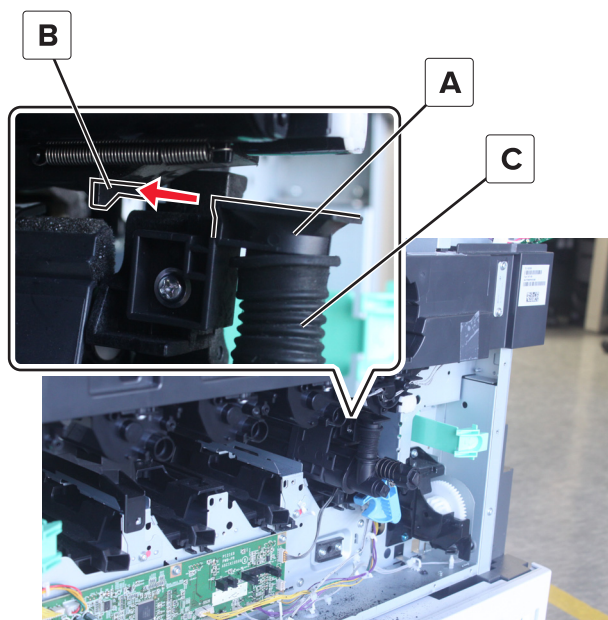
- 1 Remove the front inner cover. See [“Front inner cover removal” on page 348](#).
- 2 Remove the image controller board cover.
- 3 Disconnect the cable (A), remove the two screws (B) and then remove the unit.



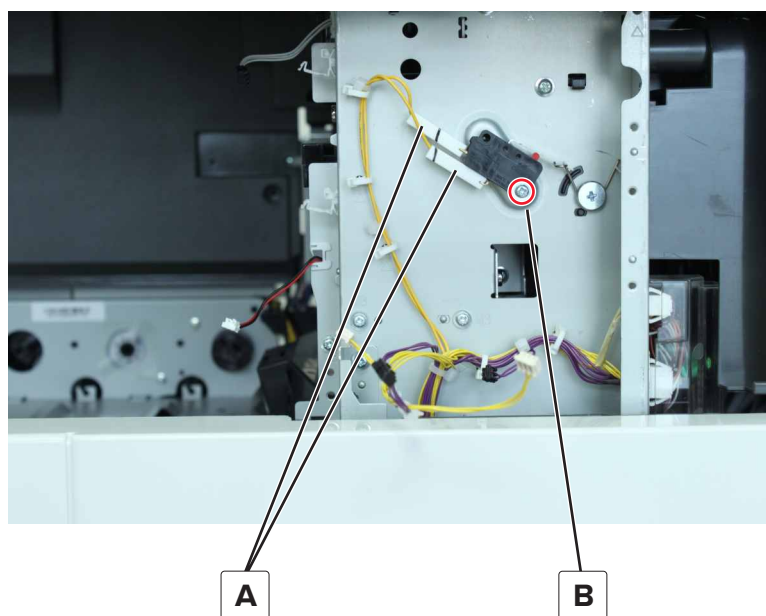
Installation warning: If the following notes are not implemented, then the toner may leak or get stuck. Toner supply failure will cause a blank print or low toner error.

Installation notes:

- Do not install the developer unit if the toner agitator is not yet installed.
- Make sure that the developer unit funnel (A) pushes the toner agitator valve (B). The valve opens to supply the toner to the funnel.
- Make sure that the rubber intake (C) is properly installed.

**Right door switch removal**

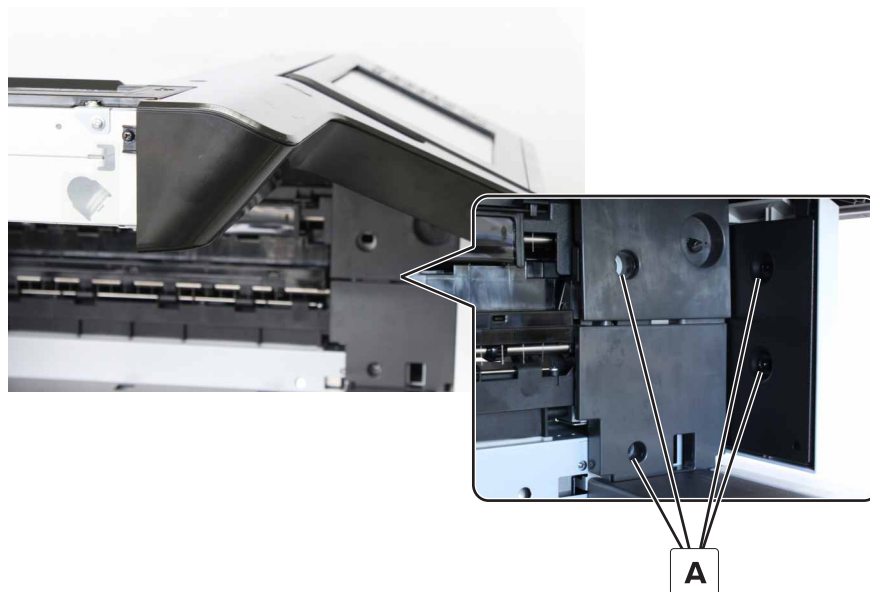
- 1 Remove the speaker cover.
- 2 Disconnect the two cables (A), and then remove the screw (B).



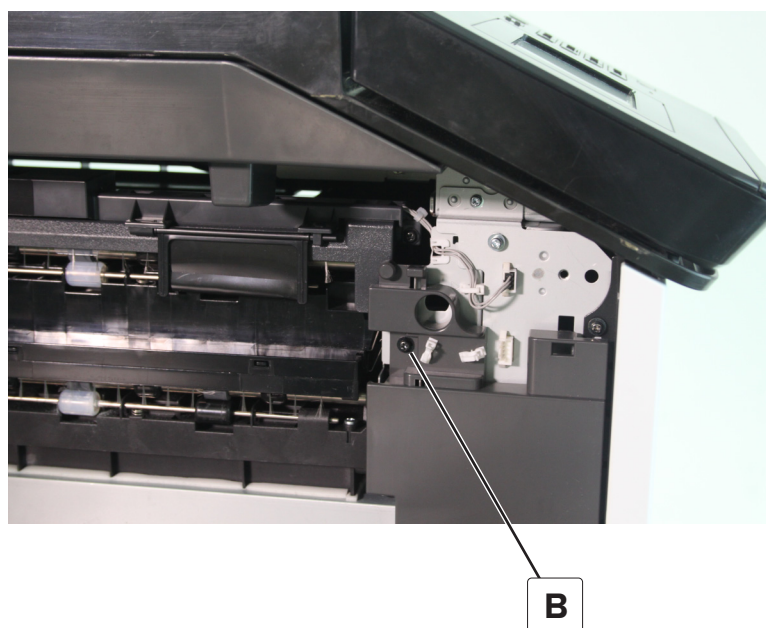
- 3 Remove the switch.

Speaker cover removal

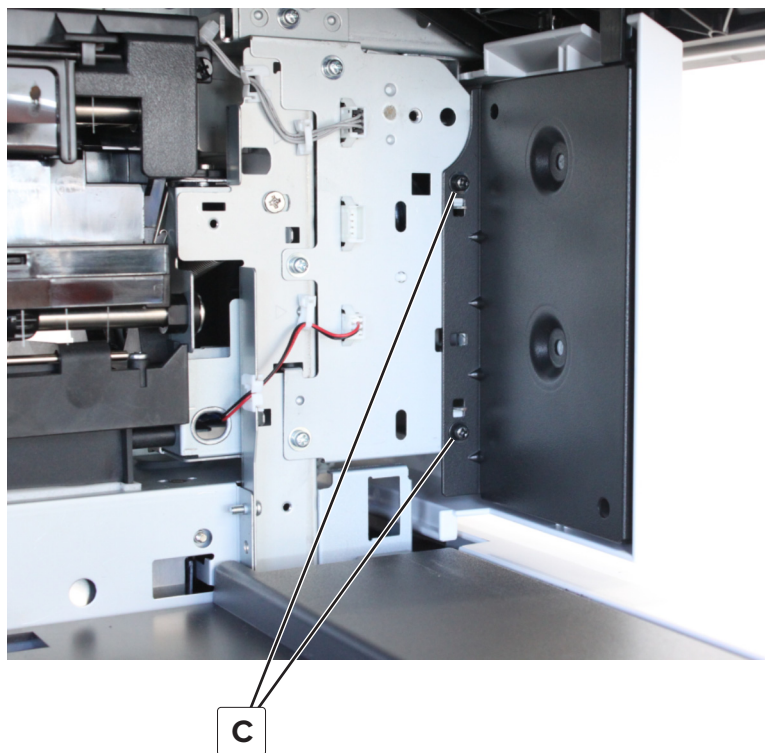
- 1 Remove the four screws (A) securing the cover, and then remove the upper cover.



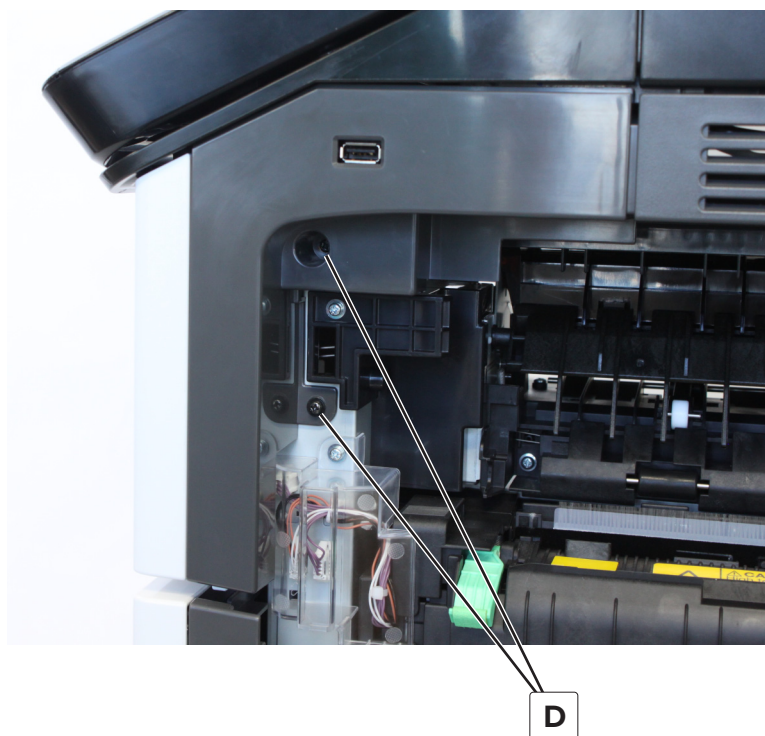
- 2 Remove the screw (B), and then remove the lower cover.



- 3 Remove the two screws (C) securing the metal frame, and then remove the metal frame.



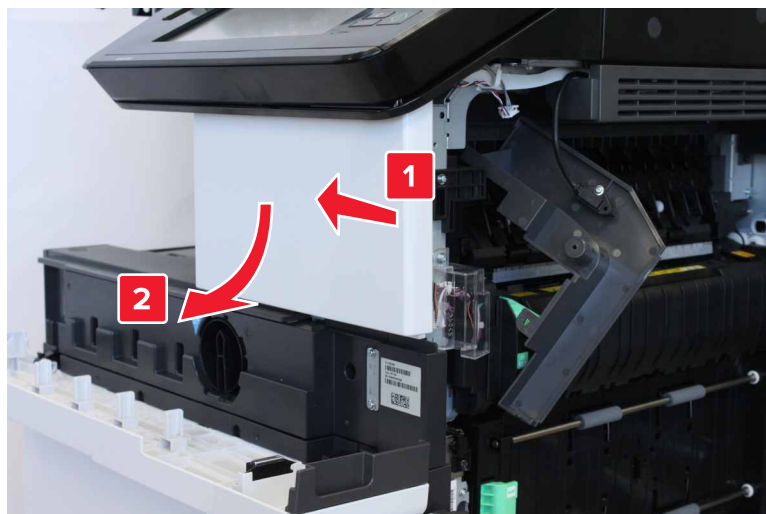
- 4 Remove the two screws (D) to disengage the USB cover.



Note: Do not remove the USB cable from the cover.

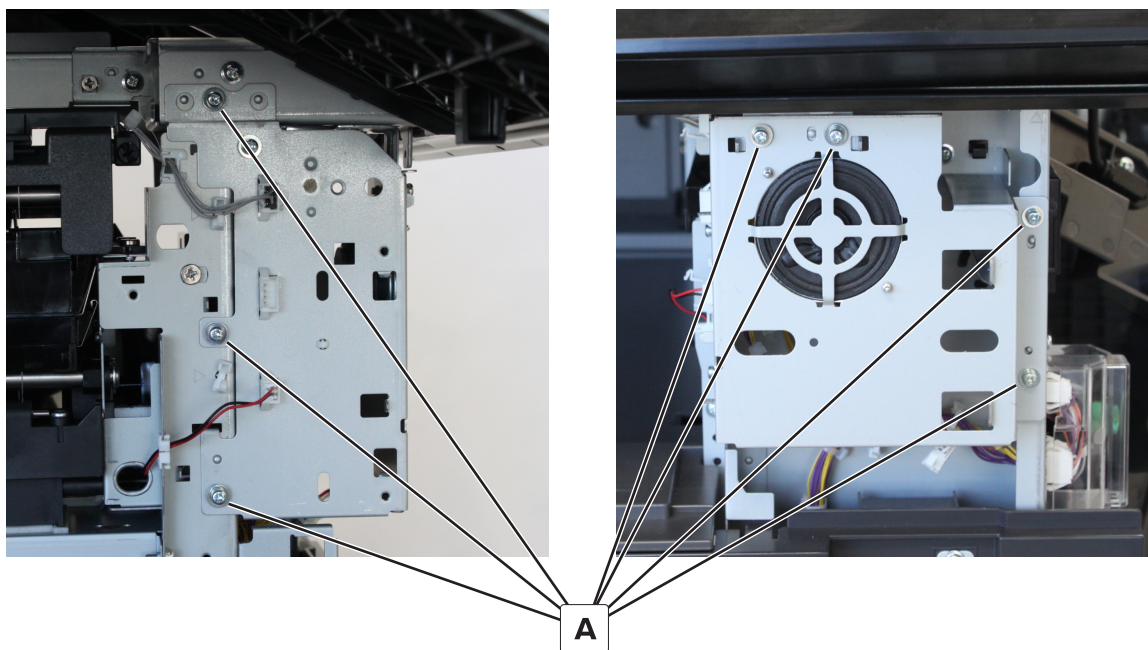
- 5 Open the cartridge door.

- 6 Remove the speaker cover.



Speaker removal

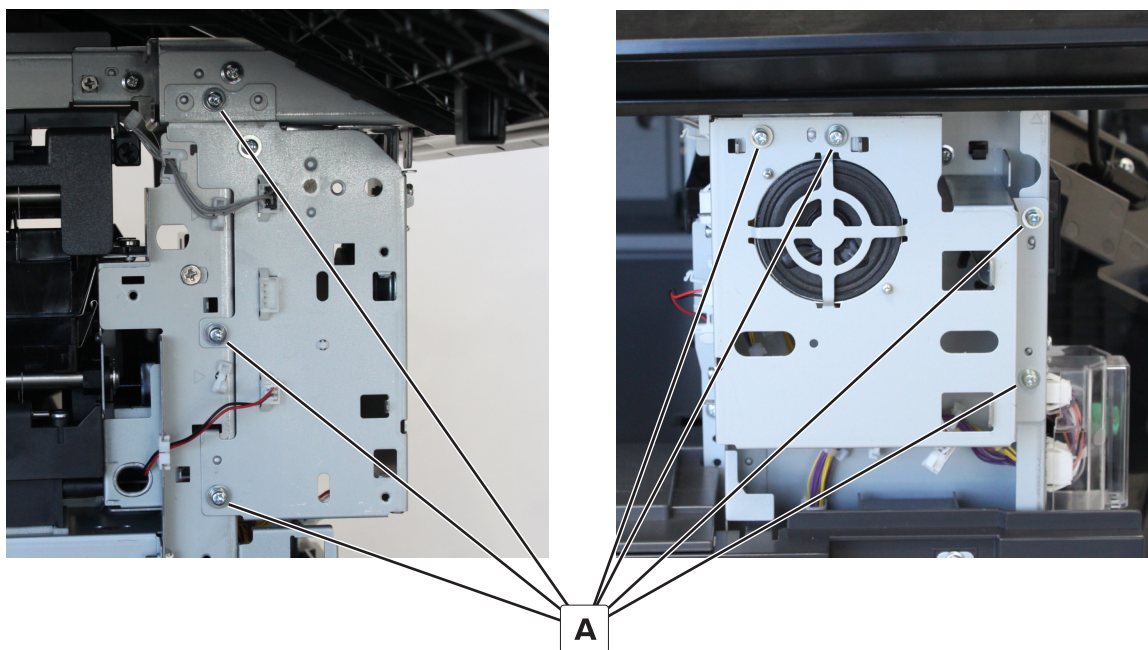
- 1 Remove the speaker cover. See [“Speaker cover removal” on page 358](#).
- 2 Remove the screws (A), and then remove the speaker frame.



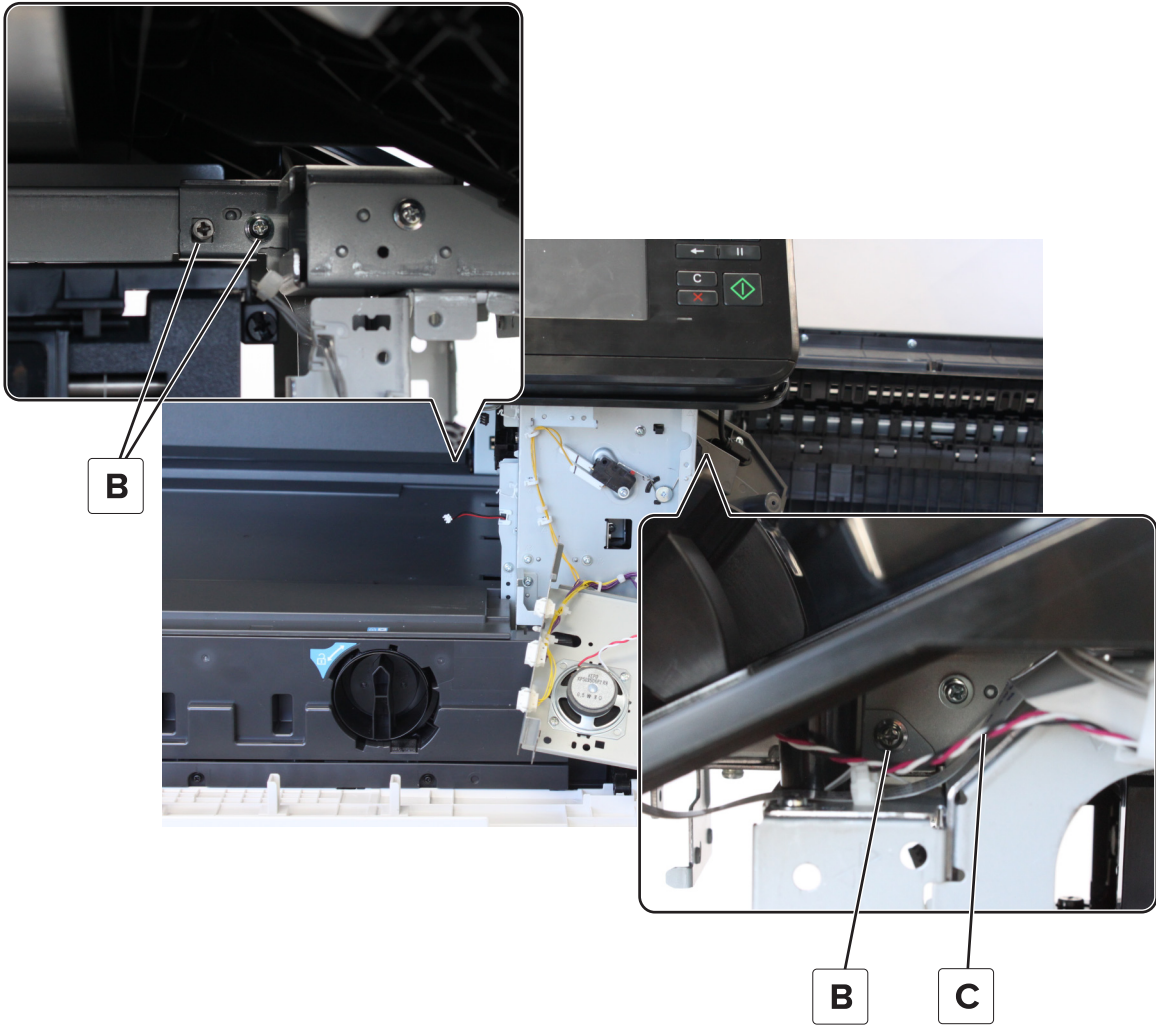
- 3 Disconnect the speaker cable, and then remove the speaker.

Control panel removal

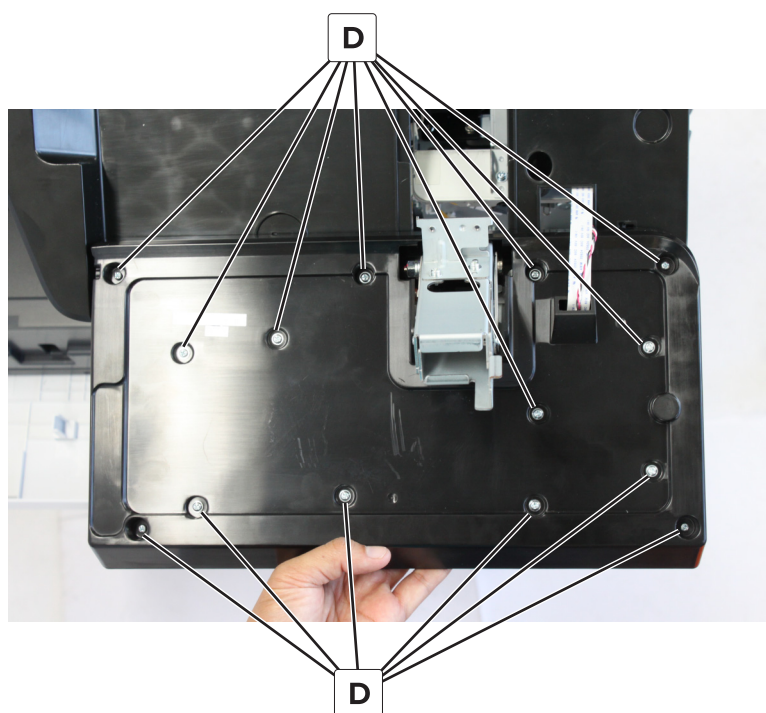
- 1 Remove the speaker cover. See [“Speaker cover removal” on page 358.](#)
- 2 Remove the screws (A), and then remove the speaker frame.



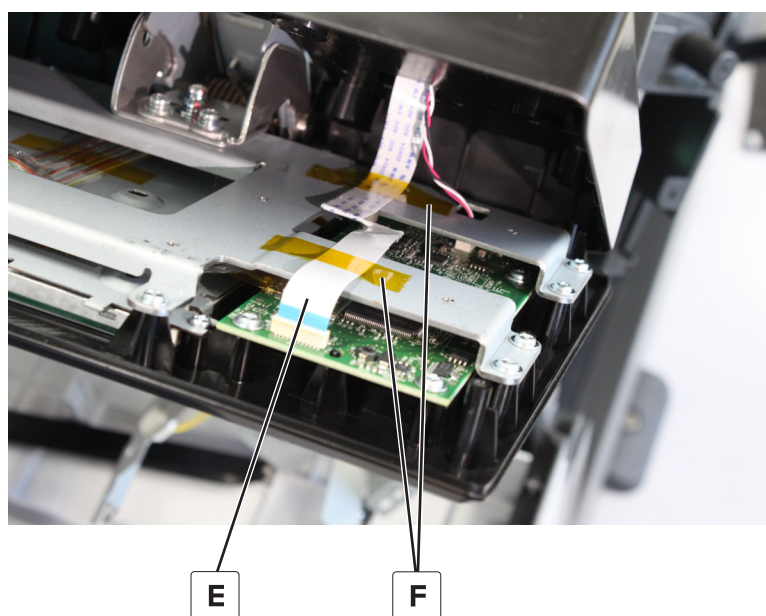
3 Remove the three screws (B), and then disconnect the control panel board cable (C).



- 4** Turn over the control panel, and then remove the 14 screws (D) to remove the bottom cover of the control panel.



- 5** Disconnect the control panel ZIF cable (E), and then remove the pieces of tape (F).

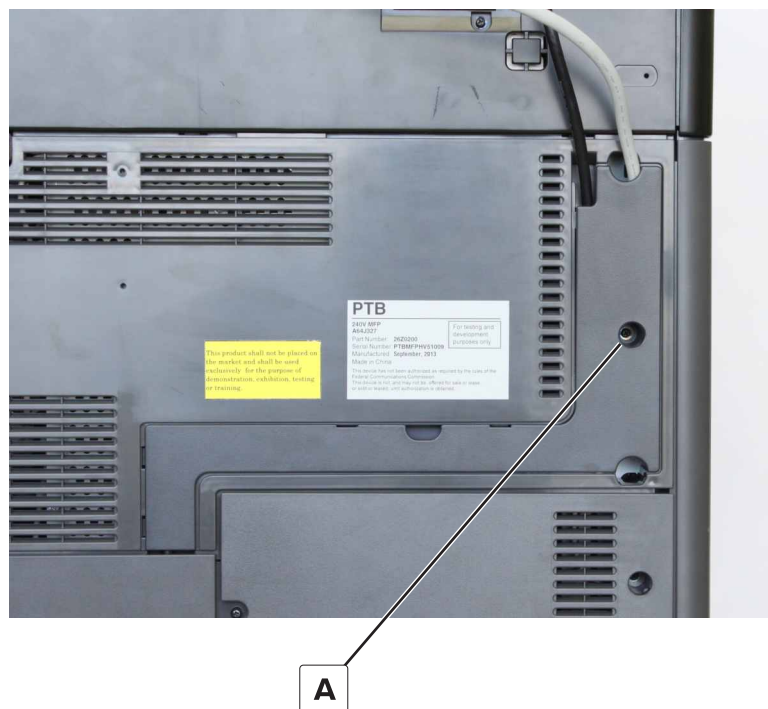


- 6** Remove the control panel.

Rear side removals

Scanner interface cable cover removal

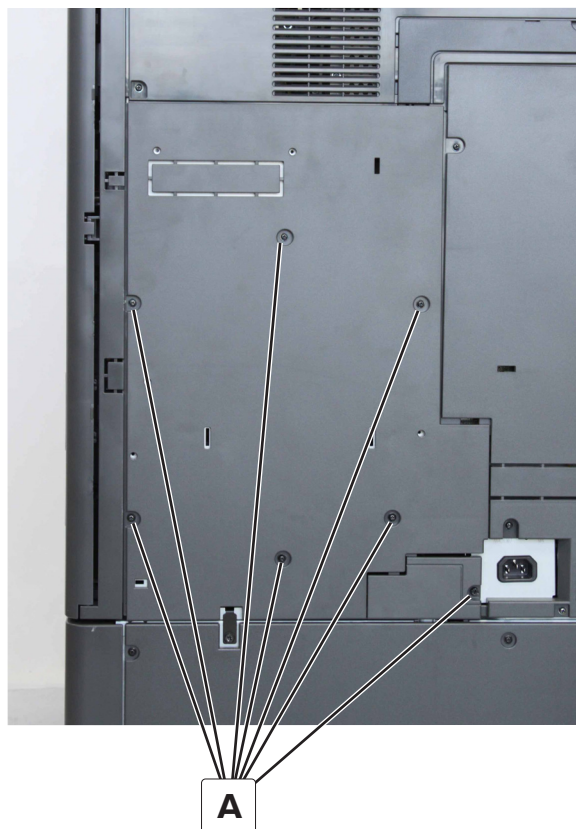
- 1 Remove the screw (A).



- 2 Remove the cover.

Controller board access cover removal

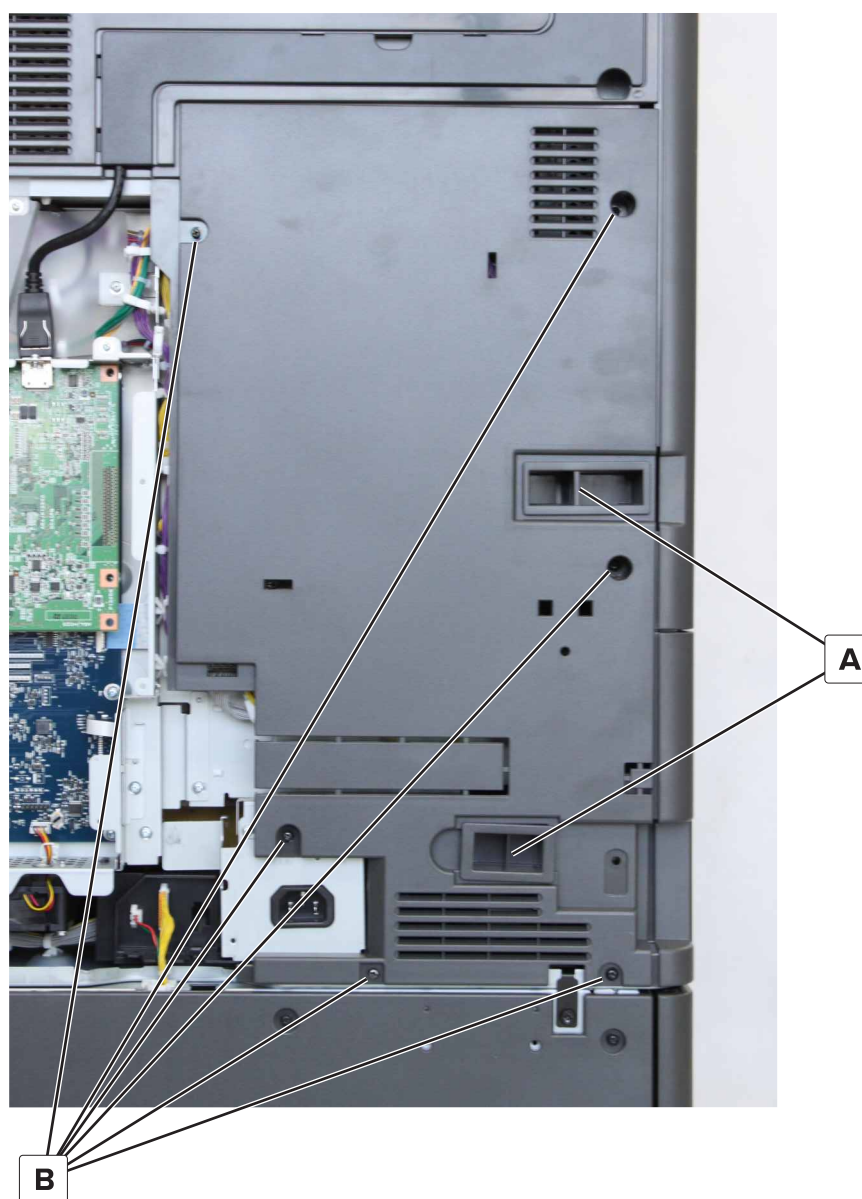
- 1 Remove the seven screws (A).



- 2 Remove the input options interface cover, and then remove the controller board cover.

Engine board cover removal

- 1 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 2 Remove the two filters (A), and then remove the six screws (B).

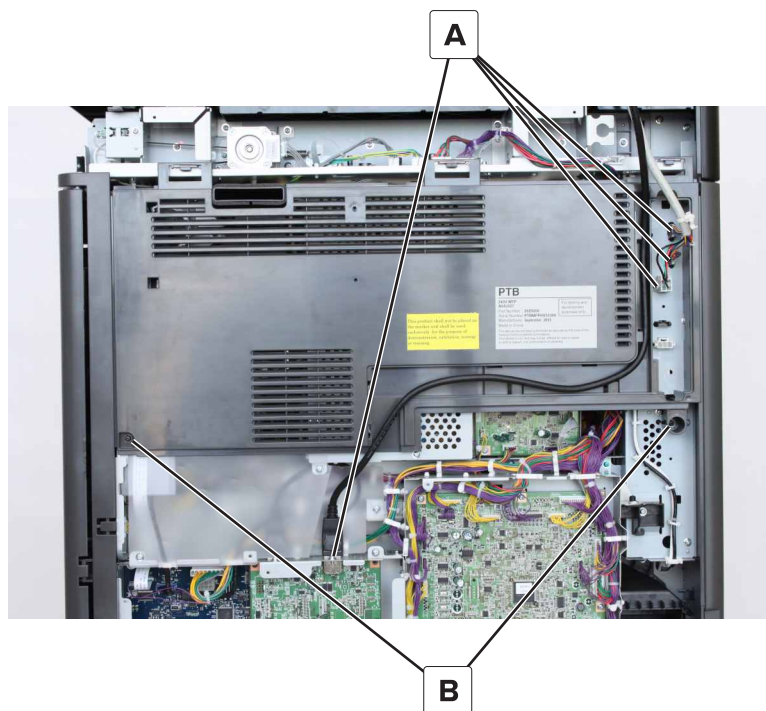


- 3 Remove the cover.

Upper rear cover removal

- 1 Remove the scanner rear cover. See [“Scanner rear cover removal” on page 454.](#)
- 2 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 3 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 4 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)

- 5 Disconnect the four cables (A), and then remove the two screws (B).



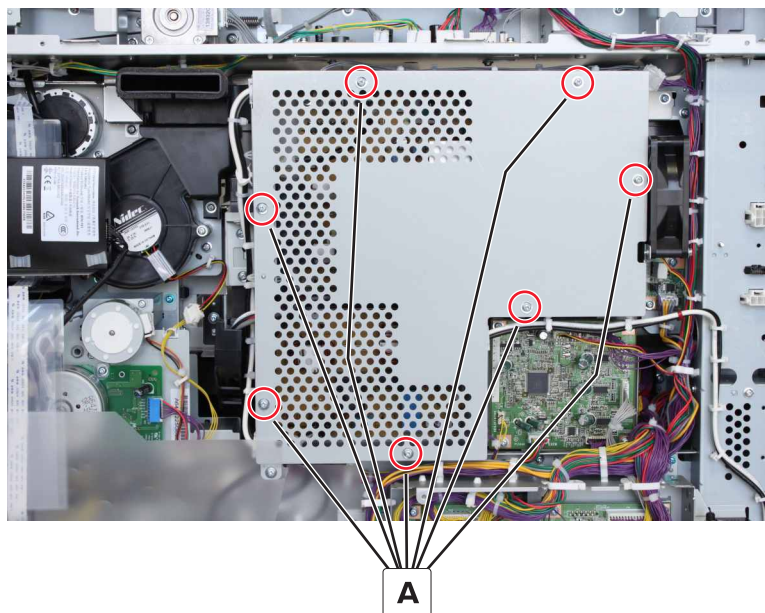
- 6 Remove the cover.

IHPS shield removal

Note: This part is not a FRU.

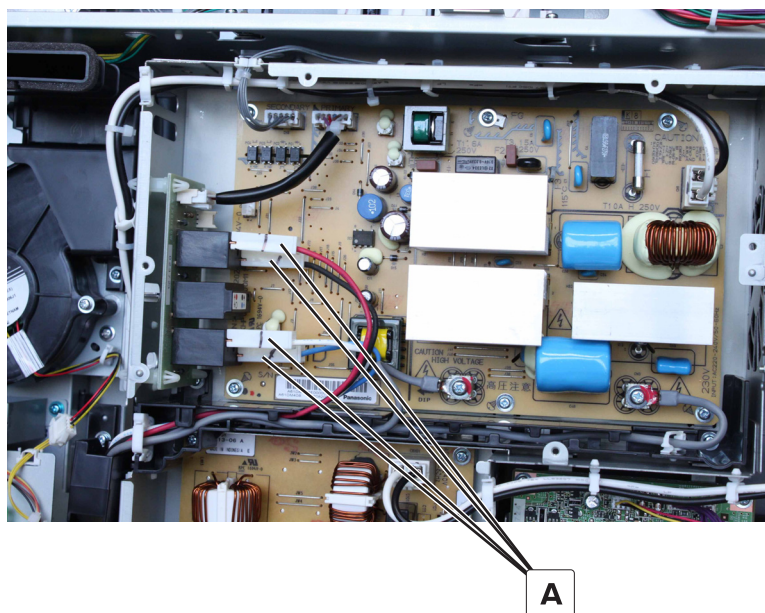
- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)

- 5 Remove the seven screws (A), and then remove the shield.



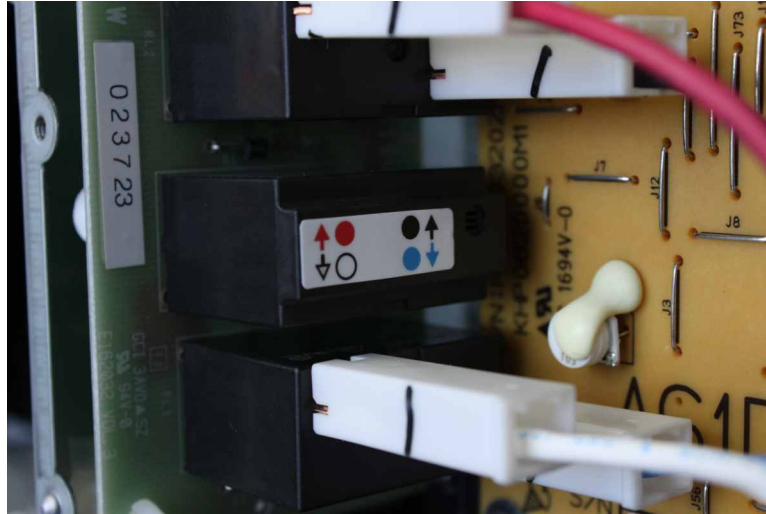
Induction heater magnetic erase board (IHMEB) removal

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 5 Remove the induction heater power supply shield. See [“IHPS shield removal” on page 367.](#)
- 6 Disconnect the four cables (A).



Parts removal

Installation note: Follow the arrangement of the colored symbols to install the cables to their correct positions.



7 Release the four latches (B), and then remove the board.

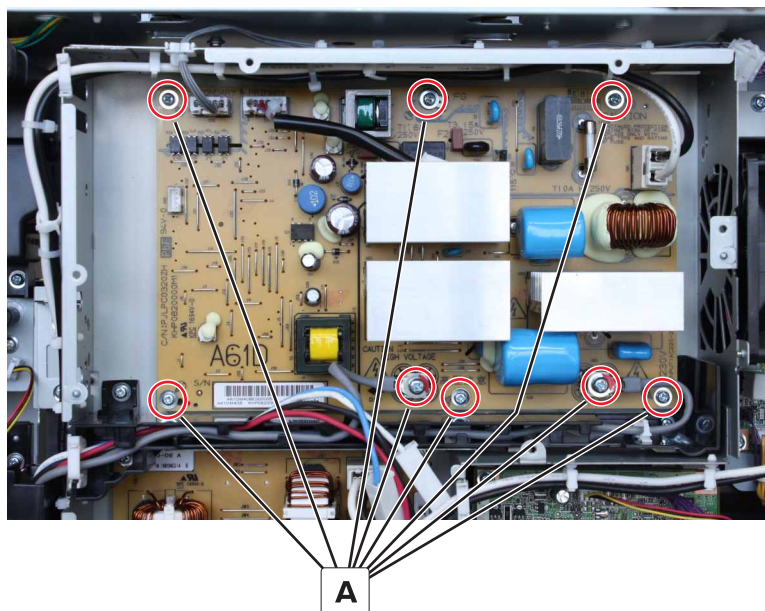


B

8 Release the four latches that are still attached on the board.

Induction heater power supply (IHPS) removal

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 5 Remove the induction heater power supply shield. See [“IHPS shield removal” on page 367.](#)
- 6 Remove the induction heater magnetic erase board. See [“Induction heater magnetic erase board \(IHMEB\) removal” on page 368.](#)
- 7 Disconnect the cables, and then remove the eight screws (A).

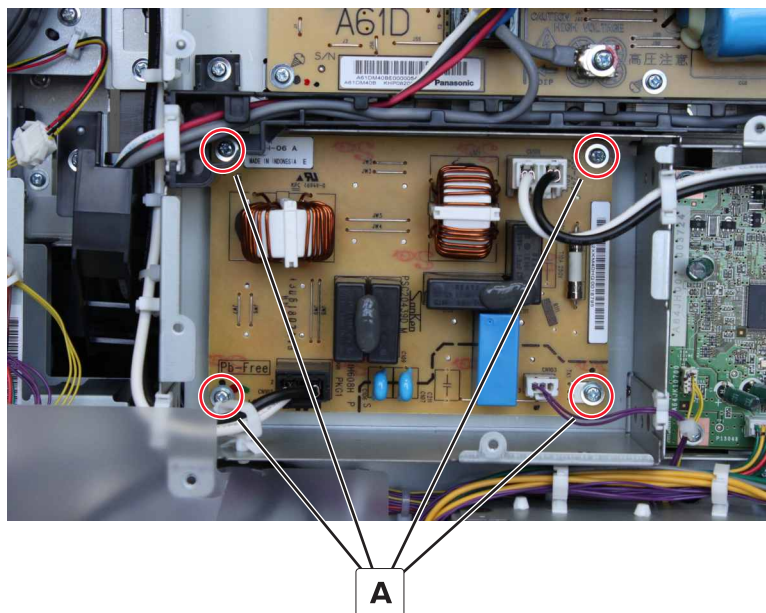


- 8 Remove the power supply.

Noise filter board removal

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 5 Remove the IHPS shield. See [“IHPS shield removal” on page 367.](#)

- 6 Disconnect the cables, and then remove the four screws (A).

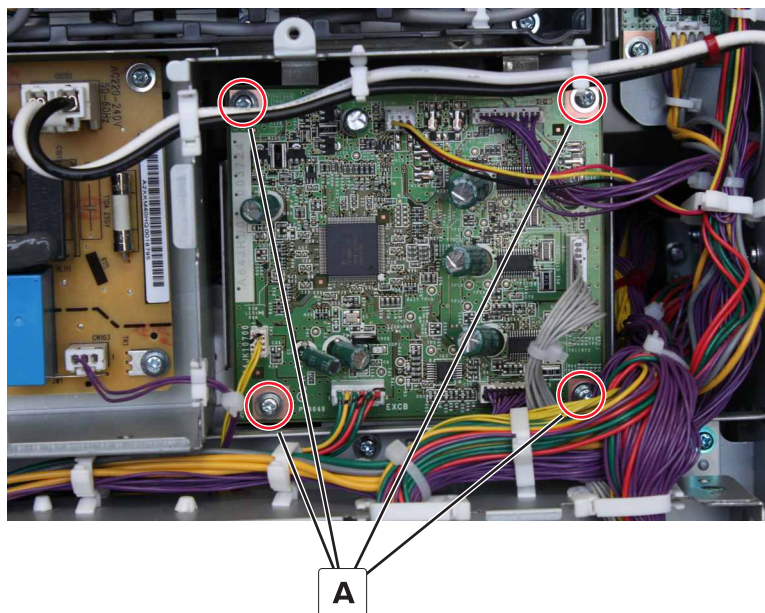


- 7 Remove the board.

Expansion controller board removal

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)

- 5 Disconnect the cables, and then remove the four screws (A).

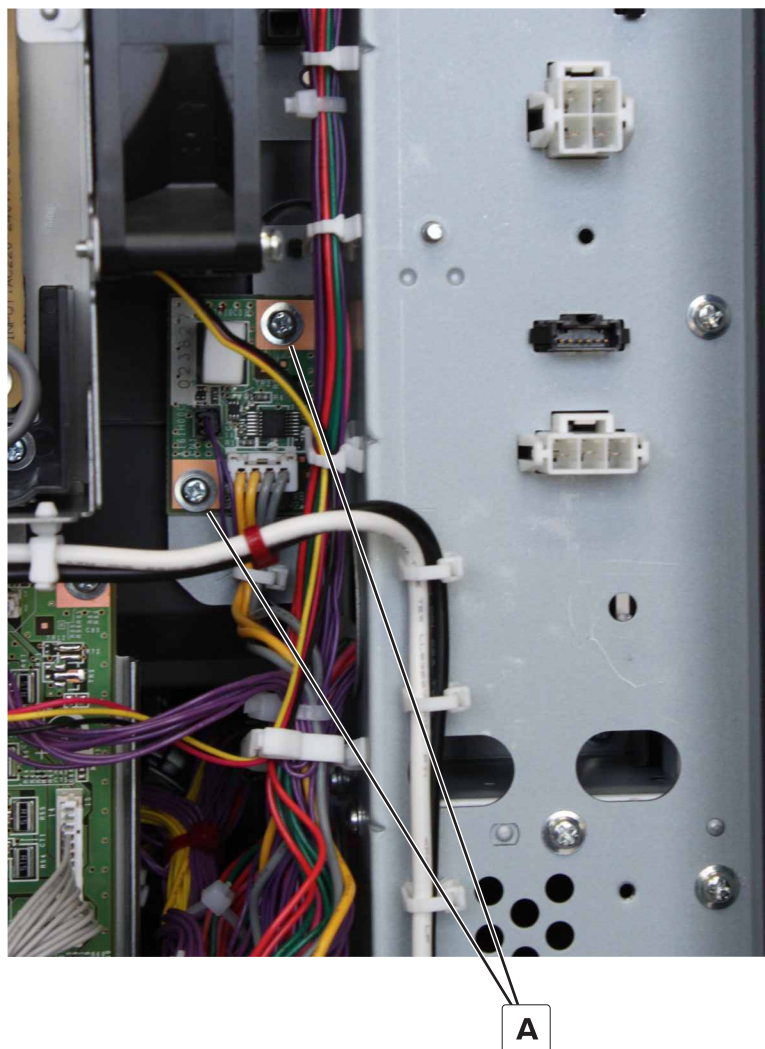


- 6 Remove the board.

Power-saving board removal

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Expansion controller board removal” on page 371.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)

- 5 Disconnect the cables, and then remove the two screws (A).



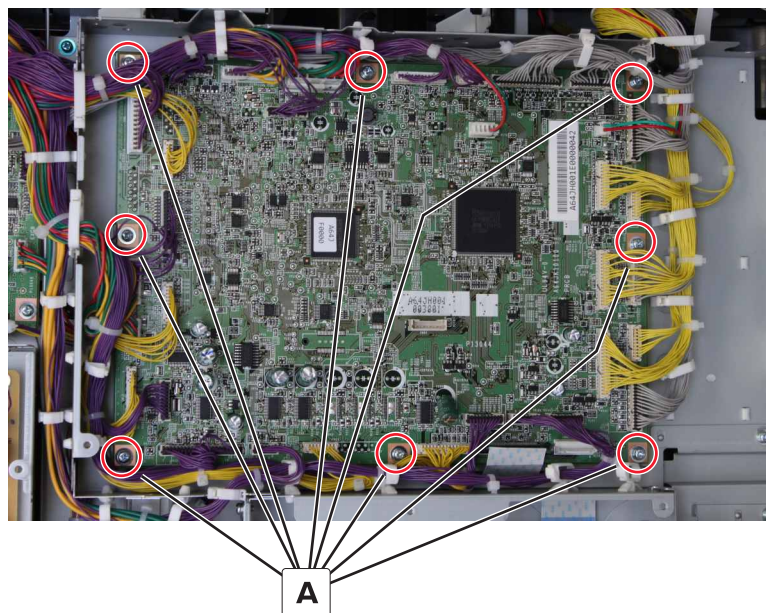
- 6 Remove the board.

Engine controller board removal

Warning—Potential Damage: Do not replace the engine controller board and controller board at the same time. Before removing the engine controller board, copy its settings to the controller board to avoid losing its original settings. See [“Restore Backup Data” on page 240](#).

- 1 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 2 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).

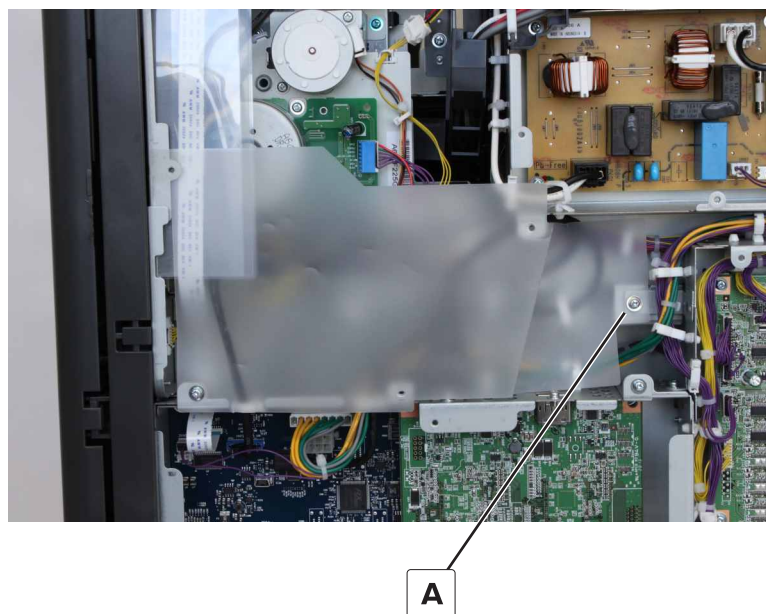
- 3 Disconnect the cables, and then remove the eight screws (A).



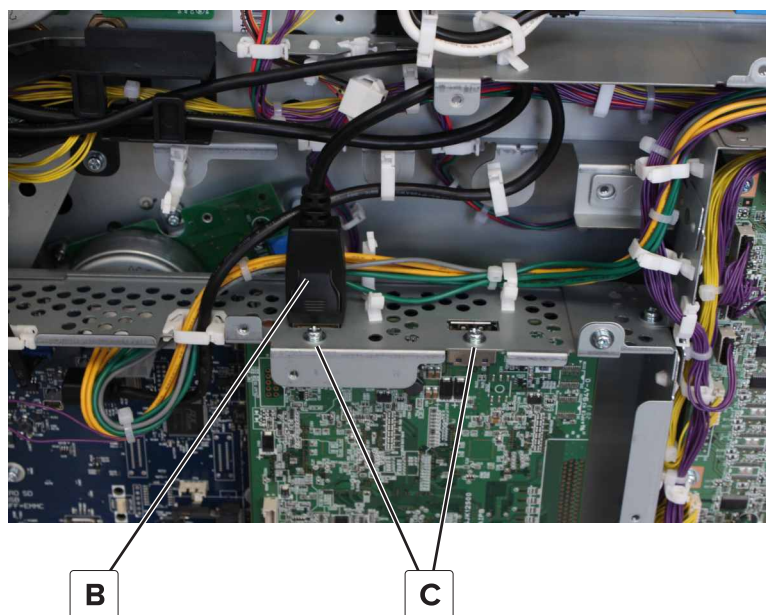
- 4 Remove the board.

ADF/scanner image controller board removal

- 1 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 2 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).
- 3 Remove the screw (A) from the cover.

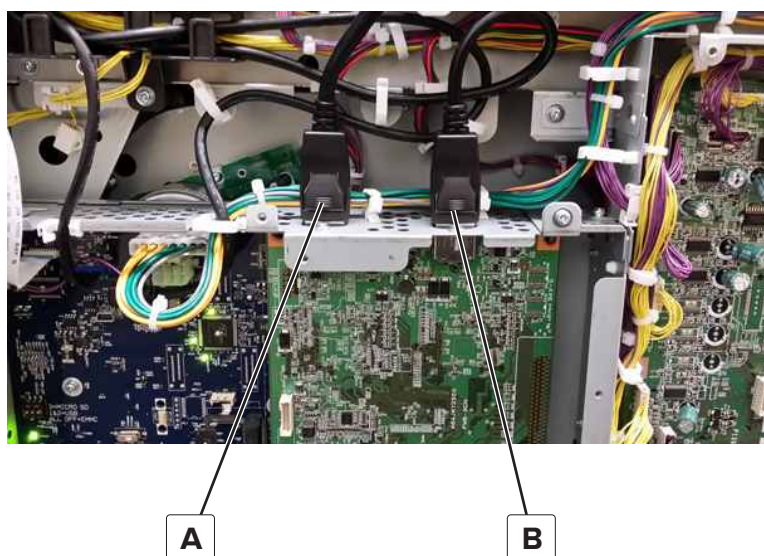


- 4 Disconnect the cable (B), and then remove the two screws (C).



- 5 Remove the board.

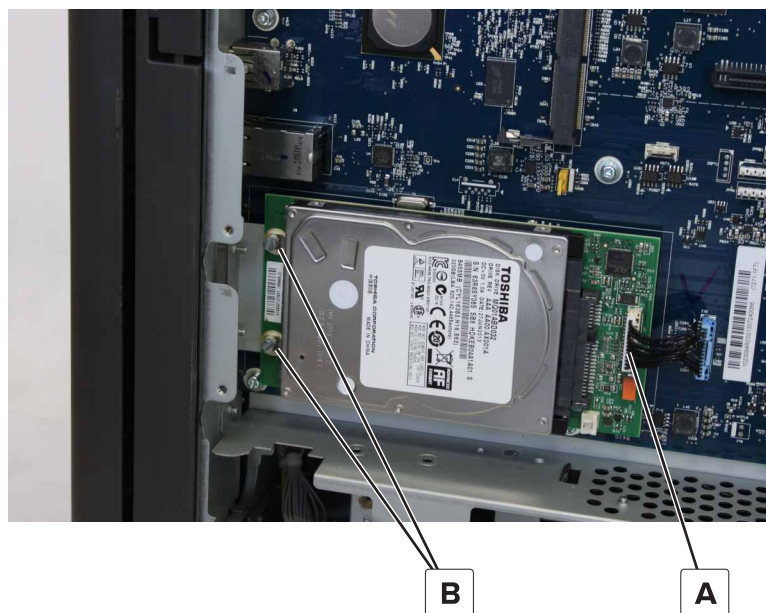
Installation note: Connect the scanner CCD cable (A) and ADF CIS data cable (B) as shown in the illustration. If the cables are connected to the wrong socket, then an Invalid Scanner Code error will occur.



Hard drive removal

Note: This part is not a FRU.

- 1 Remove the controller board cover. See [“Controller board access cover removal” on page 365.](#)
- 2 Disconnect the cable (A), and then remove the two screws (B).



- 3 Remove the hard drive.

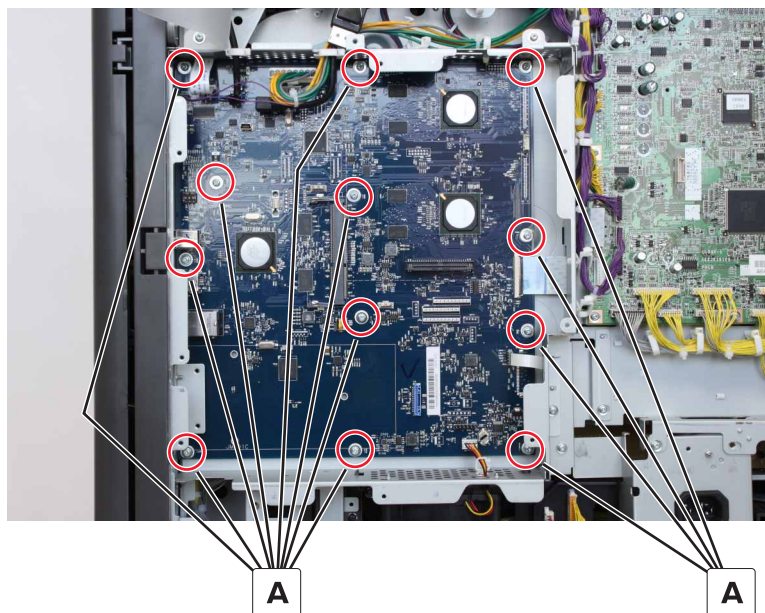
Controller board removal

Warning—Potential Damage: Do not replace the engine controller board and controller board at the same time. Before removing the controller board, copy its settings to the engine board to avoid losing its original settings. See [“Restore Backup Data” on page 240.](#)

Note: Back up the eSF solutions and settings before replacing the controller board. For more information, see [“Backing up eSF solutions and settings” on page 261.](#)

- 1 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 2 Remove the ADF/scanner image controller board. See [“ADF/scanner image controller board removal” on page 374.](#)
- 3 Remove the hard drive. See [“Hard drive removal” on page 376.](#)

- 4 Disconnect the cables, and then remove the 12 screws (A).



- 5 Remove the board.

Installation notes:

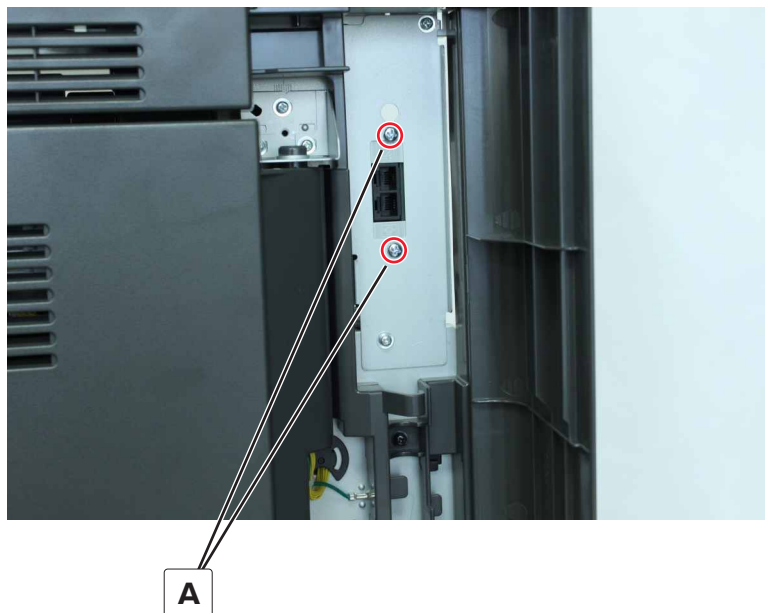
- a After installing the new controller board, restore the printer configuration. See [“Restoring the printer configuration after replacing the controller board” on page 256.](#)
- b Restore the eSF solutions and settings. See Importing eSF solutions and settings file under [“Backing up eSF solutions and settings” on page 261.](#)
- c Create a backup of the engine settings by copying them from the engine controller board to the new controller board. See [“Restore Backup Data” on page 240.](#)

Fax card removal

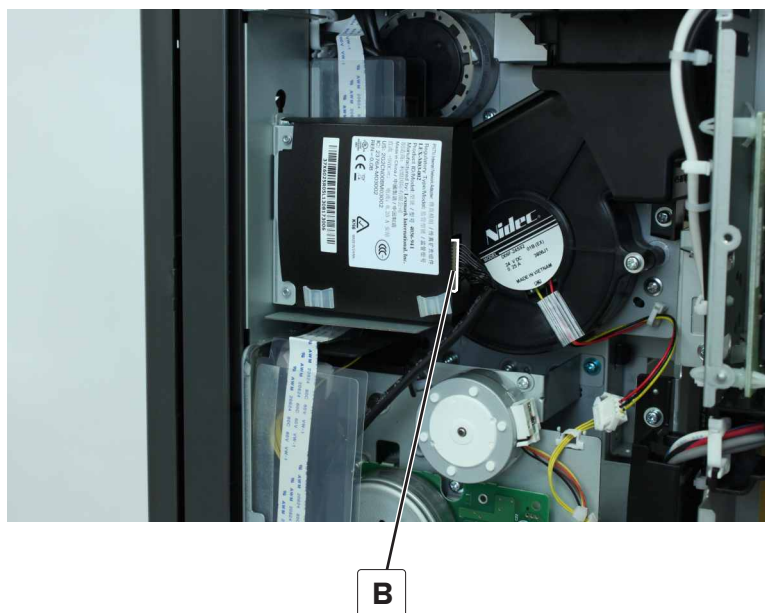
Note: This part is not a FRU.

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)

- 5 Open the port access door, and then remove the two screws (A).



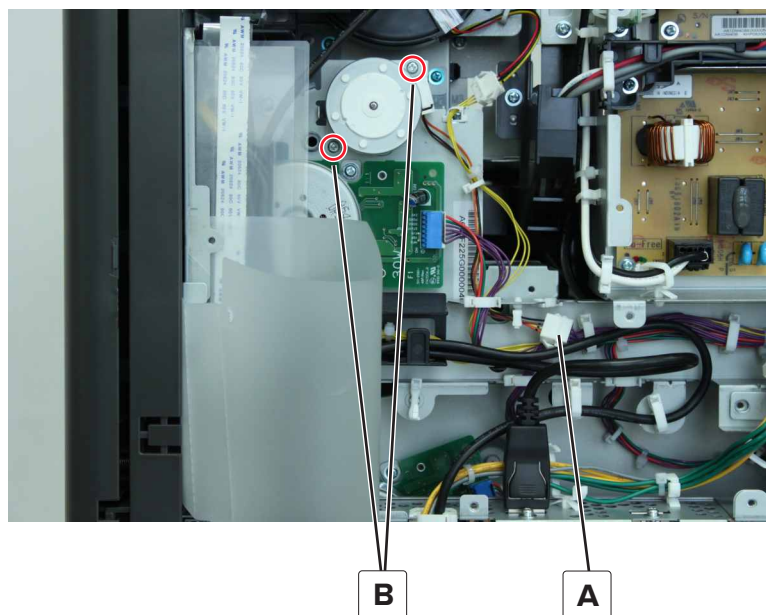
- 6 Disconnect the cable (B), and then remove the card.



Motor (fuser pressure) removal

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)

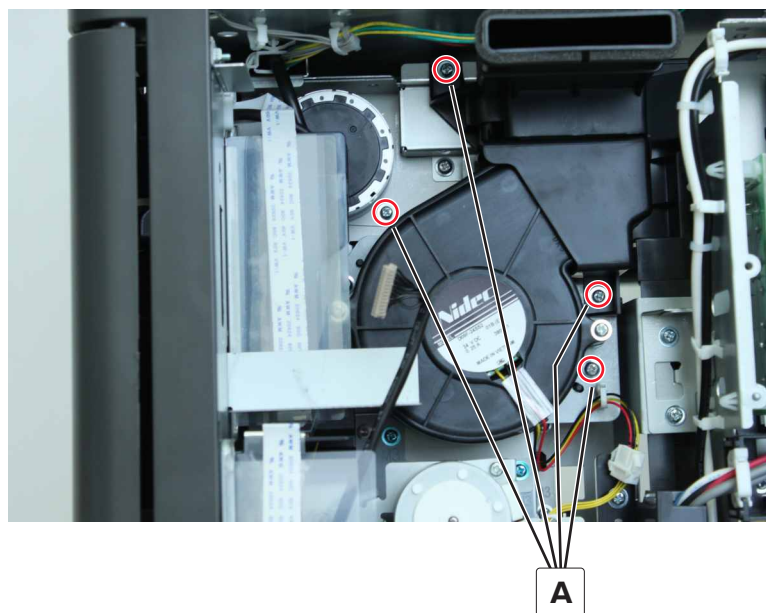
- 5 Disconnect the cable (A), and then remove the two screws (B).



- 6 Remove the motor.

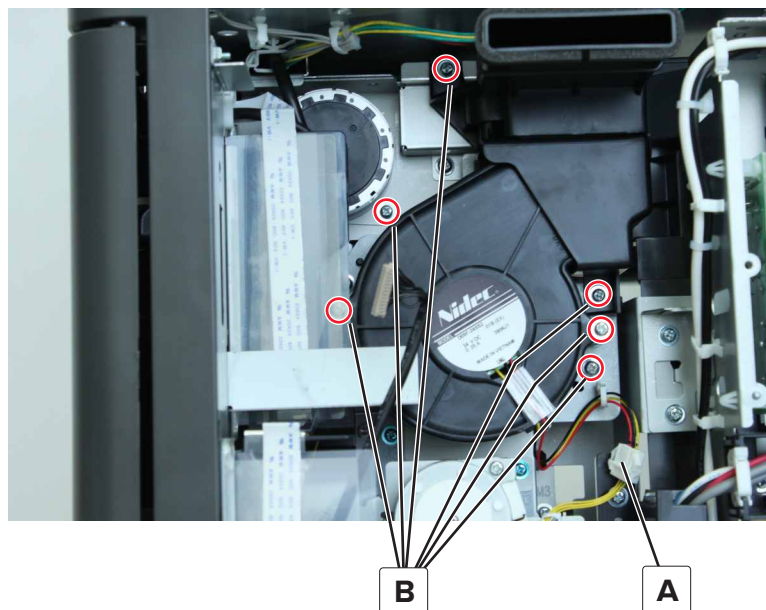
Paper exit fan duct removal

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 5 Remove the four screws (A), and then remove the duct.



Paper exit fan removal

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 5 Disconnect the cable (A), and then remove the six screws (B).



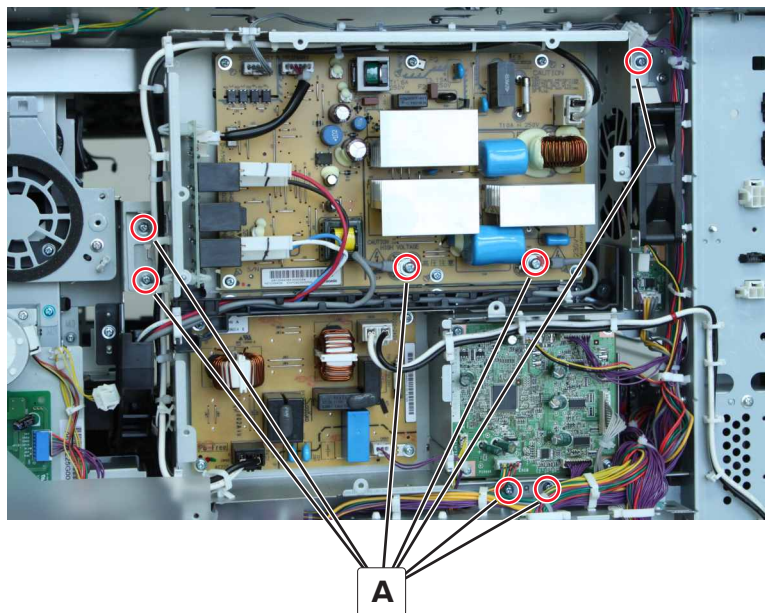
- 6 Remove the duct, and then remove the fan.

IHPS frame removal

Note: This part is not a FRU.

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 5 Remove the IHPS shield. See [“IHPS shield removal” on page 367.](#)

- 6 Remove the seven screws (A).

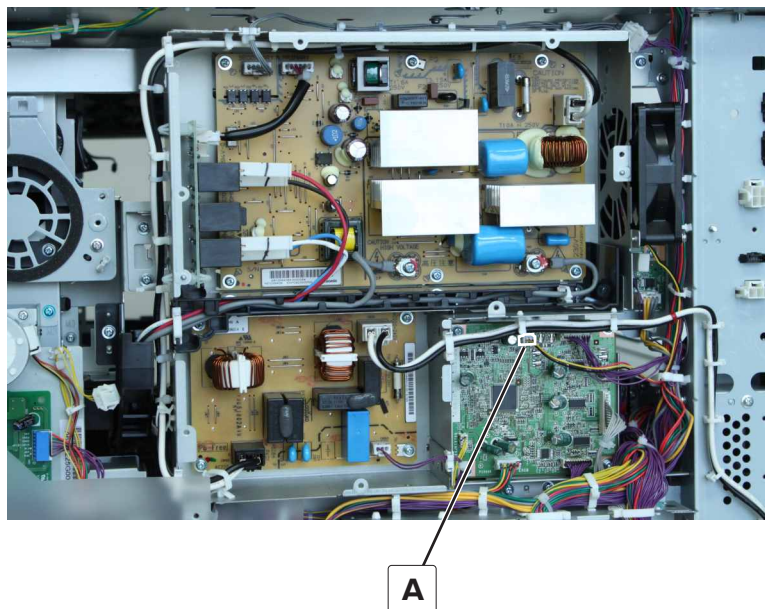


- 7 Disconnect the cables within the frame, and then release them from the guides.
8 Remove the frame.

Fuser power supply fan removal

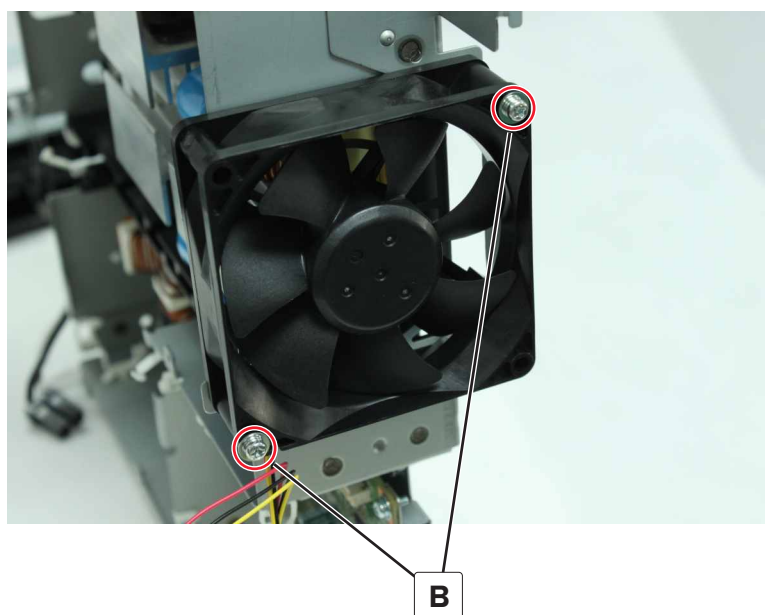
- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 5 Remove the IHPS shield. See [“IHPS shield removal” on page 367.](#)

- 6 Disconnect the cable (A).



- 7 Remove the IHPS frame. See [“IHPS frame removal” on page 380](#).

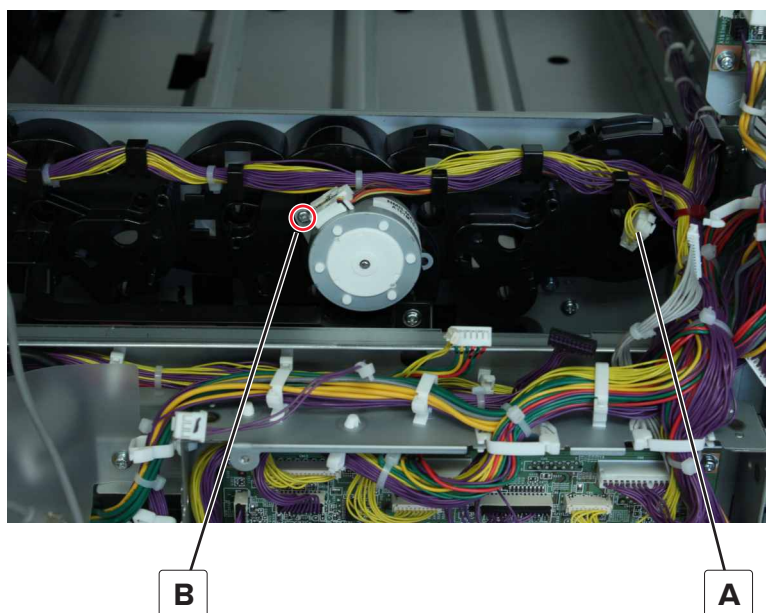
- 8 Remove the two screws (B), and then remove the fan.



Motor (toner cartridge) removal

- 1 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).
- 4 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).

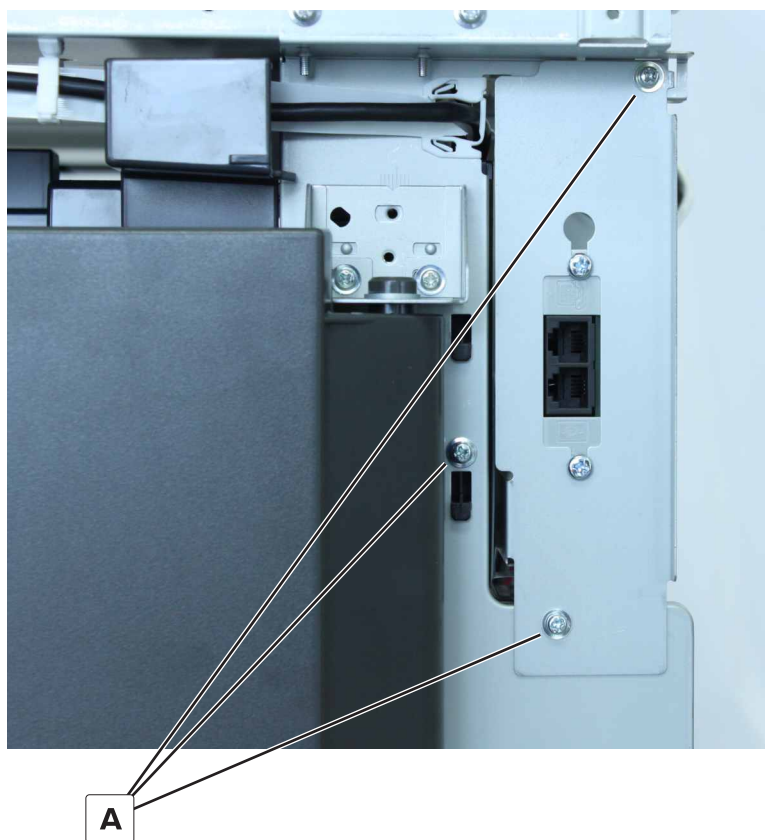
- 5 Remove the IHPS shield. See [“IHPS shield removal” on page 367](#).
- 6 Disconnect the cable (A) and then remove the motor screw (B).



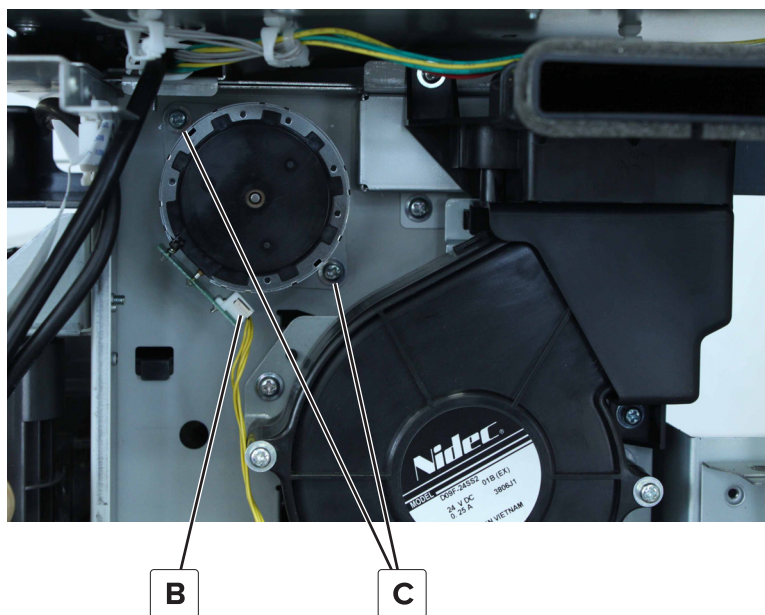
- 7 Release the cable from the guides, and then remove the motor.

Motor (redrive) removal

- 1 Remove the port access door. See [“Port access door removal” on page 293](#).
- 2 Remove the three screws (A), and then remove the bracket.



- 3 From the rear, disconnect the cable (B), and then remove the two screws (C).

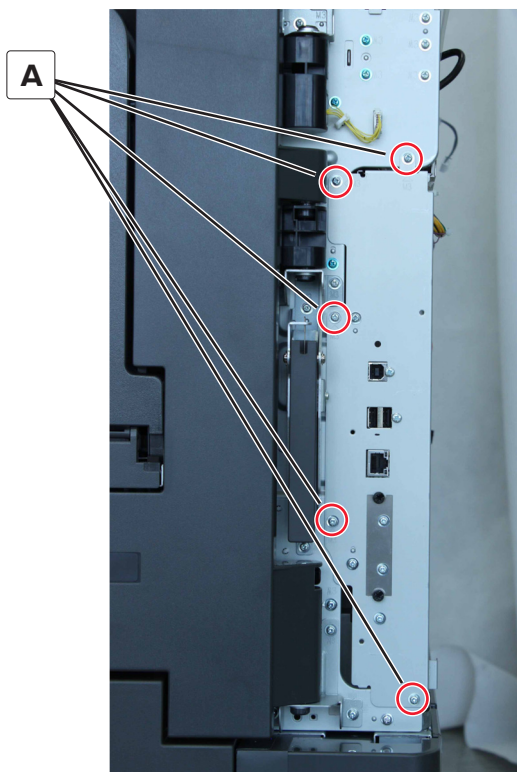


- 4 Remove the motor.

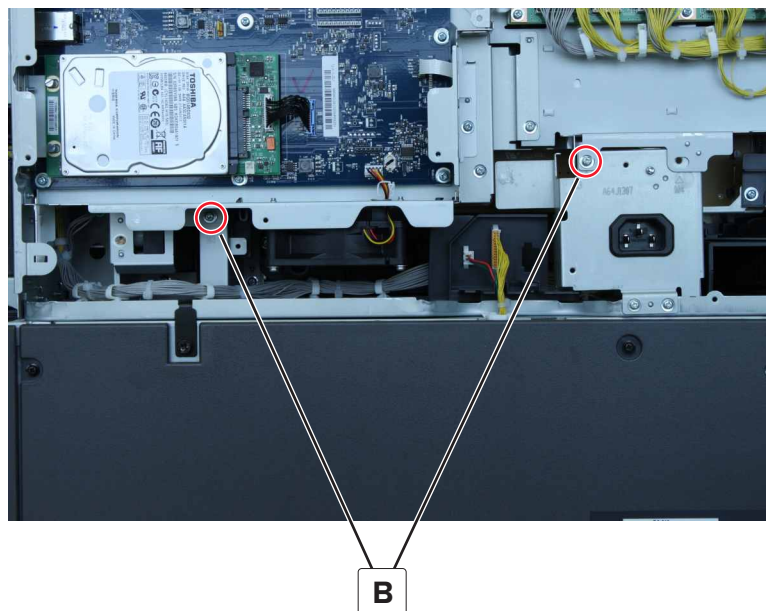
Controller board frame removal

Note: This part is not a FRU.

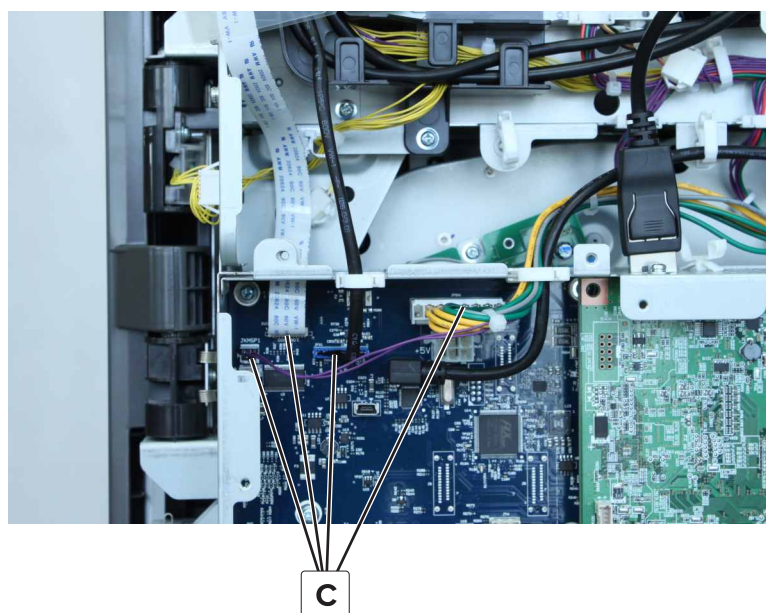
- 1 Remove the port access door. See [“Port access door removal” on page 293.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 6 From the right, remove the five screws (A).



7 From the rear, remove the two screws (B).



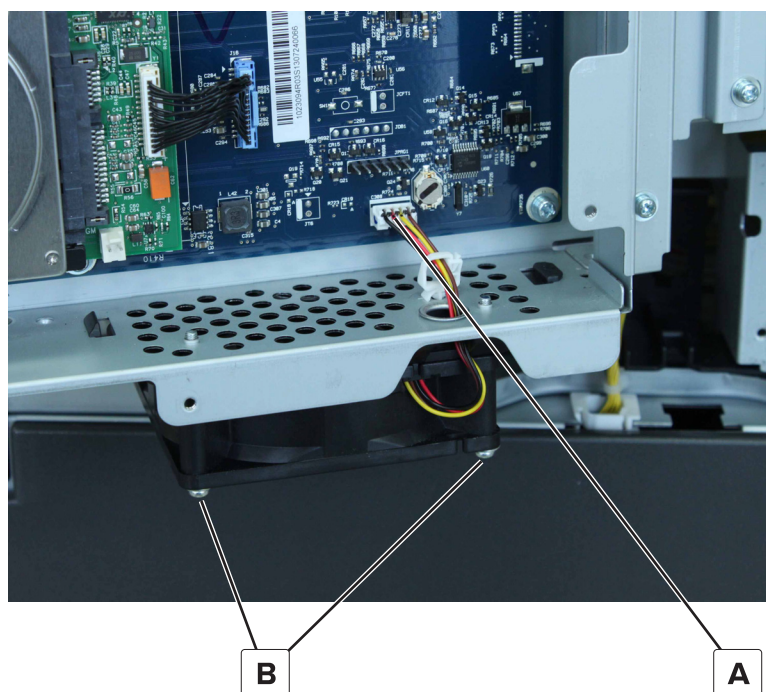
8 Disconnect the four cables (C), and then open the frame.



Controller board fan removal

- 1** Remove the port access door. See [“Port access door removal” on page 293](#).
- 2** Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 3** Remove the engine board cover. See [“Engine board cover removal” on page 366](#).
- 4** Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 5** Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).

- 6 Open the controller board frame. See [“Controller board frame removal” on page 385](#).
- 7 Disconnect the cable (A), and then remove the two screws (B).

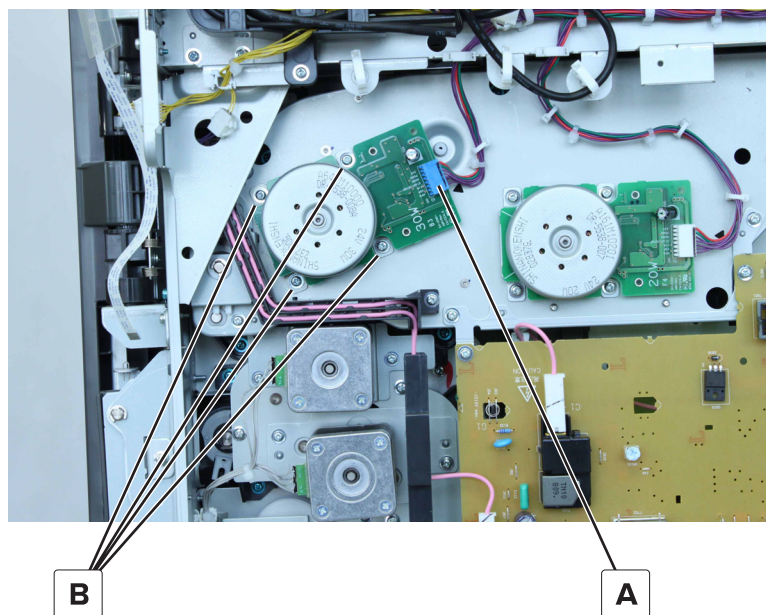


- 8 Remove the fan.

Motor (transport) removal

- 1 Remove the port access door. See [“Port access door removal” on page 293](#).
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385](#).

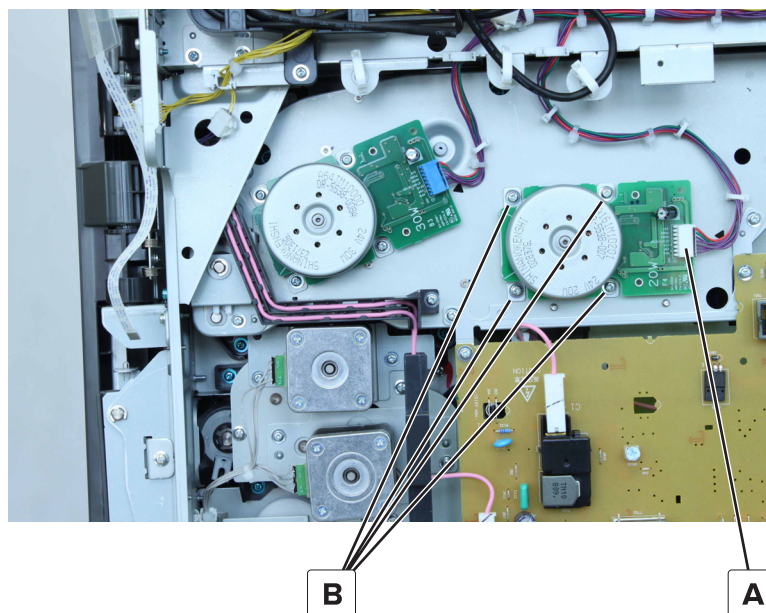
- 7 Disconnect the cable (A), and then remove the four screws (B).



Motor (developer) removal

- 1 Remove the port access door. See [“Port access door removal” on page 293.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385.](#)

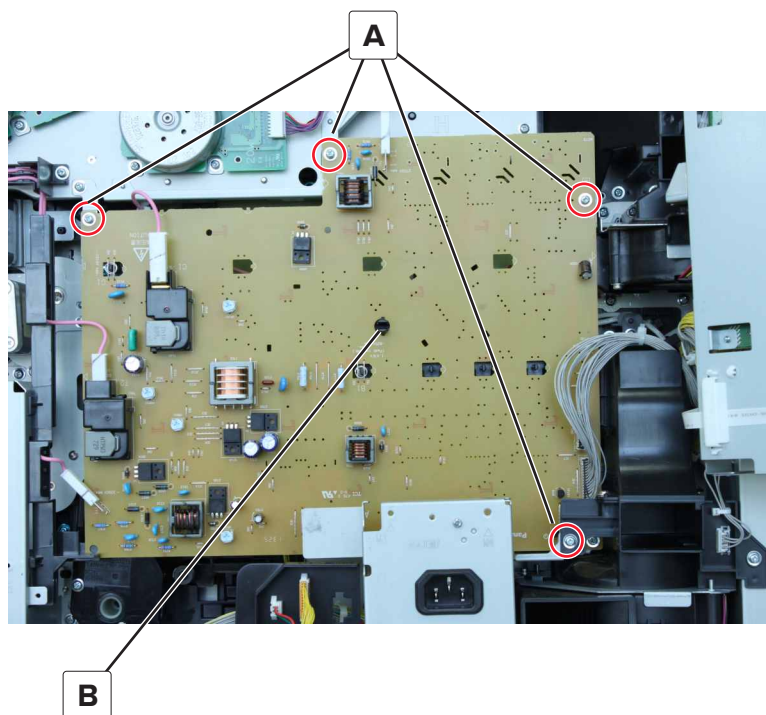
- 7 Disconnect the cable (A), and then remove the four screws (B).



High voltage board removal

- 1 Remove the port access door. See [“Port access door removal” on page 293.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385.](#)

7 Disconnect the cables, remove the four screws (A), and then release the latch (B).

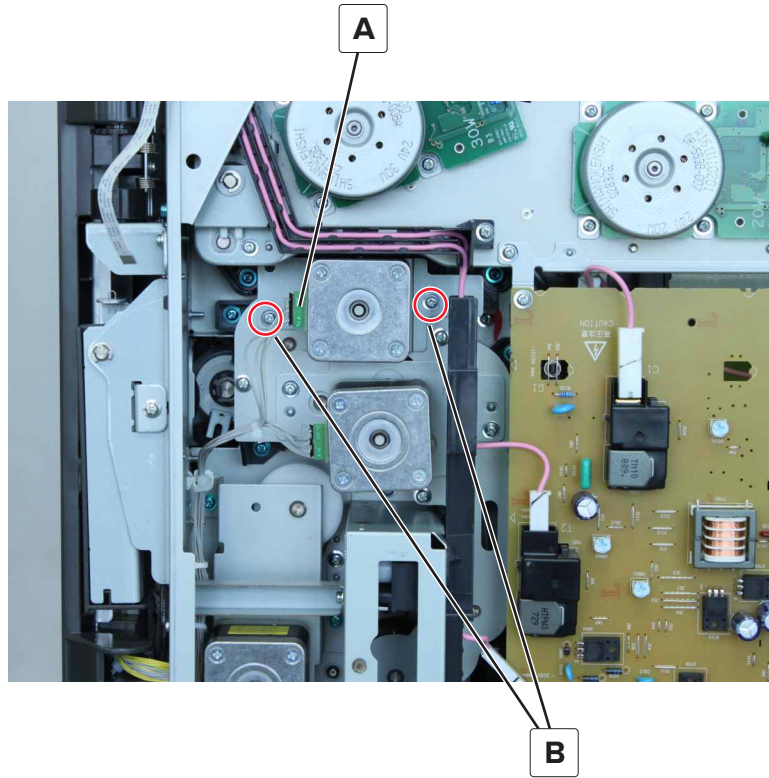


8 Remove the board.

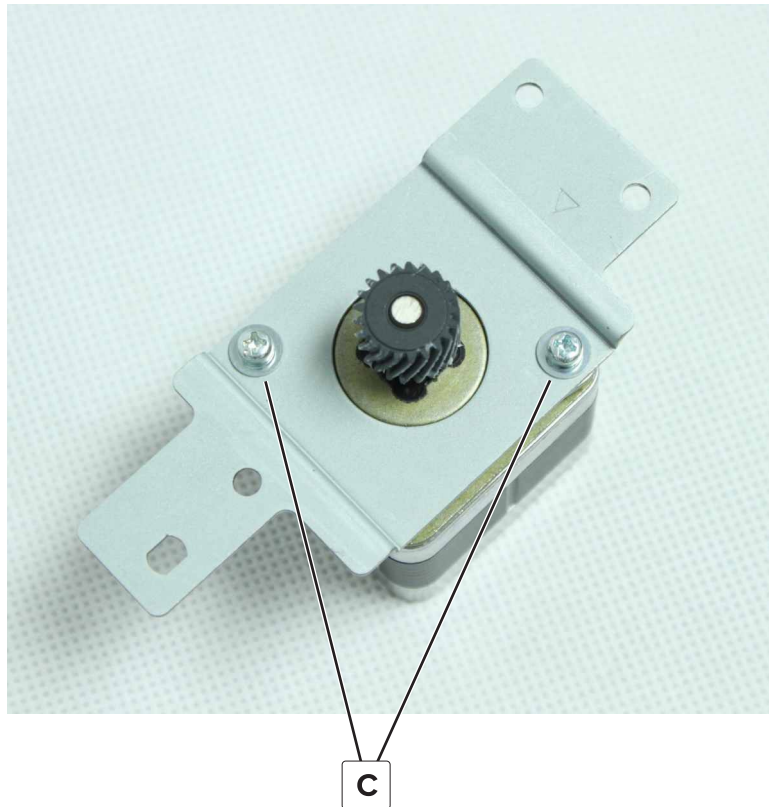
Motor (registration) removal

- 1 Remove the port access door. See [“Port access door removal” on page 293.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385.](#)

7 Disconnect the cable (A), and then remove the two screws (B).



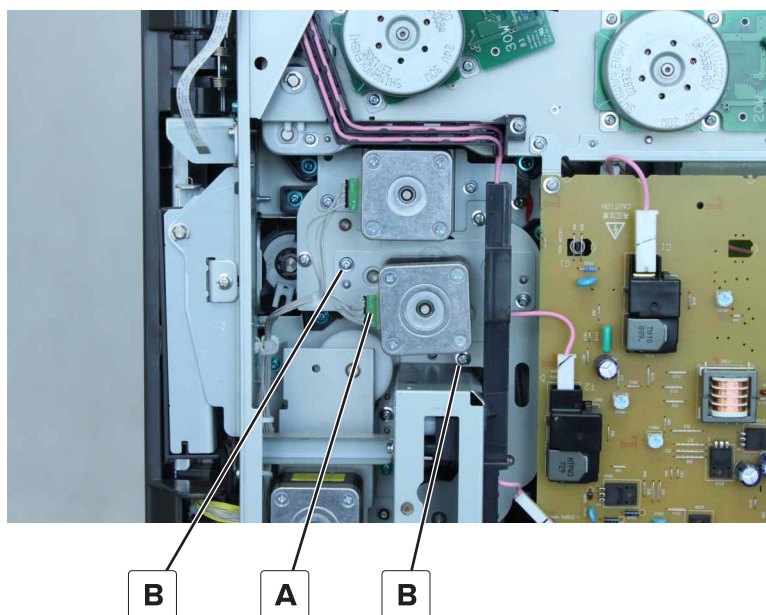
8 Remove the bracket, remove the two screws (C), and then remove the motor.



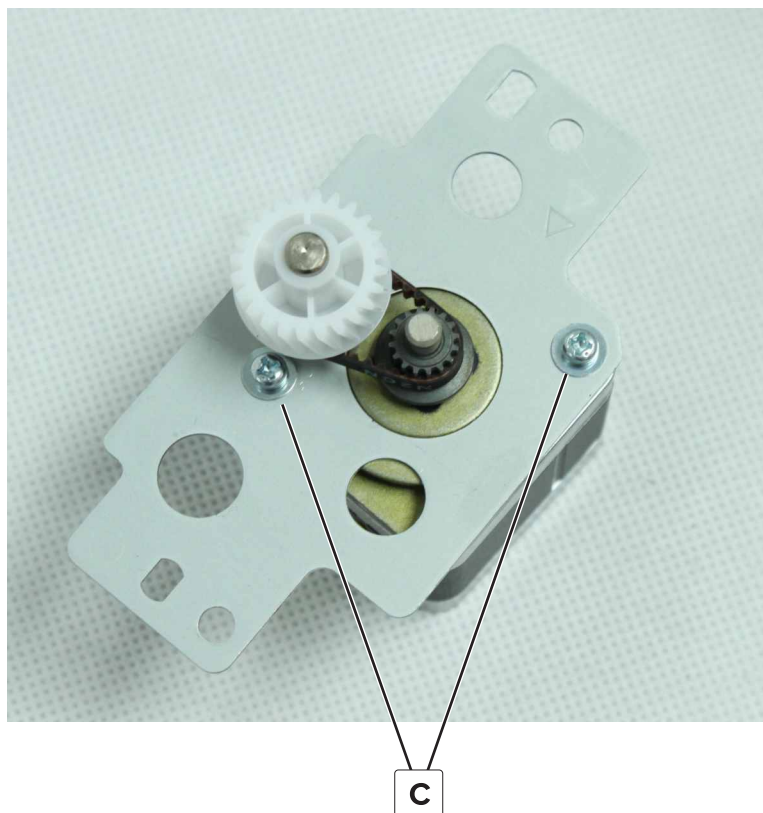
Parts removal

Motor (feed) removal

- 1 Remove the port access door. See [“Port access door removal” on page 293](#).
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385](#).
- 7 Disconnect the cable (A), remove the two screws (B), and then remove the bracket.



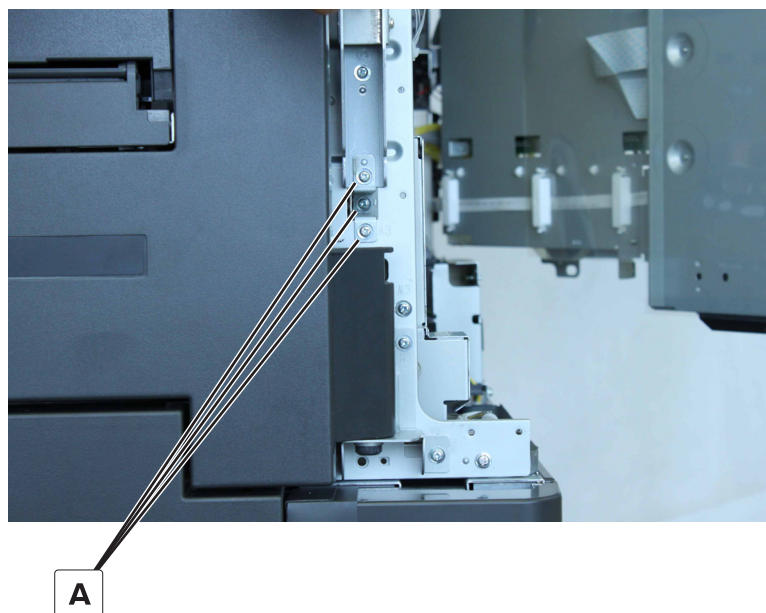
- 8 Remove the two screws (C), and then remove the motor.



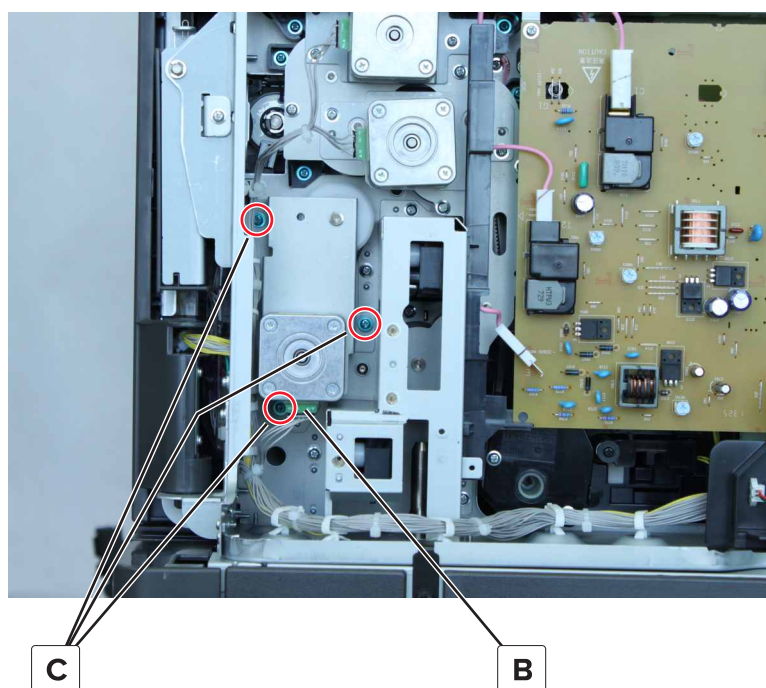
Tray 2 transport drive removal

- 1 Remove the port access door. See [“Port access door removal” on page 293.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385.](#)

- 7 From the right, remove the three screws (A), and then remove the bracket.



- 8 From the rear, disconnect the cable (B), and then remove the three screws (C).



- 9 Remove the assembly.

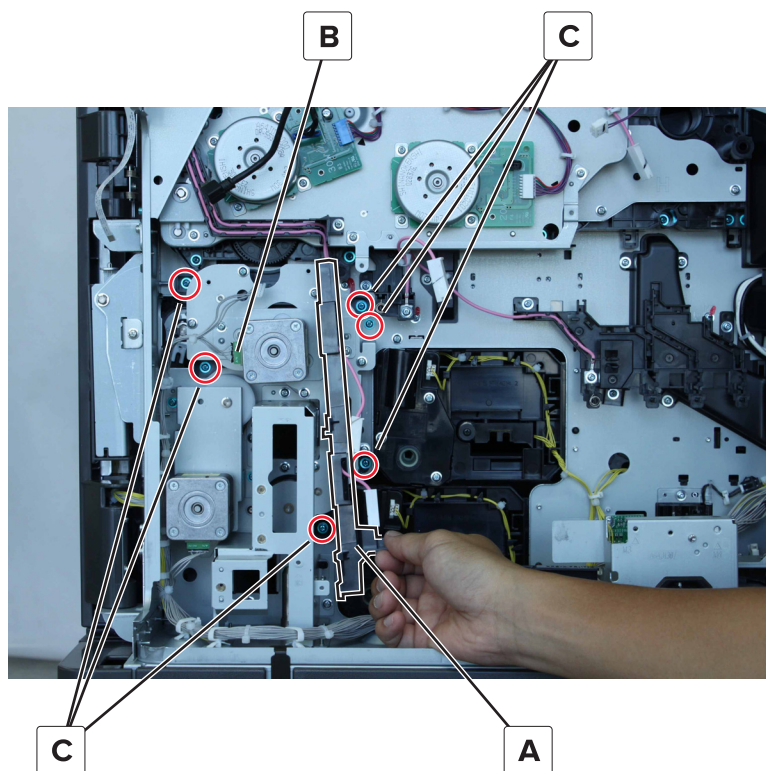
Motor (tray 2 transport) removal

- 1 Remove the port access door. See [“Port access door removal” on page 293](#).
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).

- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385.](#)
- 7 Remove the tray 2 transport drive. See [“Tray 2 transport drive removal” on page 393.](#)
- 8 Remove the two screws, and then remove the motor.

Feed drive assembly removal

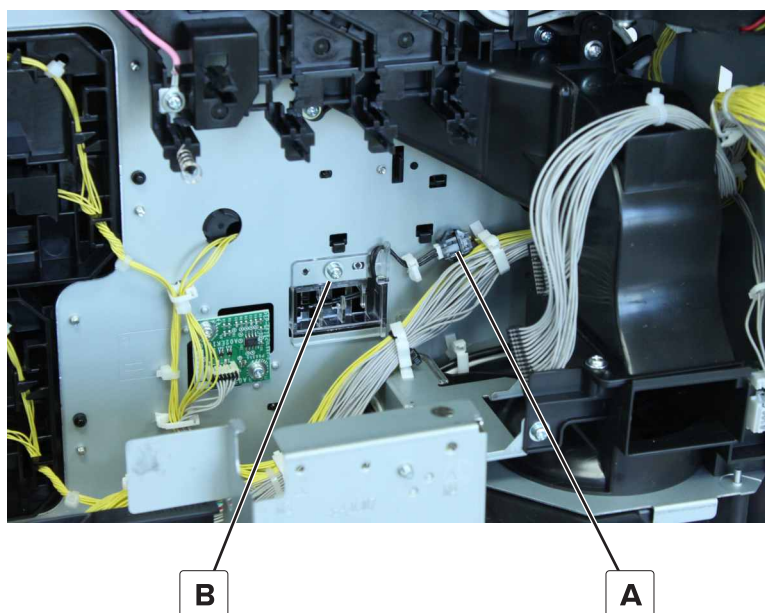
- 1 Remove the port access door. See [“Port access door removal” on page 293.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385.](#)
- 7 Slightly lift the cable guide (A) to release. Move the guide to access the screw behind it.
- 8 Disconnect the cable (B), and then remove the six screws (C).



- 9 Remove the assembly.

Sensor (tray 1 and 2 paper temperature) removal

- 1 Remove the port access door. See [“Port access door removal” on page 293](#).
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385](#).
- 7 Disconnect the cable (A), remove the screw (B), and then remove the cover.

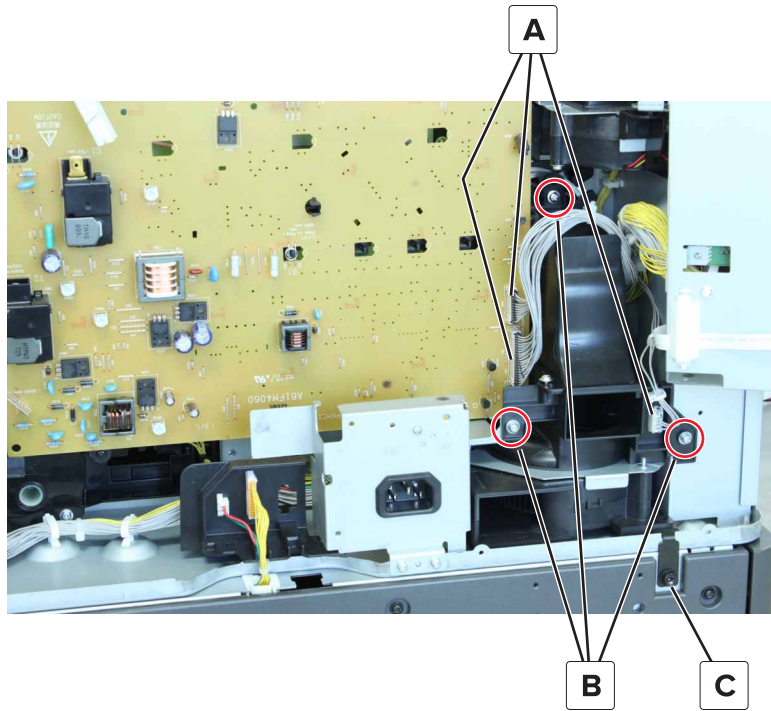


- 8 Remove the sensor.

Ozone fan removal

- 1 Remove the port access door. See [“Port access door removal” on page 293](#).
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385](#).
- 7 Disconnect the three cables (A), remove the three screws (B), and then remove the fan and duct.

Note: If an optional tray is included, then remove the bottom screw (C).



- 8 Disconnect the cable (D), and then remove the two screws (E).



- 9 Remove the fan.

Ozone fan duct removal

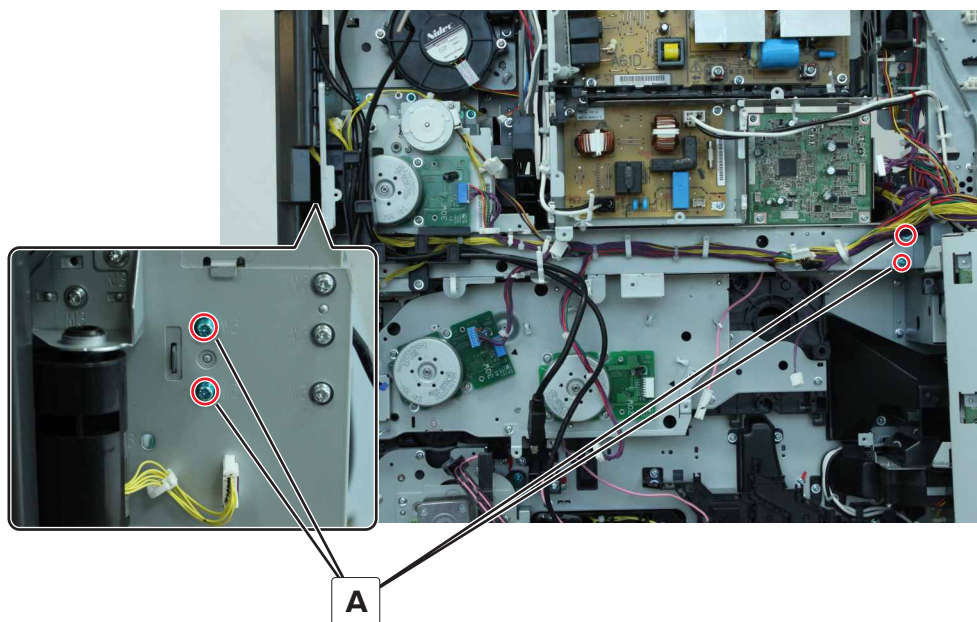
- 1 Remove the port access door. See [“Port access door removal” on page 293.](#)
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385.](#)
- 7 Remove the ozone fan. See [“Ozone fan removal” on page 396.](#)

The fan duct remains.

Center cable guide bracket removal

Note: This part is not a FRU.

- 1 Remove the port access door. See [“Port access door removal” on page 293](#).
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385](#).
- 7 Remove the four screws (A), and then release the cables from the bracket cable clips.

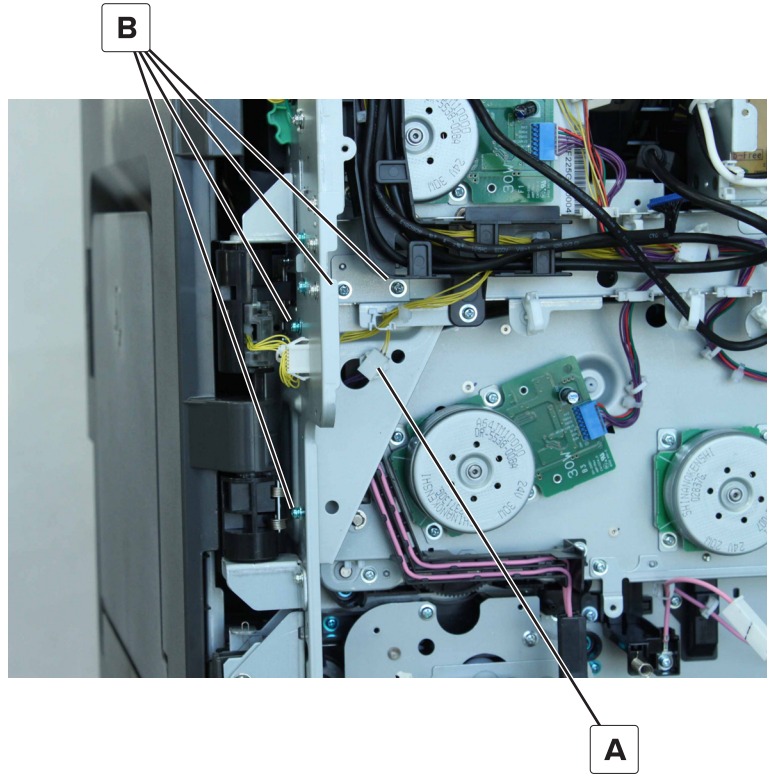


- 8 Remove the bracket.

Main drive assembly removal

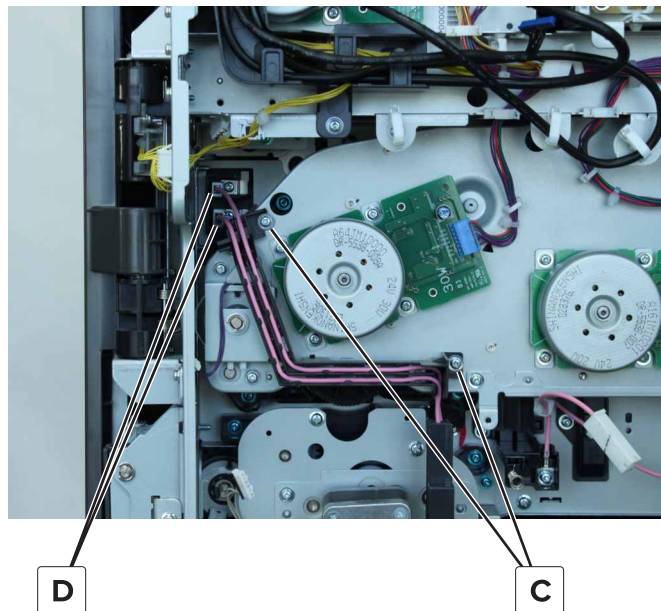
- 1 Remove the port access door. See [“Port access door removal” on page 293](#).
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385](#).
- 7 Remove the center cable guide bracket. See [“Center cable guide bracket removal” on page 399](#).
- 8 Remove the high voltage board. See [“High voltage board removal” on page 389](#).

9 Disconnect the cable (A), remove the four screws (B), and then remove the bracket.

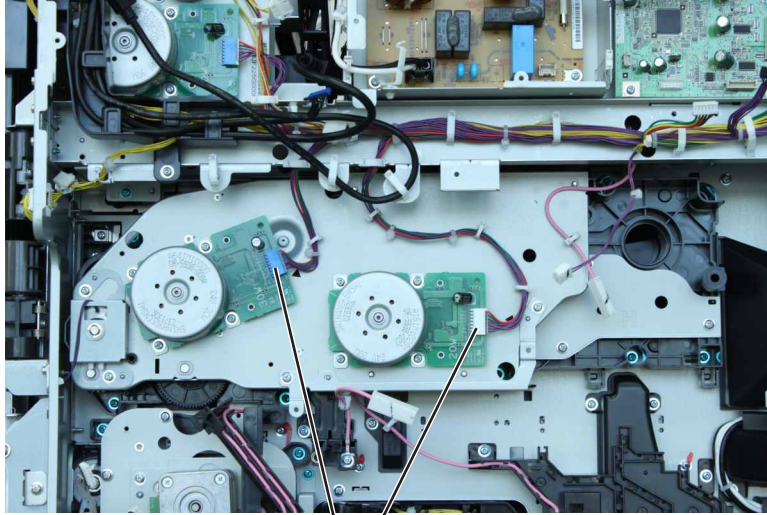


10 Remove the two screws (C), and then disconnect the two cables (D).

Note: We recommend using long nose pliers to disconnect the cables.

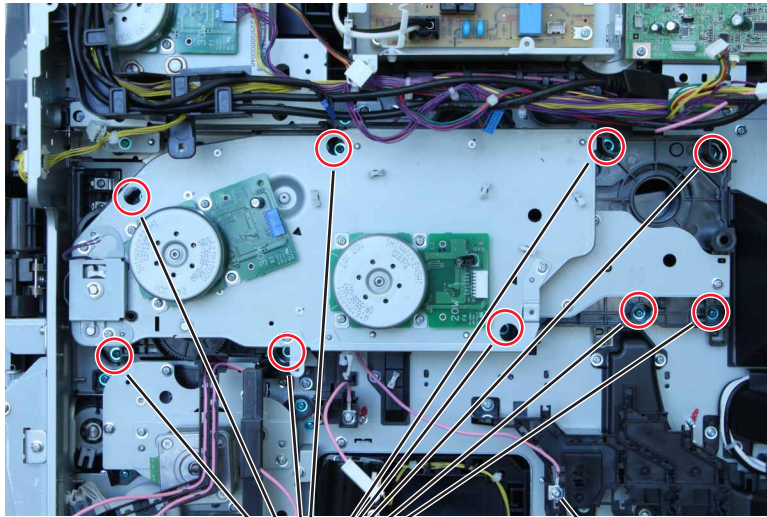


11 Disconnect the two cables (E), and then release the cables from the assembly cable clips.



E

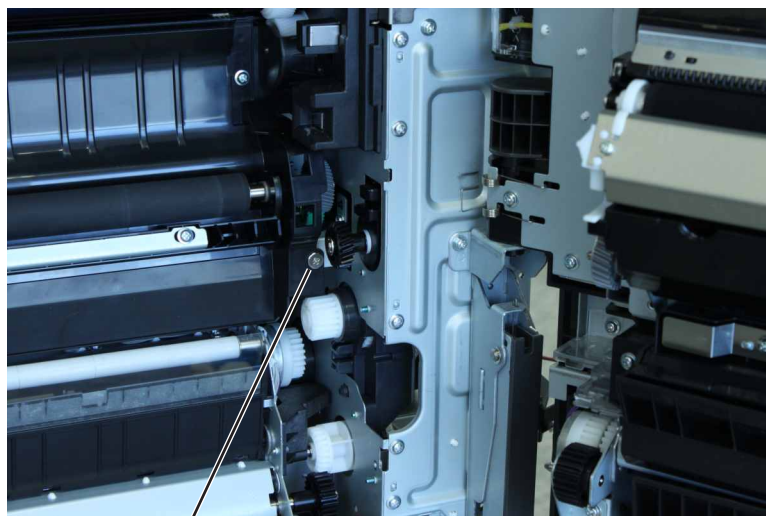
12 Remove the nine screws (F), and then remove the ground screw (G).



F

G

- 13** Open the right door, and then remove the screw (H).



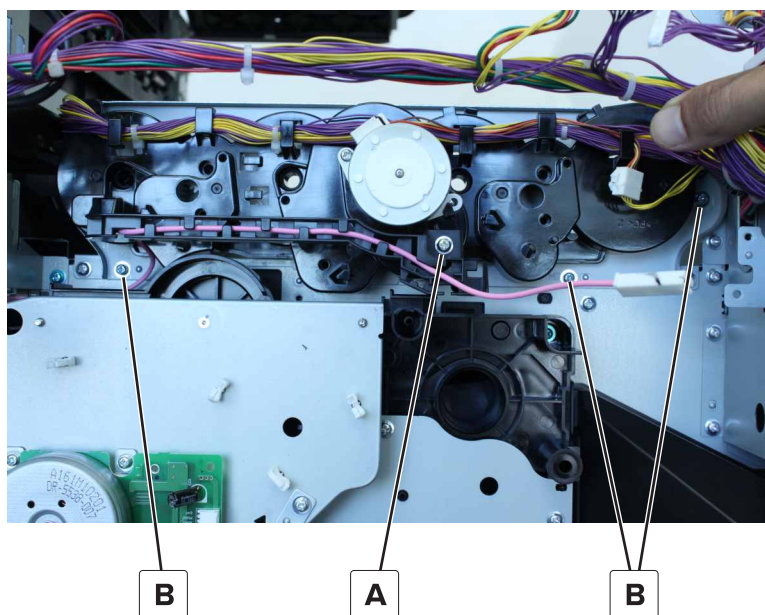
H

- 14** Remove the assembly.

Toner cartridge drive assembly removal

- 1** Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364.](#)
- 2** Remove the controller board access cover. See [“Controller board access cover removal” on page 365.](#)
- 3** Remove the engine board cover. See [“Engine board cover removal” on page 366.](#)
- 4** Remove the upper rear cover. See [“Upper rear cover removal” on page 366.](#)
- 5** Remove the IHPS shield. See [“IHPS shield removal” on page 367.](#)

- 6 Remove the screw (A), and then remove the guide. Remove the three screws (B), and then release the cables from the guides.

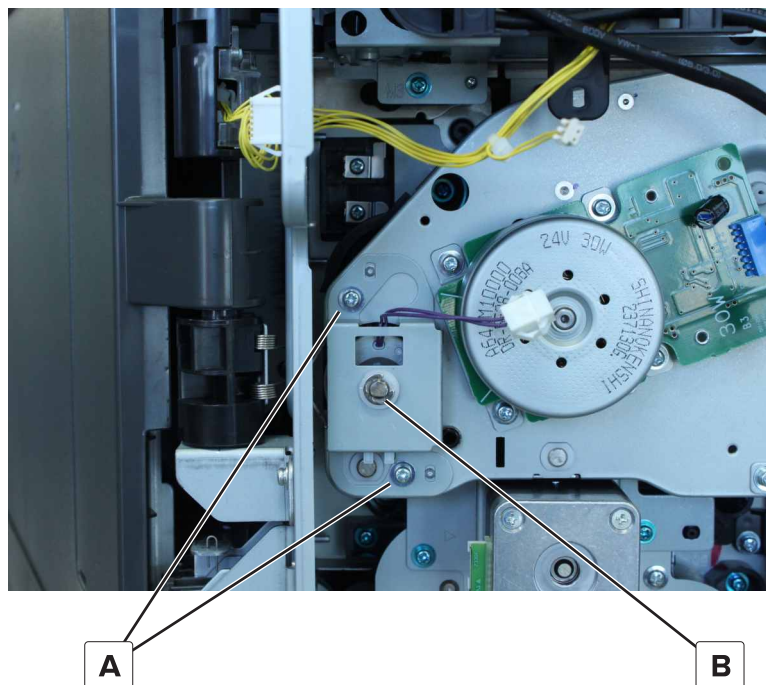


- 7 Remove the assembly.

Duplex transport clutch removal

- 1 Remove the port access door. See [“Port access door removal” on page 293](#).
- 2 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 3 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).
- 4 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).
- 6 Open the controller board frame. See [“Controller board frame removal” on page 385](#).

- 7 Remove the two screws (A), remove the bracket, and then remove the clip (B).

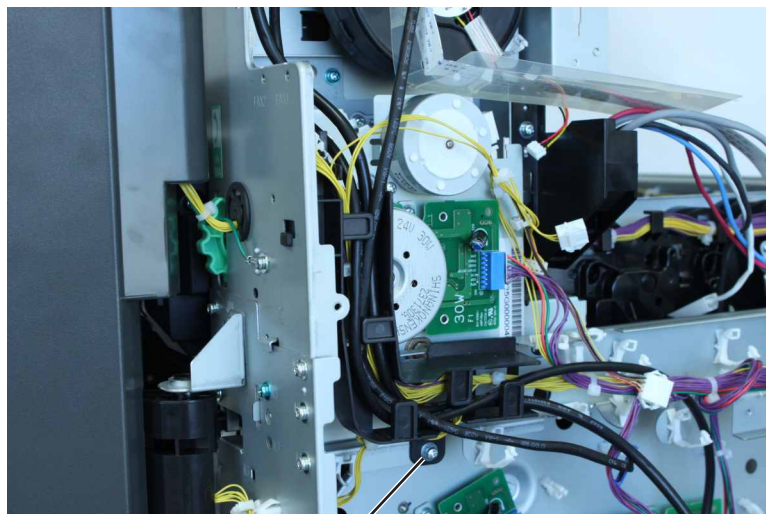


- 8 Remove the clutch.

Motor (fuser) removal

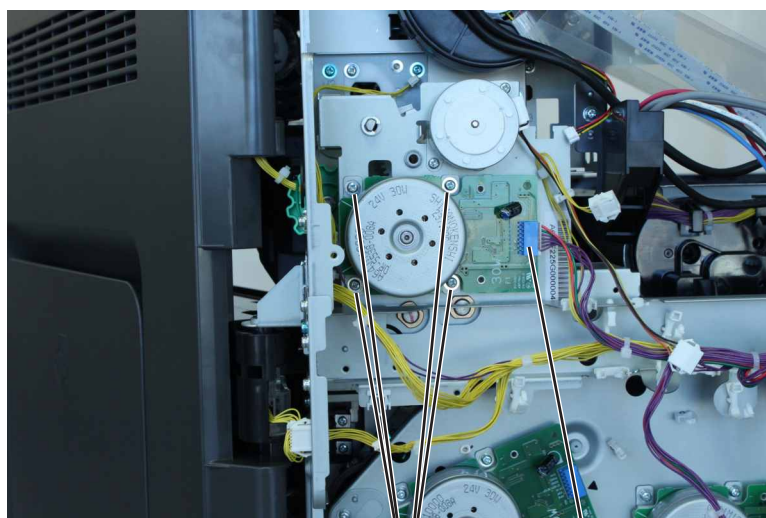
- 1 Remove the port access door. See [“Port access door removal” on page 293](#).
- 2 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 3 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 4 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).
- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).
- 6 Remove the IHPS shield. See [“IHPS shield removal” on page 367](#).

- 7 Remove the screw (A), and then remove the guide.



A

- 8 Disconnect the cable (B), and then remove the four screws (C).



C

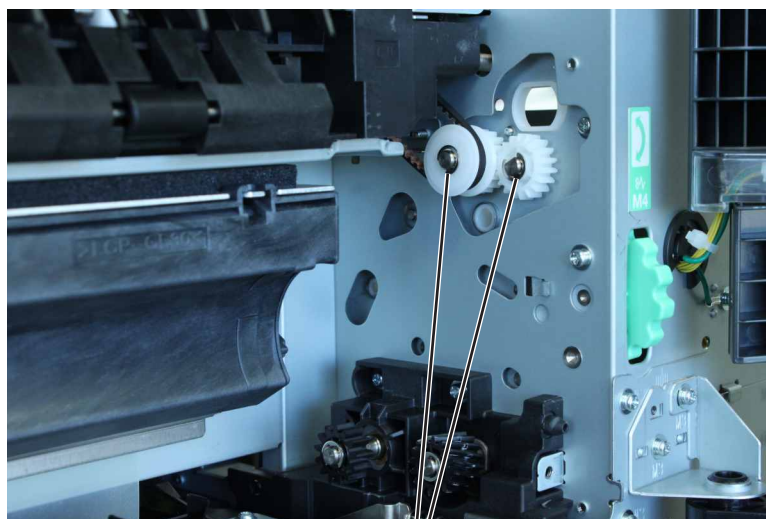
B

- 9 Slightly lift the motor to release, and then remove it.

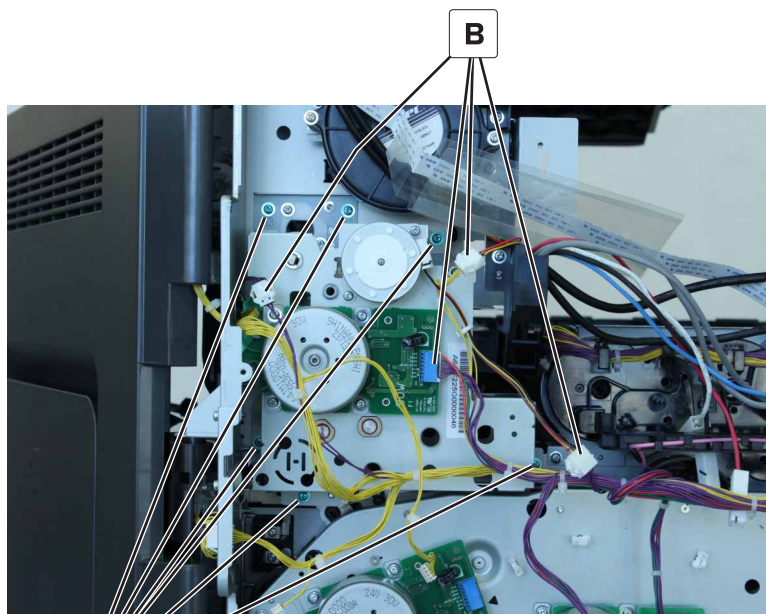
Fuser drive gearbox removal

- 1 Remove the port access door. See [“Port access door removal” on page 293](#).
- 2 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 3 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 4 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).

- 5 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).
- 6 Remove the IHPS shield. See [“IHPS shield removal” on page 367](#).
- 7 From the right, release the two clips (A), remove the two gears, and then release the belt.

**A**

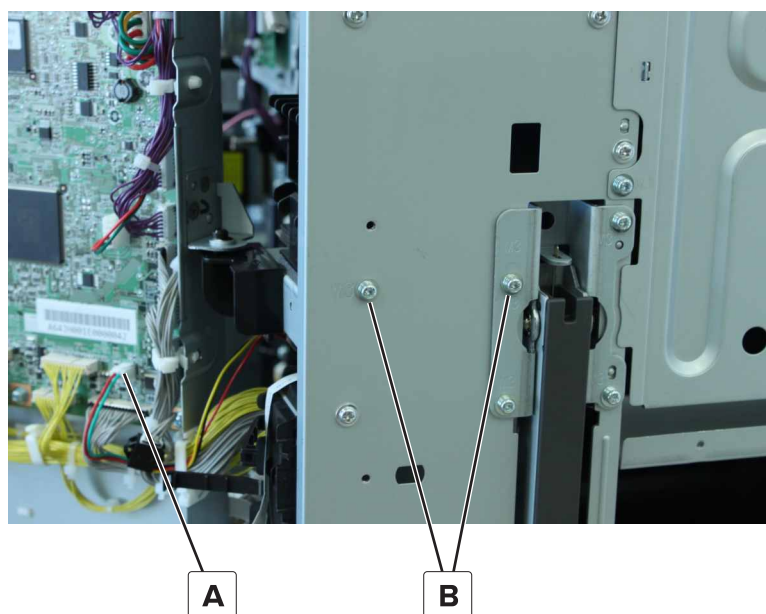
- 8 From the rear, disconnect the four cables (B), and then remove the six screws (C).

**B****C**

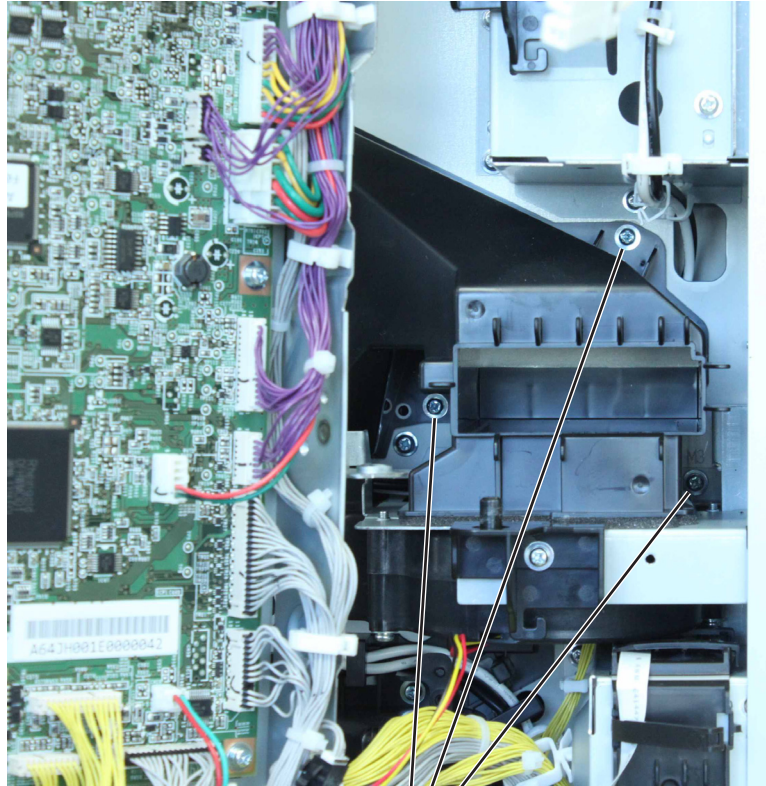
- 9 Remove the gearbox.

Toner suction fan removal

- 1 Remove the left cover. See [“Left cover removal” on page 286](#).
- 2 Remove the rear left cover. See [“Rear left cover removal” on page 287](#).
- 3 Remove the port access door. See [“Port access door removal” on page 293](#).
- 4 Remove the controller board access cover. See [“Controller board access cover removal” on page 365](#).
- 5 Remove the engine board cover. See [“Engine board cover removal” on page 366](#).
- 6 Remove the scanner interface cable cover. See [“Scanner interface cable cover removal” on page 364](#).
- 7 Remove the upper rear cover. See [“Upper rear cover removal” on page 366](#).
- 8 Disconnect the cable (A), and then remove the two screws (B).

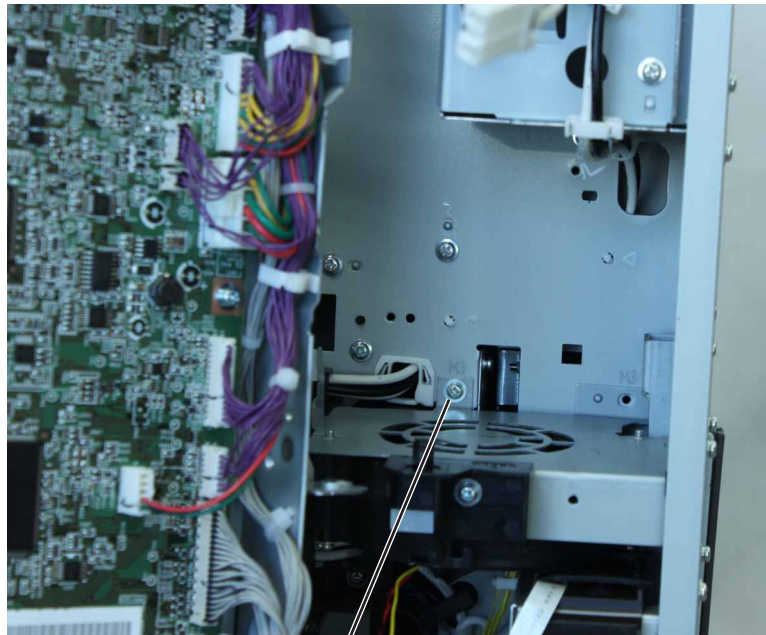


9 Remove the three screws (C), and then remove the fan duct.



C

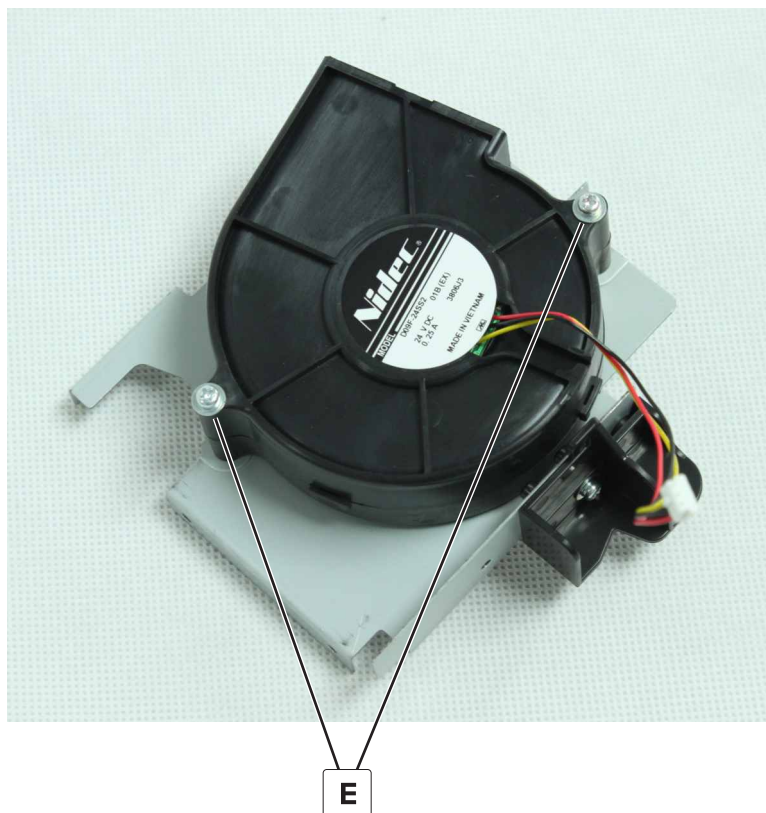
10 Remove the screw (D), and then remove the bracket.



D

Parts removal

- 11 Remove the two screws (E), and then remove the fan.



Top side removals

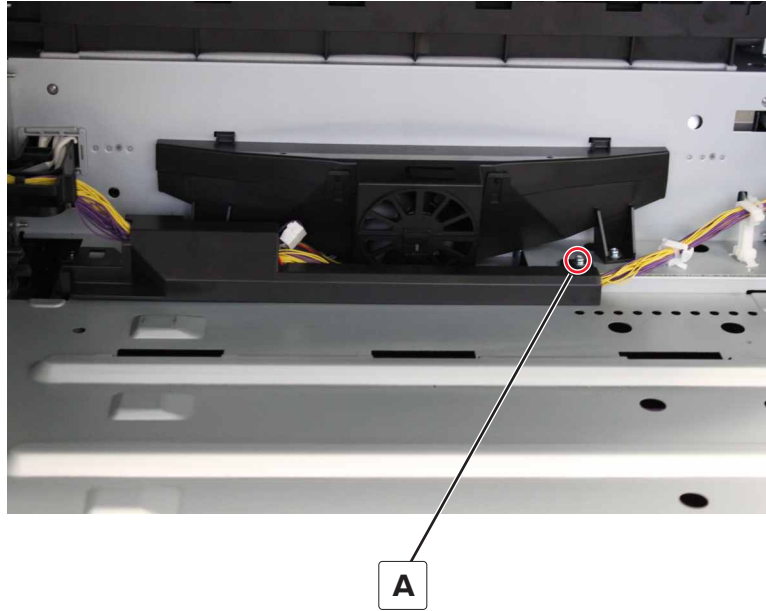
Standard bin base removal

- 1 Remove the left cover. See [“Left cover removal” on page 286](#).
- 2 Remove the standard bin base.

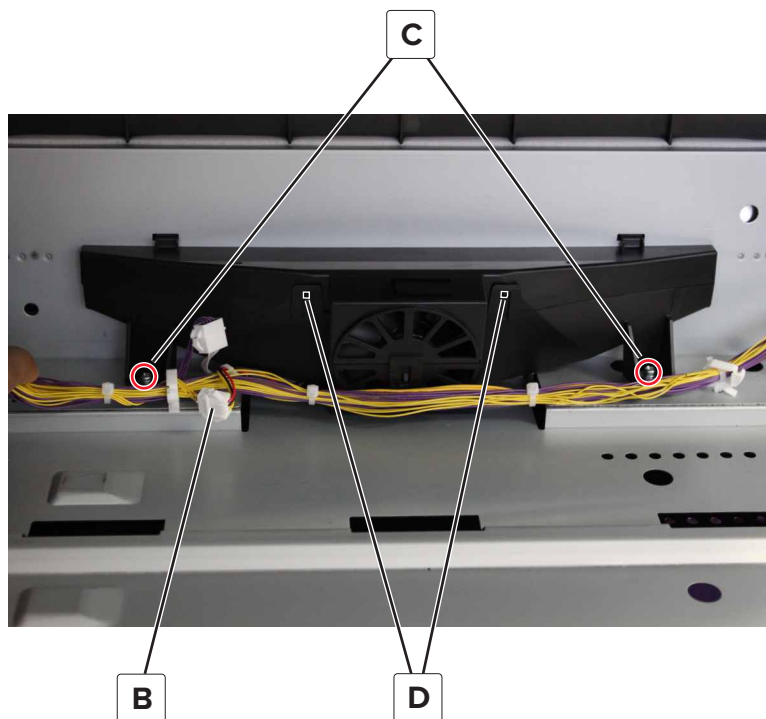
Fuser fan removal

- 1 Remove the left cover. See [“Left cover removal” on page 286](#).
- 2 Remove the standard bin base. See [“Standard bin base removal” on page 409](#).

- 3** Remove the screw (A), and then remove the cover.



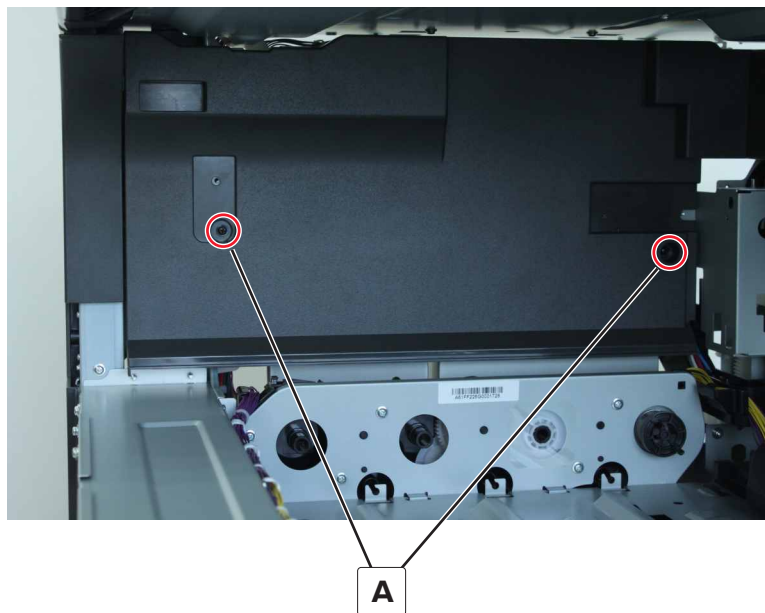
- 4** Disconnect the cable (B), and then remove the two screws (C). Release the latches (D), and then open the case.



- 5** Remove the fan.

Bin side cover removal

- 1 Remove the left cover. See [“Left cover removal” on page 286](#).
- 2 Remove the standard bin base. See [“Standard bin base removal” on page 409](#).
- 3 Remove the two screws (A), and then remove the cover.



ADF and scanner removals

ADF assembly removal

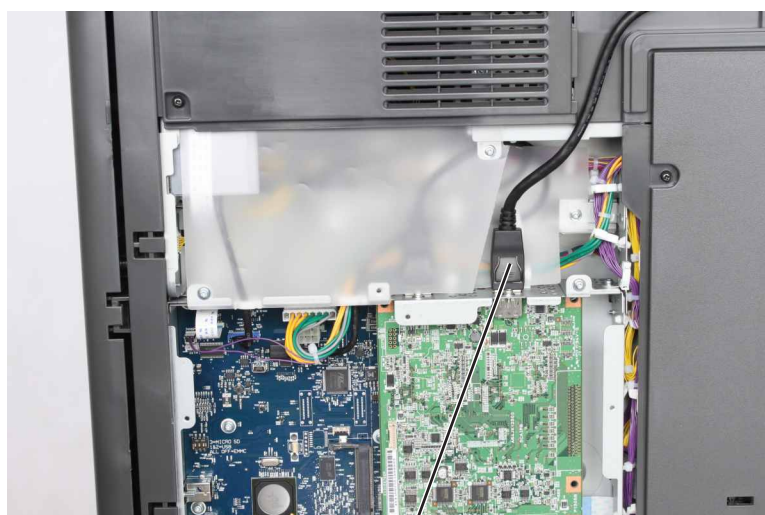
Note: Make sure to perform ADF height adjustment after replacing the ADF assembly. See [“ADF height adjustment” on page 272](#).

- 1 Remove the screw (A) securing the ADF rear cable access cover, and then remove the cover.



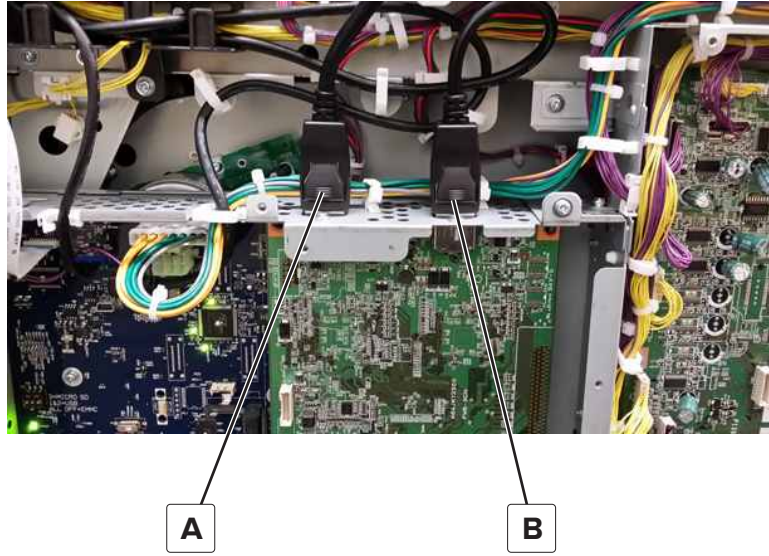
A

- 2 Remove the controller board cover. See [“Controller board access cover removal” on page 365](#).
- 3 Disconnect the cable (B) from the controller board.



B

Installation note: Connect the scanner CCD cable (A) and ADF CIS data cable (B) as shown in the illustration. If the cables are connected to the wrong socket, then an invalid scanner code error occurs.

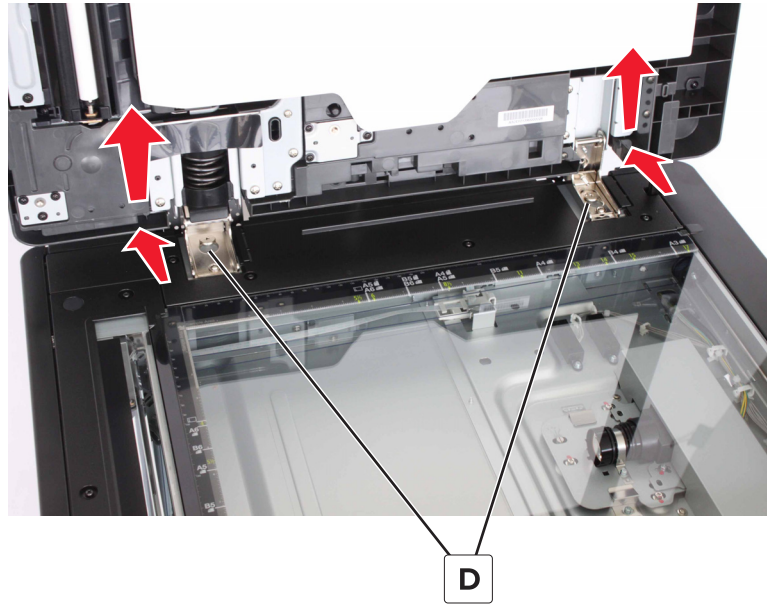


- 4 Disconnect the three cables (C), and then release them from the holder (D).

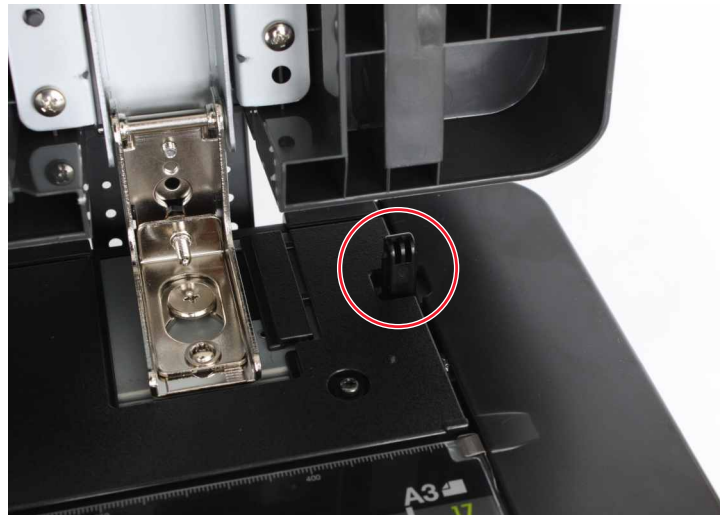


- 5 Open the ADF, and then remove the two screws (D).

6 Remove the ADF.

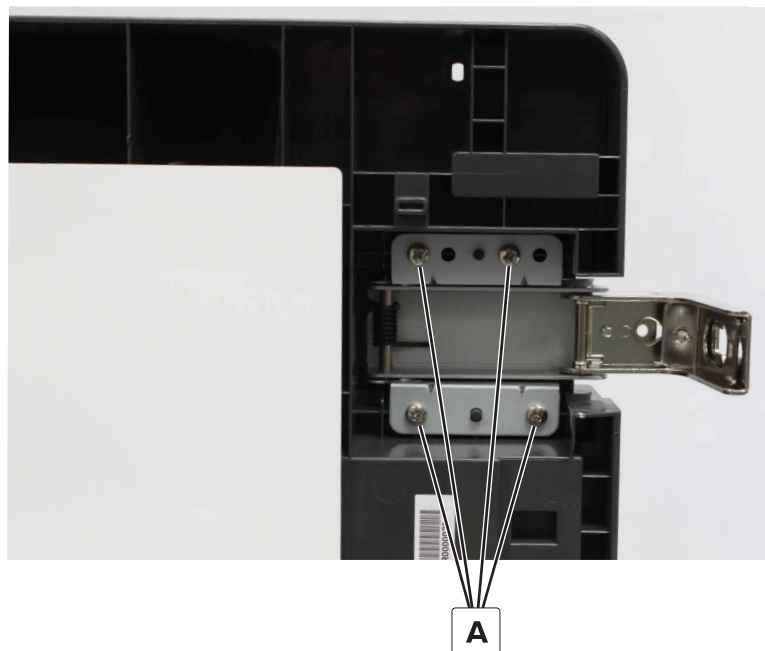


Warning—Potential Damage: Do not break the ADF angle open actuator.



ADF right hinge removal

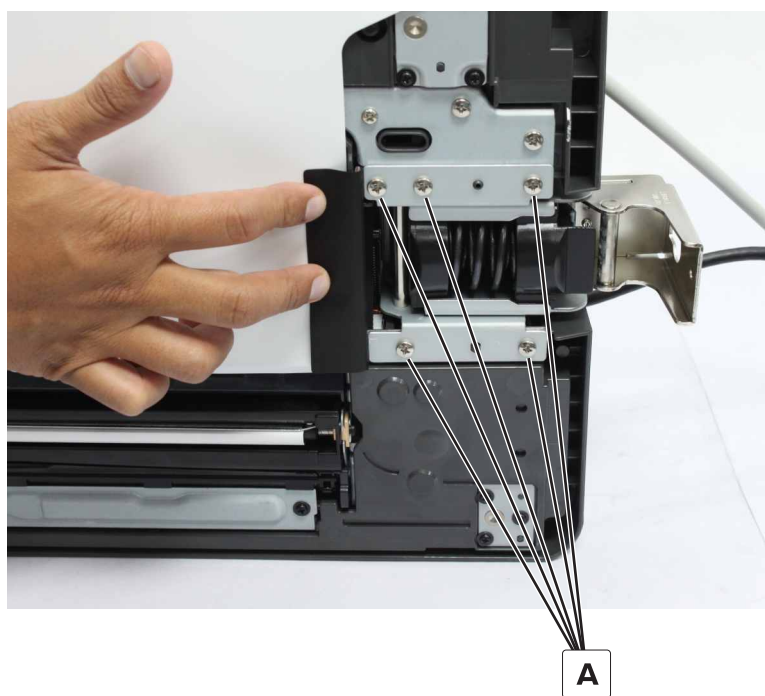
- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412.](#)
- 2 Remove the four screws (A) securing the right hinge.



- 3 Remove the hinge.

ADF left hinge removal

- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412.](#)
- 2 Remove the five screws (A) securing the left hinge.



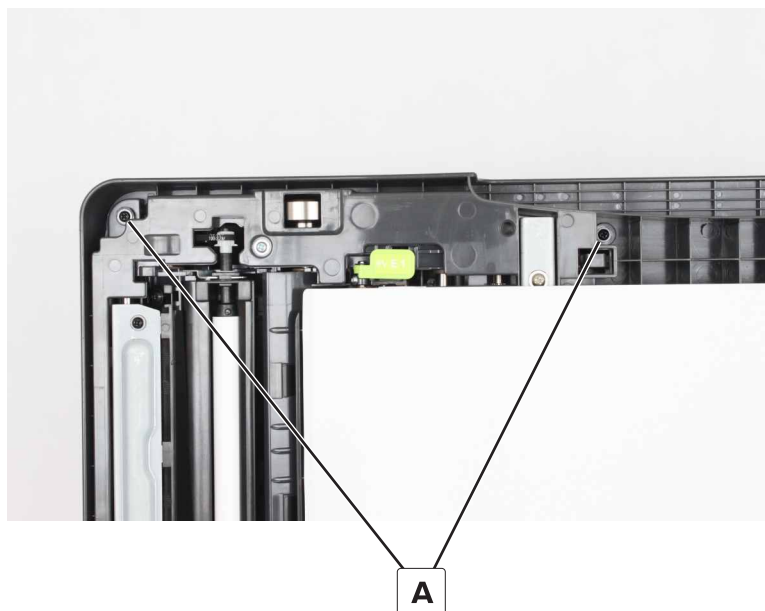
- 3 Remove the hinge.

ADF cushion removal

- 1 Open the ADF.
- 2 Remove the ADF cushion.

ADF front cover removal

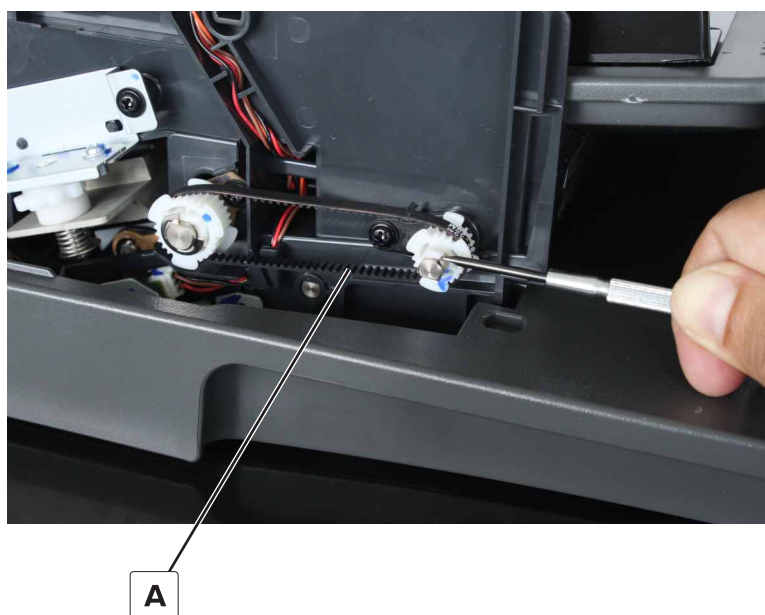
- 1 Open the ADF.
- 2 Remove the two screws (A) from the ADF front cover.



- 3 Remove the cover.

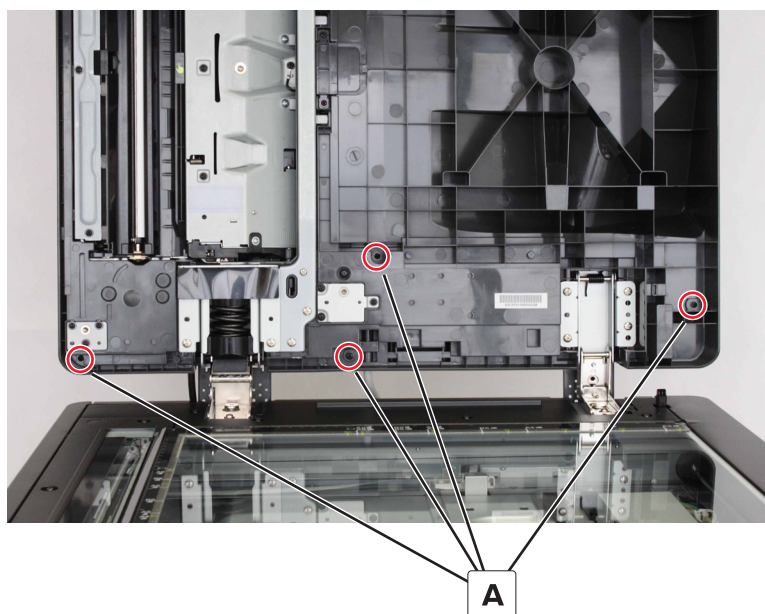
ADF scan/exit roller belt removal

- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 418](#).
- 2 Pry the latch to release the gear from the shaft.
- 3 Pull out the gear, and then remove the belt (A).



ADF rear cover removal

- 1 Open the ADF.
- 2 Remove the four screws (A) securing the ADF rear cover.

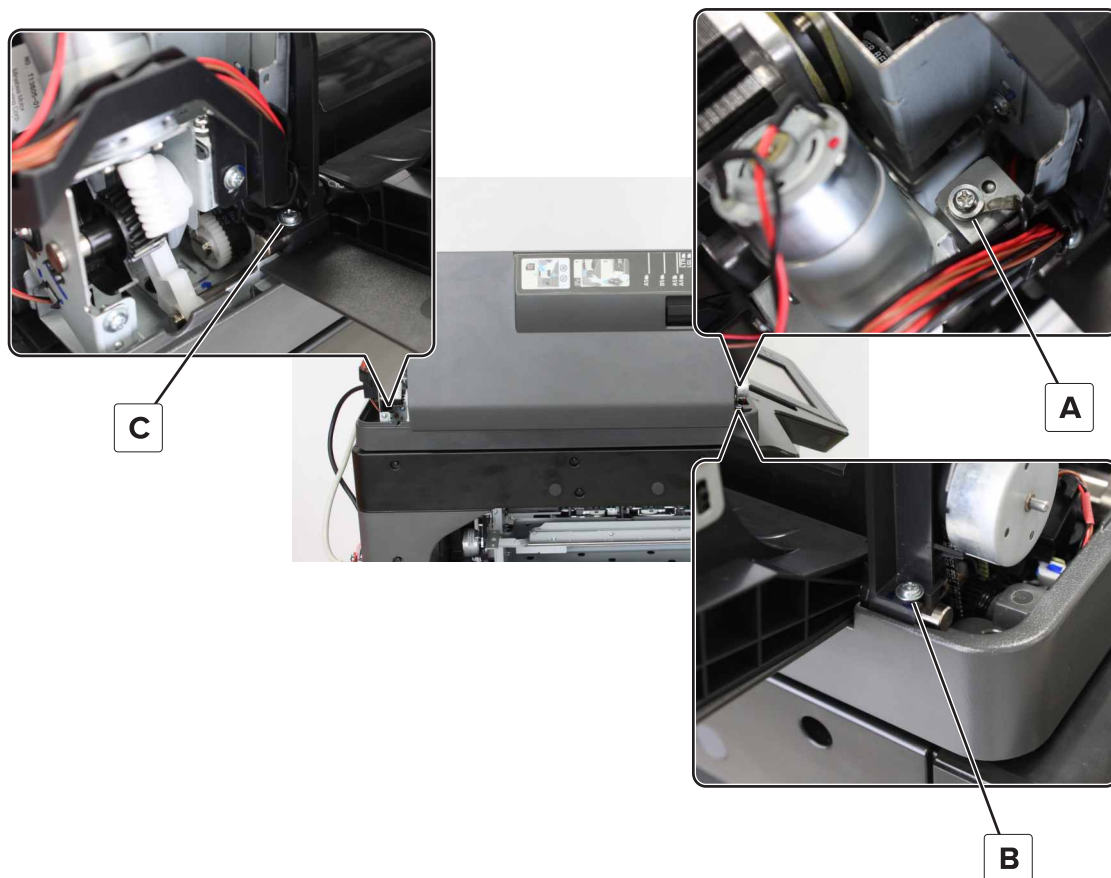


- 3 Close the ADF.
- 4 Open the ADF door, and then remove the ADF rear cover.

ADF door removal

- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 418](#).
- 2 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).
- 3 Disconnect the J14 cable from the ADF controller board.
- 4 Remove the ground screw (A) from the rear of the ADF door.

- 5 Remove the screws (B) (C) from the shafts on the front and rear of the ADF door, and then remove the shaft.

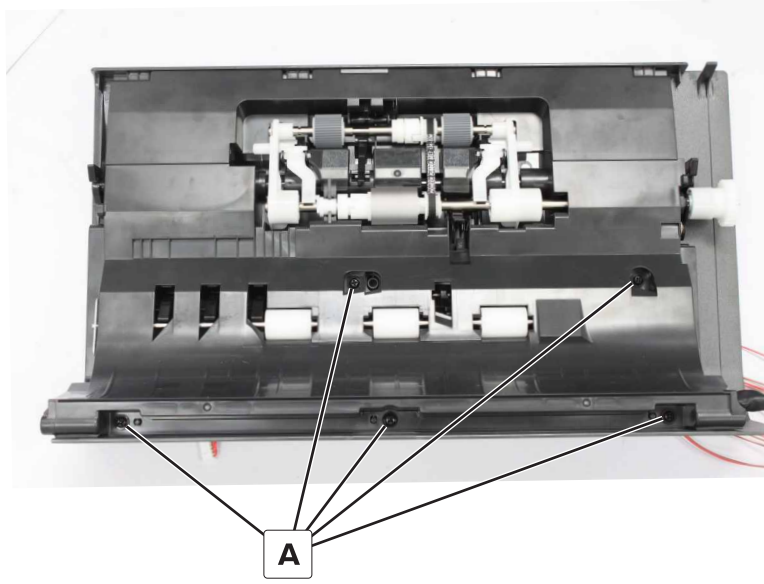


- 6 Remove the ADF door.

ADF top cover removal

- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 418.](#)
- 2 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419.](#)
- 3 Remove the ADF top cover assembly. See [“ADF door removal” on page 419.](#)

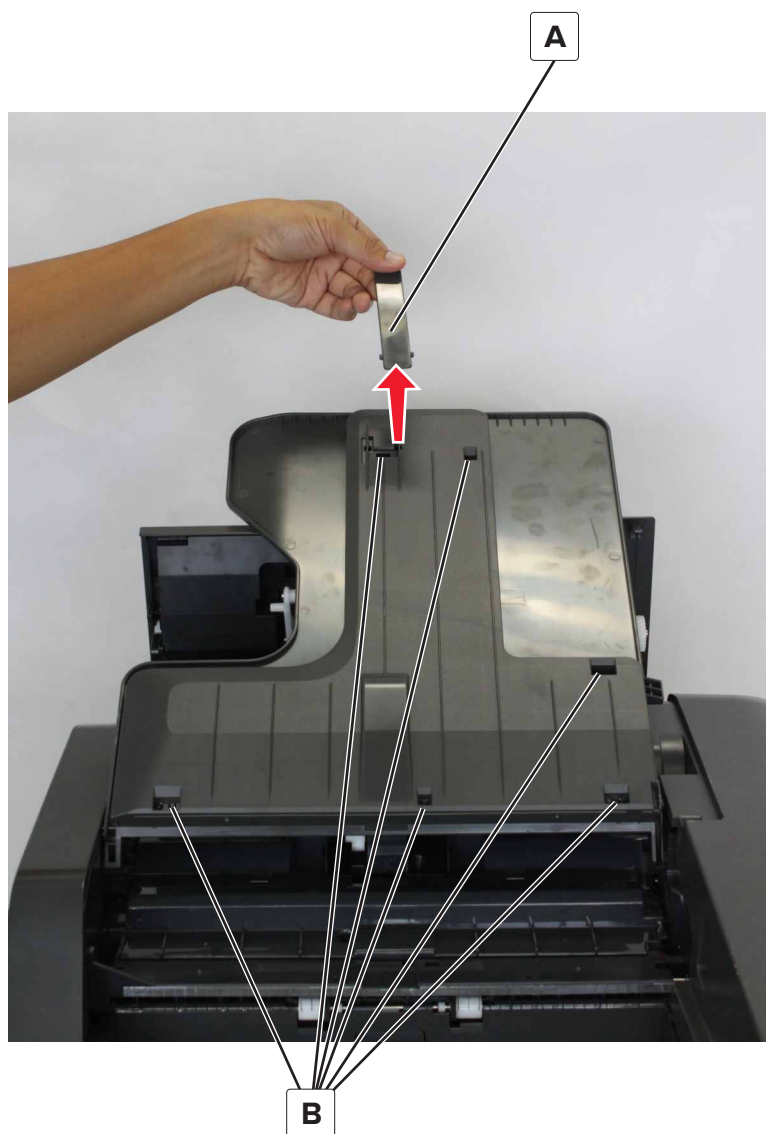
4 Remove the five screws (A), and then remove the ADF top cover.



ADF tray bottom cover removal

Note: This part is not a FRU.

- 1 Remove the ADF paper stop (A), and then remove the six screws (B).



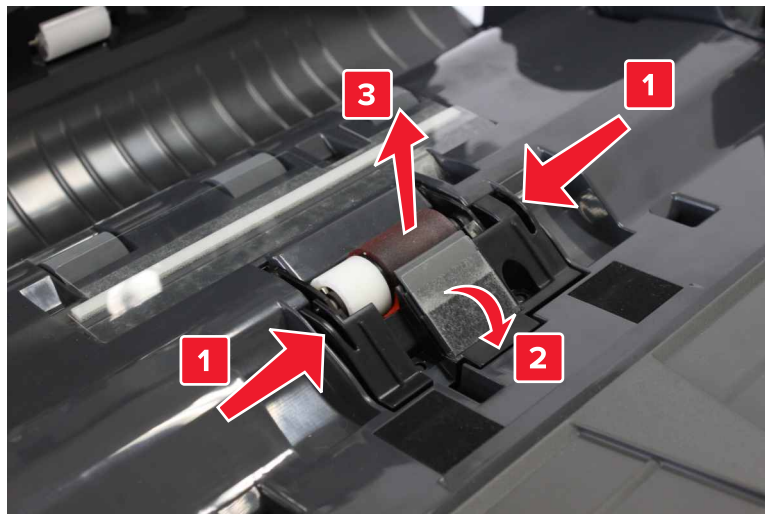
- 2 Remove the ADF tray bottom cover.

ADF tray removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).
- 2 Remove the ADF tray bottom cover. See [“ADF tray bottom cover removal” on page 422](#).
- 3 Disconnect the input tray cable from the ADF controller board.
- 4 Raise the ADF tray and hold it upright in a 90-degree angle, and then lift to remove the ADF tray assembly.

ADF separator roller removal

- 1 Open the ADF top cover.
- 2 Press the sides of the ADF separator pad housing, and then pull to release it.
- 3 Remove the ADF separator roller.



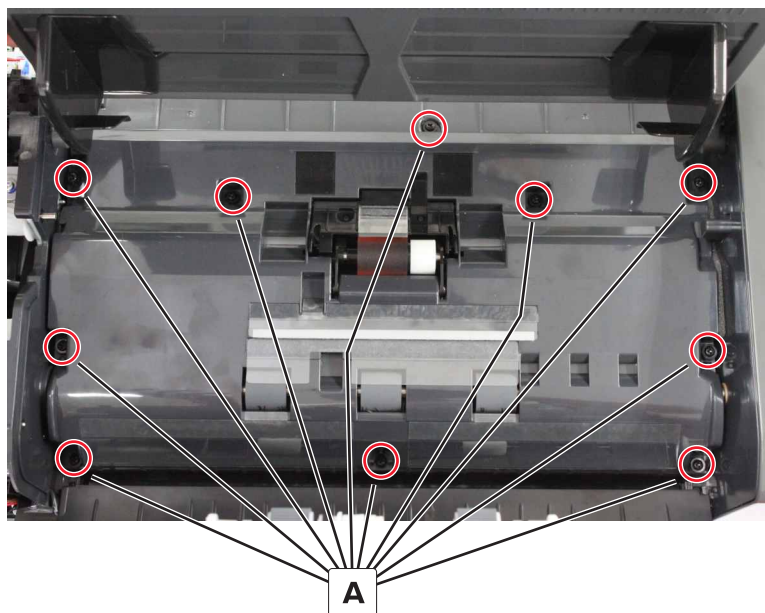
ADF separator pad removal

- 1 Open the ADF top cover.
- 2 Remove the ADF separator pad.

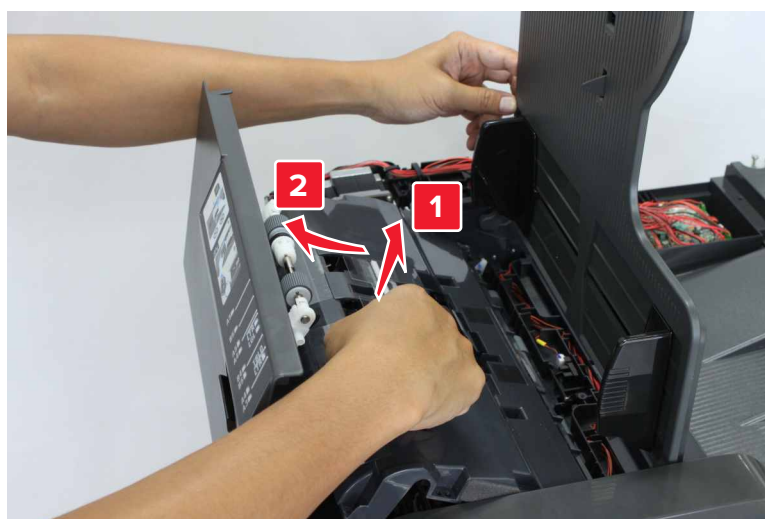
ADF registration guide removal

- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 418](#).
- 2 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).

3 Remove the 10 screws (A).



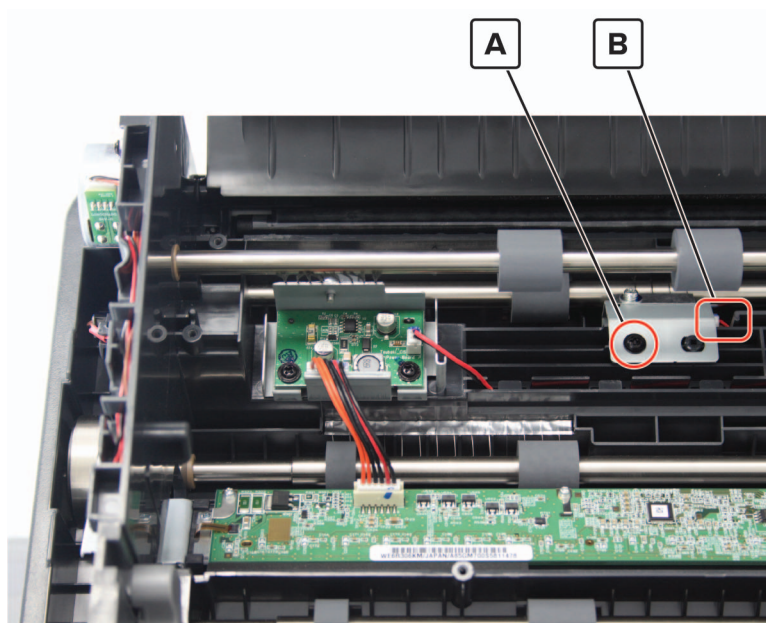
4 Lift the part, and then slide it to remove.



Sensor (ADF scan) removal

- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 418.](#)
- 2 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419.](#)
- 3 Remove the ADF registration guide. See [“ADF registration guide removal” on page 423.](#)

- 4 Remove the screw (A), and then disconnect the cable (B).



- 5 Remove the sensor from its bracket.

ADF glass cleaning roller removal

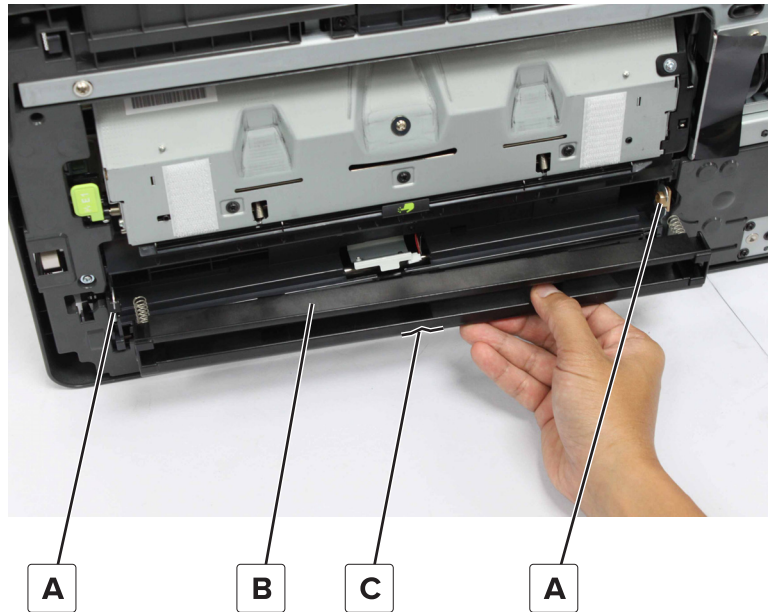
- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412](#).
- 2 Remove the clips (A) from the ADF glass cleaning roller, and then remove the bushing (B) and belt (C).



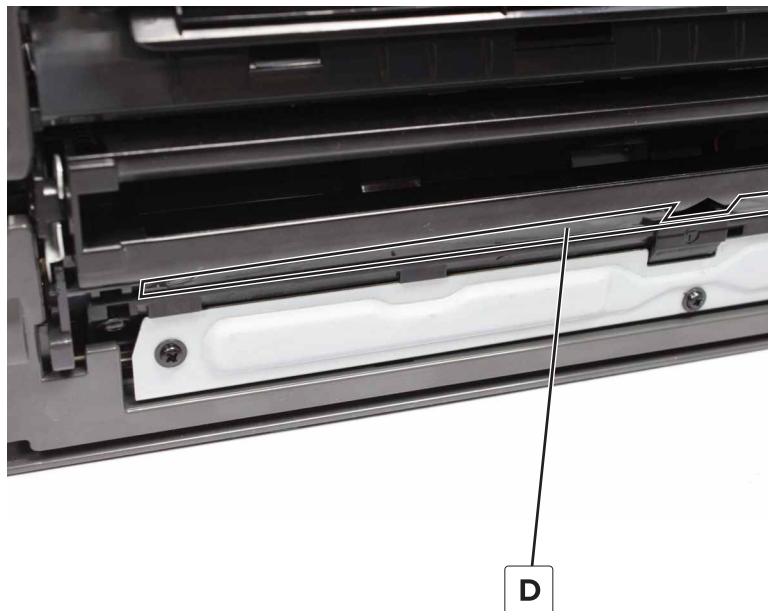
- 3 Remove the roller.

Installation notes:

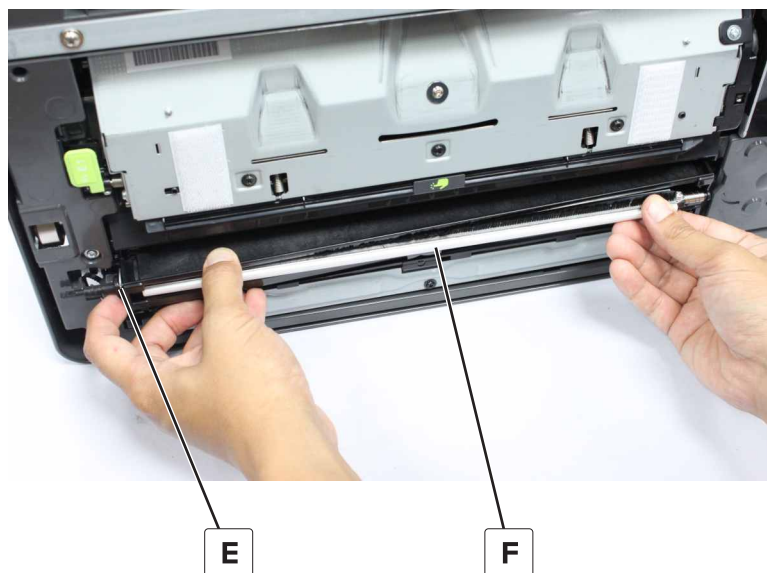
- a** Install the two bushings (A) on the brackets, and then install the housing (B) with its notch (C) on the underside of the housing.



- b** Make sure that the plastic strip (D) does not come into contact with the housing when fully inserted.



- c Slightly pull out the left bracket (E), and then insert the roller (F) into the bushing.



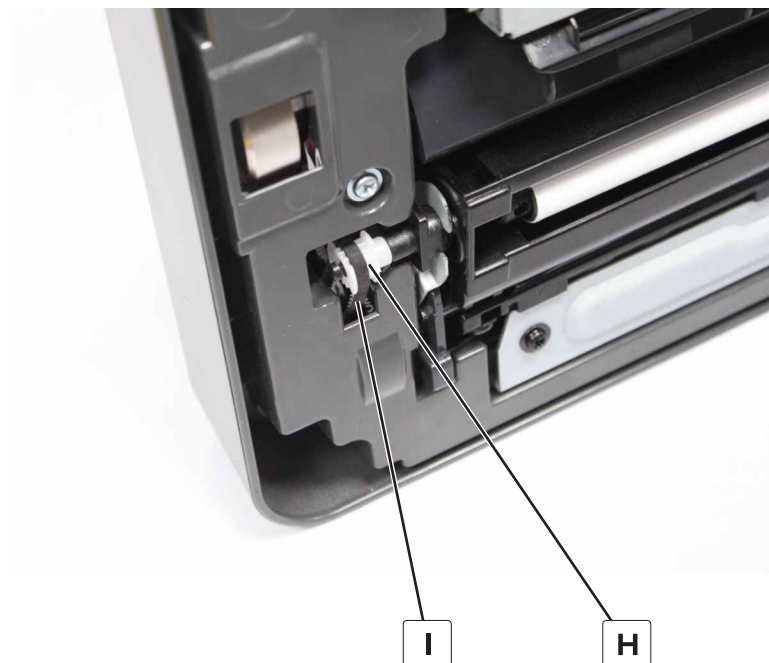
- d Push the roller to the right to insert the right side of the roller.

Note: Make sure that the white side of the roller is facing up.

- e Set the ADF glass cleaning actuator (G) to the home position.

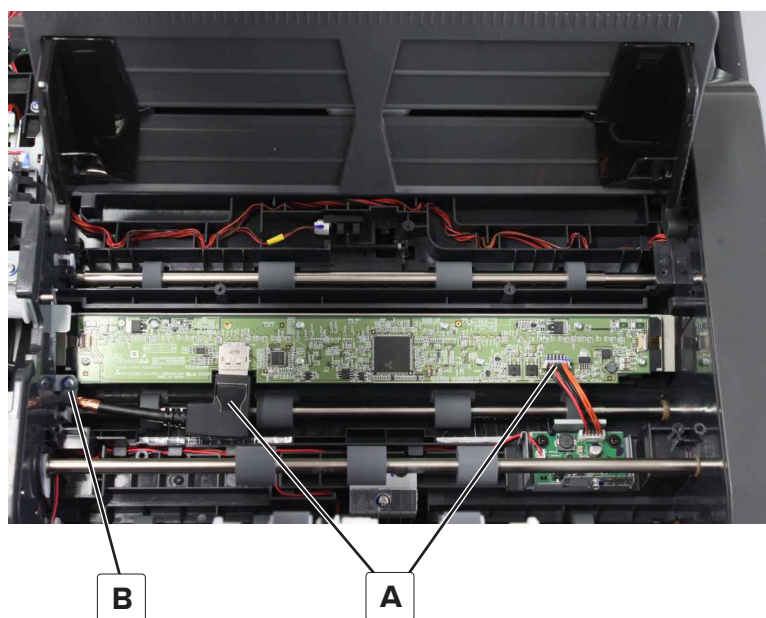


- f Install the gear (H) and belt (I) on the left side of the roller.

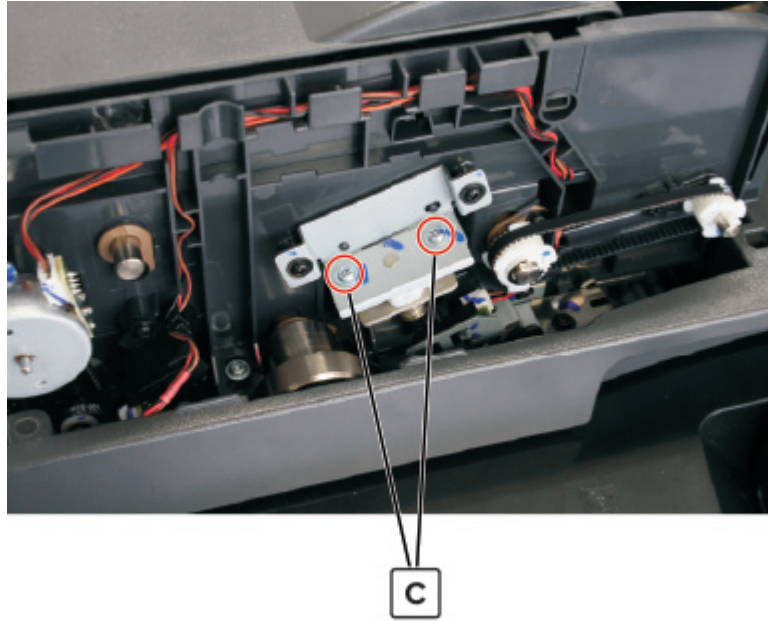


ADF CIS assembly removal

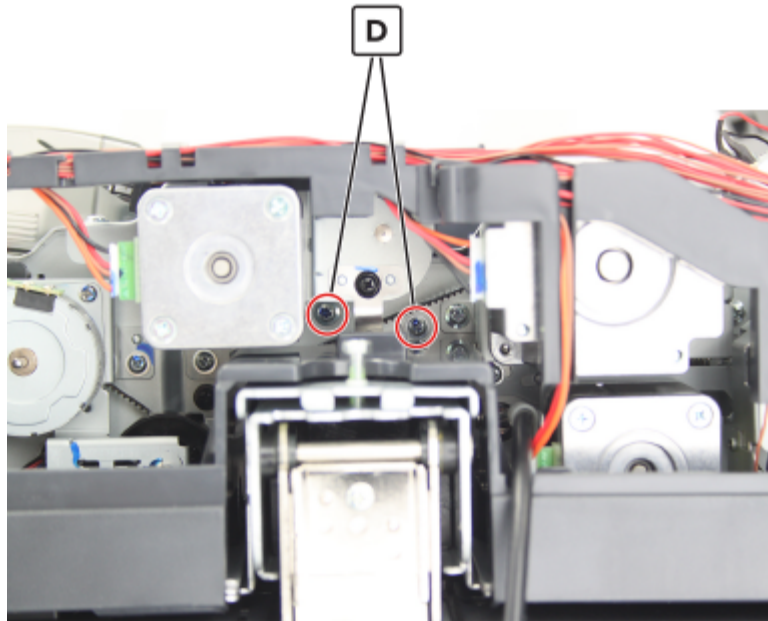
- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 418.](#)
- 2 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419.](#)
- 3 Remove the ADF registration guide. See [“ADF registration guide removal” on page 423.](#)
- 4 Disconnect the two cables (A), and then remove the screw (B).



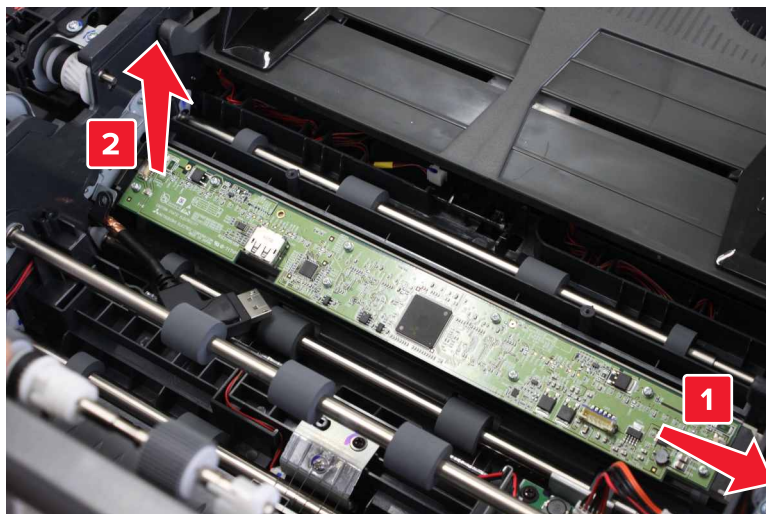
- 5 From the front, remove the two screws (C).



- 6 From the rear, remove the two screws (D).

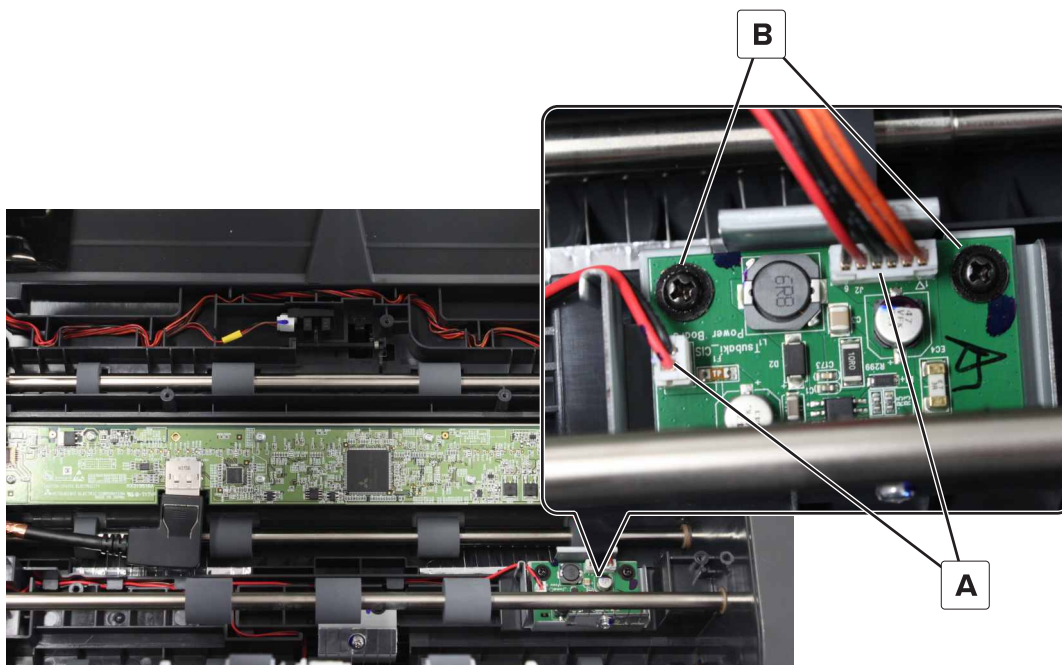


7 Slide the CIS assembly, and then lift the rear end to remove.



ADF CIS power supply board removal

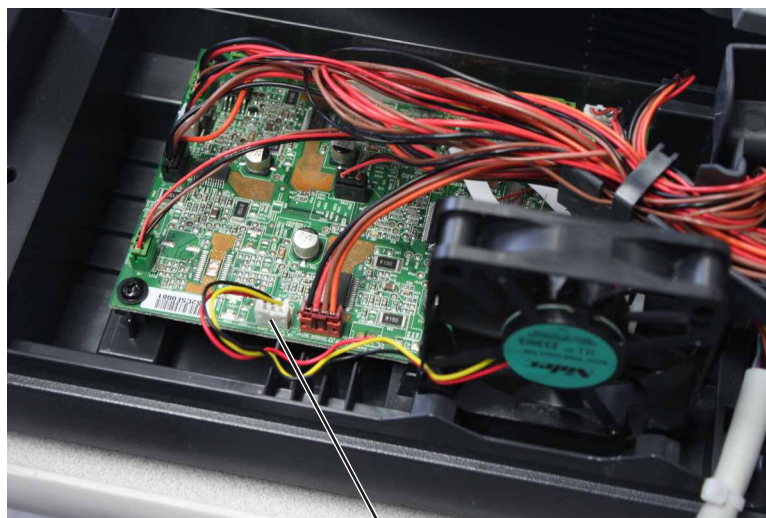
- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).
- 2 Remove the ADF registration guide. See [“ADF registration guide removal” on page 423](#).
- 3 Disconnect the two cables (A), and then remove the two screws (B).



4 Remove the ADF CIS power supply board.

ADF fan removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).
- 2 Disconnect the cable (A), and then remove the fan.



A

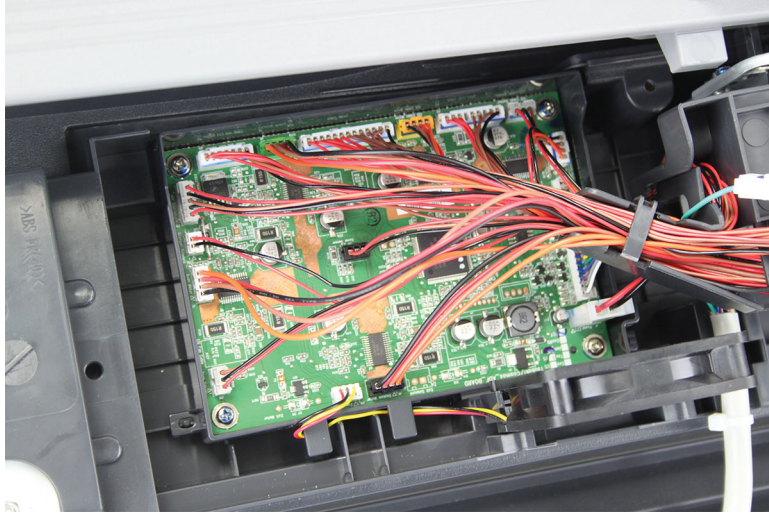
ADF controller board removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).
- 2 Disconnect all the cables on the ADF controller board.
- 3 Remove the four screws securing the ADF controller board, and then remove the board.

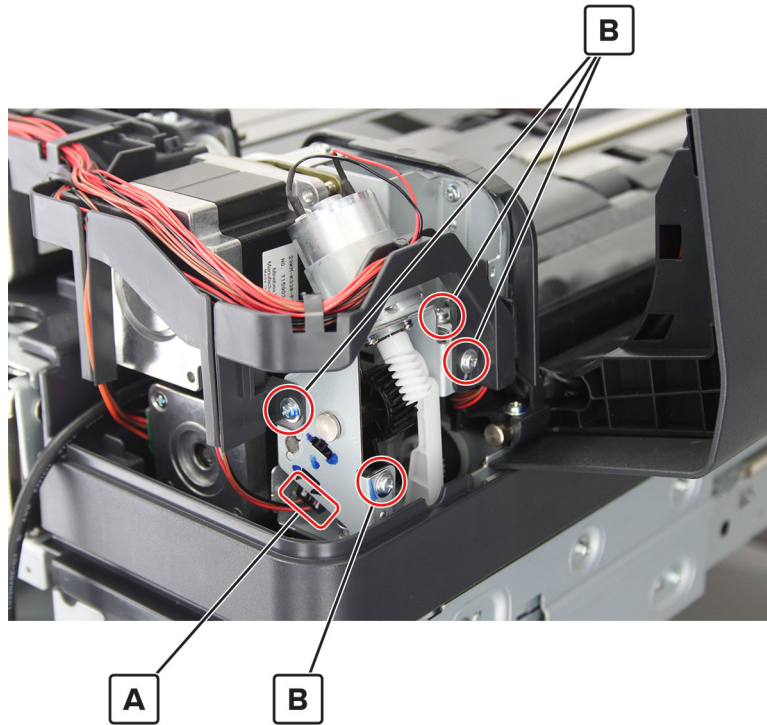
ADF tray/transport removal

- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412](#).
- 2 Remove the ADF front cover. See [“ADF front cover removal” on page 418](#).
- 3 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).

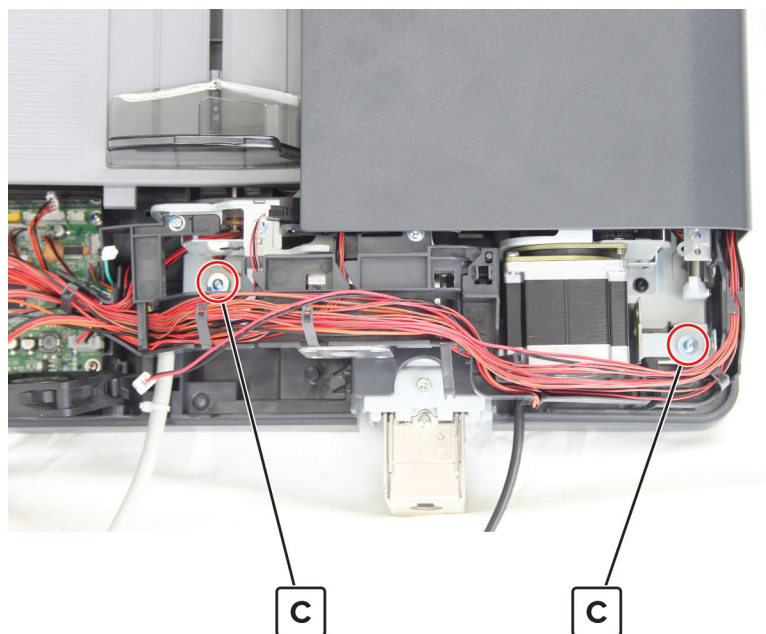
- 4 Disconnect all the cables from the ADF controller board.



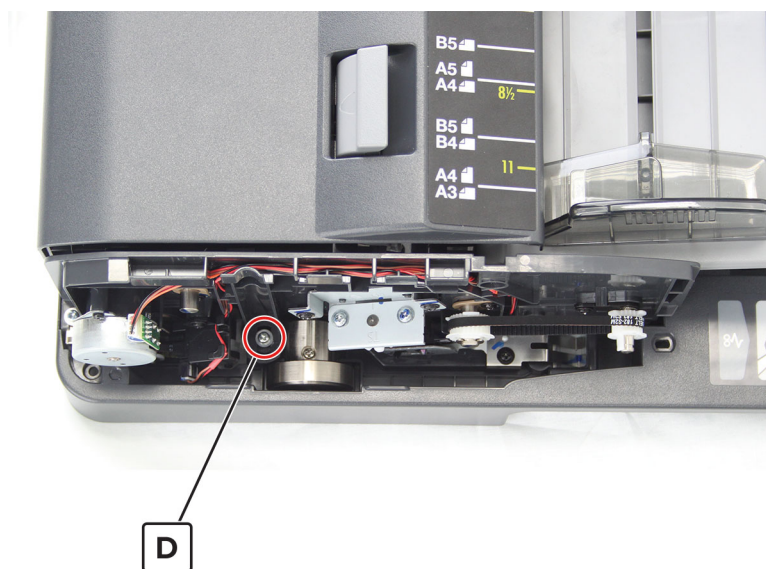
- 5 Disconnect the cable (A), remove the four screws (B), and then remove the motor bracket.



6 Remove the two screws (C).



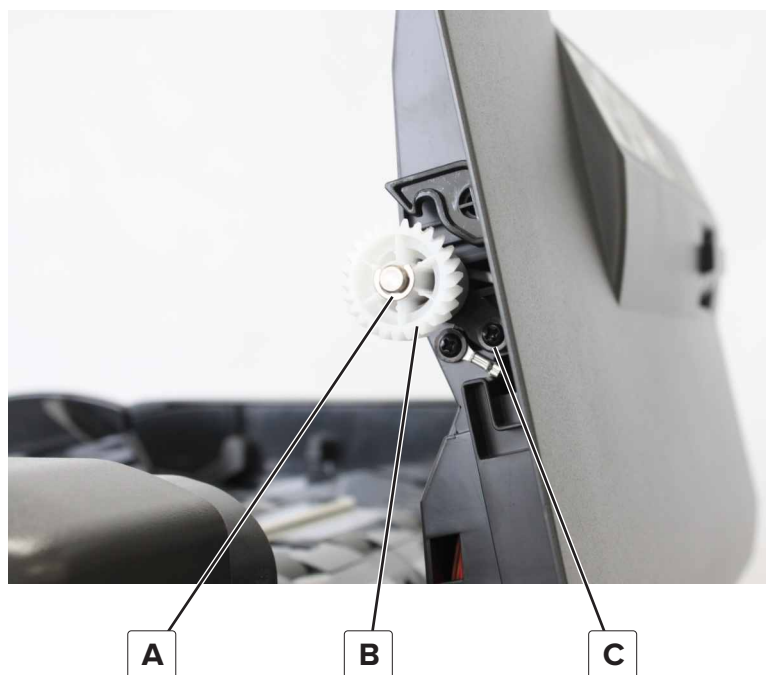
7 From the front, remove the screw (D).



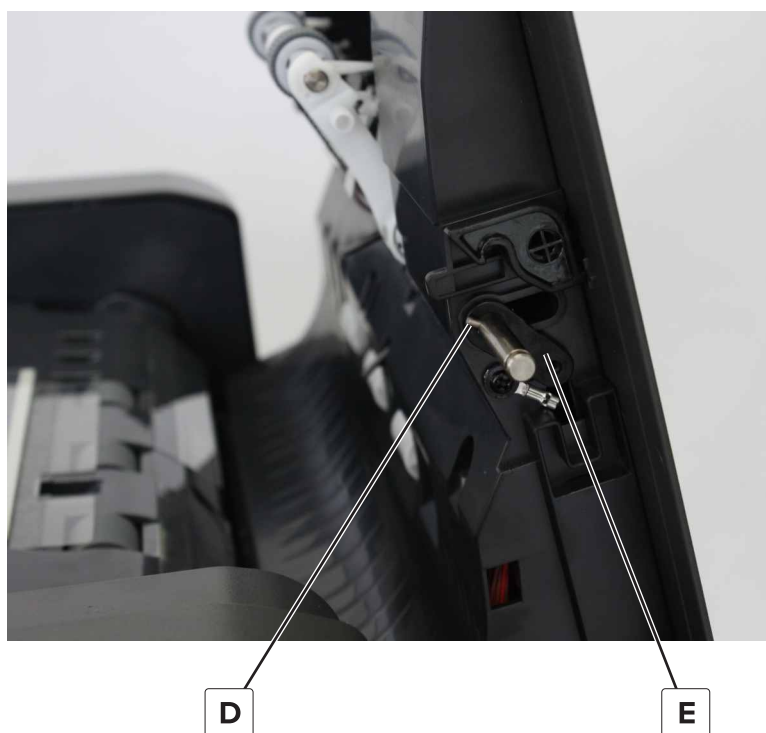
8 Remove the ADF tray/transport.

ADF feed and pick roller assembly removal

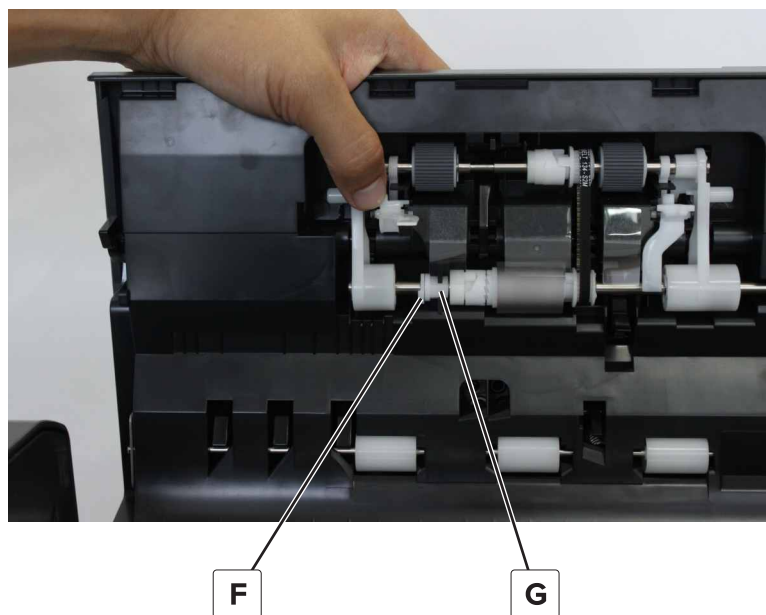
- 1 Open the ADF top cover.
- 2 Remove the clip (A), gear (B), and screw (C).



- 3 Remove the pin (D) and bushing (E).
- Note:** Do not lose the pin.



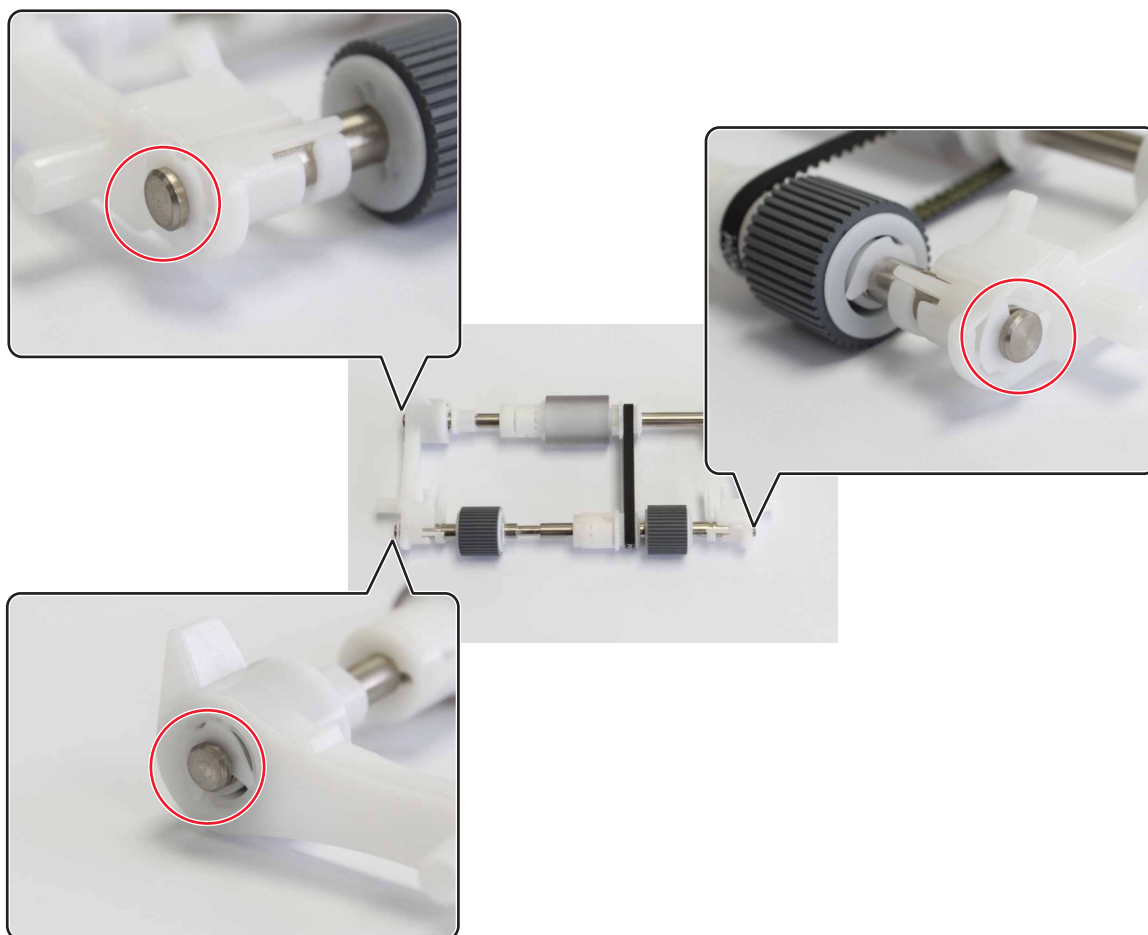
- 4** Remove the clip (F), and then slide the bushing (G) out of the bracket.



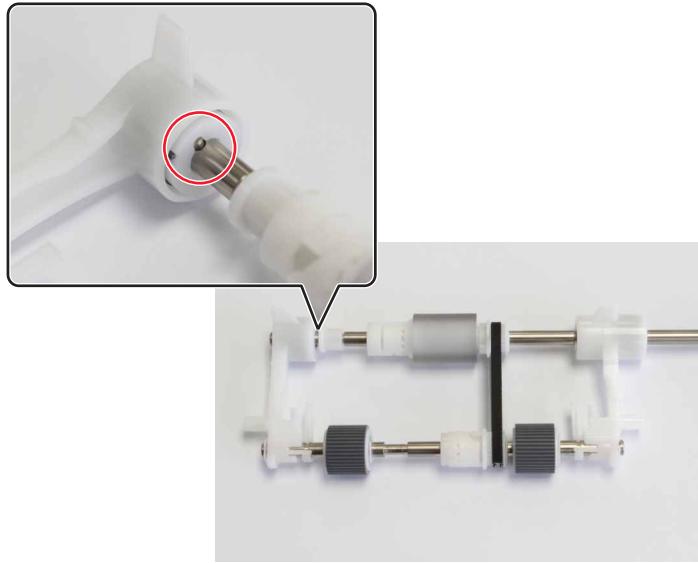
- 5** Slide out, and then remove the feed and pick roller assembly.

ADF feed roller removal

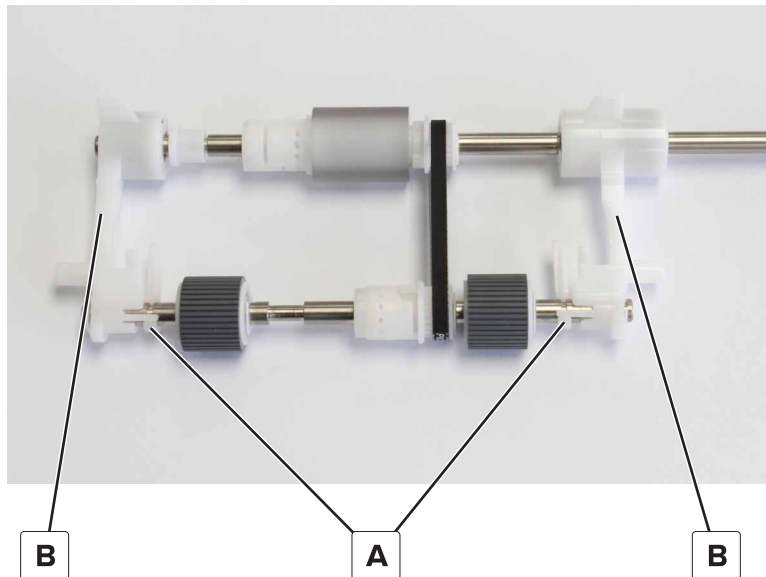
- 1 Remove the ADF feed and pick roller assembly. See [“ADF feed and pick roller assembly removal” on page 434.](#)
- 2 Remove the three clips from the roller arms.



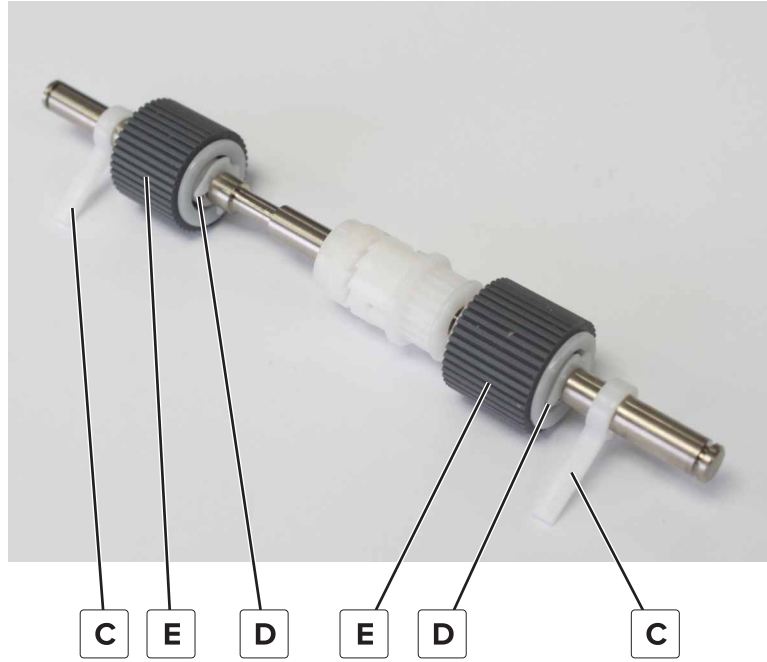
Note: Do not lose the pin on the pick roller.



3 Release the latches (A), and then remove the feed roller arms (B).

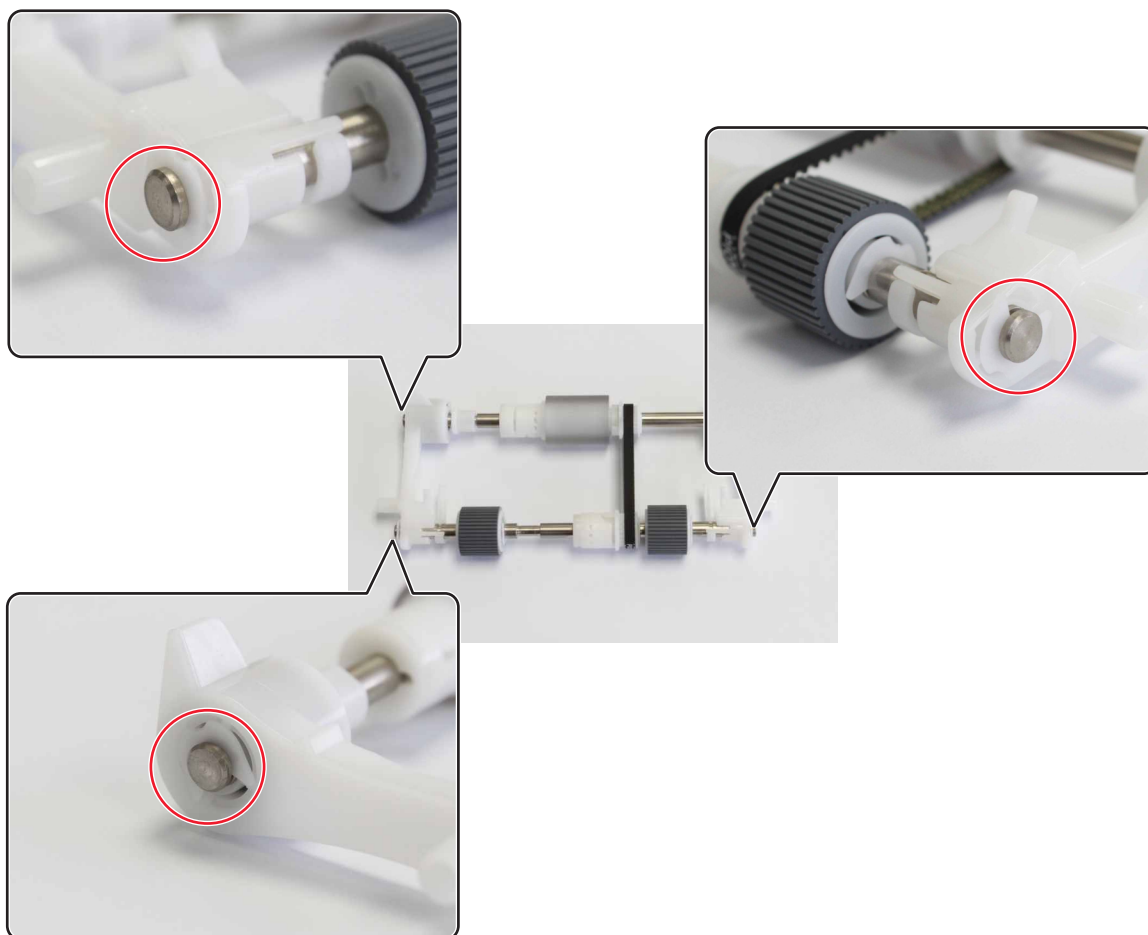


4 Remove the levers (C), clips (D), and feed rollers (E).

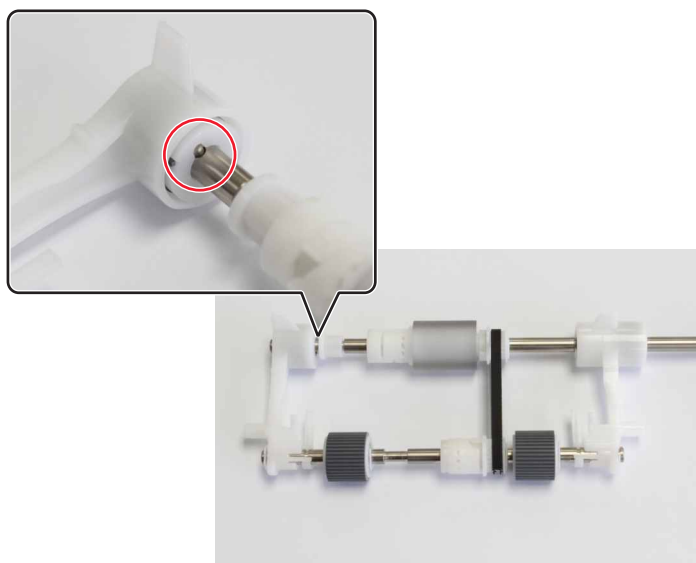


ADF pick roller removal

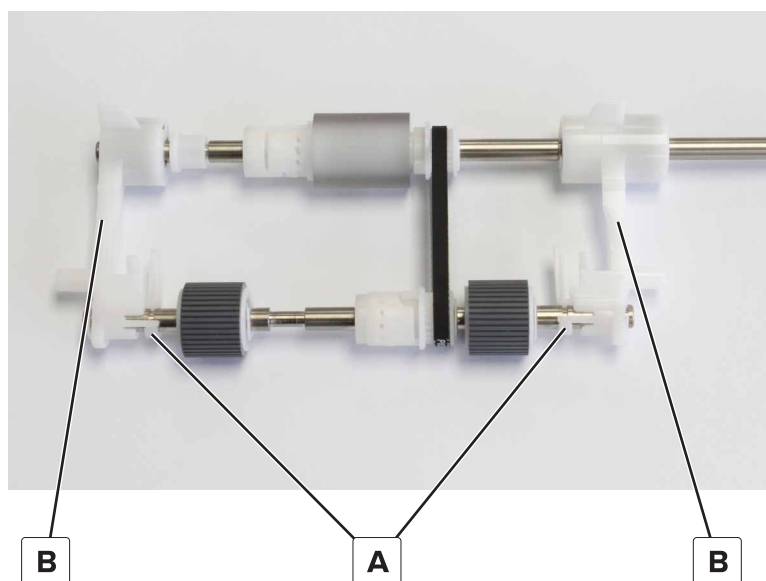
- 1 Remove the ADF feed and pick roller assembly. See [“ADF feed and pick roller assembly removal” on page 434.](#)
- 2 Remove the three clips from the roller arms.



Note: Do not lose the pin on the pick roller.

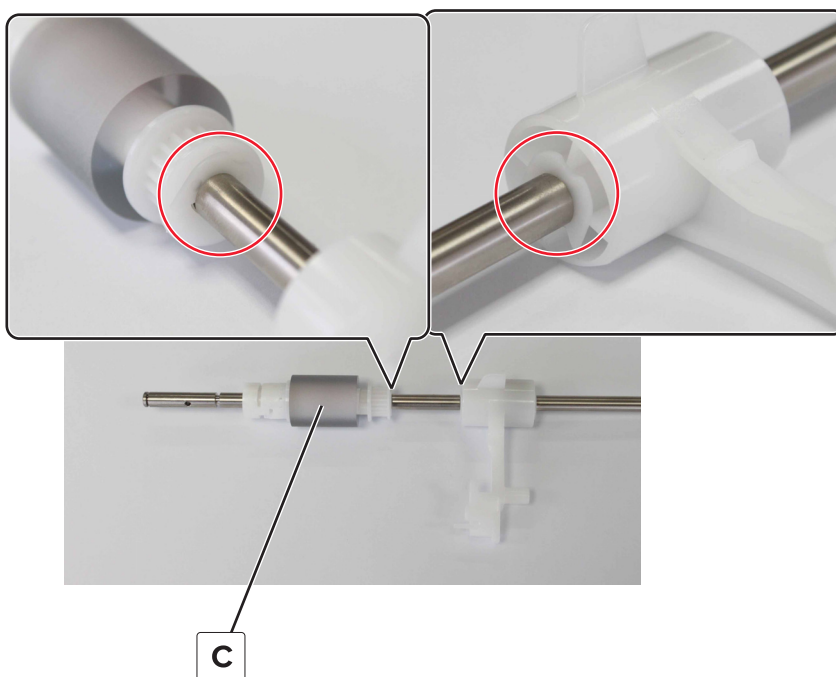


3 Release the two latches (A) from the two feed roller arms, and then remove the feed roller arms (B).



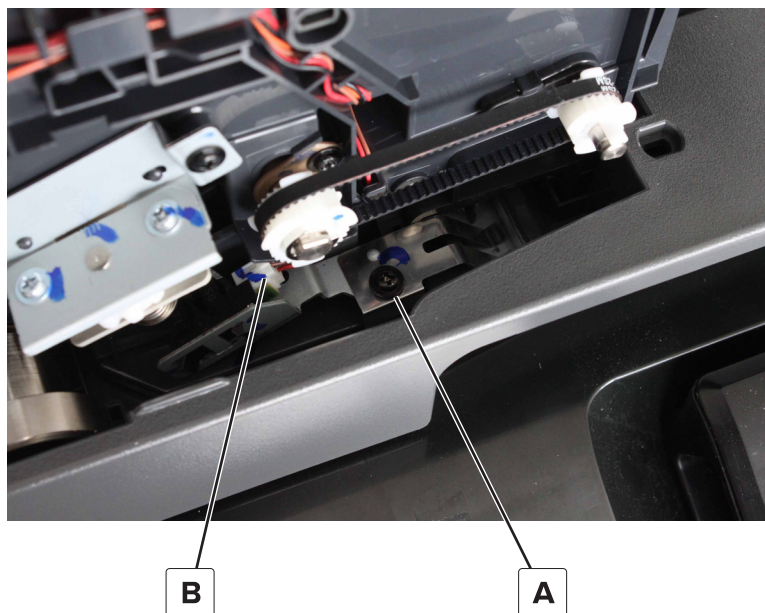
4 Remove the two clips from the pick roller, and then remove the pick roller (C).

Note: Do not lose the pins on the pick roller.



Sensor (ADF jam access cover) removal

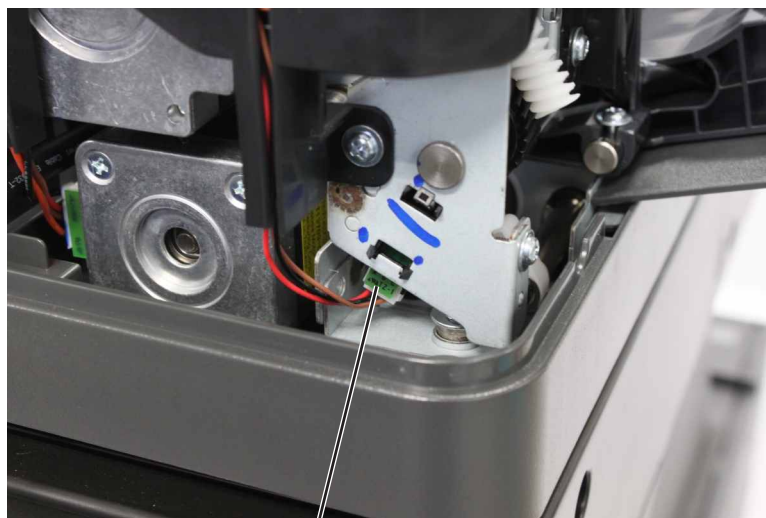
- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 418.](#)
- 2 Remove the screw (A), and then disconnect the cable (B).



- 3 Remove the sensor.

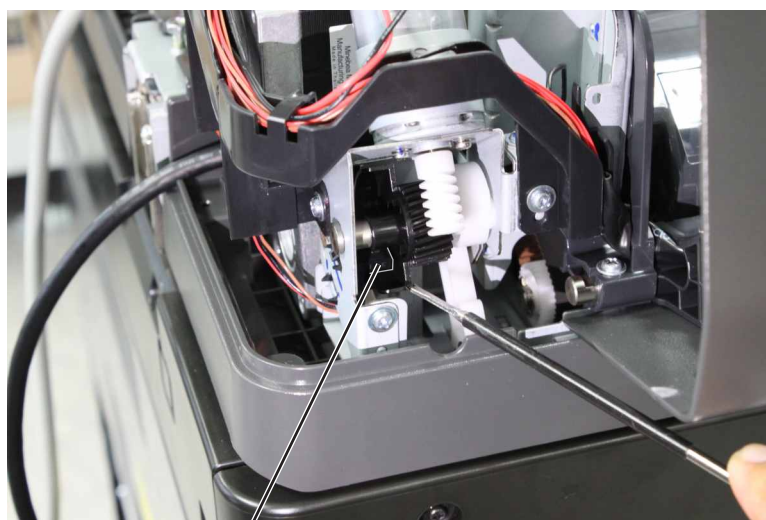
Sensor (ADF scan shaft home) removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).
- 2 Disconnect the cable (A).



A

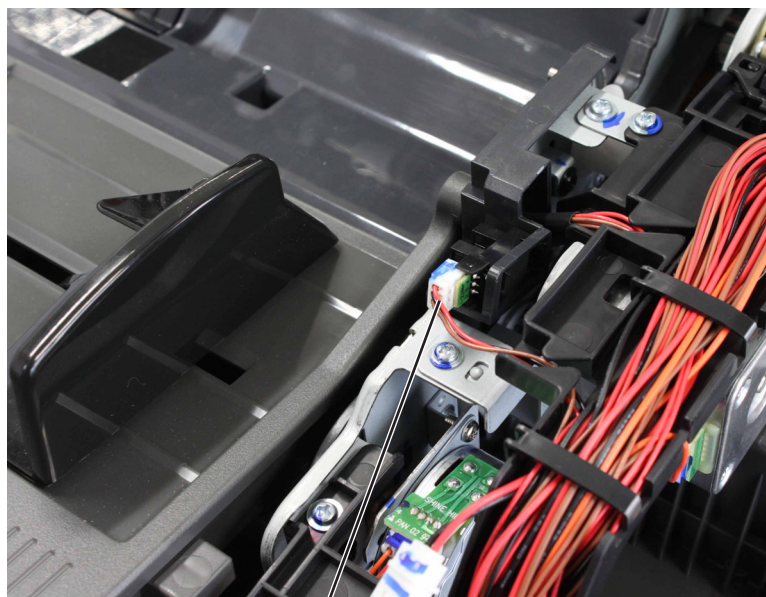
- 3 Rotate the gear until the sensor (B) is unblocked, and then remove the sensor.



B

Sensor (ADF top cover open) removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419.](#)
- 2 Disconnect the cable (A), and then remove the sensor.

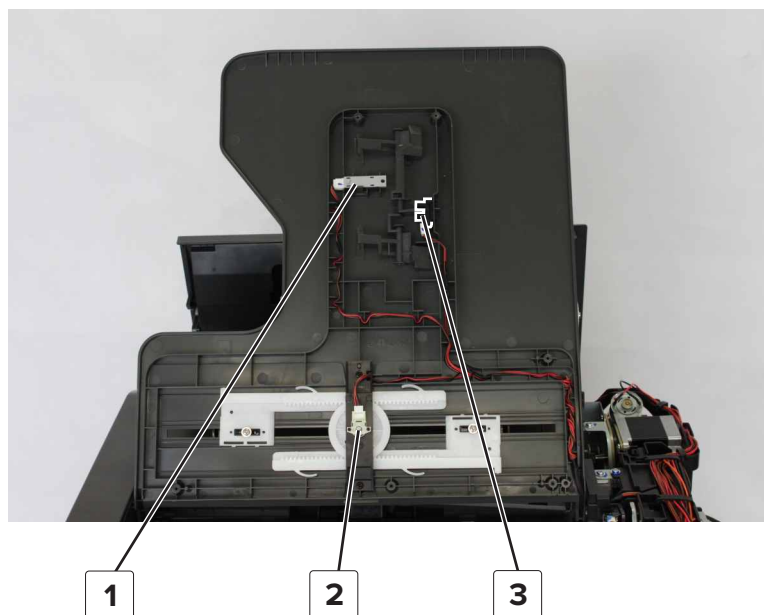


A

Sensors (ADF tray section) removal

- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 418.](#)
- 2 Remove the ADF tray bottom cover. See [“ADF tray bottom cover removal” on page 422.](#)
- 3 Disconnect the cable from the appropriate sensor.

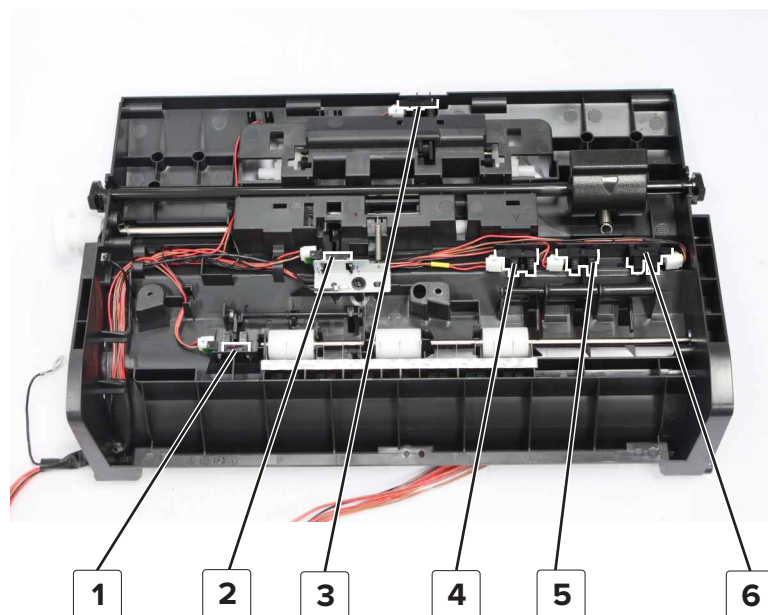
4 Remove the appropriate sensor.



#	Description
1	Sensor (ADF paper length 1)
2	Sensor (ADF paper width)
3	Sensor (ADF paper length 2)

Sensors (ADF top open cover section) removal

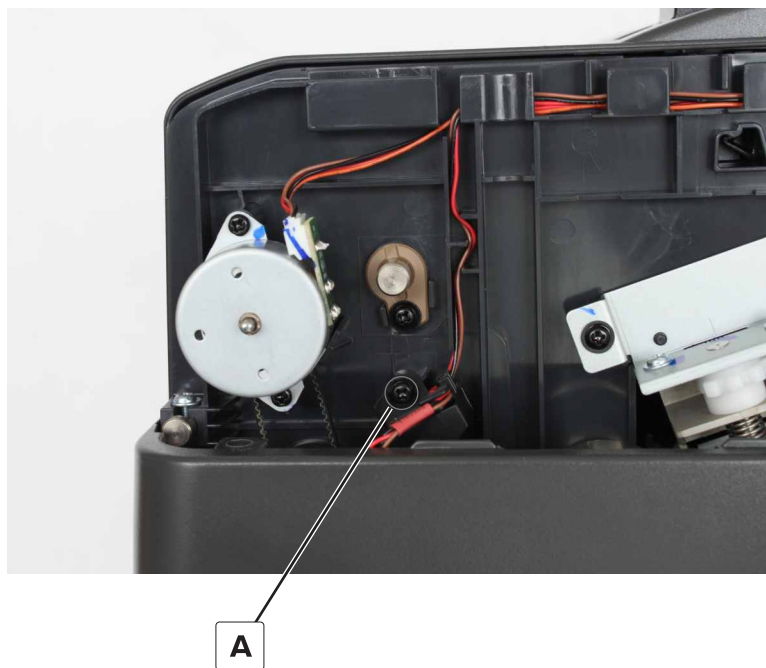
- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 418](#).
- 2 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).
- 3 Remove the ADF top cover assembly. See [“ADF door removal” on page 419](#).
- 4 Remove the ADF top cover. See [“ADF top cover removal” on page 420](#).
- 5 Disconnect the cable from the appropriate sensor.

6 Remove the appropriate sensor.

#	Description
1	Sensor (ADF registration)
2	Sensor (ADF document separation)
3	Sensor (ADF tray empty)
4	Sensor (ADF mixed paper width 1)
5	Sensor (ADF mixed paper width 2)
6	Sensor (ADF mixed paper width 3)

Sensor (scan glass clean) removal

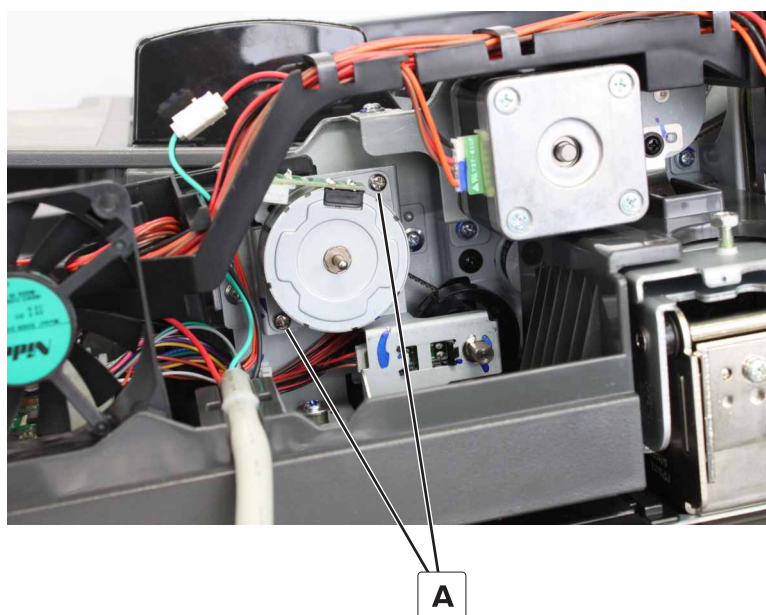
- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 418.](#)
- 2 Remove the screw (A).



- 3 Disconnect the cable, and then remove the sensor.

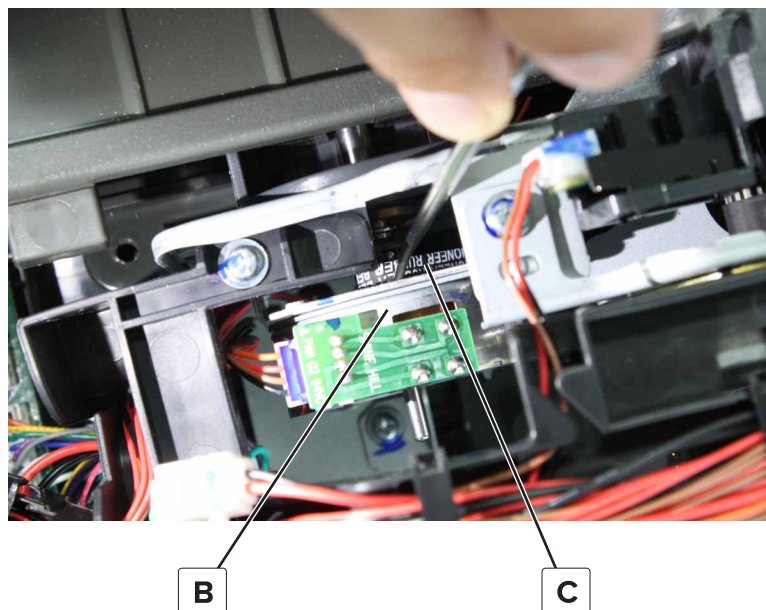
Motor (ADF CIS clean) removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419.](#)
- 2 Remove the two screws (A).



- 3 Release the motor (B) from the motor belt (C).

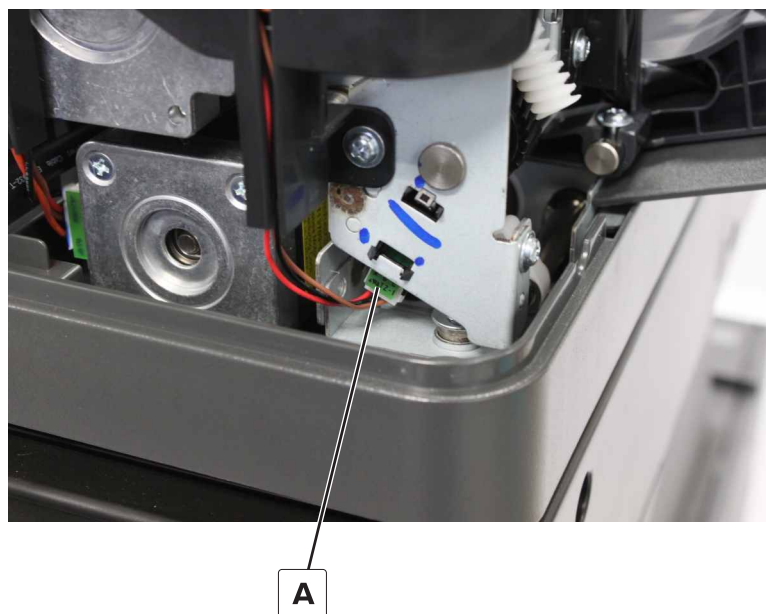
Note: Use a spring hook.



- 4 Disconnect the cable from the motor, and then remove the motor.

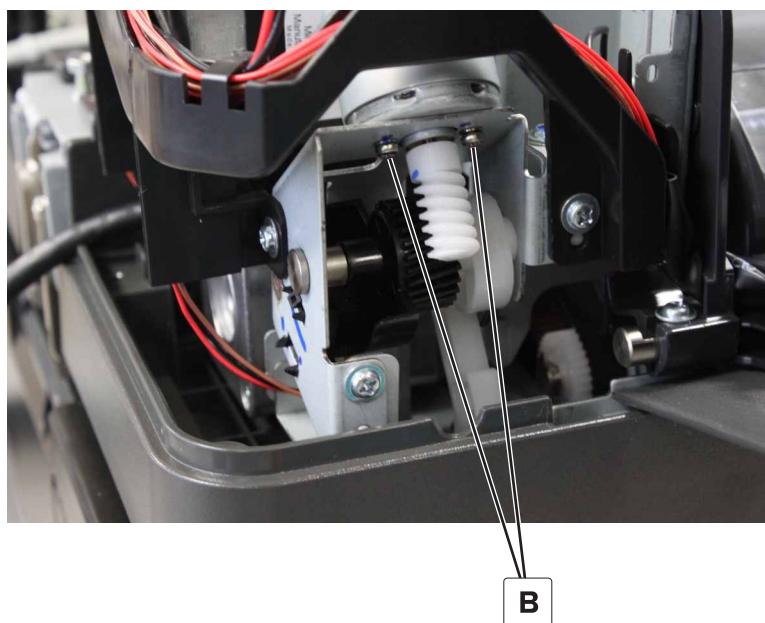
Motor (ADF scan shaft release) removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).
 2 Disconnect the cable (A) from the ADF scan shaft home sensor.

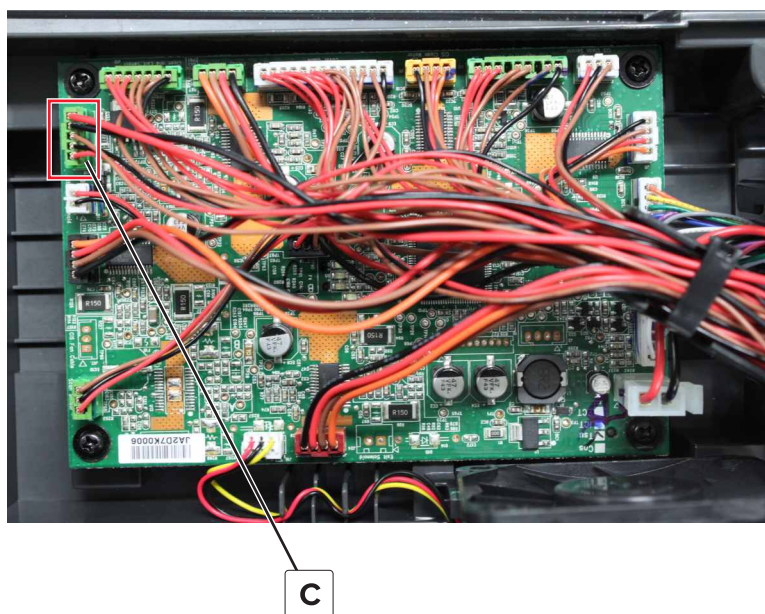


- 3 Remove the two screws (B).

Note: Use a #1 Phillips screwdriver.



4 Disconnect the J18 cable (C).

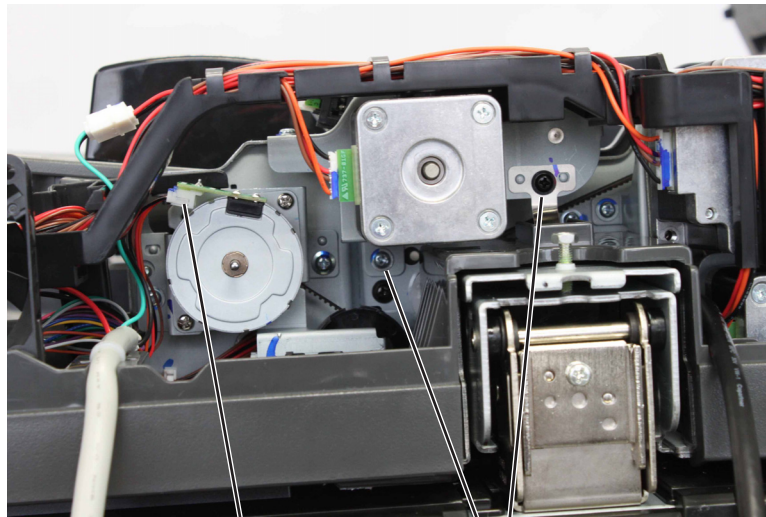


5 Remove the J18 cable (C) from the cable harness, and then remove the motor.

Motor (ADF feed) removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).
- 2 Disconnect the feed motor cable (A), and then remove the two screws (B).

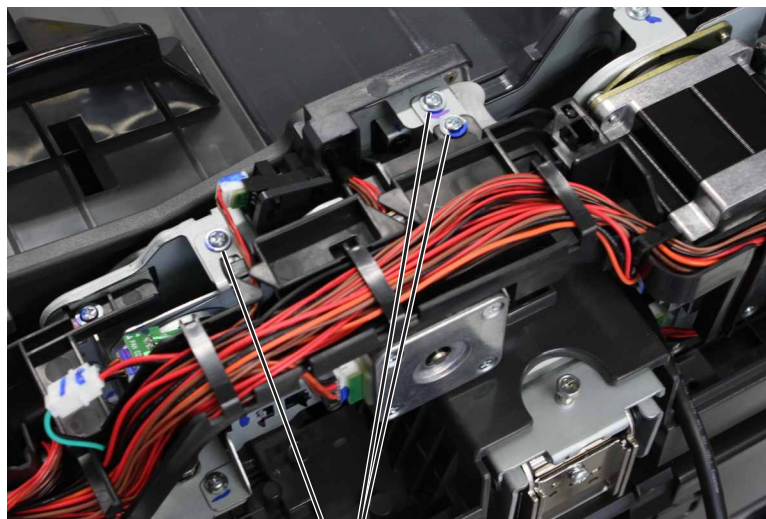
Note: Do not to lose the ground plate.



A

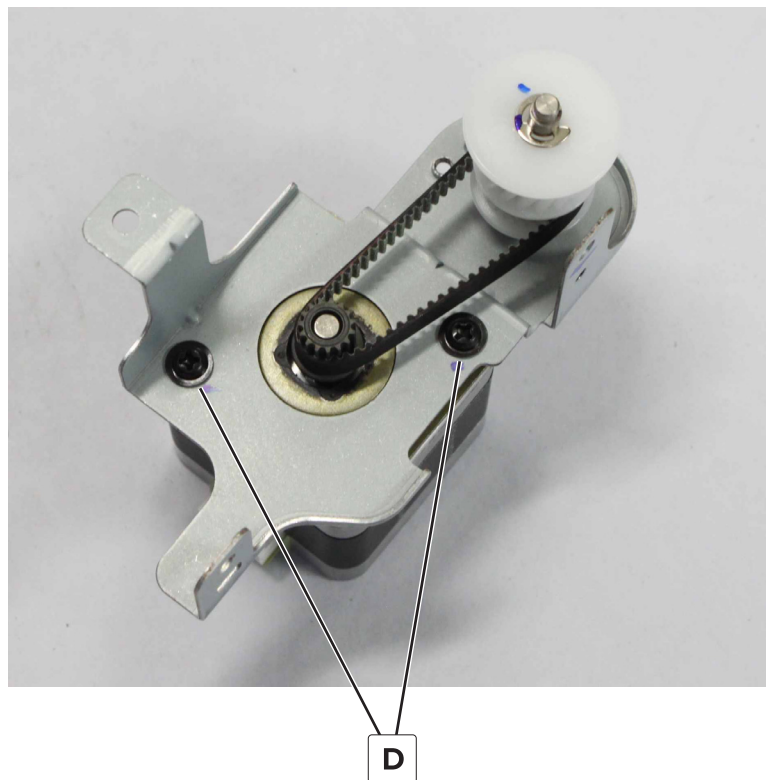
B

3 Remove the three screws (C), and then remove the motor.



C

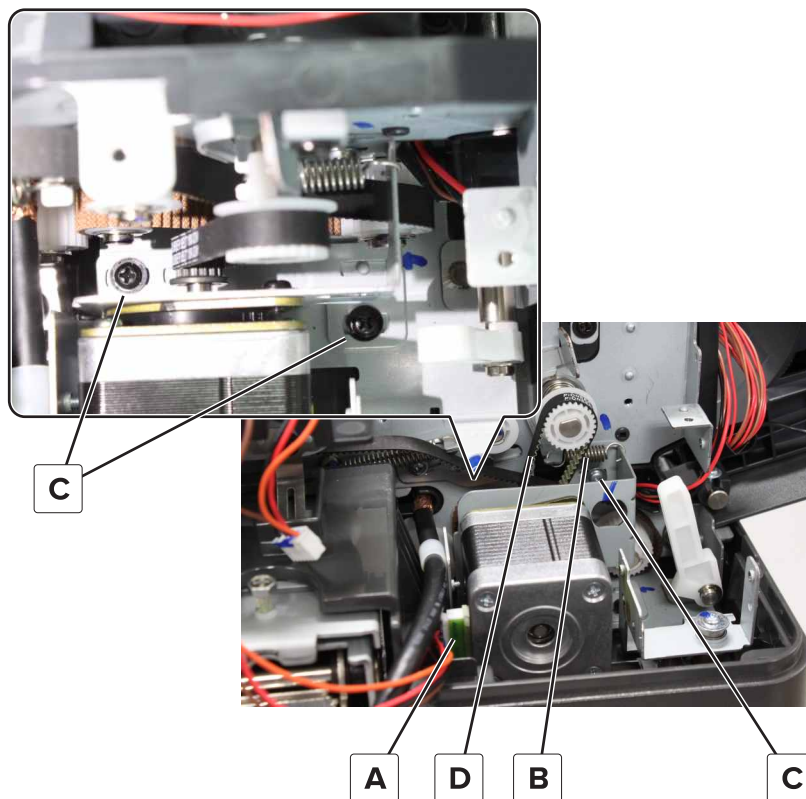
- 4 Remove the two screws (D), and then remove the motor from the bracket.



Motor (ADF registration) removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419.](#)
- 2 Remove the motor (ADF scan) bracket. See [“Motor \(ADF scan\) removal” on page 451.](#)
- 3 Disconnect the cable (A), and then remove the spring (B).

- 4 Remove the three screws (C), and then remove the belt (D).

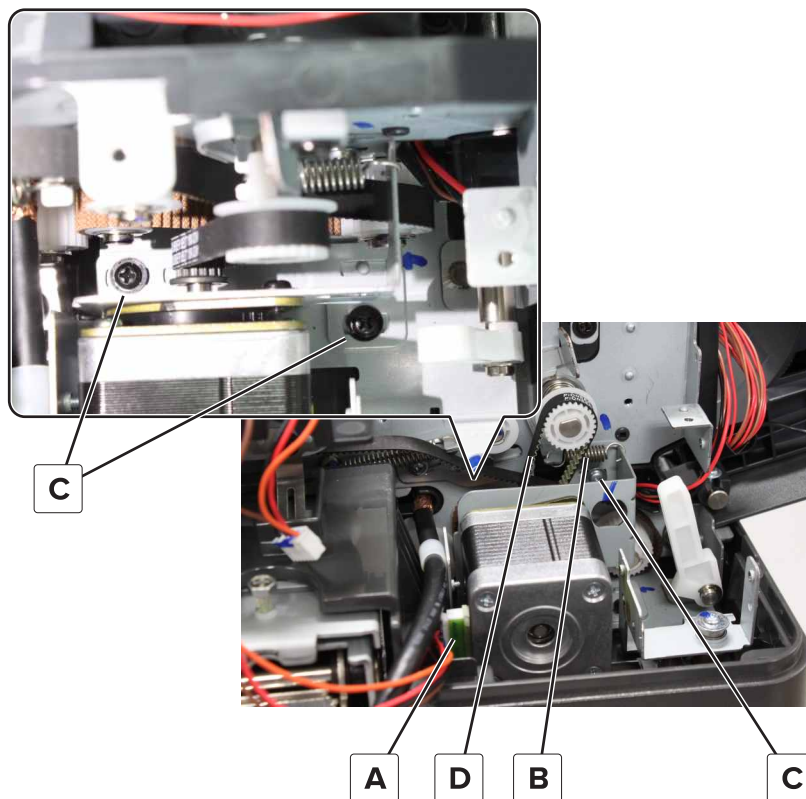


- 5 Remove the motor from the ADF, and then remove the motor from the bracket.

Motor (ADF scan) removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).
- 2 Remove the motor (ADF registration). See [“Motor \(ADF registration\) removal” on page 450](#).
- 3 Disconnect the cable (A), and then remove the spring (B).

- 4 Remove the three screws (C), and then remove the belt (D).

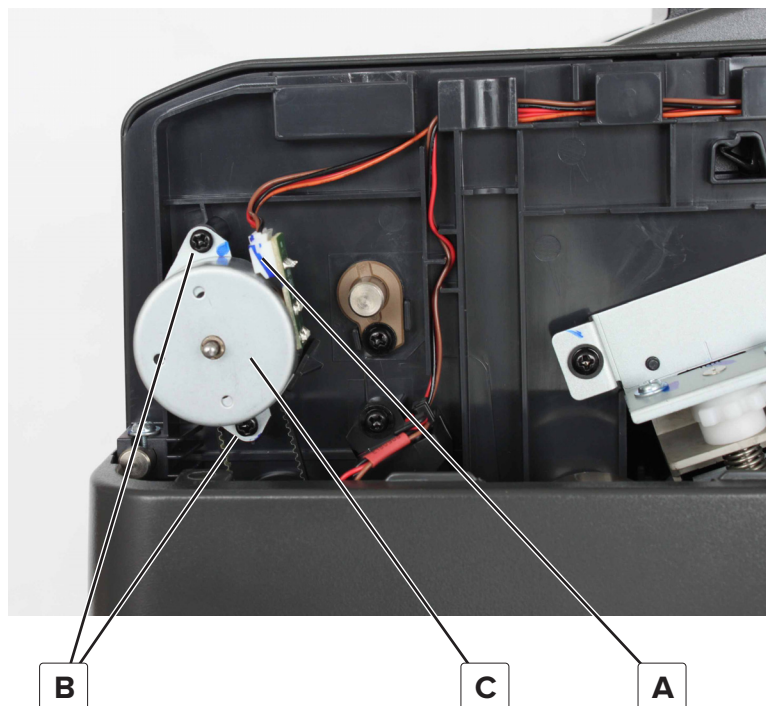


- 5 Remove the motor from the ADF, and then remove the motor from the bracket.

Motor (CIS glass clean) removal

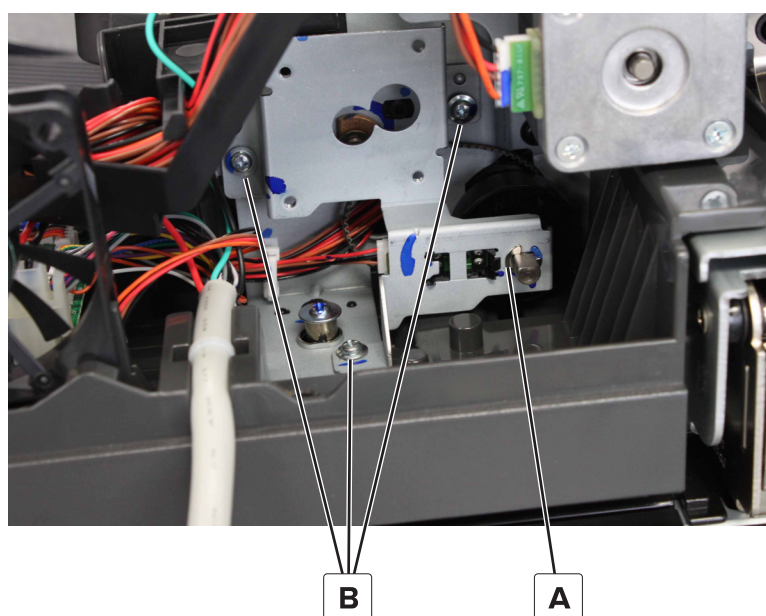
- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 418.](#)
- 2 Disconnect the cable (A), and then remove the two screws (B).

- 3** Remove the motor (C).



Sensor (ADF CIS clean) removal

- 1** Remove the ADF rear cover. See [“ADF rear cover removal” on page 419](#).
- 2** Remove the ADF CIS cleaning motor. See [“Motor \(ADF CIS clean\) removal” on page 446](#).
- 3** Remove the clip (A), and then remove the three screws (B).



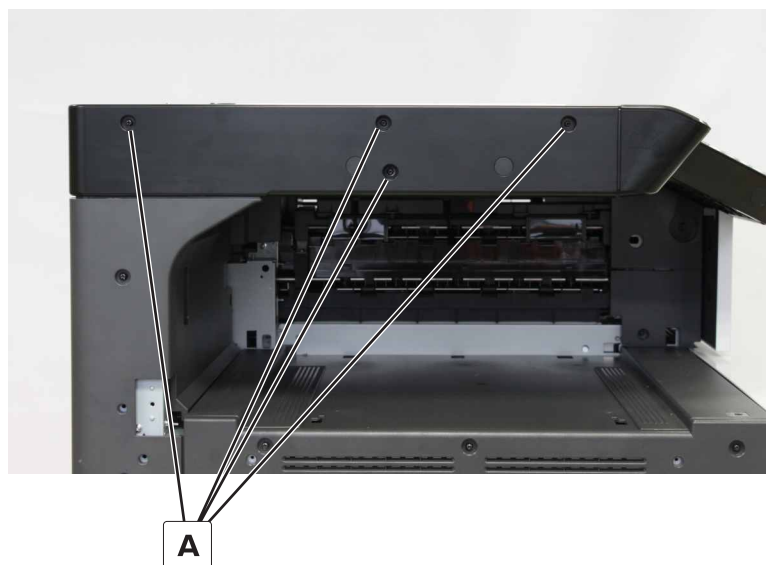
4 Remove the bracket, and then disconnect the cable.

5 Remove the sensor.

Scanner left cover removal

1 Open the ADF.

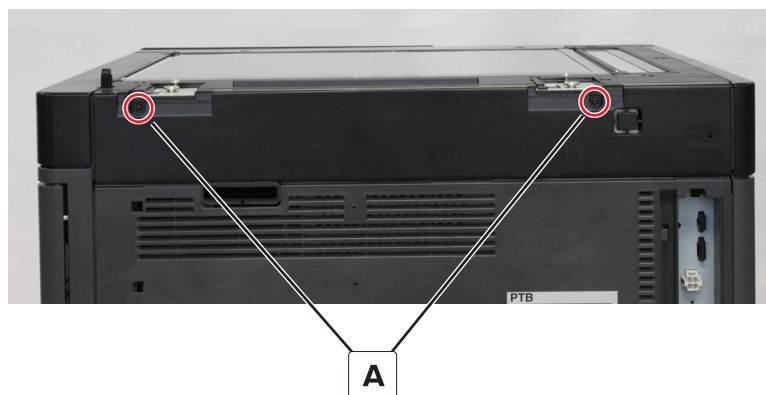
2 Remove the four screws (A).



3 Slide back the cover to remove.

Scanner rear cover removal

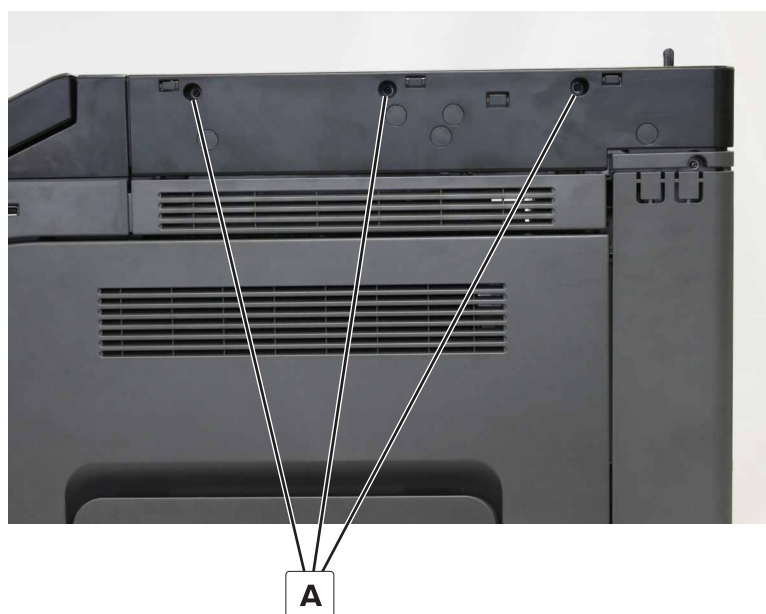
1 Remove the two screws (A).



2 Remove the cover.

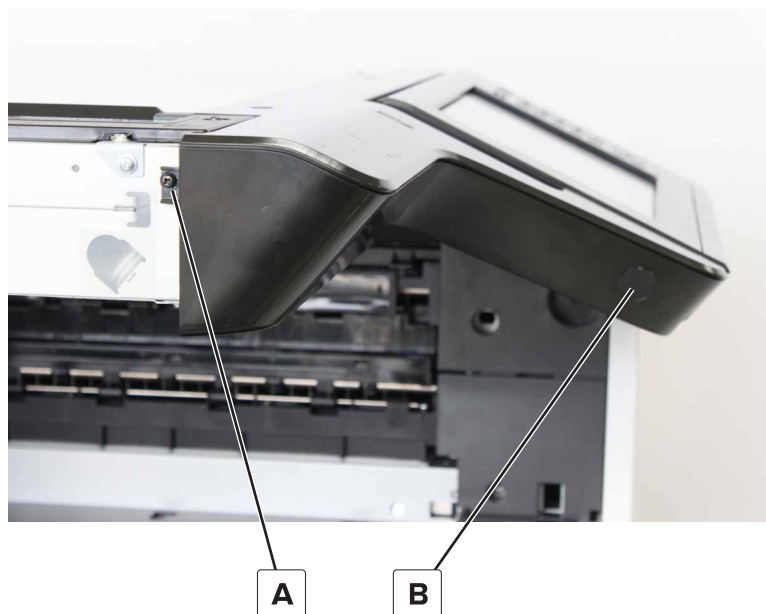
Scanner right cover removal

- 1 Open the ADF.
- 2 Remove the three screws (A), and then remove the scanner right cover.



Control panel bottom cover removal

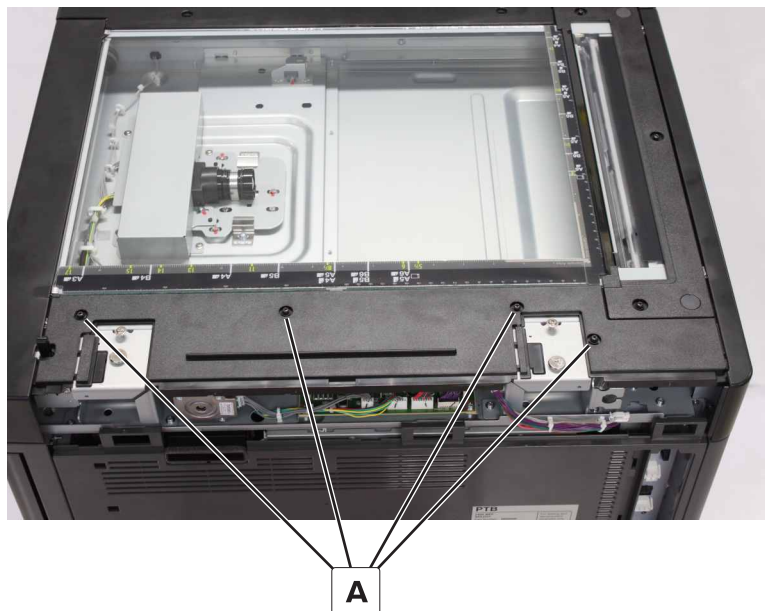
- 1 Remove the scanner left cover. See [“Scanner left cover removal” on page 454](#).
- 2 Remove the screw (A), peel off the screw cover (B), and then remove the second screw.



- 3 Slide the cover left to remove.

Scanner top cover removal

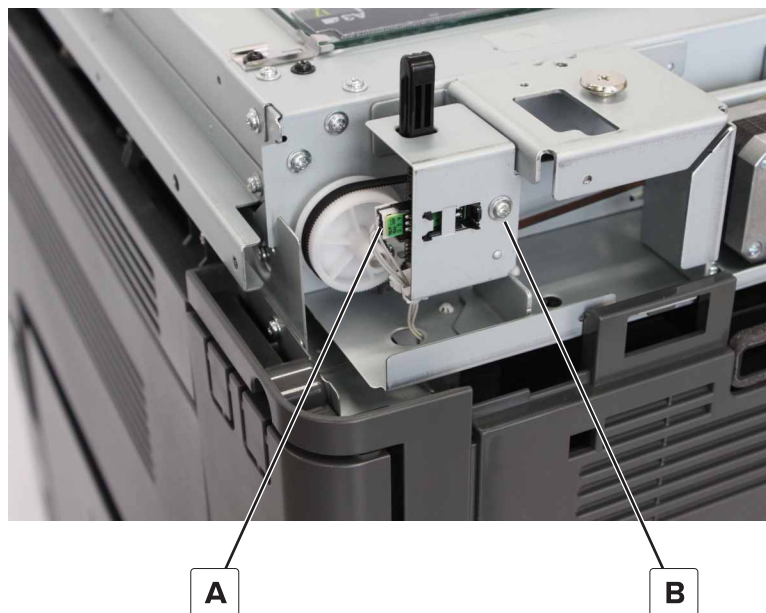
- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412.](#)
- 2 Remove the scanner rear cover. See [“Scanner rear cover removal” on page 454.](#)
- 3 Remove the four screws (A), and then remove the scanner top cover.



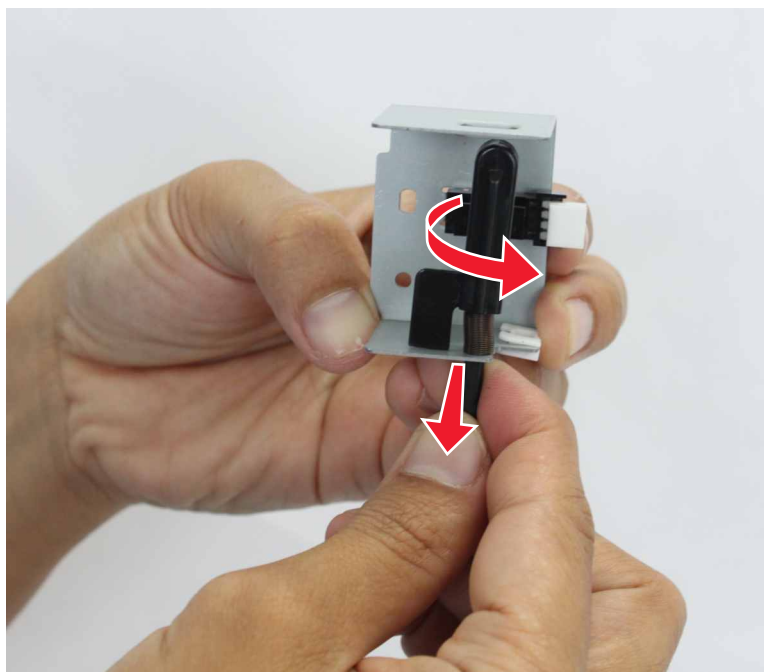
Sensor (scanner cover open) removal

- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412.](#)
- 2 Remove the scanner rear cover. See [“Scanner rear cover removal” on page 454.](#)
- 3 Remove the scanner top cover. See [“Scanner top cover removal” on page 456.](#)

- 4 Disconnect the cable (A), and then remove the screw (B).



- 5 Remove the actuator.

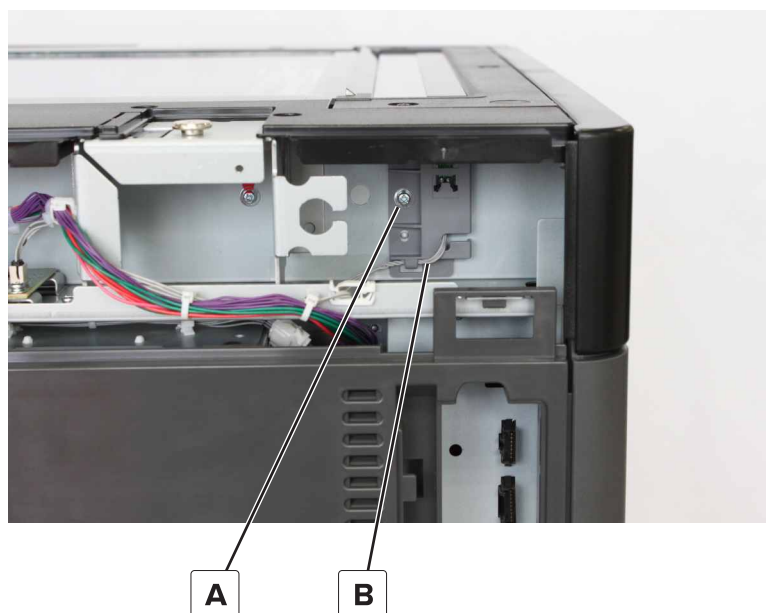


- 6 Remove the sensor.

Sensor (scanner lamp home) removal

- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412.](#)
- 2 Remove the scanner rear cover. See [“Scanner rear cover removal” on page 454.](#)

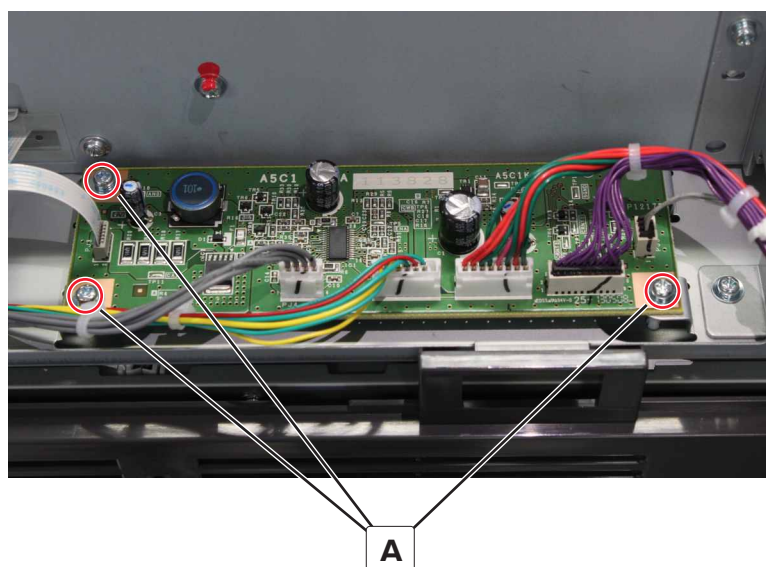
- 3 Remove the screw (A), and then remove the cable (B) from the sensor housing.



- 4 Disconnect the cable from the sensor.

Scanner controller board removal

- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412.](#)
- 2 Remove the scanner rear cover. See [“Scanner rear cover removal” on page 454.](#)
- 3 Disconnect the connectors, and then remove the three screws (A).

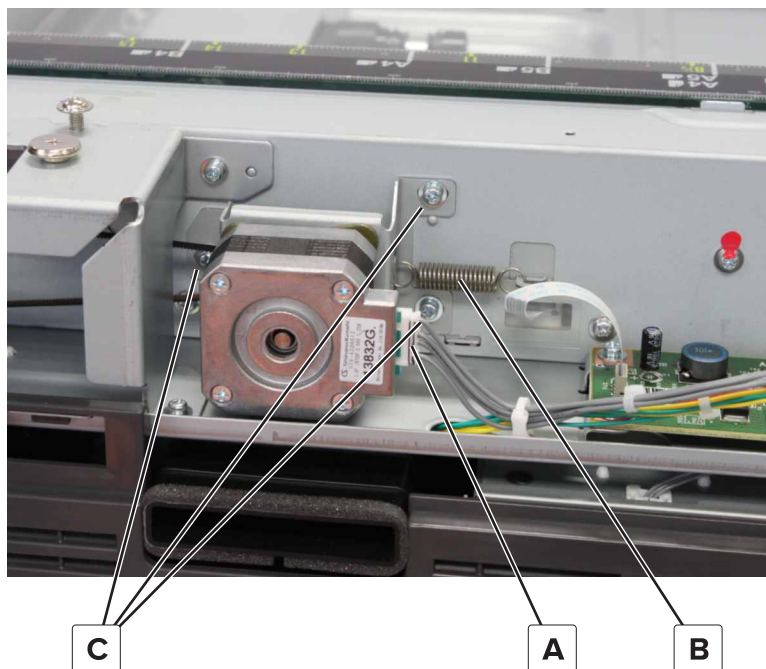


- 4 Remove the board.

Motor (scanner drive) removal

Note: Make sure to perform scanner carriage belt adjustment after replacing the motor (scanner drive). See [“Scanner carriage belt adjustment” on page 281](#).

- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412](#).
- 2 Remove the scanner rear cover. See [“Scanner rear cover removal” on page 454](#).
- 3 Disconnect the cable (A), remove the spring (B), and then remove the three screws (C).

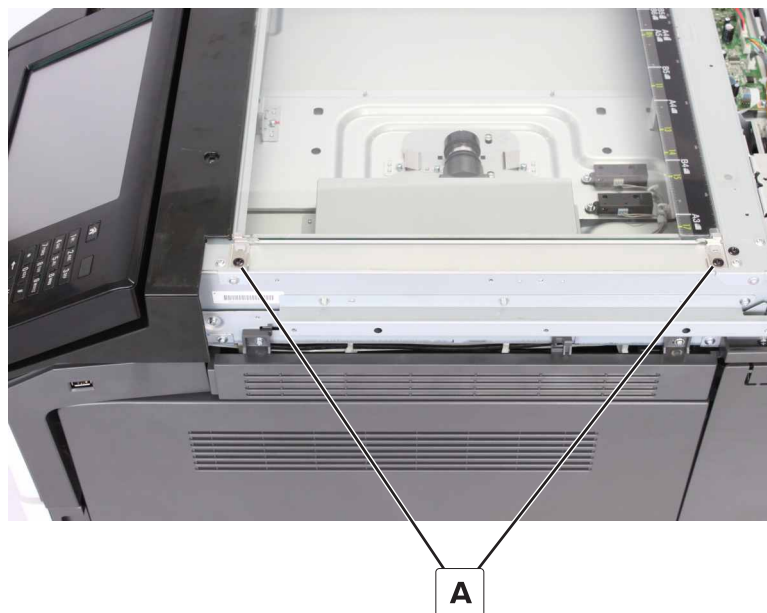


- 4 Remove the motor.

Scanner glass removal

- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412](#).
- 2 Remove the scanner rear cover. See [“Scanner rear cover removal” on page 454](#).
- 3 Remove the scanner top cover. See [“Scanner top cover removal” on page 456](#).
- 4 Remove the scanner right cover. See [“Scanner right cover removal” on page 455](#).

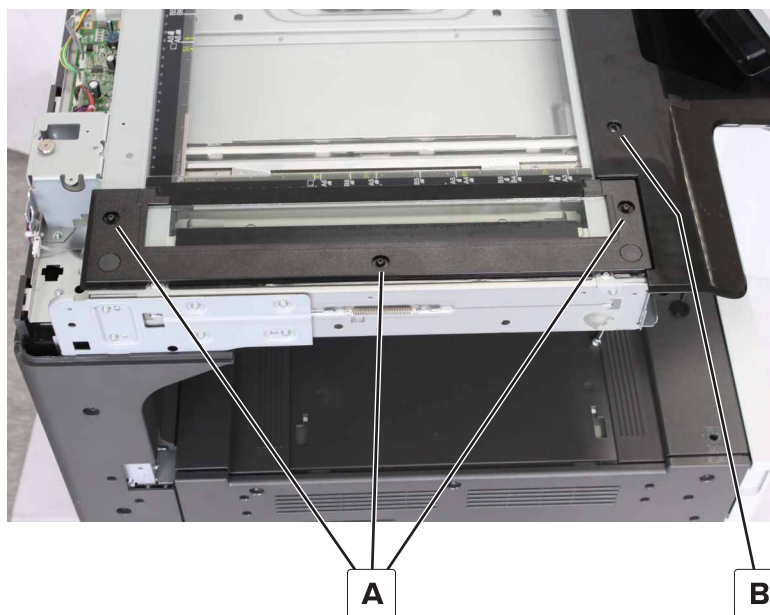
- 5 Remove the two screws (A), and then remove the scanner glass retainers.



- 6 Gently slide out the scanner glass.

ADF duplex scan glass removal

- 1 Remove the scanner left cover. See [“Scanner left cover removal” on page 454.](#)
- 2 Remove the control panel bottom cover. See [“Control panel bottom cover removal” on page 455.](#)
- 3 Remove the scanner rear cover. See [“Scanner rear cover removal” on page 454.](#)
- 4 Remove the scanner top cover. See [“Scanner top cover removal” on page 456.](#)
- 5 Remove the three screws (A), and then remove the screw (B).



Parts removal

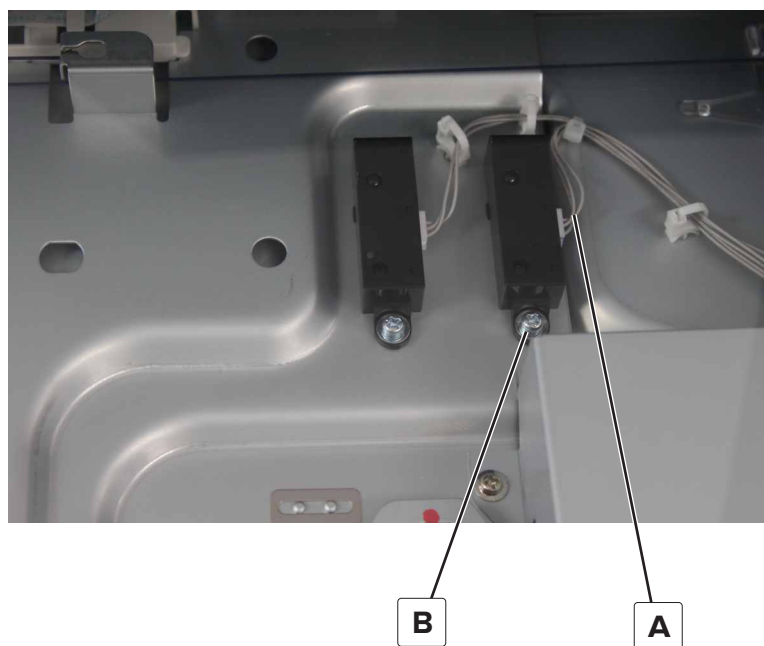
- 6 Slightly raise the scanner front cover, and then remove the ADF duplex scan glass.

Installation note: Make sure that the ADF duplex scan glass and scanner glass are properly aligned.



Sensor (scanner paper length 1) removal

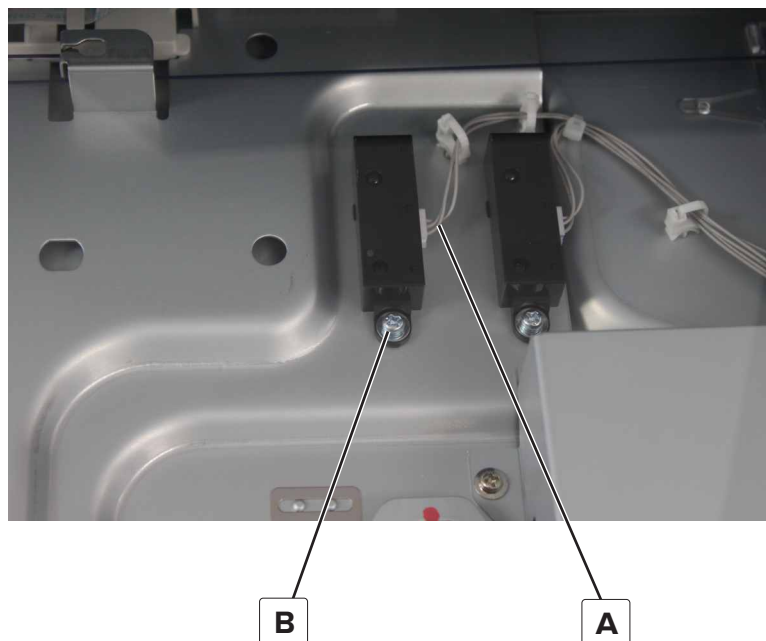
- 1 Remove the scanner rear cover. See [“Scanner rear cover removal” on page 454.](#)
- 2 Remove the scanner top cover. See [“Scanner top cover removal” on page 456.](#)
- 3 Remove the scanner right cover. See [“Scanner right cover removal” on page 455.](#)
- 4 Remove the scanner glass. See [“Scanner glass removal” on page 459.](#)
- 5 Disconnect the cable (A), and then remove the screw (B).



- 6 Remove the sensor.

Sensor (scanner paper length 2) removal

- 1 Remove the scanner rear cover. See [“Scanner rear cover removal” on page 454.](#)
- 2 Remove the scanner top cover. See [“Scanner top cover removal” on page 456.](#)
- 3 Remove the scanner right cover. See [“Scanner right cover removal” on page 455.](#)
- 4 Remove the scanner glass. See [“Scanner glass removal” on page 459.](#)
- 5 Disconnect the cable (A), and then remove the screw (B).

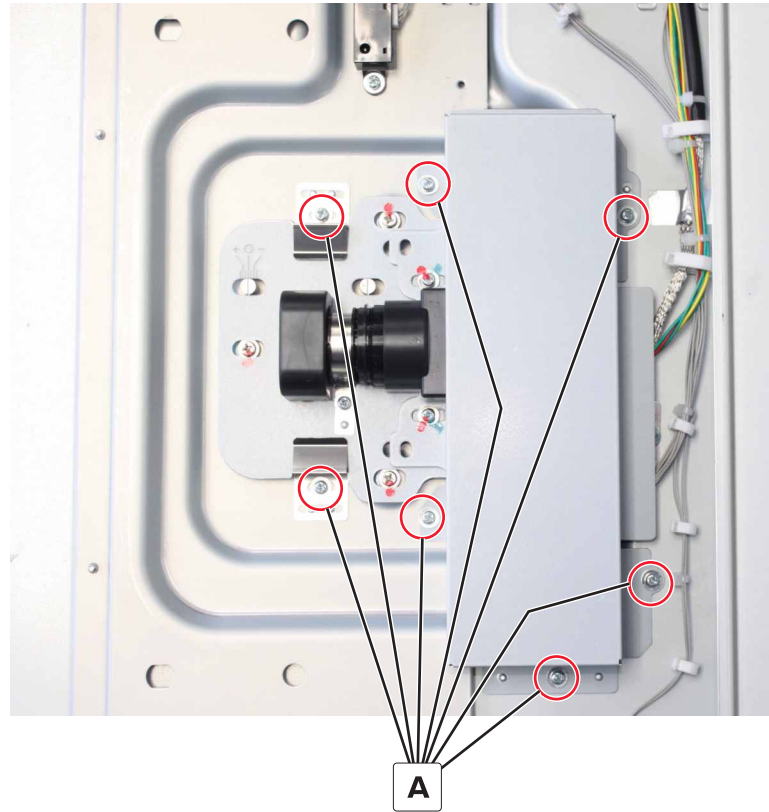


- 6 Remove the sensor.

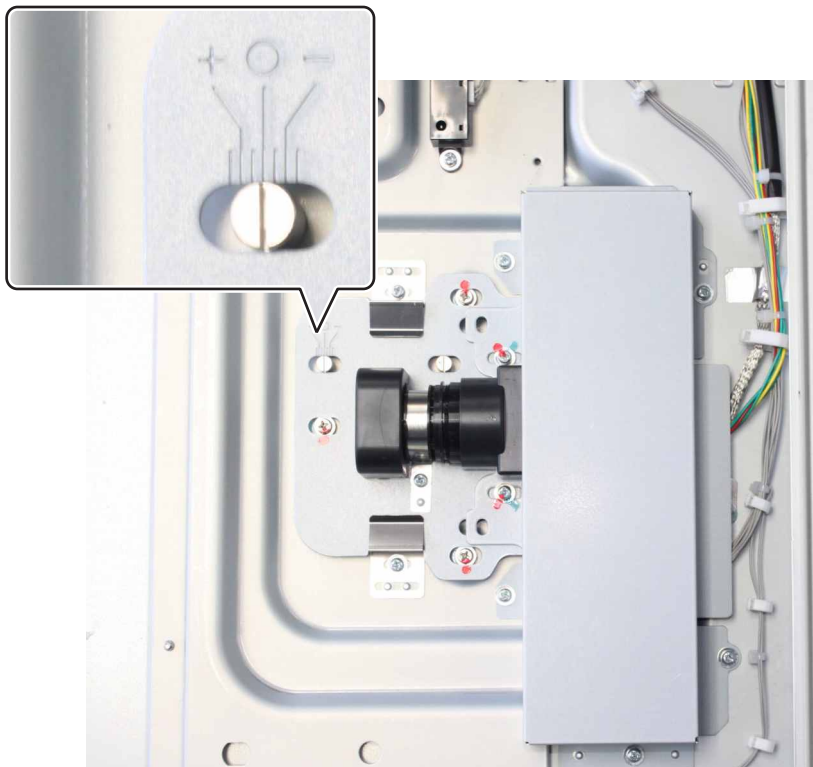
Scanner CCD lens assembly removal

- 1 Remove the scanner rear cover. See [“Scanner rear cover removal” on page 454.](#)
- 2 Remove the scanner top cover. See [“Scanner top cover removal” on page 456.](#)
- 3 Remove the scanner right cover. See [“Scanner right cover removal” on page 455.](#)
- 4 Remove the scanner glass. See [“Scanner glass removal” on page 459.](#)

5 Remove the seven screws (A).

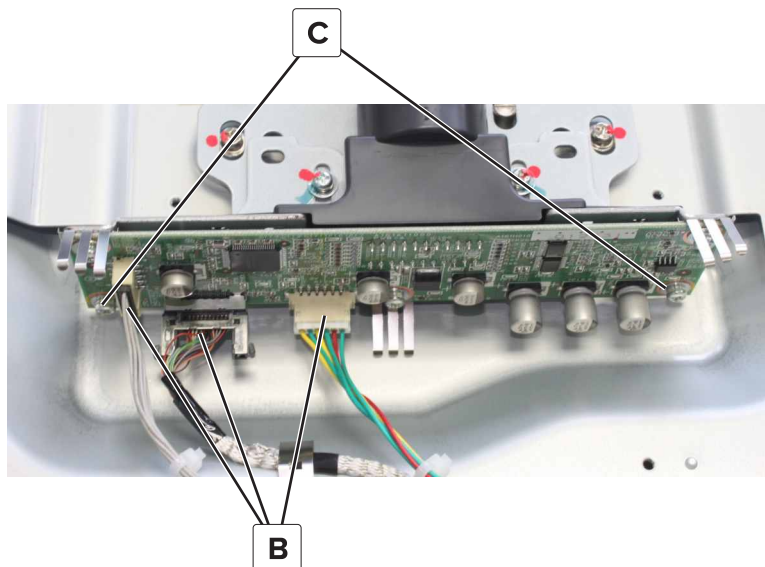


Note: Pay attention to the alignment setting.

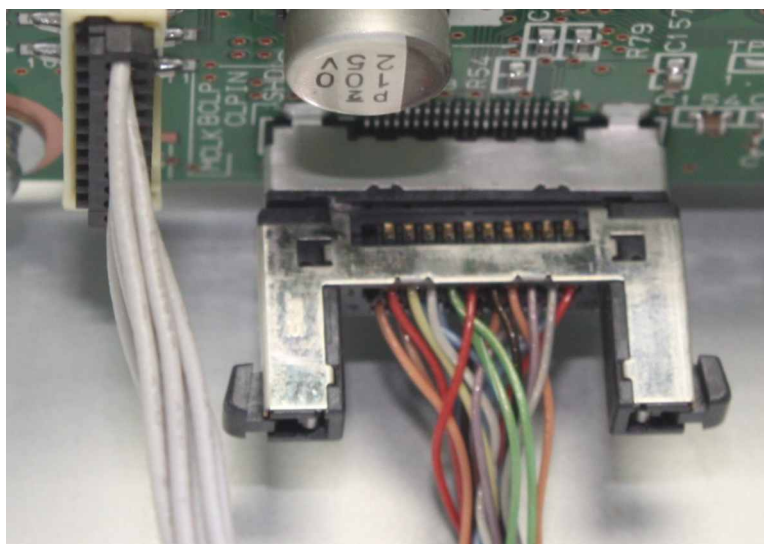


Parts removal

- 6 Disconnect the three cables (B), and then remove the two screws (C).



Installation note: Make sure to reinstall the scanner CCD cable with its metal component facing up.

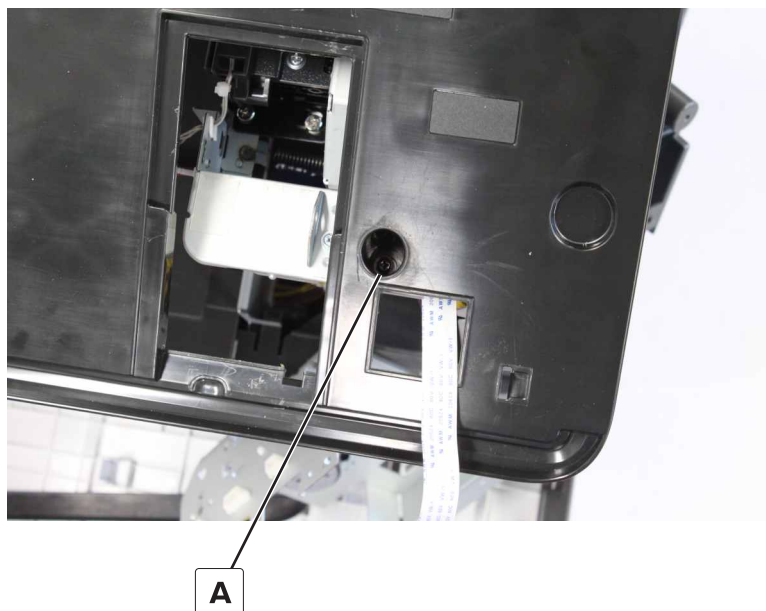


- 7 Remove the scanner CCD lens assembly.

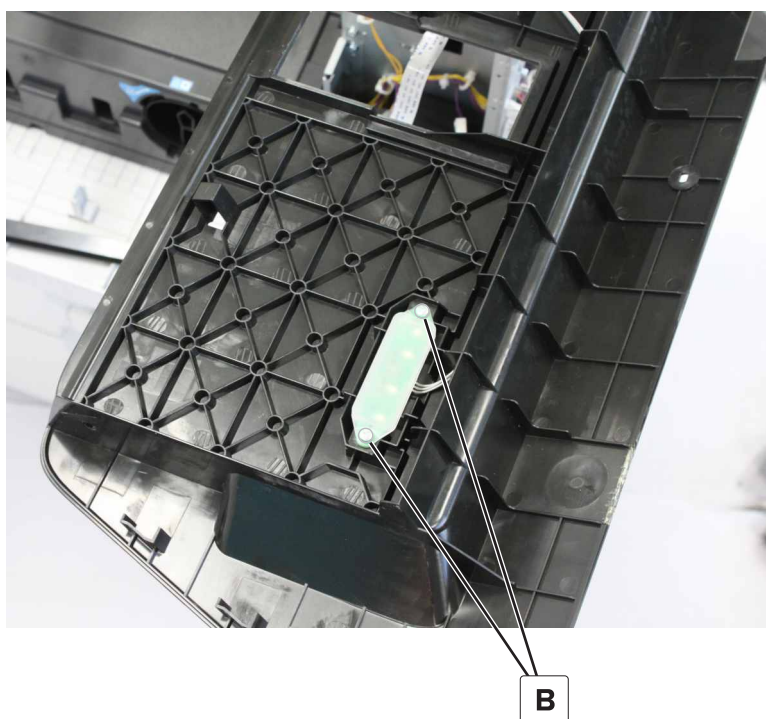
Control panel base removal

- 1 Remove the control panel bottom cover. See [“Control panel bottom cover removal” on page 455.](#)
- 2 Remove the speaker cover. See [“Speaker cover removal” on page 358.](#)
- 3 Remove the speaker frame.
- 4 Remove the control panel. See [“Control panel removal” on page 361.](#)

- 5 Remove the screw (A), and then detach the scanner front cover.



- 6 Remove the two screws (B), and then disconnect the cable from the cave light PCB.

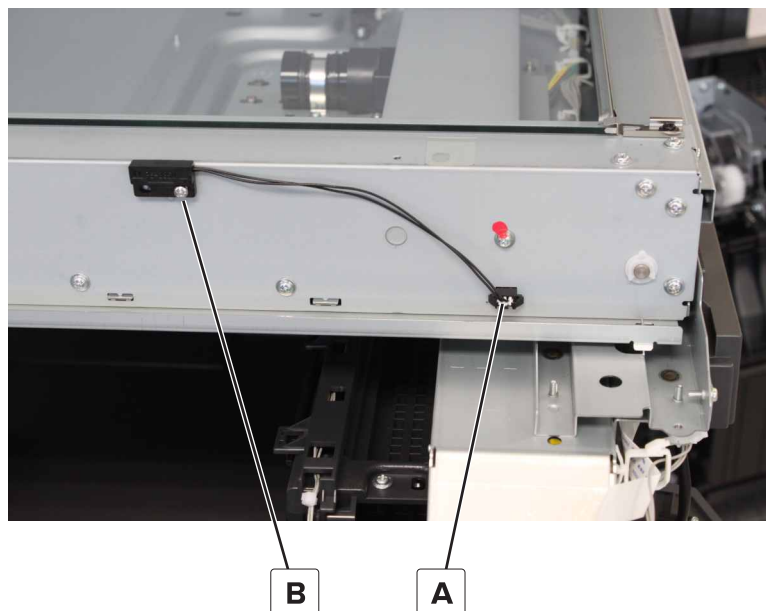


- 7 Remove the cave light, and then remove the cable from the control panel base.

Sensor (scanner cover switch) removal

- 1 Remove the scanner left cover. See [“Scanner left cover removal” on page 454.](#)
- 2 Remove the control panel bottom cover. See [“Control panel bottom cover removal” on page 455.](#)

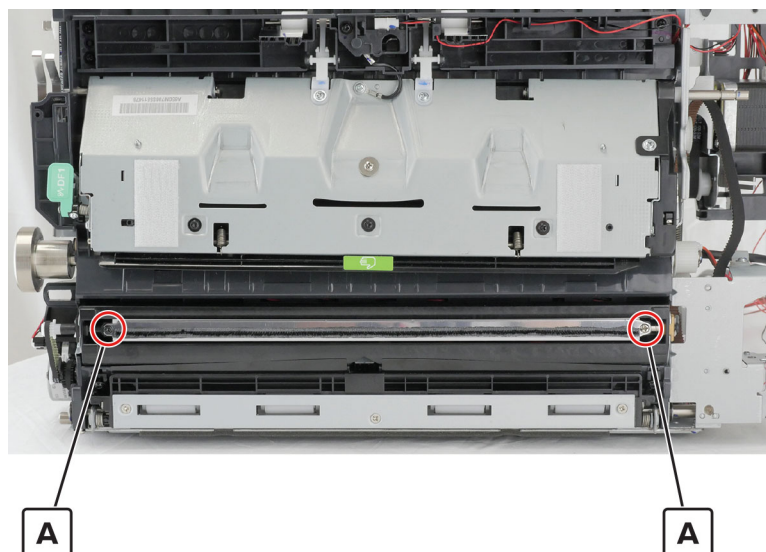
- 3 Remove the speaker cover. See [“Speaker cover removal” on page 358.](#)
- 4 Remove the speaker frame.
- 5 Remove the control panel. See [“Control panel removal” on page 361.](#)
- 6 Remove the control panel base. See [“Control panel base removal” on page 464.](#)
- 7 Disconnect the sensor cable (A), and then remove the screw (B) to remove the sensor.



Scan glass brush removal

- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412.](#)
- 2 Remove the ADF front cover. See [“ADF front cover removal” on page 418.](#)
- 3 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419.](#)
- 4 Remove the ADF tray/transport. See [“ADF tray/transport removal” on page 431.](#)

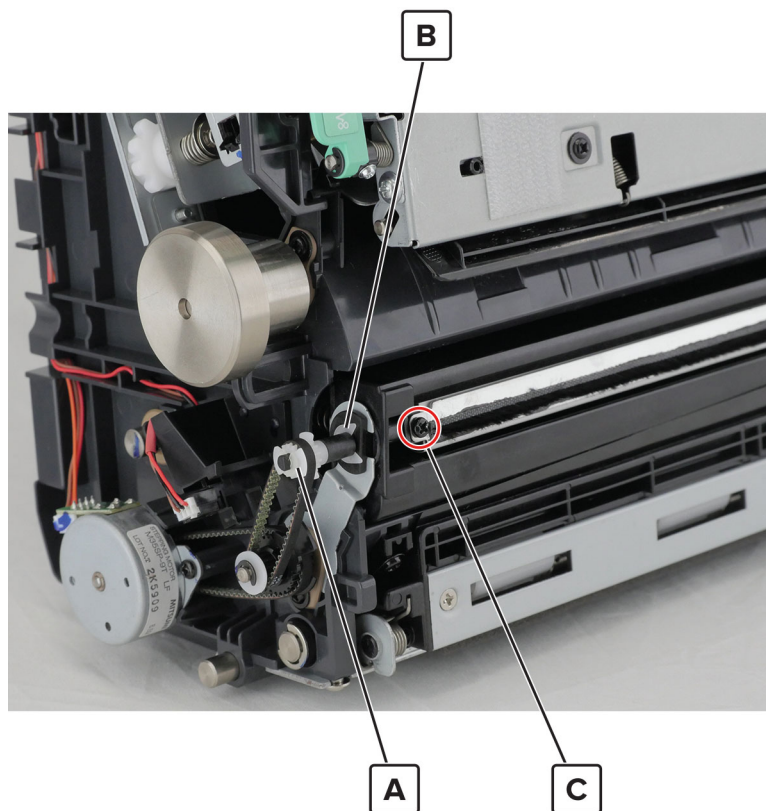
- 5 Remove the two screws (A), and then remove the brush.



Cleaning shaft removal

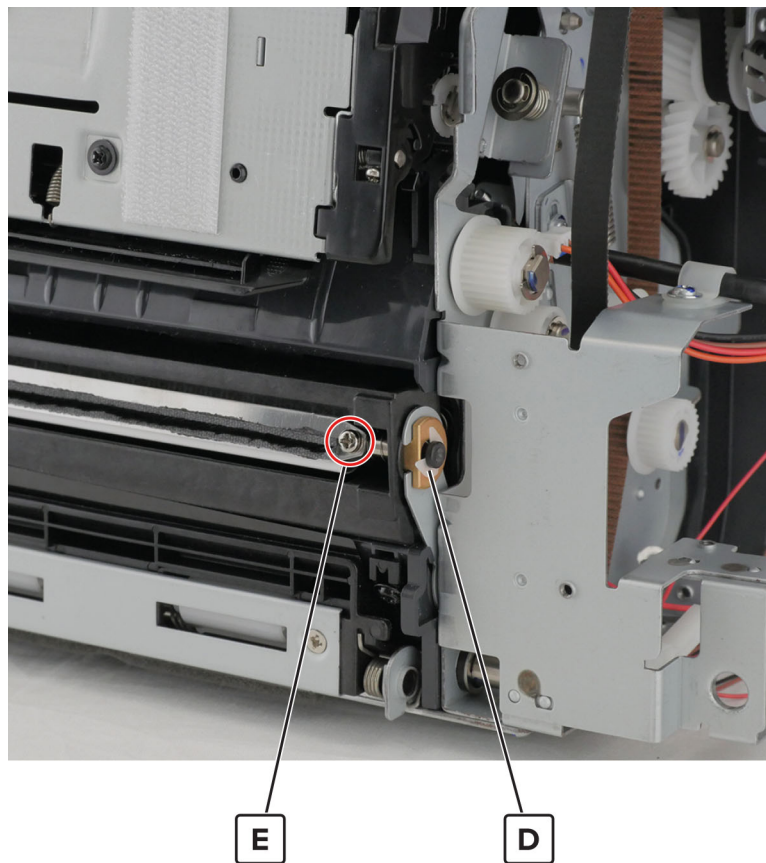
- 1 Remove the ADF assembly. See [“ADF assembly removal” on page 412.](#)
- 2 Remove the ADF front cover. See [“ADF front cover removal” on page 418.](#)
- 3 Remove the ADF rear cover. See [“ADF rear cover removal” on page 419.](#)
- 4 Remove the ADF tray/transport. See [“ADF tray/transport removal” on page 431.](#)
- 5 Release the latch, and then remove the gear (A).
- 6 Remove the clip (B), and then remove the bushing.

7 Remove the screw (C).



8 Remove the clip (D), and then remove the bushing.

9 Remove the screw (E), and then remove the brush.

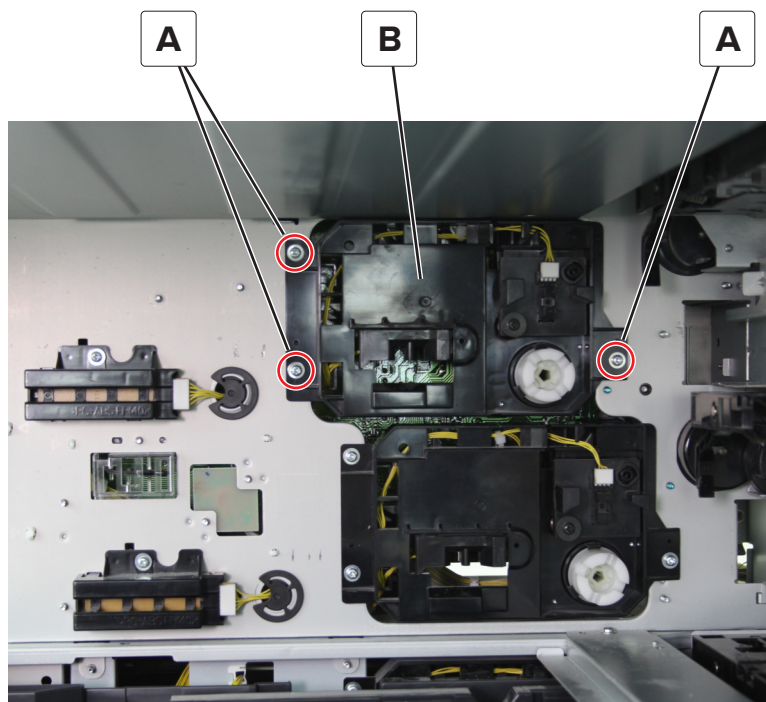


10 Remove the cleaning shaft with scan glass cleaner, and then separate the shaft from the cleaner.

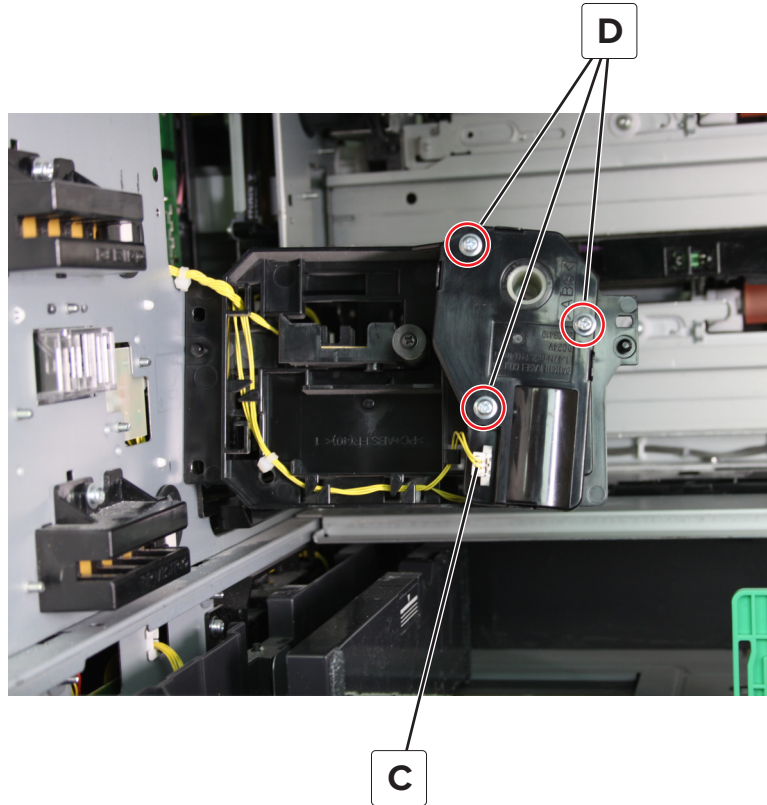
Standard tray removals

Motor (tray 1 lift) removal

- 1 Remove the tray base left cover. See [“Tray base left cover removal” on page 288.](#)
- 2 Remove the three screws (A), and then detach the tray 1 size sensing assembly (B) from the frame.



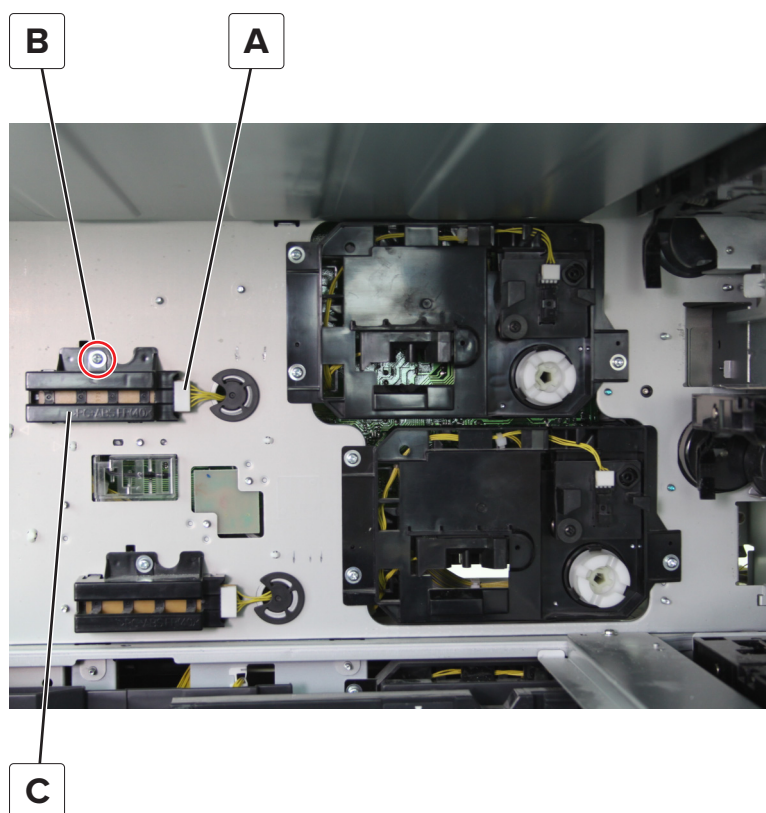
3 Disconnect the cable (C), and then remove the three screws (D).



4 Remove the motor.

Sensor (tray 1 paper length) removal

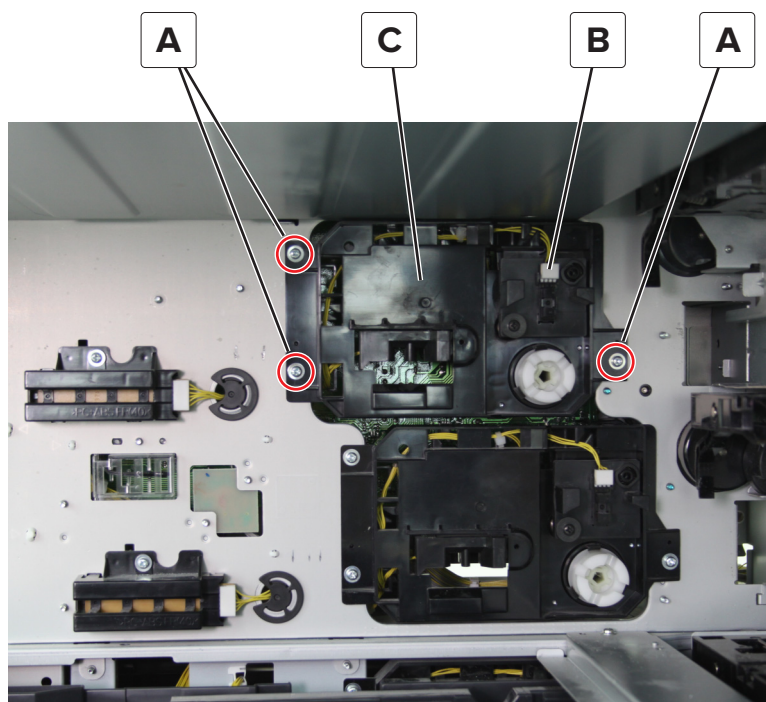
- 1 Remove the tray base left cover. See [“Tray base left cover removal” on page 288](#).
- 2 Disconnect the cable (A), remove the screw (B), and then remove the sensor housing (C) from the frame.



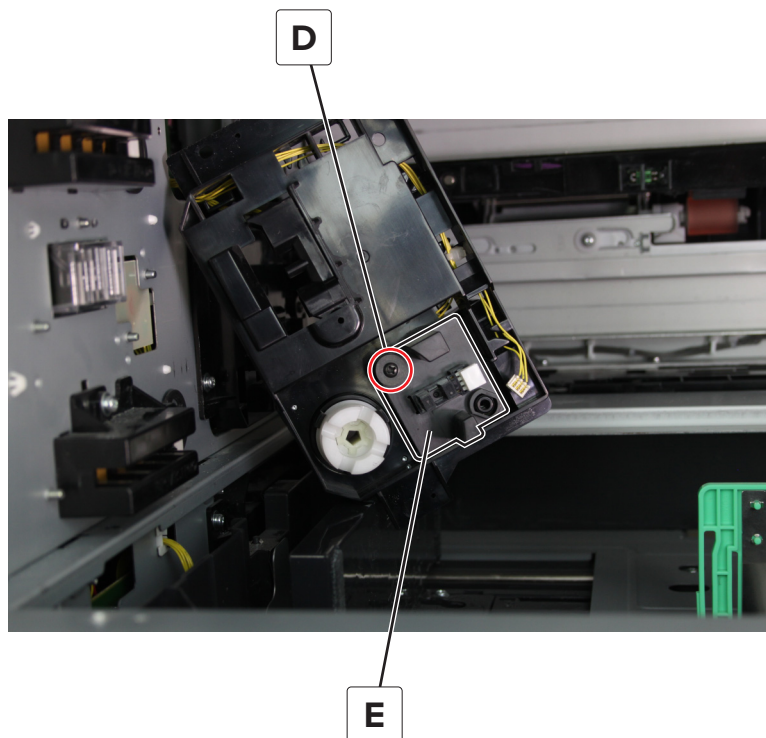
- 3 Remove the sensor from the housing.

Sensor (tray 1 near empty) removal

- 1 Remove the tray base left cover. See [“Tray base left cover removal” on page 288](#).
- 2 Remove the three screws (A), disconnect the cable (B), and then detach the tray 1 size sensing assembly (C) from the frame.



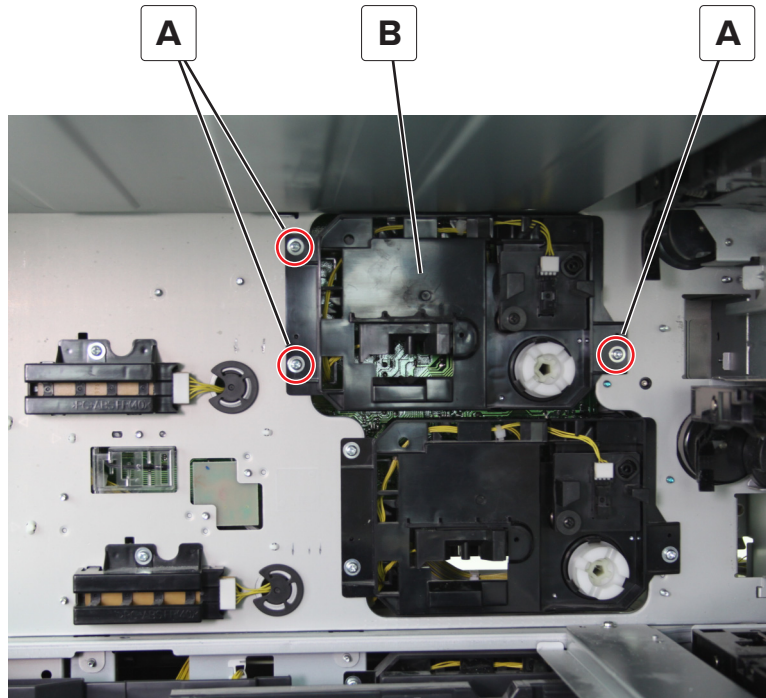
3 Remove the screw (D), and then remove the sensor housing (E).



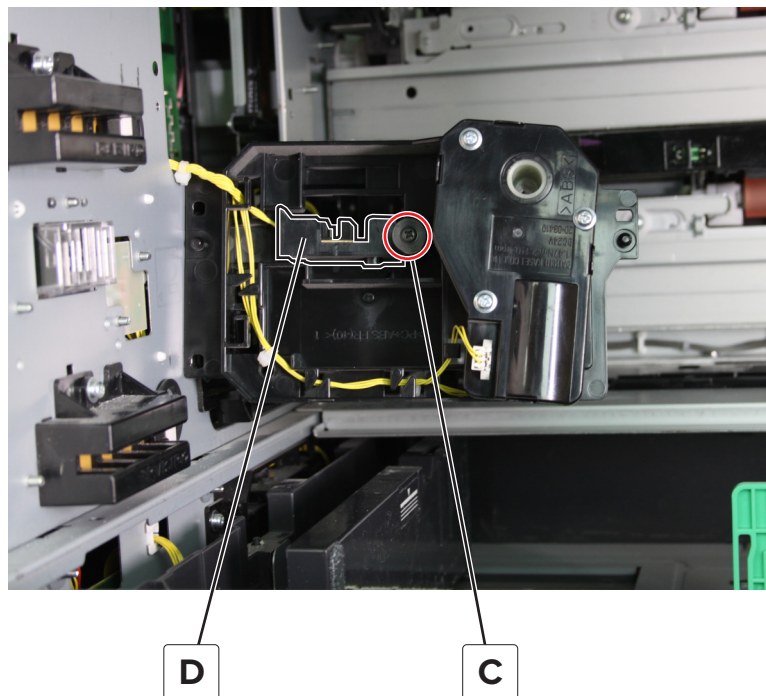
4 Remove the sensor from the housing.

Sensor (tray 1 paper width) removal

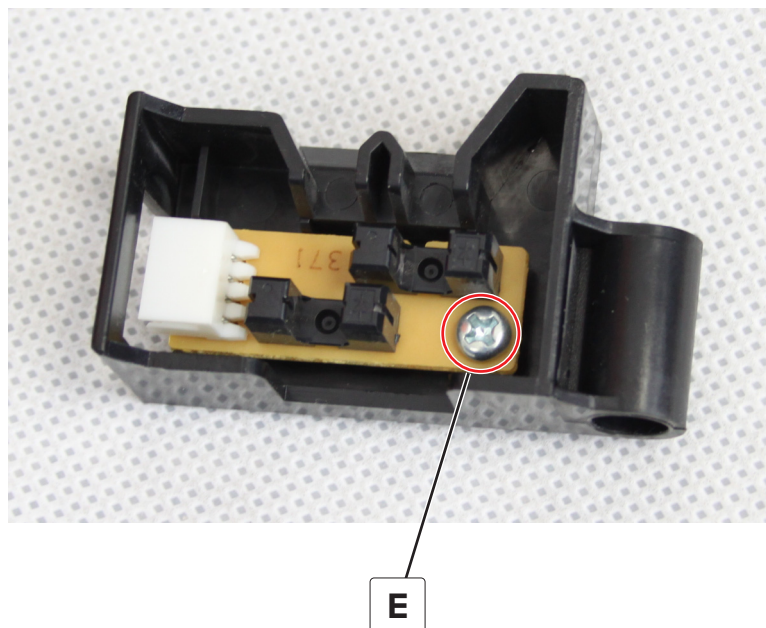
- 1 Remove the tray base left cover. See [“Tray base left cover removal” on page 288](#).
- 2 Remove the three screws (A), and then detach the tray 1 size sensing assembly (B) from the frame.



- 3 Remove the screw (C), detach the sensor housing (D), and then disconnect the sensor cable.
- Note:** Pay attention to the position of the spring.

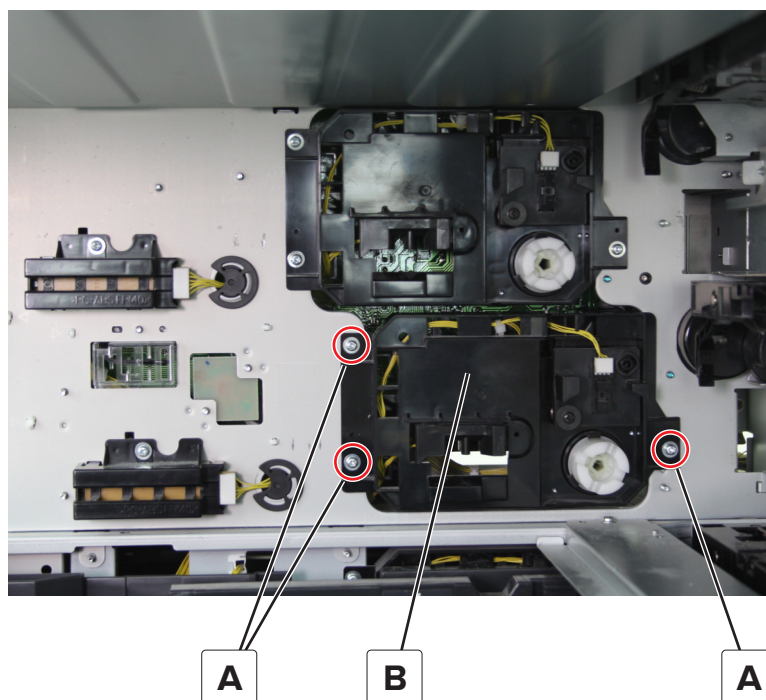


- 4 Remove the screw (E), and then remove the sensor from the housing.



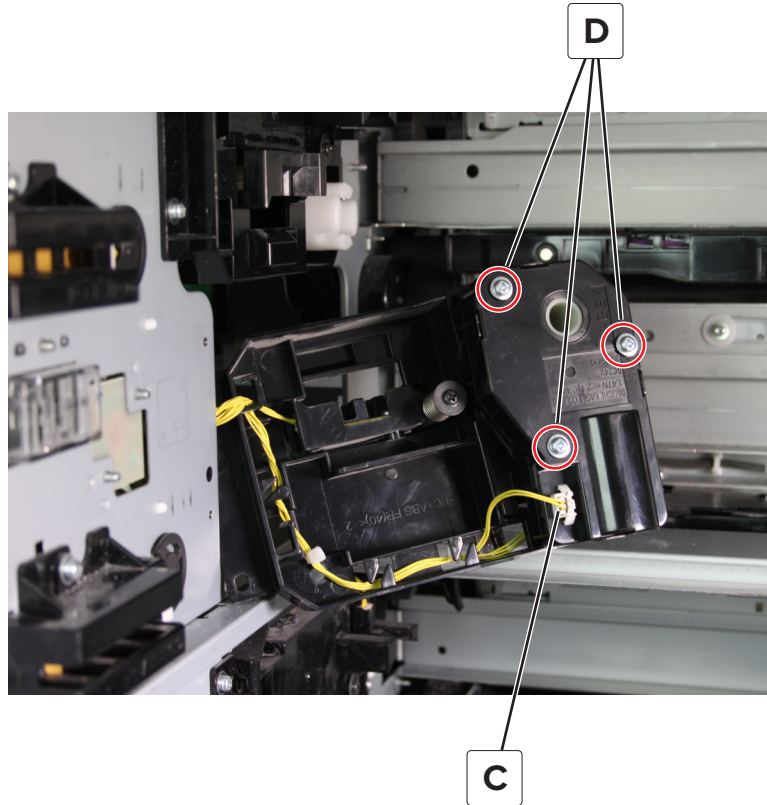
Motor (tray 2 lift) removal

- 1 Remove the tray base left cover. See [“Tray base left cover removal” on page 288.](#)
- 2 Remove the three screws (A), and then detach the tray 2 size sensing assembly (B) from the frame.



Parts removal

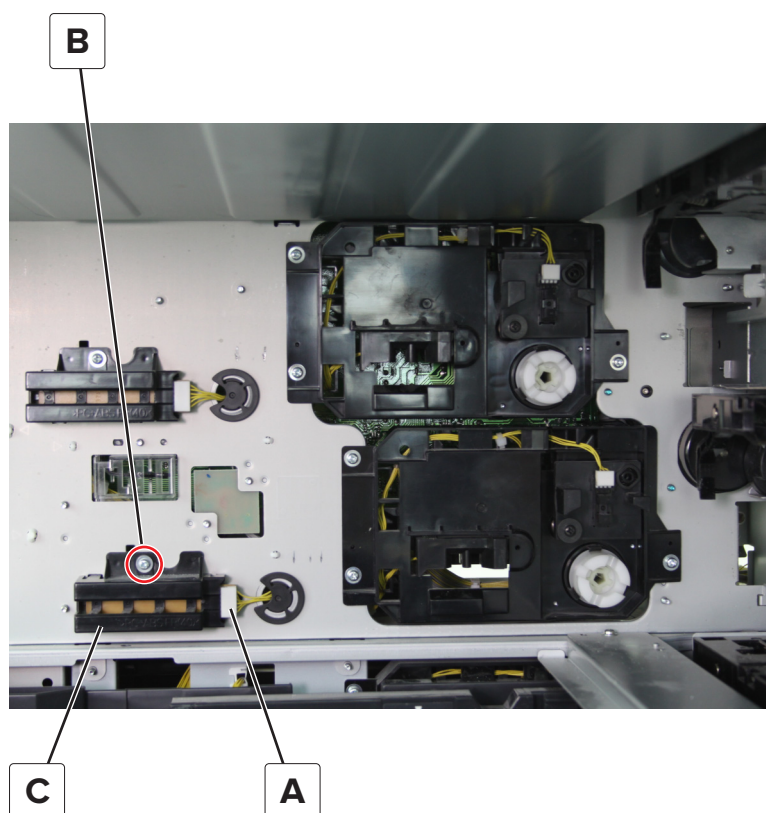
3 Disconnect the cable (C), and then remove the three screws (D).



4 Remove the motor.

Sensor (tray 2 paper length) removal

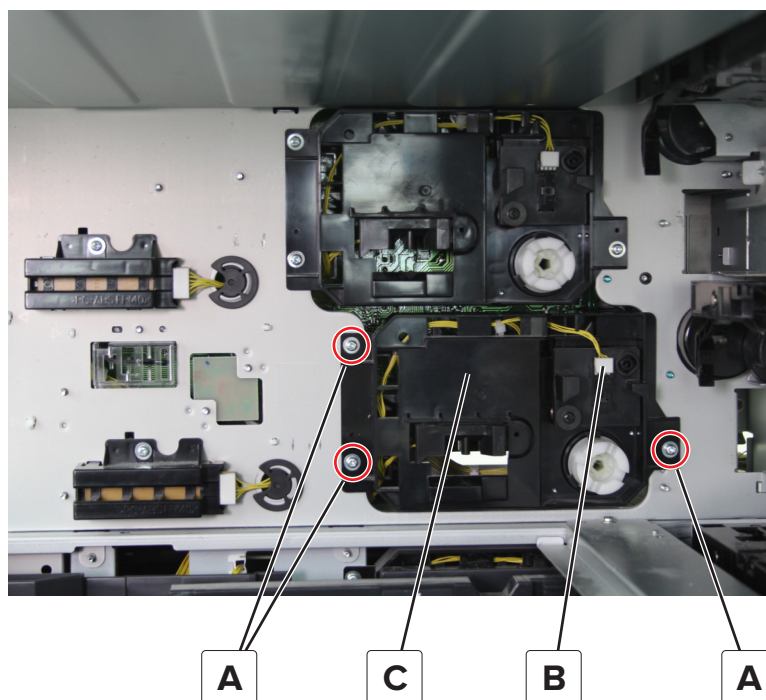
- 1 Remove the tray base left cover. See [“Tray base left cover removal” on page 288](#).
- 2 Disconnect the cable (A), remove the screw (B), and then remove the sensor housing (C) from the frame.



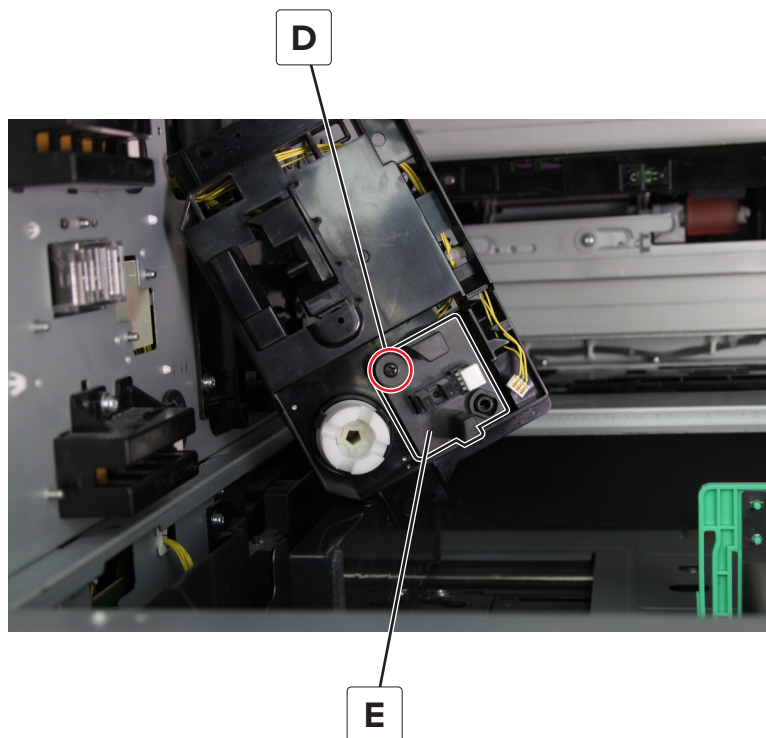
- 3 Remove the sensor from the housing.

Sensor (tray 2 near empty) removal

- 1 Remove the tray base left cover. See [“Tray base left cover removal” on page 288](#).
- 2 Remove the three screws (A), disconnect the cable (B), and then detach the tray 2 size sensing assembly (C) from the frame.



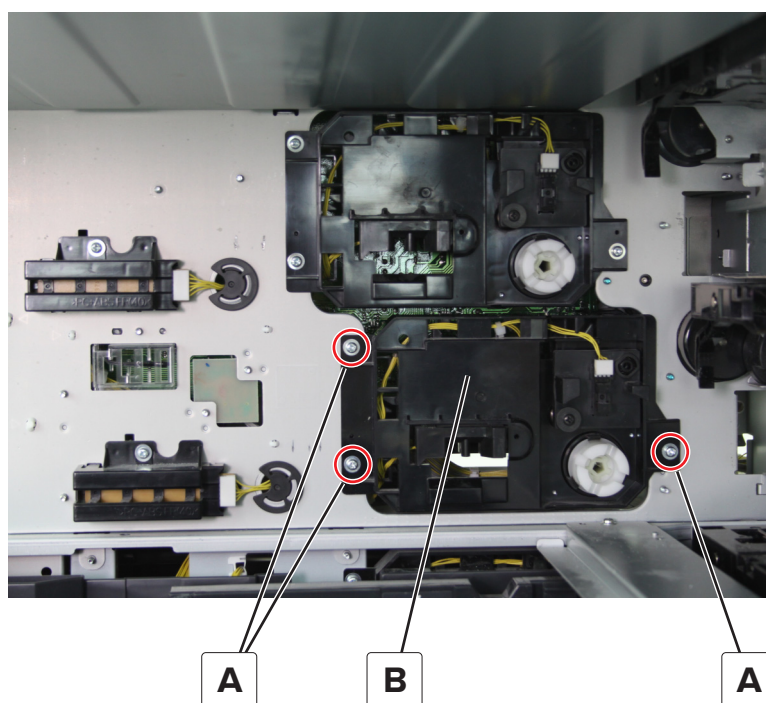
3 Remove the screw (D), and then remove the sensor housing (E).



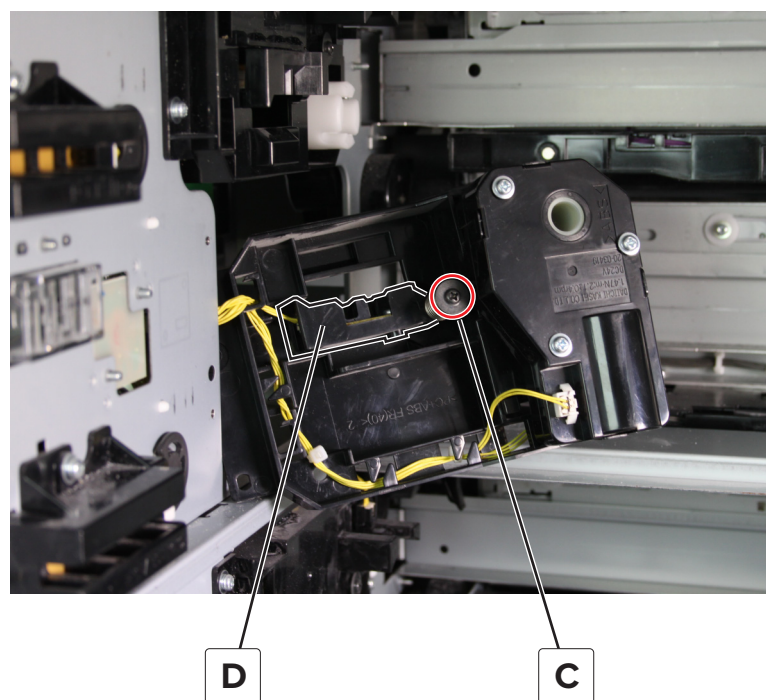
4 Remove the sensor from the housing.

Sensor (tray 2 paper width) removal

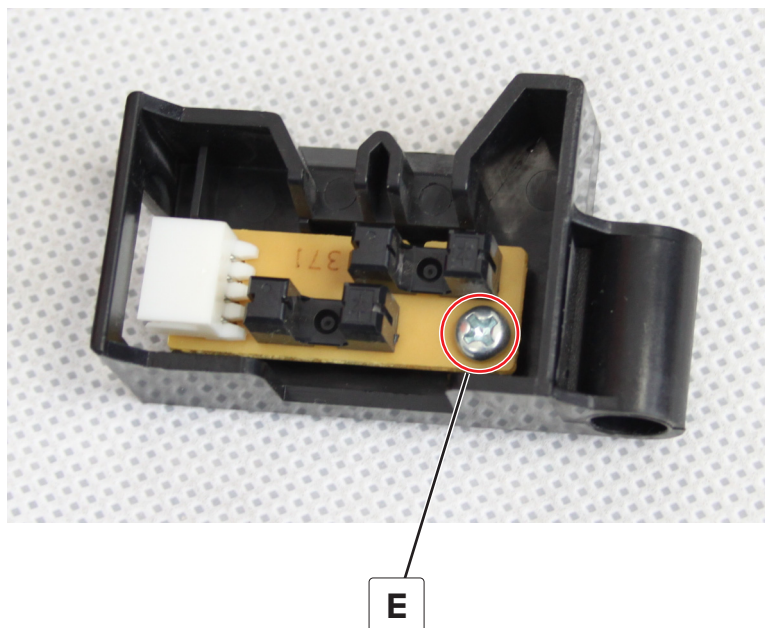
- 1 Remove the tray base left cover. See [“Tray base left cover removal” on page 288](#).
- 2 Remove the three screws (A), and then detach the tray 2 size sensing assembly (B) from the frame.



- 3 Remove the screw (C), detach the sensor housing (D), and then disconnect the sensor cable.
- Note:** Pay attention to the position of the spring.



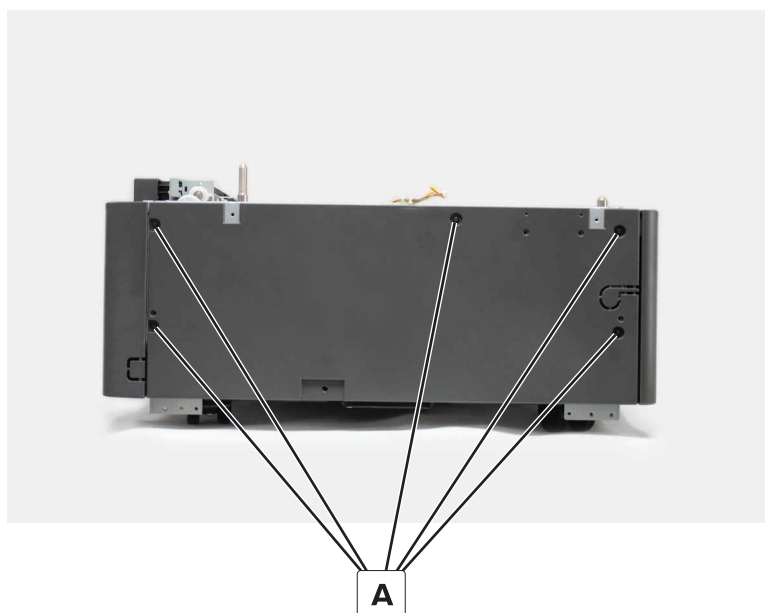
- 4 Remove the screw (E), and then remove the sensor from the housing.



2500-sheet tray removals

2500-sheet tray rear cover removal

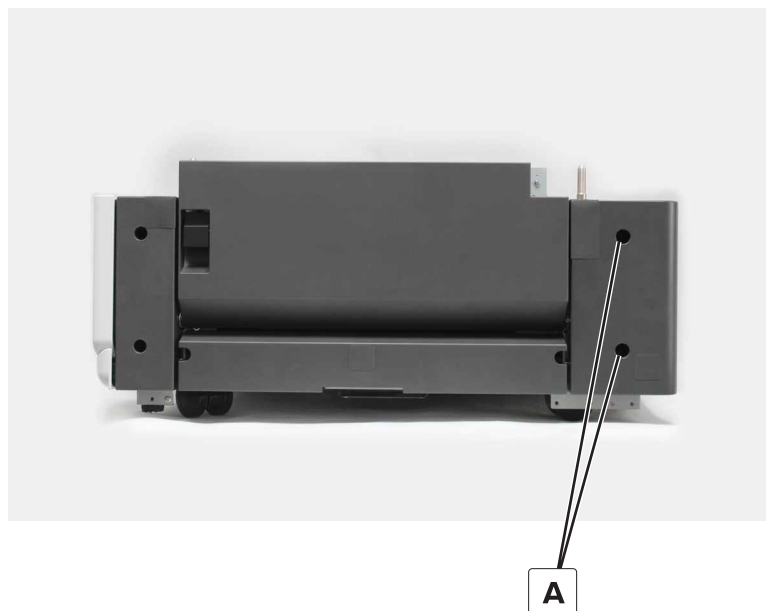
- 1 Remove the five screws (A).



- 2 Remove the cover.

2500-sheet tray rear right cover removal

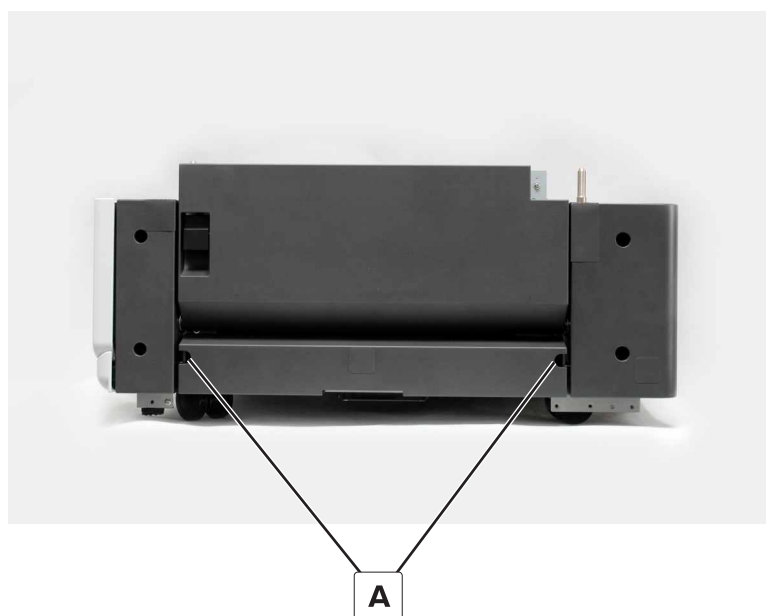
- 1 Remove the two screws (A).



- 2 Remove the cover.

2500-sheet tray lower right cover removal

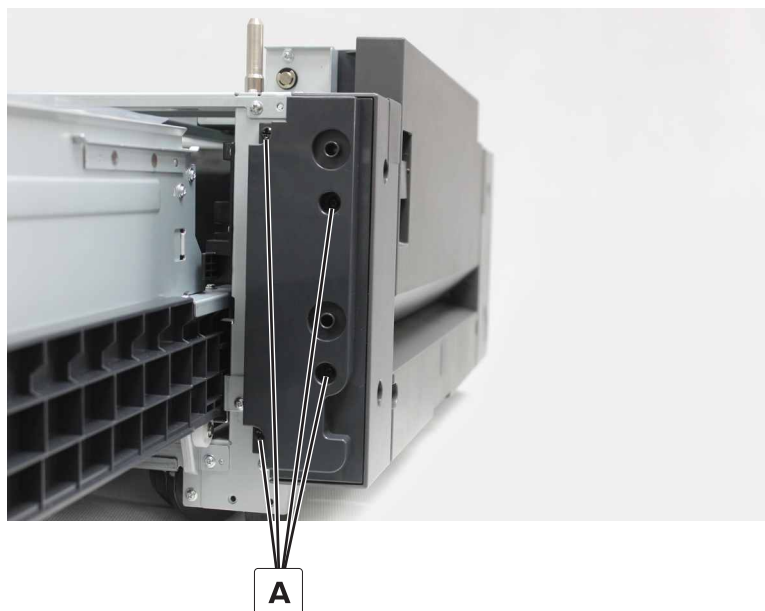
- 1 Remove the two screws (A).



- 2 Remove the cover.

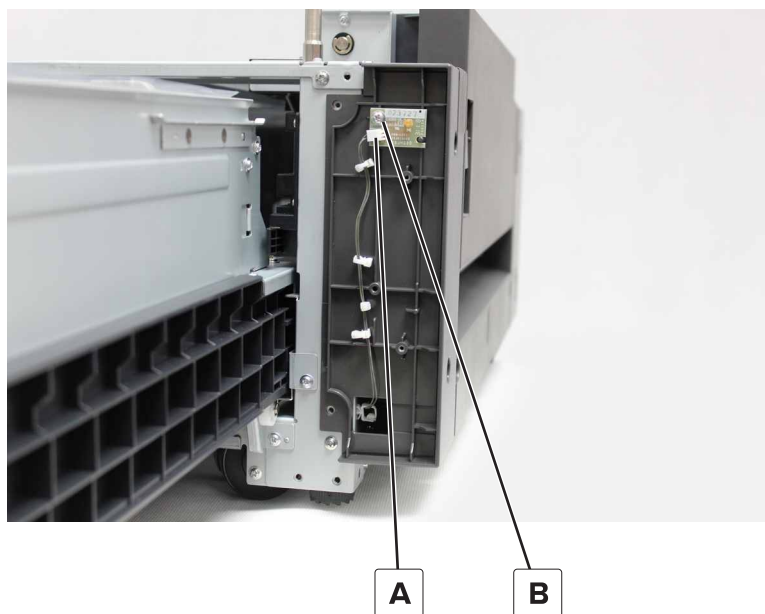
2500-sheet tray LED cover removal

- 1 Open the tray.
- 2 Remove the four screws (A), and then remove the cover.



2500-sheet tray empty LED removal

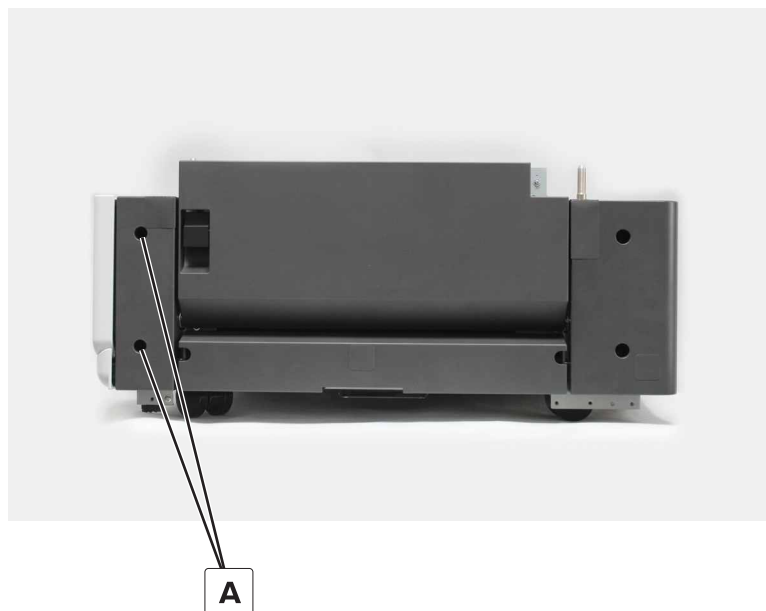
- 1 Remove the 2500-sheet tray LED cover. See [“2500-sheet tray LED cover removal” on page 484](#).
- 2 Disconnect the cable (A), and then remove the screw (B).



- 3 Remove the LED.

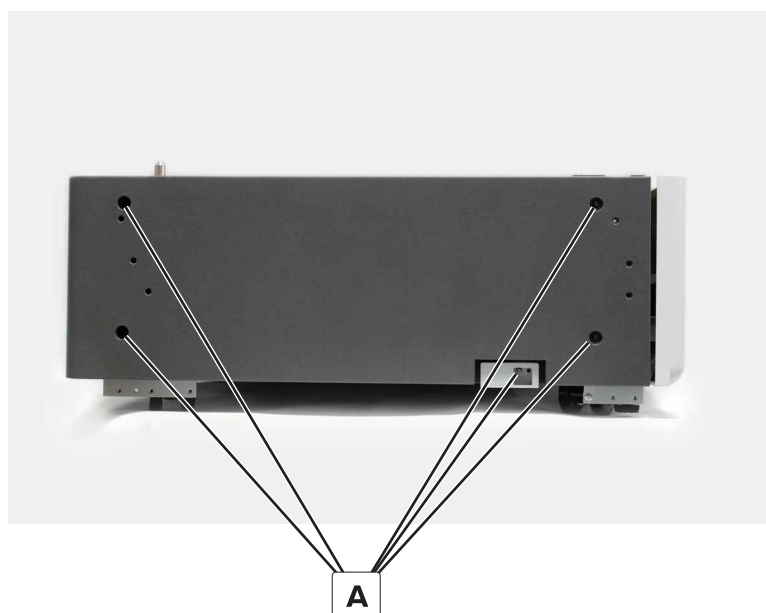
2500-sheet tray front right cover removal

- 1 Remove the 2500-sheet tray LED cover. See [“2500-sheet tray LED cover removal” on page 484](#).
- 2 Remove the two screws (A), and then remove the cover.



2500-sheet tray left cover removal

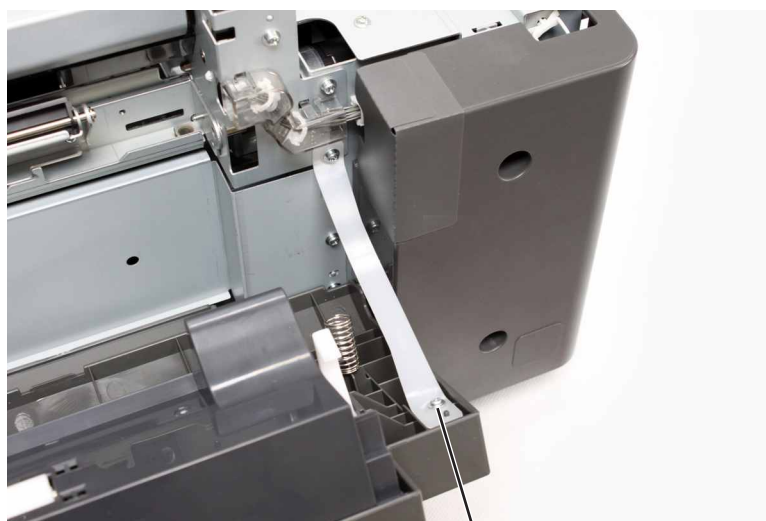
- 1 Remove the five screws (A).



- 2 Remove the cover.

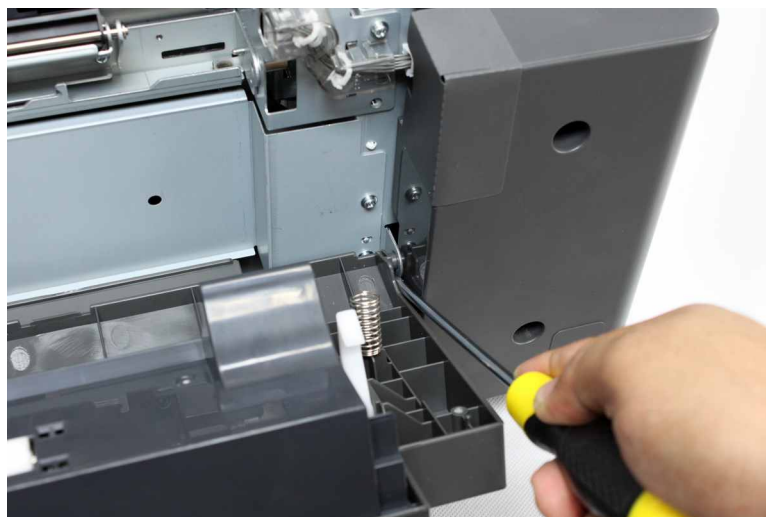
2500-sheet tray jam access cover removal

- 1 Open the jam access cover.
- 2 Remove the screw (A).



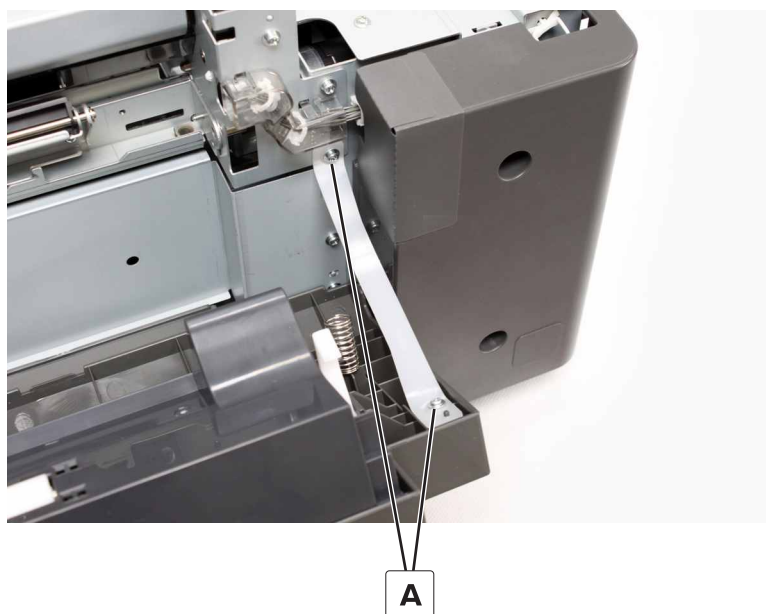
A

- 3 Pry the right hinge to release, and then remove the cover.



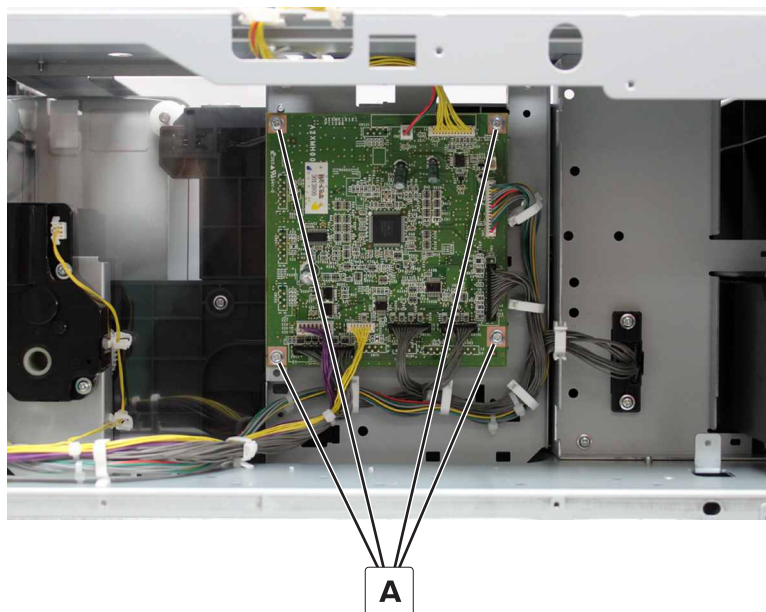
2500-sheet tray jam access door strap removal

- 1 Open the jam access cover.
- 2 Remove the two screws (A), and then remove the strap.



2500-sheet tray controller board removal

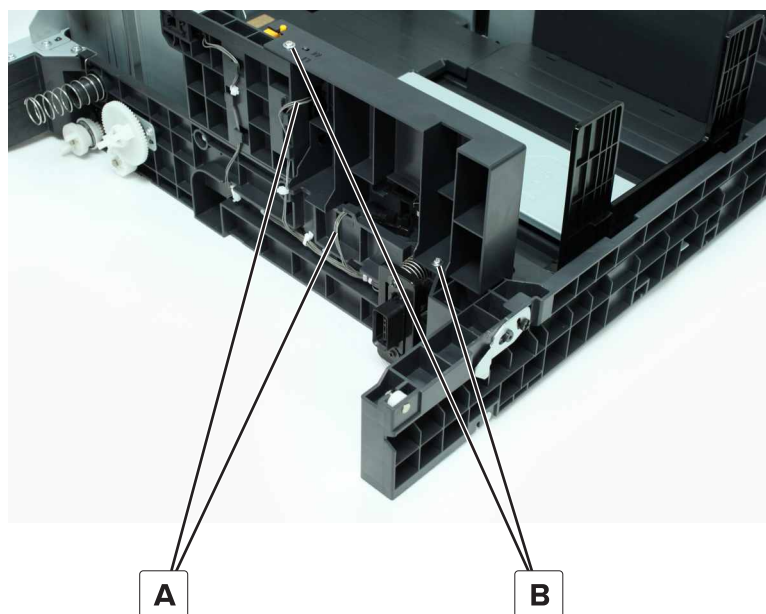
- 1 Remove the tray rear cover. See [“2500-sheet tray rear cover removal” on page 482.](#)
- 2 Disconnect the cables, and then remove the four screws (A).



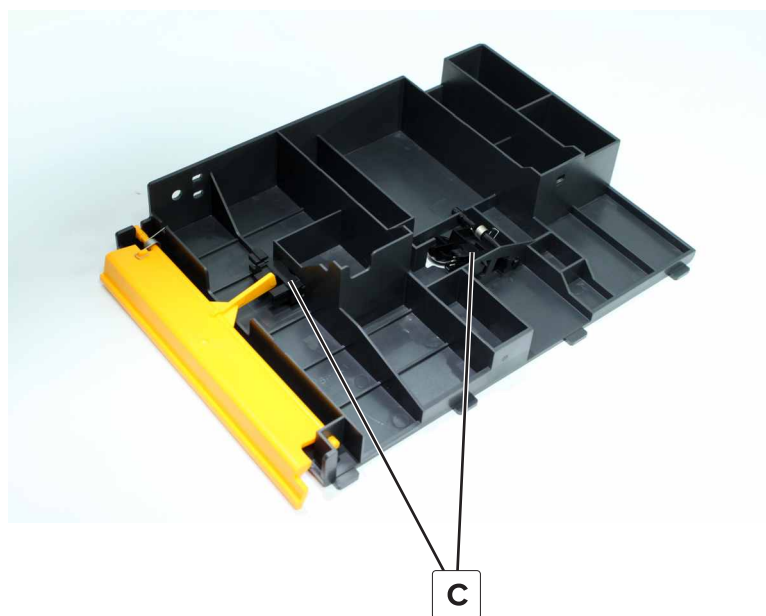
- 3 Remove the controller board.

2500-sheet tray division board removal

- 1 Remove the tray insert.
- 2 Disconnect the two cables (A), and then remove the two screws (B).



- 3 Remove the division board, and then remove the sensors (C).



Installation note: Install the sensors on the new division board.

2500-sheet tray main tray empty sensor bottom actuator removal

- 1 Remove the tray insert.
- 2 Slightly raise the main tray.



- 3 Remove the actuator (C).



C

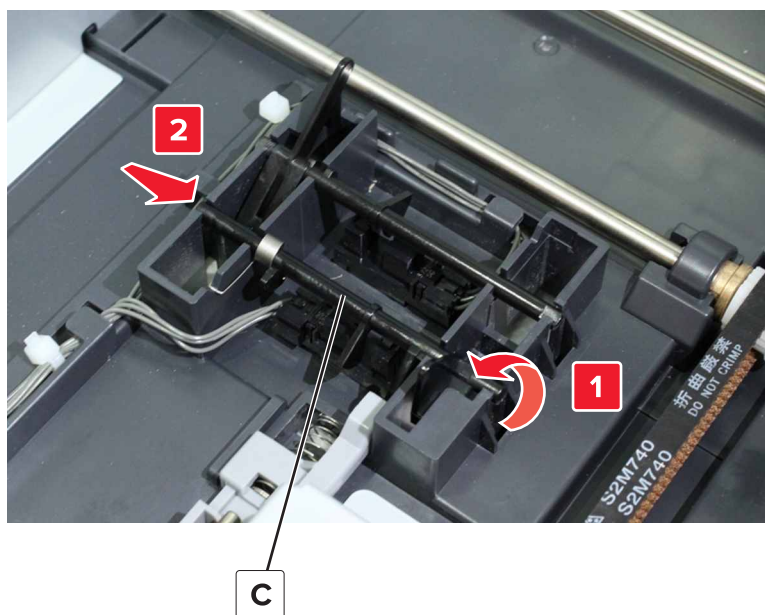
2500-sheet tray elevator home sensor actuator removal

- 1 Remove the tray insert.
- 2 Slightly raise the main tray.



- 3 Rotate the actuator (C) until it is in the upright position, and then slide out to remove.

Note: Take note of the position of the spring on the actuator.



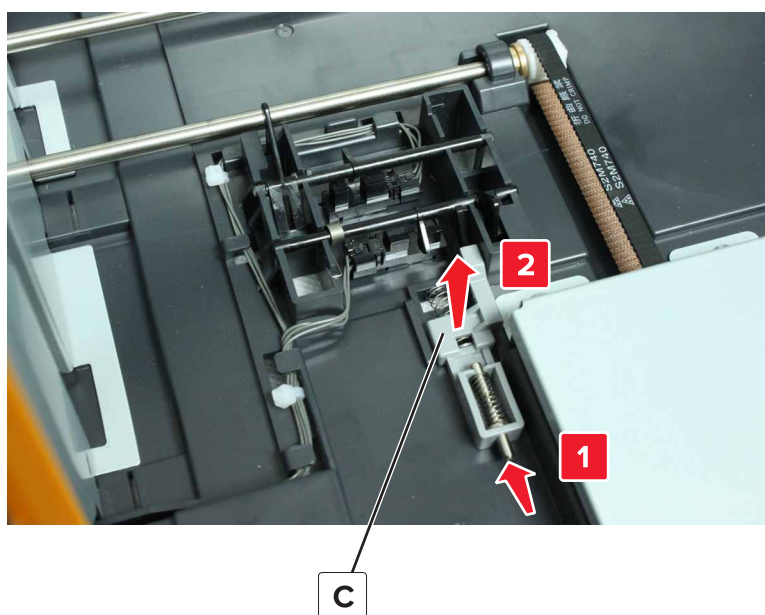
2500-sheet tray transfer guide stop removal

- 1 Remove the tray insert.
- 2 Slightly raise the main tray.



- 3 Remove the actuator (C).

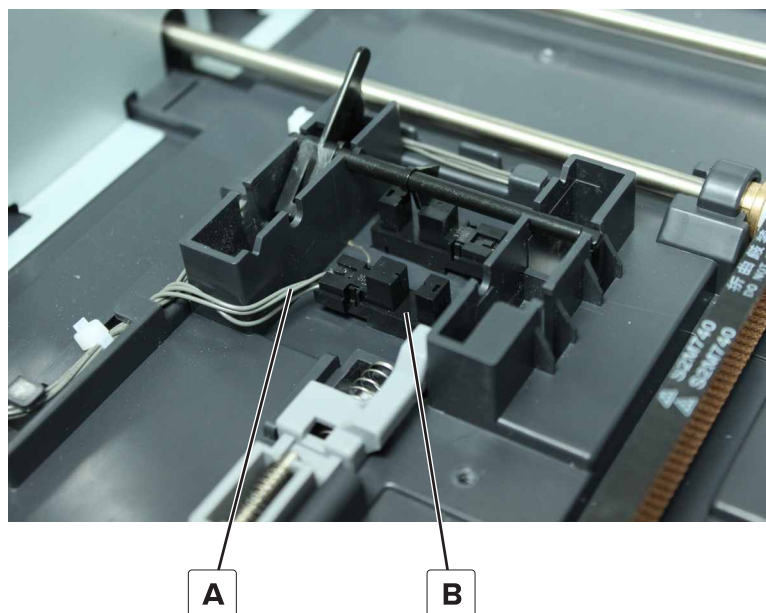
Note: Do not lose the spring on the actuator.



Sensor (2500-sheet tray elevator home) removal

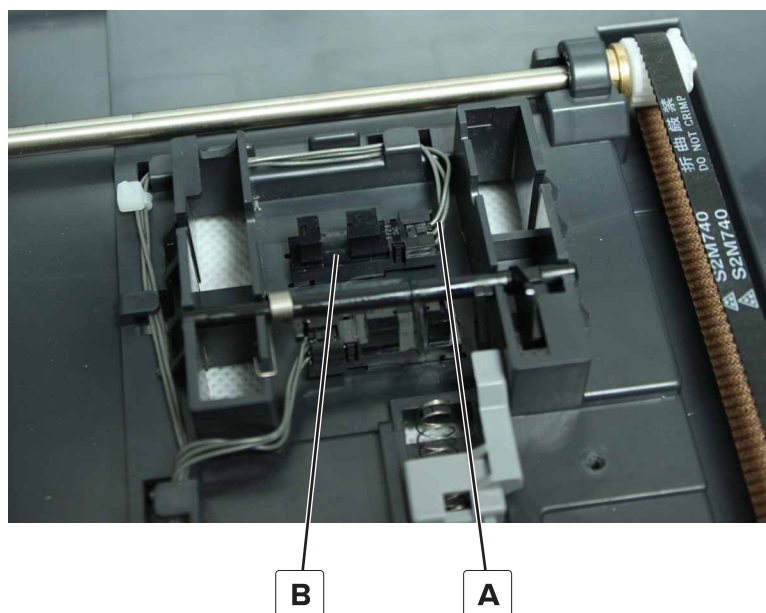
- 1 Remove the tray insert.
- 2 Remove the 2500-sheet tray elevator home sensor actuator. See [“2500-sheet tray elevator home sensor actuator removal” on page 490](#).

- 3 Disconnect the cable (A), and then remove the sensor (B).



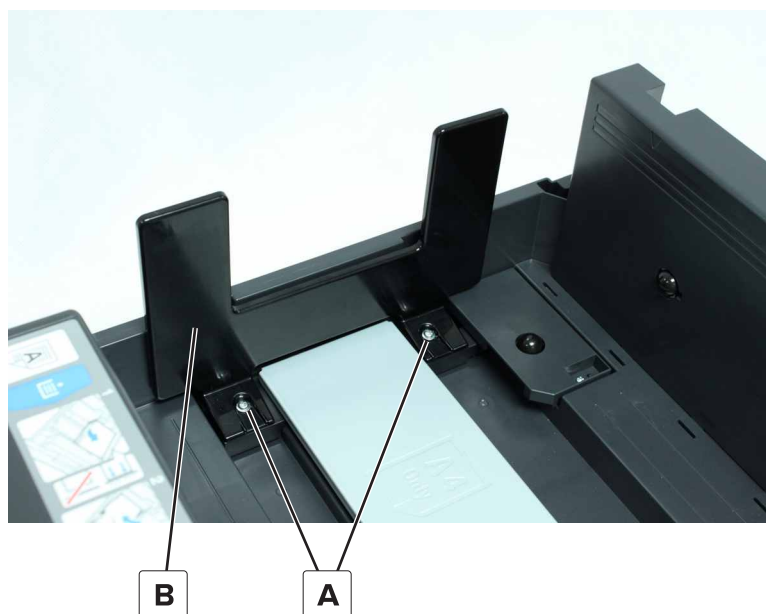
Sensor (2500-sheet tray main tray empty, bottom) removal

- 1 Remove the tray insert.
- 2 Remove the 2500-sheet tray empty sensor bottom actuator. See [“2500-sheet tray main tray empty sensor bottom actuator removal” on page 489](#).
- 3 Disconnect the cable (A), and then remove the sensor (B).

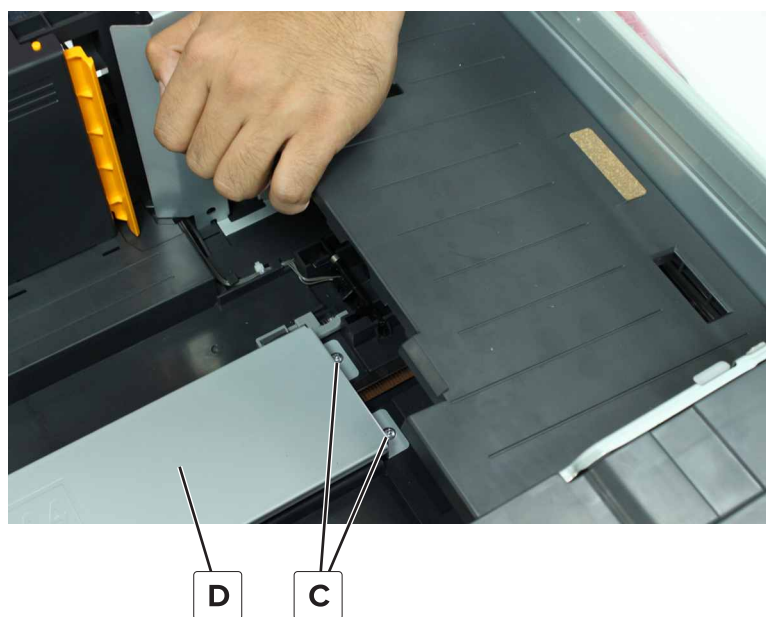


2500-sheet tray paper stack transfer guide removal

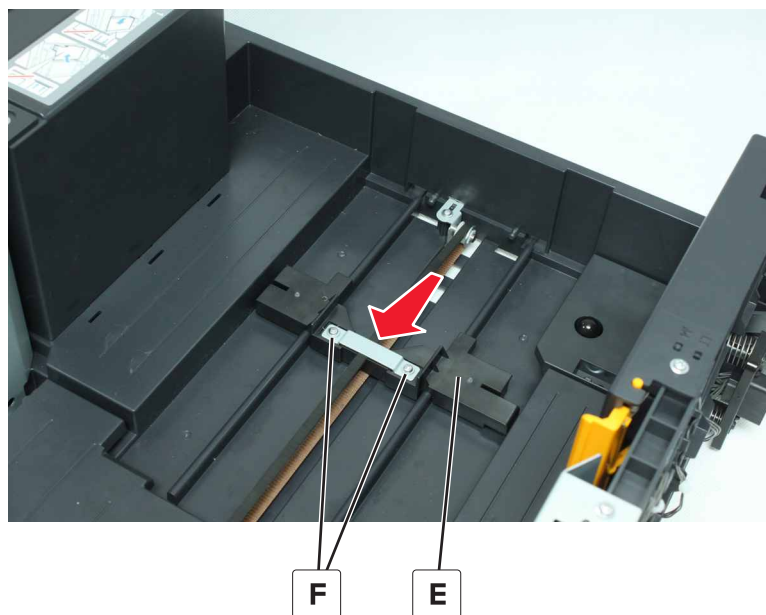
- 1 Remove the tray insert.
- 2 Remove the two screws (A), and then remove the paper stack transfer guide (B).



- 3 Raise the main tray, and then remove the two screws (C).
- 4 Remove the sub-tray plate (D).



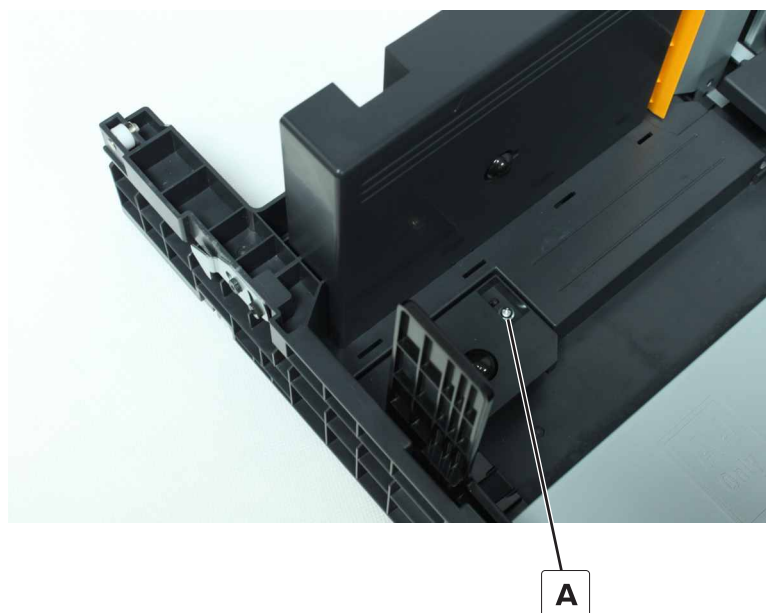
- 5 Move the paper stack transfer guide base (E), and then remove the two screws (F).



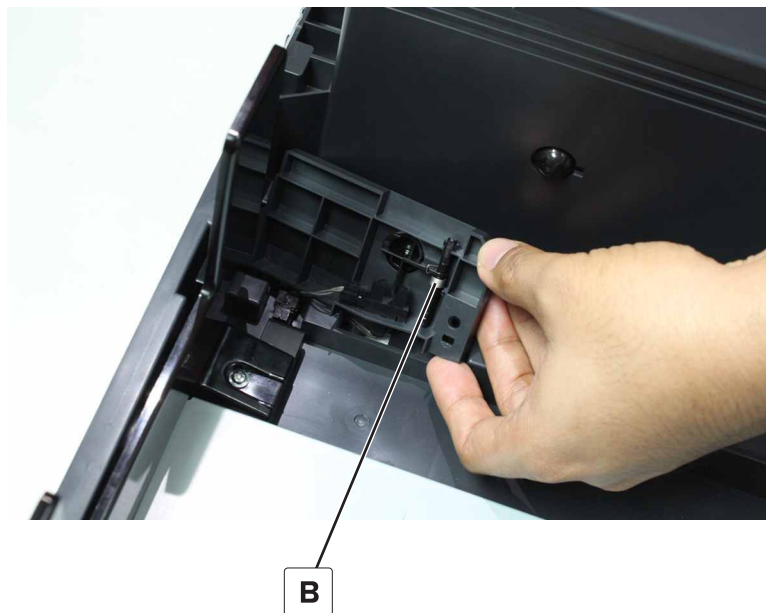
- 6 Remove the bracket, and then remove the guide base.

2500-sheet reserve tray empty sensor actuator removal

- 1 Remove the tray insert.
- 2 Remove the screw (A).

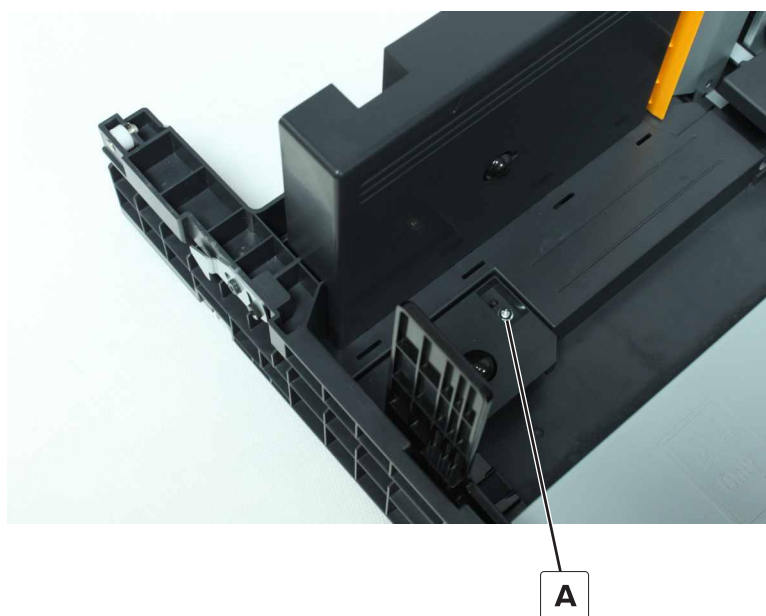


- 3 Swing open the sensor cover, and then remove the actuator (B).

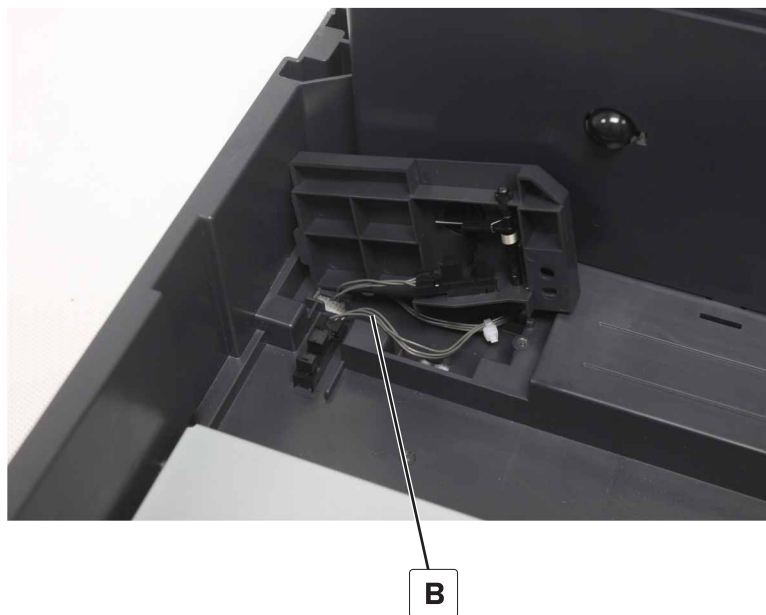


Sensor (2500-sheet tray transfer guide home) removal

- 1 Remove the tray insert.
- 2 Remove the screw (A).



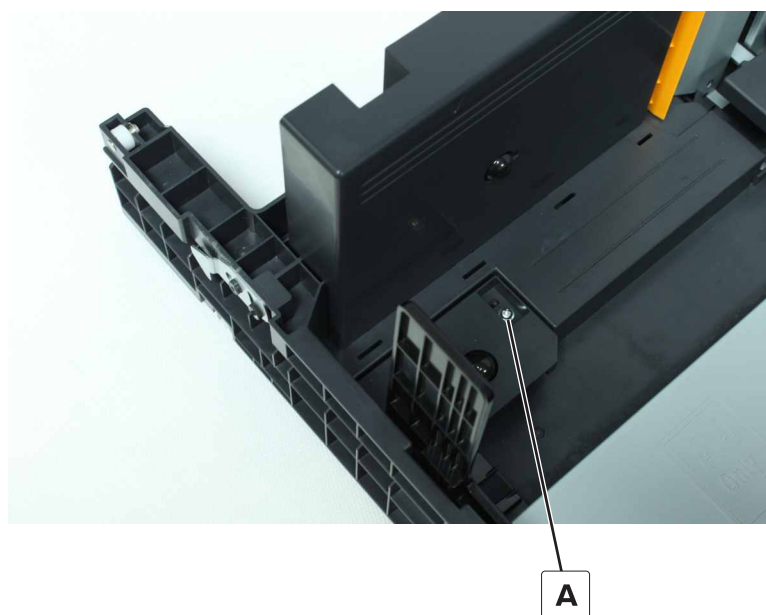
- 3 Swing open the cover, and then disconnect the cable (B).



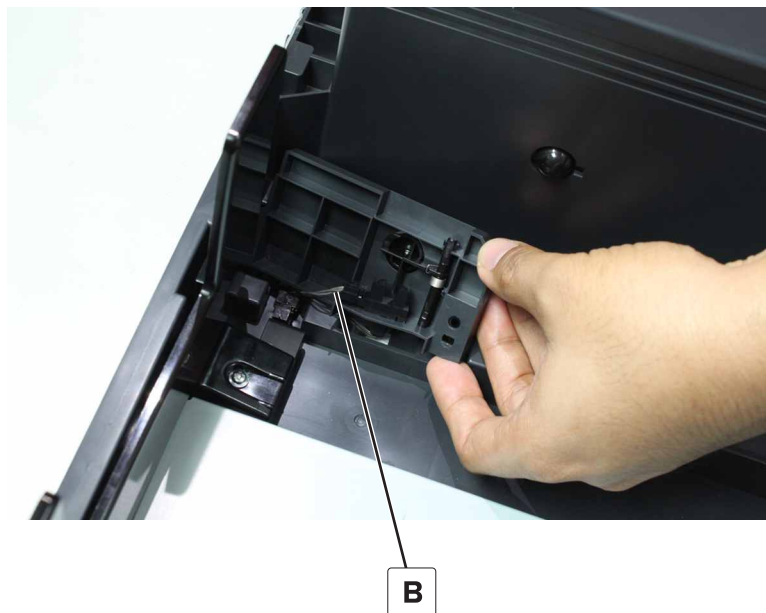
- 4 Remove the sensor.

Sensor (2500-sheet tray reserve tray empty) removal

- 1 Remove the tray insert.
- 2 Remove the screw (A).



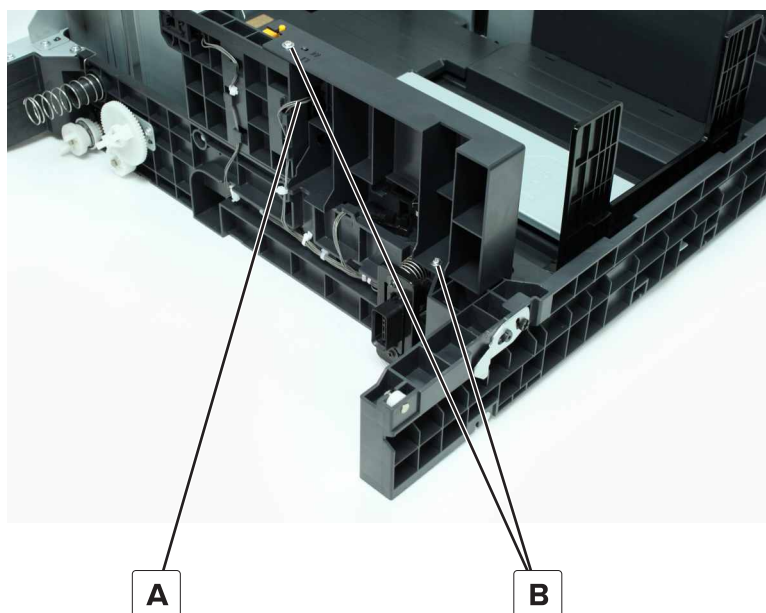
- 3** Swing open the cover, and then disconnect the cable (B).



- 4** Remove the sensor.

Sensor (2500-sheet paper stack transfer) removal

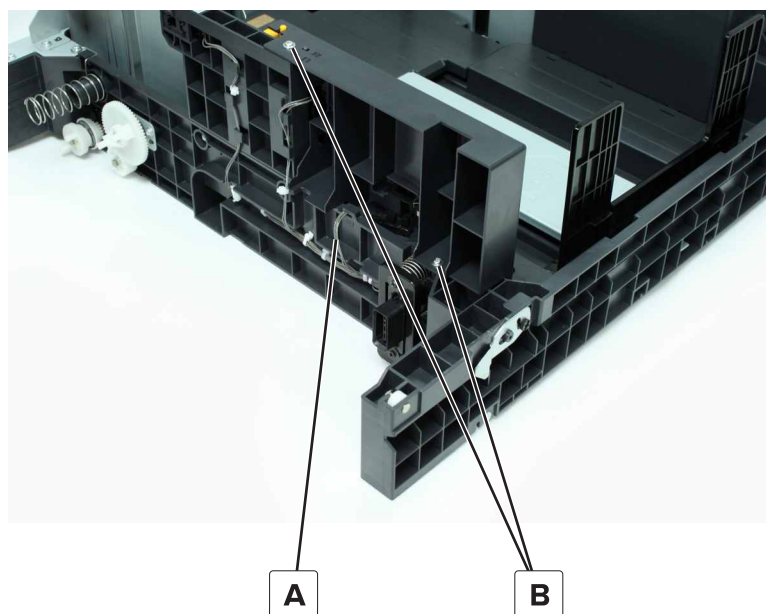
- 1** Remove the tray insert.
2 Disconnect the cable (A), and then remove the two screws (B).



- 3** Remove the sensor from its housing on the division board.

Sensor (2500-sheet tray reserve tray paper limit) removal

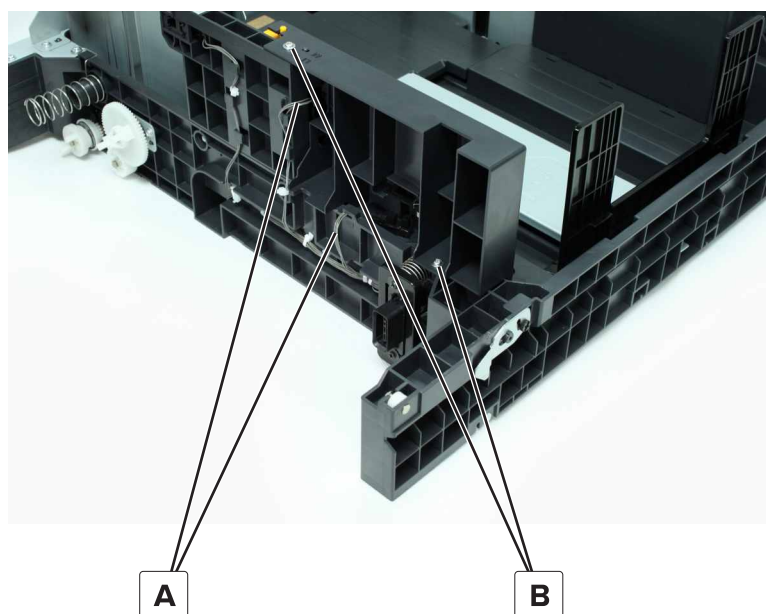
- 1 Remove the tray insert.
- 2 Disconnect the cable (A), and then remove the two screws (B).



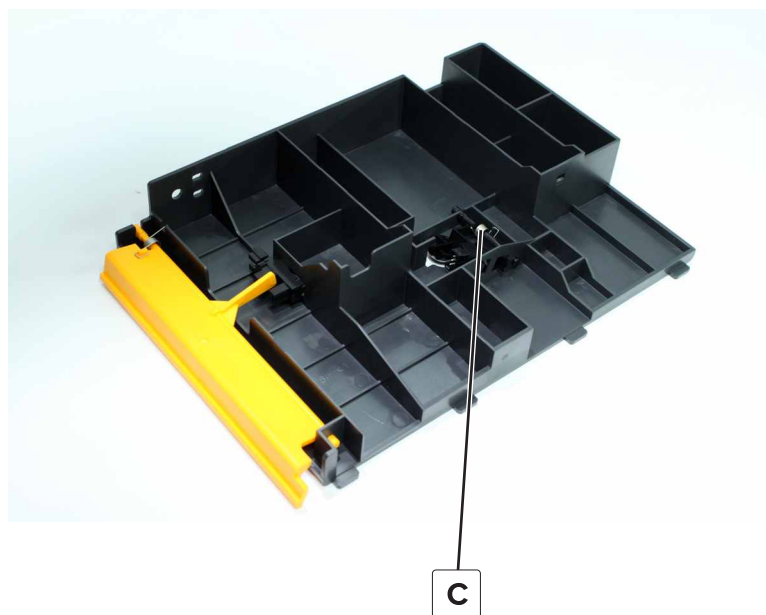
- 3 Remove the sensor.

2500-sheet reserve tray paper limit sensor actuator removal

- 1 Remove the tray insert.
- 2 Disconnect the two cables (A), and then remove the two screws (B).

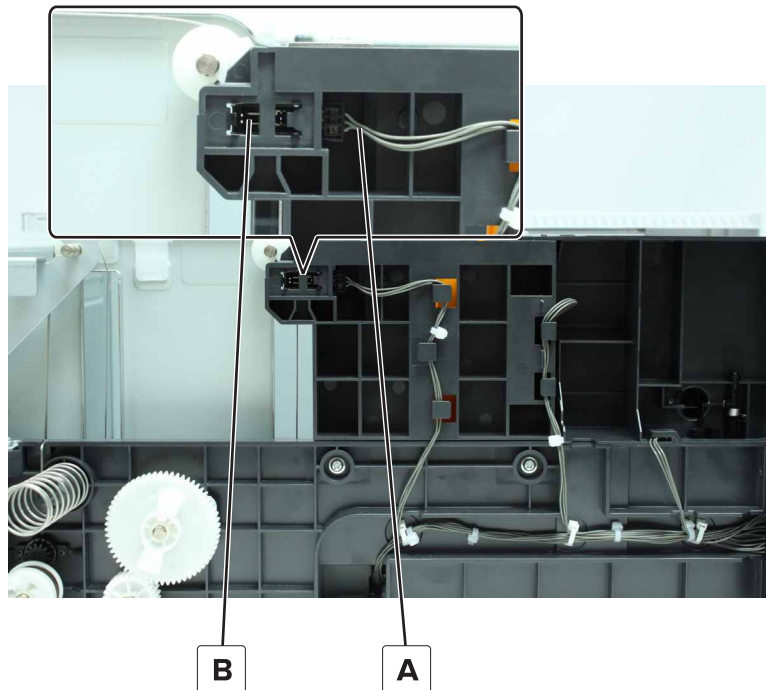


- 3 Remove the division board, and then remove the actuator (C).



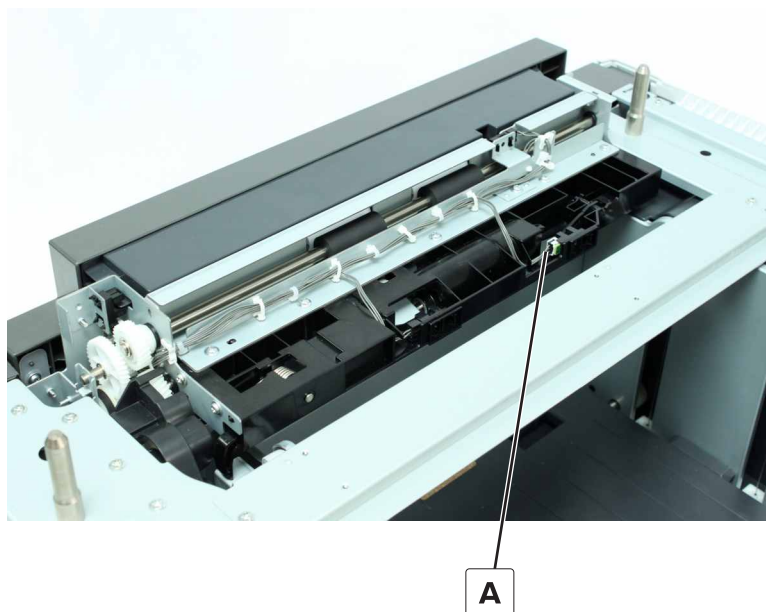
Sensor (2500-sheet tray main tray near empty) removal

- 1 Remove the tray insert.
- 2 Disconnect the cable (A), and then remove the sensor (B).



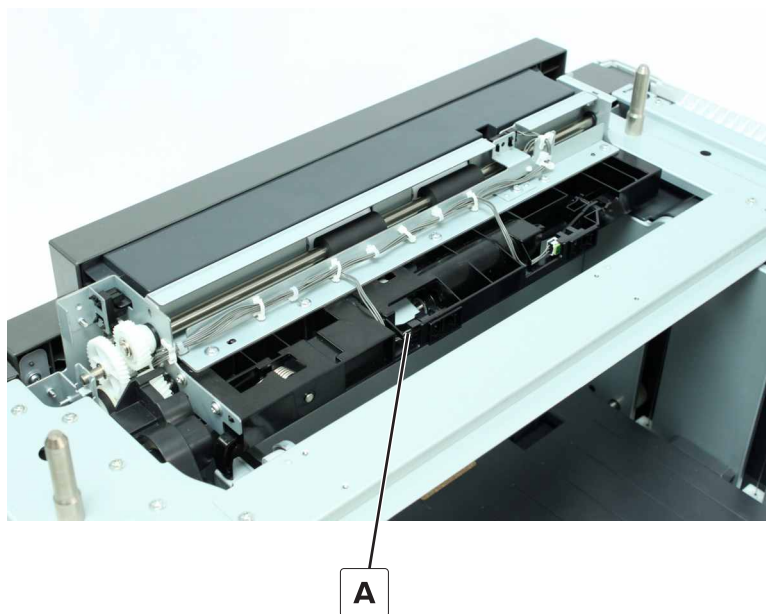
Sensor (2500-sheet tray main tray empty, top) removal

- 1 Disconnect the cable (A).
- 2 Remove the sensor.



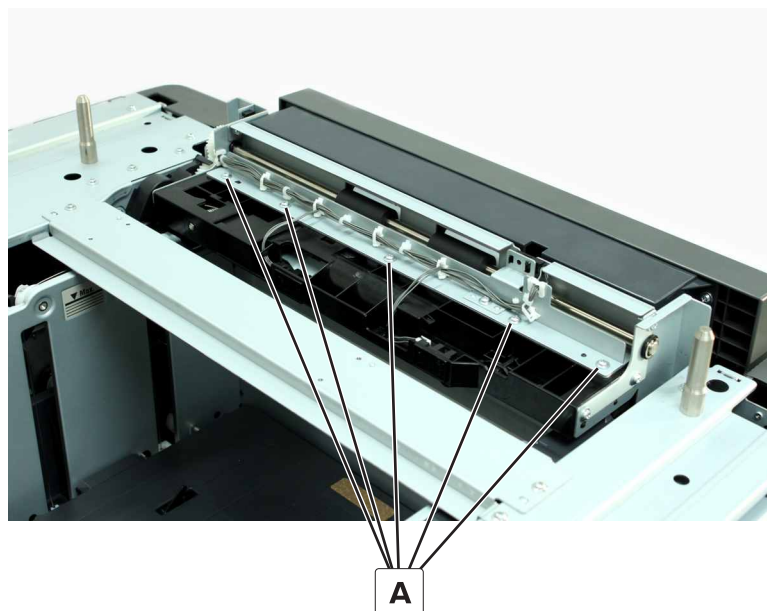
Sensor (2500-sheet tray main tray elevator limit) removal

- 1 Disconnect the cable (A).
- 2 Remove the sensor.

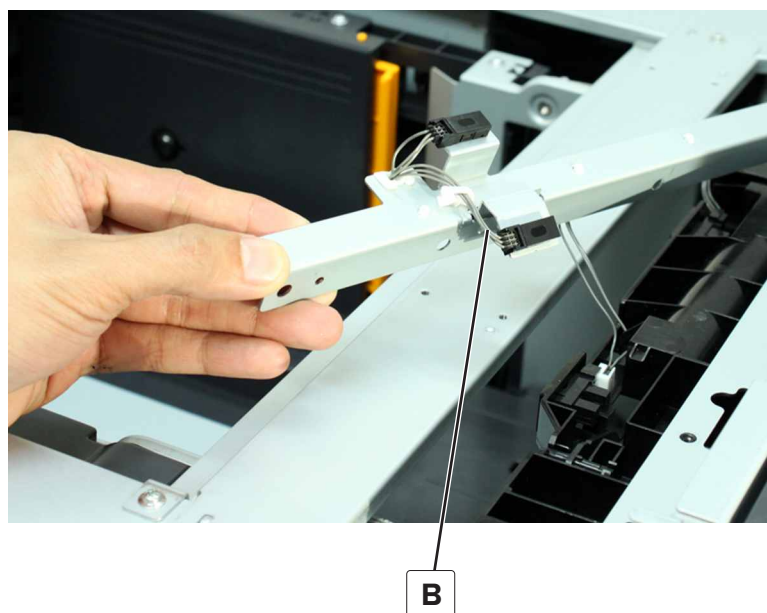


Sensor (2500-sheet tray feed) removal

1 Remove the five screws (A).

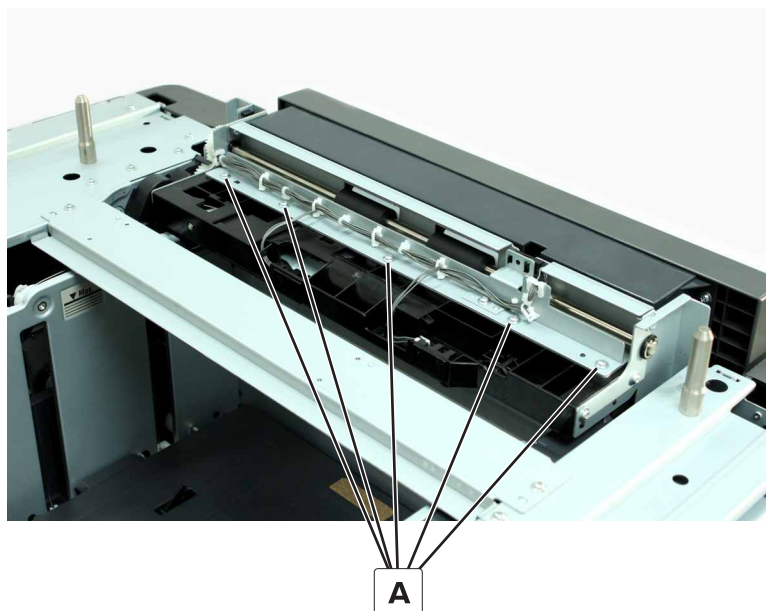


2 Disconnect the cable (B), and then remove the sensor.

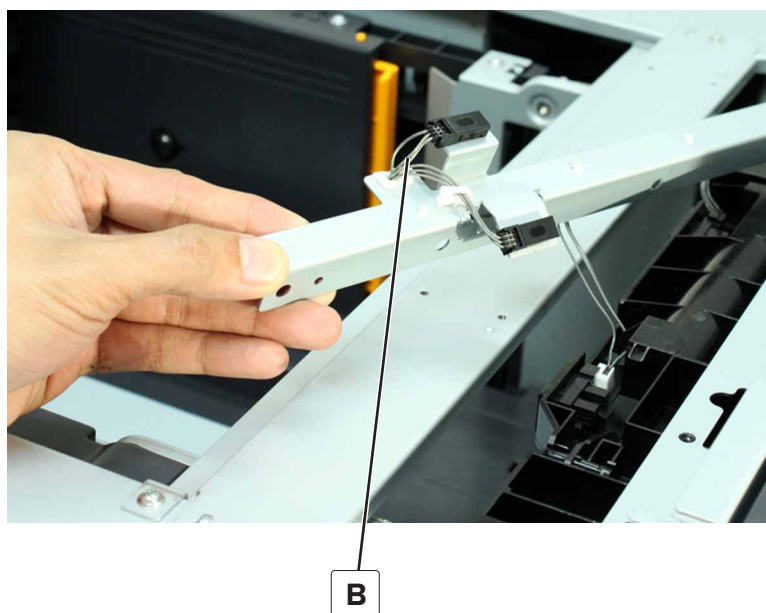


Sensor (2500-sheet tray transport) removal

1 Remove the five screws (A).

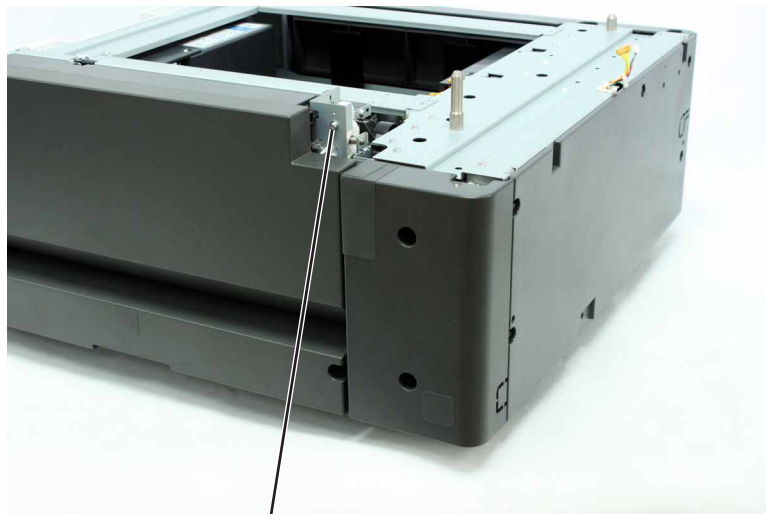


2 Disconnect the cable (B), and then remove the sensor.



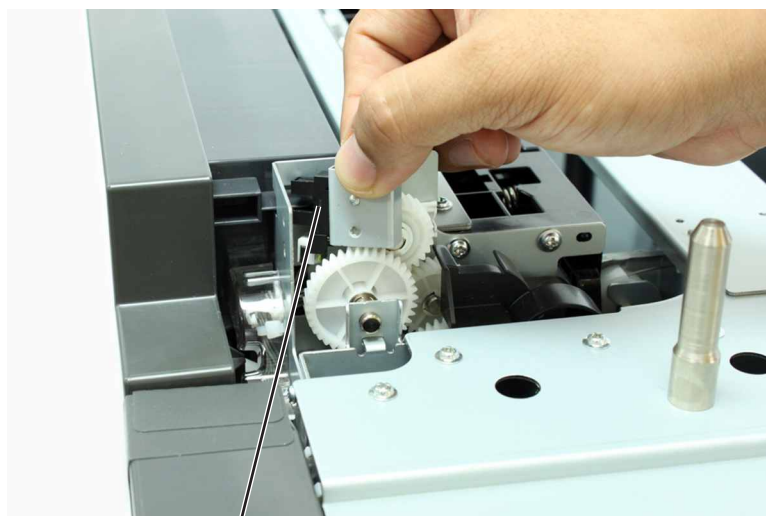
Sensor (2500-sheet tray jam access door) removal

- 1 Remove the screw (A), and then remove the sensor mount.



A

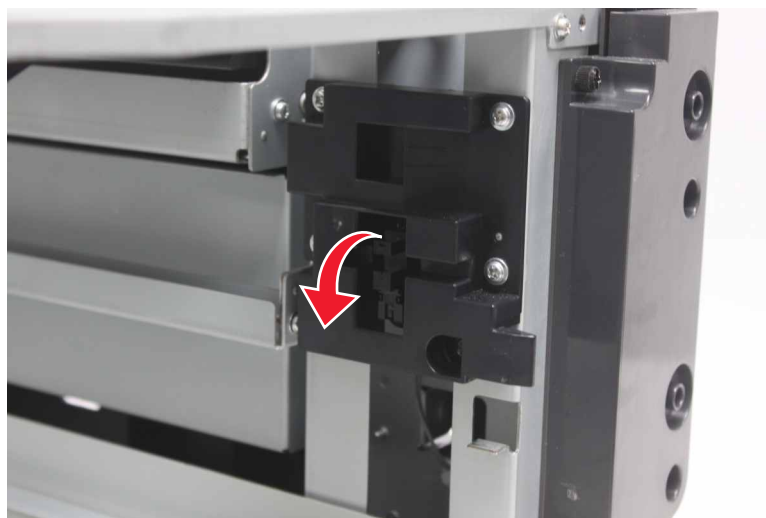
- 2 Disconnect the sensor (B) from the cable.



B

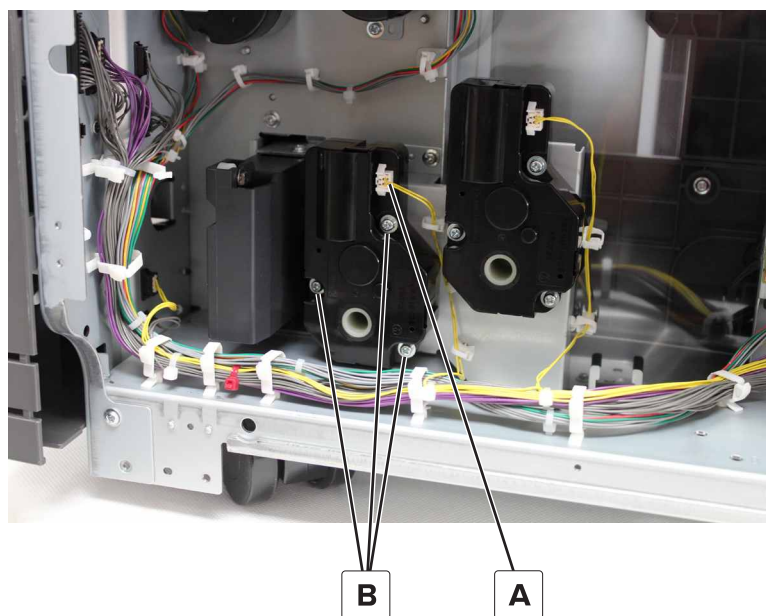
Sensor (2500-sheet tray set) removal

- 1 Remove the tray insert.
- 2 Remove the sensor, and then disconnect the sensor cable.



Motor (2500-sheet tray elevator) removal

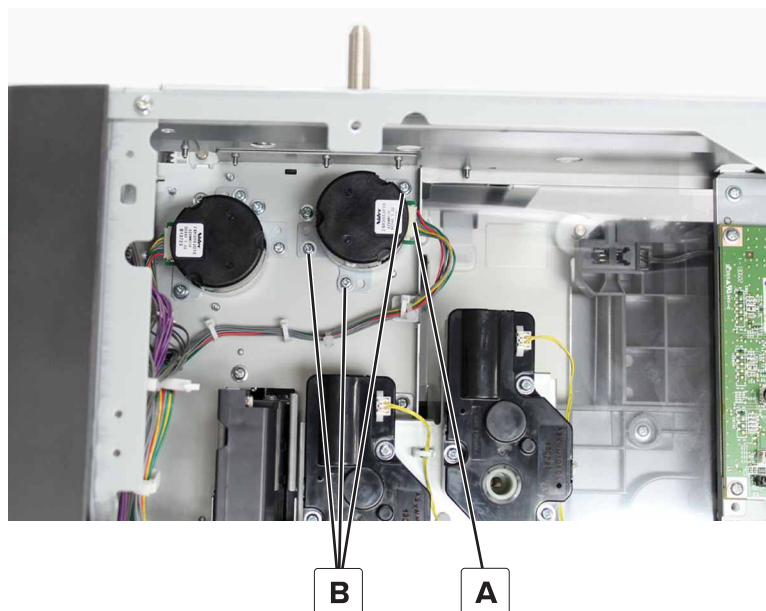
- 1 Remove the rear cover. See [“2500-sheet tray rear cover removal” on page 482.](#)
- 2 Disconnect the cable (A), and then remove the three screws (B).



- 3 Remove the motor.

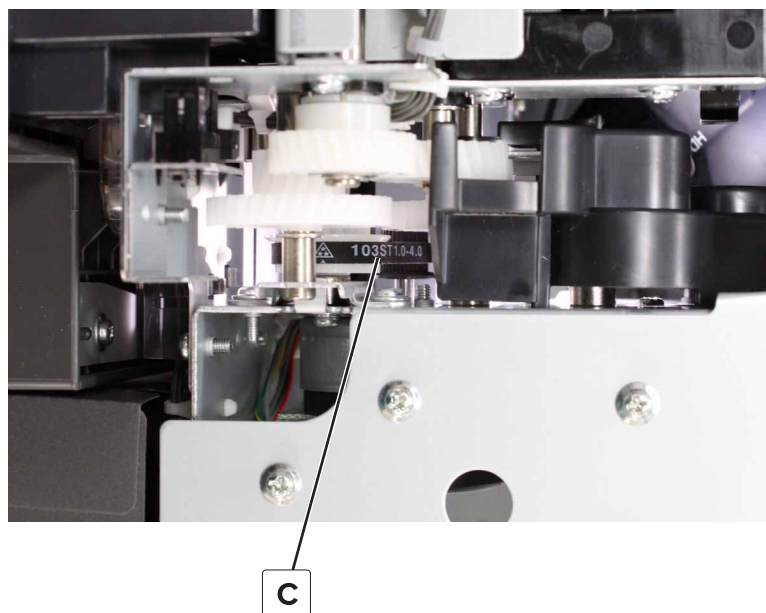
Motor (2500-sheet tray feed) removal

- 1 Remove the rear cover. See [“2500-sheet tray rear cover removal” on page 482.](#)
- 2 Disconnect the cable (A), and then remove the three screws (B).



- 3 Remove the motor.

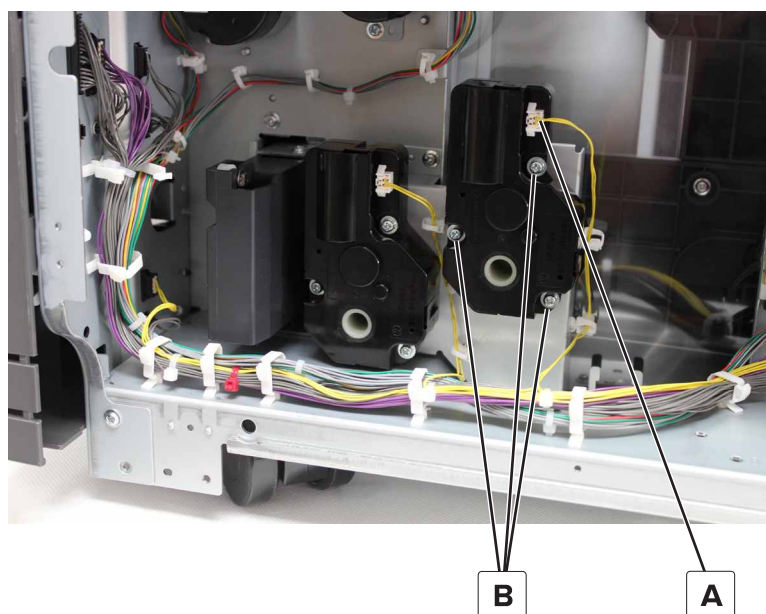
Note: Make sure that the feed motor belt (C) remains attached to the gear.



Installation note: Make sure that the feed motor belt is installed properly before installing the feed motor.

Motor (2500-sheet tray transfer guide) removal

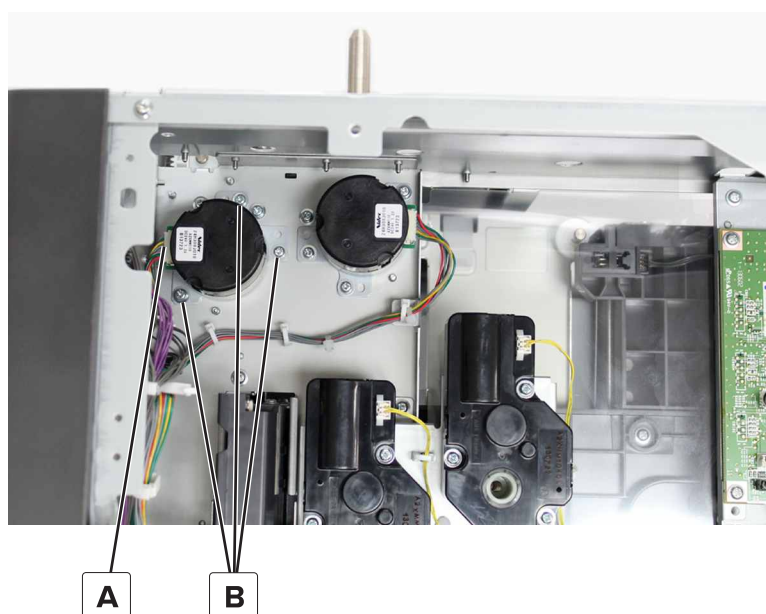
- 1 Remove the rear cover. See [“2500-sheet tray rear cover removal” on page 482.](#)
- 2 Disconnect the cable (A), and then remove the three screws (B).



- 3 Remove the motor.

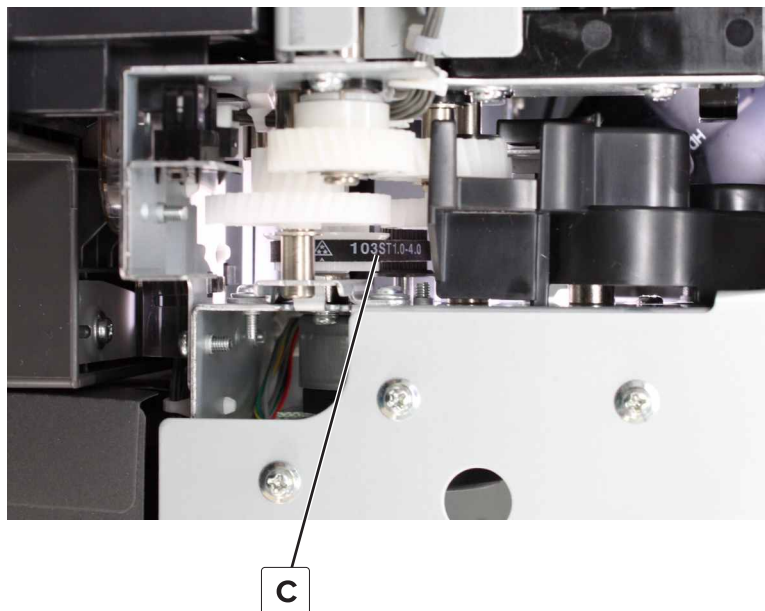
Motor (2500-sheet tray transport) removal

- 1 Remove the 2500-sheet tray rear cover. See [“2500-sheet tray rear cover removal” on page 482.](#)
- 2 Disconnect the cable (A), and then remove the three screws (B).



- 3 Remove the motor.

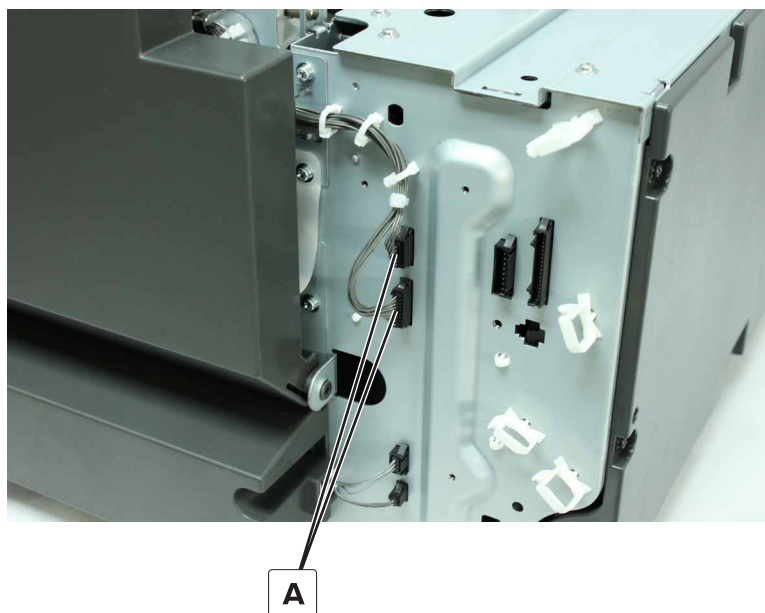
Note: Make sure that the belt (C) remains on the gear.



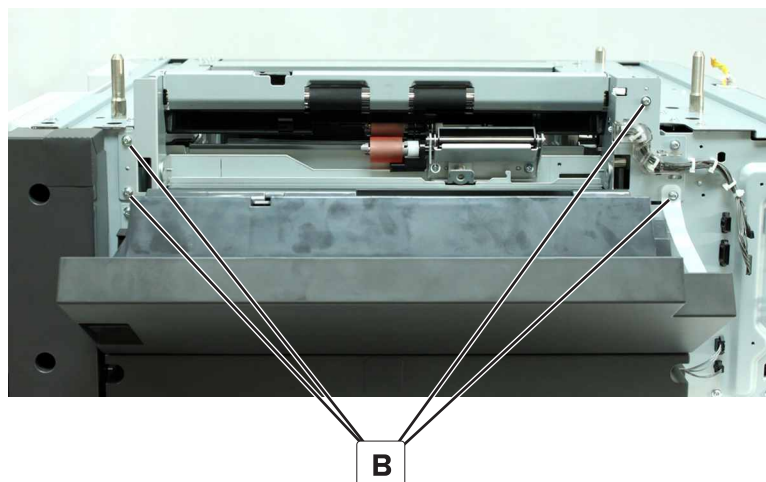
Installation note: Make sure that the belt is installed properly before reinstalling the transport motor.

2500-sheet tray paper feed assembly removal

- 1 Open the rear right cover. See [“2500-sheet tray rear right cover removal” on page 483.](#)
- 2 Disconnect the two cables (A).

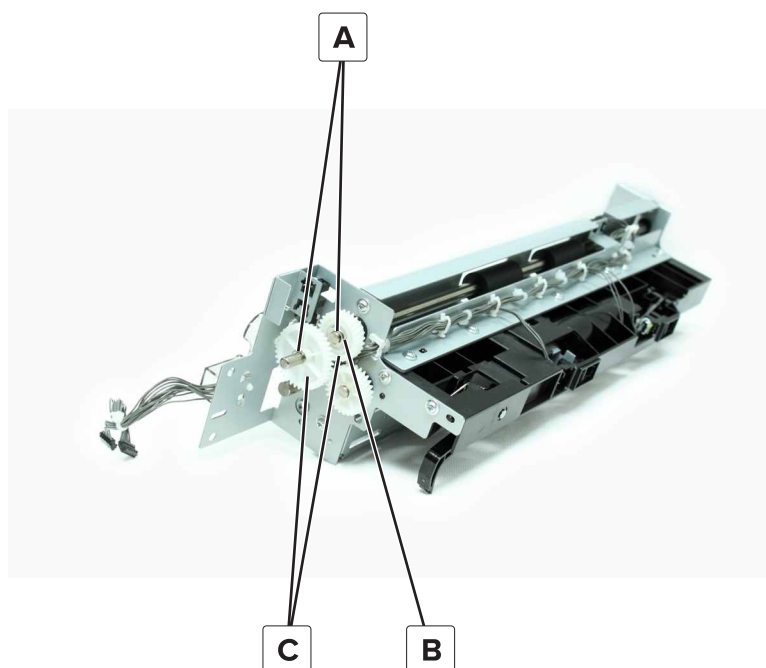


- 3 Remove the four screws (B), and then remove the paper feed assembly.

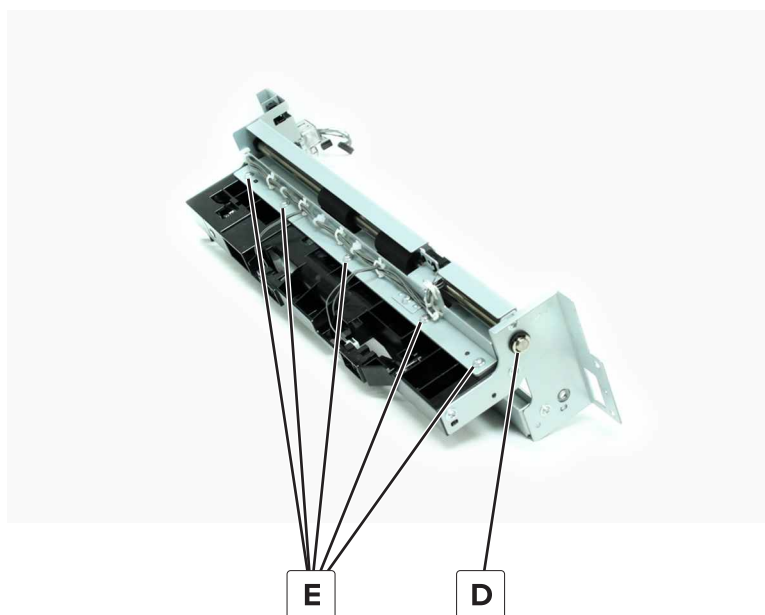


2500-sheet tray transport roller removal

- 1 Remove the rear right cover. See [“2500-sheet tray rear right cover removal” on page 483.](#)
- 2 Remove the paper feed assembly. See [“2500-sheet tray paper feed assembly removal” on page 507.](#)
- 3 Remove the two clips (A), washer (B), and two gears (C) on the right side of the paper feed assembly.



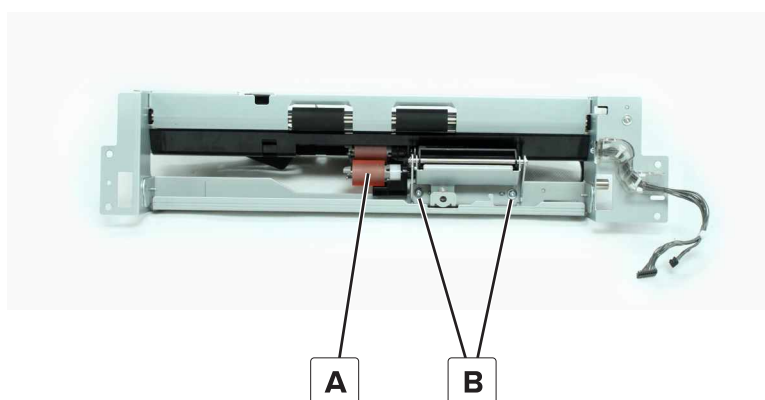
- 4** Remove the clip on the left side (D), and then remove the five screws (E).



- 5** Remove the roller.

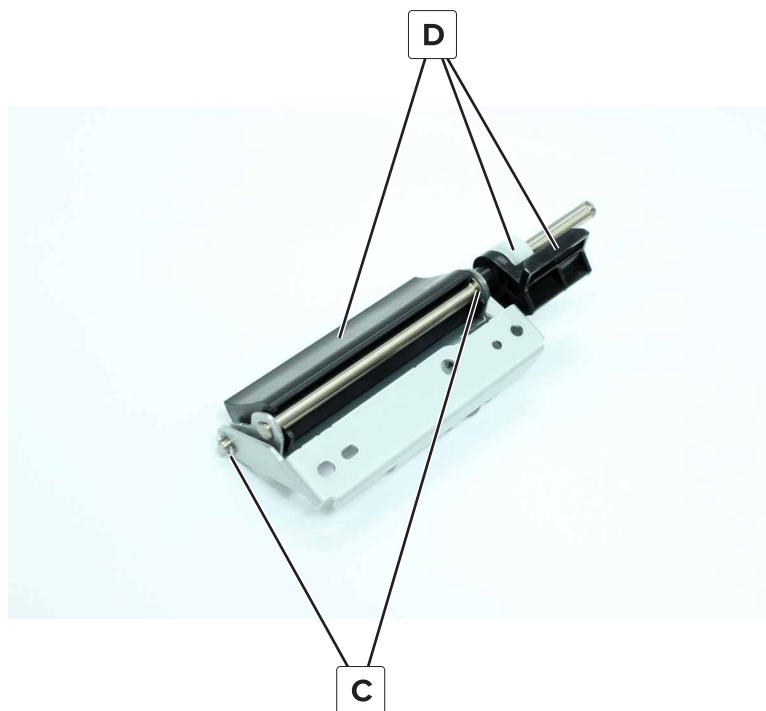
2500-sheet tray vertical media transport guide assembly removal

- 1** Remove the rear right cover. See [“2500-sheet tray rear right cover removal” on page 483.](#)
- 2** Remove the paper feed assembly. See [“2500-sheet tray paper feed assembly removal” on page 507.](#)
- 3** Remove the roller (A), and then remove the two screws (B).



- 4** Remove the two clips (C), and then remove the two shafts from the bracket.

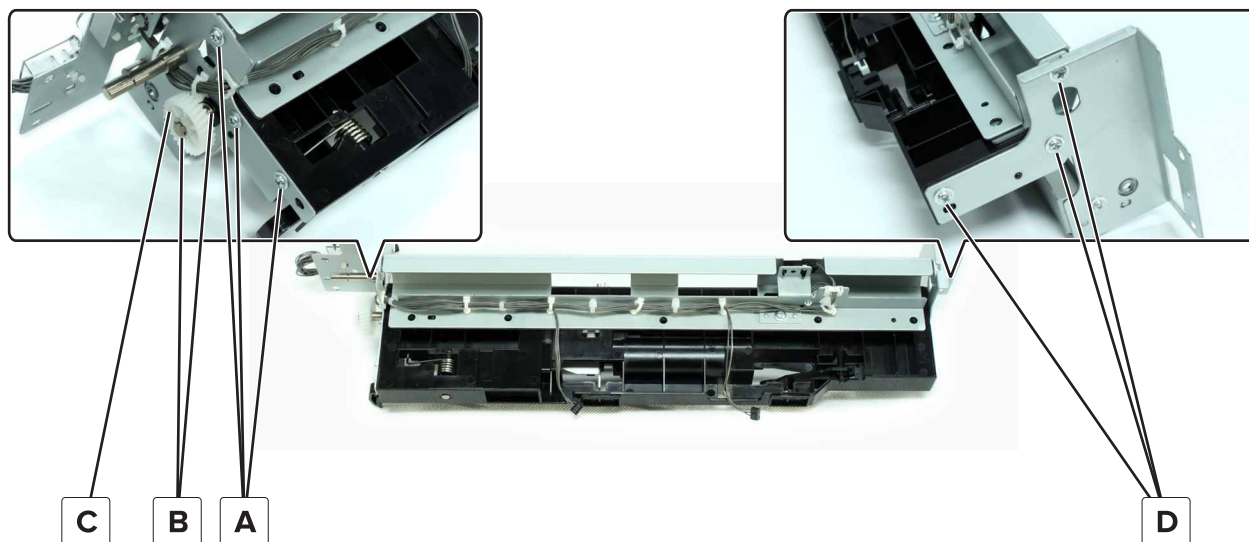
- 5 Remove the vertical media transport guide assembly (D) from the shafts.



2500-sheet tray pick assembly removal

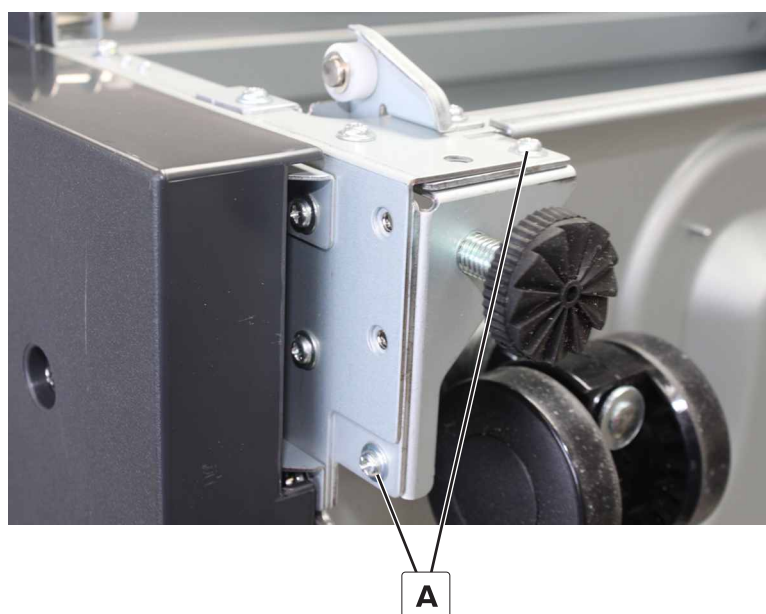
- 1 Remove the 2500-Sheet Tray rear right cover. See [“2500-sheet tray rear right cover removal” on page 483.](#)
- 2 Remove the 2500-Sheet Tray paper feed assembly. See [“2500-sheet tray paper feed assembly removal” on page 507.](#)
- 3 Remove the sensor (2500-sheet tray main tray elevator limit). See [“Sensor \(2500-sheet tray main tray elevator limit\) removal” on page 500.](#)
- 4 Remove the sensor (2500-sheet tray main tray empty, top). See [“Sensor \(2500-sheet tray main tray empty, top\) removal” on page 500.](#)
- 5 Remove the 2500-sheet tray transport roller. See [“2500-sheet tray transport roller removal” on page 508.](#)
- 6 Remove the three screws (A), two clips (B), and gear (C).

7 Remove the three screws (D), and then remove the pick assembly.



2500-sheet tray stopper removal

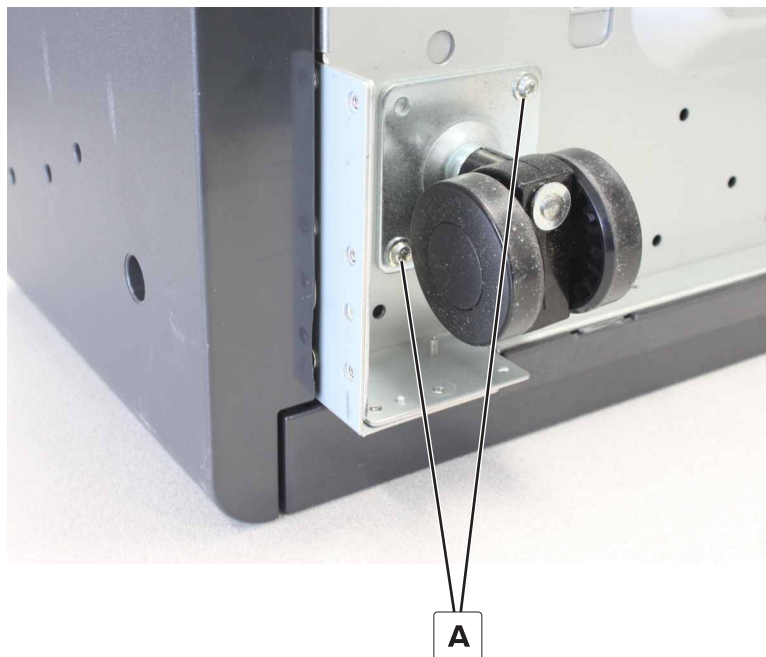
- 1** Position the tray on its side.
- 2** Select a stopper.
- 3** Remove the two screws (A), and then remove the stopper.



2500-sheet tray caster wheel removal

- 1** Position the tray on its side.
- 2** Select a caster.

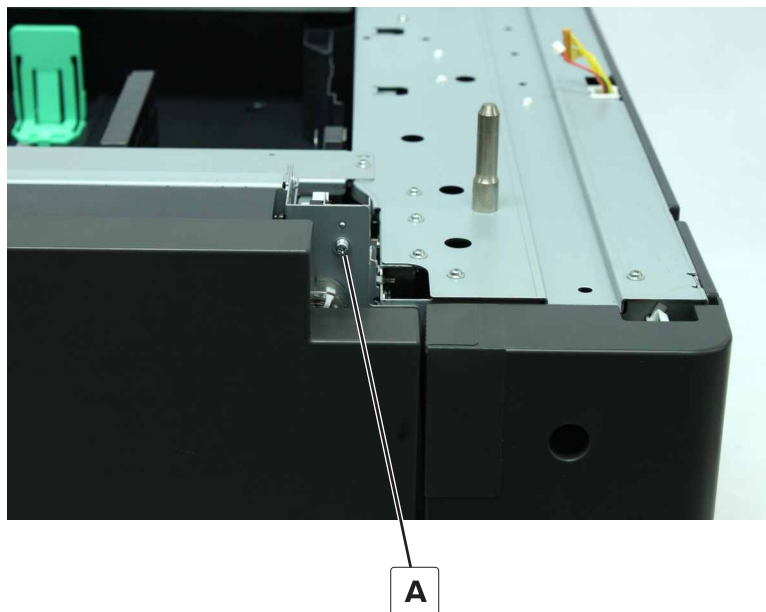
- 3 Remove the two screws (A), and then remove the caster.



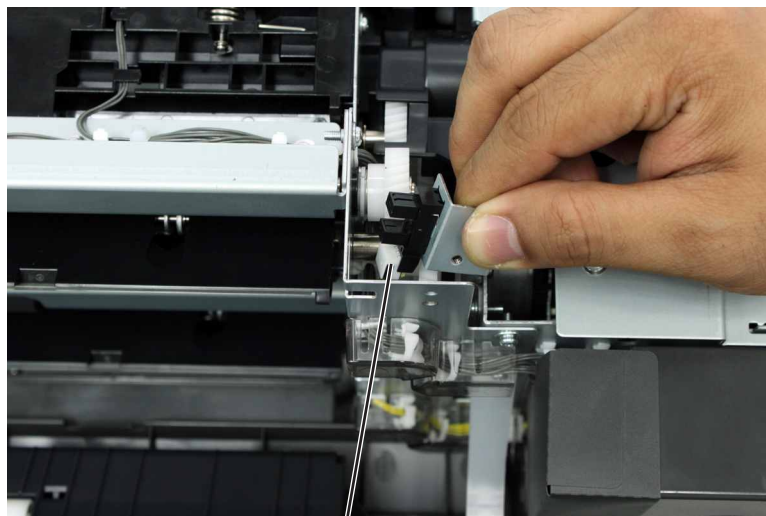
2 x 500-sheet tray removals

Sensor (2 x 500-sheet tray jam access door) removal

- 1 Remove the screw (A), and then remove the sensor bracket.



- 2 Disconnect the cable (B), and then remove the sensor.

**B**

- 3 Remove the sensor from the bracket.

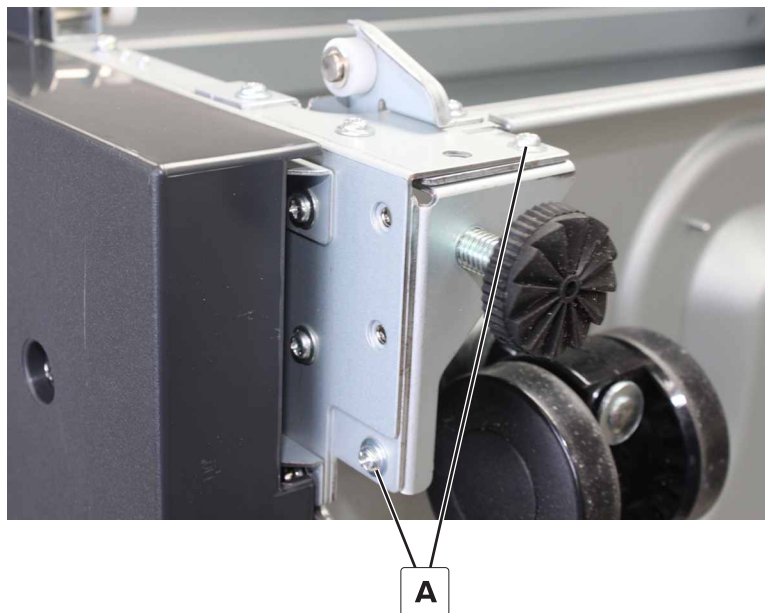
2 x 500-sheet tray caster wheel removal

- 1 Position the tray on its side.
- 2 Select a caster.
- 3 Remove the two screws (A), and then remove the caster.

**A**

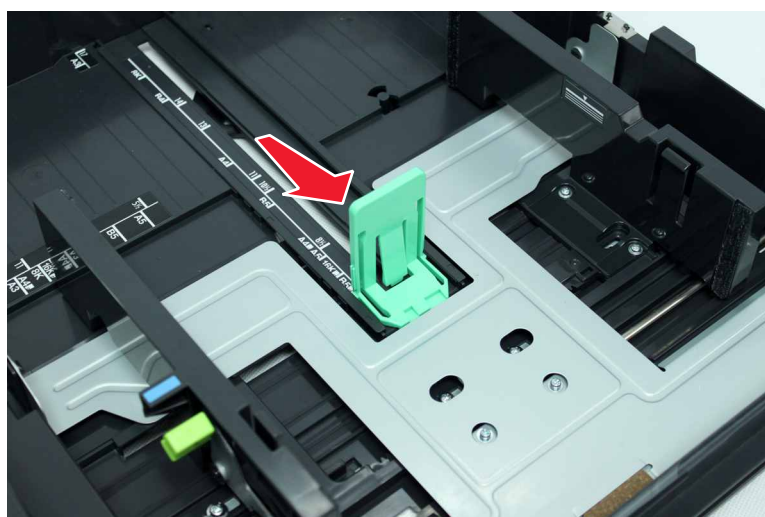
Printer rubber stopper removal

- 1 Position the tray on its side.
- 2 Select a stopper.
- 3 Remove the two screws (A), and then remove the stopper.

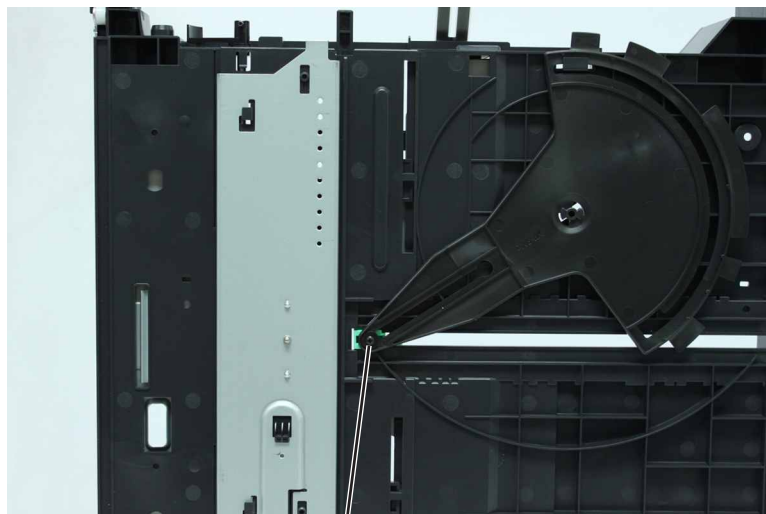


Tray insert paper length guide removal

- 1 Remove the tray insert. See [“Tray insert removal” on page 341](#).
- 2 Move the guide to the shortest paper length setting.



- 3 Remove the screw (A).



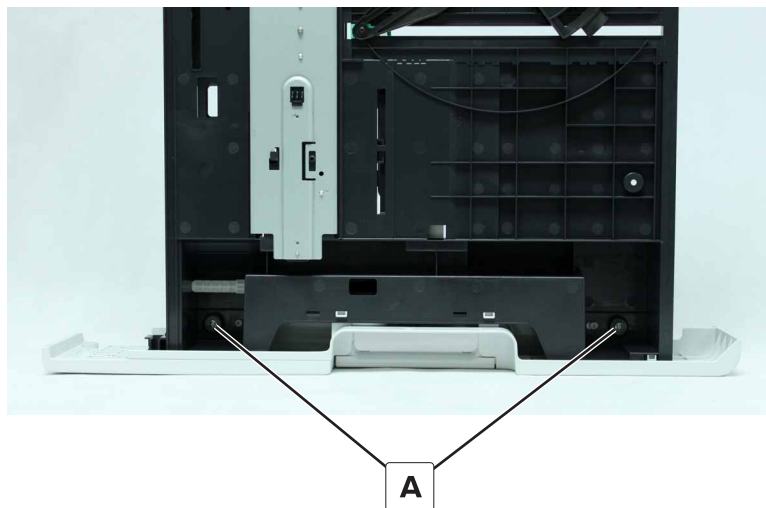
A

- 4 Raise the lift plate, move the length guide slightly under the lift plate, and then remove the guide.



Tray lock removal

- 1 Remove the tray insert. See [“Tray insert removal” on page 341](#).
- 2 Remove the two screws (A).



- 3 Remove the tray cover.

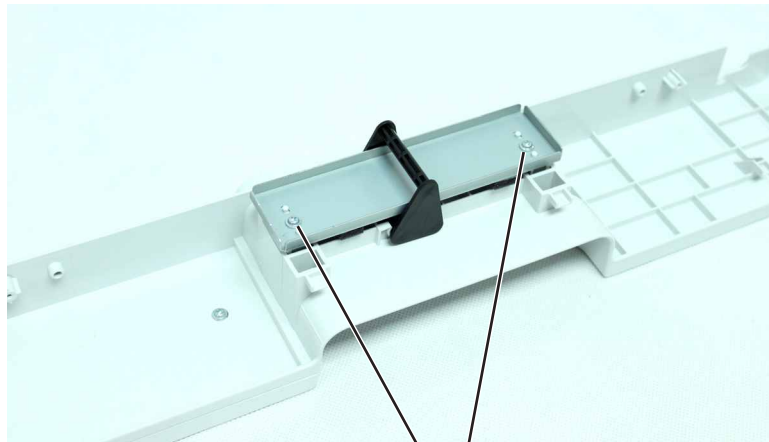


- 4 Disconnect the spring (B) from the tray, and then remove the shaft.



B

- 5 Remove the two screws (C), and then remove the plate.



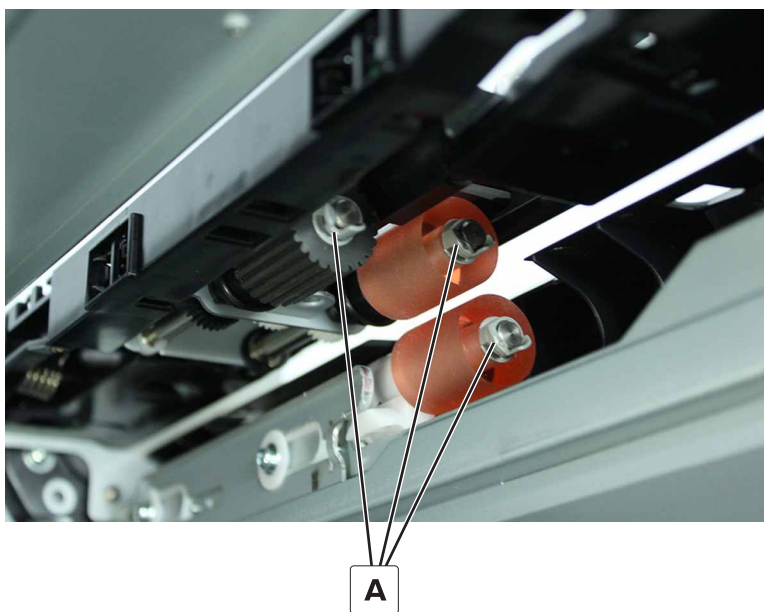
C

- 6 Align the notches on the link and cover, and then remove the link.



2 x 500-sheet tray rollers removal

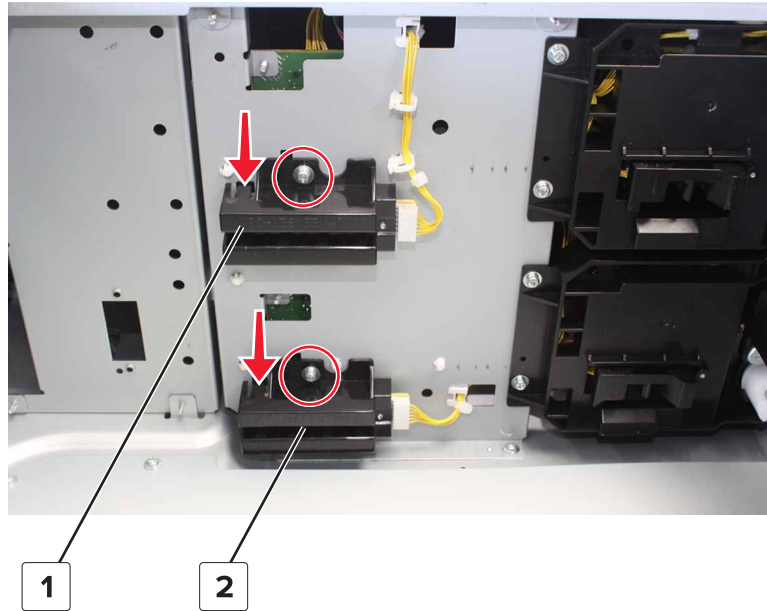
- 1 Remove the tray inserts. See [“Tray insert removal” on page 341](#).
- 2 Open the jam access door.
- 3 Release the three clips (A), and then remove the rollers.



Sensor (2 x 500-sheet tray paper length) removal

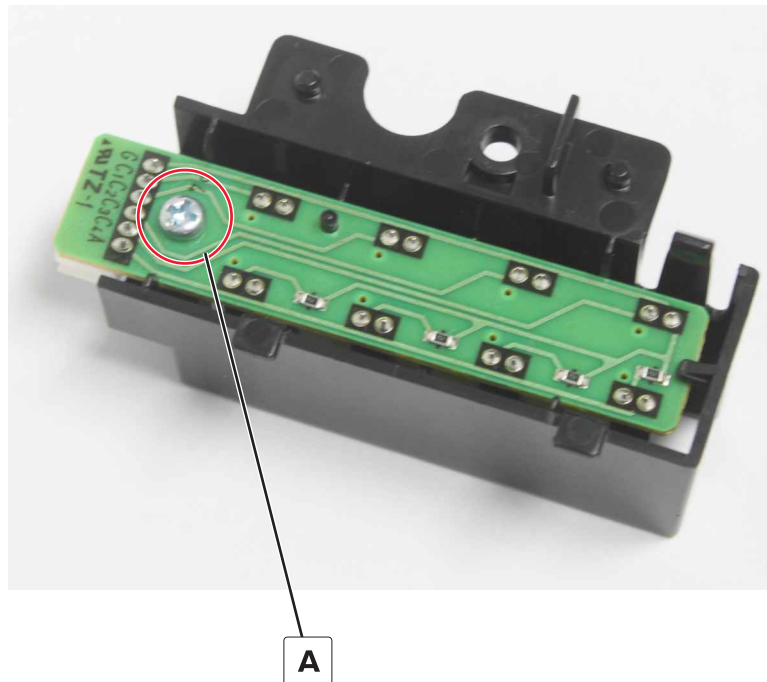
- 1 Remove the tray inserts. See [“Tray insert removal” on page 341](#).
- 2 Disconnect the cable from the sensor.

3 Remove the screw, press the latch, and then remove the sensor holder.



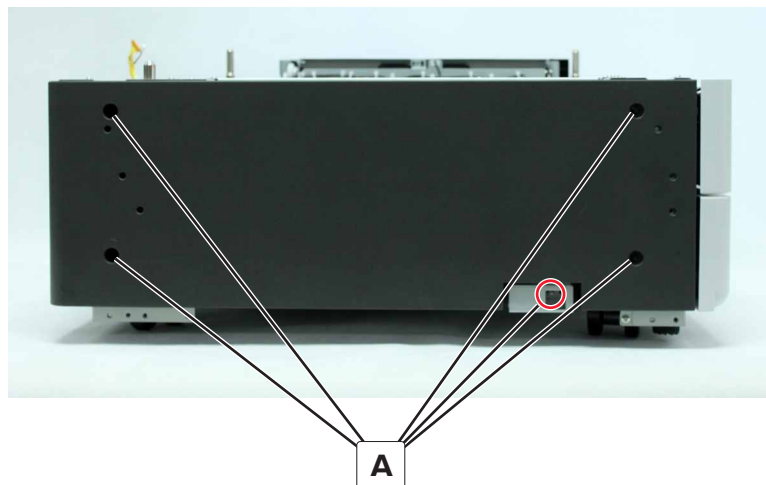
#	Part
1	Sensor (2 x 500 sheet tray 3 paper length)
2	Sensor (2 x 500 sheet tray 4 paper length)

4 Remove the screw (A), and then remove the sensor.



2 x 500-sheet tray left cover removal

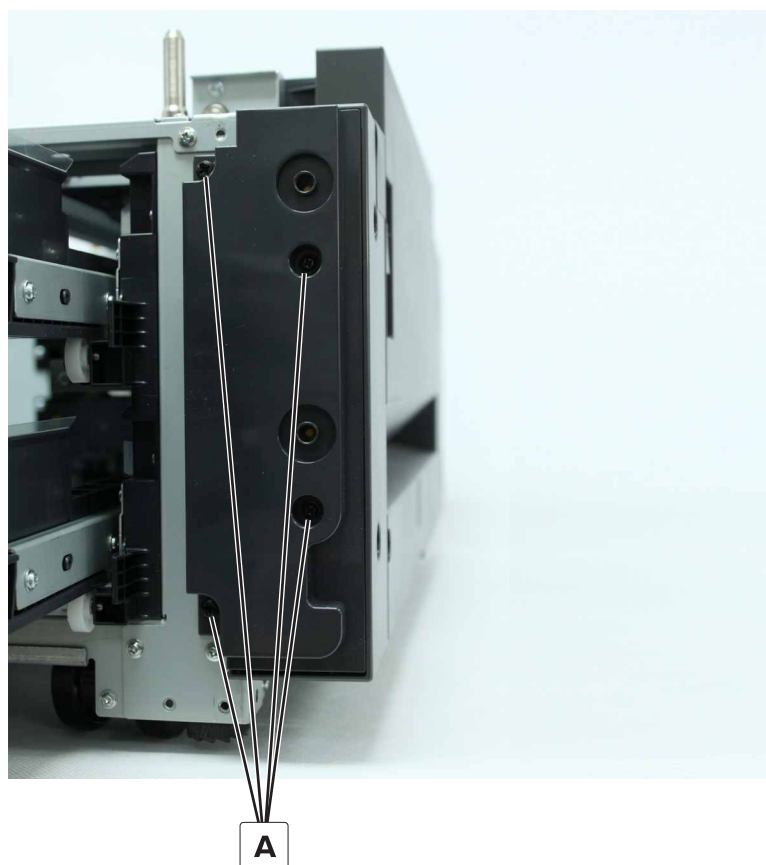
- 1 Remove the five screws (A).



- 2 Remove the cover.

2 x 500-sheet tray empty LED cover removal

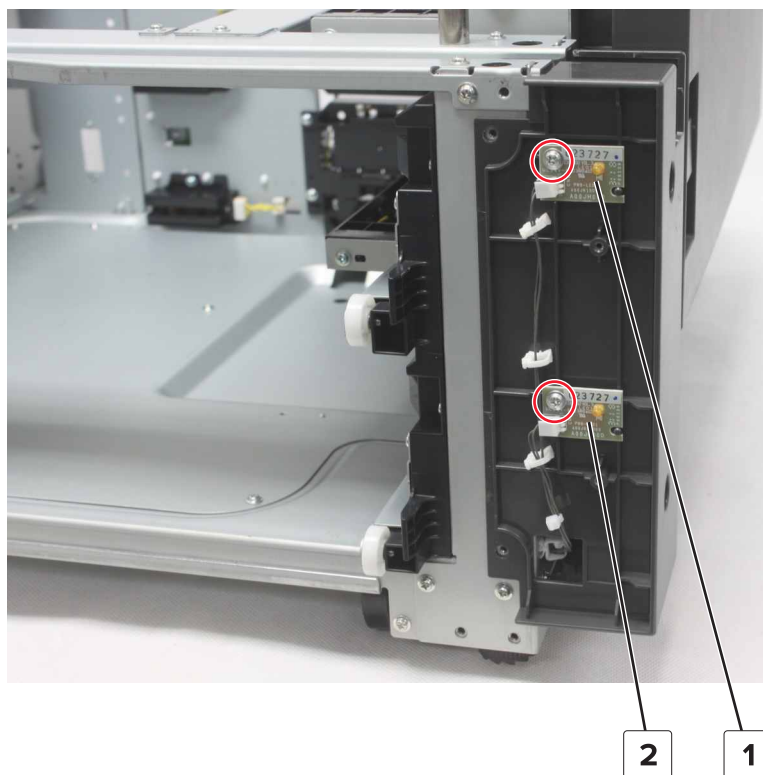
- 1 Remove the four screws (A).



- 2 Remove the cover.

2 x 500-sheet tray empty LED removal

- 1 Remove the tray empty LED cover. See [“2 x 500-sheet tray empty LED cover removal” on page 520.](#)
- 2 Disconnect the cable.
- 3 Remove the screw, and then remove the LED.

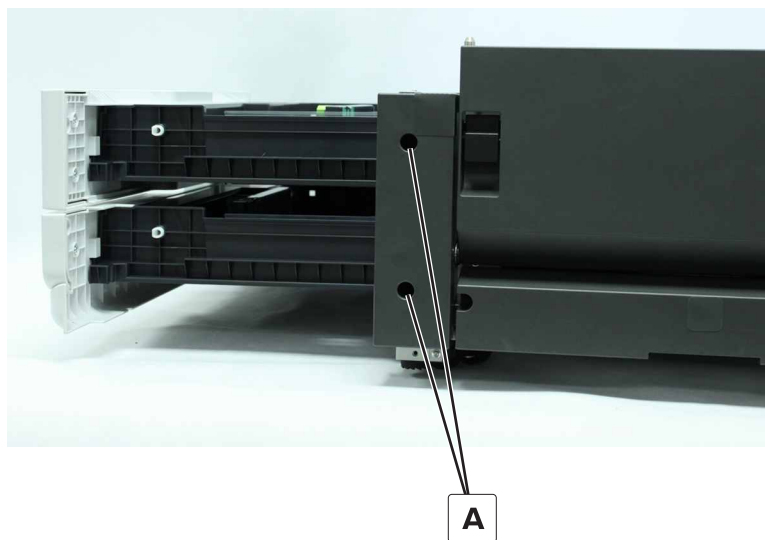


#	Part
1	Tray 3 tray empty LED
2	Tray 4 tray empty LED

2 x 500-sheet tray empty LED mount removal

- 1 Remove the tray empty LED cover. See [“2 x 500-sheet tray empty LED cover removal” on page 520.](#)
- 2 Remove the tray 3 and tray 4 empty LEDs. See [“2 x 500-sheet tray empty LED removal” on page 521.](#)

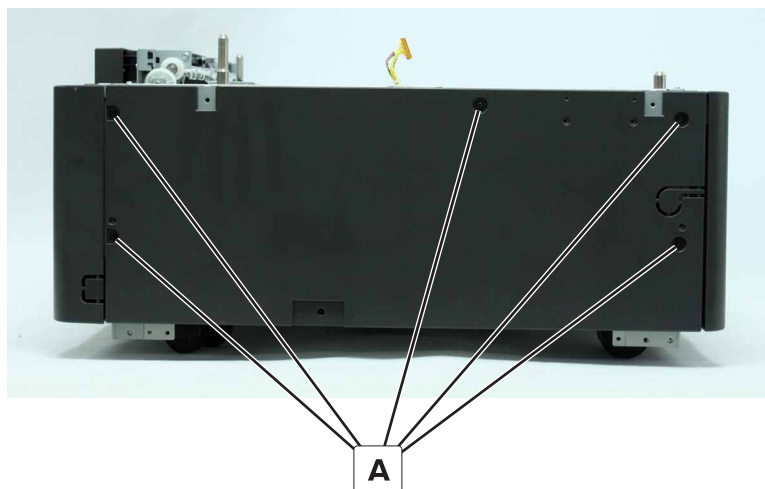
- 3 Remove the two screws (A), and then remove the cover.



- 4 Remove all the cable holders from the cover.

2 x 500-sheet tray rear cover removal

- 1 Remove the five screws (A).



- 2 Remove the cover.

Motor (2 x 500-sheet tray lift) removal

- 1 Remove the rear cover. See [“2 x 500-sheet tray rear cover removal” on page 522](#).
- 2 Disconnect the cable from the motor.

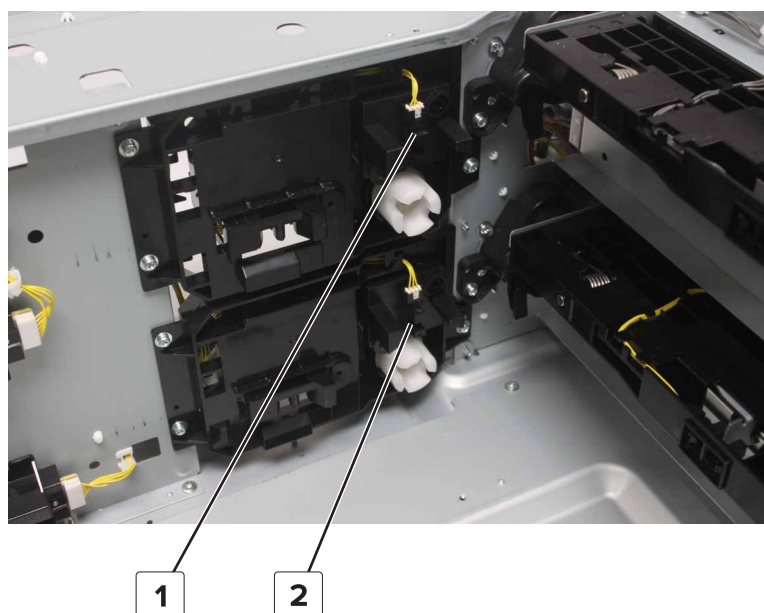
3 Remove the three screws, and then remove the motor.



#	Part
1	Motor (2 x 500-sheet tray 3 lift)
2	Motor (2 x 500-sheet tray 4 lift)

Sensor (2 x 500-sheet tray near empty) removal

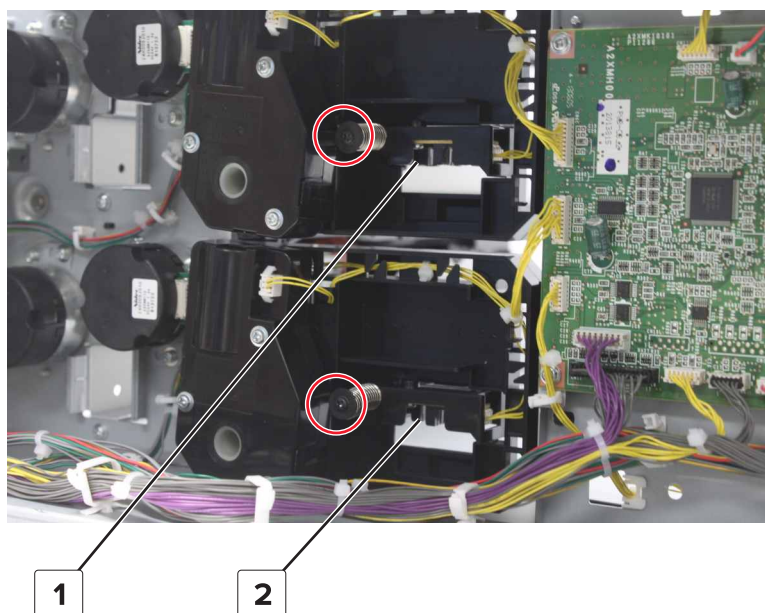
- 1 Remove the tray inserts. See [“Tray insert removal” on page 341](#).
- 2 Disconnect the cable from the sensor, and then remove the sensor.



#	Part
1	Sensor (2 x 500-sheet tray 3 near empty)
2	Sensor (2 x 500-sheet tray 4 near empty)

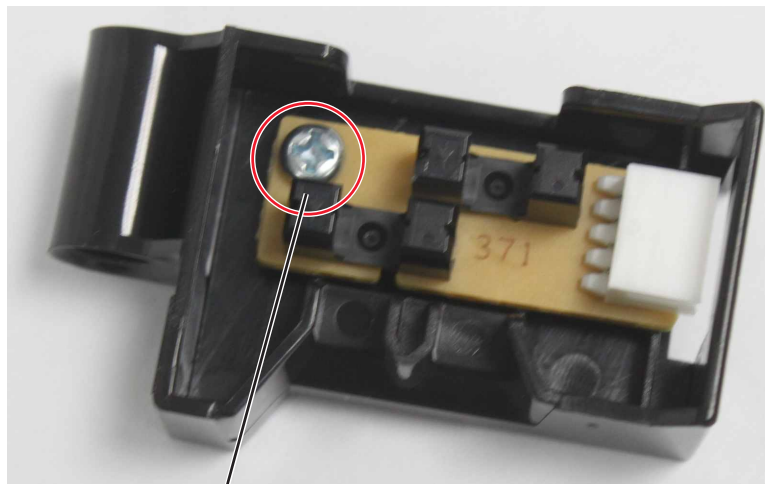
Sensor (2 x 500-sheet tray paper width) removal

- 1 Remove the rear cover. See [“2 x 500-sheet tray rear cover removal” on page 522.](#)
- 2 Remove the screw.
- 3 Disconnect the cable from the sensor, and then remove the sensor holder.



#	Part
1	Sensor (2 x 500-sheet tray 3 paper width)
2	Sensor (2 x 500-sheet tray 4 paper width)

- 4 Remove the screw (A), and then remove the sensor.



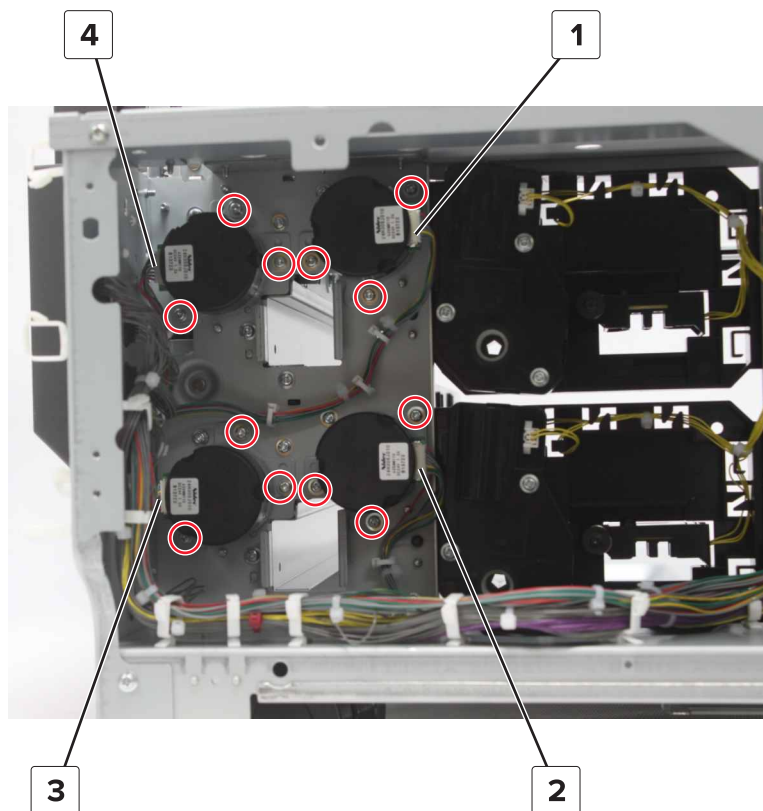
A

Installation note: Toggle the sensor to make sure that it bounces back.

2 x 500-sheet tray feed and transport motors removal

- 1 Remove the rear cover. See [“2 x 500-sheet tray rear cover removal” on page 522.](#)
- 2 Disconnect the cable from the motor.

3 Remove the three screws, and then remove the motor.

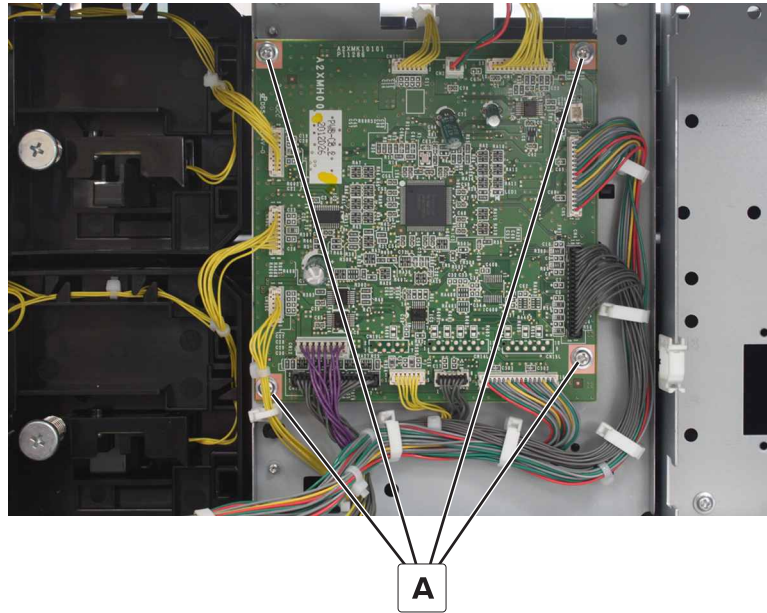


#	Part
1	Motor (2 x 500-sheet tray 3 feed)
2	Motor (2 x 500-sheet tray 4 feed)
3	Motor (2 x 500-sheet tray 4 transport)
4	Motor (2 x 500-sheet tray 3 transport)

2 x 500-sheet tray controller board removal

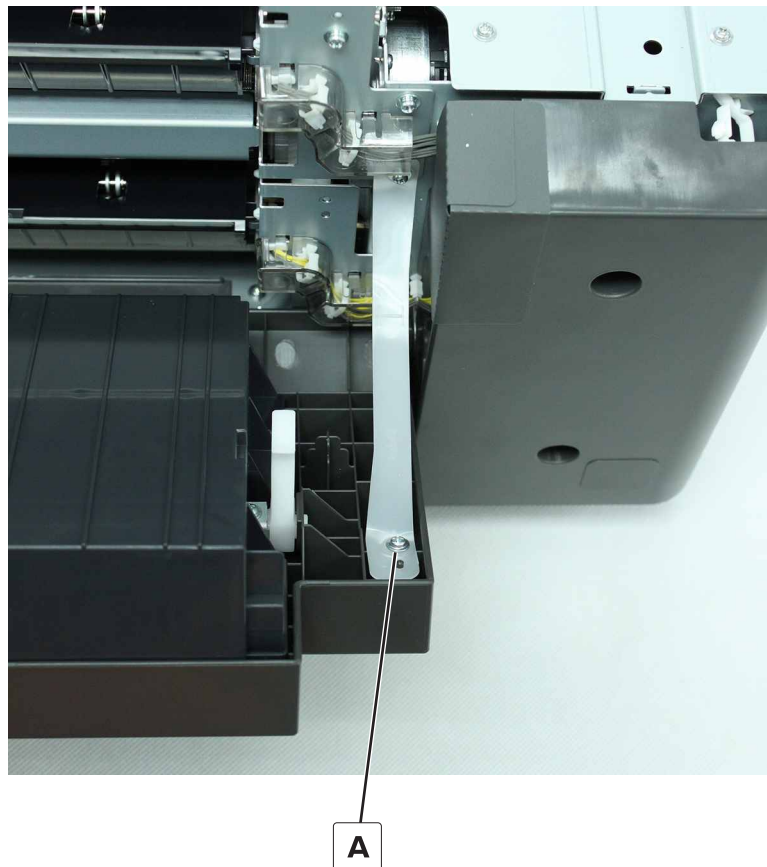
- 1** Remove the rear cover. See [“2 x 500-sheet tray rear cover removal” on page 522.](#)
- 2** Disconnect all the cables from the board.

- 3 Remove the four screws (A), and then remove the board.



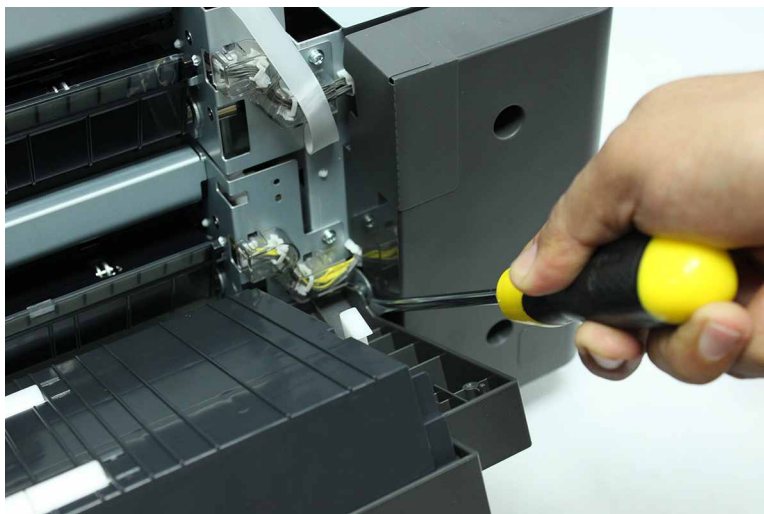
2 x 500-sheet tray jam access door removal

- 1 Open the door, and then remove the screw (A).



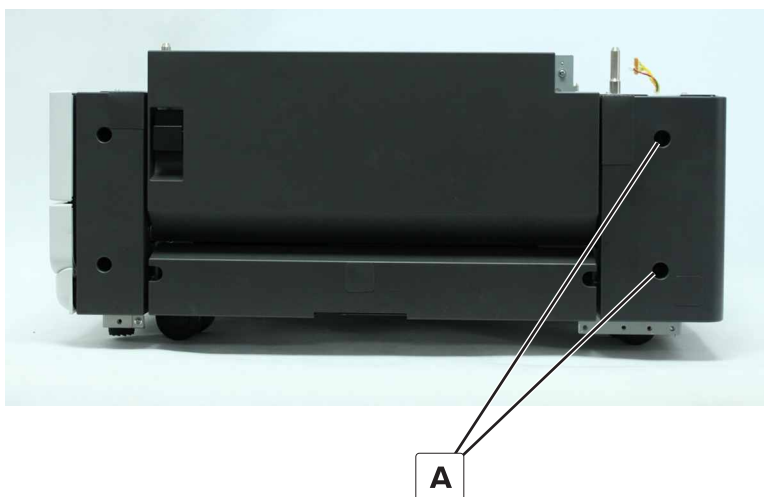
Parts removal

2 Pry to release the hinge, and then remove the cover.



2 x 500-sheet tray rear right cover removal

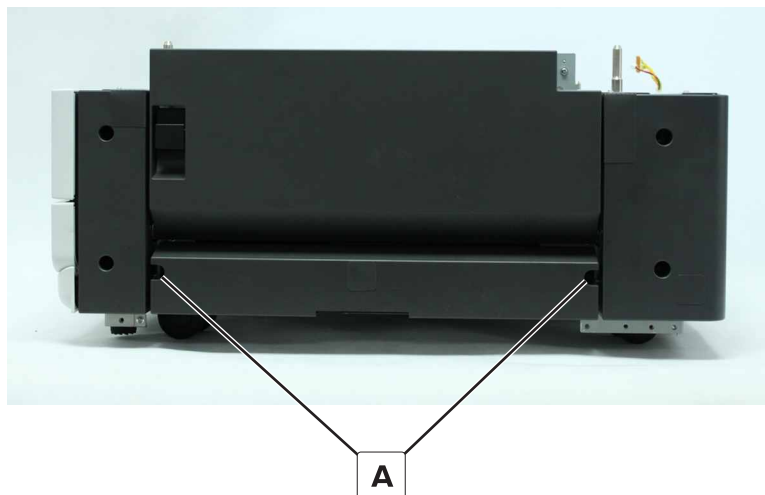
1 Remove the two screws (A).



2 Remove the cover.

2 x 500-sheet tray bottom right cover removal

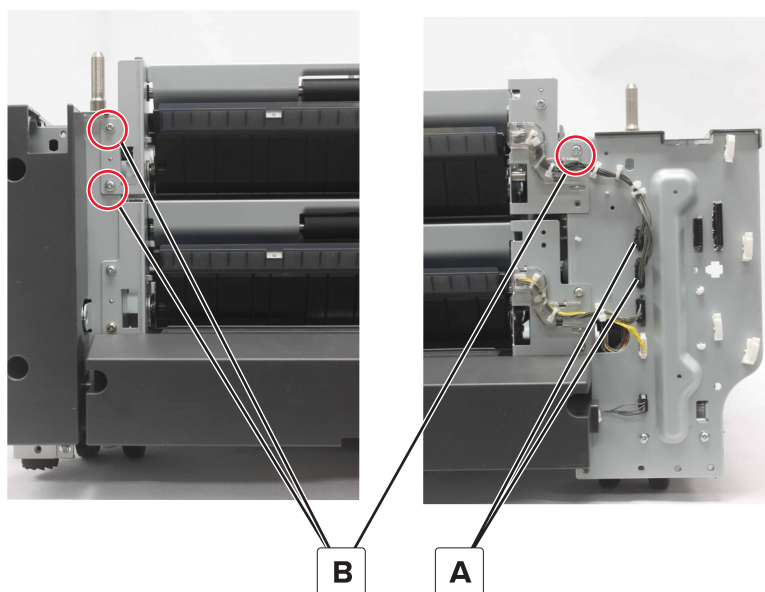
- 1 Remove the two screws (A).



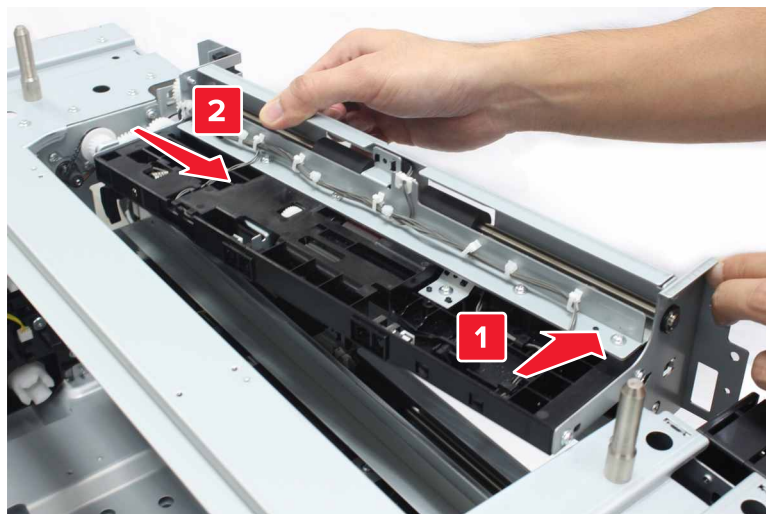
- 2 Remove the cover.

2 x 500-sheet tray 3 transport assembly removal

- 1 Remove the rear right cover. See [“2 x 500-sheet tray rear right cover removal” on page 528.](#)
- 2 Remove the jam access door. See [“2 x 500-sheet tray jam access door removal” on page 527.](#)
- 3 Disconnect the two cables (A), and then remove the three screws (B).

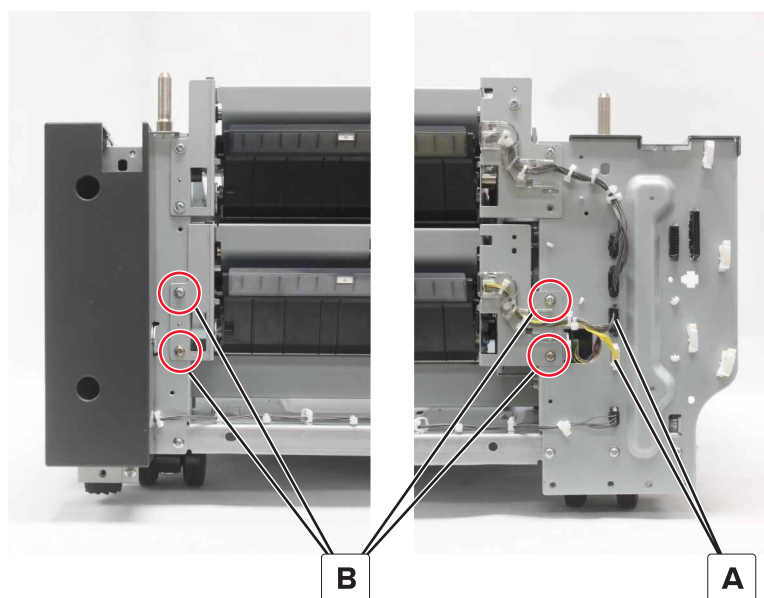


- 4 Remove the assembly.



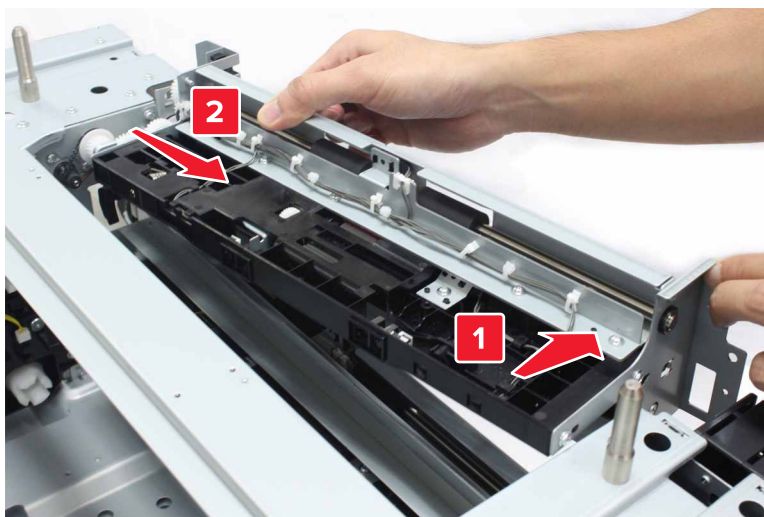
2 x 500-sheet tray 4 transport assembly removal

- 1 Remove the rear right cover. See [“2 x 500-sheet tray rear right cover removal” on page 528.](#)
- 2 Remove the jam access door. See [“2 x 500-sheet tray jam access door removal” on page 527.](#)
- 3 Remove the bottom right cover. See [“2 x 500-sheet tray bottom right cover removal” on page 529.](#)
- 4 Disconnect the two cables (A), and then remove the four screws (B).



- 5 Remove the assembly.

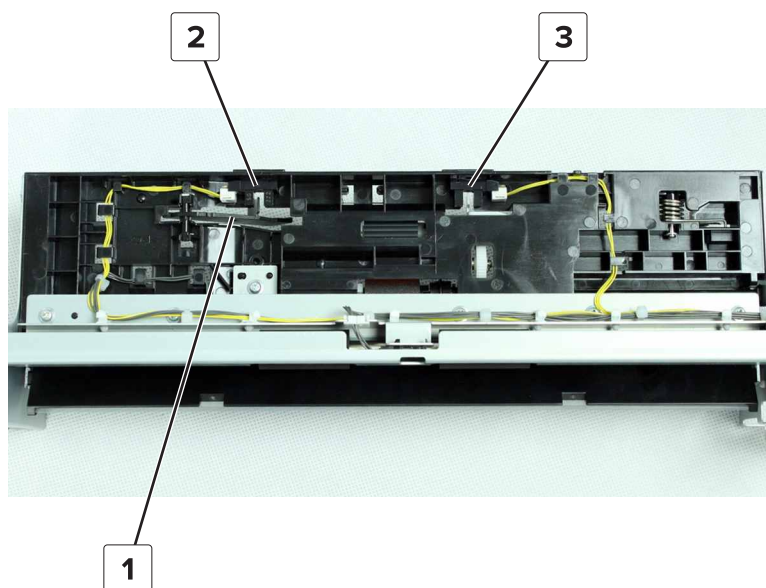
Note: The following illustration shows the tray 3 transport assembly. The same movements apply when removing the tray 4 transport assembly.

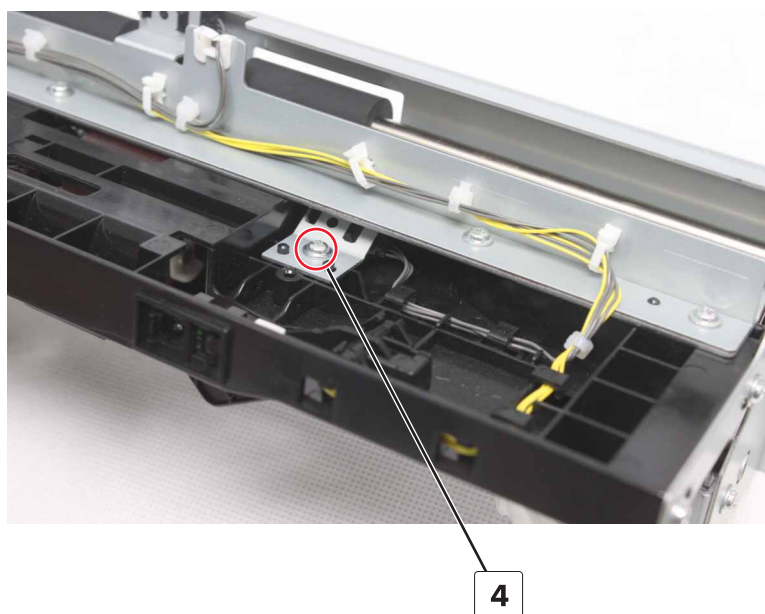


2 x 500-sheet tray transport assembly sensors removal

Note: The following procedure begins with the tray 4 transport assembly sensors. If you are removing the tray 3 transport assembly sensors, then go directly to step 5.

- 1 Remove the rear right cover. See [“2 x 500-sheet tray rear right cover removal” on page 528.](#)
- 2 Remove the jam access door. See [“2 x 500-sheet tray jam access door removal” on page 527.](#)
- 3 Remove the bottom right cover. See [“2 x 500-sheet tray bottom right cover removal” on page 529.](#)
- 4 Remove the tray 4 transport assembly. See [“2 x 500-sheet tray 4 transport assembly removal” on page 530.](#)
- 5 Remove the appropriate FRU.



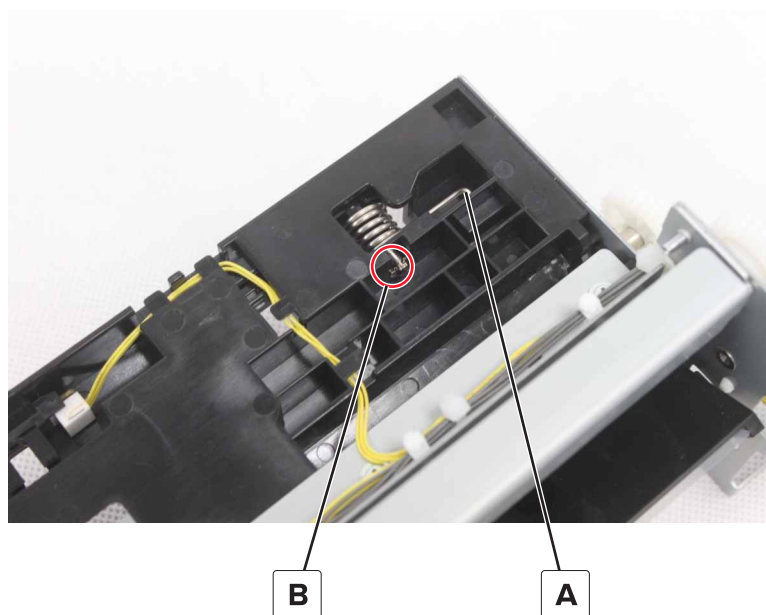


#	Part
1	2 x 500-sheet tray empty sensor actuator
2	Sensor (2 x 500-sheet tray empty)
3	Sensor (2 x 500-sheet tray lift plate level)
4	Sensor (2 x 500-sheet tray feed) Note: Remove the screw, remove the sensor bracket, and then remove the sensor.

2 x 500-sheet tray tray set actuator removal

- 1 Remove the rear right cover. See [“2 x 500-sheet tray rear right cover removal” on page 528](#).
- 2 Remove the jam access door. See [“2 x 500-sheet tray jam access door removal” on page 527](#).
- 3 Remove the bottom right cover. See [“2 x 500-sheet tray bottom right cover removal” on page 529](#).
- 4 Remove the tray 3 or tray 4 transport assembly. See [“2 x 500-sheet tray 3 transport assembly removal” on page 529](#) or [“2 x 500-sheet tray 4 transport assembly removal” on page 530](#).
- 5 Release the spring (A).

- 6 Remove the clip (B).



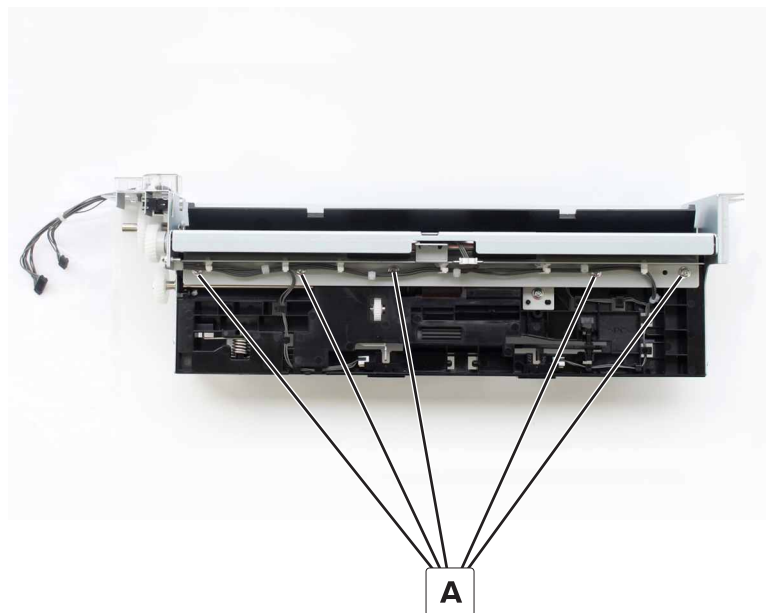
- 7 Remove the shaft, and then remove the actuator.

Sensor (2 x 500-sheet tray transport) removal

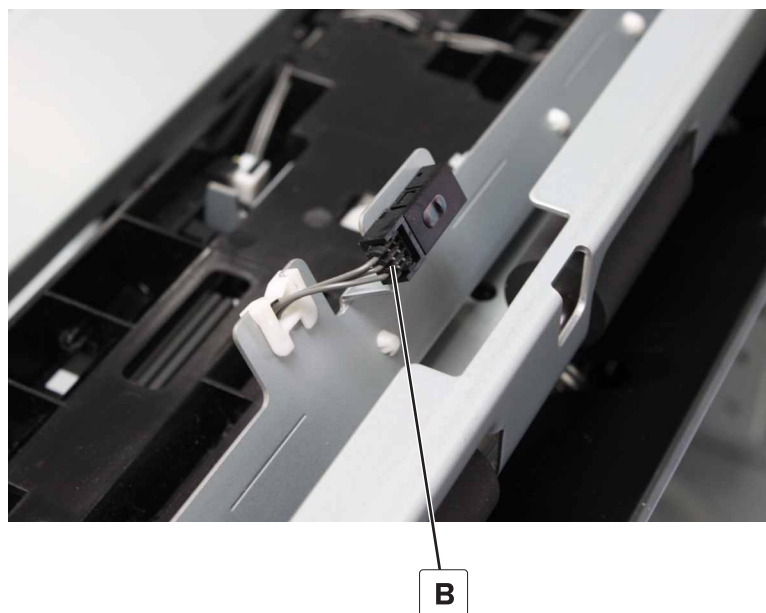
Note: The following procedure begins with the tray 4 sensor. If you are removing the tray 3 sensor, then go directly to step 5.

- 1 Remove the rear right cover. See [“2 x 500-sheet tray rear right cover removal” on page 528.](#)
- 2 Remove the jam access door. See [“2 x 500-sheet tray jam access door removal” on page 527.](#)
- 3 Remove the bottom right cover. See [“2 x 500-sheet tray bottom right cover removal” on page 529.](#)
- 4 Remove the tray 4 transport assembly. See [“2 x 500-sheet tray 4 transport assembly removal” on page 530.](#)

- 5 Remove the five screws (A).



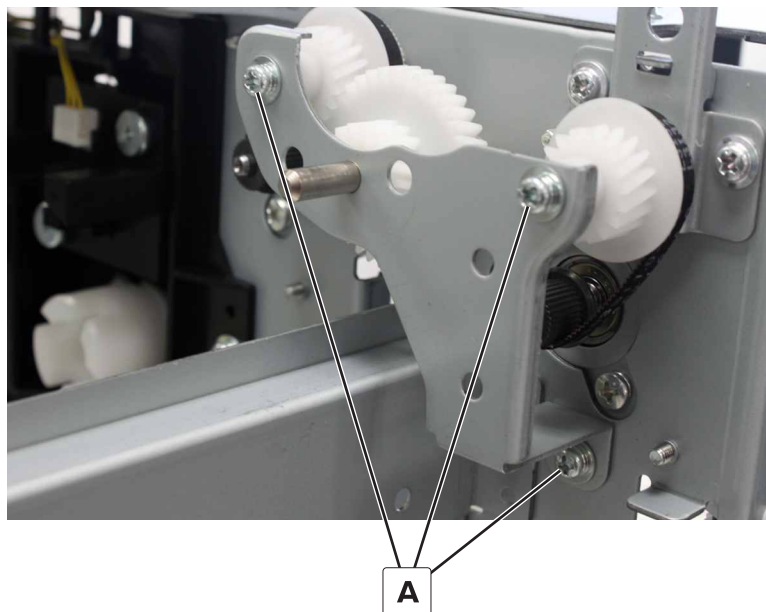
- 6 Disconnect the cable (B), and then remove the sensor.



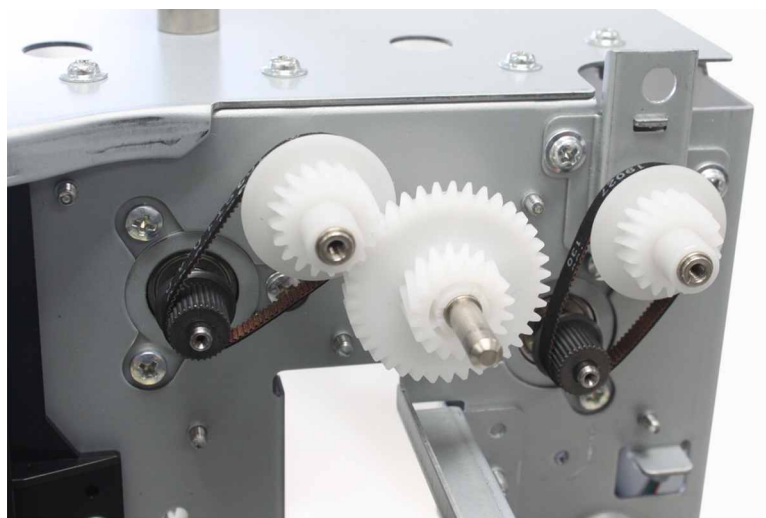
2 x 500-sheet tray 3 transport belts and gears removal

- 1 Remove the rear right cover. See [“2 x 500-sheet tray rear right cover removal” on page 528.](#)
- 2 Remove the jam access door. See [“2 x 500-sheet tray jam access door removal” on page 527.](#)
- 3 Remove the bottom right cover. See [“2 x 500-sheet tray bottom right cover removal” on page 529.](#)
- 4 Remove the tray 3 transport assembly. See [“2 x 500-sheet tray 3 transport assembly removal” on page 529.](#)

- 5 Remove the tray 4 transport assembly. See [“2 x 500-sheet tray 4 transport assembly removal” on page 530.](#)
- 6 Remove the three screws (A), and then remove the bracket.



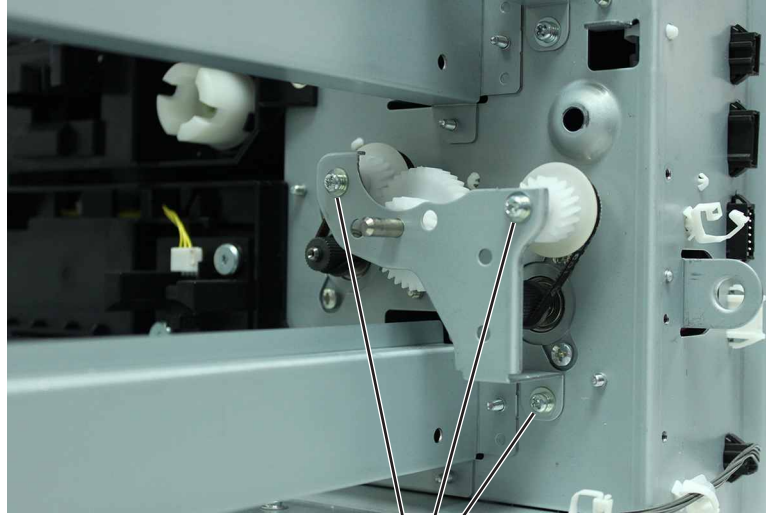
- 7 Remove the three gears and two belts.



2 x 500-sheet tray 4 transport belts and gears removal

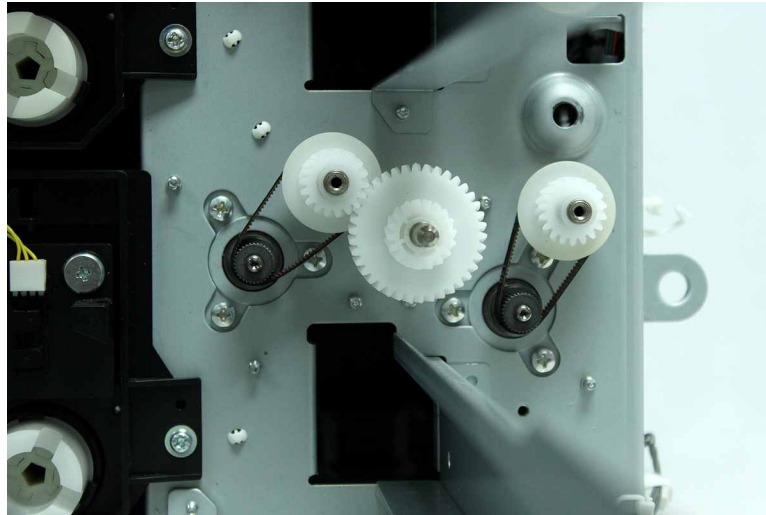
- 1 Remove the rear right cover. See [“2 x 500-sheet tray rear right cover removal” on page 528.](#)
- 2 Remove the jam access door. See [“2 x 500-sheet tray jam access door removal” on page 527.](#)
- 3 Remove the bottom right cover. See [“2 x 500-sheet tray bottom right cover removal” on page 529.](#)
- 4 Remove the tray 4 transport assembly. See [“2 x 500-sheet tray 4 transport assembly removal” on page 530.](#)

5 Remove the three screws (A), and then remove the bracket.



A

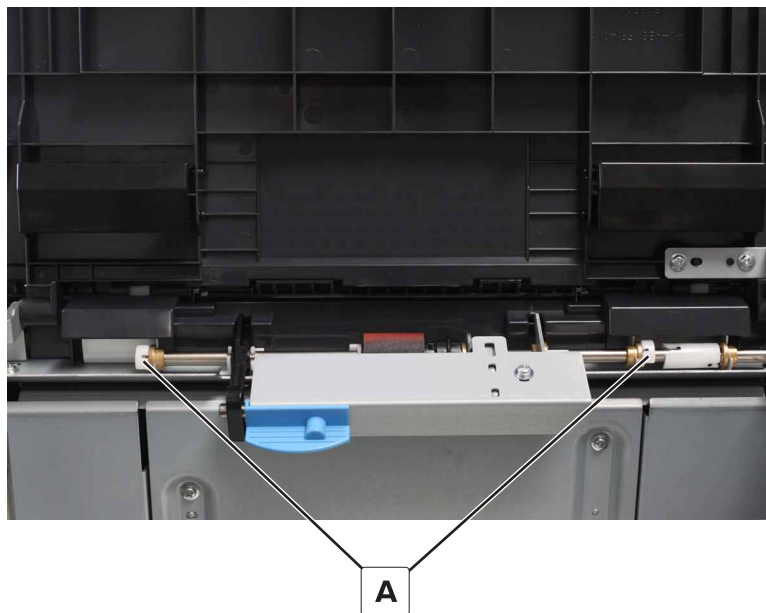
6 Remove the three gears and two belts.



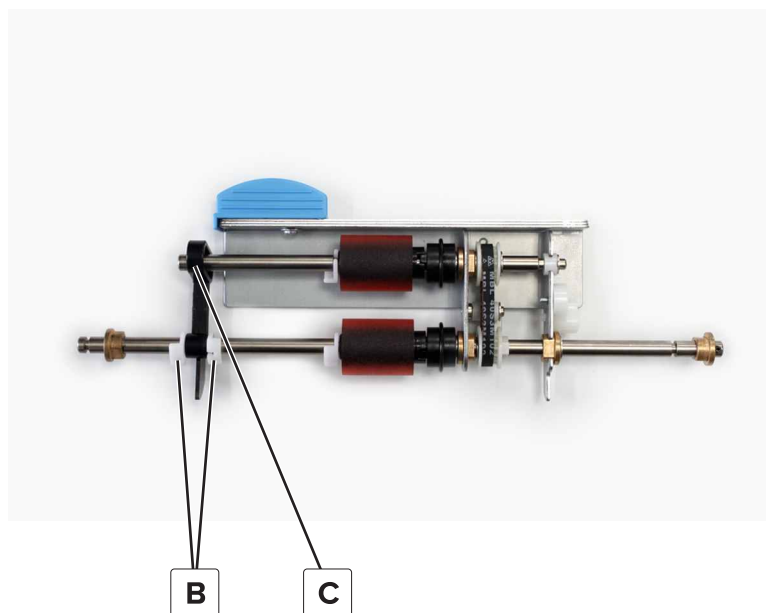
3000-sheet tray removals

3000-sheet tray rollers removal

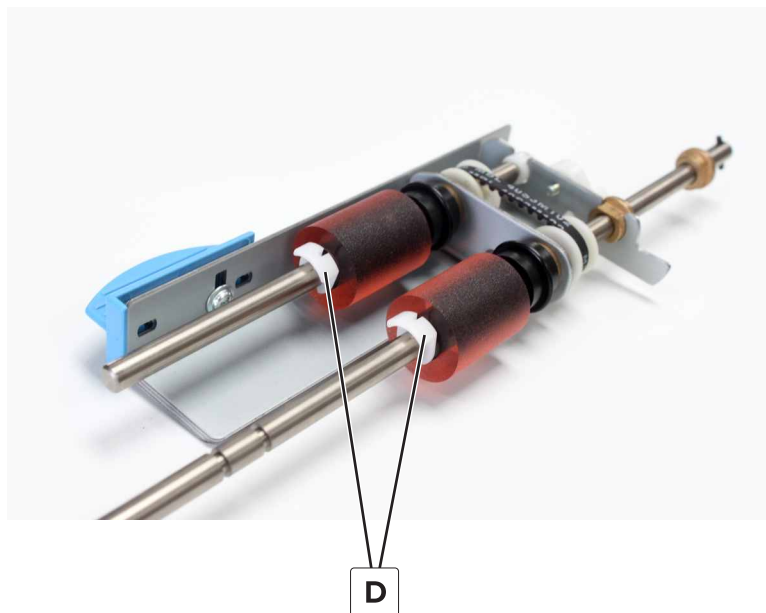
- 1 Remove the two clips (A), and then remove the bushings.



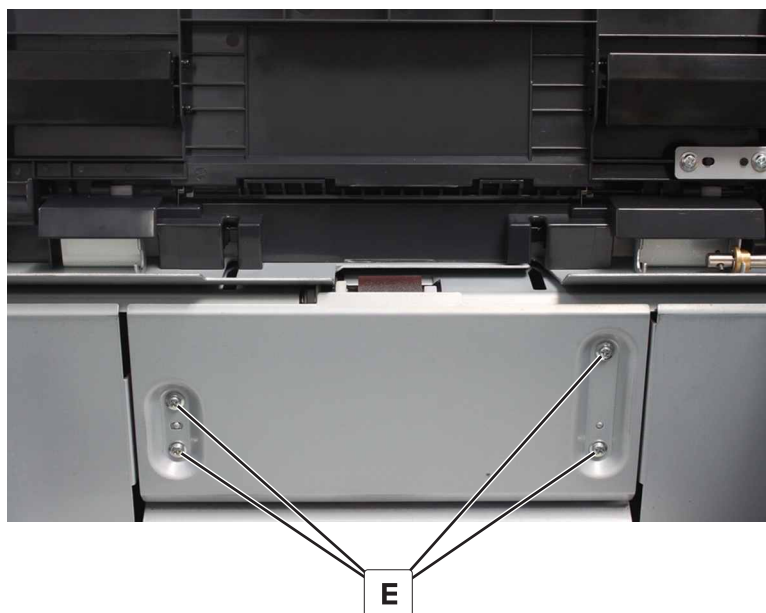
- 2 Remove the two clips (B), and then remove the actuator (C).



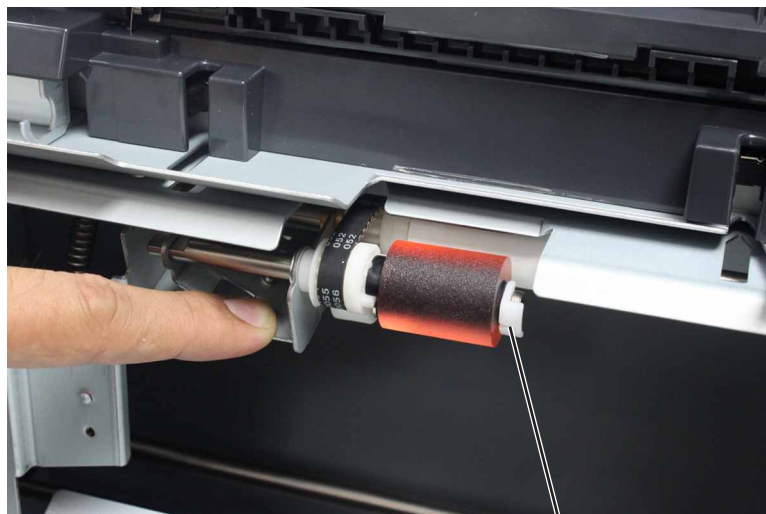
3 Remove the two clips (D), and then remove the feed and pick rollers.



4 Remove the four screws (E), and then remove the cover.



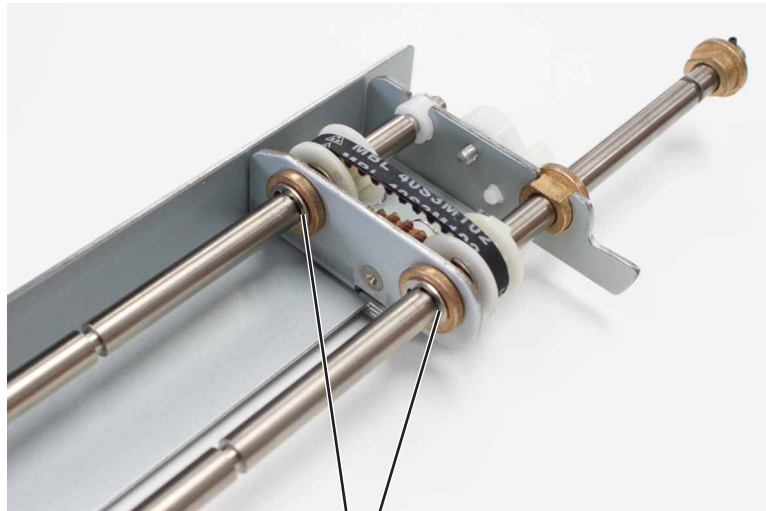
- 5 Remove the clip (F), and then remove the roller.



F

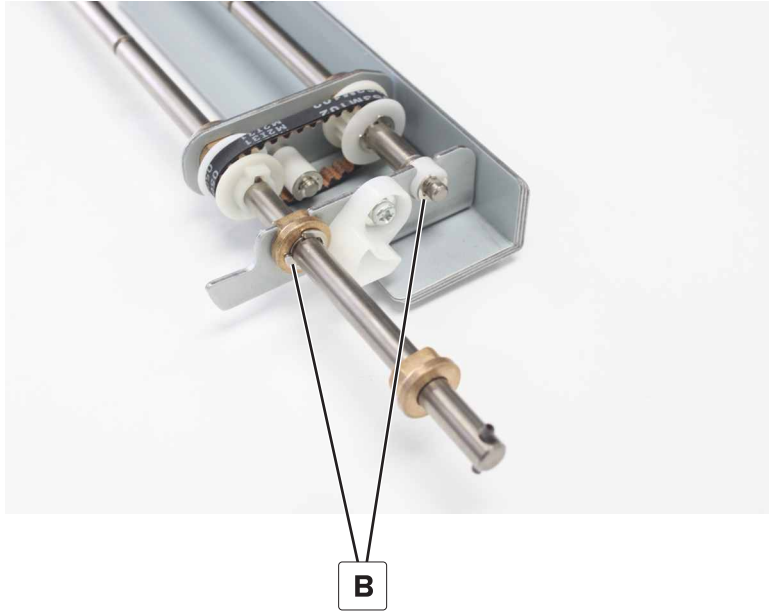
3000-sheet tray feed and pick belt removal

- 1 Remove the feed and pick rollers. See [“3000-sheet tray rollers removal” on page 537](#).
- 2 Remove the two clips (A), and then remove the bushings.

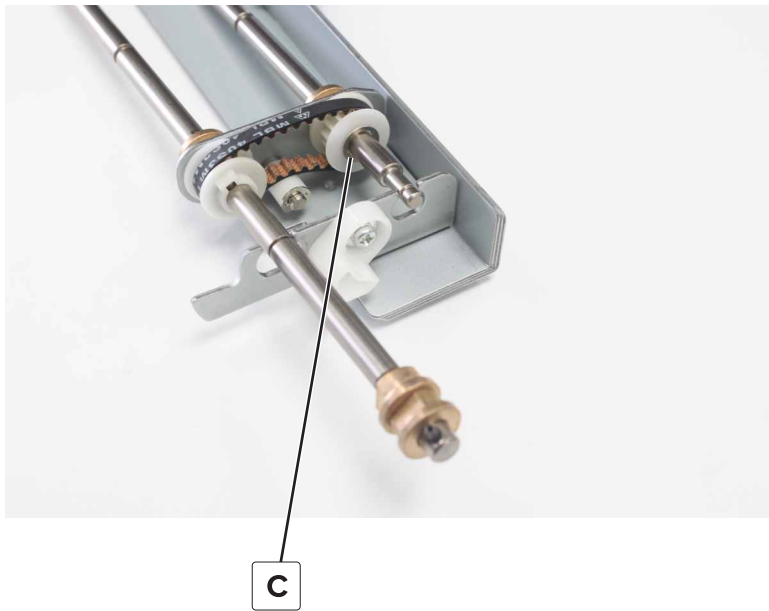


A

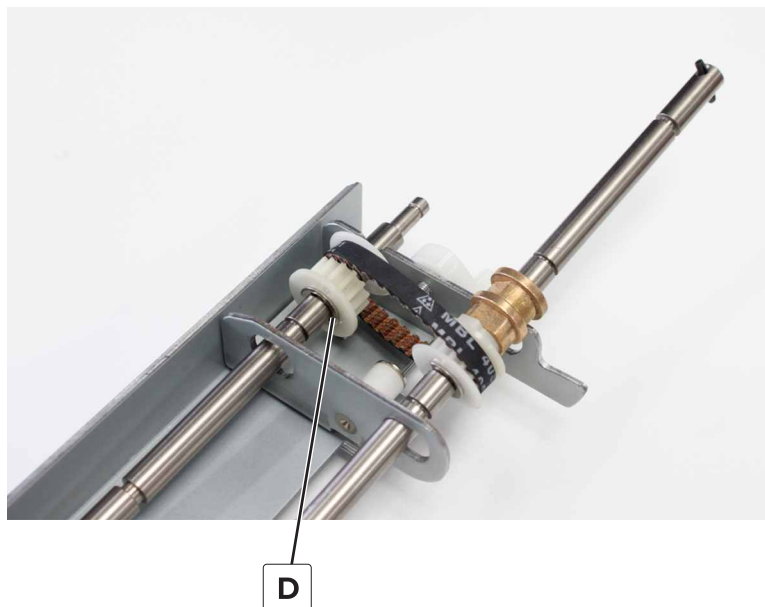
3 Remove the two clips (B), and then remove the two bushings.



4 Remove the clip (C).

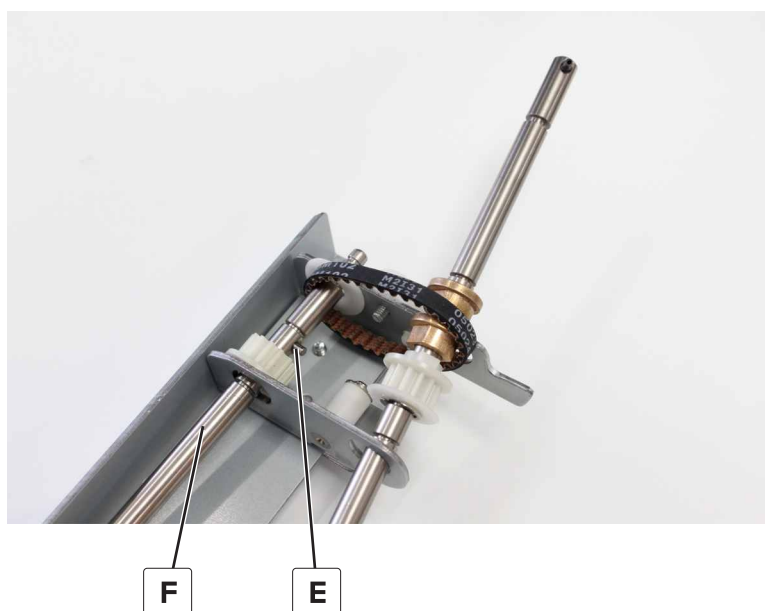


- 5 Remove the clip (D).



- 6 Remove the pin (E).

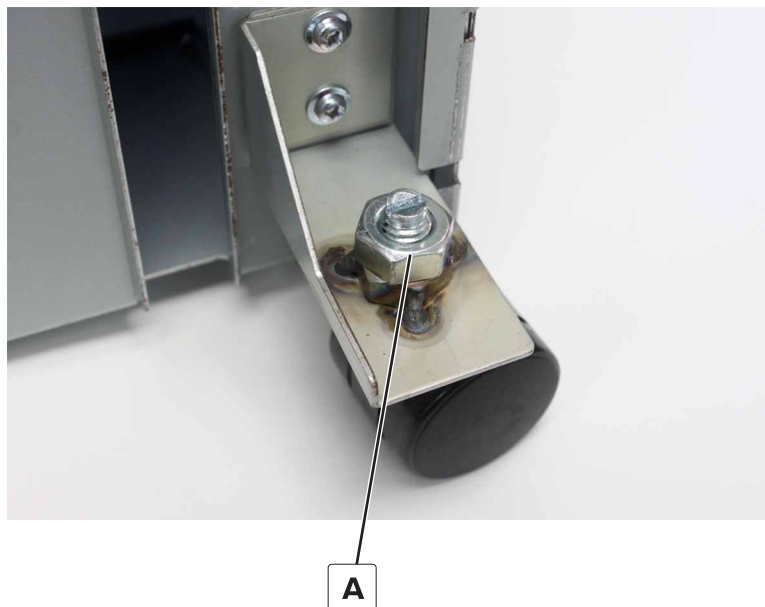
- 7 Pull out the shaft (F), and then remove the belt.



3000-sheet tray caster wheel removal

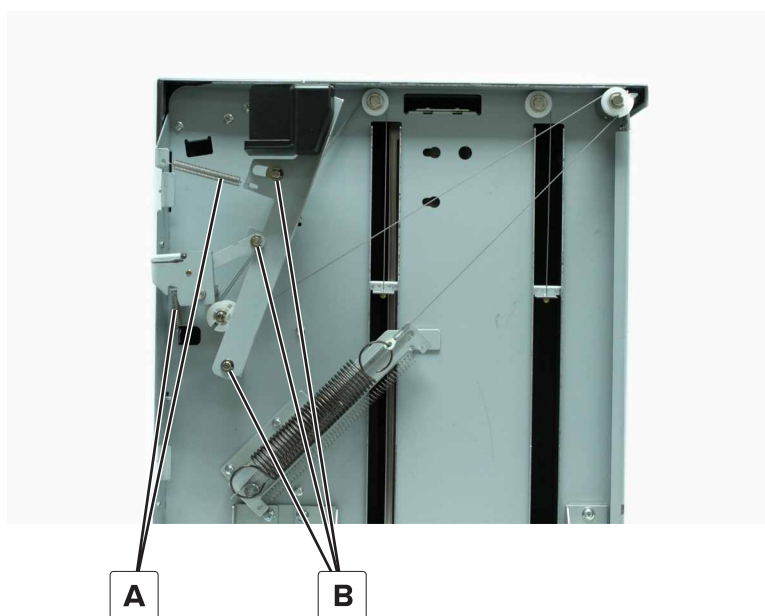
- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544](#).
- 2 Depending on the caster, remove the front cover or the rear cover. See [“3000-sheet tray front cover removal” on page 544](#) or [“3000-sheet tray rear cover removal” on page 545](#).

- 3 Remove the nut (A), and then remove the caster.

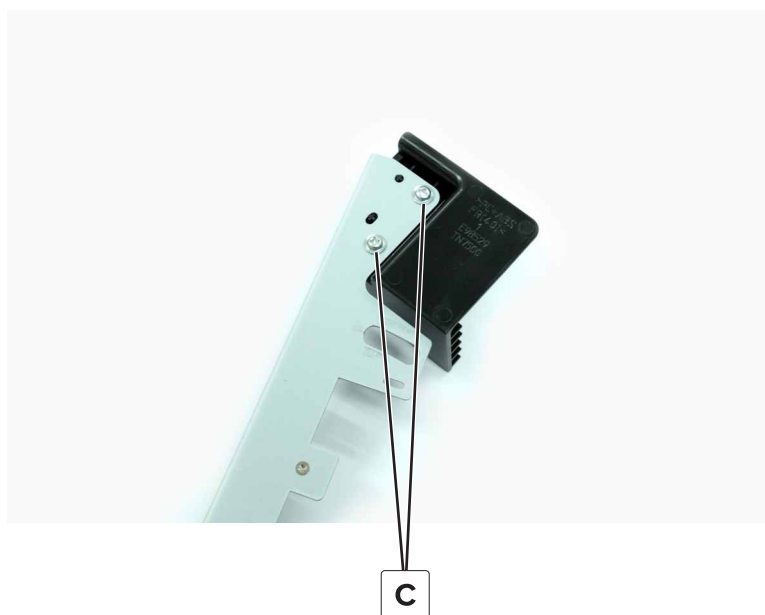


3000-sheet tray release handle removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the front cover. See [“3000-sheet tray front cover removal” on page 544.](#)
- 3 Disconnect the two springs (A).
- 4 Remove the three clips (B), and then remove the link.

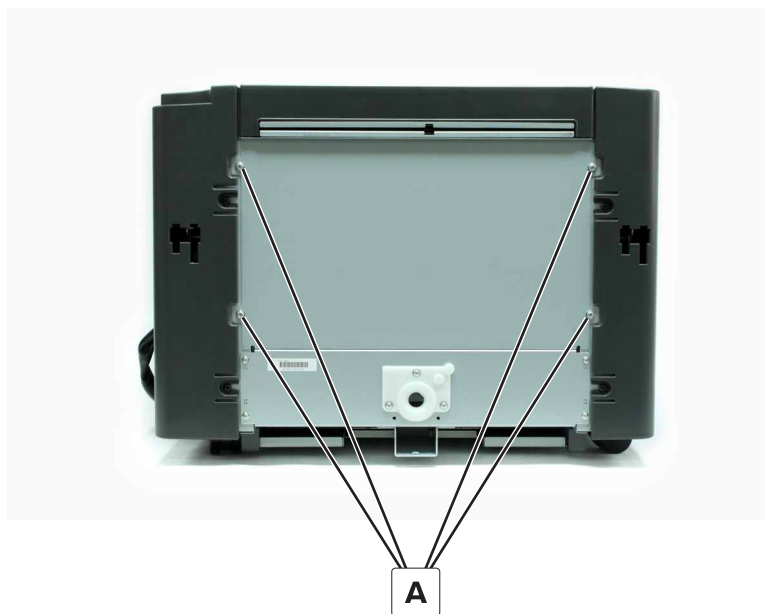


- 5 Remove the two screws (C), and then remove the handle.



3000-sheet tray left cover removal

- 1 Remove the four screws (A).



- 2 Remove the cover.

3000-sheet tray right cover removal

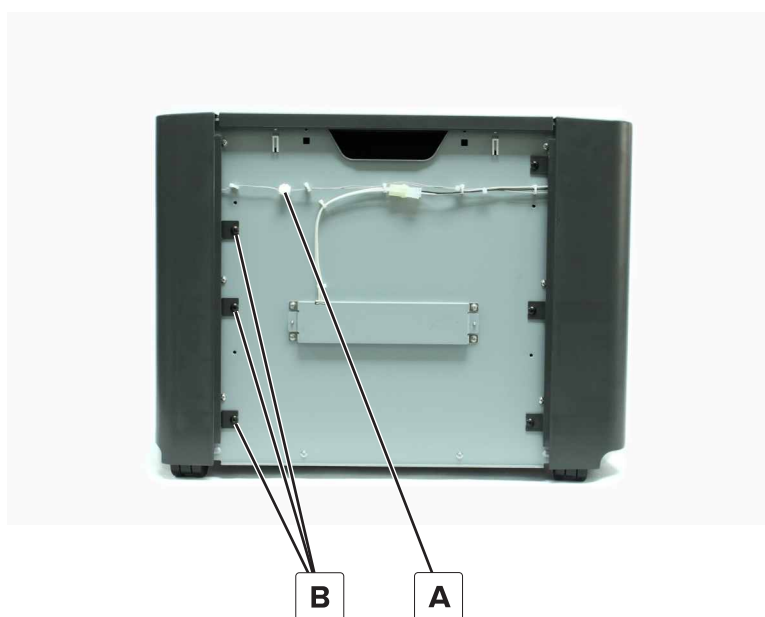
- 1 Remove the four screws (A).



- 2 Remove the cover.

3000-sheet tray front cover removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544](#).
- 2 Disconnect the cable (A), and then remove it from the cable clips.
- 3 Remove the three screws (B).



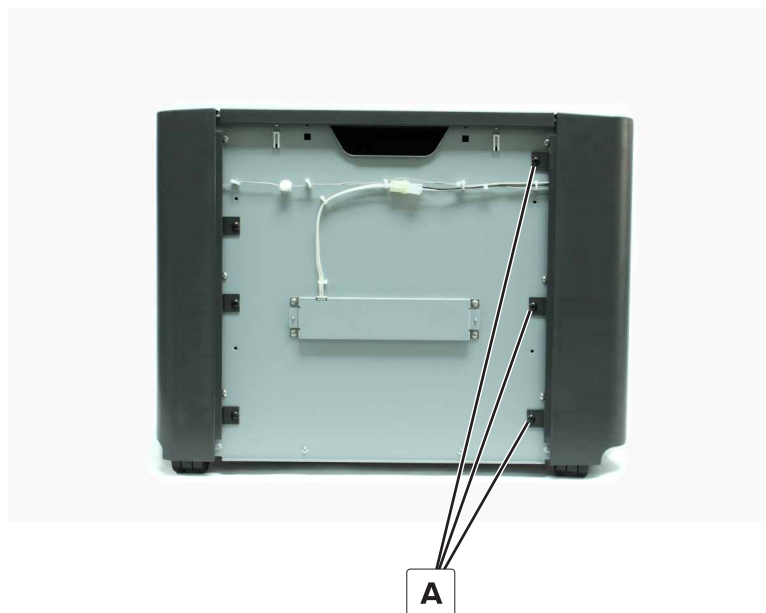
Parts removal

- 4 Remove the two screws (C), and then remove the cover.

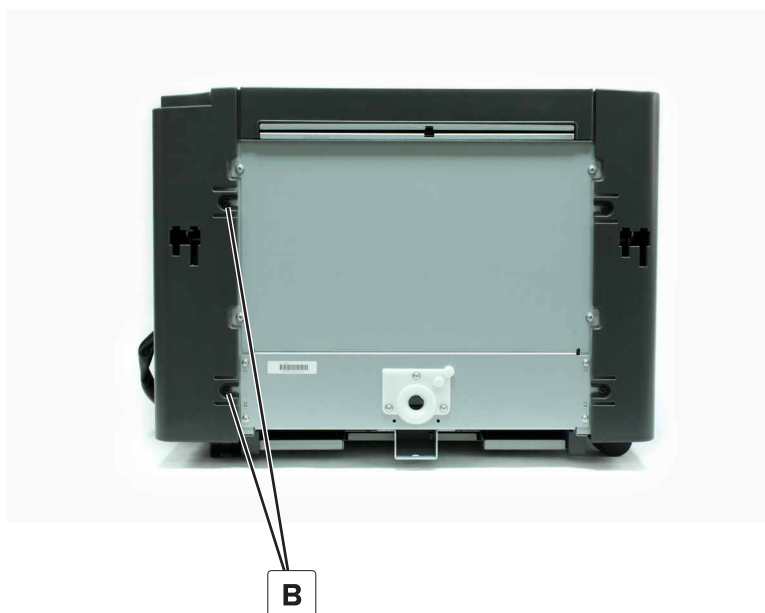


3000-sheet tray rear cover removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the three screws (A).



- 3 Remove the two screws (B).



- 4 Remove the two screws (C).

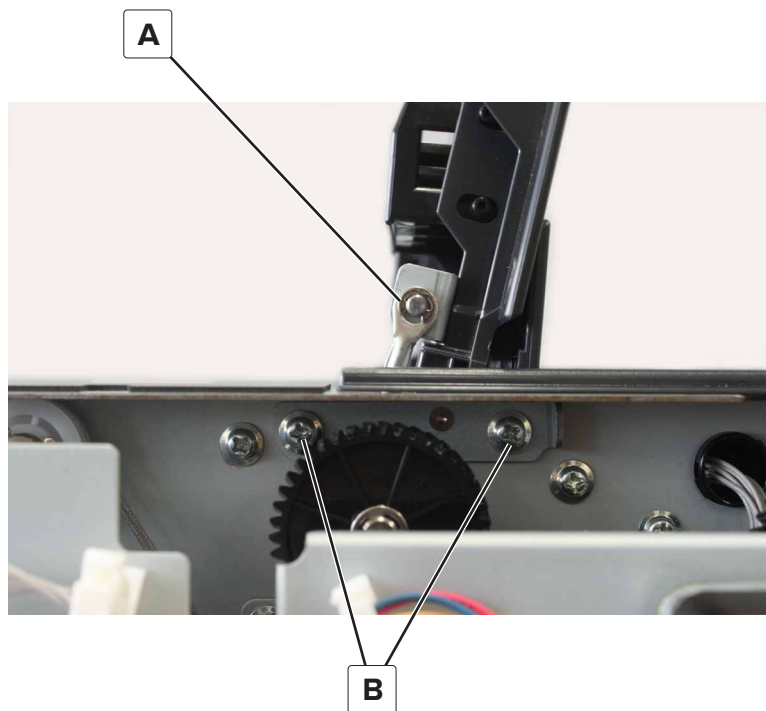


- 5 Remove the plate, and then remove the cover.

3000-sheet tray door removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 3 Remove the clip (A), and then disconnect the cable.

- 4 Remove the two screws (B), and then remove the bracket.

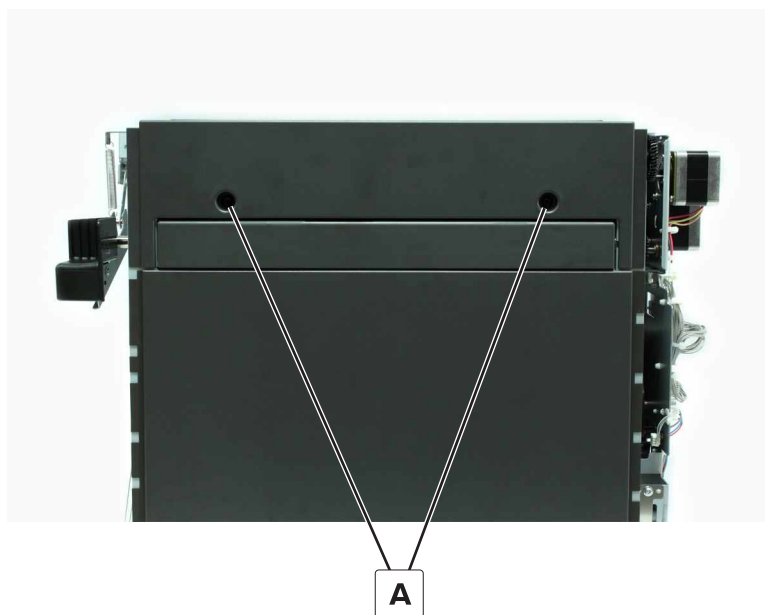


- 5 Remove the door.

3000-sheet tray left top cover removal

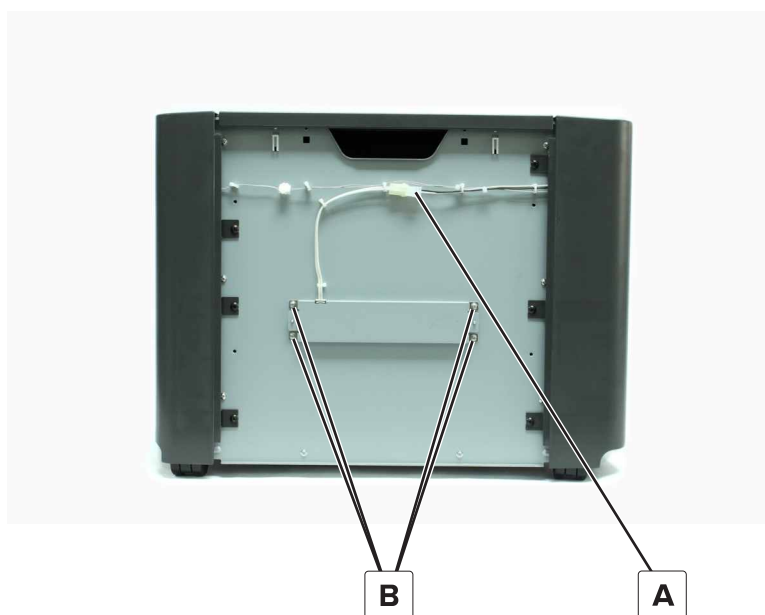
- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the front cover. See [“3000-sheet tray front cover removal” on page 544.](#)
- 3 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)

- 4 Remove the two screws (A), and then remove the cover.



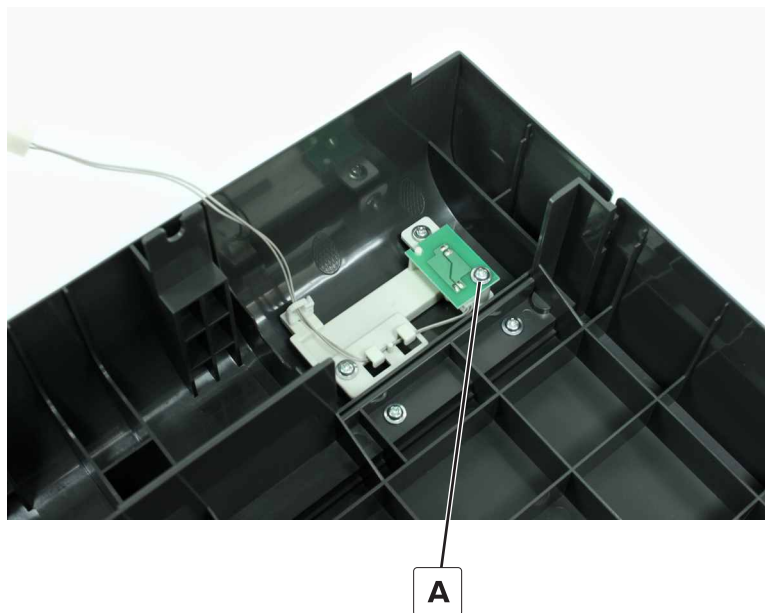
Dehumidifier removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544](#).
- 2 Disconnect the cable (A).
- 3 Remove the four screws (B), and then remove the dehumidifier.



3000-sheet tray empty LED removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the front cover. See [“3000-sheet tray front cover removal” on page 544.](#)
- 3 Remove the screw (A), and then remove the LED.



Sensor (3000-sheet tray empty) removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 3 Remove the left top cover. See [“3000-sheet tray left top cover removal” on page 547.](#)

- 4 Disconnect the cable (A), and then remove the sensor.



A

Sensor (3000-sheet tray elevator level) removal

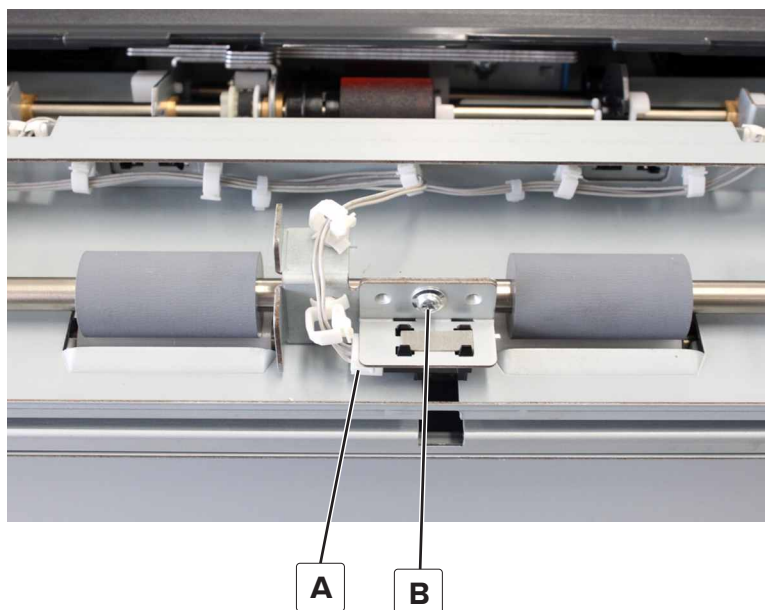
- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 3 Remove the left top cover. See [“3000-sheet tray left top cover removal” on page 547.](#)
- 4 Disconnect the cable (A), and then remove the sensor.



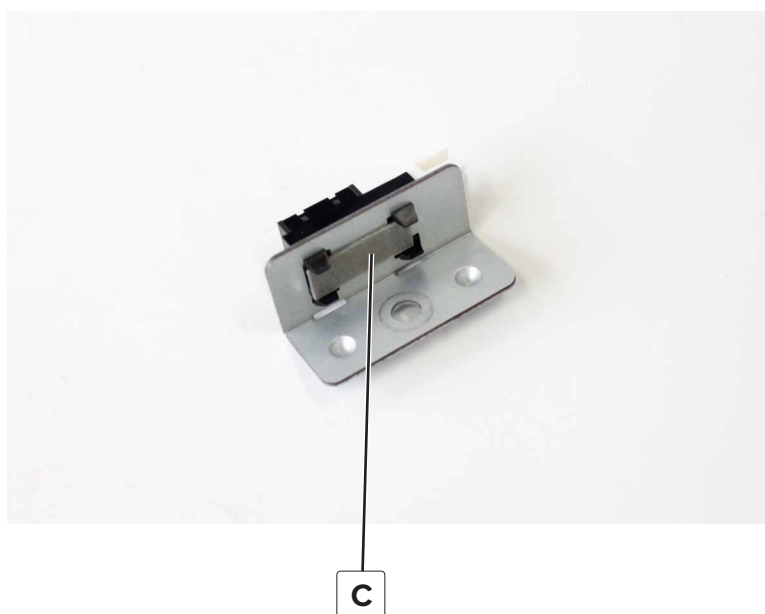
A

Sensor (3000-sheet tray feed) removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 3 Remove the front cover. See [“3000-sheet tray front cover removal” on page 544.](#)
- 4 Remove the left top cover. See [“3000-sheet tray left top cover removal” on page 547.](#)
- 5 Disconnect the cable (A).
- 6 Remove the screw (B), and then remove the bracket.

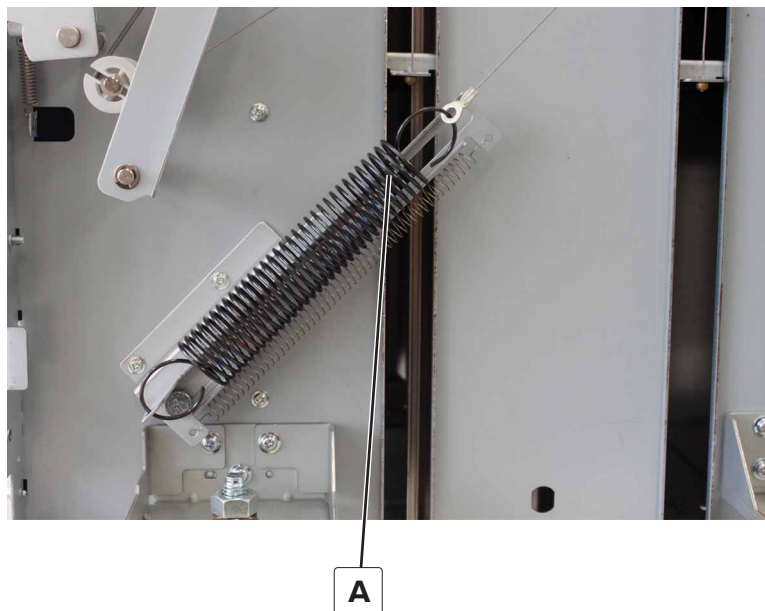


- 7 Remove the adhesive (C), and then remove the sensor.



3000-sheet tray elevator spring removal

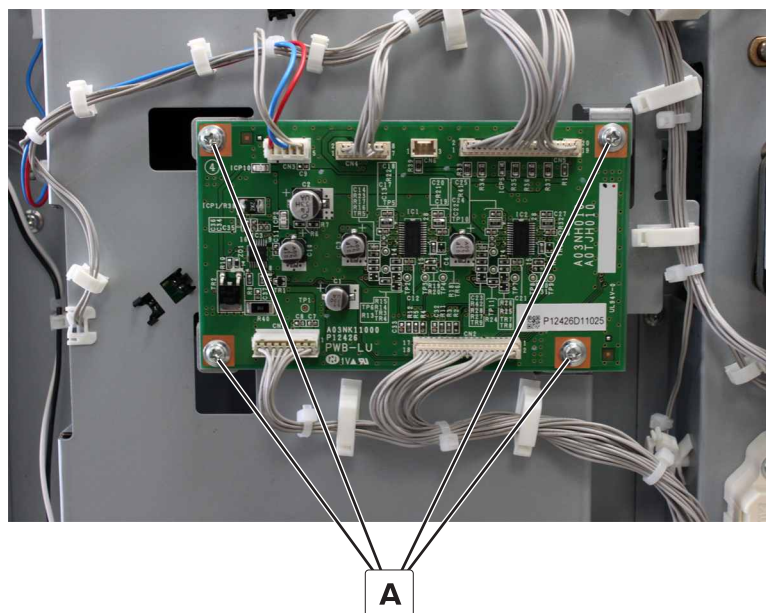
- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the front cover. See [“3000-sheet tray front cover removal” on page 544.](#)
- 3 Remove the spring (A).



3000-sheet tray controller board removal

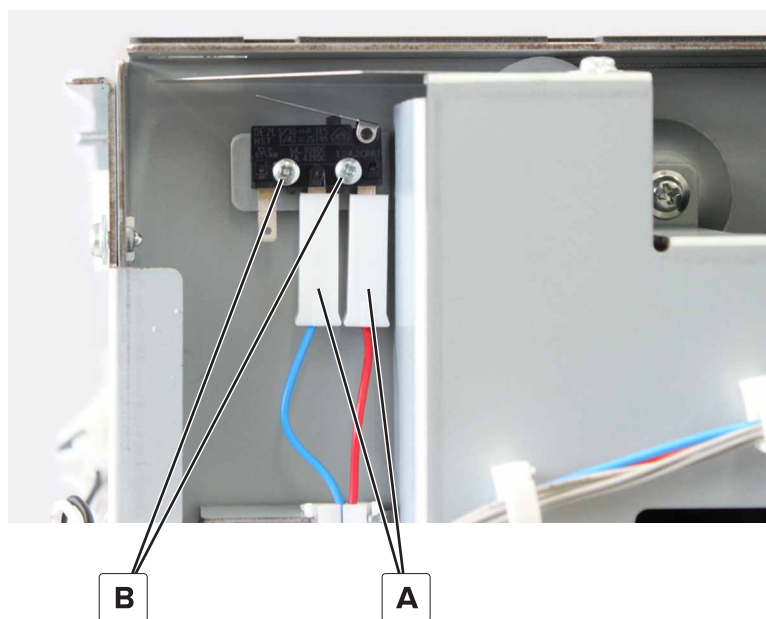
- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 3 Disconnect all the cables from the board.

- 4 Remove the four screws (A), and then remove the board.



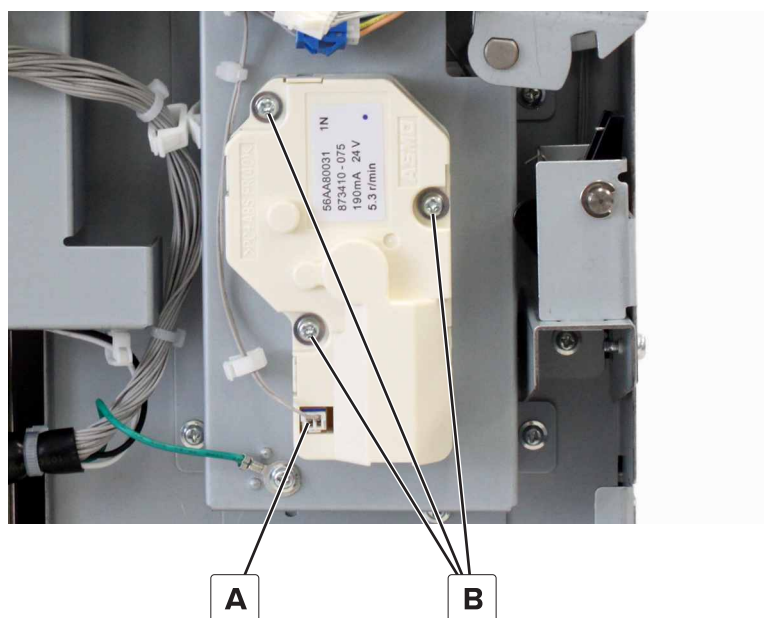
3000-sheet tray door switch removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 3 Disconnect the two cables (A).
- 4 Remove the two screws (B), and then remove the switch.



Motor (3000-sheet tray elevator) removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 3 Disconnect the cable (A).
- 4 Remove the three screws (B), and then remove the motor.



3000-sheet tray set sensor actuator removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)

- 3 Remove the screw (A), and then remove the bracket.

**A**

- 4 Remove the clip (B).

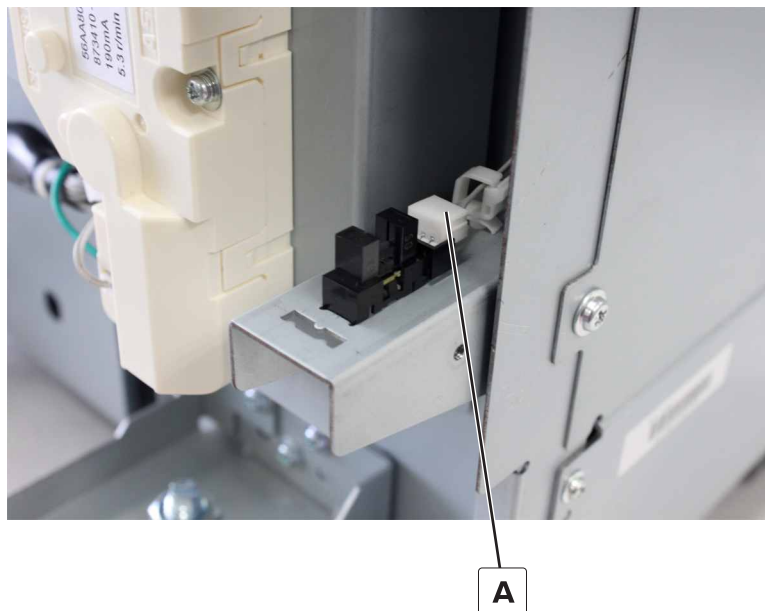
**B**

- 5 Remove the shaft, and then remove the actuator.

Sensor (3000-sheet tray set) removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 3 Remove the tray set sensor actuator. See [“3000-sheet tray set sensor actuator removal” on page 554.](#)

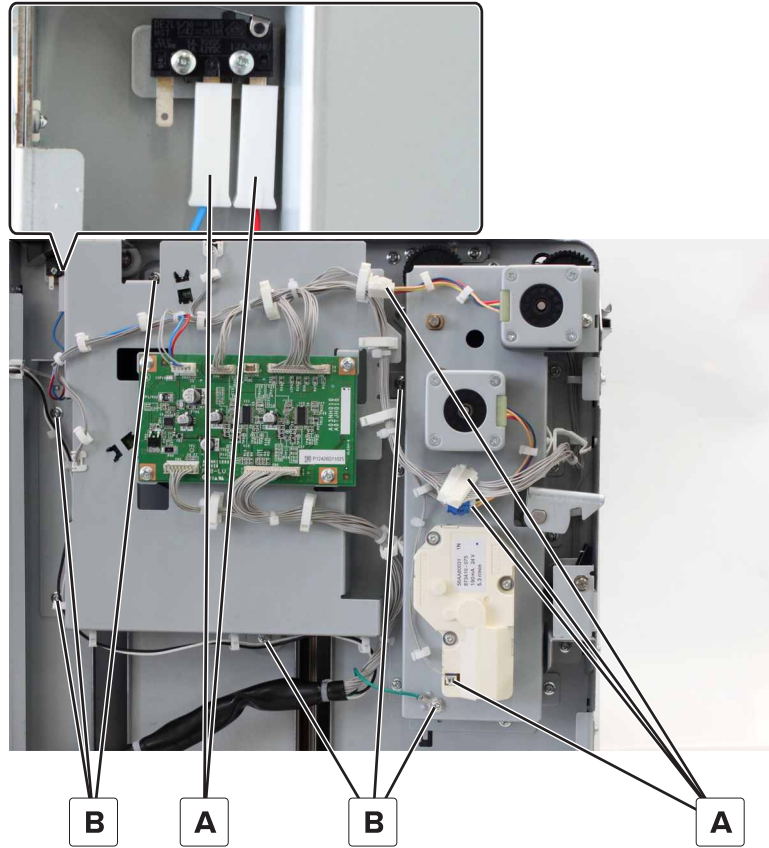
- 4 Disconnect the cable (A), and then remove the sensor.



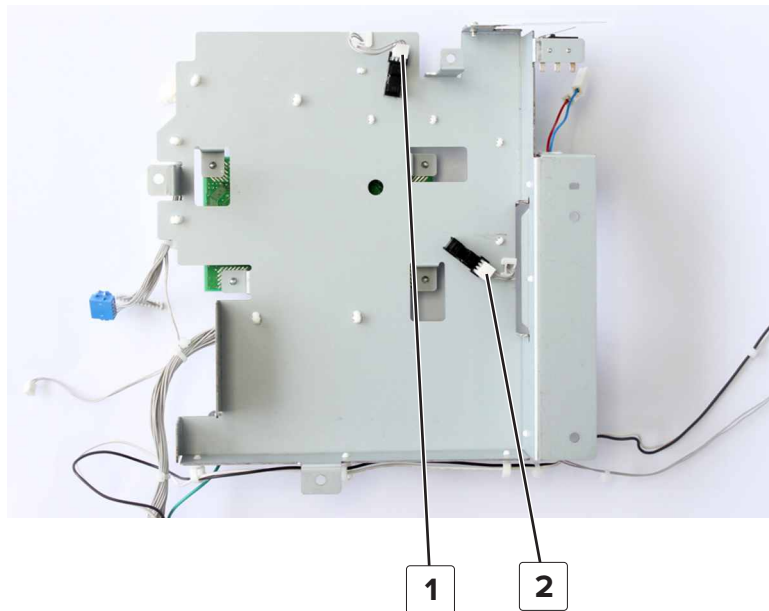
Sensor (3000-sheet tray near empty) removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 3 Disconnect the six cables (A).

4 Remove the six screws (B), and then remove the bracket.



5 Disconnect the cable, and then remove the sensor.

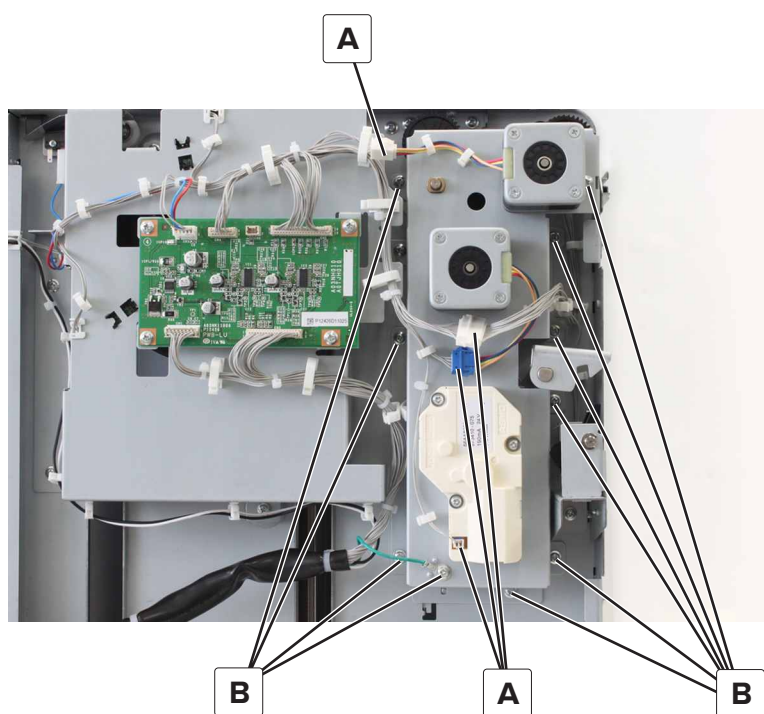


#	Part
1	Sensor (3000-sheet tray near empty 1)
2	Sensor (3000-sheet tray near empty 2)

Motor bracket removal

Note: This part is not a FRU.

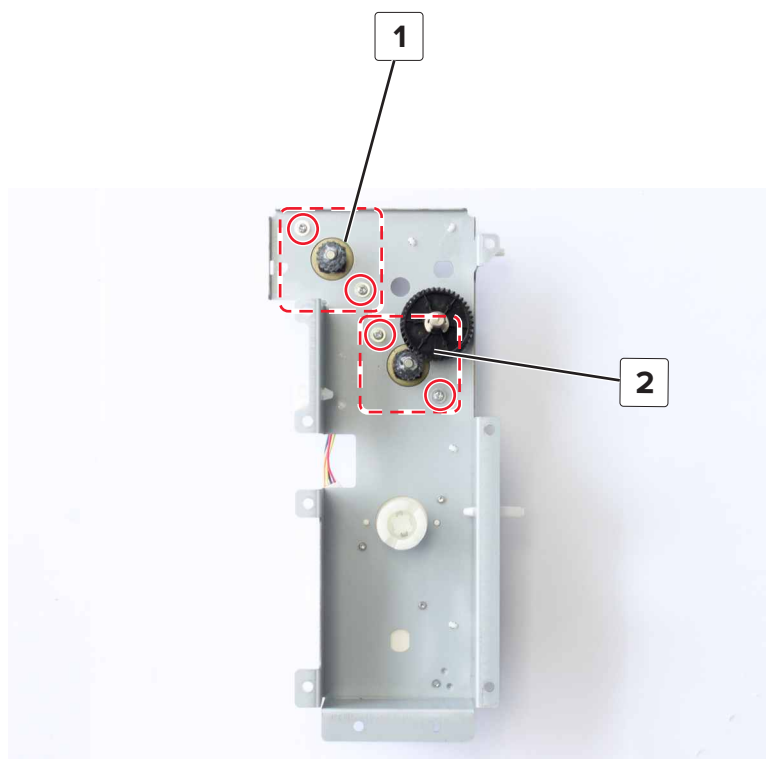
- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 3 Disconnect the four cables (A).
- 4 Remove the ten screws (B), and then remove the bracket.



3000-sheet tray feed and transport motors removal

- 1 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 2 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 3 Remove the motor bracket. See [“Motor bracket removal” on page 558.](#)

- 4 Remove the two screws, and then remove the motor.

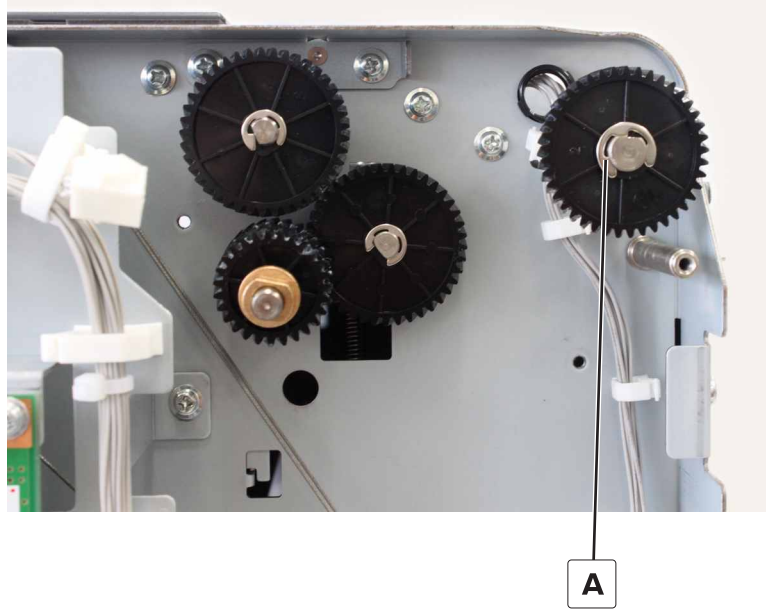


#	Part
1	Motor (3000-sheet tray transport)
2	Motor (3000-sheet tray feed)

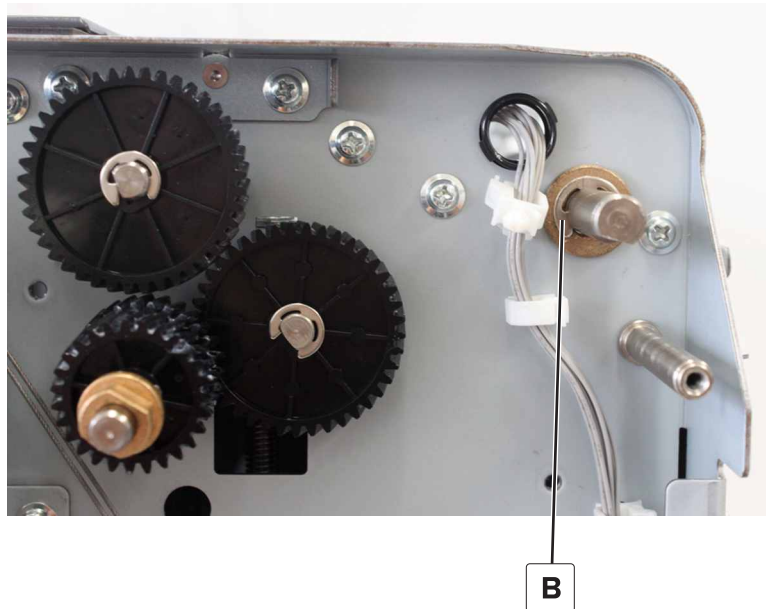
3000-sheet tray feed roller assembly removal

- 1 Remove the left cover. See [“3000-sheet tray left cover removal” on page 543.](#)
- 2 Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 3 Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 4 Remove the front cover. See [“3000-sheet tray front cover removal” on page 544.](#)
- 5 Remove the left top cover. See [“3000-sheet tray left top cover removal” on page 547.](#)
- 6 Remove the motor bracket. See [“Motor bracket removal” on page 558.](#)

7 Remove the clip (A), and then remove the gear.



8 Remove the clip (B), and then remove the bushing.



- 9 From the other end of the shaft, remove the clip (C), and then remove the bushing.



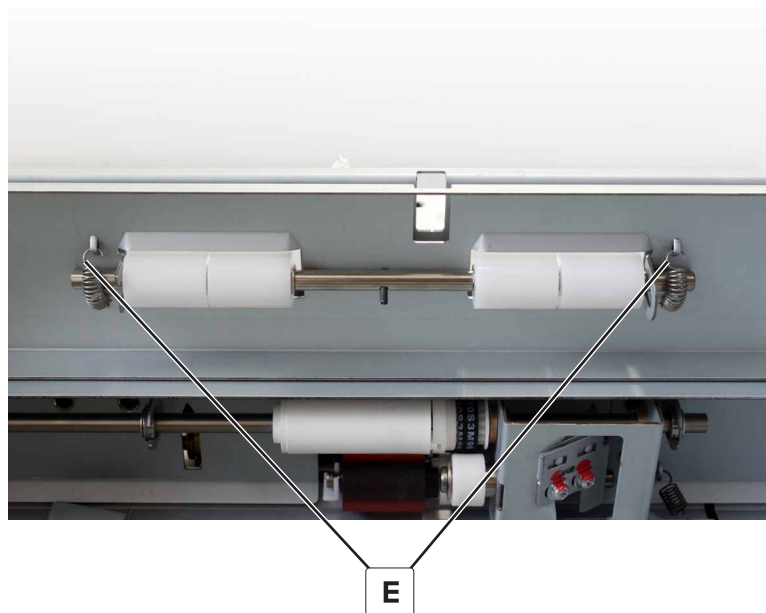
C

- 10 Remove the screw (D), remove the sensor bracket, and then remove the transport roller.



D

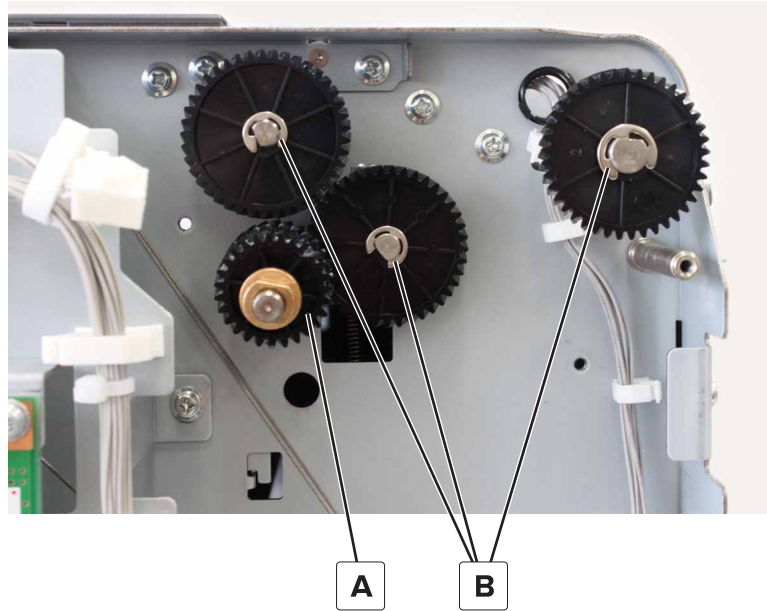
- 11** From under the assembly, remove the two springs (E), and then remove the roller.



3000-sheet tray pick roller assembly removal

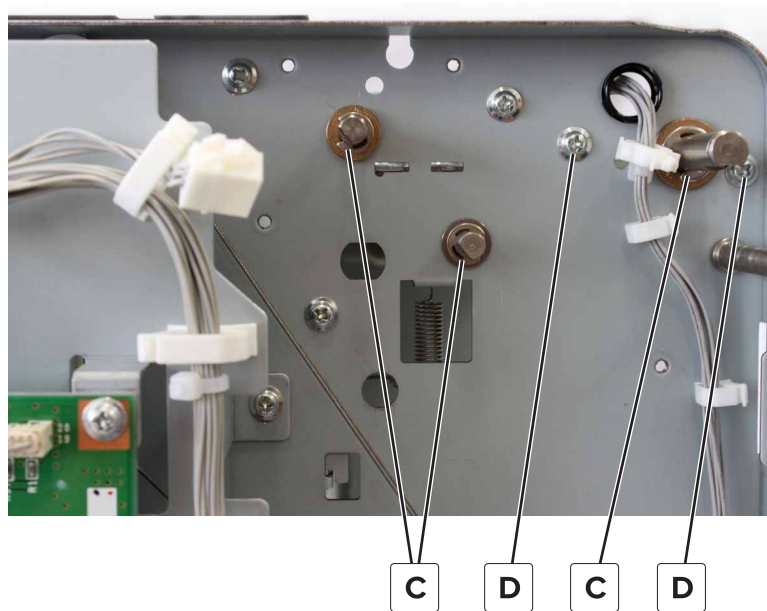
- 1** Remove the left cover. See [“3000-sheet tray left cover removal” on page 543.](#)
- 2** Remove the right cover. See [“3000-sheet tray right cover removal” on page 544.](#)
- 3** Remove the rear cover. See [“3000-sheet tray rear cover removal” on page 545.](#)
- 4** Remove the top door. See [“3000-sheet tray door removal” on page 546.](#)
- 5** Remove the left top cover. See [“3000-sheet tray left top cover removal” on page 547.](#)
- 6** Remove the motor bracket. See [“Motor bracket removal” on page 558.](#)
- 7** Remove the gear shaft (A).

8 Remove the three clips (B), and then remove the three gears.

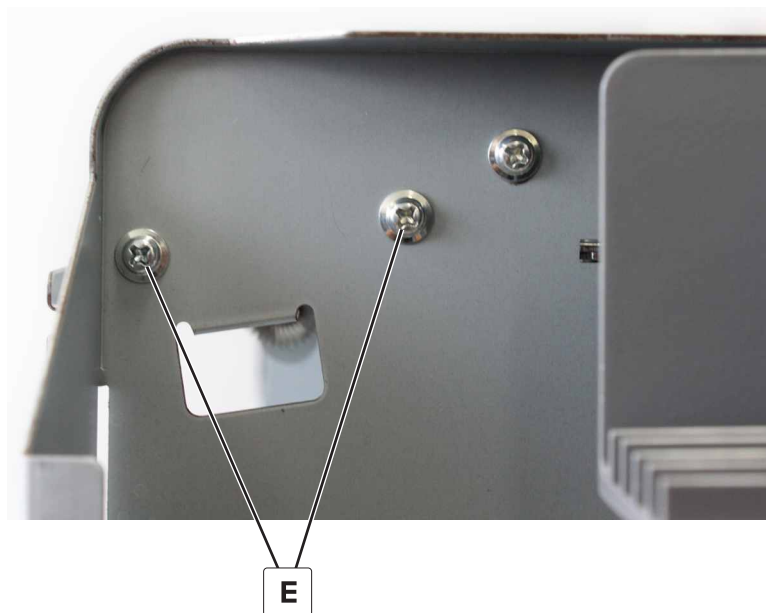


9 Remove the three clips (C), and then remove the three bushings.

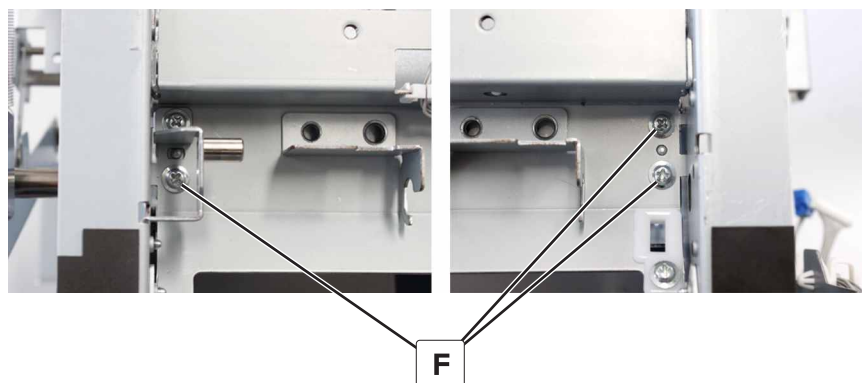
10 Remove the two screws (D).



11 Remove the two screws (E), and then dislodge the bracket.

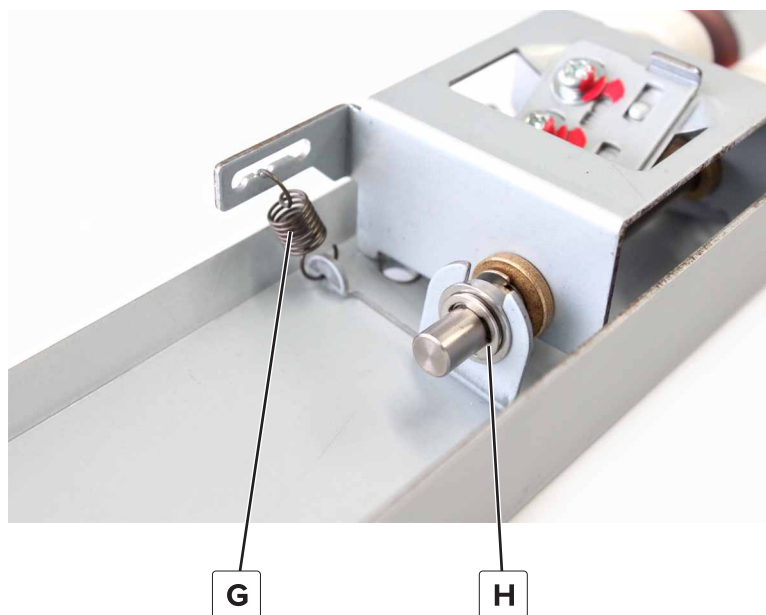


12 Remove the three screws (F), and then remove the assembly.



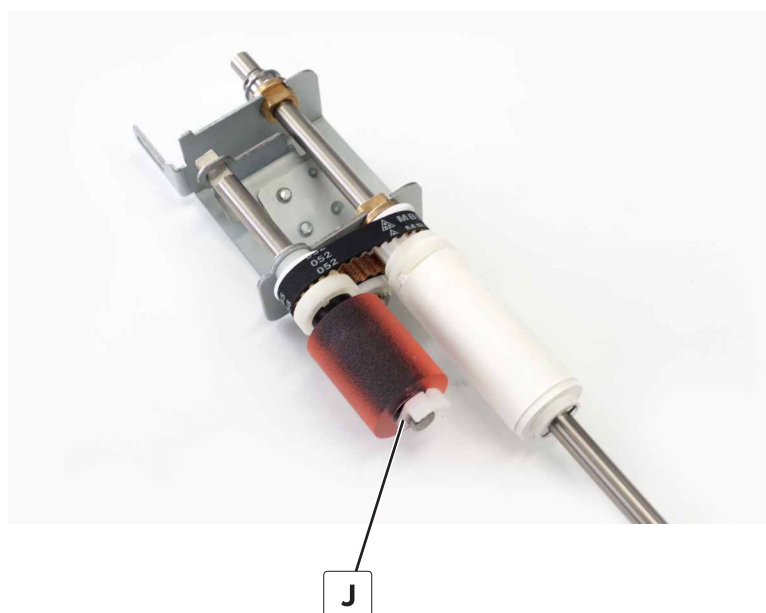
13 Disconnect the spring (G).

14 Remove the clip (H), and then remove the bushing.

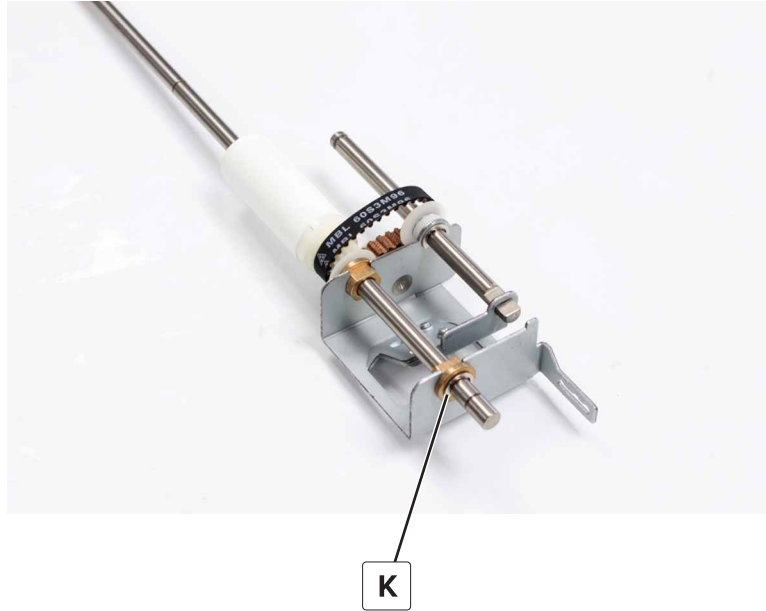


15 Remove the pick roller assembly from the bracket.

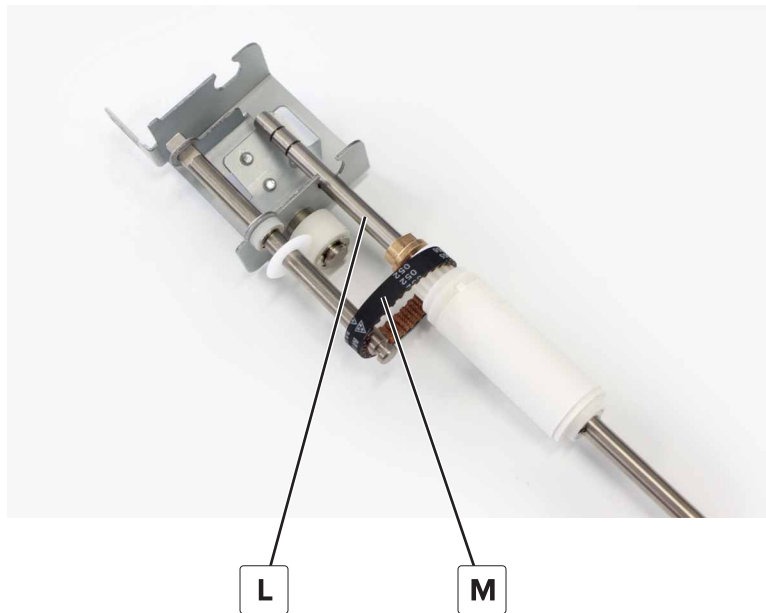
16 Remove the clip (J), and then remove the separator roller and the gear.



17 Remove the clip (K), and then remove the bushing.



18 Remove the shaft (L), and then remove the separator belt (M).



Parts removal

Component locations

Exterior locations

Front view

Basic model



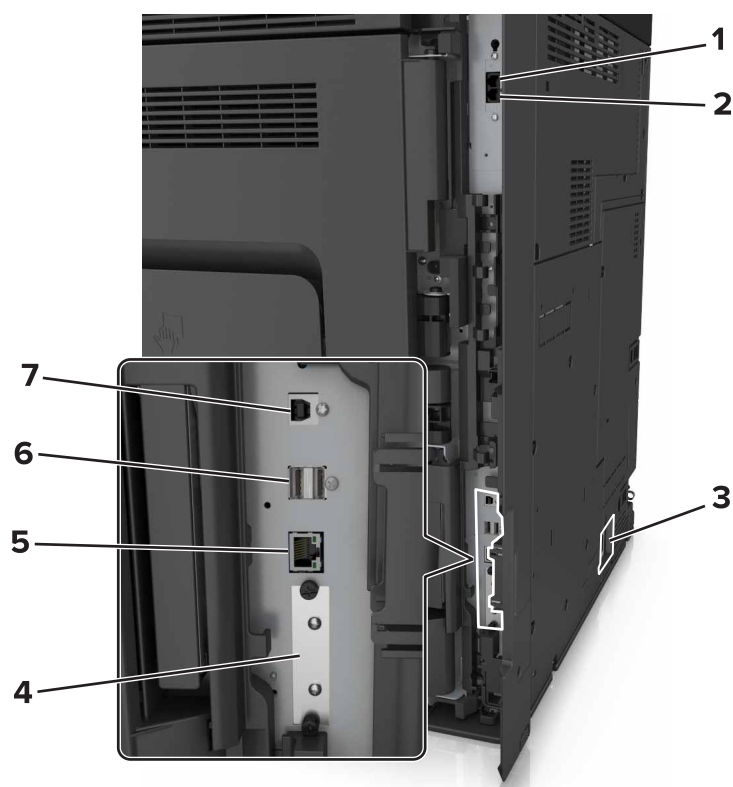
1	Automatic document feeder (ADF)
2	ADF tray
3	ADF bin
4	Control panel
5	Multipurpose feeder
6	Standard 2 x 500-sheet tray
7	Standard bin

Configured model



1	Staple finisher Note: The staple finisher is not supported if another finisher is installed.
2	3000-sheet tray Note: The 3000-sheet tray is supported only if the optional 2 x 500- or 2500-sheet tray is installed.
3	2 x 500-sheet tray
4	2500-sheet tray
5	Finisher <ul style="list-style-type: none"> • Staple, hole punch finisher • Booklet finisher

Rear view



	Part name
1	EXT port
2	LINE port
3	Printer power cord socket
4	Internal Solutions Port (ISP) or printer hard disk slot
5	Ethernet port
6	USB ports
7	USB printer port

Maintenance

Inspection guide

Use this guide in identifying the parts that must be inspected, cleaned, or replaced based on the page count.

If any unsafe condition exists, find out how serious the hazard is and if you can continue before you correct the hazard.

As you service the printer, check for the following:

- Damaged, missing, or altered parts, especially in the area of the power switch and the power supply
- Damaged, missing, or altered covers, especially in the area of the top and power supply covers
- Possible safety exposure from any non-Lexmark attachments

Use the following table to determine when to inspect the following parts:

PART	EVERY 50K	EVERY 300K	EVERY 600K	EVERY 720K
MEDIA FEEDERS/TRAYS—ALL				
Feed, separator, and pick rollers ¹	Clean	Replace ⁴	Replace ⁵	--
Transport rollers	Clean ²	--	--	--
Sensors (photo reflective)	Clean ³	--	--	--
REGISTRATION				
Registration roller	Clean ²	--	--	--
IMAGE TRANSFER				
Transfer belt paper guide	Clean ²	--	--	--
Sensor (toner density)	--	Clean ³	--	--
Transfer belt maintenance kit: <ul style="list-style-type: none"> • Transfer belt • Exhaust filter • Ozone filter • Printhead cleaner 	--	Replace ⁴	Replace ⁵	--
DEVELOPER				
Developer unit	--	--	Replace ⁵	--
¹ For 500-sheet trays, if jams still occur after 80K, then replace using the spare rollers in the tray compartment. ² Use damp cloth. ³ Use brush. ⁴ Reset 300K Maintenance kit. ⁵ Reset 600K Maintenance kit. ⁶ Reset Fuser kit. ⁷ Clean when fuser is replaced. ⁸ Use dry cloth.				

PART	EVERY 50K	EVERY 300K	EVERY 600K	EVERY 720K
FUSER				
Fuser	--	--	--	Replace ⁶
Induction heater ⁷	--	--	--	Clean ⁸
DUPLEX TRANSPORT				
Transport rollers	Clean ²	--	--	--
¹ For 500-sheet trays, if jams still occur after 80K, then replace using the spare rollers in the tray compartment. ² Use damp cloth. ³ Use brush. ⁴ Reset 300K Maintenance kit. ⁵ Reset 600K Maintenance kit. ⁶ Reset Fuser kit. ⁷ Clean when fuser is replaced. ⁸ Use dry cloth.				

PART	EVERY 50K	EVERY 200K
ADF ASSEMBLY		
Feed, separator, and pick rollers	Clean ¹	Replace ³
Glass clean rollers	Clean ¹	--
Sensors (photo reflective)	Clean ²	--
¹ Use damp cloth. ² Use brush. ³ Reset separator roll and pick assembly counter.		

Scheduled maintenance

The control panel displays an 80.xx error when the printer reaches a preset number of page counts. It is necessary to install the appropriate maintenance kit to maintain the print quality and reliability of the printer. Reset the maintenance counter after replacing the maintenance kit.

Maintenance kits

Part number and kit	Contents
40X9672—200K ADF Maintenance kit	<ul style="list-style-type: none"> • ADF pick roller • ADF feed roller • ADF separator roller
41X1977—200K MPF Maintenance kit	<ul style="list-style-type: none"> • MPF feed roller • MPF separator roller

Part number and kit	Contents
40X9669—300K Maintenance kit	<ul style="list-style-type: none"> • Pick roller (2 units) • Feed/separator roller (4 units) • Transfer belt maintenance kit <ul style="list-style-type: none"> – Transfer belt – Transfer roller – Exhaust filter – Ozone filter – Printhead cleaner
40X9936—600K	Developer unit
40X9046—720K	Fuser

Resetting the maintenance counter

Always reset the maintenance counter after installing the maintenance kit.

Note: You cannot cancel the operation after it has started.

Page count	Enter the	Navigate to
200K	Diagnostics menu	Reset Separator Roll and Pick Assembly Counter > Reset Separator Roll and Pick Assembly Counter
200K	Diagnostics menu	Reset Maintenance Counter > Reset 200K Maintenance Kit
300K	Configuration menu	Reset Maintenance Counter > Reset 300K Maintenance Kit
600K	Diagnostics menu	Reset Maintenance Counter > Reset 600K Maintenance Kit
720K	Diagnostics menu	Reset Fuser Counter > Reset Fuser Kit

Lubrication specification

Lubricate only when the parts are replaced or if necessary, not on a scheduled basis. The use of lubricants other than those specified in this service manual may cause premature failure. Some unauthorized lubricants may chemically attack polycarbonate parts. Use Grease P/N 99A0394 Nyogel 744.


Cleaning the printer parts

Cleaning the printer

Note: You may need to perform this task after every few months.

Warning—Potential Damage: Damage to the printer caused by improper handling is not covered by the printer warranty.

- 1 Make sure that the printer is turned off and unplugged from the electrical outlet.

 **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

- 2 Remove paper from the standard bin and multipurpose feeder.
- 3 Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.
- 4 Dampen a clean, lint-free cloth with water, and use it to wipe the outside of the printer.

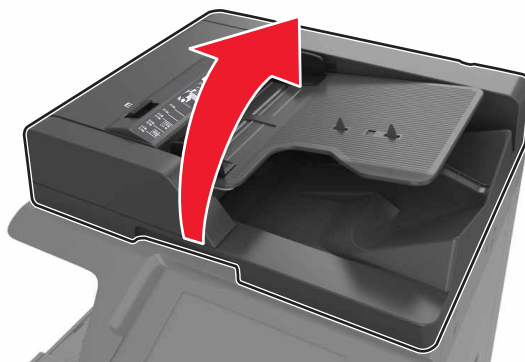
Warning—Potential Damage: Do not use household cleaners or detergents to prevent damage to the exterior of the printer.

- 5 Make sure all areas of the printer are dry before sending a new print job.

Cleaning the scanner glass

Clean the scanner glass if you encounter print quality problems, such as streaks on copied or scanned images.

- 1 Open the scanner cover.



2 Wipe the areas shown with a soft or lint-free cloth.



1	White underside of the scanner cover
2	Scanner glass
3	ADF glass
4	White underside of the ADF cover

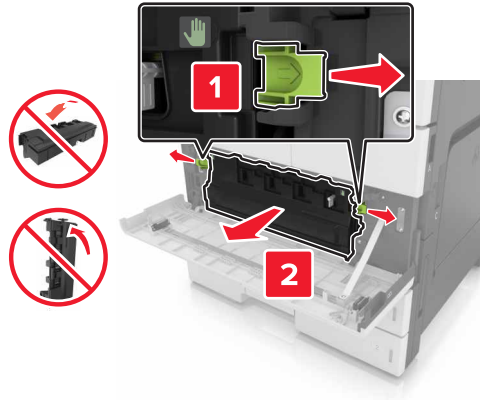
3 Close the scanner cover.

Cleaning the charger and the printhead lens

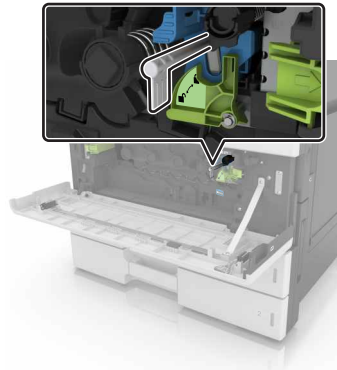
1 Open the bottom front door.



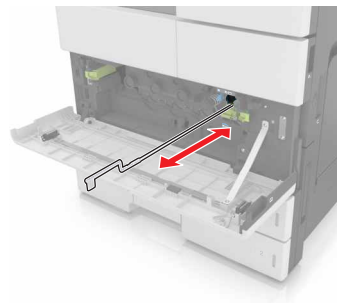
2 Remove the waste toner bottle.



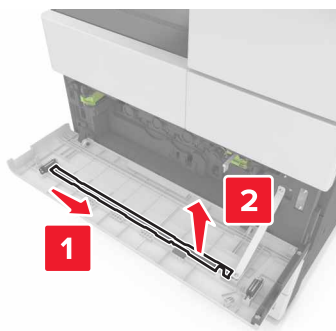
3 Locate the white tab.



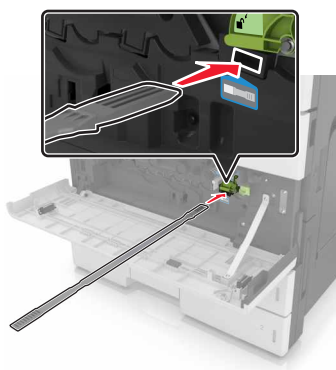
4 Gently pull the tab until it stops, and then slowly slide it back into place. Repeat three times.



5 Remove the printhead wiper.

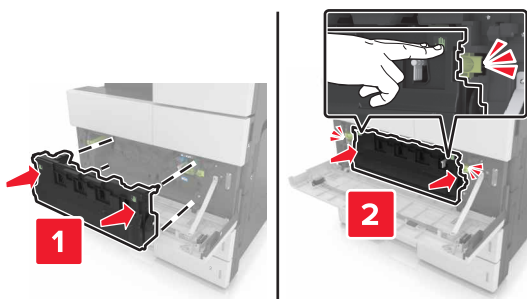


6 Insert the wiper into the hole until it stops, and then slide it out. Repeat three times.



7 Put the wiper back to its holder.

8 Reinstall the waste toner bottle.



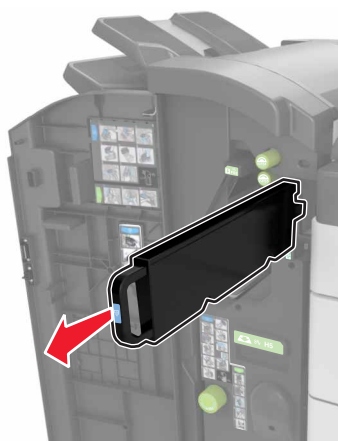
9 Close the bottom front door.

Emptying the hole punch box

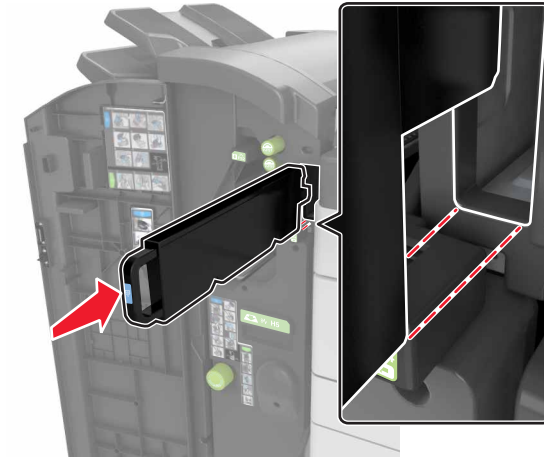
- 1 Open door H.



- 2 Remove and empty the hole punch box.



3 Reinstall the hole punch box.



4 Close door H.

Parts catalog

Legend

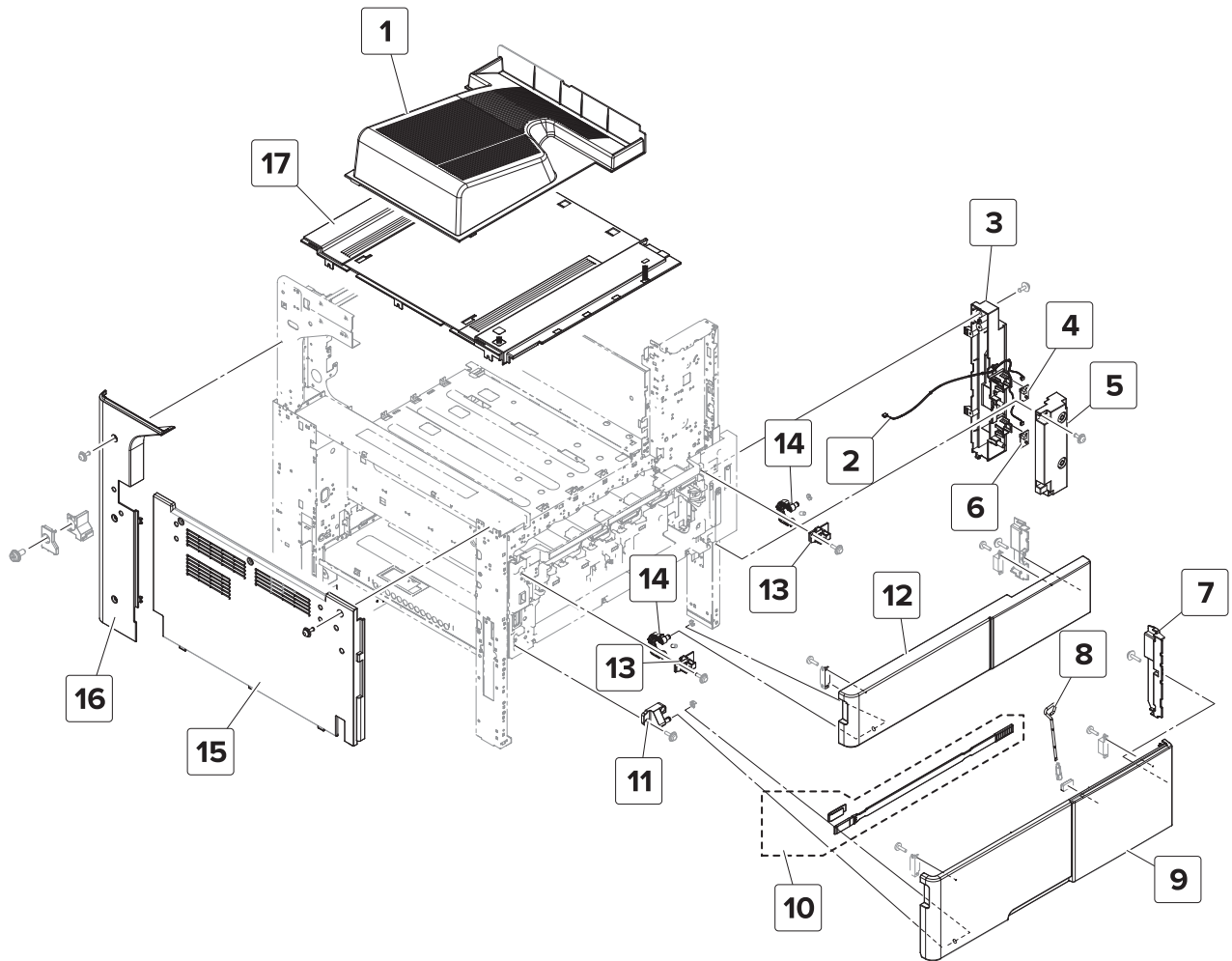
The following column headings are used in the parts catalog:

- **Asm-index**—Identifies the item in the illustration
- **P/N**—Identifies the part number of a FRU
- **Units/mach**—Refers to the number of units in a printer
- **Units/opt**—Refers to the number of units in an option
- **Units/FRU**—Refers to the number of units in a FRU
- **Description**—A brief description of the part

The following abbreviations are used in the parts catalog:

- **NS** (not shown) in the Asm-index column indicates that the part is procurable but is not shown in the illustration.
- **PP** (parts packet) in the Description column indicates that the part is contained in a parts packet.

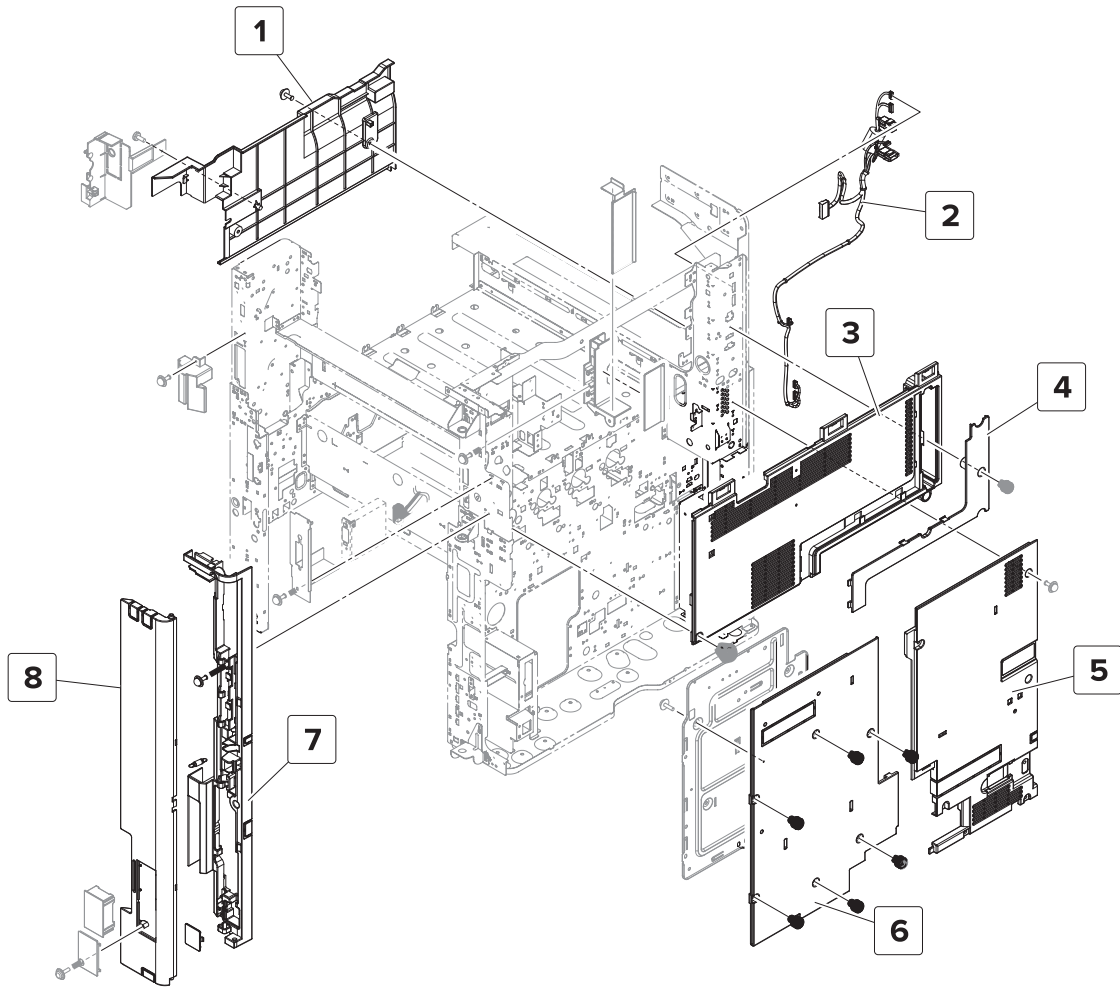
Assembly 1: Covers 1



Assembly 1: Covers 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1942	1	1	Standard bin	--
2	40X8901	1	1	Tray empty board cable	--
3	40X9758	1	1	Tray empty board mount	--
4	40X8903	2	1	Tray 1 empty indicator	--
5	40X8902	1	1	Tray empty board cover	--
6	40X8903	2	1	Tray 2 empty indicator	--
7	40X8904	1	1	Front lower cover	--
8	40X9962	1	1	Screwdriver	--
9	40X9760	1	1	Bottom front door	"Bottom front door removal" on page 347
10	40X8905	1	1	Printhead cleaner	--
11	40X9761	1	1	Bottom front door hinge	--
12	40X8900	1	1	Top front door	"Top front door removal" on page 347
13	40X8906	2	1	Top front door outer hinge	--
14	40X9917	2	1	Top front door inner hinge	--
15	40X8898	1	1	Left cover	"Left cover removal" on page 286
16	40X8899	1	1	Rear left cover	"Rear left cover removal" on page 287
17	40X8897	1	1	Standard bin base	"Standard bin base removal" on page 409

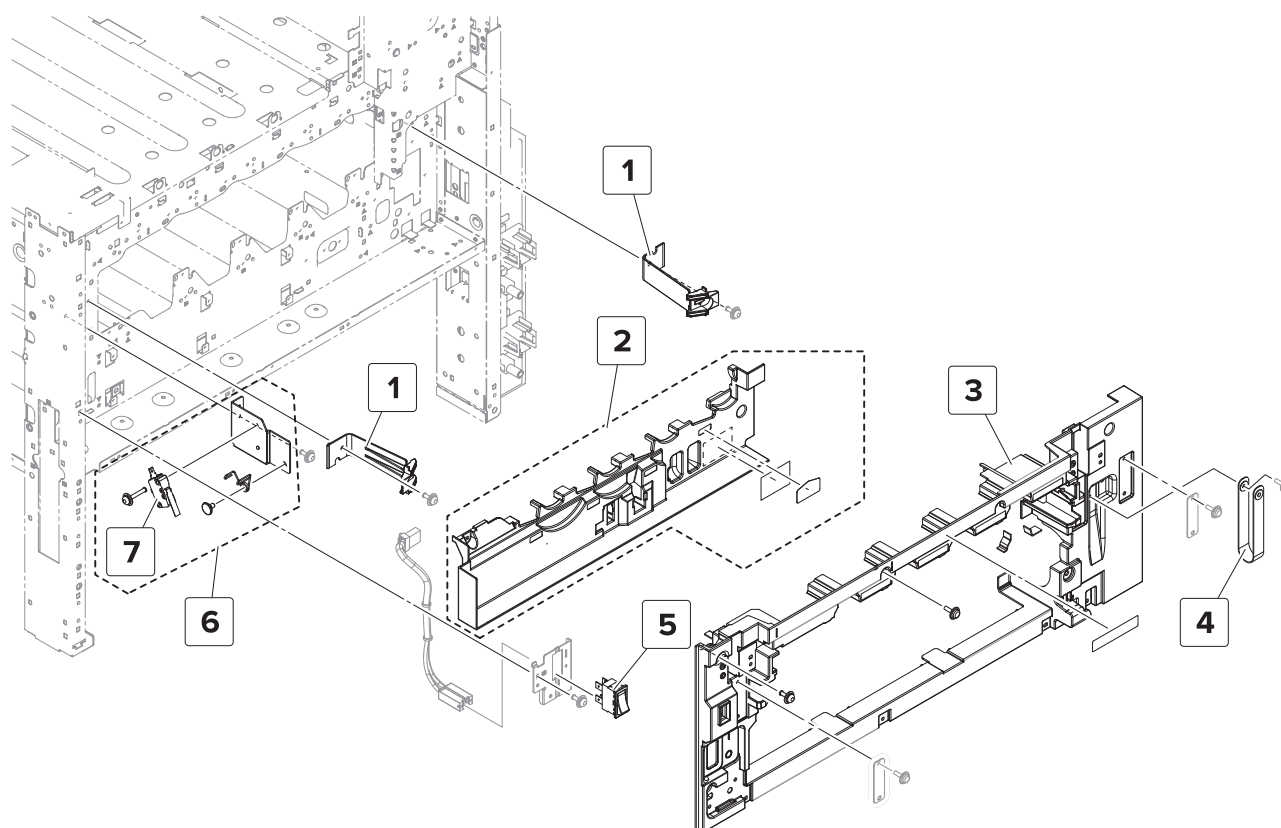
Assembly 2: Covers 2



Assembly 2: Covers 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8914	1	1	Bin side cover	“Bin side cover removal” on page 411
2	40X8907	1	1	Finisher interface cable	--
3	40X8908	1	1	Upper rear cover	“Upper rear cover removal” on page 366
4	40X9762	1	1	Scanner interface cable cover	“Scanner interface cable cover removal” on page 364
5	40X8909	1	1	Engine board cover	“Engine board cover removal” on page 366
6	40X8910	1	1	Controller board access cover	“Controller board access cover removal” on page 365
7	40X8912	1	1	Port mount	“Port access door removal” on page 293
8	40X9763	1	1	Port access door	“Port access door removal” on page 293

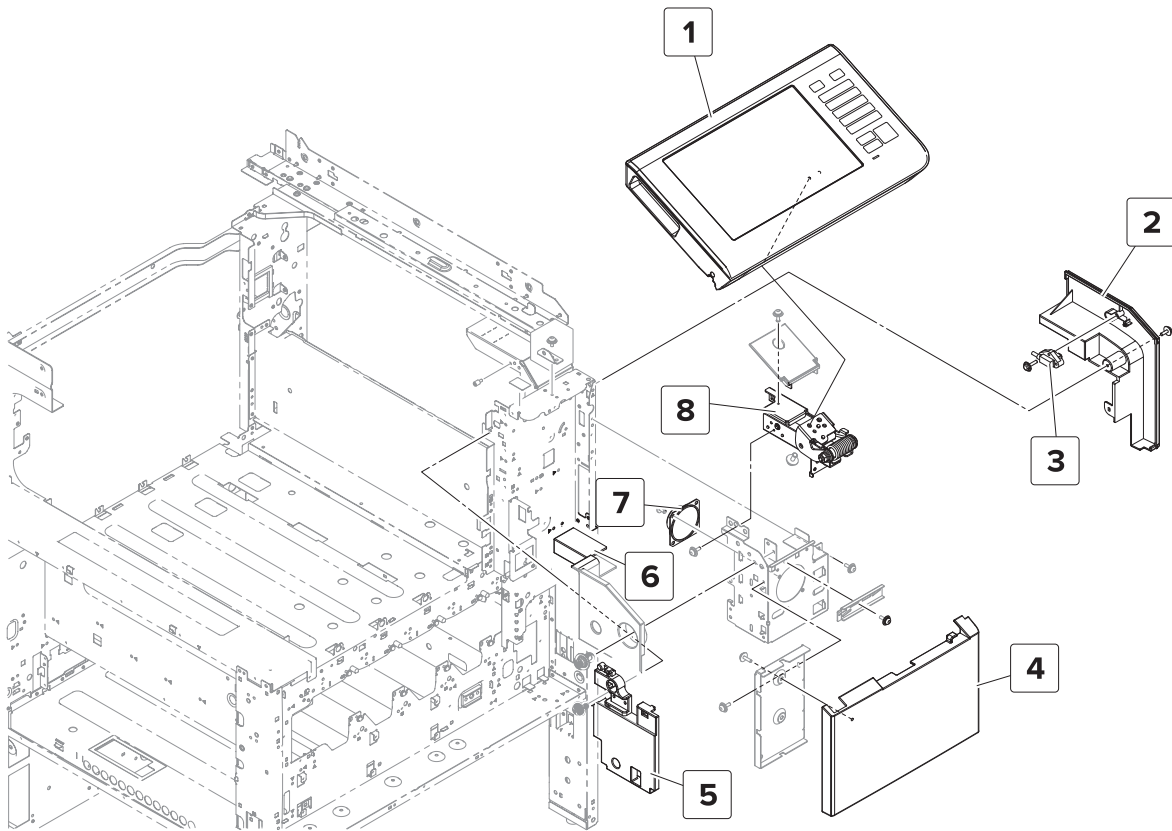
Assembly 3: Inner covers



Assembly 3: Inner covers

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8915	2	1	Waste toner bottle latch	--
2	40X8916	1	1	Front inner cover	“Front inner cover removal” on page 348
3	40X9764	1	1	Waste toner door mount	“Waste toner door mount removal” on page 348
4	40X8919	1	1	Lower front door strap	--
5	40X8917	1	1	Main power switch	“Main power switch removal” on page 350
6	40X9963	1	1	Waste toner door switch	“Door switch removal” on page 349
7	40X9527	1	1	Door switch	“Door switch removal” on page 349

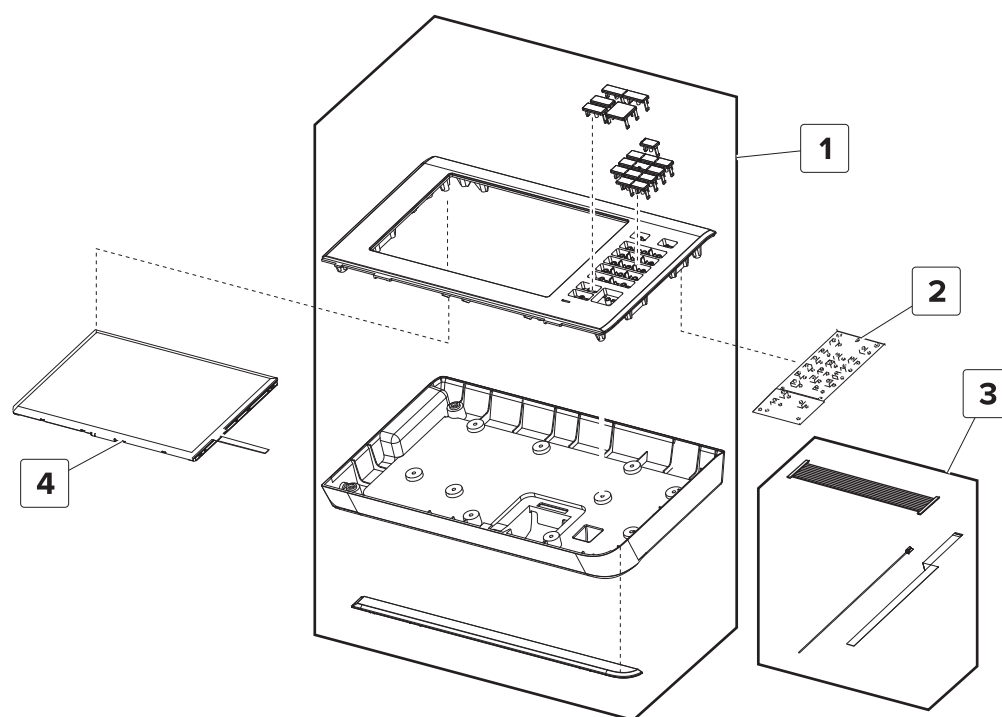
Assembly 4: Control panel



Assembly 4: Control panel

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9661	1	1	Control panel	“Control panel removal” on page 361
2	40X9965	1	1	USB port cover	--
3	40X9970	1	1	USB extension cable	--
4	40X9966	1	1	Speaker cover	“Speaker cover removal” on page 358
5	40X9967	1	1	Control panel cable guide lower	--
6	40X9969	1	1	Control panel cable guide upper cover	--
7	40X9968	1	1	Speaker	--
8	40X9964	1	1	Control panel hinge	--

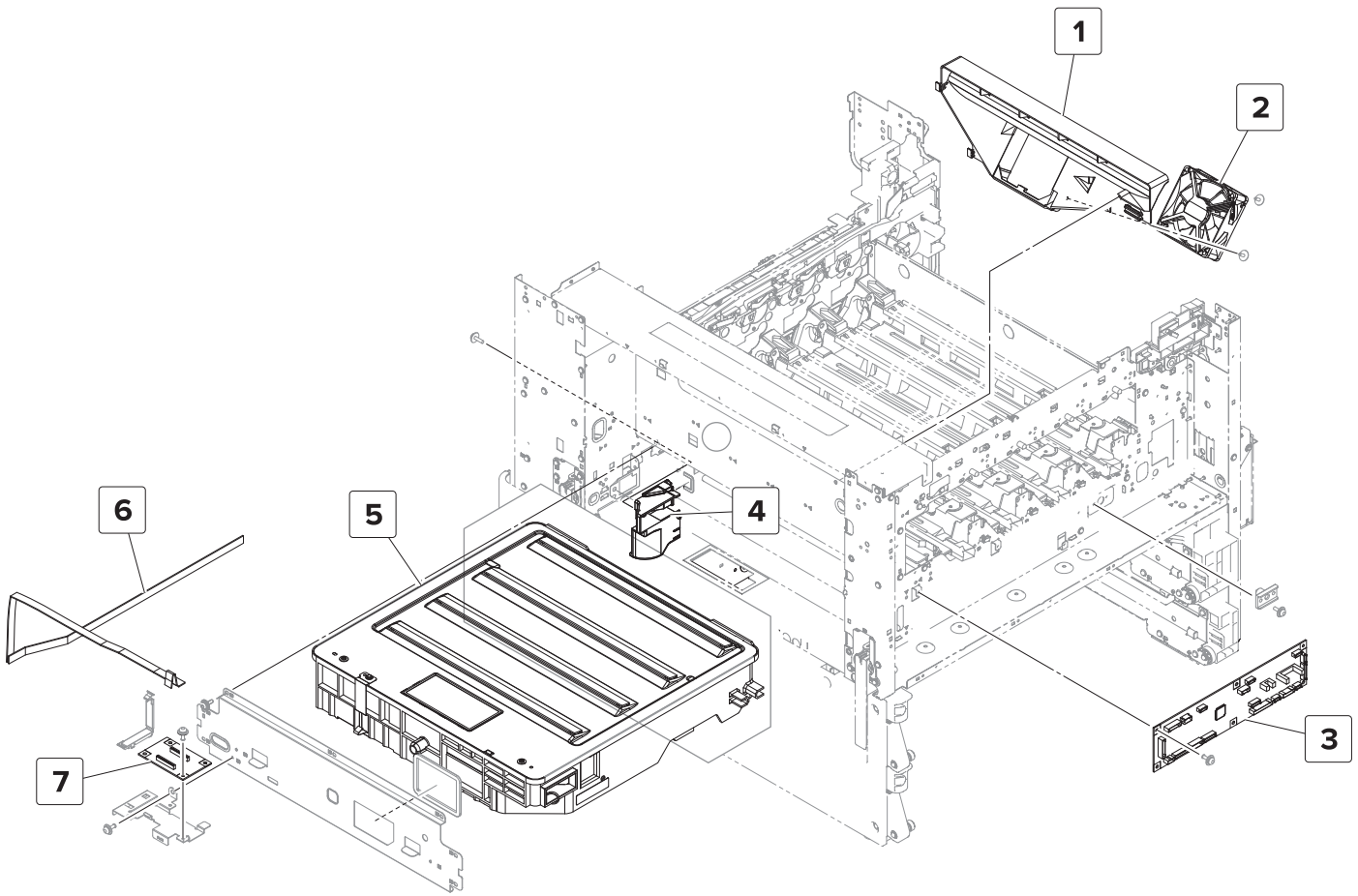
Assembly 5: Control panel 2



Assembly 5: Control panel 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0452	1	1	Control panel cover assembly	--
2	41X0455	1	1	Control panel UICC	--
3	41X0453	1	1	Control panel cable kit	--
4	41X0454	1	1	Control panel touch screen display (10 in.)	--

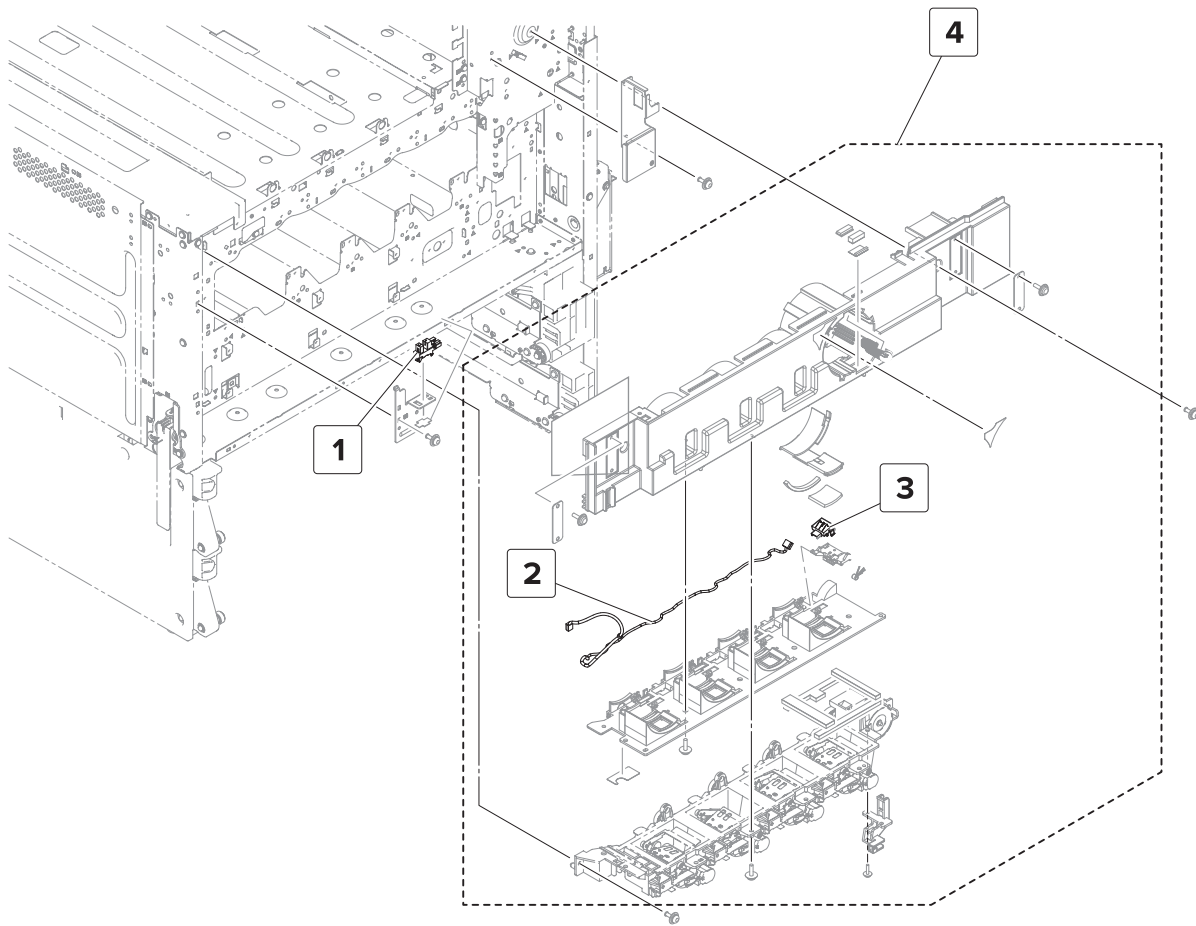
Assembly 6: Printhead



Assembly 6: Printhead

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8944	1	1	Transfer belt fan duct	--
2	40X8945	1	1	Transfer belt fan	--
3	40X8946	1	1	Image controller board	“Image controller board removal” on page 349
4	40X9188	1	1	Ozone filter duct	--
5	40X8949	1	1	Printhead (MFP)	“Printhead removal” on page 290
6	40X8948	1	1	Printhead FFC	--
7	40X8947	1	1	Printhead relay board	--

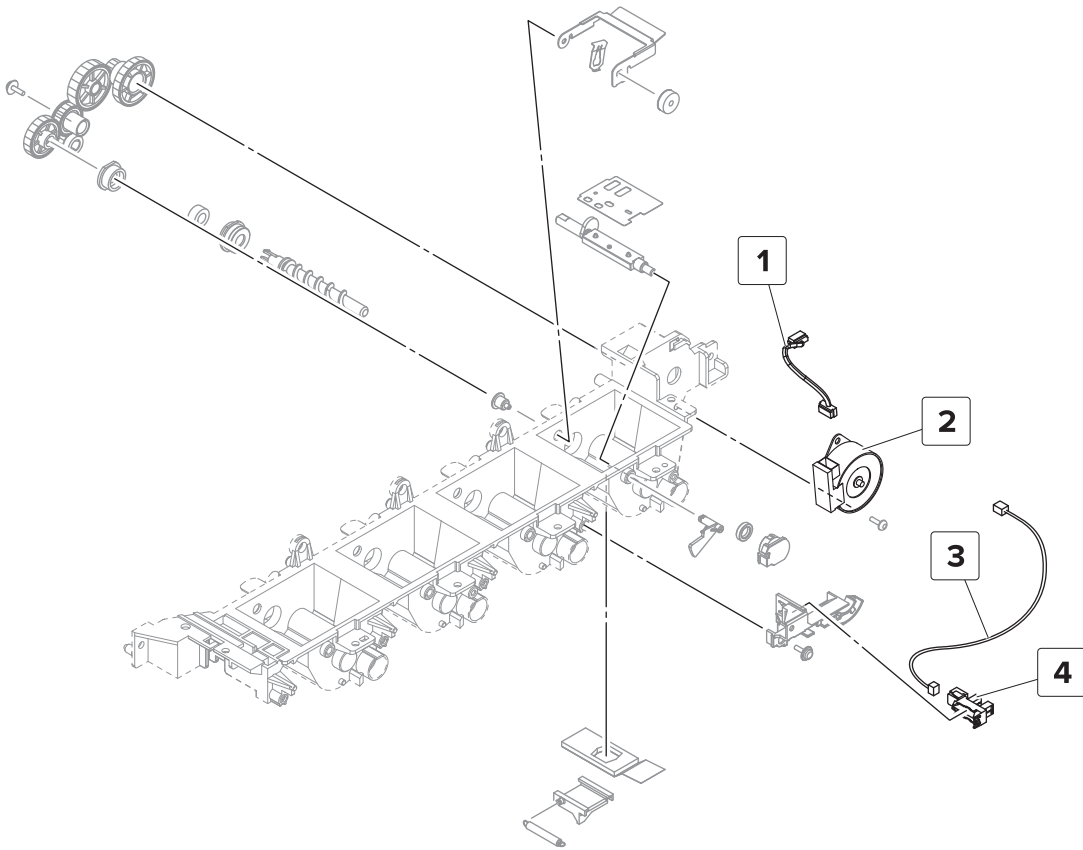
Assembly 7: Toner supply 1



Assembly 7: Toner supply 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9313	1	1	Sensor (top front door)	“Sensor (top front door) removal” on page 351
2	40X9750	1	1	Toner cartridge relay contact cable	“Toner agitator removal” on page 355
3	40X8962	1	1	Toner cartridge contact	“Toner agitator removal” on page 355
4	40X8951	1	1	Toner agitator	“Toner agitator removal” on page 355

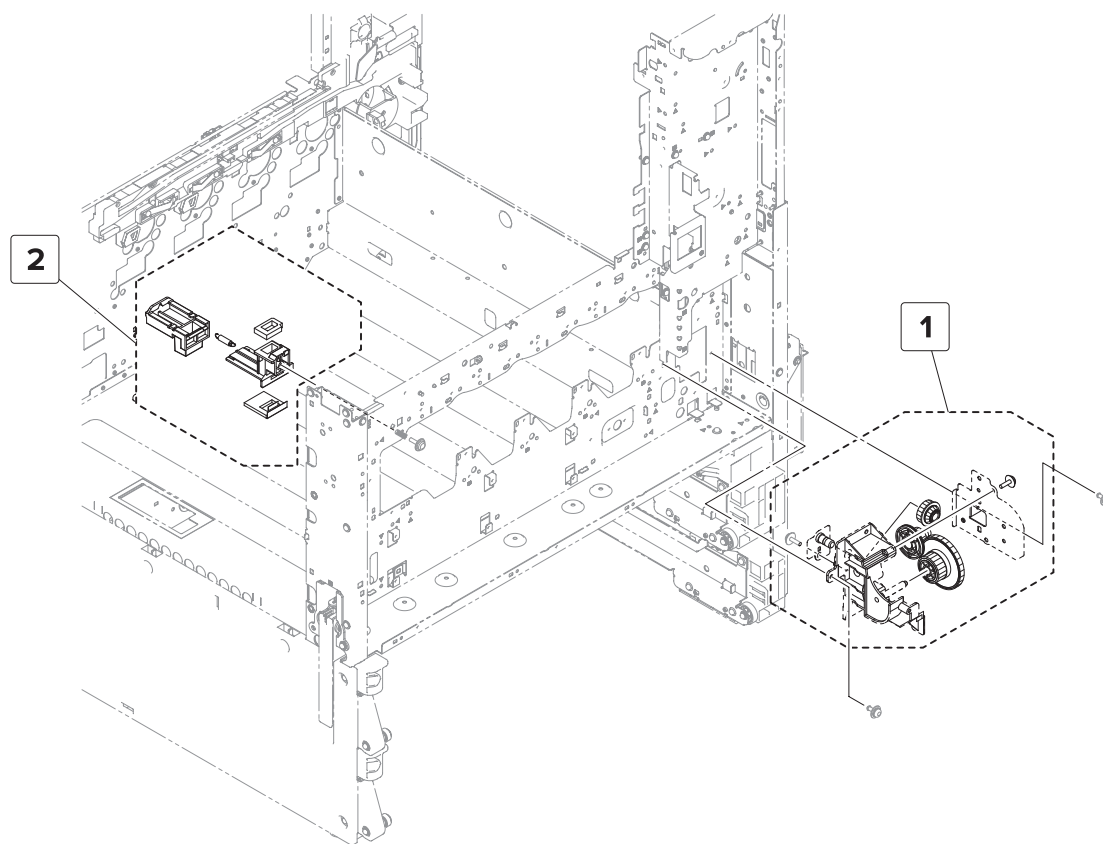
Assembly 8: Toner supply 2



Assembly 8: Toner supply 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8957	1	1	Toner supply motor cable	--
2	40X8956	1	1	Motor (toner supply)	“Motor (toner supply) removal” on page 352
3	40X9751	1	1	Toner cartridge present sensor cable	--
4	40X8869	1	1	Sensor (toner cartridge present)	“Sensor (toner cartridge present) removal” on page 354

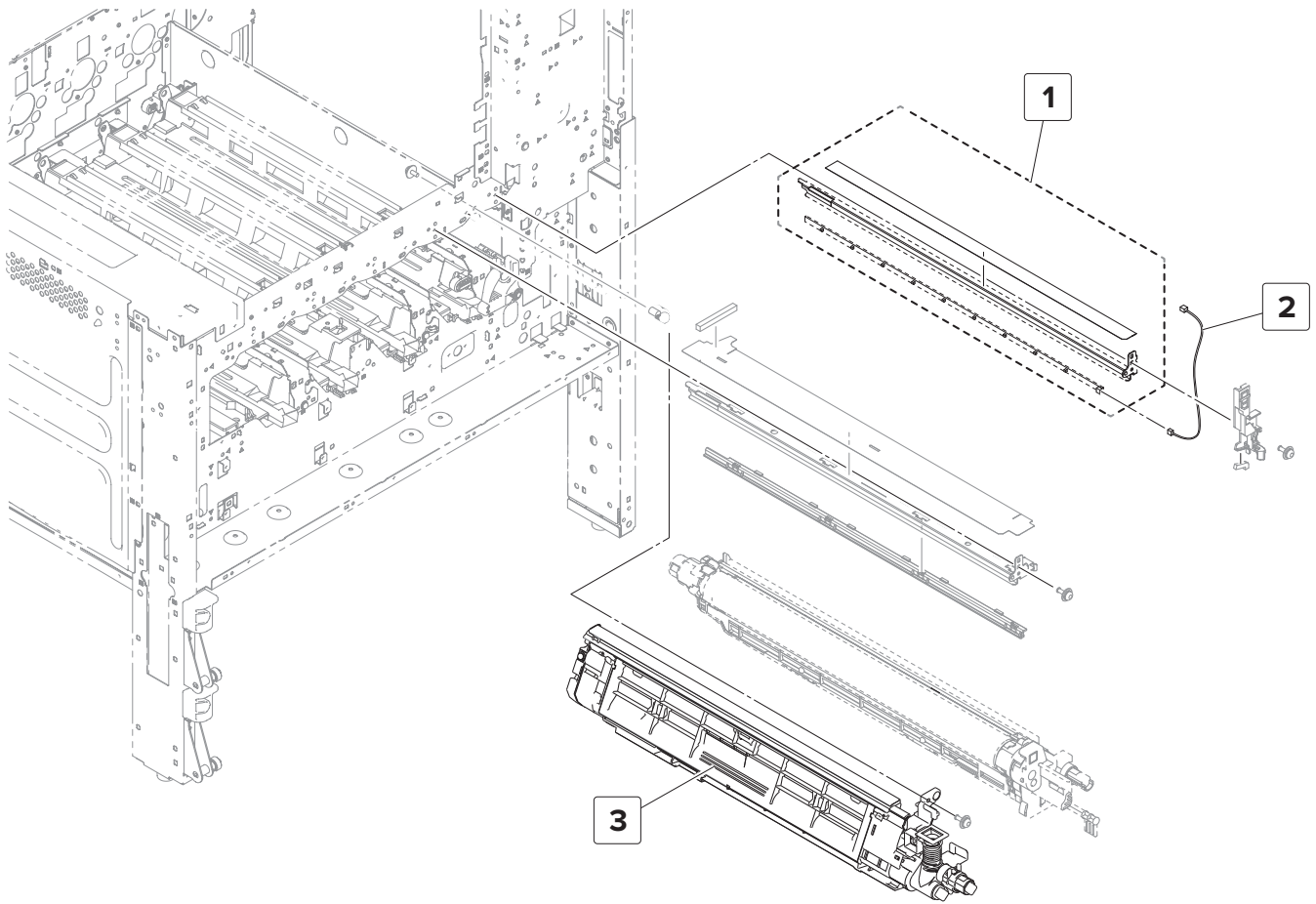
Assembly 9: Waste toner



Assembly 9: Waste toner

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8958	1	1	Waste toner drive	“Waste toner drive removal” on page 353
2	40X8959	1	1	Waste toner duct	--

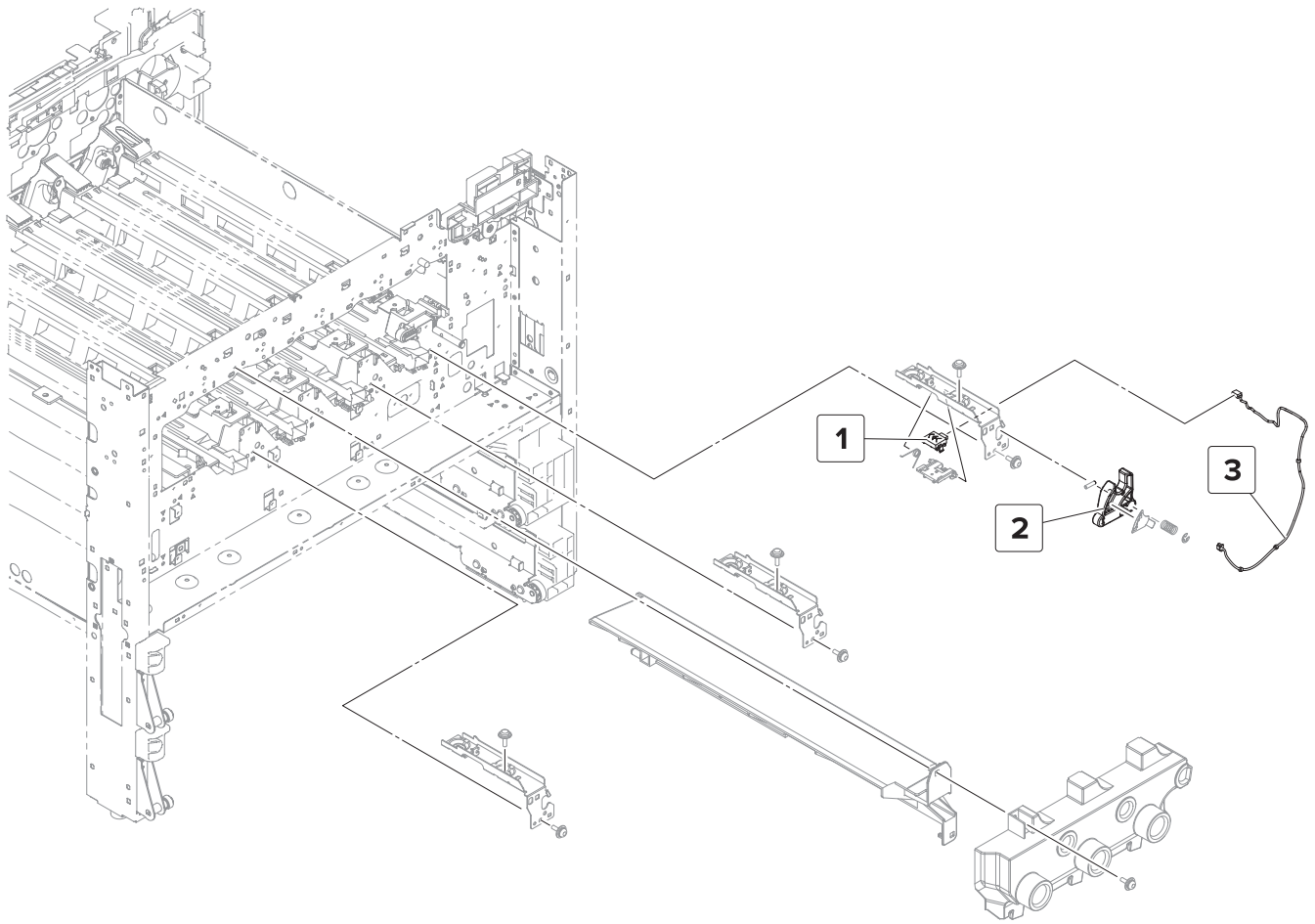
Assembly 10: Developer



Assembly 10: Developer

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8960	1	1	Erase LED	--
2	40X9977	1	1	Erase LED cable	--
3	40X9936	1	1	Developer unit	“Developer unit removal” on page 356

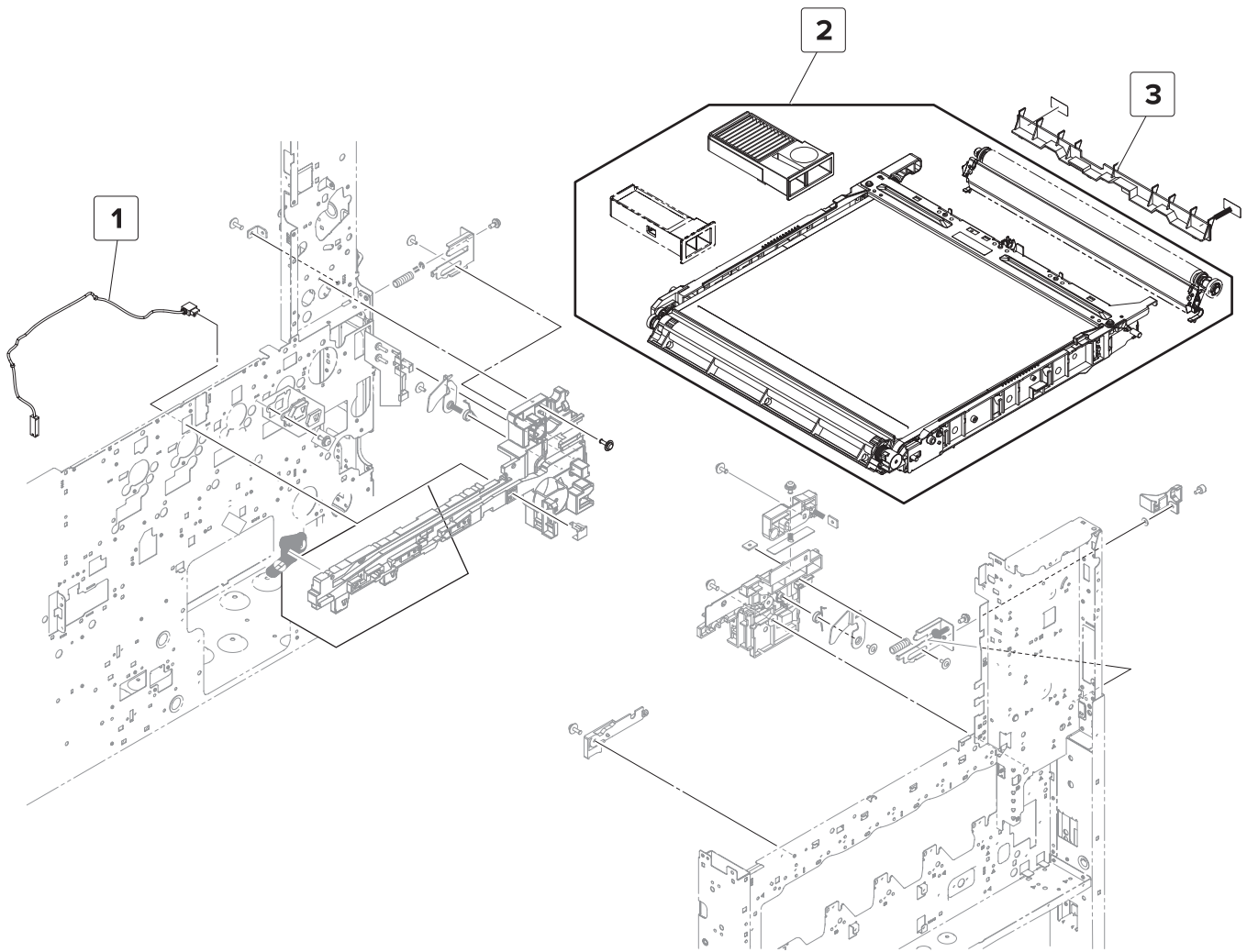
Assembly 11: Photoconductor lock



Assembly 11: Photoconductor lock

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8962	1	1	Photoconductor relay contact	--
2	40X9978	1	1	Photoconductor release lever	--
3	40X8961	1	1	Photoconductor cable	--

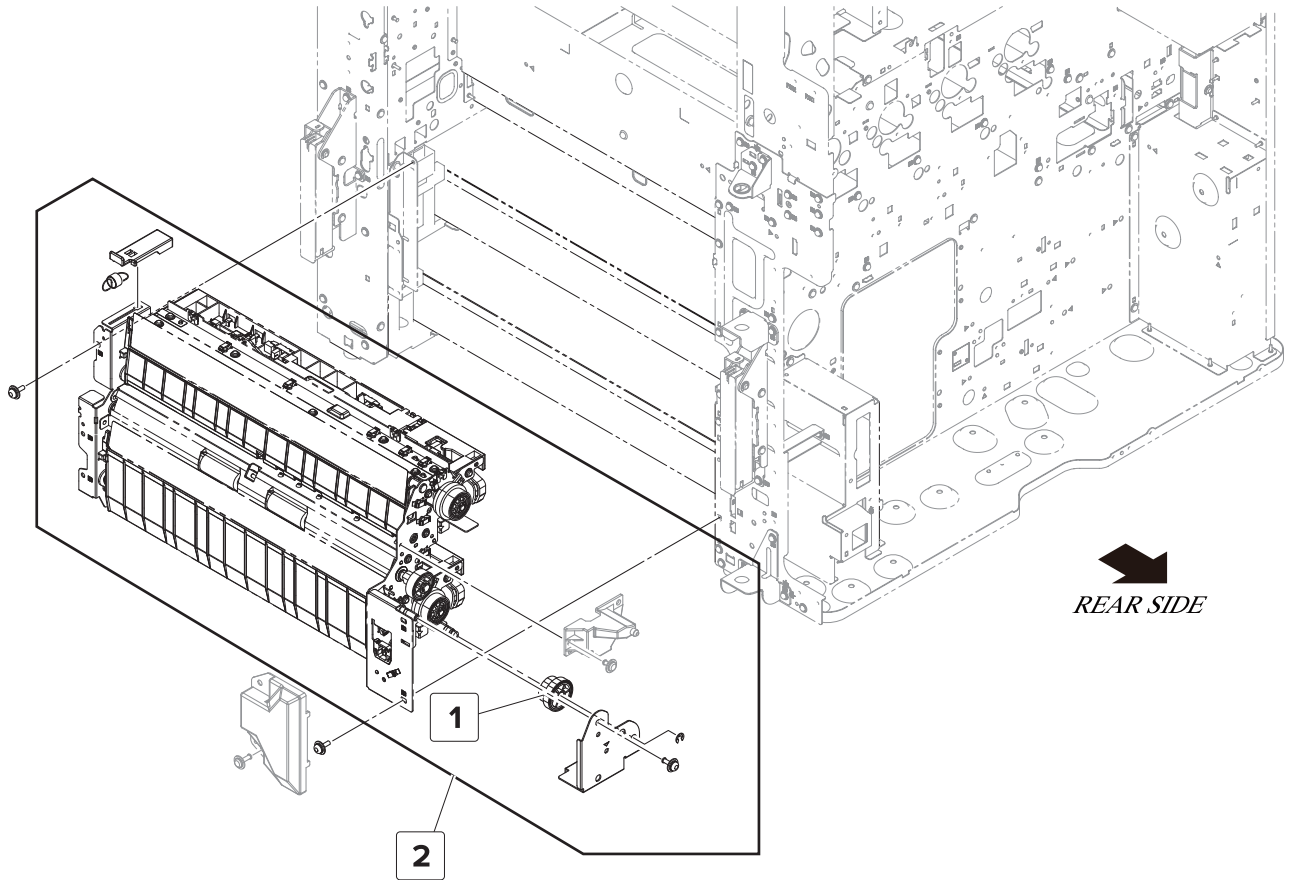
Assembly 12: Transfer belt



Assembly 12: Transfer belt

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8963	1	1	Transfer belt cable	--
2	40X9704	1	1	Transfer belt maintenance kit	--
3	40X9979	1	1	Transfer belt paper guide	--

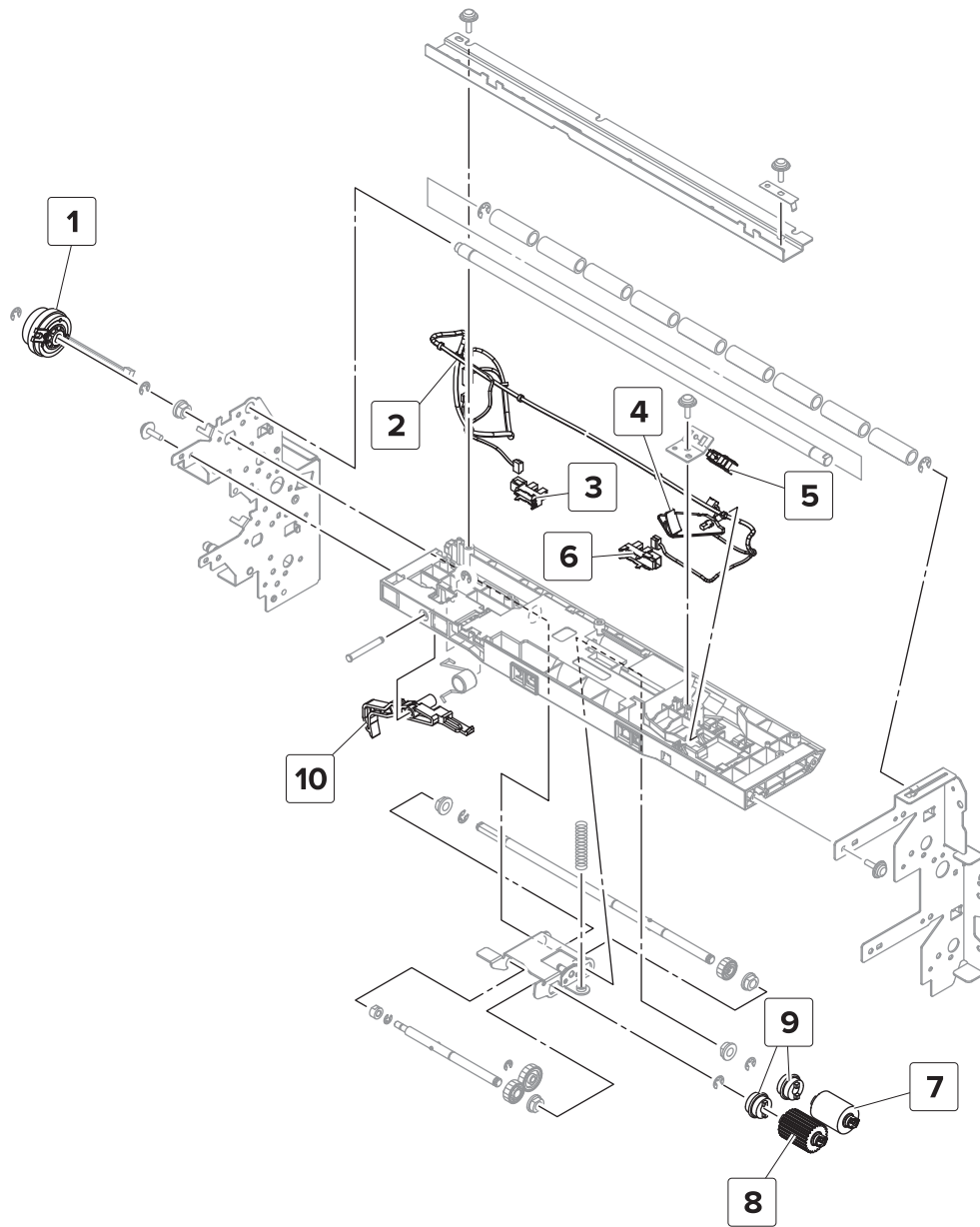
Assembly 13: Tray 1 and 2 transport



Assembly 13: Tray 1 and 2 transport

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9980	1	1	Tray 2 transport drive gear	--
2	40X8966	1	1	Tray 1 and 2 paper feed unit	--

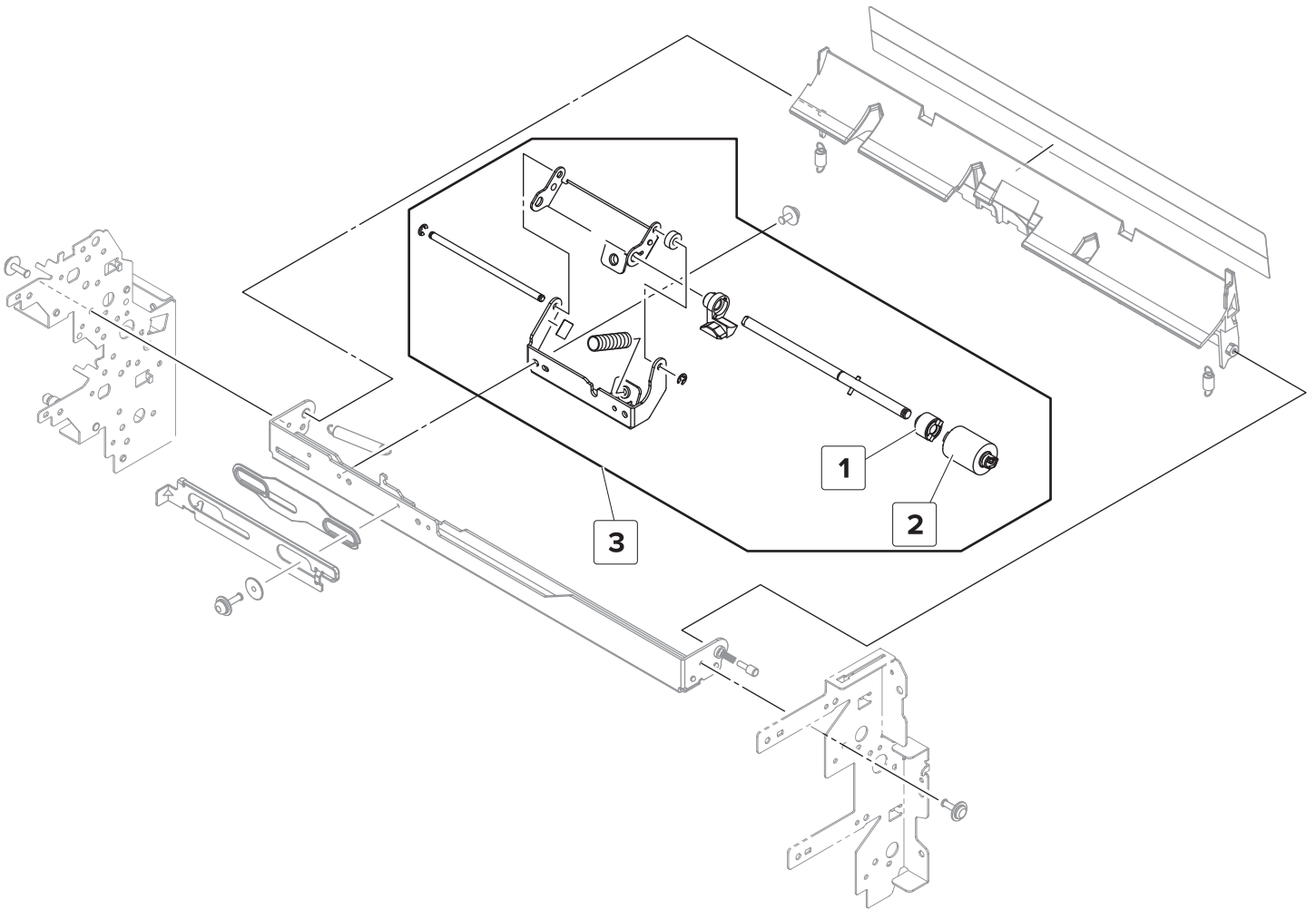
Assembly 14: Tray 1 feed



Assembly 14: Tray 1 feed

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8971	1	1	Tray 1 paper feed clutch	--
2	40X8972	1	1	Tray 1 sensor cables	--
3	40X8869	1	1	Sensor (tray 1 lift plate level)	--
4	40X9899	1	1	Tray empty sensor actuator	--
5	40X8968	1	1	Sensor (tray 1 paper feed)	--
6	40X8869	1	1	Sensor (tray 1 empty)	--
7	40X8970	1	1	Tray feed roller	--
8	40X9925	1	1	Tray pick roller	--
9	40X9981	2	1	Roller clutch	--
10	40X9982	1	1	Tray set actuator	--

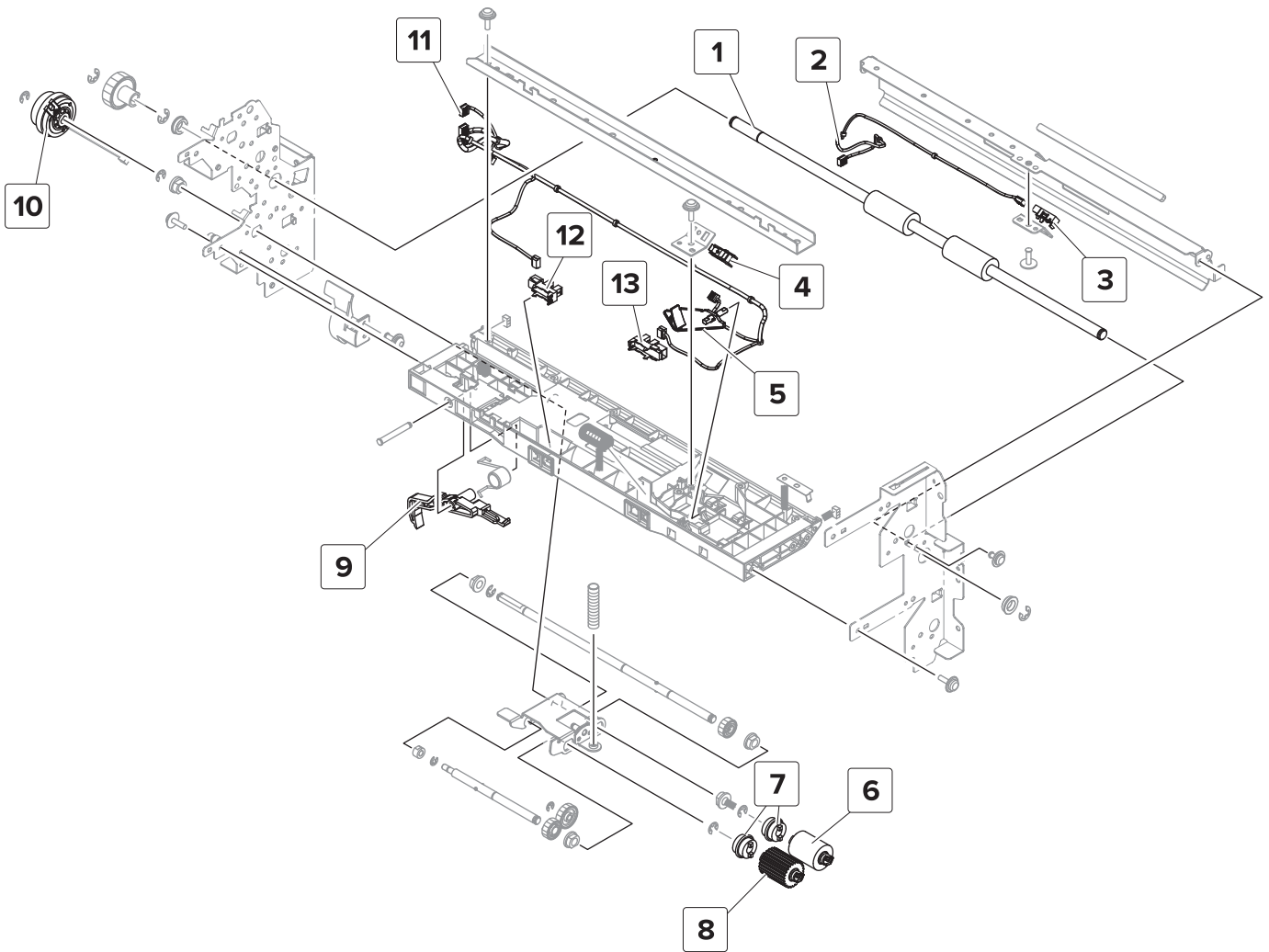
Assembly 15: Tray 1 separator



Assembly 15: Tray 1 separator

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9455	1	1	Roller clutch	--
2	40X8970	1	1	Separator roller	--
3	40X9927	1	1	Separator roller assembly	--

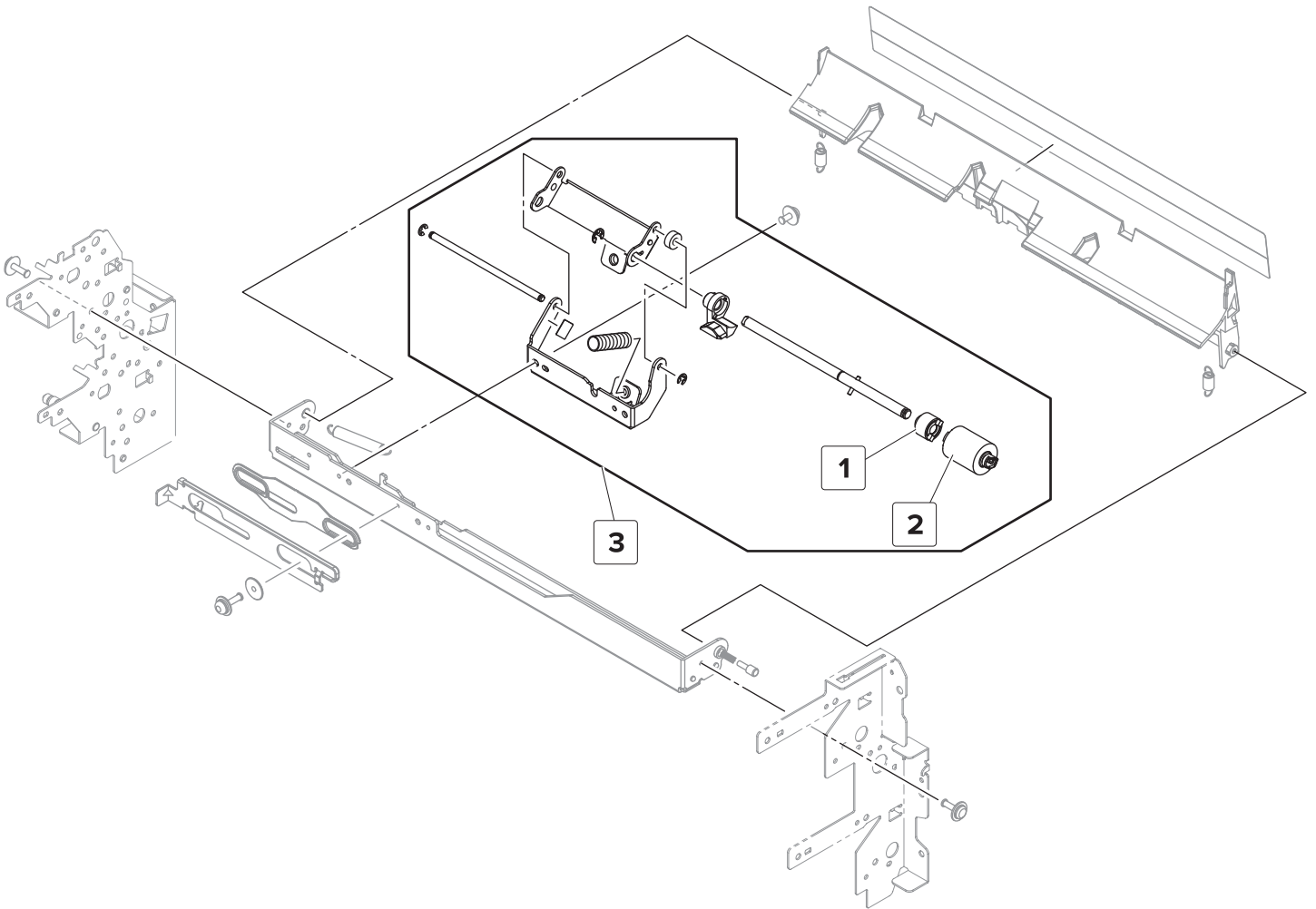
Assembly 16: Tray 2 feed



Assembly 16: Tray 2 feed

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9983	1	1	Tray 2 transport roller	--
2	40X9984	1	1	Tray 2 transport sensor cable	--
3	40X8968	1	1	Sensor (tray 2 transport)	--
4	40X8968	1	1	Sensor (tray 2 paper feed)	--
5	40X9899	1	1	Tray 2 empty sensor actuator	--
6	40X8970	1	1	Feed roller	--
7	40X9981	2	1	Roller clutch	--
8	40X9925	1	1	Pick roller	--
9	40X9982	1	1	Tray set actuator	--
10	40X8971	1	1	Tray 2 paper feed clutch	--
11	40X9987	1	1	Paper feed sensor cable	--
12	40X8869	1	1	Sensor (tray 2 lift plate level)	--
13	40X8869	1	1	Sensor (tray 2 empty)	--

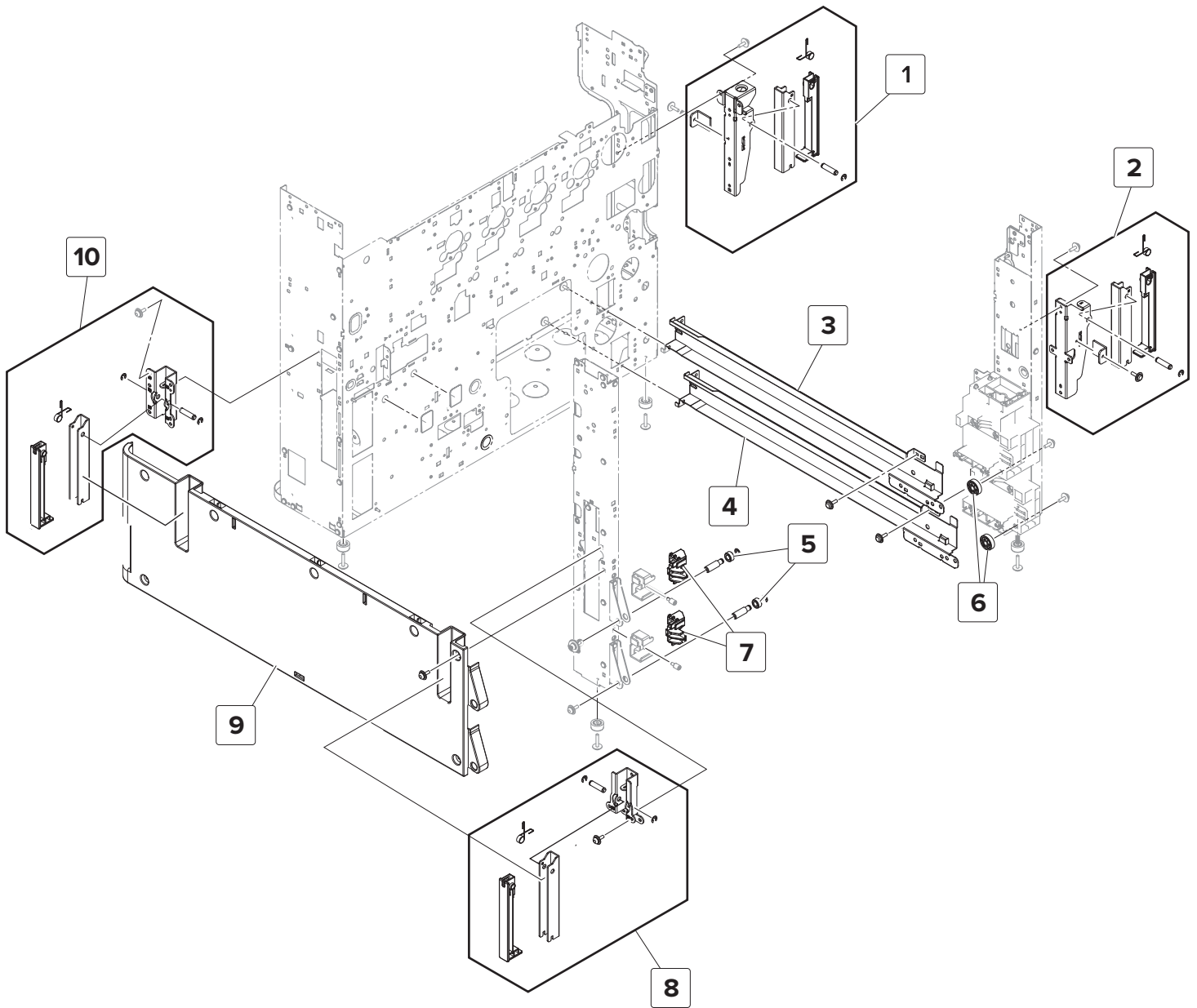
Assembly 17: Tray 2 separator



Assembly 17: Tray 2 separator

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9455	1	1	Roller clutch	--
2	40X8970	1	1	Separator roller	--
3	40X9927	1	1	Separator roller assembly	--

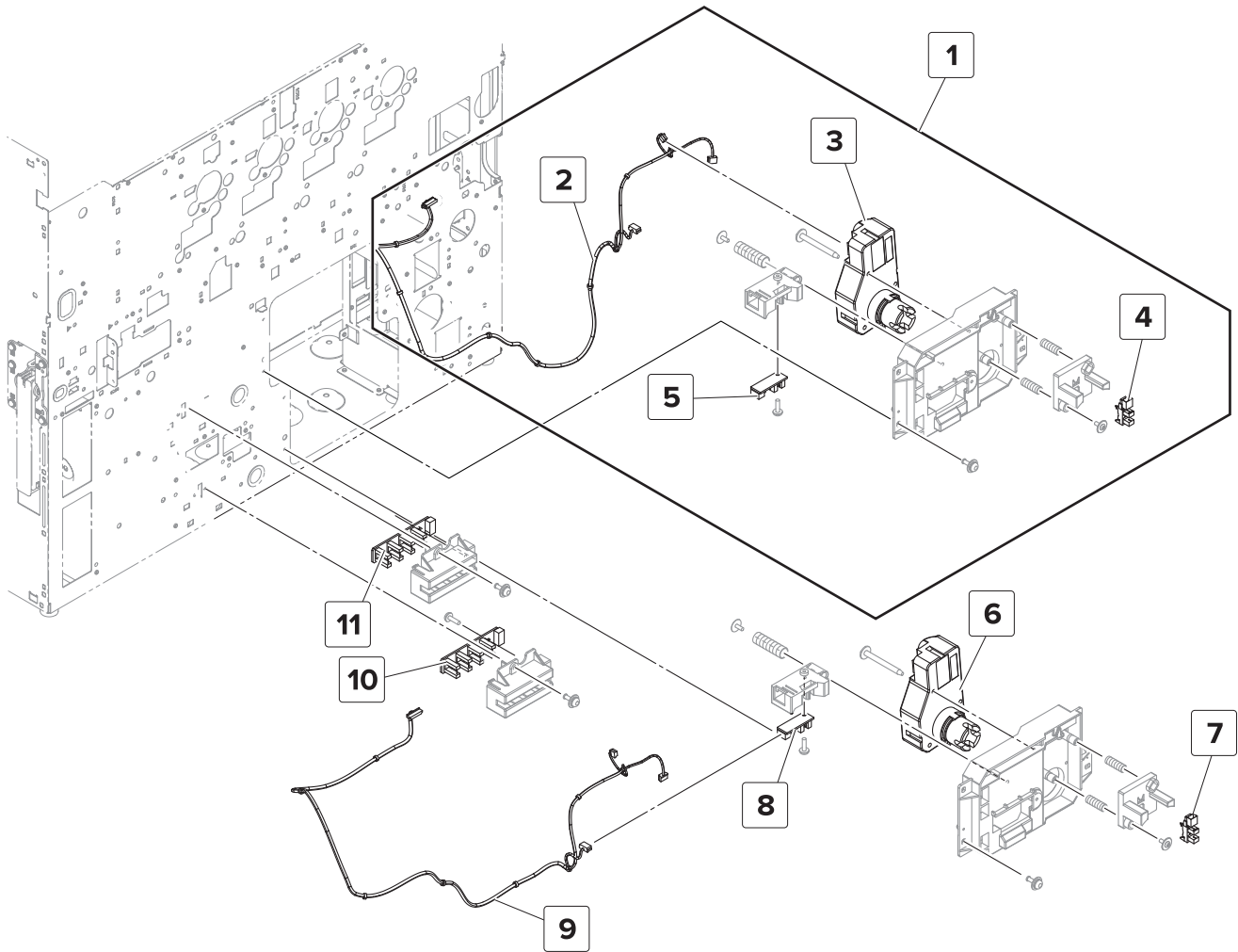
Assembly 18: Tray rail



Assembly 18: Tray rail

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8978	1	1	Rear right lift handle	--
2	40X8977	1	1	Front right lift handle	--
3	40X8982	1	1	Tray 1 insert rail	--
4	40X8982	1	1	Tray 2 insert rail	--
5	40X9305	2	1	Tray left rail guide wheel	--
6	40X8981	2	1	Tray right rail guide wheel	--
7	40X9989	1	1	Tray stopper	--
8	40X8979	1	1	Front left lift handle	--
9	40X9988	1	1	Tray base left cover	--
10	40X8980	1	1	Rear left lift handle	--

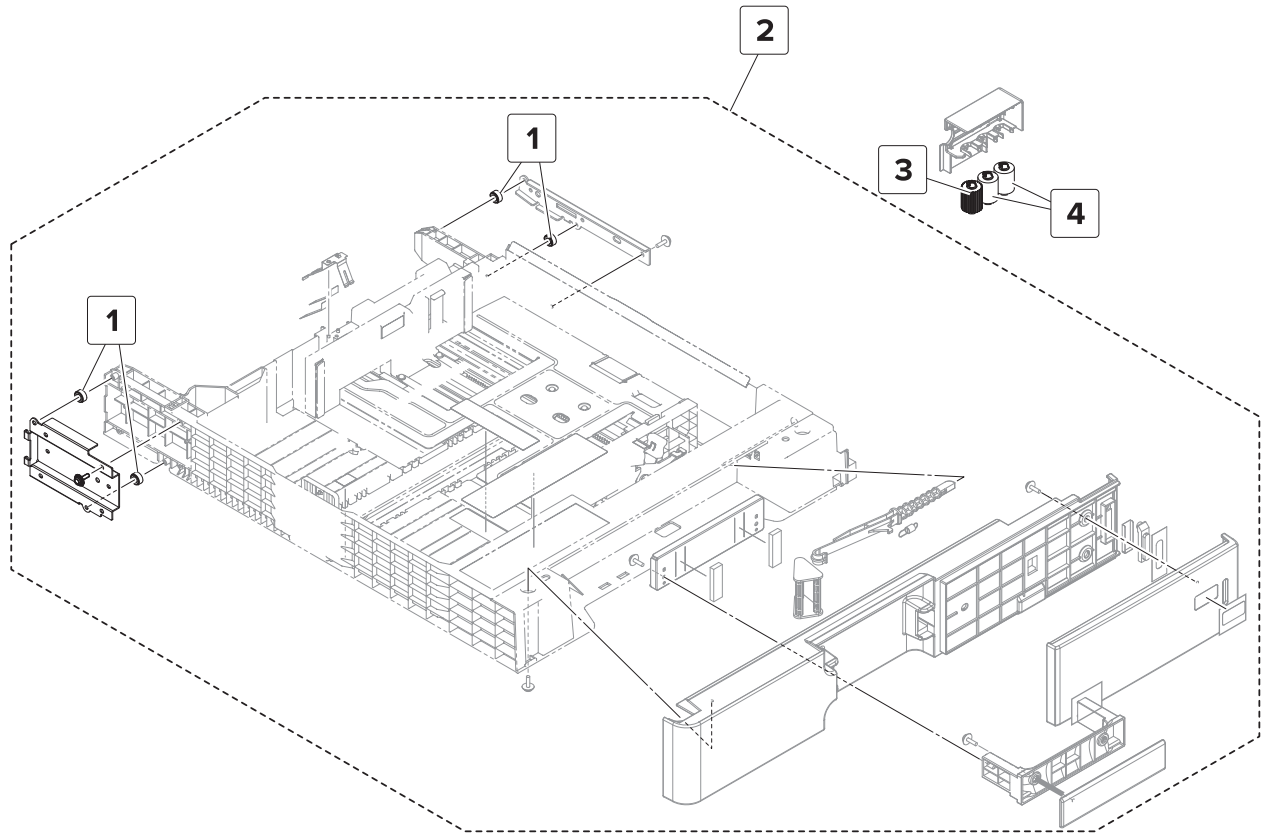
Assembly 19: Tray paper detection



Assembly 19: Tray paper detection

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8988	1	1	Tray size sensing assembly	--
2	40X8984	2	1	Tray 1 feed cable	--
3	40X8987	1	1	Motor (tray 1 lift)	“Motor (tray 1 lift) removal” on page 470
4	40X8869	1	1	Sensor (tray 1 near empty)	“Sensor (tray 1 near empty) removal” on page 473
5	40X8989	1	1	Sensor (tray 1 paper width)	“Sensor (tray 1 paper width) removal” on page 475
6	40X8987	1	1	Motor (tray 2 lift)	“Motor (tray 2 lift) removal” on page 476
7	40X8869	1	1	Sensor (tray 2 near empty)	“Sensor (tray 2 near empty) removal” on page 479
8	40X8989	1	1	Sensor (tray 2 paper width)	“Sensor (tray 2 paper width) removal” on page 481
9	40X8984	2	1	Tray 2 feed cable	--
10	40X8985	1	1	Sensor (tray 2 paper length)	“Sensor (tray 2 paper length) removal” on page 478
11	40X8985	1	1	Sensor (tray 1 paper length)	“Sensor (tray 1 paper length) removal” on page 472

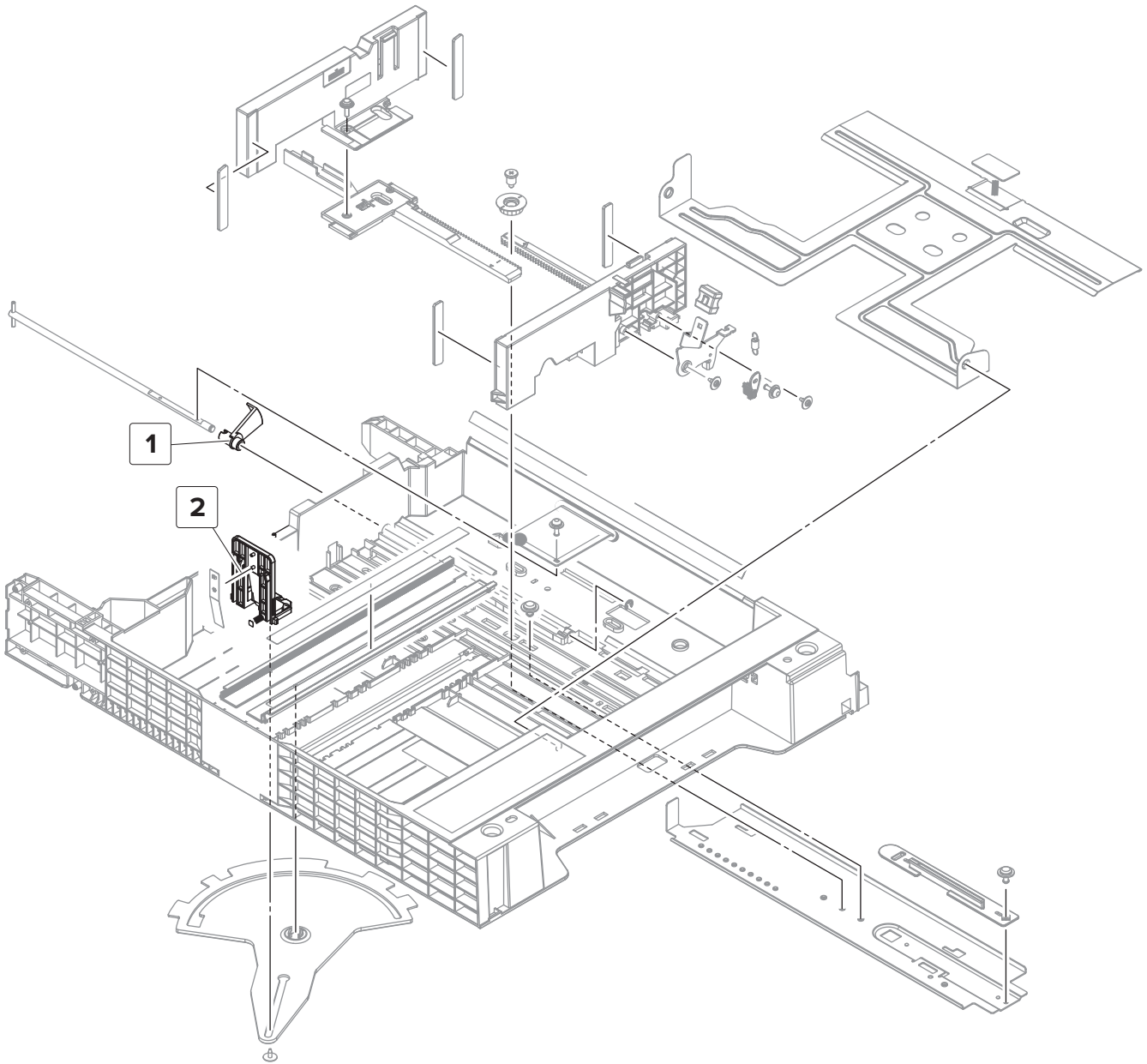
Assembly 20: 500-sheet tray—Tray 1



Assembly 20: 500-sheet tray—Tray 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9305	4	1	Tray insert guide wheel	--
2	40X8990	1	1	Tray 1 insert	“Tray insert removal” on page 341
3	40X9925	1	1	Pick roller	--
4	40X8970	2	1	Feed/separator roller	--

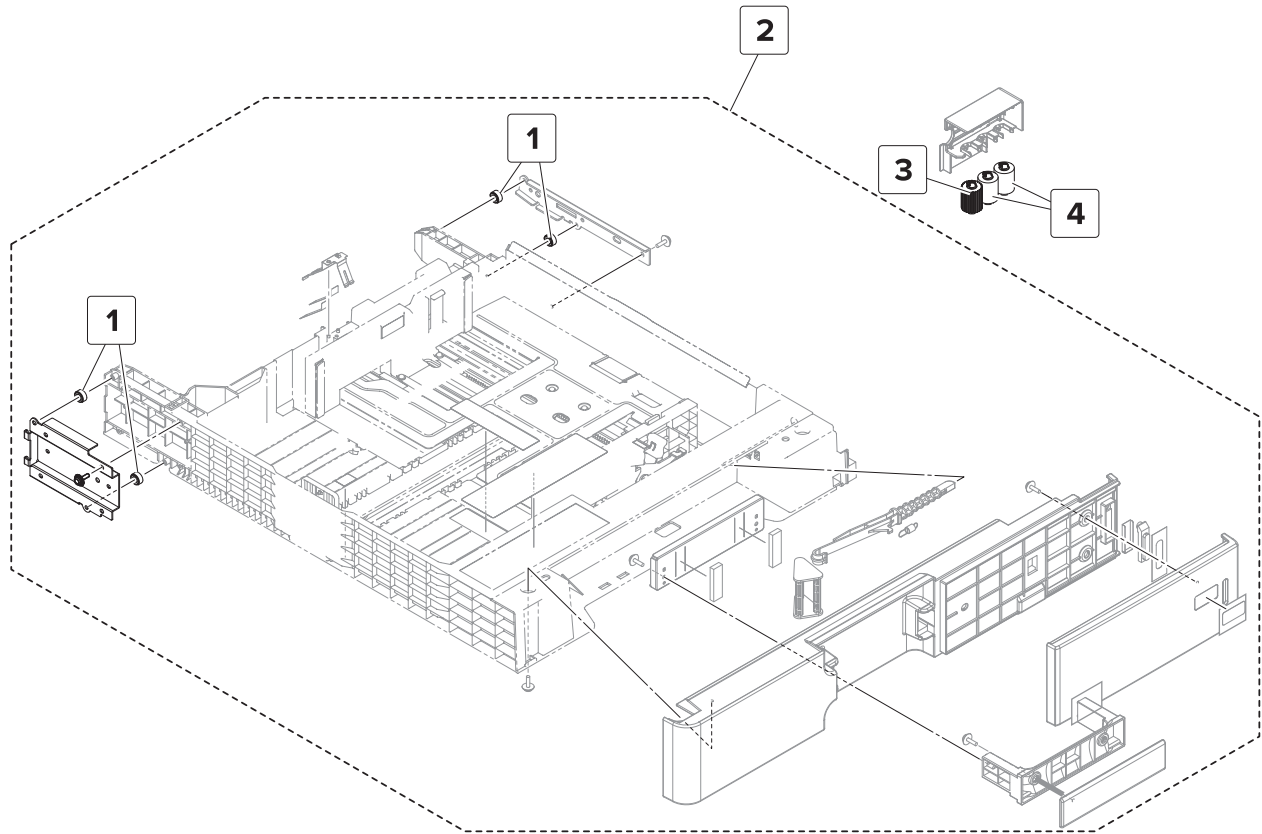
Assembly 21: 500-sheet tray—Tray 1 or Tray 2



Assembly 21: 500-sheet tray—Tray 1 or Tray 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9308	1	1	Tray near empty sensor actuator	--
2	40X9306	1	1	Tray paper length guide	--

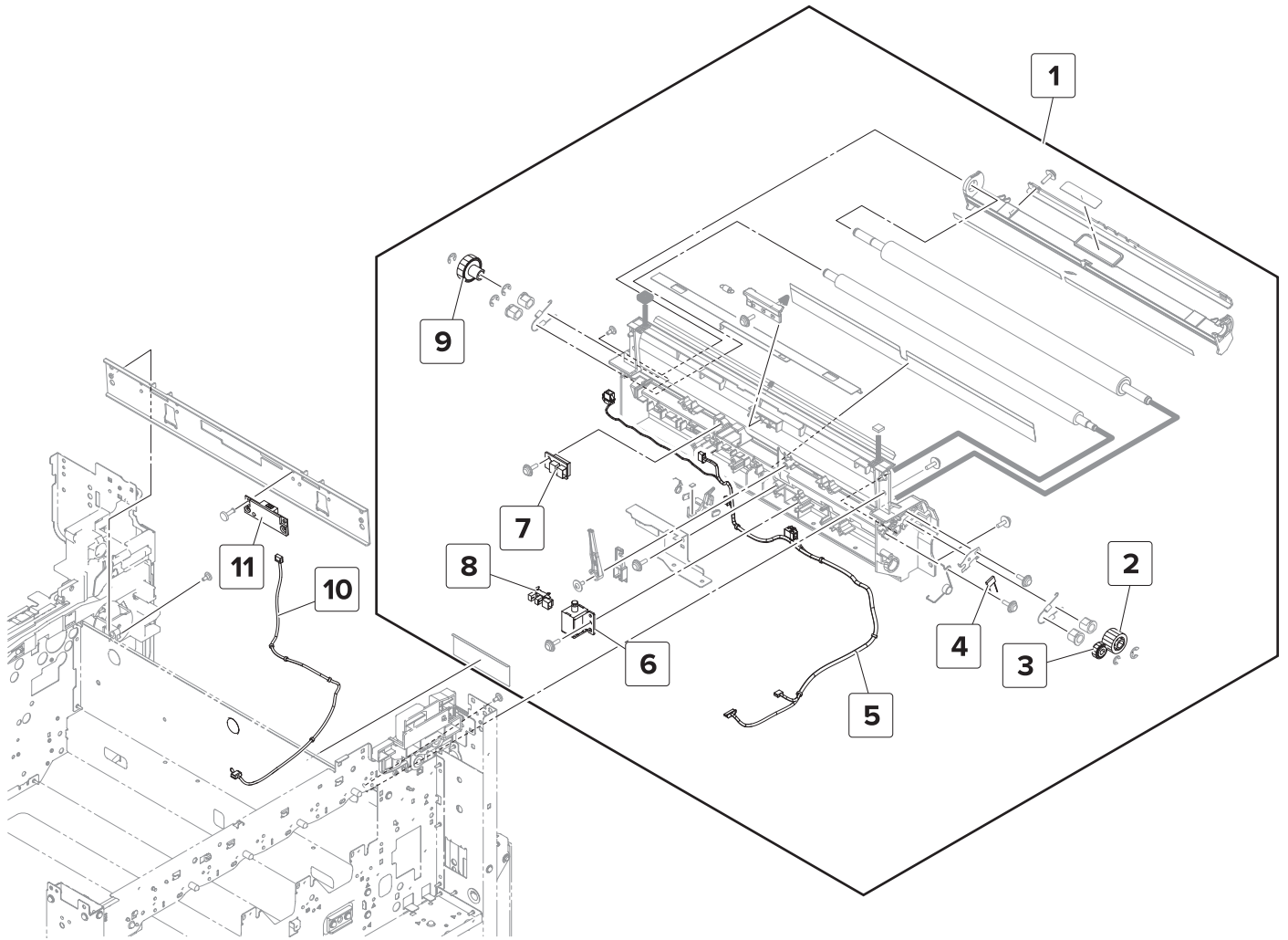
Assembly 22: 500-sheet tray—Tray 2



Assembly 22: 500-sheet tray—Tray 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9305	4	1	Tray insert guide wheel	--
2	40X8992	1	1	Tray 2 insert	"Tray insert removal" on page 341
3	40X9925	1	1	Pick roller	--
4	40X8970	2	1	Feed/separator roller	--

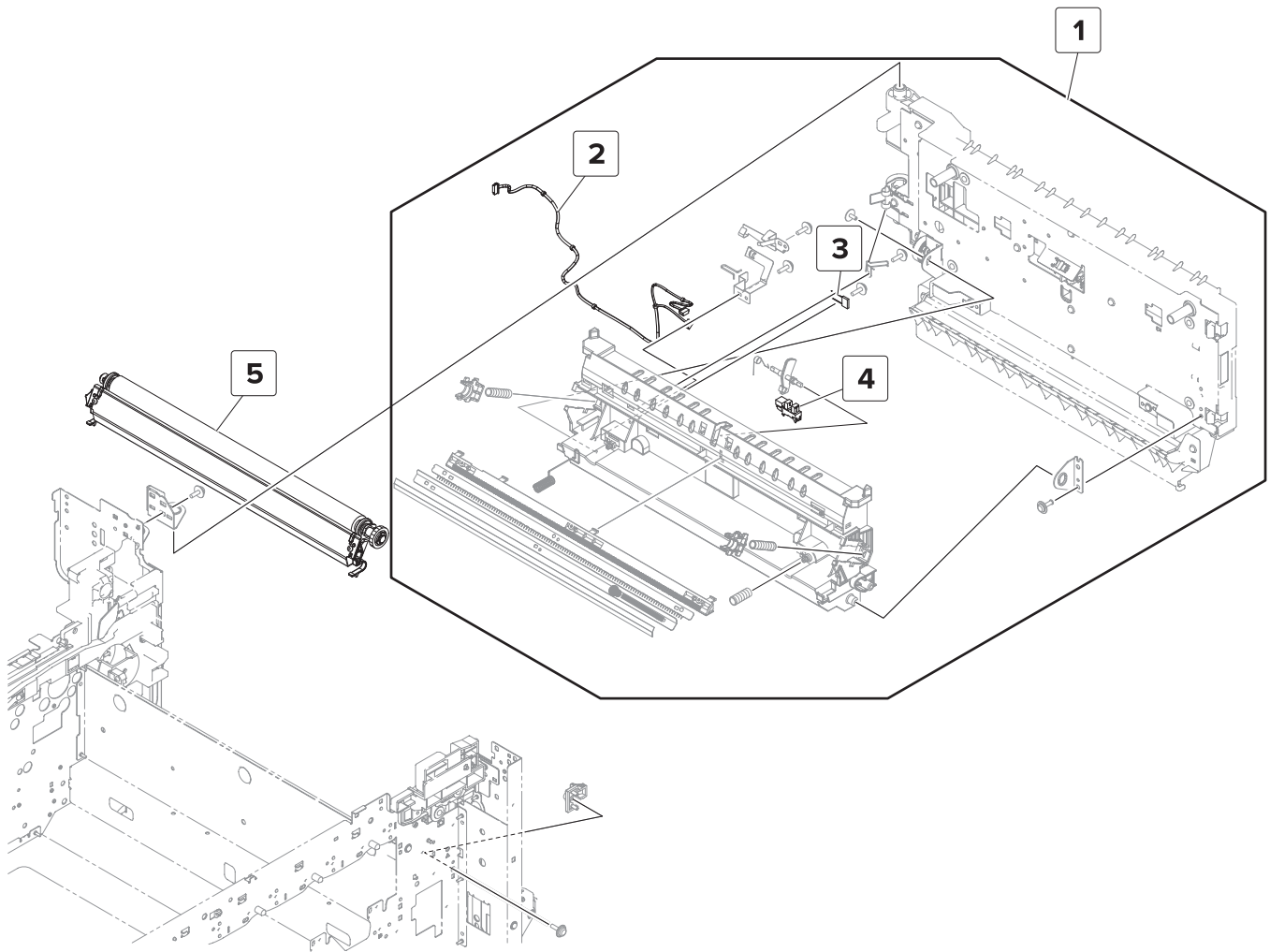
Assembly 23: Registration transport



Assembly 23: Registration transport

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8994	1	1	Registration transport assembly	“Registration transport assembly” on page 296
2	40X9706	1	1	Registration primary gear	--
3	40X9707	1	1	Registration secondary gear	--
4	40X9009	1	1	Registration roller fixed power resistor	--
5	40X9007	1	1	Registration cable	--
6	40X8998	1	1	Toner density solenoid	--
7	40X8997	1	1	Sensor (registration humidity)	--
8	40X8869	1	1	Sensor (registration)	--
9	40X8995	1	1	Registration motor gear	--
10	40X9708	1	1	Toner density sensor cable	--
11	40X8999	1	1	Sensor (toner density)	--

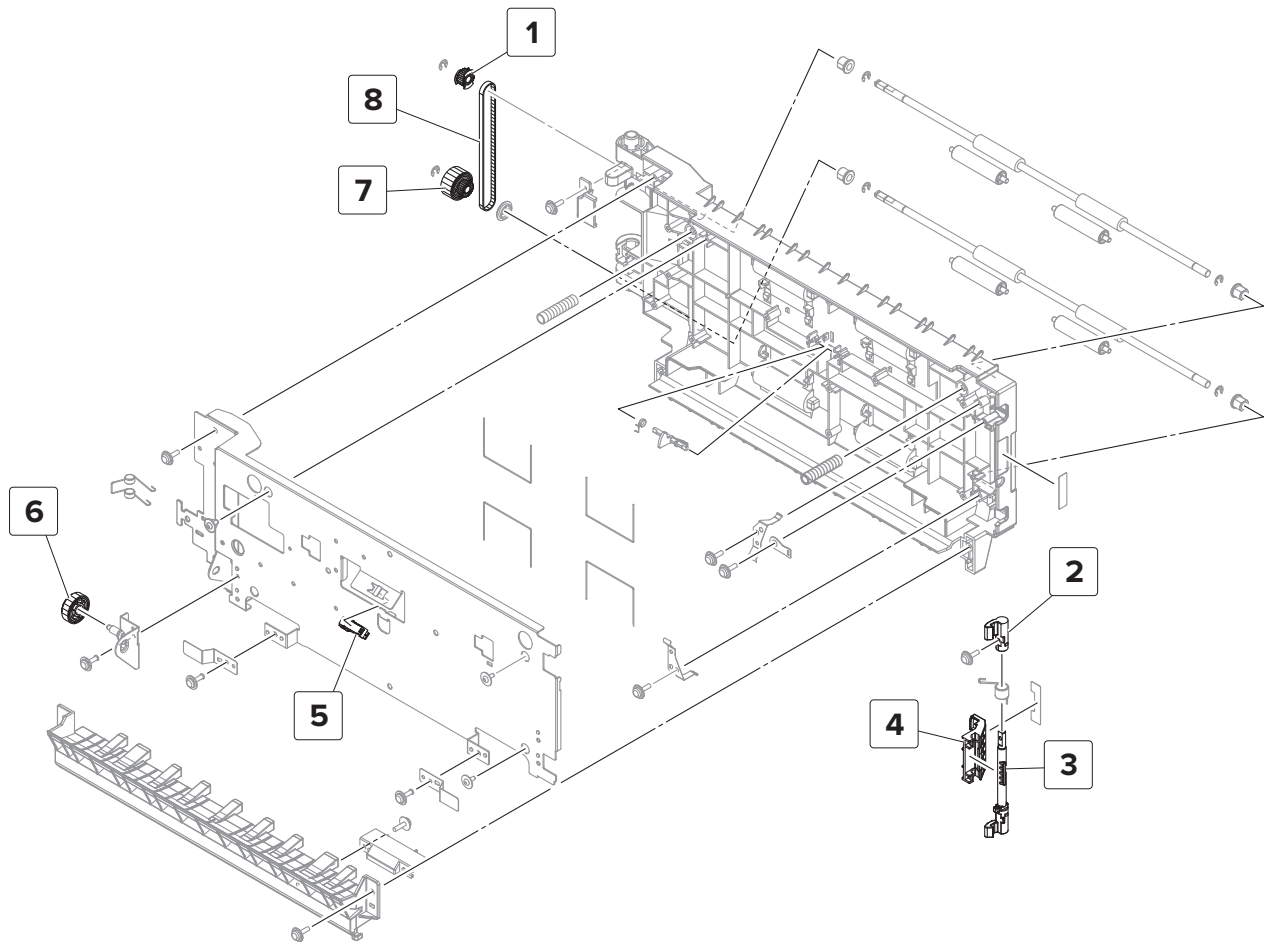
Assembly 24: Transfer



Assembly 24: Transfer

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9011	1	1	Registration unit assembly	“Registration unit assembly removal” on page 329
2	40X9990	1	1	Fusing speed sensor cable	--
3	40X9009	1	1	Fuser fixed power resistor	--
4	40X8869	1	1	Sensor (fusing speed)	“Sensor (fusing speed) removal” on page 332
5	40X9010	1	1	Transfer roller	“Transfer roller removal” on page 300

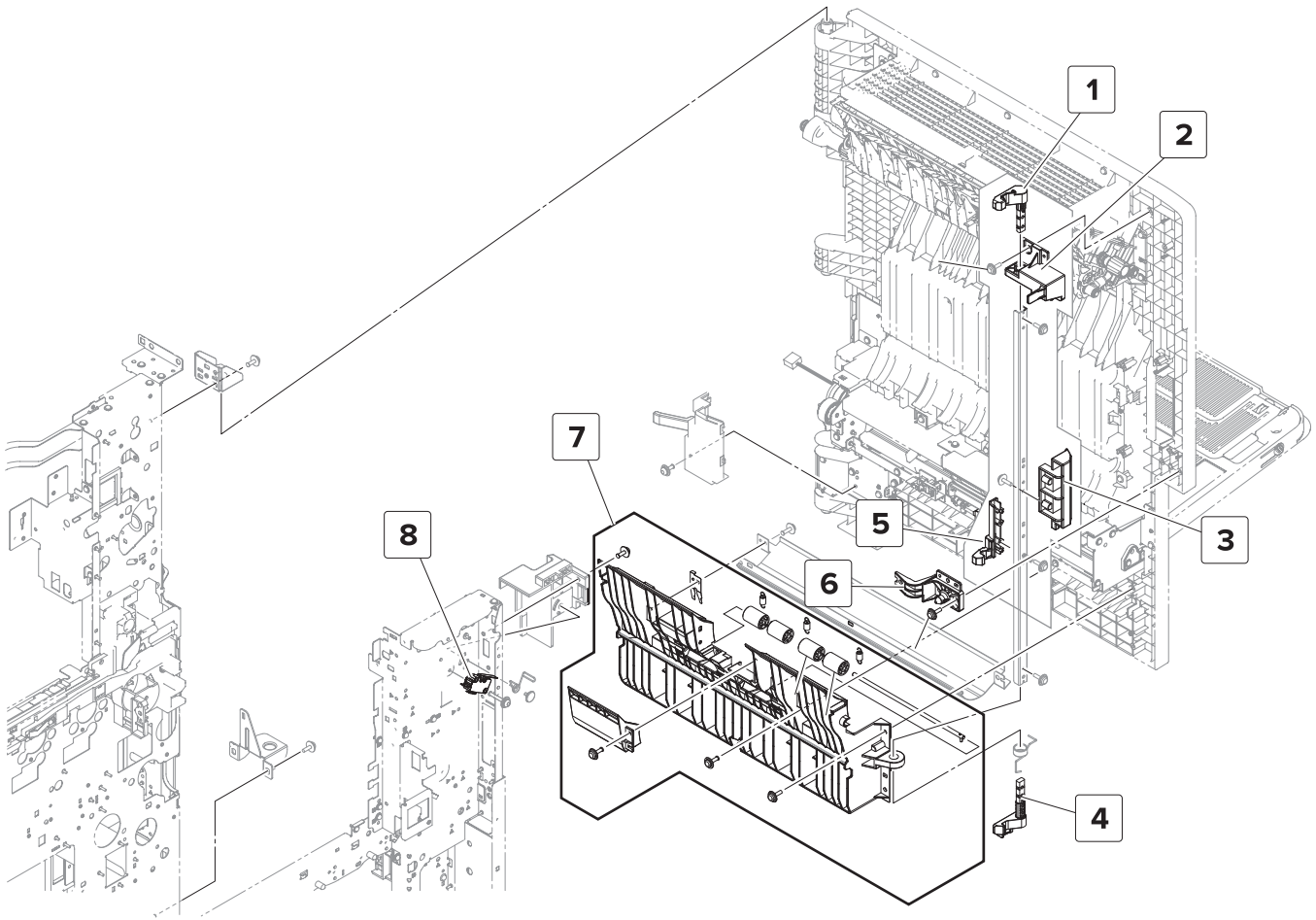
Assembly 25: Registration unit



Assembly 25: Registration unit

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9012	1	1	Registration unit gear	“Registration unit gears removal” on page 335
2	40X9992	1	1	Registration unit lock	“Registration unit lock removal” on page 336
3	40X9993	1	1	Registration unit lock shaft	“Registration unit lock removal” on page 336
4	40X9994	1	1	Registration unit handle	“Registration unit lock removal” on page 336
5	40X8869	1	1	Sensor (duplex pass through 2)	“Sensor (duplex pass through 2) removal” on page 333
6	40X9710	1	1	Lower registration gear	“Registration unit gears removal” on page 335
7	40X9991	1	1	Registration drive gear	“Registration unit gears removal” on page 335
8	40X9013	1	1	Registration unit belt	“Registration unit belt removal” on page 334

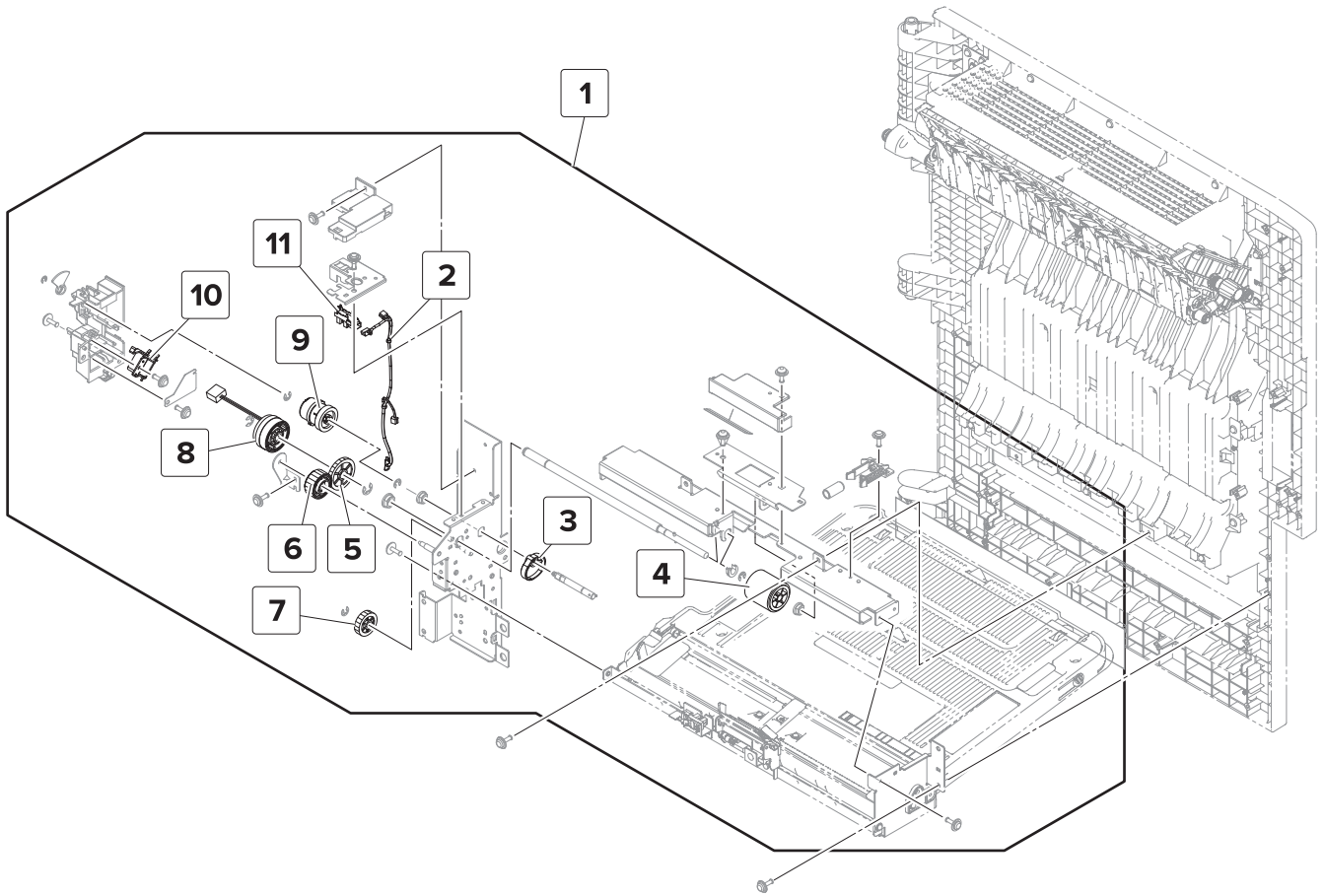
Assembly 26: Right door transport



Assembly 26: Right door transport

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9019	1	1	Right door upper lock	“Right door lock removal” on page 311
2	40X9020	1	1	Right door switch actuator	“Right door switch actuator removal” on page 327
3	40X9711	1	1	Right door handle	--
4	40X9713	1	1	Right door lower lock	“Right door lock removal” on page 311
5	40X9712	1	1	Right door middle lock	“Right door lock removal” on page 311
6	40X9715	1	1	Right door lock support	“Right door lock removal” on page 311
7	40X8920	1	1	Tray 2 transport guide	“Tray 2 transport guide removal” on page 312
8	40X9527	1	1	Right door switch	“Right door switch removal” on page 357

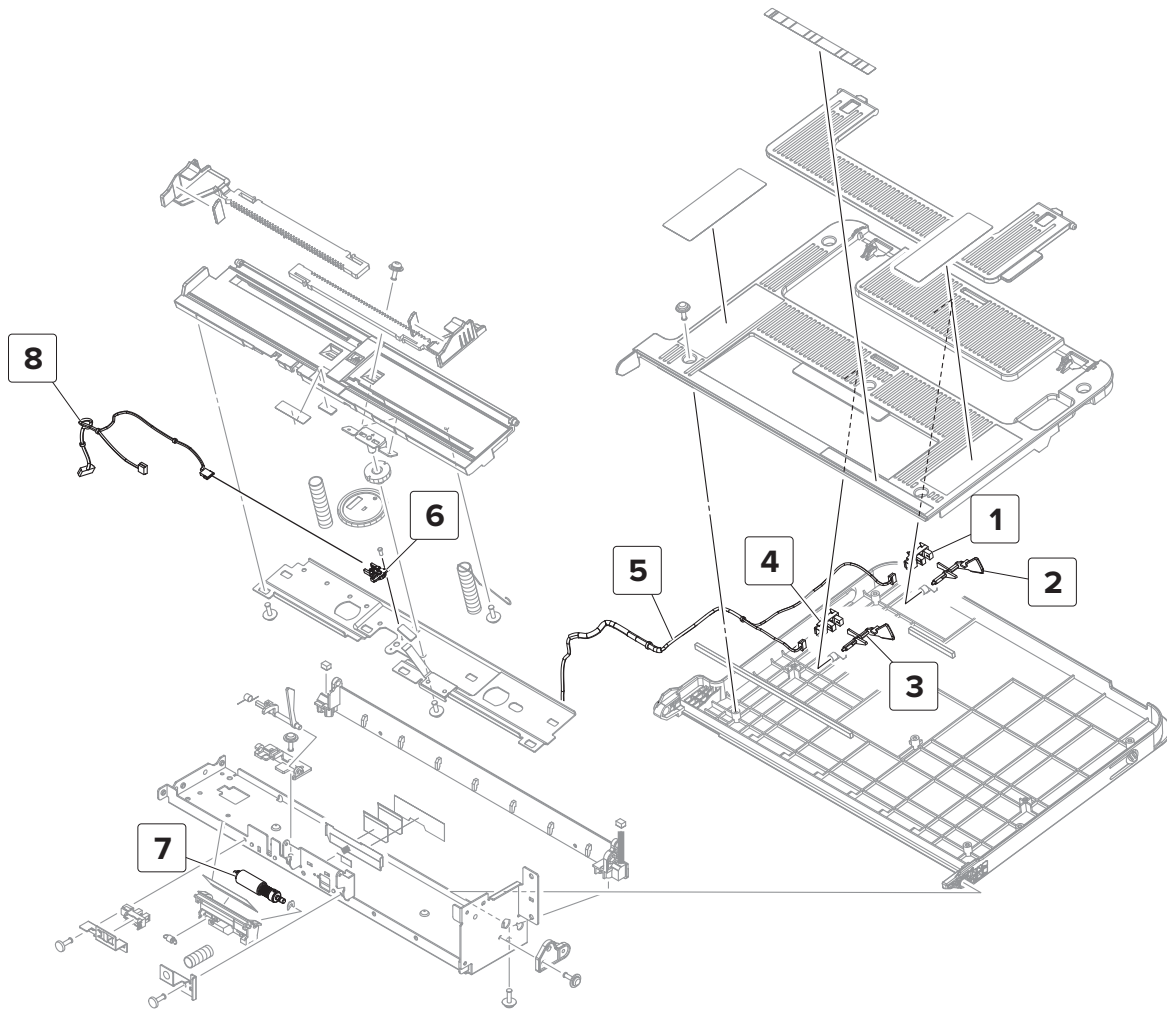
Assembly 27: MPF 1



Assembly 27: MPF 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9027	1	1	MPF	“MPF removal” on page 313
2	40X9716	1	1	MPF lift plate sensor cable	--
3	40X9996	1	1	MPF lift plate cam	--
4	40X9995	1	1	MPF feed roller	“MPF feed/separator assembly” on page 322
5	40X9719	1	1	MPF feed clutch gear	“MPF gears removal” on page 318
6	40X9718	1	1	MPF separator idler gear	“MPF gears removal” on page 318
7	40X9022	1	1	MPF separator gear	“MPF gears removal” on page 318
8	40X9023	1	1	MPF feed clutch	“MPF feed clutch removal” on page 316
9	40X9720	1	1	MPF lift plate clutch	--
10	40X9024	1	1	MPF lift plate solenoid	“MPF lift plate solenoid removal” on page 317
11	40X8869	1	1	Sensor (MPF lift plate)	“Sensor (MPF lift plate) removal” on page 320

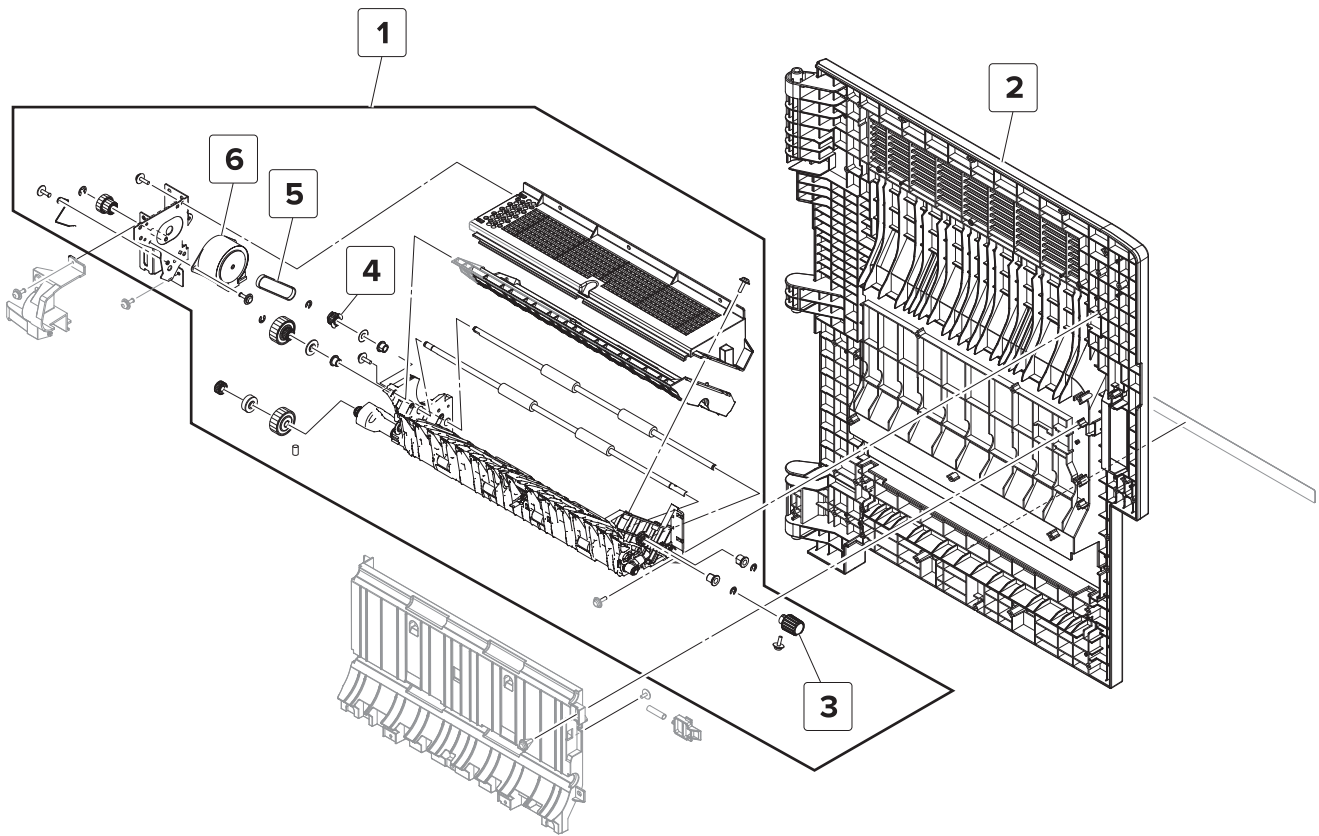
Assembly 28: MPF 2



Assembly 28: MPF 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8869	1	1	Sensor (MPF paper length 1)	“Sensor (MPF paper length) removal” on page 315
2	40X9026	2	1	MPF paper length 1 sensor actuator	--
3	40X9026	2	1	MPF paper length 2 sensor actuator	--
4	40X8869	1	1	Sensor (MPF paper length 2)	“Sensor (MPF paper length) removal” on page 315
5	40X9721	1	1	MPF paper length sensor cable	--
6	40X9030	1	1	Sensor (MPF paper width)	--
7	40X9615	1	1	MPF separator roller	“MPF feed/separator assembly” on page 322
8	40X9722	1	1	MPF paper width sensor cable	--

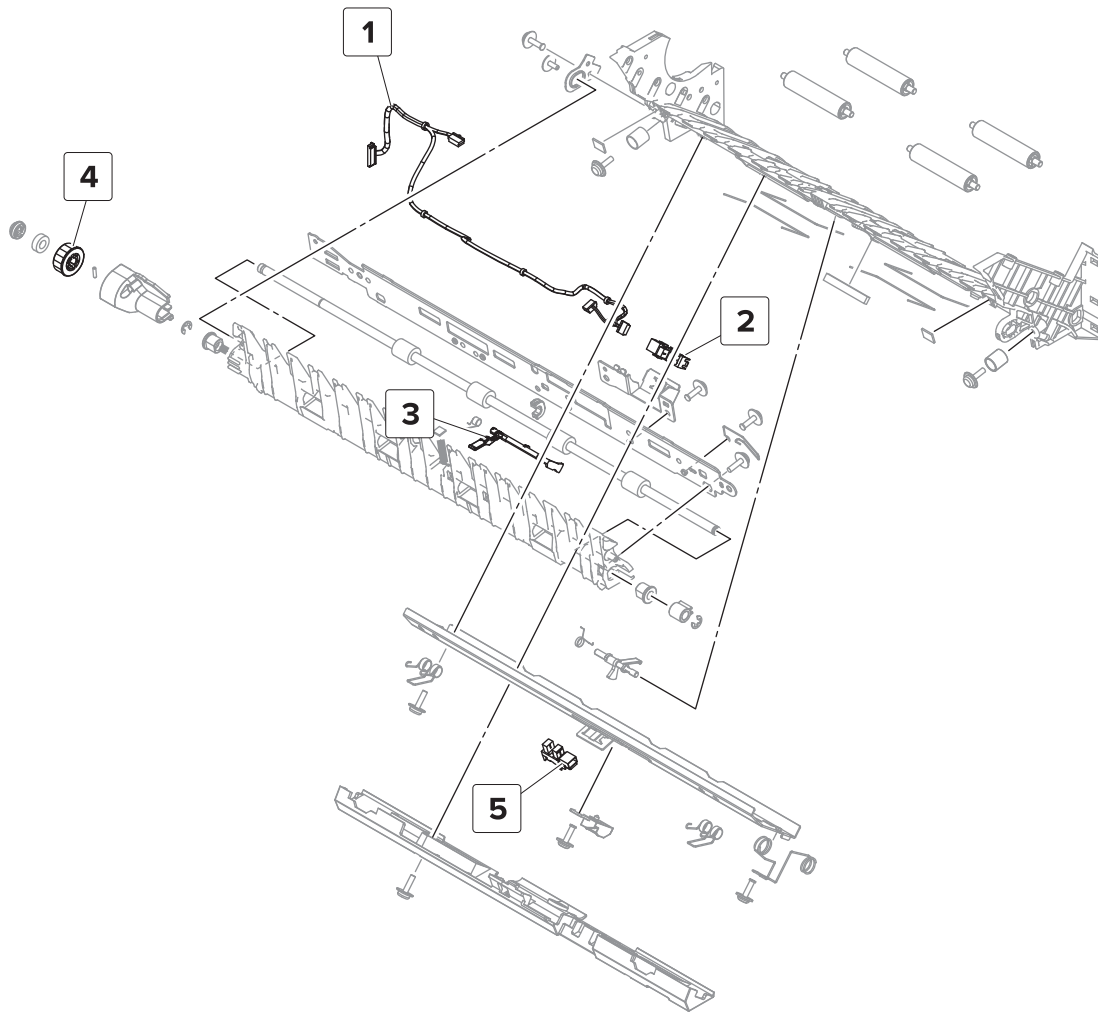
Assembly 29: Duplex 1



Assembly 29: Duplex 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0965	1	1	Duplex transport assembly	“Duplex transport assembly removal” on page 301
2	40X9997	1	1	Right door cover	--
3	40X9998	1	1	Duplex transport jam removal knob	“Duplex transport jam removal knob removal” on page 302
4	40X9012	1	1	Duplex transport gear	“Duplex transport gears removal” on page 308
5	40X9036	1	1	Duplex transport belt	“Duplex transport belt removal” on page 308
6	40X9037	1	1	Motor (duplex transport)	“Motor (duplex transport) removal” on page 309

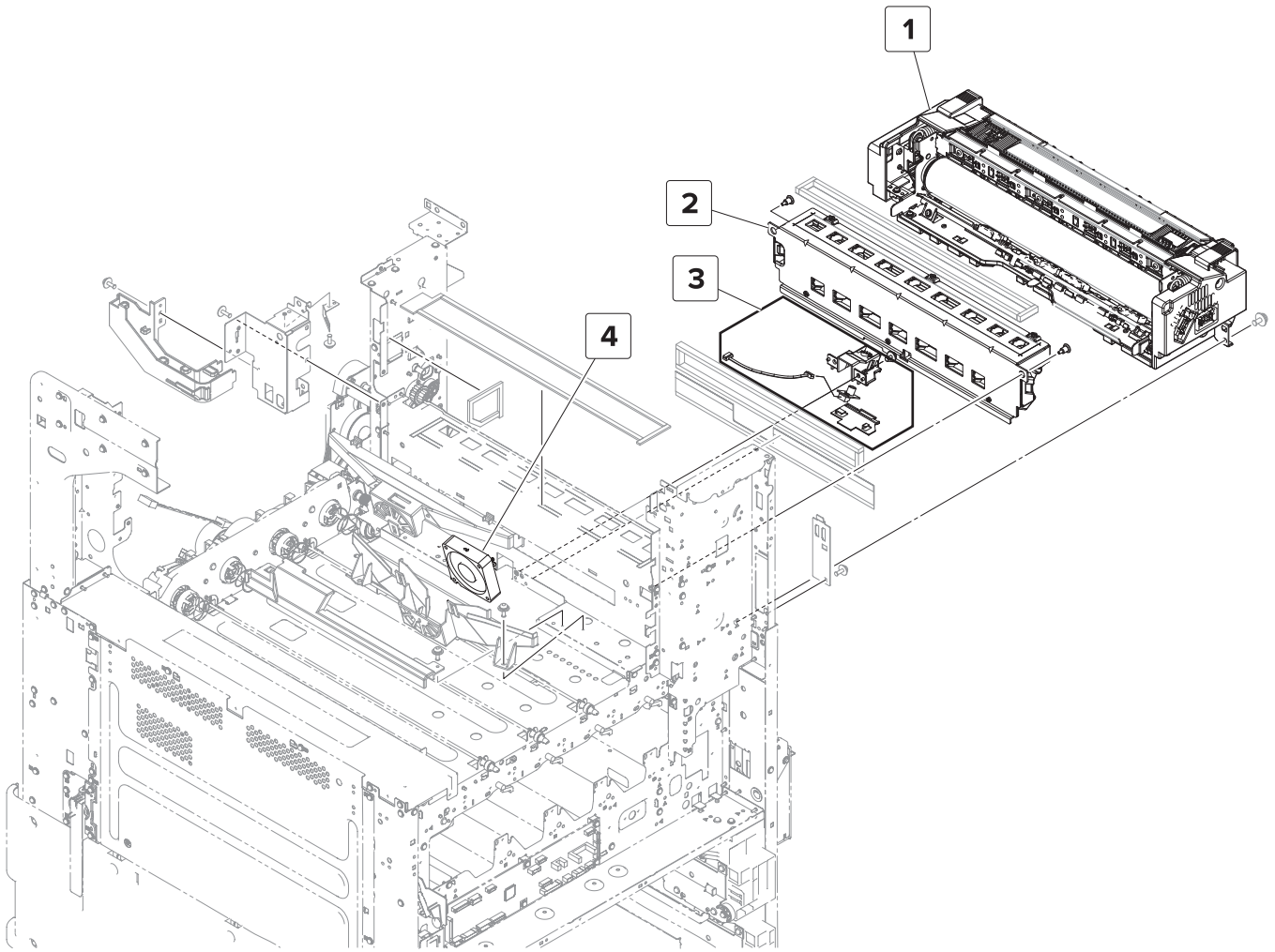
Assembly 30: Duplex 2



Assembly 30: Duplex 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9723	1	1	Fuser exit sensor cable	--
2	40X8869	1	1	Sensor (fuser exit)	“Sensor (fuser exit) removal” on page 304
3	40X9039	1	1	Fuser exit sensor actuator	“Fuser exit sensor actuator removal” on page 304
4	40X9215	1	1	Redrive diverter gear	--
5	40X8869	1	1	Sensor (duplex pass through 1)	“Sensor (duplex pass through 1) removal” on page 305

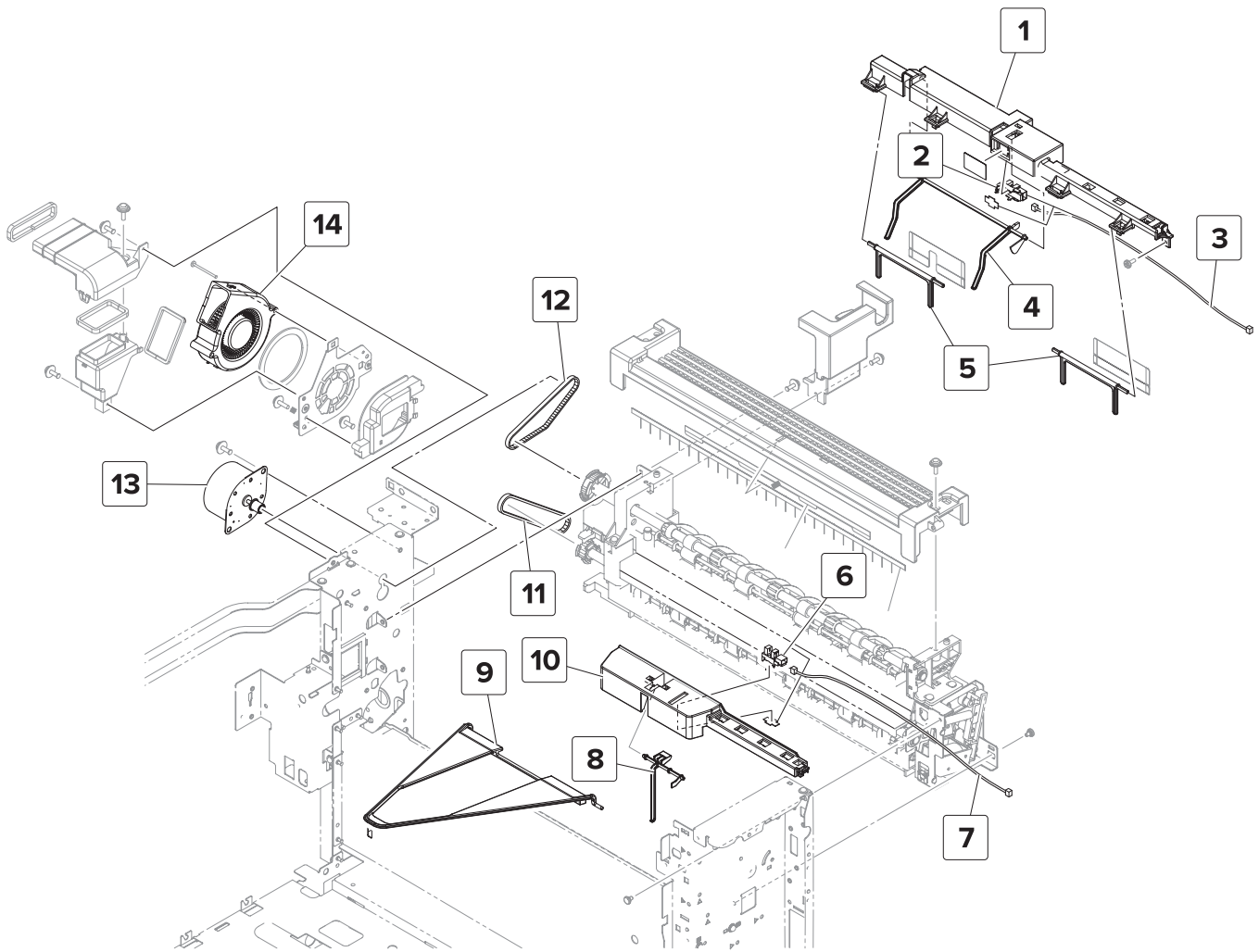
Assembly 31: Fuser



Assembly 31: Fuser

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9046	1	1	Fuser	“Fuser removal” on page 294
2	40X9044	1	1	Induction heater, 100 V	“Induction heater removal” on page 294
2	40X9045	1	1	Induction heater, 230 V	“Induction heater removal” on page 294
3	40X9047	1	1	Sensor (fuser temperature) with cable	--
4	40X9041	1	1	Fuser fan	“Fuser fan removal” on page 409

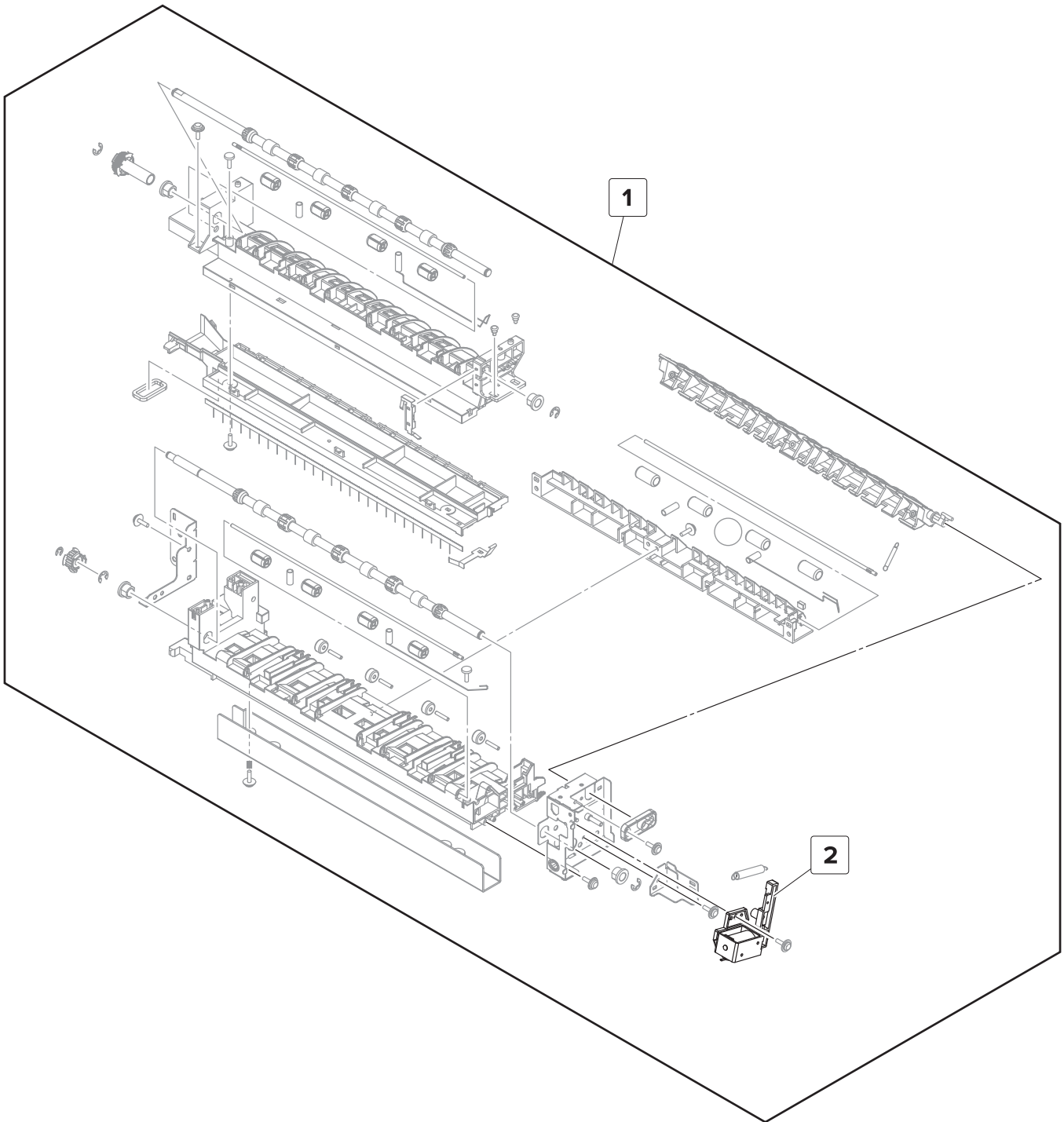
Assembly 32: Exit 1



Assembly 32: Exit 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9167	1	1	Redrive exit guide	--
2	40X9313	1	1	Sensor (redrive exit)	--
3	40X9644	1	1	Redrive exit sensor cable	--
4	40X9714	1	1	Redrive exit sensor actuator	--
5	40X9042	1	1	HPT bin paper bail	--
6	40X9313	1	1	Sensor (exit)	--
7	40X9599	1	1	Exit sensor cable	--
8	40X9484	1	1	Exit sensor actuator	--
9	40X8974	1	1	Standard bin paper bail	--
10	40X8895	1	1	Exit sensor housing	--
11	40X9156	1	1	Exit clutch belt	--
12	40X9724	1	1	Redrive belt	--
13	40X9155	1	1	Motor (redrive)	"Motor (redrive) removal" on page 384
14	40X8859	1	1	Paper exit fan	"Paper exit fan removal" on page 380

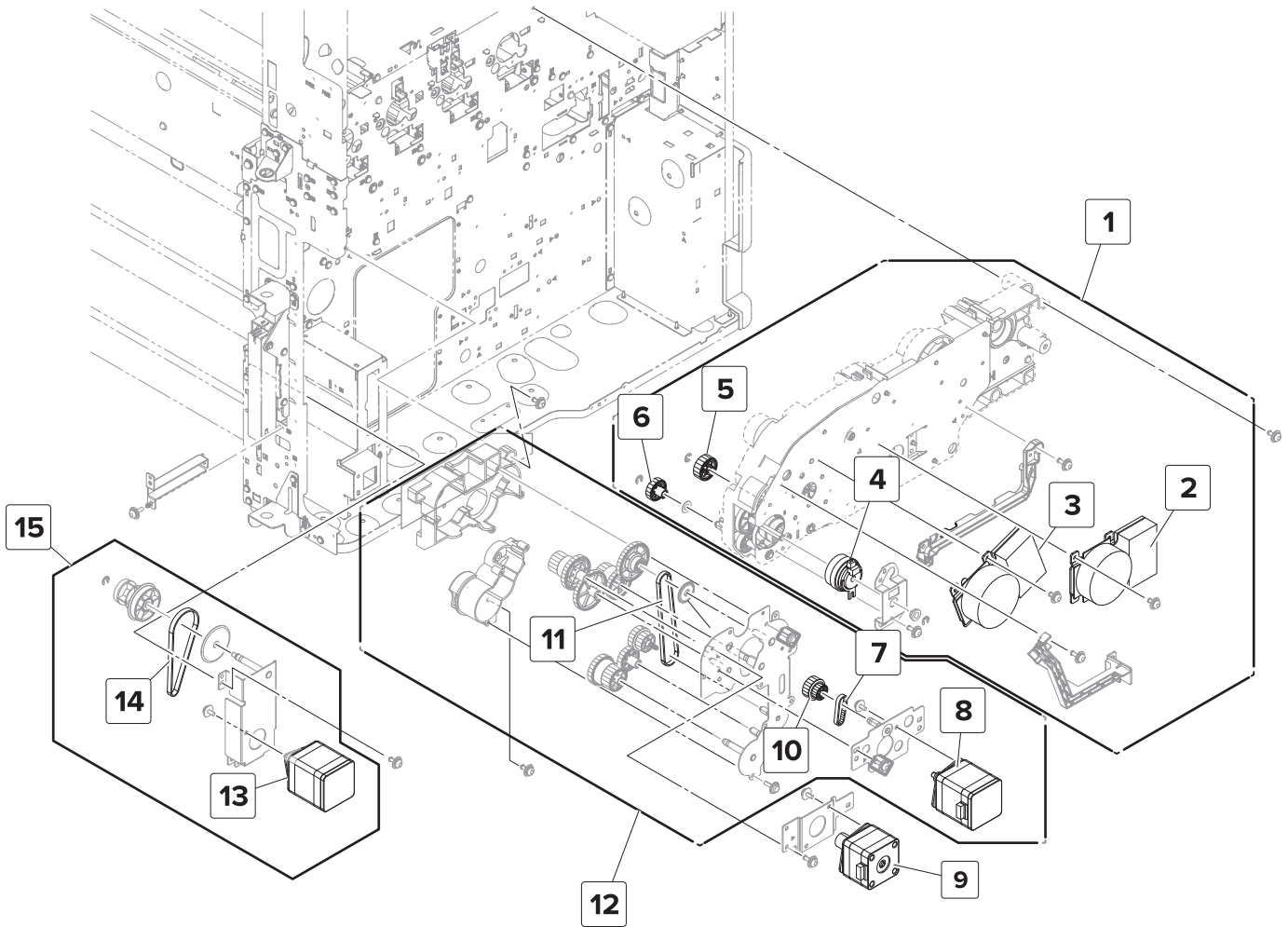
Assembly 33: Exit 2



Assembly 33: Exit 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9159	1	1	Exit guide assembly	--
2	40X9161	1	1	Diverter solenoid	--

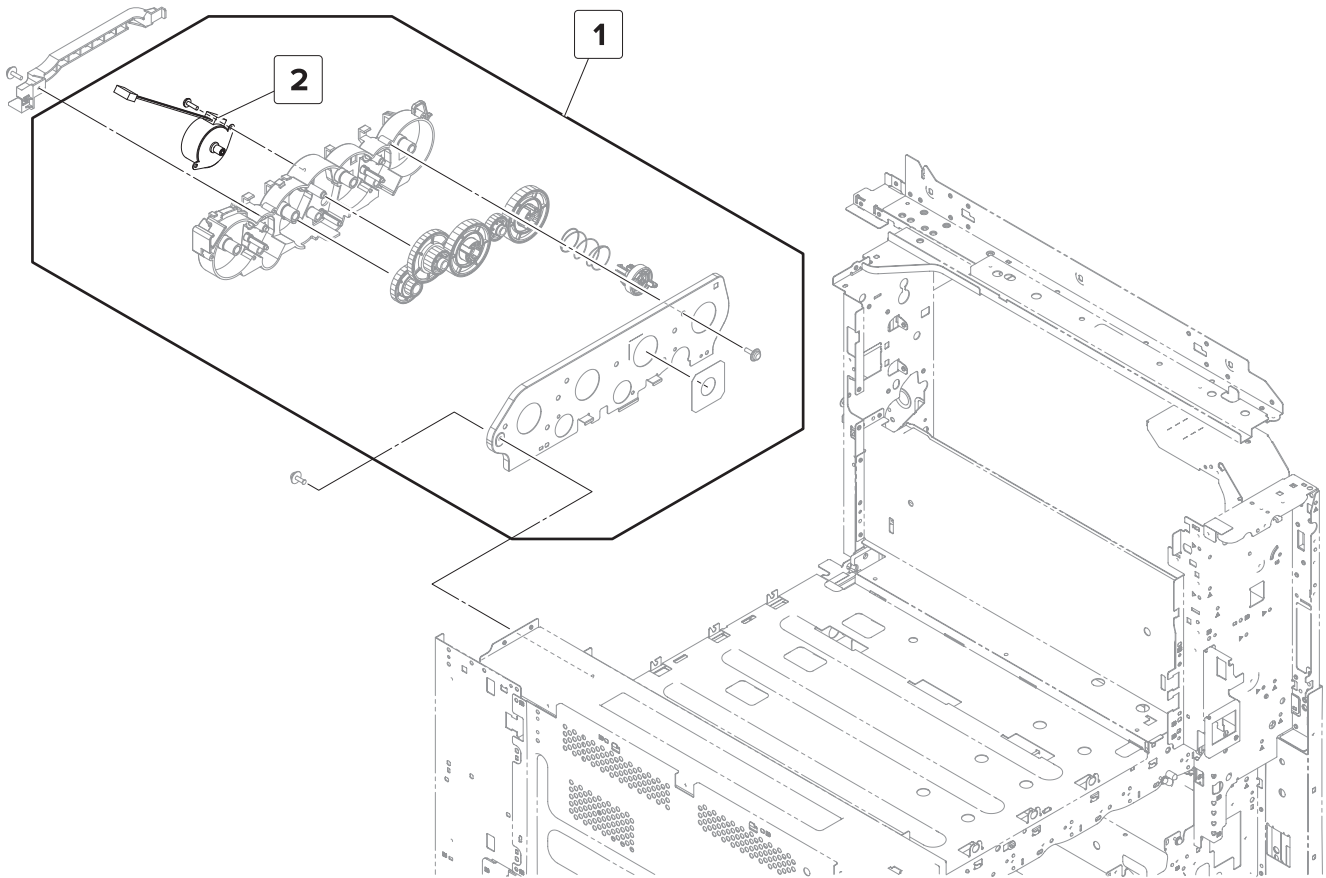
Assembly 34: Main and feed drive



Assembly 34: Main and feed drive

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9164	1	1	Main drive assembly	“Main drive assembly removal” on page 399
2	40X9564	1	1	Motor (developer)	“Motor (developer) removal” on page 388
3	40X9163	1	1	Motor (transport)	“Motor (transport) removal” on page 387
4	40X9166	1	1	Duplex transport clutch	“Duplex transport clutch removal” on page 403
5	40X9165	1	1	Transport motor gear	--
6	40X9725	1	1	Duplex transport clutch gear	“Duplex transport gears removal” on page 308
7	40X9173	1	1	Feed motor belt	--
8	40X9170	1	1	Motor (feed)	“Motor (feed) removal” on page 392
9	40X9171	1	1	Motor (registration)	“Motor (registration) removal” on page 390
10	40X9726	1	1	Feed motor gear	--
11	40X9174	1	1	Feed drive belt	--
12	40X9727	1	1	Feed drive assembly	“Feed drive assembly removal” on page 395
13	40X9170	1	1	Motor (tray 2 transport)	“Motor (tray 2 transport) removal” on page 394
14	40X9639	1	1	Tray 2 transport drive belt	--
15	40X9728	1	1	Tray 2 transport drive assembly	“Tray 2 transport drive removal” on page 393

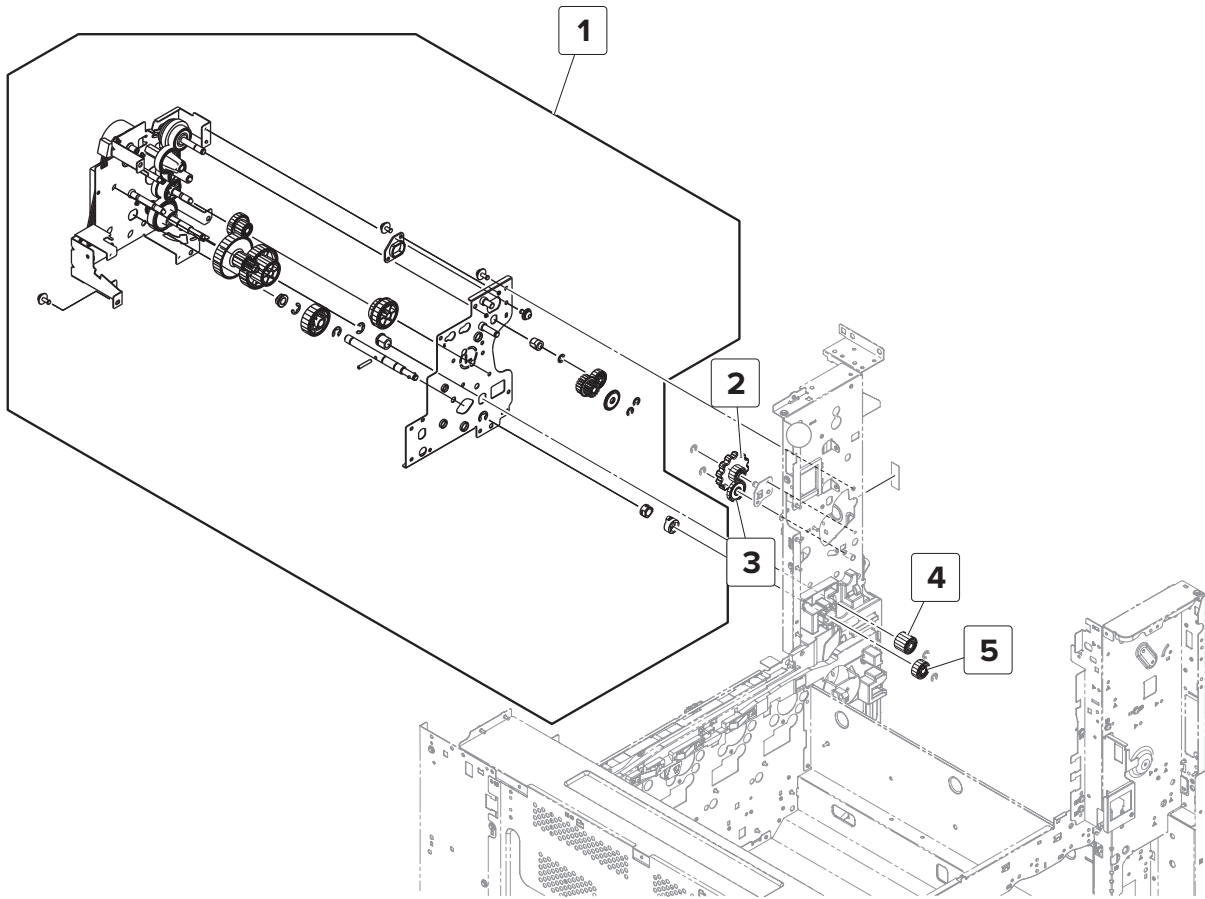
Assembly 35: Toner cartridge drive



Assembly 35: Toner cartridge drive

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9223	1	1	Toner cartridge drive assembly	“Toner cartridge drive assembly removal” on page 402
2	40X9179	1	1	Motor (toner cartridge)	“Motor (toner cartridge) removal” on page 382

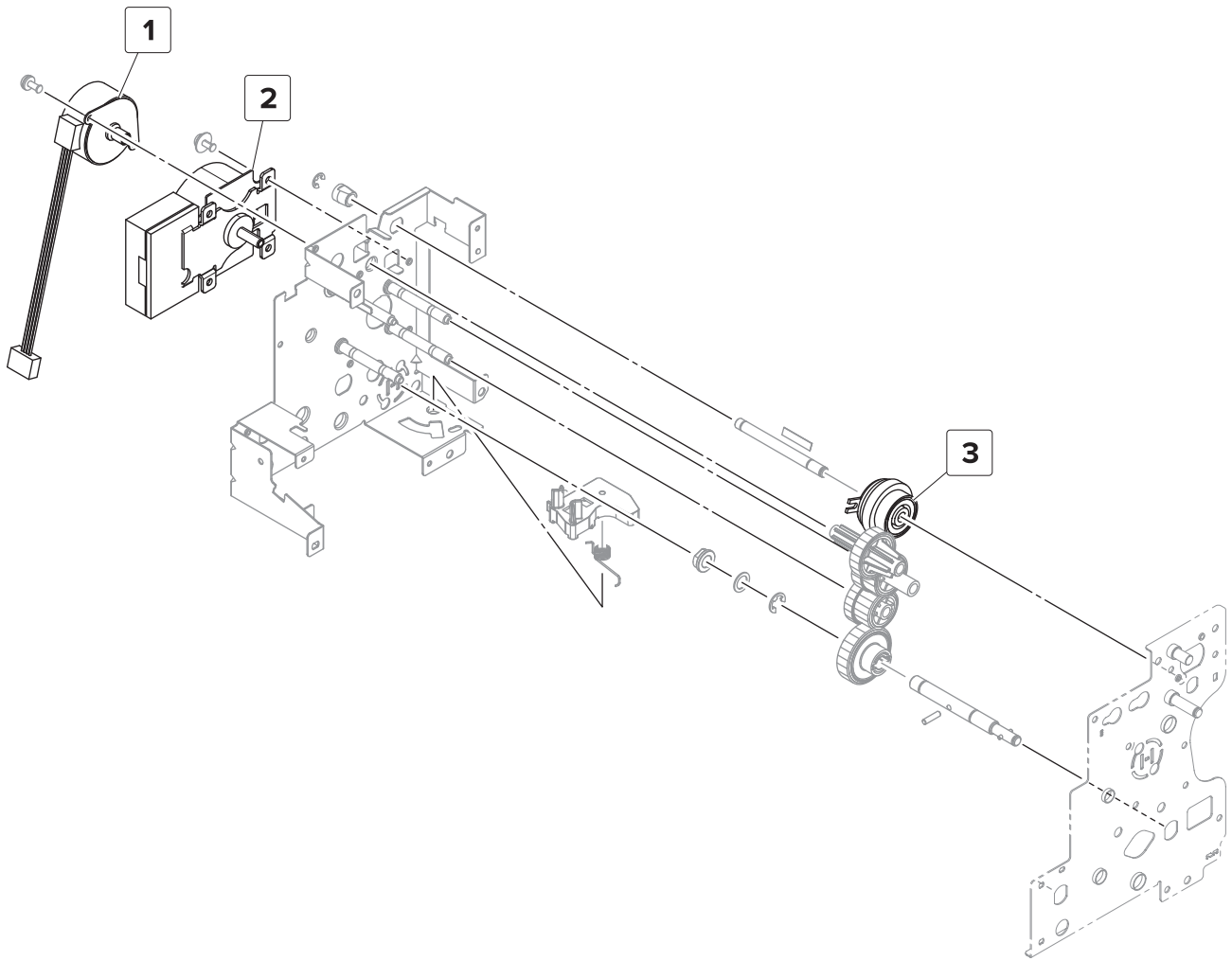
Assembly 36: Fuser drive 1



Assembly 36: Fuser drive 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9177	1	1	Fuser drive gearbox	“Fuser drive gearbox removal” on page 405
2	40X9729	1	1	Fuser pressure primary gear	--
3	40X9730	1	1	Fuser pressure secondary gear	--
4	40X9731	1	1	Fuser transport primary gear	--
5	40X9732	1	1	Fuser transport secondary gear	--

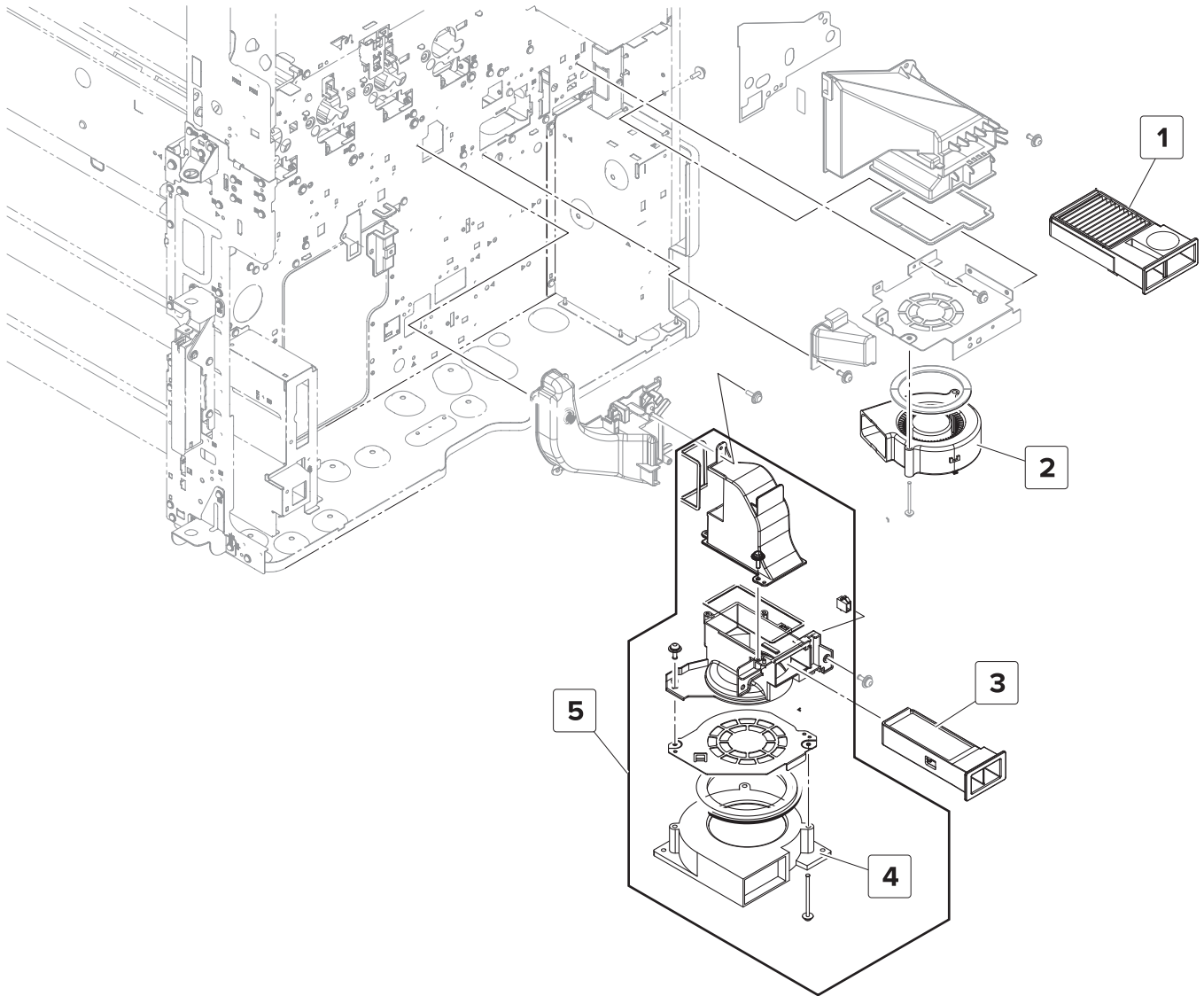
Assembly 37: Fuser drive 2



Assembly 37: Fuser drive 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9179	1	1	Motor (fuser pressure)	“Motor (fuser pressure) removal” on page 378
2	40X9163	1	1	Motor (fuser)	“Motor (fuser) removal” on page 404
3	40X9178	1	1	Fuser exit clutch	--

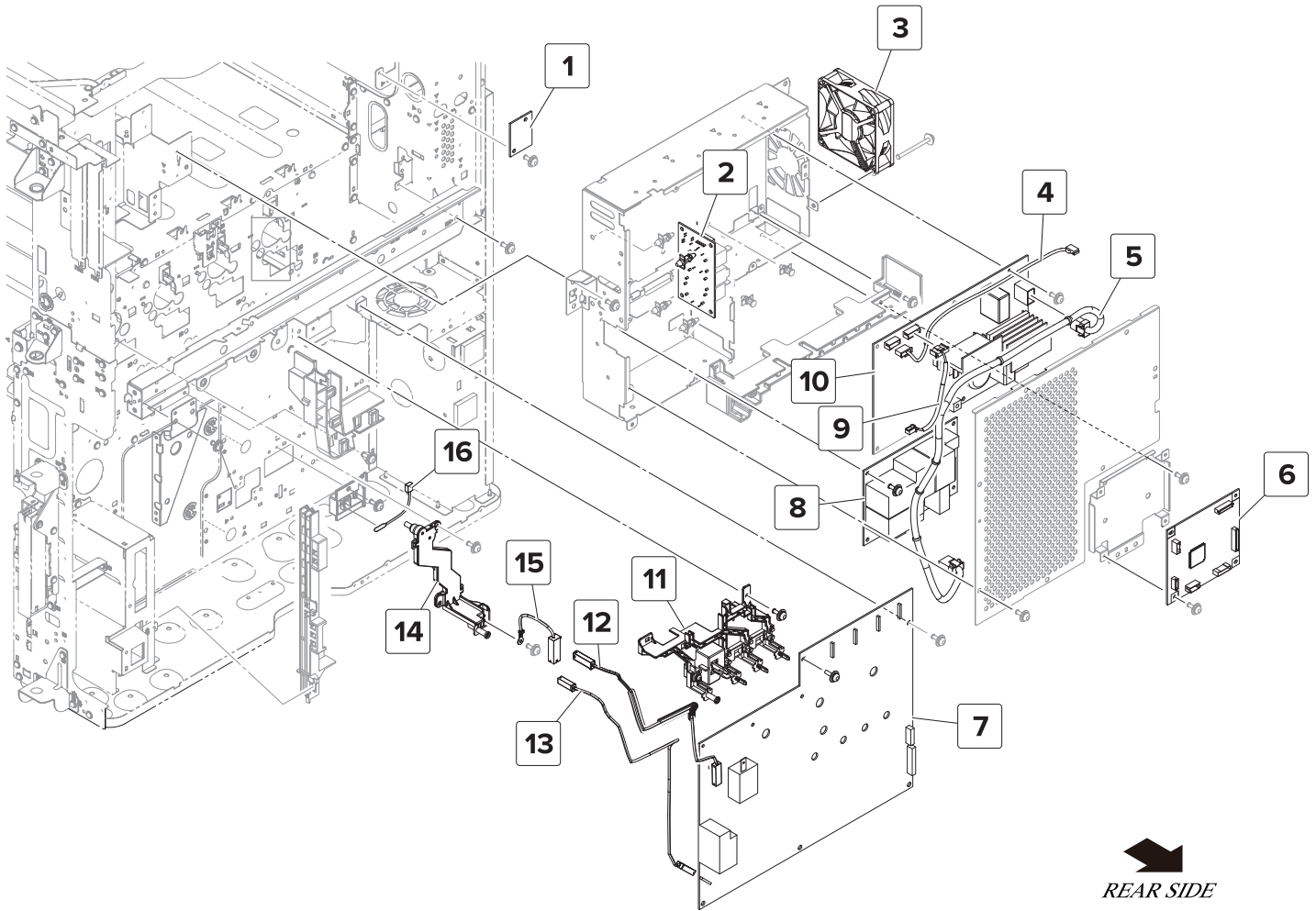
Assembly 38: Ozone duct



Assembly 38: Ozone duct

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9184	1	1	Exhaust filter	--
2	40X8859	1	1	Toner suction fan	“Toner suction fan removal” on page 407
3	40X9183	1	1	Ozone filter	--
4	40X9185	1	1	Ozone fan	“Ozone fan removal” on page 396
5	40X9182	1	1	Ozone fan with duct	“Ozone fan removal” on page 396

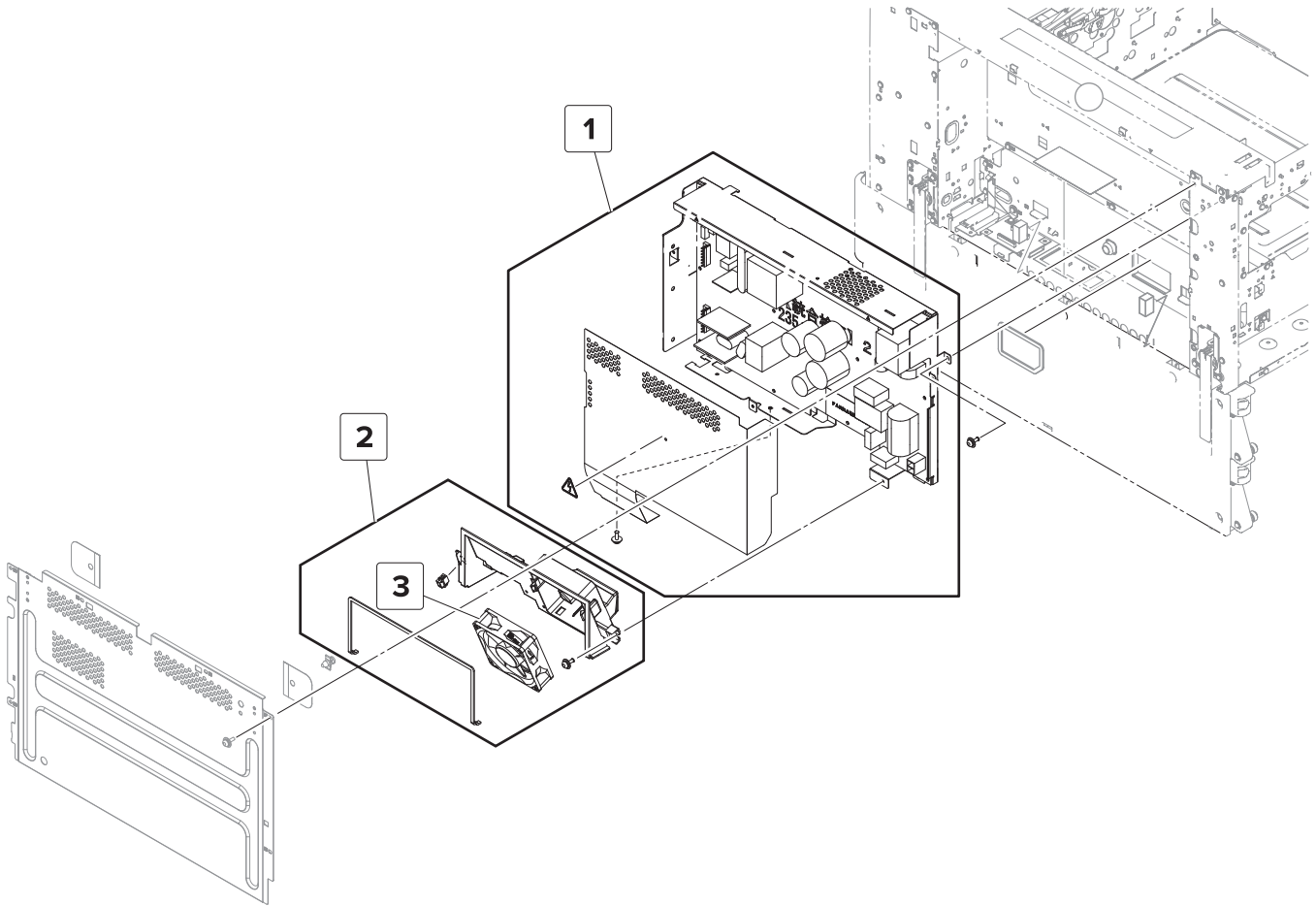
Assembly 39: High voltage



Assembly 39: High voltage

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9189	1	1	Power-saving board	“Power-saving board removal” on page 372
2	40X9198	1	1	Induction heater magnetic erase board	“Induction heater magnetic erase board (IHMEB) removal” on page 368
3	40X8945	1	1	Fuser power supply fan	“Fuser power supply fan removal” on page 381
4	40X9736	1	1	Induction heater power supply cable	--
5	40X9737	1	1	Noise filter board cable	--
6	40X9199	1	1	Expansion controller board	“Expansion controller board removal” on page 371
7	40X9193	1	1	High voltage board	“High voltage board removal” on page 389
8	40X9200	1	1	Noise filter board, 100 V	“Noise filter board removal” on page 370
8	40X9201	1	1	Noise filter board, 230 V	“Noise filter board removal” on page 370
9	40X9735	1	1	Induction heater magnetic erase board cable	--
10	40X9196	1	1	Induction heater power supply, 100 V	“Induction heater power supply (IHPS) removal” on page 370
10	40X9197	1	1	Induction heater power supply ,230 V	“Induction heater power supply (IHPS) removal” on page 370
11	40X9192	1	1	High voltage developer contact	--
12	40X9733	1	1	High voltage transfer cable	--
13	40X9194	1	1	High voltage charge cable	--
14	40X9191	1	1	High voltage charge contact	--
15	40X9734	1	1	High voltage toner charge cable	--
16	40X9190	1	1	Sensor (tray 1 and 2 paper temperature)	“Sensor (tray 1 and 2 paper temperature) removal” on page 396

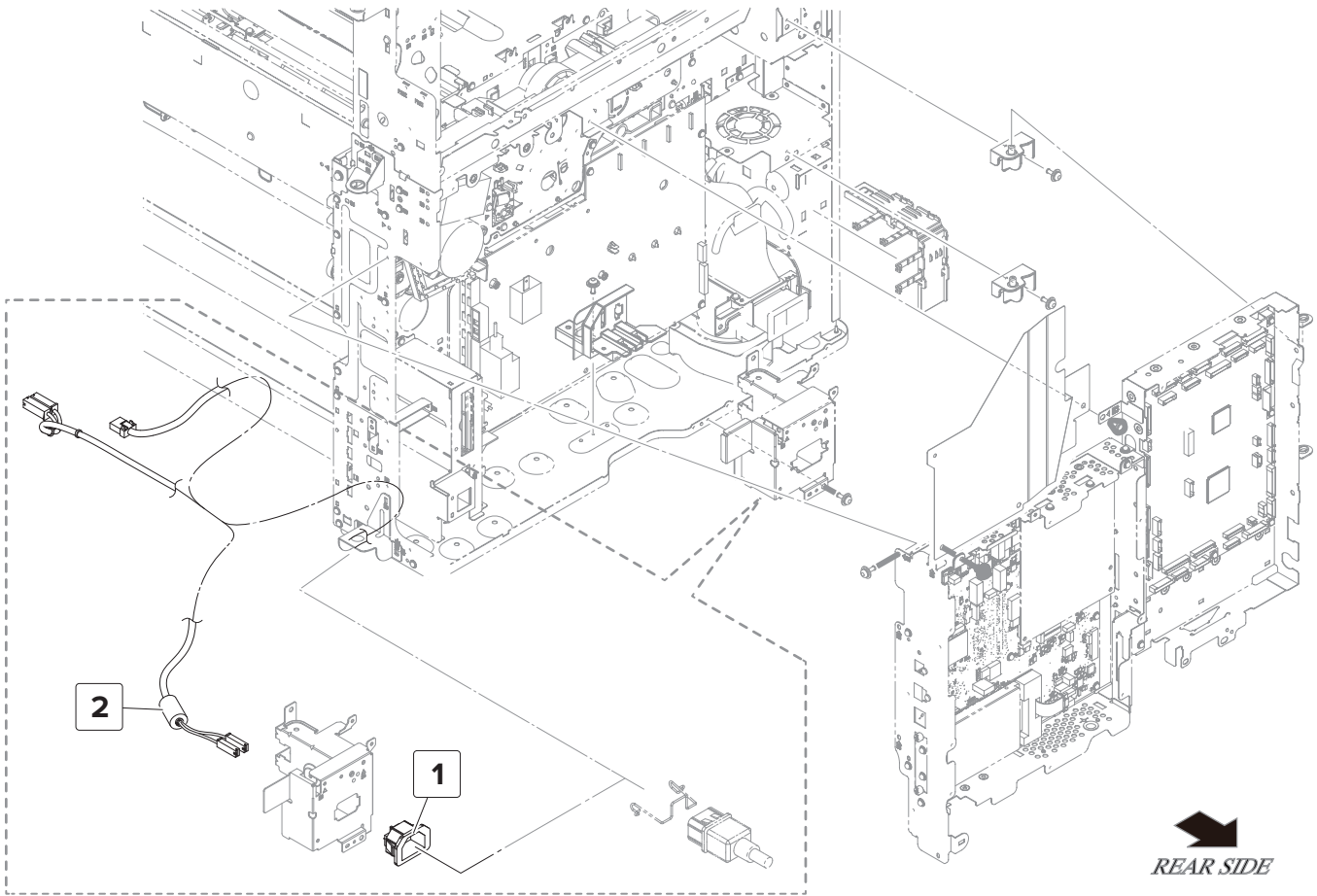
Assembly 40: Main power supply



Assembly 40: Main power supply

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9203	1	1	Main power supply, 100 V	“Main power supply removal” on page 290
1	40X9204	1	1	Main power supply, 230 V	“Main power supply removal” on page 290
2	40X9205	1	1	Main power supply fan with duct	“Main power supply fan removal” on page 289
3	40X8945	1	1	Main power supply fan	“Main power supply fan removal” on page 289

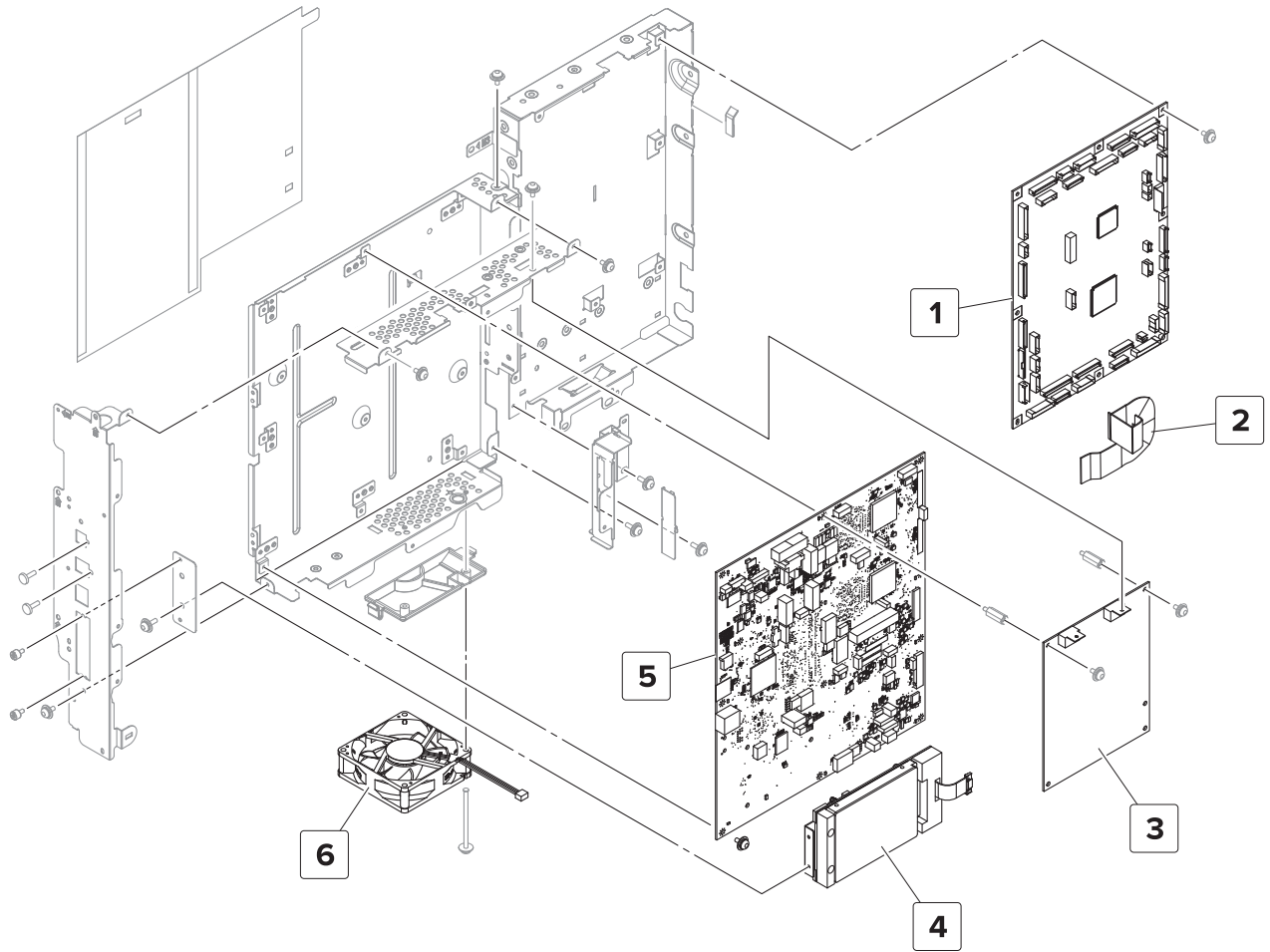
Assembly 41: Electrical 1



Assembly 41: Electrical 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9741	1	1	Power socket	--
2	40X9740	1	1	Power socket cable	--

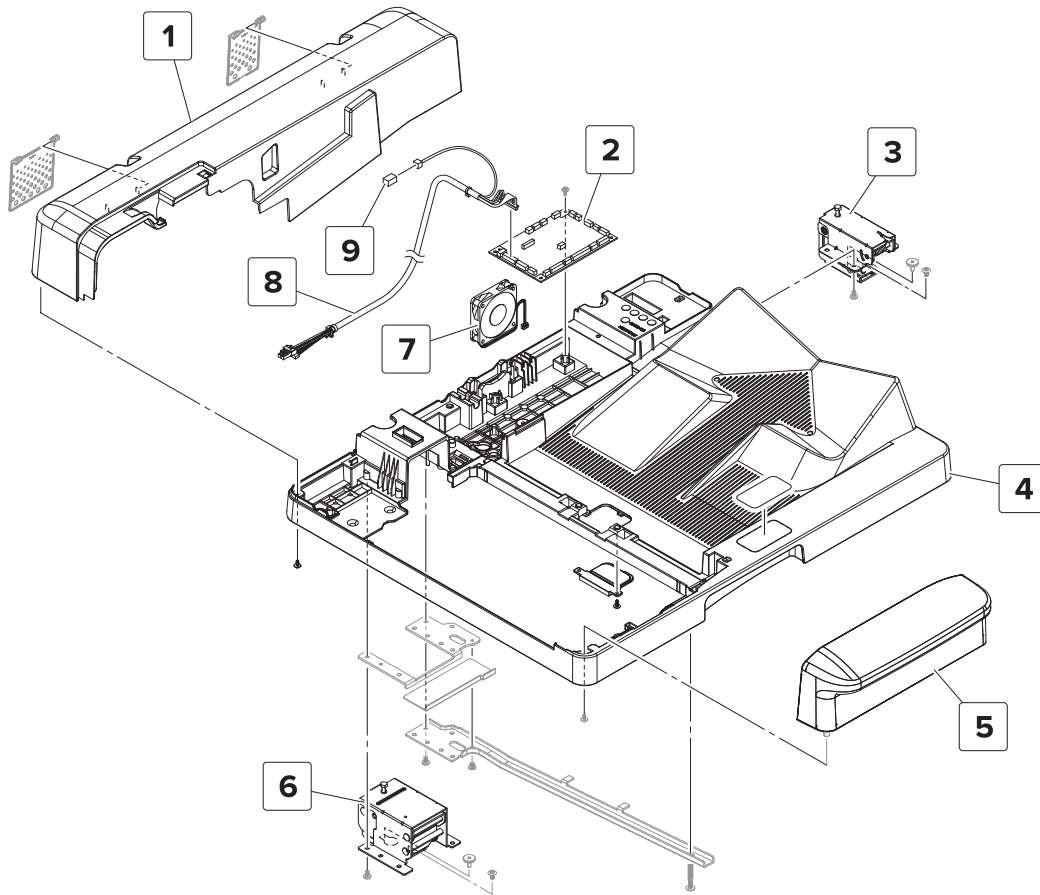
Assembly 42: Electrical 2



Assembly 42: Electrical 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9207	1	1	Engine controller board	“Engine controller board removal” on page 373
2	40X9744	1	1	Engine controller board FFC	--
3	40X9210	1	1	ADF/scanner image controller board	“ADF/scanner image controller board removal” on page 374
4	40X7857	1	1	Hard drive	“Hard drive removal” on page 376
5	40X9663	1	1	Controller board (MFP)	“Controller board removal” on page 376
6	40X9209	1	1	Controller board fan	“Controller board fan removal” on page 386

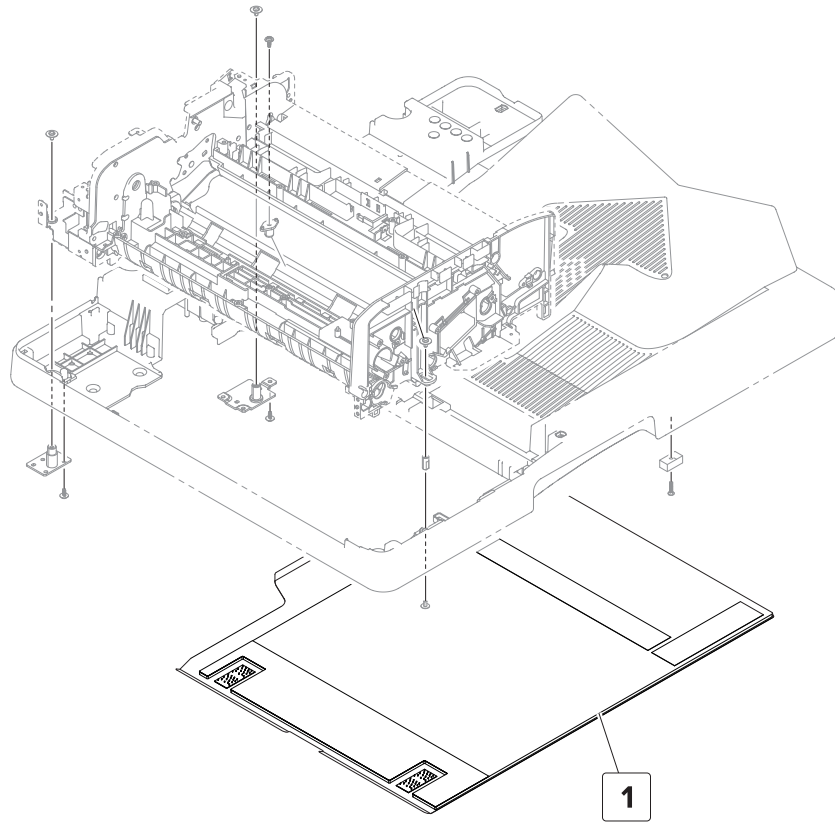
Assembly 43: ADF covers 1



Assembly 43: ADF covers 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8858	1	1	ADF rear cover	“ADF rear cover removal” on page 419
2	40X8860	1	1	ADF controller board	“ADF controller board removal” on page 431
3	40X8861	1	1	ADF right hinge	“ADF right hinge removal” on page 416
4	40X8862	1	1	ADF frame	--
5	40X8863	1	1	ADF front Cover	“ADF front cover removal” on page 418
6	40X8864	1	1	ADF left hinge	“ADF left hinge removal” on page 417
7	40X9041	1	1	ADF fan	“ADF fan removal” on page 431
8	40X9678	1	1	ADF interface cable	--
9	40X9679	1	1	ADF sensor cable	--

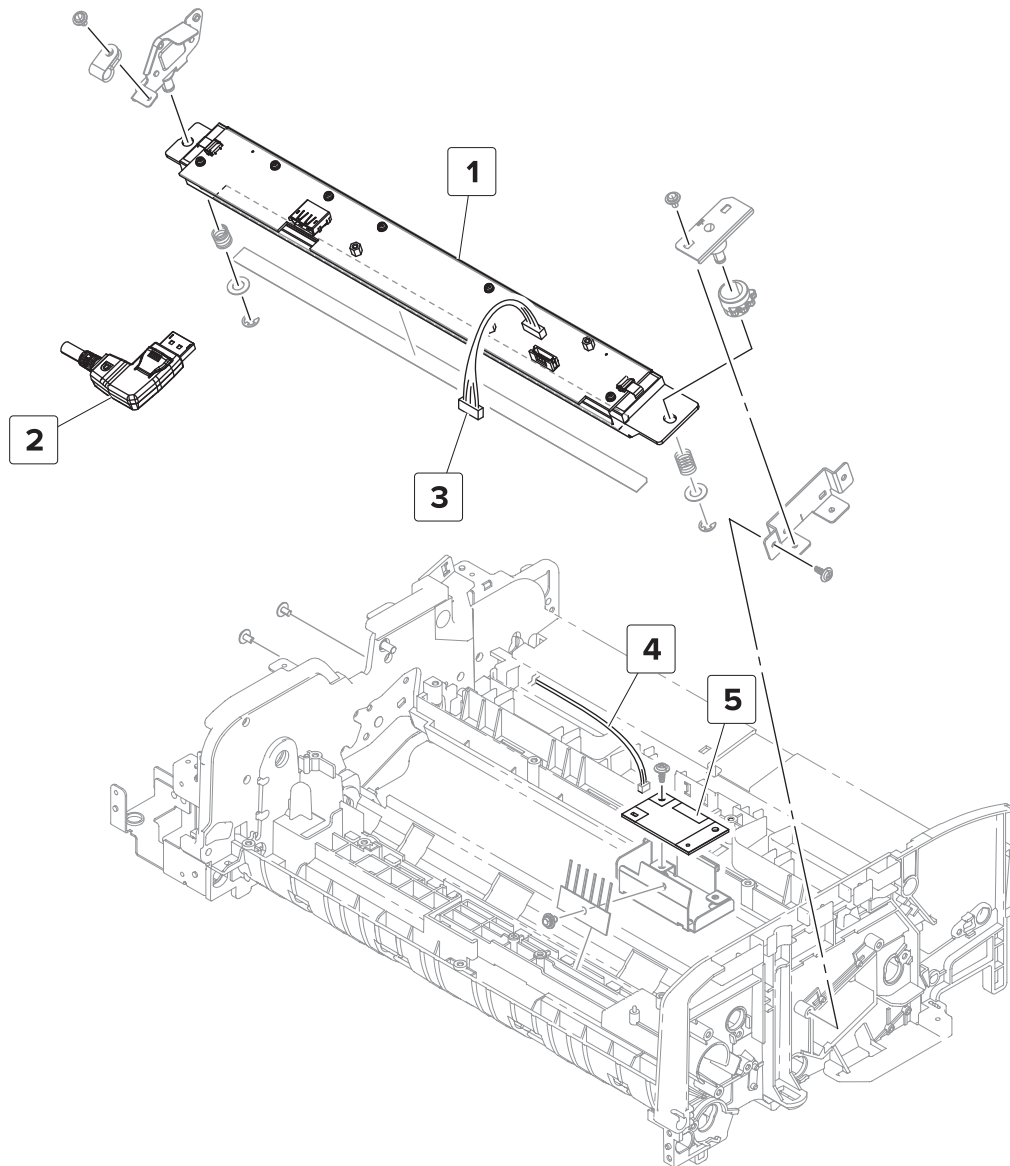
Assembly 44: ADF covers 2



Assembly 44: ADF covers 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8866	1	1	ADF cushion	“ADF cushion removal” on page 417

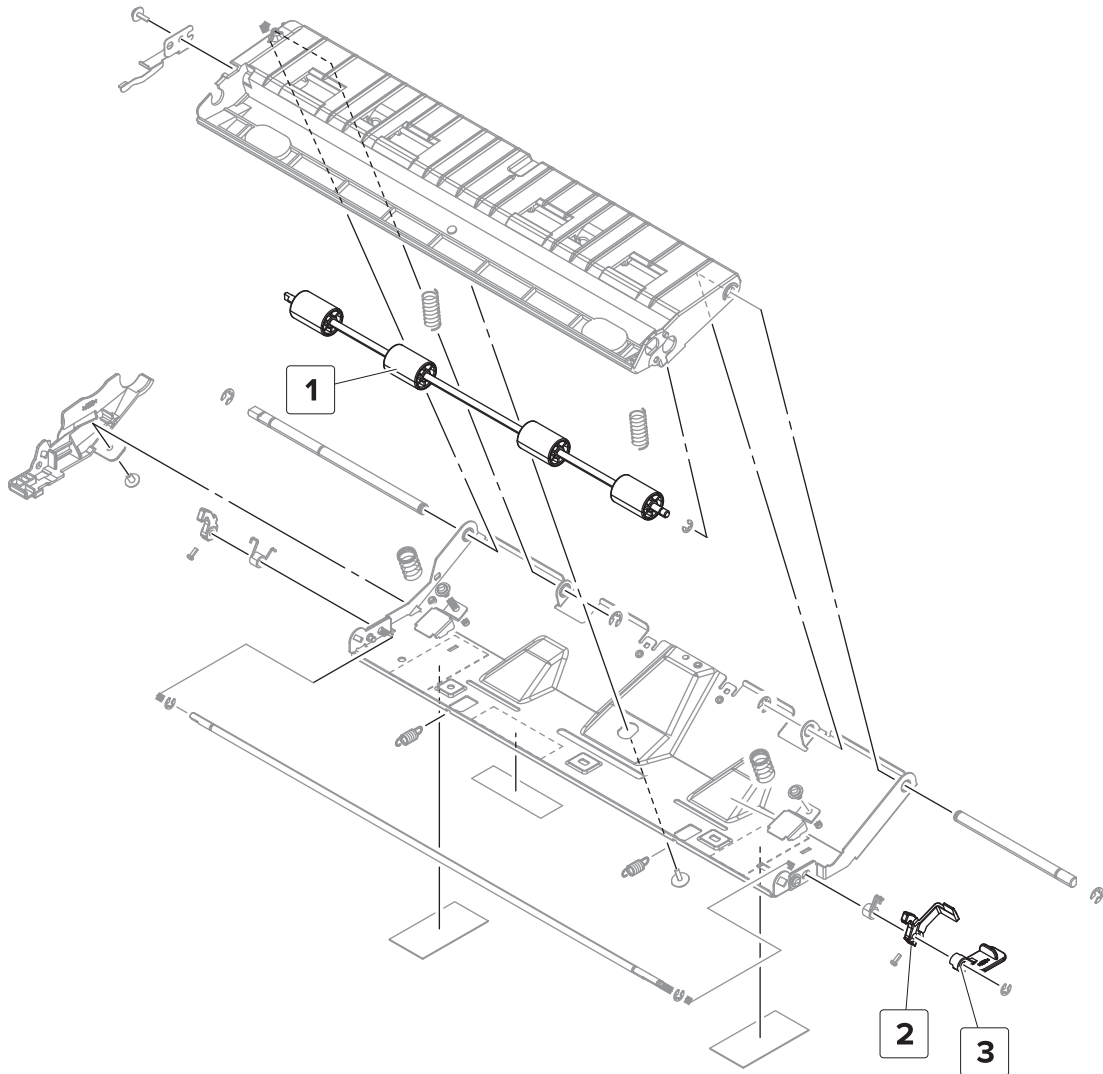
Assembly 45: ADF CIS 1



Assembly 45: ADF CIS 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9216	1	1	ADF CIS assembly	“ADF CIS assembly removal” on page 428
2	40X8865	1	1	ADF CIS data cable	--
3	40X9218	1	1	ADF CIS power supply cable	--
4	40X9696	1	1	ADF CIS power supply board cable	--
5	41X1912	1	1	ADF CIS power supply board	“ADF CIS power supply board removal” on page 430

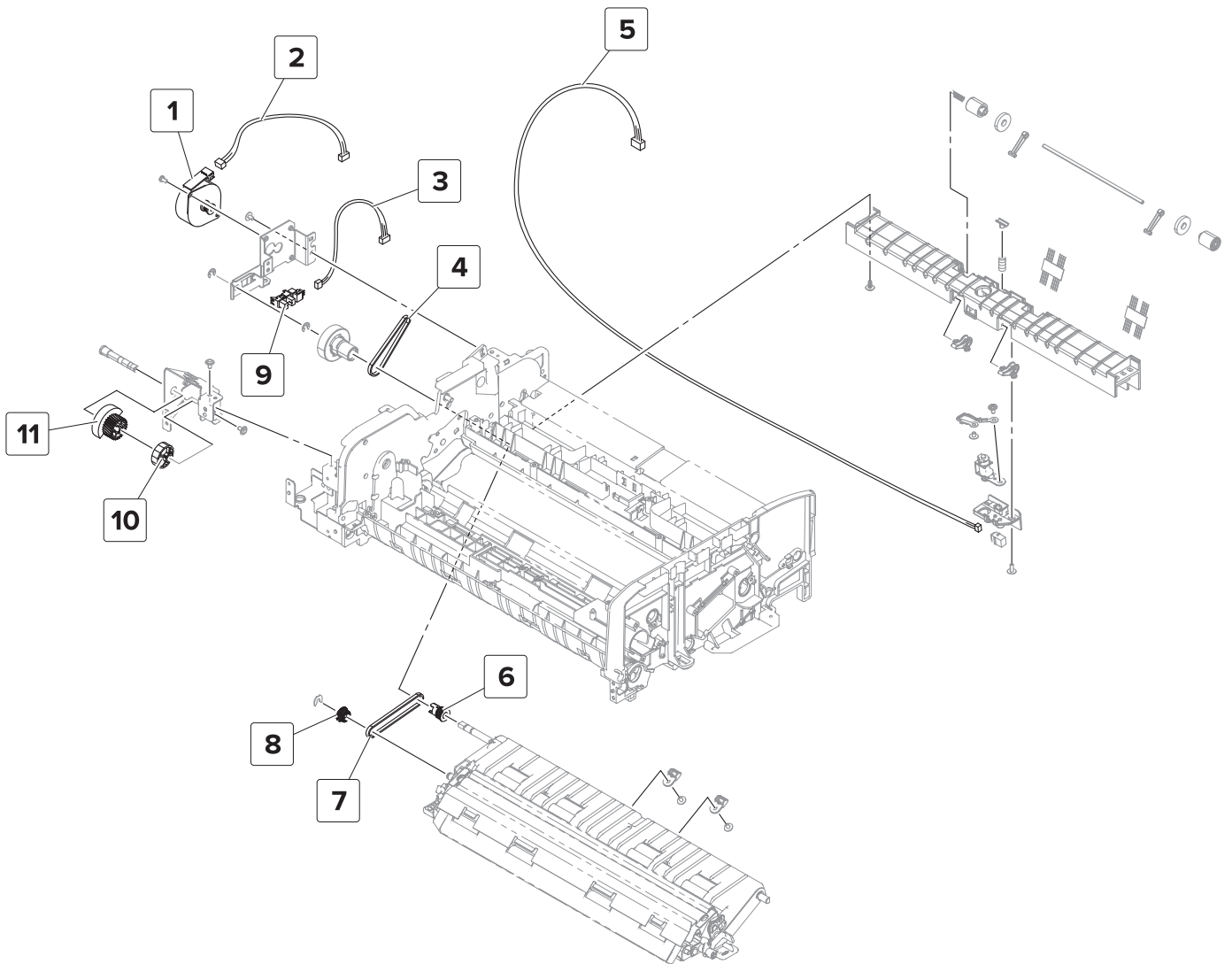
Assembly 46: ADF CIS 2



Assembly 46: ADF CIS 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9948	1	1	ADF CIS idler roller	--
2	40X9956	1	1	ADF CIS jam access latch	--
3	40X9955	1	1	ADF CIS jam access handle	--

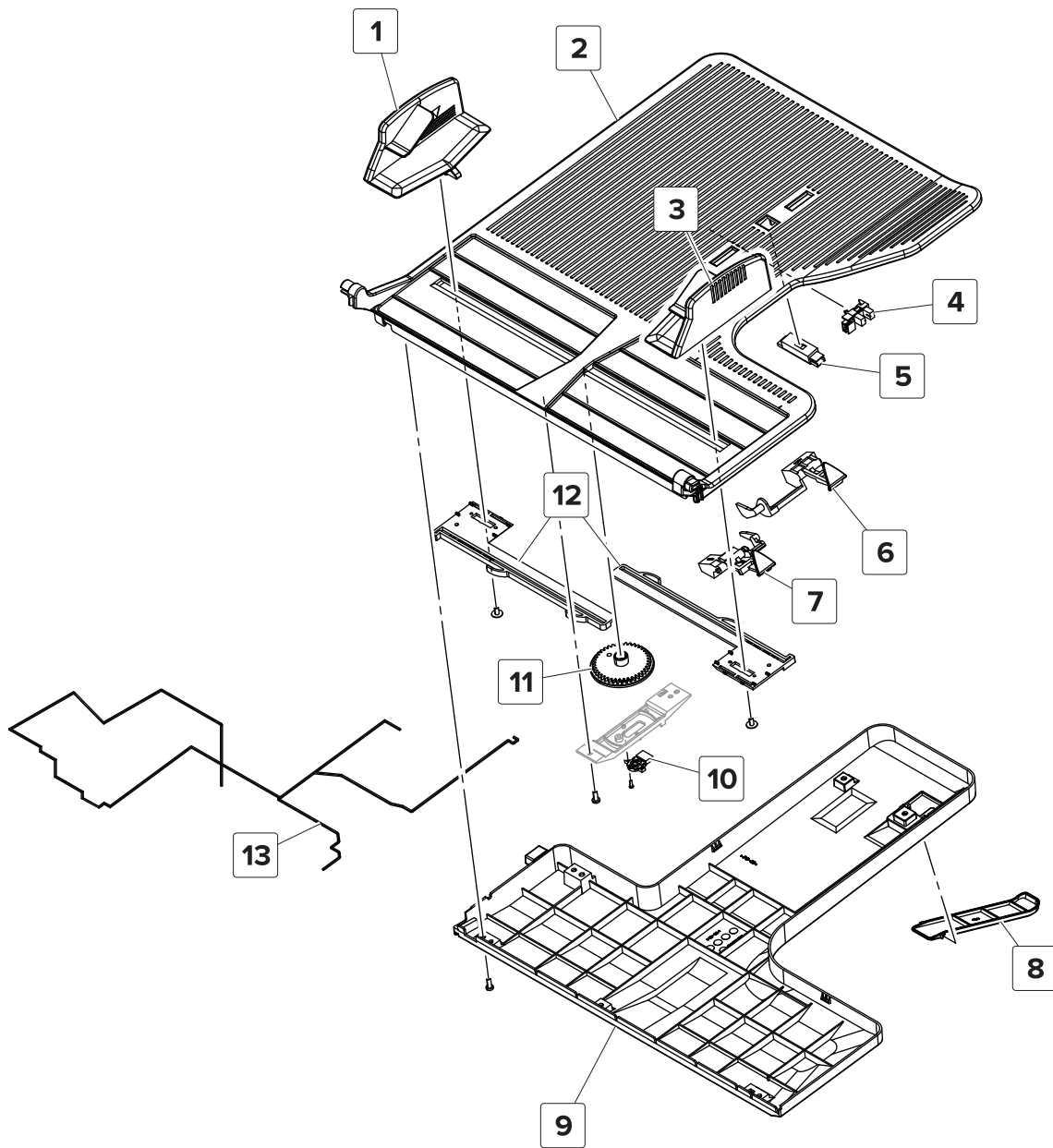
Assembly 47: ADF CIS 3



Assembly 47: ADF CIS 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9220	1	1	Motor (ADF CIS clean)	“Motor (ADF CIS clean) removal” on page 446
2	40X9699	1	1	ADF CIS clean motor cable	--
3	40X9700	1	1	ADF CIS clean sensor cable	--
4	40X9691	1	1	ADF CIS clean belt	--
5	40X9701	1	1	ADF exit sensor cable	--
6	40X9959	1	1	ADF CIS clean roller primary gear	--
7	40X9960	1	1	ADF CIS clean roller belt	--
8	40X9961	1	1	ADF CIS clean roller secondary gear	--
9	40X8869	1	1	Sensor (ADF CIS clean)	“Sensor (ADF CIS clean) removal” on page 453
10	40X9958	1	1	ADF CIS clean cam	--
11	40X9957	1	1	ADF CIS clean gear	--

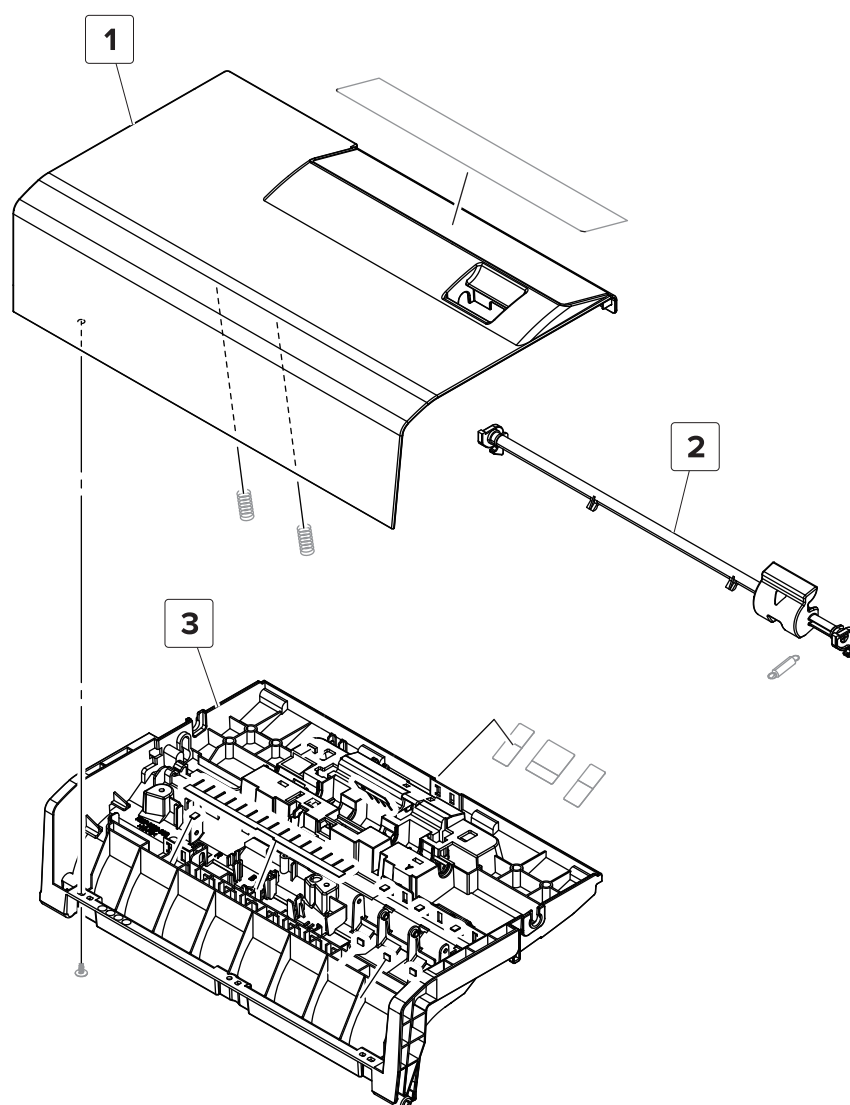
Assembly 48: ADF paper feed



Assembly 48: ADF paper feed

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9940	1	1	ADF rear paper guide	--
2	40X9941	1	1	ADF tray	“ADF tray removal” on page 422
3	40X9942	1	1	ADF front paper guide	--
4	40X8869	1	1	Sensor (ADF paper length 2)	“Sensors (ADF tray section) removal” on page 443
5	40X8868	1	1	Sensor (ADF paper length 1)	“Sensors (ADF tray section) removal” on page 443
6	40X8872	1	1	ADF paper length 2 sensor actuator (Legal)	--
7	40X9748	1	1	ADF paper length 2 sensor actuator (A4)	--
8	40X9943	1	1	ADF bin paper stopper	--
9	40X9944	1	1	ADF tray bottom cover	“ADF tray bottom cover removal” on page 422
10	40X8870	1	1	Sensor (ADF paper width)	“Sensors (ADF tray section) removal” on page 443
11	40X9747	1	1	ADF paper guide gear	--
12	40X9945	2	1	ADF paper guide rack	--
13	40X8873	1	1	ADF tray cable	--

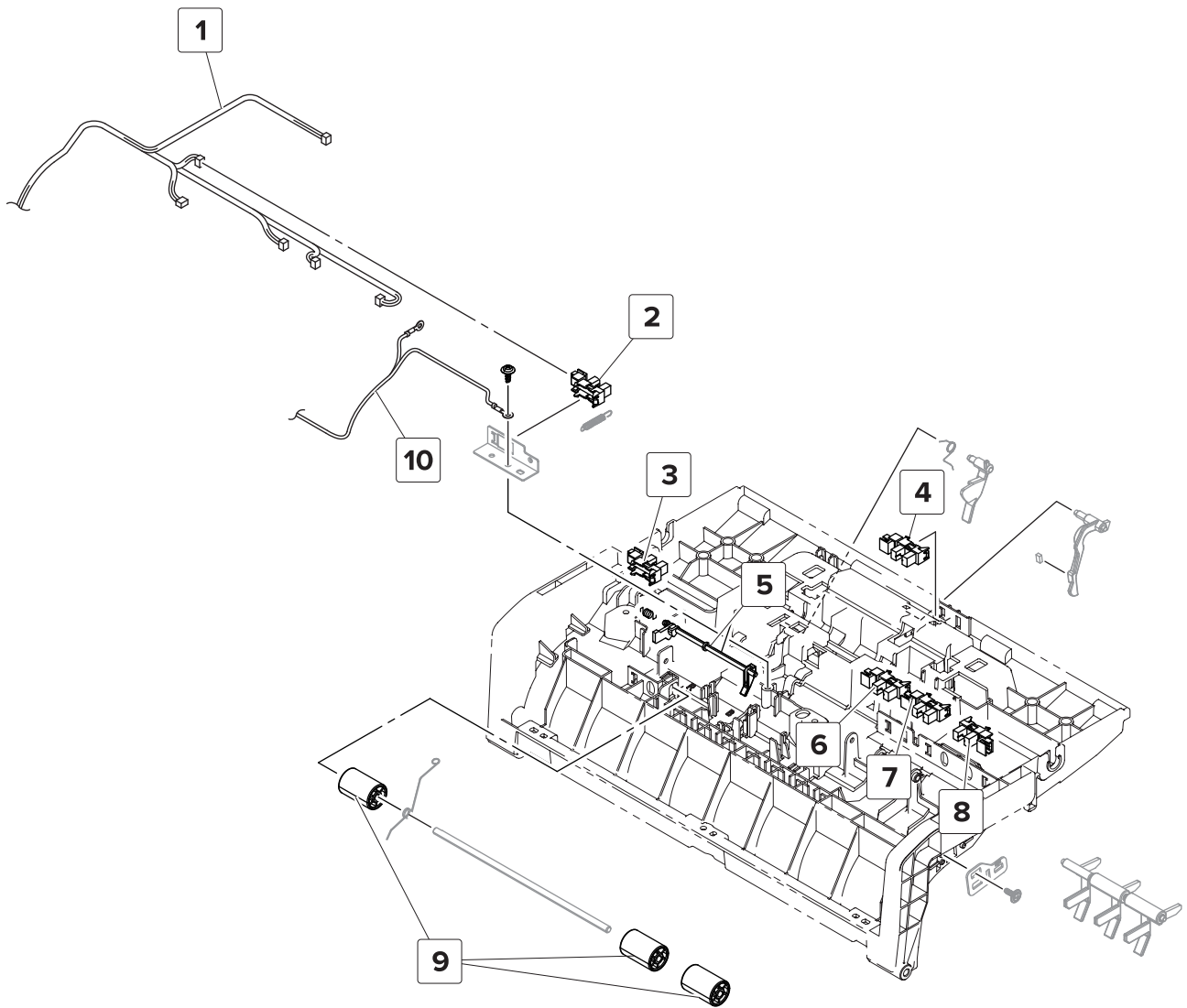
Assembly 49: ADF paper pick 1



Assembly 49: ADF paper pick 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9946	1	1	ADF top cover	“ADF top cover removal” on page 420
2	40X8875	1	1	ADF door latch	--
3	40X9947	1	1	ADF door frame	--

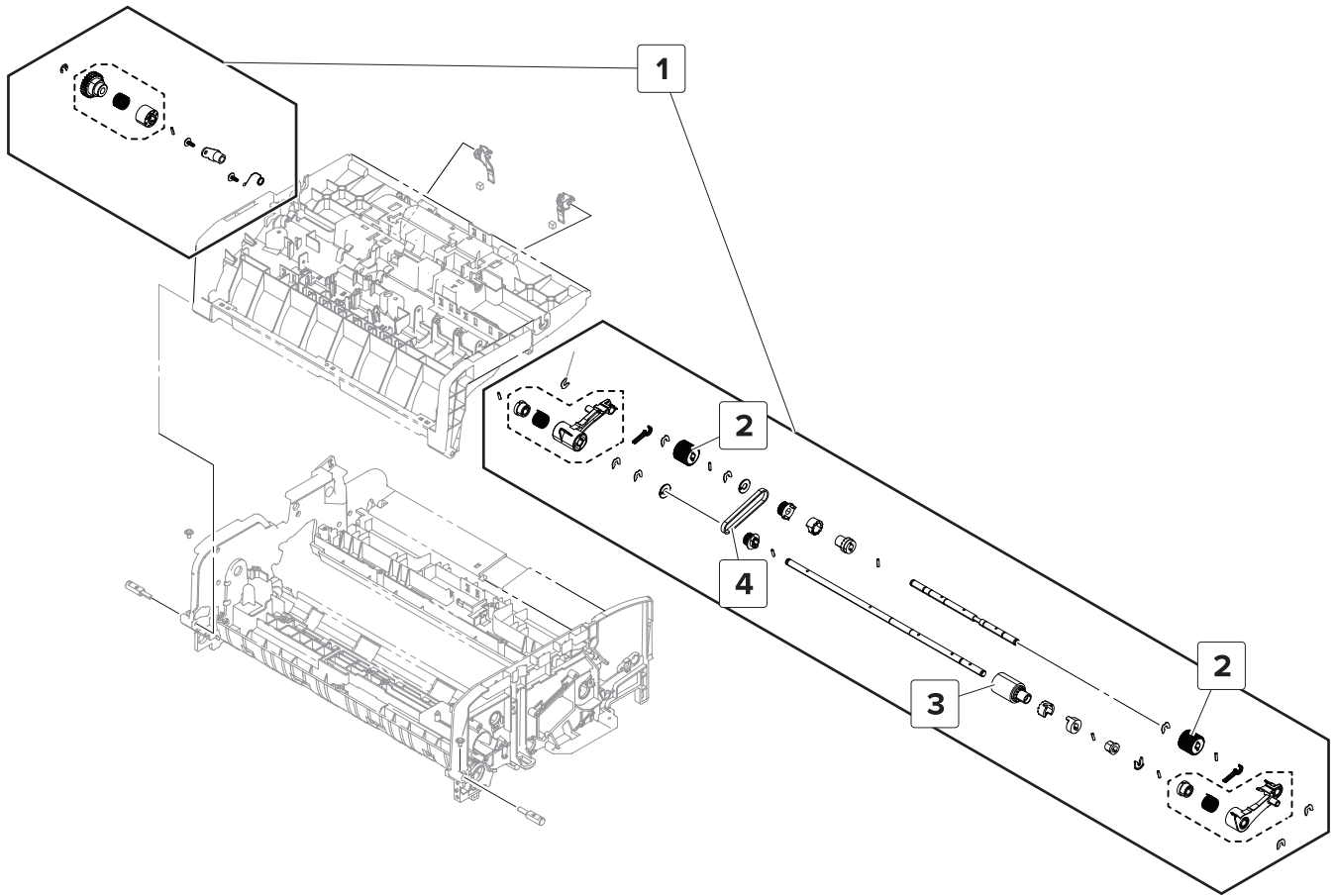
Assembly 50: ADF paper pick 2



Assembly 50: ADF paper pick 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9680	1	1	ADF top cover sensor cable	--
2	40X8869	1	1	Sensor (ADF document separation)	“Sensors (ADF top open cover section) removal” on page 444
3	40X8869	1	1	Sensor (ADF registration)	“Sensors (ADF top open cover section) removal” on page 444
4	40X8869	1	1	Sensor (ADF tray empty)	“Sensors (ADF top open cover section) removal” on page 444
5	41X1398	1	1	ADF registration sensor flag	--
6	40X8869	1	1	Sensor (ADF mixed paper width 1)	“Sensors (ADF top open cover section) removal” on page 444
7	40X8869	1	1	Sensor (ADF mixed paper width 2)	“Sensors (ADF top open cover section) removal” on page 444
8	40X8869	1	1	Sensor (ADF mixed paper width 3)	“Sensors (ADF top open cover section) removal” on page 444
9	40X9948	3	1	ADF registration idler roller	--
10	40X8877	1	1	ADF ground cable	--

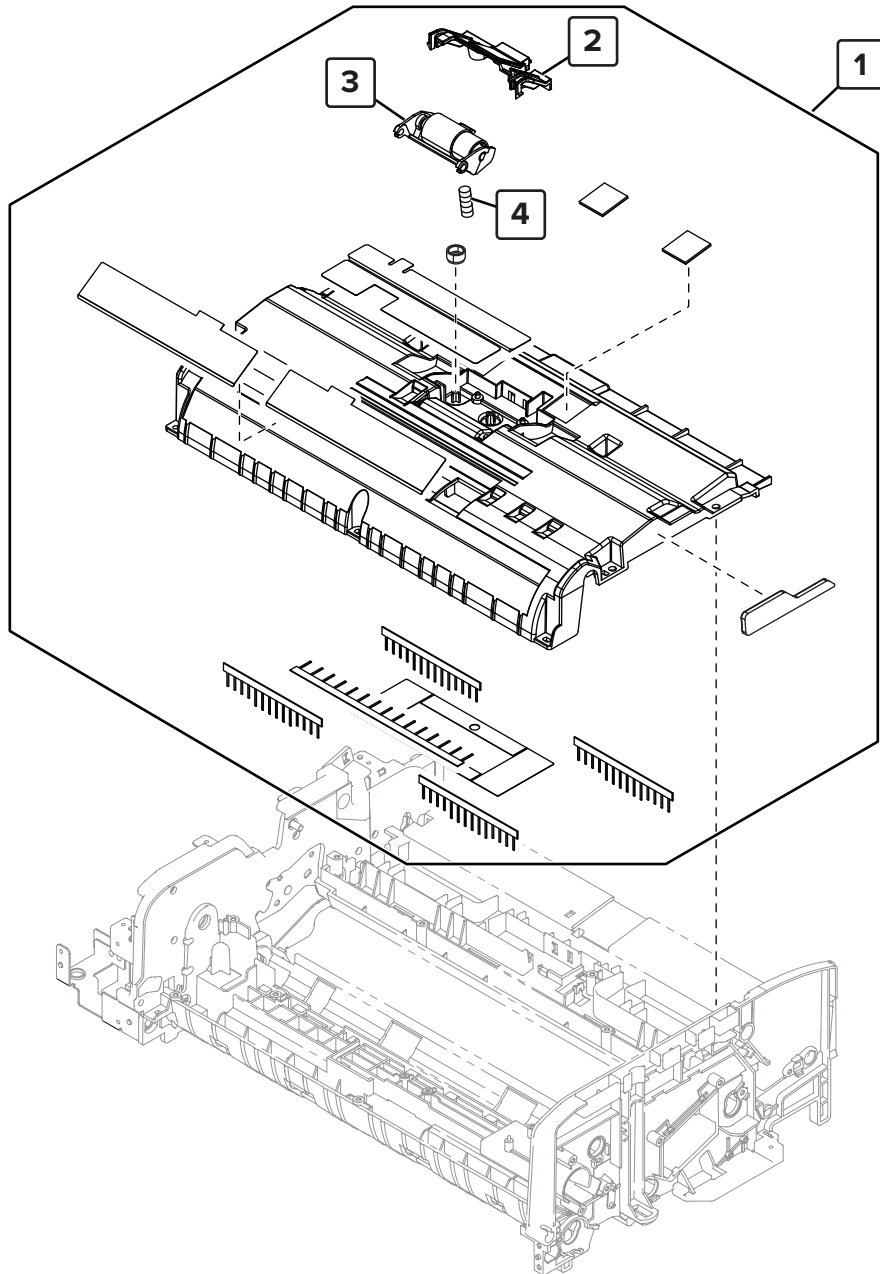
Assembly 51: ADF paper pick 3



Assembly 51: ADF paper pick 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8878	1	1	ADF feed and pick roller assembly	“ADF feed and pick roller assembly removal” on page 434
2	40X8879	2	1	ADF pick roller	“ADF pick roller removal” on page 439
3	40X9681	1	1	ADF feed roller	“ADF feed roller removal” on page 436
4	40X8880	1	1	ADF pick belt	--

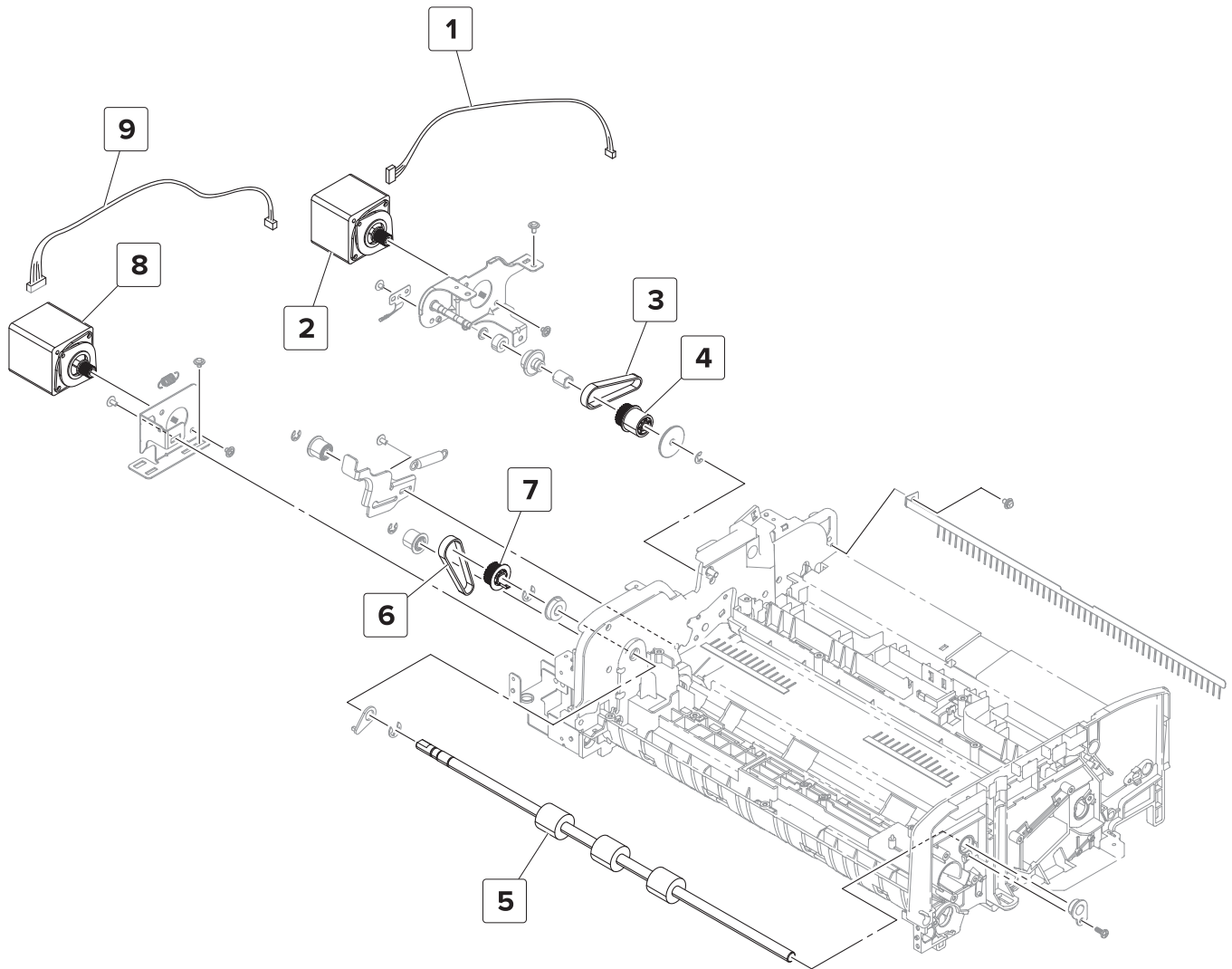
Assembly 52: ADF paper transport 1



Assembly 52: ADF paper transport 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1994	1	1	ADF registration guide	“ADF registration guide removal” on page 423
2	41X1405	1	1	ADF separator pad	“ADF separator roller removal” on page 423
3	40X9682	1	1	ADF separator roller	“ADF separator roller removal” on page 423
4	41X1601	1	1	ADF separator roller spring	“ADF separator roller removal” on page 423

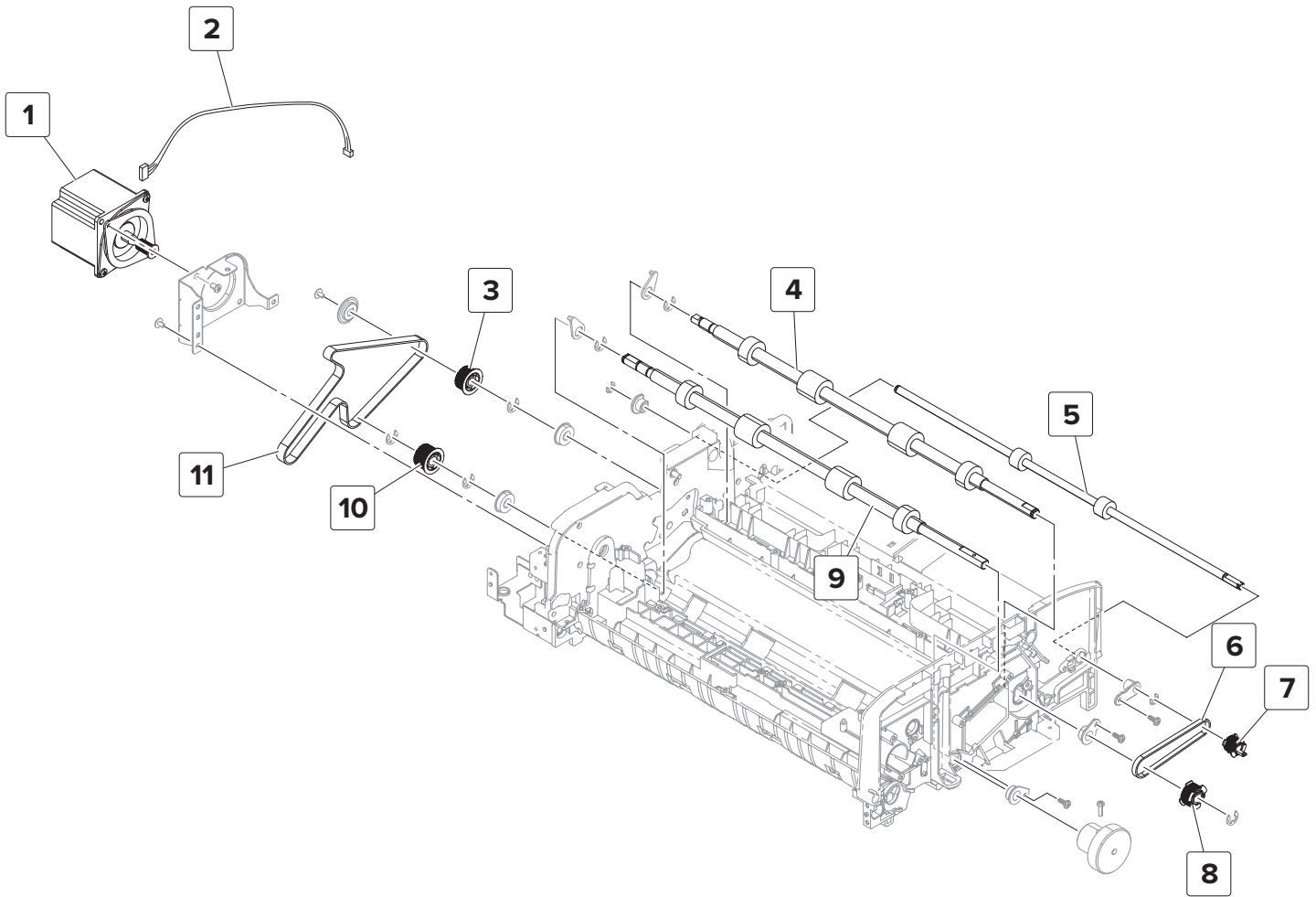
Assembly 53: ADF paper transport 2



Assembly 53: ADF paper transport 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9683	1	1	ADF feed motor cable	--
2	40X8884	1	1	Motor (ADF feed)	"Motor (ADF feed) removal" on page 448
3	40X8885	1	1	ADF feed belt	--
4	40X9950	1	1	ADF feed gear	--
5	40X9951	1	1	ADF registration roller	--
6	40X8885	1	1	ADF registration belt	--
7	40X9952	1	1	ADF registration gear	--
8	40X8887	1	1	Motor (ADF scan)	"Motor (ADF scan) removal" on page 451
9	40X8888	1	1	ADF registration motor cable	--

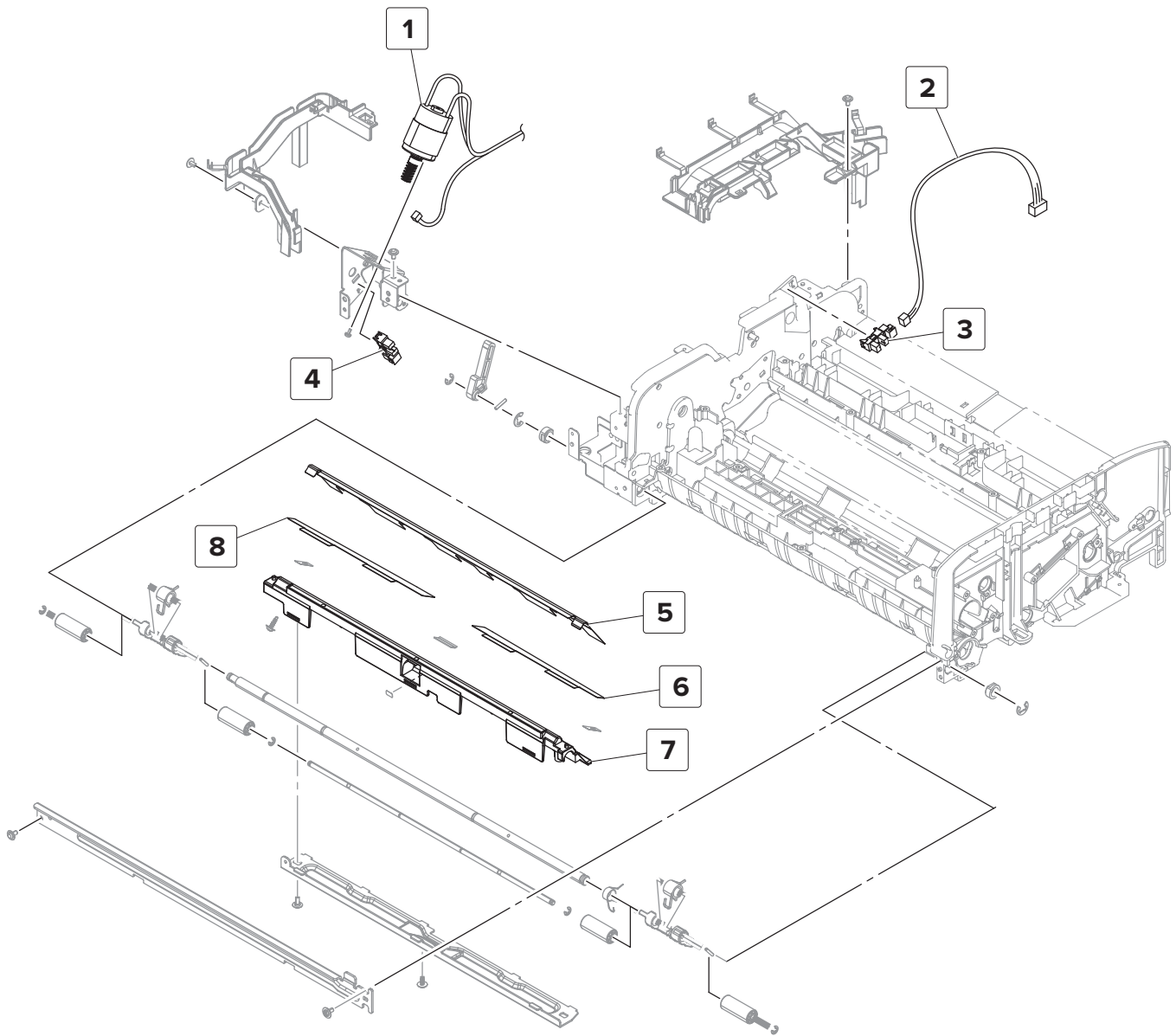
Assembly 54: ADF paper transport 3



Assembly 54: ADF paper transport 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8889	1	1	Motor (ADF registration)	“Motor (ADF registration) removal” on page 450
2	40X9684	1	1	ADF scan motor cable	--
3	40X9686	1	1	ADF scan roller 2 gear	--
4	40X8893	1	1	ADF scan roller 2	--
5	40X8891	1	1	ADF document exit roller	--
6	40X8892	1	1	ADF scan/exit roller belt	“ADF scan/exit roller belt removal” on page 418
7	40X9687	1	1	ADF exit roller gear	--
8	40X9688	1	1	ADF scan roller 3 gear	--
9	41X2068	1	1	ADF scan roller 1	--
10	40X9685	1	1	ADF scan motor gear	--
11	40X8890	1	1	ADF scan motor belt	--

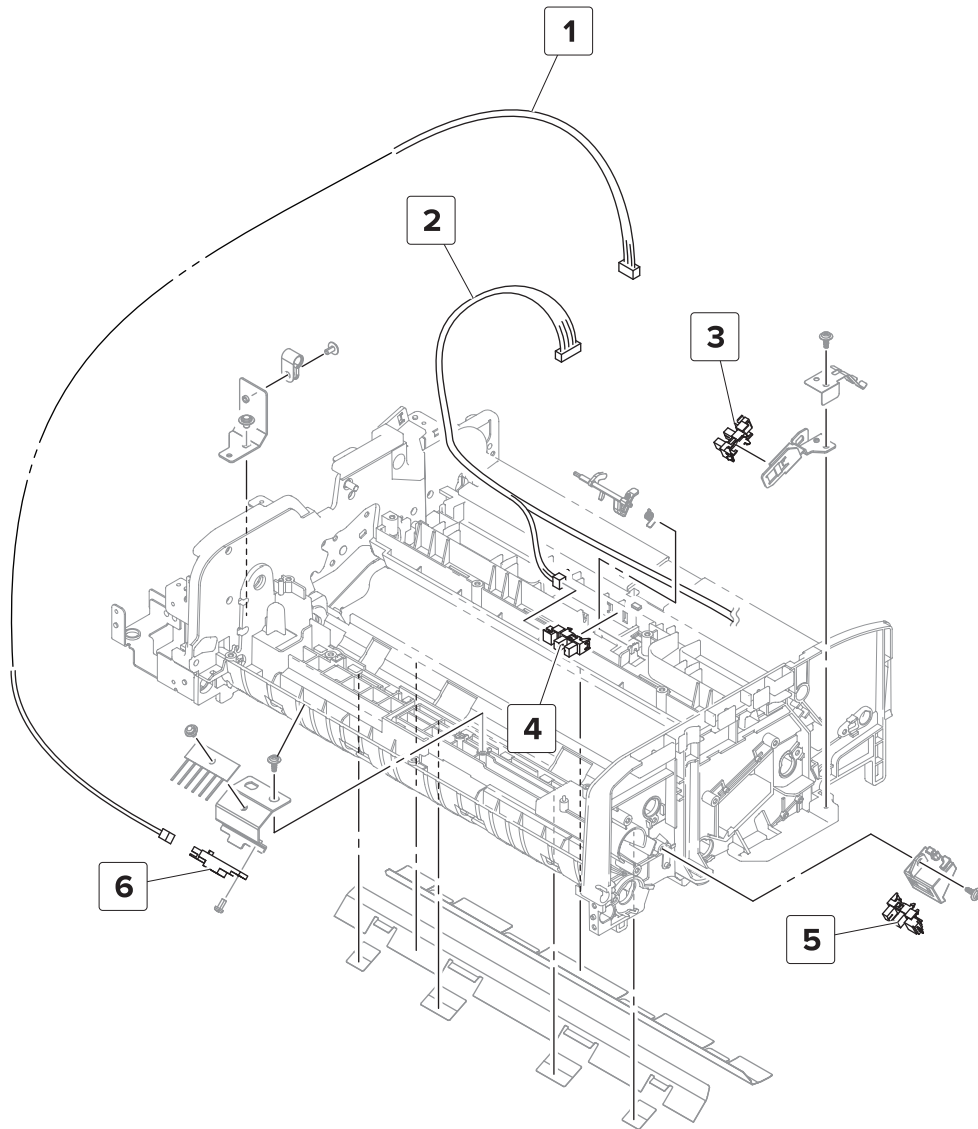
Assembly 55: ADF paper transport 4



Assembly 55: ADF paper transport 4

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8896	1	1	Motor (ADF scan shaft release)	“Motor (ADF scan shaft release) removal” on page 447
2	40X9689	1	1	ADF door open sensor cable	--
3	40X8869	1	1	Sensor (ADF top cover open)	“Sensor (ADF top cover open) removal” on page 443
4	40X8869	1	1	Sensor (ADF scan shaft home)	“Sensor (ADF scan shaft home) removal” on page 442
5	41X1625	1	1	ADF transport mylar 3	--
6	41X1623	1	1	ADF transport mylar 1	--
7	41X1626	1	1	ADF transport guide	--
8	41X1624	1	1	ADF transport mylar 2	--

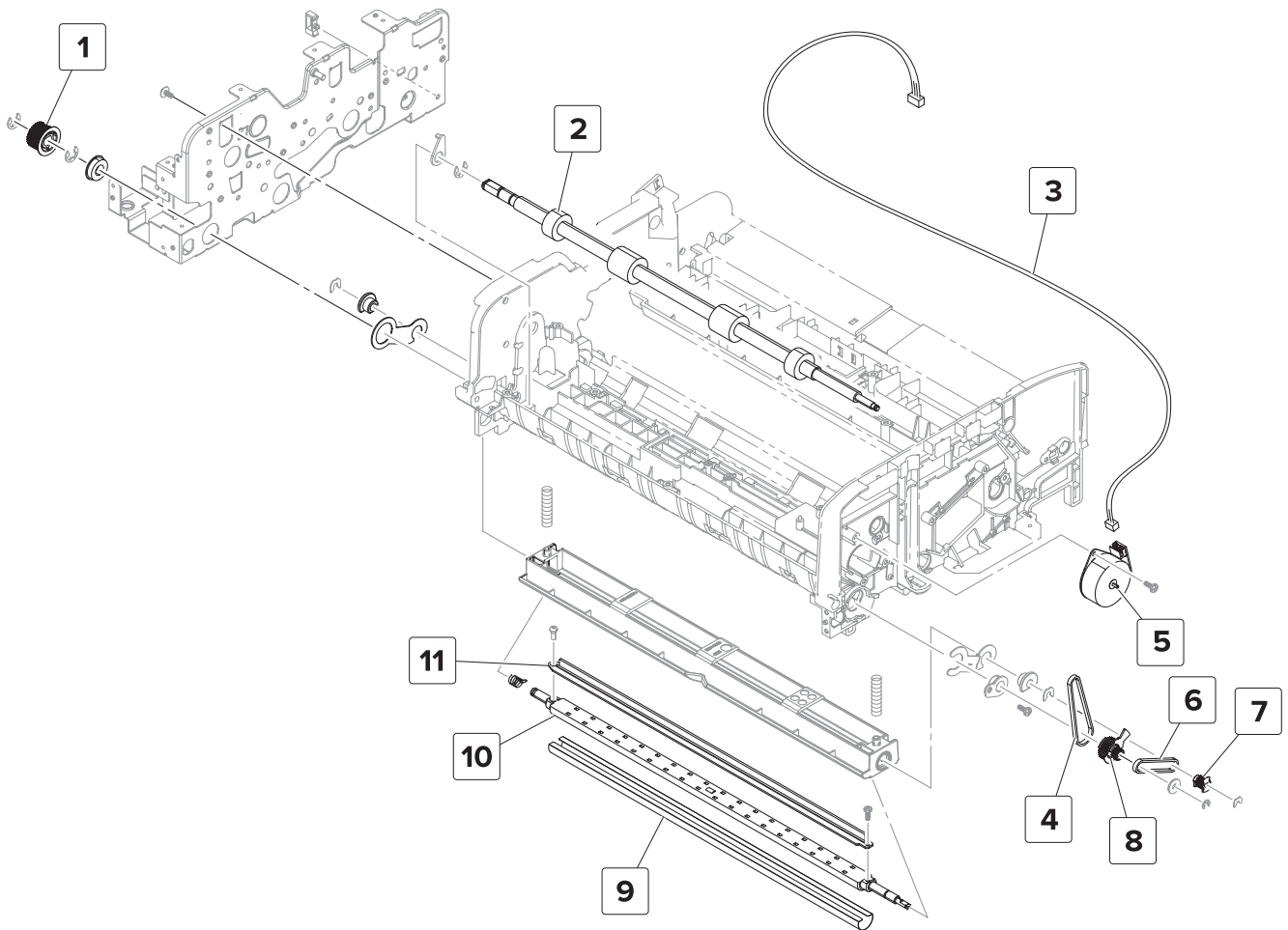
Assembly 56: ADF paper transport 5



Assembly 56: ADF paper transport 5

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9690	1	1	ADF scan sensor cable	--
2	40X9212	1	1	ADF exit sensor cable	--
3	40X8869	1	1	Sensor (ADF jam access cover)	“Sensor (ADF jam access cover) removal” on page 441
4	40X8869	1	1	Sensor (ADF exit)	--
5	40X8869	1	1	Sensor (scan glass clean)	“Sensor (scan glass clean) removal” on page 446
6	40X9211	1	1	Sensor (ADF scan)	“Sensor (ADF scan) removal” on page 424

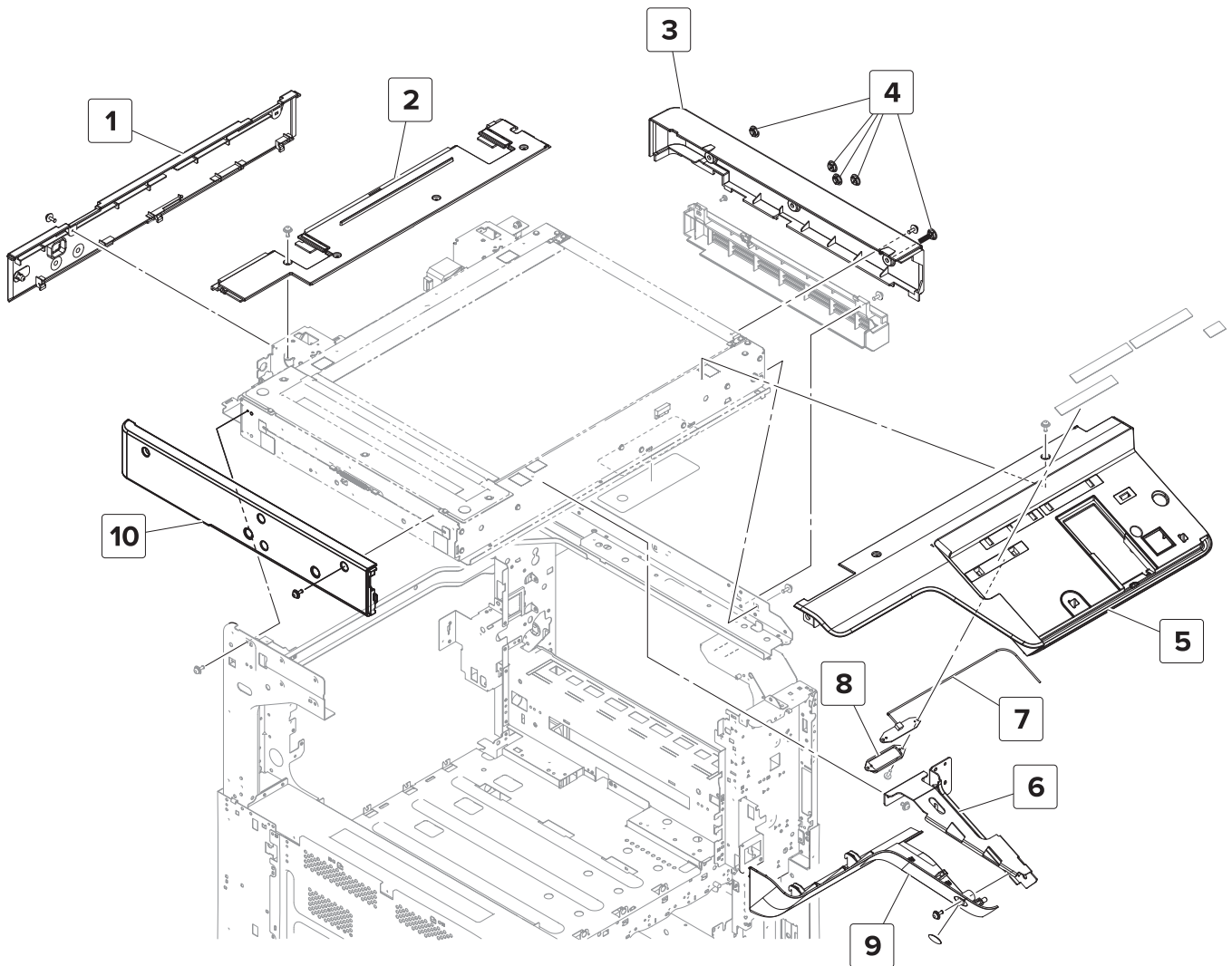
Assembly 57: ADF paper transport 6



Assembly 57: ADF paper transport 6

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9685	1	1	ADF transport gear	--
2	40X9953	1	1	ADF exit roller	--
3	40X9695	1	1	CIS glass clean motor cable	--
4	40X9691	1	1	ADF glass clean encoder belt	--
5	40X9213	1	1	Motor (CIS glass clean)	“Motor (CIS glass clean) removal” on page 452
6	40X9214	1	1	CIS glass clean belt	--
7	40X9693	1	1	CIS glass clean gear	--
8	40X9694	1	1	ADF glass clean encoder	--
9	41X1778	1	1	Scan glass cleaner	“Cleaning shaft removal” on page 467
10	41X1779	1	1	Cleaning shaft	“Cleaning shaft removal” on page 467
11	41X1777	1	1	Scan glass brush	“Scan glass brush removal” on page 466

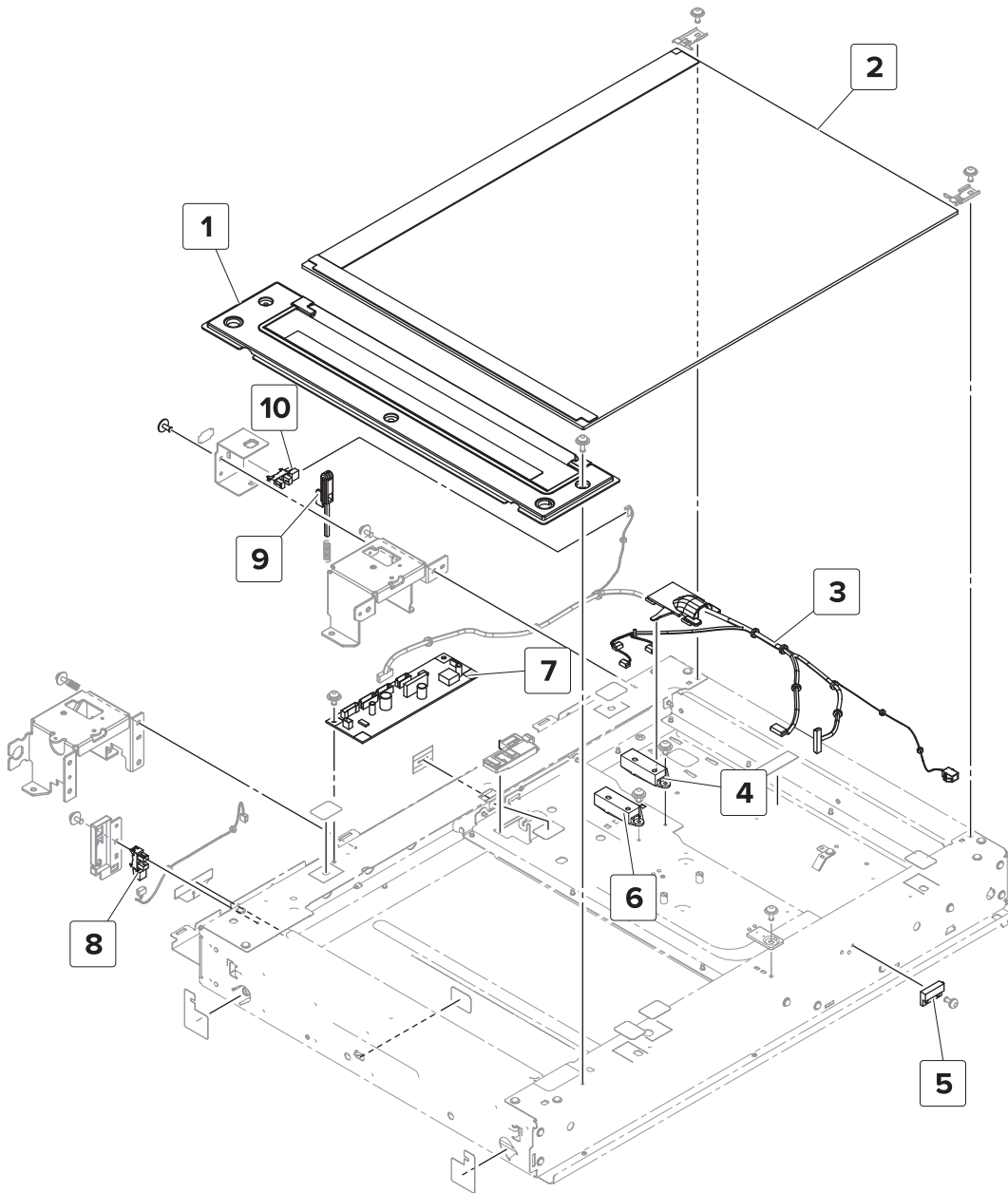
Assembly 58: Flatbed scanner covers



Assembly 58: Flatbed scanner covers

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8921	1	1	Scanner rear cover	“Scanner rear cover removal” on page 454
2	40X8922	1	1	Scanner top cover	“Scanner top cover removal” on page 456
3	40X8923	1	1	Scanner right cover	“Scanner right cover removal” on page 455
4	40X8924	5	1	Screw hole cover	--
5	40X8925	1	1	Control panel base	“Control panel base removal” on page 464
6	40X9972	1	1	Control panel mount	--
7	40X9974	1	1	Cave light LED cable	--
8	40X9971	1	1	Cave light lens	--
9	40X9973	1	1	Control panel bottom cover	“Control panel bottom cover removal” on page 455
10	40X8926	1	1	Scanner Left cover	“Scanner left cover removal” on page 454

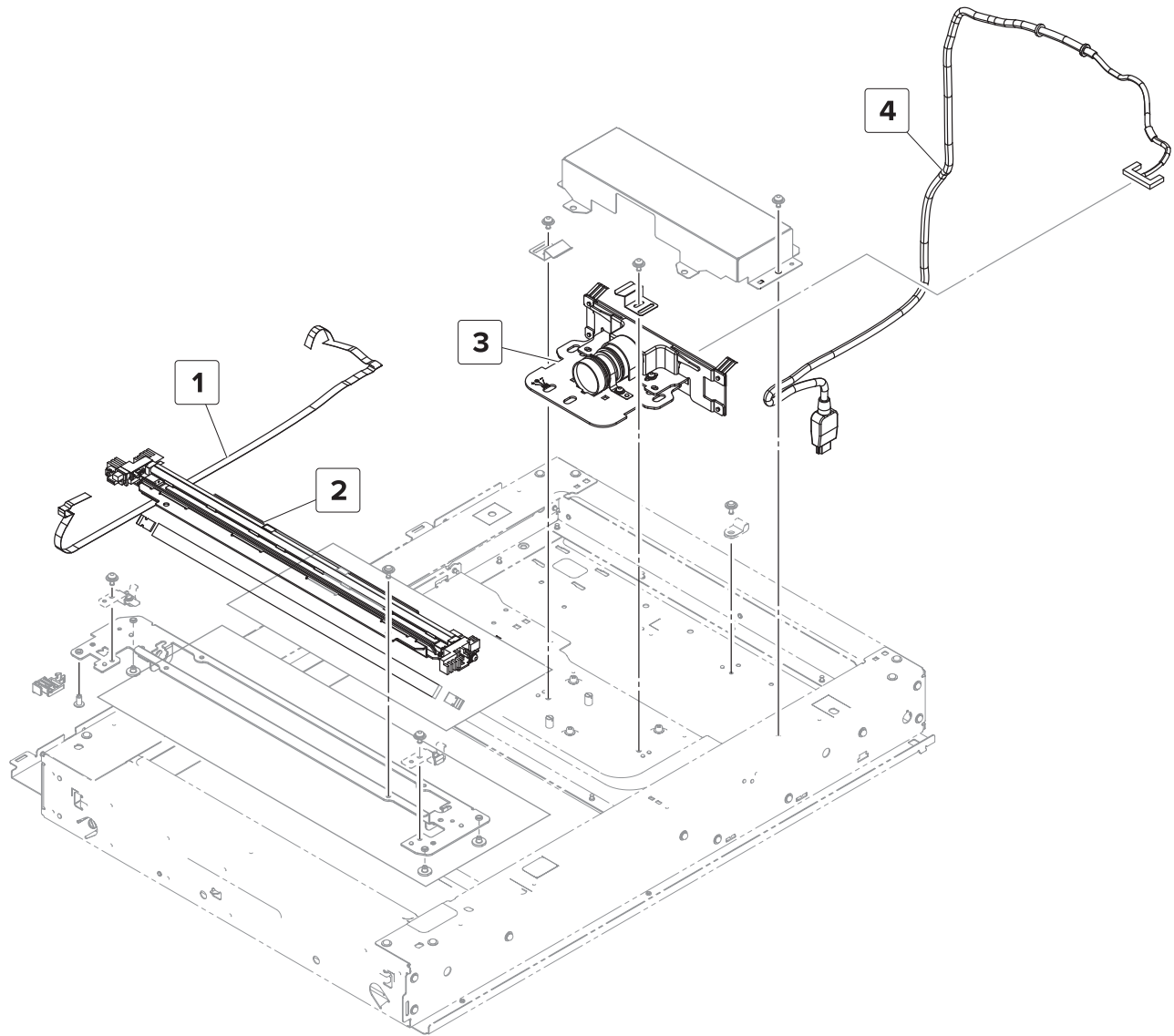
Assembly 59: Flatbed scanner 1



Assembly 59: Flatbed scanner 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8933	1	1	ADF duplex scan glass	“ADF duplex scan glass removal” on page 460
2	40X8928	1	1	Scanner glass	“Scanner glass removal” on page 459
3	40X9702	1	1	Scanner sensor cable	--
4	40X8932	1	1	Sensor (scanner paper length 1)	“Sensor (scanner paper length 1) removal” on page 461
5	40X8930	1	1	Sensor (scanner cover switch)	“Sensor (scanner cover switch) removal” on page 465
6	40X8932	1	1	Sensor (scanner paper length 2)	“Sensor (scanner paper length 2) removal” on page 462
7	40X8934	1	1	Scanner controller board	“Scanner controller board removal” on page 458
8	40X8869	1	1	Sensor (scanner lamp home)	“Sensor (scanner lamp home) removal” on page 457
9	40X8931	1	1	Scanner cover open sensor actuator	“Sensor (scanner cover open) removal” on page 456
10	40X9313	1	1	Sensor (scanner cover open)	“Sensor (scanner cover open) removal” on page 456

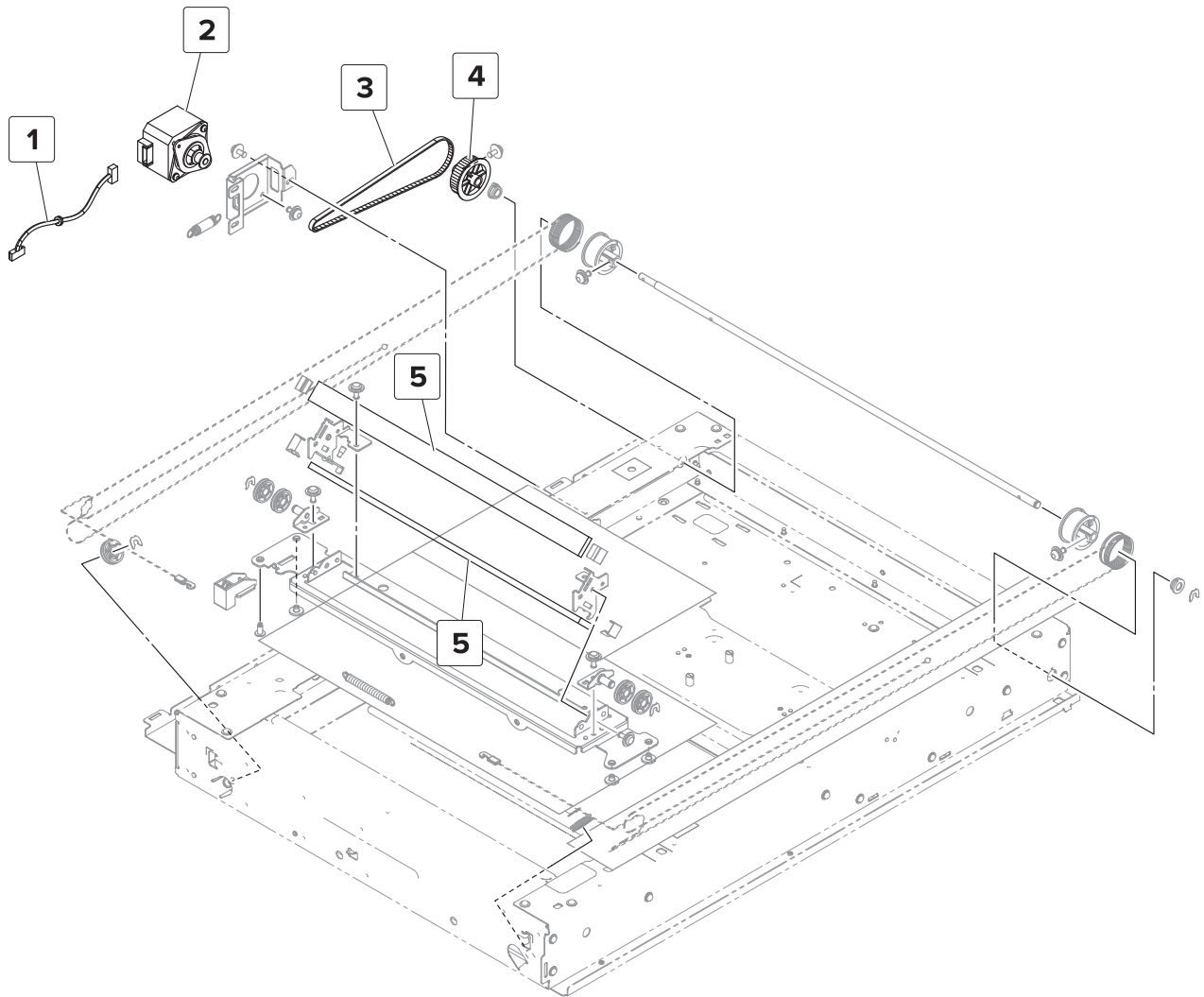
Assembly 60: Flatbed scanner 2



Assembly 60: Flatbed scanner 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8939	1	1	Scanner lamp cable	--
2	40X8938	1	1	Scanner lamp	--
3	40X8937	1	1	Scanner CCD lens assembly	“Scanner CCD lens assembly removal” on page 462
4	40X8935	1	1	Scanner CCD cable	--

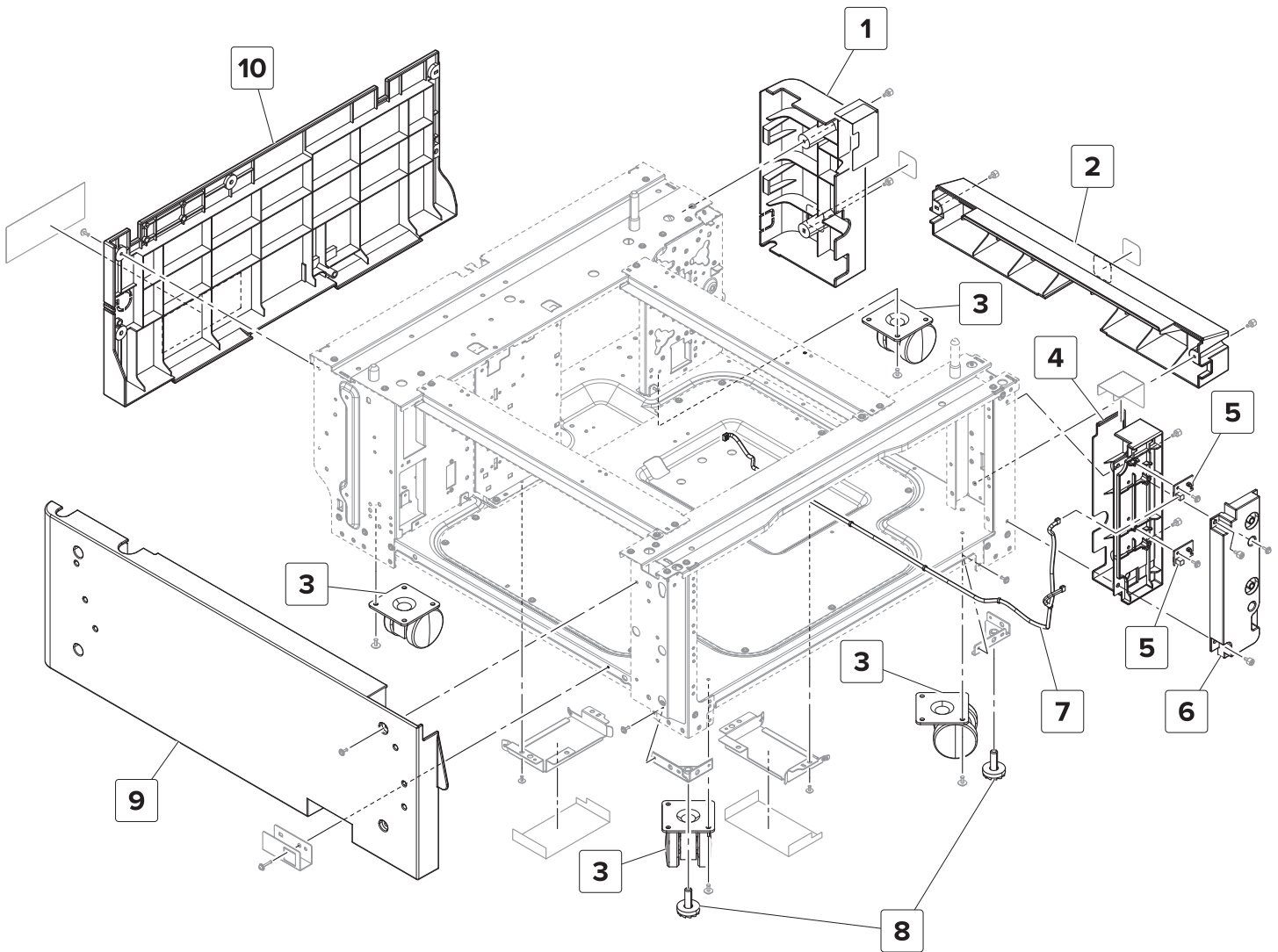
Assembly 61: Flatbed scanner 3



Assembly 61: Flatbed scanner 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9975	1	1	Scanner drive motor cable	--
2	40X8940	1	1	Motor (scanner drive)	“Motor (scanner drive) removal” on page 459
3	40X8941	1	1	Scanner carriage belt	--
4	40X8942	1	1	Scanner carriage gear	--
5	40X9976	2	1	Scanner mirror	--

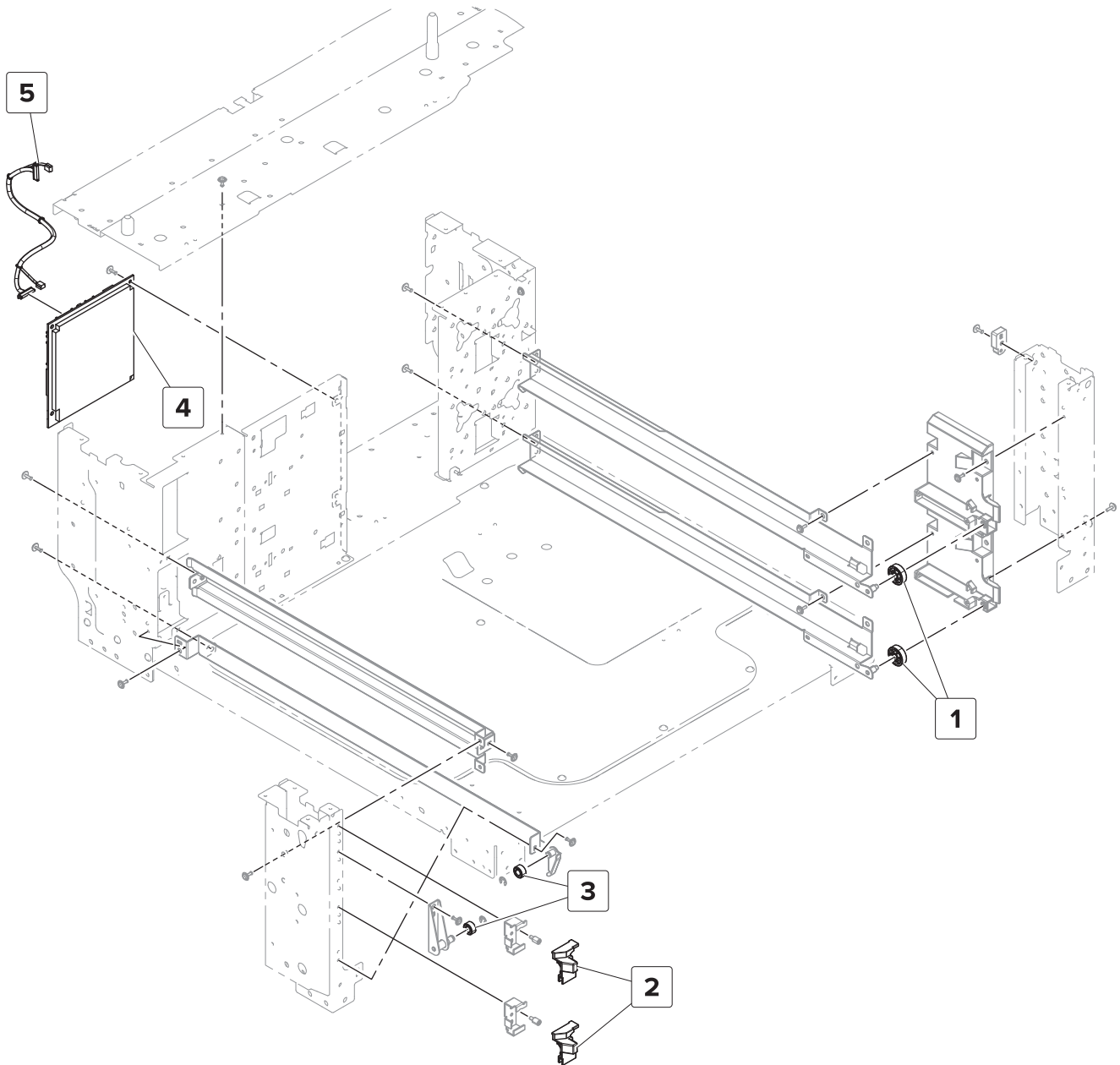
Assembly 62: 2 x 500-sheet tray—Covers



Assembly 62: 2 x 500-sheet tray—Covers

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9779	1	1	2 x 500-sheet tray rear right cover	“2 x 500-sheet tray rear right cover removal” on page 528
2	40X9285	1	1	2 x 500-sheet tray bottom right cover	“2 x 500-sheet tray bottom right cover removal” on page 529
3	40X9282	4	1	2 x 500-sheet tray caster wheel	“2 x 500-sheet tray caster wheel removal” on page 513
4	40X9286	1	1	2 x 500-sheet tray empty LED mount	“2 x 500-sheet tray empty LED mount removal” on page 521
5	40X8903	2	1	2 x 500-sheet tray empty LED	“2 x 500-sheet tray empty LED removal” on page 521
6	40X9287	1	1	2 x 500-sheet tray empty LED cover	“2 x 500-sheet tray empty LED cover removal” on page 520
7	40X9289	1	1	2 x 500-sheet tray empty LED cable	--
8	40X9283	2	1	Printer rubber stopper	“Printer rubber stopper removal” on page 514
9	40X9281	1	1	2 x 500-sheet tray left cover	“2 x 500-sheet tray left cover removal” on page 520
10	40X9280	1	1	2 x 500-sheet tray rear cover	“2 x 500-sheet tray rear cover removal” on page 522

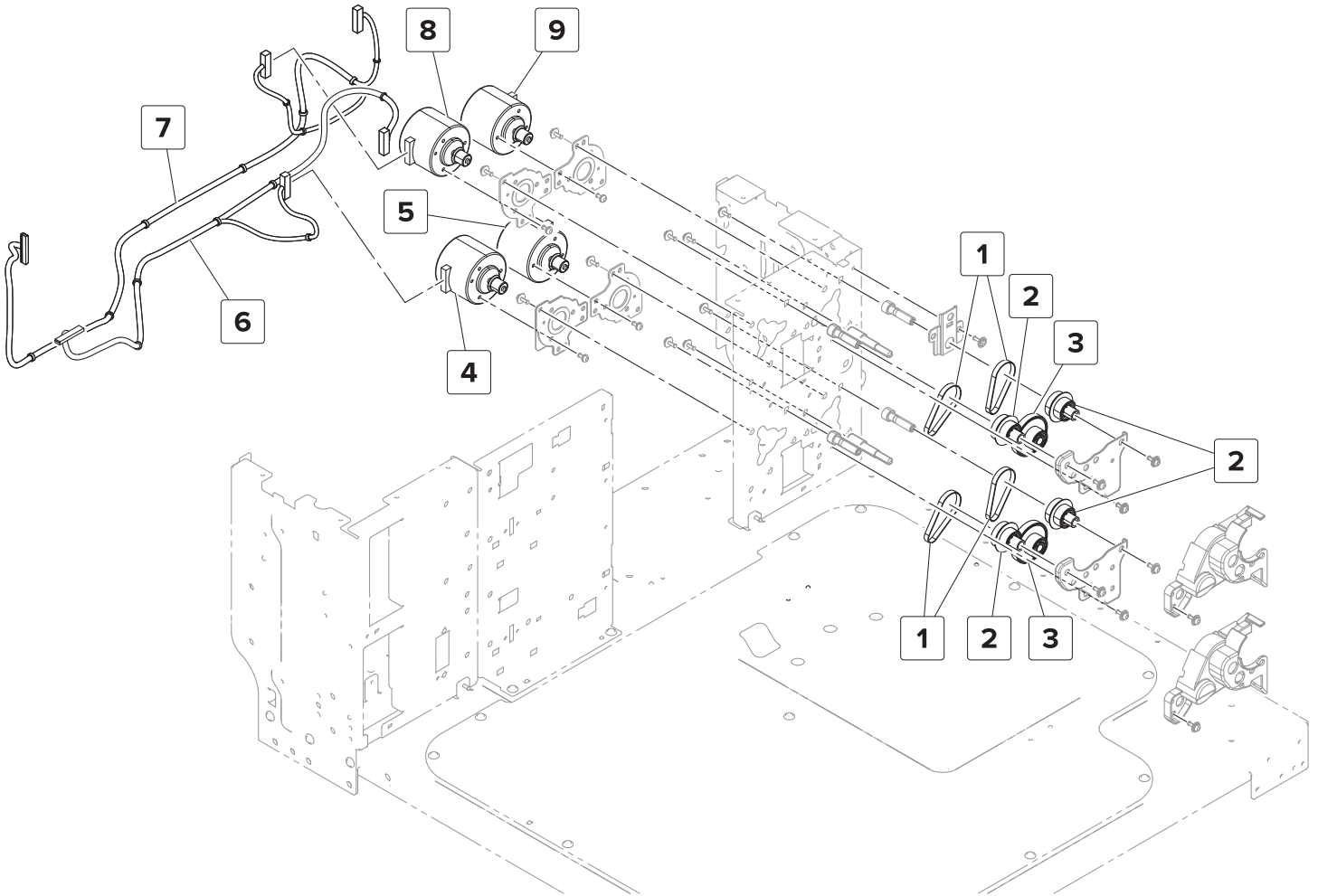
Assembly 63: 2 x 500-sheet tray—Frame



Assembly 63: 2 x 500-sheet tray—Frame

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X8981	2	1	2 x 500-sheet tray right rail guide wheel	--
2	40X9014	2	1	2 x 500-sheet tray insert stopper	--
3	40X9305	2	1	2 x 500-sheet tray left rail guide wheel	--
4	40X9290	1	1	2 x 500-sheet tray controller board	“2 x 500-sheet tray controller board removal” on page 526
5	40X9783	1	1	2 x 500-sheet tray interface cable	--

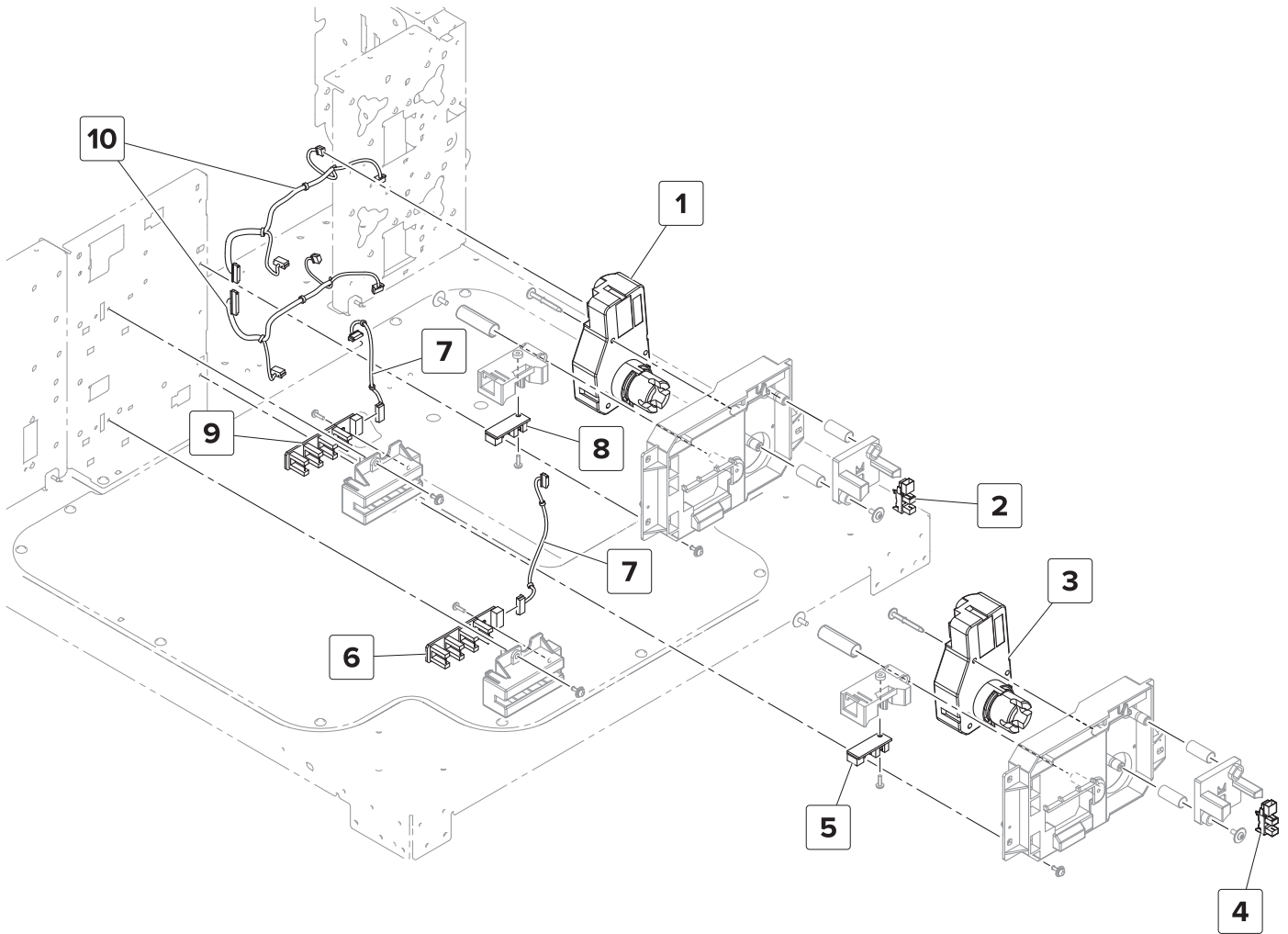
Assembly 64: 2 x 500-sheet tray—Paper feed



Assembly 64: 2 x 500-sheet tray—Paper feed

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9294	4	1	2 x 500-sheet tray feed and transport motor belt	“2 x 500-sheet tray 3 transport belts and gears removal” on page 534 “2 x 500-sheet tray 4 transport belts and gears removal” on page 535
2	40X9891	4	1	2 x 500-sheet tray feed and transport primary gear	“2 x 500-sheet tray 3 transport belts and gears removal” on page 534 “2 x 500-sheet tray 4 transport belts and gears removal” on page 535
3	40X9295	2	1	2 x 500-sheet tray feed and transport secondary gear	“2 x 500-sheet tray 3 transport belts and gears removal” on page 534 “2 x 500-sheet tray 4 transport belts and gears removal” on page 535
4	40X9293	1	1	Motor (2 x 500-sheet tray 4 feed)	“2 x 500-sheet tray feed and transport motors removal” on page 525
5	40X9293	1	1	Motor (2 x 500-sheet tray 4 transport)	“2 x 500-sheet tray feed and transport motors removal” on page 525
6	40X9774	1	1	2 x 500-sheet tray 4 feed and transport motor cable	--
7	40X9882	1	1	2 x 500-sheet tray 3 feed and transport motor cable	--
8	40X9293	1	1	Motor (2 x 500-sheet tray 3 feed)	“2 x 500-sheet tray feed and transport motors removal” on page 525
9	40X9293	1	1	Motor (2 x 500-sheet tray 3 transport)	“2 x 500-sheet tray feed and transport motors removal” on page 525

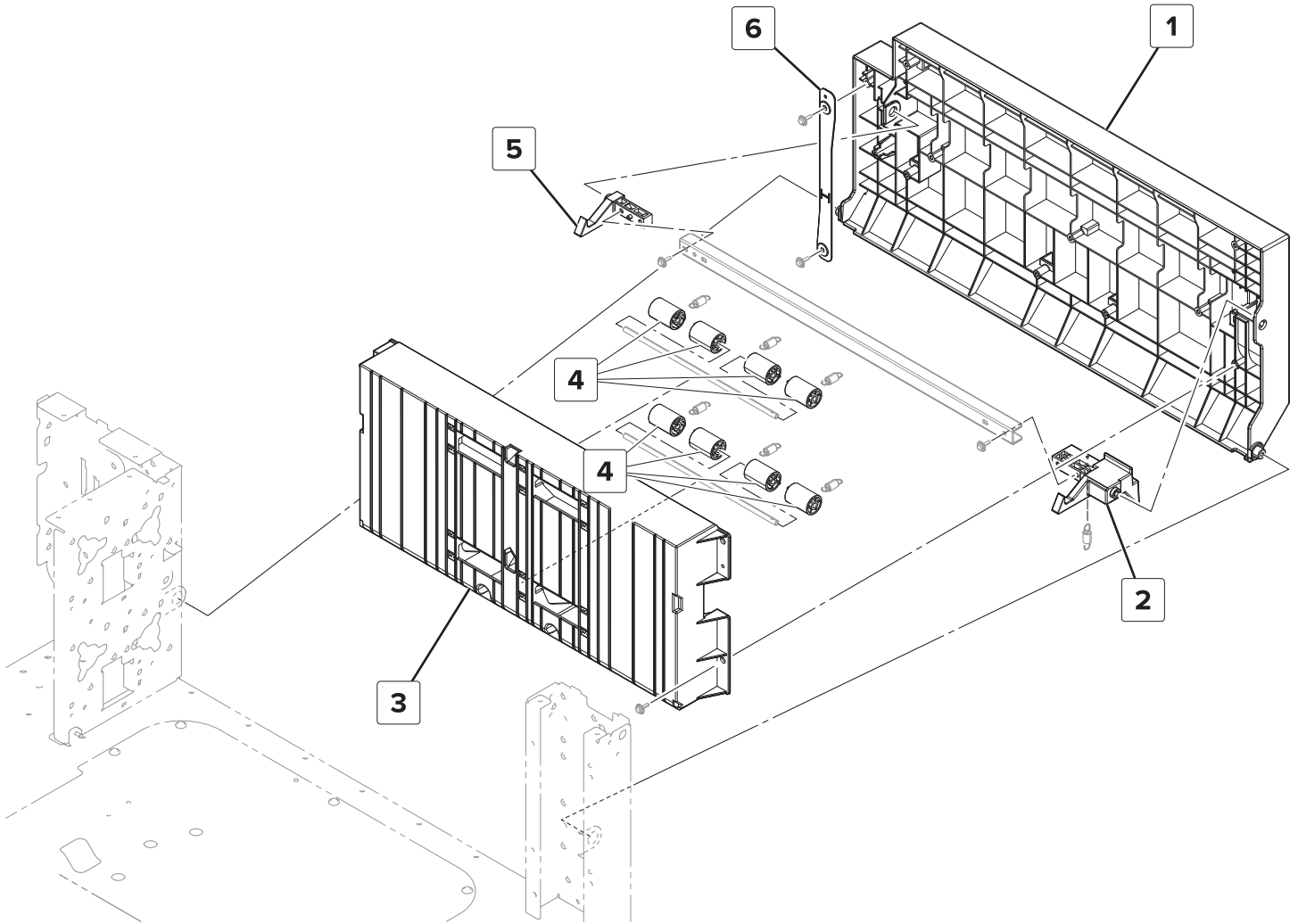
Assembly 65: 2 x 500-sheet tray—Paper size detection



Assembly 65: 2 x 500-sheet tray—Paper size detection

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X8987	1	1	Motor (2 x 500-sheet tray 3 lift)	“Motor (2 x 500-sheet tray lift) removal” on page 522
2	40X8869	1	1	Sensor (2 x 500-sheet tray 3 near empty)	“Sensor (2 x 500-sheet tray near empty) removal” on page 523
3	40X8987	1	1	Motor (2 x 500-sheet tray 4 lift)	“Motor (2 x 500-sheet tray lift) removal” on page 522
4	40X8869	1	1	Sensor (2 x 500-sheet tray 4 near empty)	“Sensor (2 x 500-sheet tray near empty) removal” on page 523
5	40X8989	1	1	Sensor (2 x 500-sheet tray 4 paper width)	“Sensor (2 x 500-sheet tray paper width) removal” on page 524
6	40X8985	1	1	Sensor (2 x 500-sheet tray 4 paper length)	“Sensor (2 x 500-sheet tray paper length) removal” on page 518
7	40X9775	2	1	2 x 500 sheet tray paper length sensor cable	--
8	40X8989	1	1	Sensor (2 x 500-sheet tray 3 paper width)	“Sensor (2 x 500-sheet tray paper width) removal” on page 524
9	40X8985	1	1	Sensor (2 x 500-sheet tray 3 paper length)	“Sensor (2 x 500-sheet tray paper length) removal” on page 518
10	40X9889	2	1	2 x 500 sheet tray lift motor cable	--

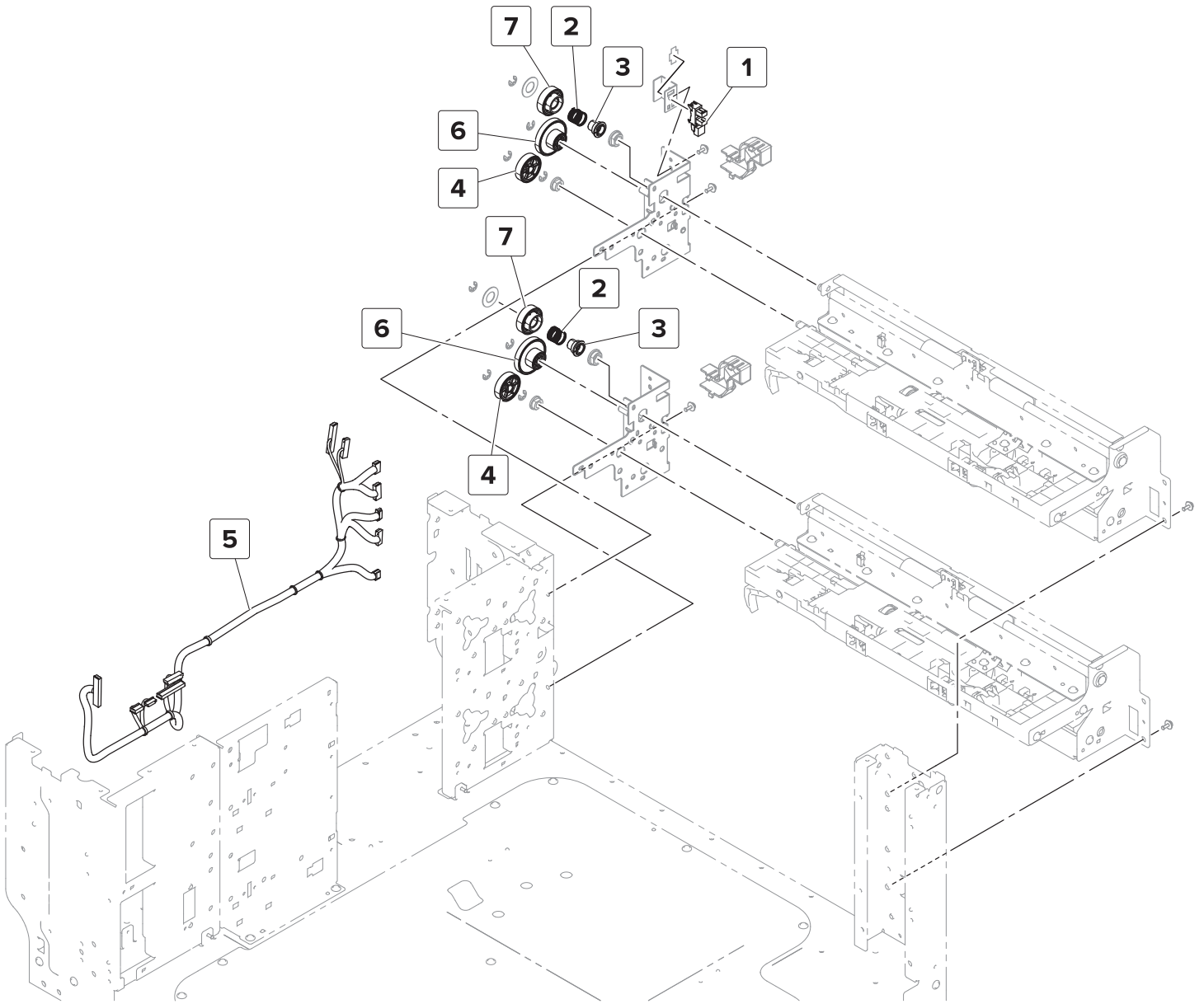
Assembly 66: 2 x 500-sheet tray—Paper transport



Assembly 66: 2 x 500-sheet tray—Paper transport

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X1018	1	1	2 x 500-sheet tray jam access door	--
2	41X1019	1	1	2 x 500-sheet tray jam access latch left	--
3	41X1020	1	1	2 x 500-sheet tray paper guide	--
4	40X8973	8	1	Transport idler roller	--
5	41X1021	1	1	2 x 500-sheet tray jam access latch right	--
6	40X9908	1	1	2 x 500-sheet tray jam access door strap	--

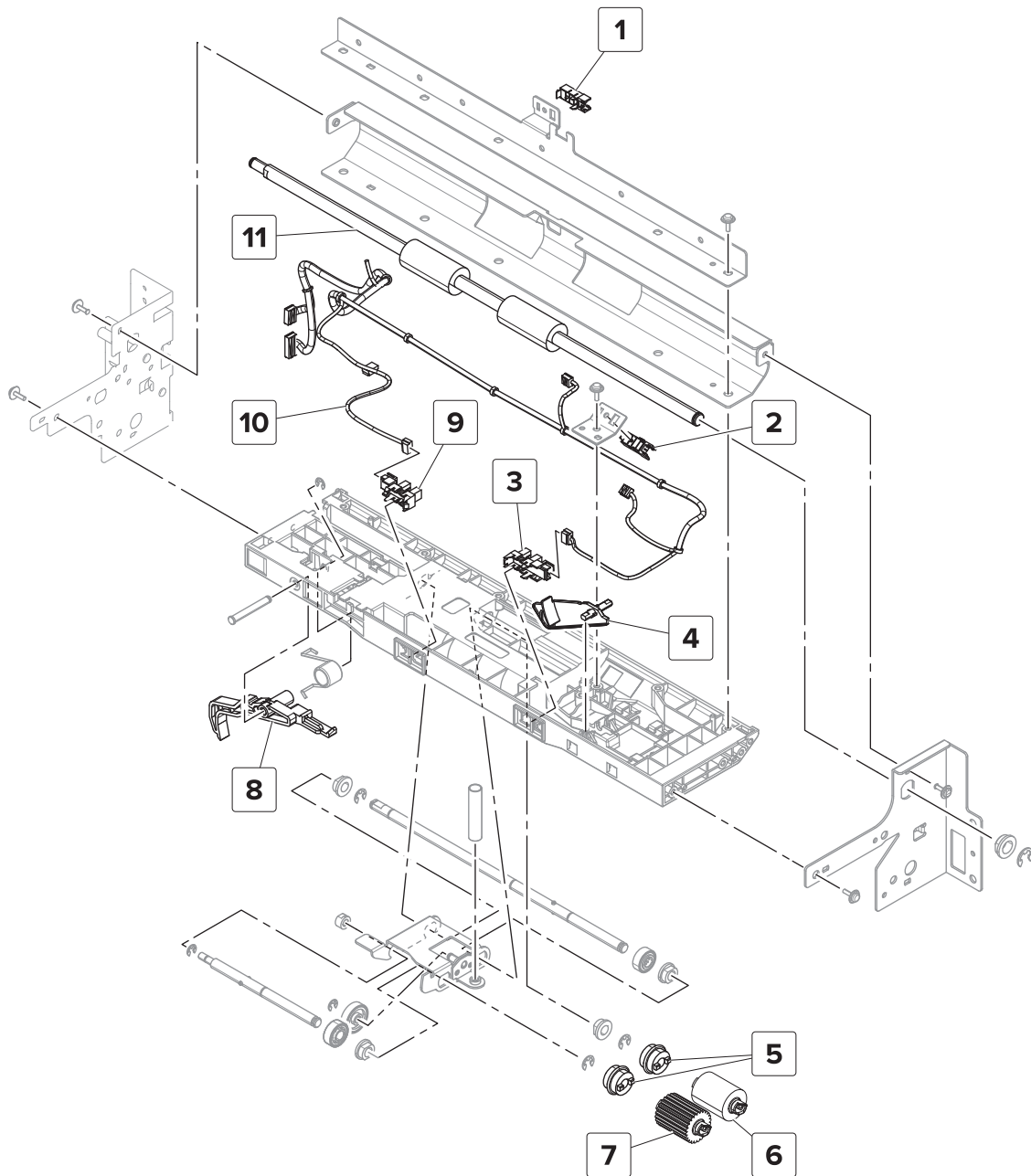
Assembly 67: 2 x 500-sheet tray—Paper pick 1



Assembly 67: 2 x 500-sheet tray—Paper pick 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9313	1	1	Sensor (2 x 500-sheet tray jam access door)	“Sensor (2 x 500-sheet tray jam access door) removal” on page 512
2	40X9892	2	1	2 x 500-sheet tray transport gear spring	--
3	40X9893	2	1	2 x 500-sheet tray transport gear bushing	--
4	40X9894	2	1	2 x 500-sheet tray feed primary gear	--
5	40X9890	1	1	2 x 500-sheet tray cable harness	--
6	40X9295	2	1	2 x 500-sheet tray feed secondary gear	--
7	40X9298	2	1	2 x 500-sheet tray transport gear	--

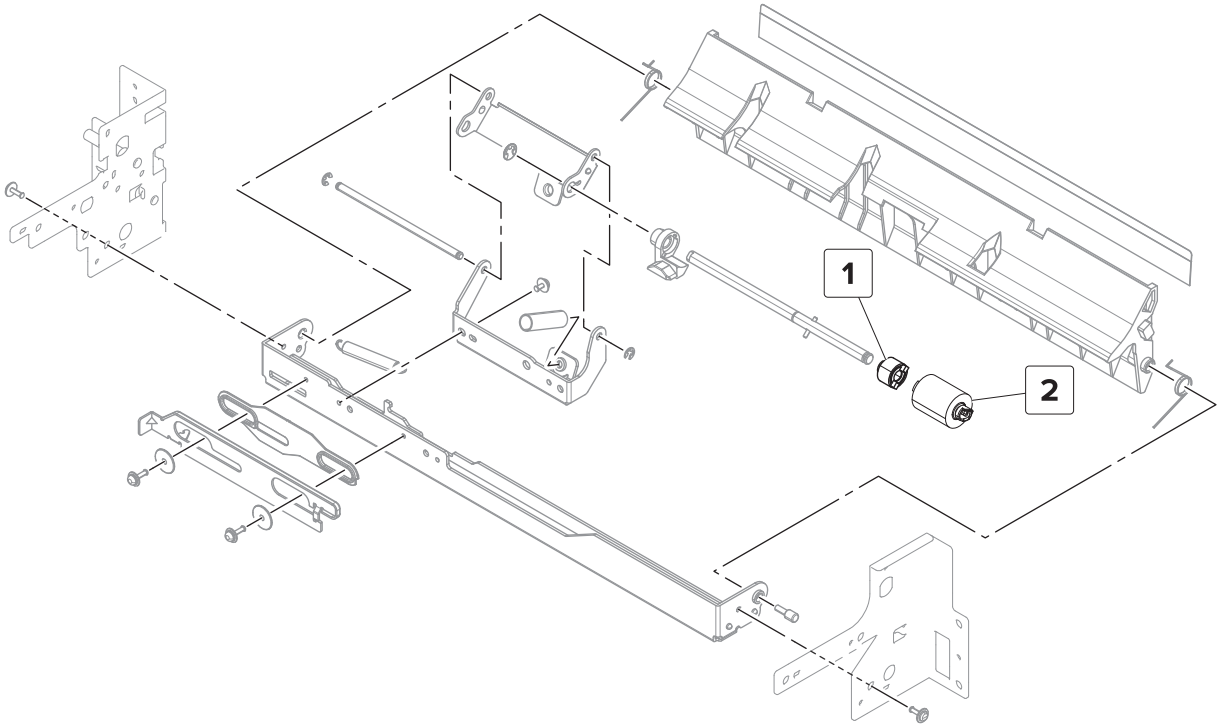
Assembly 68: 2 x 500-sheet tray—Paper pick 2



Assembly 68: 2 x 500-sheet tray—Paper pick 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X8968	2	1	Sensor (2 x 500-sheet tray transport)	“Sensor (2 x 500-sheet tray transport) removal” on page 533
2	40X8968	2	1	Sensor (2 x 500-sheet tray feed)	“2 x 500-sheet tray transport assembly sensors removal” on page 531
3	40X8869	2	1	Sensor (2 x 500-sheet tray empty)	“2 x 500-sheet tray transport assembly sensors removal” on page 531
4	40X9899	2	1	2 x 500-sheet tray empty sensor actuator	“2 x 500-sheet tray transport assembly sensors removal” on page 531
5	40X9981	4	1	Roller clutch	--
6	40X8970	2	1	Feed roller	“2 x 500-sheet tray rollers removal” on page 518
7	40X9925	2	1	Pick roller	“2 x 500-sheet tray rollers removal” on page 518
8	40X9982	2	1	2 x 500-sheet tray set actuator	--
9	40X8869	2	1	Sensor (2 x 500-sheet tray lift plate level)	“2 x 500-sheet tray transport assembly sensors removal” on page 531
10	40X9316	1	1	2 x 500-sheet tray 3 pick assembly sensor cable	--
10	40X9300	1	1	2 x 500-sheet tray 4 pick assembly sensor cable	--
11	40X9299	2	1	2 x 500-sheet tray transport roller	--

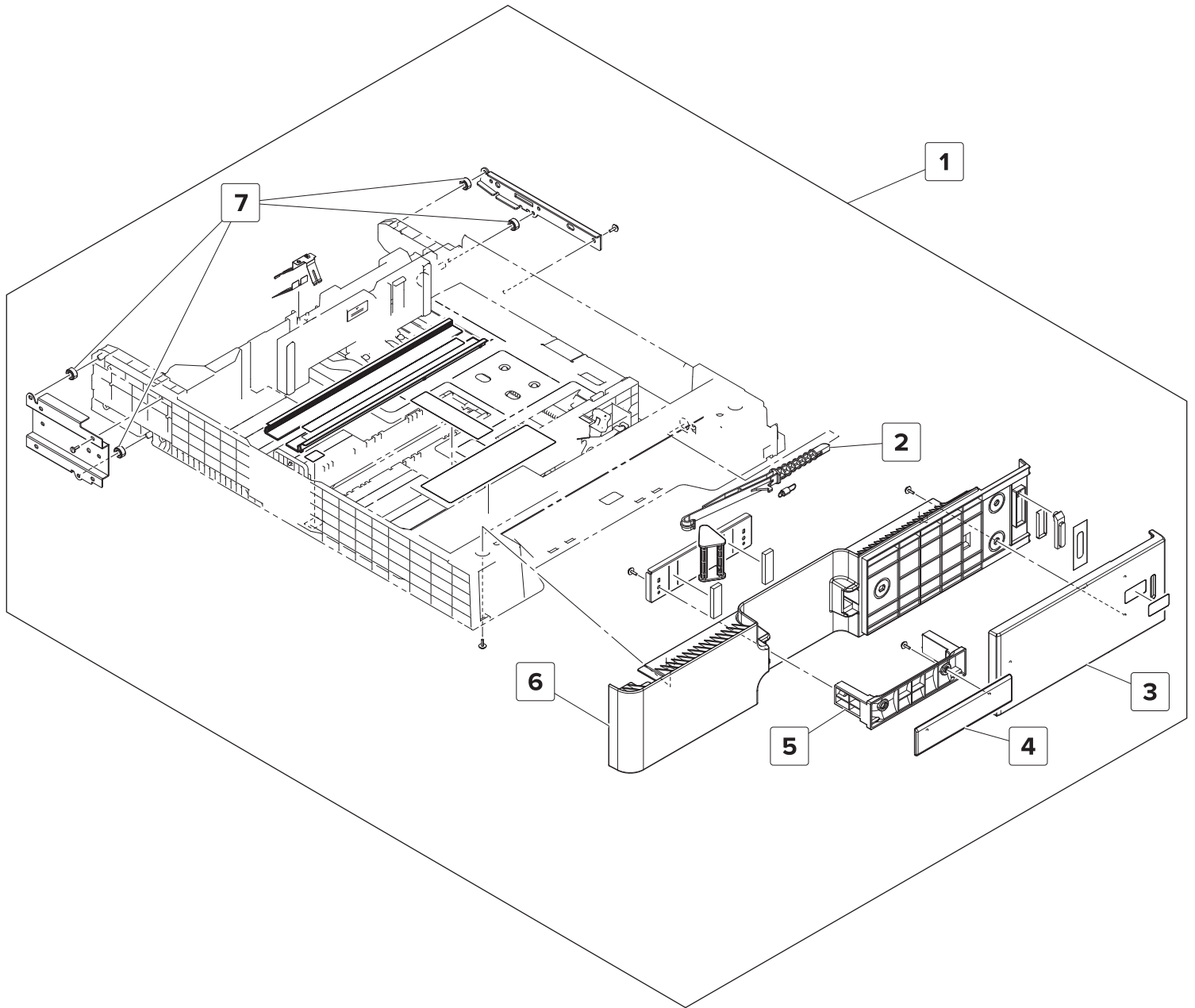
Assembly 69: 2 x 500-sheet tray—Paper pick 3



Assembly 69: 2 x 500-sheet tray—Paper pick 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9455	2	1	Separator clutch	--
2	40X8970	2	1	Separator roller	“2 x 500-sheet tray rollers removal” on page 518

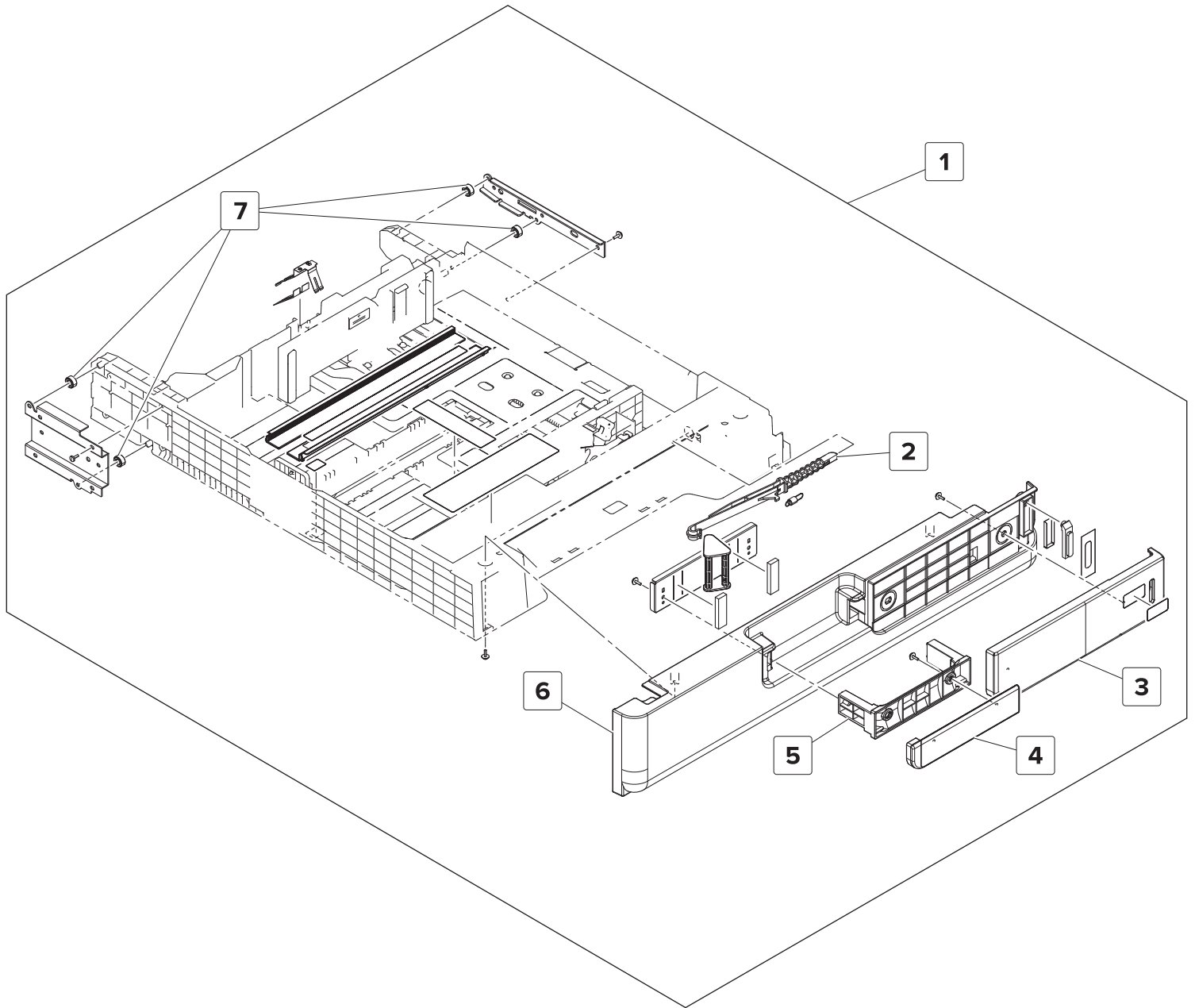
Assembly 70: 2 x 500-sheet tray—Tray 3



Assembly 70: 2 x 500-sheet tray—Tray 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9635	1	1	Tray 3 insert	“Tray insert removal” on page 341
2	40X9304	1	1	Tray lock lever	“Tray lock removal” on page 516
3	40X9017	1	1	Tray 3 right front cover	--
4	40X9034	1	1	Tray 3 handle cover	--
5	40X9186	1	1	Tray handle	--
6	40X8871	1	1	Tray 3 front cover	“Tray lock removal” on page 516
7	40X9305	4	1	Tray insert guide wheel	--

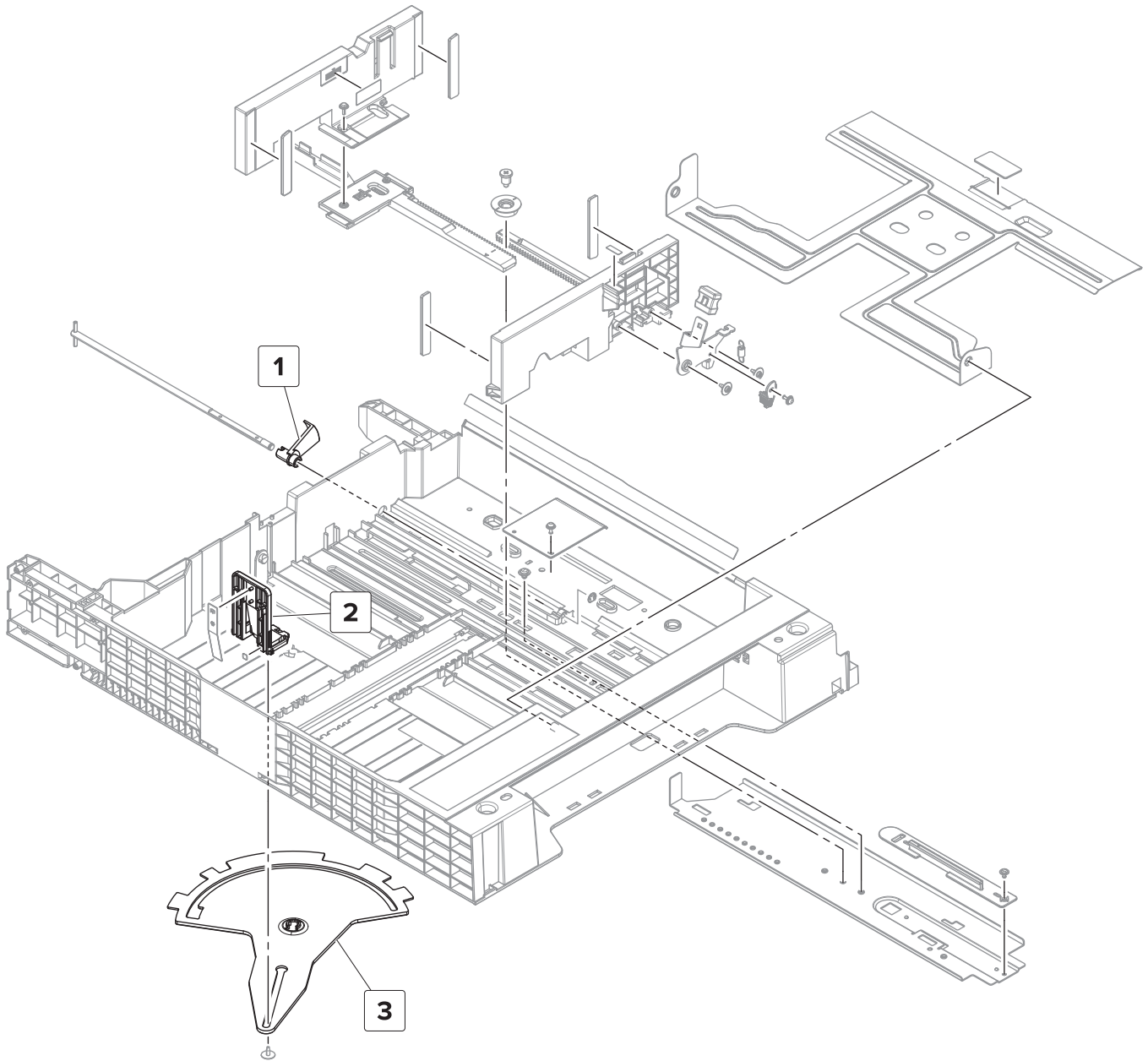
Assembly 71: 2 x 500-sheet tray—Tray 4



Assembly 71: 2 x 500-sheet tray—Tray 4

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9697	1	1	Tray 4 insert	“Tray insert removal” on page 341
2	40X9304	1	1	Tray lock lever	“Tray lock removal” on page 516
3	40X9033	1	1	Tray 4 right front cover	--
4	40X9320	1	1	Tray 4 handle cover	--
5	40X9186	1	1	Tray handle	--
6	40X9028	1	1	Tray 4 front cover	“Tray lock removal” on page 516
7	40X9305	4	1	Tray insert guide wheel	--

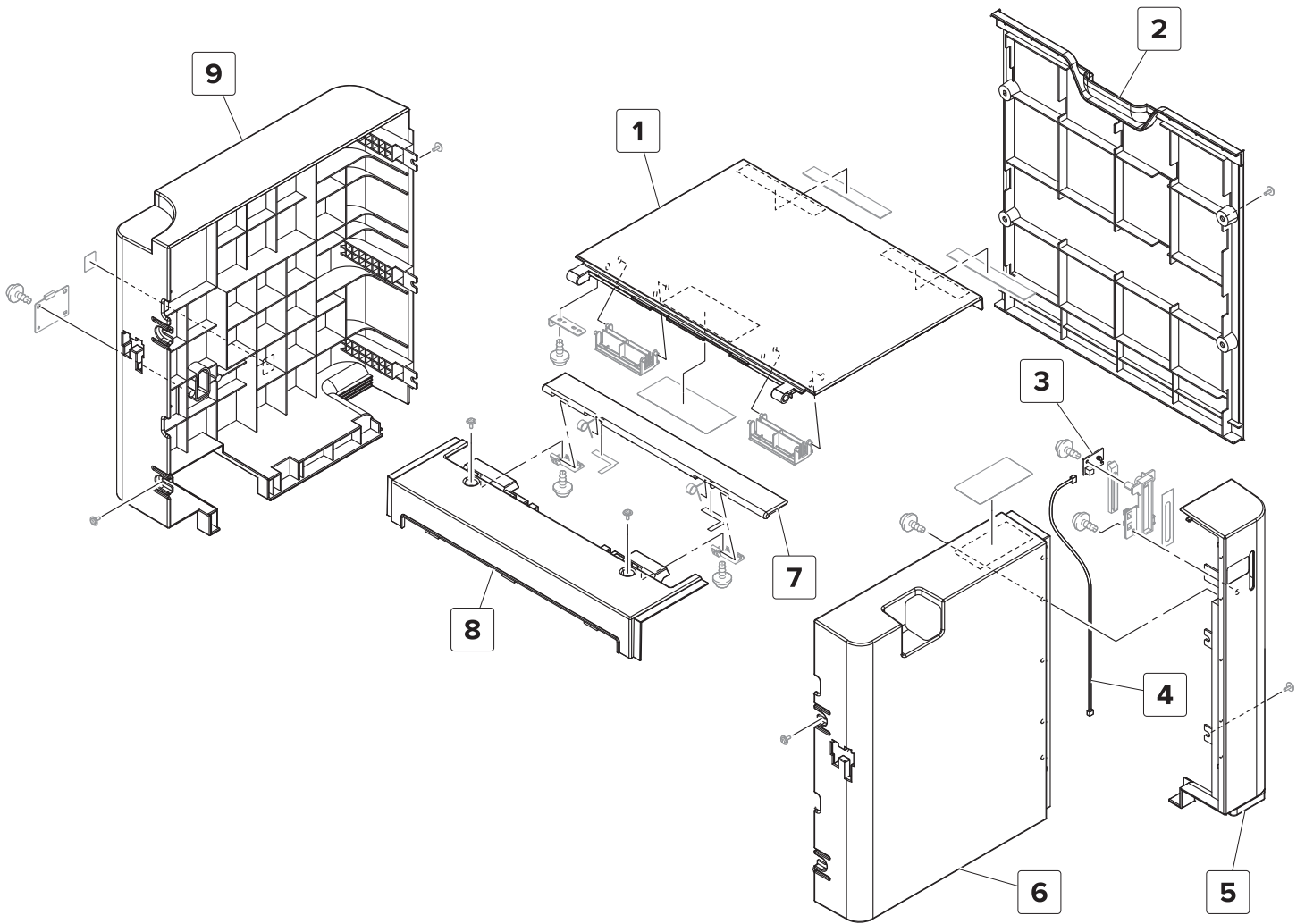
Assembly 72: 2 x 500-sheet tray—Tray 3 or Tray 4 frame



Assembly 72: 2 x 500-sheet tray—Tray 3 or Tray 4 frame

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9308	2	1	2 x 500-sheet tray near empty sensor actuator	--
2	40X9306	2	1	Tray insert paper length guide	“Tray insert paper length guide removal” on page 514
3	40X9309	2	1	2 x 500-tray insert paper length sensor actuator	--

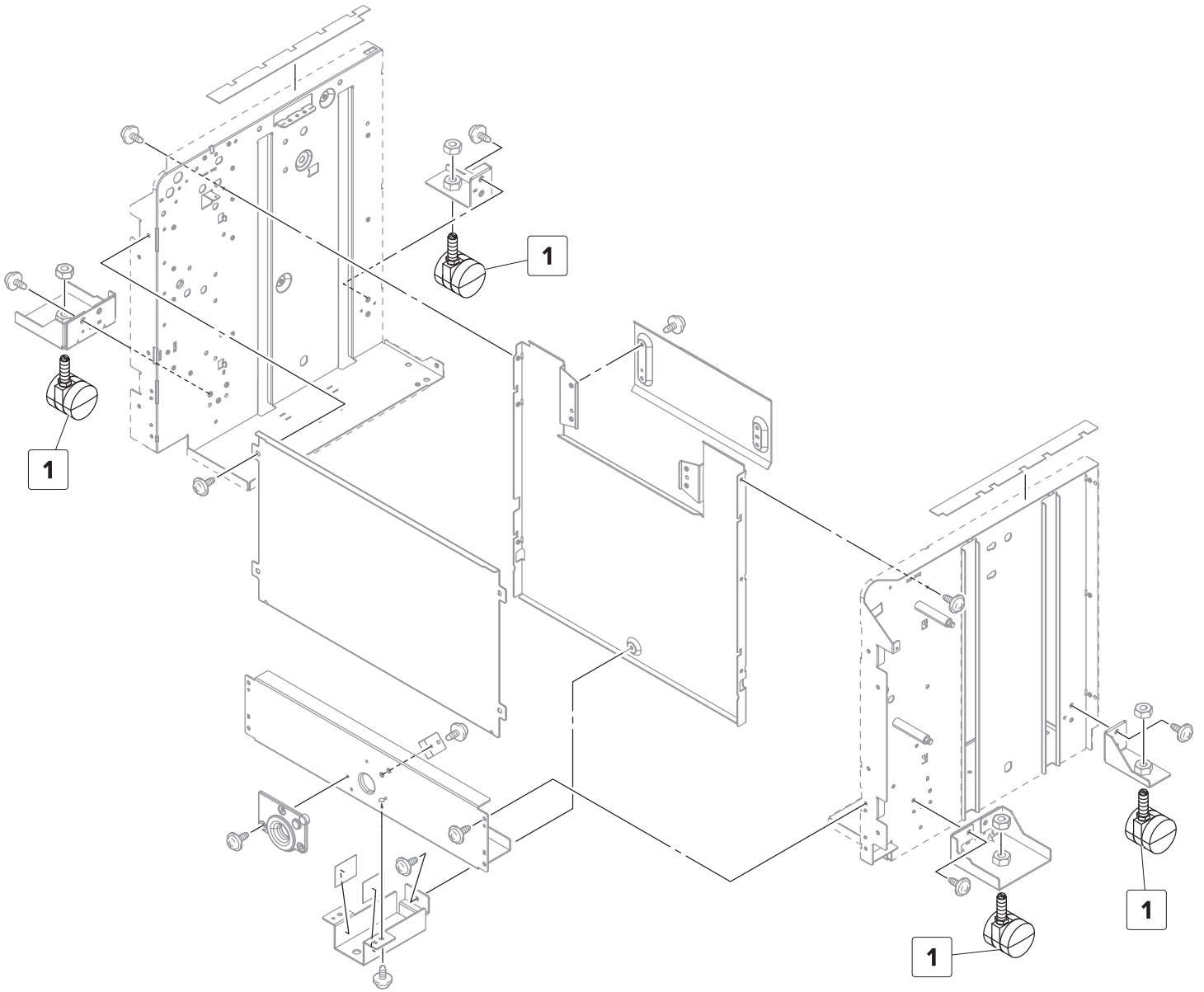
Assembly 73: 3000-sheet tray—Covers



Assembly 73: 3000-sheet tray—Covers

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9260	1	1	3000-sheet tray top door	“3000-sheet tray door removal” on page 546
2	40X9255	1	1	3000-sheet tray right cover	“3000-sheet tray right cover removal” on page 544
3	40X8903	1	1	3000-sheet tray empty LED	“3000-sheet tray empty LED removal” on page 549
4	40X9257	1	1	3000-sheet tray empty LED cable	--
5	40X9884	1	1	3000-sheet tray empty LED cover	“3000-sheet tray front cover removal” on page 544
6	40X9256	1	1	3000-sheet tray front cover	“3000-sheet tray front cover removal” on page 544
7	40X9259	1	1	3000-sheet tray slit cover	--
8	40X9765	1	1	3000-sheet tray left top cover	“3000-sheet tray left top cover removal” on page 547
9	40X9258	1	1	3000-sheet tray rear cover	“3000-sheet tray rear cover removal” on page 545

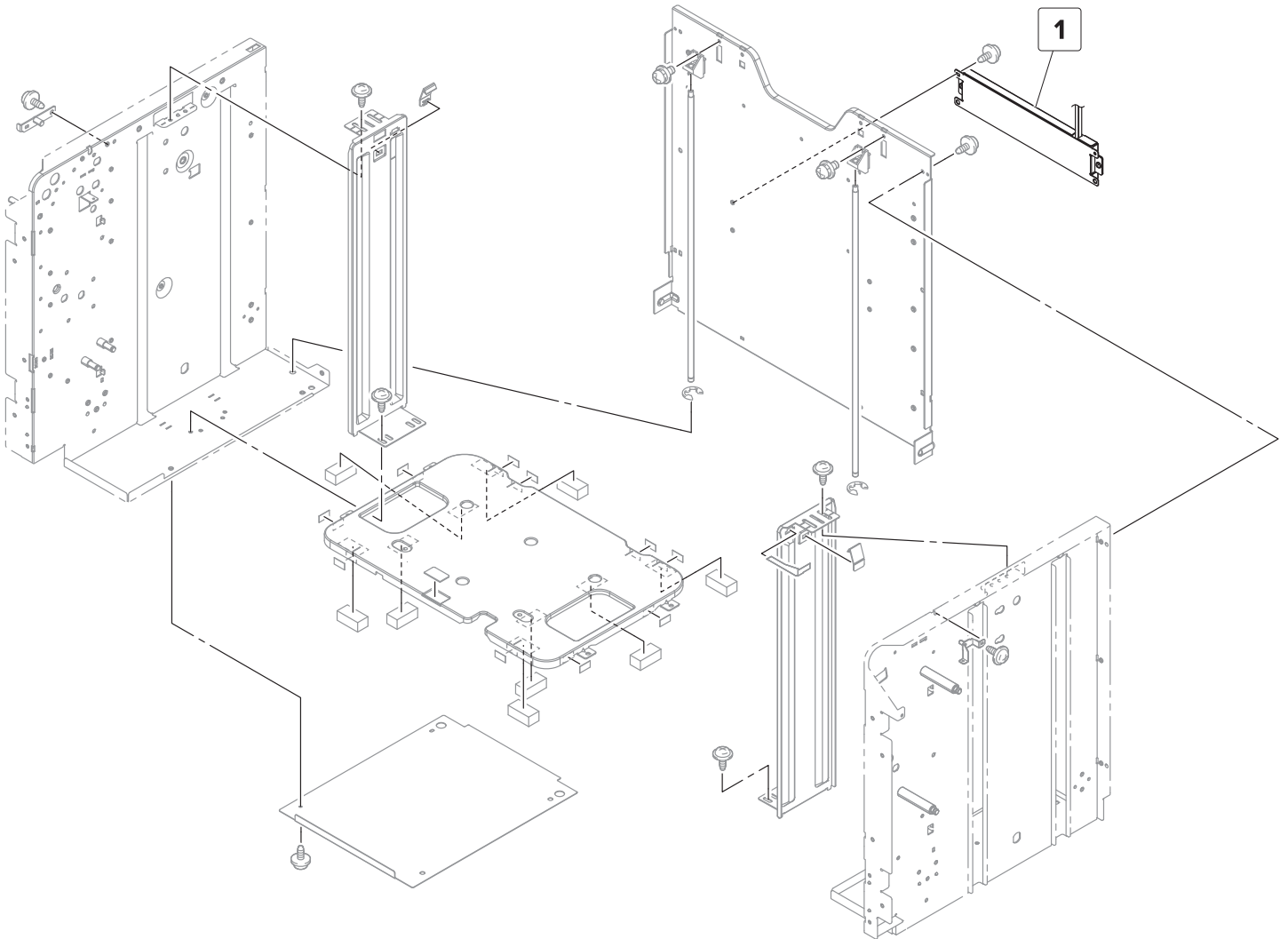
Assembly 74: 3000-sheet tray—Frame 1



Assembly 74: 3000-sheet tray—Frame 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9279	4	1	3000-sheet tray caster wheel	“3000-sheet tray caster wheel removal” on page 541

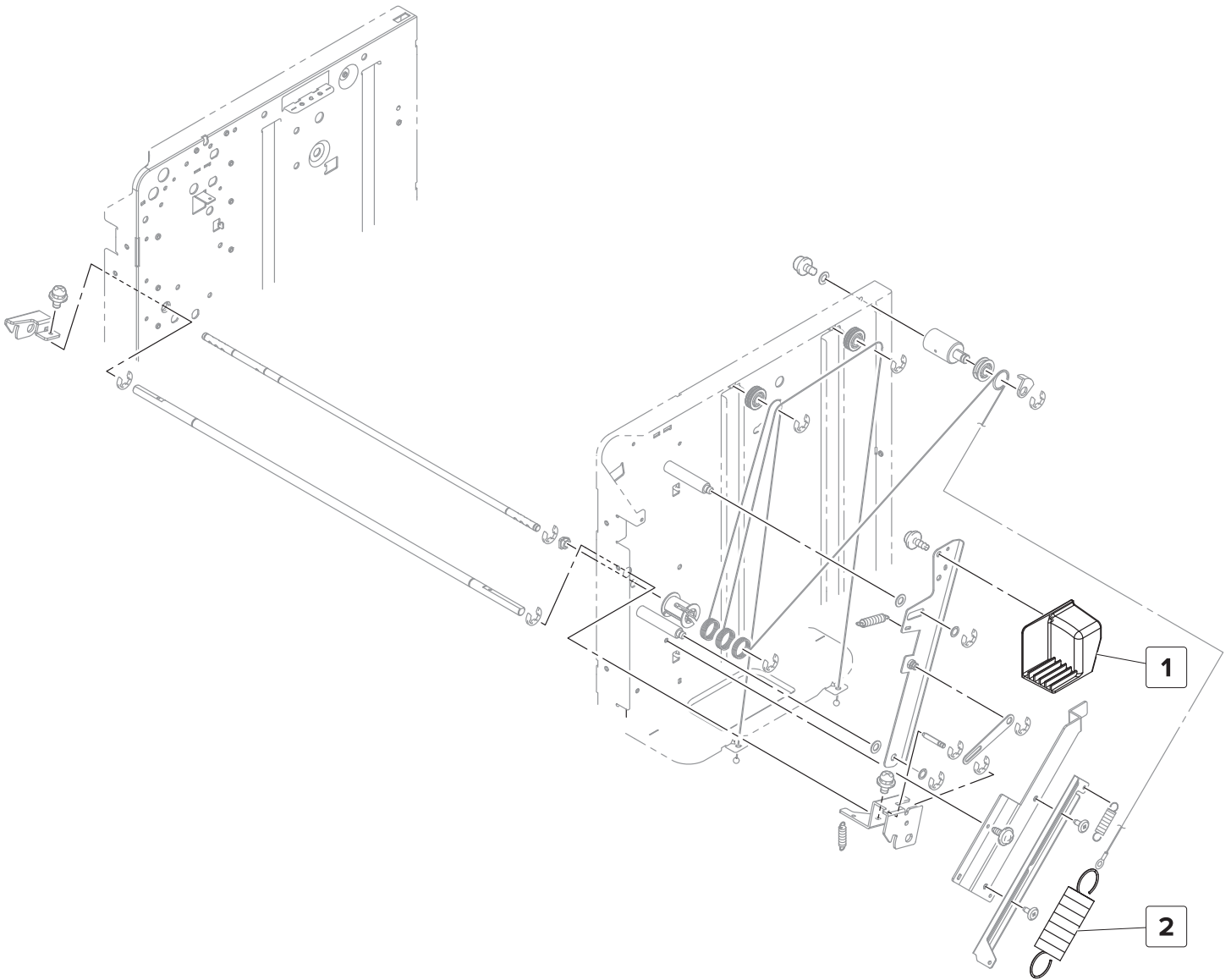
Assembly 75: 3000-sheet tray—Frame 2



Assembly 75: 3000-sheet tray—Frame 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9261	1	1	Dehumidifier	“Dehumidifier removal” on page 548

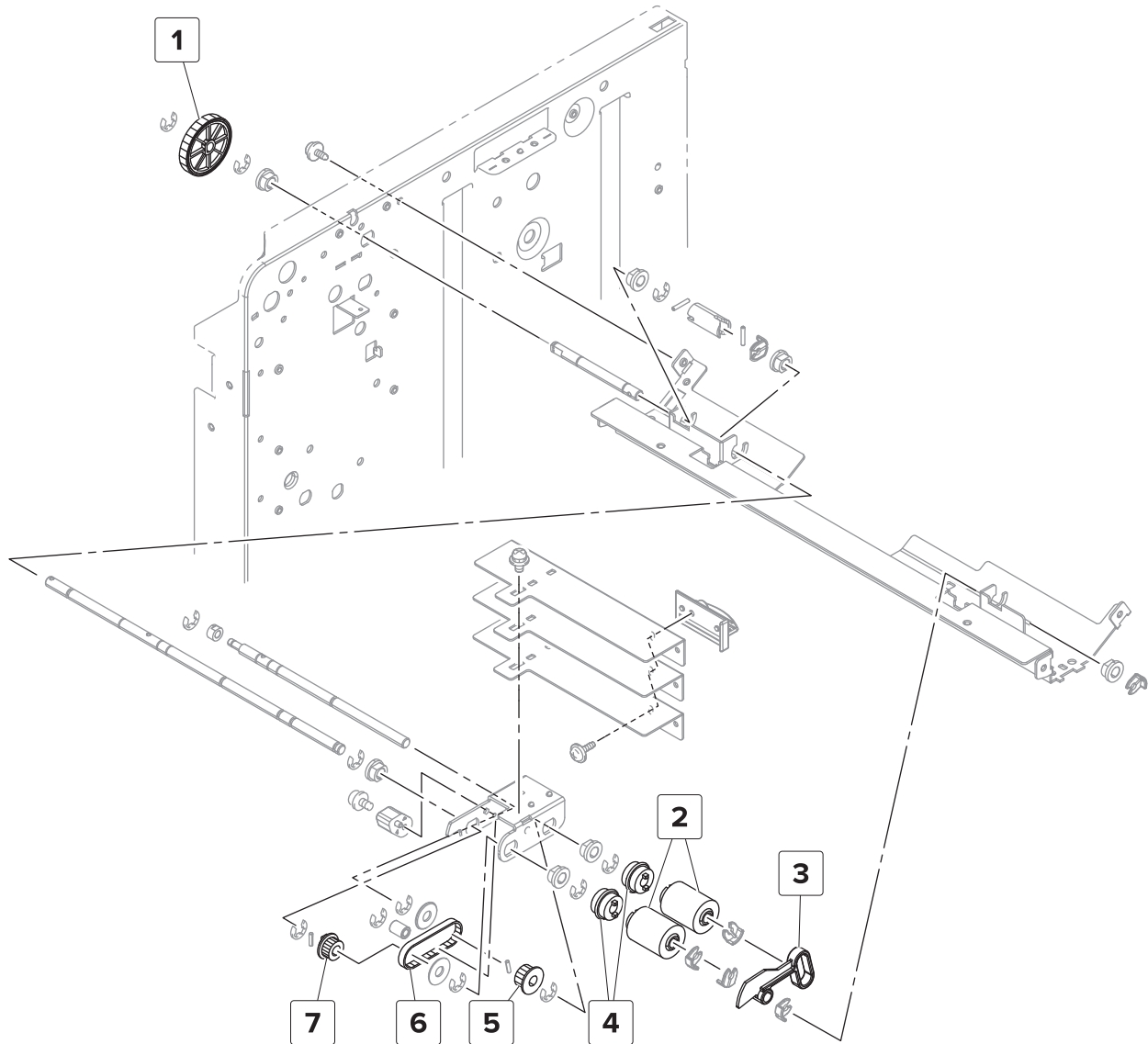
Assembly 76: 3000-sheet tray—Elevator front section



Assembly 76: 3000-sheet tray—Elevator front section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9275	1	1	3000-sheet tray release handle	“3000-sheet tray release handle removal” on page 542
2	40X9276	1	1	3000-sheet tray elevator spring	“3000-sheet tray elevator spring removal” on page 552

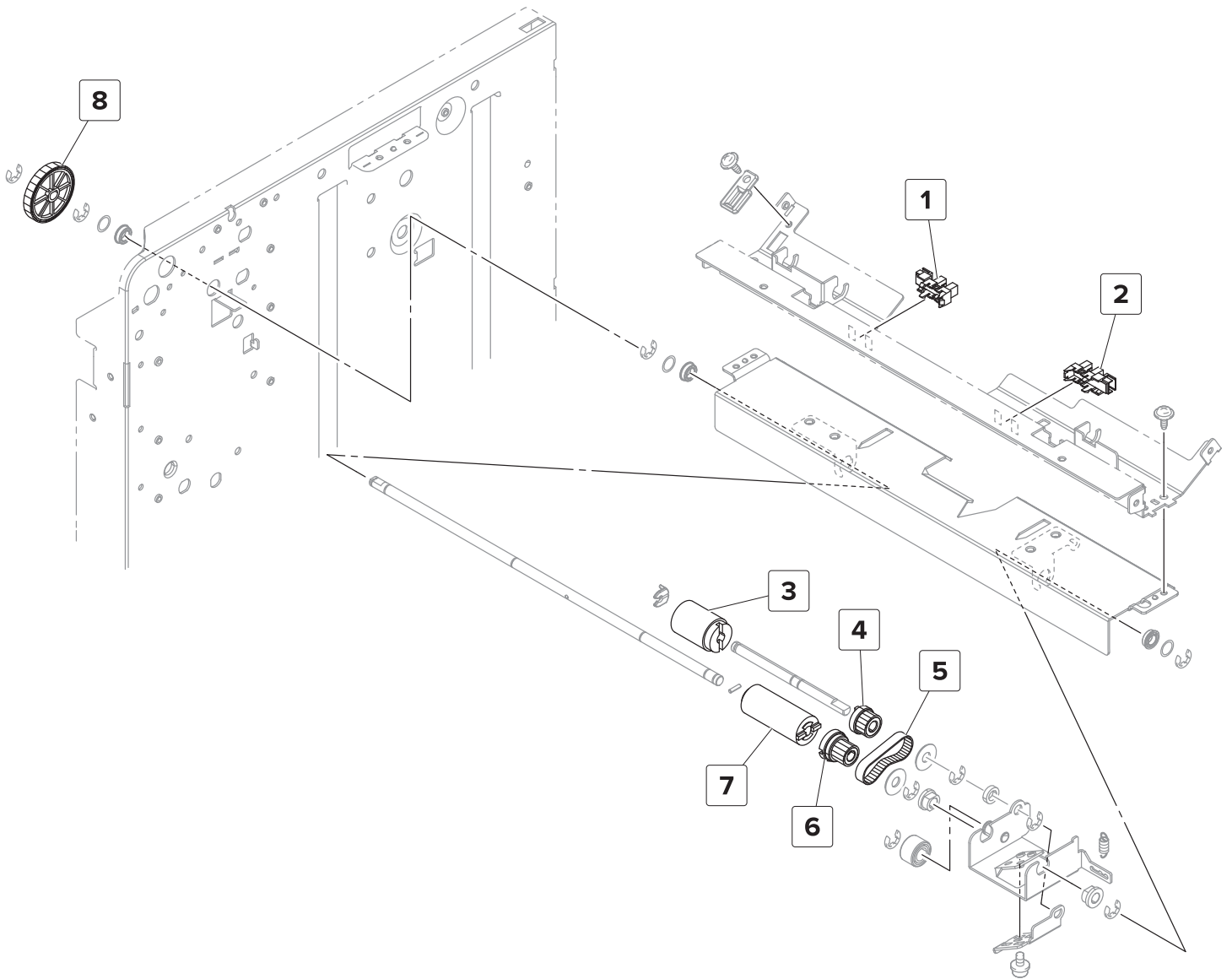
Assembly 77: 3000-sheet tray—Paper feed 1



Assembly 77: 3000-sheet tray—Paper feed 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9886	1	1	3000-sheet tray feed and pick drive gear	“3000-sheet tray pick roller assembly removal” on page 562
2	40X9267	2	1	Feed and pick roller	“3000-sheet tray rollers removal” on page 537
3	40X9881	1	1	3000-sheet tray empty sensor actuator	“3000-sheet tray rollers removal” on page 537
4	40X9297	2	1	3000-sheet tray roller clutch	“3000-sheet tray rollers removal” on page 537
5	40X9048	1	1	3000-sheet tray pick gear	“3000-sheet tray feed and pick belt removal” on page 539
6	40X9268	1	1	3000-sheet tray feed and pick belt	“3000-sheet tray feed and pick belt removal” on page 539
7	40X9772	1	1	3000-sheet tray feed gear	“3000-sheet tray feed and pick belt removal” on page 539

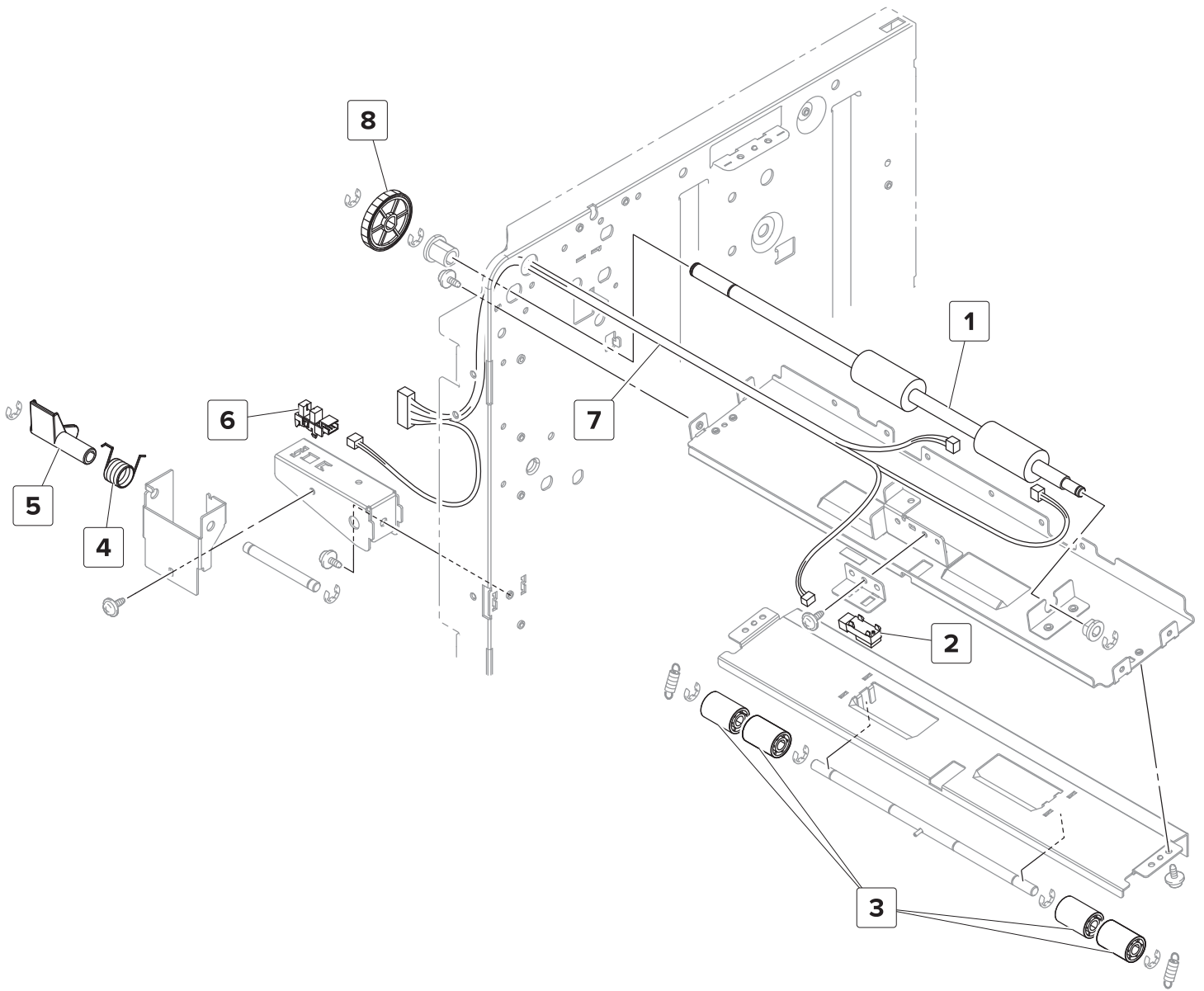
Assembly 78: 3000-sheet tray—Paper feed 2



Assembly 78: 3000-sheet tray—Paper feed 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9880	1	1	Sensor (3000-sheet tray elevator level)	“Sensor (3000-sheet tray elevator level) removal” on page 550
2	40X9880	1	1	Sensor (3000-sheet tray empty)	“Sensor (3000-sheet tray empty) removal” on page 549
3	40X9267	1	1	3000-sheet tray separator roller	“3000-sheet tray feed roller assembly removal” on page 559
4	40X9887	1	1	3000-sheet tray separator roller secondary gear	“3000-sheet tray feed roller assembly removal” on page 559
5	40X9271	1	1	3000-sheet tray separator belt	“3000-sheet tray feed roller assembly removal” on page 559
6	40X9773	1	1	3000-sheet tray separator roller primary gear	“3000-sheet tray feed roller assembly removal” on page 559
7	40X9888	1	1	3000-sheet tray separator roller clutch	“3000-sheet tray feed roller assembly removal” on page 559
8	40X9886	1	1	3000-sheet tray separator roller drive gear	“3000-sheet tray feed roller assembly removal” on page 559

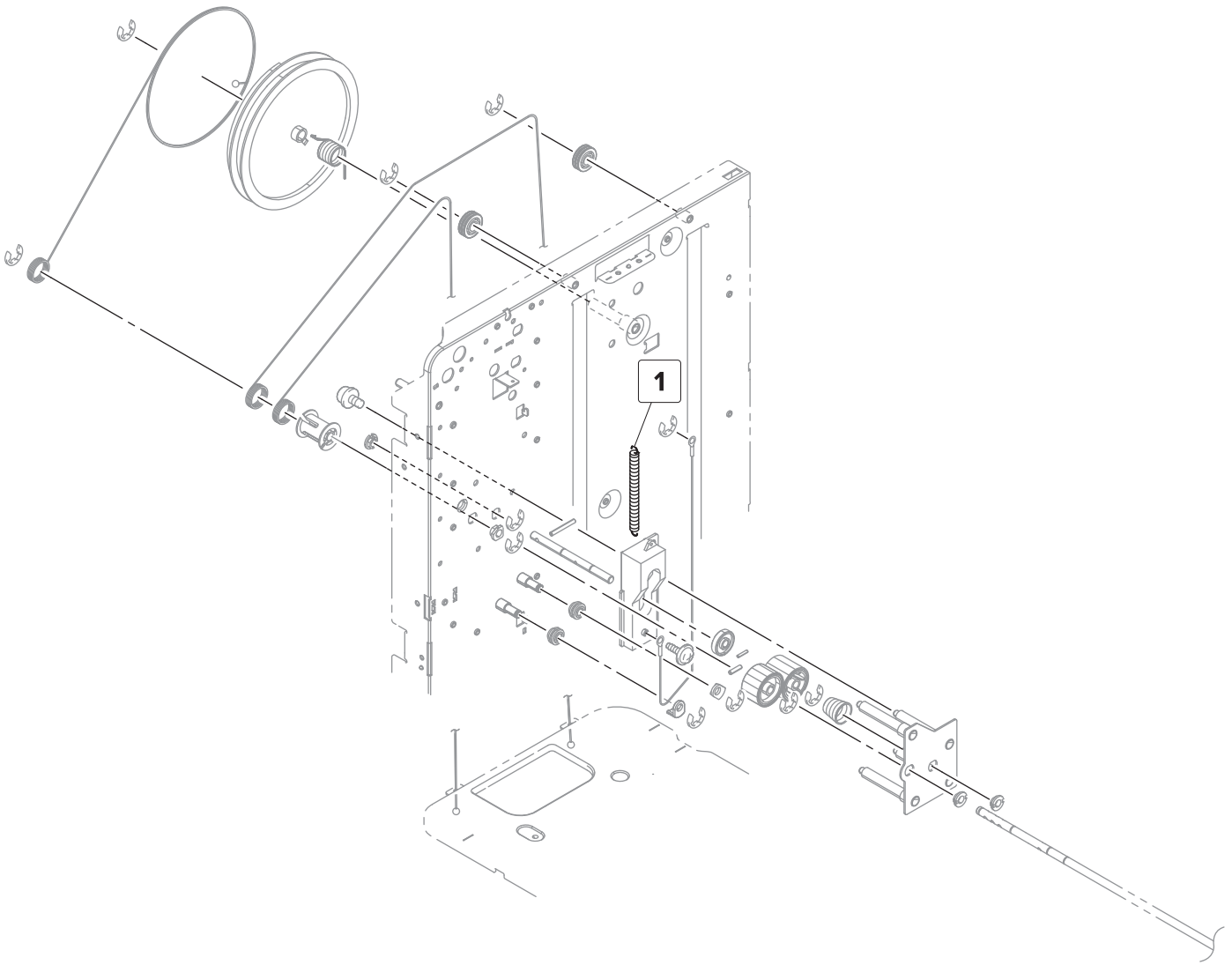
Assembly 79: 3000-sheet tray—Paper transport



Assembly 79: 3000-sheet tray—Paper transport

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9273	1	1	3000-sheet tray transport roller	“3000-sheet tray feed roller assembly removal” on page 559
2	40X9885	1	1	Sensor (3000-sheet tray feed)	“Sensor (3000-sheet tray feed) removal” on page 551
3	40X9771	4	1	3000-sheet tray transport idler roller	“3000-sheet tray feed roller assembly removal” on page 559
4	40X9373	1	1	3000-sheet tray set sensor actuator spring	“3000-sheet tray set sensor actuator removal” on page 554
5	40X9040	1	1	3000-sheet tray set sensor actuator	“3000-sheet tray set sensor actuator removal” on page 554
6	40X9880	1	1	Sensor (3000-sheet tray set)	“Sensor (3000-sheet tray set) removal” on page 555
7	40X8929	1	1	3000-sheet tray feed sensor cable	--
8	40X9769	1	1	3000-sheet tray transport roller drive gear	“3000-sheet tray feed roller assembly removal” on page 559

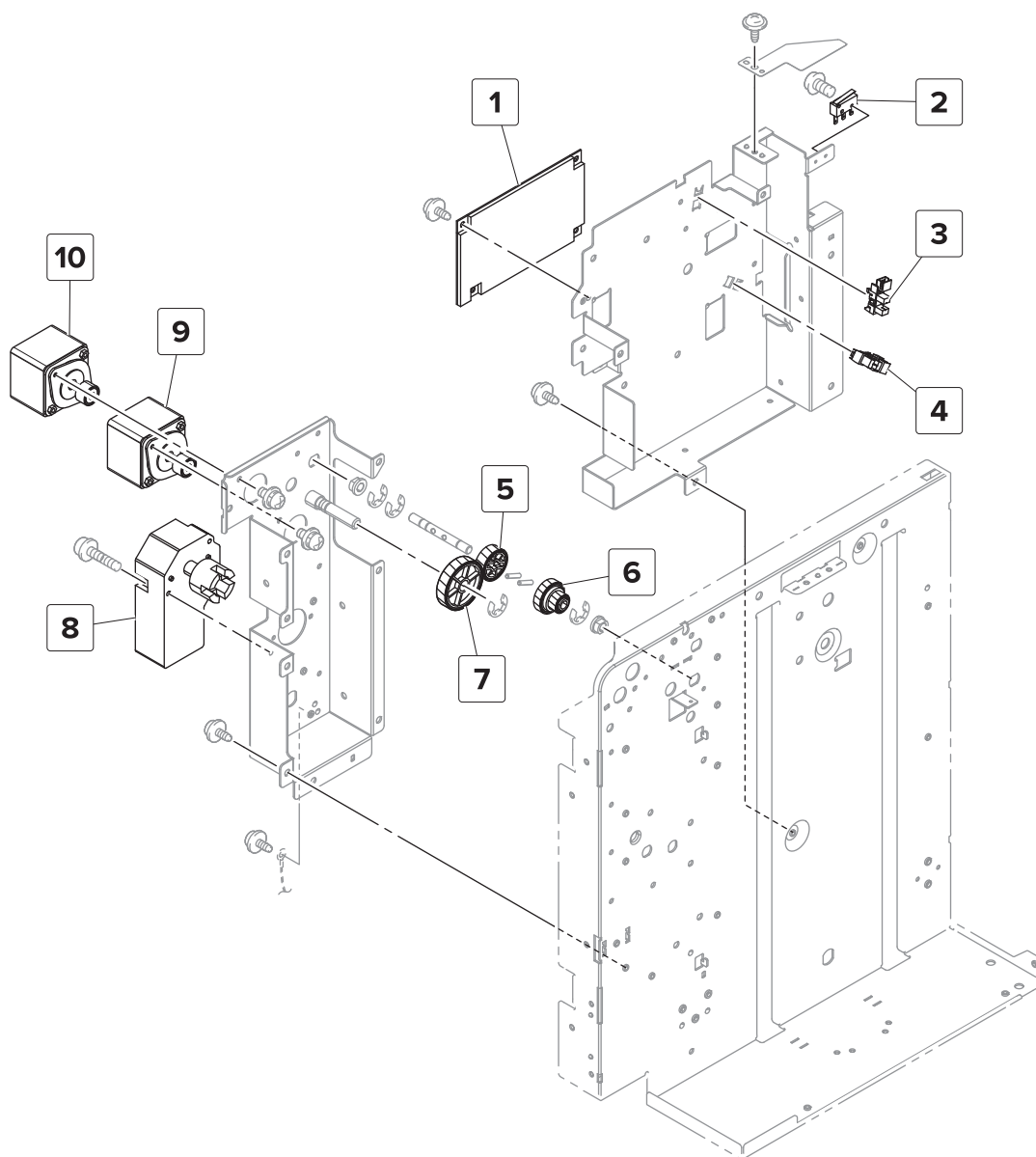
Assembly 80: 3000-sheet tray—Elevator rear section



Assembly 80: 3000-sheet tray—Elevator rear section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9277	1	1	3000-sheet tray elevator release spring	--

Assembly 81: 3000-sheet tray—Drive section



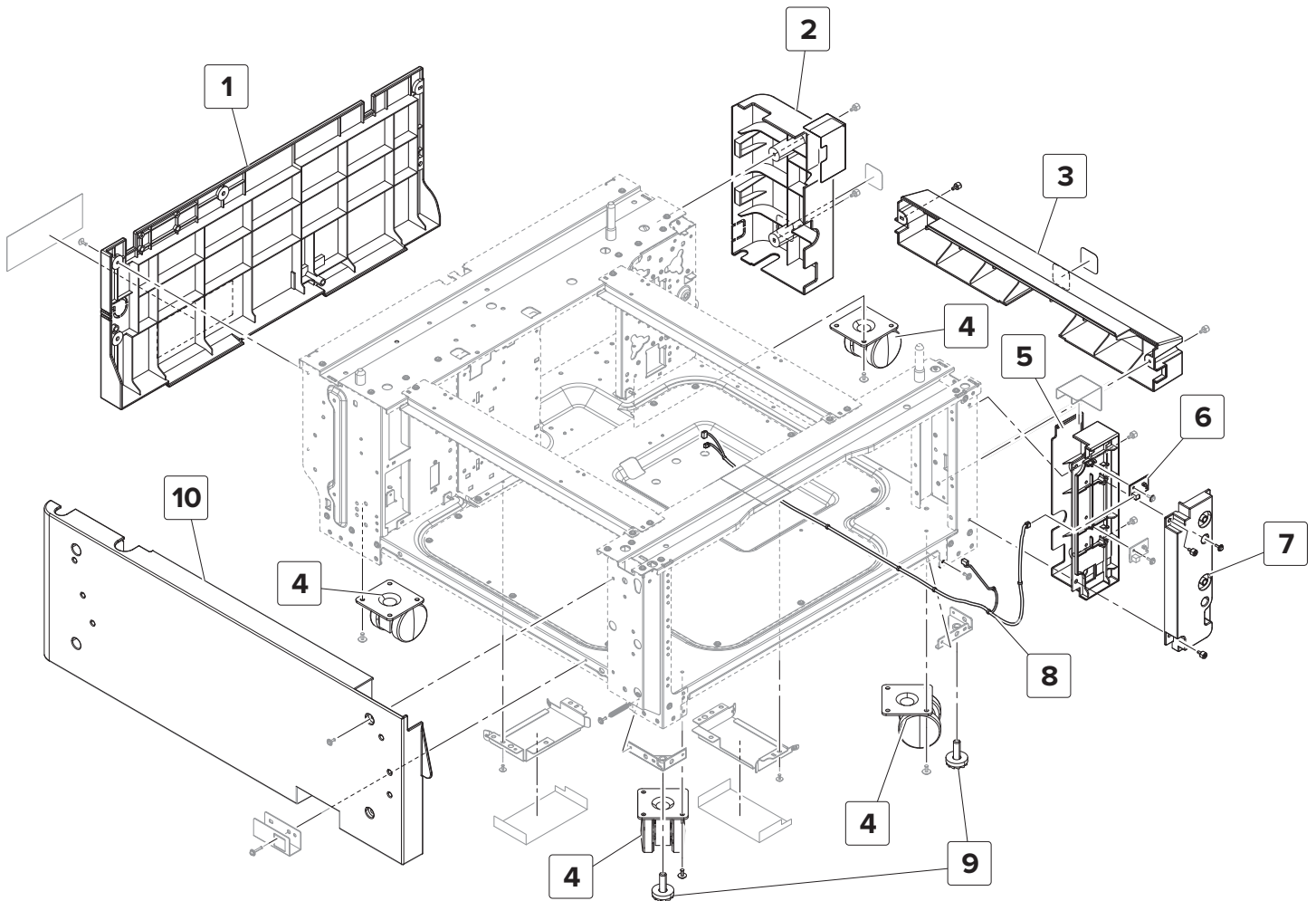
Assembly 81: 3000-sheet tray—Drive section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9262	1	1	3000-sheet tray controller board	“3000-sheet tray controller board removal” on page 552
2	40X9266	1	1	3000-sheet tray door switch	“3000-sheet tray door switch removal” on page 553
3	40X9880	1	1	Sensor (3000-sheet tray near empty 1)	“Sensor (3000-sheet tray near empty) removal” on page 556
4	40X9880	1	1	Sensor (3000-sheet tray near empty 2)	“Sensor (3000-sheet tray near empty) removal” on page 556
5	40X9767	1	1	3000-sheet tray feed motor idler gear	“3000-sheet tray feed roller assembly removal” on page 559
6	40X9766	1	1	3000-sheet tray feed and pick idler gear	“3000-sheet tray feed roller assembly removal” on page 559
7	40X9768	1	1	3000-sheet tray feed motor gear	“Motor (3000-sheet tray elevator) removal” on page 554
8	40X9264	1	1	Motor (3000-sheet tray elevator)	“Motor (3000-sheet tray elevator) removal” on page 554
9	40X9269	1	1	Motor (3000-sheet tray feed)	“3000-sheet tray feed and transport motors removal” on page 558
10	40X9269	1	1	Motor (3000-sheet tray transport)	“3000-sheet tray feed and transport motors removal” on page 558

Assembly 82: 3000-sheet tray—Wiring

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
NS	40X9202	1	1	3000-sheet tray controller board cable	--
NS	40X9698	1	1	3000-sheet tray interface cable	--

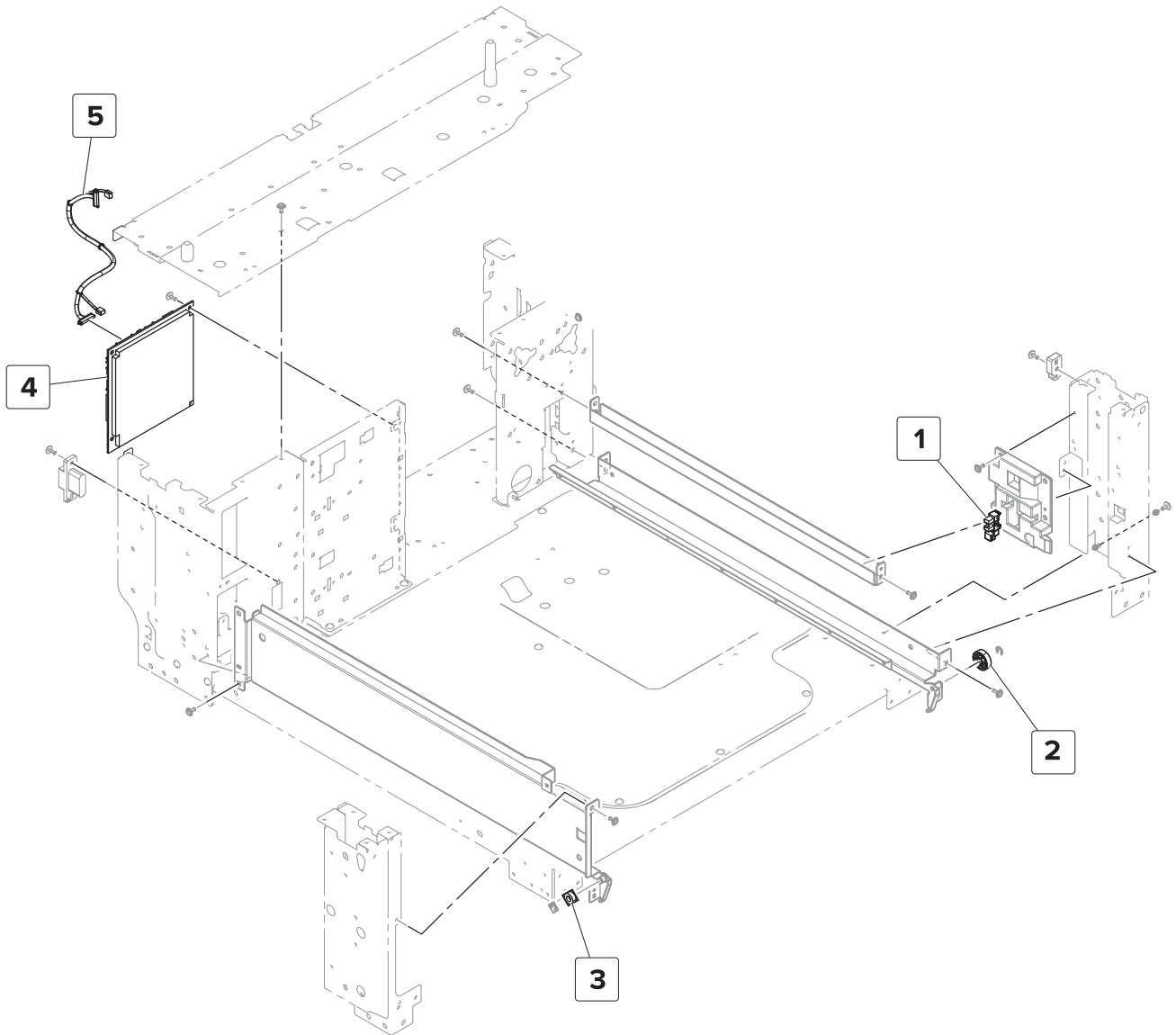
Assembly 83: 2500-sheet tray covers



Assembly 83: 2500-sheet tray covers

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9280	1	1	2500-sheet tray rear cover	“2500-sheet tray rear cover removal” on page 482
2	40X9779	1	1	2500-sheet tray rear right cover	“2500-sheet tray rear right cover removal” on page 483
3	40X9285	1	1	2500-sheet tray bottom right cover	“2500-sheet tray lower right cover removal” on page 483
4	40X9282	4	1	Caster wheel	“2500-sheet tray caster wheel removal” on page 511
5	40X9286	1	1	2500-sheet tray LED mount	--
6	40X8903	1	1	Tray empty LED	“2500-sheet tray empty LED removal” on page 484
7	40X9287	1	1	2500-sheet tray LED cover	“2500-sheet tray LED cover removal” on page 484
8	40X9782	1	1	Tray empty LED cable	--
9	40X9283	2	1	Tray stopper	“2500-sheet tray stopper removal” on page 511
10	40X9281	1	1	2500-sheet tray left cover	“2500-sheet tray left cover removal” on page 485

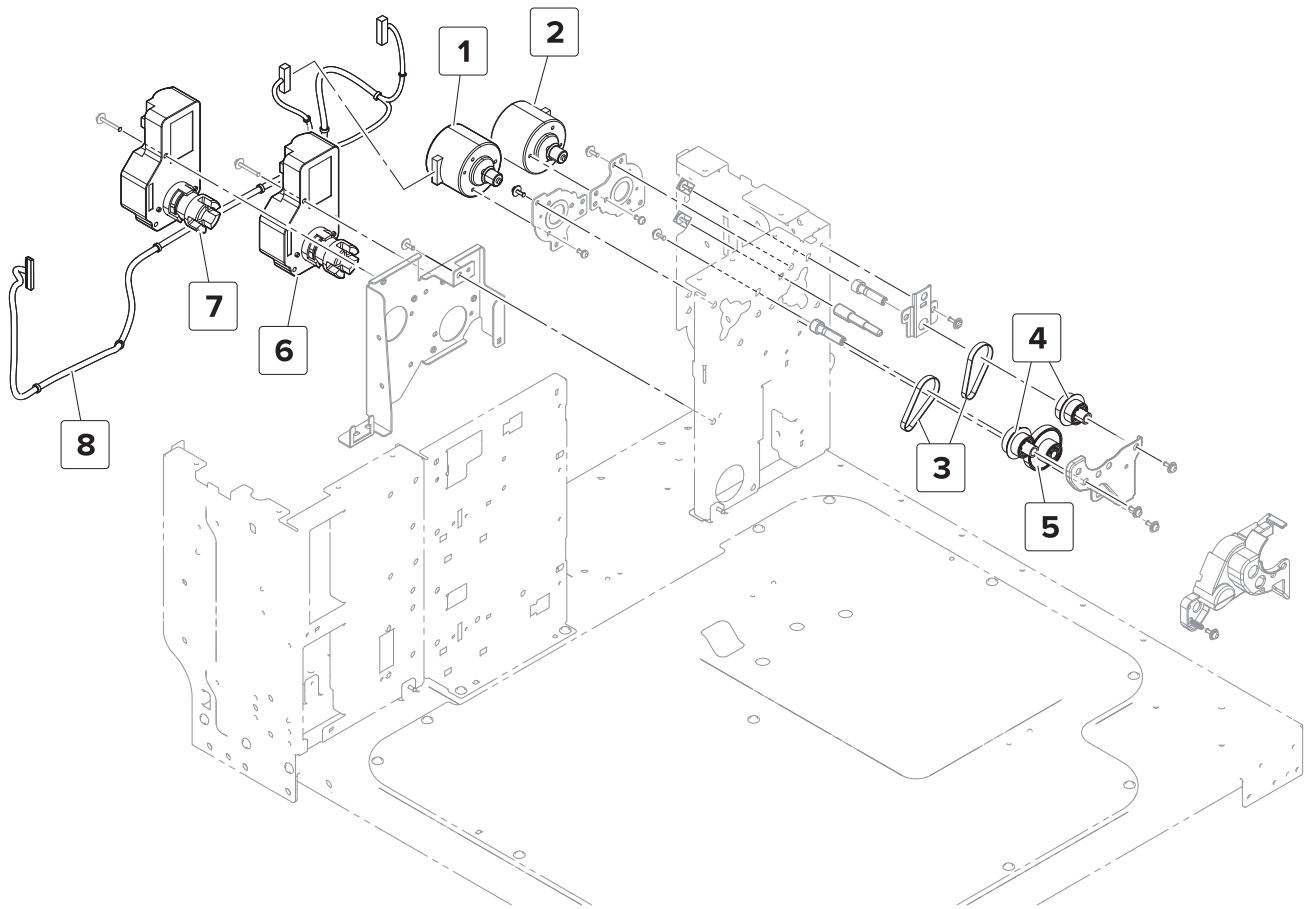
Assembly 84: 2500-sheet tray frame



Assembly 84: 2500-sheet tray frame

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X8869	1	1	Sensor (2500-sheet tray set)	“Sensor (2500-sheet tray set) removal” on page 504
2	40X8981	1	1	Tray rail guide wheel	--
3	40X9784	1	1	Tray insert guide wheel	--
4	40X9785	1	1	2500-sheet tray controller board	“2500-sheet tray controller board removal” on page 487
5	40X9783	1	1	2500-sheet tray interface cable	--

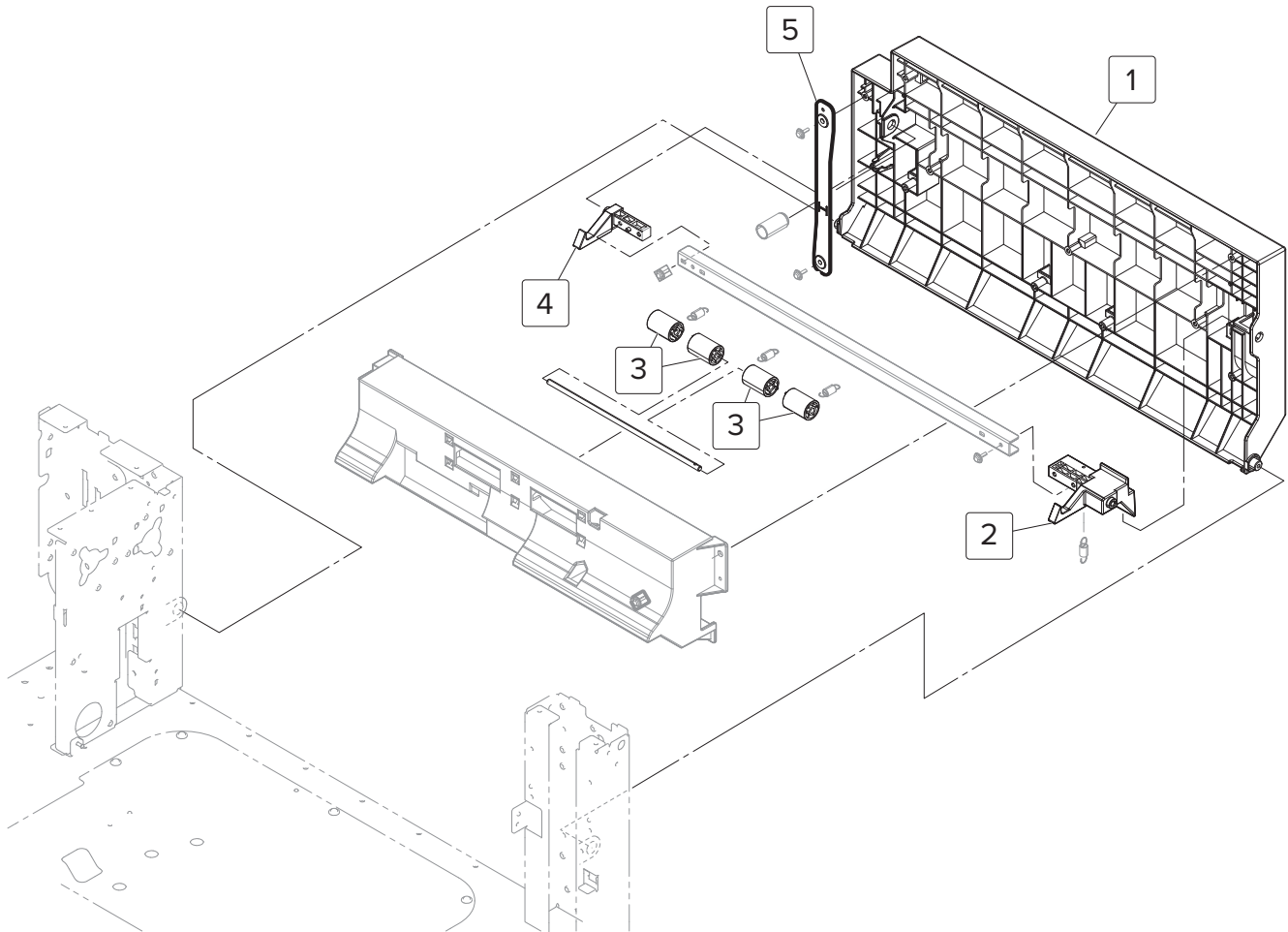
Assembly 85: 2500-sheet tray paper feed



Assembly 85: 2500-sheet tray paper feed

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9293	1	1	Motor (2500-sheet tray feed)	“Motor (2500-sheet tray feed) removal” on page 505
2	40X9293	1	1	Motor (2500-sheet tray transport)	“Motor (2500-sheet tray transport) removal” on page 506
3	40X9294	2	1	2500-sheet tray feed and transport motor belt	--
4	40X9891	2	1	2500-sheet tray feed and transport primary gear	--
5	40X9295	1	1	2500-sheet tray feed and transport secondary gear	--
6	40X9896	1	1	Motor (2500-sheet tray elevator)	“Motor (2500-sheet tray elevator) removal” on page 504
7	40X9896	1	1	Motor (2500-sheet tray transfer guide)	“Motor (2500-sheet tray transfer guide) removal” on page 506
8	40X9882	1	1	2500-sheet tray feed and transport motor cable	--

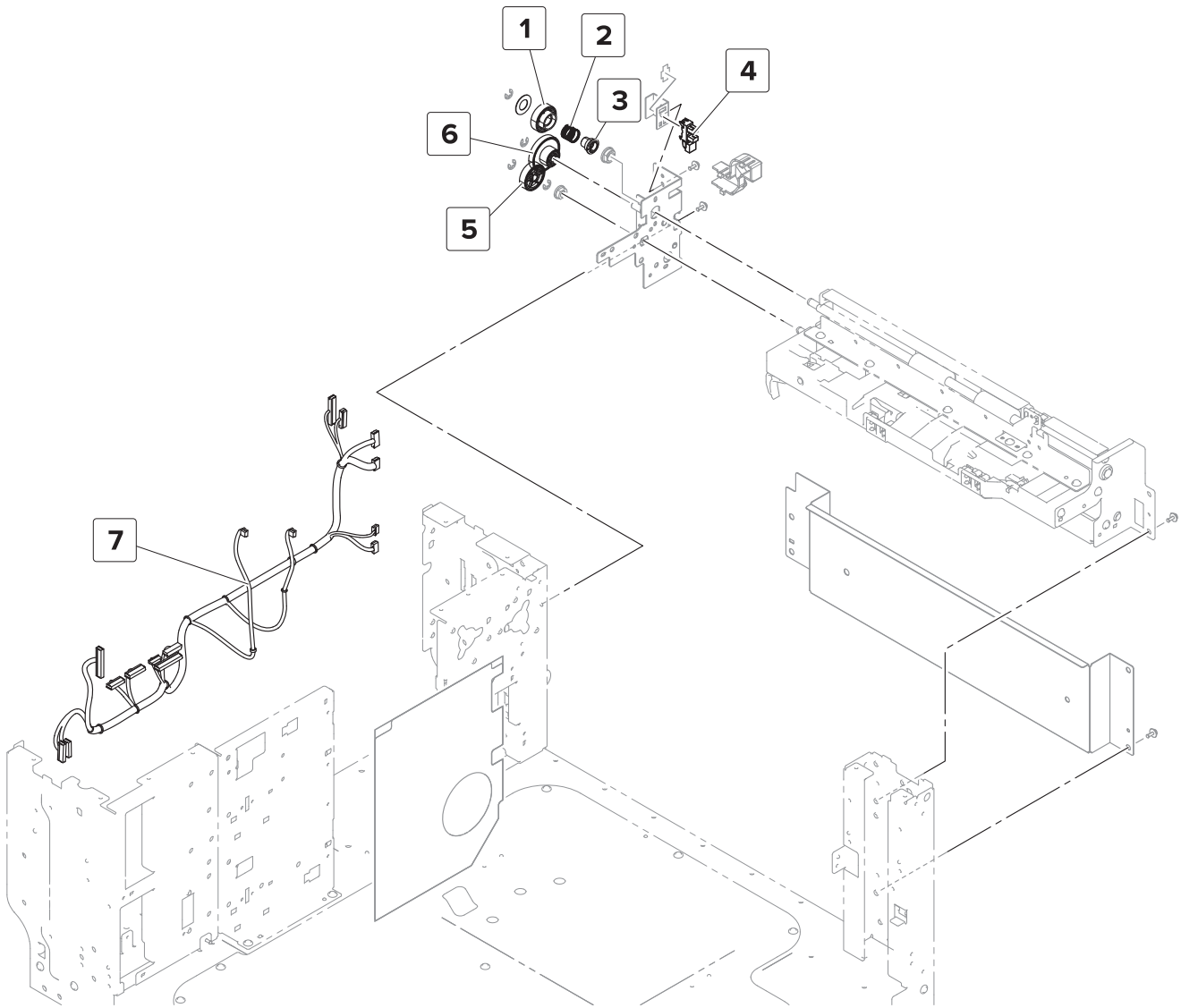
Assembly 86: 2500-sheet tray paper transport



Assembly 86: 2500-sheet tray paper transport

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X1018	1	1	2500-sheet tray jam access door	--
2	41X1019	1	1	2500-sheet tray jam access latch left	--
3	40X8973	4	1	Transport idler roller	--
4	41X1021	1	1	2500-sheet tray jam access latch right	--
5	40X9908	1	1	2500-sheet tray jam access door strap	“2500-sheet tray jam access door strap removal” on page 487

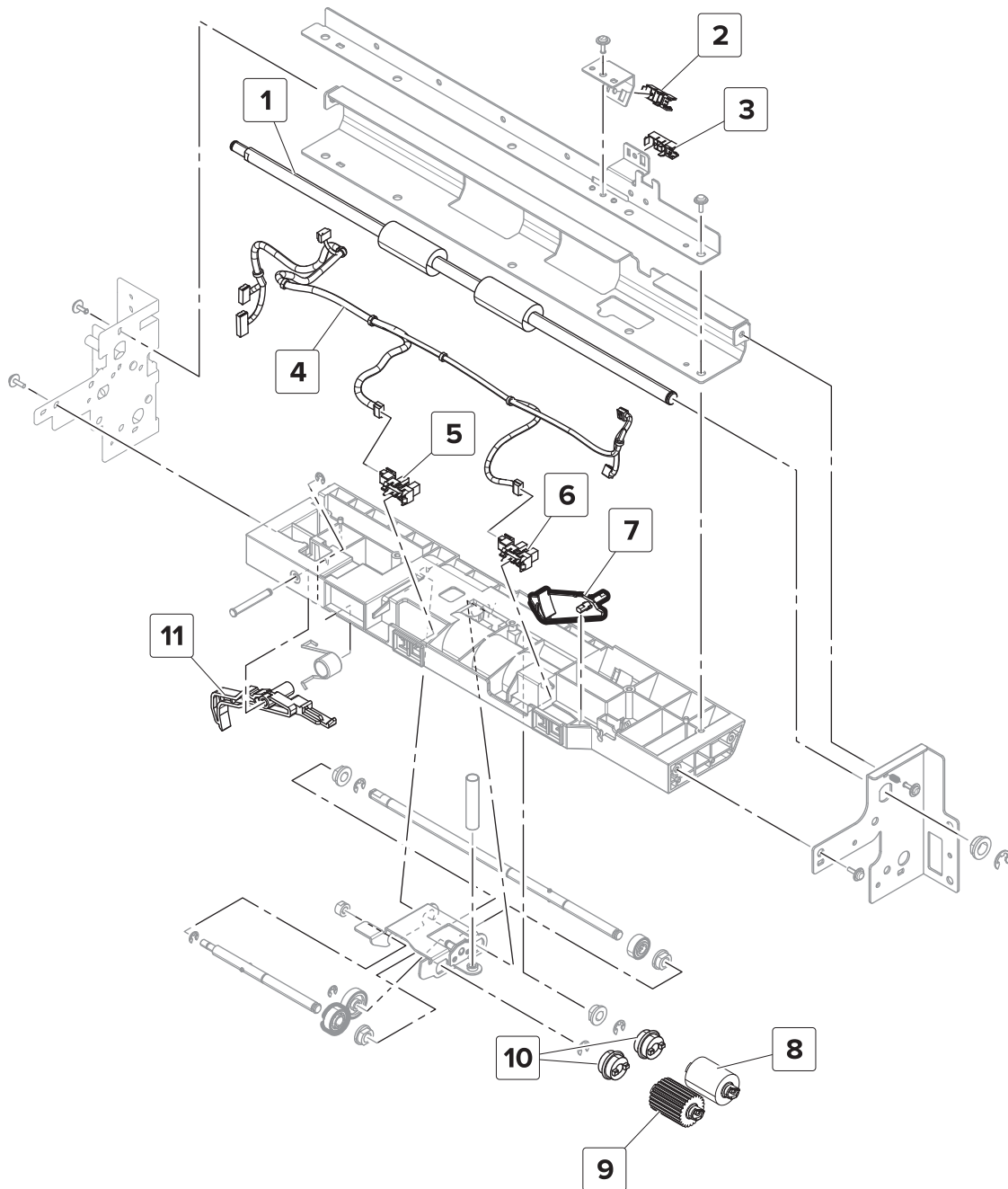
Assembly 87: 2500-sheet tray paper pick 1



Assembly 87: 2500-sheet tray paper pick 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9298	1	1	2500-sheet tray transport gear	--
2	40X9892	1	1	2500-sheet tray transport gear spring	--
3	40X9893	1	1	2500-sheet tray transport gear bushing	--
4	40X9313	1	1	Sensor (2500-sheet tray jam access door)	“Sensor (2500-sheet tray jam access door) removal” on page 503
5	40X9894	1	1	2500-sheet tray feed primary gear	--
6	40X9295	1	1	2500-sheet tray feed secondary gear	--
7	40X9786	1	1	2500-sheet tray cable harness	--

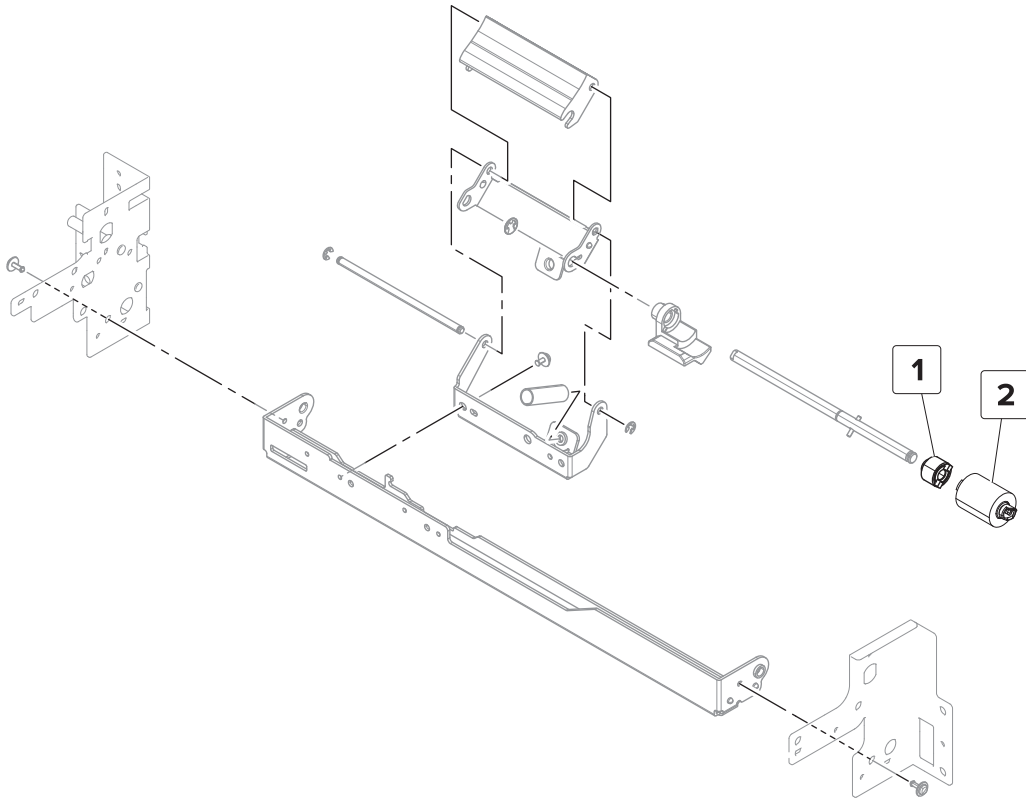
Assembly 88: 2500-sheet tray paper pick 2



Assembly 88: 2500-sheet tray paper pick 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9299	1	1	2500-sheet tray transport roller	“2500-sheet tray transport roller removal” on page 508
2	40X8968	1	1	Sensor (2500-sheet tray feed)	“Sensor (2500-sheet tray feed) removal” on page 501
3	40X8968	1	1	Sensor (2500-sheet tray transport)	“Sensor (2500-sheet tray transport) removal” on page 502
4	40X9787	1	1	2500-sheet tray pick assembly sensor cable	--
5	40X8869	1	1	Sensor (2500-sheet tray main tray elevator limit)	“Sensor (2500-sheet tray main tray elevator limit) removal” on page 500
6	40X8869	1	1	Sensor (2500-sheet tray main tray empty, top)	“Sensor (2500-sheet tray main tray empty, top) removal” on page 500
7	40X9899	1	1	2500-sheet tray main tray top empty actuator	--
8	40X8970	1	1	Feed roller	--
9	40X9925	1	1	Pick roller	--
10	40X9981	2	1	Roller clutch	--
11	40X9982	1	1	2500-sheet tray tray set actuator	--

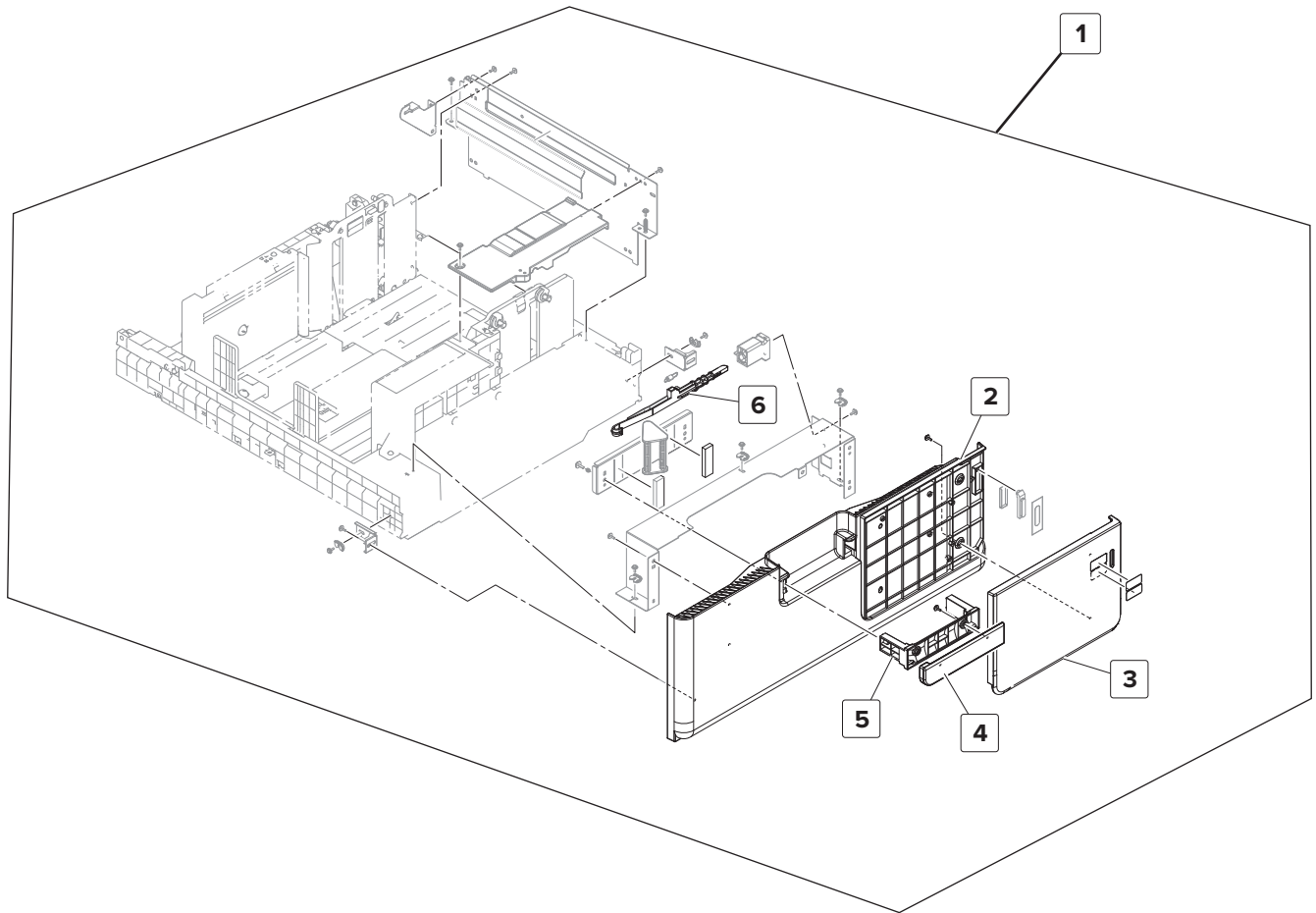
Assembly 89: 2500-sheet tray paper pick 3



Assembly 89: 2500-sheet tray paper pick 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9455	1	1	Separator clutch	--
2	40X8970	1	1	Separator roller	--

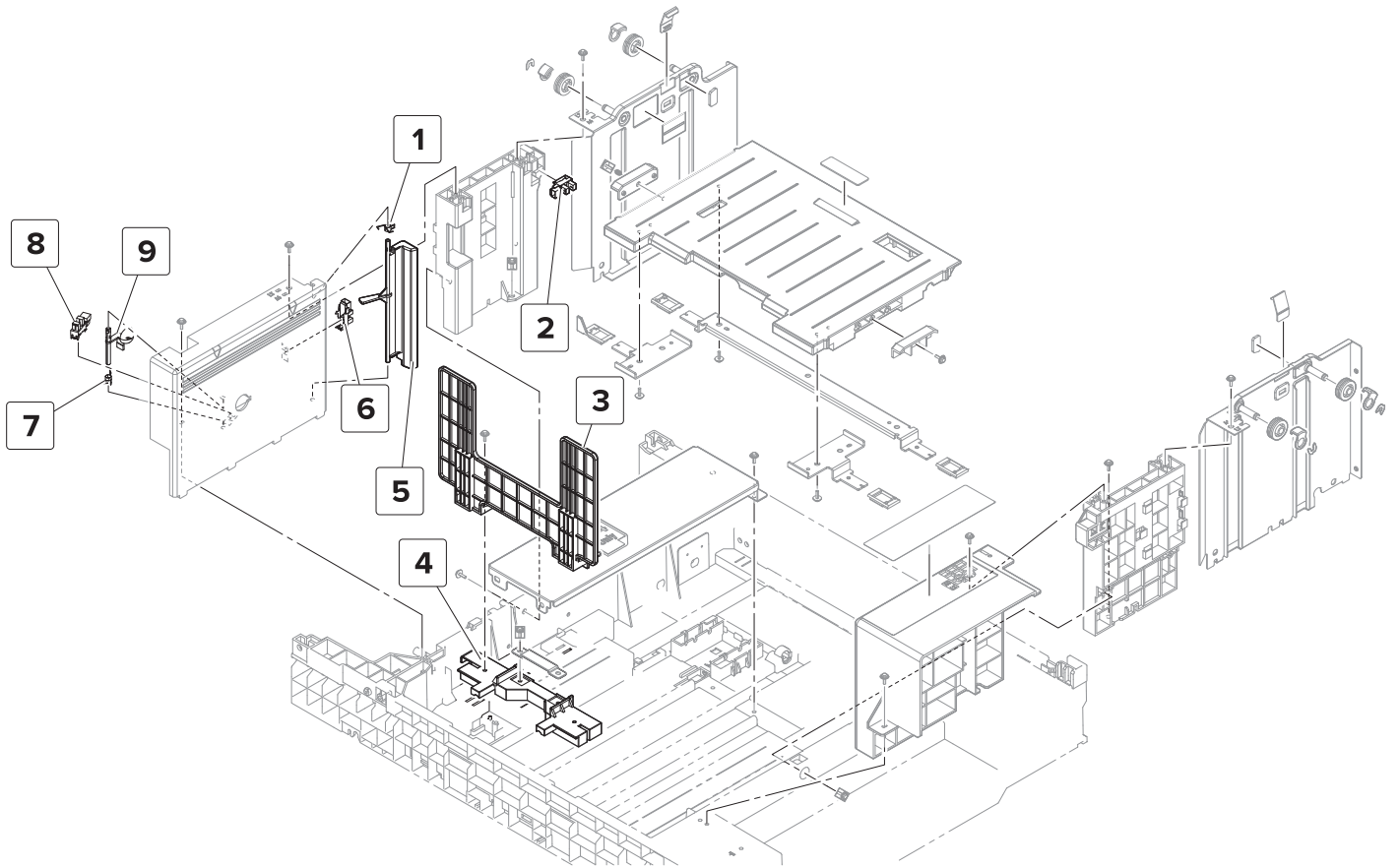
Assembly 90: 2500-sheet tray insert 1



Assembly 90: 2500-sheet tray insert 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9602	1	1	2500-sheet tray insert (LTR)	--
1	40X9576	1	1	2500-sheet tray insert (A4)	--
2	40X9789	1	1	2500-sheet tray front cover	--
3	40X9339	1	1	2500-sheet tray right front cover	--
4	40X9320	1	1	2500-sheet tray handle cover	--
5	40X9186	1	1	2500-sheet tray handle	--
6	40X9788	1	1	2500-sheet tray lock lever	--

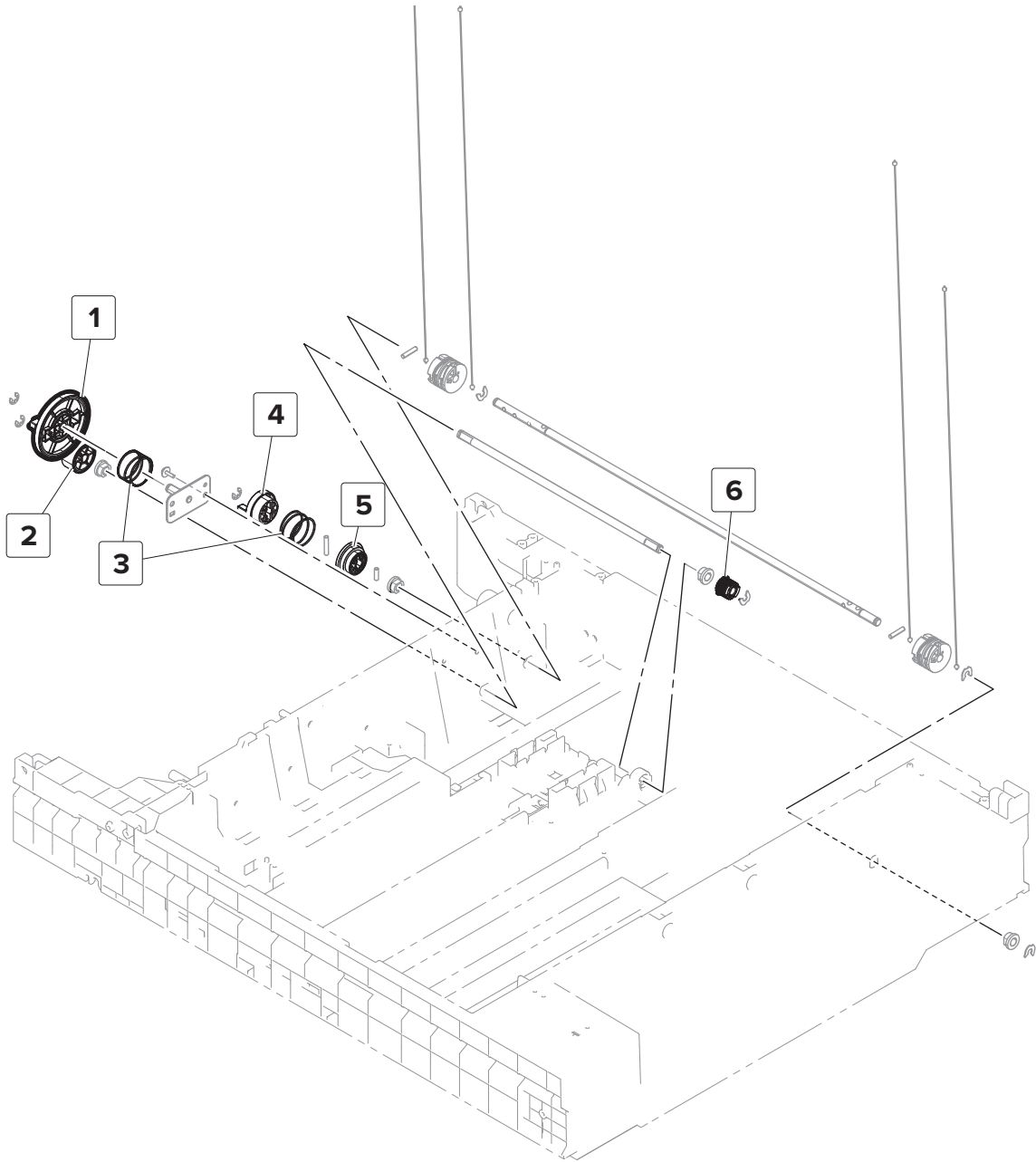
Assembly 91: 2500-sheet tray insert 2



Assembly 91: 2500-sheet tray insert 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9794	1	1	Paper stack transfer sensor actuator spring	--
2	40X8869	1	1	Sensor (main tray near empty)	“Sensor (2500-sheet tray main tray near empty) removal” on page 499
3	40X9792	1	1	Paper stack transfer guide	“2500-sheet tray paper stack transfer guide removal” on page 493
4	40X9791	1	1	Paper stack transfer guide base	“2500-sheet tray paper stack transfer guide removal” on page 493
5	40X9793	1	1	Paper stack transfer sensor actuator (A4)	--
5	40X9263	1	1	Paper stack transfer sensor actuator (LTR)	--
6	40X8869	1	1	Sensor (paper stack transfer)	“Sensor (2500-sheet paper stack transfer) removal” on page 497
7	40X9883	1	1	Reserve tray paper limit sensor actuator spring	--
8	40X8869	1	1	Sensor (reserve tray paper limit)	“Sensor (2500-sheet tray reserve tray paper limit) removal” on page 498
9	40X9900	1	1	Reserve tray paper limit sensor actuator	“2500-sheet reserve tray paper limit sensor actuator removal” on page 498

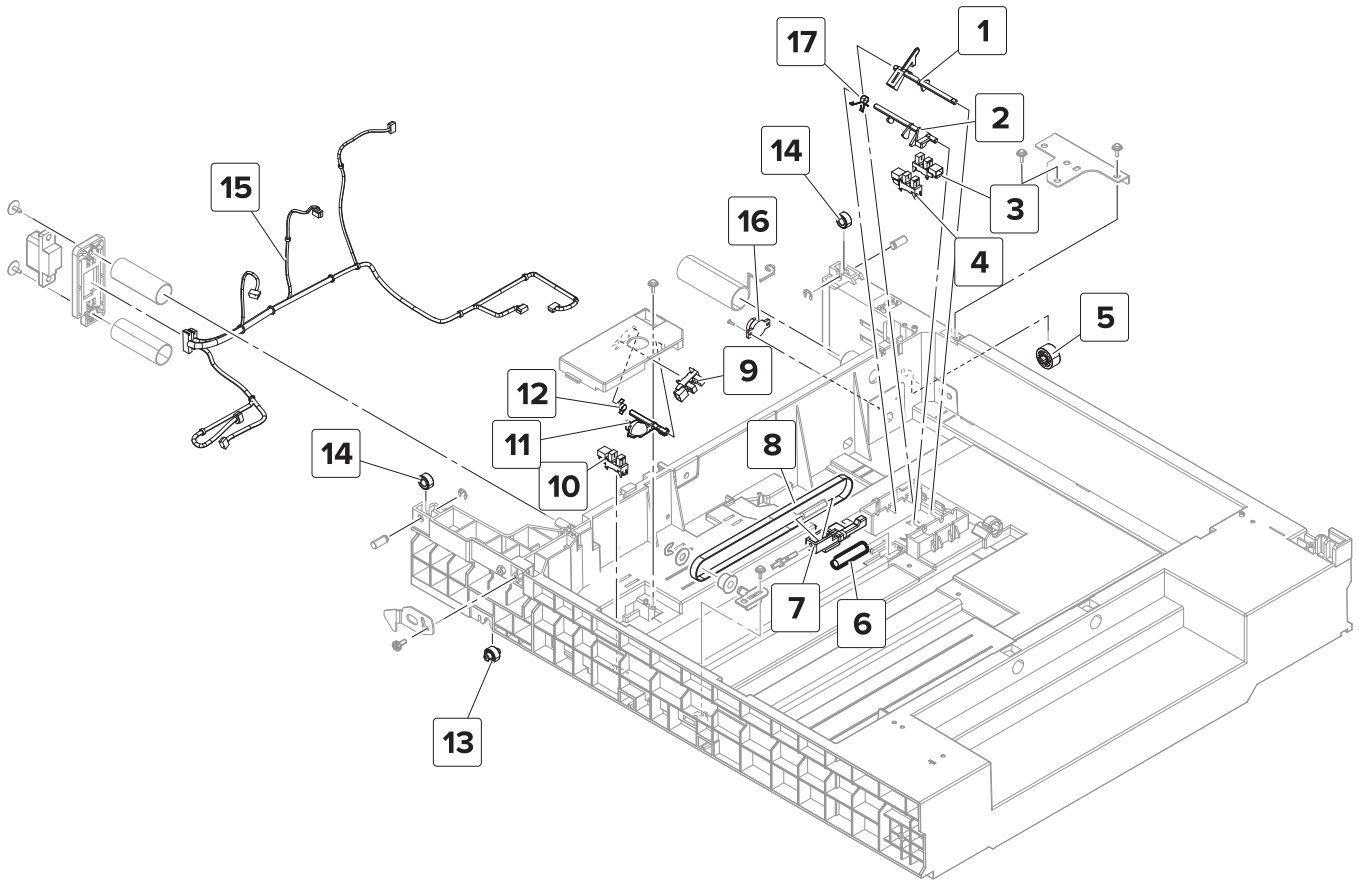
Assembly 92: 2500-sheet tray insert 3



Assembly 92: 2500-sheet tray insert 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9796	1	1	Transfer guide primary gear	--
2	40X9798	1	1	Main tray elevator coupling	--
3	40X9901	2	1	Main tray elevator gear spring	--
4	40X9902	1	1	Main tray elevator gear	--
5	40X9797	1	1	Transfer guide primary gear spring	--
6	40X9795	1	1	Transfer guide secondary gear	--

Assembly 93: 2500-sheet tray insert 4



Assembly 93: 2500-sheet tray insert 4

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9802	1	1	2500-sheet tray main tray empty sensor bottom actuator	“2500-sheet tray main tray empty sensor bottom actuator removal” on page 489
2	40X9801	1	1	2500-sheet tray elevator home sensor actuator	“2500-sheet tray elevator home sensor actuator removal” on page 490
3	40X8869	1	1	Sensor (main tray empty, bottom)	“Sensor (2500-sheet tray main tray empty, bottom) removal” on page 492
4	40X8869	1	1	Sensor (2500-sheet tray elevator home)	“Sensor (2500-sheet tray elevator home) removal” on page 491
5	40X9799	1	1	Tray insert bottom right guide wheel	--
6	40X9804	1	1	2500-sheet tray transfer guide stop spring	--
7	40X9803	1	1	2500-sheet tray transfer guide stop	“2500-sheet tray transfer guide stop removal” on page 491
8	40X9808	1	1	Transfer guide belt	--
9	40X8869	1	1	Sensor (reserve tray empty)	“Sensor (2500-sheet tray reserve tray empty) removal” on page 496
10	40X8869	1	1	Sensor (2500-sheet tray transfer guide home)	“Sensor (2500-sheet tray transfer guide home) removal” on page 495
11	40X9900	1	1	Reserve tray empty sensor actuator	“2500-sheet reserve tray empty sensor actuator removal” on page 494
12	40X9883	1	1	Reserve tray empty sensor actuator spring	“2500-sheet reserve tray empty sensor actuator removal” on page 494
13	40X9805	1	1	Tray insert bottom left guide wheel	--
14	40X9305	2	1	Tray insert guide wheel	--
15	40X9809	1	1	2500-sheet tray tray insert sensor cable	--
16	40X9806	1	1	2500-sheet tray elevator damper	--
17	40X9800	1	1	2500-sheet tray elevator home sensor actuator spring	--

Assembly 94: Maintenance kits

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	40X9669	1	1	Maintenance kit, 300K includes: <ul style="list-style-type: none"> • Pick roller • Feed/separator roller • Transfer belt maintenance kit 	--
NS	40X9672	1	1	Maintenance kit, 200K (ADF) includes: <ul style="list-style-type: none"> • ADF pick roller • ADF feed roller • ADF separator roller 	--
NS	41X1977	1	1	Maintenance kit, 200K (MPF) includes: <ul style="list-style-type: none"> • MPF feed roller • MPF separator roller 	--

Assembly 95: Power cords

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	40X7104	1	1	Power cord, 2.5 m (right-angled)—USA, Canada, Latin America	--
NS	40X0288	1	1	Power cord, 2.5 m (straight)—Argentina	--
NS	40X1766	1	1	Power cord, 2.5 m (straight)—Bolivia, Peru	--
NS	40X0273	1	1	Power cord, 2.5 m (straight)—Italy, Chile, Uruguay	--
NS	40X3141	1	1	Power cord, 2.5 m (straight)—Europe, Middle East, Indonesia, Africa (HV)	--
NS	40X4596	1	1	Power cord, 2.5 m (straight)—Brazil	--
NS	40X0271	1	1	Power cord, 2.5 m (straight)—UK, Ireland, Hong Kong, Italy	--
NS	40X0301	1	1	Power cord, 2.5 m (straight)—Australia, New Zealand	--
NS	40X0270	1	1	Power cord, 2.5 m (straight)—Japan	--
NS	40X1792	1	1	Power cord, 2.5 m (straight)—Korea	--
NS	40X0303	1	1	Power cord, 2.5 m (straight)—PRC	--
NS	40X1791	1	1	Power cord, 2.5 m (straight)—Taiwan	--
NS	40X1774	1	1	Power cord, 2.5 m (straight)—Denmark, Finland, Norway, Sweden	--
NS	40X0275	1	1	Power cord, 1.8 m (straight)—Israel	--
NS	40X1773	1	1	Power cord, 2.5 m (straight)—South Africa, Hong Kong, Singapore, Thailand, Malaysia	--
NS	40X1772	1	1	Power cord, 2.5 m (straight)—Liechtenstein, Switzerland	--
NS	40X7229	1	1	Power cord, 2.5 m (straight)—India	--

Assembly 96: Miscellaneous

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0010	1	1	Forms and Bar Code Card Note: This part is obsolete.	--
NS	41X0012	1	1	IPDS card	--
NS	41X0011	1	1	PRESCRIBE card Note: This part is obsolete.	--
NS	41X0030	1	1	Keyboard kit, English	--
NS	41X0031	1	1	Keyboard kit, French	--
NS	41X0032	1	1	Keyboard kit, Italian Note: This part is obsolete.	--
NS	41X0033	1	1	Keyboard kit, German	--
NS	41X0034	1	1	Keyboard kit, Spanish	--
NS	40X1368	1	1	USB cable, packaged (2 meters)	--
NS	40X4819	1	1	Serial interface card, RS-232C	--
NS	40X4823	1	1	Parallel interface card, 1284-B	--
NS	40X7445	1	1	DDR3 RAM, 2 GB x32	--
NS	40X7567	1	1	DDR3 RAM, 1 GB x32	--
NS	40X8555	1	1	Flash memory, 256 MB	--
NS	40X8556	1	1	Font card, Traditional Chinese	--
NS	40X8557	1	1	Font card, Simplified Chinese	--
NS	40X8568	1	1	Font card, Korean	--
NS	40X8569	1	1	Font card, Japanese	--
NS	40X8570	1	1	Font card, Arabic	--
NS	40X8571	1	1	Font card, Hebrew	--
NS	40X8311	1	1	Card reader, small stick-on case	--
NS	40X8312	1	1	Card reader, large stick-on case	--
NS	40X8313	1	1	Card reader, small snap-on case	--
NS	40X8314	1	1	Card reader, large snap-on case	--
NS	40X7858	1	1	Wireless print server kit, MarkNet N8350 802.11b/g/n	--
NS	40X7854	1	1	Fax card	--
NS	40X9652	1	1	Adapter, N8130 10/100 fiber	N/A

Printer specifications

Power consumption

Product power consumption

The following table documents the power consumption characteristics of the product.

Note: Some models may not apply to your product.

Mode	Description	Power consumption (Watts)
Printing	The product is generating hard-copy output from electronic inputs.	One-sided: 865 (MX910de), 925 (MX911de, MX911dte), 985 (MX912de, MX912dxe); Two-sided: 790 (MX910de), 850 (MX911de, MX911dte), 890 (MX912de, MX912dxe)
Copy	The product is generating hard-copy output from hard-copy original documents.	880 (MX910de); 950 (MX911de, MX911dte); 1000 (MX912de, MX912dxe)
Scan	The product is scanning hard-copy documents.	230
Ready	The product is waiting for a print job.	220
Sleep Mode	The product is in a high-level energy-saving mode.	3.5
Hibernate	The product is in a low-level energy-saving mode.	0.6
Off	The product is plugged into an electrical outlet, but the power switch is turned off.	0

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average.

Values are subject to change. See www.lexmark.com for current values.

Sleep Mode

This product is designed with an energy-saving mode called *Sleep Mode*. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the *Sleep Mode Timeout*.

Factory default Sleep Mode Timeout for this product—20 minutes

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes. setting the Sleep Mode Timeout to a low value reduces energy consumption, but may increase the response time of the product. Setting the Sleep Mode Timeout to a high value maintains a fast response, but uses more energy.

Hibernate Mode

This product is designed with an ultra-low power operating mode called *Hibernate Mode*. When operating in Hibernate Mode, all other systems and devices are powered down safely.

The Hibernate mode can be entered in any of the following methods:

- Using the Hibernate Timeout
- Using the Schedule Power modes
- Using the Sleep/Hibernate button

Factory default Hibernate Timeout for this product in all countries or regions—3 days

The amount of time the printer waits after a job is printed before it enters Hibernate mode can be modified between one hour and one month.

Off mode

If this product has an off mode which still consumes a small amount of power, then to completely stop product power consumption, disconnect the power supply cord from the electrical outlet.

Total energy usage

It is sometimes helpful to calculate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum of each mode's energy usage.

Operating clearances



1	Rear	12 cm (4.8 in.)
2	Right side	40 cm (15.7 in.)
3	Front	44 cm (17.5 in.)
4	Left side	12 cm (4.8 in.)
5	Top	40 cm (15.7 in.)
Allow additional clearance around the printer for the optional input trays.		

Noise emission levels

The following measurements were made in accordance with ISO 7779 and reported in conformance with ISO 9296.

Note: Some models may not apply to your product.

Mode	1-meter average sound pressure, dBA
Printing	One-sided: 52 (MX910de), 53 (MX911de, MX911dte), 55 (MX912de, MX912dxe); Two-sided: 55 (MX910de, MX911de, MX911dte), 56 (MX912de, MX912dxe)
Scanning	57 (MX910de); 56 (MX911de, MX911dte, MX912de, MX912dxe)
Copying	53 (MX910de); 54 (MX911de, MX911dte); 55 (MX911de, MX911dte)
Ready	29 (MX910de); 31 (MX911de, MX911dte, MX912de, MX912dxe)

Values are subject to change. See www.lexmark.com for current values.

Temperature information

Ambient operating temperature	10 to 30°C (50 to 86°F)
Shipping temperature	-10 to 40°C (14 to 104°F)
Storage temperature and relative humidity	-10 to 40°C (14 to 104°F) 15 to 85% RH

Options and features

Some of the options may not be available in every country or region.

Available internal options

- Memory card
 - DDR2 DIMM
 - Flash memory
 - Fonts
 - Firmware cards
 - Forms and Bar Code
 - PRESCRIBE
 - IPDS
- Lexmark Internal Solutions Ports (ISP)
 - Standard 10/100/1000 Ethernet
 - MarkNet™ N8350 802.11 b/g/n wireless print server
 - MarkNet N8352 802.11 b/g/n wireless print server

Media handling options

Some options may not be available for all models.

1	Standard 2 x 500-sheet tray
2	Optional 2 x 500-sheet tray
3	Optional 2500-sheet tray
4	Optional 3000-sheet tray
5	Multipurpose feeder
6	Staple finisher
7	Staple, hole punch finisher
8	Hole punch booklet finisher

Theory of operation

POR sequence

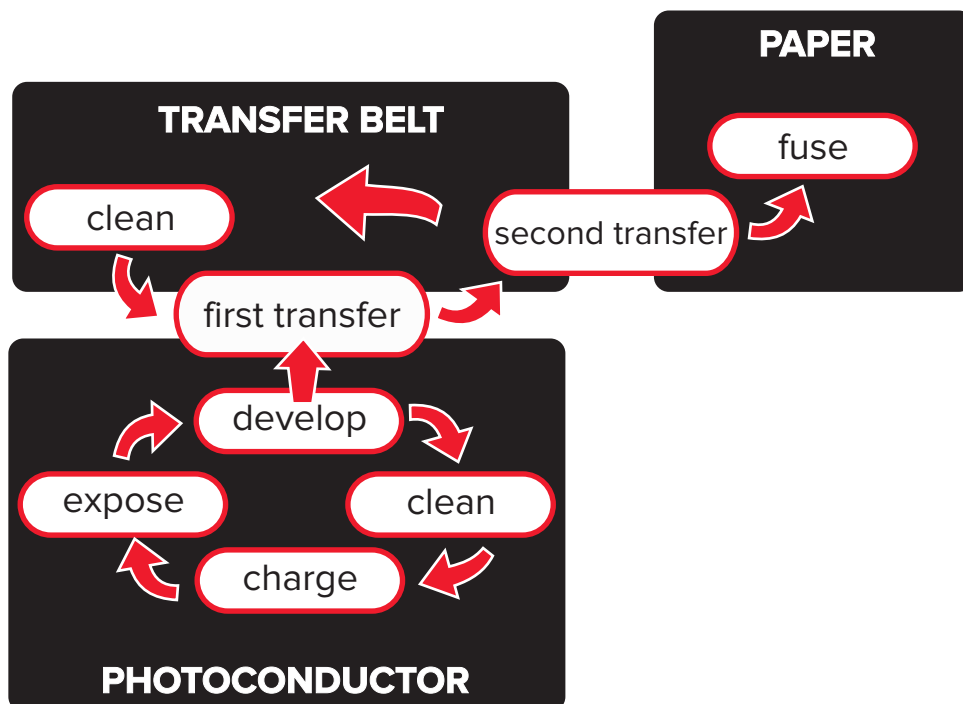
As the printer is turned on, the engine code goes through a series of tests to verify hardware integrity. If a hardware failure is detected, then it is reported to the printer. If the POR sequence cannot be completed successfully, then the printer may post an error message. The message states that service may be needed.

Printer control

The printer uses a single processor for both RIP and engine functions. The raster image processor (RIP) code performs system responsibilities such as computer connection, LAN, ISP attachments, and bitmap generation. The engine code performs tasks related to the operation of the electrical and mechanical device systems such as motors, lasers, power supplies, and fusers. The NVRAMs are located on the controller board and control panel, replacement of either the controller board or control panel will pull or mirror NVRAM data from each other.

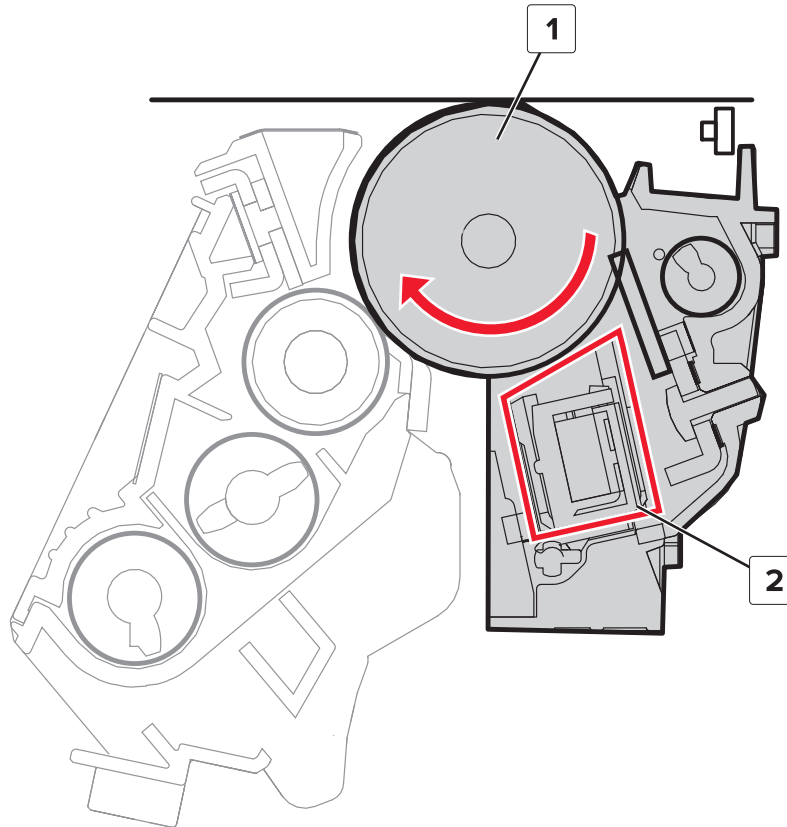
Print cycle operation

Flowchart



Charge

A uniform negative electrical charge is applied to the surface of the photoconductor roller. The photoconductive properties of the surface material allow it to hold the charge as long as it is not exposed to light.



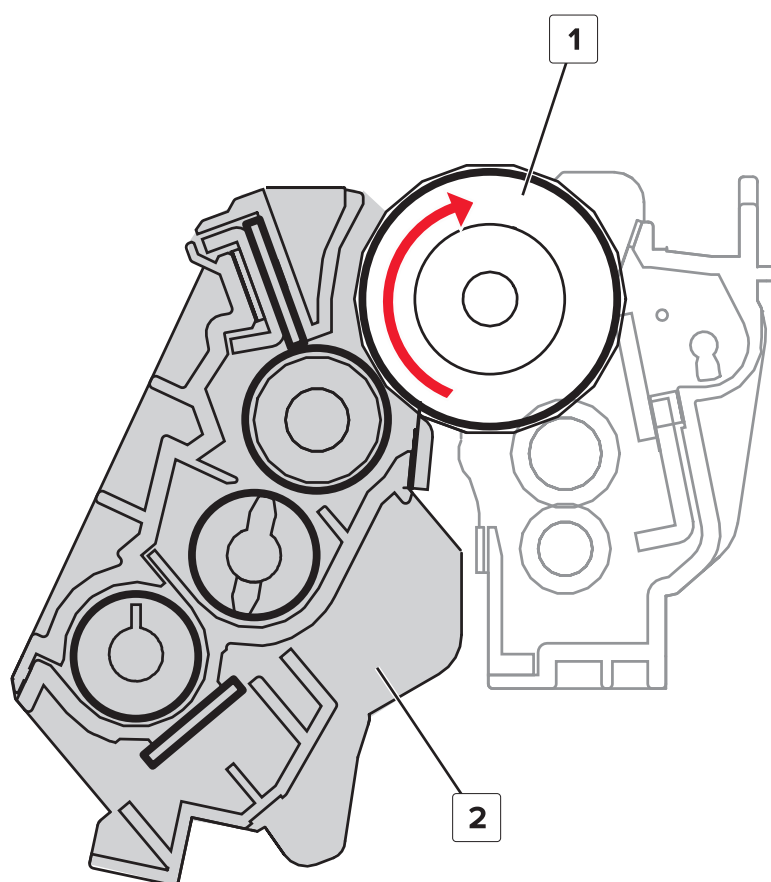
#	Part
1	Photoconductor roller
2	Charge source

Expose

The printhead emits the light that hits the surface of the photoconductor. The light turns on or off coinciding with the digital image that is printed. The light causes areas of the photoconductor surface to lose its charge resulting in a relative opposite polarity.

Develop

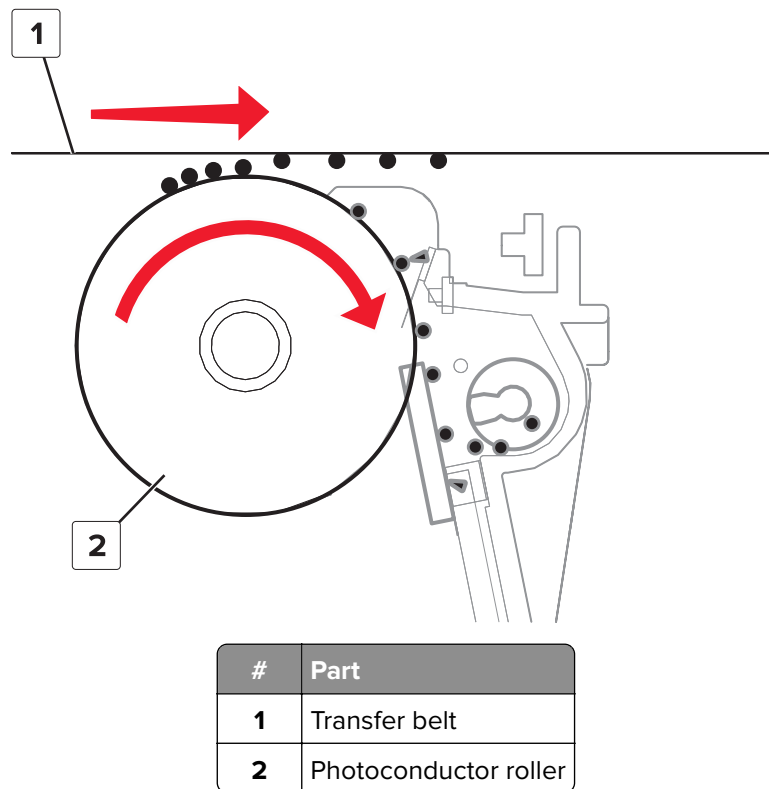
The developer feeds the toner from the toner cartridge to the photoconductor. The difference in charge causes the toner particles to attract to the areas of the photoconductor exposed to light.



#	Part
1	Photoconductor roller
2	Developer

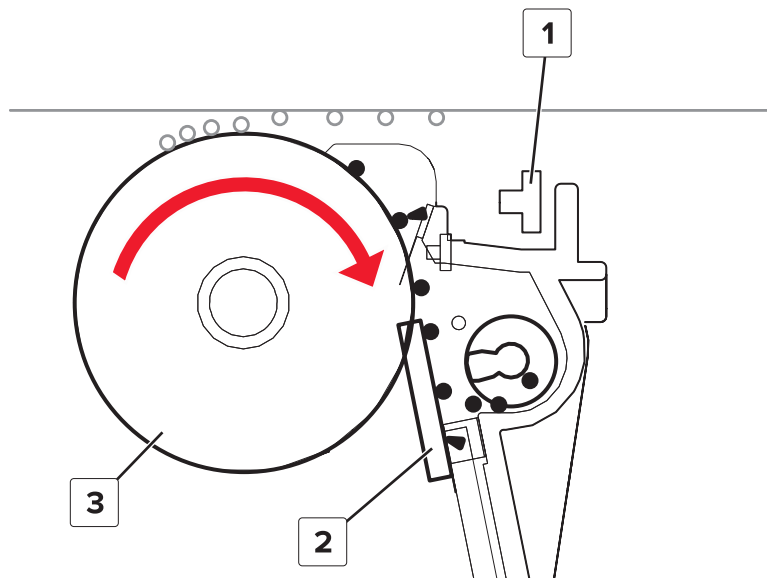
First transfer

The image transfers from the photoconductor roller to the transfer belt. Due to relative opposite polarities, the transfer belt pressed against the photoconductor roller attracts the toner onto its surface.



Clean (photoconductor)

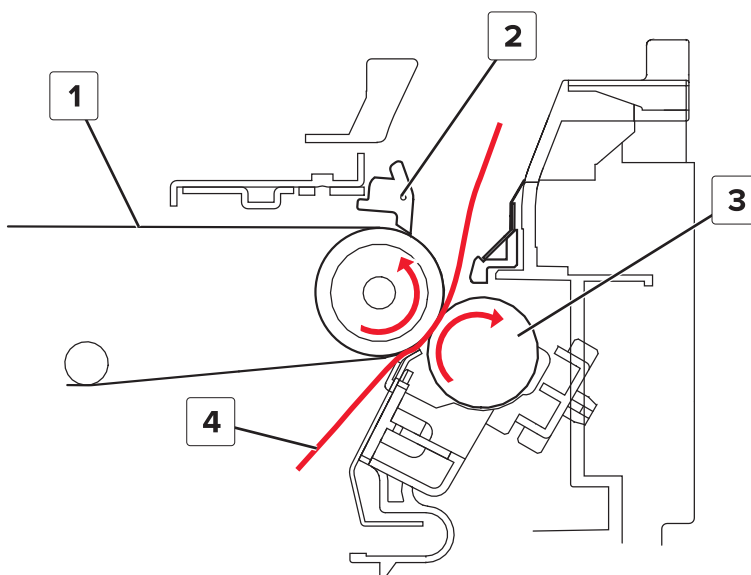
The erase LED emits light that neutralizes the remaining charge on the photoconductor surface. As a result, the toner loosens or separates from the photoconductor. A cleaning blade scrapes off the remaining toner. The cycle (charge, expose, develop, first transfer, clean) repeats until the whole image is transferred to the transfer belt.



#	Part
1	Erase LED
2	Cleaning blade
3	Photoconductor roller

Second transfer

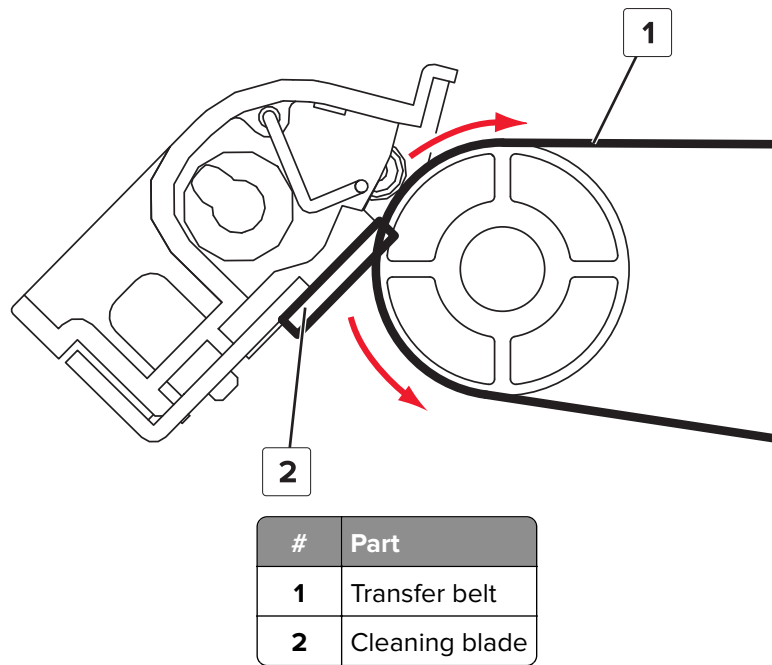
The whole image from the transfer belt is transferred again, this time onto the paper. The paper, which is pressed between the transfer belt and transfer roller, attracts the toner to its surface. As the paper moves up, a separator guide prevents it from entering the top side of the transfer belt.



#	Part
1	Transfer belt
2	Separator guide
3	Transfer roller
4	Paper

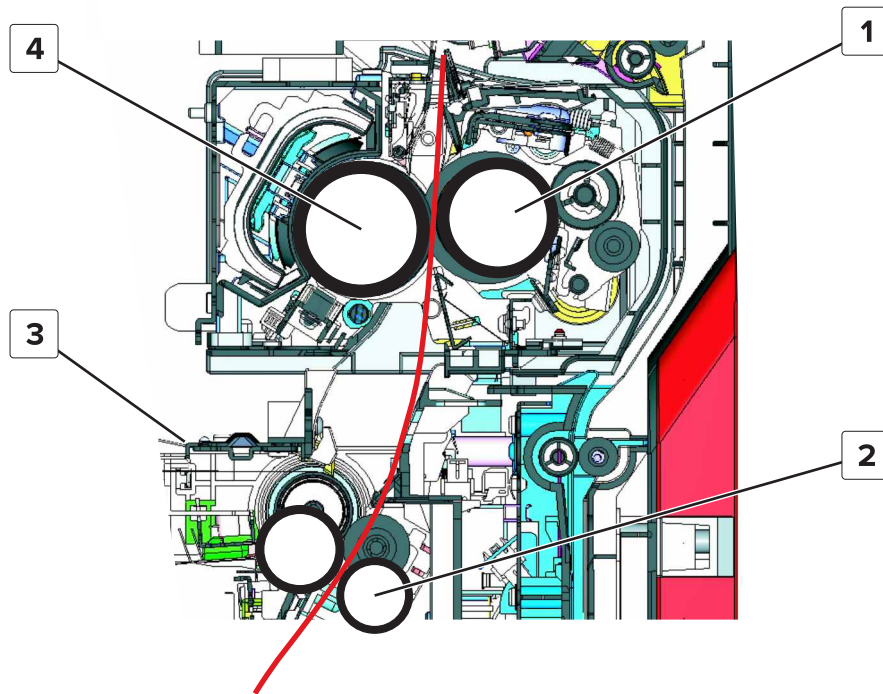
Clean (transfer belt)

Some residual toner stick to the surface of the transfer belt. To prevent contamination on the next image, a cleaning blade scrapes off the toner from the transfer belt surface. Waste toner from the transfer belt and photoconductor is transported to the waste toner bottle. The cycle (first transfer, second transfer, clean) repeats for the succeeding print jobs.



Fuse

Even if the toner image is already on the paper, the toner particles are not yet permanently bonded to the surface. For the final part of printing, paper is transported to the fuser where heat and pressure are applied to it. As a result, the toner particles melt and permanently fuse with the paper, completing the print process. The print cycle repeats for the succeeding pages.

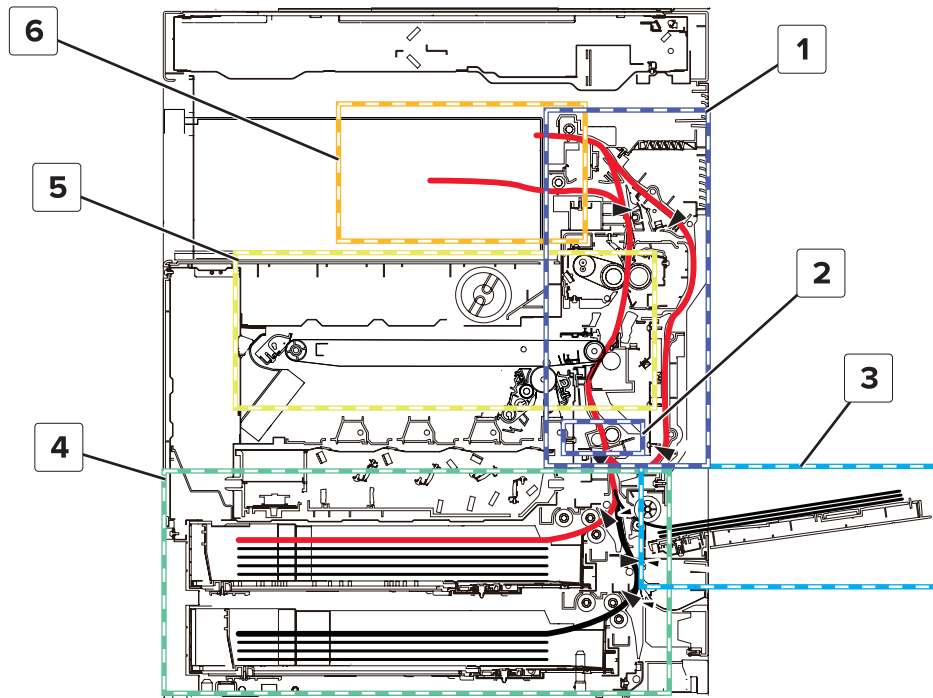


#	Part
1	Pressure roller
2	Transfer roller
3	Transfer belt
4	Heat roller

Theory of operation

Printer operation

Printer paper path

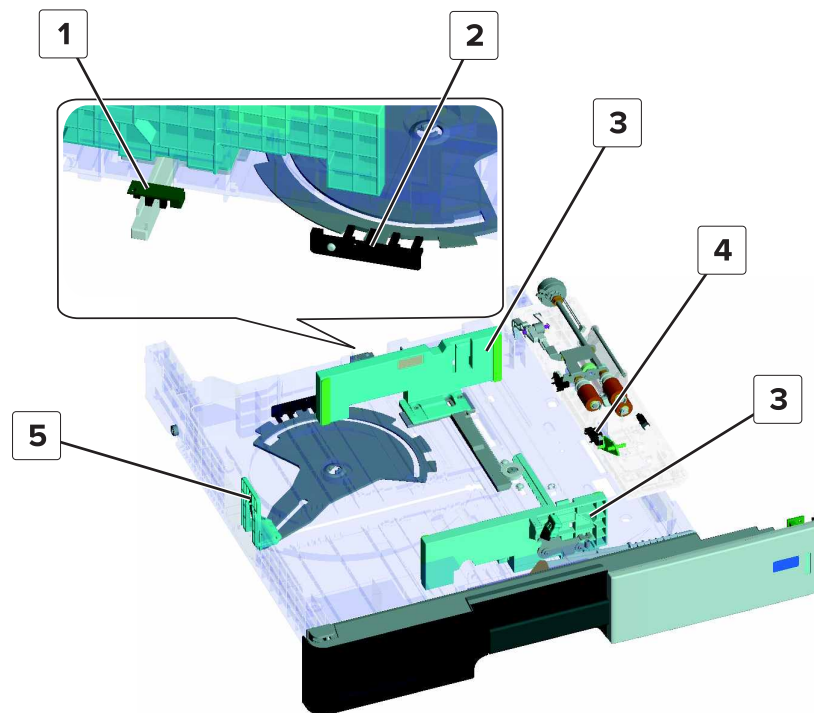


#	Part
1	Duplex section
2	Registration section
3	MPF section
4	Tray section
5	Print section
6	Exit section

Tray section

Paper presence and size detection

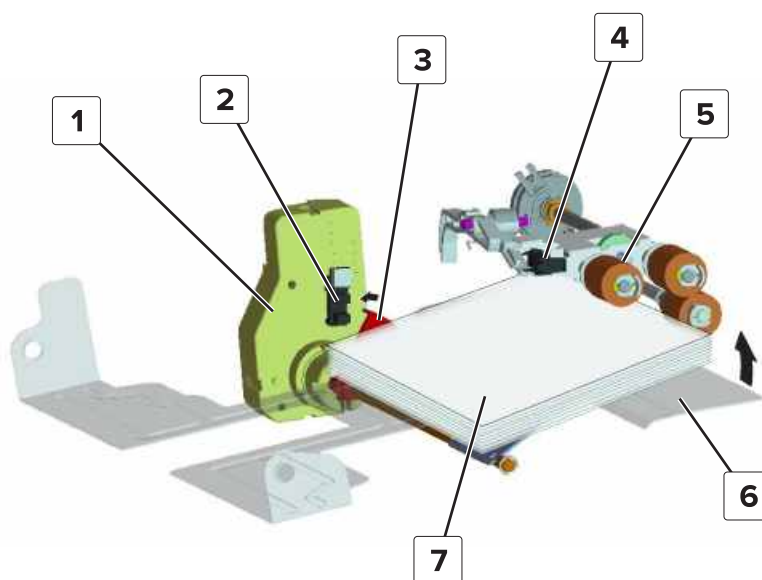
The sensor (tray empty) detects if the tray is empty. The positions of the guides determine the dimensions of the paper. The sensor (paper width) and sensor (paper length) detect the position of the guides.



#	Part
1	Sensor (tray paper width)
2	Sensor (tray paper length)
3	Tray insert paper width guides
4	Sensor (tray empty)
5	Tray insert paper length guide

Paper lift

During feed, the lift plate raises the paper until the paper comes into contact with the pick roller. The sensor (lift plate level) detects if the pick roller is sufficiently engaged with the paper. The motor (lift) controls the movement of the lift plate. As the amount of paper lessens, the lift plate also continues to move up. When the tray is almost empty, the actuator triggers the sensor (near empty).



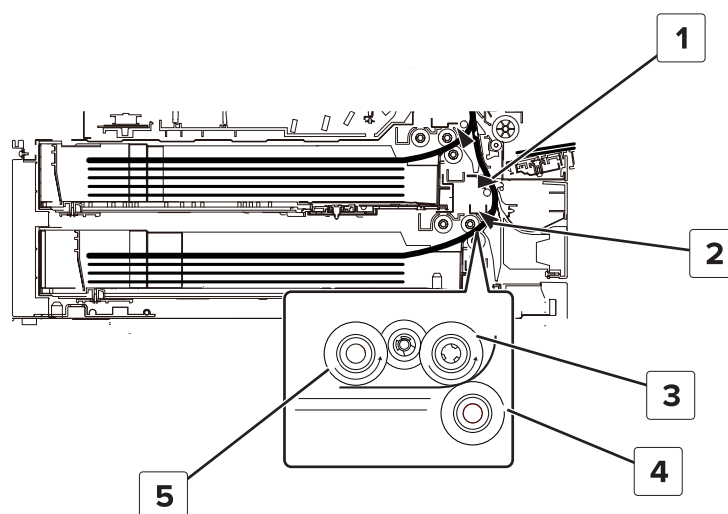
#	Part
1	Motor (lift)
2	Sensor (near empty)
3	Actuator
4	Sensor (lift plate level)
5	Pick roller
6	Lift plate
7	Paper

Paper feed

The pick roller pushes the topmost sheet to the feed roller. The separator roller makes sure that only one sheet is fed at a time.

For tray 1, the feed roller moves the paper directly to the registration section. For trays 2 to 4, paper is fed from the feed roller to the transport rollers before going into the registration section.

The motor (paper feed) controls the pick, feed, and separator rollers. The motor (transport) drives the roller that moves the paper upward to the registration section. The sensor (paper feed) and sensor (pass through) detect the position of the paper.



#	Part
1	Sensor (pass through)
2	Sensor (paper feed)
3	Feed roller
4	Separator roller
5	Pick roller

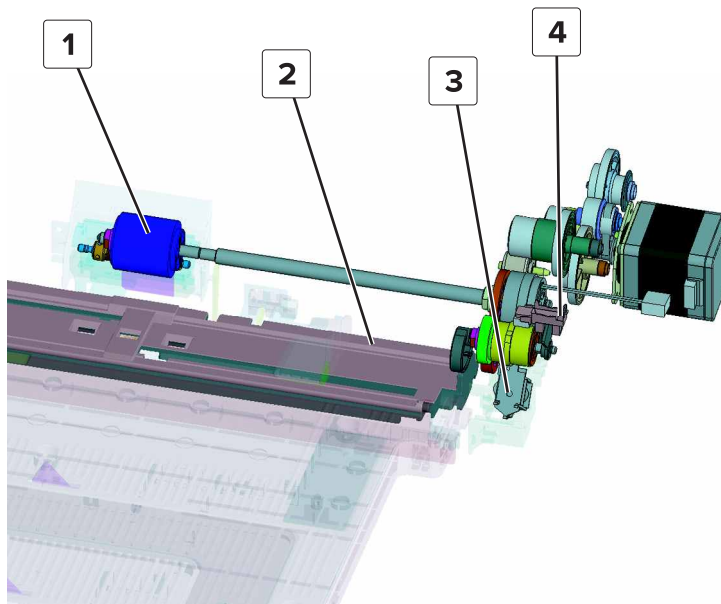
MPF section

Paper presence detection

The sensor (MPF empty) detects if the tray is empty.

Paper lift

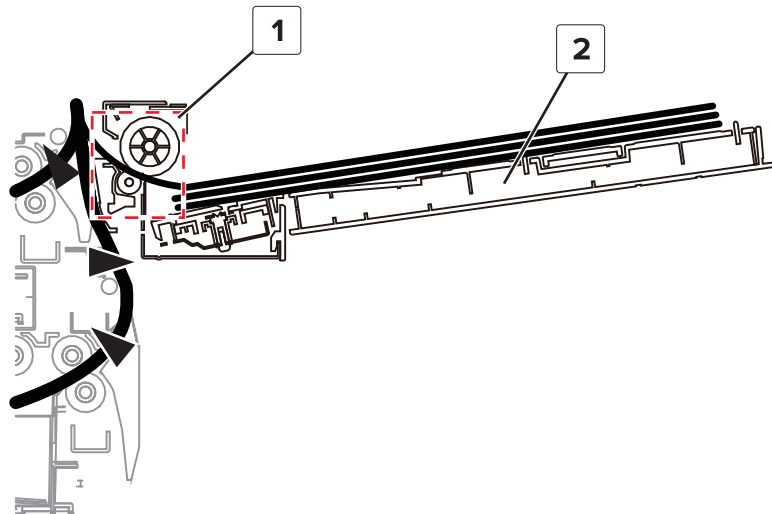
During feed, the lift plate pushes up to engage the paper with the pick roller. The movement of the lift plate is controlled by the MPF pick solenoid and is detected by the sensor (MPF lift plate).



#	Part
1	MPF pick roller
2	Lift plate
3	MPF pick solenoid
4	Sensor (MPF lift plate)

Paper feed

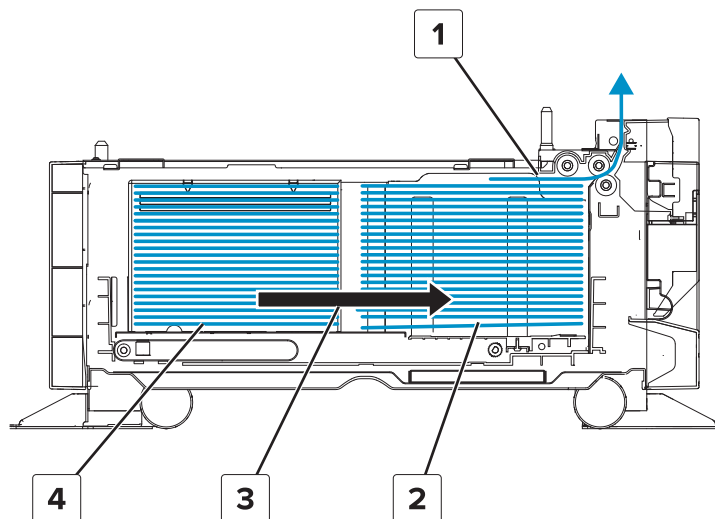
The MPF pick assembly moves the paper from the MPF tray to the registration section.



#	Part
1	MPF pick assembly
2	MPF tray

2500-sheet tray section

Paper path

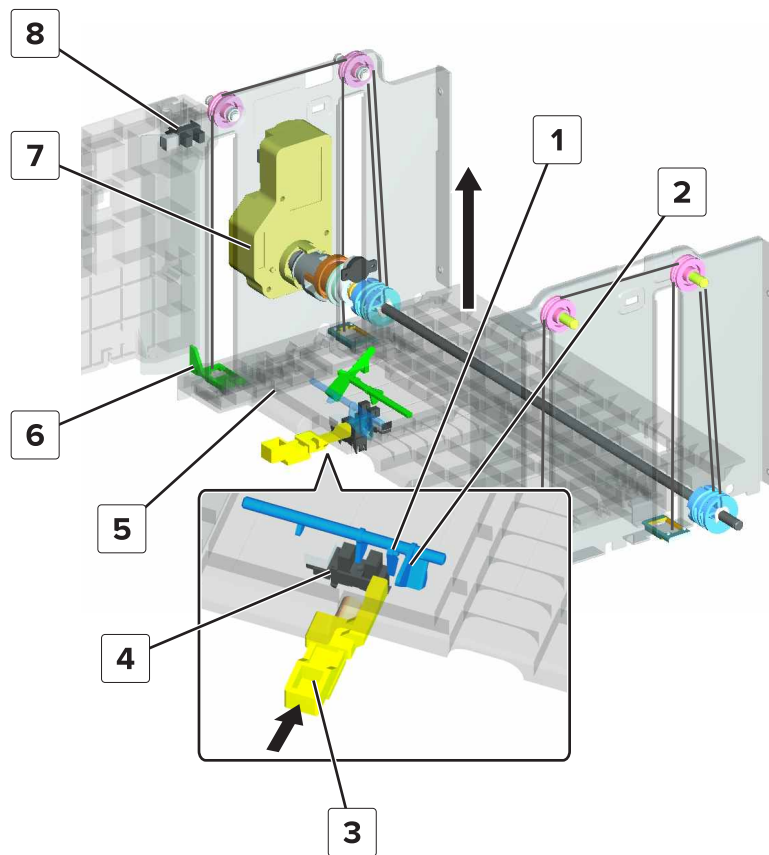


#	Part
1	Paper feed from main tray
2	Main tray
3	Paper transfer movement from reserve tray to main tray
4	Reserve tray

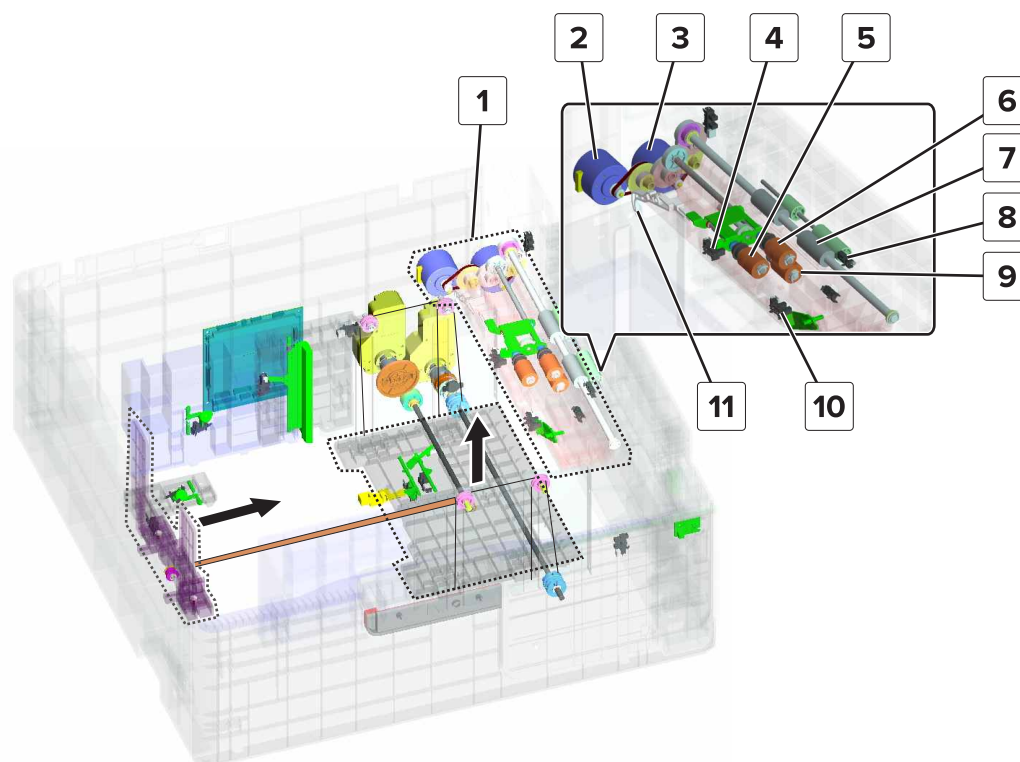
Paper feed mechanism

When the drawer is inserted, the lever is triggered to lower the pick roller. The motor (2500-sheet tray elevator) drives and raises the main tray until the paper is engaged with the pick roller. When the pick roller is engaged with the paper, the sensor (2500-sheet tray main tray elevator limit) detects the uppermost sheet.

The motor (2500-sheet tray feed) drives the pick, feed, and separator rollers to pick up and feed a sheet of paper into the vertical transport roller. The pick roller pushes the sheet to the feed roller and the separator roller makes sure that only one sheet is fed at a time. As paper passes through the transport roller, the sensor (2500-sheet tray transport) detects it. The motor (2500-sheet tray transport) then drives the transport roller to transport the paper into the printer.



#	Part
1	Shifter stop detection actuator
2	Lower limit detection actuator
3	Transfer guide stop lever
4	Sensor (2500-sheet tray elevator home)
5	Main tray
6	Near empty detection actuator
7	Motor (2500-sheet tray elevator)
8	Sensor (2500-sheet tray main tray near empty)

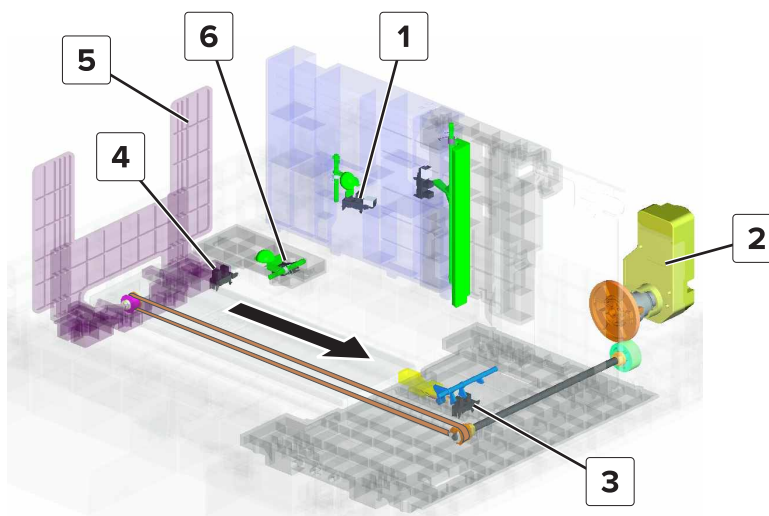


#	Part
1	Paper feed section
2	Motor (2500-sheet tray feed)
3	Motor (2500-sheet tray transport)
4	Sensor (2500-sheet tray main tray elevator limit)
5	Pick roller
6	Feed roller
7	Transport roller
8	Sensor (2500-sheet tray transport)
9	Separator roller
10	Sensor (2500-sheet tray main tray paper empty, top)
11	Lever

The main tray continues to move up as the amount of paper decreases. The near empty detection actuator triggers the sensor (2500-sheet tray main tray near empty) when the main tray is almost empty. When the sensor (2500-sheet tray main tray empty, top) detects an empty main tray, the motor (2500-sheet tray elevator) lowers the main tray. The sensor (2500-sheet tray elevator home) detects when the main tray is at its lowest position.

The sensor (2500-sheet tray reserve tray paper limit) and sensor (2500-sheet tray reserve tray paper empty) detect the amount of paper left on the reserve tray. If the main tray is empty while the reserve tray is loaded with paper, then the paper stack on the reserve tray is moved to the main tray. The motor (2500-sheet tray transfer guide) moves the transfer guide, pushing the paper stack into the main tray until the sensor (2500-sheet tray elevator home) is triggered. The motor (2500-sheet tray transfer guide) then drives the transfer guide to return to its home position.

If the reserve tray is empty when paper in the main tray runs out, then the main tray is not lowered. The main tray lowers only when the drawer is removed.

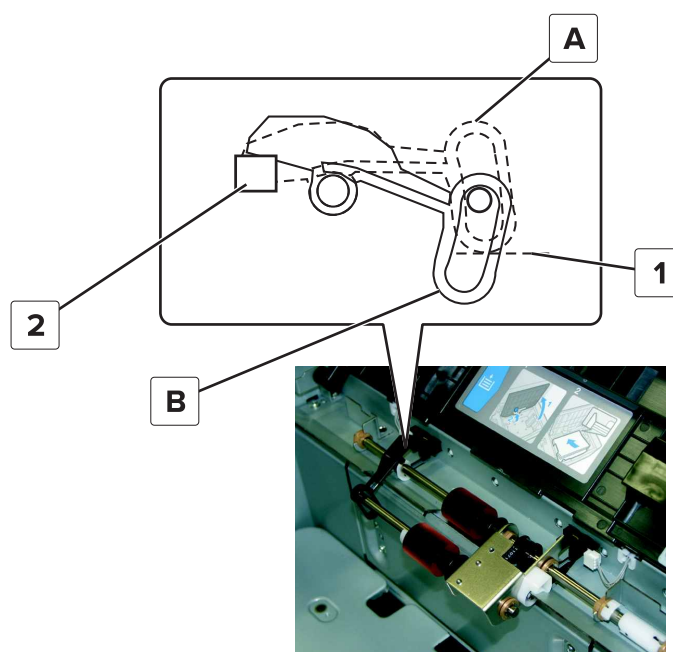


#	Part
1	Sensor (2500-sheet tray reserve tray paper limit)
2	Motor (2500-sheet tray transfer guide)
3	Sensor (2500-sheet tray elevator home)
4	Sensor (2500-sheet tray transfer guide home)
5	Transfer guide
6	Sensor (2500-sheet tray reserve tray paper empty)

3000-sheet tray section

Paper presence detection

The sensor (tray empty) detects if the tray is empty. The sensor remains covered when paper is in the tray. When the tray is empty, the actuator lowers to unblock the sensor.

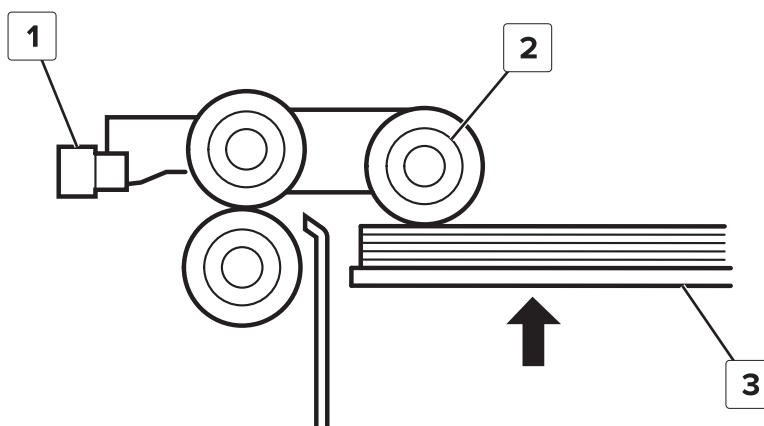


#	Part
1	Paper
2	Sensor (tray empty)
A	Actuator position (with paper)
B	Actuator position (without paper)

Paper lift

During feed, the elevator plate raises the paper until the paper comes into contact with the pick roller. The sensor (elevator level) detects if the pick roller is sufficiently engaged with the paper. The motor (elevator) controls the movement of the elevator plate.

As the amount of paper lessens, the elevator plate continues to move up. When the tray is almost empty, the sensors (paper low 1 and paper low 2) are unblocked. If the tray is full, then the sensor (paper low 1) is blocked and the sensor (paper low 2) is unblocked.



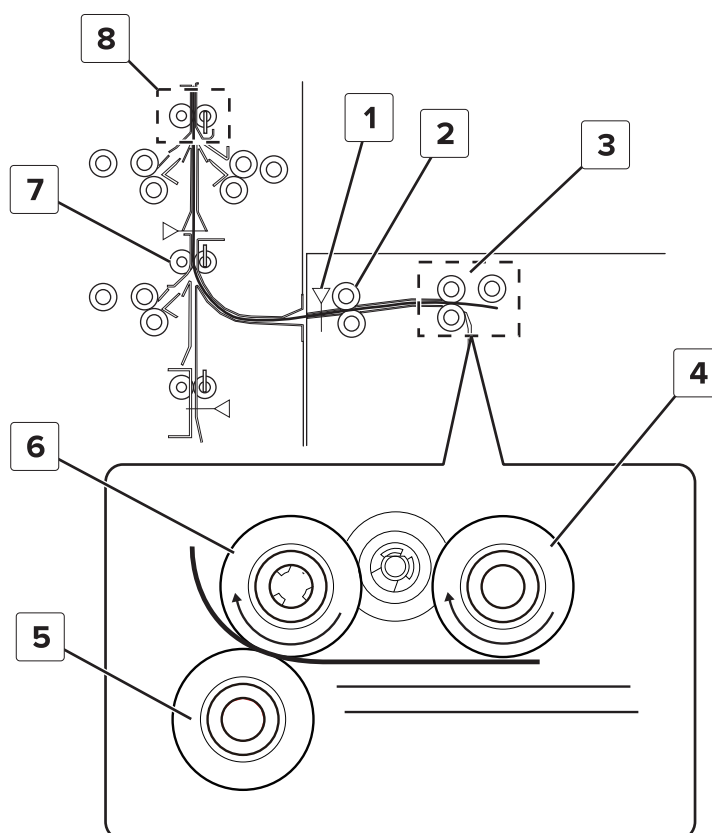
#	Part
1	Sensor (elevator level)
2	Pick roller
3	Elevator plate

Paper feed and transport

The pick roller pushes the topmost sheet to the feed roller. The separator roller makes sure that only one sheet is fed at a time.

The paper is fed from the pick assembly to the transport rollers before going to the registration section. For more information, see [“Registration section” on page 797](#).

The motor (feed) controls the pick, feed, and separator rollers. The motor (transport) drives the transport roller to pass the paper to the tray 2 transport roller. The sensor (feed) detects when paper passes through the transport roller.



#	Part
1	Sensor (feed)
2	Transport roller
3	Pick assembly
4	Pick roller
5	Separator roller

Theory of operation

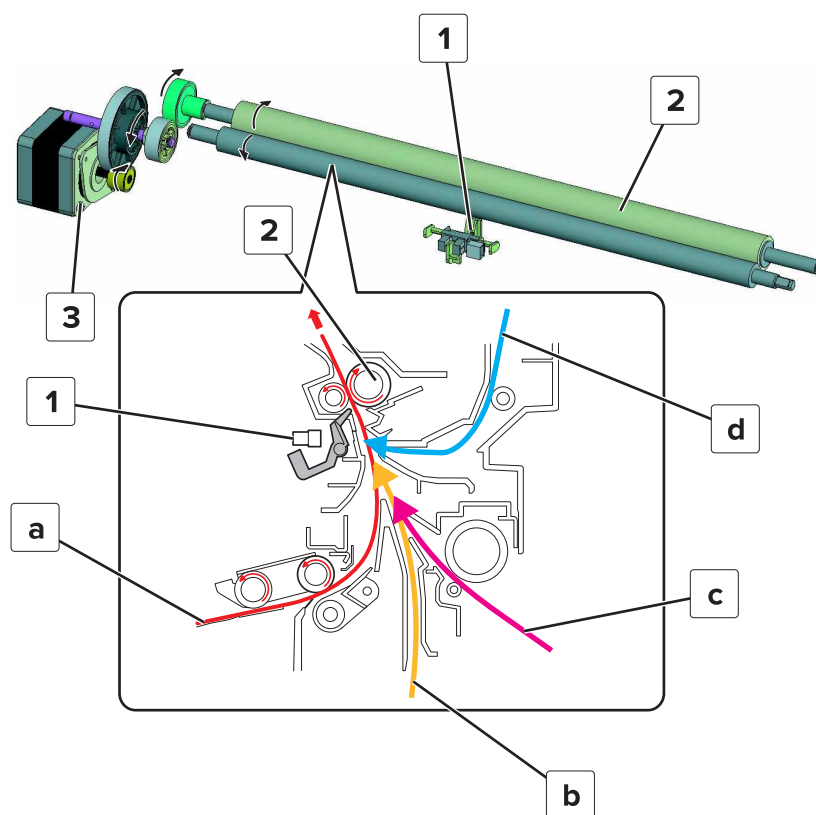
#	Part
6	Feed roller
7	Tray 2 transport roller
8	Registration section

Registration section

Depending on the print job, the registration section receives paper from the tray, MPF, or duplex section.

As paper enters the registration roller, the sensor (registration) detects its presence. Skew adjustments are made on the registration roller to align the leading edge of the paper.

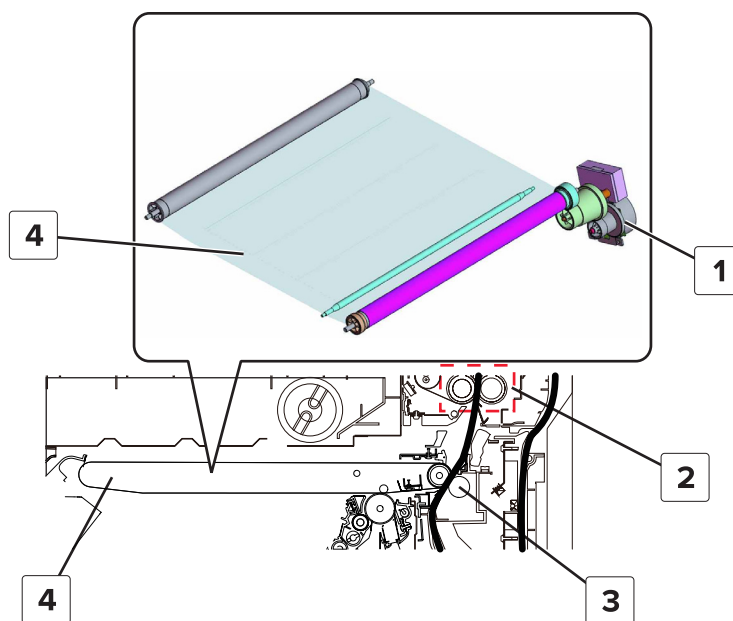
The motor (registration) drives the registration roller, passing the paper to the print section.



#	Part
1	Sensor (registration)
2	Registration roller
3	Motor (registration)
a	Paper path from tray 1
b	Paper path from trays 2–4 and 3000-sheet tray
c	Paper path from the MPF section
d	Paper path from the duplex section

Print section

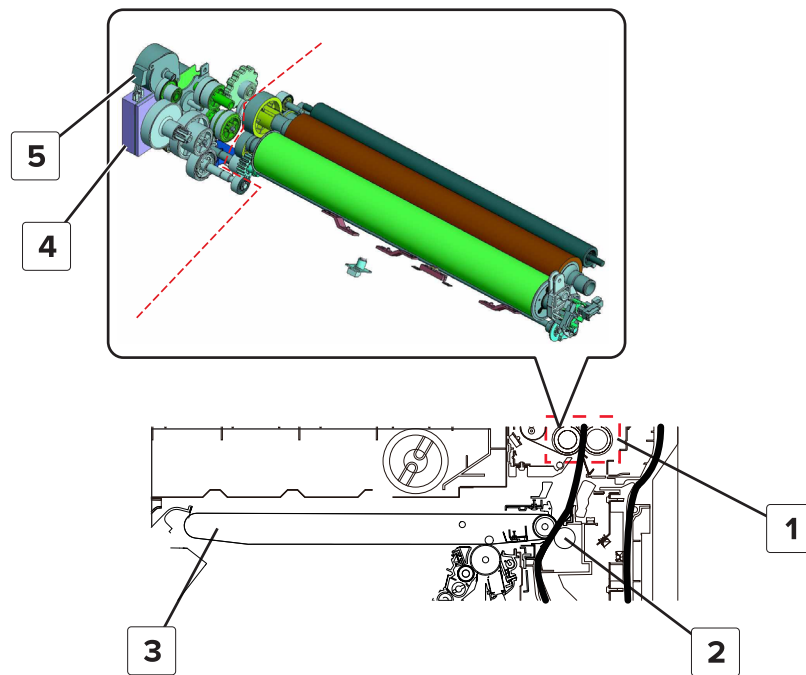
Toner from the transfer belt is transferred to the paper. For more information, see [“Second transfer” on page 783](#). The rotation of the transfer belt and transfer roller is controlled by the motor (developer).



#	Part
1	Motor (developer)
2	Fuser
3	Transfer roller
4	Transfer belt

After the second transfer, the paper is passed to the fuser. For more information, see [“Fuse” on page 784](#).

The motor (fuser pressure) controls the pressure that is exerted on the paper. The motor (fuser) controls the movement of the paper from the fuser to the exit section.



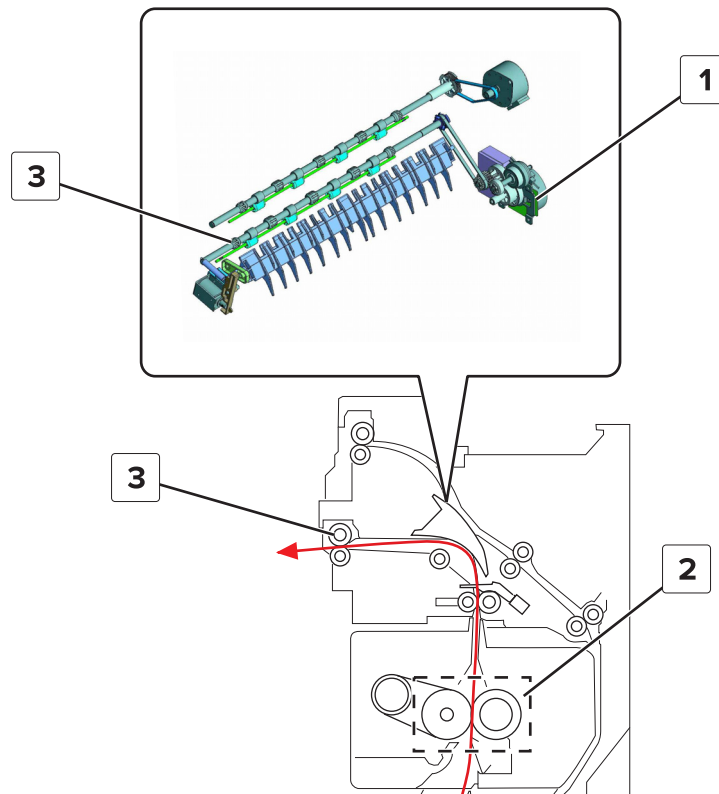
#	Part
1	Fuser
2	Transfer roller
3	Transfer belt
4	Motor (fuser)
5	Motor (fuser pressure)

Exit section

Exit roller path

Paper moves from the fuser to the exit roller. The motor (fuser) drives the exit roller to push out the printed paper to the standard bin.

Note: For finishing and folding jobs, the printed paper also moves along the path of the exit roller.

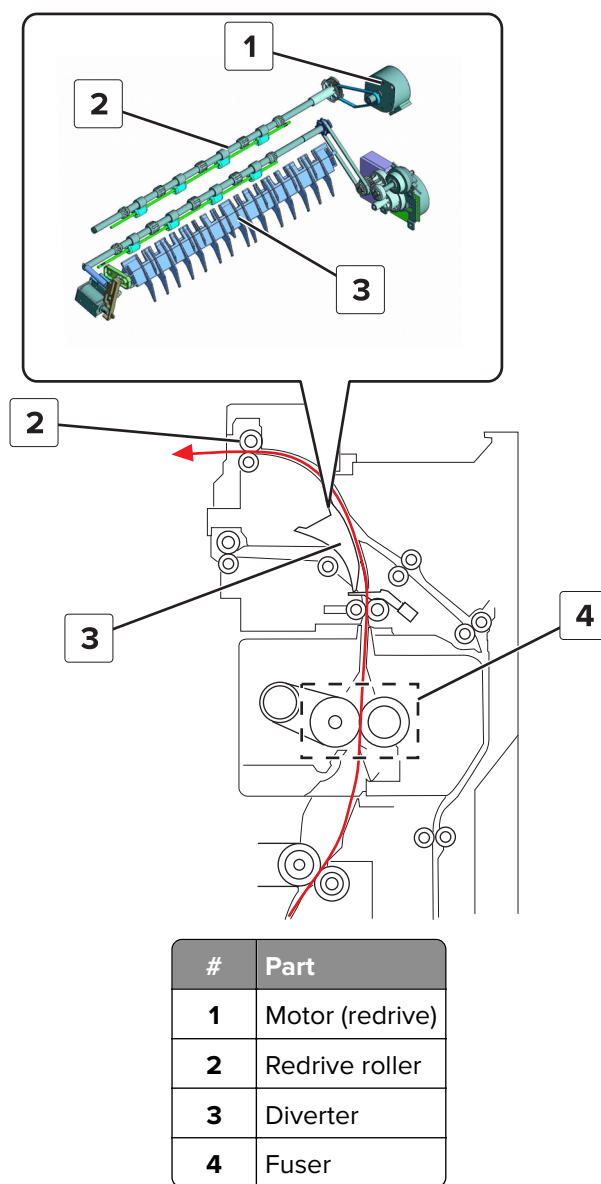


#	Part
1	Motor (fuser)
2	Fuser
3	Exit roller

Redrive roller path

If a paper transport is on the printer during a standard print job, then paper exits on top of the paper transport.

As paper moves up from the fuser, the diverter closes the path to the exit roller and opens the path to the redrive roller. The motor (redrive) controls the redrive roller, which exits the printed paper.



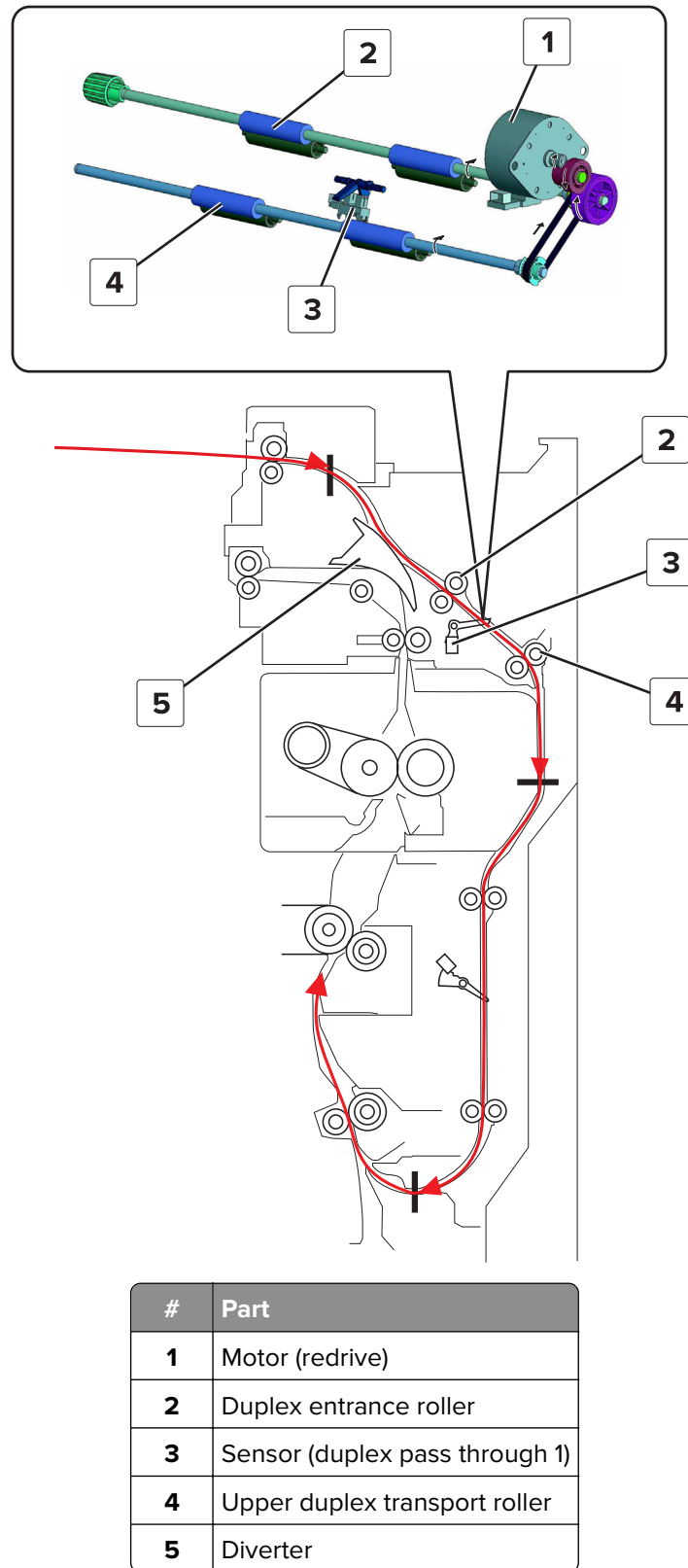
Duplex section

Upper duplex transport

For a duplex print job, the paper is fed back to print on the other side.

The redrive roller, which is driven by the motor (redrive), reverses its rotation to feed paper back to the printer. The path to the fuser section is closed by the diverter so that the paper moves along the duplex path.

As paper moves down passing the duplex entrance roller and the upper duplex transport roller, the sensor (duplex pass through 1) detects the position of the paper. The motor (duplex transport) drives the duplex entrance roller and upper duplex transport roller.

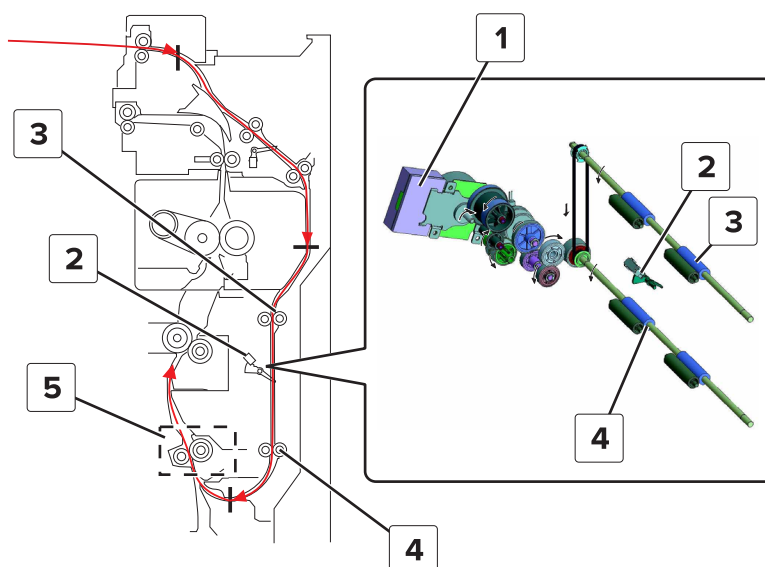


Lower duplex transport

The paper continues to move down to the lower duplex transport roller and duplex exit roller.

The sensor (duplex pass through 2) detects the position of the paper. The motor (transport) drives the lower duplex transport roller and duplex exit roller.

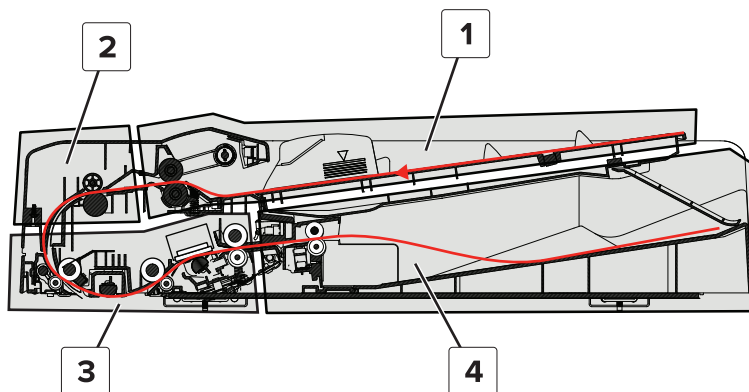
The paper then travels to the registration section to be printed on its other side. For more information, see [“Registration section” on page 797](#).



#	Part
1	Motor (transport)
2	Sensor (duplex pass through 2)
3	Lower duplex transport roller
4	Duplex exit roller
5	Registration section

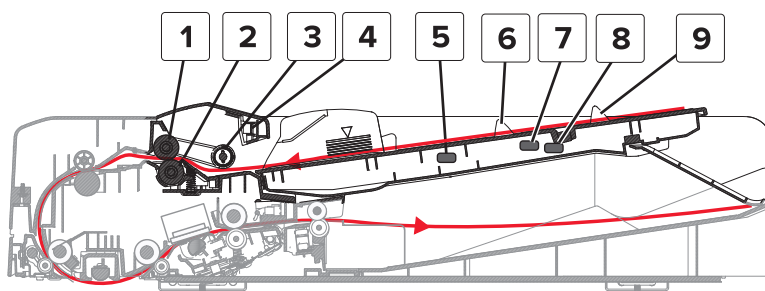
ADF operation

ADF tray section configuration and paper path



#	Section
1	ADF document feed section
2	ADF document registration section
3	ADF document reading section
4	ADF document exit section

ADF document feed section



#	Part
1	ADF feed roller
2	ADF separator roller
3	ADF pick roller
4	Sensor (ADF paper empty)
5	Sensor (ADF paper length 2)
6	ADF paper length actuator 1
7	Sensor (ADF paper length 1)
8	Sensor (ADF paper width)
9	ADF paper length actuator 2

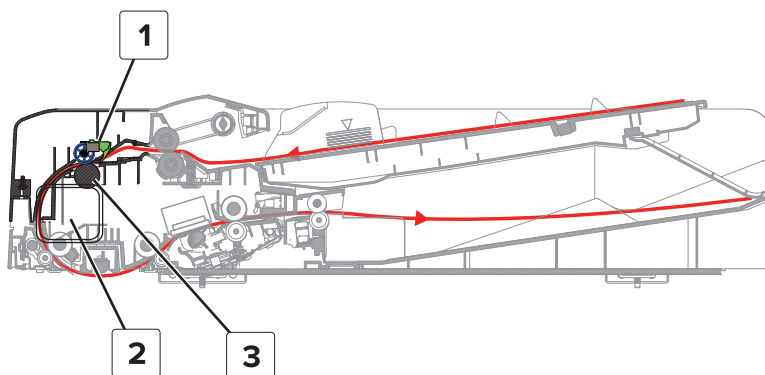
The sensor (ADF paper empty) detects the document when the leading edge pushes the actuator and unblocks the sensor. The sensor (ADF paper width) detects the width of the document. A variable resistor is incorporated to the sensor and the resistance value varies when adjusting the paper guide. The two sensors (ADF paper length 1 and 2) detect the length of the document. If no document is loaded on the ADF tray, the sensor (ADF paper length 1) is blocked. If a document is loaded and only the ADF paper length actuator 1 is triggered, the sensor (ADF paper length 1) is unblocked. If ADF paper length actuators 1 and 2 are triggered, then ADF paper length actuator 2 blocks the sensor (ADF paper length 1). The sensor (ADF paper length 2) detects that the ADF paper length actuator 1 is triggered. The results made by the width and length sensors determine the document size.

When a copy job is initiated, the motor (ADF feed) rotates forward to lower the ADF pick roller to the feed position. The document stopper is unlocked when the swing arm lowers and the document is fed in. When all pages are fed in, the sensor (ADF paper empty) detects that the ADF tray is empty.

After a document feed is completed, the motor (ADF feed) rotates backward to raise the pick roller to its home position. The ADF pick roller is fixed at the raised position by a torque limiter of the paper drive section. The document stopper lowers when the swing arm is raised to the standby position.

The document is transported into the document registration section by the ADF pick roller and ADF feed roller after the feeding sequence.

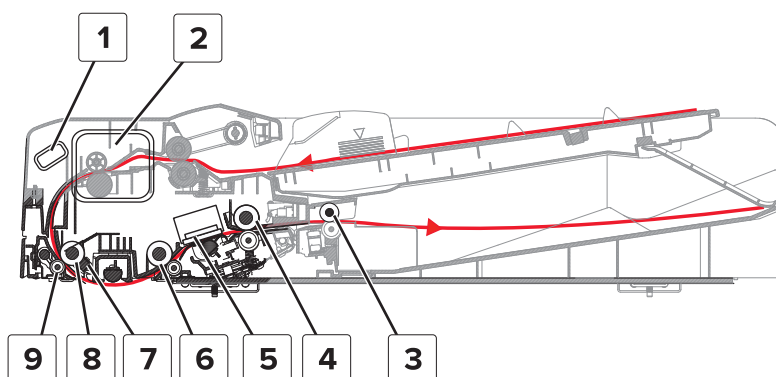
ADF document registration section



#	Part
1	Sensor (ADF registration)
2	Motor (ADF registration)
3	ADF registration roller

When the document exits the document feed section, the motor (ADF registration) drives the ADF registration roller to receive the document. A skew adjustment is made when the document passes between the ADF feed roller and ADF registration roller. The sensor (ADF registration) detects the leading edge of the document while the ADF feed roller continues to rotate to feed the document. The motor (ADF registration) continues to drive the ADF registration roller to transport the document to the scanning section.

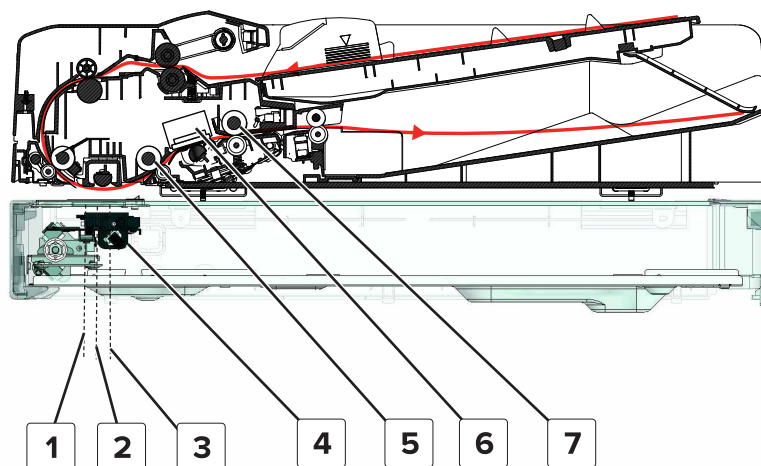
ADF document scanning section



#	Part
1	Motor (ADF scan shaft release)
2	Motor (ADF scan)
3	ADF exit roller
4	ADF scan roller 3
5	CIS assembly
6	ADF scan roller 2
7	Sensor (ADF scan)
8	ADF scan roller 1
9	ADF scan idle roll

The motor (ADF scan) drives the ADF scan rollers 1, 2, and 3 to transport the document into the document scanning section. The sensor (ADF scan) detects the document after the leading edge passes through the ADF scan roller 1.

The ADF scan roller 1 pushes the document until the trailing edge passes through it. This action increases the transport speed and causes an uneven reading of the image. The motor (ADF scan shaft release) releases the ADF scan idle roll to reduce the transport speed as the ADF scan rollers transport the document to a scanning position.



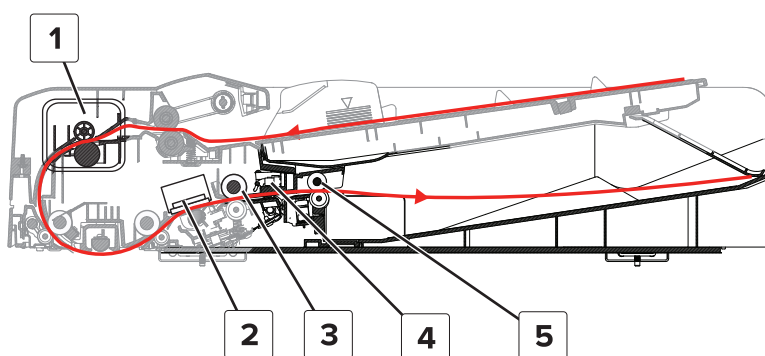
#	Part
1	Document reading position
2	Document home position
3	Document shading position
4	Scanner lamp
5	ADF scan roller 2
6	CIS assembly
7	ADF scan roller 3

Theory of operation

The scanner lamp moves to the document reading position and scans the document through the ADF duplex scan glass on the scanner flatbed. The front side of the document is scanned as it passes over the scanner lamp. The ADF scan roller 2 receives and transports the document through the CIS assembly where the other side of the document is scanned.

After the scan job, the ADF scan roller 3 transports the document to the ADF exit roller. The ADF exit roller transports the document into the document exit section.

ADF document exit section

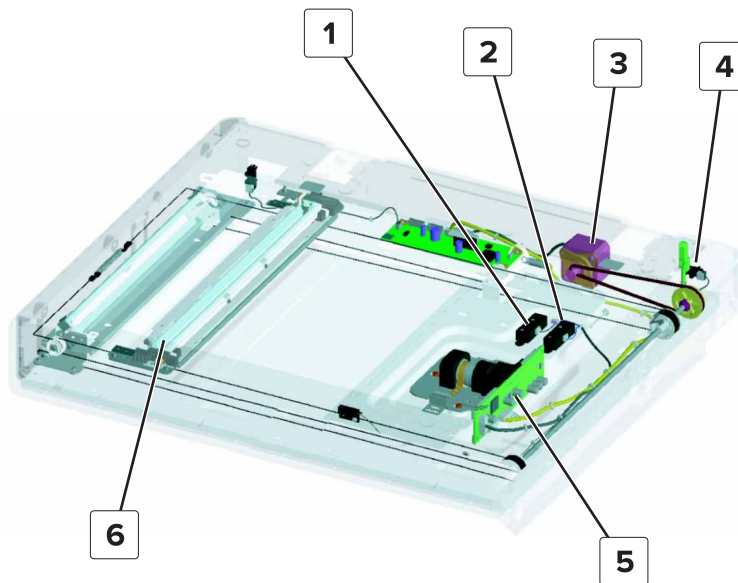


#	Part
1	Motor (ADF scan)
2	CIS assembly
3	ADF scan roller 3
4	Sensor (ADF exit)
5	ADF exit roller

The motor (ADF scan) drives the ADF scan roller 3 and ADF exit roller to feed the document out of the document reading section and into the bin. The motor (ADF scan) is turned off after a few seconds when the trailing edge of the document has deactivated the sensor (ADF exit).

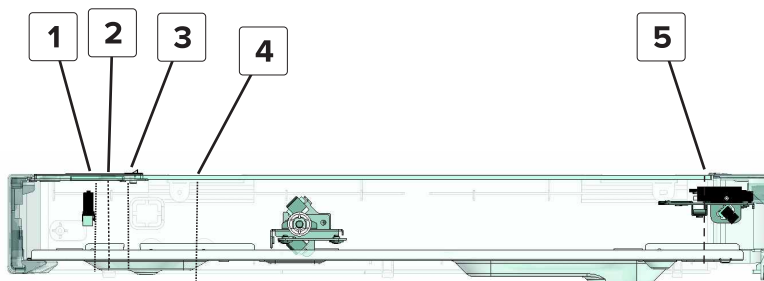
Flatbed scanner operation

Flatbed scanner section configuration



#	Part
1	Sensor (scanner paper length 1)
2	Sensor (scanner paper length 2)
3	Motor (scanner drive)
4	Sensor (ADF open)
5	Scanner CCD lens assembly
6	Scanner lamp

Flatbed scanning



#	Part
1	Scanner home position
2	Scan start position
3	Document shading position
4	Document size detection position
5	Trailing edge of the image

The motor (scanner drive) drives the scanner lamp to move to the home position when the printer is turned on.

When the ADF is opened and a document is placed on the scanner flatbed, the sensor (ADF open) detects that the ADF is open. The scanner lamp moves to the document size detection position. The sensors (scanner paper length 1 and 2) detect the length of the document. The scanner CCD lens assembly detects the width of the document. The scanner lamp then moves and stops at the scan start position.

When the start key is pressed, the scanner lamp moves from the scan start position to the leading edge of the document. The scanner lamp starts scanning the document from the leading edge and finishes at the trailing edge.

The LED turns off when scanning is complete. The scanner lamp moves from the position on the trailing edge of the document to the home position, and then to the document size detection position.

Acronyms

Acronyms

ASIC	Application-specific integrated circuit
BLDC	Brushless DC motor
BOR	Black only retract
C	Cyan
CCD	Charge coupled device
CCP	Carbonless copy paper
CRC	Cyclic redundancy check
CSU	Customer setup
CTLS	Capacitance toner level sensing
DIMM	Dual inline memory module
DRAM	Dynamic random access memory
EDO	Enhanced data out
EP	Electrophotography
EPROM	Erasable programmable read-only memory
ESD	Electrostatic discharge
FFC	Flat flexible cable
FRU	Field replaceable unit
GB	Gigabyte
HCF	High-capacity feeder
HCIT	High-capacity input tray
HCOF	High-capacity output finisher
HVPS	High voltage power supply
ITU	Image transfer unit
K	Black
LCD	Liquid crystal display
LDAP	Lightweight directory access protocol
LED	Light-emitting diode
LVPS	Low voltage power supply
M	Magenta
MB	Megabyte
MFP	Multi-function product
MPF	Multipurpose feeder

MROM	Masked read-only memory
MS	Microswitch
NVM	Nonvolatile memory
NVRAM	Nonvolatile random access memory
OEM	Original equipment manufacturer
OPT	Optical sensor
PC	Photoconductor
pel, pixel	Picture element
POR	Power-on reset
POST	Power-on self test
PSD	Position sensing device
PWM	Pulse width modulation
RIP	Raster imaging processor
ROM	Read-only memory
SDRAM	Synchronous dual random access memory
SIMM	Single inline memory module
SRAM	Static random access memory
TPS	Toner patch sensing
UPR	Used parts return
V ac	Volts alternating current
V dc	Volts direct current
VTB	Vacuum transport belt
Y	Yellow

Index

Numerics

- 163.04 error
 - 2500-sheet tray paper feed failure service check 170
- 167.04 error
 - 2500-sheet tray transport failure service check 171
- 189.xx errors
 - 2500-sheet tray communication error service check 178
- 196.xx errors
 - 2500-sheet tray lift plate failure service check 192
 - 2500-sheet tray transfer guide motor failure service check 194
- 243 paper jams
 - 2500-sheet tray jam service check 105
- 2500-sheet tray theory 791
- 28y paper jams
 - ADF exit jam service check 123
 - ADF feed jam service check 121
 - ADF registration jam service check 118
 - ADF scan jam service check 125
- 28y–29y paper jams
 - ADF top cover open jam service check 127
- 2x500-sheet tray sensor test 232
- 890.xx errors
 - ADF controller board service check 210
 - ADF/scanner image controller board service check 211
 - scanner controller board service check 213
- 8yy errors
 - ADF CIS service check 212
 - scanner CCD service check 214
 - scanner lamp service check 215

Symbols

- [x] maintenance kit very low [80.xy] 136
- [x]-page jam, clear manual feeder. [200.xx] 71
- [x]-page jam, open door C and clear all jammed media. [2yy.xx] 71
- [x]-page jam, open door D and clear all jammed media. [24y.xx] 75
- [x]-page jam, press latch at area E to open ADF's top cover. [28y.xx]
 - printer messages 78
- [x]-page jam, slide the 3000-sheet tray and open door C. [2yy.xx] 73

[x]-page jam, slide the 3000-sheet tray and open door D. [24y.xx] 77

A

- acronyms 811
- ADF scanner theory
 - ADF document exit section 807
 - ADF document feed section 804
 - ADF document registration section 805
 - ADF document scanning section 805
- ADF tray configuration and paper path 803
- adjustment
 - 2500-sheet tray transfer guide belt 284
 - 3000-sheet tray pick roller 282
 - ADF height 272
 - ADF registration 273
 - ADF separator roller pressure 274
 - flatbed registration 275
 - fuser 276
 - MPF separator roller 277
 - pick roller 279
 - scanner carriage belt 281
- attaching cables 569
- available internal options 777
- avoiding jams 42
- avoiding paper jams 68

B

- black pages 57
- blank pages 55
- buttons, control panel 221
- buttons, touch screen
 - using 224

C

- cables
 - Ethernet 569
 - USB 569
- card stock
 - tips 37
- Cartridge low [88.xy] 129
- Cartridge nearly low [88.xy] 129
- Cartridge very low [88.xy] 129
- Change [paper source] to [custom string] load [orientation] 129
- Change [paper source] to [custom type name] load [orientation] 130

- Change [paper source] to [paper size] load [orientation] 130
 - Change [paper source] to [paper type] [paper size] load [orientation] 130
 - change history 31
 - charge 780
 - charger
 - cleaning 575
 - clean, photoconductor 782
 - clean, transfer belt 783
 - cleaning
 - exterior of the printer 574
 - scanner glass 574
 - cleaning the charger 575
 - cleaning the printer 574
 - cleaning the printhead lens 575
 - Close door [x] 130
 - Complex page, some data may not have printed [39] 130
 - Configuration change, some held jobs were not restored [57] 130
 - configuration menu
 - accessing 243
 - action for prompts 248
 - ADF edge erase 247
 - automatically display error screens 250
 - clear custom status 250
 - clear supply usage history 250
 - disable scanner 248
 - disk encryption 249
 - download emuls 245
 - energy conserve 246
 - envelope prompts 248
 - erase hard disk 251
 - erase printer memory 251
 - event log 244
 - exit configuration 251
 - fax low power support 246
 - fax storage location 247
 - flatbed edge erase 247
 - font sharpening 249
 - format fax storage 247
 - hole punch configuration 243
 - jobs on disk 248
 - key repeat initial delay 250
 - key repeat rate 250
 - LES applications 249
 - menu settings page 244
 - min copy memory 246
 - numpad job assist 246
 - out of service erase 251
 - panel menus 245
 - paper prompts 248
 - PPDS emulation 245
 - print quality pages 244
 - require standby 249
 - reset maintenance counter 244
 - restore settings 251
 - safe mode 245
 - scanner manual registration 247
 - size sensing 244
 - tray linking 245
 - UI automation 249
 - USB scan to local 244
 - USB speed 250
 - control panel 221
 - control panel, printer
 - indicator light 221
 - Sleep button light 221
 - controller board, restoring configuration 256
- D**
- data security notice 48, 255
 - Defective flash detected [51] 131
 - develop 780
 - device tests
 - disk test/clean 237
 - flash test 237
 - quick disk test 237
 - diagnostics menu
 - 2500-sheet tray motor tests 235
 - 2500-sheet tray sensor tests 232
 - 2x500-sheet tray motor tests 234
 - 3000-sheet tray motor tests 236
 - 3000-sheet tray sensor tests 232
 - accessing 226
 - ADF back magnification 242
 - ADF front magnification 241
 - ASIC test 242
 - booklet maker motor tests 237
 - button test 229
 - clear log 241
 - defaults 238
 - disk test/clean 237
 - display log 241
 - DRAM test 229
 - duplex top margin 231
 - edge to edge 239
 - enable edge to edge copy 239
 - exit diagnostics 243
 - feed test 242
 - flash test 237
 - flatbed magnification 242
 - hole punch booklet finisher sensor tests 233

- input tray feed test 231
- installed licenses 240
- menu settings page 240
- output bin feed tests 231
- panel test 229
- parallel strobe adjustment 239
- permanent page count 239
- print log 241
- print log summary 241
- print quality pages 228
- print tests 228
- printed page count 238
- printer motor tests 234
- printer sensor tests 232
- processor ID 239
- quick disk test 237
- quick test 230
- registration 227
- reset engine service error 239
- reset fuser counter 226, 240
- reset maintenance counter 226
- reset separator roll and pick assembly counter 226
- restore backup data 240
- scanner calibration reset 243
- scanner sensor tests 242
- serial 1 wrap 230
- staple and hole punch finisher motor tests 237
- staple and hole punch finisher sensor tests 233
- staple finisher motor tests 236
- staple finisher sensor tests 233
- USB HS test mode 230
- Disk full [62] 131
- Disk full, scan job canceled 131
- Disk must be formatted for use in this device 131
- display, control panel 221
- door C
 - paper jams, clearing 71, 73
- door D
 - paper jams, clearing 75, 77
- duplex tests
 - quick test 230
 - top margin 231
- E**
- electrostatic-sensitive parts 255
- embedded solutions 261
- Empty the hole punch box 132
- emptying the hole punch box 578
- envelopes
 - tips on using 38
- error codes
 - 0-99 145
 - 111 error messages 158
 - 120 error messages 159
 - 121 error messages 159
 - 133 error messages 164
 - 136 error messages 164
 - 153 error messages 168
 - 163 error messages 169
 - 164 error messages 169
 - 167 error messages 169
 - 168 error messages 169
 - 171 error messages 176
 - 172 error messages 176
 - 178 error messages 176
 - 179 error messages 176
 - 180 error messages 176
 - 182 error messages 176
 - 189 error messages 177
 - 190 error messages 179
 - 191 error messages 179
 - 192 error messages 179
 - 193 error messages 179
 - 194 error messages 179
 - 196 error messages 179
 - 197 error messages 179
 - 200 paper jam messages 80
 - 202 paper jam messages 87
 - 230 paper jam messages 91
 - 232 paper jam messages 91
 - 241 paper jam messages 94
 - 242 paper jam messages 94
 - 243 paper jam messages 104
 - 244 paper jam messages 105
 - 245 paper jam messages 105
 - 600 error messages 196
 - 685 error messages 197
 - 900 error messages 200
 - 911 error messages 203
 - 916 error messages 203
 - 919 error messages 204
- Error reading USB drive. Remove USB. 132
- Error reading USB hub. Remove hub. 132
- ESD-sensitive parts 255
- eSF solutions 261
- Ethernet port 569
- event log
 - clear log 241
 - display log 241
 - print log 241
 - print log summary 241
- expose 780

exterior of the printer
cleaning 574

F

fax error log codes 216
fax issue, escalating 219
Fax memory full 132
Fax partition inoperative. Contact system administrator. 132
fax ports 569
Fax server 'To Format' not set up. Contact system administrator. 132
fax service engineer (SE) menu 253
Fax Station Name not set up. Contact system administrator. 132
Fax Station Number not set up. Contact system administrator. 133
finisher
supported paper sizes 46
supported paper types 46
supported paper weights 46
firmware card 777
first transfer 781
flatbed scanner theory 808
fuse 784

G

gray background 52

H

hardware tests
button test 229
DRAM test 229
panel test 229
serial 1 wrap 230
USB HS test mode 230
hibernate mode 774
hole punch box
emptying 578
home screen buttons and icons
description 222
horizontal bottom contact connector 265
horizontal sliding contact connector 269
horizontal top contact connector 263

I

image quality
initial check 52
image quality troubleshooting
scanner image quality problems 66
Incorrect paper size, open [paper source] [34] 133

indicator light 221
input tray tests
feed tests 231
Insert hole punch box 133
Insert Tray [x] 133
inspection guide 571
Insufficient memory for Flash Memory Defragment operation [37] 133
Insufficient memory to collate job [37] 133
Insufficient memory to support Resource Save feature [35] 134
Insufficient memory, some Held Jobs were deleted [37] 134
Insufficient memory, some held jobs will not be restored [37] 134
Insufficient space between paper stacks in Tray 3 134
internal options 777
invalid code, fixing 252
invalid engine mode
accessing 252

J

jams
avoiding 68
locating jam areas 69
locations 69
numbers 69
jams, clearing
in multipurpose feeder 71
in top ADF door 78

L

labels, paper
tips 38
letterhead
loading, multipurpose feeder 38
loading, trays 38
Load [paper source] with [custom string] [paper orientation] 134
Load [paper source] with [custom type name] [paper orientation] 134
Load [paper source] with [paper size] [paper orientation] 134
Load [paper source] with [paper type] [paper size] [paper orientation] 135
Load Multipurpose Feeder with [custom string] [paper orientation] 135
Load Multipurpose Feeder with [custom type name] [paper orientation] 135

- Load Multipurpose Feeder with [paper size] [paper orientation] 135
- Load Multipurpose Feeder with [paper type] [paper size] [paper orientation] 136
- Load staples 136
- Load staples [G11, G12] 136
- loading letterhead
 - paper orientation 38
- low insertion force (LIF) connector 271
- lubrication
 - guidelines 573

M

- maintenance counter 573
- maintenance kit
 - resetting the counter 573
- maintenance kits 572
- memory card 777
- Memory full [38] 136
- Memory full, cannot print faxes 137
- Memory full, cannot send faxes 137
- menus
 - diagram of 225
- menus diagram 225
- motor tests
 - 2500-sheet tray motor tests 235
 - 2x500-sheet tray motor tests 234
 - 3000-sheet tray motor tests 236
 - booklet maker motor tests 237
 - printer motor tests 234
 - staple and hole punch finisher motor tests 237
 - staple finisher motor tests 236

N

- Network [x] software error [54] 137
- network SE menu
 - accessing 252
- No analog phone line connected to modem, fax is disabled. 137
- noise emission levels 775
- Not enough free space in flash memory for resources [52] 137
- notices 774

O

- Open door H and remove paper from beneath area H10 137
- operating clearances 774
- options
 - firmware cards 777
 - media handling options 777

- memory card 777
- output bin tests
 - feed tests 231

P

- paper
 - characteristics 39
 - letterhead 40
 - preprinted forms 40
 - recycled 41
 - selecting 40
 - storing 39, 42
 - unacceptable 41
- Paper changes needed 137
- paper characteristics 39
- paper jams
 - 280 117
 - 281 117
 - 282 117
 - 283 117
 - 290 117
 - 291 117
 - avoiding 68
- paper jams, clearing
 - door C 71, 73
 - door D 75, 77
 - in bottom ADF door 78
 - in multipurpose feeder 71
- paper path, printer 786
- paper sizes
 - supported 43
- paper types
 - supported by printer 46
- paper weights
 - supported by printer 46
- Parallel port [x] disabled [56] 138
- parts catalog legend 580
- Photoconductor low [84.xy] 138
- Photoconductor very low [84.xy] 138
- print cycle 779
 - charge 780
 - clean (photoconductor) 782
 - clean (transfer belt) 783
 - develop 780
 - expose 780
 - first transfer 781
 - flowchart 779
 - fuse 784
 - second transfer 783
- print quality
 - cleaning the scanner glass 574
 - initial check 52

- print quality troubleshooting
 - blank pages 55
 - gray background 52
 - shadow images 59
 - skewed print 60
 - solid black pages 57
 - streaked vertical lines appear on prints 62
 - toner smear 63
 - toner specks 64
- print quality, troubleshooting
 - cleaning the charger 575
 - cleaning the printhead lens 575
- printer
 - basic model 567
 - fully configured 567
- printer configurations 567
- printer control panel
 - indicator light 221
 - Sleep button light 221
- Printer had to restart. Last job may be incomplete. 138
- printer messages
 - [x] maintenance kit very low [80.xy] 136
 - [x]-page jam, clear manual feeder. [200.xx] 71
 - [x]-page jam, open door C and clear all jammed media. [2yy.xx] 71
 - [x]-page jam, open door D and clear all jammed media. [24y.xx] 75
 - [x]-page jam, press latch at area E to open ADF's top cover. [28y.xx] 78
 - [x]-page jam, slide the 3000-sheet tray and open door C. [2yy.xx] 73
 - [x]-page jam, slide the 3000-sheet tray and open door D. [24y.xx] 77
 - Cartridge low [88.xy] 129
 - Cartridge nearly low [88.xy] 129
 - Cartridge very low [88.xy] 129
 - Change [paper source] to [custom string] load [orientation] 129
 - Change [paper source] to [custom type name] load [orientation] 130
 - Change [paper source] to [paper size] load [orientation] 130
 - Change [paper source] to [paper type] [paper size] load [orientation] 130
 - Close door [x] 130
 - Complex page, some data may not have printed [39] 130
 - Configuration change, some held jobs were not restored [57] 130
 - Defective flash detected [51] 131
 - Disk full [62] 131
 - Disk full, scan job canceled 131
 - Disk must be formatted for use in this device 131
 - Disk near full. Securely clearing disk space. 131
 - Empty the hole punch box 132
 - Error reading USB drive. Remove USB. 132
 - Error reading USB hub. Remove hub. 132
 - Fax memory full 132
 - Fax partition inoperative. Contact system administrator. 132
 - Fax server 'To Format' not set up. Contact system administrator. 132
 - Fax Station Name not set up. Contact system administrator. 132
 - Fax Station Number not set up. Contact system administrator. 133
 - Incorrect paper size, open [paper source] [34] 133
 - Insert hole punch box 133
 - Insert Tray [x] 133
 - Insufficient memory for Flash Memory Defragment operation [37] 133
 - Insufficient memory to collate job [37] 133
 - Insufficient memory to support Resource Save feature [35] 134
 - Insufficient memory, some Held Jobs were deleted [37] 134
 - Insufficient memory, some held jobs will not be restored [37] 134
 - Insufficient space between paper stacks in Tray 3 134
 - Load [paper source] with [custom string] [paper orientation] 134
 - Load [paper source] with [custom type name] [paper orientation] 134
 - Load [paper source] with [paper size] [paper orientation] 134
 - Load [paper source] with [paper type] [paper size] [paper orientation] 135
 - Load Multipurpose Feeder with [custom string] [paper orientation] 135
 - Load Multipurpose Feeder with [custom type name] [paper orientation] 135
 - Load Multipurpose Feeder with [paper size] [paper orientation] 135
 - Load Multipurpose Feeder with [paper type] [paper size] [paper orientation] 136
 - Load staples 136
 - Load staples [G11, G12] 136
 - Memory full [38] 136
 - Memory full, cannot print faxes 137
 - Memory full, cannot send faxes 137
 - Network [x] software error [54] 137

- No analog phone line connected to modem, fax is disabled. 137
 - Not enough free space in flash memory for resources [52] 137
 - Open door H and remove paper from beneath area H10 137
 - Paper changes needed 137
 - Parallel port [x] disabled [56] 138
 - Photoconductor low [84.xy] 138
 - Photoconductor very low [84.xy] 138
 - Printer had to restart. Last job may be incomplete. 138
 - Reinstall missing or unresponsive cartridge [31.xy] 138
 - Reinstall missing or unresponsive photoconductor [31.xy] 138
 - Remove defective disk [61] 138
 - Remove packaging material, [area name] 139
 - Remove packaging material, open door C, remove metal clips, remove all screws from scanner carriage 139
 - Remove paper from [linked set bin name] 139
 - Remove paper from all bins 139
 - Remove paper from bin [x] 139
 - Remove paper from standard output bin 139
 - Replace [x] maintenance kit, 0 estimated pages remain [80.xy] 140
 - Replace all originals if restarting job. 139
 - Replace cartridge, 0 estimated pages remain [88.xy] 140
 - Replace cartridge, printer region mismatch [42.xy] 140
 - Replace jammed originals if restarting job. 140
 - Replace missing cartridge [31.xy] 141
 - Replace missing photoconductor [31.xy] 141
 - Replace missing waste toner bottle [82.xy] 141
 - Replace paper pick rollers in [paper source], use parts and instructions in tray 1 or tray 2 compartment [80] 141
 - Replace photoconductor, 0 pages remain [84.xy] 141
 - Replace unsupported cartridge [32.xy] 141
 - Replace unsupported photoconductor [32.xy] 141
 - Replace waste toner bottle [82.xy] 141
 - Restore held jobs? 142
 - Scanner disabled by admin [840.01] 142
 - Scanner disabled. Contact system administrator if problem persists. [840.02] 142
 - Scanner jam, remove jammed originals from the scanner [2yy.xx] 142
 - Scanner maintenance required soon, use ADF Kit [80] 142
 - Scanner maintenance required, use ADF Kit [80] 142
 - Serial port [x] disabled [56] 142
 - SMTP server not set up. Contact system administrator. 143
 - Some held jobs were not restored 142
 - Standard network software error [54] 143
 - Standard USB port disabled [56] 143
 - Supply needed to complete job 143
 - The device is operating in safe mode. Some print options may be disabled or provide unexpected results. 143
 - Too many flash options installed [58] 143
 - Too many trays attached [58] 144
 - Tray [x] paper size unsupported 144
 - Unformatted flash detected [53] 144
 - Unsupported disk 144
 - Unsupported option in slot [x] [55] 144
 - Unsupported USB hub, please remove 132
 - Waste toner bottle nearly full [82.xy] 144
 - Weblink server not set up. Contact system administrator. 144
 - printer setup
 - defaults 238
 - edge to edge 239
 - enable edge to edge copy 239
 - parallel strobe adjustment 239
 - permanent page count 239
 - printed page count 238
 - processor ID 239
 - reset engine service error 239
 - reset fuser counter 240
 - restore backup data 240
 - printer theory
 - 3000-sheet tray 794
 - duplex section 801
 - exit section 799
 - MPF section 789
 - print section 798
 - registration section 797
 - tray section 786
 - printhead lens
 - cleaning 575
 - product power consumption 773
- R**
- recovery mode
 - accessing 252
 - recycled paper
 - using 41
 - registration 227

- Reinstall missing or unresponsive cartridge [31.xy] 138
- Reinstall missing or unresponsive photoconductor [31.xy] 138
- removal
 - 2 x 500-sheet tray 3 transport assembly 529
 - 2 x 500-sheet tray 4 transport assembly 530
 - 2 x 500-sheet tray 4 transport belts and gears 535
 - 2 x 500-sheet tray bottom right cover 529
 - 2 x 500-sheet tray caster wheel 513
 - 2 x 500-sheet tray controller board 526
 - 2 x 500-sheet tray empty LED 521
 - 2 x 500-sheet tray empty LED cover 520
 - 2 x 500-sheet tray empty LED mount 521
 - 2 x 500-sheet tray empty sensor actuator 531
 - 2 x 500-sheet tray jam access door 527
 - 2 x 500-sheet tray left cover 520
 - 2 x 500-sheet tray rear cover 522
 - 2 x 500-sheet tray rear right cover 528
 - 2 x 500-sheet tray rollers 518
 - 2 x 500-sheet tray tray 3 transport belts and gears 534
 - 2 x 500-sheet tray tray set actuator 532
 - 2500-sheet reserve tray empty sensor actuator 494
 - 2500-sheet tray caster wheel 511
 - 2500-sheet tray controller board 487
 - 2500-sheet tray empty LED 484
 - 2500-sheet tray front right cover 485
 - 2500-sheet tray jam access cover 486
 - 2500-sheet tray jam access door strap 487
 - 2500-sheet tray LED cover 484
 - 2500-sheet tray left cover 485
 - 2500-sheet tray lower right cover 483
 - 2500-sheet tray paper feed assembly 507
 - 2500-sheet tray paper stack transfer guide 493
 - 2500-sheet tray pick assembly 510
 - 2500-sheet tray rear cover 482
 - 2500-sheet tray rear right cover 483
 - 2500-sheet reserve tray paper limit sensor actuator removal 498
 - 2500-sheet tray division board 488
 - 2500-sheet tray elevator home sensor actuator 490
 - 2500-sheet tray empty sensor actuator 489
 - 2500-sheet tray transfer guide stop 491
 - 2500-sheet tray transport roller 508
 - 2500-sheet tray vertical media transport guide assembly 509
 - 3000-sheet tray caster wheel 541
 - 3000-sheet tray controller board 552
 - 3000-sheet tray door 546
 - 3000-sheet tray door switch 553
 - 3000-sheet tray elevator spring 552
 - 3000-sheet tray empty LED 549
 - 3000-sheet tray feed and pick belt 539
 - 3000-sheet tray feed roller assembly 559
 - 3000-sheet tray front cover 544
 - 3000-sheet tray left cover 543
 - 3000-sheet tray left top cover 547
 - 3000-sheet tray pick roller assembly 562
 - 3000-sheet tray rear cover 545
 - 3000-sheet tray release handle 542
 - 3000-sheet tray right cover 544
 - 3000-sheet tray rollers 537
 - 3000-sheet tray separator roller 562
 - 3000-sheet tray set sensor actuator 554
 - 3000-sheet tray transport roller 559
 - ADF assembly 412
 - ADF CIS assembly 428
 - ADF CIS power supply board 430
 - ADF controller board 431
 - ADF cushion 417
 - ADF door 419
 - ADF duplex scan glass 460
 - ADF fan 431
 - ADF feed and pick roller assembly 434
 - ADF feed roller 436
 - ADF front cover 418
 - ADF glass cleaning roller 425
 - ADF left hinge 417
 - ADF pick roller 439
 - ADF rear cover 419
 - ADF registration guide 423
 - ADF right hinge 416
 - ADF scan/exit roller belt 418
 - ADF separator pad 423
 - ADF separator roller 423
 - ADF top cover 420
 - ADF tray 422
 - ADF tray bottom cover 422
 - ADF tray/transport 431
 - ADF/scanner image controller board 374
 - bin side cover 411
 - bottom front door 347
 - center cable guide bracket 399
 - cleaning shaft 467
 - control panel base 464
 - control panel board 345
 - control panel bottom cover 455
 - control panel frame 342
 - control panel removal 361
 - controller board 376

controller board access cover 365
 controller board fan 386
 controller board frame 385
 dehumidifier 548
 developer unit 356
 door switch 349
 duplex pass through 1 actuator 306
 duplex transport assembly 301
 duplex transport belt 308
 duplex transport clutch 403
 duplex transport diverter assembly 303
 duplex transport gears 308
 duplex transport guide 325
 duplex transport jam knob 302
 engine board cover 366
 engine controller board 373
 exit cover 337
 exit guide assembly 337
 expansion controller board 371
 fax card 377
 feed drive assembly 395
 front inner cover 348
 fuser 294
 fuser drive gearbox 405
 fuser exit sensor actuator 304
 fuser fan 409
 Fuser power supply fan 381
 fusing speed actuator 332
 hard drive 376
 high voltage board 389
 IHMEB 368
 IHPS frame 380
 IHPS shield 367
 image controller board 349
 induction heater 294
 induction heater magnetic erase board 368
 induction heater power supply 370
 left cover 286
 main drive assembly 399
 main power supply 290
 main power supply fan 289
 main power supply shield 288
 main power switch 350
 motor (2 x 500-sheet tray 3 feed) 525
 motor (2 x 500-sheet tray 3 lift) 522
 motor (2 x 500-sheet tray 3 transport) 525
 motor (2 x 500-sheet tray 4 feed) 525
 motor (2 x 500-sheet tray 4 lift) 522
 motor (2 x 500-sheet tray 4 transport) 525
 motor (2500-sheet tray elevator) 504
 motor (2500-sheet tray feed) 505
 motor (2500-sheet tray transfer guide) 506
 motor (2500-sheet tray transport) 506
 motor (3000-sheet tray elevator) 554
 motor (3000-sheet tray feed) 558
 motor (3000-sheet tray transport) 558
 motor (ADF CIS clean) 446
 motor (ADF feed) 448
 motor (ADF registration) 450
 motor (ADF scan shaft release) 447
 motor (ADF scan) 451
 motor (CIS glass clean) 452
 motor (developer) 388
 motor (duplex transport) 309
 motor (feed) 392
 motor (fuser pressure) 378
 motor (fuser) 404
 motor (redrive) 384
 motor (registration) 390
 motor (scanner drive) 459
 motor (toner cartridge) 382
 motor (toner supply) 352
 motor (transport) 387
 motor (tray 1 lift) removal 470
 motor (tray 2 lift) removal 476
 motor (tray 2 transport) 394
 motor bracket 558
 MPF 313
 MPF empty actuator 324
 MPF feed clutch 316
 MPF feed/separator assembly 322
 MPF gears 318
 MPF lift plate assembly 323
 MPF lift plate solenoid 317
 MPF tray 314
 noise filter board 370
 ozone fan 396
 ozone fan duct 398
 paper exit fan 380
 paper exit fan duct 379
 port access door 293
 power-saving board 372
 printer rubber stopper 514
 printhead 290
 printhead relay board 291
 rear left cover 287
 redrive belt 300
 redrive belt cover 299
 registration transport assembly 296
 registration unit assembly 329
 registration unit belt 334
 registration unit gears 335
 registration unit latch assembly 325
 registration unit lock 336

registration unit sub-assembly 330
 right door 327
 right door lock 311
 right door switch 357
 right door switch actuator 327
 scan glass brush 466
 scan glass cleaner 467
 scanner CCD lens assembly 462
 scanner controller board 458
 scanner cover open sensor actuator 456
 scanner glass 459
 scanner interface cable cover 364
 scanner left cover 454
 scanner rear cover 454
 scanner right cover 455
 scanner top cover 456
 sensor (2 x 500-sheet tray 3 near empty) 523
 sensor (2 x 500-sheet tray 3 paper length) 518
 sensor (2 x 500-sheet tray 3 paper width) 524
 sensor (2 x 500-sheet tray 3 transport) 533
 sensor (2 x 500-sheet tray 4 near empty) 523
 sensor (2 x 500-sheet tray 4 paper length) 518
 sensor (2 x 500-sheet tray 4 paper width) 524
 sensor (2 x 500-sheet tray 4 transport) 533
 sensor (2 x 500-sheet tray empty) 531
 sensor (2 x 500-sheet tray feed) 531
 sensor (2 x 500-sheet tray jam access door) 512
 sensor (2 x 500-sheet tray lift plate level) 531
 sensor (2500-sheet tray set) 504
 sensor (2500-sheet tray elevator home) 491
 sensor (2500-sheet tray feed) 501
 sensor (2500-sheet tray jam access door) 503
 sensor (2500-sheet tray main tray elevator limit) 500
 sensor (2500-sheet tray main tray empty, bottom) 492
 sensor (2500-sheet tray main tray near empty) 499
 sensor (2500-sheet tray main tray paper empty, top) 500
 sensor (2500-sheet tray paper stack transfer) 497
 sensor (2500-sheet tray reserve tray empty) 496
 sensor (2500-sheet tray reserve tray paper limit) 498
 sensor (2500-sheet tray transport) 502
 sensor (3000-sheet tray elevator level) 550
 sensor (3000-sheet tray empty) 549
 sensor (3000-sheet tray feed) 551
 sensor (3000-sheet tray near empty 1) 556
 sensor (3000-sheet tray near empty 2) 556
 sensor (3000-sheet tray set) 555
 sensor (ADF CIS clean) 453
 sensor (ADF feed) 444
 sensor (ADF jam access cover) 441
 sensor (ADF mixed paper width 1) 444
 sensor (ADF mixed paper width 2) 444
 sensor (ADF mixed paper width 3) 444
 sensor (ADF paper empty) 444
 sensor (ADF paper length 1) 443
 sensor (ADF paper length 2) 443
 sensor (ADF paper width) 443
 sensor (ADF registration) 444
 sensor (ADF scan shaft home) 442
 sensor (ADF scan) 424
 sensor (ADF top cover open) 443
 sensor (duplex pass through 1) 305
 sensor (duplex pass through 2) 333
 sensor (fuser exit) 304
 sensor (fusing speed) 332
 sensor (MPF empty) 321
 sensor (MPF lift plate position) 320
 sensor (MPF paper length) 315
 sensor (scan glass clean) 446
 sensor (scanner cover open) 456
 sensor (scanner cover switch) 465
 sensor (scanner lamp home) 457
 sensor (scanner paper length 1) 461
 sensor (scanner paper length 2) 462
 sensor (toner cartridge present) 354
 sensor (top front door open) 351
 sensor (transfer guide home) 495
 sensor (tray 1 and 2 paper temperature) 396
 sensor (tray 1 near empty) removal 473
 sensor (tray 1 paper length) removal 472
 sensor (tray 1 paper width) removal 475
 sensor (tray 2 near empty) removal 479
 sensor (tray 2 paper length) removal 478
 sensor (tray 2 paper width) removal 481
 speaker cover 358
 speaker removal 360
 standard bin base 409
 toner agitator 355
 toner cartridge drive assembly 402
 toner suction fan 407
 top front door 347
 touch screen 346
 transfer roller 300
 tray 2 transport drive 393
 tray 2 transport guide 312
 tray base left cover 288
 tray insert 341
 tray insert paper length guide 514
 tray lock 516
 tray stopper 511

- upper rear cover 366
- upper right cover 299
- waste toner door mount 348
- waste toner drive 353
- removal procedures
 - tips 285
- Remove defective disk [61] 138
- Remove packaging material, [area name] 139
- Remove packaging material, open door C, remove metal clips, remove all screws from scanner carriage 139
- Remove paper from [linked set bin name] 139
- Remove paper from all bins 139
- Remove paper from bin [x] 139
- Remove paper from standard output bin 139
- Replace [x] maintenance kit, 0 estimated pages remain [80.xy] 140
- Replace all originals if restarting job. 139
- Replace cartridge, 0 estimated pages remain [88.xy] 140
- Replace cartridge, printer region mismatch [42.xy] 140
- Replace jammed originals if restarting job. 140
- Replace missing cartridge [31.xy] 141
- Replace missing photoconductor [31.xy] 141
- Replace missing waste toner bottle [82.xy] 141
- Replace paper pick rollers in [paper source], use parts and instructions in tray 1 or tray 2 compartment [80] 141
- Replace photoconductor, 0 pages remain [84.xy] 141
- Replace unsupported cartridge [32.xy] 141
- Replace unsupported photoconductor [32.xy] 141
- Replace waste toner bottle [82.xy] 141
- reports
 - event log 244
 - installed licenses 240
 - menu settings page 240, 244
- reset maintenance counter 226
- reset separator roll and pick assembly counter 226
- Restore held jobs? 142
- restoring
 - configuration file 259
 - license file 259

S

- safe mode (everready mode)
 - accessing 252
- scanner calibration 227
 - reset flatbed and ADF calibration values 227
- Scanner disabled by admin [840.01] 142

- Scanner disabled. Contact system administrator if problem persists. [840.02] 142
- scanner glass
 - cleaning 574
- Scanner jam, remove jammed originals from the scanner [2yy.xx] 142
- Scanner maintenance required soon, use ADF Kit [80] 142
- Scanner maintenance required, use ADF Kit [80] 142
- scanner manual registration 247
- scanner tests
 - ADF back magnification 242
 - ADF front magnification 241
 - ASIC test 242
 - feed test 242
 - flatbed magnification 242
 - scanner calibration reset 243
 - sensor tests 242
- scheduled maintenance 572
- screw
 - blue 262
 - green 262
 - red 262
- second transfer 783
- security slot 569
- selecting paper 40
- sensor tests
 - 2500-sheet tray sensor tests 232
 - 2x500-sheet tray sensor test 232
 - 3000-sheet tray sensor tests 232
 - hole punch booklet finisher sensor tests 233
 - printer sensor tests 232
 - staple and hole punch finisher sensor tests 233
 - staple finisher sensor tests 233
- Serial port [x] disabled [56] 142
- service checks troubleshooting
 - 800 service error messages 208
 - 809 service error messages 209
 - 816–824 service error messages 209
 - 843 service error messages 209
 - 850–891 service error messages 209
 - network service check 150
- service engineer (SE) menu 252
 - accessing 252
- shadow images 59
- sleep mode 773
- SMTP server not set up. Contact system administrator. 143
- Some held jobs were not restored 142
- specifications
 - noise 775

- operating clearances 774
- power 773
- temperature 775
- Standard network software error [54] 143
- Standard USB port disabled [56] 143
- storing
 - paper 42
- Supply needed to complete job 143
- supported paper sizes 43
 - finisher 46
- supported paper types 46
 - finisher 46
- supported paper weights 46
 - finisher 46

T

- temperature information 775
- The device is operating in safe mode. Some print options may be disabled or provide unexpected results. 143
- theory
 - printer paper path 786
- theory of operation
 - POR sequence 779
 - printer control 779
- theory, 3000-sheet tray 794
- theory, duplex section 801
- theory, exit section 799
- theory, MPF section 789
- theory, print section 798
- theory, registration section 797
- theory, tray section 786
- tips
 - card stock 37
 - labels, paper 38
 - on using envelopes 38
 - transparencies 39
- tips on using envelopes 38
- tips on using letterhead 38
- Too many flash options installed [58] 143
- Too many trays attached [58] 144
- tools, required 49
- touch screen
 - buttons 224
- transparencies
 - tips 39
- Tray [x] paper size unsupported 144
- troubleshooting
 - initial check 51
- troubleshooting, image quality
 - scanner image quality problems 66

- troubleshooting, print quality
 - blank pages 55
 - gray background 52
 - shadow images 59
 - skewed print 60
 - solid black pages 57
 - streaked vertical lines appear on prints 62
 - toner smear 63
 - toner specks 64
- troubleshooting, service checks
 - 800 service error messages 208
 - 809 service error messages 209
 - 816–824 service error messages 209
 - 843 service error messages 209
 - 850–891 service error messages 209
 - network service check 150

U

- understanding the home screen buttons and icons 222
- Unformatted flash detected [53] 144
- Unsupported option in slot [x] [55] 144
- Unsupported USB hub, please remove 132
- updating the printer firmware
 - using a flash drive 260
 - using a network computer 260
- USB port 569
- using the touch-screen buttons 224

V

- vertical mount contact connector 267

W

- Waste toner bottle nearly full [82.xy] 144
- Weblink server not set up. Contact system administrator. 144

Z

- zero insertion force (ZIF) connectors 262

Part number index

P/N	Part name	Page
40X0270	Power cord, 2.5 m (straight)—Japan.....	769
40X0271	Power cord, 2.5 m (straight)—UK, Ireland, Hong Kong, Italy.....	769
40X0273	Power cord, 2.5 m (straight)—Italy, Chile, Uruguay.....	769
40X0275	Power cord, 1.8 m (straight)—Israel.....	769
40X0288	Power cord, 2.5 m (straight)—Argentina.....	769
40X0301	Power cord, 2.5 m (straight)—Australia, New Zealand.....	769
40X0303	Power cord, 2.5 m (straight)—PRC.....	769
40X1368	USB cable, packaged (2 meters).....	771
40X1766	Power cord, 2.5 m (straight)—Bolivia, Peru.....	769
40X1772	Power cord, 2.5 m (straight)—Liechtenstein, Switzerland.....	769
40X1773	Power cord, 2.5 m (straight)—South Africa, Hong Kong, Singapore, Thailand, Malaysia.....	769
40X1774	Power cord, 2.5 m (straight)—Denmark, Finland, Norway, Sweden.....	769
40X1791	Power cord, 2.5 m (straight)—Taiwan.....	769
40X1792	Power cord, 2.5 m (straight)—Korea.....	769
40X3141	Power cord, 2.5 m (straight)—Europe, Middle East, Indonesia, Africa (HV).....	769
40X4596	Power cord, 2.5 m (straight)—Brazil.....	769
40X4819	Serial interface card, RS-232C.....	771
40X4823	Parallel interface card, 1284-B.....	771
40X7104	Power cord, 2.5 m (right-angled)—USA, Canada, Latin America.....	769
40X7229	Power cord, 2.5 m (straight)—India.....	769
40X7445	DDR3 RAM, 2 GB x32.....	771
40X7567	DDR3 RAM, 1 GB x32.....	771
40X7854	Fax card.....	771
40X7857	Hard drive.....	664
40X7858	Wireless print server kit, MarkNet N8350 802.11b/g/n.....	771
40X8311	Card reader, small stick-on case.....	771
40X8312	Card reader, large stick-on case.....	771
40X8313	Card reader, small snap-on case.....	771
40X8314	Card reader, large snap-on case.....	771
40X8555	Flash memory, 256 MB.....	771
40X8556	Font card, Traditional Chinese.....	771
40X8557	Font card, Simplified Chinese.....	771

P/N	Part name	Page
40X8568	Font card, Korean.....	771
40X8569	Font card, Japanese.....	771
40X8570	Font card, Arabic.....	771
40X8571	Font card, Hebrew.....	771
40X8858	ADF rear cover.....	666
40X8859	Paper exit fan.....	644
40X8859	Toner suction fan.....	656
40X8860	ADF controller board.....	666
40X8861	ADF right hinge.....	666
40X8862	ADF frame.....	666
40X8863	ADF front Cover.....	666
40X8864	ADF left hinge.....	666
40X8865	ADF CIS data cable	670
40X8866	ADF cushion.....	668
40X8868	Sensor (ADF paper length 1).....	676
40X8869	Sensor (2 x 500-sheet tray 3 near empty).....	710
40X8869	Sensor (2 x 500-sheet tray 4 near empty).....	710
40X8869	Sensor (2 x 500-sheet tray empty).....	716
40X8869	Sensor (2 x 500-sheet tray lift plate level).....	716
40X8869	Sensor (2500-sheet tray elevator home).....	766
40X8869	Sensor (2500-sheet tray main tray elevator limit).....	756
40X8869	Sensor (2500-sheet tray main tray empty, top).....	756
40X8869	Sensor (2500-sheet tray set).....	748
40X8869	Sensor (2500-sheet tray transfer guide home)	766
40X8869	Sensor (ADF CIS clean).....	674
40X8869	Sensor (ADF document separation).....	680
40X8869	Sensor (ADF exit).....	692
40X8869	Sensor (ADF jam access cover)	692
40X8869	Sensor (ADF mixed paper width 1).....	680
40X8869	Sensor (ADF mixed paper width 2).....	680
40X8869	Sensor (ADF mixed paper width 3).....	680
40X8869	Sensor (ADF paper length 2).....	676
40X8869	Sensor (ADF registration).....	680
40X8869	Sensor (ADF scan shaft home).....	690

P/N	Part name	Page
40X8869	Sensor (ADF top cover open).....	690
40X8869	Sensor (ADF tray empty).....	680
40X8869	Sensor (duplex pass through 1).....	640
40X8869	Sensor (duplex pass through 2).....	630
40X8869	Sensor (fuser exit).....	640
40X8869	Sensor (fusing speed).....	628
40X8869	Sensor (main tray empty, bottom).....	766
40X8869	Sensor (main tray near empty).....	762
40X8869	Sensor (MPF lift plate).....	634
40X8869	Sensor (MPF paper length 1).....	636
40X8869	Sensor (MPF paper length 2).....	636
40X8869	Sensor (paper stack transfer).....	762
40X8869	Sensor (registration).....	626
40X8869	Sensor (reserve tray empty).....	766
40X8869	Sensor (reserve tray paper limit).....	762
40X8869	Sensor (scan glass clean).....	692
40X8869	Sensor (scanner lamp home).....	698
40X8869	Sensor (toner cartridge present).....	596
40X8869	Sensor (tray 1 empty).....	608
40X8869	Sensor (tray 1 lift plate level).....	608
40X8869	Sensor (tray 1 near empty).....	618
40X8869	Sensor (tray 2 empty).....	612
40X8869	Sensor (tray 2 lift plate level).....	612
40X8869	Sensor (tray 2 near empty).....	618
40X8870	Sensor (ADF paper width).....	676
40X8871	Tray 3 front cover.....	720
40X8872	ADF paper length 2 sensor actuator (Legal).....	676
40X8873	ADF tray cable.....	676
40X8875	ADF door latch.....	678
40X8877	ADF ground cable.....	680
40X8878	ADF feed and pick roller assembly.....	682
40X8879	ADF pick roller.....	682
40X8880	ADF pick belt.....	682
40X8884	Motor (ADF feed).....	686

P/N	Part name	Page
40X8885	ADF feed belt.....	686
40X8885	ADF registration belt.....	686
40X8887	Motor (ADF scan).....	686
40X8888	ADF registration motor cable.....	686
40X8889	Motor (ADF registration).....	688
40X8890	ADF scan motor belt.....	688
40X8891	ADF document exit roller.....	688
40X8892	ADF scan/exit roller belt.....	688
40X8893	ADF scan roller 2.....	688
40X8895	Exit sensor housing.....	644
40X8896	Motor (ADF scan shaft release).....	690
40X8897	Standard bin base.....	582
40X8898	Left cover.....	582
40X8899	Rear left cover.....	582
40X8900	Top front door.....	582
0		
40X8901	Tray empty board cable.....	582
40X8902	Tray empty board cover.....	582
2		
40X8903	2 x 500-sheet tray empty LED.....	704
40X8903	3000-sheet tray empty LED.....	726
40X8903	Tray 1 empty indicator.....	582
40X8903	Tray 2 empty indicator.....	582
40X8903	Tray empty LED	746
40X8904	Front lower cover.....	582
40X8905	Printhead cleaner.....	582
5		
40X8906	Top front door outer hinge.....	582
6		
40X8907	Finisher interface cable.....	584
40X8908	Upper rear cover.....	584
40X8909	Engine board cover.....	584
9		
40X8910	Controller board access cover.....	584
40X8912	Port mount.....	584
40X8914	Bin side cover.....	584

P/N	Part name	Page
40X8915	Waste toner bottle latch.....	586
40X8916	Front inner cover.....	586
40X8917	Main power switch.....	586
40X8919	Lower front door strap.....	586
40X8920	Tray 2 transport guide.....	632
40X8921	Scanner rear cover.....	696
40X8922	Scanner top cover.....	696
40X8923	Scanner right cover.....	696
40X8924	Screw hole cover.....	696
40X8925	Control panel base.....	696
40X8926	Scanner Left cover.....	696
40X8928	Scanner glass.....	698
40X8929	3000-sheet tray feed sensor cable.....	738
40X8930	Sensor (scanner cover switch).....	698
40X8931	Scanner cover open sensor actuator.....	698
40X8932	Sensor (scanner paper length 1).....	698
40X8932	Sensor (scanner paper length 2).....	698
40X8933	ADF duplex scan glass	698
40X8934	Scanner controller board.....	698
40X8935	Scanner CCD cable.....	700
40X8937	Scanner CCD lens assembly.....	700
40X8938	Scanner lamp.....	700
40X8939	Scanner lamp cable.....	700
40X8940	Motor (scanner drive).....	702
40X8941	Scanner carriage belt.....	702
40X8942	Scanner carriage gear.....	702
40X8944	Transfer belt fan duct.....	592
40X8945	Fuser power supply fan.....	658
40X8945	Main power supply fan.....	660
40X8945	Transfer belt fan.....	592
40X8946	Image controller board.....	592
40X8947	Printhead relay board.....	592
40X8948	Printhead FFC.....	592

P/N	Part name	Page
40X8949	Printhead (MFP).....	592
40X8951	Toner agitator.....	594
40X8956	Motor (toner supply).....	596
40X8957	Toner supply motor cable.....	596
40X8958	Waste toner drive.....	598
40X8959	Waste toner duct.....	598
40X8960	Erase LED.....	600
40X8961	Photoconductor cable.....	602
40X8962	Photoconductor relay contact.....	602
40X8962	Toner cartridge contact.....	594
40X8963	Transfer belt cable.....	604
40X8966	Tray 1 and 2 paper feed unit.....	606
40X8968	Sensor (2 x 500-sheet tray feed).....	716
40X8968	Sensor (2 x 500-sheet tray transport).....	716
40X8968	Sensor (2500-sheet tray feed).....	756
40X8968	Sensor (2500-sheet tray transport).....	756
40X8968	Sensor (tray 1 paper feed).....	608
40X8968	Sensor (tray 2 paper feed).....	612
40X8968	Sensor (tray 2 transport).....	612
40X8970	Feed roller.....	612
40X8970	Feed roller.....	716
40X8970	Feed roller.....	756
40X8970	Feed/separator roller.....	620
40X8970	Feed/separator roller.....	624
40X8970	Separator roller.....	610
40X8970	Separator roller.....	614
40X8970	Separator roller.....	718
40X8970	Separator roller.....	758
40X8970	Tray feed roller.....	608
40X8971	Tray 1 paper feed clutch.....	608
40X8971	Tray 2 paper feed clutch.....	612
40X8972	Tray 1 sensor cables.....	608
40X8973	Transport idler roller.....	712, 752

P/N	Part name	Page
40X8974	Standard bin paper bail.....	644
40X8977	Front right lift handle.....	616
40X8978	Rear right lift handle.....	616
40X8979	Front left lift handle.....	616
40X8980	Rear left lift handle.....	616
40X8981	2 x 500-sheet tray right rail guide wheel.....	706
40X8981	Tray rail guide wheel.....	748
40X8981	Tray right rail guide wheel.....	616
40X8982	Tray 1 insert rail.....	616
40X8982	Tray 2 insert rail.....	616
40X8984	Tray 1 feed cable.....	618
40X8984	Tray 2 feed cable.....	618
40X8985	Sensor (2 x 500-sheet tray 3 paper length).....	710
40X8985	Sensor (2 x 500-sheet tray 4 paper length).....	710
40X8985	Sensor (tray 1 paper length).....	618
40X8985	Sensor (tray 2 paper length).....	618
40X8987	Motor (2 x 500-sheet tray 3 lift).....	710
40X8987	Motor (2 x 500-sheet tray 4 lift).....	710
40X8987	Motor (tray 1 lift).....	618
40X8987	Motor (tray 2 lift).....	618
40X8988	Tray size sensing assembly.....	618
40X8989	Sensor (2 x 500-sheet tray 3 paper width).....	710
40X8989	Sensor (2 x 500-sheet tray 4 paper width).....	710
40X8989	Sensor (tray 1 paper width).....	618
40X8989	Sensor (tray 2 paper width).....	618
40X8990	Tray 1 insert.....	620
40X8992	Tray 2 insert.....	624
40X8994	Registration transport assembly.....	626
40X8995	Registration motor gear.....	626
40X8997	Sensor (registration humidity).....	626
40X8998	Toner density solenoid.....	626
40X8999	Sensor (toner density).....	626
40X9007	Registration cable.....	626

P/N	Part name	Page
40X900 9	Fuser fixed power resistor.....	628
40X900 9	Registration roller fixed power resistor.....	626
40X9010	Transfer roller.....	628
40X9011	Registration unit assembly.....	628
40X9012	Duplex transport gear.....	638
40X9012	Registration unit gear.....	630
40X9013	Registration unit belt.....	630
40X9014	2 x 500-sheet tray insert stopper.....	706
40X9017	Tray 3 right front cover.....	720
40X9019	Right door upper lock.....	632
40X902 0	Right door switch actuator.....	632
40X902 2	MPF separator gear.....	634
40X9023	MPF feed clutch.....	634
40X9024	MPF lift plate solenoid.....	634
40X902 6	MPF paper length 1 sensor actuator.....	636
40X902 6	MPF paper length 2 sensor actuator.....	636
40X9027	MPF.....	634
40X902 8	Tray 4 front cover.....	722
40X903 0	Sensor (MPF paper width).....	636
40X9033	Tray 4 right front cover.....	722
40X9034	Tray 3 handle cover.....	720
40X9036	Duplex transport belt.....	638
40X9037	Motor (duplex transport).....	638
40X9039	Fuser exit sensor actuator.....	640
40X904 0	3000-sheet tray set sensor actuator.....	738
40X9041	ADF fan.....	666
40X9041	Fuser fan.....	642
40X9042	HPT bin paper bail.....	644

P/N	Part name	Page
40X9044	Induction heater, 100 V	642
40X9045	Induction heater, 230 V.....	642
40X9046	Fuser.....	642
40X9047	Sensor (fuser temperature) with cable.....	642
40X9048	3000-sheet tray pick gear.....	734
40X9155	Motor (redrive).....	644
40X9156	Exit clutch belt.....	644
40X9159	Exit guide assembly.....	646
40X9161	Diverter solenoid.....	646
40X9163	Motor (fuser).....	654
40X9163	Motor (transport).....	648
40X9164	Main drive assembly.....	648
40X9165	Transport motor gear.....	648
40X9166	Duplex transport clutch.....	648
40X9167	Redrive exit guide.....	644
40X9170	Motor (feed).....	648
40X9170	Motor (tray 2 transport).....	648
40X9171	Motor (registration).....	648
40X9173	Feed motor belt.....	648
40X9174	Feed drive belt.....	648
40X9177	Fuser drive gearbox.....	652
40X9178	Fuser exit clutch.....	654
40X9179	Motor (fuser pressure).....	654
40X9179	Motor (toner cartridge).....	650
40X9182	Ozone fan with duct.....	656
40X9183	Ozone filter.....	656
40X9184	Exhaust filter.....	656
40X9185	Ozone fan.....	656
40X9186	2500-sheet tray handle.....	760
40X9186	Tray handle.....	720, 722
40X9188	Ozone filter duct.....	592
40X9189	Power-saving board.....	658
40X9190	Sensor (tray 1 and 2 paper temperature).....	658
40X9191	High voltage charge contact.....	658

P/N	Part name	Page
40X9192	High voltage developer contact.....	658
40X9193	High voltage board.....	658
40X9194	High voltage charge cable.....	658
40X9196	Induction heater power supply, 100 V.....	658
40X9197	Induction heater power supply ,230 V.....	658
40X9198	Induction heater magnetic erase board.....	658
40X9199	Expansion controller board.....	658
40X9200	Noise filter board, 100 V.....	658
40X9201	Noise filter board, 230 V.....	658
40X9202	3000-sheet tray controller board cable.....	743
40X9203	Main power supply, 100 V.....	660
40X9204	Main power supply, 230 V.....	660
40X9205	Main power supply fan with duct.....	660
40X9207	Engine controller board.....	664
40X9209	Controller board fan.....	664
40X9210	ADF/scanner image controller board.....	664
40X9211	Sensor (ADF scan).....	692
40X9212	ADF exit sensor cable.....	692
40X9213	Motor (CIS glass clean).....	694
40X9214	CIS glass clean belt.....	694
40X9215	Redrive diverter gear.....	640
40X9216	ADF CIS assembly.....	670
40X9218	ADF CIS power supply cable.....	670
40X9220	Motor (ADF CIS clean).....	674
40X9223	Toner cartridge drive assembly.....	650
40X9255	3000-sheet tray right cover.....	726
40X9256	3000-sheet tray front cover.....	726
40X9257	3000-sheet tray empty LED cable.....	726
40X9258	3000-sheet tray rear cover.....	726
40X9259	3000-sheet tray slit cover.....	726

P/N	Part name	Page
40X9260	3000-sheet tray top door.....	726
40X9261	Dehumidifier.....	730
40X9262	3000-sheet tray controller board.....	742
40X9263	Paper stack transfer sensor actuator (LTR).....	762
40X9264	Motor (3000-sheet tray elevator).....	742
40X9266	3000-sheet tray door switch.....	742
40X9267	3000-sheet tray separator roller.....	736
40X9267	Feed and pick roller.....	734
40X9268	3000-sheet tray feed and pick belt.....	734
40X9269	Motor (3000-sheet tray feed).....	742
40X9269	Motor (3000-sheet tray transport).....	742
40X9271	3000-sheet tray separator belt.....	736
40X9273	3000-sheet tray transport roller.....	738
40X9275	3000-sheet tray release handle.....	732
40X9276	3000-sheet tray elevator spring.....	732
40X9277	3000-sheet tray elevator release spring.....	740
40X9279	3000-sheet tray caster wheel.....	728
40X9280	2 x 500-sheet tray rear cover.....	704
40X9280	2500-sheet tray rear cover.....	746
40X9281	2 x 500-sheet tray left cover.....	704
40X9281	2500-sheet tray left cover.....	746
40X9282	2 x 500-sheet tray caster wheel.....	704
40X9282	Caster wheel.....	746
40X9283	Printer rubber stopper.....	704
40X9283	Tray stopper.....	746
40X9285	2 x 500-sheet tray bottom right cover.....	704
40X9285	2500-sheet tray bottom right cover.....	746
40X9286	2 x 500-sheet tray empty LED mount.....	704
40X9286	2500-sheet tray LED mount.....	746
40X9287	2 x 500-sheet tray empty LED cover.....	704
40X9287	2500-sheet tray LED cover.....	746
40X9289	2 x 500-sheet tray empty LED cable.....	704

P/N	Part name	Page
40X929 0	2 x 500-sheet tray controller board.....	706
40X9293	Motor (2 x 500-sheet tray 3 feed).....	708
40X9293	Motor (2 x 500-sheet tray 3 transport).....	708
40X9293	Motor (2 x 500-sheet tray 4 feed).....	708
40X9293	Motor (2 x 500-sheet tray 4 transport).....	708
40X9293	Motor (2500-sheet tray feed).....	750
40X9293	Motor (2500-sheet tray transport).....	750
40X9294	2 x 500-sheet tray feed and transport motor belt.....	708
40X9294	2500-sheet tray feed and transport motor belt.....	750
40X9295	2 x 500-sheet tray feed and transport secondary gear.....	708
40X9295	2 x 500-sheet tray feed secondary gear.....	714
40X9295	2500-sheet tray feed and transport secondary gear.....	750
40X9295	2500-sheet tray feed secondary gear.....	754
40X9297	3000-sheet tray roller clutch.....	734
40X9298	2 x 500-sheet tray transport gear.....	714
40X9298	2500-sheet tray transport gear.....	754
40X9299	2 x 500-sheet tray transport roller.....	716
40X9299	2500-sheet tray transport roller.....	756
40X930 0	2 x 500-sheet tray 4 pick assembly sensor cable.....	716
40X9304	Tray lock lever.....	720, 722
40X9305	2 x 500-sheet tray left rail guide wheel.....	706
40X9305	Tray insert guide wheel.....	620
40X9305	Tray insert guide wheel.....	624
40X9305	Tray insert guide wheel.....	720
40X9305	Tray insert guide wheel.....	722
40X9305	Tray insert guide wheel.....	766
40X9305	Tray left rail guide wheel.....	616
40X9306	Tray insert paper length guide.....	724
40X9306	Tray paper length guide.....	622
40X9308	2 x 500-sheet tray near empty sensor actuator.....	724
40X9308	Tray near empty sensor actuator.....	622
40X9309	2 x 500-tray insert paper length sensor actuator.....	724
40X9313	Sensor (2 x 500-sheet tray jam access door).....	714

P/N	Part name	Page
40X9313	Sensor (2500-sheet tray jam access door).....	754
40X9313	Sensor (exit).....	644
40X9313	Sensor (redrive exit).....	644
40X9313	Sensor (scanner cover open).....	698
40X9313	Sensor (top front door).....	594
40X9316	2 x 500-sheet tray 3 pick assembly sensor cable.....	716
40X9320	2500-sheet tray handle cover.....	760
40X9320	Tray 4 handle cover.....	722
40X9339	2500-sheet tray right front cover.....	760
40X9373	3000-sheet tray set sensor actuator spring.....	738
40X9455	Roller clutch.....	610, 614
40X9455	Separator clutch.....	718
40X9455	Separator clutch.....	758
40X9484	Exit sensor actuator.....	644
40X9527	Door switch.....	586
40X9527	Right door switch.....	632
40X9564	Motor (developer).....	648
40X9576	2500-sheet tray insert (A4).....	760
40X9599	Exit sensor cable.....	644
40X960	2500-sheet tray insert (LTR).....	760
2		
40X9615	MPF separator roller.....	636
40X9635	Tray 3 insert.....	720
40X9639	Tray 2 transport drive belt.....	648
40X9644	Redrive exit sensor cable.....	644
40X9652	Adapter, N8130 10/100 fiber.....	771
40X9661	Control panel.....	588
40X9663	Controller board (MFP).....	664
40X9669	Maintenance kit, 300K.....	767
40X9672	Maintenance kit, 200K (ADF).....	767
40X9678	ADF interface cable.....	666
40X9679	ADF sensor cable.....	666
40X968	ADF top cover sensor cable.....	680
0		
40X9681	ADF feed roller.....	682

P/N	Part name	Page
40X9682	ADF separator roller.....	684
40X9683	ADF feed motor cable.....	686
40X9684	ADF scan motor cable.....	688
40X9685	ADF scan motor gear.....	688
40X9685	ADF transport gear	694
40X9686	ADF scan roller 2 gear.....	688
40X9687	ADF exit roller gear.....	688
40X9688	ADF scan roller 3 gear.....	688
40X9689	ADF door open sensor cable.....	690
40X9690	ADF scan sensor cable.....	692
40X9691	ADF CIS clean belt.....	674
40X9691	ADF glass clean encoder belt.....	694
40X9693	CIS glass clean gear.....	694
40X9694	ADF glass clean encoder.....	694
40X9695	CIS glass clean motor cable.....	694
40X9696	ADF CIS power supply board cable.....	670
40X9697	Tray 4 insert.....	722
40X9698	3000-sheet tray interface cable.....	743
40X9699	ADF CIS clean motor cable.....	674
40X9700	ADF CIS clean sensor cable.....	674
40X9701	ADF exit sensor cable.....	674
40X9702	Scanner sensor cable.....	698
40X9704	Transfer belt maintenance kit.....	604
40X9706	Registration primary gear.....	626
40X9707	Registration secondary gear.....	626
40X9708	Toner density sensor cable.....	626
40X9710	Lower registration gear.....	630
40X9711	Right door handle.....	632
40X9712	Right door middle lock.....	632
40X9713	Right door lower lock.....	632
40X9714	Redrive exit sensor actuator.....	644
40X9715	Right door lock support.....	632
40X9716	MPF lift plate sensor cable.....	634

P/N	Part name	Page
40X9718	MPF separator idler gear.....	634
40X9719	MPF feed clutch gear.....	634
40X9720	MPF lift plate clutch.....	634
40X9721	MPF paper length sensor cable.....	636
40X9722	MPF paper width sensor cable.....	636
40X9723	Fuser exit sensor cable.....	640
40X9724	Redrive belt.....	644
40X9725	Duplex transport clutch gear.....	648
40X9726	Feed motor gear.....	648
40X9727	Feed drive assembly.....	648
40X9728	Tray 2 transport drive assembly.....	648
40X9729	Fuser pressure primary gear.....	652
40X9730	Fuser pressure secondary gear.....	652
40X9731	Fuser transport primary gear.....	652
40X9732	Fuser transport secondary gear.....	652
40X9733	High voltage transfer cable.....	658
40X9734	High voltage toner charge cable.....	658
40X9735	Induction heater magnetic erase board cable.....	658
40X9736	Induction heater power supply cable.....	658
40X9737	Noise filter board cable.....	658
40X9740	Power socket cable.....	662
40X9741	Power socket.....	662
40X9744	Engine controller board FFC.....	664
40X9747	ADF paper guide gear.....	676
40X9748	ADF paper length 2 sensor actuator (A4).....	676
40X9750	Toner cartridge relay contact cable.....	594
40X9751	Toner cartridge present sensor cable.....	596
40X9758	Tray empty board mount.....	582
40X9760	Bottom front door.....	582
40X9761	Bottom front door hinge.....	582
40X9762	Scanner interface cable cover.....	584
40X9763	Port access door.....	584
40X9764	Waste toner door mount.....	586
40X9765	3000-sheet tray left top cover.....	726

P/N	Part name	Page
40X9766	3000-sheet tray feed and pick idler gear.....	742
40X9767	3000-sheet tray feed motor idler gear.....	742
40X9768	3000-sheet tray feed motor gear.....	742
40X9769	3000-sheet tray transport roller drive gear.....	738
40X9771	3000-sheet tray transport idler roller.....	738
40X9772	3000-sheet tray feed gear.....	734
40X9773	3000-sheet tray separator roller primary gear.....	736
40X9774	2 x 500-sheet tray 4 feed and transport motor cable.....	708
40X9775	2 x 500 sheet tray paper length sensor cable.....	710
40X9779	2 x 500-sheet tray rear right cover.....	704
40X9779	2500-sheet tray rear right cover.....	746
40X9782	Tray empty LED cable.....	746
40X9783	2 x 500-sheet tray interface cable.....	706
40X9783	2500-sheet tray interface cable.....	748
40X9784	Tray insert guide wheel.....	748
40X9785	2500-sheet tray controller board.....	748
40X9786	2500-sheet tray cable harness.....	754
40X9787	2500-sheet tray pick assembly sensor cable.....	756
40X9788	2500-sheet tray lock lever.....	760
40X9789	2500-sheet tray front cover.....	760
40X9791	Paper stack transfer guide base.....	762
40X9792	Paper stack transfer guide.....	762
40X9793	Paper stack transfer sensor actuator (A4).....	762
40X9794	Paper stack transfer sensor actuator spring.....	762
40X9795	Transfer guide secondary gear.....	764
40X9796	Transfer guide primary gear.....	764
40X9797	Transfer guide primary gear spring.....	764
40X9798	Main tray elevator coupling.....	764
40X9799	Tray insert bottom right guide wheel.....	766
40X9800	2500-sheet tray elevator home sensor actuator spring.....	766
0		
40X9801	2500-sheet tray elevator home sensor actuator.....	766
40X9802	2500-sheet tray main tray empty sensor bottom actuator.....	766
2		
40X9803	2500-sheet tray transfer guide stop.....	766

P/N	Part name	Page
40X9804	2500-sheet tray transfer guide stop spring.....	766
40X980 5	Tray insert bottom left guide wheel.....	766
40X980 6	2500-sheet tray elevator damper.....	766
40X9808	Transfer guide belt.....	766
40X980 9	2500-sheet tray tray insert sensor cable.....	766
40X9880	Sensor (3000-sheet tray elevator level).....	736
40X9880	Sensor (3000-sheet tray empty).....	736
40X9880	Sensor (3000-sheet tray near empty 1).....	742
40X9880	Sensor (3000-sheet tray near empty 2).....	742
40X9880	Sensor (3000-sheet tray set).....	738
40X9881	3000-sheet tray empty sensor actuator.....	734
40X9882	2 x 500-sheet tray 3 feed and transport motor cable.....	708
40X9882	2500-sheet tray feed and transport motor cable.....	750
40X9883	Reserve tray empty sensor actuator spring.....	766
40X9883	Reserve tray paper limit sensor actuator spring.....	762
40X9884	3000-sheet tray empty LED cover.....	726
40X9885	Sensor (3000-sheet tray feed).....	738
40X9886	3000-sheet tray feed and pick drive gear.....	734
40X9886	3000-sheet tray separator roller drive gear.....	736
40X9887	3000-sheet tray separator roller secondary gear.....	736
40X9888	3000-sheet tray separator roller clutch.....	736
40X9889	2 x 500 sheet tray lift motor cable.....	710
40X989 0	2 x 500-sheet tray cable harness.....	714
40X9891	2 x 500-sheet tray feed and transport primary gear.....	708
40X9891	2500-sheet tray feed and transport primary gear.....	750
40X9892	2 x 500-sheet tray transport gear spring.....	714
40X9892	2500-sheet tray transport gear spring.....	754
40X9893	2 x 500-sheet tray transport gear bushing.....	714
40X9893	2500-sheet tray transport gear bushing.....	754
40X9894	2 x 500-sheet tray feed primary gear.....	714
40X9894	2500-sheet tray feed primary gear.....	754

P/N	Part name	Page
40X9896	Motor (2500-sheet tray elevator).....	750
40X9896	Motor (2500-sheet tray transfer guide).....	750
40X9899	2 x 500-sheet tray empty sensor actuator.....	716
40X9899	2500-sheet tray main tray top empty actuator.....	756
40X9899	Tray 2 empty sensor actuator.....	612
40X9899	Tray empty sensor actuator.....	608
40X9900	Reserve tray empty sensor actuator.....	766
0		
40X9900	Reserve tray paper limit sensor actuator.....	762
0		
40X9901	Main tray elevator gear spring.....	764
40X9902	Main tray elevator gear.....	764
2		
40X9908	2 x 500-sheet tray jam access door strap.....	712
8		
40X9908	2500-sheet tray jam access door strap.....	752
8		
40X9917	Top front door inner hinge.....	582
40X9925	Pick roller.....	612
40X9925	Pick roller.....	620
40X9925	Pick roller.....	624
40X9925	Pick roller.....	716
40X9925	Pick roller.....	756
40X9925	Tray pick roller.....	608
40X9927	Separator roller assembly.....	610, 614
40X9936	Developer unit.....	600
40X9940	ADF rear paper guide	676
40X9941	ADF tray.....	676
40X9942	ADF front paper guide.....	676
40X9943	ADF bin paper stopper.....	676
40X9944	ADF tray bottom cover.....	676
40X9945	ADF paper guide rack.....	676
40X9946	ADF top cover.....	678
40X9947	ADF door frame.....	678
40X9948	ADF CIS idler roller.....	672
40X9948	ADF registration idler roller.....	680

P/N	Part name	Page
40X9950	ADF feed gear.....	686
40X9951	ADF registration roller.....	686
40X9952	ADF registration gear.....	686
40X9953	ADF exit roller.....	694
40X9955	ADF CIS jam access handle.....	672
40X9956	ADF CIS jam access latch.....	672
40X9957	ADF CIS clean gear.....	674
40X9958	ADF CIS clean cam.....	674
40X9959	ADF CIS clean roller primary gear.....	674
40X9960	ADF CIS clean roller belt.....	674
40X9961	ADF CIS clean roller secondary gear.....	674
40X9962	Screwdriver.....	582
40X9963	Waste toner door switch.....	586
40X9964	Control panel hinge.....	588
40X9965	USB port cover.....	588
40X9966	Speaker cover.....	588
40X9967	Control panel cable guide lower.....	588
40X9968	Speaker.....	588
40X9969	Control panel cable guide upper cover.....	588
40X9970	USB extension cable.....	588
40X9971	Cave light lens.....	696
40X9972	Control panel mount.....	696
40X9973	Control panel bottom cover.....	696
40X9974	Cave light LED cable.....	696
40X9975	Scanner drive motor cable.....	702
40X9976	Scanner mirror.....	702
40X9977	Erase LED cable.....	600
40X9978	Photoconductor release lever.....	602
40X9979	Transfer belt paper guide.....	604
40X9980	Tray 2 transport drive gear.....	606
40X9981	Roller clutch.....	608, 612, 716, 756
40X9982	2 x 500-sheet tray set actuator.....	716

P/N	Part name	Page
40X9982	2500-sheet tray tray set actuator.....	756
40X9982	Tray set actuator.....	608, 612
40X9983	Tray 2 transport roller.....	612
40X9984	Tray 2 transport sensor cable.....	612
40X9987	Paper feed sensor cable.....	612
40X9988	Tray base left cover.....	616
40X9989	Tray stopper.....	616
40X9990	Fusing speed sensor cable.....	628
40X9991	Registration drive gear.....	630
40X9992	Registration unit lock.....	630
40X9993	Registration unit lock shaft.....	630
40X9994	Registration unit handle.....	630
40X9995	MPF feed roller.....	634
40X9996	MPF lift plate cam	634
40X9997	Right door cover.....	638
40X9998	Duplex transport jam removal knob.....	638
41X0010	Forms and Bar Code Card.....	771
41X0011	PRESCRIBE card.....	771
41X0012	IPDS card.....	771
41X0030	Keyboard kit, English.....	771
41X0031	Keyboard kit, French.....	771
41X0032	Keyboard kit, Italian.....	771
41X0033	Keyboard kit, German.....	771
41X0034	Keyboard kit, Spanish.....	771
41X0452	Control panel cover assembly.....	590
41X0453	Control panel cable kit.....	590
41X0454	Control panel touch screen display (10 in.).....	590
41X0455	Control panel UICC.....	590
41X0965	Duplex transport assembly.....	638
41X1018	2 x 500-sheet tray jam access door.....	712
41X1018	2500-sheet tray jam access door.....	752
41X1019	2 x 500-sheet tray jam access latch left.....	712
41X1019	2500-sheet tray jam access latch left.....	752

P/N	Part name	Page
41X1020	2 x 500-sheet tray paper guide.....	712
41X1021	2 x 500-sheet tray jam access latch right.....	712
41X1021	2500-sheet tray jam access latch right.....	752
41X1398	ADF registration sensor flag.....	680
41X1405	ADF separator pad.....	684
41X1601	ADF separator roller spring.....	684
41X1623	ADF transport mylar 1.....	690
41X1624	ADF transport mylar 2.....	690
41X1625	ADF transport mylar 3.....	690
41X1626	ADF transport guide.....	690
41X1777	Scan glass brush.....	694
41X1778	Scan glass cleaner.....	694
41X1779	Cleaning shaft.....	694
41X1912	ADF CIS power supply board.....	670
41X1942	Standard bin.....	582
41X1977	Maintenance kit, 200K (MPF).....	767
41X1994	ADF registration guide.....	684
41X2068	ADF scan roller 1.....	688

Part name index

P/N	Part name	Page
40X9889	2 x 500 sheet tray lift motor cable.....	710
40X9775	2 x 500 sheet tray paper length sensor cable.....	710
40X9882	2 x 500-sheet tray 3 feed and transport motor cable.....	708
40X9316	2 x 500-sheet tray 3 pick assembly sensor cable.....	716
40X9774	2 x 500-sheet tray 4 feed and transport motor cable.....	708
40X9300	2 x 500-sheet tray 4 pick assembly sensor cable.....	716
40X9285	2 x 500-sheet tray bottom right cover.....	704
40X9890	2 x 500-sheet tray cable harness.....	714
40X9282	2 x 500-sheet tray caster wheel.....	704
40X9290	2 x 500-sheet tray controller board.....	706
40X8903	2 x 500-sheet tray empty LED.....	704
40X9289	2 x 500-sheet tray empty LED cable.....	704
40X9287	2 x 500-sheet tray empty LED cover.....	704
40X9286	2 x 500-sheet tray empty LED mount.....	704
40X9899	2 x 500-sheet tray empty sensor actuator.....	716
40X9294	2 x 500-sheet tray feed and transport motor belt.....	708
40X9891	2 x 500-sheet tray feed and transport primary gear.....	708
40X9295	2 x 500-sheet tray feed and transport secondary gear.....	708
40X9894	2 x 500-sheet tray feed primary gear.....	714
40X9295	2 x 500-sheet tray feed secondary gear.....	714
40X9014	2 x 500-sheet tray insert stopper.....	706
40X9783	2 x 500-sheet tray interface cable.....	706
41X1018	2 x 500-sheet tray jam access door.....	712
40X9908	2 x 500-sheet tray jam access door strap.....	712
41X1019	2 x 500-sheet tray jam access latch left.....	712
41X1021	2 x 500-sheet tray jam access latch right.....	712
40X9281	2 x 500-sheet tray left cover.....	704
40X9305	2 x 500-sheet tray left rail guide wheel.....	706
40X9308	2 x 500-sheet tray near empty sensor actuator.....	724
41X1020	2 x 500-sheet tray paper guide.....	712
40X9280	2 x 500-sheet tray rear cover.....	704
40X9779	2 x 500-sheet tray rear right cover.....	704

P/N	Part name	Page
40X8981	2 x 500-sheet tray right rail guide wheel.....	706
40X9982	2 x 500-sheet tray set actuator.....	716
40X9298	2 x 500-sheet tray transport gear.....	714
40X9893	2 x 500-sheet tray transport gear bushing.....	714
40X9892	2 x 500-sheet tray transport gear spring.....	714
40X9299	2 x 500-sheet tray transport roller.....	716
40X9309	2 x 500-tray insert paper length sensor actuator.....	724
40X9285	2500-sheet tray bottom right cover.....	746
40X9786	2500-sheet tray cable harness.....	754
40X9785	2500-sheet tray controller board.....	748
40X9806	2500-sheet tray elevator damper.....	766
40X9801	2500-sheet tray elevator home sensor actuator.....	766
40X9800	2500-sheet tray elevator home sensor actuator spring.....	766
40X9294	2500-sheet tray feed and transport motor belt.....	750
40X9882	2500-sheet tray feed and transport motor cable.....	750
40X9891	2500-sheet tray feed and transport primary gear.....	750
40X9295	2500-sheet tray feed and transport secondary gear.....	750
40X9894	2500-sheet tray feed primary gear.....	754
40X9295	2500-sheet tray feed secondary gear.....	754
40X9789	2500-sheet tray front cover.....	760
40X9186	2500-sheet tray handle.....	760
40X9320	2500-sheet tray handle cover.....	760
40X9576	2500-sheet tray insert (A4).....	760
40X9602	2500-sheet tray insert (LTR).....	760
40X9783	2500-sheet tray interface cable.....	748
41X1018	2500-sheet tray jam access door.....	752
40X9908	2500-sheet tray jam access door strap.....	752
41X1019	2500-sheet tray jam access latch left.....	752
41X1021	2500-sheet tray jam access latch right.....	752
40X9287	2500-sheet tray LED cover.....	746
40X9286	2500-sheet tray LED mount.....	746
40X9281	2500-sheet tray left cover.....	746
40X9788	2500-sheet tray lock lever.....	760
40X9802	2500-sheet tray main tray empty sensor bottom actuator.....	766

P/N	Part name	Page
40X9899	2500-sheet tray main tray top empty actuator.....	756
40X9787	2500-sheet tray pick assembly sensor cable.....	756
40X9280	2500-sheet tray rear cover.....	746
40X9779	2500-sheet tray rear right cover.....	746
40X9339	2500-sheet tray right front cover.....	760
40X9803	2500-sheet tray transfer guide stop.....	766
40X9804	2500-sheet tray transfer guide stop spring.....	766
40X9298	2500-sheet tray transport gear.....	754
40X9893	2500-sheet tray transport gear bushing.....	754
40X9892	2500-sheet tray transport gear spring.....	754
40X9299	2500-sheet tray transport roller.....	756
40X9809	2500-sheet tray tray insert sensor cable.....	766
40X9982	2500-sheet tray tray set actuator.....	756
40X9279	3000-sheet tray caster wheel.....	728
40X9262	3000-sheet tray controller board.....	742
40X9202	3000-sheet tray controller board cable.....	743
40X9277	3000-sheet tray elevator release spring.....	740
40X9276	3000-sheet tray elevator spring.....	732
40X8903	3000-sheet tray empty LED.....	726
40X9257	3000-sheet tray empty LED cable.....	726
40X9884	3000-sheet tray empty LED cover.....	726
40X9881	3000-sheet tray empty sensor actuator.....	734
40X9268	3000-sheet tray feed and pick belt.....	734
40X9886	3000-sheet tray feed and pick drive gear.....	734
40X9766	3000-sheet tray feed and pick idler gear.....	742
40X9772	3000-sheet tray feed gear.....	734
40X9768	3000-sheet tray feed motor gear.....	742
40X9767	3000-sheet tray feed motor idler gear.....	742
40X8929	3000-sheet tray feed sensor cable.....	738
40X9256	3000-sheet tray front cover.....	726
40X9698	3000-sheet tray interface cable.....	743
40X9765	3000-sheet tray left top cover.....	726
40X9048	3000-sheet tray pick gear.....	734
40X9258	3000-sheet tray rear cover.....	726

P/N	Part name	Page
40X9275	3000-sheet tray release handle.....	732
40X9255	3000-sheet tray right cover.....	726
40X9297	3000-sheet tray roller clutch.....	734
40X9271	3000-sheet tray separator belt.....	736
40X9267	3000-sheet tray separator roller.....	736
40X9888	3000-sheet tray separator roller clutch.....	736
40X9886	3000-sheet tray separator roller drive gear.....	736
40X9773	3000-sheet tray separator roller primary gear.....	736
40X9887	3000-sheet tray separator roller secondary gear.....	736
40X9040	3000-sheet tray set sensor actuator.....	738
40X9373	3000-sheet tray set sensor actuator spring.....	738
40X9259	3000-sheet tray slit cover.....	726
40X9260	3000-sheet tray top door.....	726
40X9771	3000-sheet tray transport idler roller.....	738
40X9273	3000-sheet tray transport roller.....	738
40X9769	3000-sheet tray transport roller drive gear.....	738
40X9266	3000-sheet tray door switch.....	742
40X9652	Adapter, N8130 10/100 fiber.....	771
40X9943	ADF bin paper stopper.....	676
40X9216	ADF CIS assembly.....	670
40X9691	ADF CIS clean belt.....	674
40X9958	ADF CIS clean cam.....	674
40X9957	ADF CIS clean gear.....	674
40X9699	ADF CIS clean motor cable.....	674
40X9960	ADF CIS clean roller belt.....	674
40X9959	ADF CIS clean roller primary gear.....	674
40X9961	ADF CIS clean roller secondary gear.....	674
40X9700	ADF CIS clean sensor cable.....	674
40X8865	ADF CIS data cable	670
40X9948	ADF CIS idler roller.....	672
40X9955	ADF CIS jam access handle.....	672
40X9956	ADF CIS jam access latch.....	672
41X1912	ADF CIS power supply board.....	670
40X9696	ADF CIS power supply board cable.....	670

P/N	Part name	Page
40X9218	ADF CIS power supply cable.....	670
40X8860	ADF controller board.....	666
40X8866	ADF cushion.....	668
40X8891	ADF document exit roller.....	688
40X9947	ADF door frame.....	678
40X8875	ADF door latch.....	678
40X9689	ADF door open sensor cable.....	690
40X8933	ADF duplex scan glass	698
40X9953	ADF exit roller.....	694
40X9687	ADF exit roller gear.....	688
40X9701	ADF exit sensor cable.....	674
40X9212	ADF exit sensor cable.....	692
40X9041	ADF fan.....	666
40X8878	ADF feed and pick roller assembly.....	682
40X8885	ADF feed belt.....	686
40X9950	ADF feed gear.....	686
40X9683	ADF feed motor cable.....	686
40X9681	ADF feed roller.....	682
40X8862	ADF frame.....	666
40X8863	ADF front Cover.....	666
40X9942	ADF front paper guide.....	676
40X9694	ADF glass clean encoder.....	694
40X9691	ADF glass clean encoder belt.....	694
40X8877	ADF ground cable.....	680
40X9678	ADF interface cable.....	666
40X8864	ADF left hinge.....	666
40X9747	ADF paper guide gear.....	676
40X9945	ADF paper guide rack.....	676
40X9748	ADF paper length 2 sensor actuator (A4).....	676
40X8872	ADF paper length 2 sensor actuator (Legal).....	676
40X8880	ADF pick belt.....	682
40X8879	ADF pick roller.....	682
40X8858	ADF rear cover.....	666
40X9940	ADF rear paper guide	676

P/N	Part name	Page
40X8885	ADF registration belt.....	686
40X9952	ADF registration gear.....	686
41X1994	ADF registration guide.....	684
40X9948	ADF registration idler roller.....	680
40X8888	ADF registration motor cable.....	686
40X9951	ADF registration roller.....	686
41X1398	ADF registration sensor flag.....	680
40X8861	ADF right hinge.....	666
40X8890	ADF scan motor belt.....	688
40X9684	ADF scan motor cable.....	688
40X9685	ADF scan motor gear.....	688
41X2068	ADF scan roller 1.....	688
40X8893	ADF scan roller 2.....	688
40X9686	ADF scan roller 2 gear.....	688
40X9688	ADF scan roller 3 gear.....	688
40X9690	ADF scan sensor cable.....	692
40X8892	ADF scan/exit roller belt.....	688
40X9679	ADF sensor cable.....	666
41X1405	ADF separator pad.....	684
40X9682	ADF separator roller.....	684
41X1601	ADF separator roller spring.....	684
40X9946	ADF top cover.....	678
40X9680	ADF top cover sensor cable.....	680
40X9685	ADF transport gear	694
41X1626	ADF transport guide.....	690
41X1623	ADF transport mylar 1.....	690
41X1624	ADF transport mylar 2.....	690
41X1625	ADF transport mylar 3.....	690
40X9941	ADF tray.....	676
40X9944	ADF tray bottom cover.....	676
40X8873	ADF tray cable.....	676
40X9210	ADF/scanner image controller board.....	664
40X8914	Bin side cover.....	584
40X9760	Bottom front door.....	582

P/N	Part name	Page
40X9761	Bottom front door hinge.....	582
40X8314	Card reader, large snap-on case.....	771
40X8312	Card reader, large stick-on case.....	771
40X8313	Card reader, small snap-on case.....	771
40X8311	Card reader, small stick-on case.....	771
40X9282	Caster wheel.....	746
40X9974	Cave light LED cable.....	696
40X9971	Cave light lens.....	696
40X9214	CIS glass clean belt.....	694
40X9693	CIS glass clean gear.....	694
40X9695	CIS glass clean motor cable.....	694
41X1779	Cleaning shaft.....	694
40X9661	Control panel.....	588
40X8925	Control panel base.....	696
40X9973	Control panel bottom cover.....	696
40X9967	Control panel cable guide lower.....	588
40X9969	Control panel cable guide upper cover.....	588
41X0453	Control panel cable kit.....	590
41X0452	Control panel cover assembly.....	590
40X9964	Control panel hinge.....	588
40X9972	Control panel mount.....	696
41X0454	Control panel touch screen display (10 in.).....	590
41X0455	Control panel UICC.....	590
40X9663	Controller board (MFP).....	664
40X8910	Controller board access cover.....	584
40X9209	Controller board fan.....	664
40X7567	DDR3 RAM, 1 GB x32.....	771
40X7445	DDR3 RAM, 2 GB x32.....	771
40X9261	Dehumidifier.....	730
40X9936	Developer unit.....	600
40X9161	Diverter solenoid.....	646
40X9527	Door switch.....	586
41X0965	Duplex transport assembly.....	638
40X9036	Duplex transport belt.....	638

P/N	Part name	Page
40X9166	Duplex transport clutch.....	648
40X9725	Duplex transport clutch gear.....	648
40X9012	Duplex transport gear.....	638
40X9998	Duplex transport jam removal knob.....	638
40X8909	Engine board cover.....	584
40X9207	Engine controller board.....	664
40X9744	Engine controller board FFC.....	664
40X8960	Erase LED.....	600
40X9977	Erase LED cable.....	600
40X9184	Exhaust filter.....	656
40X9156	Exit clutch belt.....	644
40X9159	Exit guide assembly.....	646
40X9484	Exit sensor actuator.....	644
40X9599	Exit sensor cable.....	644
40X8895	Exit sensor housing.....	644
40X9199	Expansion controller board.....	658
40X7854	Fax card.....	771
40X9267	Feed and pick roller.....	734
40X9727	Feed drive assembly.....	648
40X9174	Feed drive belt.....	648
40X9173	Feed motor belt.....	648
40X9726	Feed motor gear.....	648
40X8970	Feed roller.....	612, 716, 756
40X8970	Feed/separator roller.....	620, 624
40X8907	Finisher interface cable.....	584
40X8555	Flash memory, 256 MB.....	771
40X8570	Font card, Arabic.....	771
40X8571	Font card, Hebrew.....	771
40X8569	Font card, Japanese.....	771
40X8568	Font card, Korean.....	771
40X8557	Font card, Simplified Chinese.....	771
40X8556	Font card, Traditional Chinese.....	771
41X0010	Forms and Bar Code Card.....	771
40X8916	Front inner cover.....	586

P/N	Part name	Page
40X8979	Front left lift handle.....	616
40X8904	Front lower cover.....	582
40X8977	Front right lift handle.....	616
40X9046	Fuser.....	642
40X9177	Fuser drive gearbox.....	652
40X9178	Fuser exit clutch.....	654
40X9039	Fuser exit sensor actuator.....	640
40X9723	Fuser exit sensor cable.....	640
40X9041	Fuser fan.....	642
40X900 9	Fuser fixed power resistor.....	628
40X8945	Fuser power supply fan.....	658
40X9729	Fuser pressure primary gear.....	652
40X9730	Fuser pressure secondary gear.....	652
40X9731	Fuser transport primary gear.....	652
40X9732	Fuser transport secondary gear.....	652
40X9990	Fusing speed sensor cable.....	628
40X7857	Hard drive.....	664
40X9193	High voltage board.....	658
40X9194	High voltage charge cable.....	658
40X9191	High voltage charge contact.....	658
40X9192	High voltage developer contact.....	658
40X9734	High voltage toner charge cable.....	658
40X9733	High voltage transfer cable.....	658
40X9042	HPT bin paper bail.....	644
40X8946	Image controller board.....	592
40X9198	Induction heater magnetic erase board.....	658
40X9735	Induction heater magnetic erase board cable.....	658
40X9197	Induction heater power supply ,230 V.....	658
40X9736	Induction heater power supply cable.....	658
40X9196	Induction heater power supply, 100 V.....	658
40X9044	Induction heater, 100 V	642
40X9045	Induction heater, 230 V.....	642
41X0012	IPDS card.....	771

P/N	Part name	Page
41X0030	Keyboard kit, English.....	771
41X0031	Keyboard kit, French.....	771
41X0033	Keyboard kit, German.....	771
41X0032	Keyboard kit, Italian.....	771
41X0034	Keyboard kit, Spanish.....	771
40X8898	Left cover.....	582
40X8919	Lower front door strap.....	586
40X9710	Lower registration gear.....	630
40X9164	Main drive assembly.....	648
40X8945	Main power supply fan.....	660
40X9205	Main power supply fan with duct.....	660
40X9203	Main power supply, 100 V.....	660
40X9204	Main power supply, 230 V.....	660
40X8917	Main power switch.....	586
40X9798	Main tray elevator coupling.....	764
40X9902	Main tray elevator gear.....	764
40X9901	Main tray elevator gear spring.....	764
40X9672	Maintenance kit, 200K (ADF).....	767
41X1977	Maintenance kit, 200K (MPF).....	767
40X9669	Maintenance kit, 300K.....	767
40X9293	Motor (2 x 500-sheet tray 3 feed).....	708
40X8987	Motor (2 x 500-sheet tray 3 lift).....	710
40X9293	Motor (2 x 500-sheet tray 3 transport).....	708
40X9293	Motor (2 x 500-sheet tray 4 feed).....	708
40X8987	Motor (2 x 500-sheet tray 4 lift).....	710
40X9293	Motor (2 x 500-sheet tray 4 transport).....	708
40X9896	Motor (2500-sheet tray elevator).....	750
40X9293	Motor (2500-sheet tray feed).....	750
40X9896	Motor (2500-sheet tray transfer guide).....	750
40X9293	Motor (2500-sheet tray transport).....	750
40X9264	Motor (3000-sheet tray elevator).....	742
40X9269	Motor (3000-sheet tray feed).....	742
40X9269	Motor (3000-sheet tray transport).....	742
40X9220	Motor (ADF CIS clean).....	674

P/N	Part name	Page
40X8884	Motor (ADF feed).....	686
40X8889	Motor (ADF registration).....	688
40X8896	Motor (ADF scan shaft release).....	690
40X8887	Motor (ADF scan).....	686
40X9213	Motor (CIS glass clean).....	694
40X9564	Motor (developer).....	648
40X9037	Motor (duplex transport).....	638
40X9170	Motor (feed).....	648
40X9179	Motor (fuser pressure).....	654
40X9163	Motor (fuser).....	654
40X9155	Motor (redrive).....	644
40X9171	Motor (registration).....	648
40X8940	Motor (scanner drive).....	702
40X9179	Motor (toner cartridge).....	650
40X8956	Motor (toner supply).....	596
40X9163	Motor (transport).....	648
40X8987	Motor (tray 1 lift).....	618
40X8987	Motor (tray 2 lift).....	618
40X9170	Motor (tray 2 transport).....	648
40X9027	MPF.....	634
40X9023	MPF feed clutch.....	634
40X9719	MPF feed clutch gear.....	634
40X9995	MPF feed roller.....	634
40X9996	MPF lift plate cam	634
40X9720	MPF lift plate clutch.....	634
40X9716	MPF lift plate sensor cable.....	634
40X9024	MPF lift plate solenoid.....	634
40X9026	MPF paper length 1 sensor actuator.....	636
40X9026	MPF paper length 2 sensor actuator.....	636
40X9721	MPF paper length sensor cable.....	636
40X9722	MPF paper width sensor cable.....	636
40X9022	MPF separator gear.....	634
40X9718	MPF separator idler gear.....	634
40X9615	MPF separator roller.....	636

P/N	Part name	Page
40X9737	Noise filter board cable.....	658
40X920 0	Noise filter board, 100 V.....	658
40X9201	Noise filter board, 230 V.....	658
40X9185	Ozone fan.....	656
40X9182	Ozone fan with duct.....	656
40X9183	Ozone filter.....	656
40X9188	Ozone filter duct.....	592
40X8859	Paper exit fan.....	644
40X9987	Paper feed sensor cable.....	612
40X9792	Paper stack transfer guide.....	762
40X9791	Paper stack transfer guide base.....	762
40X9793	Paper stack transfer sensor actuator (A4).....	762
40X9263	Paper stack transfer sensor actuator (LTR).....	762
40X9794	Paper stack transfer sensor actuator spring.....	762
40X4823	Parallel interface card, 1284-B.....	771
40X8961	Photoconductor cable.....	602
40X8962	Photoconductor relay contact.....	602
40X9978	Photoconductor release lever.....	602
40X9925	Pick roller.....	612, 620, 624, 716, 756
40X9763	Port access door.....	584
40X8912	Port mount.....	584
40X0275	Power cord, 1.8 m (straight)—Israel.....	769
40X7104	Power cord, 2.5 m (right-angled)—USA, Canada, Latin America.....	769
40X0288	Power cord, 2.5 m (straight)—Argentina.....	769
40X0301	Power cord, 2.5 m (straight)—Australia, New Zealand.....	769
40X1766	Power cord, 2.5 m (straight)—Bolivia, Peru.....	769
40X4596	Power cord, 2.5 m (straight)—Brazil.....	769
40X1774	Power cord, 2.5 m (straight)—Denmark, Finland, Norway, Sweden.....	769
40X3141	Power cord, 2.5 m (straight)—Europe, Middle East, Indonesia, Africa (HV).....	769
40X7229	Power cord, 2.5 m (straight)—India.....	769
40X0273	Power cord, 2.5 m (straight)—Italy, Chile, Uruguay.....	769
40X0270	Power cord, 2.5 m (straight)—Japan.....	769
40X1792	Power cord, 2.5 m (straight)—Korea.....	769

P/N	Part name	Page
40X1772	Power cord, 2.5 m (straight)—Liechtenstein, Switzerland.....	769
40X0303	Power cord, 2.5 m (straight)—PRC.....	769
40X1773	Power cord, 2.5 m (straight)—South Africa, Hong Kong, Singapore, Thailand, Malaysia.....	769
40X1791	Power cord, 2.5 m (straight)—Taiwan.....	769
40X0271	Power cord, 2.5 m (straight)—UK, Ireland, Hong Kong, Italy.....	769
40X9741	Power socket.....	662
40X9740	Power socket cable.....	662
40X9189	Power-saving board.....	658
41X0011	PRESCRIBE card.....	771
40X9283	Printer rubber stopper.....	704
40X8949	Printhead (MFP).....	592
40X8905	Printhead cleaner.....	582
40X8948	Printhead FFC.....	592
40X8947	Printhead relay board.....	592
40X8899	Rear left cover.....	582
40X8980	Rear left lift handle.....	616
40X8978	Rear right lift handle.....	616
40X9724	Redrive belt.....	644
40X9215	Redrive diverter gear.....	640
40X9167	Redrive exit guide.....	644
40X9714	Redrive exit sensor actuator.....	644
40X9644	Redrive exit sensor cable.....	644
40X9007	Registration cable.....	626
40X9991	Registration drive gear.....	630
40X8995	Registration motor gear.....	626
40X9706	Registration primary gear.....	626
40X900	Registration roller fixed power resistor.....	626
9		
40X9707	Registration secondary gear.....	626
40X8994	Registration transport assembly.....	626
40X9011	Registration unit assembly.....	628
40X9013	Registration unit belt.....	630
40X9012	Registration unit gear.....	630
40X9994	Registration unit handle.....	630

P/N	Part name	Page
40X9992	Registration unit lock.....	630
40X9993	Registration unit lock shaft.....	630
40X990 0	Reserve tray empty sensor actuator.....	766
40X9883	Reserve tray empty sensor actuator spring.....	766
40X990 0	Reserve tray paper limit sensor actuator.....	762
40X9883	Reserve tray paper limit sensor actuator spring.....	762
40X9997	Right door cover.....	638
40X9711	Right door handle.....	632
40X9715	Right door lock support.....	632
40X9713	Right door lower lock.....	632
40X9712	Right door middle lock.....	632
40X9527	Right door switch.....	632
40X902 0	Right door switch actuator.....	632
40X9019	Right door upper lock.....	632
40X9981	Roller clutch.....	608, 612, 716, 756
40X9455	Roller clutch.....	610, 612, 716, 756
40X9455	Roller clutch.....	614, 716, 756
41X1777	Scan glass brush.....	694
41X1778	Scan glass cleaner.....	694
40X8941	Scanner carriage belt.....	702
40X8942	Scanner carriage gear.....	702
40X8935	Scanner CCD cable.....	700
40X8937	Scanner CCD lens assembly.....	700
40X8934	Scanner controller board.....	698
40X8931	Scanner cover open sensor actuator.....	698
40X9975	Scanner drive motor cable.....	702
40X8928	Scanner glass.....	698
40X9762	Scanner interface cable cover.....	584
40X8938	Scanner lamp.....	700
40X8939	Scanner lamp cable.....	700
40X8926	Scanner Left cover.....	696
40X9976	Scanner mirror.....	702

P/N	Part name	Page
40X8921	Scanner rear cover.....	696
40X8923	Scanner right cover.....	696
40X9702	Scanner sensor cable.....	698
40X8922	Scanner top cover.....	696
40X8924	Screw hole cover.....	696
40X9962	Screwdriver.....	582
40X8869	Sensor (2 x 500-sheet tray 3 near empty).....	710
40X8985	Sensor (2 x 500-sheet tray 3 paper length).....	710
40X8989	Sensor (2 x 500-sheet tray 3 paper width).....	710
40X8869	Sensor (2 x 500-sheet tray 4 near empty).....	710
40X8985	Sensor (2 x 500-sheet tray 4 paper length).....	710
40X8989	Sensor (2 x 500-sheet tray 4 paper width).....	710
40X8869	Sensor (2 x 500-sheet tray empty).....	716
40X8968	Sensor (2 x 500-sheet tray feed).....	716
40X9313	Sensor (2 x 500-sheet tray jam access door).....	714
40X8869	Sensor (2 x 500-sheet tray lift plate level).....	716
40X8968	Sensor (2 x 500-sheet tray transport).....	716
40X8869	Sensor (2500-sheet tray elevator home).....	766
40X8968	Sensor (2500-sheet tray feed).....	756
40X9313	Sensor (2500-sheet tray jam access door).....	754
40X8869	Sensor (2500-sheet tray main tray elevator limit).....	756
40X8869	Sensor (2500-sheet tray main tray empty, top).....	756
40X8869	Sensor (2500-sheet tray set).....	748
40X8968	Sensor (2500-sheet tray transport).....	756
40X8869	Sensor (2500-sheet tray transfer guide home)	766
40X9880	Sensor (3000-sheet tray elevator level).....	736
40X9880	Sensor (3000-sheet tray empty).....	736
40X9885	Sensor (3000-sheet tray feed).....	738
40X9880	Sensor (3000-sheet tray near empty 1).....	742
40X9880	Sensor (3000-sheet tray near empty 2).....	742
40X9880	Sensor (3000-sheet tray set).....	738
40X8869	Sensor (ADF CIS clean).....	674
40X8869	Sensor (ADF document separation).....	680
40X8869	Sensor (ADF exit).....	692

P/N	Part name	Page
40X8869	Sensor (ADF jam access cover)	692
40X8869	Sensor (ADF mixed paper width 1).....	680
40X8869	Sensor (ADF mixed paper width 2).....	680
40X8869	Sensor (ADF mixed paper width 3).....	680
40X8868	Sensor (ADF paper length 1).....	676
40X8869	Sensor (ADF paper length 2).....	676
40X8870	Sensor (ADF paper width).....	676
40X8869	Sensor (ADF registration).....	680
40X8869	Sensor (ADF scan shaft home).....	690
40X9211	Sensor (ADF scan).....	692
40X8869	Sensor (ADF top cover open).....	690
40X8869	Sensor (ADF tray empty).....	680
40X8869	Sensor (duplex pass through 1).....	640
40X8869	Sensor (duplex pass through 2).....	630
40X9313	Sensor (exit).....	644
40X8869	Sensor (fuser exit).....	640
40X9047	Sensor (fuser temperature) with cable.....	642
40X8869	Sensor (fusing speed).....	628
40X8869	Sensor (main tray empty, bottom).....	766
40X8869	Sensor (main tray near empty).....	762
40X8869	Sensor (MPF lift plate).....	634
40X8869	Sensor (MPF paper length 1).....	636
40X8869	Sensor (MPF paper length 2).....	636
40X9030	Sensor (MPF paper width).....	636
40X8869	Sensor (paper stack transfer).....	762
40X9313	Sensor (redrive exit).....	644
40X8997	Sensor (registration humidity).....	626
40X8869	Sensor (registration).....	626
40X8869	Sensor (reserve tray empty).....	766
40X8869	Sensor (reserve tray paper limit).....	762
40X8869	Sensor (scan glass clean).....	692
40X9313	Sensor (scanner cover open).....	698
40X8930	Sensor (scanner cover switch).....	698
40X8869	Sensor (scanner lamp home).....	698

P/N	Part name	Page
40X8932	Sensor (scanner paper length 1).....	698
40X8932	Sensor (scanner paper length 2).....	698
40X8869	Sensor (toner cartridge present).....	596
40X8999	Sensor (toner density).....	626
40X9313	Sensor (top front door).....	594
40X9190	Sensor (tray 1 and 2 paper temperature).....	658
40X8869	Sensor (tray 1 empty).....	608
40X8869	Sensor (tray 1 lift plate level).....	608
40X8869	Sensor (tray 1 near empty).....	618
40X8968	Sensor (tray 1 paper feed).....	608
40X8985	Sensor (tray 1 paper length).....	618
40X8989	Sensor (tray 1 paper width).....	618
40X8869	Sensor (tray 2 empty).....	612
40X8869	Sensor (tray 2 lift plate level).....	612
40X8869	Sensor (tray 2 near empty).....	618
40X8968	Sensor (tray 2 paper feed).....	612
40X8985	Sensor (tray 2 paper length).....	618
40X8989	Sensor (tray 2 paper width).....	618
40X8968	Sensor (tray 2 transport).....	612
40X9455	Separator clutch.....	718, 758
40X8970	Separator roller.....	610, 614, 718, 758
40X9927	Separator roller assembly.....	610, 614
40X4819	Serial interface card, RS-232C.....	771
40X9968	Speaker.....	588
40X9966	Speaker cover.....	588
41X1942	Standard bin.....	582
40X8897	Standard bin base.....	582
40X8974	Standard bin paper bail.....	644
40X8951	Toner agitator.....	594
40X8962	Toner cartridge contact.....	594
40X9223	Toner cartridge drive assembly.....	650
40X9751	Toner cartridge present sensor cable.....	596
40X9750	Toner cartridge relay contact cable.....	594
40X9708	Toner density sensor cable.....	626

P/N	Part name	Page
40X8998	Toner density solenoid.....	626
40X8859	Toner suction fan.....	656
40X8957	Toner supply motor cable.....	596
40X8900	Top front door.....	582
40X9917	Top front door inner hinge.....	582
40X8906	Top front door outer hinge.....	582
40X8963	Transfer belt cable.....	604
40X8945	Transfer belt fan.....	592
40X8944	Transfer belt fan duct.....	592
40X9704	Transfer belt maintenance kit.....	604
40X9979	Transfer belt paper guide.....	604
40X9808	Transfer guide belt.....	766
40X9796	Transfer guide primary gear.....	764
40X9797	Transfer guide primary gear spring.....	764
40X9795	Transfer guide secondary gear.....	764
40X9010	Transfer roller.....	628
40X8973	Transport idler roller.....	712, 752
40X9165	Transport motor gear.....	648
40X8966	Tray 1 and 2 paper feed unit.....	606
40X8903	Tray 1 empty indicator.....	582
40X8984	Tray 1 feed cable.....	618
40X8990	Tray 1 insert.....	620
40X8982	Tray 1 insert rail.....	616
40X8971	Tray 1 paper feed clutch.....	608
40X8972	Tray 1 sensor cables.....	608
40X8903	Tray 2 empty indicator.....	582
40X9899	Tray 2 empty sensor actuator.....	612
40X8984	Tray 2 feed cable.....	618
40X8992	Tray 2 insert.....	624
40X8982	Tray 2 insert rail.....	616
40X8971	Tray 2 paper feed clutch.....	612
40X9728	Tray 2 transport drive assembly.....	648
40X9639	Tray 2 transport drive belt.....	648
40X9980	Tray 2 transport drive gear.....	606

P/N	Part name	Page
40X8920	Tray 2 transport guide.....	632
40X9983	Tray 2 transport roller.....	612
40X9984	Tray 2 transport sensor cable.....	612
40X8871	Tray 3 front cover.....	720
40X9034	Tray 3 handle cover.....	720
40X9635	Tray 3 insert.....	720
40X9017	Tray 3 right front cover.....	720
40X9028	Tray 4 front cover.....	722
40X9320	Tray 4 handle cover.....	722
40X9697	Tray 4 insert.....	722
40X9033	Tray 4 right front cover.....	722
40X9988	Tray base left cover.....	616
40X8901	Tray empty board cable.....	582
40X8902	Tray empty board cover.....	582
40X9758	Tray empty board mount.....	582
40X8903	Tray empty LED	746
40X9782	Tray empty LED cable.....	746
40X9899	Tray empty sensor actuator.....	608
40X8970	Tray feed roller.....	608
40X9186	Tray handle.....	720, 722
40X9805	Tray insert bottom left guide wheel.....	766
40X9799	Tray insert bottom right guide wheel.....	766
40X9305	Tray insert guide wheel.....	620, 624, 720, 722, 766
40X9784	Tray insert guide wheel.....	748, 766
40X9306	Tray insert paper length guide.....	724
40X9305	Tray left rail guide wheel.....	616
40X9304	Tray lock lever.....	720, 722
40X9308	Tray near empty sensor actuator.....	622
40X9306	Tray paper length guide.....	622
40X9925	Tray pick roller.....	608
40X8981	Tray rail guide wheel.....	748
40X8981	Tray right rail guide wheel.....	616
40X9982	Tray set actuator.....	608, 612
40X8988	Tray size sensing assembly.....	618

P/N	Part name	Page
40X9989	Tray stopper.....	616
40X9283	Tray stopper.....	746
40X8908	Upper rear cover.....	584
40X1368	USB cable, packaged (2 meters).....	771
40X9970	USB extension cable.....	588
40X9965	USB port cover.....	588
40X8915	Waste toner bottle latch.....	586
40X9764	Waste toner door mount.....	586
40X9963	Waste toner door switch.....	586
40X8958	Waste toner drive.....	598
40X8959	Waste toner duct.....	598
40X7858	Wireless print server kit, MarkNet N8350 802.11b/g/n.....	771

MX 91X WIRING DIAGRAM

